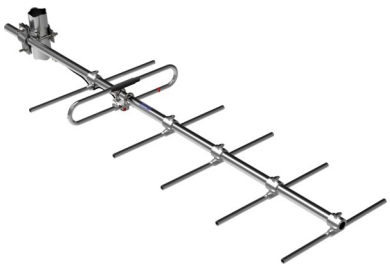
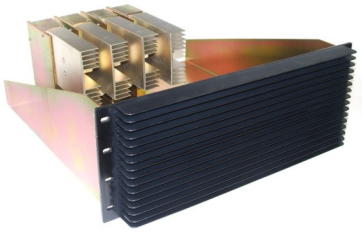
MISSION-CRITICAL COMMUNICATIONS FOR UTILITY NETWORKS

Antennas, RF Filters and In-Building Solutions

Designed for superior reliability and performance

Utility providers rely on critical telecommunications systems to ensure the continuous provision of core operational services as well as the safety of their workers. Often operating in remote, hard-to-reach areas and under the most extreme environmental conditions, they must also comply with strict Public Safety regulations in order to provide vital communications for Utility field staff in time of emergency.





COMPROD
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Serving the Communication Needs of

Leading Utility Providers Worldwide

Our knowledge of the market, best-in-class technology and service excellence have made us a partner of choice for some of the world's leading Utility providers who have turned to Comprod's products and engineering support for the highest quality in RF components, resulting in minimal maintenance and enhanced performance.

ANTENNAS

- 220 MHz Yagi, offset dipoles, 4-bay exposed dipoles and heavy-duty antennas successfully deployed by the largest electric cooperative in South Carolina.
- Black anodized exposed dipole antennas, designed to provide low VSWR and superior performance in severe weather conditions, rolled out by one of the largest private telecommunications networks in North America, and installed in the world's largest power station: China's Three Gorges Dam.

MOBILE ANTENNAS

- Mounted on Utility vehicles, our mobile antennas feature stainless steel whips, high-impact ABS, and gold-plated, spring-loaded contacts. Built for hard use in rugged terrain, they can withstand varying temperatures, dust, shock and vibration.

FILTERS

- As part of a digital radio modernization project, Comprod provided a filters and antenna solution to the NRTC electrical co-op to support both digital (from dispatch to the transmitter sites) and analog communi-cations (from the transmitter tower to its 150 vehicles).
- Filter application for compact installation of a 4-channel 220 MHz hybrid combiner with receiver multicoupler installed for a leading provider in the East Coast.

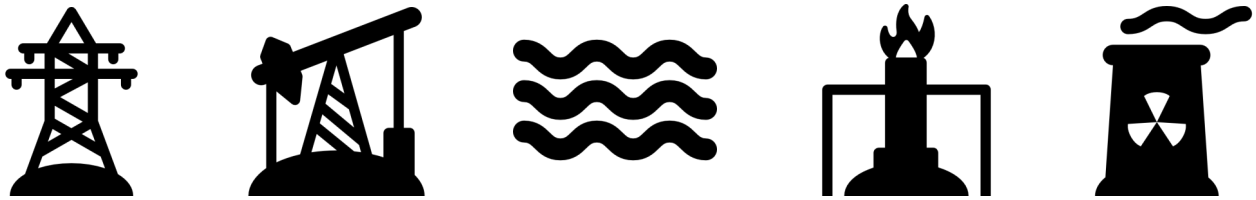
Did you know?

- Water level monitoring, GOES weather data collection, voice and SCADA applications are all supported using Comprod products.

IN-BUILDING SYSTEMS

- VHF Bi-Directional Amplifier (BDA) and In-Building solutions, including the F-3749 Tri-Band antennas, Tri-Band decouplers and VHF Donor Yagi antennas have been deployed to enhance the security communications within a north-eastern US nuclear power plant.

- Hydro-Quebec is the only electric utility in North America to have a major research center. The company invests approx. $100 million per year in its innovation projects.



SCADA - SMART GRID - REMOTE MONITORING - FLEET MANAGEMENT - TELEMETRY - MOBILE COMMUNICATIONS

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ANTENNAS

FILTERS

IN-BUILDING

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 dBd 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

267-70

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.)	80º	40º	71º	38º
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" (13 mm) 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

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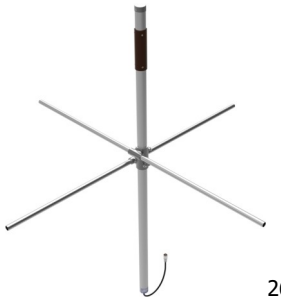
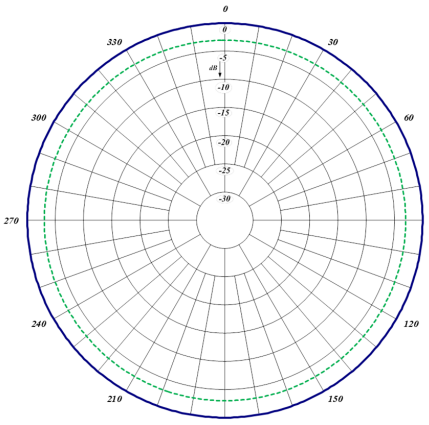


265-70



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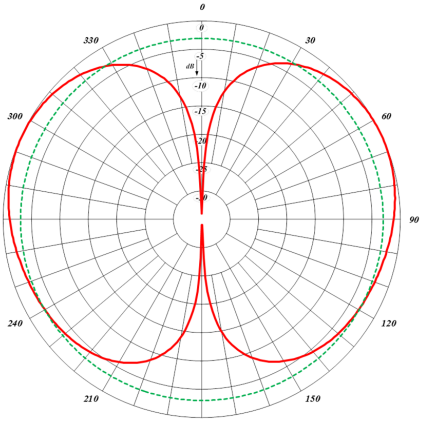

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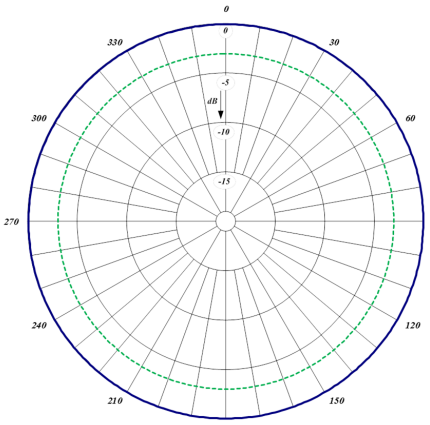

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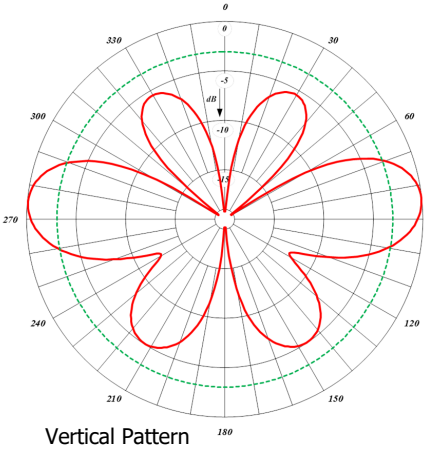
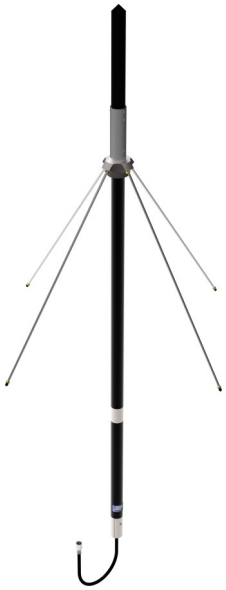


Vertical Pattern

266-70



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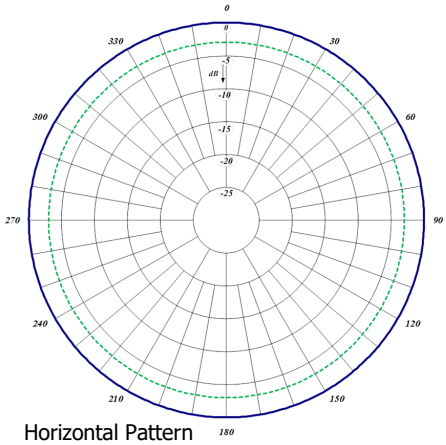

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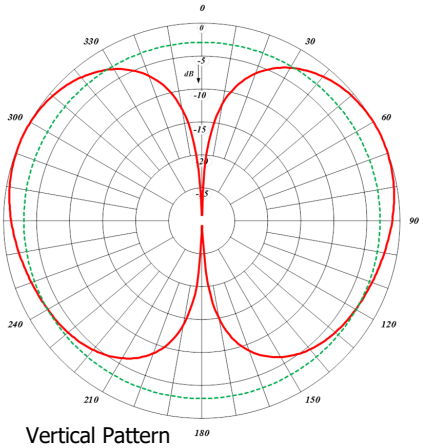

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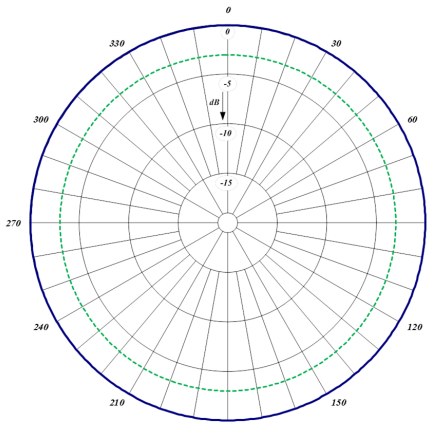

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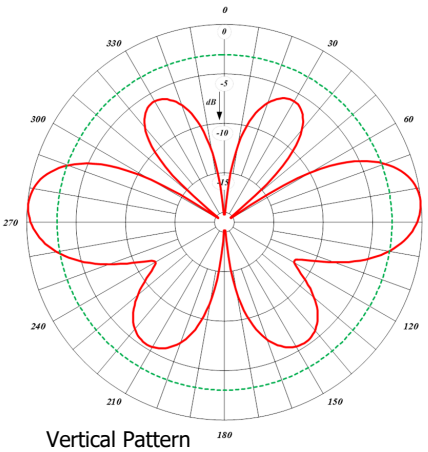
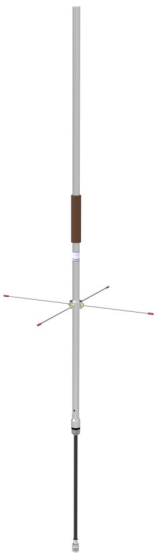


Vertical Pattern

268-70



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.

401-70

- 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.

