

### **Antennas and Filters for Railroad & Transportation Communications**

# Ensuring high availability and reliability for your communication systems

The transportation operators are faced with a growing number of challenges on a daily basis. Comprod understands their reliance on RF networks as a key element to achieve the highest standards of compliance and safety, and offers a complete range of products delivering mobile communications or coverage along highways, railway transportation and commuter services as well as in-building or remote solutions.







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#### COMPROD INC.

## High Quality • Superior Performance • Engineering Design • Excellent Technical Support Trusted by over 1,000 customers worldwide

As a market leader in the design and manufacture of RF Antennas, Filtering Systems and In-Building solutions, Comprod puts innovation and customer satisfaction at the core of its business strategy. Over the past 40 years, we have set ourselves apart by adapting our offering to our client needs, while anticipating future industry trends and opportunities.

The products featured in this catalog are provided specifically for the Railroad industry, and have been installed on the Tier One Railroad RF infrastructure across North America. Our antennas and filters are known for their robust design and long-term reliability. We provide products and services to both transport and commuter railroad clients. Offering full design customization capabilities, we can adapt and optimize any product to meet unique electrical or mechanical performance requirements (e.g. higher front-back ratio; smaller size footprint; black anodization, etc.)

Our North American manufacturing facilities are certified under ISO 9001:2008 Quality Assurance standards.



Comprod's Headquarter Facilities, Boucherville, QC, Canada



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#### **Ground Plane Antenna Series**

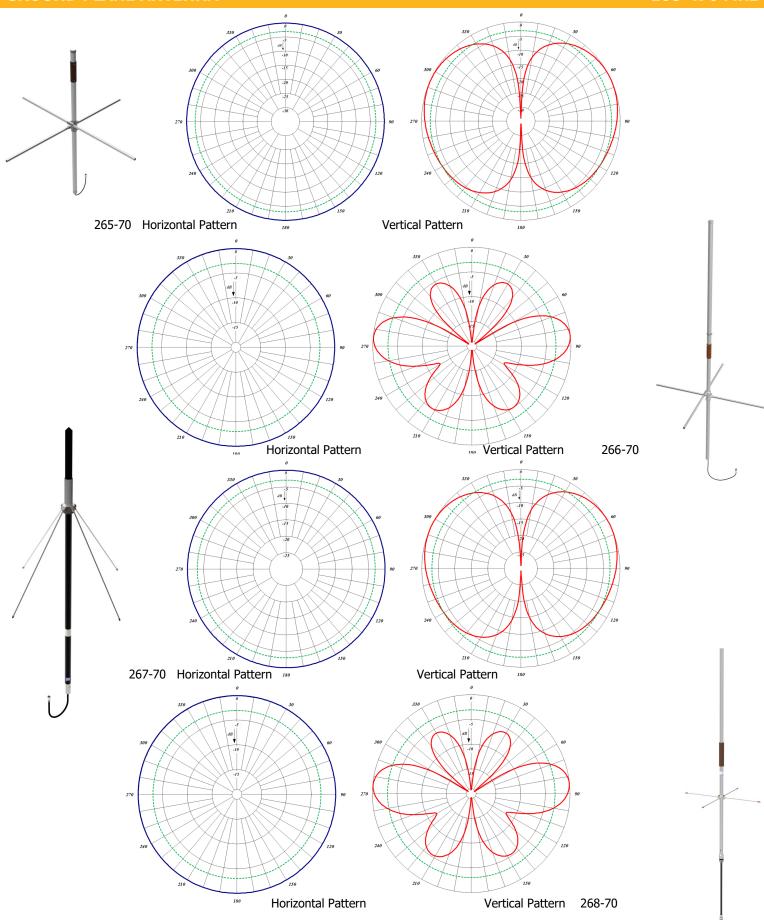
The Ground Plane Antenna Series are available in VHF and UHF configurations. These omnidirectional antennas are either wide band unity or 2-3 dBd gain antennas. They are constructed from high strength, corrosion-resistant aluminum alloy and stainless steel. All of our antennas can be completely customized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



Electrical Specifications			265-70	266-70	0	26	57-70	268-70
Frequency Range, MHz			118-174	118-17	4	11	.8-136	406-470
Nominal Gain, dBd			Unity	2-3.0		l	Jnity	2-3.0
Bandwidth 1.5:1 VSWR, MHz (%	Ctr. Freq	.)	6%	1%		15.6	% (2:1)	1%
Tuning			Field Adj.	Field Ad	j.	F	ixed	Field Adj.
Polarization			Vertical	Vertica	I	Ve	ertical	Vertical
Vertical Beamwidth (Ver.Pol.)			800	400			71º	380
Pattern			Omni	Omni		(	Omni	Omni
Power Rating, Watts			300	250			250	100
Nominal Impedance, Ohms			50	50			50	50
Lightning Protection			DC Ground	DC Grou	nd	DC	Ground	DC Ground
Standard Termination			Type N Male	Type N M	ale	Туре	e N Male	Type N Male
Mechanical Specifications			265-70	266-70	266-70		57-70	268-70
Max. Length, in (mm)			58 (1473)	108 (274	108 (2743) 67		(1702)	46 (1168)
Width, in (mm)			55 (1397)	46 (1168	46 (1168) 26.		5 (673)	20 (508)
Weight, lbs (kg)			6.8 (3.3)	6.5 (3.0	6.5 (3.0)		(2.7)	1.5 (0.7)
Rated Wind Velocity, no ice, mpl	(km/h)		150 (241)	125 (20:	125 (201)		5 (201)	125 (201)
Rated Wind Velocity, 0.5" (13mm	n) ice, mpl	h (km/h)	140 (225)	85 (137	85 (137)		(177)	85 (137)
Lateral Thrust @ 100 mph wind,	lbs (kg)		31.8 (14.4)	40 (18.1	40 (18.1)		(10.7)	7.3 (3.3)
Bending Moment @ top clamp: 1	.00 mph, f	t*lb (kg*m)	41 (5.7)	94 (13)	)	28	(3.9)	12 (1.6)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )			1.2 (0.110)	1.57 (0.14	<del>1</del> 6)	0.88	(0.082)	0.27 (0.03)
Mounting Hardware			167-85 Clamp	167-85 Cla	amp	167-8	35 Clamp	167-85 Clamp
Order Black An Information	odized	406-430	430-450	450-470	118	-136	136-148	148-174
265-70 N/	Α	N/A	N/A	N/A	265-	·70*1	265-70*2	265-70*3
266-70 N/	Α	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	7-70	N/A	N/A
268-70 N/	Α	268-70*1	268-70*2	268-70*3	N	/A	N/A	N/A



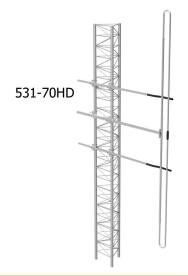


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#### 530 Series Low Band Exposed Dipole Antenna

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.

