

## BASE STATION ANTENNAS

Our Base Station antennas are among the most reliable products on the market. We pride ourselves on producing antennas that will stand up to severe environmental conditions, and still outperform your electrical and mechanical expectations. Our antennas can be customized to meet your specific needs.

We are known in the industry for having both standard antennas as well as our Heavy Duty (HD) antenna line, the Avalanche Series (call for additional information). Most of our antennas can be modified and/or strengthened to withstand wind speeds over 200 mph, even when loaded with ice and snow. We also have an electrically plated protective coating available, called Black Anodization that incorporates a black dye to increase the de-icing efficiency and to protect against corrosive elements such as salty air, oxidization, and other environmental factors.

We include antenna patterns for all of our antennas in our catalog. The left image (blue) is the horizontal pattern and the right image (red) is the vertical pattern. Our website has industry standard formats available for you to download.

Our antennas are completely customizable. Here are some of our suggested options:

1. Heavy Duty – Oversized, Hyper-Strengthened and designed to exceed specifications.
2. Welded Versions – All mechanical junctions are welded where possible to increase loading strength. This is ideal for high winds and icing conditions.
3. Black Anodized – An electrically plated protective coating with black dye, particularly good for heavy icing and corrosive environments.
4. Cable Lengths – Usually 2 feet is standard. The feed line length can be adapted to your needs (up to 125ft.).
5. Connectors – Usually Type N is our standard connector, but this can be factory-altered as required (SMA, TNC, DIN 7/16, etc.).
6. Custom Mounting Configurations – This depends on the style of antenna. Please call our Technical Service Department for further information.
7. Custom Antennas – Our full-time R&D Department is available for all of your unique product applications. Please call our Technical Service Department for further information.
8. Low PIM – Our new line of low PIM antennas reduce mechanical junctions dramatically. They also use double-shielded coaxial cable (multiple versions are available).



Model	Other	118-138	138-174	406-512	746-960	BW 1.5:1	Type	Pattern	Gain	Watts
265-70		•	•			6% C F	Ground Plane	Omni	1	300
266-70		•	•			1% C F	Ground Plane	Omni	2-3	250
267-70		118-136				15% C F	Ground Plane	Omni	1	250
268-70				•		1% C F	Ground Plane	Omni	2-3	100
201-70	25-174	•	•			2% C F	Omni	Omni	1	500
301-70				•		5% C F	Omni	Omni	1	100
401-70					•	10% C F	Omni	Omni	1	100
928-70					•	75	Collinear Omni	Omni	8.5	500
531-70	30-76					7% C F	Dipole	Unidirectional	2.5	300
532-70	30-76					7% C F	Dipole	Unidirectional	5.5	300
871F-70FM	88-108					20	Dipole	Offset	2	200
872F-70FM	88-108					20	Dipole	Offset	5	450
874F-70FM	88-108					20	Dipole	Offset	8	450
871F-70AV		•				20	Dipole	Offset	2	200
872F-70AV		•				20	Dipole	Offset	5	450
874F-70AV		•				20	Dipole	Offset	8	450
871F-70			•			36	Dipole	Offset	2	200
872F-70			•			36	Dipole	Offset	5	450
874F-70			•			36	Dipole	Offset	8	450
871F-70-220	215-225					10	Dipole	Offset	2	200
872F-70-220	215-225					10	Dipole	Offset	5	450
874F-70-220	215-225					10	Dipole	Offset	8	450
871F-70LM			•			36	Dipole	Offset	2	200
872F-70LM			•			36	Dipole	Offset	5	450
874F-70LM			•			36	Dipole	Offset	8	450
832-70			148-174			14	Dipole	Omni or Bi	3/6	500
834-70			148-174			14	Dipole	Omni or Bi	6/9	500
842-70			148-174			14 (2:1)	Dipole	Omni or Bi	3/6	500
844-70			148-174			14 (2:1)	Dipole	Omni or Bi	6/9	500
771-70				•		106	Dipole	Offset	2	75
772-70				•		106	Dipole	Offset	5	150
774-70				•		106	Dipole	Offset	8	300
778-70				•		64	Dipole	Offset	11	300
882-70AV		108-138				30	Dipole Array	Omni or Bi	3/5.5	450
884-70AV		108-138				30	Dipole Array	Omni or Bi	6/8.5	500
882-70			•			30	Dipole Array	Omni or Bi	3/5.5	450
884-70			•			30	Dipole Array	Omni or Bi	6/8.5	500
782-70				•		64	Dipole Array	Omni or Bi	3-5.5	300
784-70				•		64	Dipole Array	Omni or Bi	6-8.5	300
776-70				•		106	Dual Dipole	Offset	5	300
845-70			148-174			14 (2:1)	Dual Dipole	Omni or Off	3	500
876-70			•			36	Dual Dipole	Offset	5	300
F-3676			•	•		36/64	Dual Dipole	Offset	8	300
F-3661			•	•		36/106	Dual Dipole	Offset	5	300
F-3647			•	•		36/106	Dual Dipole	Offset	2	300



Model	Other	118-138	138-174	406-512	746-960	BW 1.5:1	Type	Pattern	Gain	Watts
F-3729			•			36	Reflector	Directional	2.5	200
F-3713			•			36	Reflector	Directional	7	450
F-3766			•			36	Reflector	Directional	9	450
792-70					•	90	Encl. Dipole	Offset or Bi	5	150
794-70					•	90	Encl. Dipole	Offset or Bi	8	300
799-70					•	90	Encl. Dipole	Offset or Bi	10	500
792-70R					•	90	Encl. Dipole	Offset or Bi	Up to 8	150
794-70R					•	90	Encl. Dipole	Offset or Bi	Up to 13	300
799-70R					•	90	Encl. Dipole	Offset or Bi	Up to 15	500
291-70			•			3.75%	Yagi	Directional	3.5	350
295-70			•			4% C F	Yagi	Directional	6.5	350
290-70			•			4% C F	Yagi	Directional	9.5	350
250-70			•			36 (2:1)	Yagi	Directional	7	250
291-70-220	215-225					10	Yagi	Directional	3.5	350
295-70-220	215-225					10	Yagi	Directional	6.5	350
290-70-220	215-225					10	Yagi	Directional	9.5	350
F-3872				•		24	Yagi	Directional	3.5	350
433-70				•		24	Yagi	Directional	6.5	350
430-70				•		24	Yagi	Directional	10	350
480-70				406-470		64	Yagi	Directional	10	350
982-70					900-930	30	Yagi	Directional	3.5	200
983-70					•	85	Yagi	Directional	6.5	200
980-70					•	85	Yagi	Directional	10	200
987-70					•	85	Yagi	Directional	12	200
490-70					806-960	85	Yagi	Directional	10	200
425-70				•		20	Radome Yagi	Directional	10	250
426-70				•		20	Radome Yagi	Directional	10	250
490-70R					•	72	Radome Yagi	Directional	10	150
470-70			132-174			15% C F	Corner Refl.	Directional	7	250
471-70			132-174			15% C F	Corner Refl.	Directional	10	250
470-70-220	215-225					10	Corner Refl.	Directional	7	250
471-70-220	215-225					10	Corner Refl.	Directional	10	250
440-70				•		64	Corner Refl.	Directional	9.5	100
442-70				•		64	Corner Refl.	Directional	12	100
365-70				•		20	Parabolic Refl.	Directional	15	100
965-70					806-960	72	Parabolic Refl.	Directional	16.5	200
635-70			132-174			42	Log Periodic	Directional	6	500
636-70			132-174			42	Log Periodic	Directional	9	500
638-70			132-174			36	Log Periodic	Directional	8	500
415-70				•		40	Log Periodic	Directional	1	250
465-70				•		64	Log Periodic	Directional	6	250
590-75BSMO					902-928		Data	Omni	2	200

## GROUND PLANE ANTENNA

108-470 MHz-

## Ground Plane Antenna Series

The Ground Plane Antenna Series are available in VHF and UHF configurations. These omnidirectional antennas are either wide band unity or 2-3 dB gain antennas. They are constructed from high strength, corrosion resistant aluminum alloy and stainless steel. All of our antennas can be completely customized to your particular applications.

- Each antenna has a rugged design to withstand the most extreme environmental conditions.
- Wide frequency band applications.
- The mounting hardware supplied will permit 0.75" to 2.38" O.D. pipe installation.
- DC ground for lightning protection.
- Ideal for mounting on buildings.



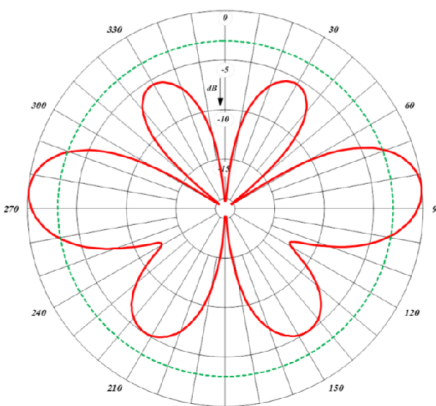
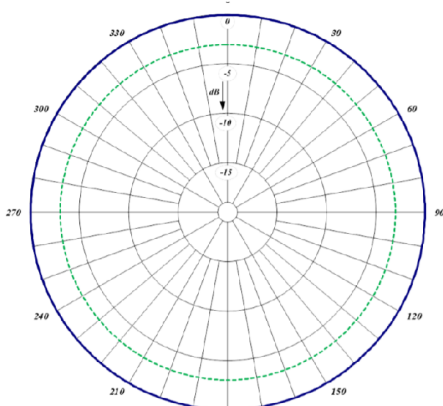
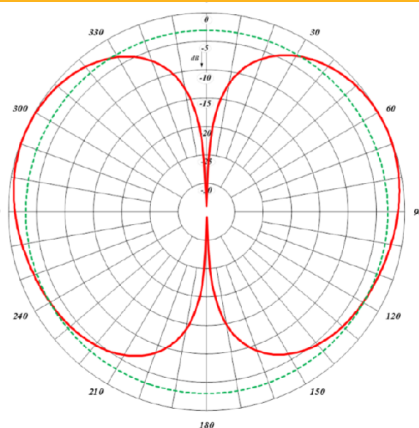
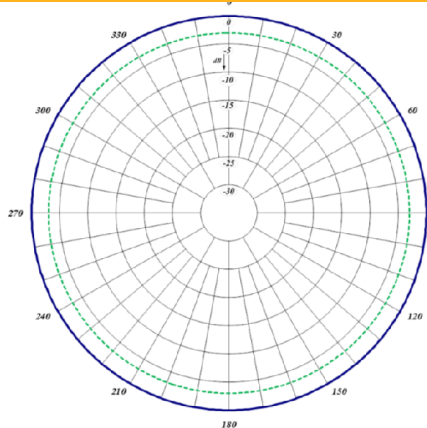
Electrical Specifications			265-70	266-70	267-70		268-70
Frequency Range, MHz			118-174	118-174	118-136		406-470
Nominal Gain, dBd			Unity	2-3.0	Unity		2-3.0
Bandwidth 1.5:1 VSWR, MHz (% Ctr.Freq.)			6%	1%	15.6% (2:1)		1%
Tuning			Field Adj.	Field Adj.	Fixed		Field Adj.
Polarization			Vertical	Vertical	Vertical		Vertical
Vertical Beamwidth (Ver.Pol.)			80°	40°	71°		38°
Pattern			Omni	Omni	Omni		Omni
Power Rating, Watts			300	250	250		100
Nominal Impedance, Ohms			50	50	50		50
Lightning Protection			DC Ground	DC Ground	DC Ground		DC Ground
Standard Termination			Type N Male	Type N Male	Type N Male		Type N Male
Mechanical Specifications			265-70	266-70	267-70		268-70
Max. Length, in (mm)			58 (1473)	108 (2743)	67 (1702)		46 (1168)
Width, in (mm)			55 (1397)	46 (1168)	26.5 (673)		20 (508)
Weight, lbs. (kg)			6.8 (3.3)	6.5 (3.0)	6.0 (2.7)		1.5 (0.7)
Rated Wind Velocity, No Ice, mph (km/h)			150 (241)	125 (201)	125 (201)		125 (201)
Rated Wind Velocity, 0.5" (13mm) Ice, mph (km/h)			140(225)	85 (137)	110 (177)		85 (137)
Lateral Thrust @ 100 mph wind, lbs. (kg)			31.8 (14.4)	40 (18.1)	24 (10.7)		7.3 (3.3)
Bending Moment @top clamp: 100 mph, ft*lb (kg*m)			41 (5.7)	94 (13)	28 (3.9)		12 (1.6)
Projected Area, ft² (m²)			1.2 (0.110)	1.57 (0.146)	0.88 (0.082)		0.27 (0.03)
Mounting Hardware			167-85 Clamp	167-85 Clamp	167-85 Clamp		167-85 Clamp
Order Information	Black Anodized	406-430	430-450	450-470	118-136	136-148	148-174
265-70	N/A	N/A	N/A	N/A	265-70*1	265-70*2	265-70*3
266-70	N/A	N/A	N/A	N/A	266-70*1	266-70*2	266-70*3
267-70	267-70B	N/A	N/A	N/A	267-70	N/A	N/A
268-70	N/A	268-70*1	268-70*2	268-70*3	N/A	N/A	N/A

GROUND PLANE ANTENNA

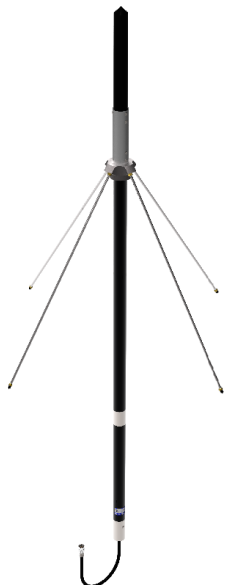
108-470 MHz



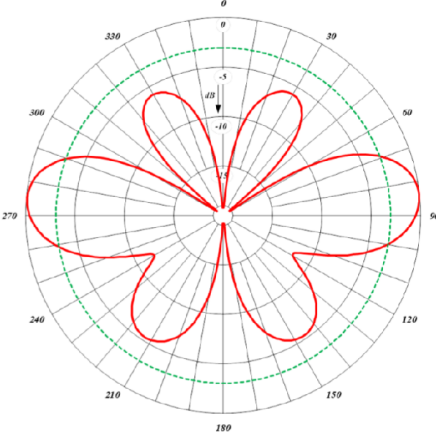
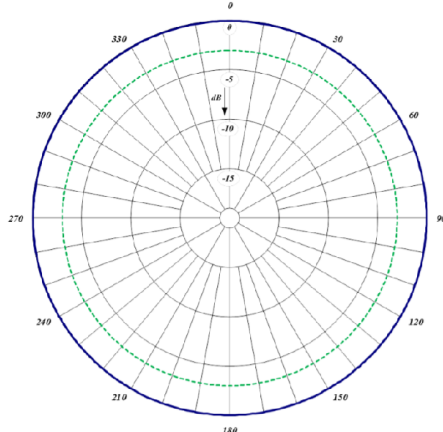
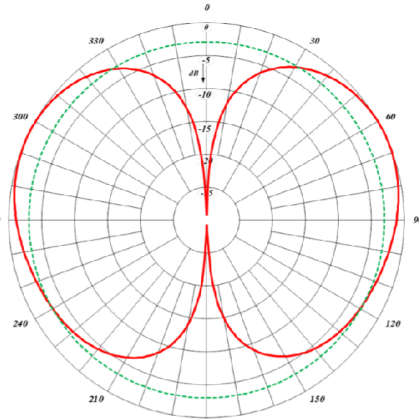
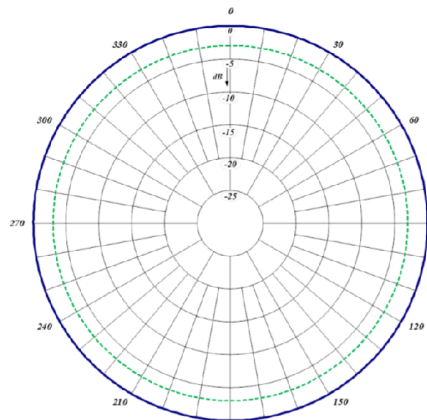
265-70



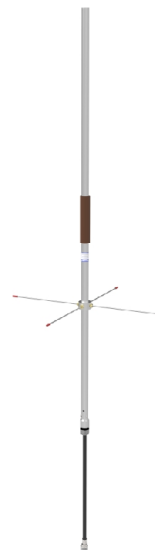
266-70



267-70



268-70



## OMNIDIRECTIONAL ANTENNA SERIES

25 - 960 MHz

## Omnidirectional Antenna Series

The Omnidirectional Antenna Series are available in VHF, UHF and 700/800/900 MHz configurations. These omnidirectional antennas are wide-band and unity gain. They are constructed from high strength, corrosion resistant aluminum alloy and stainless steel. All of our antennas can be completely customized to your particular applications.

- Each antenna has a rugged design to withstand the most extreme environmental conditions.
- The mounting hardware supplied will permit 0.75" to 2.3/8" O.D. pipe installation.
- DC ground for lightning protection.
- Because of the very large bandwidth, these are ideal antennas to stock, whether for emergency use or for resale.



401-70

Electrical Specifications	201-70	301-70	401-70
Frequency Range, MHz	25-174 MHz	406-512	700-960
Nominal Gain, dBd	Unity	Unity	Unity
Bandwidth 1.5:1 VSWR, MHz	2%	20	10%
Polarization	Vertical	Vertical	Vertical
Vertical Beam width (Ver.Pol.)	78°	75°	75°
Pattern	Omni	Omni	Omni
Power Rating, Watts	500	100	100
Nominal Impedance, Ohms	50	50	50
Lightning Protection	Star Gap	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male

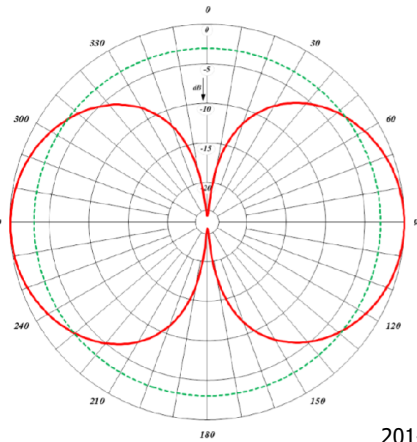
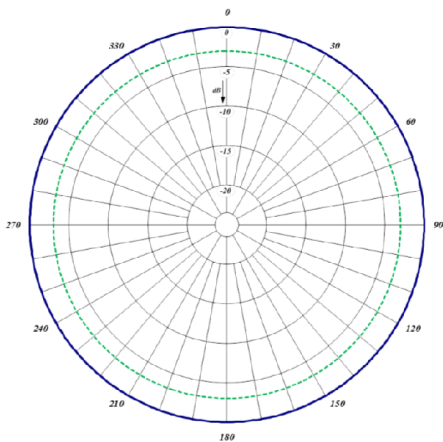
Mechanical Specifications	201-70	301-70	401-70
Max. Length, in (mm)	229 (5817)	24 (610)	21 (533)
Skirt Diameter, in (mm)	2.625 (67)	N/A	N/A
Whip Diameter, in (mm)	0.75 (19)	N/A	N/A
Weight, lbs. (kg)	17 (7.7)	1.4 (0.7)	1 (0.45)
Rated Wind Velocity, no ice, mph (km/h)	115 (185)	150 (241)	150 (241)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	N/A	100 (161)	100 (161)
Lateral Thrust @ 100 mph, ft*lb (kg*m)	67 (30.4)	3.9 (1.8)	3.4 (1.6)
Bending Moment @top clamp: 100 mph, ft*lb (kg*m)	308 (42.6)	1.84 (0.25)	1.87 (0.26)
Projected Area, ft² (m²)	2.5 (0.23)	0.15 (0.014)	0.13 (0.019)
Mounting Hardware	1.7" (42mm) O.D.	167-85 Clamp	167-85 Clamp

Order Information	406-430 MHz	430-450 MHz	450-470 MHz	746-806 MHz	806-896 MHz	896-960 MHz
201-70	N/A	N/A	N/A	N/A	N/A	N/A
301-70	301-70*1	301-70*2	301-70*3	N/A	N/A	N/A
401-70	N/A	N/A	N/A	401-70*1	401-70*2	401-70*3

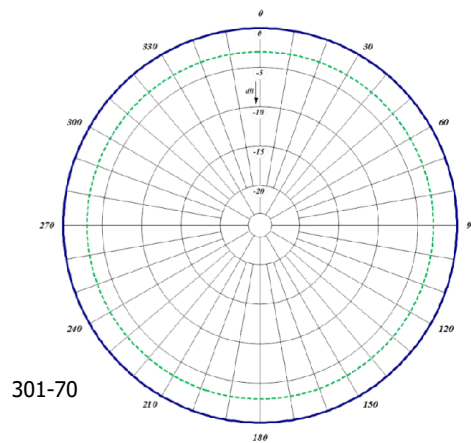


OMNIDIRECTIONAL ANTENNA

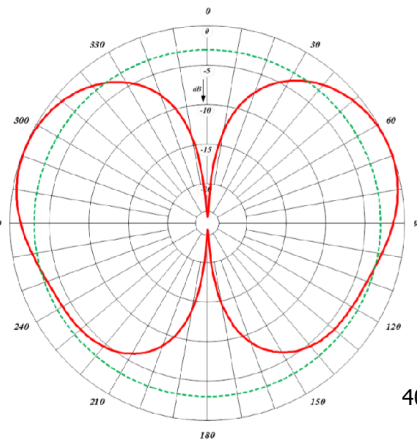
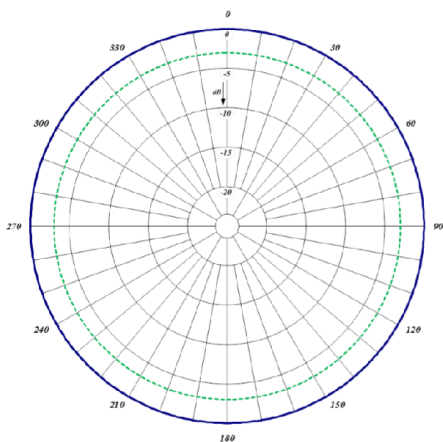
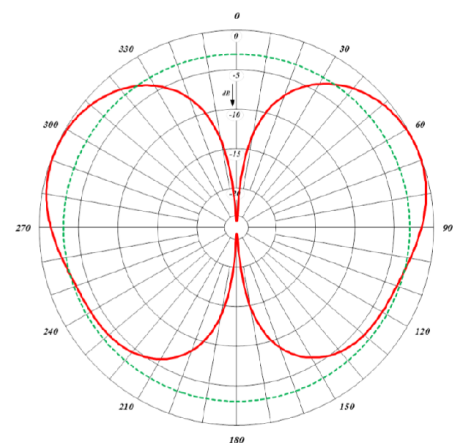
25 - 960 MHz



201-70



301-70



401-70



## COLLINEAR OMNIDIRECTIONAL ANTENNA

746-806, 806-869 &amp; 885-960 MHz

## Collinear Omnidirectional Antenna

The 928-70 Collinear Omni Antenna is available in three frequency splits: 746-806; 806-869 or 885-960 within the 746 to 960 MHz range.

The antennas have an 8.5 dBd gain, and offer 6 fixed Electrical Downtilt options, based on customer requirements. The antenna is constructed with a high quality fiberglass light-grey radome. The aluminum mounting hardware is included with the antenna.

Electrical Specifications	928-70-1; 928-70-2; 928-70-3
Frequency Range, MHz (per Model 928-70-1; 928-70-2; 928-70-3)	746-806; 806-869; 885-960
Nominal Gain, dBd	8.5
Bandwidth 1.4:1 VSWR, MHz	75
Polarization	Vertical
Horizontal Beamwidth (°)	360
Vertical Beamwidth (°)	6.5
Electrical Downtilt—Fixed (Options) (°)	0, 1, 2, 3, 4, 5, 6
Pattern	Omnidirectional
3rd Order Intermodulation @ 2 X 43 dBm, dBc	< -150
Power Rating, Watts	500
Nominal Impedance, Ohms	50
Lightning Protection	DC Ground
Standard Termination	7/16 DIN-Female

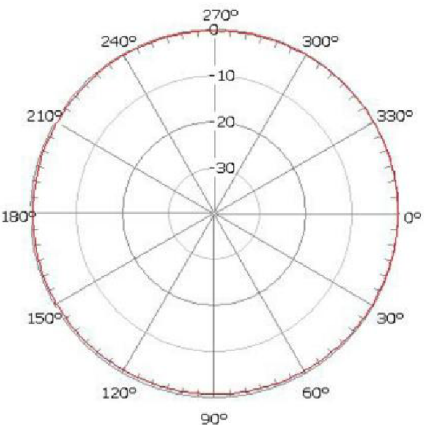
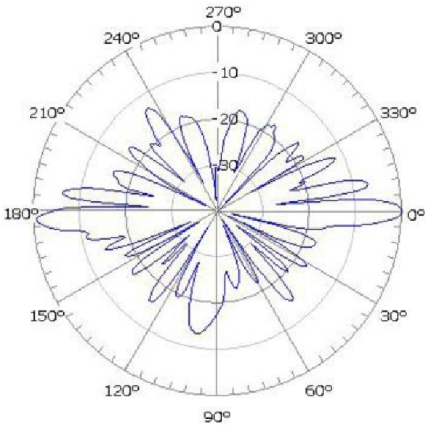
928-70

Mechanical Specifications	928-70-1/2/3
Max. Length, in (mm)	130 (3310)
Diameter, in (mm)	2 (52)
Weight, lbs. (kg) - with mounting kit	26 (11.8)
Rated Wind Velocity, mph (km/h)	124 (200)
Radome Material	Fiberglass, light grey, RAL 7035
Radiating Element Material	Brass
Operational Temperature, °C	-55 to 70
Mounting Hardware	Pole mount included (U-bolts not included)

Order Information	746-806 MHz	806-869 MHz	885-960 MHz
Model	928-70-1	928-70-2	928-70-3

OMNIDIRECTIONAL ANTENNA

25 - 960 MHz



928-70

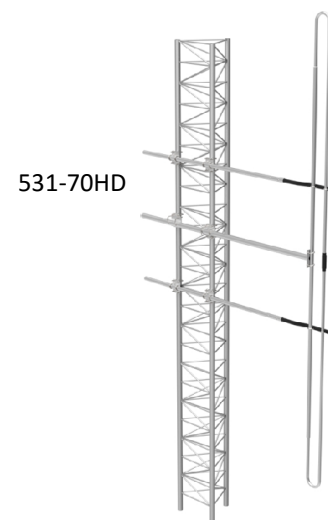
## EXPOSED DIPOLE ANTENNA

30-76 MHz

## Low Band Exposed Dipole Antenna Series

The Low Band Exposed Dipole Antenna Series are available in our standard or heavy duty construction. These exposed dipole antennas come in both single and dual configurations, depending on the gain required. They are constructed from high strength, corrosion resistant aluminum alloy, hot galvanized steel mounting hardware, and use unique PVC off-set support arms. Our heavy duty versions have dual support braces and use a superior anti-torque support. All components are oversized.

- Each antenna has a rugged design to withstand the most extreme environmental conditions.
- Supplied with anti-torque supports.
- DC ground for lightning protection.
- Can be black anodized coating for enhanced anti-corrosion and de-icing properties



Electrical Specifications	531-70	531-70HD	532-70	532-70HD
Frequency Range, MHz	30-76	30-76	30-76	30-76
Nominal Gain, dBd	2.5	2.5	5.5	5.5
Bandwidth 1.5:1 VSWR, MHz	7%	7%	7%	7%
Polarization	Vertical	Vertical	Vertical	Vertical
Pattern	Unidirectional	Unidirectional	Unidirectional	Unidirectional
Power Rating, Watts	300	300	300	300
Nominal Impedance, Ohms	50	50	50	50
Lightning Protection	DC Ground	DC Ground	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male	Type N Male

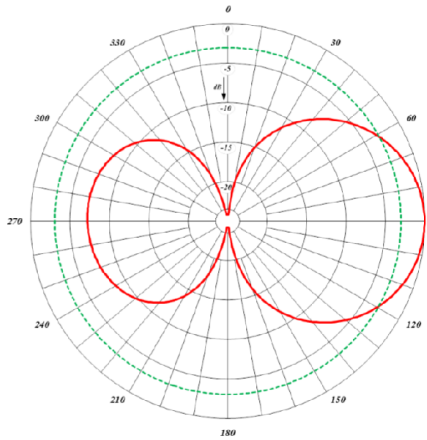
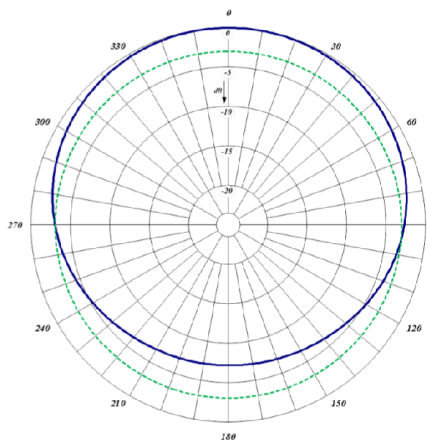
Mechanical Specifications	531-70	531-70HD	532-70	532-70HD
Length @ 30 MHz, in (mm)	189 (4800)	189 (4800)	472 (11989)	472 (11989)
Width, in (mm)	87 (2210)	87 (2210)	87 (2210)	87 (2210)
Weight, lbs. (kg)	37 (17)	43 (19.5)	79 (36)	91 (41)
Rated Wind Velocity, No Ice, mph (km/h)	143 (230)	200 (322)	143 (230)	200 (322)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	98 (158)	160 (258)	98 (158)	160 (258)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	133 (60.8)	160 (72.3)	266 (121.6)	320 (144.6)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	4.98 (0.46)	5.94 (0.55)	9.96 (0.92)	11.88 (1.10)

Order Information	30-32 MHz	32-34 MHz	34-36 MHz	36-38 MHz	38-41 MHz	41-44 MHz	44-47 MHz	47-50 MHz
531-70	531-70*1	531-70*2	531-70*3	531-70*4	531-70*5	531-70*6	531-70*7	531-70*8
532-70	532-70*1	532-70*2	532-70*3	532-70*4	532-70*5	532-70*6	532-70*7	532-70*8
531-70HD	531-70HD*1	531-70HD*2	531-70HD*3	531-70HD*4	531-70HD*5	531-70HD*6	531-70HD*7	531-70HD*8
532-70HD	532-70HD*1	532-70HD*2	532-70HD*3	532-70HD*4	532-70HD*5	532-70HD*6	532-70HD*7	532-70HD*8

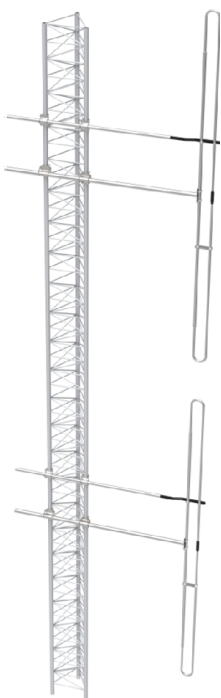
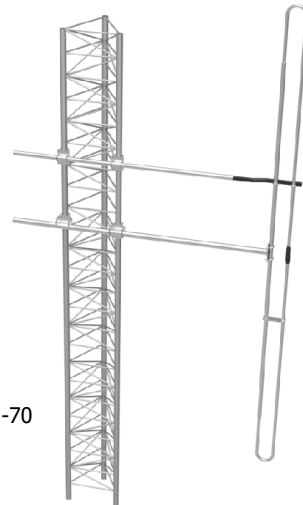


EXPOSED DIPOLE ANTENNA

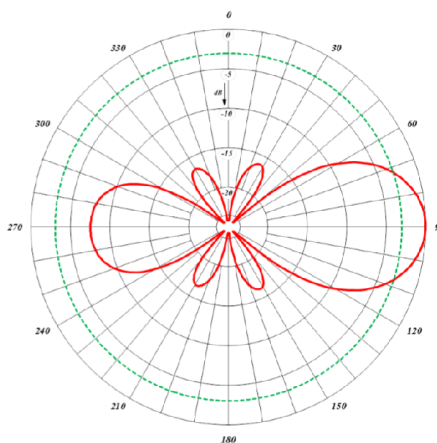
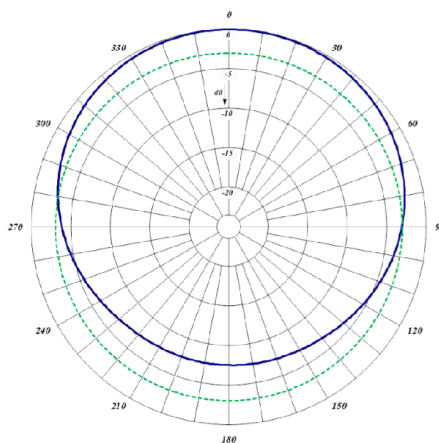
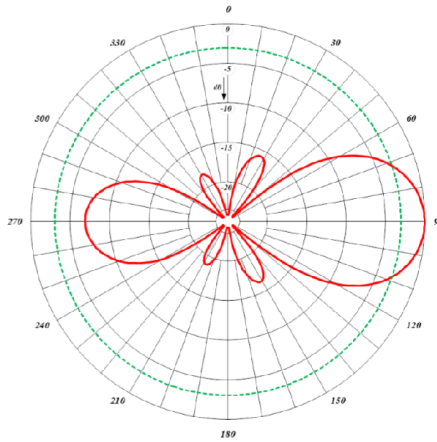
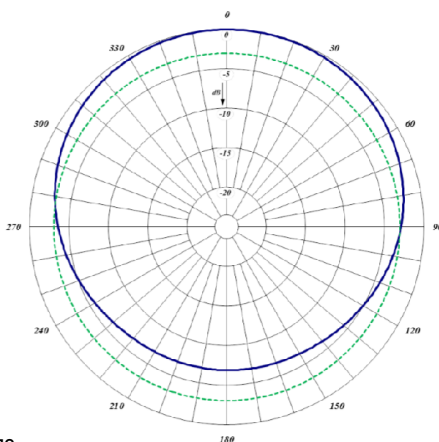
30-76MHz



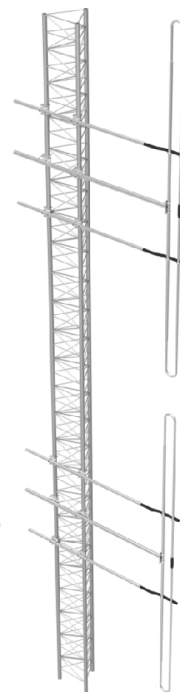
531-70



532-70



532-70HD



## FM EXPOSED DIPOLES

88-108MHz

## 870 FM Series Exposed Dipole

The 870 FM Series Exposed Dipoles are available in 1, 2, 4 dipole configurations. All of our antennas can be completely customized to your particular applications. Our antennas can be black anodized. Adjustable, or fixed, side or top mount, and many version of heavy duty ruggedness.

- Each antenna is offered in a 1/4 or 3/8 wave spacing versions.
- The 87XA-70 has external cabling and a field-adjustable pattern.
- The 87XF-70 has internal cabling and fixed dipole-mast spacing.
- Heavy duty versions are available. Please contact a Comprod Inc. Technical support technician for consultation.

872-70FM



Electrical Specifications	871F-70FM	872F-70FM	874F-70FM
Frequency Range, MHz	88-108	88-108	88-108
Nominal Gain, dBd	2.0-2.5	5.0-5.5	8.0-8.5
Number of Dipoles	1	2	4
Bandwidth 1.5:1 VSWR, MHz	20	20	20
Polarization	Vertical	Vertical	Vertical
Pattern	Offset	Offset	Offset
Power Rating, Watts	200	450	450
Nominal Impedance, Ohms	50	50	50
Lightning Protection	DC Ground	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male

Mechanical Specifications	871F-70FM	872F-70FM	874F-70FM
Length, in (mm)	114 (2896)	198 (5029)	350 (8890)
Width(3/8 Wave Spacing), in (mm)	47 (1194)	47 (1194)	49 (1245)
Weight, lbs. (kg)	19.1 (8.7)	37 (16.8)	137 (62)
Rated Wind Velocity, No Ice, mph (km/h)	150 (241)	128 (206)	105 (169)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	118 (190)	100 (161)	84 (135)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	75 (34)	139 (63)	332 (151)
Bending Moment @ top clamp: 100 mph, ft*lb (kg*m)	60 (8.2)	596 (82)	3565 (493)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	2.8 (0.26)	5.3 (0.49)	12.5 (1.17)
Mounting Information Mast O.D.	2.4" (61mm)	2.4" (61mm)	3.5" (89mm)

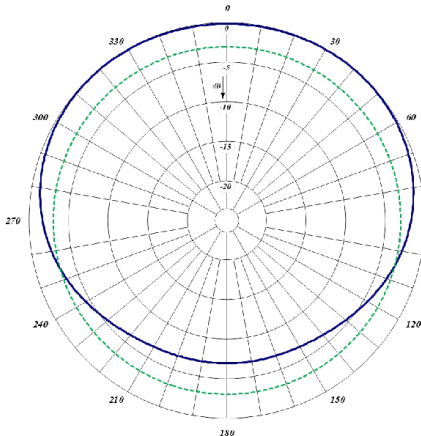
Order Information	Adjustable	Heavy Duty	Side Mount	Top Mount	Black Anodized
871-70FM	871A-70FM	871F-70FMHDB	871F-70FMHDB	871F-70FMHDB	871F-70FMHDB
872-70FM	872A-70FM	872F-70FMHDB	872F-70FMHDB	872F-70FMHDB	872F-70FMHDB
874-70FM	874A-70FM	874F-70FMHDB	874F-70FMHDB	874F-70FMHDB	874F-70FMHDB

## FM EXPOSED DIPOLES

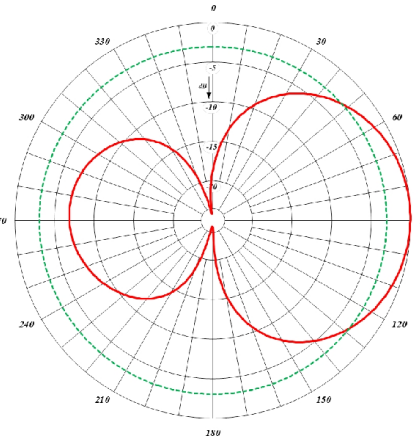
88-108MHz



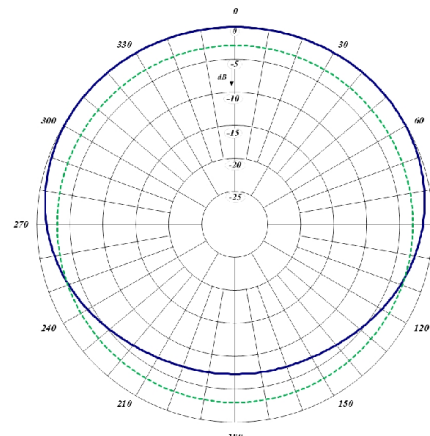
871F-70FM



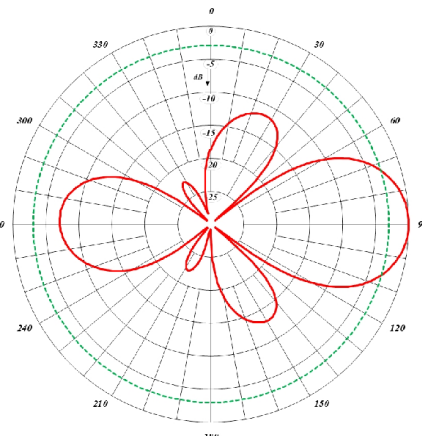
Quarterwave Spacing Horizontal



Quarterwave Spacing Vertical

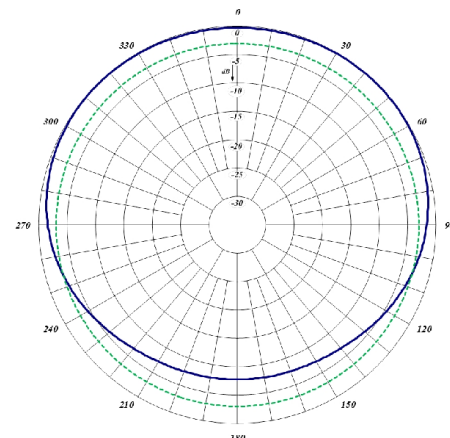
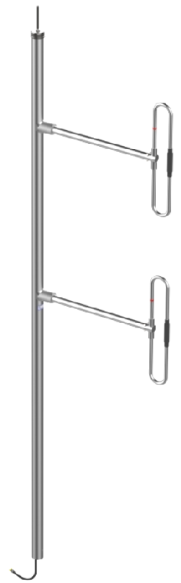


Quarterwave Spacing Horizontal

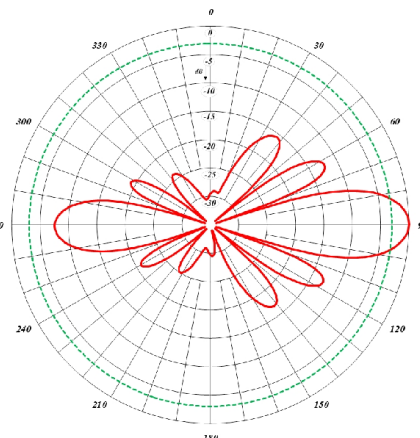


Quarterwave Spacing Vertical

872F-70FM



Quarterwave Spacing Horizontal



Quarterwave Spacing Vertical

874F-70FM



## VHF EXPOSED DIPOLES

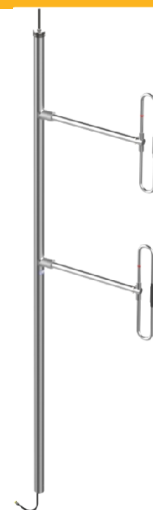
118-138 MHz

## 870 Series VHF Exposed Dipole

The 870 Series AV – Aviation Series VHF Exposed Dipoles are available in 1, 2, 4, 8 and dual dipole configurations. All of our antennas can be completely customized to your particular applications. Our antennas can be black anodized, Adjustable or fixed, side mount or top mount, and heavy duty versions are available.

- Each antenna is offered in a 1/4 or 3/8 wave spacing versions.
- The 87XA-70 has external cabling and a field-adjustable pattern.
- The 87XF-70 has internal cabling and fixed dipole-mast spacing.
- Heavy duty versions are available. Please contact Comprod Inc. Technical support technician for consultation.

872F-70AV



Electrical Specifications	871F-70AV	872F-70AV	874F-70AV
Frequency Range, MHz	118-138	118-138	118-138
Nominal Gain, dBd	2.0-2.5	5.0-5.5	8.0-8.5
Number of Dipoles	1	2	4
Bandwidth 1.5:1 VSWR, MHz	20	20	20
Polarization	Vertical	Vertical	Vertical
Pattern	Offset	Offset	Offset
Power Rating, Watts	200	450	450
Nominal Impedance, Ohms	50	50	50
Lightning Protection	DC Ground	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male

Mechanical Specifications	871F-70AV	872F-70AV	874F-70AV
Length, in (mm)	78 (1981)	162 (4115)	294 (7468)
Width (3/8 Wave Spacing), in (mm)	54 (1372)	54 (1372)	55 (1397)
Weight, lbs. (kg)	16 (7.3)	31 (14.1)	93 (42)
Rated Wind Velocity, No Ice, mph (km/h)	150 (241)	145 (3341)	120 (193)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	105 (169)	100 (161)	95 (153)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	57 (26)	120 (54.5)	231 (105)
Bending Moment @ top clamp: 100 mph, ft*lb (kg*m)	82 (11)	420 (58)	1437 (199)
Projected Area, ft² (m²)	2.2 (0.2)	4.6 (0.43)	8.8 (0.82)
Mounting Information Mast O.D.	2.4" (61mm)	2.4" (61mm)	2.9" (73mm)

Order Information	Adjustable	Heavy Duty	Side Mount	Top Mount	Black Anodized
871-70AV	871A-70AV	871F-70AV-HD	871F-70AV-SM	871F-70AV-TM	871F-70AV-HDB
872-70AV	872A-70AV	872F-70AV-HD	872F-70AV-SM	872F-70AV-TM	872F-70AV-HDB
874-70AV	874A-70AV	874F-70AV-HD	874F-70AV-SM	874F-70AV-TM	874F-70AV-HDB

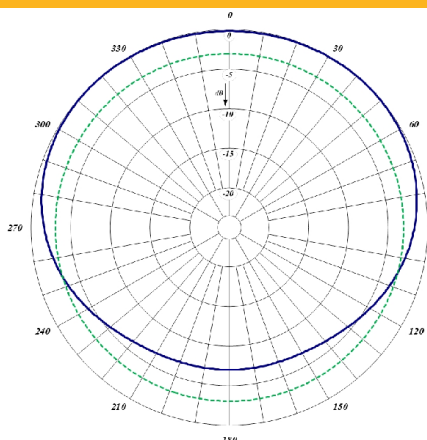


## VHF EXPOSED DIPOLES

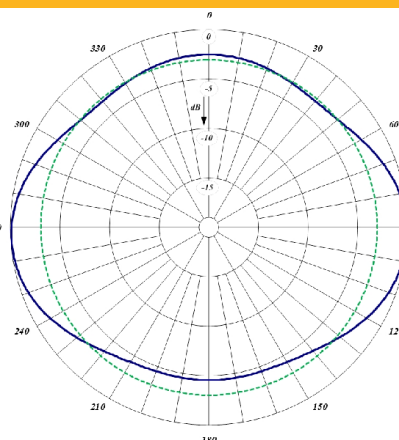
118-138MHz



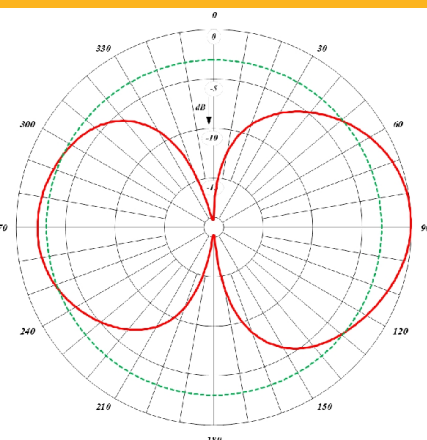
871F-70AV



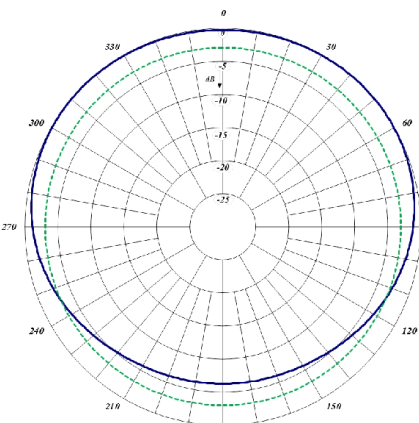
Quarterwave Spacing Horizontal



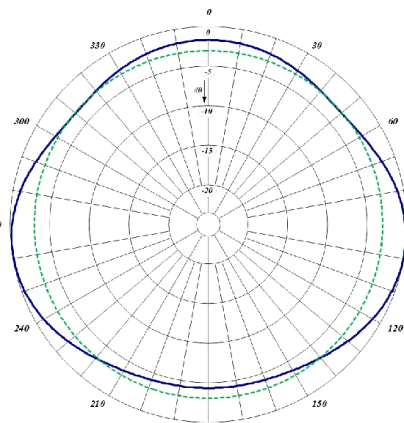
Halfwave Spacing Horizontal



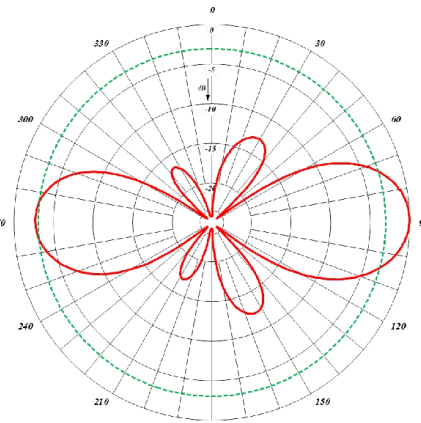
Halfwave Spacing Vertical



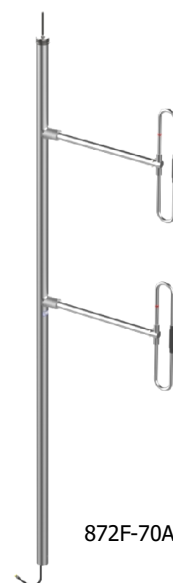
Quarterwave Spacing Horizontal



Halfwave Spacing Horizontal



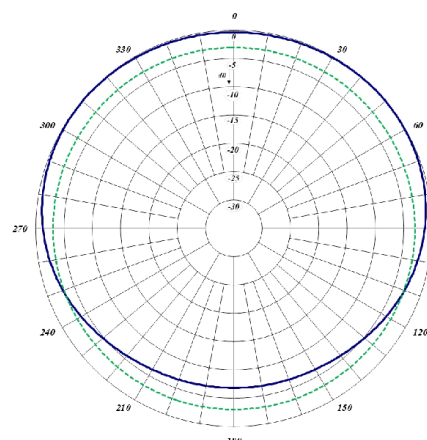
Halfwave Spacing Vertical



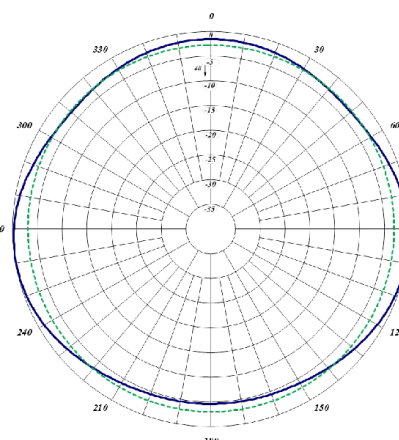
872F-70AV



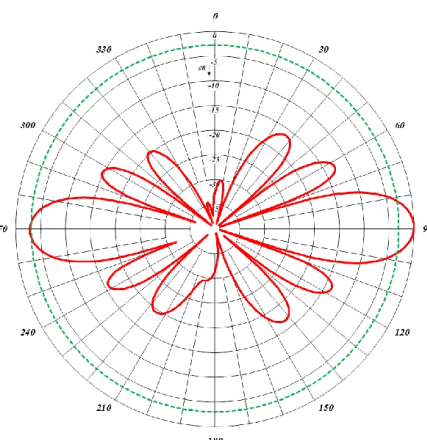
874F-70AV



Quarterwave Spacing Horizontal



Halfwave Spacing Horizontal



Halfwave Spacing Vertical

## VHF EXPOSED DIPOLES

138-174 MHz

## 870 Series VHF Exposed Dipoles

The 870 Series VHF Exposed Dipoles are available in 1, 2, 4, 8, dipole and dual dipole configurations. All of our antennas can be completely customized to your particular applications. Our antennas can be black anodized. Adjustable or fixed, side mount or top mount, and heavy duty versions are available.

- Each antenna is offered in a 1/4 or 3/8 wave spacing versions.
- The 87XA-70 has external cabling and a field-adjustable pattern.
- The 87XF-70 has internal cabling and fixed dipole-mast spacing.
- Heavy duty versions are available. Please contact Comprod Inc. Technical support technician for consultation.

872F-70



Electrical Specifications	871F-70	872F-70	874F-70
Frequency Range, MHz	138-174	138-174	138-174
Nominal Gain, dBd	2.0-2.5	5.0-5.5	8.0-8.5
Number of Dipoles	1	2	4
Bandwidth 1.5:1 VSWR, MHz	36	36	36
Polarization	Vertical	Vertical	Vertical
Pattern	Offset	Offset	Offset
Power Rating, Watts	200	450	450
Nominal Impedance, Ohms	50	50	50
Lightning Protection	DC Ground	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male

Mechanical Specifications	871F-70	872F-70	874F-70
Length, in (mm)	78 (1981)	162 (4115)	294 (7468)
Width(1/2 Wave Spacing), in (mm)	54 (1372)	54 (1372)	55 (1397)
Weight, lbs. (kg)	16 (7.3)	31 (14.1)	93 (42)
Rated Wind Velocity, No Ice, mph (km/h)	150 (241)	145 (3341)	120 (193)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	145 (217)	135 (217)	95 (153_)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	18 (2.5)	205 (28.4)	1364 (188.7)
Bending Moment @ top clamp: 100 mph, ft*lb (kg*m)	82 (11)	420 (58)	1437 (199)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	1.7 (0.16)	3.5 (0.33)	7 (0.65)
Mounting Information Mast O.D.	1.9" (48mm)	2.4" (61mm)	2.9" (73mm)

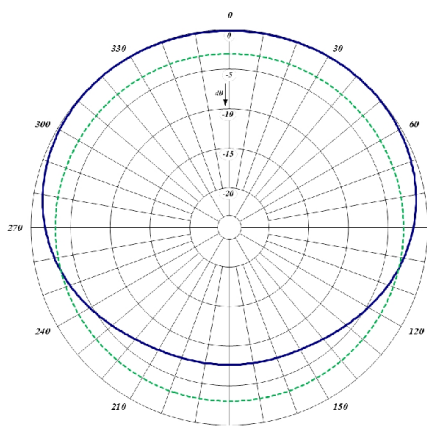
Order Information	Adjustable	Heavy Duty	Side Mount	Top Mount	Black Anodized
871-70	871A-70	871F-70HD	871F-70SM	871F-70TM	871F-70HDB
872-70	872A-70	872F-70HD	872F-70SM	872F-70TM	872F-70HDB
874-70	874A-70	874F-70HD	874F-70SM	874F-70TM	874F-70HDB

## VHF EXPOSED DIPOLES

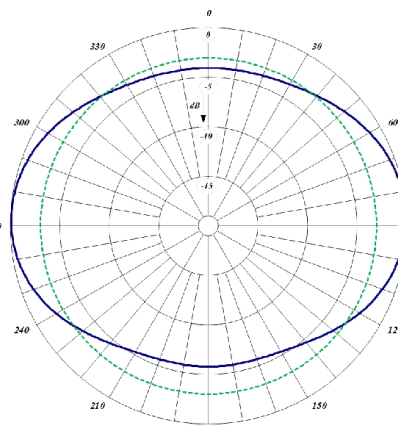
138-174MHz



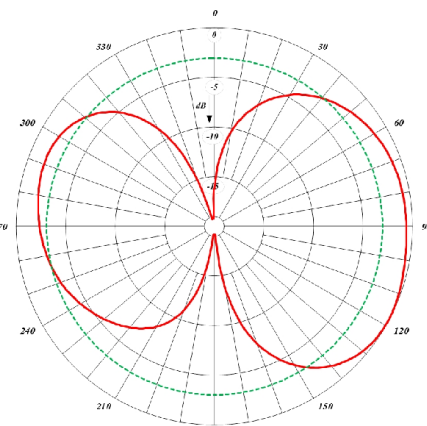
871F-70



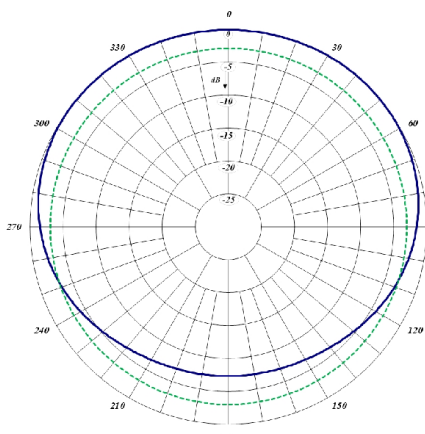
Quarterwave Spacing Horizontal



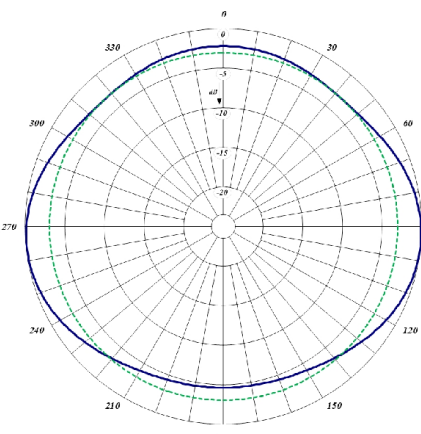
Halfwave Spacing Horizontal



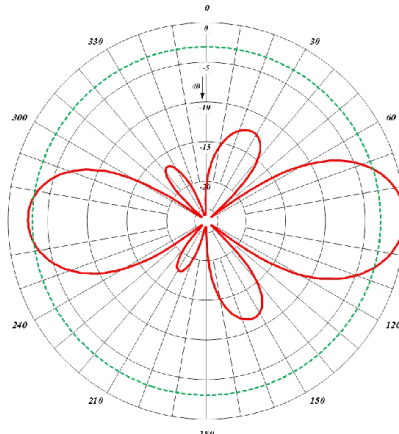
Halfwave Spacing Vertical



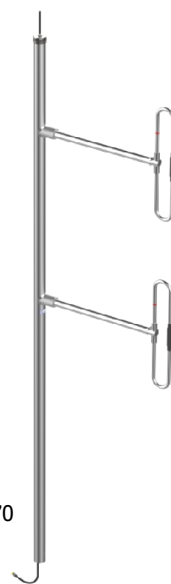
Quarterwave Spacing Horizontal



Halfwave Spacing Horizontal



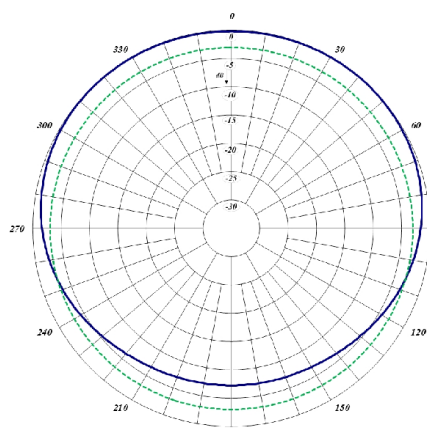
Halfwave Spacing Vertical



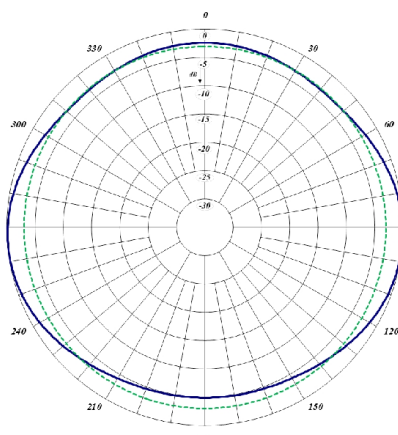
872F-70



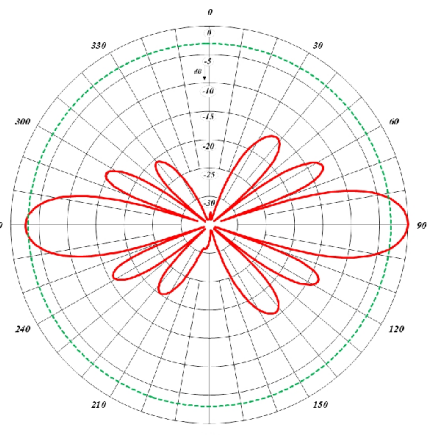
874F-70



Quarterwave Spacing Horizontal



Halfwave Spacing Horizontal



Halfwave Spacing Vertical

## 220MHz EXPOSED DIPOLES

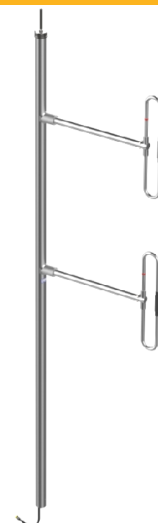
215-225MHz

## 870 Series 220MHz Exposed Dipoles

The 870 Series 220MHz Exposed Dipoles are available in 1, 2, 4, 8 dipole configurations. All of our antennas can be completely customized to your particular applications. Our antennas can be black anodized. Adjustable, or fixed, side mount or top mount, and heavy duty versions are available.

- Each antenna is offered in a 1/4 or 3/8 wave spacing versions.
- The 87XA-70 has external cabling and a field-adjustable pattern.
- The 87XF-70 has internal cabling and fixed dipole-mast spacing.
- Heavy duty versions are available. Please contact Comprod Inc. Technical support technician for consultation.