Electrical Specifications	201-70	301-70	401-70
Frequency Range, MHz	25-174	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.)	78º	75º	75º
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" (13 mm) 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" (42 mm) 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

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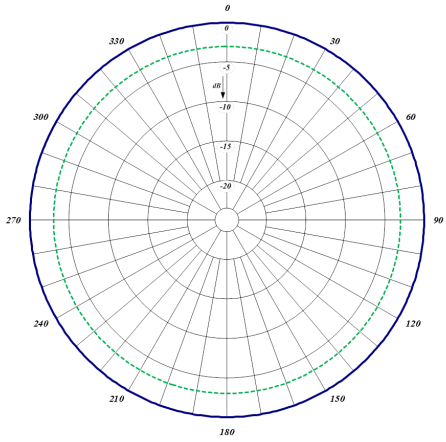

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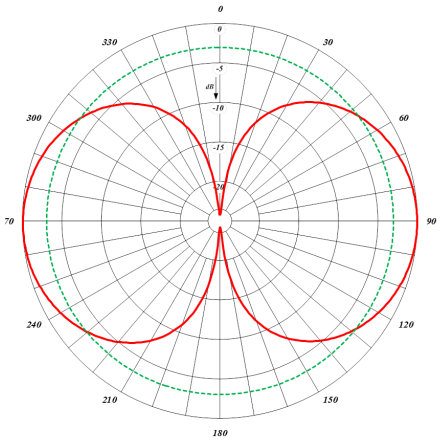
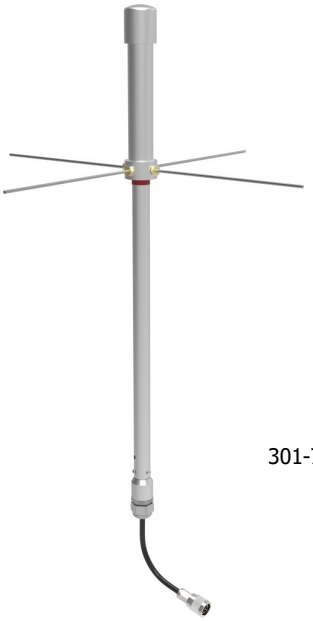
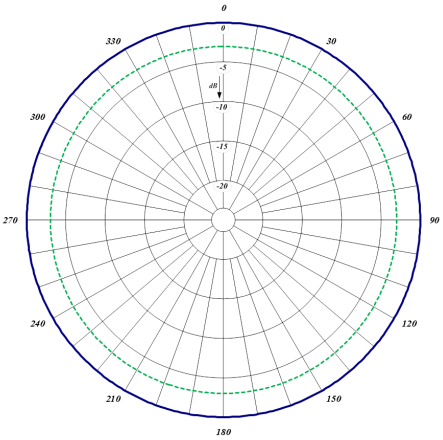


Vertical Pattern

201-70



301-70



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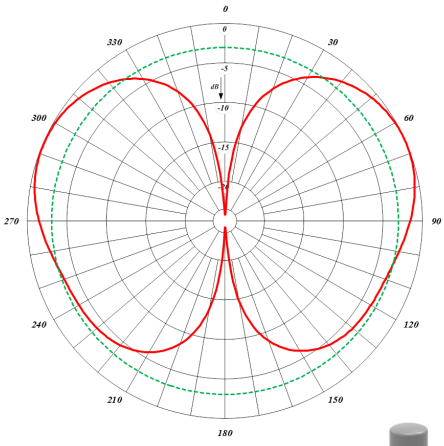
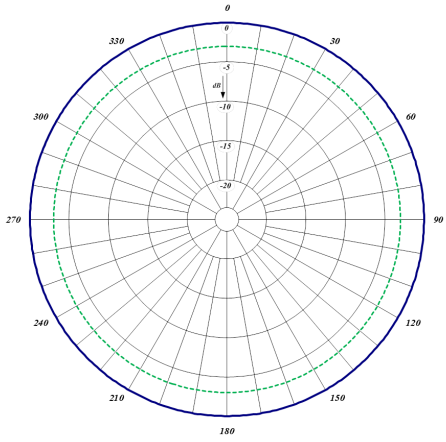


Vertical Pattern

401-70



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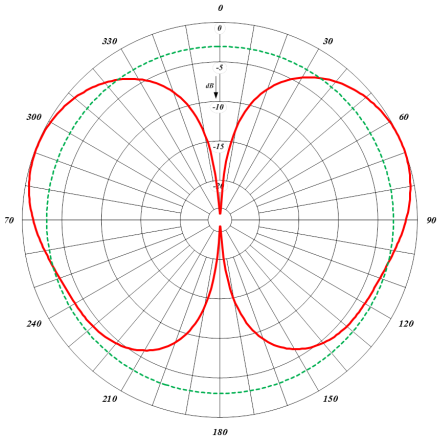

Vertical Pattern

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.

928-70

Electrical Specifications	928-70–1; 928-70-2; 928-70-3
Frequency Range, MHz	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

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

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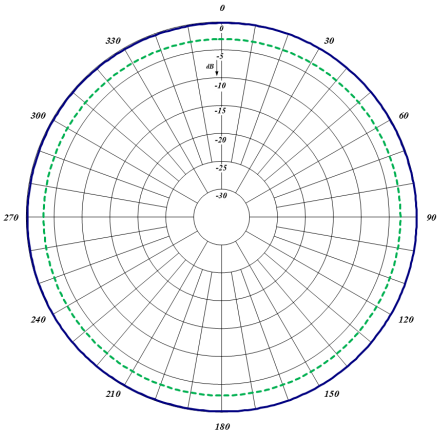

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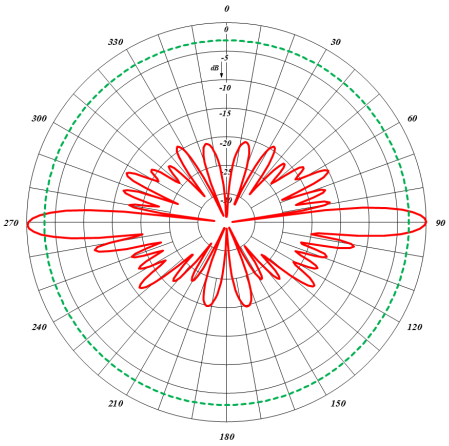

Vertical Pattern

928-70

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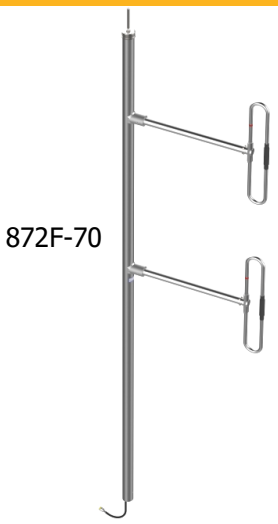
870 Series VHF Exposed Dipoles

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, 3/8, or 1/2 wave spacing version.
- 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 / bi	Offset / bi	Offset / bi
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” (13 mm) 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, ft² (m²)	1.7 (0.16)	3.5 (0.33)	7 (0.65)
Mounting Information Mast O.D.	1.9" (48 mm)	2.4" (61 mm)	2.9" (73 mm)

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

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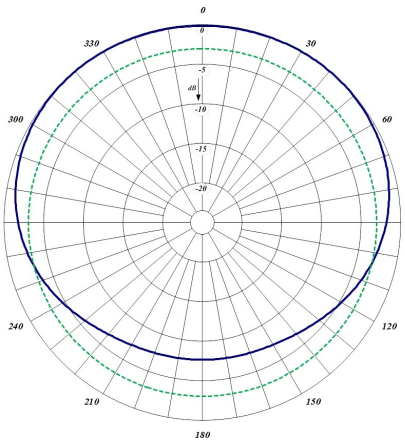
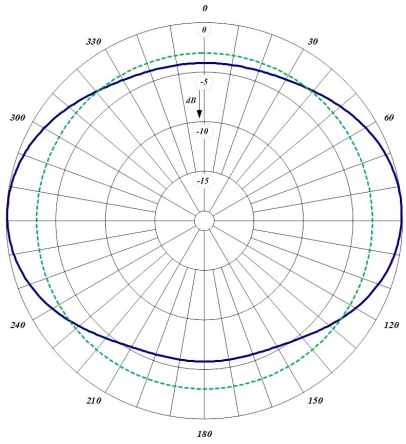
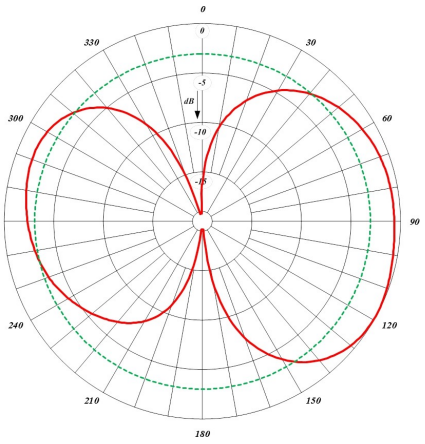
871F-70



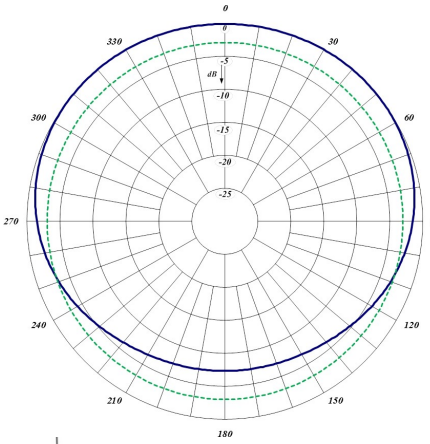
Quarterwave Spacing Horizontal



Halfwave Spacing Horizontal



Halfwave Spacing Vertical



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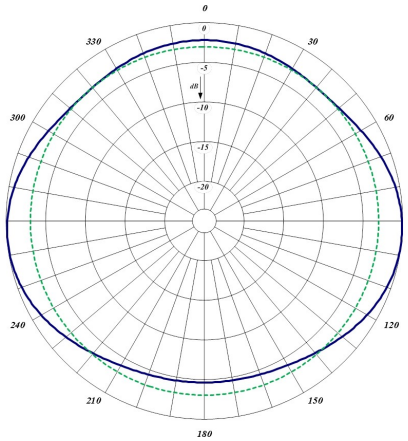
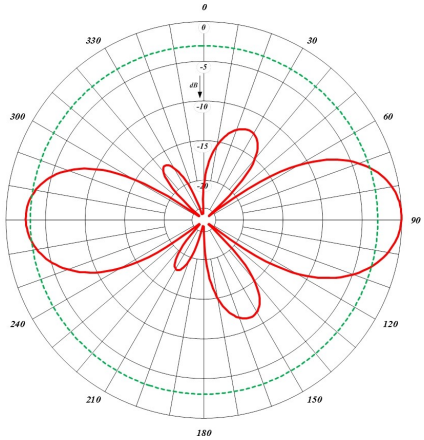
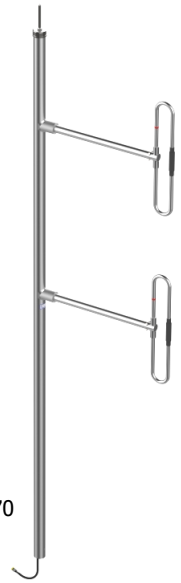


Halfwave Spacing Horizontal

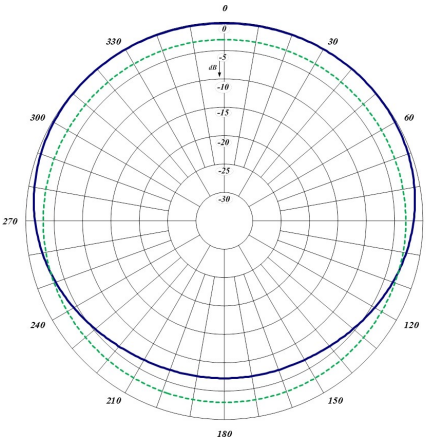


Halfwave Spacing Vertical

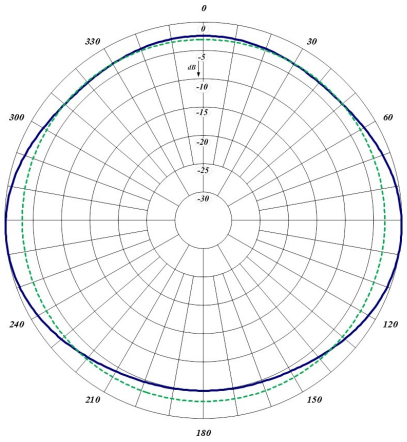
872F-70



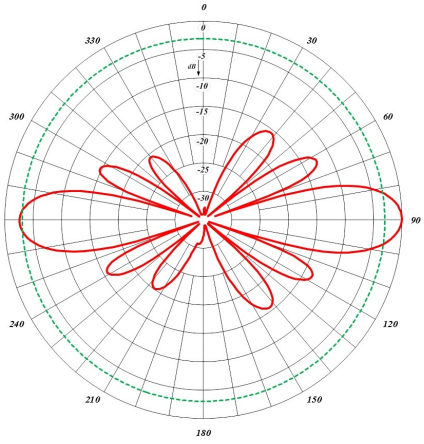
874F-70



Quarterwave Spacing Horizontal



Halfwave Spacing Horizontal



Halfwave Spacing Vertical

870 Series 220 MHz Exposed Dipoles

The 870 Series 220 MHz 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, 3/8 or 1/2 wave spacing version.
- 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