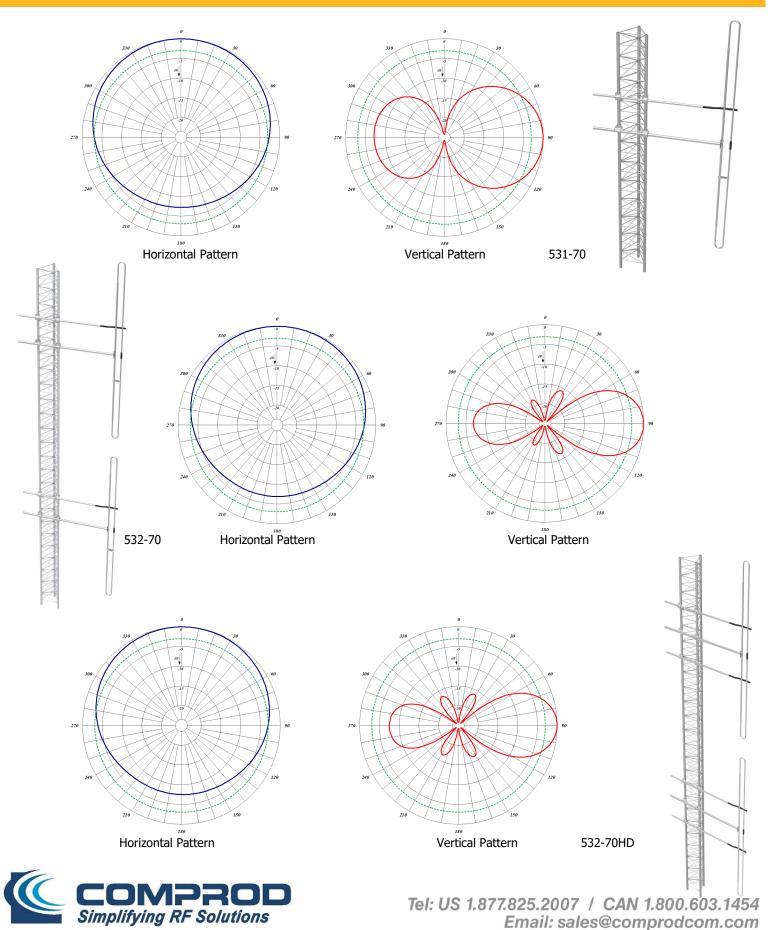
- Each antenna has a rugged design to withstand the most extreme environmental conditions.
- Supplied with anti-torque supports
- DC ground for lightning protection
- Can be black anodized coating for enhanced anti-corrosion and de-icing properties



<b>Electrical Specifications</b>	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





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#### 870 Series VHF or 220 MHz Exposed Dipoles

The 870 Series VHF or 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 or 3/8 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.



872F-70

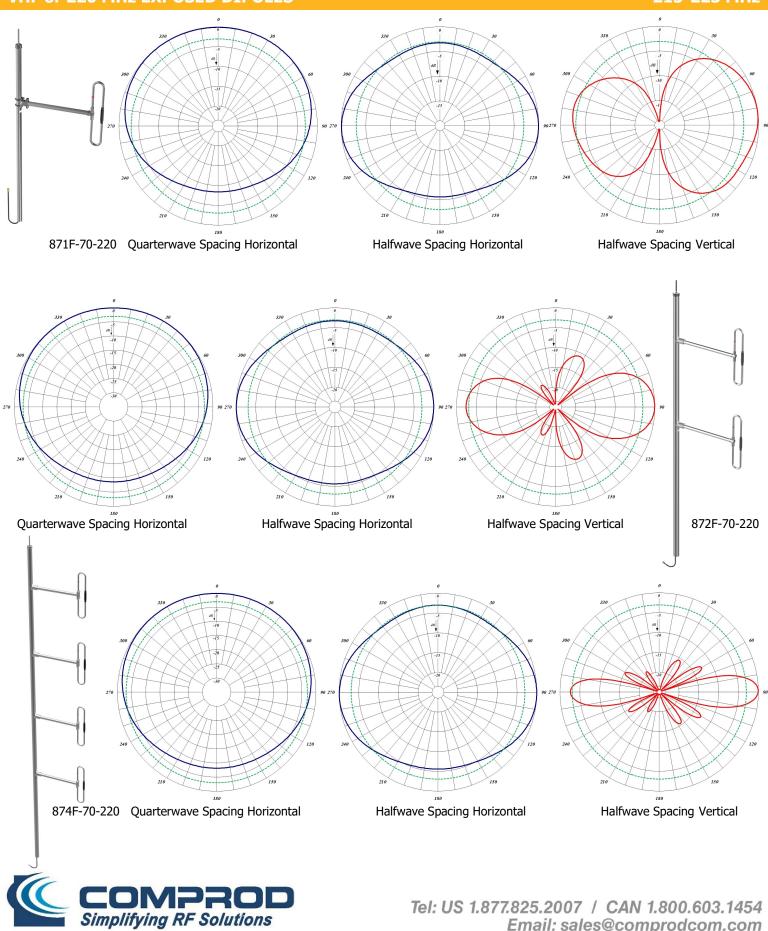
Electrical Specifications	871F-70	872F-70	874F-70	871F-70-220	872F-70-220	874F-70-220
Frequency Range, MHz	138-174	138-174	138-174	215-225	215-225	215-225
Nominal Gain, dBd	2.0-2.5	5.0-5.5	8.0-8.5	2.0-2.5	5.0-5.5	8.0-8.5
Number of Dipoles	1	2	4	1	2	4
Bandwidth 1.5:1 VSWR, MHz	36	36	36	10	10	10
Polarization	Vertical	Vertical	Vertical	Vertical	Vertical	Vertical
Pattern	Offset	Offset	Offset	Offset	Offset	Offset
Power Rating, Watts	200	450	450	200	300	500
Nominal Impedance, Ohms	50	50	50	50	50	50
Lightning Protection	DC Ground	DC Ground	DC Ground	DC Ground	DC Ground	DC Ground
Standard Termination	Type N Male	Type N Male	Type N Male	Type N Male	Type N Male	Type N Male
Mechanical Specifications	871F-70	872F-70	874F-70	871F-70-220	872F-70-220	874F-70-220
Mechanical Specifications  Length, in (mm)	<b>871F-70</b> 78 (1981)	872F-70 162 (4115)	874F-70 246 (6248)	<b>871F-70-220</b> 66 (1676)	<b>872F-70-220</b> 112 (2845)	<b>874F-70-220</b> 200 (5080)
·						
Length, in (mm)	78 (1981)	162 (4115)	246 (6248)	66 (1676)	112 (2845)	200 (5080)
Length, in (mm) Width (1/2 Wave Spacing), in (mm)	78 (1981) 54 (1372)	162 (4115) 54 (1372)	246 (6248) 55 (1397)	66 (1676) 31 (787)	112 (2845) 31 (787)	200 (5080) 32 (813)
Length, in (mm) Width (1/2 Wave Spacing), in (mm) Weight, lbs (kg)	78 (1981) 54 (1372) 16 (7.3)	162 (4115) 54 (1372) 31 (14.1)	246 (6248) 55 (1397) 93 (42)	66 (1676) 31 (787) 12.5 (5.7)	112 (2845) 31 (787) 21 (9.5)	200 (5080) 32 (813) 51 (23)
Length, in (mm) Width (1/2 Wave Spacing), in (mm) Weight, lbs (kg) Rated Wind Velocity, no ice, mph (km/h) Rated Wind Velocity, 0.5" (13mm) ice,	78 (1981) 54 (1372) 16 (7.3) 150 (241)	162 (4115) 54 (1372) 31 (14.1) 145 (3341)	246 (6248) 55 (1397) 93 (42) 120 (193)	66 (1676) 31 (787) 12.5 (5.7) 165 (266)	112 (2845) 31 (787) 21 (9.5) 150 (241)	200 (5080) 32 (813) 51 (23) 145 (233)
Length, in (mm) Width (1/2 Wave Spacing), in (mm) Weight, lbs (kg) Rated Wind Velocity, no ice, mph (km/h) Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	78 (1981) 54 (1372) 16 (7.3) 150 (241) 145 (217)	162 (4115) 54 (1372) 31 (14.1) 145 (3341) 135 (217)	246 (6248) 55 (1397) 93 (42) 120 (193) 95 (153)	66 (1676) 31 (787) 12.5 (5.7) 165 (266) 140 (225)	112 (2845) 31 (787) 21 (9.5) 150 (241) 130 (209)	200 (5080) 32 (813) 51 (23) 145 (233) 105 (177)
Length, in (mm)  Width (1/2 Wave Spacing), in (mm)  Weight, lbs (kg)  Rated Wind Velocity, no ice, mph (km/h)  Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)  Lateral Thrust @ 100 mph wind, lbs (kg)  Bending Moment @ top clamp: 100 mph,	78 (1981) 54 (1372) 16 (7.3) 150 (241) 145 (217) 18 (2.5)	162 (4115) 54 (1372) 31 (14.1) 145 (3341) 135 (217) 205 (28.4)	246 (6248) 55 (1397) 93 (42) 120 (193) 95 (153) 1364 (188.7)	66 (1676) 31 (787) 12.5 (5.7) 165 (266) 140 (225) 40 (18)	112 (2845) 31 (787) 21 (9.5) 150 (241) 130 (209) 66 (30)	200 (5080) 32 (813) 51 (23) 145 (233) 105 (177) 143 (65)