872F-70-220



Electrical Specifications		871F-70-220	872F-70-220	874F-70-220	
Frequency Range, MHz		215-225	215-225	215-225	
Nominal Gain, dBd		2.0-2.5	5.0-5.5	8.0-8.5	
Number of Dipoles		1	2	4	
Bandwidth 1.5:1 VSWR, MHz		10	10	10	
Polarization		Vertical	Vertical	Vertical	
Pattern		Offset	Offset	Offset	
Power Rating, Watts		200	300	500	
Nominal Impedance, Ohms		50	50	50	
Lightning Protection		DC Ground	DC Ground	DC Ground	
Standard Termination		Type N Male	Type N Male	Type N Male	
Mechanical Specifications		871F-70-220	872F-70-220	874F-70-220	
Length, in (mm)		66 (1676)	112 (2845)	200 (5080)	
Width(1/2 Wave Spacing), in (mm)		31 (787)	31 (787)	32 (813)	
Weight, lbs. (kg)		12.5 (5.7)	21 (9.5)	51 (23)	
Rated Wind Velocity, No Ice, mph (km/h)		165 (266)	150 (241)	145 (233)	
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)		140 (225)	130 (209)	105 (177)	
Lateral Thrust @ 100 mph, wind, lbs. (kg)		40 (18)	66 (30)	143 (65)	
Bending Moment @ top clamp: 100 mph, ft*lb (kg*m)		58 (8)	150 (21)	610 (84)	
Projected Area, ft² (m²)		1.5 (0.14)	2.6 (0.24)	5.5 (0.51)	
Mounting Information Mast O.D.		1.9" (48mm)	1.9" (48mm)	2.4" (60mm)	
Order Information		Heavy Duty	Side Mount	Top Mount	Black Anodized
871-70-220		871F-70-220HD	871F-70-220SM	871F-70-220TM	871F-70-220HDB
872-70-220		872F-70-220HD	872F-70-220SM	872F-70-220TM	872F-70-220HDB
874-70-220		874F-70-220HD	874F-70-220SM	874F-70-220TM	874F-70-220HDB

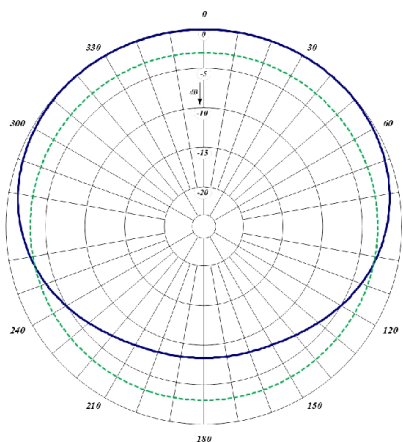


## 220MHz EXPOSED DIPOLES

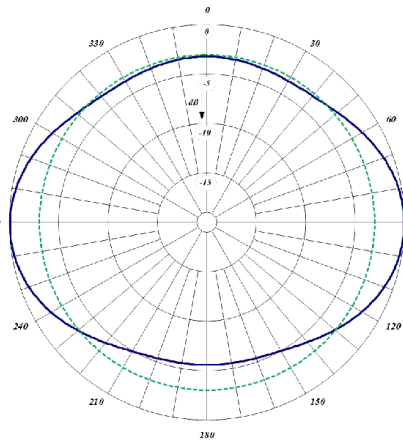
215-225MHz



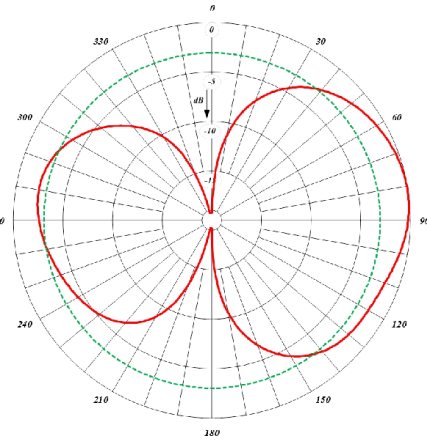
871F-70-220



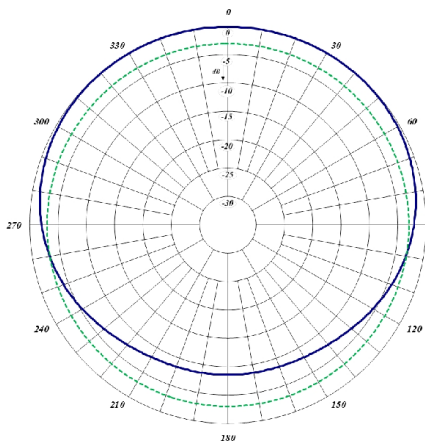
Quarterwave Spacing Horizontal



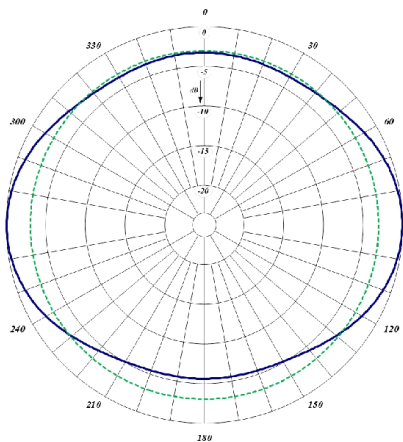
Halfwave Spacing Horizontal



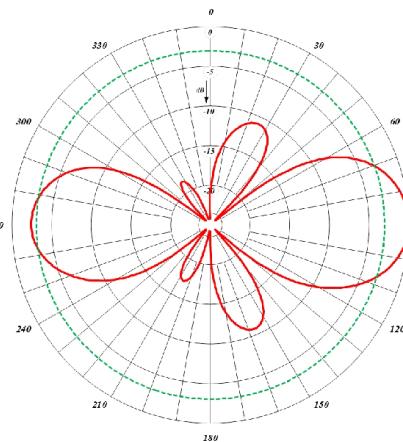
Halfwave Spacing Vertical



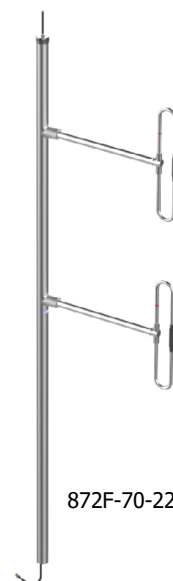
Quarterwave Spacing Horizontal



Halfwave Spacing Horizontal



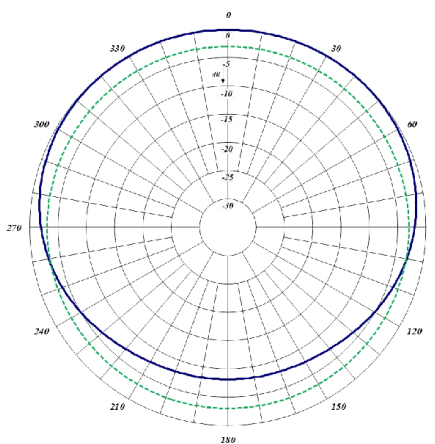
Halfwave Spacing Vertical



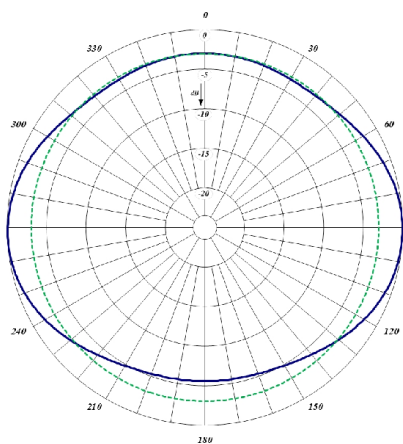
872F-70-220



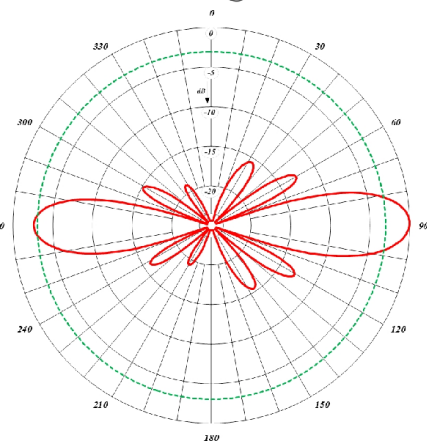
874F-70-220



Quarterwave Spacing Horizontal



Halfwave Spacing Horizontal



Halfwave Spacing Vertical

## VHF EXPOSED DIPOLES

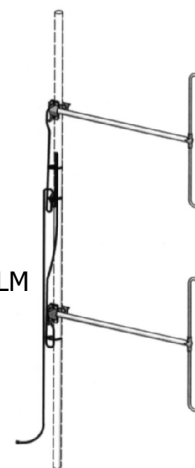
138-174MHz

## 870 LM Series VHF Exposed Dipoles

The 870 LM Series VHF Exposed Dipoles are available in 1, 2, 4, 8, dipole configurations. The LM stands for "Less Mast". The product includes the dipole, boom and clamps to mount the dipoles but no mast is supplied. All of our antennas can be completely customized to your particular applications. Our antennas can be black anodized, Adjustable-only, side mount or top mount, and heavy duty versions are available.

- The 870 LM series has external cabling and is field adjustable pattern
- Heavy-duty versions are available. Please contact a Comprod Inc. Technical support technician for consultation.

872F-70LM



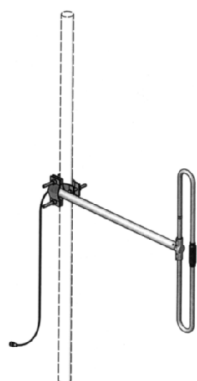
Electrical Specifications	871-70LM	872-70LM	874-70LM
Frequency Range, MHz	138-174	138-174	138-174
Nominal Gain, dBd	2.0-2.5	5.0-5.5	8.0-8.5
Number of Dipoles	1	2	4
Bandwidth 1.5:1 VSWR, MHz	36	36	36
Polarization	Vertical	Vertical	Vertical
Pattern	Offset	Offset	Offset
Power Rating, Watts	200	450	500
Nominal Impedance, Ohms	50	50	50
Lightning Protection	DC Ground	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male

Mechanical Specifications	871-70LM	872-70LM	874-70LM
Length, in (mm)	Mast Not Incl.	Mast Not Incl.	Mast Not Incl.
Width(1/2 Wave Spacing), in (mm)	40 (1016)	40 (1016)	40 (1016)
Weight, lbs. (kg)	4.5 (2.0)	19 (8.6)	38 (17.2)
Rated Wind Velocity, No Ice, mph (km/h)	150 (241)	150 (241)	150 (241)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	135 (217)	135 (217)	135 (217)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	20 (9.1)	40 (18.2)	80 (36.5)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	0.92 (0.08)	1.84 (0.17)	3.64 (0.34)
Mounting Hardware supplied	181-85	115R-85	115R-85

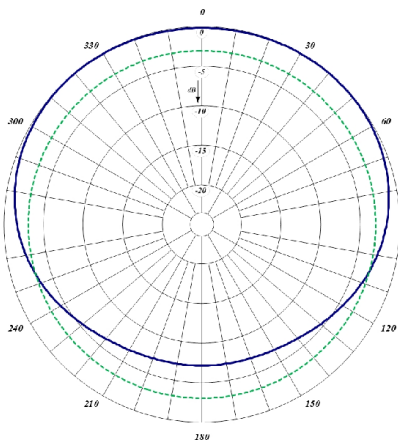
Order Information	Heavy Duty	Black Anodized	With Mast
871-70LM	871-70LMHDB	871-70LMHDB	871A-70
872-70LM	872-70LMHDB	872-70LMHDB	872A-70
874-70LM	874-70LMHDB	874-70LMHDB	874A-70

## VHF EXPOSED DIPOLES

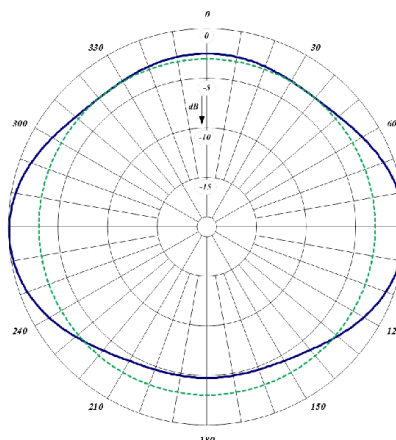
138-174MHz



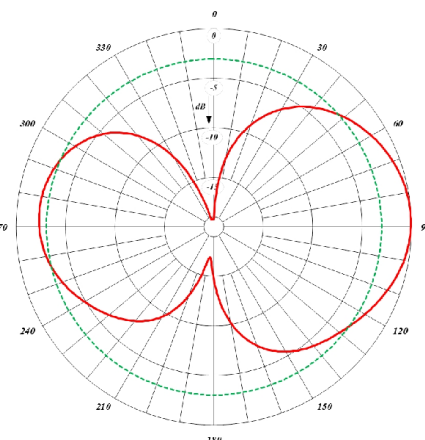
871F-70LM



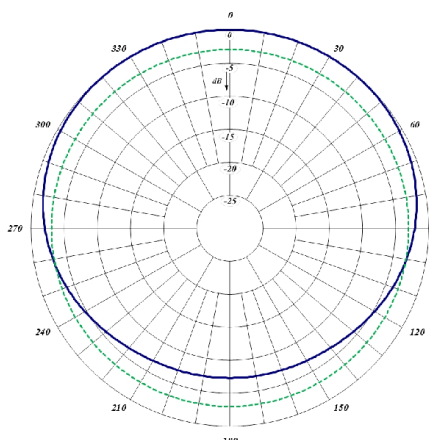
Quarterwave Spacing Horizontal



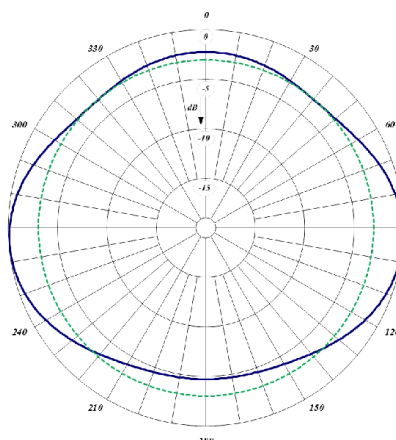
Halfwave Spacing Horizontal



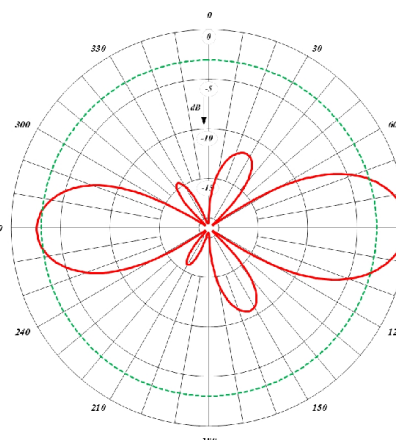
Halfwave Spacing Vertical



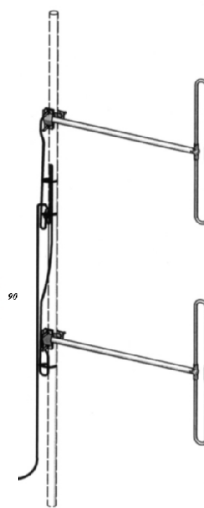
Quarterwave Spacing Horizontal



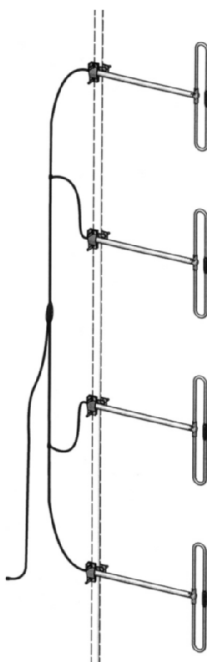
Halfwave Spacing Horizontal



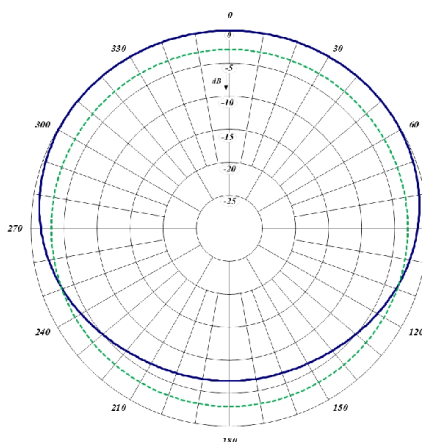
Halfwave Spacing Vertical



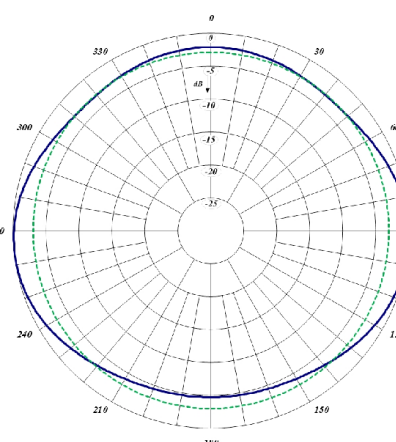
872F-70LM



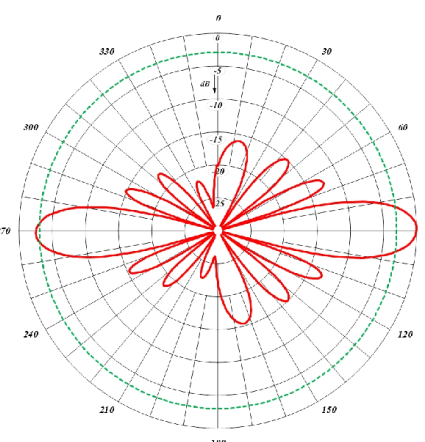
874F-70LM



Quarterwave Spacing Horizontal



Halfwave Spacing Horizontal



Halfwave Spacing Vertical

## VHF EXPOSED DIPOLES

148-174MHz

## 830 Series Light Duty VHF Dipoles

The 830 Series Light Duty VHF Exposed Dipoles are available in 2 and 4 dipole configurations. All of our antennas can be completely customized to your applications.

- Low VSWR version with maximum gain over specified frequency.
- The 830 series has external cabling and fixed dipole-mast spacing.
- These antennas have an adjustable pattern for omnidirectional or offset coverage.

832-70



Electrical Specifications	832-70	834-70
Frequency Range, MHz	148-174	148-174
Nominal Gain, dBd	3.0/6.0	6.0/9.0
Number of Dipoles	2	4
Bandwidth 1.5:1 VSWR, MHz	14	14
Polarization	Vertical	Vertical
Pattern	Omni or Bi-Dir.	Omni or Bi-Dir.
Power Rating, Watts	500	500
Nominal Impedance, Ohms	50	50
Lightning Protection	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male

Mechanical Specifications	832-70	834-70
Length, in (mm)	120 (3048)	244 (6198)
Width(1/2 Wave Spacing), in (mm)	9 (229)	9 (229)
Weight, lbs. (kg)	12 (5.5)	29 (13)
Rated Wind Velocity, No Ice, mph (km/h)	125 (201)	90 (145)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	90 (145)	65 (105)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	45 (200)	69 (307)
Bending Moment @ top clamp: 100 mph, ft*lb (kg*m)	150 (203)	787 (1067)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	1.7 (0.16)	4.2 (0.39)
Mounting Information	107-85 clamp set	107-85 clamp set

Order Information	148-162 MHz	160-174 MHz
832-70	832-70*1	832-70*2
834-70	834-70*1	834-70*2

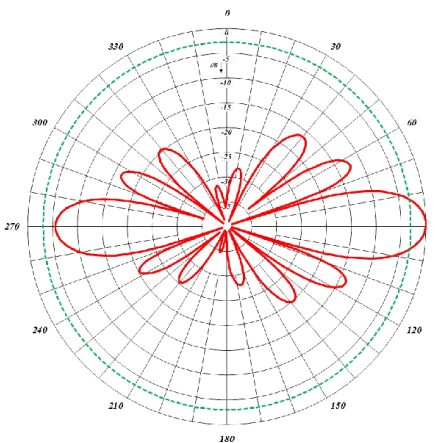
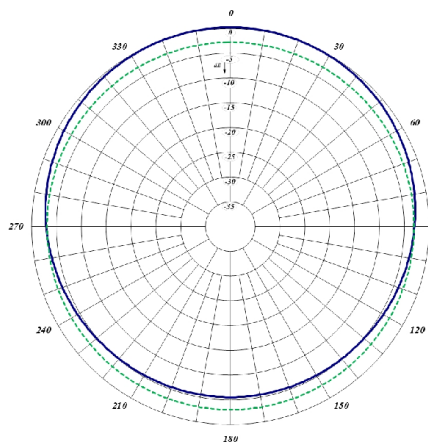
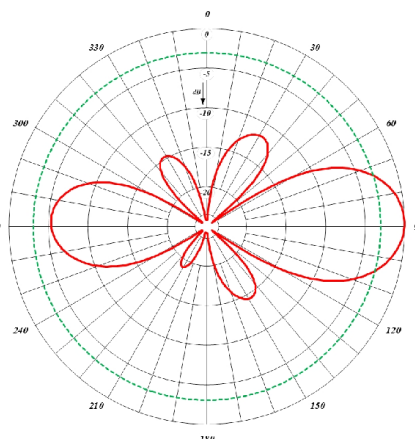
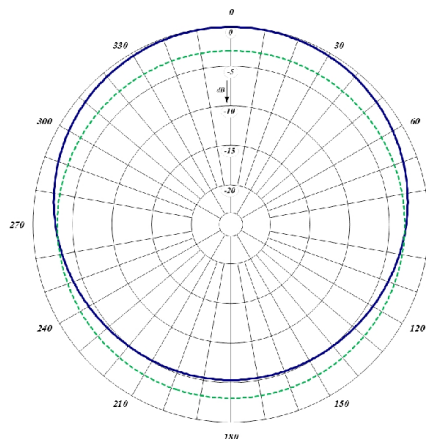


VHF EXPOSED DIPOLES

148-174MHz



832-70



834-70





## VHF EXPOSED DIPOLES

148-174MHz

## 840 Series Light Duty VHF Dipoles

The 840 Series Light Duty VHF Exposed Dipoles are available in 2 and 4 dipole configurations. All of our antennas can be completely customized to your applications.

- Low VSWR version with maximum gain over specified frequency.
- The 840 series has internal cabling and fixed dipole-mast spacing.
- These antennas have an adjustable pattern for omnidirectional or offset coverage.

842-70



Electrical Specifications	842-70	844-70
Frequency Range, MHz	148-174	148-174
Nominal Gain, dBd	3.0/6.0	6.0/9.0
Number of Dipoles	2	4
Bandwidth 1.5:1 VSWR, MHz	14	14
Polarization	Vertical	Vertical
Pattern	Omni or Bi-Dir.	Omni or Bi-Dir.
Power Rating, Watts	500	500
Nominal Impedance, Ohms	50	50
Lightning Protection	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male

Mechanical Specifications	842-70	844-70
Length, in (mm)	138 (3500)	270 (6858)
Width(1/2 Wave Spacing), in (mm)	9 (229)	9 (229)
Weight, lbs. (kg)	22 (10)	40 (18)
Rated Wind Velocity, No Ice, mph (km/h)	150 (241)	110 (177)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	115 (185)	80 (129)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	70 (31.8)	139 (63)
Bending Moment @ top clamp: 100 mph, ft*lb (kg*m)	167 (23.1)	514 (71)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	2.6 (0.24)	5.2 (0.48)
Mounting Information	107-85 clamp set	107-85 clamp set

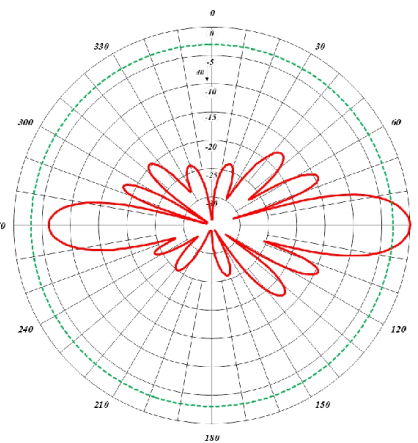
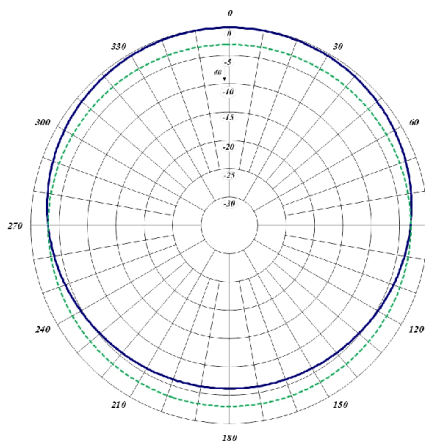
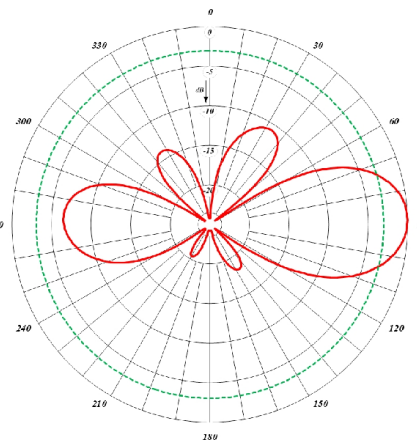
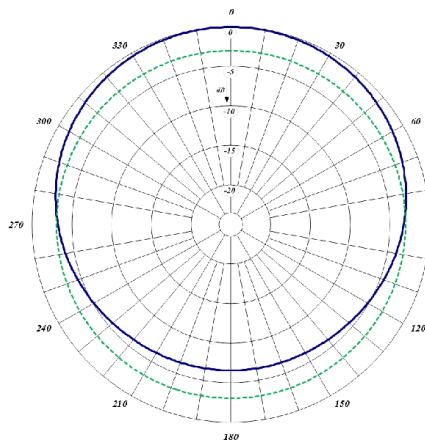
Order Information	148-162 MHz	160-174 MHz
842-70	842-70*1	842-70*2
844-70	844-70*1	844-70*2

VHF EXPOSED DIPOLES

148-174MHz



842-70



844-70

## AVIATION EXPOSED DIPOLE ARRAY

108-138MHz

## 880AV Series VHF Exposed Dipole Array

The 880AV Series VHF Exposed Dipole Array are available in 2 and 4 dipole set configurations. All of our antennas can be completely customized to your particular applications. Our antennas can be Black Anodized, top mount only, and heavy duty versions are available.

- Each antenna is offered in two versions: Omni or bidirectional.
- These antennas have only internal cabling, fixed dipole-mast spacing and adjustable pattern control.
- Heavy-duty versions are available. Please contact a Comprod Inc. Technical support technician for consultation.

882-70AV



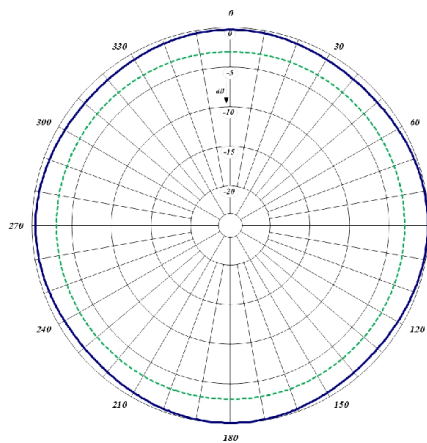
Electrical Specifications	882-70AV	884-70AV
Frequency Range, MHz	108-138	108-138
Nominal Gain, dBd	3.0-5.5	6.0-8.5
Number of Dipoles	2 Sets	4 Sets
Bandwidth 1.5:1 VSWR, MHz	30	30
Polarization	Vertical	Vertical
Pattern	Omni or Bi-Dir.	Omni or Bi-Dir.
Power Rating, Watts	450	500
Nominal Impedance, Ohms	50	50
Lightning Protection	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male
Mechanical Specifications	882-70AV	884-70AV
Length, in (mm)	157 (3988)	306 (7772)
Width , in (mm)	45 (1143)	46 (1168)
Weight, lbs. (kg)	49 (8.6)	105 (47.6)
Rated Wind Velocity, No Ice, mph (km/h)	140 (225)	100 (162)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	110 (177)	80 (129)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	154 (70)	307 (139)
Bending Moment @ top clamp: 100 mph, ft*lb (kg*m)	524 (72.5)	2039 (282)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	5.6 (0.52)	11 (1.04)
Mounting Information Mast O.D.	2.9" (73mm)	3.5" (89mm)
Order Information	Heavy Duty	Black Anodized
882-70AV	882-70AVHD	882-70AVHDB
884-70AV	884-70AVHD	884-70AVHDB

AVIATION EXPOSED DIPOLE ARRAY

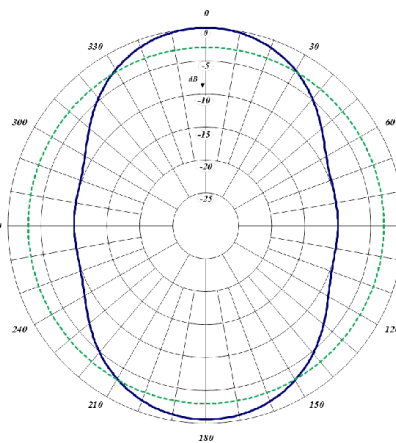
108-138MHz



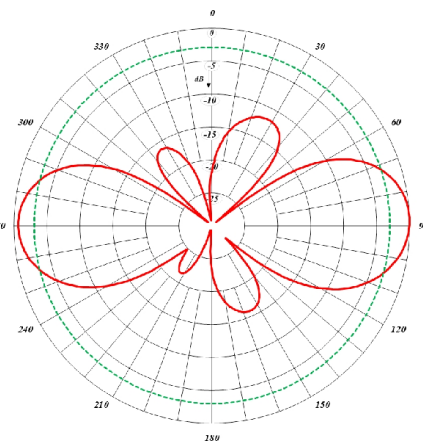
882-70AV



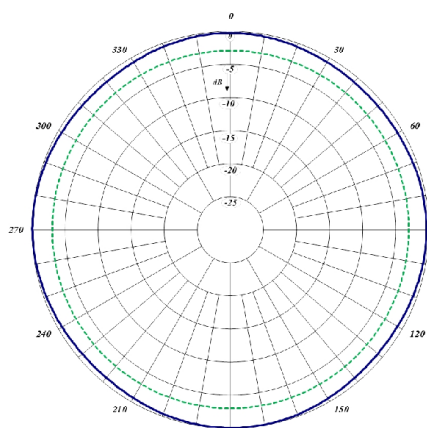
Omni Horizontal



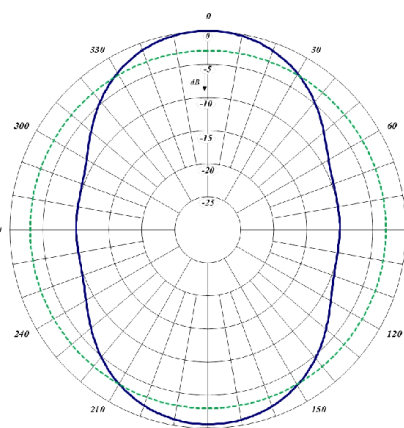
Bidirectional Horizontal



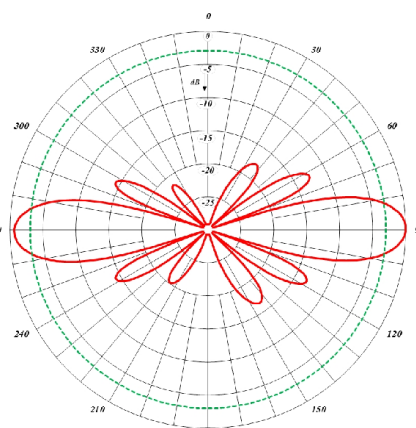
Bidirectional Vertical



Omni Horizontal



Bidirectional Horizontal



Bidirectional Vertical

884-70AV



## VHF EXPOSED DIPOLE ARRAY

138-174MHz

## 880 Series VHF Exposed Dipole Array

The 880 Series VHF Exposed Dipole Array are available in 2 and 4 dipole set configurations. All of our antennas can be completely customized to your particular applications. Our antennas can be Black Anodized, top mount only, and heavy duty versions are available.

- Each antenna is offered in two versions: Omni or bidirectional.
- These antennas have only internal cabling, fixed dipole-mast spacing, and adjustable pattern control.
- Heavy-duty versions are available. Please contact a Comprod Inc. Technical support technician for consultation.

882-70



Electrical Specifications	882-70	884-70
Frequency Range, MHz	138-174	138-174
Nominal Gain, dBd	3.0-5.5	6.0-8.5
Number of Dipoles	2 Sets	4 Sets
Bandwidth 1.5:1 VSWR, MHz	36	36
Polarization	Vertical	Vertical
Pattern	Omni or Bi-Dir.	Omni or Bi-Dir.
Power Rating, Watts	450	500
Nominal Impedance, Ohms	50	50
Lightning Protection	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male
Mechanical Specifications	882-70	884-70
Length, in (mm)	138 (3500)	246 (6248)
Width, in (mm)	30 (762)	31 (787)
Weight, lbs. (kg)	36 (16.3)	78 (35)
Rated Wind Velocity, No Ice, mph (km/h)	120 (162)	110 (177)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	95 (137)	80 (129)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	113 (51)	236 (107)
Bending Moment @ top clamp: 100 mph, ft*lb (kg*m)	351(49)	1264 (175)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	4.1 (0.38)	8.7 (0.81)
Mounting Information Mast O.D.	2.4" (61 mm)	2.9" (73 mm)
Order Information	Heavy Duty	Black Anodized
882-70	882-70HD	882-70HDB
884-70	882-70HD	882-70HDB

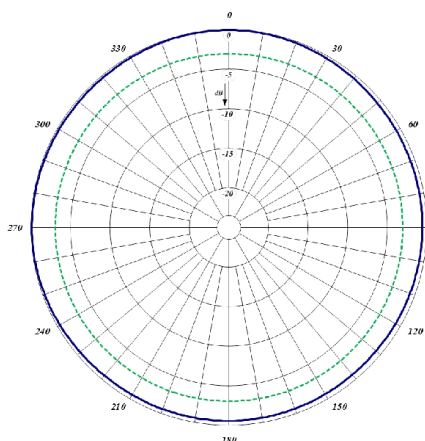


VHF EXPOSED DIPOLE ARRAY

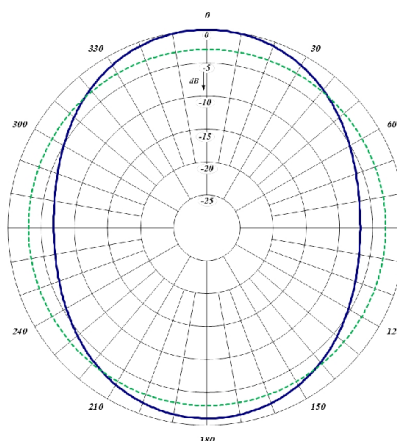
138-174MHz



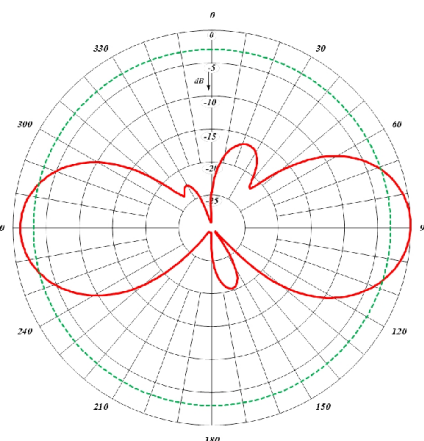
882-70



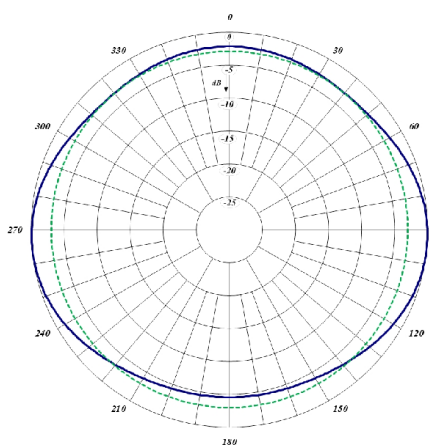
Omni Horizontal



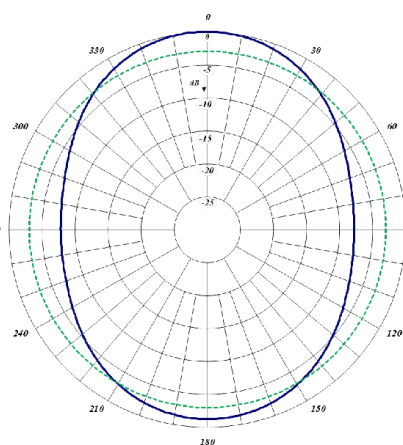
Bidirectional Horizontal



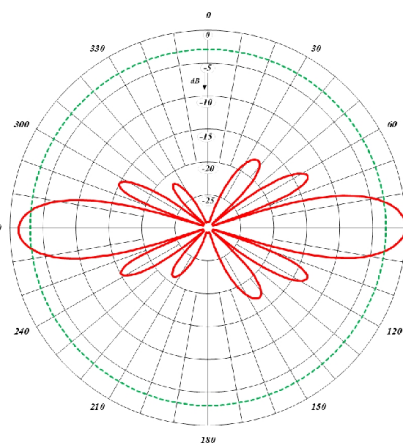
Bidirectional Vertical



Omni Horizontal



Bidirectional Horizontal



Bidirectional Vertical

884-70



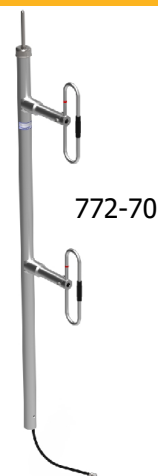
## UHF EXPOSED DIPOLES

406-512 MHz

## 770 Series UHF Exposed Dipoles

The 770 Series UHF Exposed Dipoles are available in 1, 2, 4, 8 and dual dipole configurations. All of our antennas can be completely customized to your particular applications. Our antennas can be black anodized. Adjustable or fixed, side mount or top mount, and heavy duty versions are available.

- Each antenna is offered in a 1/4, 3/8, or 1/2 wave versions.
- The 77X-70 has an internal cabling and fixed dipole-mast spacing.
- Heavy-duty Versions are available. Please contact a Comprod Inc. Technical support technician for consultation.



772-70

Electrical Specifications	771-70	772-70	774-70	778-70
Frequency Range, MHz	406-512	406-512	406-512	406-512
Nominal Gain, dBd	2.0-2.5	5.0-5.5	8.0-8.5	11.0-11.5
Number of Dipoles	1	2	4	8
Bandwidth 1.5:1 VSWR, MHz	106	106	106	64
Polarization	Vertical	Vertical	Vertical	Vertical
Pattern	Offset	Offset	Offset	Offset
Power Rating, Watts	75	150	300	300
Nominal Impedance, Ohms	50	50	50	50
Lightning Protection	DC Ground	DC Ground	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male	Type N Male

Mechanical Specifications	771-70	772-70	774-70	778-70
Length, in (mm)	66 (1676)	86 (2184)	126 (3200)	210 (5334)
Width, in (mm)	16 (406)	16 (406)	16 (406)	17 (432)
Weight, lbs. (kg)	8.6 (3.9)	12.6 (5.7)	21 (9.5)	52 (23.6)
Rated Wind Velocity, No Ice, mph (km/h)	170 (274)	160 (257)	150 (241)	140 (225)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	145 (233)	135 (217)	120 (193)	105 (169)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	27 (12.3)	39 (17.8)	64 (29)	134 (61)
Bending Moment @ top clamp: 100 mph, ft*lb (kg*m)	33.5 (4.6)	72 910)	177 (24.5)	655 (91)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	1 (0.09)	1.5 (0.14)	2.4 (0.23)	5.1 (0.472)
Mounting Information: Mast O.D.	1.9" (48mm)	1.9" (48mm)	1.9" (48mm)	2.4" (61mm)

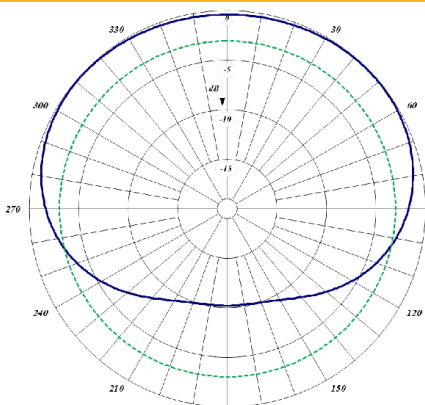
Order Information	Side Mount	Top Mount	Heavy Duty	Welded	Black Anodized
771-70	771-70SM	771-70TM	771-70HD	771-70HDW	771-70HDB
772-70	772-70SM	772-70TM	772-70HD	772-70HDW	772-70HDB
774-70	774-70SM	774-70TM	774-70HD	774-70HDW	774-70HDB
778-70	778-70SM	778-70TM	778-70HD	778-70HDW	778-70HDB

## UHF EXPOSED DIPOLES

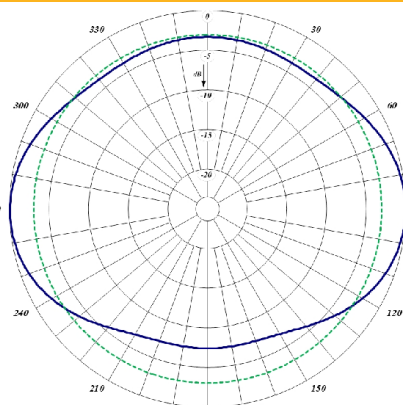
406-512 MHz



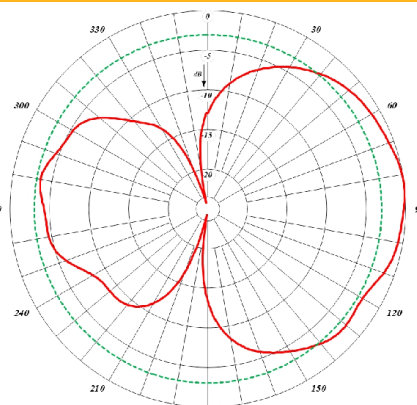
771-70



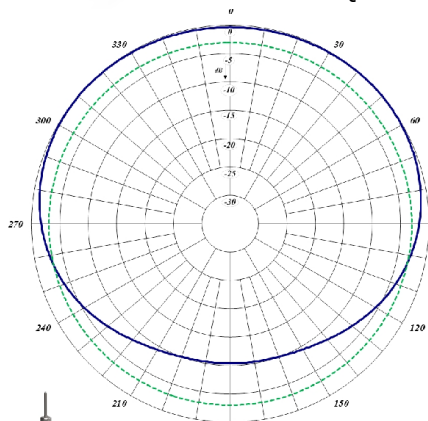
Quarterwave Spacing Horizontal



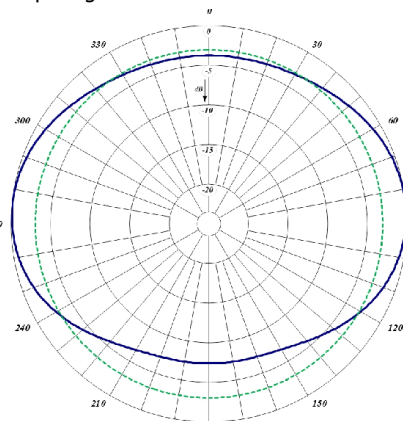
Halfwave Spacing Horizontal



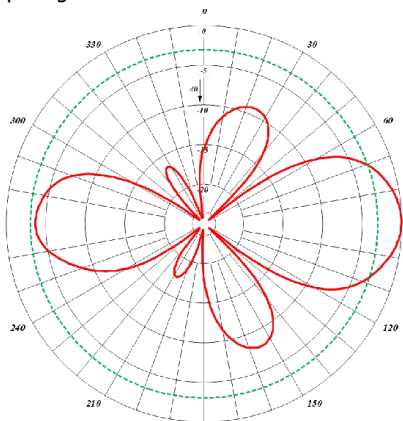
Halfwave Spacing Vertical



Quarterwave Spacing Horizontal



Halfwave Spacing Horizontal

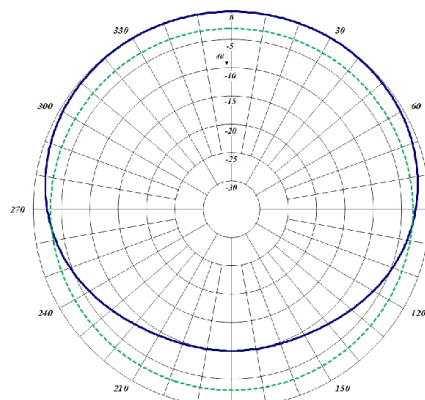


Halfwave Spacing Vertical

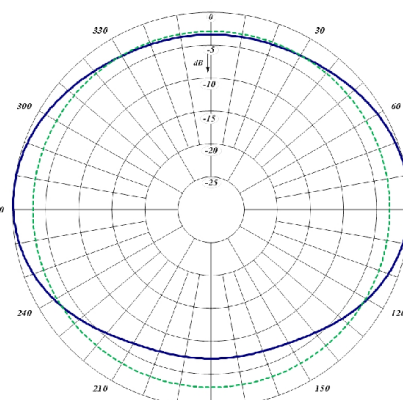
772-70



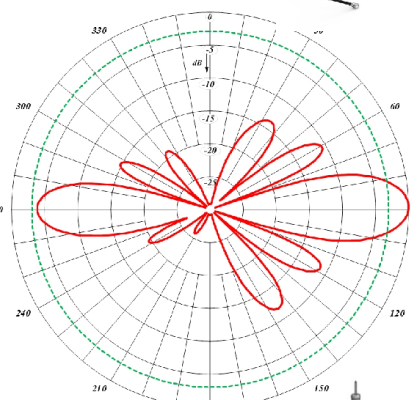
774-70



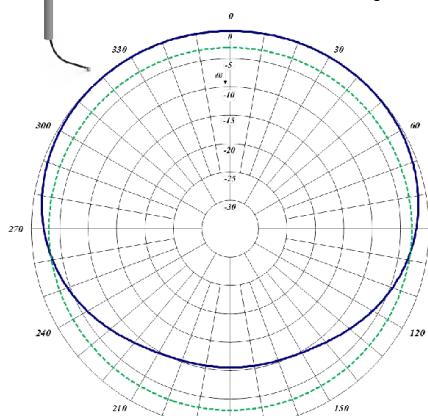
Quarterwave Spacing Horizontal



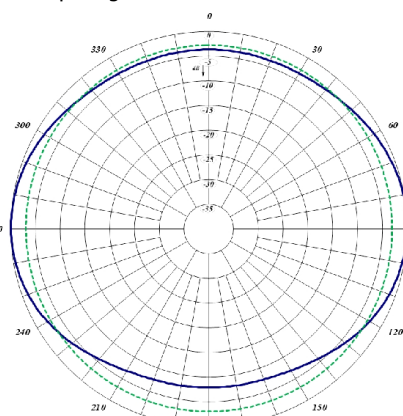
Halfwave Spacing Horizontal



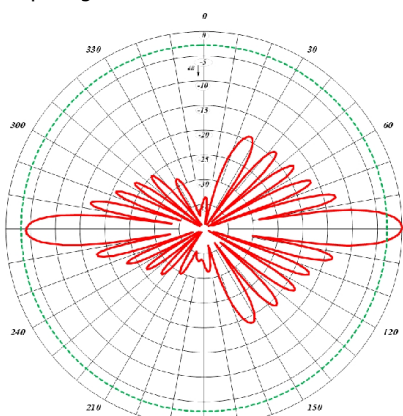
Halfwave Spacing Vertical



Quarterwave Spacing Horizontal



Halfwave Spacing Horizontal



Halfwave Spacing Vertical

778-70



Tel: US 1.877.825.2007 / CAN 1.800.603.1454

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## UHF EXPOSED DIPOLE ARRAY

406-512MHz

## 780 Series UHF Exposed Dipole Array

The 780 Series UHF Exposed Dipole Arrays are available in 2 and 4 dipole set configurations. All of our antennas can be completely customized to your particular applications. Our antennas can be Black Anodized. Top mount configuration only, and heavy duty versions are available.

- Each antenna is offered in two versions: Omni or bidirectional.
- Antennas have complete internal cabling, fixed dipole-mast spacing, and adjustable pattern control.
- Heavy duty versions are available. Please contact a Comprod Inc. Technical support technician for consultation.



Electrical Specifications	782-70	784-70
Frequency Range, MHz	406-512	406-512
Nominal Gain, dBd	3.0-5.5	6.0-8.5
Number of Dipoles	2 Sets	4 Sets
Bandwidth 1.5:1 VSWR, MHz	64	64
Polarization	Vertical	Vertical
Pattern	Omni or Bi-Dir.	Omni or Bi-Dir.
Power Rating, Watts	300	300
Nominal Impedance, Ohms	50	50
Lightning Protection	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male

Mechanical Specifications	782-70	784-70
Length, in (mm)	90 (2286)	126 (3200)
Width, in (mm)	12.75 (324)	12.75 (324)
Weight, lbs. (kg)	25 (11.3)	38 (17)
Rated Wind Velocity, No Ice, mph (km/h)	145 (233)	130 (209)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	100 (161)	90 (145)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	54 (24.5)	101 (46)
Bending Moment @ top clamp: 100 mph, ft*lb (kg*m)	137 (19)	426 (59)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	2.0 (0.19)	3.5 (0.33)
Mounting Information: Mast O.D.	1.9" (48mm)	2.4" (60mm)

Order Information	Heavy Duty	Black Anodized	406-470MHz	450-512MHz
782-70	782-70HD	782-70HDB	782-70*1	782-70*2
784-70	784-70HD	784-70HDB	784-70*1	784-70*2

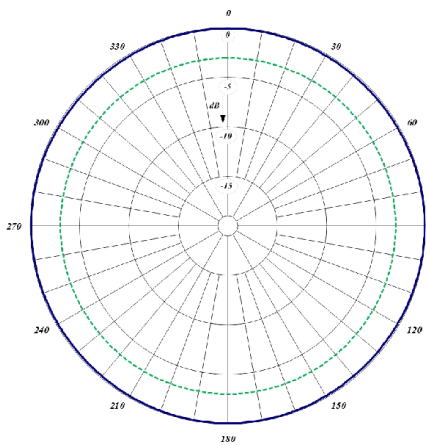


UHF EXPOSED DIPOLE ARRAY

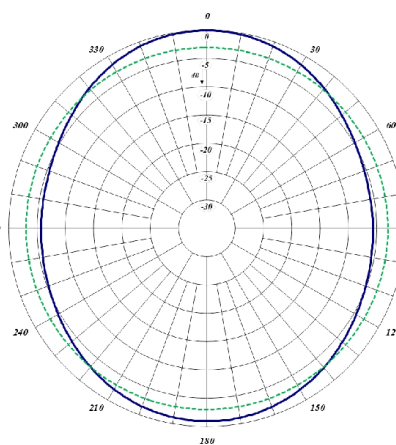
406-512MHz



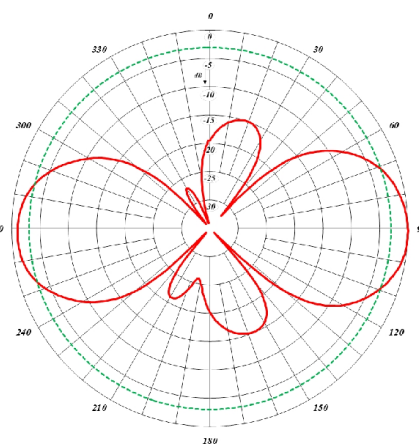
782-70



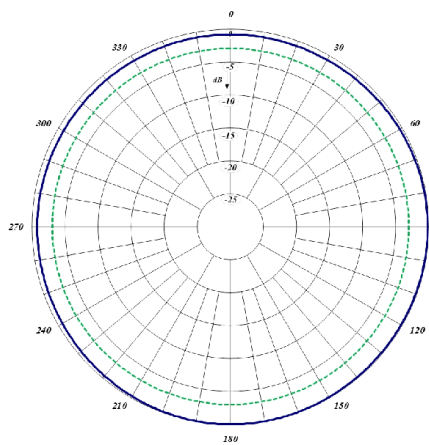
Omni Horizontal



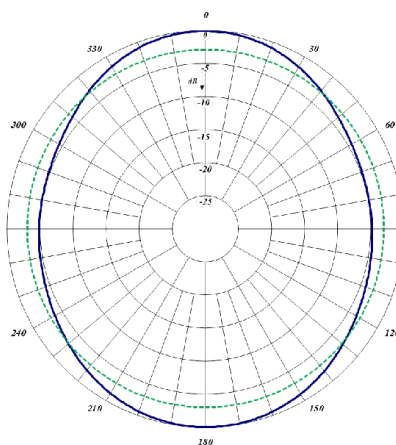
Bidirectional Horizontal



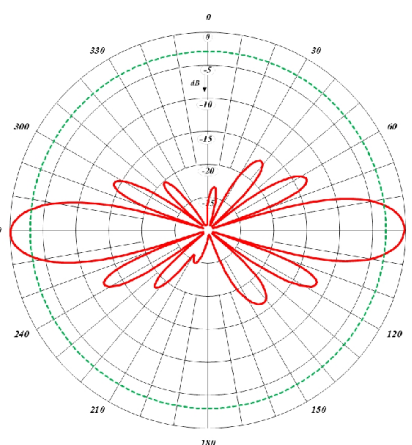
Bidirectional Vertical



Omni Horizontal



Bidirectional Horizontal



Bidirectional Vertical

784-70



## DUAL EXPOSED DIPOLE ARRAY

## Dual Feed Exposed Dipole Array

The Dual Feed Exposed Dipole Arrays are available in many different configurations. VHF, UHF or 700/800/900 MHz antennas can be combined into one mast. These antennas can be mixed and matched with our 840, 870, 880, 770 and 790 series antennas. All of our antennas can be completely customized to your particular applications. Our antennas can be configured for side mount or top mount.

- Low VSWR version with maximum gain over specified frequency.
- Ideal for applications where costs are calculated per antenna.
- Heavy duty versions are available.
- Some of these antennas have an adjustable pattern for 3 dBd omnidirectional or 6 dBd offset coverage.

776-70

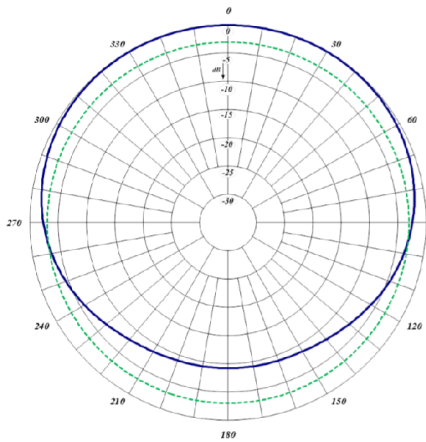


Electrical Specifications	776-70	845-70	876-70
Frequency Range, MHz	406-512	148-174	138-174
Nominal Gain, dBd	5.0-5.5	3.0 or 6.0	5.0-5.5
Number of Dipoles	2 sets of 2	2 sets of 2	2 sets of 2
Bandwidth VSWR, MHz	1.5:1 (106)	2:1 (14)	1.5:1 (36)
Polarization	Vertical	Vertical	Vertical
Pattern	Offset	Omni or Offset	Offset
Power Rating, Watts	300	500	300
Nominal Impedance, Ohms	50	50	50
Lightning Protection	DC Ground	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male

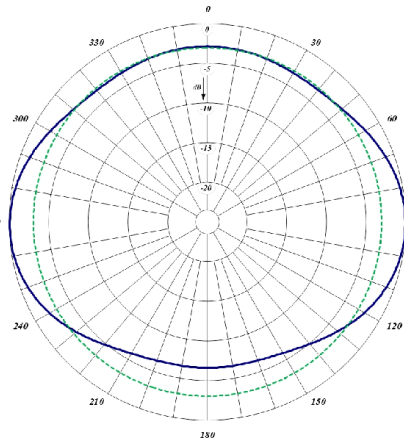
Mechanical Specifications	776-70	845-70	876-70
Length, in (mm)	126 (3200)	270 (6858)	246 (6248)
Width (1/2 Wave Spacing), in (mm)	16 (406)	9 (229)	40 (1016)
Weight, lbs. (kg)	19 (8.6)	42 (19)	67 (30)
Rated Wind Velocity, No Ice, mph (km/h)	150 (241)	110 (177)	145 (233)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	150 (241)	80 (129)	95 (153)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	44 (20)	139 (63)	160 (72.6)
Bending Moment @ top clamp: 100 mph, ft*lb (kg*m)	193 (26.7)	514 (71)	1364 (188.7)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	1.38 (0.128)	5.2 (0.48)	7 (0.65)
Mounting Information Mast O.D.	1.9" (48)	107-85 clamp	2.9" (61)

Order Information	Frequency	2*772-70	2*842-70	2*872-70	Side Mount	Top Mount	Black Anodized
776-70	406-512MHz	776-70	N/A	N/A	N/A	N/A	776-70HDB
845-70	148-162MHz	N/A	845-70*1	N/A	N/A	N/A	N/A
845-70	160-174MHz	N/A	845-70*2	N/A	N/A	N/A	N/A
876-70	138-174MHz	N/A	N/A	876F-70	876F-70SM	876F-70TM	876F-70HDB

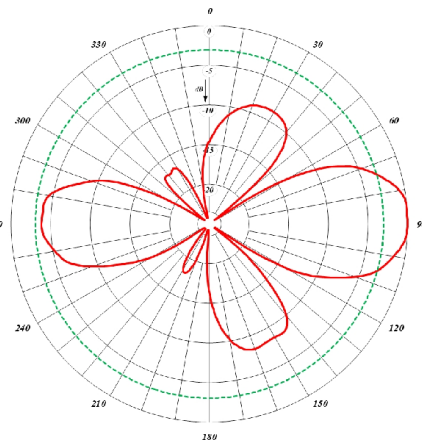
## DUAL EXPOSED DIPOLE ARRAY



Quarterwave Spacing Horizontal



Halfwave Spacing Horizontal

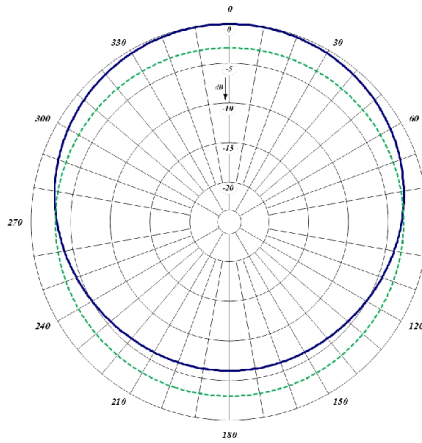


Halfwave Spacing Vertical

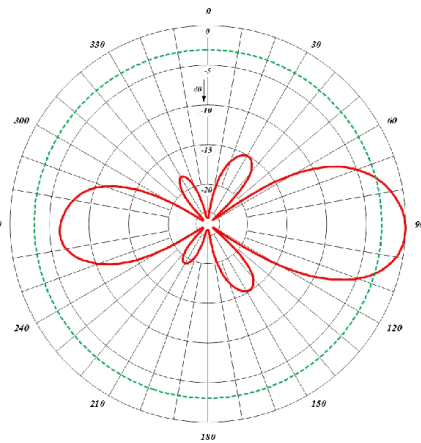
776-70



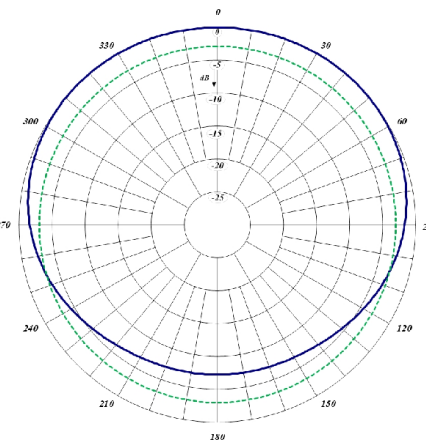
845-70



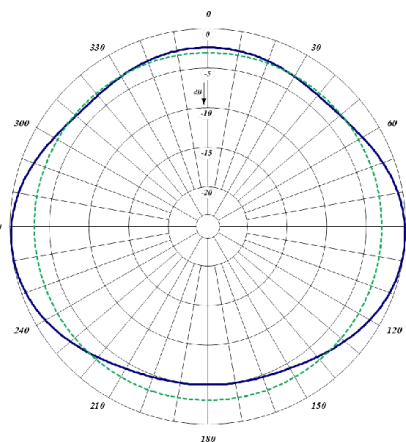
Horizontal



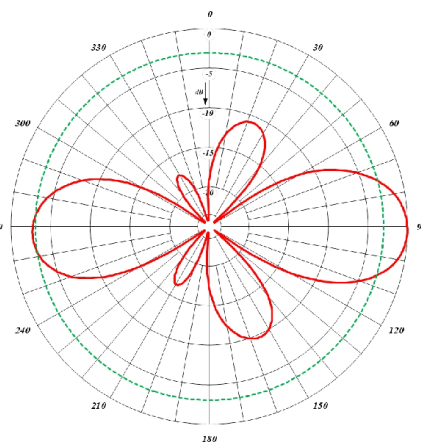
Vertical



Quarterwave Spacing Horizontal



Halfwave Spacing Horizontal



Halfwave Spacing Vertical

876F-70

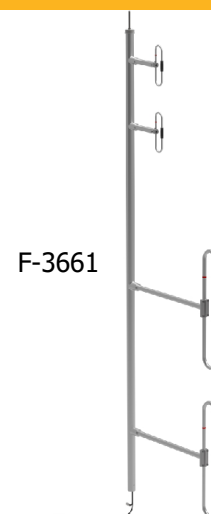


## DUAL ANTENNA ARRAY

### Dual Antenna Array

The Dual Antenna Arrays are available in many different configurations. VHF, UHF, or 700/800/900 MHz antennas can be combined onto one mast. These antennas can be mixed and matched from our 870, 770 and 790 series antennas. All of our antennas can be completely customized to your particular applications. Our antennas can be side mount or Top mount configurations.

- A low VSWR version, with maximum gain over the specified frequencies.
- Ideal for applications where the costs are calculated per antenna.
- Heavy duty versions are available.
- Multiple combinations are offered and customizable. Please contact a Comprod Inc. Technical support technician for additional details.