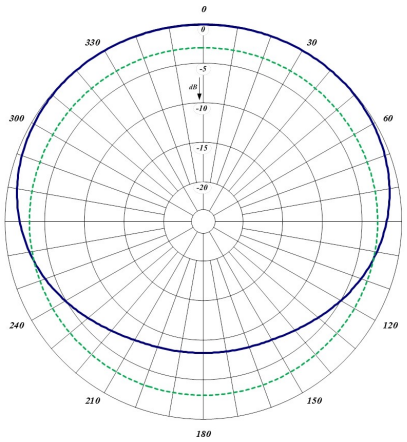
Electrical Specifications	871F-70-220	872F-70-220	874F-70-220
Frequency Range, MHz	215-225	215-225	215-225
Nominal Gain, dBd	2.0-2.5	5.0-5.5	8.0-8.5
Number of Dipoles	1	2	4
Bandwidth 1.5:1 VSWR, MHz	10	10	10
Polarization	Vertical	Vertical	Vertical
Pattern	Offset / bi	Offset / bi	Offset / bi
Power Rating, 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" (13 mm) 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" (48 mm)	1.9" (48 mm)	2.4" (60 mm)

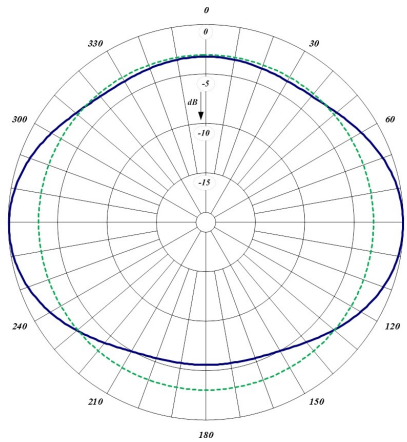
Order Information	Heavy-Duty	Side Mount	Top Mount	Black Anodized
871-70-220	871F-70-220HD	871F-70-220SM	871F-70-220TM	871F-70-220HDB
872-70-220	872F-70-220HD	872F-70-220SM	872F-70-220TM	872F-70-220HDB
874-70-220	874F-70-220HD	874F-70-220SM	874F-70-220TM	874F-70-220HDB

Tel: US 1.877.825.2007 / CAN 1.800.603.1454
Email: sales@comprodcom.com
Fax: 1.800.554.1033

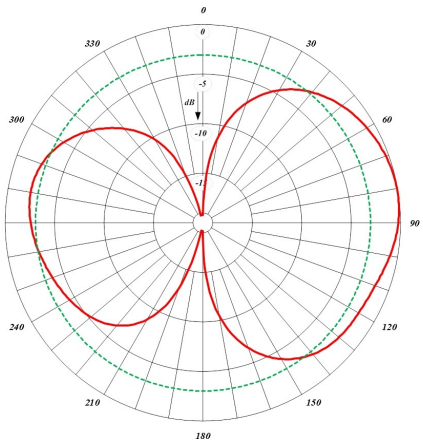
871F-70-220



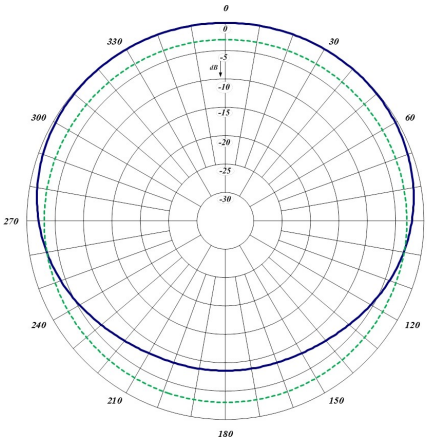
Quarterwave Spacing Horizontal



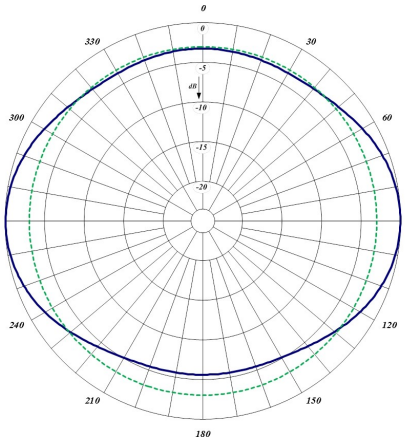
Halfwave Spacing Horizontal



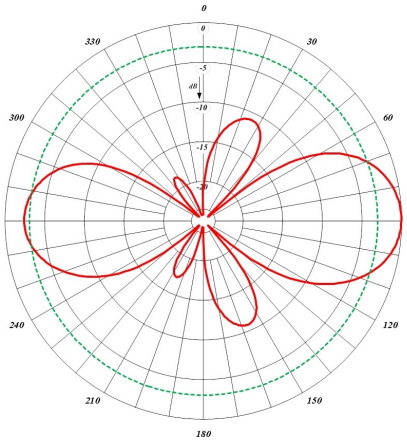
Halfwave Spacing Vertical



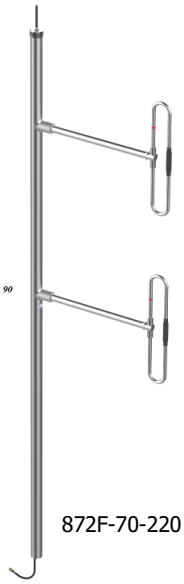
Quarterwave Spacing Horizontal



Halfwave Spacing Horizontal

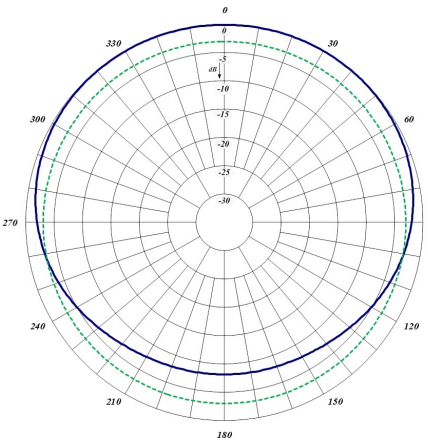


Halfwave Spacing Vertical

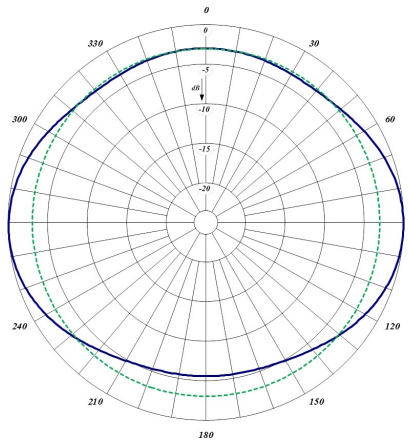


872F-70-220

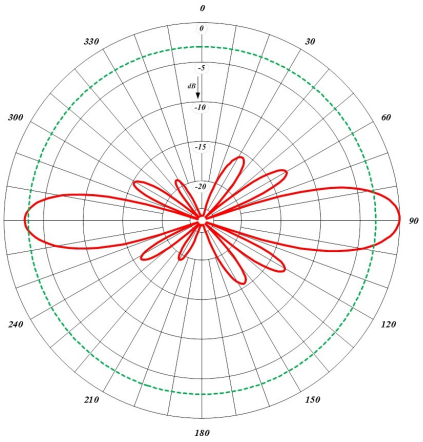
874F-70-220



Quarterwave Spacing Horizontal



Halfwave Spacing Horizontal



Halfwave Spacing Vertical

790 Series Enclosed Dipoles

The 790 Series Enclosed Dipoles are available in 2, 4, or 8 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.

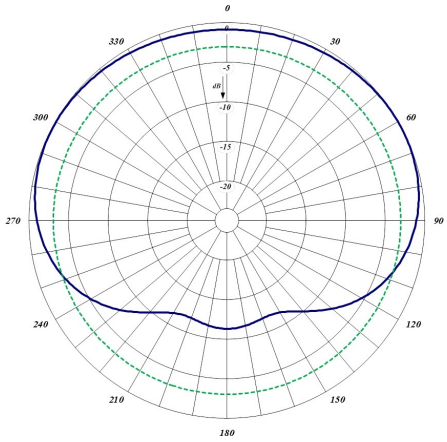

794-70

Electrical Specifications	792-70	794-70	798-70
Frequency Range, MHz	746-960	746-960	746-960
Nominal Gain, dBd	5.0	8.0	10.0
Number of Dipoles	2	4	8
Bandwidth 1.5:1 VSWR, MHz	150	150	150
Polarization	Vertical	Vertical	Vertical
Pattern	Offset	Offset	Offset
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

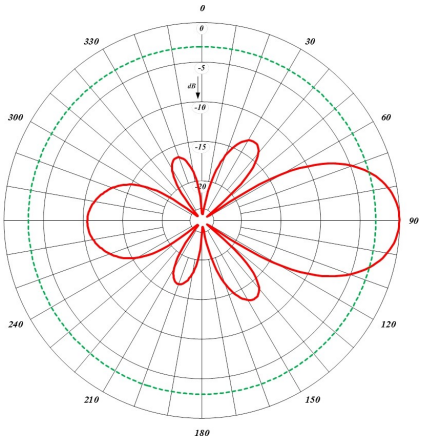
Mechanical Specifications	792-70	794-70	798-70
Length, in (mm)	22 (559)	44.5 (1130)	94 (2388)
Width (1/2 Wave Spacing), in (mm)	2.5 (64)	2.5 (64)	2.5 (64)
Weight, lbs (kg)	8.8 (4)	14 (6.5)	24 (11)
Rated Wind Velocity, no ice, mph (km/h)	100 (162)	100 (162)	100 (162)
Rated Wind Velocity, 0.5” (13 mm) 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, ft² (m²)	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	746-896 MHz	806-960 MHz
792-70	792-70*1	792-70*2
794-70	794-70*1	794-70*2
798-70	798-70*1	798-70*2