VHF				220 MHz			
<b>Heavy-Duty</b>	Side Mount	Top Mount	Black Anodized	Heavy-Duty	Side Mount	Top Mount	Black Anodized
871F-70HD	871F-70SM	871F-70TM	871F-70HDB	871F-70-220HD	871F-70-220SM	871F-70-220TM	871F-70-220HDB
872F-70HD	872F-70SM	872F-70TM	872F-70HDB	872F-70-220HD	872F-70-220SM	872F-70-220TM	872F-70-220HDB
874F-70HD	874F-70SM	874F-70TM	874F-70HDB	874F-70-220HD	874F-70-220SM	874F-70-220TM	874F-70-220HDB

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#### 160 and 220 MHz EXPOSED DIPOLES

#### 860 Series 160/220 MHz Exposed Dipoles

The 860 Series consists of Dual Band Exposed Dipoles and is available in 1, 2 and 4 dipole configurations. All of our antennas can be completely customized to your particular applications. Our antennas can be black anodized, side mount or top mount, and are available in many versions of heavy-duty ruggedness.

- The 86XF-70 has an internal cabling and fixed dipole-mast spacing.
- Heavy-duty versions are available. Please contact a Comprod Technical support technician for consultation.



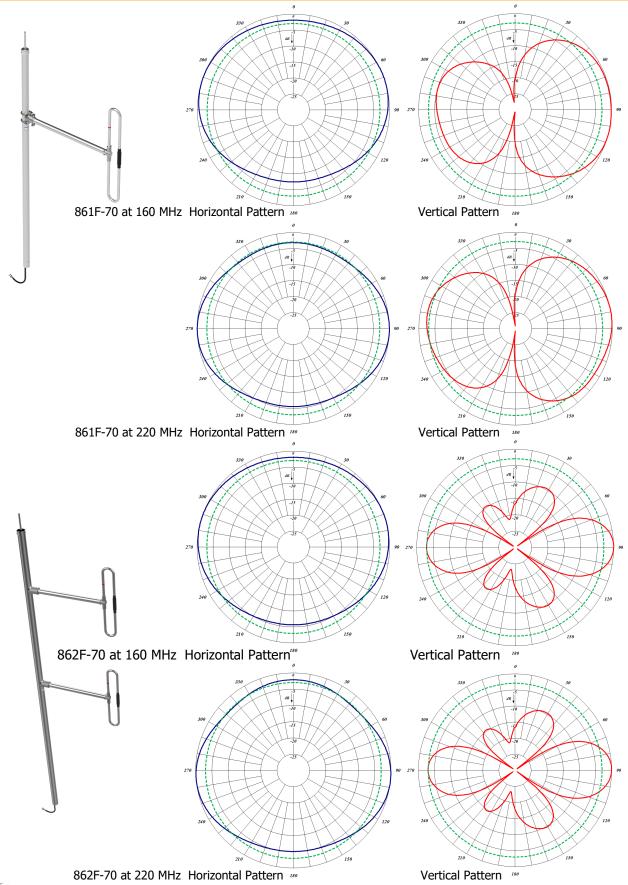
Electrical Specifications	861F-70	862F-70	866F-70SM
Frequency Range, MHz	158-168 and 215-225	158-168 and 215-225	158-168 and 215-225
Nominal Gain, dBd	2.0-2.5	5.0-5.5	5.0-5.5
Number of Elements	1	2	2 sets of 2
Bandwidth: 1.5:1 VSWR, MHz	10	10	10
Polarization	Vertical	Vertical	Vertical
Pattern	Offset	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	861F-70	862F-70	866F-70SM
Length, in (mm)	77 (1975)	112 (2845)	240 (6096)
Width (1/2 Wave Spacing), in (mm)	31 (787)	31 (787)	36 (914)
Weight, lbs (kg)	14.5 (6.5)	21 (9.5)	55 (25)
Rated Wind Velocity, no ice, mph (km/h)	150 (241)	150 (241)	155 (249)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	130 (209)	130 (209)	125 (201)
Lateral Thrust @ 100 mph, wind, lbs (kg)	66 (30)	66 (30)	172 (78)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )	2.6 (0.24)	2.6 (0.24)	5.8 (0.54)
Mounting Information	Mast 1.9" (48 mm)	Mast 1.9" (48 mm)	Mast 2.88" (73 mm)

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#### 770 Series UHF Exposed Dipoles

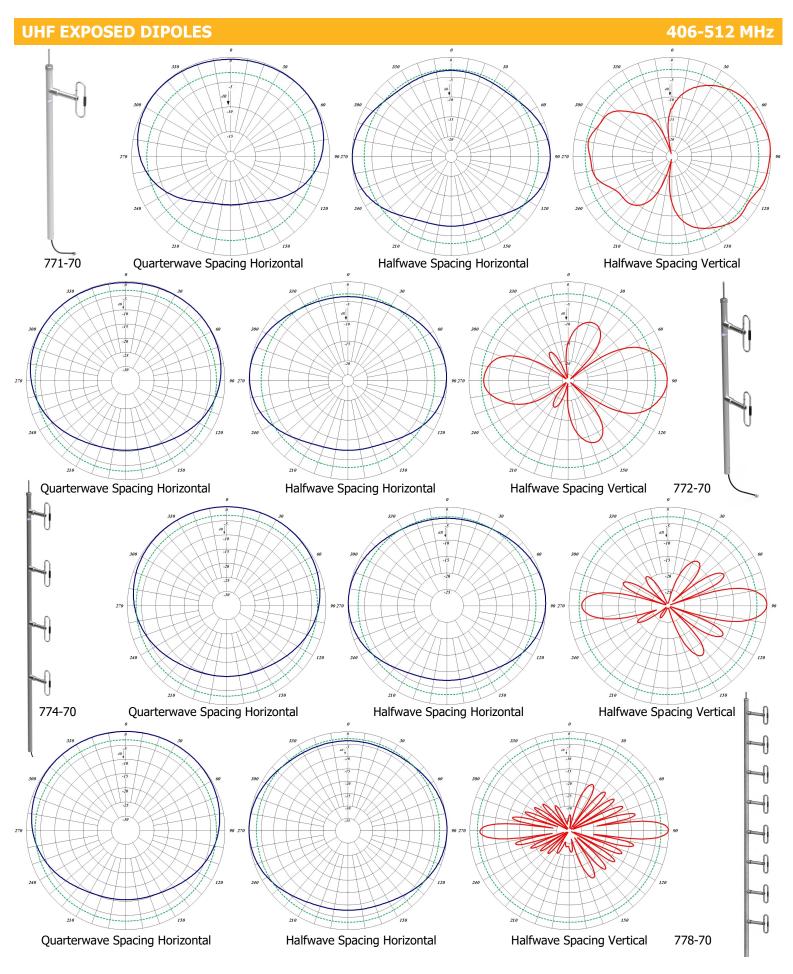
The 770 Series UHF Exposed Dipoles are available in 1, 2, 4, 8 and dual dipole configurations. All of our antennas can be completely customized to your particular applications. Our antennas can be black anodized. Adjustable or fixed, side mount or top mount, and heavy-duty versions are available.