Electrical Specifications	F-3676		F-3661		F-3647	
Frequency Range, MHz	137-174	406-470	137-174	406-470	137-174	406-470
Nominal Gain, dBd	8.0-8.5	8.0-0.5	5.0-5.5	5.0-5.5	2.0-2.5	2.0-2.5
Number of Dipoles	4	4	2	2	1	1
Bandwidth 1.5:1 VSWR, MHz	36	64	36	106	36	106
Polarization	Vertical		Vertical		Vertical	
Pattern	Offset		Offset		Offset	
Power Rating, Watts	300		300		300	
Nominal Impedance, Ohms	50		50		50	
Lightning Protection	DC Ground		DC Ground		DC Ground	
Standard Termination	Type N Male		Type N Male		Type N Male	
Mechanical Specifications	F-3676		F-3661		F-3647	
Length, in (mm)	354 (8992)		354 (8992)		354 (8992)	
Width(1/2 Wave Spacing), in (mm)	41 (1041)		41 (1041)		41 (1041)	
Weight, lbs. (kg)	117 (53)		117 (53)		117 (53)	
Rated Wind Velocity, No Ice, mph (km/h)	110 (177)		110 (177)		110 (177)	
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	85 (137)		85 (137)		85 (137)	
Lateral Thrust @ 100 mph, wind, lbs. (kg)	315 (143)		154 (70)		67 (30.5)	
Bending Moment @ top clamp: 100 mph, ft*lb (kg*m)	2469 (341)		720 (100)		110 (15)	
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	12 (1.12)		5.7 (0.53)		2.5 (0.23)	
Mounting Information Mast O.D.	3.5" (89mm)		2.9" (73mm)		1.9" (48 mm)	
Order Information	Side Mount		Top Mount		Heavy Duty	
F-3676	F-3676SM		F-3676TM		F-3676HD	
F-3661	F-3661SM		F-3661TM		F-3661HD	
F-3647	F-3647SM		F-3647TM		F-3647HD	



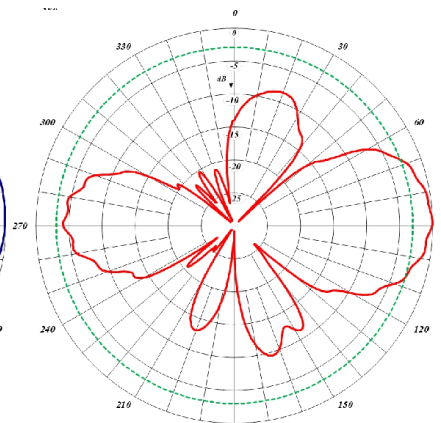
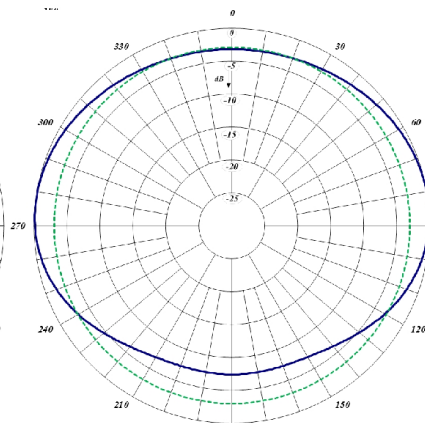
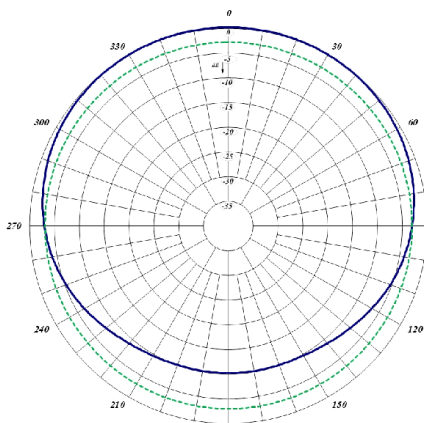
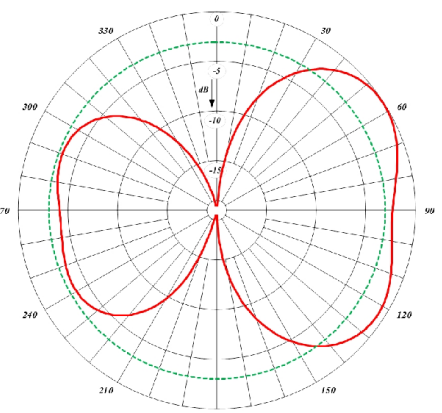
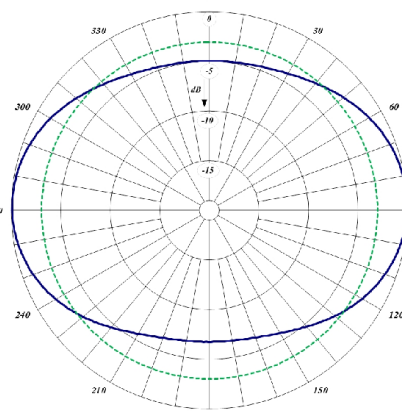
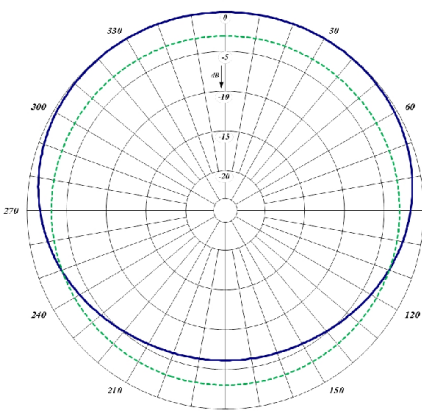
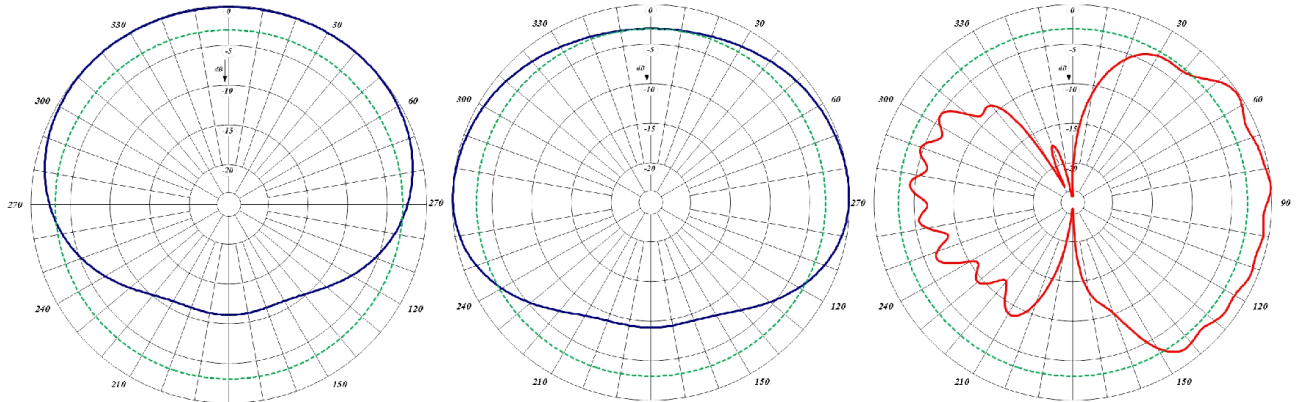
## DUAL ANTENNA ARRAY

F-3647

Quarterwave Spacing Horizontal

Halfwave Spacing Horizontal

Halfwave Spacing Vertical

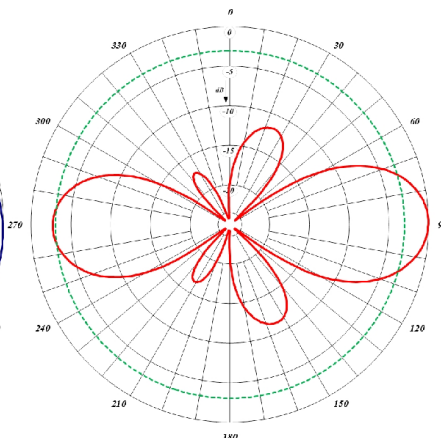
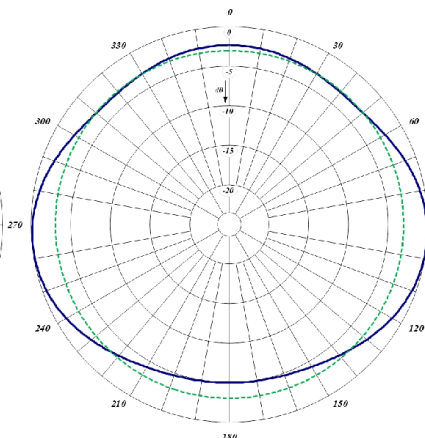
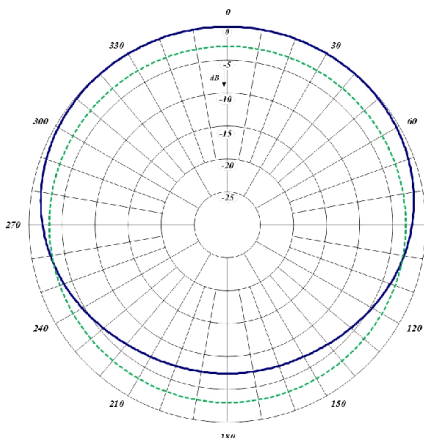


Quarterwave Spacing Horizontal

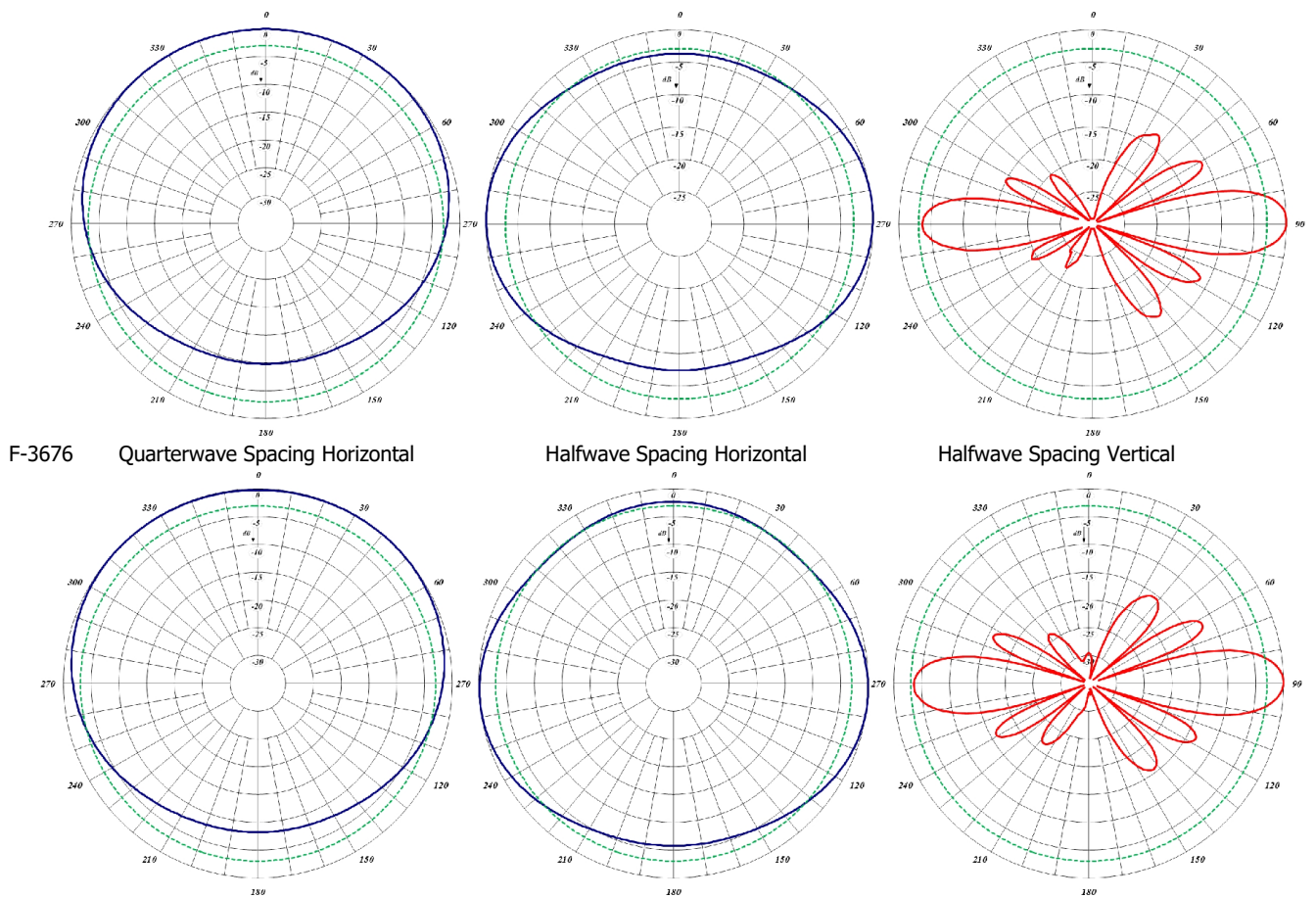
Halfwave Spacing Horizontal

Halfwave Spacing Vertical

F-3661



DUAL ANTENNA ARRAY



## VHF EXPOSED DIPOLES W/REFLECTORS

138-174MHz

## 870 Series VHF Exposed Dipoles with Reflectors

The F-37XX Series antennas are our 870 Series VHF Exposed Dipoles with Reflectors. They are available in 1, 2, 4 dipole configurations. All of our antennas can be completely customized to your applications. Our antennas can be black anodize. Fully welded. Side mount or top mount, and heavy duty versions are available.

The Reflectors provide a higher degree of directivity. This product is ideal for state or country borders. We have seen great success with being able to shape the RF patterns in the 870 series antenna line.

- Each antenna is offered in a 3/8 wave version.
- The reflectors provide more directivity and greater front-to-back ratios.
- These exposed dipoles have internal cabling and fixed dipole- mast spacing.
- Heavy-duty versions are available. Please contact a Comprod Inc. Technical support technician for consultation.

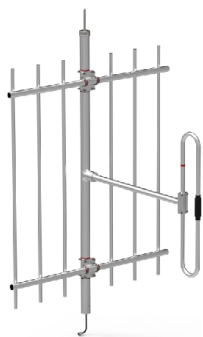


Electrical Specifications	F-3729	F-3713	F-3766
Frequency Range, MHz	138-174	138-174	138-174
Nominal Gain, dBd	2.5-3.0	7.0	9.0-10.0
Number of Dipoles	1	2	4
Number of Reflectors	6	6	6
Bandwidth 1.5:1 VSWR, MHz	36	36	36
Polarization	Vertical	Vertical	Vertical
Pattern	Directional	Directional	Directional
Power Rating, Watts	200	450	450
Nominal Impedance, Ohms	50	50	50
Lightning Protection	DC Ground	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male

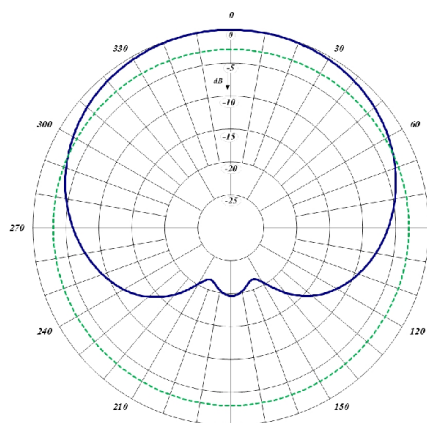
Mechanical Specifications	F-3729	F-3713	F-3766
Length, in (mm)	72 (1829)	120 (3048)	240 (6096)
Width(1/2 Wave Spacing), in (mm)	50 (1270)	53 (1346)	53 (1346)
Weight, lbs. (kg)	34.3 (15.6)	57.2 (26)	100.3 (45.5)
Mounting Information Mast O.D.	2.4" (61mm)	2.4" (61mm)	2.9" (73mm)

Order Information	Heavy Duty	Side Mount	Top Mount	Black Anodized
F-3729	F-3729HD	F-3729SM	F-3729TM	F-3729B
F-3713	F-3713HD	F-3713SM	F-3713TM	F-3713B
F-3766	F-3766HD	F-3766SM	F-3766TM	F-3766B

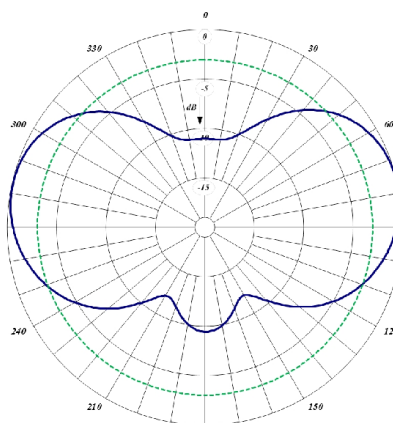




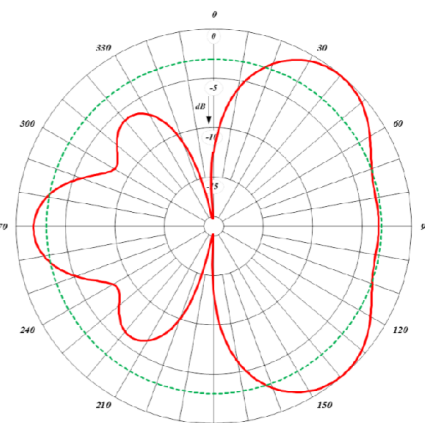
F-3729



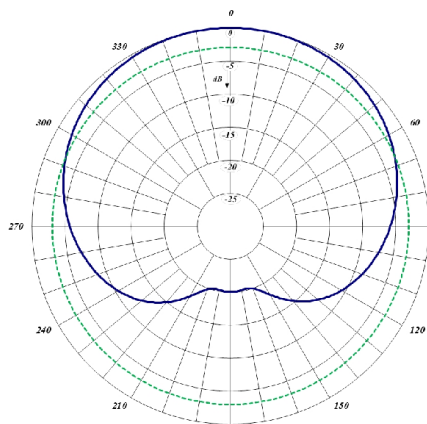
Quarterwave Spacing Horizontal



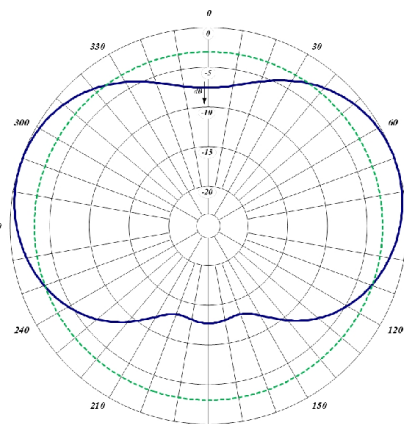
Halfwave Spacing Horizontal



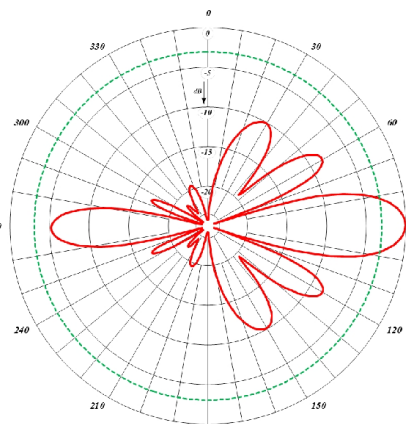
Halfwave Spacing Vertical



Quarterwave Spacing Horizontal

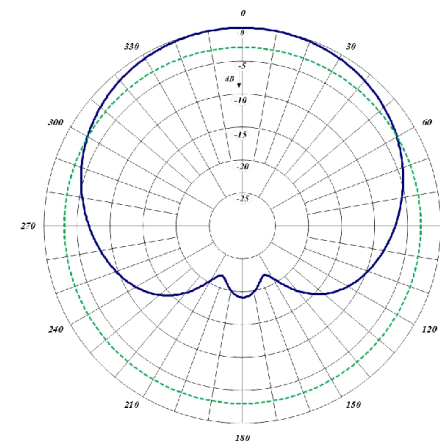


Halfwave Spacing Horizontal

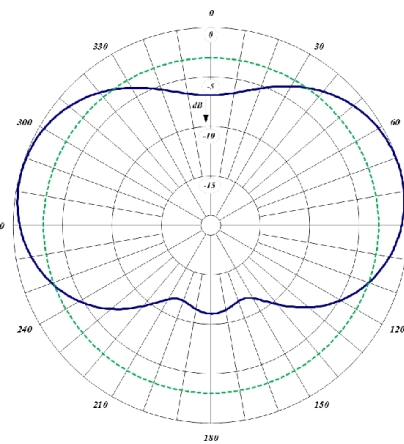


Halfwave Spacing Vertical

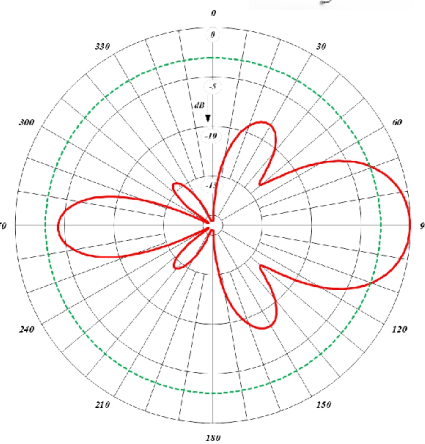
F-3766



f-3713 Quarterwave Spacing Horizontal



Halfwave Spacing Horizontal



Halfwave Spacing Vertical

**790 SERIES ENCLOSED DIPOLE****746-960 MHz****790 Series Enclosed Dipoles**

The 790 Series Enclosed Dipoles are available in 2, 4, or 9 dipole configurations. All of our antennas can be completely customized to your particular applications.

- Each antenna is offered in an offset or bi-directional pattern.
- Broadband antennas are ideal for trunking or cellular applications.
- Weatherproof radome to ensure continuous service during severe environmental conditions.
- Versions with 3, 6, and 9 degree downtilt are also available.

794-70



Electrical Specifications	792-70	794-70	799-70
Frequency Range, MHz	746-960	746-960	746-960
Nominal Gain, dBd	5.0	8.0	10.0
Number of Dipoles	2	4	9
Bandwidth 1.5:1 VSWR, MHz	90	90	90
Polarization	Vertical	Vertical	Vertical
Pattern	Offset or Bi-Dir.	Offset or Bi-Dir.	Offset or Bi-Dir.
Power Rating, Watts	150	300	500
Nominal Impedance, Ohms	50	50	50
Lightning Protection	DC Ground	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male

Mechanical Specifications	792-70	794-70	799-70
Length, in (mm)	22 (559)	44.5 (1130)	94 (2388)
Width(1/2 Wave Spacing), in (mm)	2.5 (64)	2.5 (64)	2.5 (64)
Weight, lbs. (kg)	8.8 (4)	14 (6.5)	24 (11)
Rated Wind Velocity, No Ice, mph (km/h)	100 (162)	100 (162)	100 (162)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	85 (137)	85 (137)	85 (137)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	36.4 (16.5)	73 (33)	153 (59)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	1.4 (0.13)	2.7 (0.25)	5.7 (0.53)
Mounting Information (Clamps incl.)	1.5-2.88" O.D.	1.5-2.88" O.D.	1.5-2.88" O.D.

Order Information	746-896MHz	806-960MHz
792-70	792-70*1	792-70*2
794-70	794-70*1	794-70*2
799-70	799-70*1	799-70*2

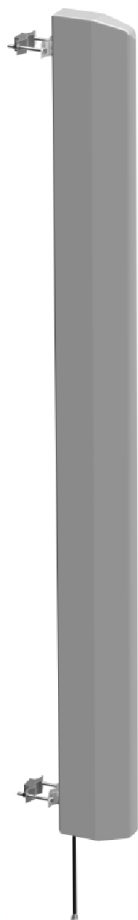
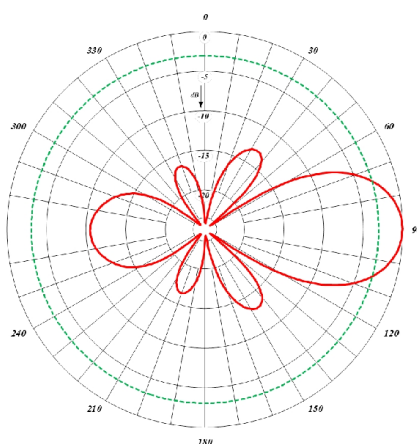
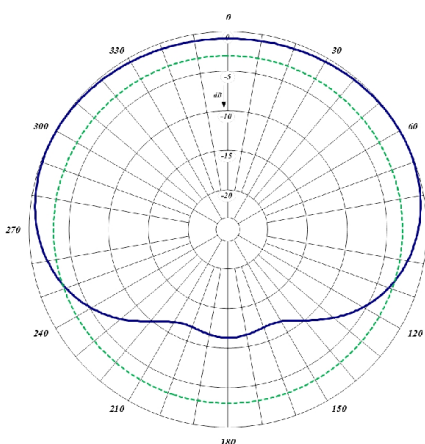


790 SERIES ENCLOSED DIPOLE

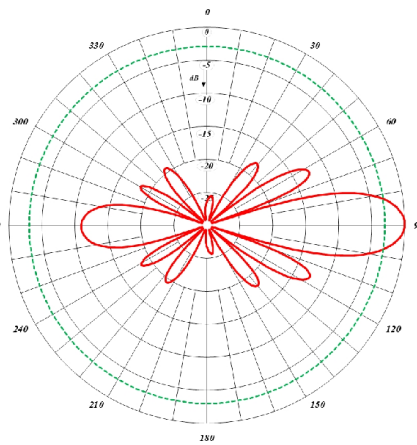
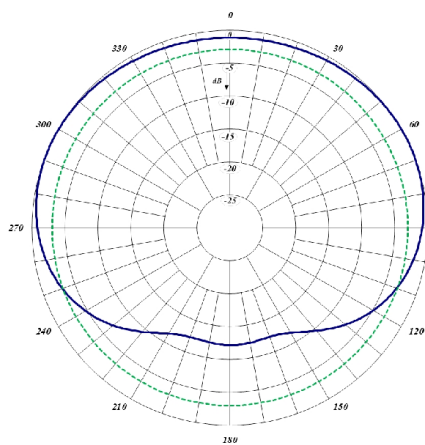
746-960 MHz



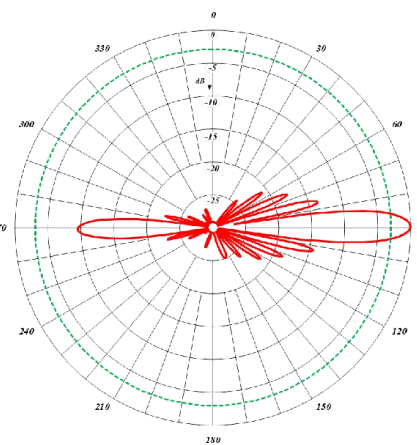
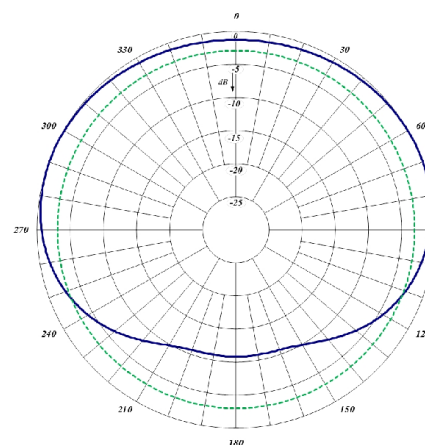
792-70



799-70



794-70



**790 SERIES ENCLOSED DIPOLE W/REFLECTOR****746-960 MHz****790 Series Enclosed Dipoles with Reflector**

The 790 Series Enclosed Dipoles with Reflector are available in 2, 4, or 9 dipole configurations. These antennas can be adjusted from 60° to 160°. All of our antennas can be completely customized to your particular applications.

- Broadband antennas are ideal for trunking or cellular applications.
- Reflector is field adjustable and has 5 positions: 60°, 90°, 105°, 130° and 160°.
- Weatherproof radome to ensure continuous service during severe environmental conditions.
- Heavy duty versions are available. Please contact Comprod Inc. Technical support technician for consultation.

794-70R



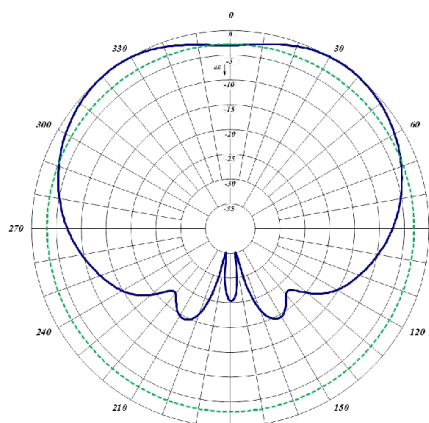
Electrical Specifications	792-70R	794-70R	799-70R
Frequency Range, MHz	746-960	746-960	746-960
Nominal Gain, dBd	Up to 8.0	Up to 13.5	Up to 15.0
Number of Dipoles	2	4	9
Bandwidth 1.5:1 VSWR, MHz	90	90	90
Polarization	Vertical	Vertical	Vertical
Pattern	Directional	Directional	Directional
Power Rating, Watts	150	300	500
Nominal Impedance, Ohms	50	50	50
Lightning Protection	DC Ground	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male

Mechanical Specifications	792-70R	794-70R	799-70R
Length, in (mm)	22 (559)	44.5 (1130)	94.5 (2395)
Width(1/2 Wave Spacing), in (mm)	25 (635)	25 (635)	25 (635)
Weight, lbs. (kg)	16.5 (7.5)	24 (10.9)	42 (19)
Rated Wind Velocity, No Ice, mph (km/h)	100 (162)	100 (162)	100 (162)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	85 (137)	85 (137)	85 (137)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	57(26)	115 (52)	243 (110)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	2.0 (0.19)	4.3 (0.40)	9 (0.84)
Mounting Information (Clamps included)	1.5-2.88" O.D.	1.5-2.88" O.D.	1.5-2.88" O.D.

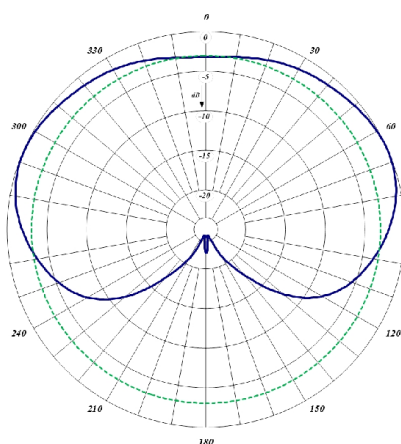
Order Information	746-806MHz	806-869MHz	824-896MHz	896-960MHz
792-70R	792-70R*1	792-70R*2	792-70R*3	792-70R*4
794-70R	794-70R*1	794-70R*2	794-70R*3	794-70R*4
799-70R	799-70R*1	799-70R*2	799-70R*3	799-70R*4

790 SERIES ENCLOSED DIPOLE W/REFLECTOR

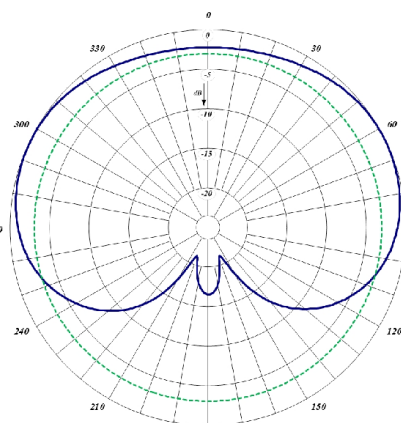
746-960 MHz



792-70R90



792-70R130



792-70R160

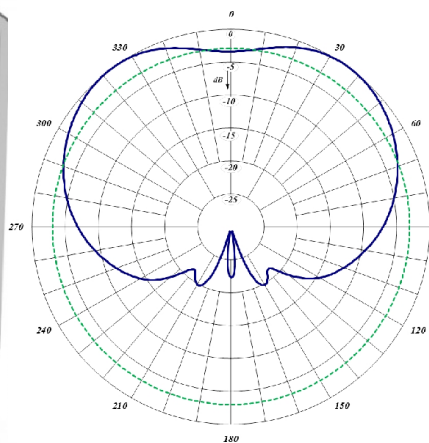
792-70R



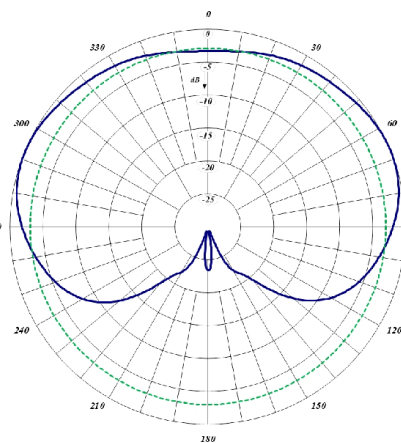
Call for additional patterns



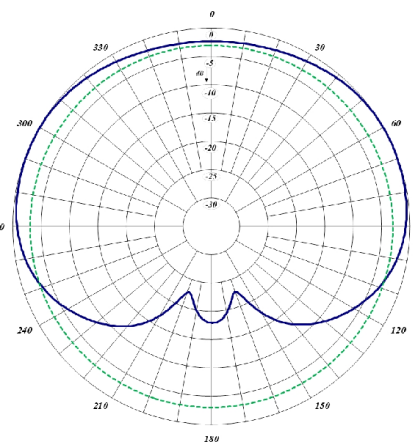
794-70R



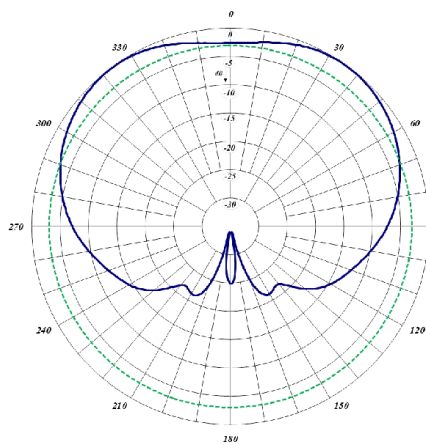
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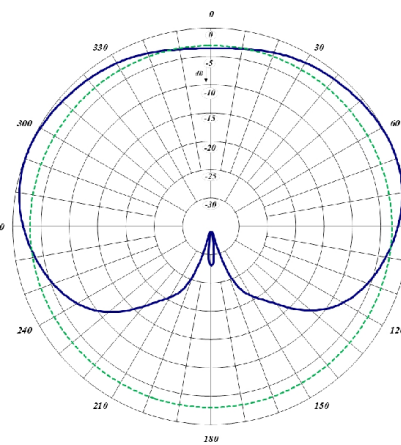
794-70R130



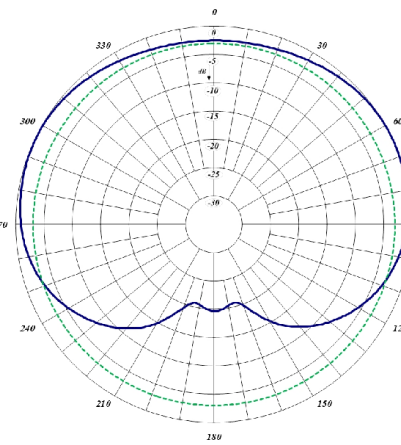
794-70R160



799-70R90



799-70R130



799-70R160

799-70R



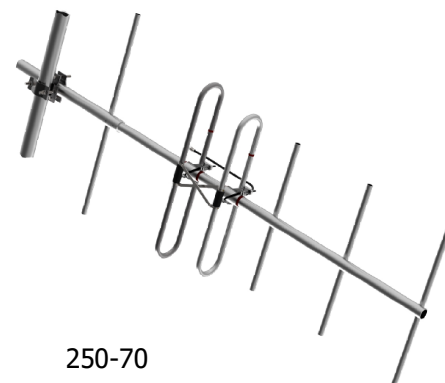
## VHF YAGI ANTENNA

138-174MHz

## 290 Series VHF Yagi Antennas

The 290 Series VHF Yagi Antenna are available in 2, 3, and 6 element configurations. All of our antennas can be completely customized to your applications. Our antennas can be Black Anodized, Welded, Vertically or Horizontally Polarized, and heavy duty versions are available.

- Each antenna has a rugged design to withstand harsh environmental conditions.
- The mounting hardware supplied will permit either vertical or horizontal polarization.
- DC ground for lightning protection.
- Optionally have the entire antenna welded for added durability.
- Heavy-duty versions are available. Please contact a Comprod Inc. Technical support technician for consultation.

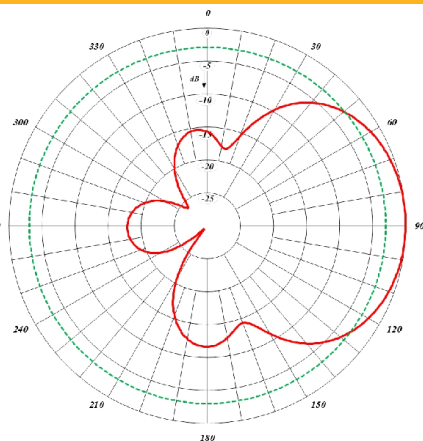
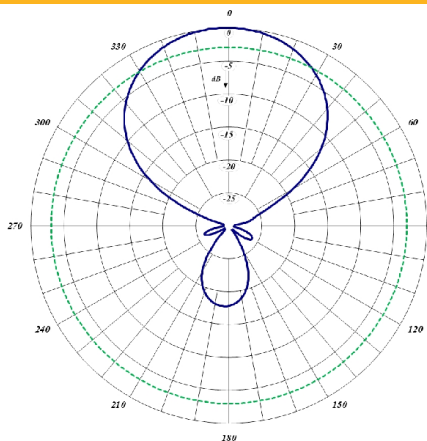


Electrical Specifications			291-70	295-70	290-70	250-70	
Frequency Range, MHz			138-174	138-174	138-174	138-174	
Nominal Gain, dBd			3.5	6.5	9.5	7	
Number of Elements			2	3	6	7	
Bandwidth 1.5:1 VSWR, MHz (Ctr.Freq.%)			3,75%	4%	4%	36 @ 2:1	
Polarization			Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.	
Horizontal Beamwidth (Vert. Pol.)			140°	90°	62°	80°	
Vertical Beamwidth (Vert. Pol.)			70°	61°	50°	60°	
Front to Back, dB			15	12	17	25	
Pattern			Directional	Directional	Directional	Directional	
Power Rating, Watts			350	350	350	250	
Nominal Impedance, Ohms			50	50	50	50	
Lightning Protection			DC Ground	DC Ground	DC Ground	DC Ground	
Standard Termination			Type N Male	Type N Male	Type N Male	Type N Male	
Mechanical Specifications			291-70	295-70	290-70	250-70	
Length, in (mm)			50 (1270)	60 (1524)	108 (2743)	104 (2642)	
Width(1/2 Wave Spacing), in (mm)			40 (1016)	43 (1092)	42 (1067)	42 (1067)	
Weight, lbs. (kg)			4.8 (2.2)	6.5 (2.9)	12.0 (5.4)	12.0 (5.4)	
Rated Wind Velocity, No Ice, mph (km/h)			150 (241)	145 (223)	120 (177)	110 (177)	
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)			105 (169)	100 (161)	85 (137)	90 (145)	
Lateral Thrust @ 100 mph, wind, lbs. (kg)			105 (169)	100 (161)	85 (137)	90 (145)	
Projected Area, ft² (m²)			1.1 (0.10)	1.4 (0.13)	2.4 (0.22)	2.6 (0.24)	
Mounting Information Mast O.D.			181-85 Clamp	181-85 Clamp	115-85 Clamp	115-85 Clamp	
Order Information	End Mount	End Boom	Center Mount	Welded	Heavy Duty	Black Anodized	(2) Stacked
291-70	291-70	N/A	N/A	291-70W	291-70HD	291-70B	Call
295-70	295-70	N/A	295-70CB	295-70W	295-70HD	295-70B	Call
290-70	290-70	290-70EB	290-70CB	290-70W	290-70HD	290-70B	298-70
250-70	250-70	250-70	N/A	250-70W	250-70HD	250-70B	Call

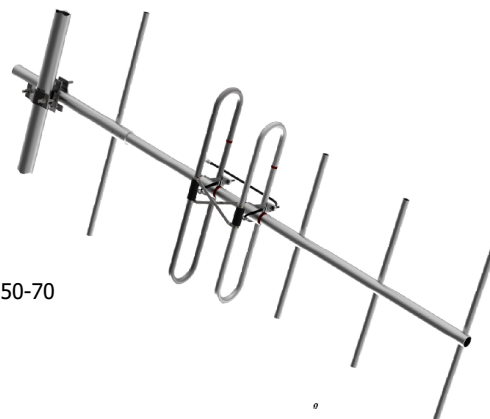


## VHF YAGI ANTENNA

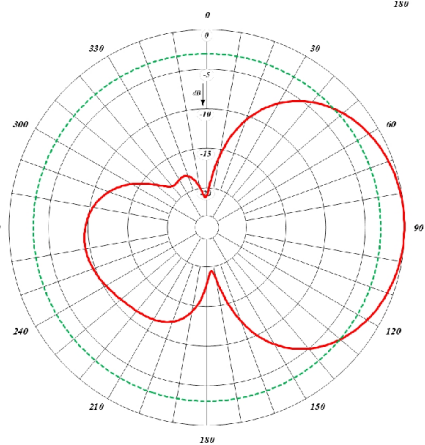
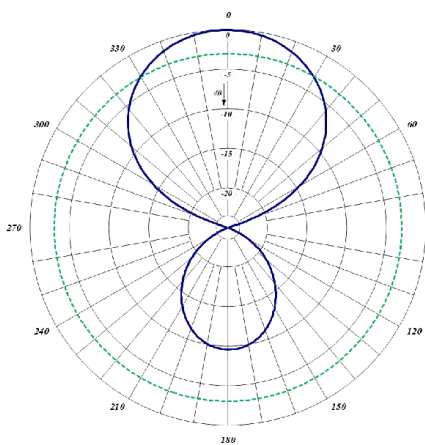
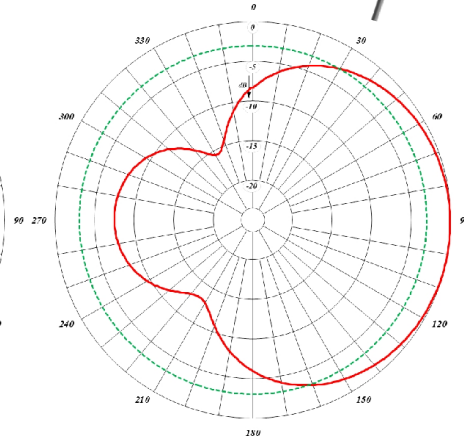
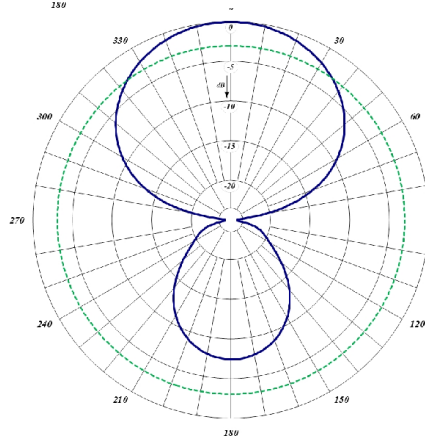
138-174 MHz



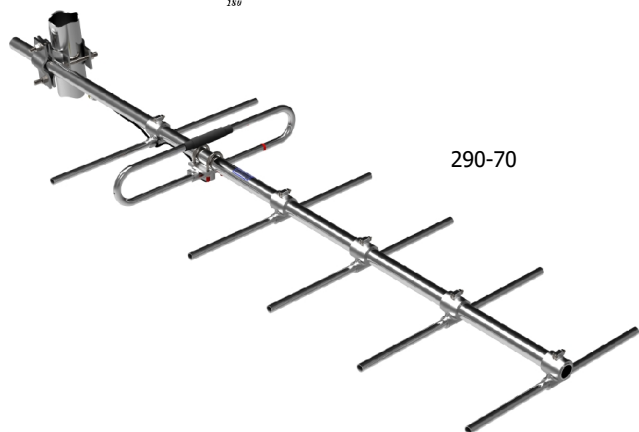
250-70



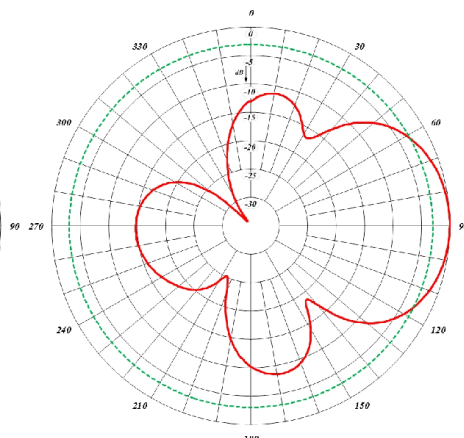
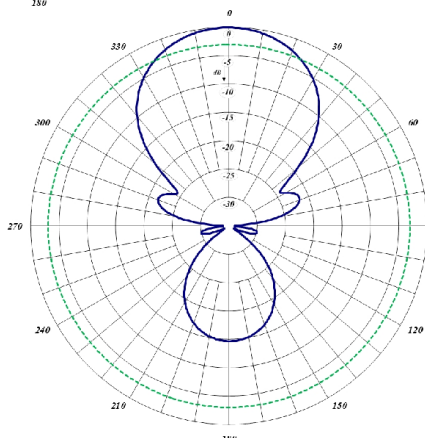
291-70



295-70



290-70





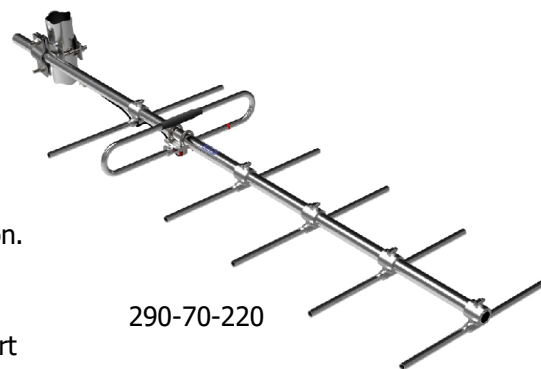
## VHF YAGI ANTENNA

215-225MHz

## 290 Series 220MHz Yagi Antennas

The 290 Series 220MHz Yagi Antennas are available in 2, 3, and 6 element configurations. All of our antennas can be completely customized to your particular applications. Our antennas can be Black Anodized, Welded, Vertically or Horizontally Polarized, and heavy duty versions are available.

- Each antenna has a rugged design to withstand harsh environmental conditions.
- The mounting hardware supplied will permit either vertical or horizontal polarization.
- DC ground for lightning protection.
- Option to have the entire antenna welded for added durability as an option.
- Heavy-duty versions are available. Please contact a Comprod Inc. Technical support technician for consultation.



290-70-220

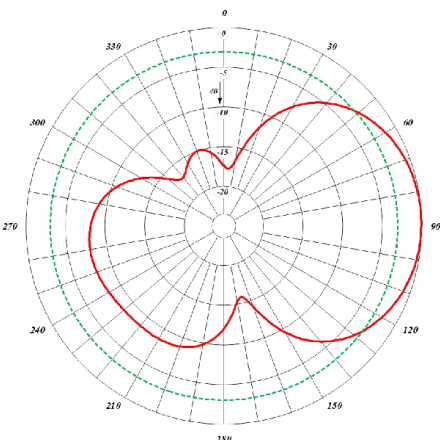
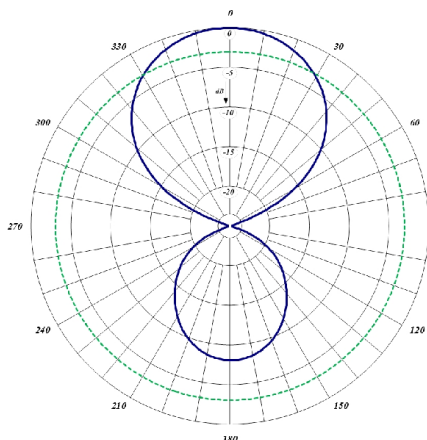
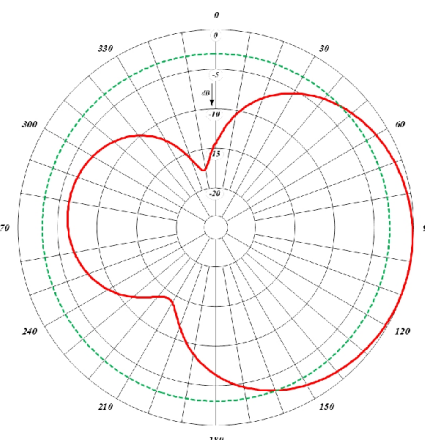
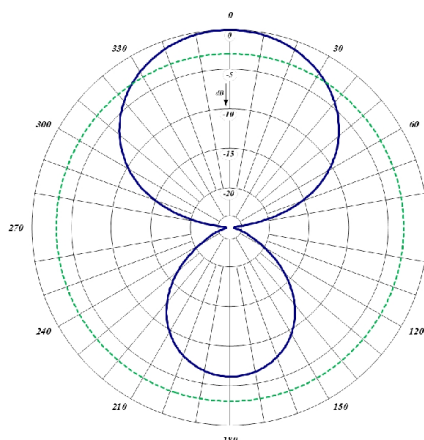
Electrical Specifications		291-70-220		295-70-220	290-70-220
Frequency Range, MHz		215-225		215-225	215-225
Nominal Gain, dBd		3.5		6.5	9.5
Number of Elements		2		3	6
Bandwidth 1.5:1 VSWR, MHz (Center Freq.%)		10		10	10
Polarization		Vert. or Horiz.		Vert. or Horiz.	Vert. or Horiz.
Horizontal Beamwidth (Vert. Pol.)		140°		90°	62°
Vertical Beamwidth (Vert. Pol.)		70°		36°	50°
Front to Back, dB		15		12	17
Pattern		Directional		Directional	Directional
Power Rating, Watts		350		350	350
Nominal Impedance, Ohms		50		50	50
Lightning Protection		DC Ground		DC Ground	DC Ground
Standard Termination		Type N Male		Type N Male	Type N Male
Mechanical Specifications		291-70-220		295-70-220	290-70-220
Length, in (mm)		32 (813)		48 (1219)	84 (2134)
Width(1/2 Wave Spacing), in (mm)		29 (737)		28 (711)	27 (686)
Weight, lbs. (kg)		3.7 (1.7)		4.8 (2.2)	9.0 (4.1)
Rated Wind Velocity, No Ice, mph (km/h)		165 (266)		155 (249)	145 (233)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)		145 (233)		130 (209)	100 (161)
Lateral Thrust @ 100 mph, wind, lbs. (kg)		19.4 (8.8)		27 (12)	47 (21.3)
Torsional Moment @ 100 mph, ft*lb (kg*m)		25 (3.5)		52 (7.2)	138 (19)
Projected Area, ft² (m²)		0.7 (0.07)		1.0 (0.09)	1.75 (0.16)
Mounting Information Mast O.D.		181-85 Clamp		181-85 Clamp	115R-85 Clamp
Order Information	End Boom	Welded	Heavy Duty	Black Anodized	(2) Stacked
291-70-220	291-70EB-220	291-70W-220	291-70HD-220	291-70HDB-220	N/A
295-70-220	295-70EB-220	295-70W-220	295-70HD-220	295-70HDB-220	N/A
290-70-220	290-70EB-220	290-70W-220	290-70HD-220	290-70HDB-220	298-70-220

VHF YAGI ANTENNA

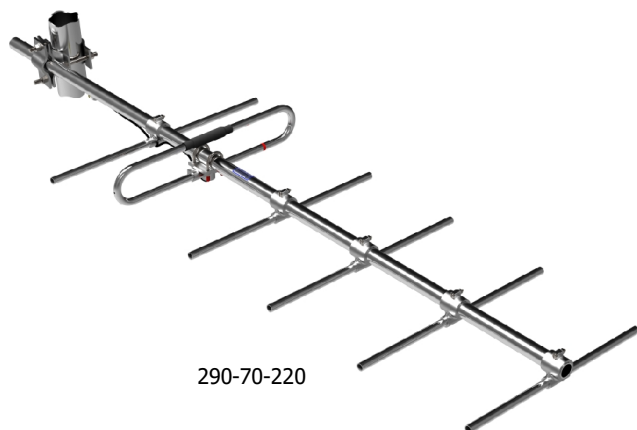
215-225 MHz



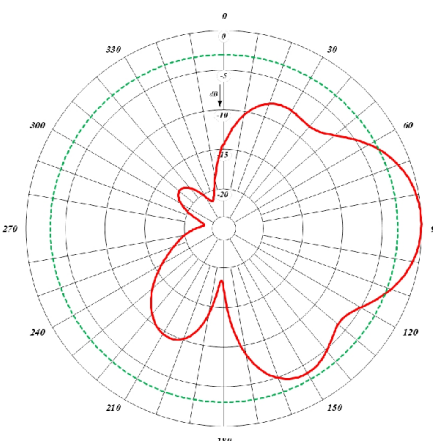
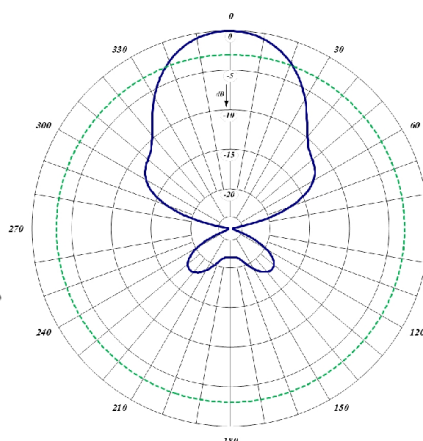
291-70-220



295-70-220



290-70-220



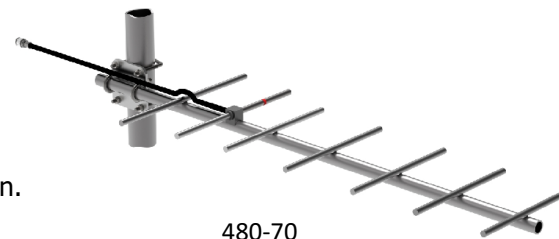
## UHF YAGI ANTENNA

406-512 MHz

## UHF Yagi Antennas Series

The UHF Yagi Antenna Series is available in 2, 3, 7 element and our 70 MHz wideband configurations. All of our antennas can be completely customized to your particular applications. Our antennas can be Black Anodized, Fully Welded, Vertically or Horizontally Polarized, and heavy duty versions are available.

- Each antenna has a rugged, fully welded design to withstand harsh environmental conditions.
- The mounting hardware supplied allows either vertical or horizontal polarization.
- DC ground for lightning protection.
- All UHF Yagi antennas are fully welded.
- Heavy-duty versions are available. Please contact a Comprod Inc. Technical support technician for consultation.

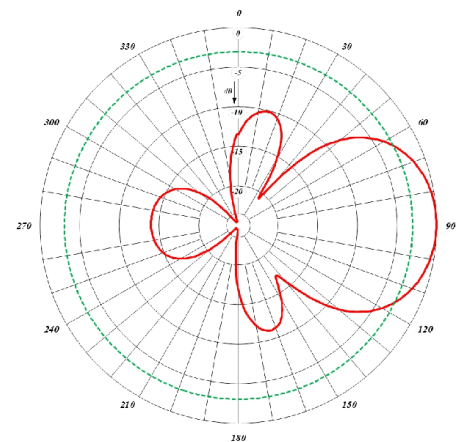
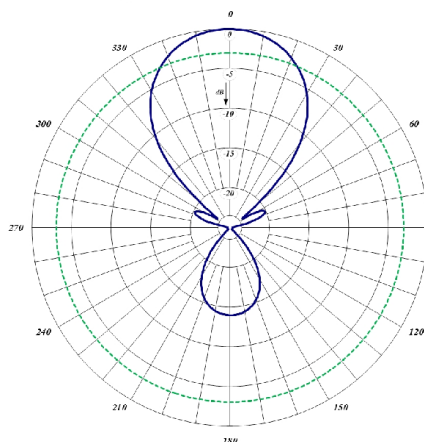
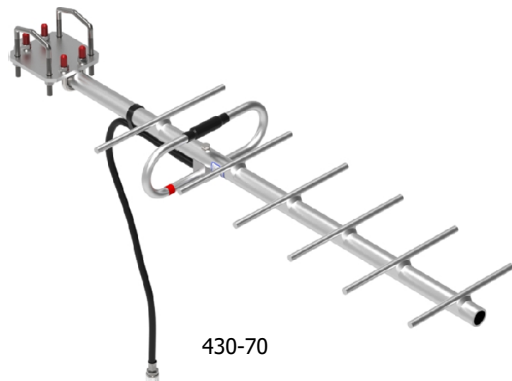
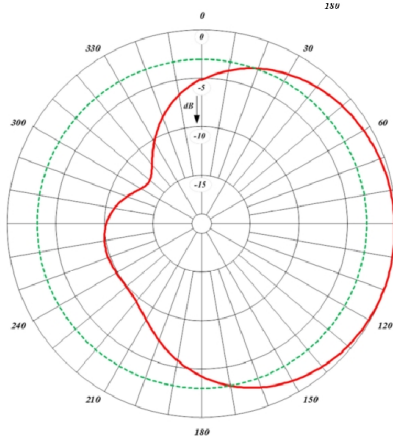
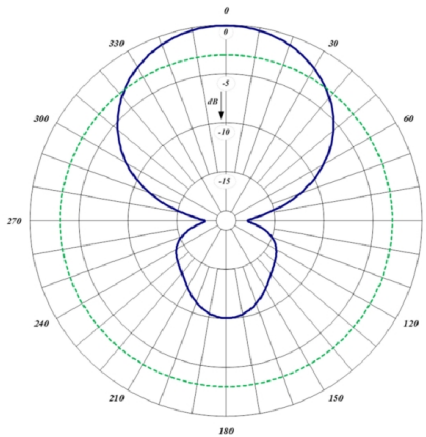
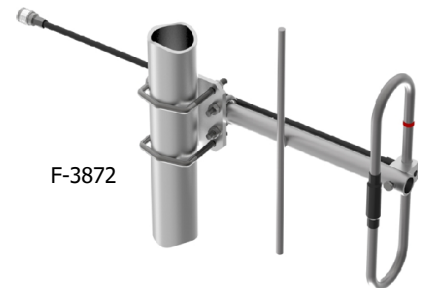
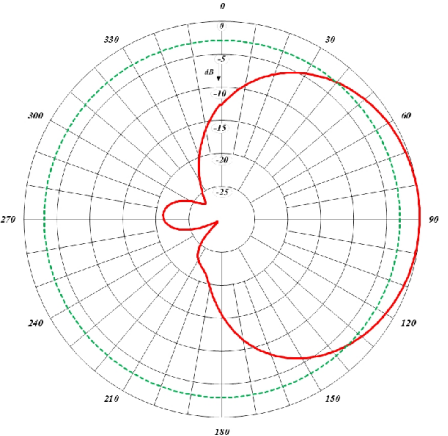
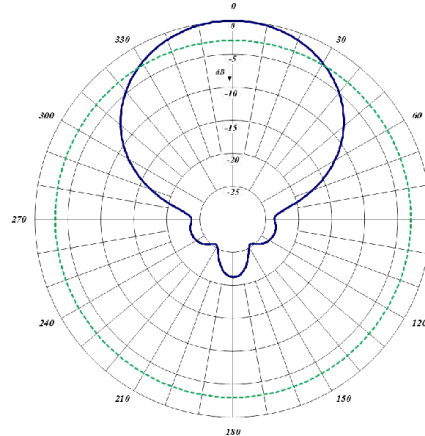
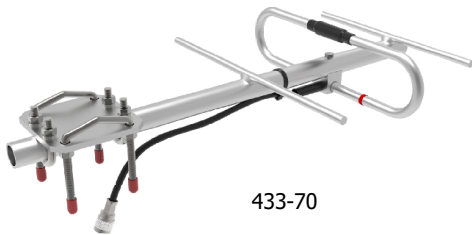
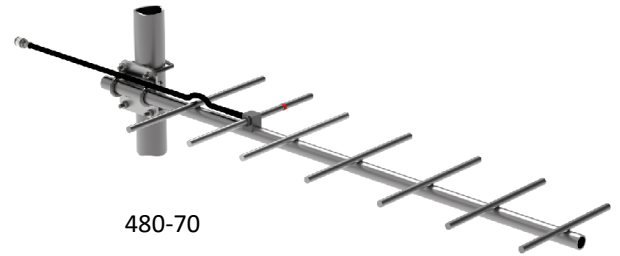
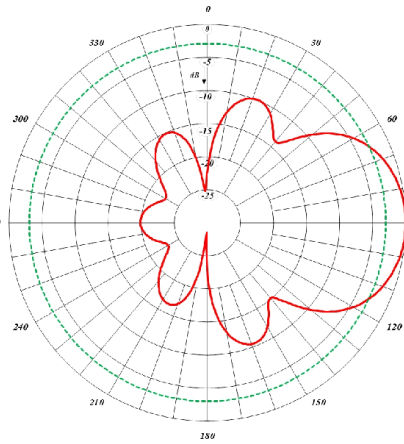
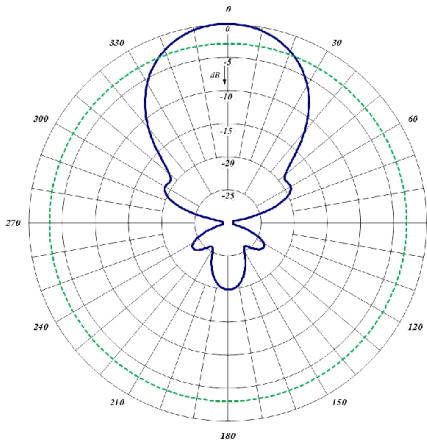


480-70

Electrical Specifications			F-3872		433-70		430-70		480-70	
Frequency Range, MHz			406-512		406-512		406-512		406-470	
Nominal Gain, dBd			3.5		6.5		10.0		10.0	
Number of Elements			2		3		7		7	
Bandwidth 1.5:1 VSWR, MHz (Center Freq.%)			24		24		24		64	
Polarization			Vert. or Horiz.		Vert. or Horiz.		Vert. or Horiz.		Vert. or Horiz.	
Horizontal Beamwidth (Vert. Pol.)			138°		83°		62°		62°	
Vertical Beamwidth (Vert. Pol.)			72°		59°		48°		50°	
Front to Back, dB			10		12		20		17	
Pattern			Directional		Directional		Directional		Directional	
Power Rating, Watts			350		350		350		350	
Nominal Impedance, Ohms			50		50		50		50	
Lightning Protection			DC Ground		DC Ground		DC Ground		DC Ground	
Standard Termination			Type N Male		Type N Male		Type N Male		Type N Male	
Mechanical Specifications			F-3872		433-70		430-70		480-70	
Length, in (mm)			28 (711)		23 (584)		45 (1143)		45 (1143)	
Width(1/2 Wave Spacing), in (mm)			14.5 (368)		14 (355)		14.5 (368)		14.4 (366)	
Weight, lbs. (kg)			2.8 (1.3)		2.9 (1.3)		3.9 (1.8)		3.9 (1.8)	
Rated Wind Velocity, No Ice, mph (km/h)			160 (257)		160 (257)		150 (241)		150 (241)	
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)			120 (193)		120 (193)		110 (177)		110 (177)	
Lateral Thrust @ 100 mph, wind, lbs. (kg)			9 (4.1)		8.7 (4.0)		16 (7.3)		15 (6.8)	
Projected Area, ft² (m²)			0.34 (0.03)		0.32 (0.03)		0.61 (0.06)		0.55 (0.05)	
Mounting Information Mast O.D.			127-85 Clamp		127-85 Clamp		127-85 Clamp		127-85 Clamp	
Order Information		406-430	430-450	450-470	406-470	Black Anodized		(2) Stacked	(4) Stacked	
F-3872		F-3872*1	F-3872*2	F-3872*3	N/A	F-3872B		N/A	N/A	
433-70		433-70*1	433-70*2	433-70*3	N/A	433-70B		N/A	N/A	
430-70		430-70*1	430-70*2	430-70*3	N/A	430-70B		431-70	432-70	
480-70		480-70	480-70	480-70	480-70	480-70B		481-70	482-70	

## UHF YAGI ANTENNA

406-512 MHz





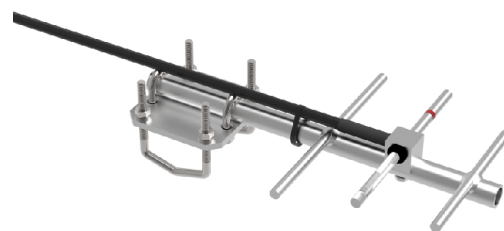
## 980 Yagi Antennas Series

746-960 MHz

## 980 Yagi Antennas Series

The 980 Yagi Antenna Series are available in 2, 3, 7, 11 element configurations. All of our antennas can be completely customized to your particular applications. Our antennas can be Black Anodized, Vertically or Horizontally Polarized.

- Each antenna has a rugged design to withstand harsh environmental conditions.
- The mounting hardware supplied will permit either vertical or horizontal polarization.
- All 980 Series Yagi antennas are fully welded.
- Heavy-duty versions are available. Please Contact a Comprod Inc. Technical support technician for consultation.