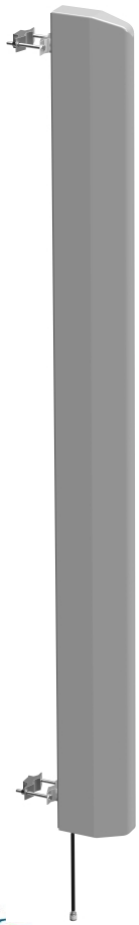
792-70



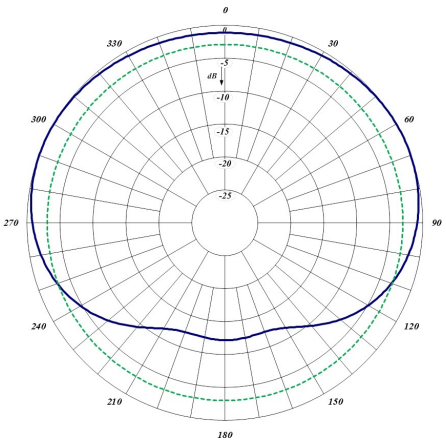
Horizontal Pattern



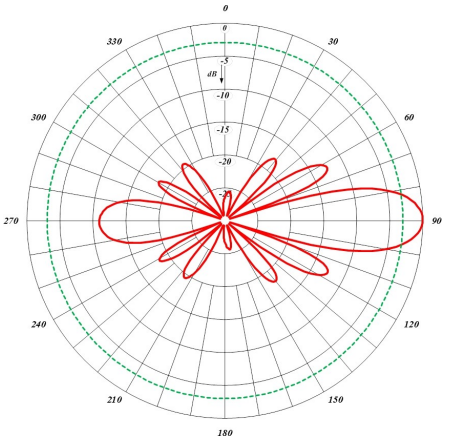
Vertical Pattern



799-70

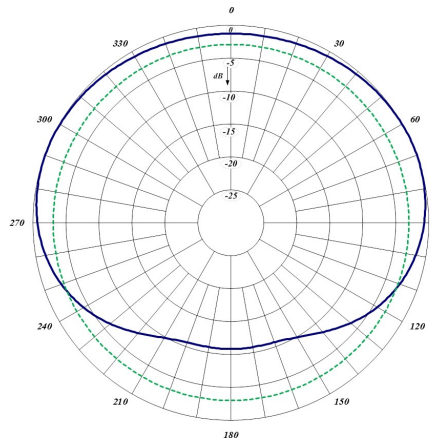


Horizontal Pattern

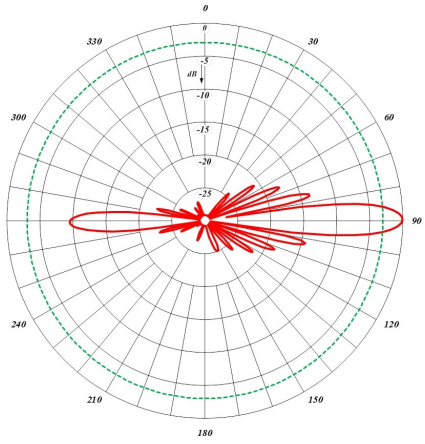


Vertical Pattern

794-70



Horizontal Pattern



Vertical Pattern

790 Series Enclosed Dipoles with Reflector

The 790 Series Enclosed Dipoles with Reflector are available in 2, 4, or 8 dipole configurations. These antennas can be adjusted from 60º to 160º. 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: 60º, 90º, 105º, 130º and 160º.
- 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	798-70R
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	8
Bandwidth 1.5:1 VSWR, MHz	150	150	150
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	798-70R
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” (13 mm) 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, ft² (m²)	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	746-896 MHz	806-960 MHz
792-70R	792-70R*1	792-70R*2
794-70R	794-70R*1	794-70R*2
798-70R	798-70R*1	798-70R*2

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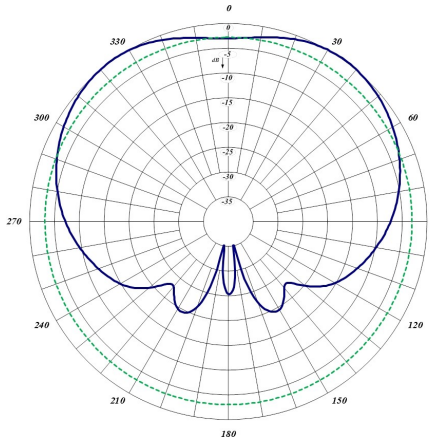
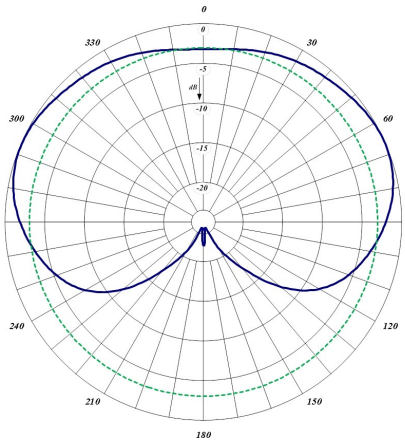
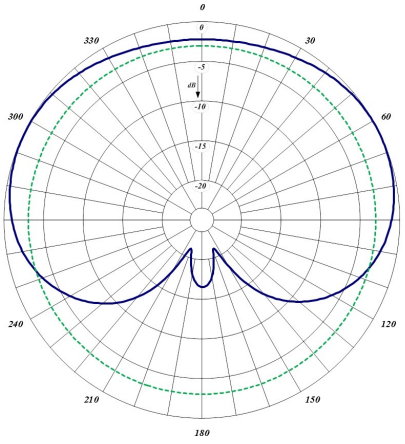


792-70R90



792-70R130

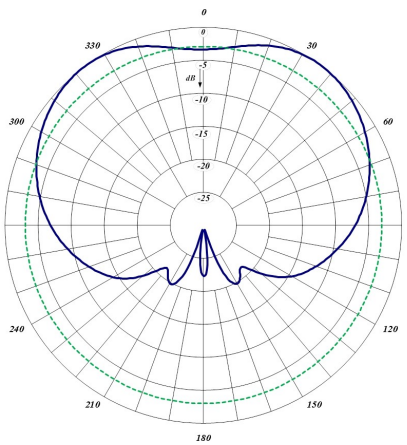


792-70R160

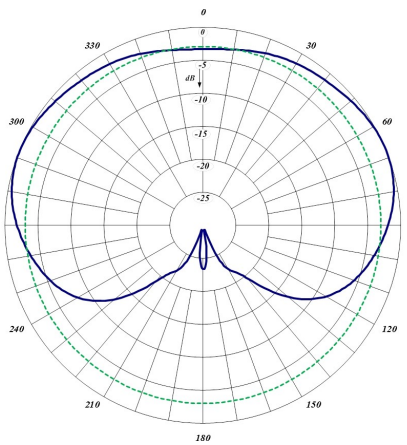
792-70R

Call for additional patterns

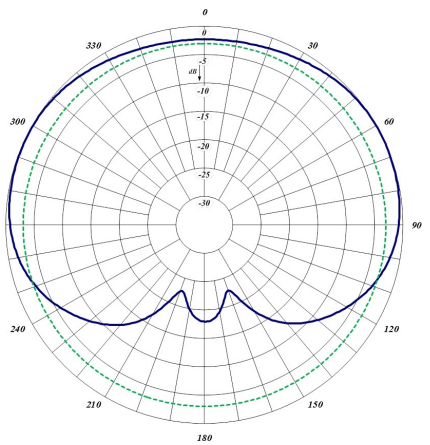
794-70R



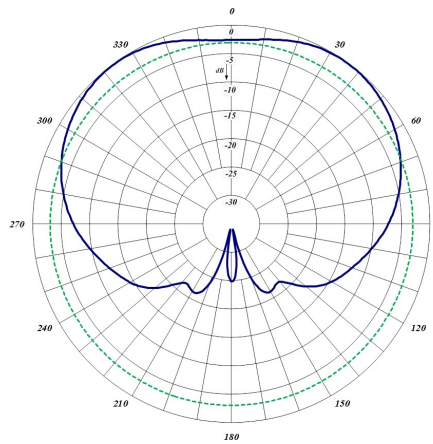
794-70R90



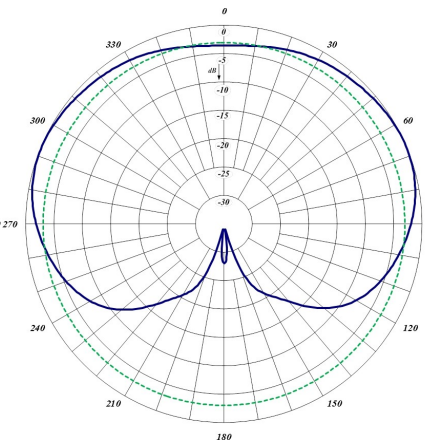
794-70R130



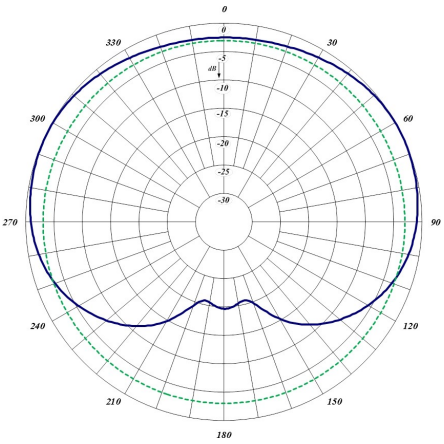
794-70R160



799-70R90



799-70R130



799-70R160

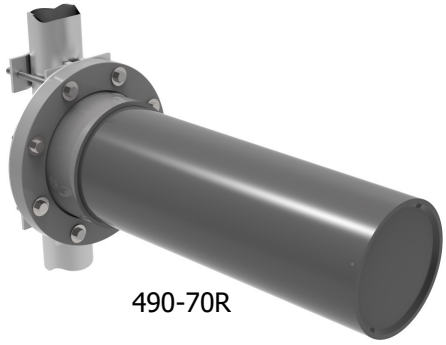
799-70R

Tel: US 1.877.825.2007 / CAN 1.800.603.1454
Email: sales@comprodcom.com
Fax: 1.800.554.1033

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 1/2 inch thick.



490-70R

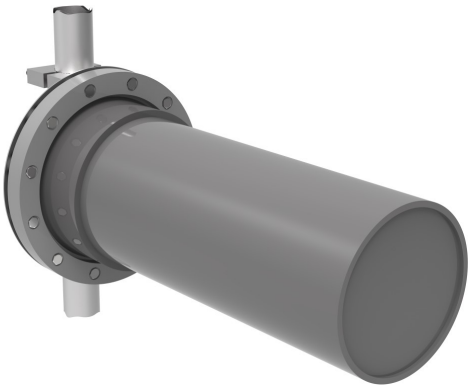
Electrical Specifications	425-70	426-70	490-70R
Frequency Range, MHz	406-512	406-512	746-960
Nominal Gain, dBd	10	10	10
Number of Elements	Loop Yagi	Loop Yagi	7
Bandwidth: 1.5:1 VSWR, MHz	20	20	72
Polarization	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.
Horizontal Beamwidth (Horizontal Pol.)	62º	62º	56º
Vertical Beamwidth (Horizontal Pol.)	48º	48º	42º
Front to Back, dBd	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” (13 mm) 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.