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



<b>Electrical Specifications</b>			771-70	7	72-70	77	4-70	778-7	0
Frequency Range, MHz			406-512 406-512		06-512	406	5-512	406-51	l2
Nominal Gain, dBd			2.0-2.5	5	5.0-5.5	8.0	0-8.5	11.0-11	l <b>.5</b>
Number of Dipoles			1		2		4	8	
Bandwidth 1.5:1 VSWR, MHz			106		106	1	106	64	
Polarization			Vertical	\	/ertical	Ve	rtical	Vertica	al
Pattern			Offset	(	Offset	0	ffset	Offset	t
Power Rating, Watts			75		150	3	300	300	
Nominal Impedance, Ohms			50		50		50	50	
Lightning Protection		D	C Ground	DC	Ground	DC (	Ground	DC Grou	ınd
Standard Termination		Ту	pe N Male	Тур	e N Male	Type	N Male	Type N N	1ale
Mechanical Specifications			771-70	7	72-70	77	4-70	778-7	0
Length, in (mm)		66 (1676)		86	5 (2184)	126	(3200)	210 (53	34)
Width, in (mm)		16 (406)		1	6 (406)	16	(406)	17 (43	2)
Weight, lbs (kg)		8.6 (3.9)		12	2.6 (5.7)	21	(9.5)	52 (23.	.6)
Rated Wind Velocity, no ice, mph (km/h	1)	170 (274)		16	50 (257)	150	(241)	140 (22	25)
Rated Wind Velocity, 0.5" (13 mm) ice,	mph (km/	145 (233)		13	35 (217)	120	(193)	105 (16	59)
Lateral Thrust @ 100 mph, wind, lbs (k	g)	27 (12.3)		39	9 (17.8)	64	(29)	134 (6	1)
Bending Moment @ top clamp: 100 mp (kg*m)	h, ft*lb	33.5 (4.6)		7	72 910)	177	(24.5)	655 (9	1)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )			1 (0.09)	1.	5 (0.14)	2.4	(0.23)	5.1 (0.4	72)
Order Information	Side Mou	ınt	Top Moun	t F	leavy-Duty	We	elded	Black Ano	dized
771-70	771-70S	М	771-70TM		771-70HD	771-	70HDW	771-70H	DB
772-70	772-70S	М	772-70TM		772-70HD	772-	70HDW	772-70H	DB
774-70	774-70S	М	774-70TM		774-70HD	774-	70HDW	774-70H	DB
778-70	778-70S	М	778-70TM		778-70HD	778-	70HDW	778-70H	DB

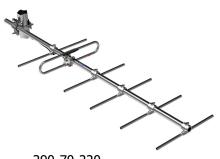




#### 290 Series VHF or 220 MHz Yagi Antennas

The 290 Series VHF or 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.
- Have the entire antenna welded for added durability as an option.
- Heavy-duty versions available. Contact Comprod Inc. Technical support for details.



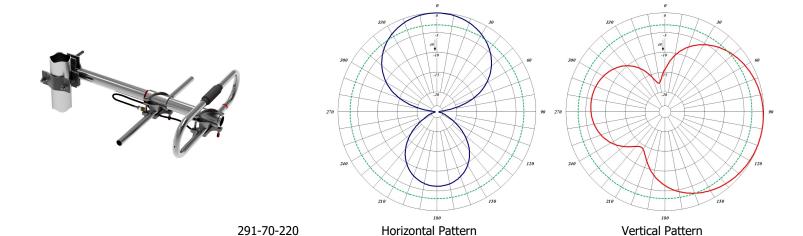
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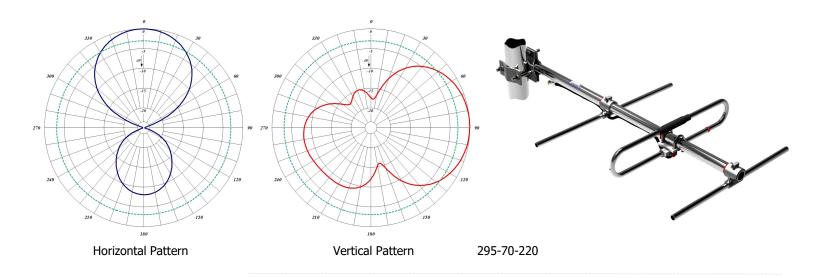
Electrical Specifications	291-70	295-70	290-70	291-70-220	295-70-220	290-70-220
Frequency Range, MHz	138-174	138-174	138-174	215-225	215-225	215-225
Nominal Gain, dBd	3.5	6.5	9.5	3.5	6.5	9.5
Number of Elements	2	3	6	2	3	6
Bandwidth 1.5:1 VSWR, MHz (Center Freq.%)	3.75	4	4	10	10	10
Polarization	V or H					
Horizontal Beamwidth (Vert. Pol.)	140°	900	62°	140°	900	62°
Vertical Beamwidth (Vert. Pol.)	70°	61°	50°	70°	36°	50°
Front to Back, dBd	15	12	17	15	12	17
Pattern	Directional	Directional	Directional	Directional	Directional	Directional
Power Rating, Watts	350	350	350	350	350	350
Nominal Impedance, Ohms	50	50	50	50	50	50
Lightning Protection	DC Ground					
Standard Termination	Type N Male					
Mechanical Specifications	291-70	295-70	290-70	291-70-220	295-70-220	290-70-220
Length, in (mm)	50 (1270)	60 (1524)	108 (2743)	32 (813)	48 (1219)	84 (2134)
Width (1/2 Wave Spacing), in (mm)	40 (1016)	43 (1092)	42 (1067)	29 (737)	28 (711)	27 (686)
Weight, lbs (kg)	4.8 (2.2)	6.5 (2.9)	12.0 (5.4)	3.7 (1.7)	4.8 (2.2)	9.0 (4.1)
Rated Wind Velocity, no ice, mph (km/h)	150 (241)	145 (223)	120 (177)	165 (266)	155 (249)	145 (233)
Rated Wind Velocity, 0.5" (13mm) ice, mph (km/h)	105 (169)	100 (161)	85 (137)	145 (233)	130 (209)	100 (161)
Lateral Thrust @ 100 mph, wind, lbs (kg)	105 (169)	100 (161)	85 (137)	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)	1.1 (0.10)	1.4 (0.13)	2.4 (0.22)	0.7 (0.07)	1.0 (0.09)	1.75 (0.16)
Mounting Information, Clamp	181-85	181-85	115-85	181-85	181-85	115R-85

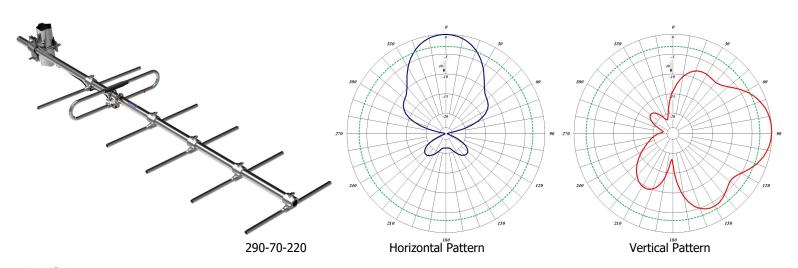
VHF			220 MHz					
End Mount	Welded	Heavy-Duty	Black Anodized	End Boom	Welded	Heavy-Duty	Black Anodized	
291-70	291-70W	291-70HD	291-70B	291-70EB-220	291-70W-220	291-70HD-220	291-70HDB-220	
295-70	295-70W	295-70HD	295-70B	295-70EB-220	295-70W-220	295-70HD-220	295-70HDB-220	
290-70	290-70W	290-70HD	290-70B	290-70EB-220	290-70W-220	290-70HD-220	290-70HDB-220	



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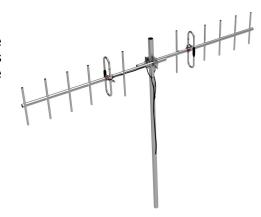




#### F-33324 Back to Back Dual Yagi Antenna Array

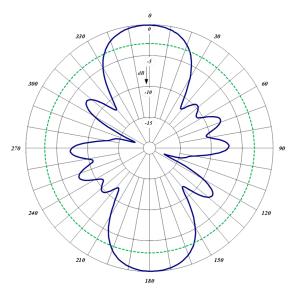
The F-33324 is a dual Yagi array mounted in a back to back configuration. The antennas are welded and are supplied with phasing harness. All of our antennas can be completely customized to your particular applications. Our antennas can be vertically or horizontally polarized.