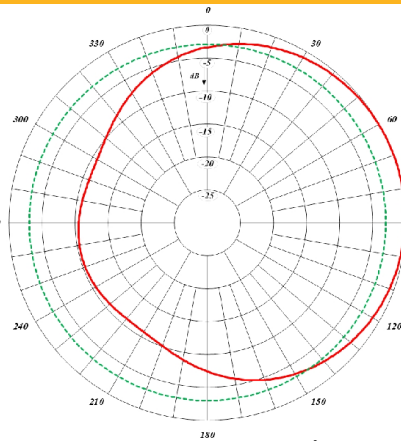
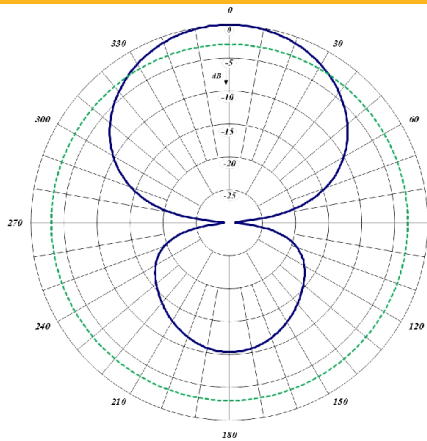


983-70

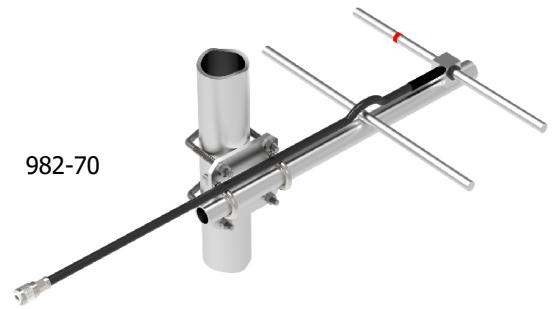
Electrical Specifications			982-70	983-70	980-70	987-70	
Frequency Range, MHz			900-930	746-960	746-960	746-960	
Nominal Gain, dBd			3.5	6.5	10.0	12.0	
Number of Elements			2	3	7	12	
Bandwidth 1.5:1 VSWR, MHz (Ctr.Freq.%)			30	85	85	85	
Polarization			Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.	
Horizontal Beamwidth (Vert. Pol.)			128°	99°	56°	41°	
Vertical Beamwidth (Vert. Pol.)			66°	60°	42°	38°	
Front to Back, dB			9	16	20	20	
Pattern			Directional	Directional	Directional	Directional	
Power Rating, Watts			200	200	200	200	
Nominal Impedance, Ohms			50	50	50	50	
Standard Termination			Type N Male	Type N Male	Type N Male	Type N Male	
Mechanical Specifications			982-70	983-70	980-70	987-70	
Length, in (mm)			11 (280)	13 (330)	27 (686)	41 (1041)	
Width(1/2 Wave Spacing), in (mm)			6.5 (165)	8 (203)	8 (203)	8 (203)	
Weight, lbs. (kg)			1.7 (0.76)	1.8 (0.82)	2.5 (1.1)	3 (1.4)	
Rated Wind Velocity, No Ice, mph (km/h)			160 (257)	160 (257)	150 (241)	140 (225)	
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)			120 (193)	120 (193)	110 (177)	100 (161)	
Lateral Thrust @ 100 mph, wind, lbs. (kg)			2.6 (1.2)	2.8 (1.3)	7 (3.2)	11 (5.0)	
Projected Area, ft² (m²)			0.10 (0.009)	0.13 (0.012)	0.26 (0.024)	0.41 (0.038)	
Mounting Hardware			1.0-2.38" O.D.	1.0-2.38" O.D.	1.0-2.38" O.D.	1.0-2.38" O.D.	
Order Information		746-806MHz	806-869MHz	824-896MHz	896-960MHz	Black Anodized	(2) Stacked
982-70		**** Call With Frequencies ***					N/A
983-70		983-70*1	983-70*2	983-70*3	983-70*4	983-70B	N/A
980-70		980-70*1	980-70*2	980-70*3	980-70*4	980-70B	(2)980-70
987-70		987-70*1	987-70*2	987-70*3	987-70*4	987-70B	(2)987-70

## 980 YAGI ANTENNA

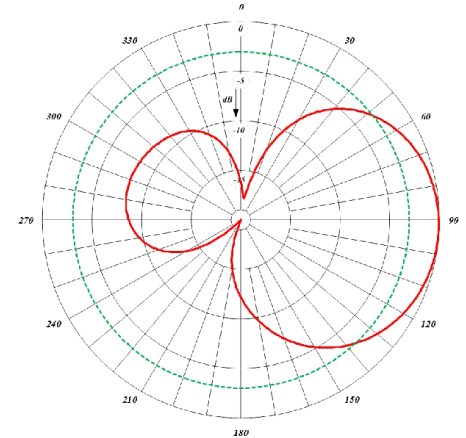
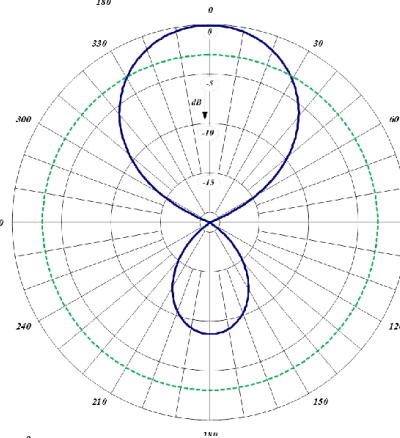
746-960MHz



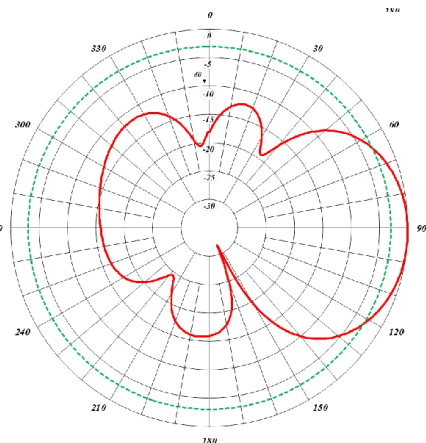
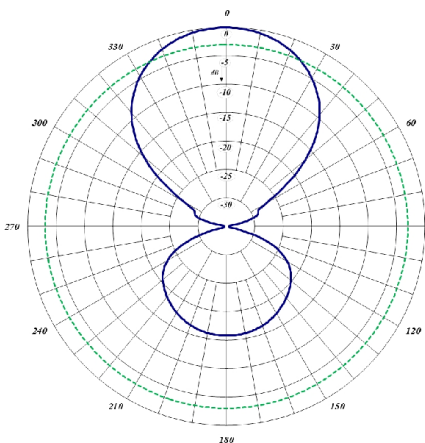
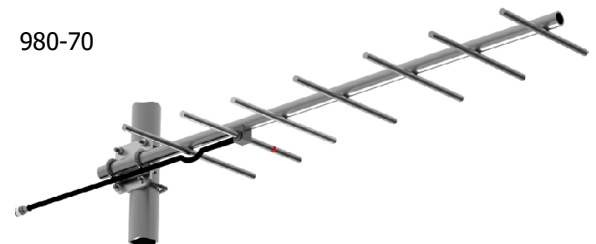
982-70



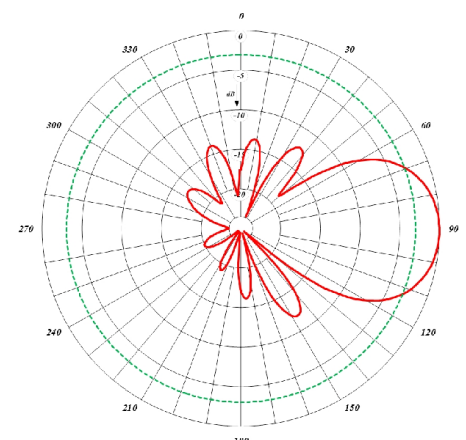
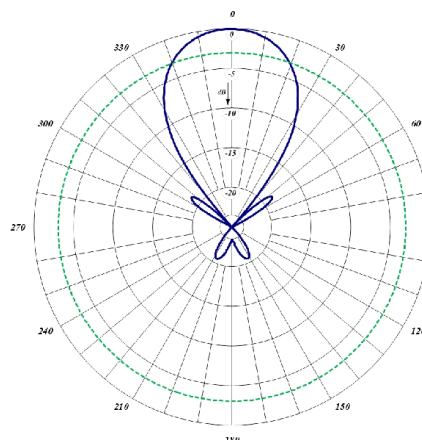
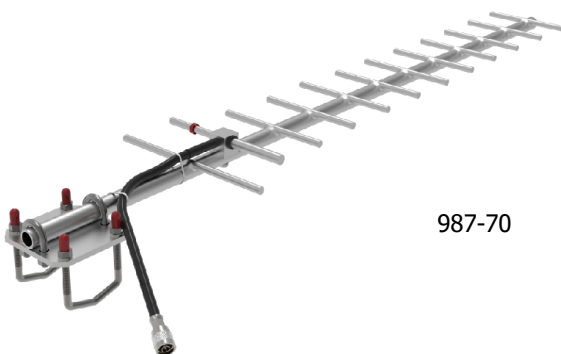
983-70



980-70



987-70

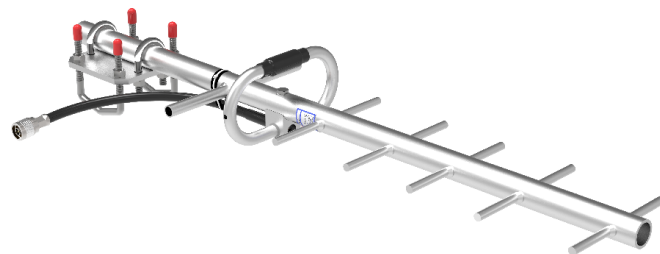


## 490 SERIES YAGI ANTENNA

806- 960 MHz

## 490 Heavy Duty Yagi Antennas Series

The 490 Heavy Duty Yagi Series is an extremely rugged, 7 element configuration antenna. All of our antennas can be completely customized to your particular applications. Our Antennas can be Black Anodized, Vertically or Horizontally Polarized.



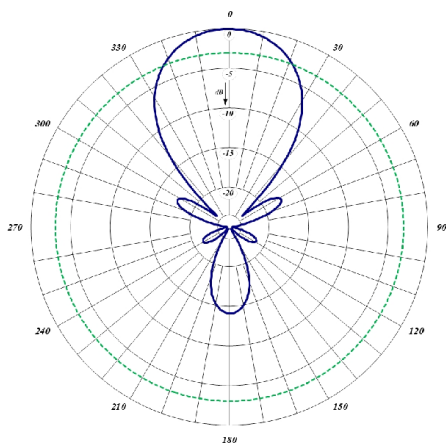
490-70

- Each antenna has an extremely rugged design to withstand harsh environmental conditions.
- The mounting hardware supplied will permit either vertical or horizontal polarization.
- The 490 Series Yagi antennas are fully welded.
- DC ground for lightning protection.

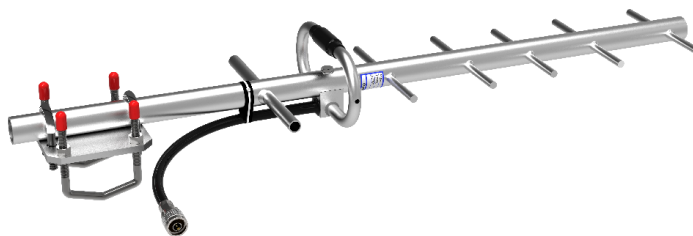
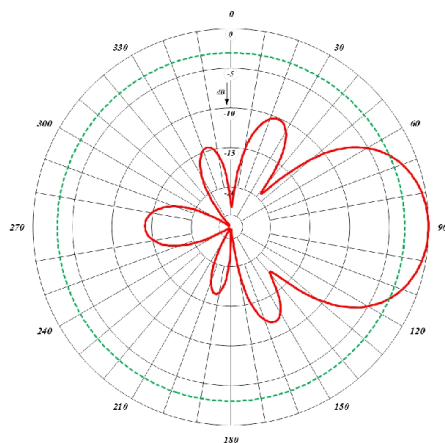
Electrical Specifications			490-70			
Frequency Range, MHz			806-960			
Nominal Gain, dBd			10.0			
Number of Elements			7			
Bandwidth: 1.5:1 VSWR, MHz			85			
Polarization			Vert. or Horiz.			
Horizontal Beamwidth (Vert. Pol.)			56°			
Vertical Beamwidth (Vert. Pol.)			42°			
Front to Back, dB			20			
Pattern			Directional			
Power Rating, Watts			200			
Nominal Impedance, Ohms			50			
Standard Termination			Type N Male			
Mechanical Specifications			490-70			
Length, in (mm)			27 (686)			
Width(1/2 Wave Spacing), in (mm)			8 (203)			
Weight, lbs. (kg)			2.5 (1.1)			
Rated Wind Velocity, No Ice, mph (km/h)			150 (241)			
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)			150 (241)			
Lateral Thrust @ 100 mph, wind, lbs. (kg)			38 (17)			
Bending Moment @ top clamp: 100 mph, ft*lb (kg*m)			13 (1.8)			
Projected Area, ft² (m²)			0.4 (0.04)			
Mounting Hardware			1.0-2.38" O.D.			
Order Information		806-869MHz	824-896MHz	896-960MHz	Black Anodized	(2) Stacked
490-70		490-70*1	490-70*2	490-70*3	490-70B	491-70

490 SERIES YAGI ANTENNA

806- 960 MHz



490-70



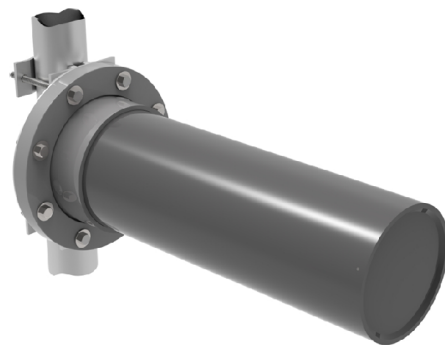


## RADOME YAGI ANTENNA

## Radome Yagi Antennas Series

The Radome Yagi Antenna Series are available in UHF and 700/800/900 MHz configurations. UHF, we have two types of radome: Fiberglass or PVC. In 700/800/900 MHz only the PVC model is available. All of our antennas can be completely customized to your particular applications.

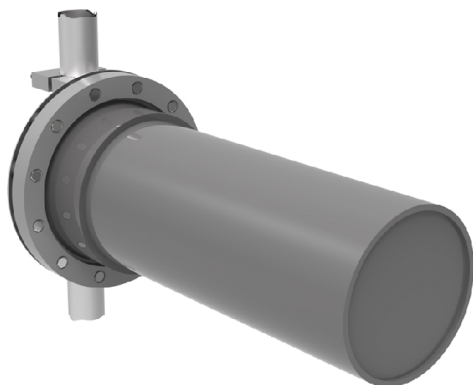
- Each antenna has a rugged design to withstand extreme environmental conditions.
- The mounting hardware supplied supports either vertical or horizontal polarization.
- DC ground for lightning protection.
- The PVC enclosure is ½ inch thick water main.
- These are our Heavy Duty Versions, part of our "Avalanche Series". Please contact a Comprod Inc. Technical support technician for consultation.



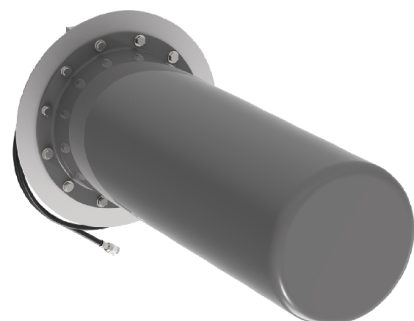
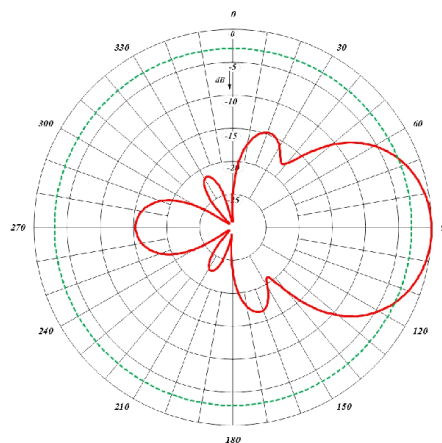
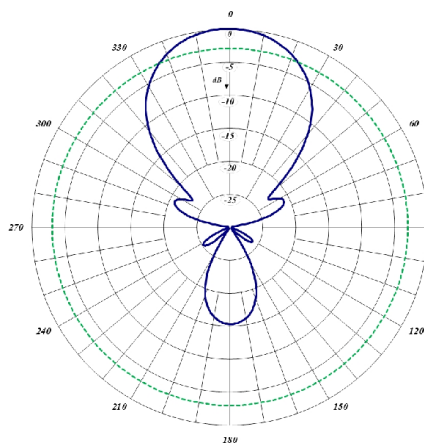
490-70R

Electrical Specifications		425-70	426-70	490-70R		
Frequency Range, MHz		406-512	406-512	746-960		
Nominal Gain, dBd		10	10	10		
Number of Elements		Loop Yagi	Loop Yagi	7		
Bandwidth: 1.5:1 VSWR, MHz		20	20	72		
Polarization		Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.		
Horizontal Beamwidth (Vert. Pol.)		62°	62°	56°		
Vertical Beamwidth (Vert. Pol.)		48°	48°	42°		
Front to Back, dB		20	20	20		
Pattern		Directional	Directional	Directional		
Power Rating, Watts		250	250	150		
Nominal Impedance, Ohms		50	50	50		
Lightning Protection		DC Ground	DC Ground	DC Ground		
Standard Termination		Type N Male	Type N Male	Type N Male		
Mechanical Specifications		425-70	426-70	490-70R		
Length, in (mm)		31 (787)	30 (762)	29 (737)		
Width(1/2 Wave Spacing), in (mm)		16 (406)	16 (406)	14 (356)		
Weight, lbs. (kg)		44 (20)	19 (8.6)	28 (12)		
Radome Material		PVC	Fiberglass	PVC		
Rated Wind Velocity, No Ice, mph (km/h)		150 (241)	120 (193)	150 (241)		
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)		105 (169)	110 (177)	115 (185)		
Lateral Thrust @ 100 mph, wind, lbs. (kg)		69 (31.3)	61 (27.7)	47.4 (21.5)		
Projected Area, ft² (m²)		2.6 (0.24)	2.3 (0.21)	1.8 (0.17)		
Mounting Information		2.9" O.D.	2.4" O.D.	2.9" O.D.		
Order Information		(2) Stacked	(4) Stacked	406-430	430-450	450-470
425-70		2*425-70	4*425-70	425-70*1	425-70*2	425-70*3
426-70		2*426-70	4*426-70	426-70*1	426-70*2	426-70*3
490-70R		2*490-70R	4*490-70R	N/A	N/A	N/A

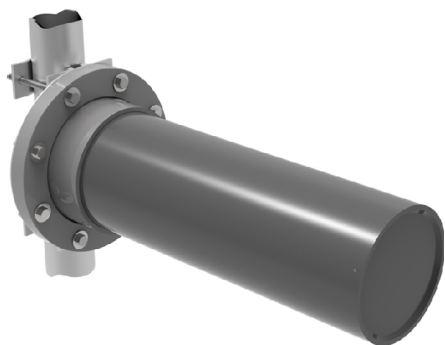
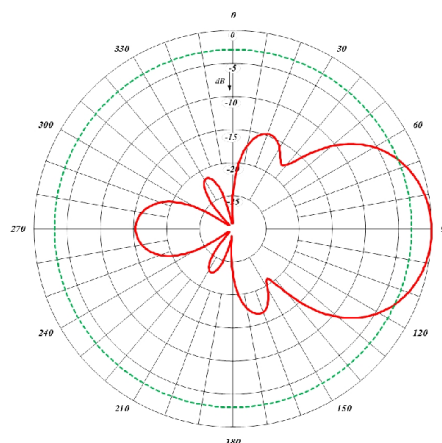
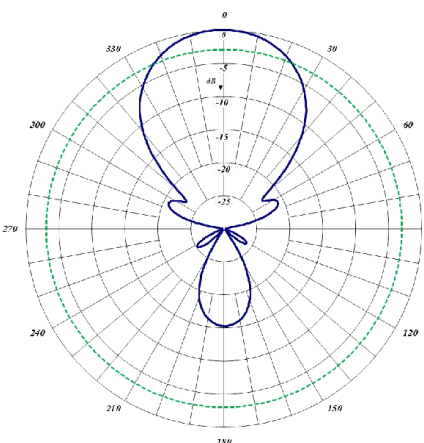
RADOME YAGI ANTENNA



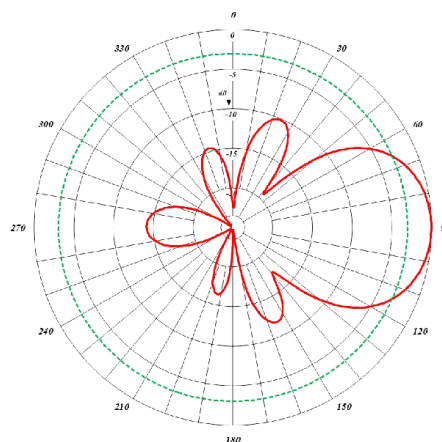
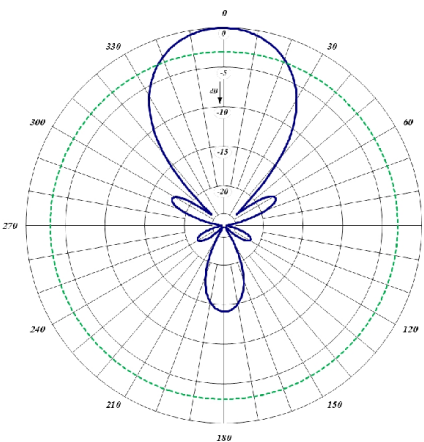
425-70



426-70



490-70R



## VHF CORNER REFLECTOR

132-174 MHz

## VHF Corner Reflector Antenna Series

The Corner Reflector Antennas are available in VHF, UHF, 700/800/900 MHz configurations. These antennas have an extremely good front-to-back ratio. They are broadband and are ideal for point-to-point applications. Performance is constant throughout the band.

- Each antenna has a rugged design to withstand harsh environmental conditions.
- Single dipole mounted in the front of a 90° reflector, providing good directivity and a very high front-to-back ratio.
- These antennas have ultra-low VSWR ratings, and will not exceed 2.0:1 VSWR ratio with 0.5" (13 mm) of radial ice.
- The mounting hardware supplied allows either vertical or horizontal polarization.
- DC ground for lightning protection
- Heavy duty versions are available. Please contact a Comprod Inc. Technician for consultation.



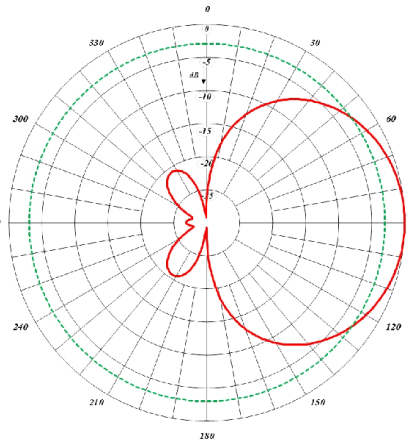
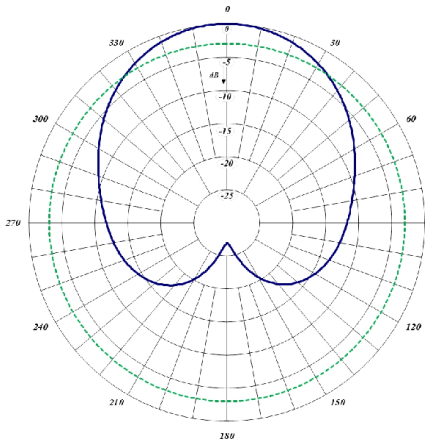
470-70HD

Electrical Specifications	470-70	470-70HD	471-70	471-70HD
Frequency Range, MHz	132-174	132-174	132-174	132-174
Nominal Gain, dBd	7.0	7.0	10.0	10.0
Bandwidth: 1.5:1 VSWR, MHz	15%	15%	15%	15%
Polarization	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.
Horizontal Beamwidth (Vert. Pol.)	67°	67°	50°	50°
Vertical Beamwidth (Vert. Pol.)	75°	75°	66°	66°
Front to Back, dB	30	30	30	30
Pattern	Directional	Directional	Directional	Directional
Power Rating, Watts	250	250	250	250
Nominal Impedance, Ohms	50	50	50	50
Lightning Protection	DC Ground	DC Ground	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male	Type N Male

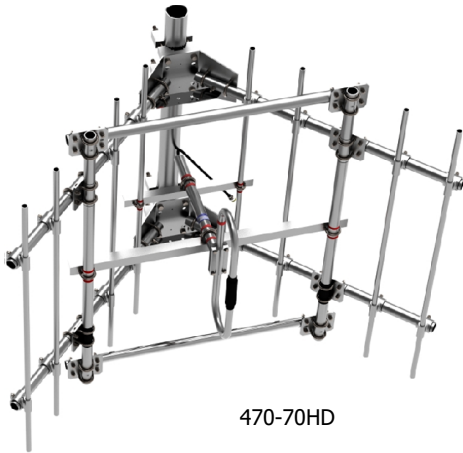
Mechanical Specifications	470-70	470-70HD	471-70	471-70HD
Length, in (mm)	48 (1219)	48 (1219)	72 (1829)	72 (1829)
Width, in (mm)	75 (1905)	75 (1905)	120 (3048)	120 (3048)
Weight, lbs. (kg)	39 (17.7)	57 (25.8)	66 (30)	72 (32.7)
Rated Wind Velocity, No Ice, mph (km/h)	100 (61)	140 (225)	100 (61)	140 (225)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	85 (137)	100 (161)	85 (137)	100 (161)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	144 (65)	236 (107)	320 (145)	398 (181)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	5.3 (0.5)	8.8 (0.82)	11.9 (1.10)	14.8 (1.38)
Mounting Information: (clamp included) for pipe size O.D. in (mm)	2.9 (73)	2.9 (73)	2.9 (73)	2.9 (73)

VHF CORNER REFLECTOR

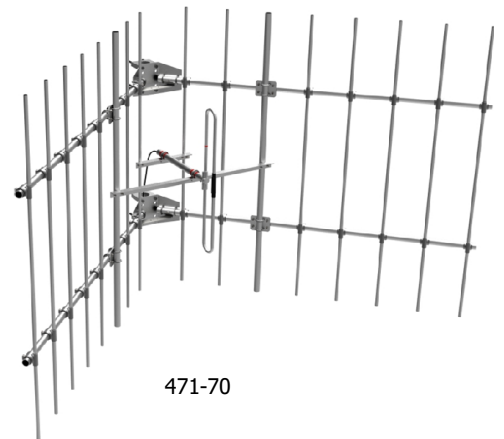
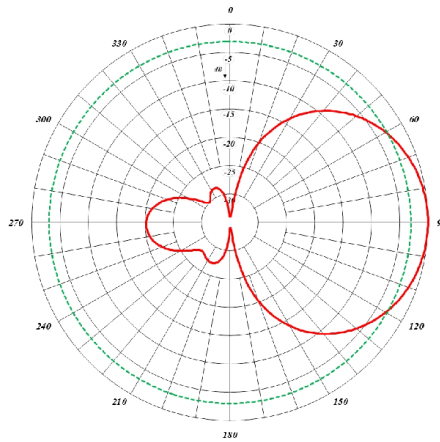
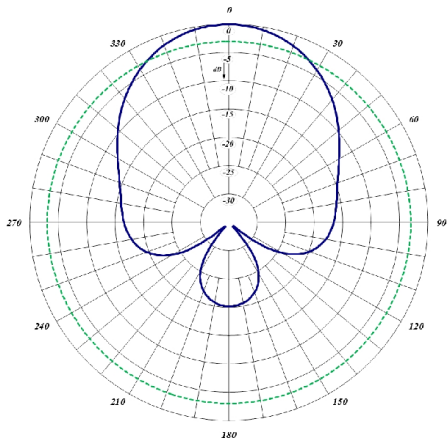
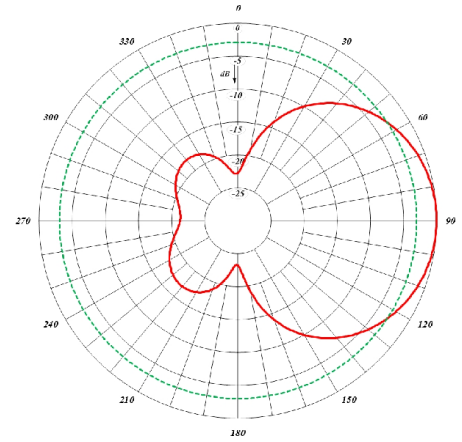
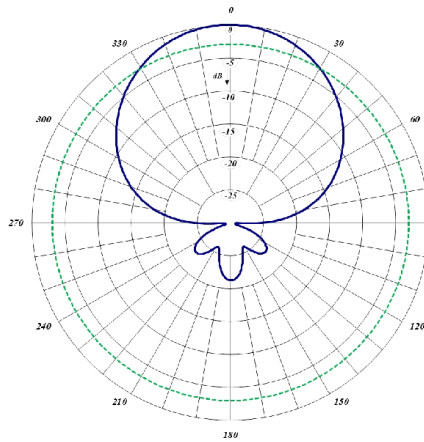
132-174 MHz



470-70



470-70HD



471-70



## 220 MHz CORNER REFLECTOR

215-225 MHz

**220MHz Corner Reflector Antenna Series**

The Corner Reflector Antennas are available in VHF, UHF, 700/800/900 MHz configurations. These antennas have an extremely good front-to-back ratio. They are broadband and are ideal for point-to-point applications. Performance is constant throughout the band.

- Each antenna has a rugged design to withstand harsh environmental conditions.
- Single or Dual Dipole mounted in the front of a 90° reflector, providing good directivity and a very high front-to-back ratio.
- The 365-70 and 965-70 are highly directive parabolic antennas consisting of a back-firing dipole reflector assembly for increased gain and directivity.
- These antennas have ultra-low VSWR ratings, and will not exceed 2.0:1 VSWR ratio with 0.5" (13 mm) of radial ice.
- The supplied mounting hardware allows either vertical or horizontal polarization.
- DC ground for lightning protection.
- Heavy Duty versions are available. Please contact a Comprod Inc. Technical support technician for consultation.

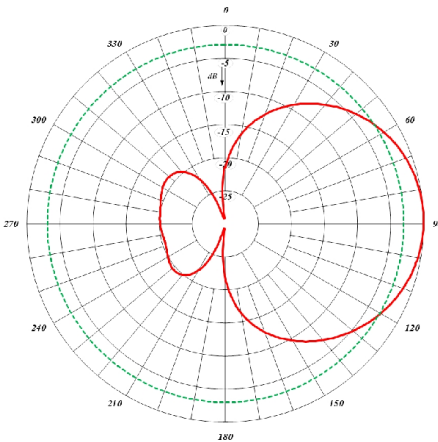
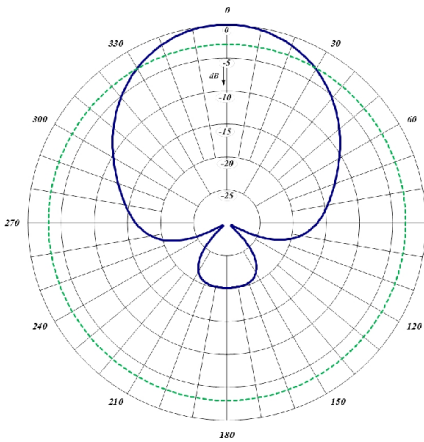


470-70-220HD

Electrical Specifications	470-70-220	470-70-220HD	471-70-220
Frequency Range, MHz	215-225	215-225	215-225
Nominal Gain, dBd	7.0	7.0	10.0
Bandwidth: 1.5:1 VSWR, MHz	10	10	10
Polarization	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.
Horizontal Beamwidth (Vert. Pol.)	67°	67°	50°
Vertical Beamwidth (Vert. Pol.)	75°	75°	66°
Front to Back, dB	30	30	30
Pattern	Directional	Directional	Directional
Power Rating, Watts	250	250	250
Nominal Impedance, Ohms	50	50	50
Lightning Protection	DC Ground	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male
Electrical Specifications	470-70-220	470-70-220HD	471-70-220
Length, in (mm)	48 (1219)	48 (1219)	72 (1829)
Width, in (mm)	75 (1905)	75 (1905)	120 (3048)
Weight, lbs. (kg)	39 (17.7)	57 (25.8)	55 (30)
Rated Wind Velocity, No Ice, mph (km/h)	100 (161)	140 (225)	100 (161)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	85 (137)	100 (161)	85 (137)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	144 (65)	236 (107)	320 (145)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	5.3 (0.5)	8.8 (0.82)	11.9 (1.10)
Mounting Information: (clamp included) for pipe size O.D. in (mm)	2.9 (73)	2.9 (73)	2.9 (73)

220MHz CORNER REFLECTOR

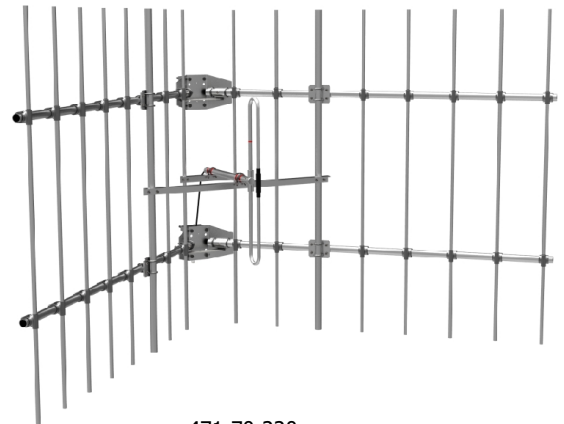
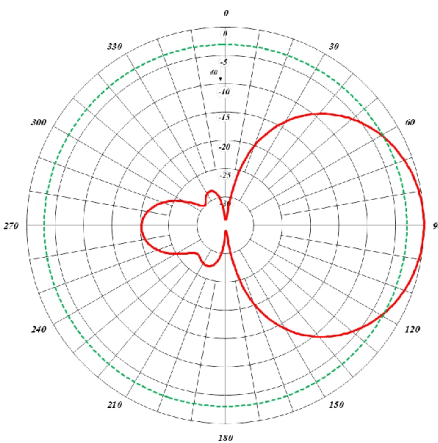
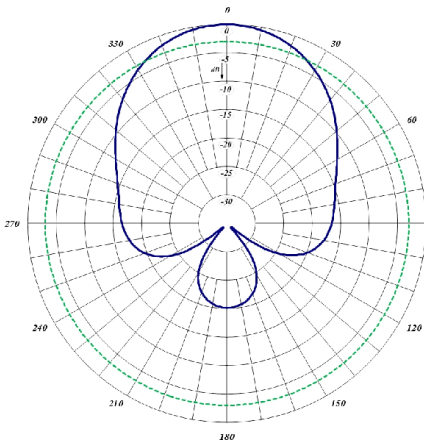
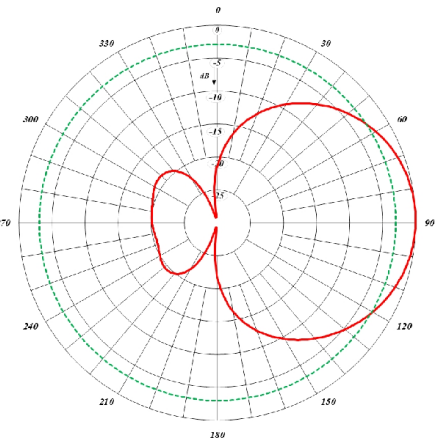
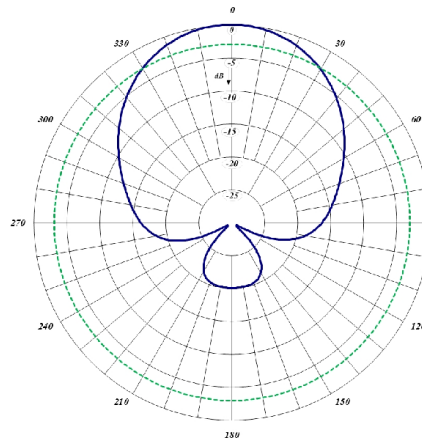
215-225 MHz



470-70-220



470-70-220HD



471-70-220

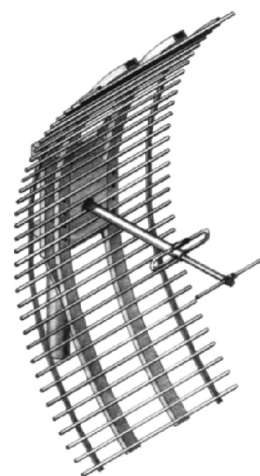
## UHF CORNER REFLECTOR

406-512 MHz

## UHF Corner Reflector Antenna Series

The Corner Reflector Antennas are available in VHF, UHF, 700/800/900 MHz configurations. These antennas have an extremely good front-to-back ratio. They are broadband and are ideal for point-to-point applications. Performance is constant throughout the band.

- Each antenna has a rugged design to withstand harsh environmental conditions.
- Single or Dual Dipole mounted in the front of a 90° reflector, providing good directivity and a very high front-to-back ratio.
- The 365-70 is a highly directive parabolic antennas consisting of a back-firing dipole reflector assembly for increased gain and directivity.
- These antennas have ultra-low VSWR ratings, and will not exceed 2.0:1 VSWR ratio with 0.5" (13 mm) of radial ice.
- The mounting hardware supplied will permit either vertical or horizontal polarization.
- DC ground for lightning protection.
- Heavy Duty versions are available. Please contact a Comprod Inc. Technical support technician for consultation.



365-70

Electrical Specifications	440-70	440-70HD	442-70	365-70
Frequency Range, MHz	406-512	406-512	406-512	406-470
Nominal Gain, dBd	9.5	9.5	12.0	15.0
Bandwidth: 1.5:1 VSWR, MHz	64	64	64	20
Polarization	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.
Horizontal Beamwidth (Vert. Pol.)	60°	60°	40°	32°
Vertical Beamwidth (Vert. Pol.)	45°	45°	34°	18°
Front to Back, dB	25	25	25	24
Pattern	Directional	Directional	Directional	Directional
Power Rating, Watts	100	100	100	250
Nominal Impedance, Ohms	50	50	50	50
Lightning Protection	DC Ground	DC Ground	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male	Type N Male

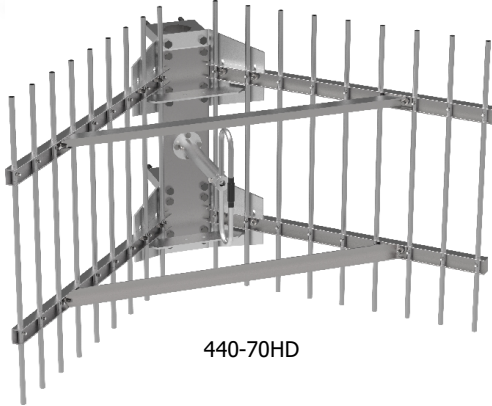
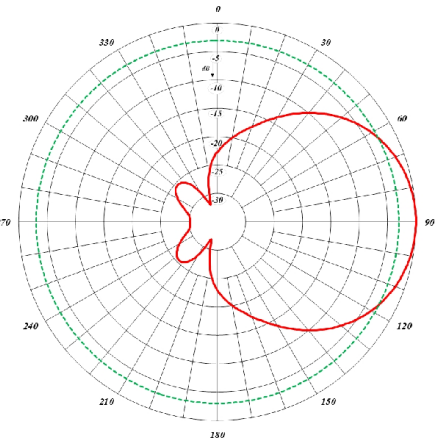
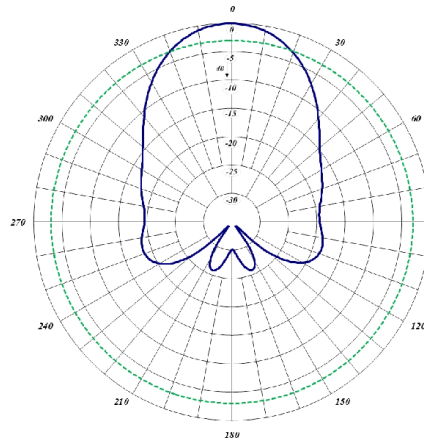
Electrical Specifications	440-70	440-70HD	442-70	365-70
Length, in (mm)	30 (762)	30 (762)	48 (1219)	82 (2083)
Width, in (mm)	50 (1905)	50 (1905)	50 (1905)	41 (1041)
Weight, lbs. (kg)	22 (10)	36 (16)	42 (19.1)	25 (11.3)
Rated Wind Velocity, No Ice, mph (km/h)	125 (201)	135 (217)	125 (201)	100 (161)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	85 (137)	95 (153)	85 (137)	85 (137)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	97 (44)	210 (934)	185 (84)	233 (109)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	3.6 (0.34)	3.6 (0.34)	6.9 (0.64)	8.7 (0.8)
Mounting Information: (clamp included) for pipe size O.D. in (mm)	2.9 (74)	2.9 (74)	2.9 (74)	2.9 (74)

UHF CORNER REFLECTOR

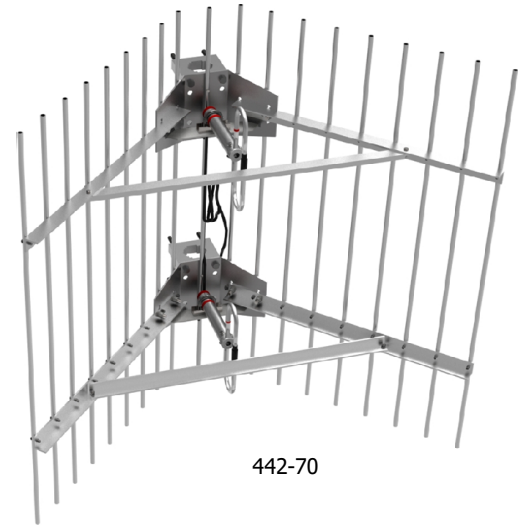
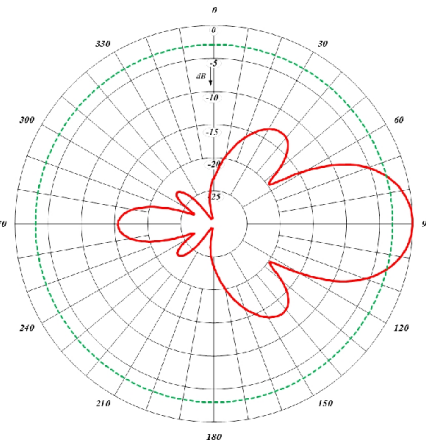
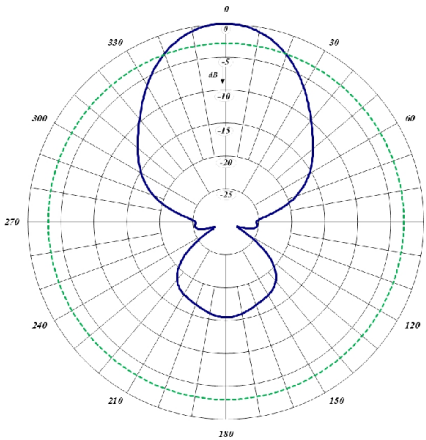
406-512 MHz



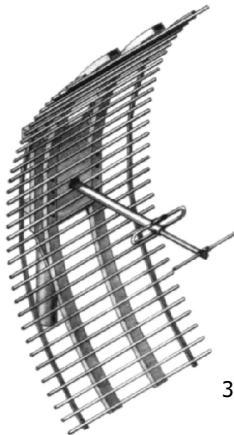
440-70



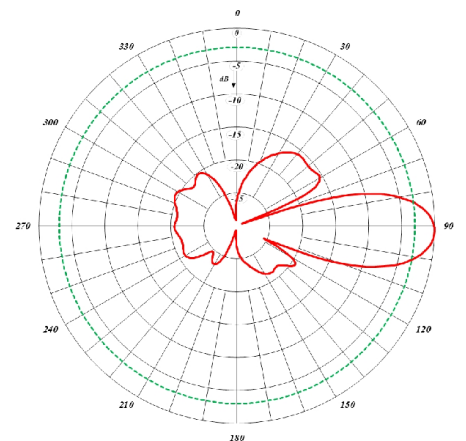
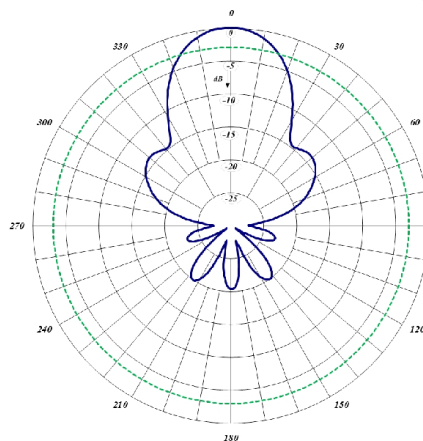
440-70HD



442-70



365-70





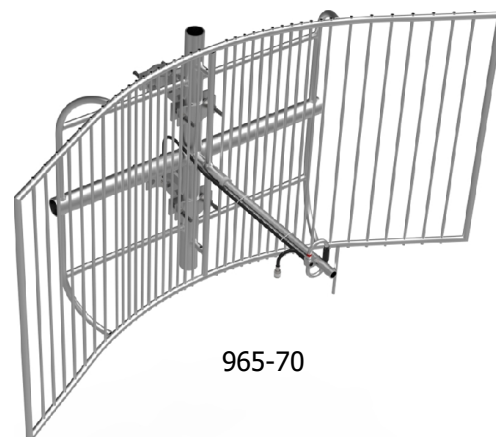
## PARABOLIC DIRECTIONAL ANTENNA

806-960 MHz

## Parabolic Reflector Series Antennas

The Reflector antenna is a SRSP-507 Category A compliant antenna. These antennas have an extremely good front-to-back ratio. They are broadband and are ideal for point-to-point applications where restrictions on beam width are present. Performance is constant throughout the band.

- SRSP-507 Category A Compliant.
- Mechanical resonance reducing design.
- Each antenna has a rugged design to withstand harsh environmental conditions.
- The 965-70 is a highly-directive parabolic antenna consisting of a back-firing dipole reflector assembly for increased gain and directivity.
- These antennas have ultra-low VSWR ratings, and will not exceed 1.5:1 VSWR ratio with 0.5" (13 mm) of radial ice.
- The mounting hardware supplied will permit either vertical or horizontal polarization.
- DC ground for lightning protection.
- Black Anodized and Dipole Radome protected versions are available. Please Contact a Comprod Inc. Technical support technician for consultation.
- 965-70B is Black Anodize and 965-70BR is Black Anodize with a Radome



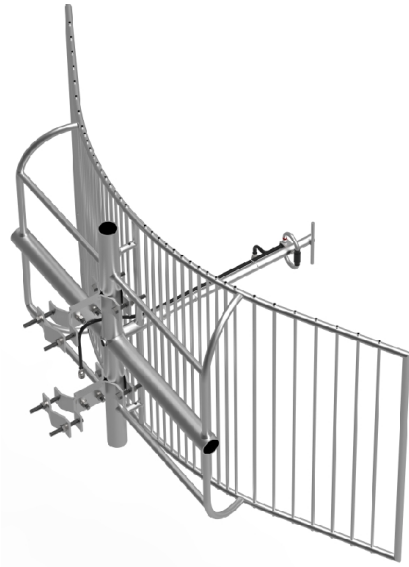
965-70

Electrical Specifications	965-70	965-70B	965-70BR
Frequency Range, MHz	806-960	806-960	806-960
Nominal Gain, dBd	16.5	16.5	16.5
Bandwidth: 1.5:1 VSWR, MHz	72	72	72
Polarization	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.
Horizontal Beamwidth (Vert. Pol.)	12	12	12
Vertical Beamwidth (Vert. Pol.)	30	30	30
Front to Back, dB	25	25	25
Pattern	Directional	Directional	Directional
Power Rating, Watts	200	200	200
Nominal Impedance, Ohms	50	50	50
Lightning Protection	DC Ground	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male

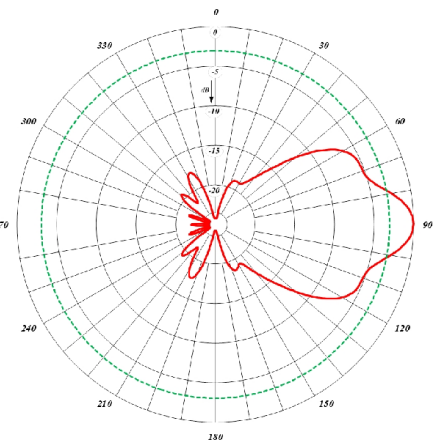
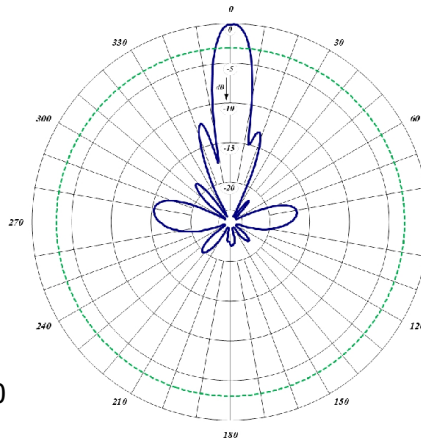
Electrical Specifications	965-70	965-70B	965-70BR
Length, in (mm)	68 (1727)	68 (1727)	68 (1727)
Width, in (mm)	36 (914)	36 (914)	36 (914)
Weight, lbs. (kg)	49 (22.3)	49 (22.3)	51 (23.2)
Rated Wind Velocity, No Ice, mph (km/h)	110 (177)	110 (177)	110 (177)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	85 (137)	85 (137)	85 (137)
Lateral Thrust @ 100 mph, wind, lbs. (kg)	1.9 (0.46)	1.9 (0.46)	1.9 (0.46)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	4.9 (0.46)	4.9 (0.46)	5 (0.47)
Mounting Information: (clamp included) for pipe size O.D. in (mm)	112-85	112-85	112-85

PARABOLIC DIRCTIONAL ANTENNA

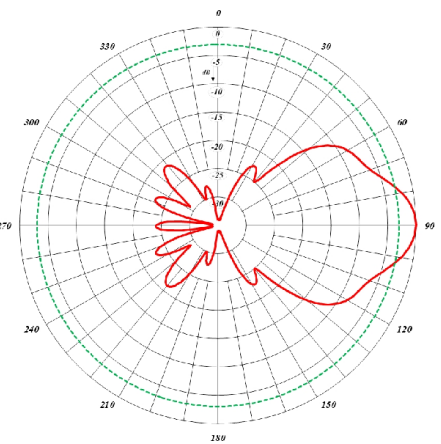
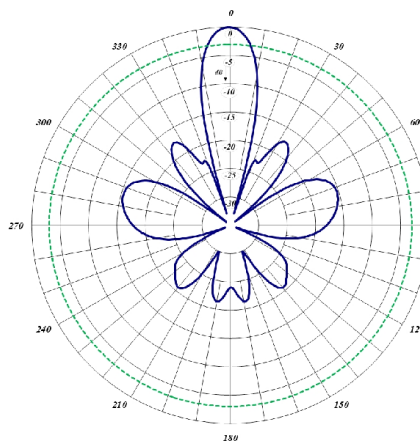
806-960 MHz



965-70



965-70 BR



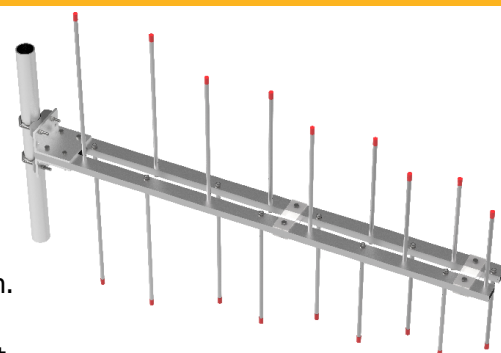
## LOG PERIODIC ANTENNA

132-174 MHz

## Log Periodic Series Antennas

The Log Periodic Antennas are available in VHF and UHF configurations. These antennas have an extremely good front-to-back ratio. They are wideband and are ideal for base station or in-building applications. These antennas are great for providing underground coverage within garages. Performance is constant throughout the band.

- Each antenna has a rugged design to withstand harsh environmental conditions.
- The mounting hardware supplied will permit either vertical or horizontal polarization.
- DC ground for lightning protection.
- Heavy-duty versions are available. Please contact a Comprod Inc. Technical support technician for consultation.



638-70

Electrical Specifications	635-70	636-70	638-70
Frequency Range, MHz	132-174	132-174	138-174
Nominal Gain, dBd	6.0	6.0	8.0
Bandwidth: 1.5:1 VSWR, MHz	42	42	36
Polarization	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.
Horizontal Beamwidth (Vert. Pol.)	106°	106°	75°
Vertical Beamwidth (Vert. Pol.)	60°	30°	55°
Front to Back, dB	25	25	25
Pattern	Directional	Directional	Directional
Power Rating, Watts	500	500	500
Nominal Impedance, Ohms	50	50	50
Lightning Protection	DC Ground	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male

Electrical Specifications	635-70	636-70	638-70
Length, in (mm)	42 (1067)	42 (1067)	60 (1524)
Width, in (mm)	44 (1118)	44 (1118)	44.5 (1130)
Weight, lbs. (kg)	8 (3.6)	8 (3.6)	16.8 (7.8)
Rated Wind Velocity, No Ice, mph (km/h)	158 (254)	158 (254)	150 (241)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	108 (173)	108 (173)	108 (173)
Lateral Thrust @ c, wind, lbs. (kg)	31 (14)	31 (14)	47.5 (21.5)
Torsional Moment @ 100 mph, ft*lb (kg*m)	56 (7.8)	N/A	121 (16.7)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	0.86 (0.08)	0.86 (0.08)	1.26 (0.120)
Mounting Information: (clamp included) for pipe size O.D. in (mm)	1" to 2.5" (64mm)	1" to 2.5" (64mm)	1" to 2.5" (64mm)

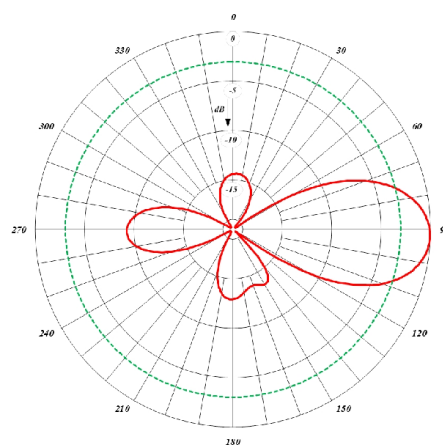
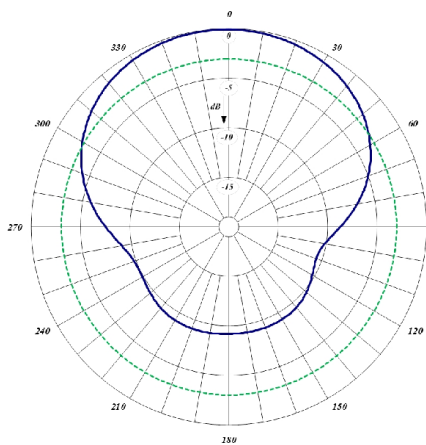
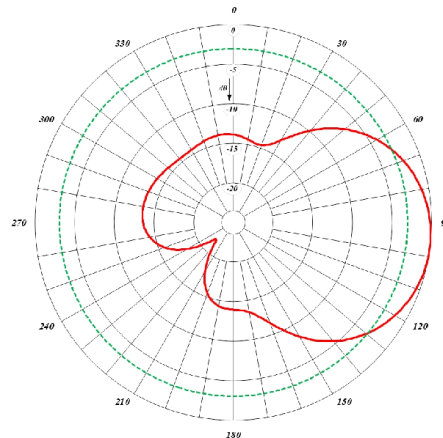
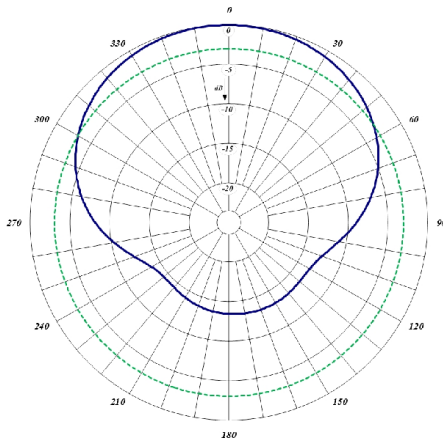
Order Information	End Mount	Center Mount
635-70	635-70	N/A
636-70	N/A	636-70
638-70	638-70	N/A

LOG PERIODIC ANTENNA

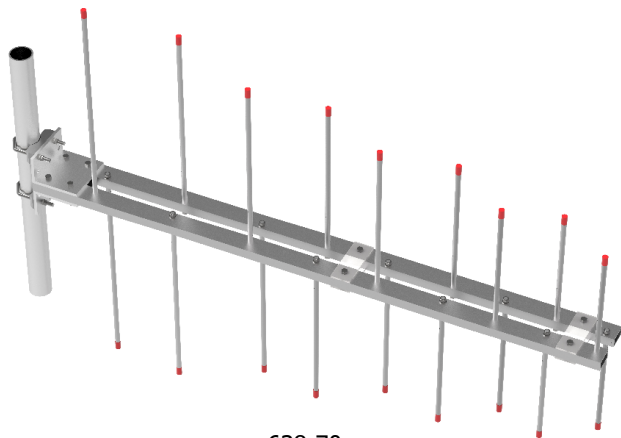
132-174 MHz



635-70



636-70



638-70



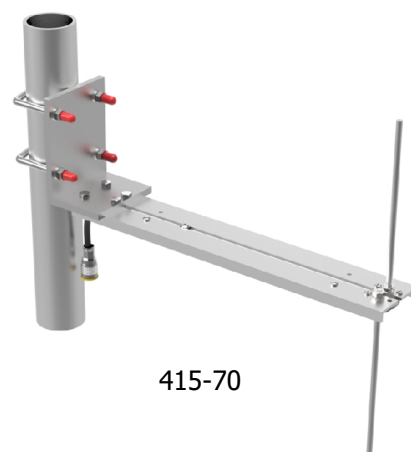
## LOG PERIODIC ANTENNA

406-512 MHz

## Log Periodic Series Antennas

The Log Periodic Antennas are available in VHF and UHF configurations. These antennas have an extremely good front-to-back ratio. They are wide-band and are ideal for base station or in-building applications. We have had great success with these antennas providing underground coverage within garages. Performance is constant throughout the band.

- Each antenna has a rugged design to withstand harsh environmental conditions.
- The mounting hardware supplied will permit either vertical or horizontal polarization.
- DC ground for lightning protection.
- Heavy-duty versions are available. Please contact a Comprod Inc. Technical support technician for consultation.

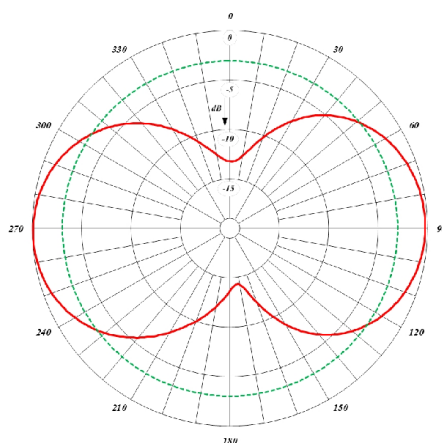
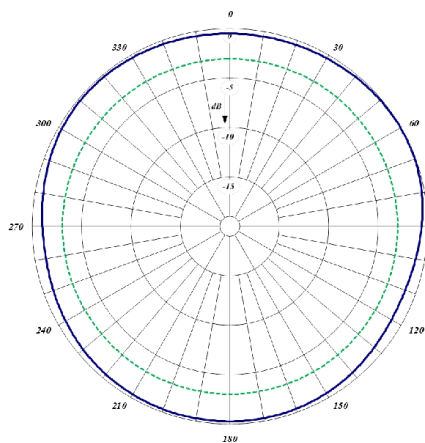


415-70

Electrical Specifications		415-70		465-70	
Frequency Range, MHz		406-512		406-512	
Nominal Gain, dBd		Unity		6.0	
Bandwidth: 1.5:1 VSWR, MHz		40		64	
Polarization		Vert. or Horiz.		Vert. or Horiz.	
Horizontal Beamwidth (Vert. Pol.)		N/A		106°	
Vertical Beamwidth (Vert. Pol.)		84°		60°	
Front to Back, dB		N/A		20	
Pattern		Omnidirectional		Unidirectional	
Power Rating, Watts		250		250	
Nominal Impedance, Ohms		50		50	
Lightning Protection		DC Ground		DC Ground	
Standard Termination		Type N Male		Type N Male	
Mechanical Specifications		415-70		465-70	
Length, in (mm)		18 (457)		15 (381)	
Width, in (mm)		14.3 (362)		16 (406)	
Weight, lbs. (kg)		2.6 (1.2)		3.3 (1.47)	
Rated Wind Velocity, No Ice, mph (km/h)		160 (257)		150 (241)	
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)		120 (193)		110 (177)	
Lateral Thrust @ c, wind, lbs. (kg)		12 (5.4)		14 (6.4)	
Torsional Moment @ 100 mph, ft*lb (kg*m)		6.3 (0.88)		6.4 (0.89)	
Projected Area, ft² (m²)		0.44 (0.04)		0.50 (0.05)	
Mounting Information: Max Pipe Size		1" to 2.5" (64mm)		1" to 2.5" (64mm)	
Order Information		406-430MHz	435-470MHz	406-470MHz	450-512MHz
415-70		415-70*1	415-70*2	N/A	415-70*3
465-70		N/A	N/A	465-70*1	465-70*2

LOG PERIODIC ANTENNA

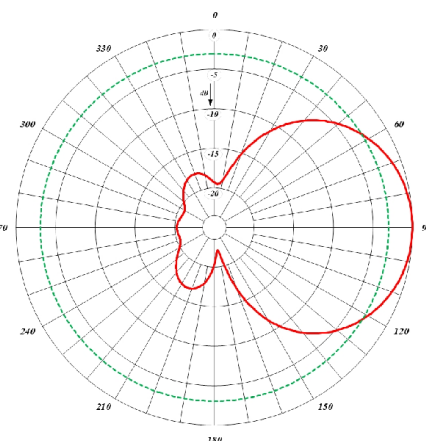
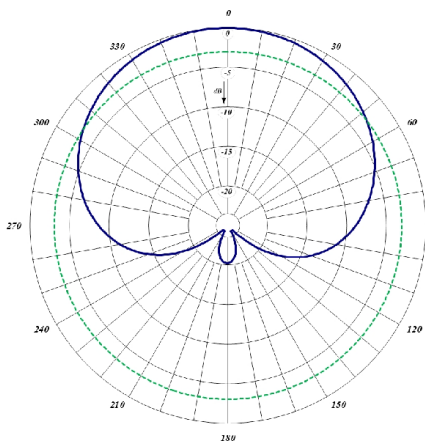
406-512 MHz



415-70



465-70



## DATA ANTENNA

### Data Antenna Series

The Data Antenna Series are high quality, high performance, utility grade antennas. We have many different versions of these antennas available, but here are a few that showcase the ability of some of our more unique styled antennas.

We have developed antennas for point-to-point data transmissions using PCB surrounding hydro meters. We have modified mobile antennas, in order to produce low-cost and effective base station antennas that maximize performance.

