

140-174 MHz and 220-222 MHz Broadband Arrays

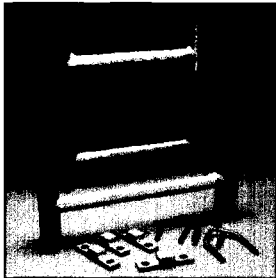
Rugged enough to withstand nature's best shots!

When we say heavy-duty, we mean heavy-duty. With 2 inch schedule 40 aluminum pipe, our antennas boast a wind survivability of up to 100 mph (161 kph). They can take it!

We painstakingly weatherproof and DC ground them for lightning protection. Choose your radiation pattern, from omnidirectional to offset/elliptical. See pages 12 and 13.

MOUNTAIN TOPPERS

- Heavy-duty construction
- 2-3/8 inch diameter mast
- Molded harness joints
- DC grounded
- Unique 50 Ohm dipole
- Adjustable pattern



SMK side-mount kit

This is all you need to mount these antennas alongside your tower. Galvanized clamps and hardware along with stainless U-bolts assure longevity. Kit includes base mount and top sway brace. Use with pipe up to 3 inches (7.6 cm).

Mountain Toppers 140-174 MHz and 220-222 MHz 6.2 / 9.2 dBd Gain, 4 Elements

A 2-3/8 inch (6 cm) diameter heavy-duty mast means real strength and durability. The 3/8 inch (.95 cm) heavy-wall elements are mounted on 1 inch (2.54 cm) diameter support booms. Harness joints are injection molded with polypropylene to eliminate moisture penetration.

Mountain Toppers have 6.2 dB omni gain or 9.2 dB offset gain. They are shipped fully assembled and are easily installed. Simply align the top and bottom sections, then insert and tighten the stainless steel bolts.

Super Mountain Topper 140-174 MHz and 220-222 MHz - 9.2 / 12.2 dBd Gain, 8 Elements

The larger version of the Mountain Topper described above, it features a 9.2 dB omni gain, a 12.2 dB offset gain and boasts the same Cushcraft/Signals quality features and dependability as the 1504S. It must be side mounted using the Cushcraft/Signals SMK side mount kit.

Four Pole PF Series 6.0 / 9.0 dBd Gain

These economy models were designed with through-the-boom element mounting for greater strength and electrical bonding to prevent noise generation. They are designed by Cushcraft/Signals to insure the proper alignment for precise radiation patterns and reduced windload.

VHF BROADBAND ARRAY SELECTOR CHART

Model	Freq. MHz	Omni		Conn. Type (male)	VSWR (nominal)	Vertical		W/surv. mph (kph)	W/ 1/2" ice mph(kph)	Length ft (m)	Weight lb (kg)
		Gain dBd	Offset Gain dBd			Bmwdth degrees	sur. area f ² (m ²)				
1404S	140-150	6.2	9.2	N	1.5:1	15	4.9 (0.45)	100 (161)	74 (119)	21 (6.4)	34 (15.5)
1408S	140-150	9.2	12.2	N	1.5:1	7	7.3 (0.68)	100 (161)	74 (119)	42 (12.8)	73 (33.2)
1502S	150-160	3.2	6.2	N	1.5:1	32	2.8 (0.26)	100 (161)	74 (119)	11 (3.4)	19 (8.5)
1504P	150-160	6.8	8.0	N	1.5:1	13	5.9 (0.55)	100 (161)	74 (119)	22 (6.7)	38 (17.1)
1504S	150-160	6.2	9.2	N	1.5:1	14	4.9 (0.45)	100 (161)	74 (119)	22 (6.7)	34 (15.5)
1508S	150-160	9.2	12.2	N	1.5:1	7	7.3 (0.68)	100 (161)	74 (119)	42 (12.8)	73 (33.2)
1554P	155-165	6.8	8.0	N	1.5:1	13	5.6 (0.52)	100 (161)	74 (119)	22 (6.7)	38 (17.1)
1554S	155-165	6.2	9.2	N	1.5:1	15	4.9 (0.45)	100 (161)	74 (119)	22 (6.7)	34 (15.5)
1558S	155-165	9.2	12.2	N	1.5:1	7	7.3 (0.68)	100 (161)	74 (119)	42 (12.8)	73 (33.2)
1644S	164-174	6.2	9.2	N	1.5:1	15	4.9 (0.45)	100 (161)	74 (119)	21 (6.4)	34 (15.5)
1648S	164-174	9.2	12.2	N	1.5:1	15	4.9 (0.45)	100 (161)	74 (119)	21 (6.4)	34 (15.5)
2204S	220-222	6.2	9.2	N	1.5:1	14	3.3 (0.31)	100 (161)	74 (119)	15 (4.6)	24 (10.5)

Common Specifications: Power handling - 500 Watts; Element - 6063-T832 3/8 in. (.95 cm) aluminum folded dipole; Mast - 2 in (5.1 cm) Schedule 40 aluminum; Harness - RG8/RG11; Maximum mast diameter - 2-3/4 in (7.0 cm).

VHF FOUR POLE SELECTOR CHART

Model	Freq. MHz	Omni		Conn. Type (male)	VSWR (nominal)	Vertical Bmwdth degrees	W/sur. area f ² (m ²)	W/surv. mph (kph)	Length ft (m)	Weight lb (kg)
		Gain dBd	Offset Gain dBd							
PF-156DA	150-160	6.0	9.0	UHF	1.5:1	15	2.6 (0.23)	Depends on mast	32.5 (9.9)	21 (6.4)
PF-167DA	160-174	6.0	9.0	UHF	1.5:1	15	2.6 (0.23)	Depends on mast	30.8 (9.4)	21 (6.4)
PF-226DA	220-222	6.0	9.0	UHF	1.5:1	15	2.3 (0.21)	Depends on mast	22.5 (6.86)	14 (4.3)

Common Specifications: Power handling - 250 Watts; Element - 6063-T832 1/2 in (1.3 cm) aluminum straight dipole; Harness - RG59; Maximum mast diameter - 2.0 in (5.1 cm).

PF-156DA

1504S



For typical radiation patterns, see page 12 and 13

These 150-174 MHz / 220-222 MHz dipoles have fixed 50 Ohm gamma feed and are interconnected with encapsulated junction phasing harness. Support brackets are crafted of heavy gauge formed aluminum with 2 in. (5 cm) zinc-plated U-bolts. Elements mount for omnidirectional or elliptical coverage.

Four poles offer 6 dBd omni gain or 9 dB offset gain, which can be increased by stacking. Attach our UPS-shippable four pole to your mast or to a tower. (Antenna mast not included.)