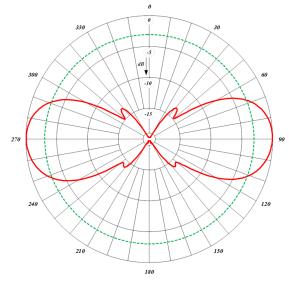
- Each antenna has a rugged design to withstand harsh environmental conditions.
- The mounting hardware supplied will permit either vertical or horizontal polarization.
- DC ground for lightning protection
- Heavy-duty versions are available. Please contact a Comprod Inc. Technical support technician 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.)	470
Vertical Beamwidth (Vert. Pol.)	430
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

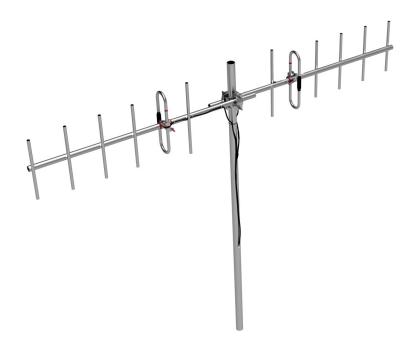






Horizontal Pattern

Vertical Pattern

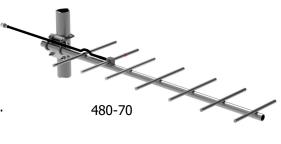


UHF YAGI ANTENNA 406-512 MHz

#### **UHF Yagi Antennas Series**

The UHF Yagi Antenna Series is available in 2, 3, 7 elements 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 conditions.
- The mounting hardware supplied allows either vertical or horizontal polarization.
- DC ground for lightning protection
- All UHF Yagi antennas are fully welded.

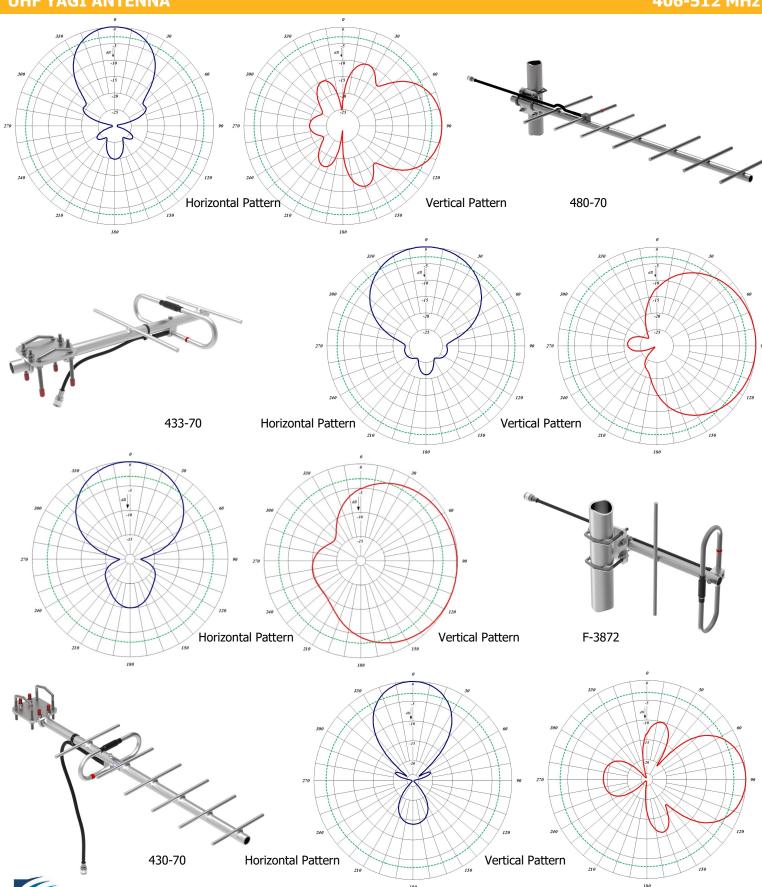


<b>Electrical Specification</b>	S		F-3872		43	3-70		430-70	480-70
Frequency Range, MHz			406-512		406	5-512	4	406-512	406-470
Nominal Gain, dBd			3.5		6	5.5		10.0	10.0
Number of Elements			2			3		7	7
Bandwidth 1.5:1 VSWR, M	1Hz (Center Fr	eq.%)	24		2	24		24	64
Polarization			Vert. or Hori	z.	Vert. o	or Horiz.	Ver	t. or Horiz.	Vert. or Horiz.
Horizontal Beamwidth (Ve	rt. Pol.)		138°		8	30		62°	62°
Vertical Beamwidth (Vert.	Pol.)		72°		5	90		48°	50°
Front to Back, dBd			10			12		20	17
Pattern			Directional		Direc	ctional	D	irectional	Directional
Power Rating, Watts			350		3	50		350	350
Nominal Impedance, Ohm	IS		50		Į	50		50	50
Lightning Protection			DC Ground	I	DC G	Ground	D	C Ground	DC Ground
Standard Termination			Type N Mal	e	Type	N Male	Ту	pe N Male	Type N Male
<b>Mechanical Specification</b>	ons		F-3872		43	3-70		430-70	480-70
Length, in (mm)			28 (711)		23	(584)	4	5 (1143)	45 (1143)
Width (1/2 Wave Spacing	), in (mm)		14.5 (368)		14	(355)	1	4.5 (368)	14.4 (366)
Weight, lbs (kg)			2.8 (1.3)		2.9	(1.3)	3	3.9 (1.8)	3.9 (1.8)
Rated Wind Velocity, no id	ce, mph (km/h	)	160 (257)		160	(257)	1	50 (241)	150 (241)
Rated Wind Velocity, 0.5" h)	(13 mm) ice,	mph (km/	120 (193)		120 (193)		1	10 (177)	110 (177)
Lateral Thrust @ 100 mph	n, wind, lbs (kg	1)	9 (4.1)		8.7	(4.0)		16 (7.3)	15 (6.8)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )			0.34 (0.03)	)	0.32	(0.03)	0.	61 (0.06)	0.55 (0.05)
Mounting Information Mas	st O.D.		127-85 Clam	пр	127-8	5 Clamp	127	7-85 Clamp	127-85 Clamp
Order	406-430	430-450	450-470	40	6-470	Black	<b>C</b>	(2) Stacked	(4) Stacked

Order Information	406-430	430-450	450-470	406-470	Black	(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