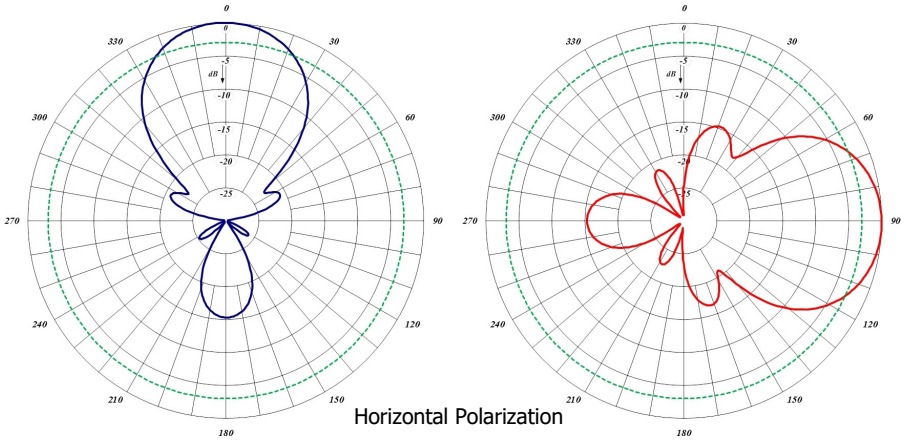
Order Information	(2) Stacked	(4) Stacked	406-430	430-450	450-470
425-70	2*425-70	4*425-70	425-70*1	425-70*2	425-70*3
426-70	2*426-70	4*426-70	426-70*1	426-70*2	426-70*3
490-70R	2*490-70R	4*490-70R	N/A	N/A	N/A

Tel: US 1.877.825.2007 / CAN 1.800.603.1454
Email: sales@comprodcom.com
Fax: 1.800.554.1033

RADOME YAGI ANTENNA

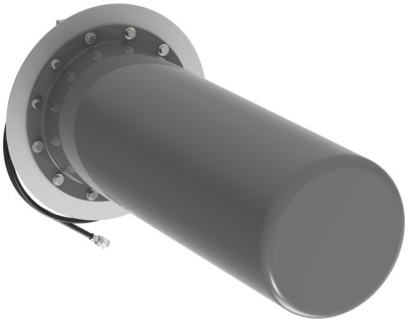


425-70

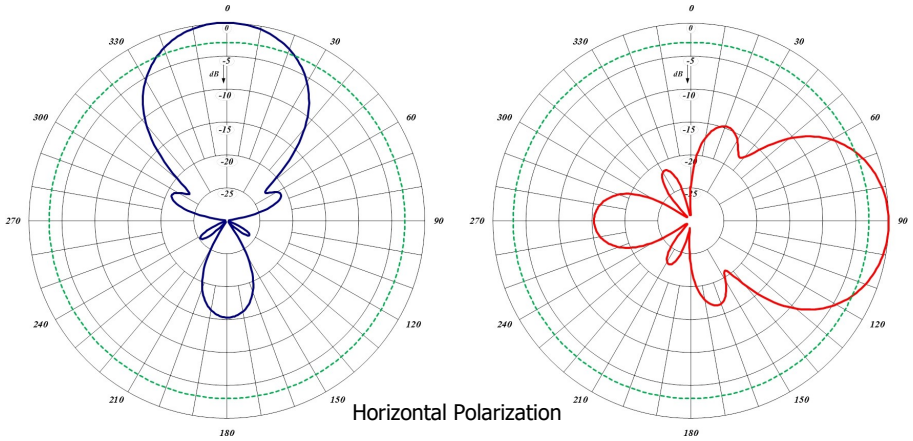


Horizontal Polarization

Horizontal Pattern Vertical Pattern

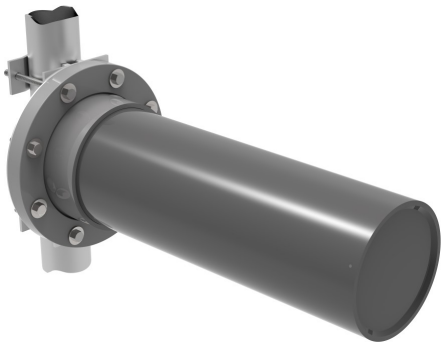


426-70

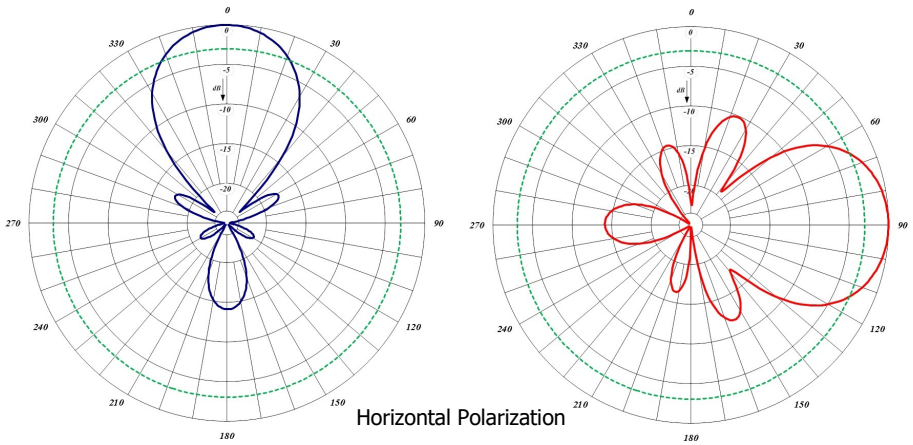


Horizontal Polarization

Horizontal Pattern Vertical Pattern



490-70R

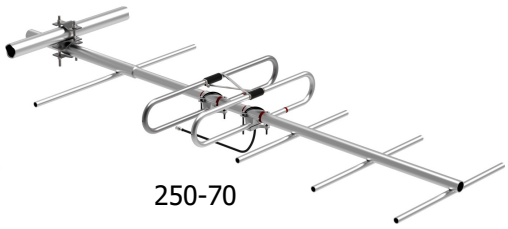


Horizontal Polarization

Horizontal Pattern Vertical Pattern

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.



250-70

- 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 Comprod Inc. Technical support.

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 (Horizontal Pol.)	140º	90º	62º	80º
Vertical Beamwidth (Horizontal Pol.)	70º	61º	50º	60º
Front to Back, dBd	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" (13 mm) 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 for info
295-70	295-70	N/A	295-70CB	295-70W	295-70HD	295-70B	Call for info
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 for info

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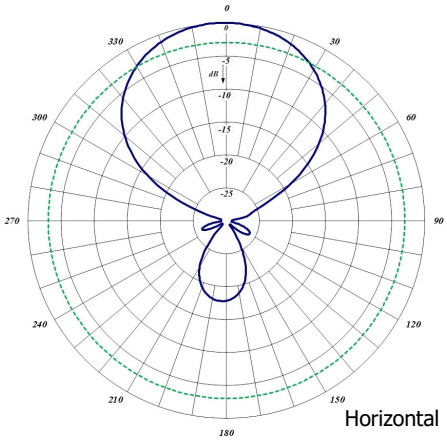
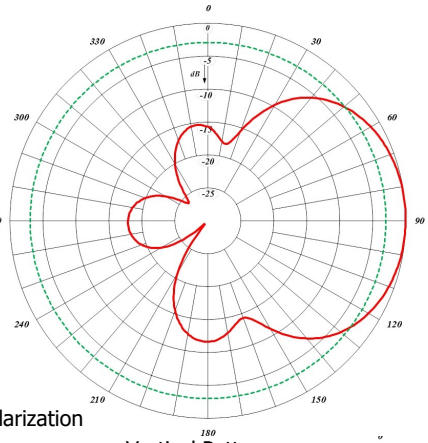
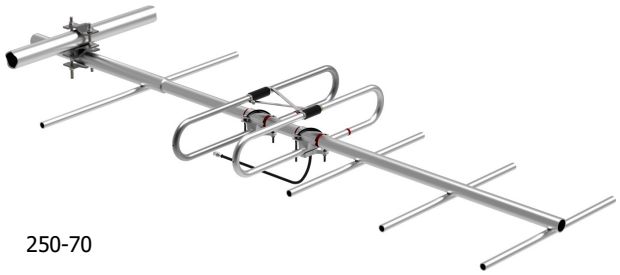