- Custom designed.
- Meets your specific needs.
- Designed for any application as required by the customer.
- Heavy-duty versions are available. Please contact a Comprod Inc. Technical support technician for consultation.



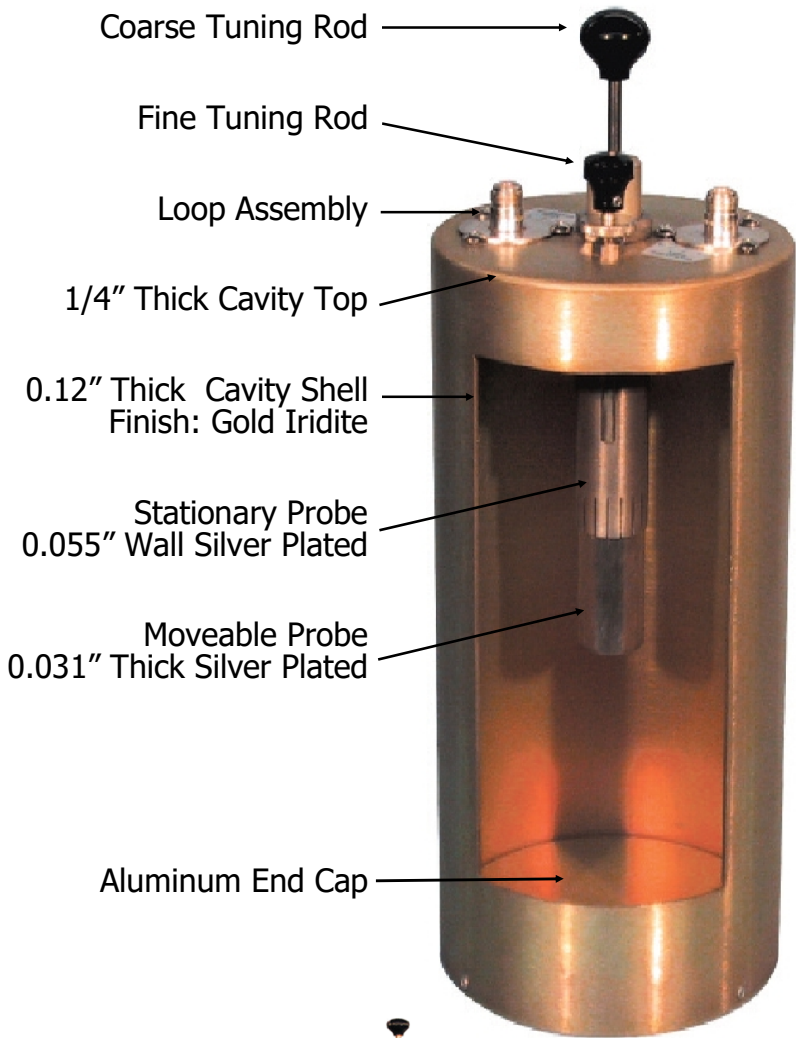
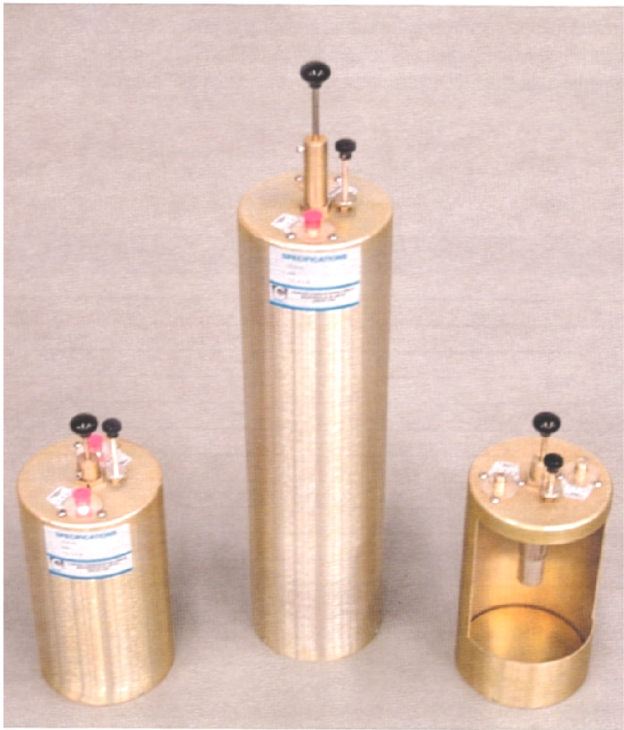
590-75BSMO

TOP VIEW

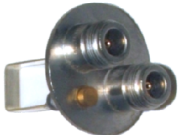
Electrical Specifications	590-75BSMO
Frequency Range, MHz	902-928
Nominal Gain, dBd	2.0
Polarization	Vertical
Pattern	Omnidirectional
Power Rating, Watts	200
Nominal Impedance, Ohms	50
Standard Termination	Type N Female*

Mechanical Specifications	590-75BSMO
Length, in (mm)	min 14" @ lowest freq.
Diameter, in (mm)	N/A
Weight, lbs (kg)	N/A
Radiator	Stainless Steel
Base	ABS, Ultrasonic Brass Insert
Contact	Spring Loaded, Gold Plated
Mounting	BSMOLC w/N-Female

\* Other Terminations are available.



Bandpass Loop



Pass/Reject Loop



Notch Loop



X-Pass Loop





## CAVITY FILTER DESIGN

Comprod Inc. has one of the most rugged, high quality cavity filter designs in the industry with our proven, temperature-compensated cavities. The flexibility of having four versions of filters, Bandpass, Notch, Pass-Reject, and X-Pass, available in 2", 4", 6.625" and 10" cavities, allows for any system to be designed for maximum performance and efficiency. All of the following filters can be achieved by changing the loops, while maintaining the same cavity, when using the 6.625" and 10" cavities.

1. **Bandpass Cavity Filter** – Passes one narrow band of frequencies and attenuates all others with increasing attenuation above and below the pass frequency. The adjustable selectivity characteristics using rotatable loops allows for a trade-off between insertion loss (0.5 to 3.0 dB) and selectivity. This filter is ideal when the interfering frequencies are not known with any degree of accuracy or when high amounts of broadband filtering are required.
2. **Notch Filter** – Passes a relatively wide band of required frequencies, while rejecting a very narrow band of undesired frequencies. Notch depth is variable from 15 to 25 dB. Both the pass and notch frequencies must be known. The Notch Filter is recommended when filtering multiple channel transmitters and receivers. This filter is ideal for very close separations (70-200 KHz) in VHF and (200-400 KHz) in UHF.
3. **Pass-Reject Filter** – Passes a relatively narrow band of required frequencies and rejects a specific undesired frequency. This filter has the greatest notch depth when compared to other types of filters. Notch depth is adjustable, but is dependant on the passband insertion loss (0.3 dB or 0.6 dB typical) and frequency separation. This type of filter is the most efficient for moderately close to wide separations of 200 kHz and greater in VHF and 400 kHz and greater in UHF.
4. **X-Pass** – A special type of filter for expandable multicoupler/combiner applications. Characteristics are identical to a bandpass filter, but have a third port for coupling to other channels. This filter is ideal for close frequency spacing with extremely low losses, acting similar to a hybrid combiner/multicoupler. The design is extremely flexible and expandable from 1 to 21 cavities per rack with additional channel capabilities.

All of Comprod Inc. 6.625" and 10" filters have two hand-movable tuning rods (a coarse and a fine) for faster tuning. Silver-plated adjustable coupling loops and a calibration index label help to facilitate setting the cavity insertion loss as required for each application.

The combination of a heavy-gauge aluminum outer conductor, thick heliarc-welded cavity top plates, heavy silver-plating on micro-finished tuning assemblies, and Invar-based temperature compensation material results in constant performance levels and long term reliability. Cavity and isolator connectors are type N female, with silver-plated brass bodies and gold-plated center contacts. Thru-line cable assemblies are made with high quality connectors and RG-393B/U Teflon or RG-214/U cable, to provide excellent intermodulation rejection at high system power levels. Gold-plated cable connector center contacts are soldered to the cable, and the dual shield is securely crimped to the connector barrel using pneumatic fixtures and precision dies. All of these attributes contribute to making a superior quality product.

For additional information on Comprod Inc. X-Pass, Combiners, Multicouplers, Duplexers, Pass Reject, BandPass, or Notch filters, contact our Technical Support team at 1.800.603.1454 or 1.450.641.1454.

**FILTER NOMENCLATURE****PP—FF—XX—YY****PP** = Product Category/ Family**FF** = Frequency Band / Frequency Range**XX** = Cavity Size/ No. Channels/ Load Size/ Termination**YY** = Mounting Style**PP—Product Category / Product Family Codes**

11	Mounting Kits	56	2nd Harmonic Filter
13	Cable Kits/Accessories	57	Compline Filters
19	X-Racks	58	Pre-Amp
		59	Pre-Selector
21	Low Power Single Junction Isolator	60	Multicoupler (XMF Version – Reject/Pass)
22	Low Power Dual Junction Isolator	61	BandPass Filter
41	High Power Single Junction Isolator	62	Pass-Reject Filter
42	High Power Dual Junction Isolator	63	Notch Filter
45	RF Loads		
46	Signal Sampler	66	Pass-Reject Duplexer
47	Power Divider		
48	Hybrid Decouplers VHF/UHF/800/900MHz	68	X-Pass Filter
49	Hybrid Coupler (Single Band)	69	Paging Filter
51	Band pass Conversion Loops	HTC	Hybrid Transmit Combiner
52	Pass-Reject Conversion Loops	XBC	X-Band Coupler (Cross Band Couplers)
53	Notch Conversion Loops	XRM	Xpandable Receiver Multicoupler
54	X-Pass Conversion Loops	XTC	Xpandable Transmit Combiner System
55	Variable Attenuator 3-15 dB	XTR	Xpandable Transmit Receiver System

Model	Type	Other	118-136	138-174	406-512	746-960	Cavity/Mtg	Power	Connector
61-FF-7X Series	BandPass	30-88	•	•	•	•	6.625	150	N Female
62-FF-7X Series	Pass-Reject	30-88	•	•	•	•	6.625	150	N Female
63-FF-7X Series	Notch	30-88	•	•	•	•	6.625	150	N Female
60-13-7X Series	XMF Multicoupler			•			6.625	90-400	N Female
60-40-7X Series	XMF Multicoupler				•		6.625	80-300	N Female
66-FF-74	Duplexer			•	•		6.625	350	N Female
66-FF-2P	Duplexer			•			2 x 2	100	BNC / N F
66-FF-44	Duplexer			•	•	•	4 x 4	350	N Female
66-FF-46	Duplexer			•	•	•	4 x 4	350	N Female
5X4-90	Mobile Duplexer			144-174	406-470		1 x 1	50	BNC / N F
5X6-90	Mobile Duplexer			144-174	406-470		1 x 1	50	BNC / N F
68-XX-7X Series	X-Pass	30-88	•	•	•	•	6.625	150	N Female
XTC-06-7X Series	X-Pass	66-88					6.625	150	N Female
XTC-06-0X Series	X-Pass	66-88					10	150	N Female
XTC-11-7X Series	X-Pass		108-136				6.625	150	N Female
XTC-11-0X Series	X-Pass		108-136				10	150	N Female
XTC-13-7X Series	X-Pass			132-174			6.625	150	N Female
XTC-13-0X Series	X-Pass			132-174			10	150	N Female
XTC-22-7X Series	X-Pass	215-300					6.625	150	N Female
XTC-22-0X Series	X-Pass	215-300					10	150	N Female
XTC-38-7X Series	X-Pass				380-512		6.625	150	N Female
XTC-38-0X Series	X-Pass				380-512		10	150	N Female
XTC-74-7X Series	X-Pass					•	6.625	150	N Female
XTC-74-0X Series	X-Pass					•	10	150	N Female
80-FF-8X Series	X-Pass Combiner				•	•	19" Rack Mt	60/100	N Female
XRM-13-PP Series	Rx Multicoupler	138-225		•			Rack/Cavity	Rx	BNC / N F
XRM-30-PP Series	Rx Multicoupler				300-512		Rack/Cavity	Rx	BNC / N F
XRM-80-PP Series	Rx Multicoupler					806-896	Rack/Cavity	Rx	BNC / N F
XRM-90-PP Series	Rx Multicoupler					896-960	Rack/Cavity	Rx	BNC / N F
90-FF-PP Series	Rx Multicoupler				•	•	19" Rack Mt	Rx	N Female
70-X0-XX Series	TTAmplifier			•	•	•	N/A	Rx	N Female
21-FF-PP Series	Single Isolators			•	•	•	N/A	100	N Female
22-FF-PP Series	Dual Isolators			•	•	•	N/A	100	N Female
41-FF-PP Series	Single Isolators			•	•	•	N/A	150-250	N Female
42-FF-PP Series	Dual Isolators			•	•	•	N/A	150-250	N Female
45-05-PP Series	RF Loads	5-1000	•	•	•	•	N/A	5-250	N Male
HTC-13 Combiner	Hybrid Combiner			•			19" Rack Mt	100	N Female
HTC-40 Combiner	Hybrid Combiner				•		19" Rack Mt	100	N Female
HTC-80 Combiner	Hybrid Combiner					806-960	19" Rack Mt	100	N Female
49-FF-YY-XX Series	Hybrid Coupler			•	•	•	N/A	N/A	N Female
Ceramic Combiner	Star Junction Com					•	19" Rack Mt	125	N Female
Ceramic Combiner	X-Pass Combiner					•	19" Rack Mt	125	N Female
XBC-FF-PP Series	Crossband Coupler	25-175	•	•	•	•	N/A	Rx-250	N Female
57-FF-XX Series	Comblines				•	•	N/A	Rx	N Female
Racks, Hardware	Filter Racks						Racks	N/A	N/A

**BAND PASS CAVITY****30-1000 MHz****61-XX-7X Series**

Comprod Inc. BandPass filters are designed for minimizing interference from adjacent channels and outside systems. They are available in single, double, triple or more units. Selectivity can be determined by the insertion loss of the cavity or by adding additional cavity units as needed. Each cavity is temperature compensated for operation between -40°C to +60°C. Each cavity has a gold alodine finish, silver plated loops and silver plated tuning rods. Every cavity is equipped with coarse and fine tuning rods for quick and easy field or lab re-tuning.



- **Temperature Compensation**

- Ensures Frequency Stability

- **High Attenuation**

- Minimizes desense and interference from adjacent systems

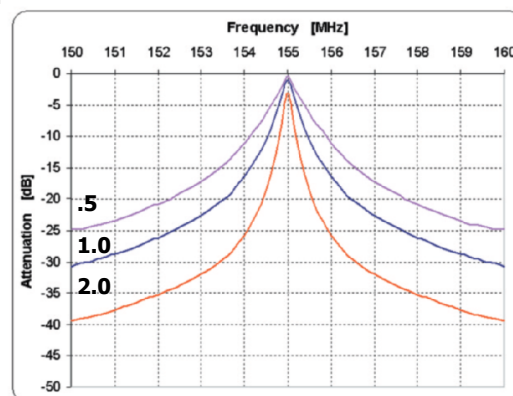
- **Adjustable Loops**

- Each cavity has a calibration index to reference insertion loss

Electrical Specifications	61-03-71	61-06-71	61-11-71	61-13-71	61-40-71	61-74-71
Frequency Range, MHz	30-50	66-88	118-136	136-174	406-512	746-960
Frequency Spacing Min.	Please Refer To Typical Curves					
Cavity Diameter, in	6.625	6.625	6.625	6.625	6.625	6.625
Continuous Power Input, Watts (Dependent on insertion Loss)	150	150	150	150	150	150
Connectors	N Female	N Female	N Female	N Female	N Female	N Female
Insertion Loss	Please Refer To Typical Curves					
Reject Attenuation	Please Refer To Typical Curves					
VSWR	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	61-03-71	61-06-71	61-11-71	61-13-71	61-40-71	61-74-71
Maximum length, in	132	77	31.5	26	11.5	13
Weight, lbs	n/a	n/a	18	15	10	10

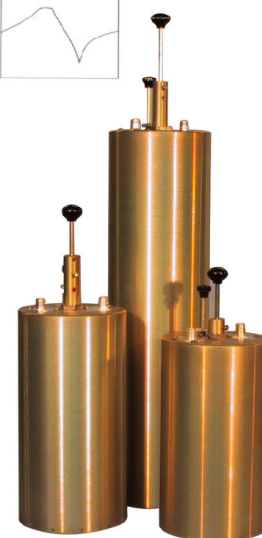
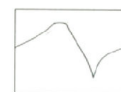
Order Information	Single	Dual	Triple
4" Cavity	61-XX-41	61-XX-42	61-XX-43
6.625" Cavity	61-XX-71	61-XX-72	61-XX-73
10" Cavity	61-XX-01	61-XX-02	61-XX-03

**61-13-71**



**PASS-REJECT CAVITY****30-1000 MHz****62-XX-7X Series**

Comprod Inc. Pass Reject filters are designed to pass a frequency band and reject a narrow band of frequencies. They provide more attenuation than our standard bandpass type cavities. These cavities can reject frequencies on either the high or low side of the pass frequency. Each cavity is temperature compensated for operation between -40°C to +60°C. Each cavity has a gold alodine finish, silver plated loops and silver plated tuning rods. Every cavity is equipped with both coarse and fine tuning rods for quick and easy field or lab re-tuning.



- **Temperature Compensation**

- Ensures Frequency Stability

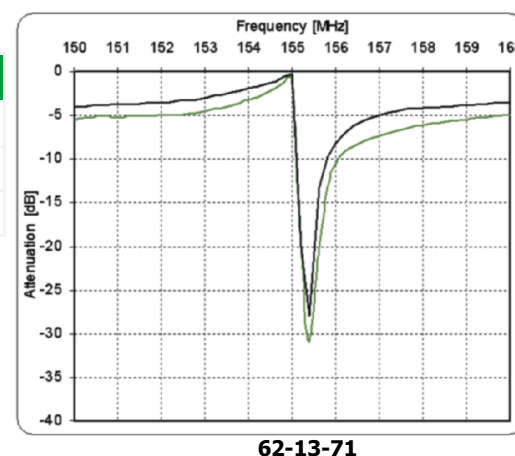
- **High Attenuation**

- Minimizes desense and interference

Electrical Specifications	62-03-71	62-06-71	62-11-71	62-13-71	62-40-71	62-74-71
Frequency Range, MHz	30-50	66-88	118-136	136-174	406-512	746-960
Frequency Spacing Min.	Please Refer To Typical Curves					
Cavity Diameter, in	6.625	6.625	6.625	6.625	6.625	6.625
Continuous Power Input, Watts (Dependent on insertion Loss)	300	300	300	300	300	300
Connectors	N Female	N Female	N Female	N Female	N Female	N Female
Insertion Loss	Please Refer To Typical Curves					
Reject Attenuation	Please Refer To Typical Curves					
VSWR	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	62-03-71	62-06-71	62-11-71	62-13-71	62-40-71	62-74-71
Maximum length, in	132	77	31.5	26	11.5	13
Weight, lbs	n/a	n/a	18	15	10	10

Order Information	Single	Dual	Triple
4" Cavity	62-XX-41	62-XX-42	62-XX-43
6.625" Cavity	62-XX-71	62-XX-72	62-XX-73
10" Cavity	62-XX-01	62-XX-02	62-XX-03



## NOTCH CAVITY

30-1000 MHz

### 63-XX-7X Series

Comprod Inc. Notch filters are designed to reject one narrow band of frequencies, while letting all others pass in the operating band. They provide additional isolation by eliminating close adjacent frequencies. The notch cavities can be cascaded or added to one another in order to sharpen the attenuation of the rejection curve. These cavities can be used individually or in multiples. Each cavity is temperature compensated for operation between -40°C to +60°C. Each cavity has a gold alodine finish, silver plated loops and silver plated tuning rods. Every cavity is equipped with both coarse and fine tuning rods for quick and easy field or lab re-tuning.

- **Temperature Compensation**

- Ensures Frequency Stability

- **High Attenuation**

- Minimizes desense and interference from adjacent systems

- **Adjustable Loops**

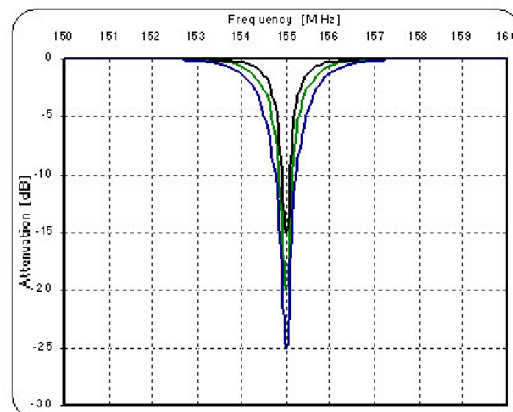
- Each cavity has a calibration index



Electrical Specifications	63-03-71	63-06-71	63-11-71	63-13-71	63-40-71	63-74-71
Frequency Range, MHz	30-50	66-88	108-136	136-174	406-512	746-960
Frequency Spacing Min.	Please Refer To Typical Curves					
Cavity Diameter, in	6.625	6.625	6.625	6.625	6.625	6.625
Continuous Power Input, Watts (Dependent on insertion Loss)	150	150	150	150	150	150
Connectors	N Female	N Female	N Female	N Female	N Female	N Female
Insertion Loss	Please Refer To Typical Curves					
Reject Attenuation	Please Refer To Typical Curves					
VSWR	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	63-03-71	63-06-71	63-11-71	63-13-71	63-40-71	63-74-71
Maximum length, in	132	77	31.5	26	11.5	13
Weight, lbs	n/a	n/a	18	15	10	10

Order Information	Single	Dual	Triple
4" Cavity	63-XX-41	63-XX-42	63-XX-43
6.625" Cavity	63-XX-71	63-XX-72	63-XX-73
10" Cavity	63-XX-01	63-XX-02	63-XX-03



63-13-71

## XMF MULTICOUPLERS

### VHF, UHF, & 700/800/900 MHz, Xpandable, BandPass, Multicoupler Filters

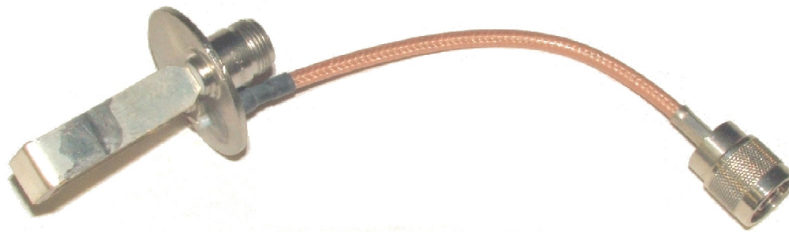
The XMF (Xpandable, Bandpass, Multicoupler, Filter) system is a unique transmit/receive multi-coupler. Each channel consists of one, two, or three bandpass filters in combination with an exclusive notch filter design. This enables system expansion without modification to the existing system channels as long as applicable selectivity standards for minimum channel spacing are met.

This unique notch-filter approach provides a junction between channels, allowing channel frequencies to pass freely to or from antennas, while diverting all other channel frequencies to the pass-through antenna line terminal. This characteristic is field-tunable over specified bands of operation without any alterations in the configuration.

Channels may be interconnected with any convenient cable length. There is also no frequency order of interconnection required. The only requirement is that the minimum spacing for VHF is 0.8 MHz and for UHF is 2 MHz.

The XMF channels are supplied with mounting hardware for wall or rack mounting. The individual cavities are mounted with stainless steel strap clamps, and two horizontal mounting bars. In either case, it may be located at a convenient location for rack or wall applications. Horizontally-spaced mounting holes are the standard 19" EIA rack spacing for on the wall and rack mounting.

For additional information on Comprod Inc. X-Pass, Multicouplers, Duplexers, Pass-Reject, BandPass, or Notch filters, contact our Technical Support team at 1.800.603.1454 or 1.450.641.1454.



**XMF BAND PASS MULTICOUPLER VHF****138-174MHz****60-13-XP Series**

Comprod Inc. BandPass VHF Multicoupler filters are designed for minimizing interference from adjacent channels and outside systems. They are available in single, dual, triple or additional units. Selectivity can be determined by the insertion loss of the cavity or by adding cavity units as required. Each cavity is temperature compensated for operation between -40°C to +60°C. Each cavity has a gold alodine finish, silver plated loops, and silver plated tuning rods. Every cavity is equipped with both coarse and fine tuning rods for quick and easy field or lab re-tuning.

- **Temperature Compensation**

- Ensures Frequency Stability

- **High Attenuation**

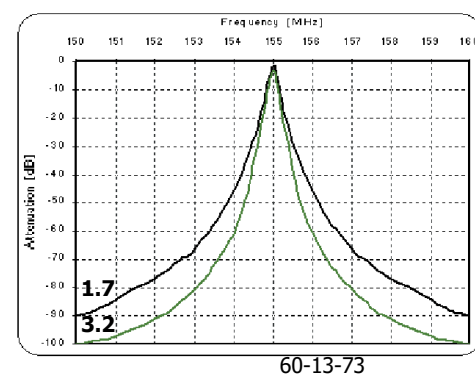
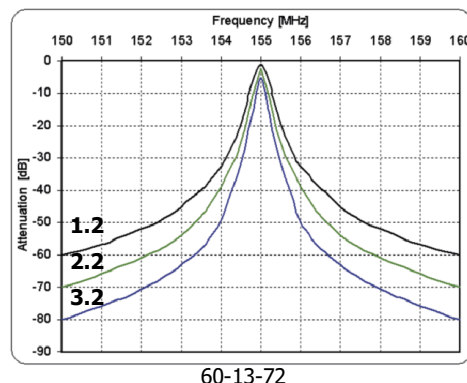
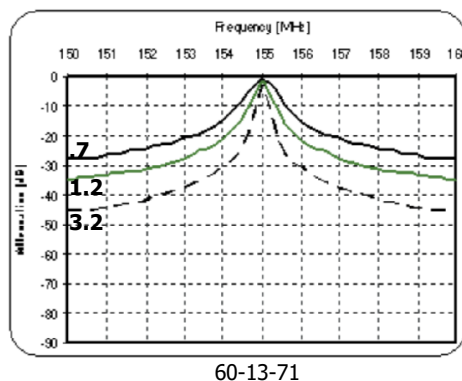
- Minimizes desense and interference from adjacent systems

- **Adjustable Loops**

- Each cavity has a calibration index



Electrical Specifications	60-13-71	60-13-72	60-13-73
Frequency Range, MHz	138-174	138-174	138-174
Frequency Spacing Min. MHz	0.8	0.8	0.8
Cavity Diameter, in	6.625	6.625	6.625
Continuous Power Input, Watts (Dependent on Insertion Loss)	90-400	90-400	90-400
Connectors	N Female	N Female	N Female
Insertion Loss, dB	0.7, 1.2, 3.2	1.2, 2.2, 3.2	1.7, 3.2
Channel Isolation	See Typical Curves		
VSWR	1.5:1	1.5:1	1.5:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60
Mechanical Specifications	60-13-71	60-13-72	60-13-73
Maximum length, in (H x W x D)	34 x 19 x 7	34 x 19 x 16.5	34 x 19 x 16.5
Weight, lbs (kg)	30 (13.6)	36.3 (16.5)	44 (20)





**XMF BAND PASS MULTICOUPLER UHF****406-512MHz****60-40-XP Series**

Comprod Inc. BandPass, UHF, Multicoupler, filters are designed for minimizing interference from adjacent channels and outside systems. They are available in single, dual, triple or additional units. Selectivity can be determined by the insertion loss of the cavity or by adding cavity units as needed. Each cavity is temperature compensated for operation between -40°C to +60°C. Each cavity has a gold alodine finish, silver plated loops, and silver plated tuning rods. Every cavity is equipped with both coarse and fine tuning rods for quick and easy field or lab re-tuning applications.

- **Temperature Compensation**

- Ensures Frequency Stability

- **High Attenuation**

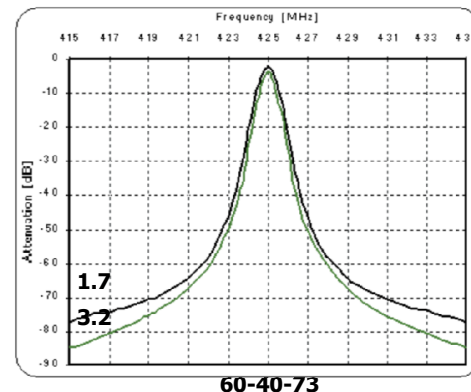
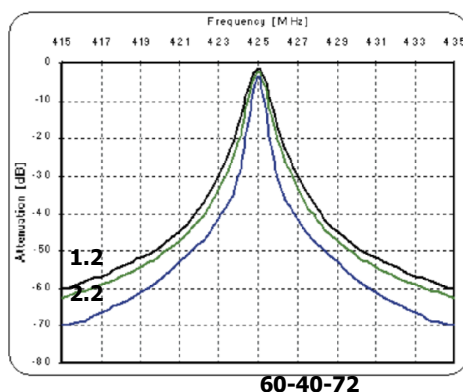
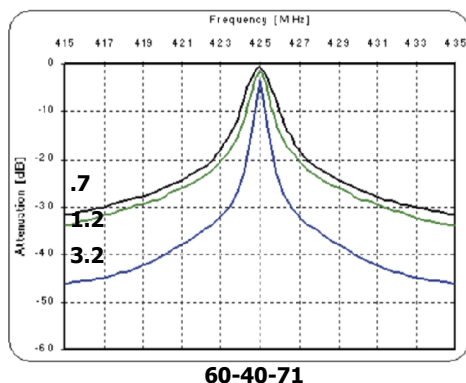
- Minimizes desense and interference from adjacent systems

- **Adjustable Loops**

- Each cavity has a calibration index



Electrical Specifications	60-40-71	60-40-72	60-40-73
Frequency Range, MHz	406-512	406-512	406-512
Frequency Spacing Min. MHz	0.8	0.8	0.8
Cavity Diameter, in	6.625	6.625	6.625
Continuous Power Input , Watts (Dependant on Insertion Loss,)	80-300	80-300	80-300
Connectors	N Female	N Female	N Female
Insertion Loss, dB	0.7, 1.2, 3.2	1.2, 2.2	1.7, 3.2
Channel Isolation	See Curves		
VSWR	1.5:1	1.5:1	1.5:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60
Mechanical Specifications	60-40-71	60-40-72	60-40-73
Maximum length, in (H x W X D)	16 x 19 x 7	16 x 19 x 16.5	16 x 19 x 16.5
Weight, lbs (kg)	18 (8.6)	26 (11.8)	32 (15.2)



**PSEUDO BAND PASS DUPLEXER****66-FF-74**

Comprod Inc. Pseudo BandPass Duplexer filters are designed for quick and easy installations. These filters are designed for the combination of two frequencies requiring extra isolation or can be used as efficient pre-selectors. They are available in either 4 or 6 cavity configurations if higher levels of isolation are required. Selectivity can be determined by the field adjustable capacitors. Each cavity is temperature compensated for operation between -40°C to +60°C. Each cavity has a gold alodine finish, silver plated loops, and silver plated tuning rods. Every cavity is equipped with both coarse and fine tuning rods for quick and easy field or lab re-tuning.

- **Temperature Compensation**

- Ensures Frequency Stability

- **High Attenuation**

- Minimizes desense and interference from adjacent systems

- **Adjustable Loops**

- Each cavity has a calibration index



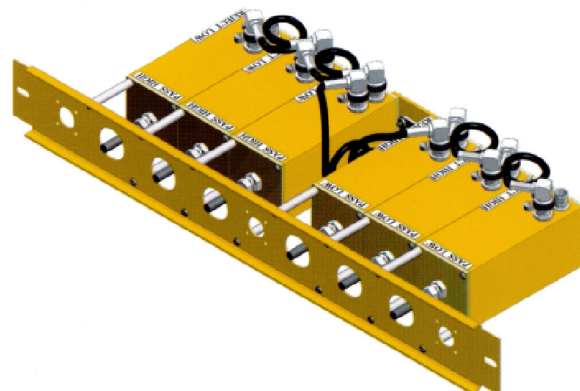
Electrical Specifications	66-13-74	66-40-74
Frequency Range, MHz	138-174	406-512
Frequency Spacing Min.	0.5	1.5
Cavity Diameter, in	6.625	6.625
Continuous Power Input, Watts	400	350
Connectors	N Female	N Female
Insertion Loss	1.5	1.5
Chanel Isolation, @ Min. Separation dB	85	90
VSWR	1.22:1	1.22:1
Temperature °C	-40 to +60	-40 to +60

Mechanical Specifications	66-13-74	66-40-74
Maximum length, in (H x W X D)	34 x 19 x 16.5	18.5 x 19 x 16.5
Weight, lbs (kg)	44 (20)	32 (15.2)

## 2-INCH CAVITY DUPLEXERS

### 66-FF-2P Series 2" Cavity Duplexers

Comprod Inc. 2" base station duplexers are ideal for compact high isolation installations. These filters are designed for the combination of two frequencies that require extra isolation or they can be used as efficient pre-selectors. Available in either 4 or 6 cavity configurations if higher levels of isolation are required. Selectivity can be determined by the field adjustable capacitors. Each cavity is temperature compensated for operation between -40°C to +60 °C. Each cavity has a gold alodine finish, silver plated loops, and silver plated tuning rods.



- **Temperature Compensation**

- Ensures Frequency Stability

- **High Attenuation**

- Minimizes desense and interference from adjacent systems

Electrical Specifications	66-13-24	66-14-24	66-13-26	66-14-26
Frequency Range, MHz	132-150	144-174	132-150	144-174
Frequency Spacing Min.	4.5	4.5	3.0	3.0
Cavity Number	4	4	6	6
Cavity Diameter, in	2.0	2.0	2.0	2.0
Continuous Power Inputs, Watts	100	100	100	100
Connectors (Equipment/Antenna)	BNC/N	BNC/N	BNC/N	BNC/N
Insertion Loss	1.5	1.5	1.5	1.5
Chanel Isolation, dB	70	70	80/90	80/90
VSWR	1.3:1		1.3:1	
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	66-13-24	66-14-24	66-13-26	66-14-26
Maximum length, in (H x W X D)	5.25 x 19 x 7.25		5.25 x 19 x 7.25	
Mounting	19" Rack Mount			

*These duplexers are available in other frequencies and configurations. Please call our technical support for additional models..*

## 4-INCH CAVITY DUPLEXERS

### 66-FF-44 Series (4) 4" Cavity Duplexers

These Comprod Inc. 4" base station duplexers are ideal for high power, close frequency separation installations. These filters are designed for combining two frequencies or they can be used as efficient pre-selectors. If higher levels of isolation are required, please consider using 6 cavity configurations. Selectivity can be determined by the field adjustable capacitors. Each cavity is temperature compensated for operation between -40°C to +60°C. Each cavity has a gold alodine finish, silver plated loops, and plated tuning rods.

#### XBC-FF-PP Series

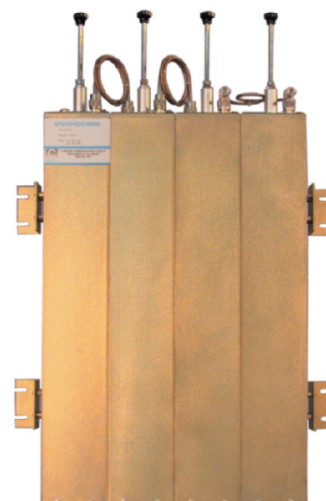
- **Temperature Compensation**

- Ensures Frequency Stability

- **High Attenuation**

- Minimizes desense and interference from adjacent systems

- **Adjustable Loops**



Electrical Specifications	66-13-44	66-40-44	66-80-44
Frequency Range, MHz	138-174	406-512	746-960
Frequency Spacing Min. MHz	0.5	5	9
Cavities, Diameter, in	(4) - 4" Square	(4) - 4" Square	(4) - 4" Square
Continuous Power Input, Watts	350	350	150
Connectors	N Female	N Female	N Female
Insertion Loss, dB	1.5 dB	0.8 dB	0.8 dB
Channel Isolation	70 dB	75 dB	90 dB
VSWR	1.2:1	1.2:1	1.2:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	66-13-44	66-40-44	66-80-44
Maximum length, in (H x W x D)	31 x 19 x 4	4 x 19 x 15	4 x 19 x 12
Weight, lbs (kg)	30 (13.6)	18 (8.2)	16 (7.3)
Mounting	19" Rack Mount	19" Rack Mount	19" Rack Mount

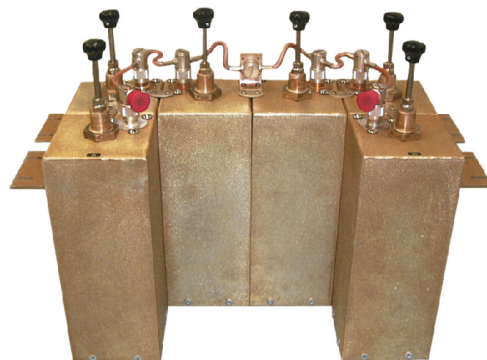
Order Information	Frequency	Wall Mount	4 Cavities
66-13-4X	138-174MHz	66-13-44WM	66-13-44
66-40-4X	406-470MHz	66-40-44WM	66-40-44
66-74-4X	746-806MHz	66-74-44WM	66-74-44
66-80-4X	806-896MHz	66-80-44WM	66-80-44
66-90-4X	896-960MHz	66-90-44WM	66-90-44



## 4-INCH CAVITY DUPLEXERS

### 66-FF-46 Series (6) 4" Cavity Duplexers

These Comprod Inc. 6 cavity 4" base station duplexers are ideal for high power close frequency separation installations. These filters are designed for the combination of 2 frequencies that require extra isolation or they can be used as an efficient pre-selector. If higher levels of isolation are required, please consider using the 8 cavity configuration. Selectivity can be determined by the field adjustable loops. Each cavity is temperature compensated for operation between -40°C to +60°C. Each cavity has a gold alodine finish, silver plated loops, and silver plated tuning rods.



- **Temperature Compensation**

- Ensures Frequency Stability

- **High Attenuation**

- Minimizes desense and interference from adjacent systems

Electrical Specifications	66-13-46	66-40-46	66-80-46
Frequency Range, MHz	138-174	406-512	746-960
Frequency Spacing Min. MHz	0.5	5.0	3.6
Cavities, Diameter, in	(6) - 4" Square	(6) - 4" Square	(6) - 4" Square
Continuous Power Input, Watts	350	350	350
Connectors	N Female	N Female	N Female
Insertion Loss, dB	2.1	1.2	1.2
Channel Isolation @ Min. Sep. dB	85	100	85
VSWR	1.22:1	1.22:1	1.22:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	66-13-46	66-40-46	66-80-46
Maximum length, in (H x W X D)	31 x 19 x 8	8 x 19 x 15	8 x 19 x 12
Weight, lbs (kg)	45 (20.25)	27 (12.15)	24 (10.8)
Mounting	19" Rack Mount	19" Rack Mount	19" Rack Mount

Order Information	Frequency	Wall Mount	6 Cavities
66-13-46	138-174MHz	66-13-46WM	66-13-46
66-40-46	406-512MHz	66-40-46WM	66-40-46
66-80-46	746-960MHz	66-80-46WM	66-80-46

## 4 CAVITY MOBILE DUPLEXERS

## VHF &amp; UHF

## 4 Cavity Standard Version

The Comprod Inc. line of mobile duplexers features compact size, low loss and temperature compensation over the range of  $-40^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ . The use of extruded aluminum cavities and solid- shield copper-jacketed inter-cabling ensures excellent mechanical and electrical stability.

All units are adjustable in the field by qualified personnel and rated at 50 Watts maximum with a maximum VSWR of 1.5: 1 over the entire tuning range.

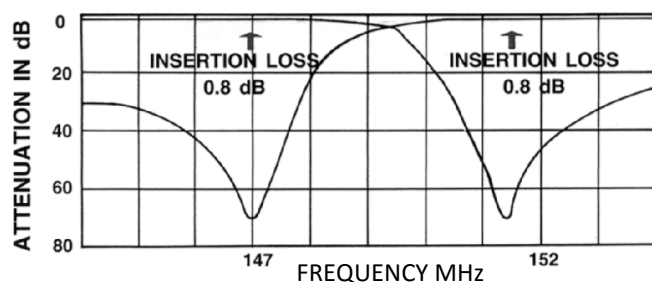
BNC connectors are standard. Variations on connectors and mountings are available by special order. For N female connectors, add suffix N to model number (Ex. 534-90N).



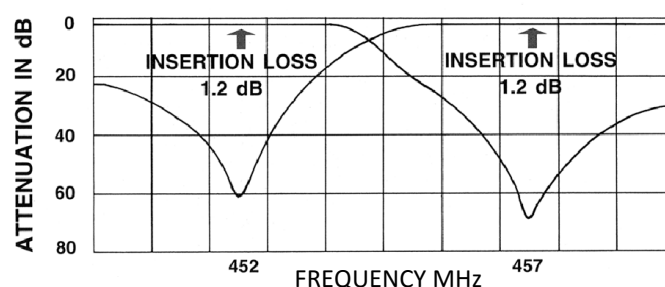
Electrical Specifications	534-90	504-90	
Frequency Range, MHz	144-155/150-165/160-174	406-435/430-470	
Frequency Spacing Min. MHz	4.5	5.0	10.0
Continuous Power Rating, Watts	50	50	50
Insertion Loss - dB: TX to Antenna	0.8	1.2	0.8
Insertion Loss - dB: RX to Antenna	0.8	1.2	0.8
Isolation-dB: TX noise suppression at RX frequency	60	50	60
Isolation-dB: TX isolation at TX frequency	60	50	60
Maximum VSWR, Ohms	1.5:1	1.5:1	
Impedance, Ohms	50	50	
Connector Type, Female	BNC	BNC	
Temperature $^{\circ}\text{C}$	$-40$ to $+60$	$-40$ to $+60$	

Mechanical Specifications	534-90	504-90
Dimensions H x W x D, in. (mm)	1-1/4 x 4-1/8 x 7-5/8 (31.8 x 105 x 194)	1-1/4 x 4-1/8 x 8-3/4 (31.8 x 105 x 222)
Weight, lbs (kg)	1.5 (0.7)	2 (0.9)

534-90  
Typical Response Curve at 4.5 MHz Spacing



504-90  
Typical Response Curve at 5 MHz Spacing



## 6 CAVITY MOBILE DUPLEXER

VHF & UHF

### 6 Cavity Standard Version

The Comprod Inc. line of mobile duplexers features compact size, low loss and temperature compensation over the range of -40°C to +60°C. The use of extruded aluminum cavities and solid-shield copper-jacketed intercabling ensures excellent mechanical and electrical stability.

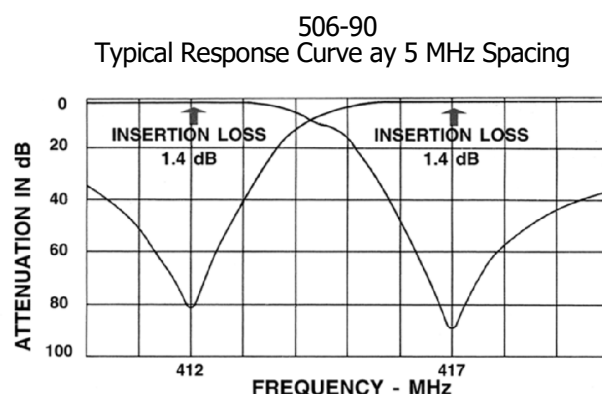
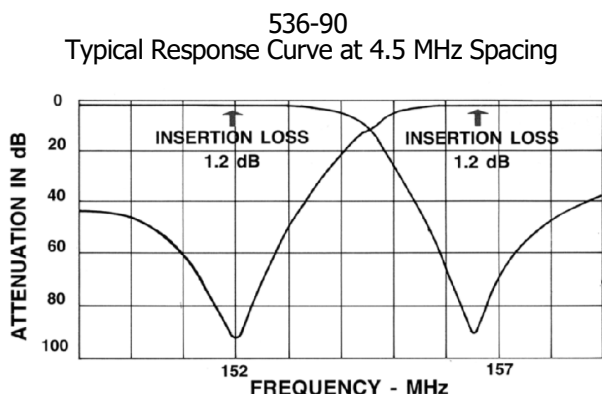
All units are adjustable in the field by qualified personnel and rated at 50 watts continuous duty with a maximum VSWR of 1.5: 1 over the entire tuning range.

BNC connectors are standard. Variations on connectors and mountings are available by special order. For N female connectors, add suffix N to model number (Ex. 536-90N)



Electrical Specifications	536-90	506-90	
Frequency Range, MHz	144-155/150-165/160-174	406-435/430-470	
Frequency Spacing Min. MHZ	4,5	5	10
Continuous Power Rating, Watts	50	50	50
Insertion Loss - dB: TX to Antenna	1.2	1.4	1.2
Insertion Loss - dB: RX to Antenna	1.2	1.4	1.2
Isolation-db: TX noise suppression at RX frequency	80	75	80
Isolation-db: TX isolation at TX frequency	80	75	80
Maximun VSWR , Ohms	1.5:1	1.5:1	
Impedance, Ohms	50	50	
Connector Type, Female	BNC	BNC	
Temperature °C	-40 to +60	-40 to +60	

Mechanical Specifications	536-90	506-90
Dimensions H x W x D, in.	1-1/4 X 6-3/16 X 7-5/8	1-1/4 X 6-3/16 X 7-5/8
(mm)	(31.8 X 157 X 222)	(31.8 X 157 X 222)
Weight, lbs (kg)	2.0 (0.9)	3.5 (1.7)



## X-PASS

### Expandable Multicoupler/Combiner Filters The Next Generation of Filtration

The X-Pass system is among the most innovative filter designs available today. Possessing the properties of a combiner, but having the expandability of a multicoupler, our X-Pass filters are one of the most versatile and re-usable filtration systems available on the market.

The X-Pass Transmitter Combiner Receiver Multicoupler has superior expandability compared with the fixed star junction configuration. The X-Pass system can be expanded one channel at a time for up to 21 channels with factory tuned, easy to install expansion channel assemblies. Expansion can be completed easily, without modifying the existing system, as easy as adding one or more channels on top of the existing system (daisy chain).

The X-Pass system is a broadband design allowing the system to span entire frequency ranges by using the properties of the X-Pass combiner for close frequency spacing and the X-Pass multicoupler properties for normally spaced channels. The X-Pass system can span the full 138-174 MHz, 406-512 MHz or 806-960 MHz frequency bands. When using the 6.625" cavities, the Tx-Tx separation in VHF can be as close as 75 kHz of frequency separation, or 50 kHz of separation when using 10" cavities.

The X-Pass system has the advantage of being extremely flexible to configure. With the ability to combine Bandpass, Pass-Reject, or Notch loops for 6.625" and 10" cavity filters, once-difficult complex operating requirements can be resolved with a customized design. This allows the X-Pass system to have unlimited combinations that can be integrated using multi-cavity configurations while retaining the expandability of the combiner properties for close frequency-spaced channels using 6.625" and 10" cavities. The system can also be a combination of a combiner for close frequency-spaced channels while encompassing the expandability of a standard multicoupler that can be integrated with standard Bandpass, Notch, and Pass-Reject filter combinations. All X-Pass systems come fully assembled, tested and ready for Plug-and-Play installations.

The X-Pass system has one extra beneficial aspect - the optional X-Pass Rack. With this unique rack design, certain systems can take up to 50 % less space than other systems that are in a 19" rack. By being able to mount all of the cavities horizontally, the installer has the ability to expand one channel on top of another in no particular order, and not having the physical obstacles of mounting a star-junction type configuration in a rack. The X-Pass system can save valuable installation space, and make efficient use of the rack space for future expansion projects.

For additional information on Comprod Inc. X-Pass, Multicouplers, Duplexers, Pass-Reject, BandPass, or Notch filters, contact our Technical Support team at 1.800.603.1454 or 1.450.641.1454.





**X-PASS CAVITY****30-1000 MHz****68-XX-7X Series**

Comprod Inc. X-Pass filters are designed for flexible, close frequency systems. Each cavity has both a Reject and a Pass band curve. These individual cavities are used to add channels to existing systems. Available in single units, they can be combined with BandPass, Notch, and Pass Reject cavities for added protection and isolation. Selectivity can be determined by the insertion loss of the cavity or by adding BandPass cavity units to this expansion channel as required. Each cavity is temperature compensated for operation between -40°C to +60°C. Each cavity has a gold alodine finish, silver plated loops, and silver plated tuning rods. Every cavity is equipped with both coarse and fine tuning rods for quick and easy field or lab re-tuning.



- **Temperature Compensation**

- Ensures Frequency Stability

- **High Attenuation**

- Minimizes desense and interference from adjacent systems

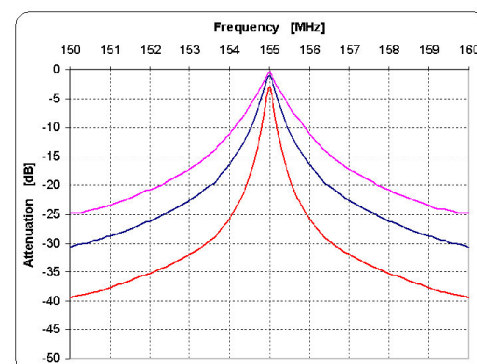
- **Adjustable Loops**

- Each cavity has a calibration index

Electrical Specifications	68-03-71	68-06-71	68-11-71	68-13-71	68-40-71	68-74-71
Frequency Range, MHz	30-40	66-88	118-136	136-174	406-512	746-960
Frequency Spacing Min.	Please Refer To Typical Curves					
Cavity Diameter, in	6.625	6.625	6.625	6.625	6.625	6.625
Continuous Power Input, Watts	150	150	150	150	150	150
Connectors	N Female	N Female	N Female	N Female	N Female	N Female
Insertion Loss	Please Refer To Typical Curves					
Reject Attenuation	Please Refer To Typical Curves					
VSWR	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	68-03-71	68-06-71	68-11-71	68-13-71	68-40-71	68-74-71
Maximum length, in	132	77	31.5	26	11.5	13
Weight, lbs	n/a	n/a	18	15	10	10

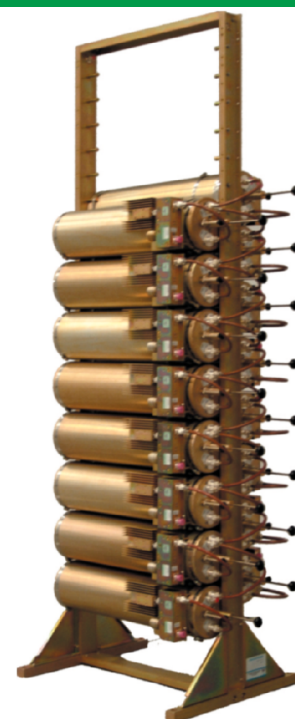
Order Information	Single
4" Cavity	68-XX-41
6.625" Cavity	68-XX-71
10" Cavity	68-XX-01

**68-13-71**

**XPANDABLE TRANSMIT COMBINER****66-88 MHz****XTC-Xpandable Transmit Combiner Series—7" Cavity**

Our eXpandable Transmit Combiners can combine from 1 to 21 channels. The XTC series of filters incorporates expandability, close frequency spacing and some of the lowest insertion losses in the industry. Using a 6.625" cavity, the XTC can easily support 75 kHz Tx-Tx spacing or 50 kHz spacing while using 10" cavities. Each cavity is constructed using a gold alodine finish, silver plated loops, silver plated connectors and internal tuning plunger. Additionally, cavities are temperature compensated for operation between -40°C to +60°C. Every cavity is equipped with both coarse and fine tuning rods for quick and easy field or lab re-tuning.

- Flexible and expandable design, From 1-21 channel capacity
- Expandable: 1 or more additional channels at a time, Re-configurable equipment
- 66-88 MHz, 22 MHz of operating bandwidth
- Temperature compensation, Ensures frequency stability
- High attenuation, Minimizes desense and interference
- Ultra-low insertion losses, Low coupling and bridging losses
- Continuous high-power handling capability, 150 watts – 24/7



Electrical Specifications	XTC-06-72	XTC-06-74	XTC-06-76	XTC-06-78	XTC-06-7-10	XTC-06-7-12
Frequency Range, MHz	66-88	66-88	66-88	66-88	66-88	66-88
Bandwidth, MHz	22	22	22	22	22	22
Number of Channels	2	4	6	8	10	12
Cavity Diameter, in	6.625	6.625	6.625	6.625	6.625	6.625
Min. Channel Sep., KHz	50	50	50	50	50	50
Isolation Min., Tx-Tx, dB	70	70	70	70	70	70
Isolation Min., Ant-Tx, dB	60	60	60	60	60	60
Max. Insertion Loss Per Chan., dB	4.7	5.5	6	6.3	6.8	7.3
Continuous Power Input, Watts	150	150	150	150	150	150
Connectors	N Female	N Female	N Female	N Female	N Female	N Female
VSWR	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60
Mechanical Specifications	XTC-06-72	XTC-06-74	XTC-06-76	XTC-06-78	XTC-06-7-10	XTC-06-7-12
Height, in (H x W X D) (mm) (In X Rack)	86.5 x 24 x 40.25 (2197 x 610 x 1022)					
Mounts in 19" Standard Rack	Yes	Yes	Yes	Yes	Yes	Yes
Weight	DEPENDS ON SET-UP AND RACK DESIGN					
Order Information	Single Cavity	2 - Channel	3 - Channel	5 - Channel	8 - Channel	
4" Cavity	XTC-06-41	XTC-06-42	XTC-06-43	XTC-06-45	XTC-06-48	
6.625" Cavity	XTC-06-71	XTC-06-72	XTC-06-73	XTC-06-75	XTC-06-78	
10" Cavity	XTC-06-01	XTC-06-02	XTC-06-03	XTC-06-05	XTC-06-08	

**XPANDABLE TRANSMIT COMBINER****66-88 MHz****XTC-Xpandable Transmit Combiner Series-10" Cavity**

Our eXpandable Transmit Combiners can combine from 1 to 21 channels. The XTC series of filters incorporates expandability, close frequency spacing and some of the lowest insertion losses in the industry. Using a 6.625" cavity, the XTC can easily support 75 kHz Tx-Tx spacing or 50 kHz spacing when using 10" cavities. Each cavity is constructed using a gold alodine finish, silver plated loops, silver plated connectors and an internal tuning plunger. Additionally, cavities are temperature compensated for operation between -40°C to +60°C. Every cavity is equipped with both coarse and fine tuning rods for quick and easy field or lab re-tuning.

- Flexible and expandable design, From 1-21 channel capacity
- Expandable: 1 or more additional channels at a time, Re-configurable equipment
- 66-88 MHz, 22 MHz of operating bandwidth
- Temperature compensation, Ensures frequency stability
- High attenuation, Minimizes desense and interference
- Ultra-low insertion losses, Low coupling and bridging losses
- Continuous high-power handling capability, 150 watts – 24/7

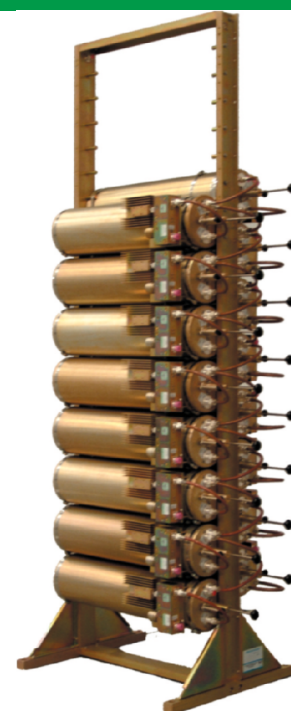


Electrical Specifications	XTC-06-02	XTC-06-04	XTC-06-06	XTC-06-08	XTC-06-0-10
Frequency Range, MHz	66-88	66-88	66-88	66-88	66-88
Bandwidth, MHz	22	22	22	22	22
Number of Channels	2	4	6	8	10
Cavity Diameter, in	10	10	10	10	10
Min. Channel Sep., KHz	50	50	50	50	50
Isolation Min., Tx-Tx, dB	70	70	70	70	70
Isolation Min., Ant-Tx, dB	60	60	60	60	60
Max. Insertion Loss Per Chan., dB	3.8	4.9	5.2	5.4	5.6
Continuous Power Input, Watts	150	150	150	150	150
Connectors	N Female	N Female	N Female	N Female	N Female
VSWR	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60
Mechanical Specifications	XTC-06-02	XTC-06-04	XTC-06-06	XTC-06-08	XTC-06-0-10
Height, in (H x W X D) (mm) (In X Rack)	86.5 x 24 x 40.25 (2197 x 610 x 1022)				
Mounts in 19" Standard Rack	Yes	Yes	Yes	Yes	Yes
Weight	DEPENDS ON SET-UP AND RACK DESIGN				
Order Information	Single Cavity	2 - Channel	3 - Channel	5 - Channel	8 - Channel
4" Cavity	XTC-06-41	XTC-06-42	XTC-06-43	XTC-06-45	XTC-06-48
6.625" Cavity	XTC-06-71	XTC-06-72	XTC-06-73	XTC-06-75	XTC-06-78
10" Cavity	XTC-06-01	XTC-06-02	XTC-06-03	XTC-06-05	XTC-06-08

**XPANDABLE TRANSMIT COMBINER****108-136MHz****XTC-Xpandable Transmit Combiner Series—7" Cavity**

Our eXpandable Transmit Combiners can combine from 1 to 21 channels. The XTC series of filters incorporates expandability, close frequency spacing and some of the lowest insertion losses in the industry. Using a 6.625" cavity, the XTC can easily support 75 kHz Tx-Tx spacing or 50 kHz spacing while using 10" cavities. Each cavity is constructed using a gold alodine finish, silver plated loops, silver plated connectors and an internal tuning plunger. Additionally, cavities are temperature compensated for operation between -40°C to +60°C. Every cavity is equipped with both coarse and fine tuning rods for quick and easy field or lab re-tuning.

- Flexible and expandable design, From 1-21 channel capacity
- Expandable: 1 or more additional channels at a time, Re-configurable equipment
- 108-136 MHz, 28 MHz of operating bandwidth
- Temperature compensation, Ensures frequency stability
- High attenuation, Minimizes desense and interference
- Ultra-low insertion losses, Low coupling and bridging losses
- Continuous high-power handling capability, 150 watts – 24/7



Electrical Specifications	XTC-11-72	XTC-11-74	XTC-11-76	XTC-11-78	XTC-11-7-10	XTC-11-7-12
Frequency Range, MHz	108-136	108-136	108-136	108-136	108-136	108-136
Bandwidth, MHz	28	28	28	28	28	28
Number of Channels	2	4	6	8	10	12
Cavity Diameter, in	6.625	6.625	6.625	6.625	6.625	6.625
Min. Channel Sep., KHz	75	75	75	75	75	75
Isolation Min., Tx-Tx, dB	70	70	70	70	70	70
Isolation Min., Ant-Tx, dB	60	60	60	60	60	60
Max. Insertion Loss Per Chan., dB	3.6	4.5	4.8	5.2	5.4	5.6
Continuous Power Input, Watts	150	150	150	150	150	150
Connectors	N Female	N Female	N Female	N Female	N Female	N Female
VSWR	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	XTC-11-72	XTC-11-74	XTC-11-76	XTC-11-78	XTC-11-7-10	XTC-11-7-12
Height, in (H x W X D) (mm) (In X Rack)	86.5 x 24 x 40.25 (2197 x 610 x 1022)					
Mounts in 19" Standard Rack	Yes	Yes	Yes	Yes	Yes	Yes
Weight	DEPENDS ON SET-UP AND RACK DESIGN					

Order Information	Single Channel	2 - Channel	3 - Channel	5 - Channel	8 - Channel
4" Cavity	XTC-10-41	XTC-10-42	XTC-10-43	XTC-10-45	XTC-10-48
6.625" Cavity	XTC-10-71	XTC-10-72	XTC-10-73	XTC-10-75	XTC-10-78
10" Cavity	XTC-10-01	XTC-10-02	XTC-10-03	XTC-10-05	XTC-10-08



**XPANDABLE TRANSMIT COMBINER****108-136MHz****XTC-Xpandable Transmit Combiner Series—10" Cavity**

Our eXpandable Transmit combiners can combine from 1 to 21 channels. The XTC series of filters incorporates expandability, close frequency spacing and some of the lowest insertion losses in the industry. Using a 6.625" cavity, the XTC can easily support 75 kHz Tx-Tx spacing or 50 kHz spacing while using 10" cavities. Each cavity is constructed using a gold alodine finish, silver plated loops, silver plated connectors and internal tuning plunger. Additionally, cavities are temperature compensated for operation between -40°C to +60°C. Every cavity is equipped with both coarse and fine tuning rods for quick and easy field or lab re-tuning.

- Flexible and expandable design, From 1-21 channel capacity
- Expandable: 1 or more additional channels at a time, Re-configurable equipment
- 108-136 MHz, 28 MHz of operating bandwidth
- Temperature compensation, Ensures frequency stability
- High attenuation, Minimizes desense and interference
- Ultra-low insertion losses, Low coupling and bridging losses
- Continuous high-power handling capability, 150 watts – 24/7



Electrical Specifications	XTC-11-02	XTC-11-04	XTC-11-06	XTC-11-08	XTC-11-0-10	XTC-11-0-12
Frequency Range, MHz	108-136	108-136	108-136	108-136	108-136	108-136
Bandwidth, MHz	28	28	28	28	28	28
Number of Channels	2	4	6	8	10	12
Cavity Diameter, in	10	10	10	10	10	10
Min. Channel Sep., KHz	50	50	50	50	50	50
Isolation Min., Tx-Tx, dB	70	70	70	70	70	70
Isolation Min., Ant-Tx, dB	60	60	60	60	60	60
Max. Insertion Loss Per Chan.,	4.1	4.8	5.1	5.4	5.6	5.7
Continuous Power Input, Watts	150	150	150	150	150	150
Connectors	N Female	N Female	N Female	N Female	N Female	N Female
VSWR	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1
Mechanical Specifications	XTC-11-02	XTC-11-04	XTC-11-06	XTC-11-08	XTC-11-0-10	XTC-11-0-12
Height, in (H x W X D) (mm) (In X Rack)	86.5 x 24 x 40.25 (2197 x 610 x 1022)					
Mounts in 19" Standard Rack	Yes	Yes	Yes	Yes	Yes	Yes
Weight	DEPENDS ON SET-UP AND RACK DESIGN					
Order Information	Single Channel	2 - Channel	3 - Channel	5 - Channel	8 - Channel	
4" Cavity	XTC-10-41	XTC-10-42	XTC-10-43	XTC-10-45	XTC-10-48	
6.625" Cavity	XTC-10-71	XTC-10-72	XTC-10-73	XTC-10-75	XTC-10-78	
10" Cavity	XTC-10-01	XTC-10-02	XTC-10-03	XTC-10-05	XTC-10-08	

**XPANDABLE TRANSMIT COMBINER****132-174MHz****XTC-Xpandable Transmit Combiner Series—7" Cavity**

Our eXpandable Transmit Combiners can combine from 1 to 21 channels. The XTC series of filters incorporates expandability, close frequency spacing and some of the lowest insertion losses in the industry. Using a 6.625" cavity, the XTC can easily support 75 kHz Tx-Tx spacing or 50 kHz spacing while using 10" cavities. Each cavity is constructed using a gold alodine finish, silver plated loops, silver plated connectors and internal tuning plunger. Additionally, cavities are temperature compensated for operation between -40°C to +60°C. Every cavity is equipped with both coarse and fine tuning rods for quick and easy field or lab re-tuning.