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

#### 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.



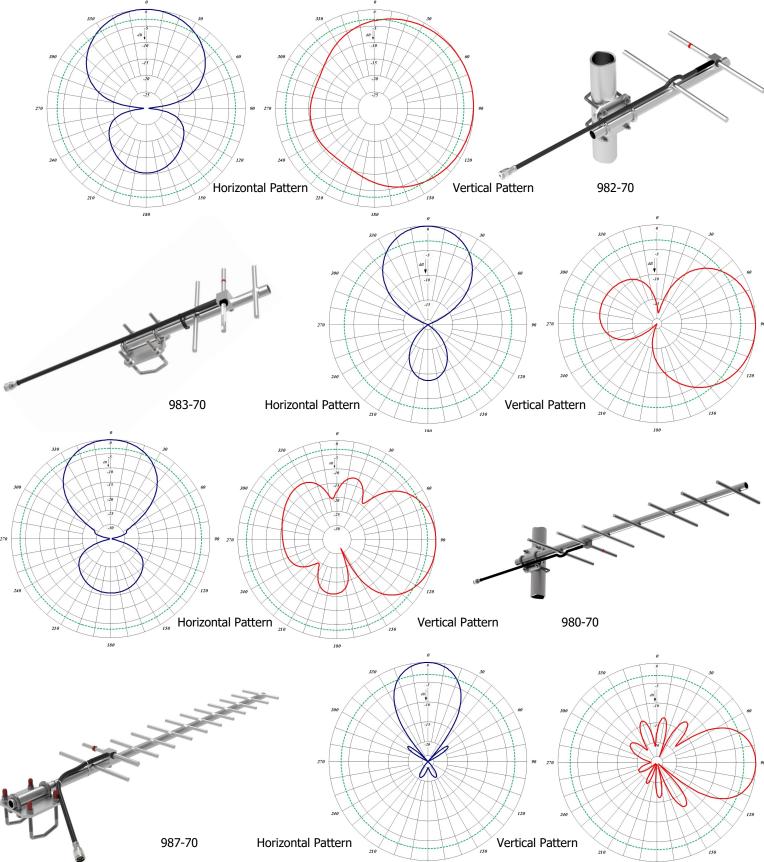
<b>Electrical Specifications</b>	982-70	983-70	980-70	987-70
Frequency Range, MHz	900-930	746-960	746-960	746-960
Nominal Gain, dBd	3.5	6.5	10.0	12.0
Number of Elements	2	3	7	12
Bandwidth 1.5:1 VSWR, MHz (Ctr. Freq.%)	30	85	85	85
Polarization	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.	Vert. or Horiz.
Horizontal Beamwidth (Vert. Pol.)	128°	990	56°	410
Vertical Beamwidth (Vert. Pol.)	66°	60°	420	38°
Front to Back, dBd	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" (13 mm) ice, mph (km/	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, ft <sup>2</sup> (m <sup>2</sup> )	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	746-806 MHz	806-869 MHz	824-896 MHz	896-960 MHz	Black	(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



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**980 YAGI ANTENNA** 746-960 MHz



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#### 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.

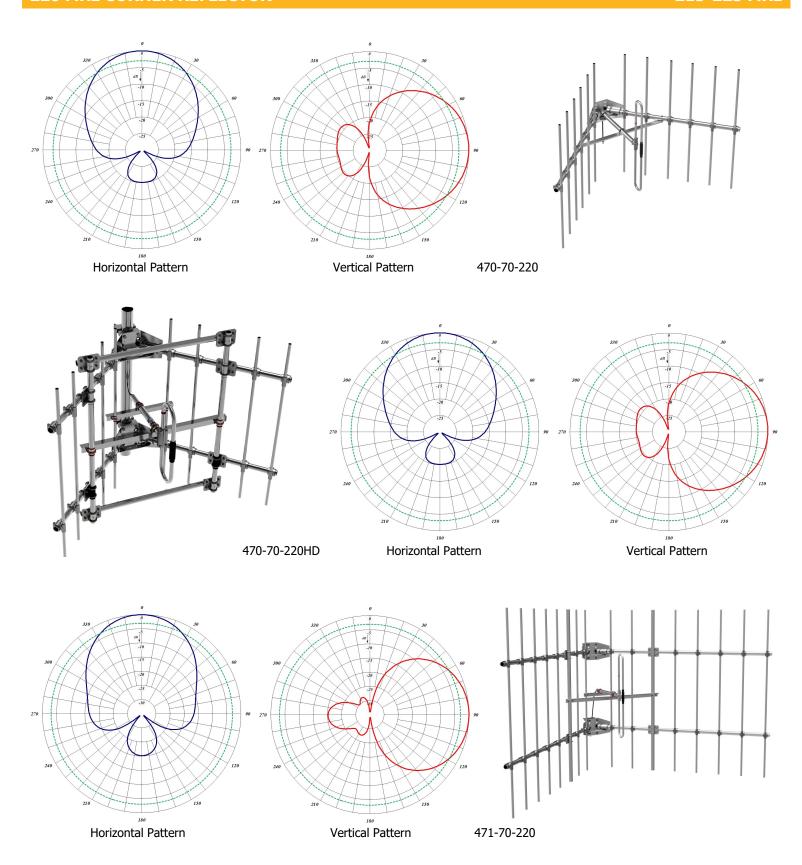
- Each antenna has a rugged design to withstand harsh environmental conditions.
- Single or dual dipole mounted in the front of a 90° reflector, providing good directivity and a very high front-to-back ratio
- The 365-70 and 965-70 are highly directive parabolic antennas consisting of a back-firing dipole reflector assembly for increased gain and directivity.
- $\bullet$  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, contact Comprod Inc. Technical support.



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, 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
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" (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, 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.	2.9 (73)	2.9 (73)	2.9 (73)



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





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

#### **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.

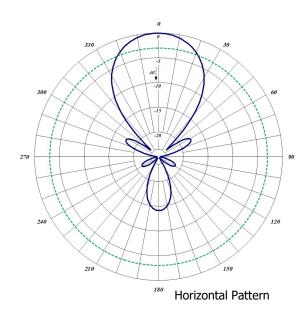
- Each antenna has an extremely rugged design to withstand harsh environmental conditions.
- The mounting hardware supplied will permit either vertical or horizontal polarization.
- The 490 Series Yagi antennas are fully welded.
- DC ground for lightning protection

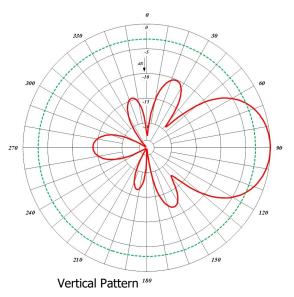


490-70

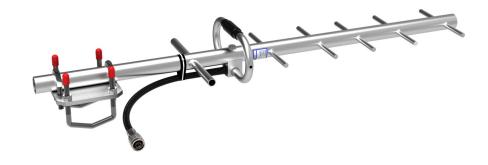
<b>Electrical Specification</b>	ons				490-70			
Frequency Range, MHz				806-960				
Nominal Gain, dBd					10.0			
Number of Elements					7			
Bandwidth: 1.5:1 VSWR	R, MHz				85			
Polarization					Vert. or Horiz.			
Horizontal Beamwidth (	Vert. Pol.)				56°			
Vertical Beamwidth (Ve	rt. Pol.)				42°			
Front to Back, dBd					20			
Pattern					Directional			
Power Rating, Watts					200			
Nominal Impedance, Or	nms			50				
Standard Termination				Type N Male				
Mechanical Specifica	tions				490-70			
Length, in (mm)				27 (686)				
Width (1/2 Wave Spacir	ng), 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" (13 mm) ice, mph (	(km/h)			150 (241)			
Lateral Thrust @ 100 m	ph, wind, lbs (kg)			38 (17)				
Bending Moment @ top	clamp: 100 mph, ft*ll	b (kg*m)		13 (1.8)				
Projected Area, ft² (m²)	)			0.4 (0.04)				
Mounting Hardware				1.0-2.38" O.D.				
Order Information	806-869 MHz	824-896 MHz	89	6-960 MHz	Black Anodized	(2) Stacked		
490-70	490-70*1	490-70*2		490-70*3	490-70B	491-70		