Horizontal Pattern



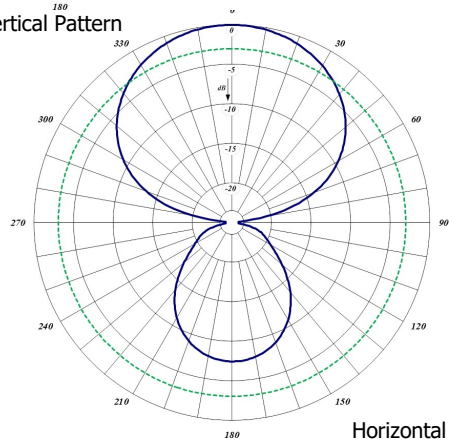
Vertical Pattern

Horizontal Polarization

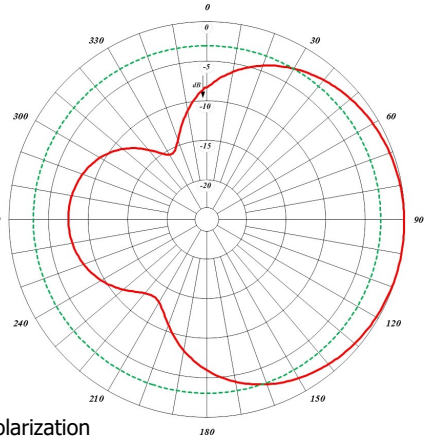


250-70

291-70

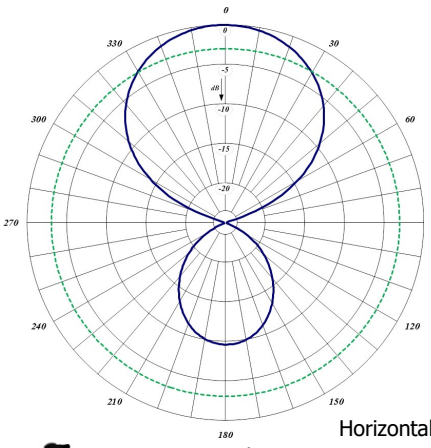


Horizontal Pattern

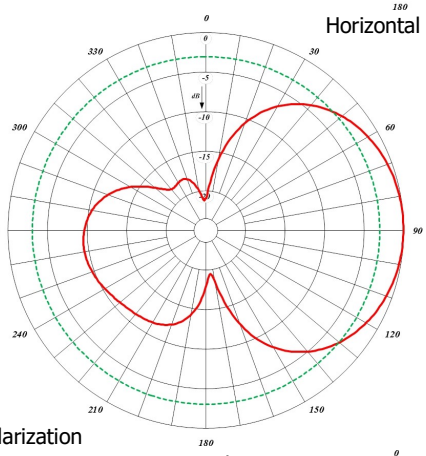


Vertical Pattern

Horizontal Polarization



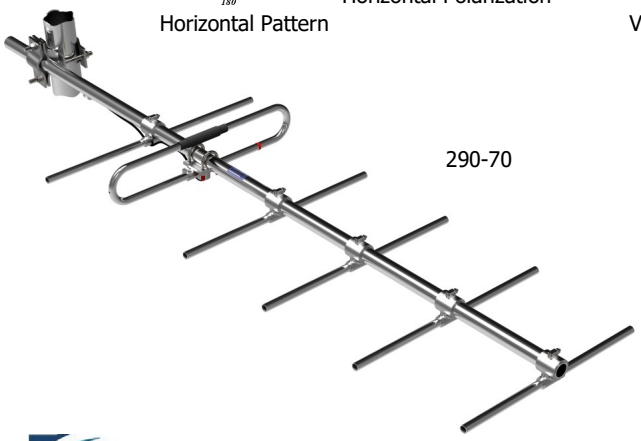
Horizontal Pattern



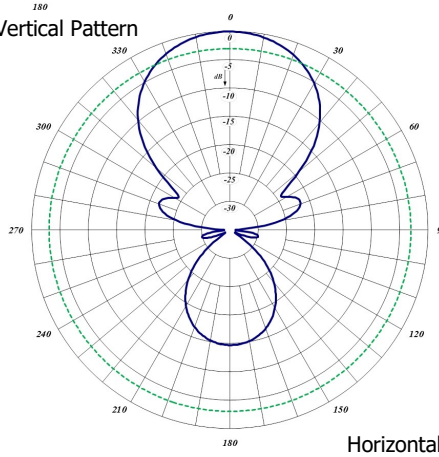
Vertical Pattern

Horizontal Polarization

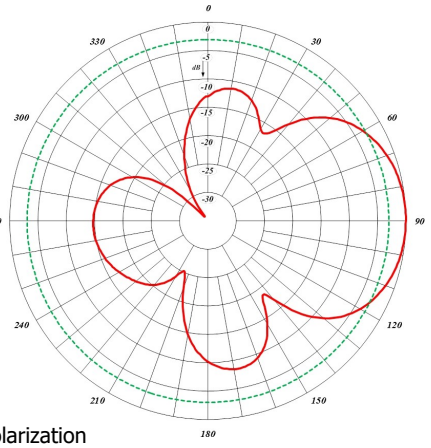
295-70



290-70



Horizontal Pattern



Vertical Pattern

Horizontal Polarization

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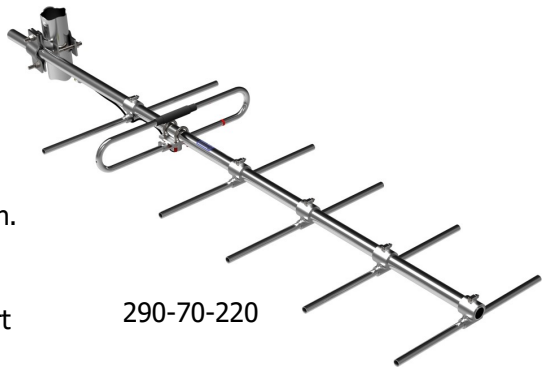
290Series 220 MHz Yagi Antennas

The 290 Series 220 MHz 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.
- 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 (Horizontal Pol.)	140º	90º	62º
Vertical Beamwidth (Horizontal Pol.)	70º	36º	50º
Front to Back, dBd	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" (13 mm) 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

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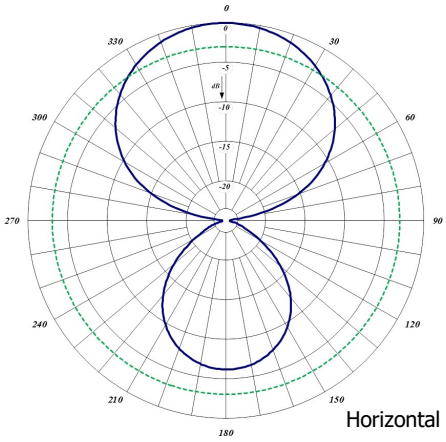
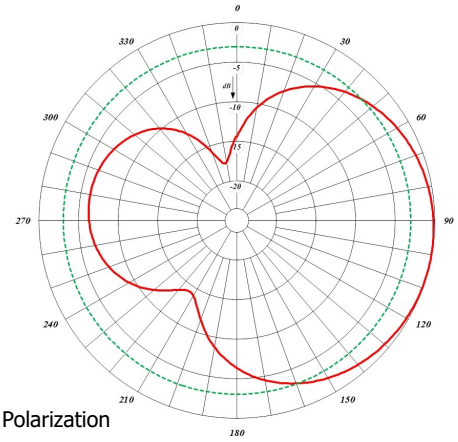
291-70-220

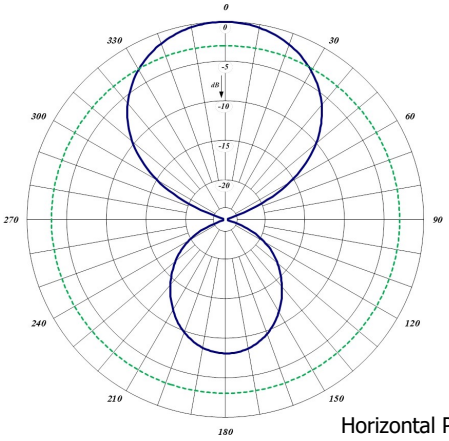


Horizontal Pattern

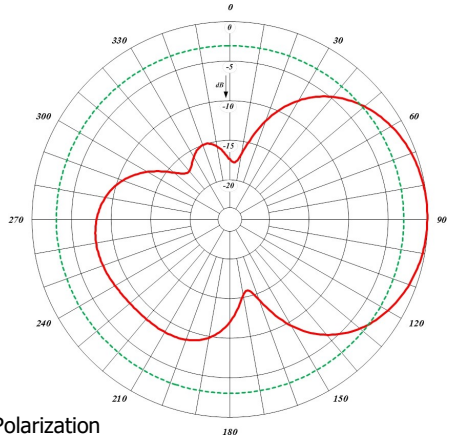


Vertical Pattern

Horizontal Polarization



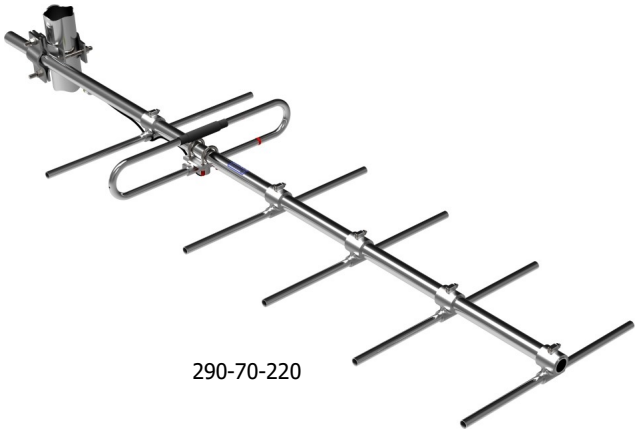
Horizontal Pattern



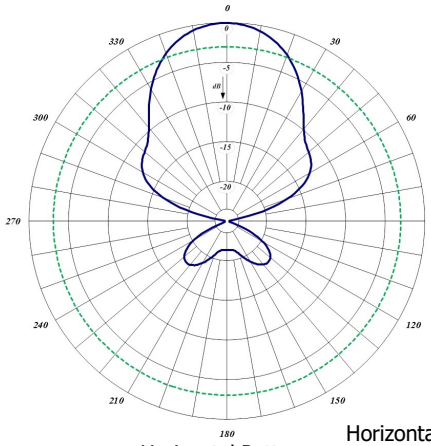
Vertical Pattern

Horizontal Polarization

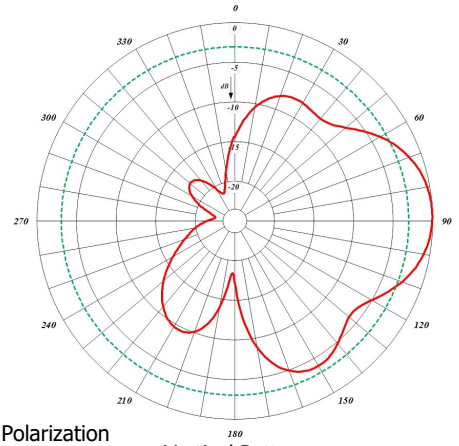
295-70-220



290-70-220



Horizontal Pattern



Vertical Pattern

Horizontal Polarization

220 MHz 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 90º 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 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.)	67º	67º	50º
Vertical Beamwidth (Vert. Pol.)	75º	75º	66º
Front to Back, dBd	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

Mechanical 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" (13 mm) 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, ft² (m²)	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)

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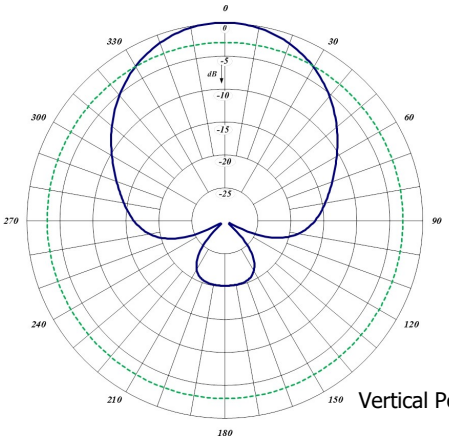
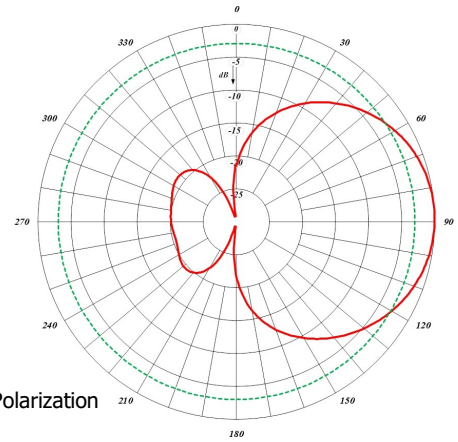