- Flexible and expandable design, From 1-21 channel capacity
- Expandable 1 or more additional channels at a time, Re-configurable equipment
- 132-174 MHz, 42 MHz of operating bandwidth
- Temperature compensation, Ensures frequency stability
- High Attenuation, Minimizes desense and interference
- Ultra-low insertion losses, Low coupling and bridging losses
- Continuous high power handling capability, 150 watts – 24/7



Electrical Specifications	XTC-13-72	XTC-13-74	XTC-13-76	XTC-13-78	XTC-13-7-10	XTC-13-7-12
Frequency Range, MHz	132-174	132-174	132-174	132-174	132-174	132-174
Bandwidth, MHz	42	42	42	42	42	42
Number of Channels	2	4	6	8	10	12
Cavity Diameter, in	6.625	6.625	6.625	6.625	6.625	6.625
Min. Channel Sep., KHz	75	75	75	75	75	75
Isolation Min., Tx-Tx, dB	70	70	70	70	70	70
Isolation Min., Ant-Tx, dB	60	60	60	60	60	60
Max. Insertion Loss Per Chan., dB	4.3	5.4	5.8	6.2	6.5	6.7
Continuous Power Input, Watts	150	150	150	150	150	150
Connectors	N Female	N Female	N Female	N Female	N Female	N Female
VSWR	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60
Mechanical Specifications	XTC-13-72	XTC-13-74	XTC-13-76	XTC-13-78	XTC-13-7-10	XTC-13-7-12
Height, in (H x W X D) (mm) (In X Rack)	86.5 x 24 x 40.25 (2197 x 610 x 1022)					
Mounts in 19" Standard Rack	Yes	Yes	Yes	Yes	Yes	Yes
Weight	DEPENDS ON SET-UP AND RACK DESIGN					
Order Information	Single Channel	2 - Channel	3 - Channel	5 - Channel	8 - Channel	
4" Cavity	XTC-13-41	XTC-13-42	XTC-13-43	XTC-13-45	XTC-13-48	
6.625" Cavity	XTC-13-71	XTC-13-72	XTC-13-73	XTC-13-75	XTC-13-78	
10" Cavity	XTC-13-01	XTC-13-02	XTC-13-03	XTC-13-05	XTC-13-08	

**XPANDABLE TRANSMIT COMBINER****132-174MHz****XTC-Xpandable Transmit Combiner Series—10" Cavity**

Our eXpandable Transmit Combiners can combine from 1 to 21 channels. The XTC series of filters incorporates expandability, close frequency spacing and some of the lowest insertion losses in the industry. Using a 6.625" cavity, the XTC can easily support 75 kHz Tx-Tx spacing or 50 kHz spacing while using 10" cavities. Each cavity is constructed using a gold alodine finish, silver plated loops, silver plated connectors and internal tuning plunger. Additionally, cavities are temperature compensated for operation between -40°C to +60°C. Every cavity is equipped with both coarse and fine tuning rods for quick and easy field or lab re-tuning.

- Flexible and expandable design, From 1-21 channel capacity
- Expandable 1 or more additional channels at a time, Re-configurable equipment
- 132-174 MHz, 42 MHz of operating bandwidth
- Temperature compensation, Ensures frequency stability
- High Attenuation, Minimizes desense and interference
- Ultra-low insertion losses, Low coupling and bridging losses
- Continuous high power handling capability, 150 watts – 24/7



Electrical Specifications	XTC-13-02	XTC-13-04	XTC-13-06	XTC-13-08	XTC-13-0-10	XTC-13-0-12
Frequency Range, MHz	132-174	132-174	132-174	132-174	132-174	132-174
Bandwidth, MHz	42	42	42	42	42	42
Number of Channels	2	4	6	8	10	12
Cavity Diameter, in	10	10	10	10	10	10
Min. Channel Sep., KHz	50	50	50	50	50	50
Isolation Min., Tx-Tx, dB	70	70	70	70	70	70
Isolation Min., Ant-Tx, dB	60	60	60	60	60	60
Max. Insertion Loss Per Chan., dB	4.1	5.0	5.4	5.7	5.9	6.1
Continuous Power Input, Watts	150	150	150	150	150	150
Connectors	N Female	N Female	N Female	N Female	N Female	N Female
VSWR	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60
Mechanical Specifications	XTC-13-02	XTC-13-04	XTC-13-06	XTC-13-08	XTC-13-0-10	XTC-13-0-12
Height, in (H x W X D) (mm) - (In X Rack)	86.5 x 24 x 40.25 (2197 x 610 x 1022)					
Mounts in 19" Standard Rack	Yes	Yes	Yes	Yes	Yes	Yes
Weight	DEPENDS ON SET-UP AND RACK DESIGN					
Order Information	Single Cavity	2 - Channel	3 - Channel	5 - Channel	8 - Channel	
4" Cavity	XTC-06-41	XTC-06-42	XTC-06-43	XTC-06-45	XTC-06-48	
6.625" Cavity	XTC-06-71	XTC-06-72	XTC-06-73	XTC-06-75	XTC-06-78	
10" Cavity	XTC-06-01	XTC-06-02	XTC-06-03	XTC-06-05	XTC-06-08	

**XPANDABLE TRANSMIT COMBINER****215-300MHz****XTC-Xpandable Transmit Combiner Series—7" Cavity**

Our eXpandable Transmit Combiners can combine from 1 to 21 channels. The XTC series of filters incorporates expandability, close frequency spacing and some of the lowest insertion losses in the industry. Using a 6.625" cavity, the XTC can easily support 100 kHz Tx-Tx spacing or 75 kHz spacing while using 10" cavities. Each cavity is constructed using a gold alodine finish, silver plated loops, silver plated connectors and internal tuning plunger. Additionally, cavities are temperature compensated for operation between -40°C to +60°C. Every cavity is equipped with both coarse and fine tuning rods for quick and easy field or lab re-tuning.

- Flexible and expandable design, From 1-21 channel capacity
- Expandable 1 or more additional channels at a time, Re-configurable equipment
- 215-300MHz, 85 MHz of operating bandwidth
- Temperature compensation, Ensures frequency stability
- High Attenuation, Minimizes desense and interference
- Ultra-low insertion losses, Low coupling and bridging losses
- Continuous high power handling capability, 150 watts – 24/7



Electrical Specifications	XTC-22-72	XTC-22-74	XTC-22-76	XTC-22-78	XTC-22-7-10	XTC-22-7-12
Frequency Range, MHz	215-300	215-300	215-300	215-300	215-300	215-300
Bandwidth, MHz	85	85	85	85	85	85
Number of Channels	2	4	6	8	10	12
Cavity Diameter, in	6.625	6.625	6.625	6.625	6.625	6.625
Min. Channel Sep., KHz	100	100	100	100	100	100
Isolation Min., Tx-Tx, dB	70	70	70	70	70	70
Isolation Min., Ant-Tx, dB	60	60	60	60	60	60
Max. Insertion Loss Per Chan., dB	4.1	4.5	5.1	5.4	5.6	5.8
Continuous Power Input, Watts	150	150	150	150	150	150
Connectors	N Female	N Female	N Female	N Female	N Female	N Female
VSWR	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60
Mechanical Specifications	XTC-22-72	XTC-22-74	XTC-22-76	XTC-22-78	XTC-22-7-10	XTC-22-7-12
Height, in (H x W X D) (mm) (In X Rack)	86.5 x 24 x 26.4 (2197 x 610 x 671)					
Mounts in 19" Standard Rack	Yes	Yes	Yes	Yes	Yes	Yes
Weight	DEPENDS ON SET-UP AND RACK DESIGN					
Order Information	Single Channel	2 - Channel	3 - Channel	5 - Channel	8 - Channel	
4" Cavity	XTC-22-41	XTC-22-42	XTC-22-43	XTC-22-45	XTC-22-48	
6.625" Cavity	XTC-22-71	XTC-22-72	XTC-22-73	XTC-22-75	XTC-22-78	
10" Cavity	XTC-22-01	XTC-22-02	XTC-22-03	XTC-22-05	XTC-22-08	



**XPANDABLE TRANSMIT COMBINER****215-300MHz****XTC-Xpandable Transmit Combiner Series-10" Cavity**

Our eXpandable Transmit Combiners can combine from 1 to 21 channels. The XTC series of filters incorporates expandability, close frequency spacing and some of the lowest insertion losses in the industry. Using a 6.625" cavity, the XTC can easily support 100 kHz Tx-Tx spacing or 75 kHz spacing while using 10" cavities. Each cavity is constructed using a gold alodine finish, silver plated loops, silver plated connectors and internal tuning plunger. Additionally, cavities are temperature compensated for operation between -40°C to +60°C. Every cavity is equipped with both coarse and fine tuning rods for quick and easy field or lab re-tuning.

- Flexible and expandable design, From 1-21 channel capacity
- Expandable 1 or more additional channels at a time, Re-configurable equipment
- 215-300MHz, 85 MHz of operating bandwidth
- Temperature compensation, Ensures frequency stability
- High Attenuation, Minimizes desense and interference
- Ultra-low insertion losses, Low coupling and bridging losses
- Continuous high power handling capability, 150 watts – 24/7



Electrical Specifications	XTC-22-02	XTC-22-04	XTC-22-06	XTC-22-08	XTC-22-0-10	XTC-22-0-12
Frequency Range, MHz	215-300	215-300	215-300	215-300	215-300	215-300
Bandwidth, MHz	85	85	85	85	85	85
Number of Channels	2	4	6	8	10	12
Cavity Diameter, in	10	10	10	10	10	10
Min. Channel Sep., KHz	75	75	75	75	75	75
Isolation Min., Tx-Tx, dB	70	70	70	70	70	70
Isolation Min., Ant-Tx, dB	60	60	60	60	60	60
Max. Insertion Loss Per Chan., dB	4.2	5.1	5.5	5.8	6	6.2
Continuous Power Input, Watts	150	150	150	150	150	150
Connectors	N Female	N Female	N Female	N Female	N Female	N Female
VSWR	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60
Mechanical Specifications	XTC-22-02	XTC-22-04	XTC-22-06	XTC-22-08	XTC-22-0-10	XTC-22-0-12
Height, in (H x W X D) (mm) (In X Rack)	79.5 x 24 x 28.4 (2019 x 610 x 721)					
Mounts in 19" Standard Rack	Yes	Yes	Yes	Yes	Yes	Yes
Weight	DEPENDS ON SET-UP AND RACK DESIGN					
Order Information	Single Channel	2 - Channel	3 - Channel	5 - Channel	8 - Channel	
4" Cavity	XTC-22-41	XTC-22-42	XTC-22-43	XTC-22-45	XTC-22-48	
6.625" Cavity	XTC-22-71	XTC-22-72	XTC-22-73	XTC-22-75	XTC-22-78	
10" Cavity	XTC-22-01	XTC-22-02	XTC-22-03	XTC-22-05	XTC-22-08	

**XPANDABLE TRANSMIT COMBINER****380-512MHz****XTC-Xpandable Transmit Combiner Series—7" Cavity**

Our eXpandable Transmit Combiners can combine from 1 to 21 channels. The XTC series of filters incorporates expandability, close frequency spacing and some of the lowest insertion losses in the industry. Using a 6.625" cavity, the XTC can easily support 125 kHz Tx-Tx spacing or 75 kHz spacing while using 10" cavities. Each cavity is constructed using a gold alodine finish, silver plated loops, silver plated connectors and internal tuning plunger. Additionally, cavities are temperature compensated for operation between -40°C to +60°C. Every cavity is equipped with both coarse and fine tuning rods for quick and easy field or lab re-tuning.

- Flexible and expandable design, From 1-21 channel capacity
- Expandable 1 or more additional channels at a time, Re-configurable equipment
- 380-512MHz, 132MHz of operating bandwidth
- Temperature compensation, Ensures frequency stability
- High Attenuation, Minimizes desense and interference
- Ultra-low insertion losses, Low coupling and bridging losses
- Continuous high power handling capability, 150 watts – 24/7



Electrical Specifications	XTC-38-72	XTC-38-74	XTC-38-76	XTC-38-78	XTC-38-7-10	XTC-38-7-12
Frequency Range, MHz	380-512	380-512	380-512	380-512	380-512	380-512
Bandwidth, MHz	132	132	132	132	132	132
Number of Channels	2	4	6	8	10	12
Cavity Diameter, in	6.625	6.625	6.625	6.625	6.625	6.625
Min. Channel Sep., KHz	125	125	125	125	125	125
Isolation Min., Tx-Tx, dB	80	80	80	80	80	80
Isolation Min., Ant-Tx, dB	70	70	70	70	70	70
Max. Insertion Loss Per Chan., dB	4.1	5.2	5.7	6.0	6.2	6.4
Continuous Power Input, Watts	150	150	150	150	150	150
Connectors	N Female	N Female	N Female	N Female	N Female	N Female
VSWR	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	XTC-38-72	XTC-38-74	XTC-38-76	XTC-38-78	XTC-38-7-10	XTC-38-7-12
Height, in (H x W X D) (mm) (In X Rack)	86.5 x 24 x 36 (2197 x 610 x 914)					
Mounts in 19" Standard Rack	Yes	Yes	Yes	Yes	Yes	Yes
Weight	DEPENDS ON SET-UP AND RACK DESIGN					
Order Information	Single Channel	2 - Channel	3 - Channel	5 - Channel	8 - Channel	
4" Cavity	XTC-38-41	XTC-38-42	XTC-38-43	XTC-38-45	XTC-38-48	
6.625" Cavity	XTC-38-71	XTC-38-72	XTC-38-73	XTC-38-75	XTC-38-78	
10" Cavity	XTC-38-01	XTC-38-02	XTC-38-03	XTC-38-05	XTC-38-08	

**XPANDABLE TRANSMIT COMBINER****380-512MHz****XTC-Xpandable Transmit Combiner Series—10" Cavity**

Our eXpandable Transmit Combiners can combine from 1 to 21 channels. The XTC series of filters incorporates expandability, close frequency spacing and some of the lowest insertion losses in the industry. Using a 6.625" cavity, the XTC can easily support 125 kHz Tx-Tx spacing or 75 kHz spacing while using 10" cavities. Each cavity is constructed using a gold alodine finish, silver plated loops, silver plated connectors and internal tuning plunger. Additionally, cavities are temperature compensated for operation between -40°C to +60°C. Every cavity is equipped with both coarse and fine tuning rods for quick and easy field or lab re-tuning.

- Flexible and expandable design, From 1-21 channel capacity
- Expandable 1 or more additional channels at a time, Re-configurable equipment
- 380-512MHz, 132MHz of operating bandwidth
- Temperature compensation, Ensures frequency stability
- High Attenuation, Minimizes desense and interference
- Ultra-low insertion losses, Low coupling and bridging losses
- Continuous high power handling capability, 150 watts – 24/7

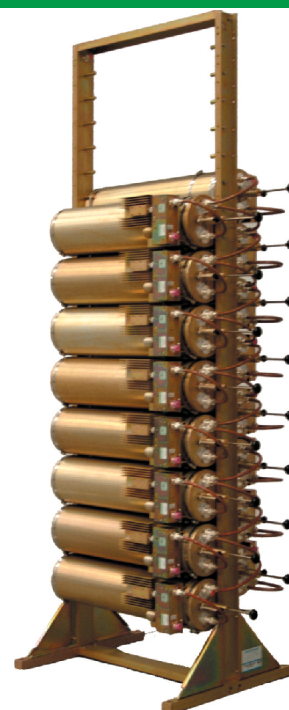


Electrical Specifications	XTC-38-02	XTC-38-04	XTC-38-06	XTC-38-08	XTC-38-0-10	XTC-38-0-12
Frequency Range, MHz	380-512	380-512	380-512	380-512	380-512	380-512
Bandwidth, MHz	132	132	132	132	132	132
Number of Channels	2	4	6	8	10	12
Cavity Diameter, in	10	10	10	10	10	10
Min. Channel Sep., KHz	75	75	75	75	75	75
Isolation Min., Tx-Tx, dB	80	80	80	80	80	80
Isolation Min., Ant-Tx, dB	70	70	70	70	70	70
Max. Insertion Loss Per Chan., dB	4.3	5.4	6.0	6.6	6.9	7.1
Continuous Power Input, Watts	150	150	150	150	150	150
Connectors	N Female	N Female	N Female	N Female	N Female	N Female
VSWR	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60
Mechanical Specifications	XTC-38-02	XTC-38-04	XTC-38-06	XTC-38-78	XTC-38-7-10	XTC-38-0-12
Height, in (H x W X D) (mm) (In X Rack)	79.5 x 24 x 36 (2019 x 610 x 914)					
Mounts in 19" Standard Rack	Yes	Yes	Yes	Yes	Yes	Yes
Weight	DEPENDS ON SET-UP AND RACK DESIGN					
Order Information	Single Channel	2 - Channel	3 - Channel	5 - Channel	8 - Channel	
4" Cavity	XTC-38-41	XTC-38-42	XTC-38-43	XTC-38-45	XTC-38-48	
6.625" Cavity	XTC-38-71	XTC-38-72	XTC-38-73	XTC-38-75	XTC-38-78	
10" Cavity	XTC-38-01	XTC-38-02	XTC-38-03	XTC-38-05	XTC-38-08	

**XPANDABLE TRANSMIT COMBINER****746-1000MHz****XTC-Xpandable Transmit Combiner Series—7" Cavity**

Our eXpandable Transmit Combiners can combine from 1 to 21 channels. The XTC series of filters incorporates expandability, close frequency spacing and some of the lowest insertion losses in the industry. Using a 6.625" cavity, the XTC can easily support 250 kHz Tx-Tx spacing. Each cavity is constructed using a gold alodine finish, silver plated loops, silver plated connectors and internal tuning plunger. Additionally, cavities are temperature compensated for operation between -40°C to +60°C. Every cavity is equipped with both coarse and fine tuning rods for quick and easy field or lab re-tuning.

- Flexible and expandable design, From 1-21 channel capacity
- Expandable 1 or more additional channels at a time, Re-configurable equipment
- 746-1000MHz, 254MHz of operating bandwidth
- Temperature compensation, Ensures frequency stability
- High Attenuation, Minimizes desense and interference
- Ultra-low insertion losses, Low coupling and bridging losses
- Continuous high power handling capability, 150 watts – 24/7



Electrical Specifications	XTC-74-72	XTC-74-74	XTC-74-76	XTC-74-78	XTC-74-7-10	XTC-74-7-12
Frequency Range, MHz	746-1000	746-1000	746-1000	746-1000	746-1000	746-1000
Bandwidth, MHz	254	254	254	254	254	254
Number of Channels	2	4	6	8	10	12
Cavity Diameter, in	6.625	6.625	6.625	6.625	6.625	6.625
Min. Channel Sep., KHz	250	250	250	250	250	250
Isolation Min., Tx-Tx, dB	80	80	80	80	80	80
Isolation Min., Ant-Tx, dB	70	70	70	70	70	70
Max. Insertion Loss Per Chan.	3.1	4.1	4.4	4.9	5.2	5.5
Continuous Power Input, Watts	150	150	150	150	150	150
Connectors	N Female	N Female	N Female	N Female	N Female	N Female
VSWR	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1	1.22:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	XTC-74-72	XTC-74-74	XTC-74-76	XTC-74-78	XTC-74-7-10	XTC-74-7-12
Height, in (H x W X D) (mm) (In X Rack)	86.5 x 24 x 20.7 (2197 x 610 x 526)					
Mounts in 19" Standard Rack	Yes	Yes	Yes	Yes	Yes	Yes
Weight	DEPENDS ON SET-UP AND RACK DESIGN					

Order Information	Single Channel	2 - Channel	3 - Channel	5 - Channel	8 - Channel
4" Cavity	XTC-74-41	XTC-74-42	XTC-74-43	XTC-74-45	XTC-74-48
6.625" Cavity	XTC-74-71	XTC-74-72	XTC-74-73	XTC-74-75	XTC-74-78
10" Cavity	XTC-74-01	XTC-74-02	XTC-74-03	XTC-74-05	XTC-74-08



**EXPANDABLE TX COMBINER 80 SERIES****UHF, 746-960 MHz****X-PASS EXPANDABLE TX COMBINER 80 SERIES**

The 0 Series 8" Cavity Transmit Combiner features X-Pass, plug-and-play technology and is fully expandable and reconfigurable. These combiners are designed to offer engineers and technicians many options when designing or upgrading a site.



Electrical Specifications	80-FF-8XILPI
Frequency Range, MHz	Call for Information
Frequency Separation, KHz	200 min
Number of Channels	1 to 6+
Isolation, dB	
TX to TX @ 200k sep.	(S)40 (D)70
ANT to TX @ 600k sep.	(S)30 (D)60
Insertion Loss	See Insertion Loss Chart
TX input Return Loss, dB	1.25:1 min
Power / Channel, Watts	Low=60 / High=100

Mechanical Specifications	
Construction / Finish	Aluminum/Gold/Black
Input Connector	N-Female
Mounting	EIA standard 19"
Temperature Range, °C	-30 to +60

Dimensions	
Cavity Diameter, in (mm)	8 (203)
Width, in (mm)	19 (483)
Depth, in (mm)	UHF 16.5 (419) 700-900MHz 21 (534)
Height, in (mm)	8.7 (221)
Number of Channels (Single cavity per channel)	Rack Units   Weight lbs (kg)
1	5 11 (05)
2	5 22 (10)
3	10 33 (15)
4	10 44 (20)
5	15 55 (25)
6	15 66 (30)

**Ordering Format**

8N	-	FF	-	8X	ILX	ILB	P	I
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**Example: Model # 81-45-84BAHD**

TX Combiner, 1 cavity per channel, UHF 450-470MHz, 4 Channel, Each X-pass cavity set @ 1.5 dB, No BP Cavity, 100 Watt system, Dual Isolators

**UHF 100 WATT TYPICAL INSERTION LOSS, dB**

Number of Channels	Frequency Separation (KHz)		
	200	400	600 and +
2	4	3	2.8
3	4.3	3.2	2.85
4	4.6	3.3	2.95
5	4.8	3.4	3
6	5.1	3.5	3.15

**UHF 60 WATT TYPICAL INSERTION LOSS, dB**

(TX to TX Separations under 400KHz, please use a 100 Watt unit - that spacing requires an external load)

Number of Channels	Frequency Separation (KHz)		
	200	400	600 and +
2	Use 100W	3	2.8
3		3.2	2.85
4		3.3	2.95
5		3.4	3
6		3.5	3.15

**700-900MHz 100 WATT TYPICAL INSERTION**

Number of Channels	Frequency Separation (KHz)		
	200	500	800 and +
2	3.5	2.5	2.2
3	4.2	3	2.4
4	4.5	3.4	2.5
5	4.8	3.6	2.6
6	5.3	3.7	2.8

8N	1,2	Number of Cavities per TX
FF	First 2 digits of Freq.	38-94=380-940 MHz
8X	1-6	Number of Channels
ILX	A=1 B=1.5 C=2	X Pass Insertion Loss
ILB	A=N B=.5 C=1 D=1.5	Band Pass Insertion Loss
P	L/H	Power level
I	S/D	Single or Double Isolator Stages

## XTR

### XPANDABLE, TRANSMIT-RECEIVE, MULTICOUPLER

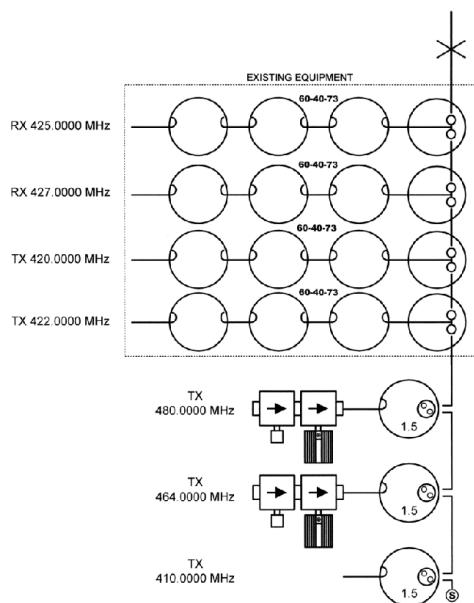
#### The Next Generation of Combiners

Our X-Pass technology can combine your Tx & Rx frequencies onto the same antenna. Our System Design Department can integrate any combination of frequency, and close frequency spacing, minimizing the system's physical space, and maximizing the efficiency of your system.

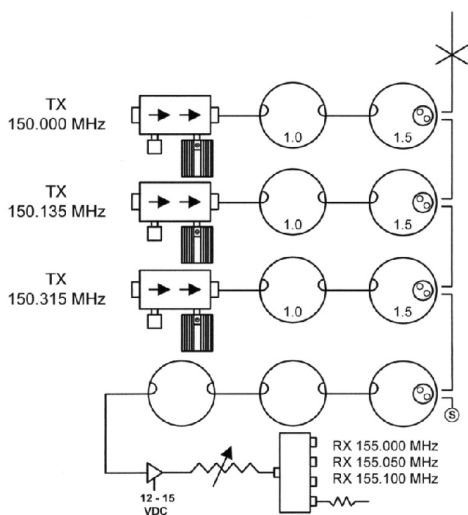
Each of our system designs comes with a full intermodulation study that examines the Intermodulation products followed with a customized solution specific to your clients needs. There are no off-the-shelf solutions - each system is custom tailored to your exact requirements.

Contact Comprod for a free customized system quotation. Tx and Rx frequencies will be required.

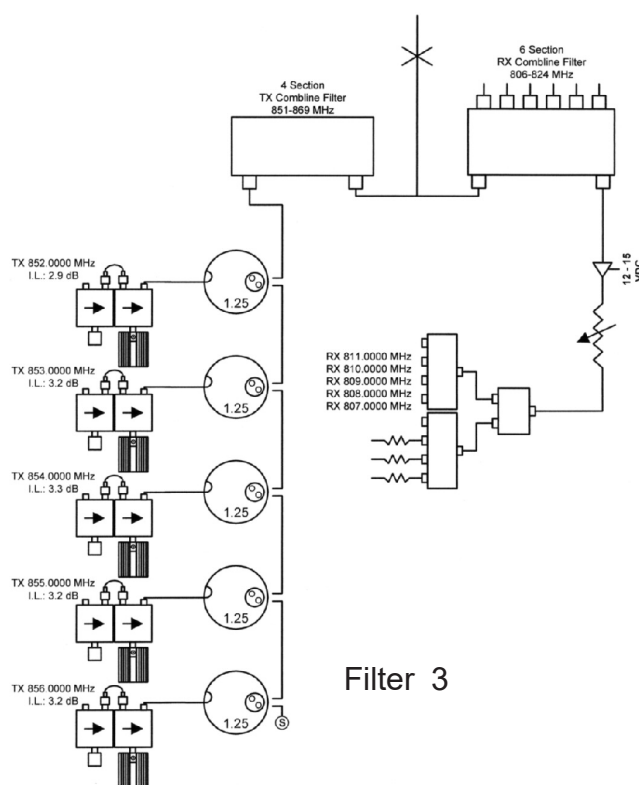
Here are some design examples:



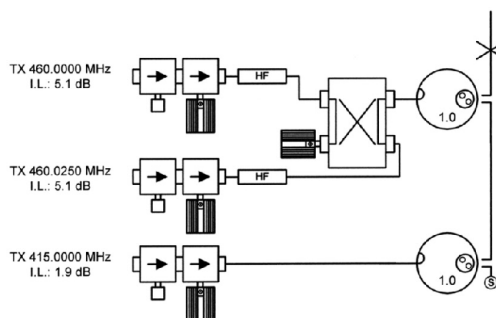
Filter 1



Filter 2



Filter 3



Filter 4

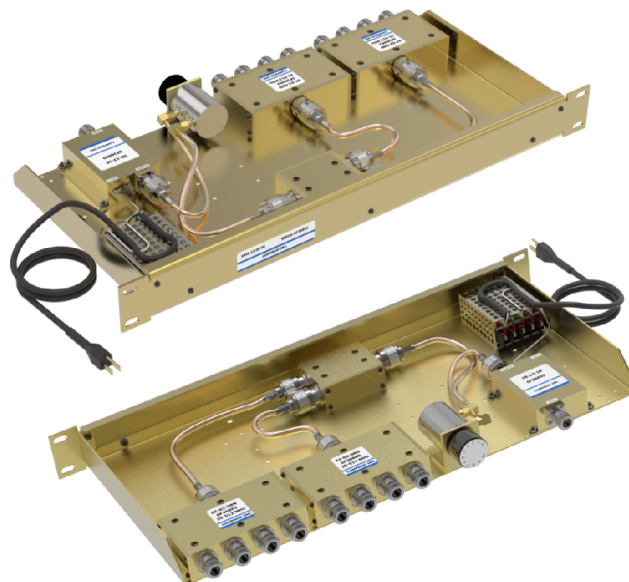
## RECEIVER MULTICOUPLER

138-225MHz

## XRM-FF-PP Series

Comprod Inc. Xpandable Receiver Multicouplers are simple and compact. They are available in 2, 4, 8, 12 and 16 port configurations. This is an affordable means of combining multiple Rx frequencies onto the same antenna. We offer three mounting versions: our standard 19" rack, a tray mounted or a cavity mounted version. Each unit consists of a power splitter and an RF amplifier. Every Xpandable Receiver Multicoupler has the optional plug-in power supply.

- **Design**
  - Simple and cost effective
- **Mounting**
  - 19" rack mount (RM)
  - Cavity mount (CM)
  - Tray mount (TRM)
- **Optional power supply (PS)**



Electrical Specifications	XRM-13-02	XRM-13-04	XRM-13-08	XRM-13-16
Frequency Range, MHz	138-225	138-225	138-225	138-225
Pass Band, MHz	3-8	3-8	3-8	3-8
Number of Channels	2	4	8	16
Rx/Rx Isolation, dB	20+	20+	20+	20+
Amplifier Gain, dB	28+	28+	28+	28+
Amplifier Noise Figure, dB	1.2	1.2	1.2	1.2
Amplifier Bias Voltage, VDC	14-16	14-16	14-16	14-16
Amplifier Current Draw, mA	200	200	200	200
Nominal Impedance, Ohms	50	50	50	50
Max VSWR	1.25:1	1.25:1	1.25:1	1.25:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	XRM-13-02	XRM-13-04	XRM-13-08	XRM-13-16
Mounting	RM / CM	RM / CM	RM / CM	RM / CM
Connectors	BNC / N	BNC / N	BNC / N	BNC / N
Weight, lbs	12	12	12	12

Order Information	Rack Mount	Cavity Mount	Tray Mount	Power Supply
XRM-13-02	XRM-13-02RM	XRM-13-02CM	XRM-13-02TRM	XRM-13-02PS
XRM-13-04	XRM-13-04RM	XRM-13-04CM	XRM-13-04TRM	XRM-13-04PS
XRM-13-08	XRM-13-08RM	XRM-13-08CM	XRM-13-08TRM	XRM-13-08PS
XRM-13-16	XRM-13-16RM	XRM-13-16CM	XRM-13-16TRM	XRM-13-16PS

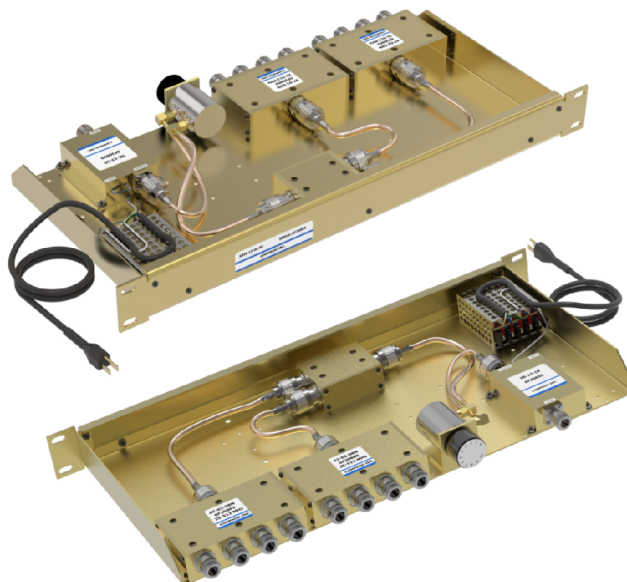
## RECEIVER MULTICOUPLER

300-512MHZ

## XRM-FF-PP Series

Comprod Inc. Xpandable Receiver Multicouplers are simple and compact. They are available in 2, 4, 8, 12 and 16 port configurations. This is an affordable means of combining multiple Rx frequencies onto the same antenna. We offer three mounting versions: our standard 19" rack, a tray mounted or a cavity mounted version. Each unit consists of a power splitter and an RF amplifier. Every Xpandable Receiver Multicoupler has the optional plug-in power supply.

- **Design**
  - Simple and cost effective
- **Mounting**
  - 19" rack mount (RM)
  - Cavity mount (CM)
  - Tray mount (TRM)
- **Optional power supply (PS)**



Electrical Specifications	XRM-30-02	XRM-30-04	XRM-30-08	XRM-30-16
Frequency Range, MHz	300-512	300-512	300-512	300-512
Pass Band, MHz	3-10	3-10	3-10	3-10
Number of Channels	2	4	8	16
Rx/Rx Isolation, dB	23+	23+	23+	23+
Amplifier Gain, dB	28+	28+	28+	28+
Amplifier Noise Figure, dB	1.2	1.2	1.2	1.2
Amplifier Bias Voltage, VDC	14-16	14-16	14-16	14-16
Amplifier Current Draw, mA	200	200	200	200
Nominal Impedance, Ohms	50	50	50	50
Max VSWR	1.25:1	1.25:1	1.25:1	1.25:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	XRM-30-02	XRM-30-04	XRM-30-08	XRM-30-16
Mounting	RM / CM	RM / CM	RM / CM	RM / CM
Connectors (Input / Output)	BNC / N	BNC / N	BNC / N	BNC / N
Weight, lbs	12	12	12	12

Order Information	Rack Mount	Cavity Mount	Tray Mount	Power Supply
XRM-30-02	XRM-30-02RM	XRM-30-02CM	XRM-30-02TRM	XRM-30-02PS
XRM-30-04	XRM-30-04RM	XRM-30-04CM	XRM-30-04TRM	XRM-30-04PS
XRM-30-08	XRM-30-08RM	XRM-30-08CM	XRM-30-08TRM	XRM-30-08PS
XRM-30-16	XRM-30-16RM	XRM-30-16CM	XRM-30-16TRM	XRM-30-16PS

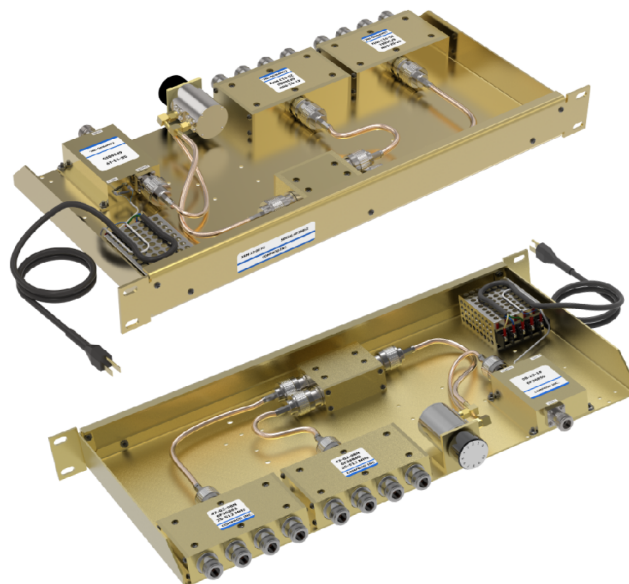


## RECEIVER MULTICOUPLER

806-896MHZ

## XRM-FF-PP Series

Comprod Inc. Xpandable Receiver Multicouplers are simple and compact. They are available in 2, 4, 8, 12 and 16 port configurations. This is an affordable means of combining multiple Rx frequencies onto the same antenna. We offer three mounting versions: our standard 19" rack, a tray mounted or a cavity mounted version. Each unit consists of a power splitter and an RF amplifier. Every Xpandable Receiver Multicoupler has the optional plug-in power supply.



- **Design**
  - Simple and cost effective
- **Mounting**
  - 19" rack mount (RM)
  - Cavity mount (CM)
  - Tray mount (TRM)
- **Optional power supply (PS)**

Electrical Specifications	XRM-80-02	XRM-80-04	XRM-80-08	XRM-80-16	XRM-80-32
Frequency Range, MHz	806-896	806-896	806-896	806-896	806-896
Pass Band, MHz	3-18	3-18	3-18	3-18	3-18
Number of Channels	2	4	8	16	32
Rx/Rx Isolation, dB	23+	23+	23+	23+	23+
Amplifier Gain, dB	28+	28+	28+	30+	30+
Amplifier Noise Figure, dB	1.2	1.2	1.2	1.2	1.2
Amplifier Bias Voltage, VDC	14-16	14-16	14-16	14-16	14-16
Amplifier Current Draw, mA	200	200	200	200	200
Nominal Impedance, Ohms	50	50	50	50	50
Max VSWR	1.25:1	1.25:1	1.25:1	1.25:1	1.25:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	XRM-80-02	XRM-80-04	XRM-80-08	XRM-80-16	XRM-80-32
Mounting	RM / CM	RM / CM	RM / CM	RM / CM	RM / CM
Connectors (Input / Output)	BNC / N	BNC / N	BNC / N	BNC / N	BNC / N
Weight, lbs	12	12	12	12	12

Order Information	Rack Mount	Cavity Mount	Tray Mount	Power Supply
XRM-80-02	XRM-80-02RM	XRM-80-02CM	XRM-80-02TRM	XRM-80-02PS
XRM-80-04	XRM-80-04RM	XRM-80-04CM	XRM-80-04TRM	XRM-80-04PS
XRM-80-08	XRM-80-08RM	XRM-80-08CM	XRM-80-08TRM	XRM-80-08PS
XRM-80-16	XRM-80-16RM	XRM-80-16CM	XRM-80-16TRM	XRM-80-16PS

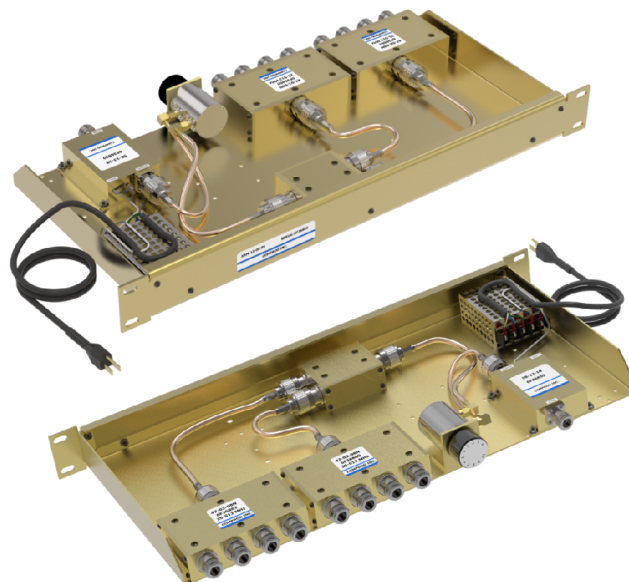
## RECEIVER MULTICOUPLER

896-960MHZ

## XRM-FF-PP Series

Comprod Inc. Xpandable Receiver Multicouplers are simple and compact. They are available in 2, 4, 8, 12 and 16 port configurations. This is an affordable means of combining multiple Rx frequencies onto the same antenna. We offer three mounting versions: our standard 19" rack, a tray mounted or a cavity mounted version. Each unit consists of a power splitter and an RF amplifier. Every Xpandable Receiver Multicoupler has the optional plug-in power supply.

- **Design**
  - Simple and cost effective
- **Mounting**
  - 19" rack mount (RM)
  - Cavity mount (CM)
  - Tray mount (TRM)
- **Optional power supply (PS)**



Electrical Specifications	XRM-90-02	XRM-90-04	XRM-90-08	XRM-90-16	XRM-90-32
Frequency Range, MHz	896-960	896-960	896-960	896-960	896-960
Pass Band, MHz	3-15	3-15	3-15	3-15	3-15
Number of Channels	2	4	8	16	32
Rx/Rx Isolation, dB	23+	23+	23+	23+	23+
Amplifier Gain, dB	28+	28+	28+	28+	28+
Amplifier Noise Figure, dB	1.2	1.2	1.2	1.2	1.2
Amplifier Bias Voltage, VDC	14-16	14-16	14-16	14-16	14-16
Amplifier Current Draw, mA	200	200	200	200	200
Nominal Impedance, Ohms	50	50	50	50	50
Max VSWR	1.25:1	1.25:1	1.25:1	1.25:1	1.25:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	XRM-90-02	XRM-90-04	XRM-90-08	XRM-90-16	XRM-90-32
Mounting	RM / CM	RM / CM	RM / CM	RM / CM	RM / CM
Connectors (Input / Output)	BNC / N	BNC / N	BNC / N	BNC / N	BNC / N
Weight, lbs	12	12	12	12	12

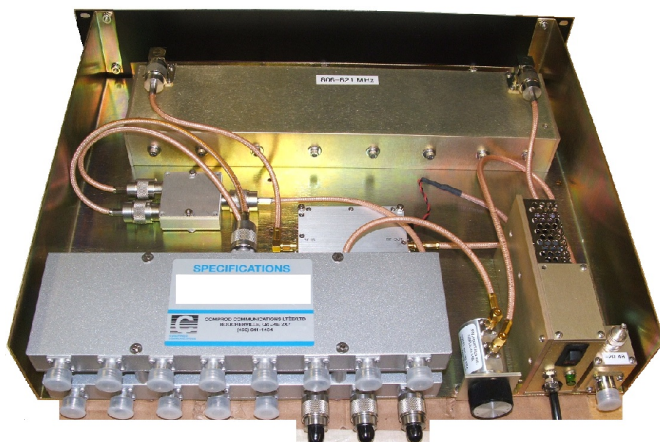
Order Information	Rack Mount	Cavity Mount	Tray Mount	Power Supply
XRM-90-02	XRM-90-02RM	XRM-90-02CM	XRM-90-02TRM	XRM-90-02PS
XRM-90-04	XRM-90-04RM	XRM-90-04CM	XRM-90-04TRM	XRM-90-04PS
XRM-90-08	XRM-90-08RM	XRM-90-08CM	XRM-90-08TRM	XRM-90-08PS
XRM-90-16	XRM-90-16RM	XRM-90-16CM	XRM-90-16TRM	XRM-90-16PS

**EXPANDABLE RECEIVER MULTICOUPLER****UHF, 794-824 MHz****Expandable Receiver Multicoupler 90 Series**

Comprod's Expandable Receiver Multicoupler provides an affordable means of combining multiple Receiver frequencies onto the same antenna. They are available in 2, 4, 8, 12 and 16 port configurations.

Key features:

- A low noise amplifier provides gain across the frequency band
- Low noise figure and low intermodulation generation
- Features up to 16 ports (24 and 32 port versions are available)
- -30 dB signal sampler port that can also be used to inject a signal

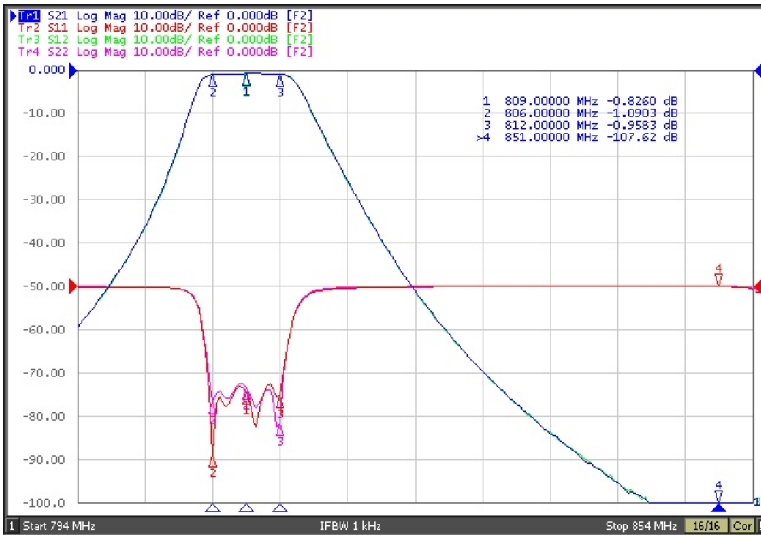
**Electrical Specifications**

Frequency Band, MHz	UHF	794-824
Number of output ports	2 to 16 (24 and 32 port versions are available)	2 to 16 (24 and 32 port versions are available)
Input Preselector Bandwidth Options	2 or 3 MHz Bandwidth 380-512 MHz	794 - 824 MHz, 3/6/12 MHz BW 806 - 821 MHz, 15 MHz BW 806 - 824 MHz, 18 MHz BW 794 - 824 MHz, 30 MHz BW
VSWR	1.5:1	1.5:1
Amplifier Gain	25 dB typical	25 dB typical
Amplifier Output IP3	+38 dB Min	+38 dB Min
Amplifier Noise Figure (LNA)	1.2 dB typical	1.2 dB typical
Manual Attenuation Selection	0 to -10dB in 1 dB steps	0 to -10dB in 1 dB steps
Rx to Rx Isolation	>20 dB	>20 dB
Tx Band Rejection	>40 dB at 2MHz TX-RX	>80 dB
Connector, Input	N (Female)	N (Female)
Connector, Output	N (Female)	N (Female)
Connector, Signal Sampler	BNC (Female)	BNC (Female)
Power Input, Standard	110/220 VAC 50/60Hz 10W	110/220 VAC 50/60Hz 10W
AC Power Input Connector	Hardwired 3-wire	Hardwired 3-wire
DC Power (optional)	14-16 VDC	14-16 VDC
Mounting	EIA Standard 19" 3 RU	EIA Standard 19" 2 RU
Temperature Range C	-30 to +60 C	-30 to +60 C

EXPANDABLE RECEIVER MULTICOUPLER

UHF, 794-824 MHz

800 MHz Pass: 806-812MHz (6MHz)



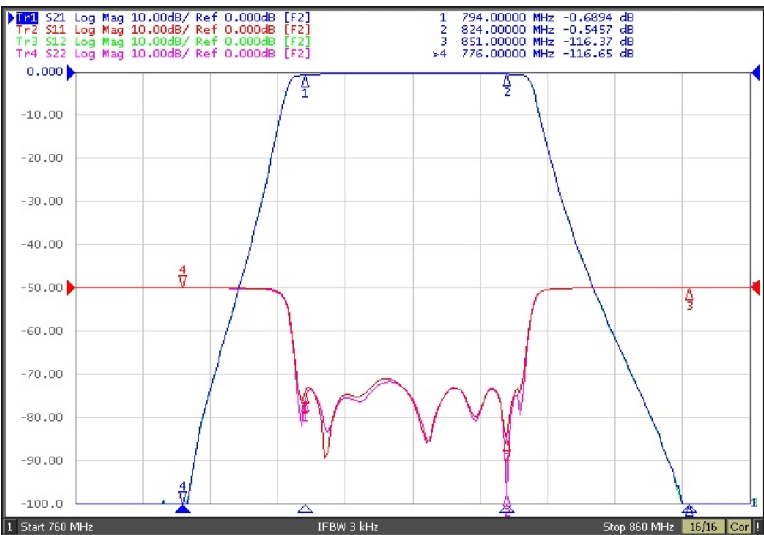
800MHz Pass: 809-821MHz (12MHz)



800MHz Pass: 806-824MHz (18MHz)



800MHz Pass: 794-824MHz (30MHz)



Ordering Format:

9	W	-	FF	-	PP	C	BB
---	---	---	----	---	----	---	----

Example: Model # 91-85-8N18

RX Multicoupler, 1 Pass Window, 806MHz,  
8 Output Ports, N female, 18 MHz Bandwidth

9	Series 90	
W	1,2	Number of Pass Windows
FF	76	794-806 MHz
	85	806-824 MHz
	First 2 digits of Freq. 38/40/43/45/47	380-512 MHz
PP	2,4,8,16,24	Number of Ports
C	N/B	N or BNC Connectors
BB	02/03/06/12/15/18/30	Bandwidth in MHz





## TTA, Tower Top Amplifier

UHF, 794-824 MHz

Comprod Inc. Tower- Top Amplifier (TTA) systems provide superior receiver system performance and excellent electrical reliability in a rugged, weather-proof design. The tower unit is housed in a seamless cylindrical aluminum housing with a durable finish to repel both weather and solar energy. The aluminum shell connector plate provide much lower electrical resistance than competing stainless steel housings, enhancing the performance of the internal lightning surge protection. A high permeability internal magnetic shield provides protection against damage from lightning-induced magnetic pulses and is many times more effective than a stainless steel enclosure.

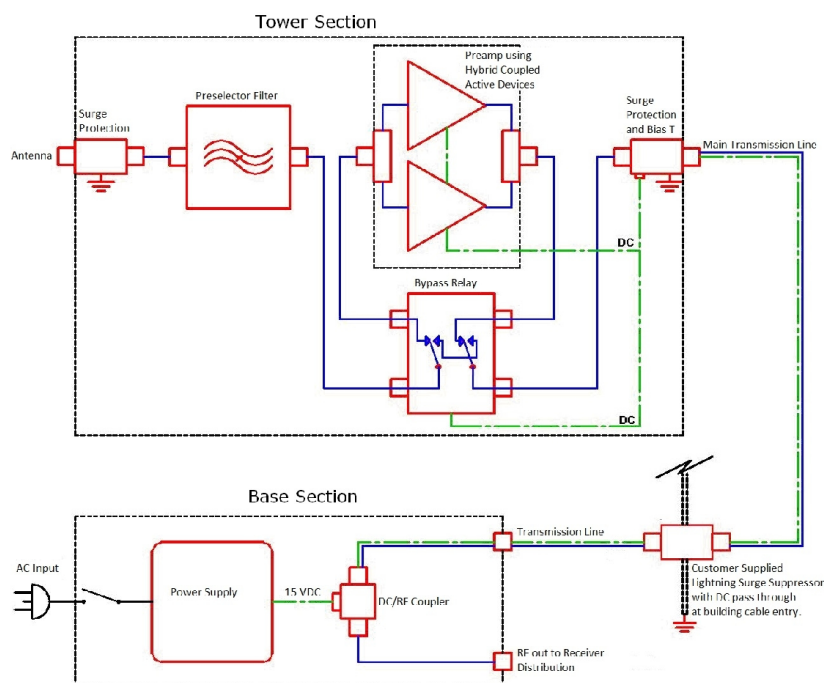
The tower housing has two drain holes to release any water due to condensation build up. RF connections stay weather-resistant longer as a result of the protection provided by a 360° drip - edge. Superior electrical performance starts with a highly selective combline preselector that provides excellent out-of-band rejection with minimum loss. Our preamplifier uses PHEMT (GaAs FET) device technology to provide low noise performance (1.6dB typical) and high intermodulation immunity (+39 dBm OIP3).

For greater reliability, the preamplifier uses a pair of hybrid -coupled devices to provide amplifier redundancy. This circuit provides useful gain should only one device be operational. The preamp features internal transient suppression that complements lightning surge protection provided on all TTA ports.

In addition to amplifier redundancy, full amplifier bypass capability is provided. A hermetically sealed, high-reliability bypass relay will fully remove the amplifier from the circuit and provide a non-amplified connection from the antenna to keep the system up and running even if the preamplifier totally ceases operation. Bypass mode is activated when DC power to the tower unit is disabled.

The base unit is housed in a 19" rack assembly that includes the power supply and DC injector to send DC (12 V) over the transmission line to operate the tower unit. The base unit has jacks for measurement of tower unit Current using a standard digital multi-meter. Type N connectors provided. Tower unit mounting hardware included.

Building- entry lightning surge suppressor w/DC pass-thru is recommended but not supplied.



## TTA, Tower Top Amplifier

UHF, 794-902 MHz

## Tower Section

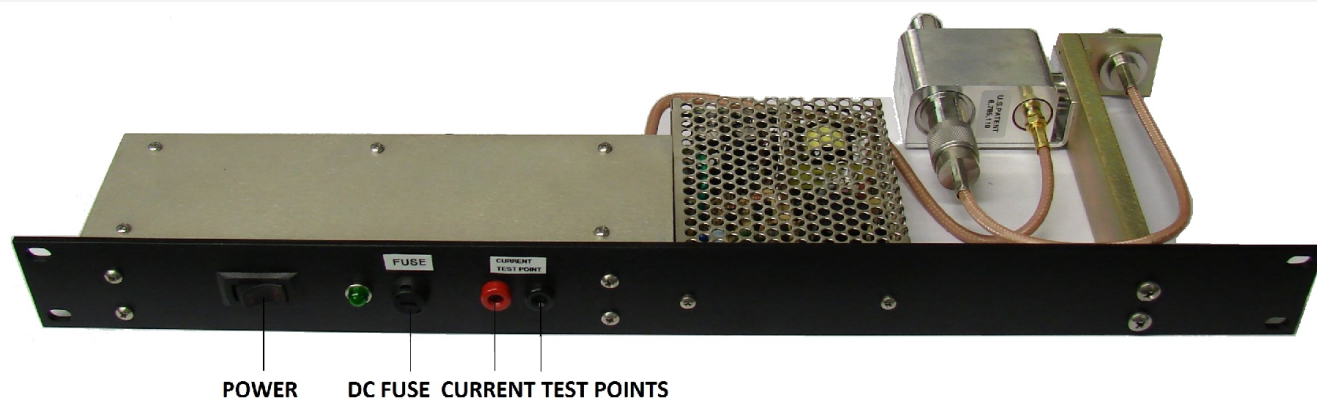
Frequency Range, MHz	UHF (406-512)	794-806	792-824	806-824	896-902
Bandwidth, MHz	2-3	3, 6, 10, 12	32	18	6
Gain, dB	20	13-15	17	17	12
Noise Figure, dB	1	2-4	2-3	2-3	3-4
3rd Order Intercept Point, dBm	+40	+38	+40	+40	+38
Connectors	N Female	N Female	N Female	N Female	N Female
Power, VDC	+12 to +16	+12 to +14	+12 to +14	+12 to +14	+12 to +14
Housing Diameter, in	16 x 14 x 6	6.6	6.6	6.6	6.6
Housing Length, in	N/A	21	21	21	21
Finish	Grey Anodize	Grey Anodize	Grey Anodize	Grey Anodize	Grey Anodize
Temperature Range	- 40° to +50° C	- 40° to +50° C	- 40° to +50° C	- 40° to +50° C	- 40° to +50° C
Weight, lbs	45 with clamps	45 with clamps	45 with clamps	45 with clamps	45 with clamps

## Base Unit

Size (H,W,D) in	1.75 x 19 x 6
Finish, Front	Black
Connectors	Transmission Line, RF Output
Connector Type	N Female
Power Input, Standard	110/220 VAC 50/60Hz, 12W
Weight, lbs	5
DC Power (optional)	14-16 VDC
Mounting	EIA Standard 19" 1 RU
Temperature Range, C	-0 to +50

## Ordering Information

	TTA-40-00	TTA-70-00	TTA-79-00	TTA-80-00	TTA-90-00
Frequency, MHz	406-512	794-806	792-824	806-824	896-902



POWER DC FUSE CURRENT TEST POINTS

## RECEIVER AMPLIFIERS

138-960MHZ

Models:	58-13-19	(138-174 MHz)
	58-40-19	(406-512 MHz)
	58-74-19	(740-960 MHz)

The Comprod Inc. line of low noise, medium power robust amplifiers are designed for unconditionally stable performance in professional communications systems. Featuring rugged construction, internal voltage regulator, hybrid-combined redundant amplifier pairs and low pass filters. The amplifiers will provide higher system dynamic range for fixed receiver systems, tower mounted amplifiers, or Bi-Directional in-building repeaters and boosters.



- High Gain, Low Noise.
- Maximum performance with minimum noise.
- Filtering on DC Terminals
- Greater than 70 dB attenuation from as low as 5 MHz to several GHz

Electrical Specifications	58-13-19	58-40-19	58-74-19
Frequency Range, MHz	100-200	300-520	700-1000
Bandwidth, MHz	100	220	300
Amplifier Type	Low Noise/Medium Power	Low Noise/Medium Power	Low Noise/Medium Power
Typical Gain, dB	18.0	18.5	19.0
Typical Noise figure, dB	1.9	1.9	1.9
3rd Order Intercept, dBm	+41	+41	+41
Output 1 dB Compression Point, dBm	25.0	25.0	25.0
Input/Output Return loss, dB	-18 Typ	-18 Typ	-18 Typ
Operating Voltage, VDC	12.5 to 28	12.5 to 28	12.5 to 28
Typical DC Current Draw, mA	130mA at 13V	130mA at 13V	130mA at 13V
Standard Connectors (Optional)	N Female (SMA)	N Female (SMA)	N Female (SMA)
Maximum Input Power, dBm	+15	+15	+15
Temperature Range, C	-20 to +70	-20 to +70	-20 to +70

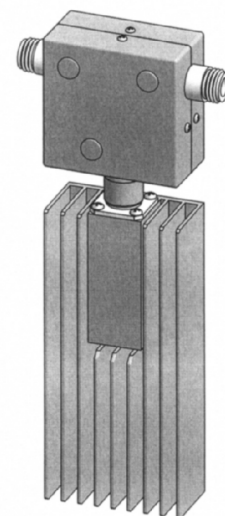
Mechanical Specifications	
Height, in (mm)	4.375 (111)
Width, in (mm)	2.5 (63.5)
Depth, in (mm) (including Connectors)	0.9375 (23.8)
Weight, lb (kg)	0.42 (0.187)
Finish	Alodine (yellow)

Order Information	58-13-19	58-40-19	58-74-19
Frequency MHz	138-174	406-512	740-760

## LOW POWER SINGLE ISOLATORS

### 21-FF-PP

These Isolators are among the best in the industry for blocking the transfer of RF power flow in the opposite direction. Low to medium power, and total reliability are two of the characteristics of these isolators. Used for intermodulation panels, protecting your transmitters from reflected power and providing extra isolation are just a few of the possible applications. These isolators can be combined with a variety of loads, 5/25/60/100/150/250 watt combinations, as well as combined with second harmonic filters for Hybrid Combiners (HTCs).



- **High Isolation**

- Minimizes intermodulation products

- **Low loss**

- Maximizes system performance

- **Continuous Power**

- Physical size and materials used maximize the performance across the operating band

Electrical Specifications	21-13-XX	21-40-XX	21-80-XX
Frequency Range, MHz	138-174	406-512	746-960
Frequency Split, MHz	30	24	24
Bandwidth	2.5% Cent. Freq.	1% Cent. Freq.	2.5% Cent. Freq.
Continuous Power Input, Watts	100	100	100
Connectors	N Female	N Female	N Female
Output Load Size	5/25/60/100/150	5/25/60/100/150	5/25/60/100/150
Reverse Isolation, dB	30	30	30
Typical Insertion Loss, dB	0.45	0.35	0.25
VSWR	1.22:1	1.22:1	1.22:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	21-13-XX	21-40-XX	21-80-XX
Dimensions, in (H x W x D)	3.94 x 3.75 x 1.78	4.19 x 3.99 x 1.78	5.63 x 3.15 x 1.84
Weight, lbs	1.40	1.41	1.32
Mounting	Cavity / Plate / Cabinet / Rack Mount Are All Available		

Order Information	5 Watt Load	25 Watt Load	60 Watt Load	100 Watt Load	150 Watt Load
21-13-XX	21-13-05	21-13-25	21-13-60	21-13-100	21-13-150
21-40-XX	21-40-05	21-40-25	21-40-60	21-40-100	21-40-150
21-80-XX	21-80-05	21-80-25	21-80-60	21-80-100	21-80-150

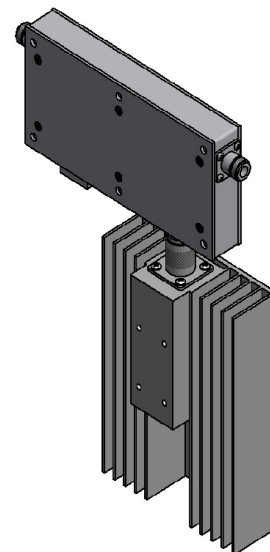
XX = load size



## LOW POWER DUAL ISOLATORS

### 22-FF-PP

Comprod Inc. Isolators are among the best in the industry for blocking the transfer of RF power flow in the opposite direction. Low to medium power and total reliability are two of the characteristics of these isolators. Used for intermodulation panels, protecting your transmitters from reflected power, and providing extra isolation are just a few of the possible applications. These isolators can be combined with a variety of loads, 5/25/60/100/150/250 watt combinations, and combined with second harmonic filters for Hybrid Combiners (HTCs).



- **High Isolation**

- Minimizes intermodulation products

- **Low loss**

- Maximizes system performance

- **Continuous Power**

- Physical size and materials used maximize the performance across the operating band

Electrical Specifications	22-13-XX	22-40-XX	22-80-XX
Frequency Range, MHz	138-174	406-512	746-960
Frequency Split, MHz	30	24	24
Bandwidth	2.5% Cent. Freq.	1% Cent. Freq.	2.5% Cent. Freq.
Continuous Power Input, Watts	100	100	100
Connectors	N Female	N Female	N Female
Output Load Size	5/25/60/100/150	5/25/60/100/150	5/25/60/100/150
Reverse Isolation, dB	50	50	50
Typical Insertion Loss, dB	0.9	0.7	0.5
VSWR	1.22:1	1.22:1	1.22:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	22-13-XX	22-40-XX	22-80-XX
Dimensions, in (H x W x D)	3.94 x 6.25 x 1.78	4.19 x 8.75 x 1.78	5.63 x 6.13 x 1.84
Weight, lbs	2.6	2.8	2.75
Mounting	Cavity / Plate / Cabinet / Rack Mount Are All Available		

Order Information	5 Watt Load	25 Watt Load	60 Watt Load	100 Watt Load	150 Watt Load
22-13-XX	22-13-05	22-13-25	22-13-60	22-13-100	22-13-150
22-40-XX	22-40-05	22-40-25	22-40-60	22-40-100	22-40-150
22-80-XX	22-80-05	22-80-25	22-80-60	22-80-100	22-80-150

XX = load size

## HIGH POWER SINGLE ISOLATORS

### 41-FF-PP

Comprod Inc. Isolators are among the best in the industry for blocking the transfer of RF power flow in the opposite direction. High power and total reliability are two of the characteristics of these isolators. Used for inter-modulation panels, protecting your transmitters from reflected power, and providing extra isolation are just a few of the possible applications. These isolators can be combined with a variety of loads, 5/25/60/100/150/250 watt combinations, and combined with second harmonic filters for Hybrid Combiners (HTCs).