490-70



#### **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.

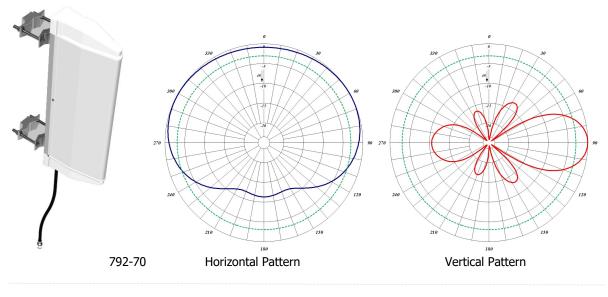


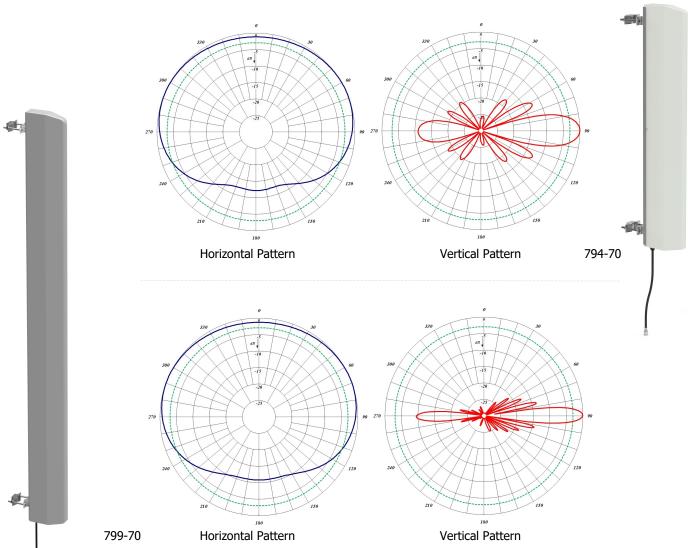
Electrical Specifications	792-70	794-70	799-70
Frequency Range, MHz	746-960	746-960	746-960
Nominal Gain, dBd	5.0	8.0	10.0
Number of Dipoles	2	4	9
Bandwidth 1.5:1 VSWR, MHz	90	90	90
Polarization	Vertical	Vertical	Vertical
Pattern	Offset or Bi-Dir.	Offset or Bi-Dir.	Offset or Bi-Dir.
Power Rating, Watts	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
Mechanical Specifications  Length, in (mm)	<b>792-70</b> 22 (559)	<b>794-70</b> 44.5 (1130)	<b>799-70</b> 94 (2388)
Length, in (mm)	22 (559)	44.5 (1130)	94 (2388)
Length, in (mm) Width (1/2 Wave Spacing), in (mm)	22 (559) 2.5 (64)	44.5 (1130) 2.5 (64)	94 (2388) 2.5 (64)
Length, in (mm) Width (1/2 Wave Spacing), in (mm) Weight, lbs (kg)	22 (559) 2.5 (64) 8.8 (4)	44.5 (1130) 2.5 (64) 14 (6.5)	94 (2388) 2.5 (64) 24 (11)
Length, in (mm) Width (1/2 Wave Spacing), in (mm) Weight, lbs (kg) Rated Wind Velocity, no ice, mph (km/h)	22 (559) 2.5 (64) 8.8 (4) 100 (162)	44.5 (1130) 2.5 (64) 14 (6.5) 100 (162)	94 (2388) 2.5 (64) 24 (11) 100 (162)
Length, in (mm) Width (1/2 Wave Spacing), in (mm) Weight, lbs (kg) Rated Wind Velocity, no ice, mph (km/h) Rated Wind Velocity, 0.5" (13 mm) ice, mph (km/	22 (559) 2.5 (64) 8.8 (4) 100 (162) 85 (137)	44.5 (1130) 2.5 (64) 14 (6.5) 100 (162) 85 (137)	94 (2388) 2.5 (64) 24 (11) 100 (162) 85 (137)

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

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#### **RADOME YAGI ANTENNA**

#### **Radome Yagi Antennas Series**

The Radome Yagi Antenna Series are available in UHF and 700/800/900 MHz configurations. The UHF model is offered with a fiberglass or PVC radome. The 700/800/900 MHz model is offered in PVC. 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



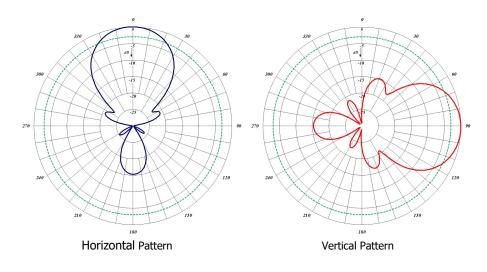
Electrical Specifications		425-70		426-70		490-70R
Frequency Range, MHz		406-512		4	06-512	746-960
Nominal Gain, dBd		10		10		10
Number of Elements		Loop Yagi		Lo	op Yagi	7
Bandwidth: 1.5:1 VSWR, MHz		20			20	72
Polarization		Vert. or Horiz		Vert	. or Horiz.	Vert. or Horiz.
Horizontal Beamwidth (Vert. Pol.)		62°			62°	56°
Vertical Beamwidth (Vert. Pol.)		480			480	42°
Front to Back, dBd		20			20	20
Pattern		Directional		Dii	rectional	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)		12	20 (193)	150 (241)
Rated Wind Velocity, 0.5" (13 mm) ice, n		105 (169)			.0 (177)	115 (185)
Lateral Thrust @ 100 mph, wind, lbs (kg)		69 (31.3)			l (27.7)	47.4 (21.5)
Projected Area, ft <sup>2</sup> (m <sup>2</sup> )		2.6 (0.24)			3 (0.21)	1.8 (0.17)
Mounting Information		2.9" O.D.			4" O.D.	2.9" O.D.
Order Information	(2) Stacked	(4) Stacked		-430	430-450	450-470
425-70	2*425-70	4*425-70		-70*1	425-70*2	425-70*3
426-70 490-70R	2*426-70 2*490-70R	4*426-70 4*490-70R		-70*1	426-70*2	426-70*3
490-70R	2"49U-/UK	4"49U-/UK	IN	I/A	N/A	N/A



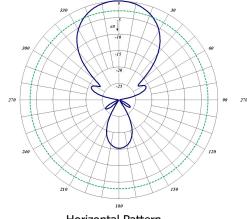
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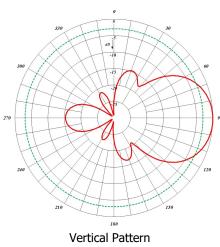
#### **RADOME YAGI ANTENNA**





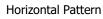




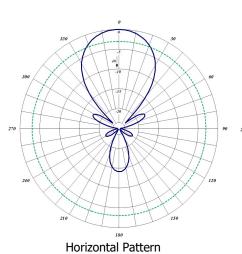


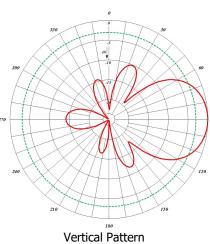
426-70

425-70









490-70R



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Our 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.

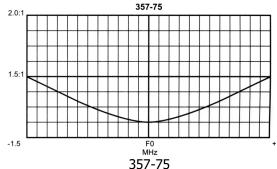
The 358-75 and 364-75 models are a high strength cast aluminum designs. The antennas can be coated for additional protection against harsh environmental conditions. To ensure a moisture proof installation, the 358-75 and 364-75 models are supplied with an O-ring.