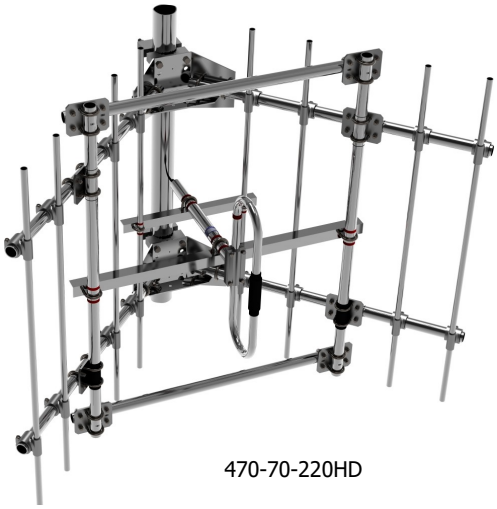
Horizontal Pattern

Vertical Polarization

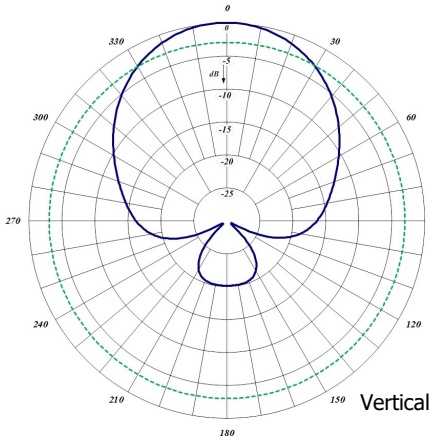


Vertical Pattern

470-70-220

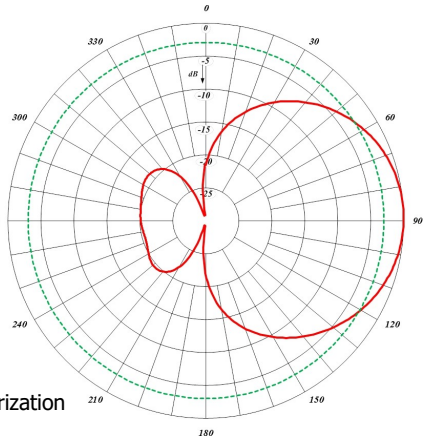


470-70-220HD

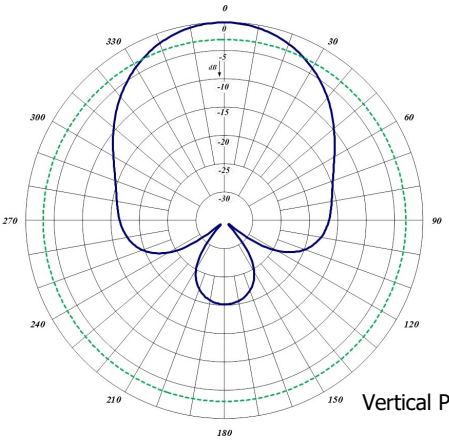


Horizontal Pattern

Vertical Polarization

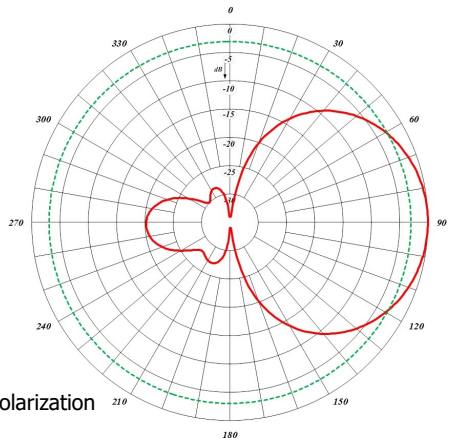


Vertical Pattern

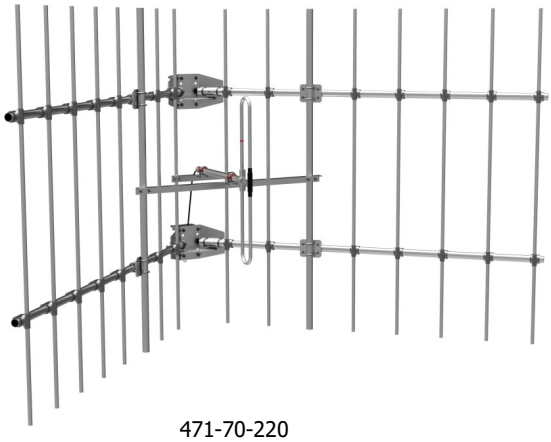


Horizontal Pattern

Vertical Polarization



Vertical Pattern



471-70-220

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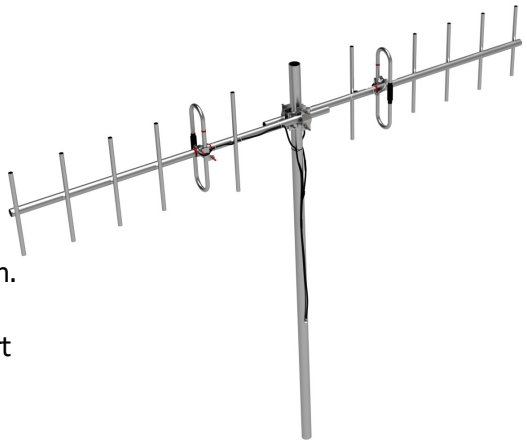
F-33324 Back to Back Dual Yagi Antenna Array



The F-33324 is a dual Yagi array mounted in a back to back configuration. The antennas are welded and supplied with phasing harness. All of our antennas can be completely customized to your particular applications. Our antennas can be 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.
- DC ground for lightning protection
- Heavy-duty versions are available. Please contact a Comprod Inc. Technical support technician for consultation.

Electrical Specifications	
Frequency Range, MHz	215-225
Nominal Gain, dBd	6.6
Bandwidth 1.5:1 VSWR, MHz (Center Freq.%)	10
Polarization	Vert. or Horiz.
Horizontal Beamwidth (Vert. Pol.)	47º
Vertical Beamwidth (Vert. Pol.)	43º
Front to Back, dBd	N/A
Pattern	Directional
Power Rating, Watts	350
Nominal Impedance, Ohms	50
Lightning Protection	DC Ground
Standard Termination	Type N Male
Mechanical Specifications	
Length, in (mm)	161 (4089)
Width, in (mm)	27 (686)
Weight, lbs (kg)	28 (12,7)
Rated Wind Velocity, no ice, mph (km/h)	145 (233)
Rated Wind Velocity, 0.5" no ice, mph (km/h)	100 (161)
Lateral Thrust @ 100 mph, wind, lbs (kg)	94 (418)
Projected Area, ft² (m²)	4.0 (0.37)
Mounting Information Mast O.D.	115R-85 Clamp

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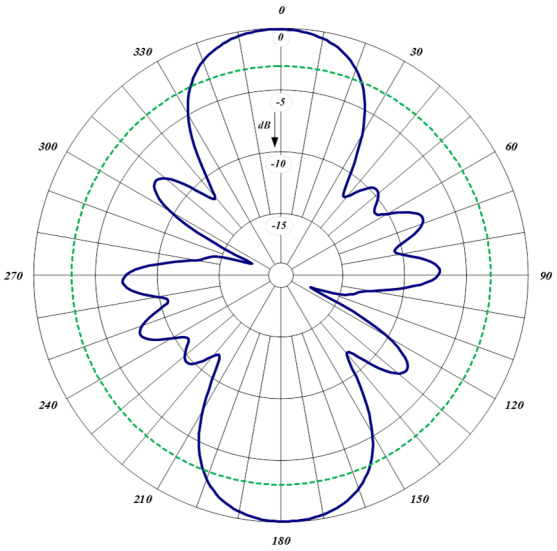
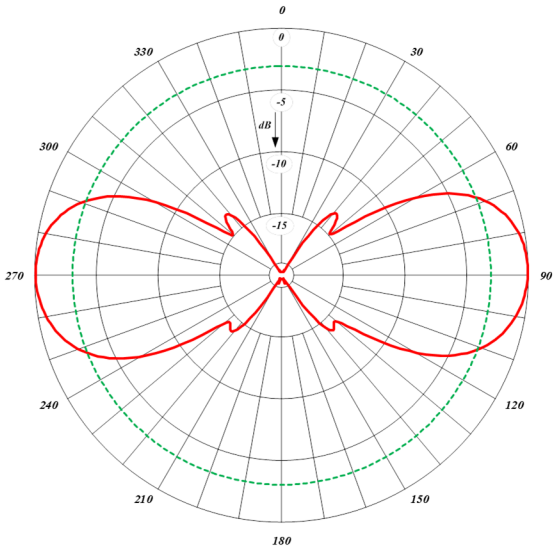
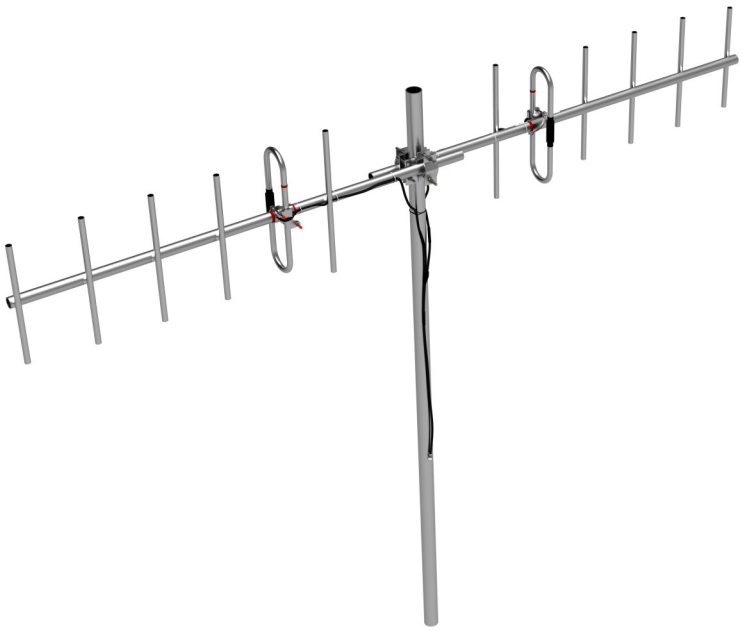


Horizontal Pattern



Vertical Pattern



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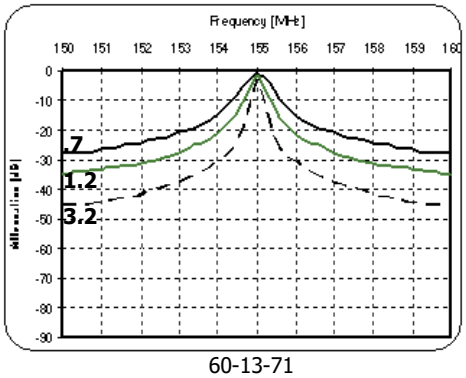
60-13-XP Series

Our 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 -40ºC to +60ºC. 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.

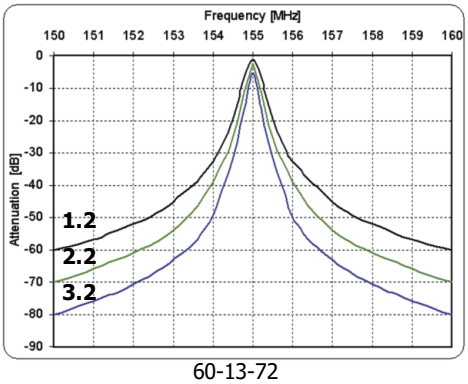
- Temperature Compensation - Ensures frequency stability
- High Attenuation - Minimizes desense and interference from adjacent systems
- Adjustable Loops - Each cavity has a calibration index

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, ºC	-40 to +60	-40 to +60	-40 to +60

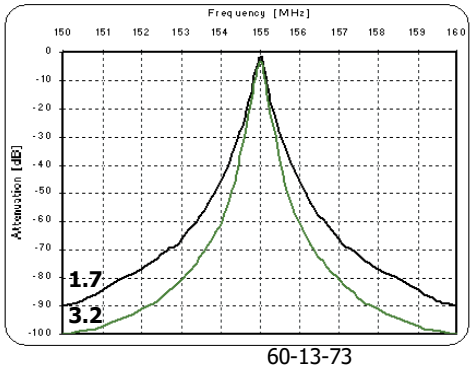
Mechanical Specifications	60-13-71	60-13-72	60-13-73
Dimensions, in (H x W X D)	34 x 19 x 7	34 x 19 x 16.5	34 x 19 x 16.5
Weight, lbs (kg)	30 (13.6)	36.3 (16.5)	44 (20)



60-13-71



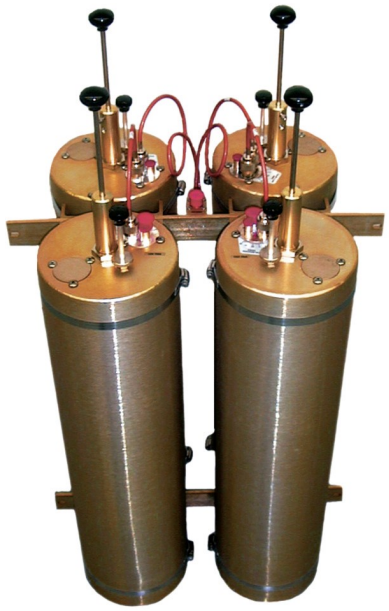
60-13-72



60-13-73

66-FF-74

Our 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 -40ºC to +60ºC. 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
Channel Isolation, @ Min. Separation dB	85	90
VSWR	1.22:1	1.22:1
Temperature, ºC	-40 to +60	-40 to +60

Mechanical Specifications	66-13-74	66-40-74
Dimensions, 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)

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Fax: 1.800.554.1033

2-INCH CAVITY DUPLEXERS

66-FF-2P Series 2" Cavity Duplexers

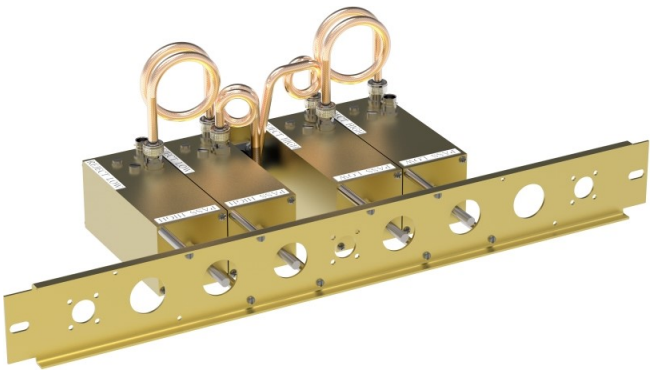
Our 2" base station duplexers are ideal for compact high isolation installations. These filters are designed for the combination of two frequencies that require extra isolation or they can be used as efficient pre-selectors. Available in either 4 or 6 cavity configurations if higher levels of isolation are required. Selectivity can be determined by the field adjustable capacitors. Each cavity is temperature compensated for operation between -40ºC to +60 ºC. 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
Channel Isolation, dB	70	70	80/90	80/90
VSWR	1.3:1		1.3:1	
Temperature, ºC	-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
Dimensions, in (H x W X D)	5.25 x 19 x 7.25		5.25 x 19 x 7.25	
Mounting	19" Rack Mount			

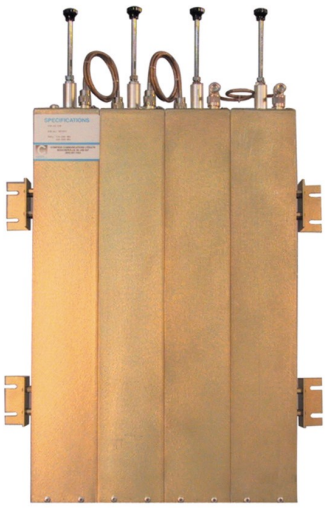
These duplexers are available in other frequencies and configurations. Please call our technical support for additional models..