- **High Isolation**

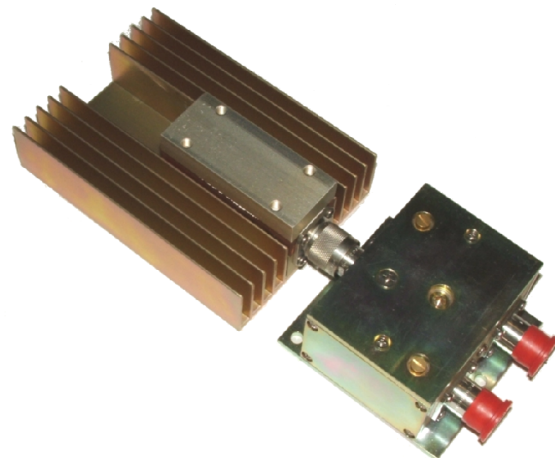
- Minimizes intermodulation products

- **Low loss**

- Maximizes system performance

- **Continuous Power**

- Physical size and materials used maximize the performance across the operating band



Electrical Specifications	41-13-XX	41-40-XX	41-80-XX
Frequency Range, MHz	138-174	406-512	746-960
Frequency Split, MHz	30	24	24
Bandwidth	2.5% Cent. Freq.	1% Cent. Freq.	2.5% Cent. Freq.
Continuous Power Input, Watts	150	250	150
Connectors	N Female	N Female	N Female
Output Load Size	5/25/60/100/150	5/25/60/100/150	5/25/60/100/150
Reverse Isolation, dB	30	30	30
Typical Insertion Loss, dB	0.45	0.45	0.25
VSWR	1.22:1	1.22:1	1.22:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	41-13-XX	41-40-XX	41-80-XX
Dimensions, in (H x W x D)	3.94 x 3.75 x 1.78	4.19 x 3.99 x 1.78	5.63 x 3.15 x 1.84
Weight, lbs	1,40	1,41	1,32
Mounting	Cavity / Plate / Cabinet / Rack Mount Are All Available		

Order Information	5 Watt Load	25 Watt Load	60 Watt Load	100 Watt Load	150 Watt Load
41-13-XX	41-13-05	41-13-25	41-13-60	41-13-100	41-13-150
41-40-XX	41-40-05	41-40-25	41-40-60	41-40-100	41-40-150
41-80-XX	41-80-05	41-80-25	41-80-60	41-80-100	41-80-150

XX = load size

## HIGH POWER DUAL ISOLATORS

### 42-FF-PP

Comprod Inc. Isolators are among the best in the industry for blocking the transfer of RF power flow in the opposite direction. High power and total reliability are two of the characteristics of these isolators. Used for intermodulation panels, protecting your transmitters from reflected power, and providing extra isolation are just a few of the possible applications. These isolators can be combined with a variety of loads, 5/25/60/100/150/250 watt combinations, and combined with second harmonic filters for Hybrid Combiners (HTCs).

- **High Isolation**

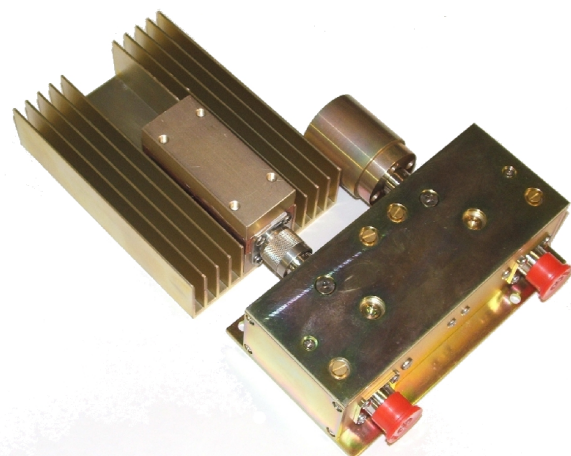
- Minimizes intermodulation products

- **Low loss**

- Maximizes system performance

- **Continuous Power**

- Physical size and materials used maximize the performance across operating band



Electrical Specifications	42-13-XX	42-40-XX	42-80-XX
Frequency Range, MHz	138-174	406-512	746-960
Frequency Split, MHz	30	24	24
Bandwidth	2.5% Cent. Freq.	1% Cent. Freq.	2.5% Cent. Freq.
Continuous Power Input, Watts	150	250	150
Connectors	N Female	N Female	N Female
Output Load Size	5/25/60/100/150	5/25/60/100/150	5/25/60/100/150
Reverse Isolation, dB	60	60	60
Typical Insertion Loss, dB	0.9	0.7	0.5
VSWR	1.22:1	1.22:1	1.22:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	42-13-XX	42-40-XX	42-80-XX
Dimensions, in (H x W x D)	3.94 x 6.25 x 1.78	4.19 x 8.75 x 1.78	5.63 x 6.13 x 1.84
Weight, lbs	2.6	2.8	2.75
Mounting	Cavity / Plate / Cabinet / Rack Mount Are All Available		

Order Information	5 Watt Load	25 Watt Load	60 Watt Load	100 Watt Load	150 Watt Load
42-13-XX	42-13-05	42-13-25	42-13-60	42-13-100	42-13-150
42-40-XX	42-40-05	42-40-25	42-40-60	42-40-100	42-40-150
42-80-XX	42-80-05	42-80-25	42-80-60	42-80-100	42-80-150

XX = load size

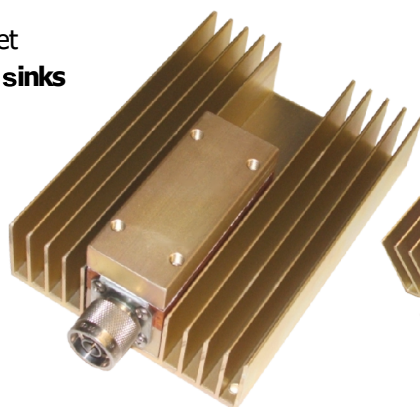
## RF LOADS

25-1000MHz

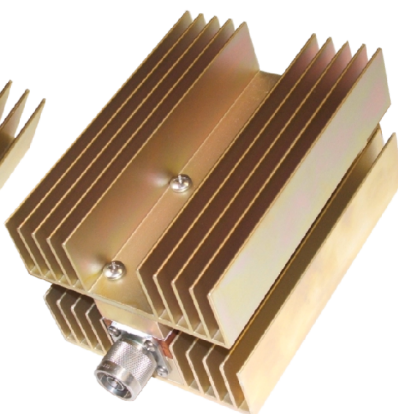
## 45-05-PP Series

Comprod Inc. continuous power RF Loads have been specifically developed to provide our customers with a product that is truly install and forget. The RF loads are specifically designed to continually absorb reflected power. Our loads are traditionally larger than the industry average. These heavy duty versions provide constant protection to your transmitters with their oversized heat sinks.

- **Excellent return loss**
- **Continuous duty power**
  - 24/7 operation
  - Install-and-forget
- **Oversized heat sinks**



45-05-60



45-05-100



45-05-250

Electrical Specifications	45-05-05	45-05-25	45-05-60	45-05-100	45-05-250
Frequency Range, MHz	5 - 1000	5 - 1000	5 - 1000	5 - 1000	5 - 1000
Load Type	Dry				
Cooling	Natural Air Convention				
Duty Cycle	Continuous				
Connectors	N Male				N Female
Impedance, Ohms	50				
Maximum RF Input Power, Watts	5	25	60	100	250
Resistor Element Rating, Watts	60	60	250	250	250
Heatsink Area, in (cm)	9.2 (59)	57 (368)	172.7 (1114)	334.7 (2159)	898.2 (5795)
Heatsink Power Density, Watts/inches	0.54	0.44	0.35	0.3	0.28
VSWR	1.05:1				
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	45-05-05	45-05-25	45-05-60	45-05-100	45-05-250
Dimensions, in (H x W x D)	1.31 x 1.50	5.06 x 1.50	6.3 x 3.9 x 1.6	6.3 x 3.9 x 2.9	7.4 x 8.00 x 4.3
Weight, lbs	0.18	0.64	1.28	2.00	7.52



## HIGH POWER HYBRID COMBINERS

138-174MHz

## HTC-13-OX

Our Hybrid Transmit Combiners are designed for compact, close frequency installations. Our HTCs are perfect for very closely spaced frequency transmitters. These devices are ideal for use when our X-Pass technology does not provide adequate performance and isolation for very close Tx-Tx spacing. Hybrid Combiners are also ideal for intermodulation panels, providing extra protection with their second harmonic filters, or when physical space is at a premium or is constrained, and for providing extra isolation between two very close transmitters.

- **High Isolation**

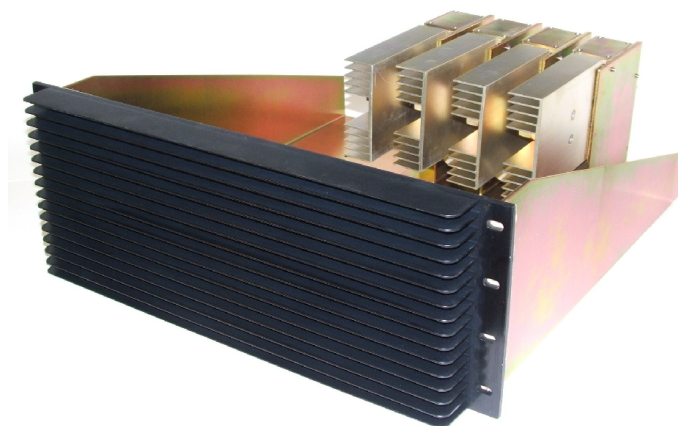
- Minimizes intermodulation products

- **Low loss**

- Maximizes system performance

- **Continuous power**

- Physical size and materials used maximizes the performance across the operating band



Electrical Specifications	HTC-13-04HS	HTC-13-02HS	HTC-13-04HD	HTC-41-02HD
Frequency Range, MHz	138-174	138-174	138-174	138-174
Frequency Split, MHz	30	30	24	24
Bandwidth	2.5% Cent. Freq.	2.5% Cent. Freq.	1% Cent. Freq.	1% Cent. Freq.
Channels	4	2	4	2
Continuous Power Input, Watts	100	100	100	100
Connectors	N Female	N Female	N Female	N Female
Isolator	Single	Single	Dual	Dual
Isolation Tx/Tx, dB	65	65	100	100
Isolation Ant/Tx	35+	35+	70+	70+
Typical Insertion Loss, dB	6.8	3.5	7.0	3.7
VSWR - Input/Output	1.1:1 / 1.3:1	1.1:1 / 1.3:1	1.1:1 / 1.3:1	1.1:1 / 1.3:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	HTC-13-04HS	HTC-13-02HS	HTC-13-04HD	HTC-13-02HD
Dimensions, in (H x W x D)	6.5 x 19 x 18	6.5 x 19 x 18	6.5 x 19 x 18	6.5 x 19 x 18
Weight, lbs	11.8	9.3-11	12.8	9.3-11
Mounting	19" Rack Mount	19" Rack Mount	19" Rack Mount	19" Rack Mount

## HIGH POWER HYBRID COMBINERS

406-512MHz

## HTC-40-0X

Our Hybrid Transmit Combiners are designed for compact, close frequency installations. Our HTCs are perfect for very closely spaced frequency transmitters. These devices are ideal for use when our X-Pass technology does not provide adequate performance and isolation for very close Tx-Tx spacing. Hybrid Combiners are also ideal for intermodulation panels, providing extra protection with their second harmonic filters, or when physical space is at a premium or is constrained, and for providing extra isolation between two very close transmitters.

- **High Isolation**

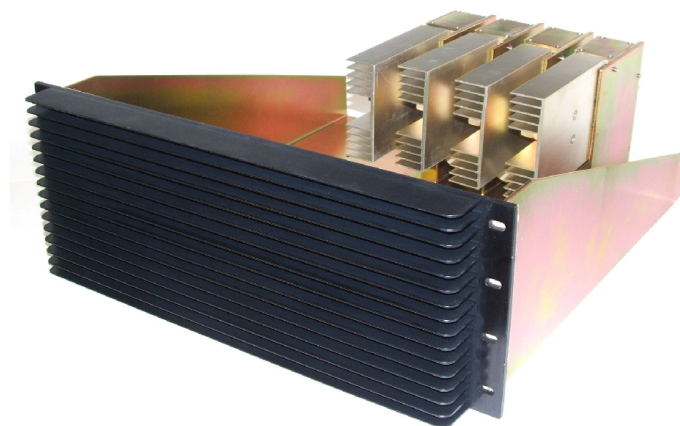
- Minimizes intermodulation products

- **Low loss**

- Maximizes system performance

- **Continuous power**

- Physical size and materials used maximizes the performance across the operating band



Electrical Specifications	HTC-40-04HS	HTC-40-02HS	HTC-40-04HD	HTC-40-02HD
Frequency Range, MHz	406-512	406-512	406-512	406-512
Frequency Split, MHz	30	30	24	24
Bandwidth	2.5% Cent. Freq.	2.5% Cent. Freq.	1% Cent. Freq.	1% Cent. Freq.
Channels	4	2	4	2
Continuous Power Input, Watts	100	100	100	100
Connectors	N Female	N Female	N Female	N Female
Isolator	Single	Single	Dual	Dual
Isolation Tx/Tx, dB	65	65	100	100
Isolation Ant/Tx	35+	35+	70+	70+
Typical Insertion Loss, dB	6.8	3.5	7.0	3.7
VSWR - Input/Output	1.1:1 / 1.3:1	1.1:1 / 1.3:1	1.1:1 / 1.3:1	1.1:1 / 1.3:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	HTC-40-04HS	HTC-40-02HS	HTC-40-04HD	HTC-40-02HD
Dimensions, in (H x W x D)	6.5 x 19 x 18	6.5 x 19 x 18	6.5 x 19 x 18	6.5 x 19 x 18
Weight, lbs	11.8	9.3-11	12.8	9.3-11
Mounting	19" Rack Mount	19" Rack Mount	19" Rack Mount	19" Rack Mount

## HIGH POWER HYBRID COMBINERS

806-960MHz

## HTC-80-OX

Our Hybrid Transmit Combiners are designed for compact, close frequency installations. Our HTCs are perfect for very closely spaced frequency transmitters. These devices are ideal for use when our X-Pass technology does not provide adequate performance and isolation for very close Tx-Tx spacing. Hybrid Combiners are also ideal for intermodulation panels, providing extra protection with their second harmonic filters, or when physical space is at a premium or is constrained, and for providing extra isolation between two very close transmitters.

- **High Isolation**

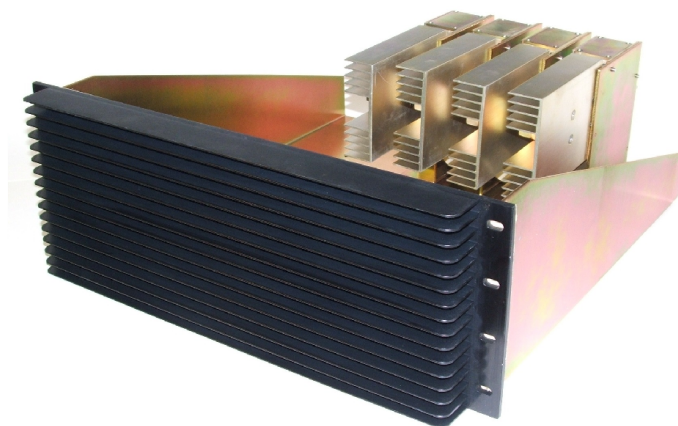
- Minimizes intermodulation products

- **Low loss**

- Maximizes system performance

- **Continuous power**

- Physical size and materials used maximizes the performance across the operating band



Electrical Specifications	HTC-80-04HS	HTC-80-02HS	HTC-80-04HD	HTC-80-02HD
Frequency Range, MHz	806-960	806-960	806-960	806-960
Frequency Split, MHz	30	30	24	24
Bandwidth	2.5% Cent. Freq.	2.5% Cent. Freq.	1% Cent. Freq.	1% Cent. Freq.
Channels	4	2	4	2
Continuous Power Input, Watts	100	100	100	100
Connectors	N Female	N Female	N Female	N Female
Isolator	Single	Single	Dual	Dual
Isolation Tx/Tx, dB	65	65	100	100
Isolation Ant/Tx	35+	35+	70+	70+
Typical Insertion Loss, dB	6.8	3.5	7.0	3.7
VSWR - Input/Output	1.1:1 / 1.3:1	1.1:1 / 1.3:1	1.1:1 / 1.3:1	1.1:1 / 1.3:1
Temperature °C	-40 to +60	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	HTC-80-04HS	HTC-80-02HS	HTC-80-04HD	HTC-80-02HD
Dimensions, in (H x W x D)	6.5 x 19 x 18	6.5 x 19 x 18	6.5 x 19 x 18	6.5 x 19 x 18
Weight, lbs	11.8	9.3-11	12.8	9.3-11
Mounting	19" Rack Mount	19" Rack Mount	19" Rack Mount	19" Rack Mount

## HYBRID TRANSMIT COMBINER

806-960MHz

## HTC-90-O2DLP

Our Hybrid Transmit Combiners are designed for compact, close frequency installations. Our HTCs are perfect for very closely spaced frequency transmitters. These devices are ideal for use when our X-Pass technology does not provide adequate performance and isolation for very close Tx-Tx spacing. Hybrid Combiners are also ideal for intermodulation panels, providing extra protection with their second harmonic filters, or when physical space is at a premium or is constrained, and for providing extra isolation between two very close transmitters.

- **High Isolation**

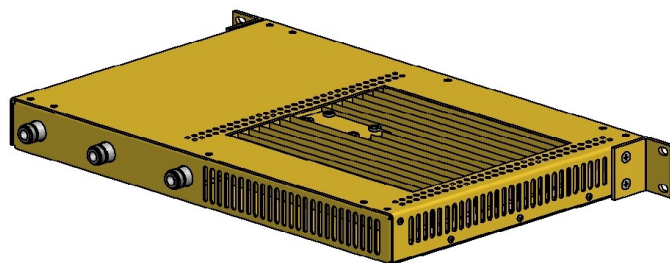
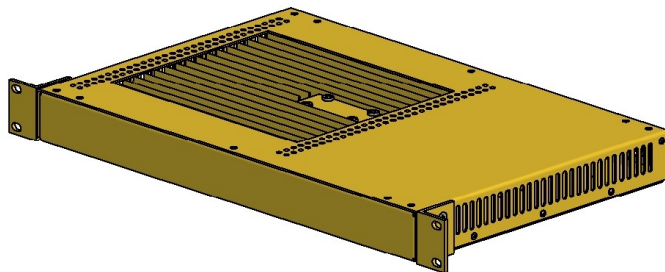
- Minimizes intermodulation products

- **Low loss**

- Maximizes system performance

- **Continuous power**

- Physical size and materials used maximizes the performance across the operating band



Electrical Specifications	HTC-90-O2DLP
Frequency Range, MHz	896-960
Channels	2
Maximum Power Per Channel, Watts	50
Connectors	N Female
Isolator	Single
Isolation Tx/Tx, dB	70
Isolation Ant/Tx, dB	50
Typical Insertion Loss, dB	3.7
Maximum Input VSWR	1.22:1
Maximum Output VSWR	1.3:1
Temperature °C	-40 to +80
Impedance, Ohms	50
Transmit Antenna Return Loss, dB	18

Mechanical Specifications	
Height, in (mm)	1.75 (44.5)
Width, in (mm)	19 (483)
Depth, in (mm)	11.25 (286)
Weight, lb (kg)	8.8 (4.0)
Mounting Information	19" Rack Mount, 1 Rack Unit



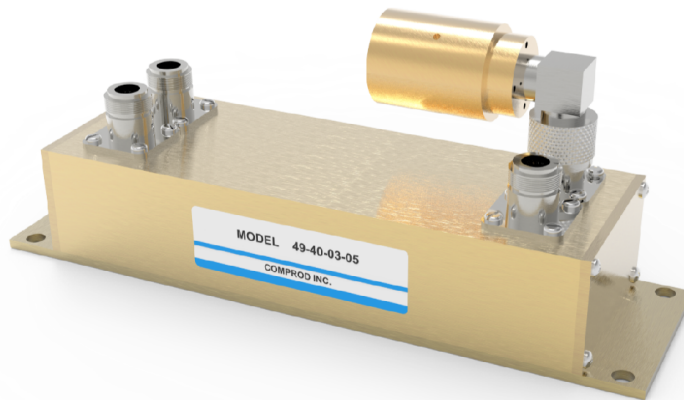
## HYBRID DIRECTIONAL COUPLERS

138-960MHz

## 49-FF-YY-XX Series

Comprod Inc. offers a full line of Hybrid Directional Couplers. The full range of decoupling values allows balanced power division and distribution. These couplers are bidirectional and are well suited for two-way communications systems. A full line of Tri-Band models is available for distribution of VHF, UHF and 800 MHz via a single transmission line. Standard finish is gold alodine.

- Low Insertion Loss
- High Isolation between ports
- Excellent VSWR
- Tri-Band and other models are available and customizable. Please contact a Comprod Inc. Technical support technician for consultation.



Model With No Load	Model With 5 Watt Load	Model With 25 Watt Load	Frequency Range	Decoupling (dB)	Thru Line Loss (dB)	Power Split Ratio (%)
49-13-03-00	49-13-03-05	49-13-03-25	138-174MHz	-3, $\pm 0.7$	-3.0, $\pm 0.3$	50 / 50
49-13-48-00	49-13-48-05	49-13-48-25	138-174MHz	-4.8, $\pm 0.7$	-1.8, $\pm 0.3$	67 / 33
49-13-06-00	49-13-06-05	49-13-06-25	138-174MHz	-6.0, $\pm 1.0$	-1.2, $\pm 0.2$	75 / 25
49-13-07-00	49-13-07-05	49-13-07-25	138-174MHz	-7.0, $\pm 1.0$	-1.0, $\pm 0.2$	80 / 20
49-13-10-00	49-13-10-05	49-13-10-25	138-174MHz	-10.0, $\pm 1.0$	-0.5, $\pm 0.2$	90 / 10
49-13-20-00	49-13-20-05	49-13-20-25	138-174MHz	-20.0, $\pm 1.0$	-0.3 max.	99 / 1
49-38-03-00	49-38-03-05	49-38-03-25	380-512MHz	-3, $\pm 0.7$	-3.0, $\pm 0.3$	50 / 50
49-38-48-00	49-38-48-05	49-38-48-25	380-512MHz	-4.8, $\pm 0.7$	-1.8, $\pm 0.3$	67 / 33
49-38-06-00	49-38-06-05	49-38-06-25	380-512MHz	-6.0, $\pm 1.0$	-1.2, $\pm 0.2$	75 / 25
49-38-07-00	49-38-07-05	49-38-07-25	380-512MHz	-7.0, $\pm 1.0$	-1.0, $\pm 0.2$	80 / 20
49-38-10-00	49-38-10-05	49-38-10-25	380-512MHz	-10.0, $\pm 1.0$	-0.5, $\pm 0.2$	90 / 10
49-38-15-00	49-38-15-05	49-38-15-25	380-512MHz	-15.0	-0.2 max.	97 / 3
49-38-20-00	49-38-20-05	49-38-20-25	380-512MHz	-20.0	-0.2 max.	99 / 1
49-38-30-00	49-38-30-05	49-38-30-25	380-512MHz	-30.0	-0.2 max.	99.9 / 0.1
49-74-03-00	49-74-03-05	49-74-03-25	760-960MHz	-3, $\pm 0.7$	-3.0, $\pm 0.3$	50 / 50
49-74-48-00	49-74-48-05	49-74-48-25	760-960MHz	-4.8, $\pm 0.7$	-1.8, $\pm 0.3$	67 / 33
49-74-06-00	49-74-06-05	49-74-06-25	760-960MHz	-6.0, $\pm 1.0$	-1.2, $\pm 0.2$	75 / 25
49-74-07-00	49-74-07-05	49-74-07-25	760-960MHz	-7.0, $\pm 1.0$	-1.0, $\pm 0.2$	80 / 20
49-74-10-00	49-74-10-05	49-74-10-25	760-960MHz	-10.0, $\pm 1.0$	-0.5, $\pm 0.2$	90 / 10
49-74-15-00	49-74-15-05	49-74-15-25	760-960MHz	-15.0	-0.2 max.	97 / 3
49-74-20-00	49-74-20-05	49-74-20-25	760-960MHz	-20.0	-0.2 max.	99 / 1
49-74-30-00	49-74-30-05	49-74-30-25	760-960MHz	-30.0	-0.2 max.	99.9 / 0.1

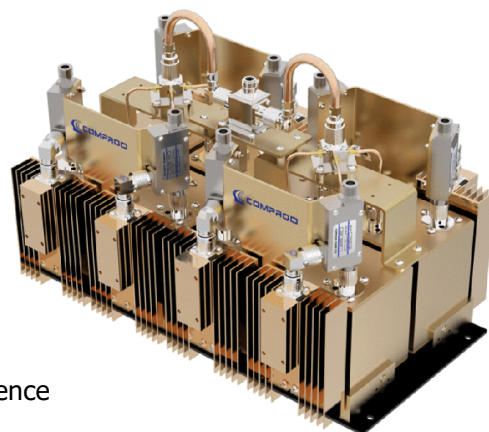
## CERAMIC COMBINER

764-776, 851-869 & 935-941 MHz

### Star Junction Ceramic Combiner

Comprod's Ceramic Combiner uses dielectric resonator technology to offer higher performance than standard RF cavities in a much smaller package. It combines 8 channels in only 8.5" of standard 19" rack space. The resonator allows combining of transmitters at a frequency spacing as close as 150 KHz. Lower insertion loss per channel is another result of the sharper filtering performance. Expandable in individual channel increments. Available in Star or X-Pass (expandable) configuration.

- Available for the 764-776, 851-869 and 935-941 MHz bands
- Designed for tight channel spacing
- Lowest insertion loss, high isolation for maximum coverage and reduced interference
- Star Configuration
- Compact, robust design for rapid installations, increased mobility and ease of maintenance

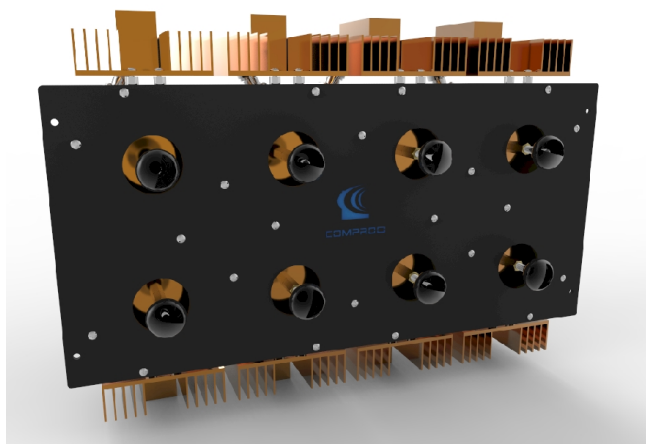


### Electrical Specifications

Frequency Range, MHz	764-776, 851-869 & 935-941
Frequency Spacing, Min.	150 KHz
Temperature Range, °C	-35 to +60
TX to TX Isolation at Minimum Frequency Spacing of 150 KHz	65 dB min (double junction isolator)
ANT to TX Isolation	60 dB min (double junction isolator)
Insertion Loss	1.8 dB – 4 ch. at 500 KHz 2.5 dB – 16 ch. at 500 KHz 3.8 dB – 24 ch. at 500 KHz
Power Input / Channel (Watts)	125
Transmitter Input VSWR (max)	1.25:1

### Mechanical Specifications

Dimensions (HWD), in (mm)	14 x 8.5 x 19 (356 x 216 x 483)
Weight, lb (kg)	8 Channel system 62.17 (28.2)



## CERAMIC COMBINER

764-776, 851-869 & 935-941 MHz

### X-Pass Ceramic Combiner

Comprod's Ceramic Combiner uses dielectric resonator technology to offer higher performance than standard RF cavities in a much smaller package. It combines 4 channels in only 7.75" of standard 19" rack space. The resonator allows combining of transmitters at a frequency spacing as close as 150 KHz. Lower insertion loss per channel is another result of the sharper filtering performance. Expandable in individual channel increments. Available in Star or X-Pass (expandable) configuration.



- Available for the 764-776, 851-869 and 935-941 MHz bands
- Designed for tight channel spacing
- Lowest insertion loss, high isolation for maximum coverage and reduced interference
- Easy field expandability with X-Pass technology - one channel at a time
- Compact, robust design for rapid installations, increased mobility and ease of maintenance

#### Electrical Specifications

Frequency Range, MHz	764-776, 851-869 & 935-941
Frequency Spacing, Min.	150 KHz
Temperature Range, °C	-35 to +60
TX to TX Isolation at Minimum Frequency Spacing of 150 KHz	65 dB min (double junction isolator)
ANT to TX Isolation	60 dB min (double junction isolator)
Insertion Loss	1.8 dB – 4 ch. at 500 KHz 2.5 dB – 16 ch. at 500 KHz 3.8 dB – 24 ch. at 500 KHz
Power Input / Channel (Watts)	125
Transmitter Input VSWR (max)	1.25:1

#### Mechanical Specifications

Dimensions (HWD), in (mm)	7.75 x 19 x 14 (197 x 483 x 356)
Weight, lb (kg)	4 Channel system 32 (15)



<b>DRXC</b>	-	<b>FF</b>	-	<b>XX</b>	<b>N</b>
<b>DRXC</b>	Dielectric Resonator X-Pass				
<b>FF</b>	Frequency band: 76=764-776 85=851-869 93=935-940				
<b>XX</b>	Number of Channels				
<b>N</b>	N Female Connectors				

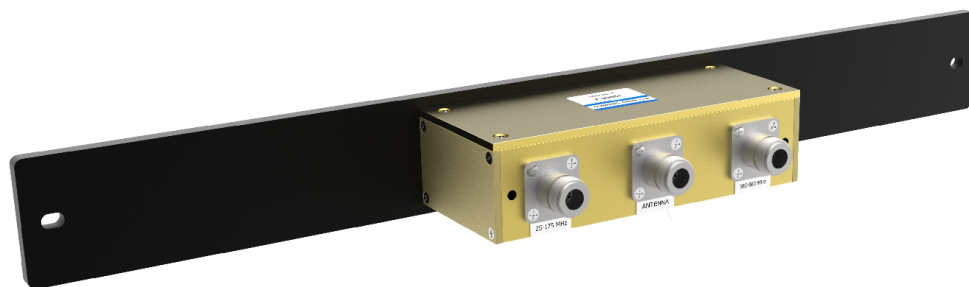
#### Example: Model # RDXC-85-04N

Ceramic Combiner, 851-869 MHz, 4 Channel N Connectors

# X-BAND COUPLER

25-960MHz

Comprod Inc. Cross Band Couplers are designed for easy installation, reducing coaxial runs, and for in-building applications with multi-band antennas. They allow multiple bands to share the same transmission lines. They are available in VHF, UHF and 800/900MHz bands. They can be tower mounted (TM), rack mounted (RM), tray-mounted (TRM) or stand alone.



Electrical Specifications		XBC-02-38	XBC-02-38R	XBC-38-80	XBC-38-80R	XBC-38-80RX
Frequency Range, MHz	1st	25-175	25-175	380-512	380-512	380-512
	2nd	380-960	380-960	806-960	806-960	806-960
Typical Loss, dB	1st	0.35	0.35	0.20	0.35	0.30
	2nd	0.50	0.50	0.20	0.50	0.50
Isolation, dB		40	40	40	40	40
Power Rating, Watts	1st	250	Rx Only	250	Rx Only	250
	2nd	250	Rx Only	250	Rx Only	Rx Only
Connectors		N Female				
VSWR		1.25:1				
Temperature °C		-40 to +60	-40 to +60	-40 to +60	-40 to +60	-40 to +60
Mechanical Specifications		XBC-02-80	XBC-02-80R	XBC-38-80	XBC-38-80R	XBC-38-80RX
Dimensions		DEPENDS ON Mounting CONFIGURATION				
Rack Mount		DEPENDS ON Mounting CONFIGURATION				
Tower Mount		DEPENDS ON Mounting CONFIGURATION				
Order Information		19" Rack Mount	Tower Mount	Tray Mount	Without Bracket	
XBC-02-80		XBC-02-80-RM	XBC-02-80-TM	XBC-02-80-TRM	XBC-02-80-WB	
XBC-02-80R		XBC-02-80R-RM	XBC-02-80R-TM	XBC-02-80R-TRM	XBC-02-80R-WB	
XBC-38-80		XBC-38-80-RM	XBC-38-80-TM	XBC-38-80-TRM	XBC-38-80-WB	
XBC-38-80R		XBC-38-80R-RM	XBC-38-80R-TM	XBC-38-80R-TRM	XBC-38-80R-WB	
XBC-38-80RX		XBC-38-80RX-RM	XBC-38-80RX-TM	XBC-38-80RX-TRM	XBC-38-80RX-WB	



## COMBLINE FILTERS / PRESELECTORS

30-960MHz

## 57-FF-XX Series

Comprod Inc. Comblime filters are designed for minimizing interference from adjacent channels and outside systems. They are available in a wide range of bandwidths and frequency splits. Used in front of a wideband receiver multicoupler, the preselectors narrow the passband to the desired bandwidth. Each filter is temperature compensated for operation between -40°C to +60°C. Each filter has silver plated loops, and silver plated tuning rods. Comprod Inc. preselectors are available in a wide range of frequency splits, bandwidth and cavity sizes.

## Temperature Compensation

- Ensures Frequency Stability

## High Attenuation

- Minimizes desense and interference from adjacent systems

Several other preselectors are also available. They include combline and our full line of cavity based preselectors. Sizes range from the very compact 1" helical filter to the very selective 6.625" cavity preselector. Please contact a Comprod Inc. Technical support technician for consultation.



Electrical Specifications	57-45-04	57-80-05	57-80-07	57-80-15	57-80-18
Frequency Range, MHz	450-470	766-960	766-960	766-960	766-960
Type	Comblime	Comblime	Comblime	Comblime	Comblime
Insertion Loss Bandwidth, dB	3	1.5	1.5	0.8	0.8
Pass Bandwidth, MHz	4.0	5.0	7.0	15.0	18.0
Return Loss, dB (VSWR)	20 (1.22)	20 (1.22)	20 (1.22)	20 (1.22)	20 (1.22)
Typical Selectivity, dB @ MHz	38 @ 5	80 @ 45	80 @ 45	70 @ 45	70 @ 45
Temperature Range, °C	-30 to +60	-30 to +60	-30 to +60	-30 to +60	-30 to +60
Input Power, Watt	Rx Only	Rx Only	Rx Only	Rx Only	Rx Only
Connectors, Antenna/Output	N-F/N-F	N-F/N-F	N-F/N-F	N-F/N-F	N-F/N-F

Mechanical Specifications	57-45-04	57-80-05	57-80-07	57-80-15	57-80-18
Finish	Black	Black and gold alodine			
Dimensions H x W x D, in (mm)	5.25 x 19 x 4.5	3.5 x 19 x 6	3.5 x 19 x 6	3.5 x 19 x 6	3.5 x 19 x 6
	(133 x 686 x 114)	(89 x 483 x 152)	(89 x 483 x 152)	(89 x 483 x 152)	(89 x 483 x 152)

Order information: specify working frequency, bandwidth, power and isolation required.

## FILTER RACKS AND MOUNTING

### Filter Rack Mounting Systems

Comprod Inc. filter racks are designed for flexible, space saving filter systems. Each rack has its own benefits, space constraints, ease of installation and cost effectiveness.

We offer four types of racks:

#### 19 inch Standard Rack

This is a standard 19" rack with mounting holes on either side of the rack for ease of installation. Racks are available in different heights.

#### X-Rack

The X-Rack was specifically developed for our X-Series Cavities. This rack system allows for maximum cavity installation, but minimizes the amount of physical space that is used. All cavities mount horizontally for easy installation and removal. Most X-Rack systems will be supplied turnkey and pre-assembled for quick installation. The maximum capacity per rack is 21 cavities. Racks are available in different heights.

#### Stack Rack

The Stack Rack is used when space is at a premium. It must be assembled on-site. Two Stack Racks can hold 40 cavities. All cavities are mounted horizontally, with 4 cavities per row.

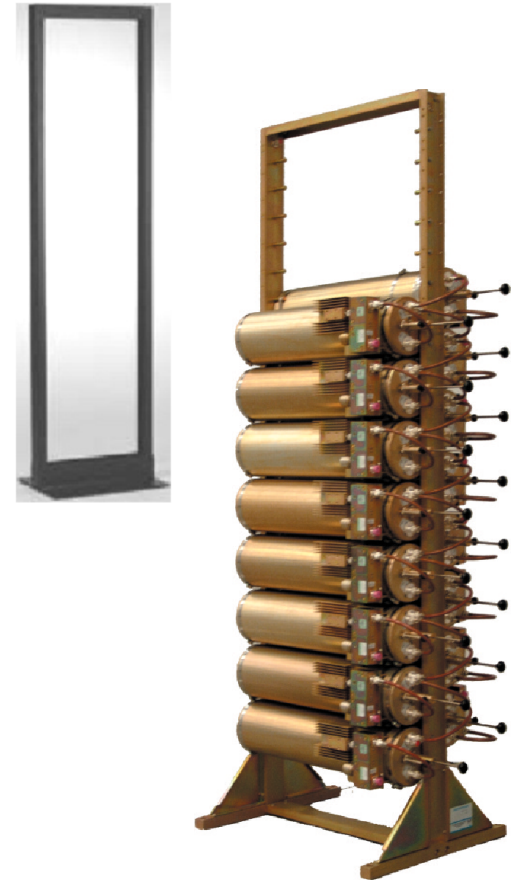
#### Wall-Mount and Cabinets

We have multiple versions of these cabinets and cavity mounts. Please contact us for additional information. Do not hesitate to ask for custom installations.

We also offer four types of mounting hardware:

- Cabinet Mount - (CM)
- Wall Mount - (WM)
- Rack Mount - (RM)
- Tower Mount - (TM)
- Tray Mount - (TRM)

We also supply mounting hardware manufactured to your specifications. Our metal shop manufactures our own racks, cabinets and mounting hardware. We also have the ability to design, and build your custom concepts.



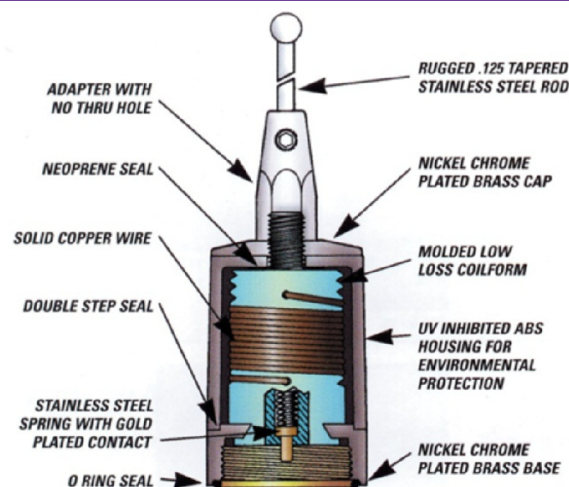
Rack Style	Model Number	Cavity Size	Cavity Length	# of Cavity	Height	Width	Depth
X Rack	19-10-26-13	10"	26"	13	79.5"	24"	28.69"
X Rack	19-07-11-20	6.625"	11.5"	21	86.5"	24"	14.19"
X Rack	19-07-26-20	6.625"	26"	21	86.5"	24"	28.69"
X Rack	19-07-13-20	6.625"	13"	21	86.5"	24"	15.81"
X Rack	19-10-26-19	10"	26"	19	108"	24"	28.69"
Stack Rack	HRV-85	6.625"	26"	20	42.62"	32.75"	30.25"
Stack Rack	HRU-85	6.625"	11.5"	20	42.62"	32.75"	18.25"
19" Standard Rack	Call for Available Dimensions						

Our Mobile and Transit Antenna lines are suited for Government and Utility applications and result in long term, problem-free installations.

We use stainless steel whips, incorporate high-impact ABS, and gold plated, spring loaded contacts when possible, ensuring long term reliability and performance.

Our multi-band antennas have been developed for transmitting and receiving Data and Voice.

We have also customized many Wideband and Full-Band VHF, UHF, and 700/800/900 MHz antenna models for unique requirements. Please contact a Comprod Inc. Technical support technician for consultation if you require customized antennas.



Model	Frequency								Gain				Options		
	Lo-Band	VHF	220	UHF	700	800	900	DUAL	Unity	2dB	3dB	3.5dB	NGP	Black	W/Spring
550-75		•	•	•	•	•	•		•					550-75B	
555-75		•	•	•	•	•	•		•					555-75B	
552-75		•	•	•					•					552-75B	•
565-75	•								•					565-75B	565-75S
577-75		•								•			•		577-75S
578-75				•						•					
580-75		•									•			580-75B	580-75S
583-75				•							•			583-75B	583-75S
590-75					•	•	•				•			590-75B	
591-75					•	•	•				•			591-75B	
592-75					•	•	•				•				
595-75					•	•	•					•		595-75B	•
599-75						•	•				•		•	•	•
690-75						•	•	•						•	
692-75							•	•						692-75B	
694-75						•	•	•						694-75B	
696-75							•	•						696-75B	
357-75		•							•						
358-75		•							•						
359-75				•					•						
360-75				•					•						
361-75						•	•		•						
362-75					•	•	•		•						

NGP is "No Ground Plane"

## LOW BAND

27-54 MHz

**Performance:** Unity gain, base loaded antenna with a power handling capacity of 200 Watts.

**Stylish and Durable:** These antennas are manufactured using the best corrosion resistant materials and finishes available. The base is triple plated chrome brass with a large insert, molded low loss coil form and a spring-loaded gold plated contact.

**Broadband:** The large diameter coil form used in the construction of the loading coil allows for a wider operational bandwidth and better matching characteristics.

**Weatherproof:** O-ring seals and overlap construction keeps moisture out of the antenna.

**Standard Mounting:** These antennas mate with the standard Motorola NMO type mount, providing an excellent moisture seal even when the antenna is removed.



565-75 Series

Electrical Specifications	
Frequency Range, MHz	27-54
Gain, dBd	Unity
Impedance, Ohms	50
Power Rating, Watts	200
VSWR	1.5:1
Bandwidth	2% of center freq.

Mechanical Specifications	
Radiator: Brite A	Tapered S.S., 0.125 dia.
Black B	Tapered S.S., 0.10 dia.
Base	ABS, spring loaded contact
Length, in	52 Maximum
Mounting	Std. Motorola C, M type

Ordering Information		
Frequency	Brite	Black
27-31 MHz	565-75A-1	565-75B-1
30-35 MHz	565-75A-2	565-75B-2
34-40 MHz	565-75A-3	565-75B-3
40-47 MHz	565-75A-4	565-75B-4
47-54 MHz	565-75A-5	565-75B-5



## 1/4 WAVE BROADBAND

132-512 MHz

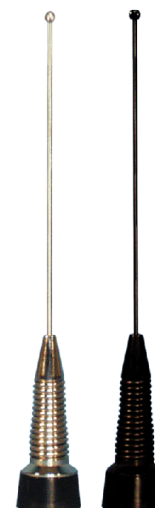
**Performance:** These antennas provide unity gain in a broad-band design for extra heavy-duty service.

**Stylish and Durable:** These antennas are manufactured using the best corrosion resistant materials and finishes available. They come with an integrated shock spring and a heavy-duty stainless steel whip that is designed to withstand severe shock.

**Reliable:** The ABS base has an ultrasonically welded brass insert and a gold plated base loaded spring loaded contact.

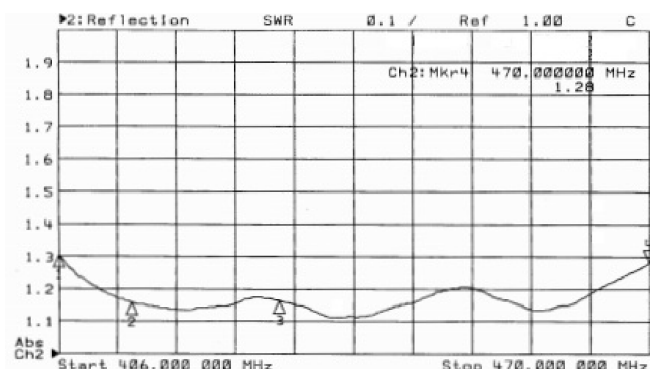
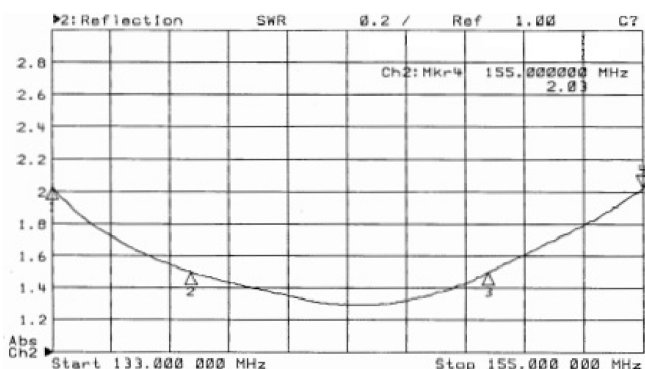
**Broadband:** This antenna provides 24 MHz of bandwidth using VHF frequencies and 100 MHz of bandwidth at UHF frequencies.

**Standard Mounting:** All base loaded antennas mate with the standard Motorola C, M type mounting .



552-75 Series

Electrical Specifications	
Frequency Range, MHz	132-512
Gain, dBd	Unity
Impedance, Ohms	50
Power Rating, Watts	150
Bandwidth / VSWR	VHF - 24MHz @ 2.0:1, UHF - 100MHz @ 2.0:1
Mechanical Specifications	
Radiator: Brite A	Tapered S.S. whip., 0.125 dia.
Black B	Tapered S.S. whip., 0.10 dia.
Base	Ultrasonic brass insert
Contact	Spring loaded, gold plated
Length, in (mm)	21.5 (55) at 138MHz
Mounting	Motorola C, M type
Ordering Information	
Description	Model
Brite finish, triple plated chrome	552-75A
Black finish	552-75B



## ECONOMICAL

132-960 MHz

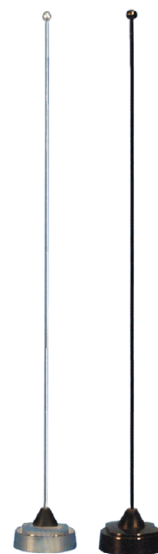
**Performance:** These antennas provide unity gain in a wide-band design for heavy-duty service.

**Stylish and Durable:** These antennas are manufactured using the best corrosion resistant materials and finishes available. Triple plated chrome or black finishes are available.

**Reliable:** The ABS base has an ultrasonically welded brass insert and a gold plated spring loaded contact.

**Versatile:** They are shipped with a factory tuned whip cut to size based on the customer specified frequency range between 136 MHz and 960 MHz.

**Standard Mounting:** These antennas mate with the standard Motorola NMO type mount, providing an excellent moisture seal even when the antenna is removed.



555-75 Series

Electrical Specifications	
Frequency Range, MHz	132-960
Gain, dBd	Unity
Impedance, Ohms	50
Power Rating, Watts	200
VSWR	1.5:1
Bandwidth/VSWR	VHF - 12MHz @ 2.0:1
	UHF - 50MHz @ 2.0:1
Mechanical Specifications	
Radiator: Brite A	Tapered S.S., 0.10 dia.
Black B	Tapered S.S., 0.10 dia.
Base	ABS
Length, in	20 maximum
Mounting	Std. Motorola C, M type
Ordering Information	
Description	Model
Brite finish, triple plated chrome	555-75A
Black finish	555-75B

**1/4 WAVE / VHF—UHF—TRUNKING****136-960 MHz**

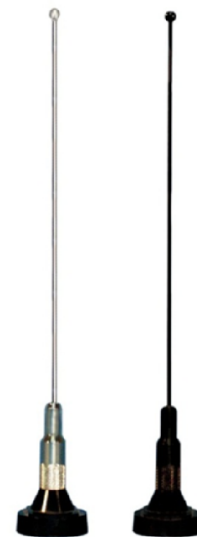
**Performance:** These antennas provide unity gain in a wideband design for heavy-duty service.

**Stylish and Durable:** These antennas are manufactured using the best corrosion resistant materials and finishes available. Triple plated chrome or black finishes are available.

**Reliable:** The ABS base has an ultrasonically welded brass insert and a gold plated spring loaded contact.

**Versatile:** They are shipped with a 19" whip that can be cut by the customer to any frequency between 136 MHz and 960 MHz according to a cutting chart that is provided. They can also be supplied cut and tested to a specific frequency, at no extra charge.

**Standard Mounting:** These antennas mate with the standard Motorola NMO type mount, providing an excellent moisture seal even when the antenna is removed.



550-75 Series

Electrical Specifications	
Frequency Range, MHz	136-960
Gain, dBd	Unity
Impedance, Ohms	50
Power Rating, Watts	150
Bandwidth/VSWR	VHF - 12MHz @ 2.0:1
	UHF - 50MHz @ 2.0:1

Mechanical Specifications	
Radiator	S.S.
Base	ABS, Ultrasonic brass insert
Contact	Spring loaded contact
Length, in	19 maximum
Mounting	Std. Motorola C, M type

Ordering Information	
Description	Model
Brite finish, triple plated chrome	550-75A
Black finish	550-75B

## VHF WIDEBAND / 2 dBd

136-174 MHz

### NoGround Plane Antenna

**Performance:** This broadband 1/2-wave antenna provides 2.0 dBd of gain over its operating bandwidth. No ground plane is needed for this antenna.

**Stylish and durable:** The antennas are manufactured using the best corrosion resistant materials and finishes available. The base is triple plated chrome brass with a large insert molded low loss coil form and a spring loaded, gold plated contact.

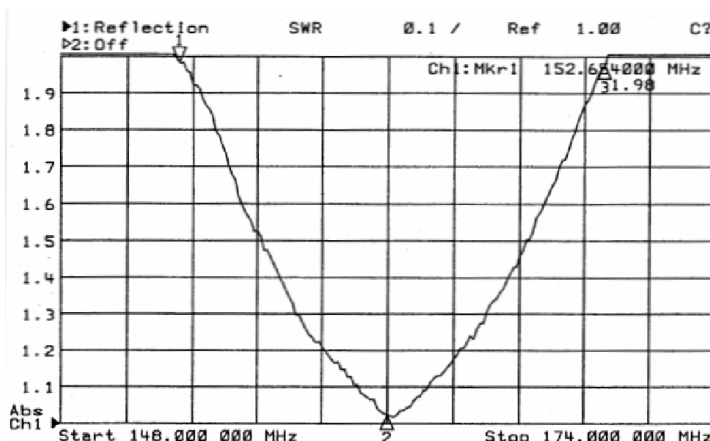
**Weatherproof:** O-ring seals and overlap construction keeps moisture out of the antenna.

**Standard Mounting:** All base loaded antennas mate with the standard Motorola C, M type mount.



577-75 Series

Electrical Specifications	
Frequency Range, MHz	136-174
Gain, dBd	2.0
Impedance, Ohms	50
Power Rating, Watts	75
Bandwidth/VSWR	VHF - 11MHz @ 1.5:1, 19MHz @ 2.0:1
Mechanical Specifications	
Radiator	17-7 PH S.S.
Base	ABS, spring loaded contact
Length, in	52 maximum
Mounting	Standard Motorola C, M type
Ordering Information	
Description	Model
Antenna Brite finish	577-75
With shock spring	577-75S





VHF WIDEBAND / 2 dBd

138-174 MHz

**Performance:** This broadband ½-wave antenna provides 2.0 dB of gain over its operating bandwidth.

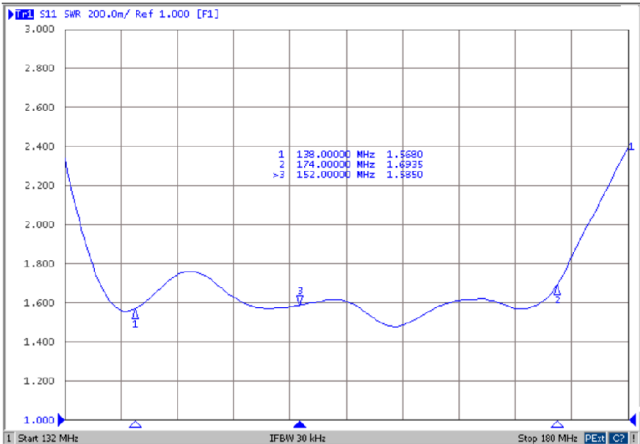
**Stylish and Durable:** The antennas are manufactured using the best corrosion resistant materials and finishes available. The base is triple plated chrome brass with a large insert moulded low loss coil form and a spring loaded, gold plated contact.

**Weatherproof:** O-ring seals and overlap construction keeps moisture out of the antenna.

**Standard Mounting:** All base loaded antennas mate with the standard TAD / NMO type mount.



Electrical Specifications		
Frequency Range, MHz	138-174	
Gain, dBd	2.0	
Impedance, Ohms	50	
Power Rating, Watts	75	
Bandwidth/VSWR	36MHz, 2.0:1	
Mechanical Specifications		
Radiator	S.S.	
Base	ABS, spring loaded contact	
Length, in	36.5	
Mounting	Standard Motorola NMO	
Ordering Information		
Description	Standard Model	With Spring Mount
Antenna Brite finish	578-75	578-75S



## VHF / 3 dBd

132-174 MHz

**Performance:** 3 dBd gain is achieved with these premium antennas by featuring a 5/8-wave whip with a base loaded matching coil.

**Stylish and durable:** The antennas are manufactured using the best corrosion resistant materials and finishes available. The base is triple plated chrome brass with a large insert molded low loss coil form and a spring loaded, gold plated contact.

**Weatherproof:** O-ring seals and overlap construction keeps moisture out of the antenna.

**Standard Mounting:** All base loaded antennas mate with the standard Motorola NMO type mount.



580-75 Series

Electrical Specifications	
Frequency Range, MHz	132-174
Gain, dBd	3.0
Impedance, Ohms	50
Power Rating, Watts	200
VSWR	1.5:1
Bandwidth, MHz	6

Mechanical Specifications	
Radiator: Brite A	Tapered S.S. whip., 0.125 dia.
Black B	Tapered S.S. whip., 0.10 dia.
Base	ABS, spring loaded contact
Length, in	55 whip
Mounting	Standard Motorola NMO type

Ordering Information	
Description	Model
Brite finish, triple plated chrome	580-75A
Black finish	580-75B
With Spring, Brite finish	580-75S
With Spring, Black finish	580-75BS

To order with shock spring, add suffix S to part number. Example: 580-75AS-3.

## UHF / 3 dBd

406-512 MHz

**Performance:** 3 dBd gain is achieved with these premium antennas by featuring a 5/8-wave whip with a base loaded matching coil.

**Stylish and durable:** The antennas are manufactured using the best corrosion resistant materials and finishes available. The base is triple plated chrome brass with a large insert molded low loss coil form and a spring loaded, gold plated contact.

**Broadband:** The large diameter coil form used in the construction of the loading coil allows for a wider operational bandwidth and better matching characteristics.

**Weatherproof:** O-ring seals and overlap construction keeps moisture out of the antenna.

**Standard Mounting:** All base loaded antennas mate with the standard Motorola NMO type mount.



583-75 Series

Electrical Specifications	
Frequency Range, MHz	406-512
Gain, dBd	3.0
Impedance, Ohms	50
Power Rating, Watts	200
Bandwidth at 1.5:1 VSWR, MHz	20

Mechanical Specifications	
Radiator: Brite A	S.S. whip. 0.10 dia
Black B	S.S. whip. 0.10 dia
Base	ABS, spring loaded contact
Length, in	21 whip
Mounting	Standard Motorola NMO type

Ordering Information		
Frequency	Brite	Black
406-430MHz	583-75A-1	583-75B-1
430-450MHz	583-75A-2	583-75B-2
450-470MHz	583-75A-3	583-75B-3
470-490MHz	583-75A-4	583-75B-4
490-512MHz	583-75A-5	583-75B-5

To order with shock spring, add suffix S to part number. Example: 580-75AS-3.

## CELLULAR—TRUNKING / 3 dBd

806-960 MHz

**Performance:** 3 dBd gain is achieved with these premium antennas by featuring a 5/8 wave antenna above a 1/4 wave antenna design.

**Stylish and durable:** These antennas are manufactured using the best corrosion resistant materials and finishes available. Triple plated chrome or black finishes available.

**Reliable:** The ABS base has an ultrasonically welded brass insert and a leaf spring loaded contact for long term reliability.

**Standard Mounting:** These antennas mate with the standard Motorola NMO type mount, providing an excellent moisture seal even when the antenna is removed.



590-75 Series

Electrical Specifications	
Frequency Range, MHz	806-960
Gain, dBd	3.0
Impedance, Ohms	50
Power Rating, Watts	200
Bandwidth at 2.0:1 VSWR, MHz	70

Mechanical Specifications	
Radiator: Brite A	S.S.
Black B	S.S.
Base	ABS, Ultrasonic brass insert
Contact	Spring loaded, gold plated
Length, in	14 maximum
Mounting	Standard Motorola NMO type

Ordering Information			
Frequency	Brite	Black	
806-866MHz	590-75A-1	590-75B-1	
825-896MHz	590-75A-2	590-75B-2	
896-960MHz	590-75A-3	590-75B-3	
746-806MHz	590-75A-4	590-75B-4	



## 800 LOW COST

## 750-960 MHz

**Performance:** 3 dBd gain is achieved with these premium antennas by featuring a 5/8 wave antenna above a 1/4 wave antenna with an open coil design.

**Stylish and durable:** These antennas are manufactured using the best corrosion resistant materials and finishes available. Triple plated chrome or black finishes available.

**Reliable:** The ABS base has an ultrasonically welded brass insert and a leaf spring loaded contact for long term reliability.

**Standard Mounting:** These antennas made with the standard Motorola NMO type mount, providing an excellent moisture seal even when the antenna is removed.



591-75 Series

Electrical Specifications	
Frequency Range, MHz	750-960
Gain, dBd	3.0
Impedance, Ohms	50
Power Rating, Watts	200
Bandwidth at 2.0:1 VSWR, MHz	70

Mechanical Specifications	
Radiator: Brite A	S.S. whip, 0.10 dia.
Black B	S.S. whip, 0.10 dia.
Base	Leaf Design
Length, in	15 maximum
Mounting	Standard Motorola NMO type

Ordering Information			
Frequency	Brite	Black	
806-866MHz	591-75A-1	591-75B-1	
825-896MHz	591-75A-2	591-75B-2	
896-960MHz	591-75A-3	591-75B-3	
746-806MHz	591-75A-4	591-75B-4	

## CELLULAR—TRUNKING / 3 dBd CLOSED COIL

806-960 MHz

**Performance:** 3.0 dBd gain is achieved with these premium antennas by featuring a 5/8 wave antenna above a 1/2 wave antenna with a closed coil design.

**Stylish and durable:** These antennas are manufactured using the best corrosion resistant materials and finishes available. Triple plated chrome or black finishes available.

**Reliable:** The ABS base has an ultrasonically welded brass insert and a leaf spring loaded contact for long term reliability.

**Standard Mounting:** These antennas mate with the standard Motorola NMO type mount, providing an excellent moisture seal even when the antenna is removed.



592-75 Series

Electrical Specifications	
Frequency Range, MHz	806-960
Gain, dBd	3.0
Impedance, Ohms	50
Power Rating, Watts	200
Bandwidth at 2.0:1 VSWR, MHz	70

Mechanical Specifications	
Radiator: Brite A	S.S.
Black B	S.S.
Base	ABS, Ultrasonic brass insert
Contact	Spring loaded, gold plated
Length, in	16 maximum
Mounting	Standard Motorola NMO type

Ordering Information			
Frequency	Brite	Black	
806-866MHz	592-75A-1	592-75B-1	
825-896MHz	592-75A-2	592-75B-2	
896-960MHz	592-75A-3	592-75B-3	
746-806MHz	592-75A-4	592-75B-4	

## CELLULAR—TRUNKING / 3.5 dBd CLOSED COIL

806-970 MHz

**Performance:** 3.5 dBd gain is achieved with these premium antennas by featuring a 5/8 wave antenna above a 1/4 wave antenna design.

**Stylish and durable:** These antennas are manufactured using the best corrosion resistant materials and finishes available. It comes with an integrated shock spring and a heavy-duty stainless steel whip that is designed to withstand severe shock without suffering permanent damage. It is available in triple plated chrome or black finish.

**Reliable:** The ABS base has an ultrasonically welded brass insert and a gold plated, spring loaded contact. The silver plated matching coil is fully enclosed to ensure years of dependable service.

**Weatherproof:** O-ring seals and overlap construction keeps moisture out of the antenna.

**Standard Mounting:** All base loaded antennas mate with the standard Motorola NMO type connector.



595-75 Series

Electrical Specifications	
Frequency Range, MHz	806-970
Gain, dBd	3.5
Impedance, Ohms	50
Power Rating, Watts	200
Bandwidth at 2.0:1VSWR, MHz	70

Mechanical Specifications	
Radiator: Brite A	S.S.
Black B	S.S.
Matching coil	Silver plated enclosed coil
Base	ABS, spring loaded contact
Contact	Gold plated, spring loaded
Length, in	18 maximum
Mounting	Standard Motorola NMO type

Ordering Information			
Frequency	Brite	Black	
740-840MHz	595-75A-4	595-75B-4	
806-866MHz	595-75A-1	595-75B-1	
825-896MHz	595-75A-2	595-75B-2	
896-970MHz	595-75A-3	595-75B-3	

## ELEVATED FEED / 3 dBd

806-960 MHz

**Performance:** 3 dBd gain is achieved with these premium antennas by featuring a 5/8 wave antenna above a 1/4 wave antenna design with an elevated feed point. This antenna requires no ground plane as a result of its collinear design. The elevated feed design is ideal for the antenna RF signal to clear any nearby obstructions.

**Safety:** The elevated feed-point design keeps the RF signals above and away from the passenger compartment.

**Elegance** This elegant black antenna gives a sleek appearance that blends well with the exterior treatments of most late model vehicles.

**Dependability:** The 599-75 antenna features a built in shock spring and a spring loaded contact for long term dependability.

**Standard Mounting:** These antennas mate with the standard NMO type mount, providing an excellent moisture seal even when the antenna is removed.