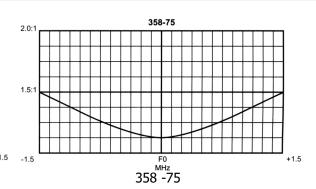


Electrical Specifications	357-75-ABS	358-75	364-75
Nominal Gain	Unity	Unity	Unity
Maximum Power, Watts	150	150	150
Frequency Range, MHz	148-174	138-174	215-225
Bandwidth VSWR: 1.5:1, MHz	3.0	3.0	10
Bandwidth VSWR: 2.0:1. MHz	4.5	4.5	N/A
Nominal Impedance, Ohms	50	50	50
Radiation Pattern	Omni	Omni	Omnidirectional
Polarization	Vertical	Vertical	Vertical
Radome Material	High Impact ABS	N/A	N/A
Connector	UHF / BNC / N Female	UHF / BNC / N Female	UHF Female
Height, in (mm)	4 (102)	4 (102)	4.25 (108)
Length, in (mm)	21 (533)	23-1/2 (597)	17 (432)
Width, in (mm)	3 (76)	2-1/8 (54)	2 (51)
Weight, lbs (kg)	2.1 (0.945)	6 (2.7)	5 (2.268)
Minimum Ground Plane Size, in (mm)	36 x 48 (914 x 1219)	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







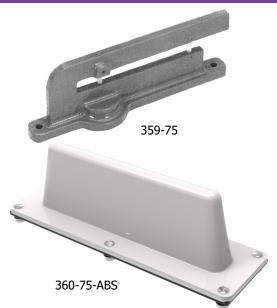
Tel: US 1.877.825.2007 / CAN 1.800.603.1454 Email: sales@comprodcom.com

Our 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.

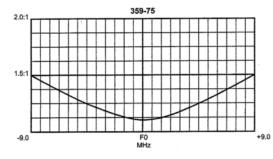
The model 360-75-ABS is a folded 1/4 wavelength section of aluminum tube housed in an impact resistant ABS radome. To ensure a moisture proof installation, the model 360-75-ABS is supplied with a mounting gasket.

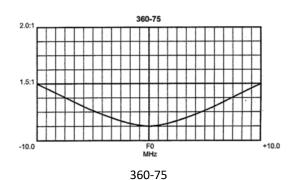


Electrical Specifications	359-75	360-75-ABS
Nominal Gain	Unity	Unity
Maximum Power, Watts	125	125
Frequency Range, MHz	406-512	406-512
Bandwidth VSWR: 1.5:1, MHz	18	20
Bandwidth VSWR: 2.0:1, MHz	27	40
Nominal Impedance, Ohms	50	50
Radiation Pattern	Omnidirectional	Omnidirectional
Polarization	Vertical	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







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Our line of radome transit antennas for operation in the 806-960 MHz band consists of compact, low profile antennas in weatherproof ABS radomes. When mounted on a horizontal surface, maximum radiation is omnidirectional and vertically polarized.

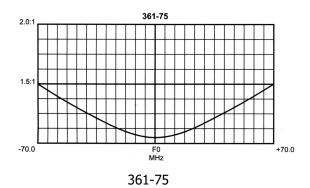
These antennas are an excellent choice for low clearance applications such as those found on trains, mass transit vehicles, construction equipment and police and emergency vehicles.

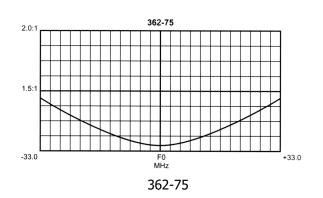
The 361-75-ABS model is a space diversity design that provides greater communication reliability in a poor environment. To ensure a moisture proof installation, the 361-75-ABS model is supplied with an O-ring.

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.



<b>Electrical Specifications</b>	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)







F-33370 Filter 216-222 MHz

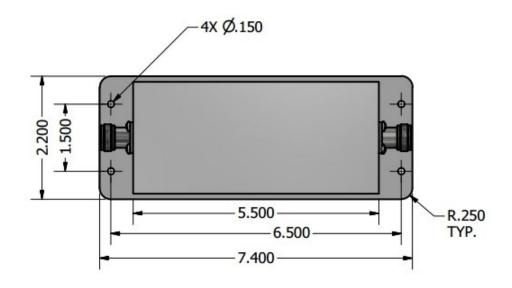
The F-33370 Filter is designed to pass frequencies between 216 and 222 MHz while at the same time rejecting VHF frequencies that are below 160 MHz. With an insertion loss of less than 1 dB, this filter will reject VHF frequencies at -60 dB or more.

- Small physical size
- Excellent performance, low VSWR, low insertion loss
- High power, can handle 100 Watts
- Totally maintenance free



Electrical Specifications	
Frequency Range, MHz	216-222
Insertion Loss, dB	=< 1
Return Loss, dB	=> 20
Rejection, dB	=> 60 @ 160 MHz
Power, Watts	100
Connectors (Both Ends)	N Female
Temperature, °C	-30 to +60

Mechanical Specifications	
Length, in	7.4
Width, in	2.2
Height, in	1.2
Mounting Hole Size, in	.15





#### **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 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
- $\bullet$  High Attenuation Minimizes desense and interference from adjacent systems
- Available in a 220 MHz version

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	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
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.





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#### **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 -40°C to +60°C. 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 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
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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#### **4-INCH CAVITY DUPLEXERS**

#### 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 -40°C to +60°C. Each cavity has a gold alodine finish, silver plated loops, and silver plated tuning rods.



- 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
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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#### **2-INCH CAVITY FILTER**

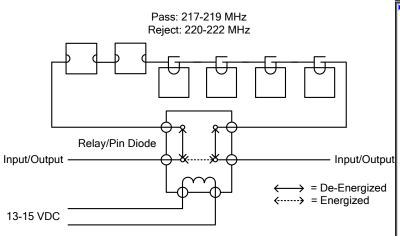
#### 2" Cavity Filter

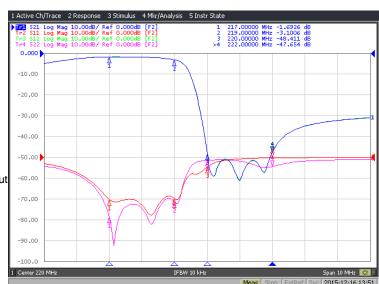
Our 2" filters are ideal for compact high isolation installations. These filters are designed for the isolation of two frequencies or can be used as efficient pre-selectors. Available in either 4 or 6 cavity configurations if higher levels of isolation are required. Each cavity is temperature compensated for operation between -40°C to +60 °C. Each cavity has a gold alodine finish, silver plated loops, and silver plated tuning rods.



4-cavity version

Electrical Specifications	
Frequency Range, MHz	215-222
Frequency Spacing Min., MHz	1
Cavities, Diameter, in	(6) - 2" Square
Continuous Power Input, Watts	100
Connectors	N Female
Insertion Loss, dB	3.2
Channel Isolation @ Min. Sep. dB	50
VSWR	1.22:1
Temperature, °C	-40 to +60







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#### **3-INCH CAVITY DUPLEXER**

#### 3" Cavity Band Pass Duplexer VHF/220

For use with Comprod single feed line of dual band antenna. Our 3" 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. 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.

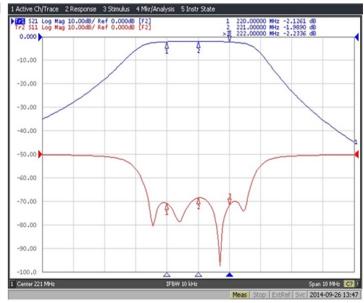


Electrical Specifications	
Frequency Range, MHz	144-222
Frequency Spacing Min., MHz	8
Cavities, Diameter, in	(7) - 3" Square
Continuous Power Input, Watts	125
Connectors	N Female
Insertion Loss, dB	2.2
Channel Isolation @ Min. Sep. dB	90
VSWR	1.5:1
Temperature, °C	-40 to +60
Mechanical Specifications	
Mounting	19" Rack
Dimensions, in (W, H, D)	19 x 7 x 7
Weight, lbs	15

#### Antenna to 160-162 MHz Port

# | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 | 10.0000 |

#### Antenna to 220-222 MHz Port







#### **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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