4-INCH CAVITY DUPLEXERS

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

Our 4" base station duplexers are ideal for high power, close frequency separation installations. These filters are designed for combining two frequencies or 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 -40ºC to +60ºC. Each cavity has a gold alodine finish, silver plated loops, and plated tuning rods.



- 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	0.8	0.8
Channel Isolation, dB	70	75	90
VSWR	1.2:1	1.2:1	1.2:1
Temperature, ºC	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	66-13-44	66-40-44	66-80-44
Dimensions, 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	138-174 MHz	66-13-44WM	66-13-44
66-40-4X	406-470 MHz	66-40-44WM	66-40-44
66-74-4X	746-806 MHz	66-74-44WM	66-74-44
66-80-4X	806-896 MHz	66-80-44WM	66-80-44
66-90-4X	896-960 MHz	66-90-44WM	66-90-44

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

Our 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 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 -40ºC to +60ºC. 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, ºC	-40 to +60	-40 to +60	-40 to +60

Mechanical Specifications	66-13-46	66-40-46	66-80-46
Dimensions, 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	138-174 MHz	66-13-46WM	66-13-46
66-40-46	406-512 MHz	66-40-46WM	66-40-46
66-80-46	746-960 MHz	66-80-46WM	66-80-46

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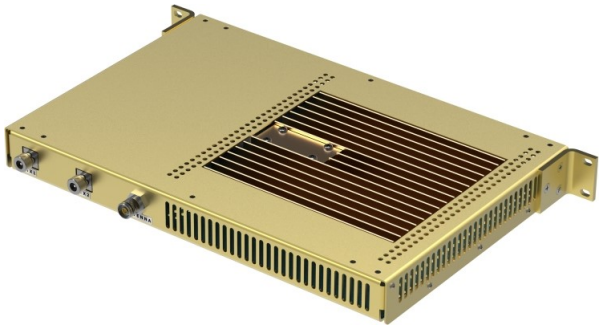
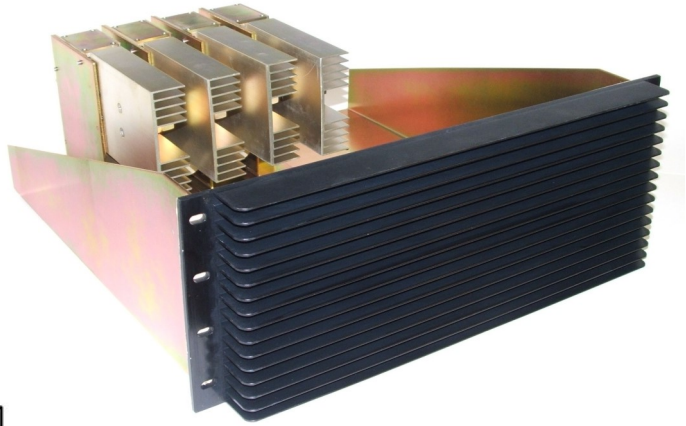
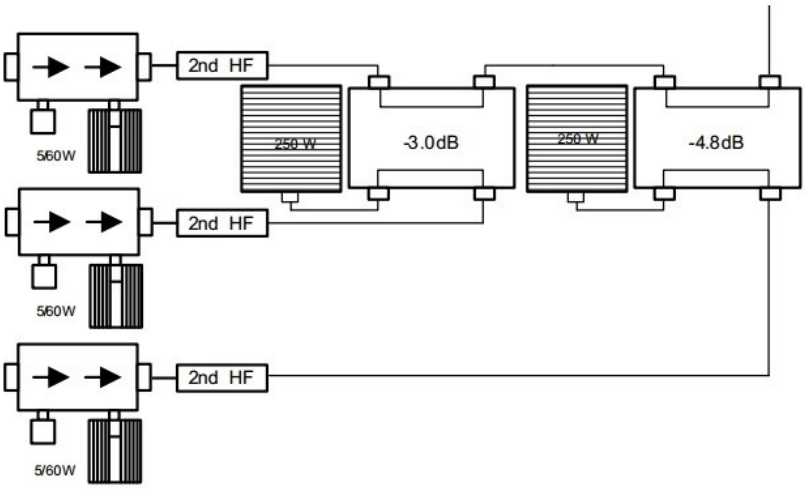
Custom Hybrid Combiners

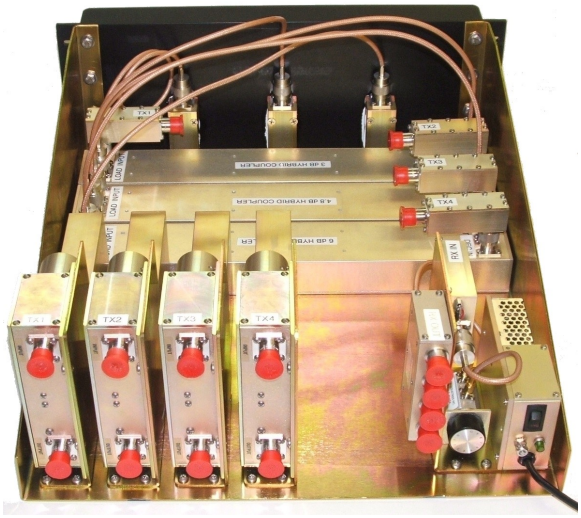
Our Hybrid Transmit Combiners are designed for compact, close frequency installations. Our HTCs are perfect for very closely spaced frequency transmitters. These devices are ideal for use when our X-Pass technology does not provide adequate performance and isolation for very close Tx-Tx spacing. Hybrid 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.



- We can arrange or design our combiners to meet your custom needs.
- High Isolation—Minimizes intermodulation products
- Low loss—Maximizes system performance
- Continuous Power—Physical size and materials used maximizes the performance across the operating band.







X-Pass Ceramic Combiner

Our 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 (H x W x D), in (mm)	7.75 x 19 x 14 (197 x 483 x 356)
Weight, lbs (kg)	4 Channel system 32 (15)

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

Example: Model # RDXC-85-04N

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

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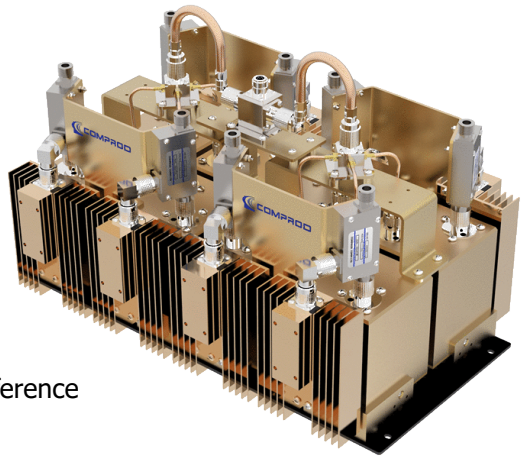
Fax: 1.800.554.1033

Star Junction Ceramic Combiner

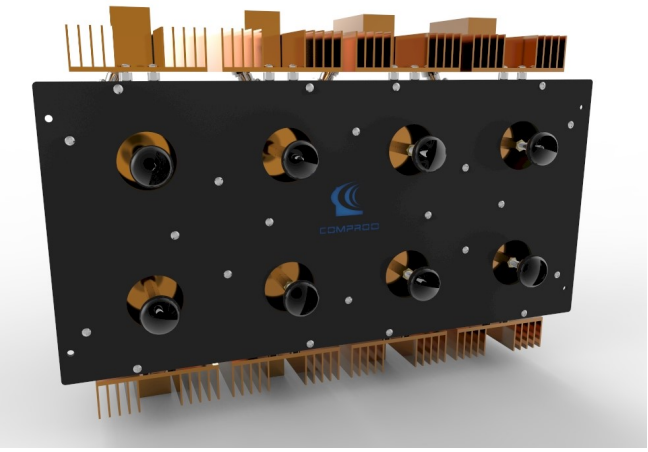
Our Ceramic Combiner uses dielectric resonator technology to offer higher performance than standard RF cavities in a much smaller package. It combines 8 channels in only 8.5" of standard 19" rack space. The resonator allows combining of transmitters at a frequency spacing as close as 150 KHz. Lower insertion 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 (H x W x D), in (mm)	14 x 8.5 x 19 (356 x 216 x 483)
Weight, lbs (kg)	8 Channel system 62.17 (28.2)



VHF BI-DIRECTIONAL AMPLIFIER (BDA) 138-225 MHz

BDA-138225-SERIES

Our 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. Comprod can provide additional filter components as part of the full 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 x W x D)	24 x 20 x 13.5
Temperature Range, °F (°C)	-4 to 131 F (-20 to +55) C
Weight, lbs (kg)	100 (45)

Tel: US 1.877.825.2007 / CAN 1.800.603.1454
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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 x W x 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., µs	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, °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 x W x 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

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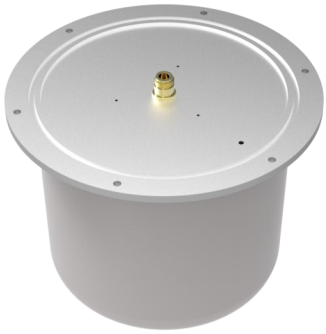
TRI-BAND IN-BUILDING ANTENNAS

Our 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.

The F-3749 Antenna is available in custom colors for orders of 150 or more.



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, in (mm)	11.25 (286.88)	9.78 (249)	9.78 (249)
Diameter, in (mm)	0.65 (16.575)	7.0 (178.5)	7.0 (178.5)
Weight, lbs (kg)	N/A	4 (1.8)	4 (1.8)
Required Minimum Ground Plane Size, in (mm)	Included (Required)	14 x 14 (357 x 357)	14 x 14 (357 x 357)

COMPROD
Simplifying RF Solutions

Our Mission:

As a market leader in RF technology, we are committed to delivering best-in-class products and services to Public Safety, Utility, Transportation, Defense and Government organizations around the world.

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