599-75 Series

Electrical Specifications	
Frequency Range, MHz	806-960
Gain, dBd	3.0
Impedance, Ohms	50
Power Rating, Watts	200
Bandwidth at 2.0:1VSWR, MHz	70

Mechanical Specifications	
Radiator	Black S.S.
Base	Open coil
Contact	Solid brass base
Length, in	23 maximum
Mounting	Standard Motorola NMO type
Finish	Black

Ordering Information	
<b>Frequency</b>	<b>Black finish</b>
806-866MHz	599-75-1
825-896MHz	599-75-2
896-960MHz	599-75-3



## DUAL BAND ANTENNAS

806-1970 MHz

**Performance:** Our premium dual band antennas feature heavy-duty design and excellent performance. Perfect for both voice and data transmission. These antennas are very wide in bandwidth.

**Stylish and durable:** These antennas are manufactured using the best corrosion resistant materials and finishes available. The antenna is low profile, extremely rugged and ideal for commercial applications.

**Weatherproof:** O-ring seals and overlap construction keeps moisture out of the antenna.

**Standard Mounting:** All base loaded antennas mate with the standard Motorola NMO type mount.



690-75

Electrical Specifications	
Frequency (Full Band)	806-940 / 1710-1970
Gain	Unity
Impedance, Ohms	50
Power Rating, Watts	200
Bandwidth at 2.0:1 VSWR, MHz	Full Band

Mechanical Specifications	
Radiator	S.S.
Base	ABS, Ultrasonic Brass Insert
Contact	Gold plated spring loaded
Length, in	4
Mounting	Standard Motorola NMO type
Finish	Black
Ordering Information	690-75

## DUAL BAND ANTENNAS

900-2500 MHz

**Performance:** Our premium dual band antennas feature heavy-duty design and excellent performance. Perfect for both voice and data transmission. These antennas are very wide in bandwidth.

**Stylish and durable:** These antennas are manufactured using the best corrosion resistant materials and finishes available. The antenna is low profile, extremely rugged and ideal for commercial applications.

**Weatherproof:** O-ring seals and overlap construction keeps moisture out of the antenna.

**Standard Mounting:** All base loaded antennas mate with the standard Motorola NMO type mount.



692-75 Series

Electrical Specifications		
Frequency (Full Band)	900-930 / 2400-2500	900-930 / 2400-2500
Gain, dBd	2.0	2.0
Impedance, Ohms	50	50
Power Rating, Watts	250	250
Bandwidth at 2.0:1 VSWR, MHz	Full Band	Full Band

Mechanical Specifications		
Base	ABS	ABS
Contact	Gold plated spring loaded	Gold plated spring loaded
Length, in	3	3
Mounting	Standard Motorola NMO type	Standard Motorola NMO type
Finish	White	Black
Ordering Information	692-75W	692-75B

## DUAL BAND ANTENNAS

806-2000 MHz

**Performance:** Our premium dual band antennas feature heavy-duty design and excellent performance. Perfect for both voice and data transmission. These antennas are very wide in bandwidth.

**Stylish and durable:** These antennas are manufactured using the best corrosion resistant materials and finishes available. The antenna is low profile, extremely rugged and ideal for commercial applications.

**Weatherproof:** O-ring seals and overlap construction keeps moisture out of the antenna.

**Standard Mounting:** All base loaded antennas mate with the standard Motorola NMO type mount.



694-75 Series

Electrical Specifications	
Frequency (Full Band)	806-960 / 1850-1990
Gain, dBd	2.0
Impedance, Ohms	50
Power Rating, Watts	250
Bandwidth at 2.0:1VSWR, MHz	Full Band

Mechanical Specifications	
Base	ABS
Contact	Gold plated spring loaded
Length, in	4
Mounting	Standard Motorola NMO type
Finish	Black or White
Ordering Information	694-75B or 694-75W

## DUAL BAND ANTENNAS

880-2800 MHz

**Performance:** Our premium dual band antennas feature heavy-duty design and excellent performance. Perfect for both voice and data transmission. These antennas are very wide in bandwidth.

**Stylish and durable:** These antennas are manufactured using the best corrosion resistant materials and finishes available. The antenna is low profile, extremely rugged and ideal for commercial applications.

**Weatherproof:** O-ring seals and overlap construction keeps moisture out of the antenna.

**Standard Mounting:** All base loaded antennas mate with the standard Motorola NMO type mount.



696-75 Series

Electrical Specifications		
Frequency (Full Band)	880-1200 / 2300-2600	1100-1500 / 2400-2800
Gain	Unity	Unity
Impedance, Ohms	50	50
Power Rating, Watts	200	200
Bandwidth at 2.0:1VSWR, MHz	Full Band	Full Band

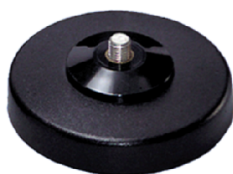
Mechanical Specifications		
Radiator	Polyester Coated Brass	Polyester Coated Brass
Base	ABS, Ultrasonic, Brass insert	ABS, Ultrasonic, Brass insert
Contact	Gold plated spring loaded	Gold plated spring loaded
Length, in	2.75	2.75
Mounting	Standard Motorola NMO type	Standard Motorola NMO type
Finish	Black	Black
Ordering Information	696-75B	696-75-1B



# MOBILE ANTENNAS / ACCESSORIES



MGAS 545-75



MGLAS 546-75



547-75



548-75



MMM



TMBM



MMNMO



BSMN

## MOBILE ANTENNAS / ACCESSORIES / ADAPTERS

412-75	Stainless Steel Trunk Groove Mounting Bracket (3/8" hole)
412M-75	Stainless Steel Trunk Groove Mounting Bracket (3/4" hole)
435-75	Rubber Hole Plug / 3/8" Hole Diameter
451-75	Universal Base Mount
453-75	Straight Whip (24" Length) + 5/16 - 24 Thread Adapter
455-75	Unity Gain Whip and Base (451-75 + 453-75)
456-75	Cable Kit / 15ft of RG-58U + PL-259 + UG-175U
545-75	Magnet Mount Kit, Motorola Base, 12 ft. RG58A/U, PL-259
546-75	Magnet Mount Kit, 5/16" Stud Mount, 12 ft. RG58A/U, PL-259
547-75	Trunk Mount Kit, Motorola Base, 17 ft. RG58A/U, PL-259
548-75	Trunk Mount Kit, 5/16" Stud Mount, 17 ft. RG58A/U, PL-259
551-75	C-Mount (3/8"-3/4") c/w 17 ft. RG58A/U, PL-259
634-75	Rubber Hole Plug 7/8" Hole Diameter
TMBM	Trunk Mount Stainless Steel
MMNMO	Mirror Mount Kit, Motorola Base, 12 ft. RG-58A/U, PL-259
BSMN	Mirror Mount, Motorola Base, UHF Connector
WAB	Whip Adapter, Black
WAC	Whip Adapter, Chrome
A1001A	Battery Tap (5 Individually packed)



Whip Adapter—Black



Whip Adapter—Chrome



Battery Tap A1001A

**MOBILE ANTENNAS / ACCESSORIES**

UTBM



Mount Terminates as Mini-UHF.

UTBM-UHF



Mount Terminates as UHF.

UTBM-NM



Mount Terminates as N Female.

UTCR



Celling Mounts Terminates as Mini-UHF.

UNIBKT



Mobile-to-base adapter only,  
includes hose clamps.

BSMO-150



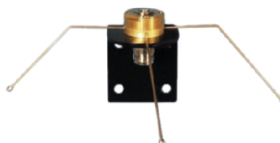
VHF mobile-to-base adapter w/artificial ground  
plane, N Female connector.

BSMO-450



UHF mobile-to-base adapter w/artificial ground  
plane, N Female connector

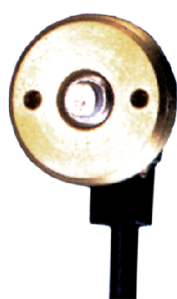
BSMO-800



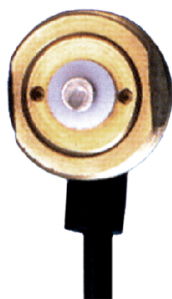
800-900 mobile-to-base adapter w/artificial  
ground plane, N Female connector.

## MOBILE ANTENNAS / ACCESSORIES

### MOBILE MOUNTS



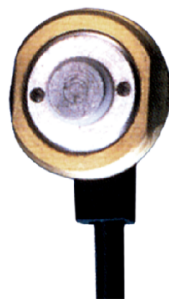
C TYPE  
All Brass  
3/8"-3/4" Hole



MB TYPE  
All Brass  
3/4" Hole



M TYPE  
Standard  
3/4" Hole



MH TYPE  
Standard  
Hi Dist Cap



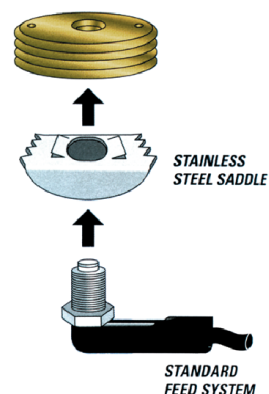
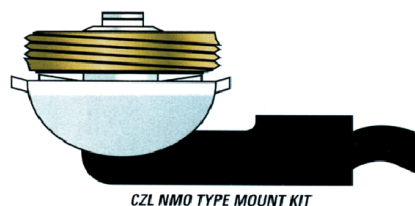
MHB TYPE  
All Brass  
Hi Dist Cap



ASC TYPE  
All Brass  
Male/Female

### CABLE KITS

Comprod Inc.'s brass mounts and cable kits are among the best in the Industry. The cable kits present a consistent 50 Ohms impedance to match our mobile antennas, ensuring that our customers receive the best combined performance from the antennas and the cable kits. The quality of our designs is one of the factors that allows our wideband models to outperform the competition.



551-75	C	All Brass	3/4-3/8 inch mount only
551A-75	M	Standard	3/4 inch mount only
551B-75	MB	All Brass	3/4 inch mount only
551C-75	MH	Standard	3/4 inch mount only (large contact)
551D-75	MHB	All Brass	3/4 inch mount only (large contact)
551E-75	ASC	All Brass	3/4-3/8 inch k166 type mount

### CONNECTORS

We carry and stock a complete line of connectors. Please contact a Comprod Inc. Technical support technician for additional information.



# MOBILE ANTENNAS / ACCESSORIES

RG-58A/U Stranded	RG-58/U Solid	ANTENNA MOUNTS WITH 17 Ft of RG-58A/U Stranded Center or RG-58/U solid center cable
551-75CA	551-75CU	C Mount No Connector
551A-75CA	551A-75CU	M Mount No Connector
551B-75CA	551B-75CU	MB Mount No Connector
551E-75CA	551E-75CU	ASC Mount No Connector
551-75CA-01	551-75CU-01	C Mount Crimp TNC
551A-75CA-01	551A-75CU-01	M Mount Crimp TNC
551B-75CA-01	551B-75CU-01	MB Mount Crimp TNC
551E-75CA-01	551E-75CU-01	ASC Mount Crimp TNC
551-75CA-02	551-75CU-02	C Mount Crimp BNC
551A-75CA-02	551A-75CU-02	M Mount Crimp BNC
551B-75CA-02	551B-75CU-02	MB Mount Crimp BNC
551E-75CA-02	551E-75CU-02	ASC Mount Crimp BNC
551-75CA-03	551-75CU-03	C Mount Teflon PL-259
551A-75CA-03	551A-75CU-03	M Mount Teflon PL-259
551B-75CA-03	551B-75CU-03	MB Mount Teflon PL-259
551E-75CA-03	551E-75CU-03	ASC Mount Teflon PL-259
551-75CA-04	551-75CU-04	C Mount Crimp Mini UHF
551A-75CA-04	551A-75CU-04	M Mount Crimp Mini UHF
551B-75CA-04	551B-75CU-04	MB Mount Crimp Mini UHF
551E-75CA-04	551E-75CU-04	ASC Mount Crimp Mini UHF
551-75CA-05	551-75CU-05	C Mount Solder N
551A-75CA-05	551A-75CU-05	M Mount Solder N
551B-75CA-05	551B-75CU-05	MB Mount Solder N
551E-75CA-05	551E-75CU-05	ASC Mount Solder N
551-75CA-06	551-75CU-06	C Mount Crimp PL-259
551A-75CA-06	551A-75CU-06	M Mount Crimp PL-259
551B-75CA-06	551B-75CU-06	MB Mount Crimp PL-259
551E-75CA-06	551E-75CU-06	ASC Mount Crimp PL-259
551-75CA-07	551-75CU-07	C Mount Crimp N
551A-75CA-07	551A-75CU-07	M Mount Crimp N
551B-75CA-07	551B-75CU-07	MB Mount Crimp N
551E-75CA-07	551E-75CU-07	ASC Mount Crimp N



## MOBILE ANTENNAS / ACCESSORIES

### MAGNET MOUNTS WITH 12FT OF RG-58A/U CABLE

545-75-01	Magnet Mount with TNC
545-75-02	Magnet Mount with BNC
545-75-03	Magnet Mount with PL-259
545-75-04	Magnet Mount with Mini UHF
545-75-05	Magnet Mount with Type N
545-75-06	Magnet Mount with Crimp UHF
545-75-07	Magnet Mount with Crimp N
546-75-01	Magnet Mount with TNC
546-75-02	Magnet Mount with BNC
546-75-03	Magnet Mount with PL-259
546-75-04	Magnet Mount with Mini UHF
546-75-05	Magnet Mount with Type N
546-75-06	Magnet Mount with Crimp UHF
546-75-07	Magnet Mount with Crimp N

### TRUNK MOUNTS WITH 17FT OF RG-58A/U CABLE

547-75-01	Trunk Mount with TNC
547-75-02	Trunk Mount with BNC
547-75-03	Trunk Mount with PL-259
547-75-04	Trunk Mount with Mini UHF
547-75-05	Trunk Mount with Type N
547-75-06	Trunk Mount with Crimp UHF
547-75-07	Trunk Mount with Crimp N
548-75-01	Trunk Mount with TNC
548-75-02	Trunk Mount with BNC
548-75-03	Trunk Mount with PL-259
548-75-04	Trunk Mount with Mini UHF
548-75-05	Trunk Mount with Type N
548-75-06	Trunk Mount with Crimp UHF
548-75-07	Trunk Mount with Crimp N

## MOBILE ANTENNAS / ACCESSORIES

### MOUNTING BRACKETS

TMBC	Stainless Trunk L 3/8 inch Hole (Brite)
TMBM	Stainless Trunk L 3/4 inch Hole (Brite)
TMBCB	Stainless Trunk L 3/8 inch Hole (Black)
TMBMB	Stainless Trunk L 3/4 inch Hole (Black)
MMM	Mirror Mount Bracket
MMCB	Mirror Mount CB with 12 ft. of coax., PL-259
MMCM	Mirror Bracket, C-Mount & 12 ft. Coax.

### UNIVERSAL THICK BODY MOUNT

UTBM	Mount Terminates as Mini-UHF, Maximum Thickness 5/8 inch Order Cable Kits Separately
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### MOBILE ANTENNA PARTS

#### Description

DBW	Dual Band Whip 0.10
DBWB	Dual Band Whip 0.10, Black
WPDB33	Dual Band Whip Assembly, 4 dB
WPDB33B	Dual Band Whip Assembly, 4 dB, Black
QWP	20 inch Stainless Whip 0.10
QWPB	20 inch Stainless Whip 0.10, Black
WPBL125	52 inch Stainless Taper Whip 0.125
WPBL100	52 inch Stainless Taper Whip 0.10
WPBL100B	52 inch Stainless Taper Whip 0.10, Black
EFW	Elevated Feed Whip Assembly
WP85A-X	3.5 dB Whip Assembly 800 MHz
WP85B-X	3.5 dB Whip Assembly 800 MHz, Black
WP855A-X	5 dB Whip Assembly 800 MHz
WP855B-X	5 dB Whip Assembly 800 MHz, Black
WP45A-X	3.5 dB Whip Assembly 450 MHz
WP45B-X	3.5 dB Whip Assembly 450 MHz, Black
WPBL45AX	5 dB Base Load Whip 450 MHz
WPBL45BX	5 dB Base Load Whip 450 MHz, Black

# VHF / TRANSIT ANTENNAS

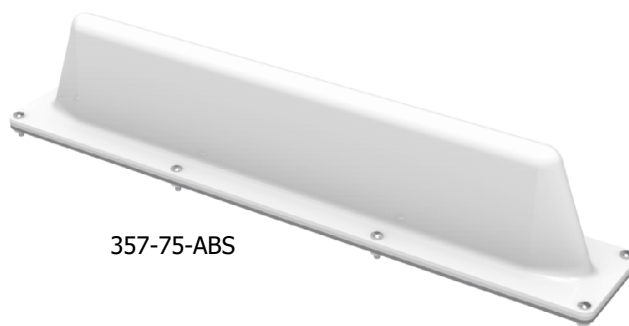
138-174 MHz

The Comprod Inc.'s line of VHF transit antennas is a low profile rugged alternative to a 1/4 wave whip mobile antenna. When mounted on a horizontal surface, maximum radiation is omnidirectional and vertically polarized.

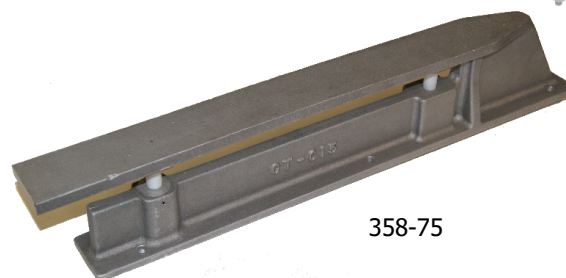
These antennas are an excellent choice for low clearance applications such as those found on trains, public transit vehicles, construction equipment and police vehicles.

The model 357-75-ABS is a folded 1/4 wavelength section of aluminum tube housed in an impact resistant ABS radome. To ensure a moisture proof installation, the model 357-75-ABS is supplied with a mounting gasket.

The model 358-75 is a high strength cast aluminum design. The antenna can be coated for additional protection against harsh environmental conditions. To ensure a moisture proof installation, the model 358-75 is supplied with an O-ring.



357-75-ABS

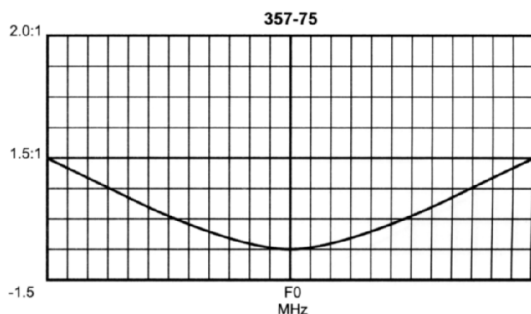


358-75

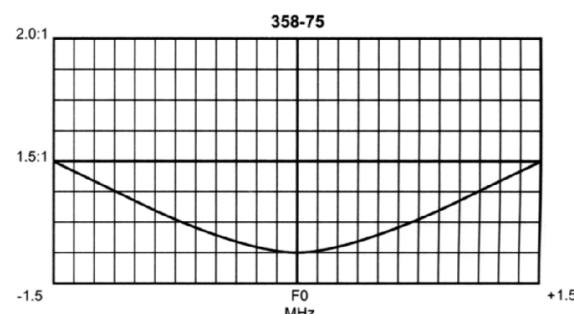
Electrical Specifications	357-75-ABS	358-75
Nominal Gain	Unity	Unity
Maximum Power, Watts	150	150
Frequency Range, MHz	148-174	138-174
Bandwidth VSWR: 1.5:1, MHz	3.0	3.0
Bandwidth VSWR: 2.0:1, MHz	4.5	4.5
Nominal Impedance, Ohms	50	50
Radiation Pattern	Omni	Omni
Polarization	Vertical	Vertical
Radome Material	High Impact ABS	n/a
Connector	UHF / BNC / N Female	UHF / BNC / N Female
Height, in (mm)	4 (102)	4 (102)
Length, in (mm)	21 (533)	23-1/2 (597)
Width, in (mm)	3 (76)	2-1/8 (54)
Weight, lbs (kg)	2.1 (0.945)	6 (2.7)
Minimum Ground Plane Size, in (mm)	36 x 48 (914 x 1219)	36 x 48 (914 x 1219)

## Ordering information:

- Specify exact frequency
- Specify connector type, UHF, BNC or N Female



357-75



358-75

## UHF / TRANSIT ANTENNAS

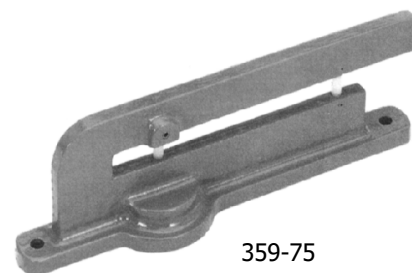
406-512 MHz

The Comprod Inc.'s line of UHF transit antennas is a low profile rugged alternative to 1/4 wave whips. When mounted on a horizontal surface, maximum radiation is omnidirectional and vertically polarized.

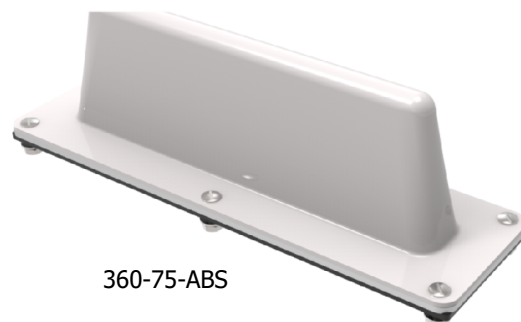
These antennas are an excellent choice for low clearance applications such as those found on trains, public transit vehicles, construction equipment and police vehicles.

The model 359-75 is a high strength cast aluminum design. The antenna can be coated for additional protection against harsh environmental conditions. To ensure a moisture proof installation, the model 359-75 is supplied with an O-ring.

The model 360-75-ABS is a folded 1/4 wavelength section of aluminum tube housed in an impact resistant ABS radome. To ensure a moisture proof installation, the model 360-75-ABS is supplied with a mounting gasket.



359-75

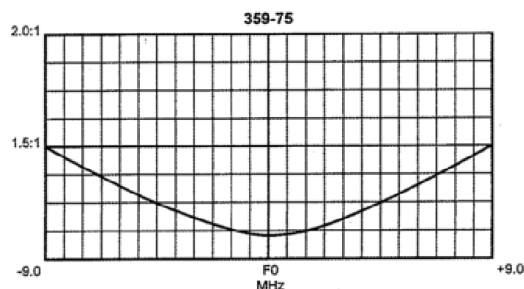


360-75-ABS

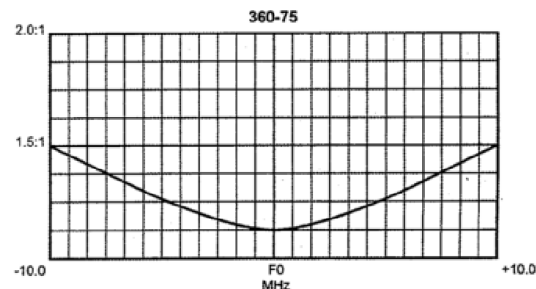
Electrical Specifications	359-75	360-75-ABS
Nominal Gain	Unity	Unity
Maximum Power, Watts	125	125
Frequency Range, MHz	406-512	406-512
Bandwidth VSWR: 1.5:1, MHz	18	20
Bandwidth VSWR: 2.0:1, MHz	27	40
Nominal Impedance, Ohms	50	50
Radiation Pattern	Omnidirectional	Omnidirectional
Polarization	Vertical	Vertical
Radome Material	N/A	High Impact ABS
Connector	UHF / BNC / N Female	UHF / BNC / N Female
Height, in (mm)	2-1/2 (64)	3 (76)
Length, in (mm)	8 (203)	11 (279)
Width, in (mm)	2 (51)	3-1/4 (83)
Weight, lbs (kg)	0.75 (0.338)	1 (0.45)
Minimum Ground Plane Size, in (mm)	20 x 16 (508 x 406)	20 x 16 (508 x 406)

### Ordering information:

- Specify center frequency
- Specify connector type, UHF, BNC or N Female



359-75



360-75

## 800 MHz TRANSIT ANTENNAS

## 760-960 MHz

The Comprod Inc.'s line of radome transit antennas for operation in the 806-960 MHz band consists of compact, low profile antennas in weather-proof ABS radomes. When mounted on a horizontal surface, maximum radiation is omnidirectional and vertically polarized.

These antennas are an excellent choice for low clearance applications such as those found on trains, mass transit vehicles, construction equipment and police and emergency vehicles.

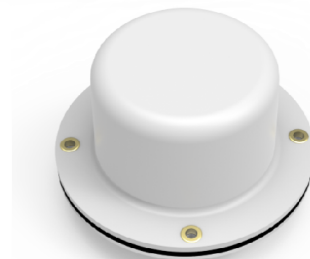
The 361-75-ABS model is a space diversity design that provides greater communication reliability in a poor environment. To ensure a moisture proof installation, the 361-75-ABS model is supplied with an O-ring.

The 362-75-ABS model is a standard, folded radiator housed in a sturdy high-impact ABS radome. To ensure a moisture proof installation, the 362-75-ABS model is supplied with a mounting gasket.

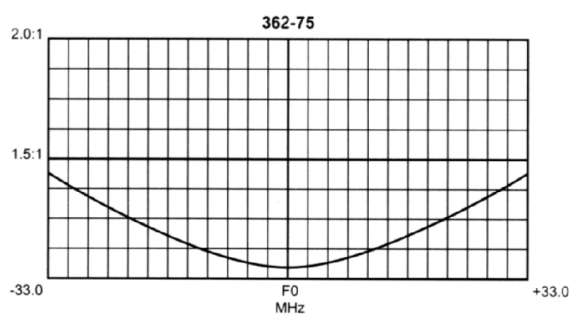
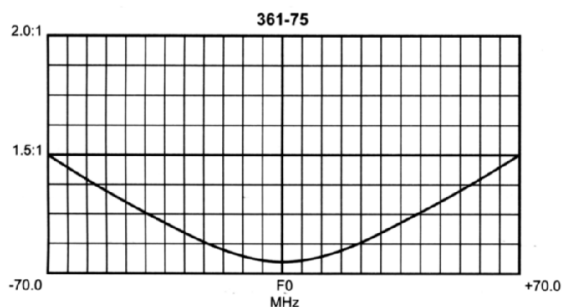
361-75-ABS



362-75-ABS



Electrical Specifications	361-75-ABS	362-75-ABS
Nominal Gain	Unity	Unity
Maximum Power, Watts	50	125
Frequency Range, MHz	806-960	760-960
Bandwidth VSWR: 1.5:1, MHz	140	66
Bandwidth VSWR: 2.0:1, MHz	N/A	100
Nominal Impedance, Ohms	50	50
Radiation Pattern	Omnidirectional	Omnidirectional
Polarization	Vertical	Vertical
Radome Material	High Impact ABS	High Impact ABS
Connector	N Female	N Female
Height, in (mm)	3.15 (80)	2 (51)
Diameter, in (mm)	9.3 (236)	4.5 (114)
Weight, lbs (kg)	2.5 (1.15)	0.375 (0.169)
Minimum Ground Plane Size, in (mm)	14 x 14 (355 x 355)	10 x 10 (254 x 254)





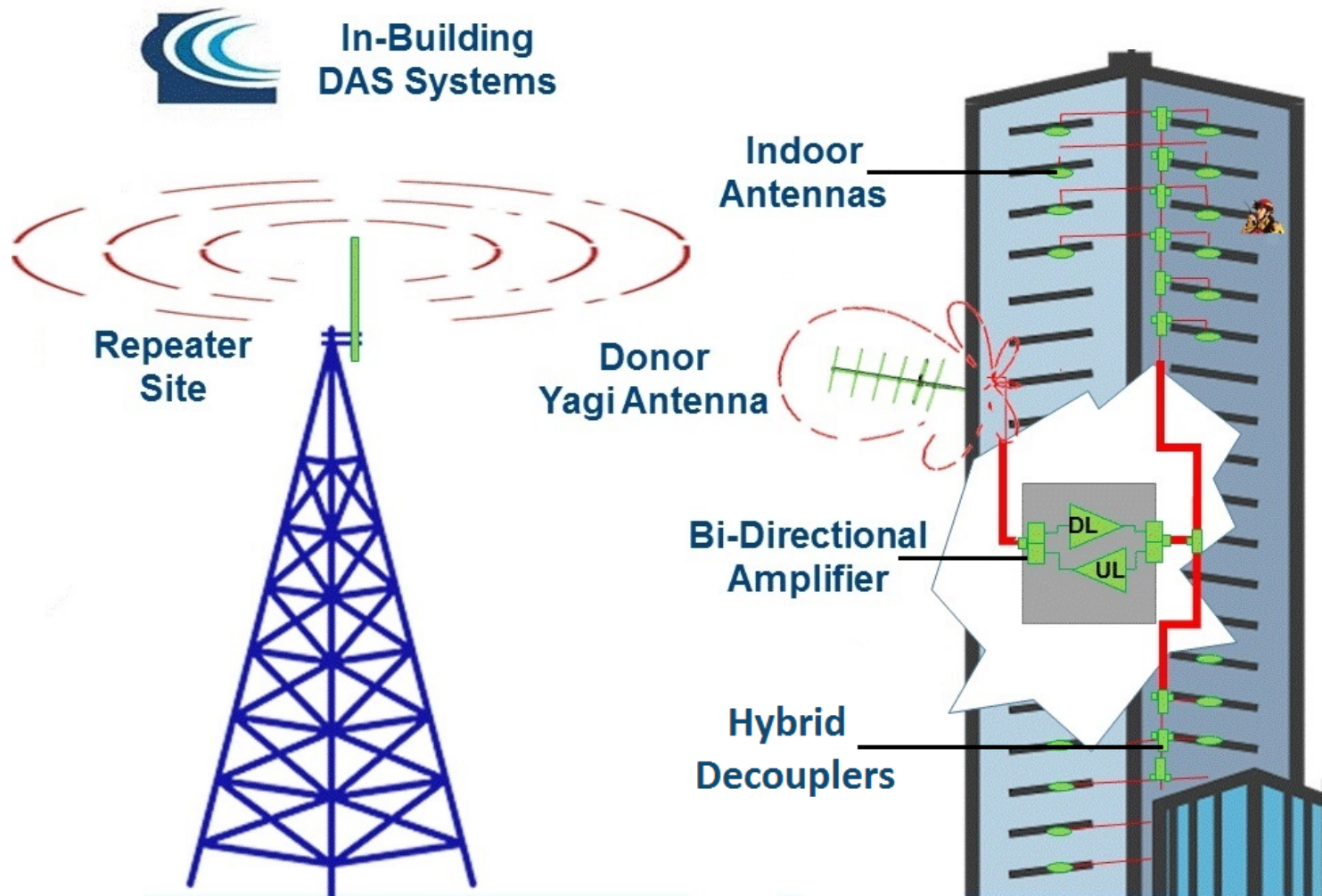
IN-BUILDING SYSTEMS

IN-BUILDING SYSTEMS

Comprod In-building antennas are offered for a variety of RF communication projects for environments that require internal propagation of RF for public safety needs. Our products have been deployed for mission critical projects including subway transit in-tunnel or underground projects, high-rise in-building systems, nuclear power plants, correctional facilities, shopping malls, parking garages, casinos and public sports arenas.

Our line of antenna system solutions incorporates single, dual, and tri-band frequency specifications. These antennas are offered in a wide range of enclosures: radomes, low profile, 6200 Kydex fire-retardant material, ABS high-impact, and polycarbonate.

Comprod can complement antenna systems with other RF components from our portfolio to build out the network: splitters, couplers, taps, cables, connectors, signal boosters (Bi-Directional Amplifiers) required for complete RF needs for In-building public safety requirements.



NOTE: For Donor Yagi Antennas please refer to Yagi Antenna section of our Catalog

Part Number	Frequency Range, MHz	Length, in (mm)	Diameter, in (mm)	Pattern	Power, Watts	Radome material	Color	Standard Connector
357-75	136-174	4 x 21 x 3		Omni	150	ABS/6200 Kydex	Grey/White	UHF/BNC
360-75	406-512	3.25 x 3 x 11		Omni	50	ABS/6200 Kydex	Grey/White	UHF/BNC
361-75	806-960	3.15 (80)	9.3 (236)	Omni	50	ABS/6200 Kydex	Grey/White	N Female
362-75	806-960	2.0 (51)	4.5 (114)	Omni	100	ABS/6200 Kydex	Grey/White	N Female
F3987	380-470	6.75 (171)	0.5 (12.75)	Omni	150	Aluminum	Black or white	NMO
F3953	406-512	7.0 (178.5)	0.625 (15.93)	Omni	50	Polycarbonate	Black or white	N Male
F33005	806-960 / 1850-1990	2 (51)	4.5 (114)	Omni	50	6200 Kydex	White	N Female
F33048	740-960	2 (51)	4.5 (114)	Omni	50	6200 Kydex	White	N Female
F3749	VHF /UHF/ 806-960	9.78 (249)	7.0 (178.5)	Omni	50	6200 Kydex	White	N Female
F3741	VHF /UHF/ 806-960	11.25 (286.88)	0.65 (16.575)	Omni	50	Polycarbonate	Black	N Male

Part Number	Frequency Range, MHz	Size, in (mm)	Color	Connectors	Max. Gain, dB	Noise Figure, dB	Max. Output Power, dBm	Input Voltage	Alarm Indicators
UBDA-138225	138-225 MHz	24H x 20W x 14D	Grey	N Female	+100	4 typical	DL: +29 UL: +29	AC: 115-220	Power Fail
UBDA-4551	380-512 MHz	24H x 24W x 12D	Grey	N Female	+70	4 typical	DL: +29 UL: +29	AC: 115-220	N/A
BDA 764806	DL: 764-776 UL: 794-806	10H x 16W x 8.5D	Grey/Red	N Female	+83.5	2.5 typical	DL: +31.5 UL: +31.5	AC: 115-220 DC: 24-27	AGC, S/D, Power Fail
BDA 806870	DL: 851-869 UL: 806-824	10H x 16W x 8.5D	Grey/Red	N Female	+83.5	2.5 typical	DL: +31.5 UL: +31.5	AC: 115-220 DC: 24-27	AGC, S/D, Power Fail
BDA 896941	DL: 935-941 UL: 896-901	10H x 16W x 8.5D	Grey/Red	N Female	+83.5	2.5 typical	DL: +31.5 UL: +31.5	AC: 115-220 DC: 24-27	AGC, S/D, Power Fail

## SINGLE-BAND ANTENNAS

Comprod In-building antennas are designed to provide excellent coverage solutions in order for external Public Safety Radio Frequencies to propagate within buildings, tunnels or public use environments.

We offer a variety of antennas with Fire Retardant 6200 Kydex radomes. These materials are designed for In-building applications and inside public transport vehicles such as underground trains, vans, buses and trains. They meet the recommended fire safety practices of both the Federal Transit Administration (FTA) and the Federal Rail Administration (FRA) for smoke emission and flammability as tested under ASTM E-662 and ASTM E-162.

Our antennas have been installed worldwide and provide RF coverage inside nuclear power plants, correctional institutions, tunnels, high-rise buildings, subways, shopping malls, parking garages, power plants, high-security office networks and mine shafts.

Note add the material and connector to the part number when ordering:  
ABS is for outdoor use and is grey in color  
KYDEX is for indoor use and is white in color



362-75

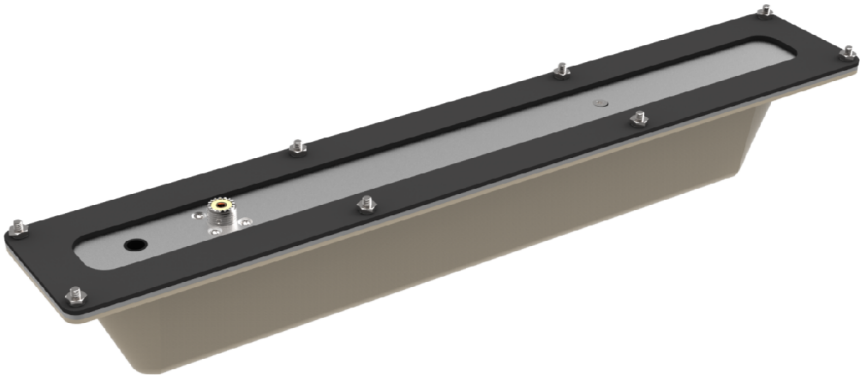
Electrical Specifications	357-75	360-75	361-75	362-75
Frequency Range, MHz	148-174	406-512	806-960	806-960
Nominal Gain, dBd	Unity	Unity	Unity	Unity
Bandwidth 1.5:1 VSWR, MHz	3	20	140	66
Bandwidth: 2.0:1 VSWR, MHz	4	40	140	100
Polarization	Vertical	Vertical	Vertical	Vertical
Pattern	omnidirectional	omnidirectional	omnidirectional	omnidirectional
Power Rating, Watts	150	50	50	100
Nominal Impedance, Ohms	50	50	50	50
Radome	ABS / 6200 Kydex	ABS / 6200 Kydex	ABS / 6200 Kydex	ABS / 6200 Kydex
Color	Grey / White	Grey / White	Grey / White	Grey / White
Standard Termination	UHF / BNC / N	UHF / BNC / N	N Female	N Female

Mechanical Specifications	357-75	360-75	361-75	362-75
Width, in (mm)	4.0 (102)	3.0 (76)	3.15 (80)	2.0 (51)
Length, in (mm)	21.0 (533)	11.0 (279)	n/a	n/a
Height, in (mm)	3.0 (76)	3.25 (83)	n/a	n/a
Diameter, in (mm)	n/a	n/a	9.3 (236)	4.5 (114)
Weight, lbs (kg)	2.1 (0.945)	1.0 (0.45)	2.5 (1.15)	0.375 (0.169)
Min. Ground Plane Size, in (mm)	36 x 48 (914 x 1219)	20 x 16 (508 x 406)	14 x 14 (355 x 355)	10 x 10 (254 x 254)

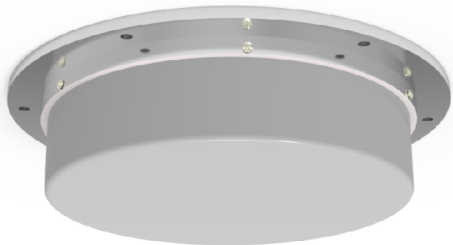
SINGLE-BAND ANTENNAS



357-75 Top and Underside-view



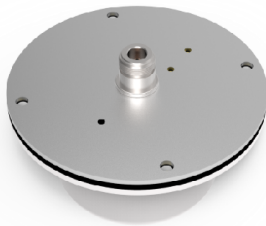
360-75



361-75



362-75 Top and Underside View



UHF IN-BUILDING ANTENNAS

Comprod In-building antennas are designed to provide excellent coverage solutions in order for external Public Safety Radio Frequencies to propagate within buildings, tunnels or public use environments.

Our antennas can cover single or multiple frequency bands.

We offer a wide variety of antennas with Fire Retardant 6200 Kydex radomes. These materials are designed for In-building applications and inside public transport vehicles such as underground trains, vans, buses and trains. They meet the recommended fire safety practices of both the Federal Transit Administration (FTA) and the Federal Rail Administration (FRA) for smoke emission and flammability as tested under ASTM E-662 and ASTM E-162.

Our antennas have been installed worldwide and provide RF coverage inside nuclear power plants, correctional institutions, tunnels, high-rise buildings, subways, shopping malls, parking garages, power plants, high-security office networks and mine shafts.

Note: Add "NGP" to part number to order without the ground plane.



F-3953

Electrical Specifications	F-3987	F-3953
Frequency Range, MHz	380-470	406-470 / 450-512
Nominal Gain, dBd	Unity	Unity
Bandwidth: 2.0:1 VSWR, MHz	90	64
Polarization	Vertical	Vertical
Pattern	omnidirectional	omnidirectional
Power Rating, Watts	150	50
Nominal Impedance, Ohms	50	50
Material	Aluminium painted	Aluminum painted
Color	Black or White	Black or White
Standard Termination	N Male	N Male

Mechanical Specifications	F-3987	F-3953
Max. Length, in (mm)	6.75 (171)	7.0 (178.5)
Diameter, in (mm)	0.5 (12.75)	0.625 (15.93)
Weight, lbs. (kg)	N/A	N/A
Min. Ground Plane Size, in (mm)	8 x 8 (203 x 203)	8 x 8 (203 x 203)
Mounting Information	Included	Included



MULTI-BAND ANTENNAS

Comprod In-building antennas are designed to provide excellent coverage solutions in order for external Public Safety Radio Frequencies to propagate within buildings, tunnels or public use environments.

Our antennas can cover single or multiple frequency bands.

We offer a wide variety of antennas with Fire Retardant 6200 Kydex radomes. These materials are designed for In-building applications and inside public transport vehicles such as underground trains, vans, buses and trains. They meet the recommended fire safety practices of both the Federal Transit Administration (FTA) and the Federal Rail Administration (FRA) for smoke emission and flammability as tested under ASTM E-662 and ASTM E-162.

The antennas are installed on ceilings to provide RF coverage inside nuclear power plants, correctional institutions, tunnels, high-rise buildings, subways, shopping malls, parking garages, power plants, high-security office networks and mine shafts.



Electrical Specifications	F-33005	F-33048
Frequency Range, MHz	806-960 / 1850-1990	760-960
Nominal Gain, dBd	Unity	Unity
Bandwidth 1.5:1 VSWR, MHz		
138-174	n/a	n/a
406-512	n/a	n/a
760-960	n/a	200
806-960	72 (Specify Frequencies)	n/a
1800-1990	140	n/a
Polarization	Vertical	Vertical
Pattern	omnidirectional	omnidirectional
Power Rating, Watts	50	50
Nominal Impedance, Ohms	50	50
Radome	6200 Kydex	6200 Kydex
Standard Termination	N Female	32" Jumper - N Female

Mechanical Specifications	F-33005	F-33048
Max. Length, in (mm)	2 (51)	2 (51)
Diameter, in (mm)	4.5 (114)	4.5 (114)
Weight, lbs (kg)	0.375 (0.169)	0.375 (0.169)
Min. Ground Plane Size, in (mm)	8 x 8 (203 x 203)	8 x 8 (203 x 203)
Mounting hardware	Not Included	Not Included

## TRI-BAND IN-BUILDING ANTENNAS

Comprod In-building antennas are designed to provide excellent coverage solutions in order for external Public Safety Radio Frequencies to propagate within buildings, tunnels or public use environments.

Our antennas can cover single or multiple frequency bands. We offer a wide variety of antennas with Fire Retardant 6200 Kydex radomes. These materials are designed for In-building applications and inside public transport vehicles such as underground trains, vans, buses and trains. They meet the recommended fire safety practices of both the Federal Transit Administration (FTA) and the Federal Rail Administration (FRA) for smoke emission and flammability as tested under ASTM E-662 and ASTM E-162.

The F-3741 has been designed for mounting on a concrete surface. This is a requirement for meeting full bandwidth specifications. Polycarbonate tubing is used for the radome on the F-3741. It's a flame resistant and self-extinguishing material. The F-3741 and F-3749 models are also available for the 700 MHz bands.



F-3749

Electrical Specifications	F-3741	F-3749	F-3749A
Frequency Range, MHz	VHF / UHF / 806-960	VHF / UHF / 806-960	VHF / UHF / 806-960
Nominal Gain, dBd	Unity	Unity	Unity
Bandwidth: 2.0:1 VSWR, MHz			
138-174	8	8	8
406-512	64	64	64
764-890	126	126	126
806-960	154	154	154
1800-1990	n/a	n/a	n/a
2400-3000	n/a	n/a	n/a
Polarization	Vertical	Vertical	Vertical
Pattern	Omnidirectional	Omnidirectional	Omnidirectional
Power Rating, Watts Total	50	50	50
Nominal Impedance, Ohms	50	50	50
Radome	Polycarbonate	6200 Kydex	6200 Kydex
Color	Black	White	White
Standard Termination	N Male	N Female	2 foot jumper to N Male

Mechanical Specifications	F-3741	F-3749	F-3749A
Length, inch (mm)	11.25 (286.88)	9.78 (249)	9.78 (249)
Diameter, inch (mm)	0.65 (16.575)	7.0 (178.5)	7.0 (178.5)
Weight, lbs (kg)	N/A	N/A	N/A
Min. Ground Plane Size, in (mm)	Included (Required)	14 x 14 (357 x 357)	14 x 14 (357 x 357)

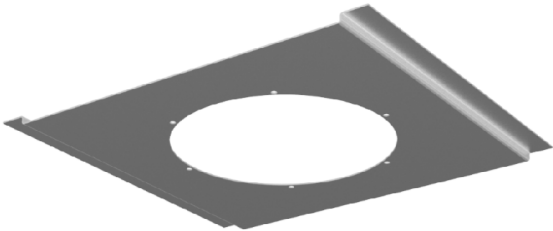
TRI-BAND ANTENNAS



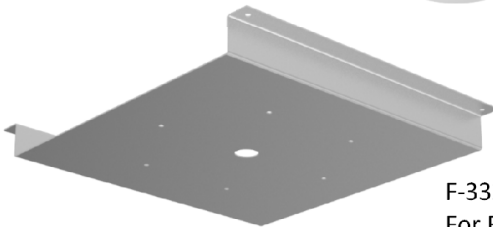
F-3749 Top and  
Underside View



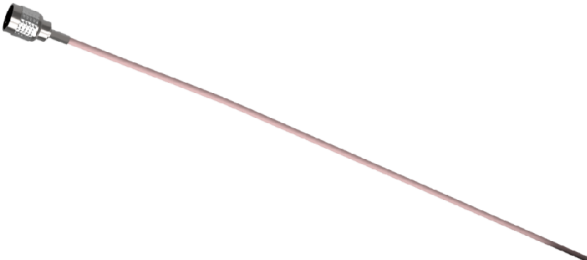
F-3749 A Top  
and Underside View



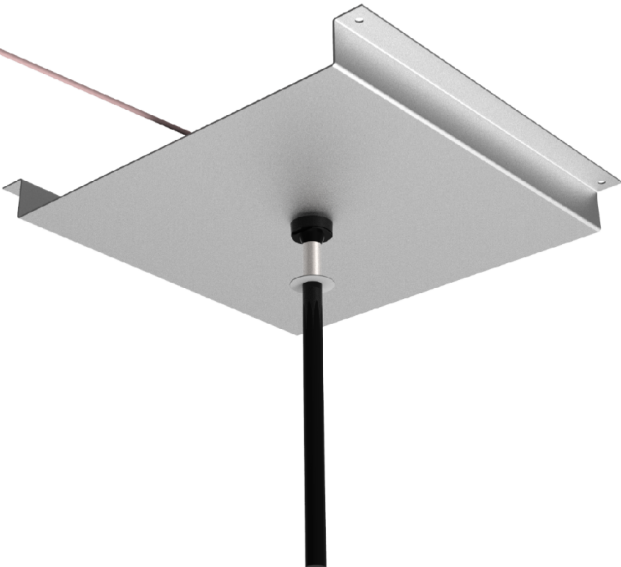
F-33034 Optional Mounting Bracket for F-3749



F-33220 Optional Mounting Bracket  
For F-3749 and F-3749 A Styles



F-3741



Also available:  
F-33135 Optional 2' by 4' Mounting Bracket  
F-33203 Optional 2' by 2' Mounting Bracket  
F-33159 Optional 12" by 26" Mounting Bracket

VHF BI-DIRECTIONAL AMPLIFIER (BDA)

138-225 MHz

BDA-138225-SERIES

Comprod’s BDA138225 is an unidirectional Class B signal booster. It covers both the 138-174 MHz and 216-225 MHz bands. The amplifier can be used with input / output filters as an Unidirectional Amplifier or it can be combined with input and output duplexers to create a Bi-Directional Amplifier.

Note: The BDA138225 must have adequate input and output filtering to prevent undesired interference. This is only sold as part of a complete BDA system.



Electrical Specifications	Canada	USA
Certification	IC: 7755A-UDA138225	FCC: WDM-BDA138225
Frequency Range, MHz	138-225	150-225
Automatic Level Control (ALC), dB	35	35
Amplifier Maximum Gain, dB	+ 100 Typical	+ 100 Typical
System Nominal Gain at –45 dBm input power	+ 75	+ 75
Input Manual Attenuator Range, dB	0 to 30 in 2 dB steps	0 to 30 in 2 dB steps
Output Level Manual Adjustment range, dB	0 to 15 in 1 dB steps	0 to 15 in 1 dB steps
3rd Order Output Intercept Point, dBm	+48 Typical	+48 Typical
Noise Figure, Typical (without filters), dB	4	4
Limited Output Composite Power, dBm	+31	+31
Nominal Impedance, Ohms	50	50
Input / Output Connectors	N Female	N Female
AC Power Source Input, Volts	100 to 260 50/60Hz	100 to 260 50/60Hz
Optional DC Power Source Voltages, Volts	+24 or +48	+24 or +48
Optional dry contact alarms	Power Failure	Power Failure

Mechanical Specifications (Typical)

Dimensions, in H, W, D	24 x 20 x 13.5
Temperature Range, °F (°C)	-4 to 131 F (-20 to +55) C
Weight, lbs (Kg)	100 (45)

UHF BI-DIRECTIONAL AMPLIFIER (BDA)

380-512 MHz

UBDA-3845/4551-SERIES

Our BDA system is designed for high standards with government and industrial clients in mind. The solution can be customized for unique client requirements.

Reliable RF coverage for public safety and utility clients in 380-512 MHz offered for applications including hotel parking garages, underground mining facilities, shopping malls, hospitals, government buildings, subway stations and tunnels. Available in rack mount, NEMA stainless steel or painted steel NEMA enclosures. Compliant to Govt. standards: FCC WDM-UBDA 4551; IC 7755A-UBDA4551. This is only sold as part of a complete BDA system.



Electrical Specifications

Frequency Range, MHz	380-512
Passbands	2 (4 passband version available)
Guard Band, MHz	2-3
Window Bandwidth, MHz (configured by channel filters)	2-3
Automatic Level Control (ALC), dB	Yes (30 dB)
Maximum Gain, dB	+ 70 dB Typical
Output Level / Input Attenuator Range, dB	0 to 15 in 1 dB steps / 0 to 30 in 2 dB steps
3rd Order Output Intercept Point, dBm	+48 Typical
Output 1 dB Compression Point, dBm	+38 Typical
Noise Figure, Typical (with filters), dB	5.5
Uplink Max Output (Composite), dBm	+29
Downlink Max Output (Composite), dBm	+29
Nominal Impedance, Ohms	50
VSWR	1.5:1
AC Power Input, Volts	117 to 260
Temperature Range, °F (°C)	-4 to 131 (-20 to +55)
Input / Output Connectors	N Female

Mechanical Specifications

Enclosure	NEMA 4 Painted Steel
Dimensions, in H, W, D	24 x 16 x 11.5 (Large Enclosure) ; 14 x 8 x 7 (Attached Small Enclosure)
Weight, lbs (Kg) (Approximate)	100 (45)



**BI-DIRECTIONAL AMPLIFIER (BDA)****764-941 MHz****BDA-40-SERIES**

Designed and engineered to meet the fire protection codes (NFPA and IFC standards), Comprod's Bi-Directional Amplifier (BDA) features advanced Alarm, Monitoring & Control capabilities ensuring continuous availability of mission-critical services.

- Available in 700, 800 and 900 MHz Public Safety bands
- Ideal for indoor applications in commercial and government buildings, parking garages, mining facilities, subway stations and tunnels
- Rack mounted or in NEMA 4/4x waterproof, stainless steel enclosures
- Low noise figure, wide dynamic range
- Visual alarms and remote failure monitoring with Graphical User Interface



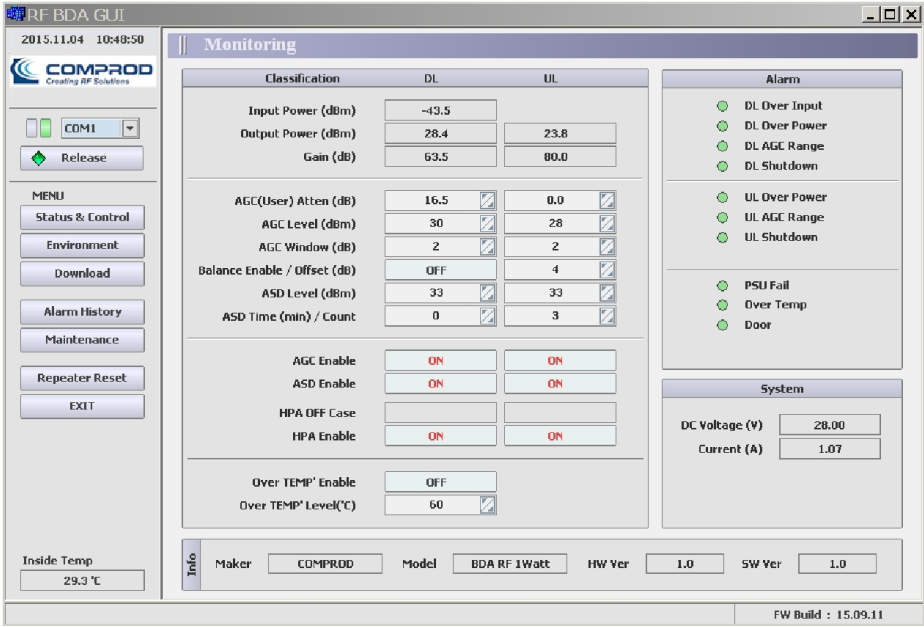
Electrical Specifications	BDA 764806	BDA 806870	BDA 896941
Frequency Range, MHz	DL: 764-776 UL: 794-806	DL: 851-869 UL: 806-824	DL: 935-941 UL: 896-901
Passband Ripple, dB	+/- 1.5	+/- 1.5	+/- 1.5
Automatic Gain Control (AGC), dB	30	30	30
Maximum Gain, dB	+83.5	+83.5	+83.5
Manual Gain Control (MGC), dB	0-31 in 1 dB Steps	0-31 in 1 dB Steps	0-31 in 1 dB Steps
Noise Figure, dB	2.5 Typical	2.5 Typical	2.5 Typical
Delay, Max., $\mu$ s	1	1	1
Max. Output Power, dBm	DL: +31.5 UL: +31.5	DL: +31.5 UL: +31.5	DL: +31.5 UL: +31.5
VSWR	1.5:1	1.5:1	1.5:1
Input Voltage, Volts	AC: 115-220 DC: 24-27	AC: 115-220 DC: 24-27	AC: 115-220 DC: 24-27
Temperature Range, $^{\circ}$ C	-30 to +60	-30 to +60	-30 to +60
Humidity, %	95	95	95
Connectors	N Female	N Female	N Female
LNA bypass Function Implementation, dBm	-20 @ Input Power	-20 @ Input Power	-20 @ Input Power
Alarms	AGC, S/D, Power	AGC, S/D, Power	AGC, S/D, Power

Mechanical Specifications	BDA 764806	BDA 806870	BDA 896941
Enclosure	NEMA 4 Painted Steel	NEMA 4 Painted Steel	NEMA 4 Painted Steel
Dimensions, in. H, W, D	17.5 x 11 x 9	17.5 x 11 x 9	17.5 x 11 x 9
Weight, lbs	33.5	33.5	33.5

BI-DIRECTIONAL AMPLIFIER (BDA)

764-941 MHz

Monitoring & Control	Built-in via RS-232 Connector (USB Optional)	Built-in via RS-232 Connector (USB Optional)	Built-in via RS-232 Connector (USB Optional)
Monitor	<b>BDA 764806</b> <ul style="list-style-type: none"><li>- TX/RX System Gain</li><li>- TX/RX Attenuation</li><li>- TX Input Power</li><li>- TX/RX Output Power</li><li>- DC Voltage/Current</li><li>- System Temperature</li></ul>	<b>BDA 806870</b> <ul style="list-style-type: none"><li>- TX/RX System Gain</li><li>- TX/RX Attenuation</li><li>- TX Input Power</li><li>- TX/RX Output Power</li><li>- DC Voltage/Current</li><li>- System Temperature</li></ul>	<b>BDA 896941</b> <ul style="list-style-type: none"><li>- TX/RX System Gain</li><li>- TX/RX Attenuation</li><li>- TX Input Power</li><li>- TX/RX Output Power</li><li>- DC Voltage/Current</li><li>- System Temperature</li></ul>
Alarm	<b>BDA 764806</b> <ul style="list-style-type: none"><li>- TX Input Over Power</li><li>- TX/RX Output Over Power</li><li>- AGC Range Alarm</li><li>- TX/RX Shutdown<ul style="list-style-type: none"><li>- PSU Alarm</li></ul></li><li>- Over Temperature</li></ul>	<b>BDA 806870</b> <ul style="list-style-type: none"><li>- TX Input Over Power</li><li>- TX/RX Output Over Power</li><li>- AGC Range Alarm</li><li>- TX/RX Shutdown<ul style="list-style-type: none"><li>- PSU Alarm</li></ul></li><li>- Over Temperature</li></ul>	<b>BDA 896941</b> <ul style="list-style-type: none"><li>- TX Input Over Power</li><li>- TX/RX Output Over Power</li><li>- AGC Range Alarm</li><li>- TX/RX Shutdown<ul style="list-style-type: none"><li>- PSU Alarm</li></ul></li><li>- Over Temperature</li></ul>
Control	<b>BDA 764806</b> <ul style="list-style-type: none"><li>- HPA On/Off<ul style="list-style-type: none"><li>- Gain</li></ul></li><li>- AGC On/Off</li><li>- Shutdown On/Off<ul style="list-style-type: none"><li>- MCU Reset</li></ul></li><li>- Alarm Limit</li></ul>	<b>BDA 806870</b> <ul style="list-style-type: none"><li>- HPA On/Off<ul style="list-style-type: none"><li>- Gain</li></ul></li><li>- AGC On/Off</li><li>- Shutdown On/Off<ul style="list-style-type: none"><li>- MCU Reset</li></ul></li><li>- Alarm Limit</li></ul>	<b>BDA 896941</b> <ul style="list-style-type: none"><li>- HPA On/Off<ul style="list-style-type: none"><li>- Gain</li></ul></li><li>- AGC On/Off</li><li>- Shutdown On/Off<ul style="list-style-type: none"><li>- MCU Reset</li></ul></li><li>- Alarm Limit</li></ul>



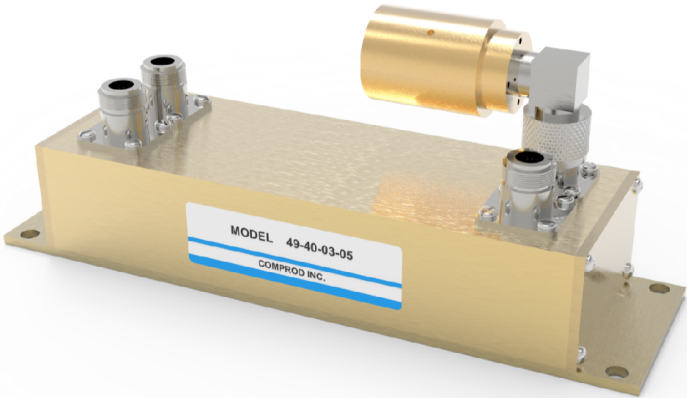
Visual Alarms and Remote Failure Monitoring with Graphical User Interface

HYBRID DIRECTIONAL COUPLERS

138-960MHz

49-FF-YY-XX Series

Comprod Communications Ltd. offers a full line of Hybrid Directional Couplers. The full range of decoupling values allows balanced power division and distribution. These couplers are bidirectional and are well suited for two-way communications systems. A full line of Tri-Band models is available for distribution of VHF, UHF and 800 MHz via a single transmission line. Standard finish is gold alodine.



- Low Insertion Loss
- High Isolation between ports
- Excellent VSWR
- Tri-Band and other models are available and customizable. Please contact a Comprod Inc. Technical support technician for consultation.

Model With No Load	Model With 5 Watt Load	Model With 25 Watt Load	Frequency Range	Decoupling (dB)	ThruLine Loss (dB)	Power Split Ratio (%)
49-13-03-00	49-13-03-05	49-13-03-25	138-174MHz	-3, ±0.7	-3.0, ±0.3	50 / 50
49-13-48-00	49-13-48-05	49-13-48-25	138-174MHz	-4.8, ±0.7	-4.8, ±0.3	67 / 33
49-13-06-00	49-13-06-05	49-13-06-25	138-174MHz	-6.0, ±1.0	-1.2, ±0.2	75 / 25
49-13-07-00	49-13-07-05	49-13-07-25	138-174MHz	-7.0, ±1.0	-1.0, ±0.2	80 / 20
49-13-10-00	49-13-10-05	49-13-10-25	138-174MHz	-10.0, ±1.0	-0.5, ±0.2	90 / 10
49-13-20-00	49-13-20-05	49-13-20-25	138-174MHz	-20.0, ±1.0	-0.3 max.	99 / 1
49-38-03-00	49-38-03-05	49-38-03-25	380-512MHz	-3, ±0.7	-3.0, ±0.3	50 / 50
49-38-48-00	49-38-48-05	49-38-48-25	380-512MHz	-4.8, ±0.7	-4.8, ±0.3	67 / 33
49-38-06-00	49-38-06-05	49-38-06-25	380-512MHz	-6.0, ±1.0	-1.2, ±0.2	75 / 25
49-38-07-00	49-38-07-05	49-38-07-25	380-512MHz	-7.0, ±1.0	-1.0, ±0.2	80 / 20
49-38-10-00	49-38-10-05	49-38-10-25	380-512MHz	-10.0, ±1.0	-0.5, ±0.2	90 / 10
49-38-15-00	49-38-15-05	49-38-15-25	380-512MHz	-15.0	-0.2 max.	97 / 3
49-38-20-00	49-38-20-05	49-38-20-25	380-512MHz	-20.0	-0.2 max.	99 / 1
49-38-30-00	49-38-30-05	49-38-30-25	380-512MHz	-30.0	-0.2 max.	99.9 / 0.1
49-74-03-00	49-38-03-05	49-38-03-25	746-960MHz	-3, ±0.7	-3.0, ±0.3	50 / 50
49-74-48-00	49-38-48-05	49-38-48-25	746-960MHz	-4.8, ±0.7	-4.8, ±0.3	67 / 33
49-74-06-00	49-38-06-05	49-38-06-25	746-960MHz	-6.0, ±1.0	-1.2, ±0.2	75 / 25
49-74-07-00	49-38-07-05	49-38-07-25	746-960MHz	-7.0, ±1.0	-1.0, ±0.2	80 / 20
49-74-10-00	49-38-10-05	49-38-10-25	746-960MHz	-10.0, ±1.0	-0.5, ±0.2	90 / 10
49-74-15-00	49-38-15-05	49-38-15-25	746-960MHz	-15.0	-0.2 max.	97 / 3
49-74-20-00	49-38-20-05	49-38-20-25	746-960MHz	-20.0	-0.2 max.	99 / 1
49-74-30-00	49-38-30-05	49-38-30-25	746-960MHz	-30.0	-0.2 max.	99.9 / 0.1