



Public Safety & Critical Communications

Catalog

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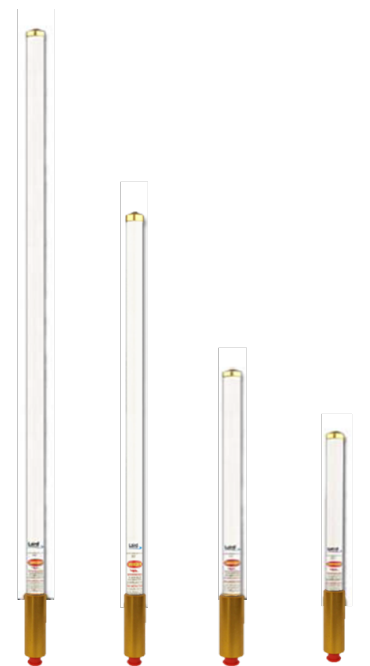
Omnidirectional UHF Base Station Antenna (360 - 512 MHz)

Electrical Characteristics

Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	2.0:1
Horizontal Beam Width (Azimuth)	360°
Input Power (W)	200
Impedance	50
Electrostatic Discharge Protection	Grounding

Mechanical Characteristics

Connectory Type	N-Female
Radiator Material	Copper Coated
Radome Material	Fiberglass
Base and Cap Material	Gold-anodized Aluminum
Color	White
Maximum Wind Resistance (KM/H)	201
Operating Temperature(°C)	-35 - 80
Diameter (cm)	3.33
Mounting (Optional)	FM2



FG4507 FG4505 FG4503 FG4500

- **High-density fiberglass:** Very durable
- **Collinear design with J-pole style element:** High performance
- **Doesn't require adjustment in the field:** Broadband 4 MHz
- **Treated for UV:** Resists sun damage
- **Fully tested with an analyzer:** Ensures the best performance
- **Gold anodized aluminum base and cap:** Will not oxidize

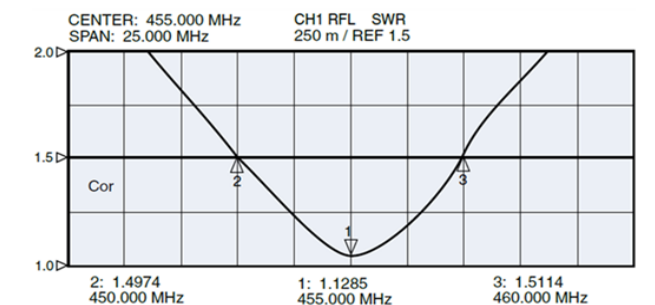
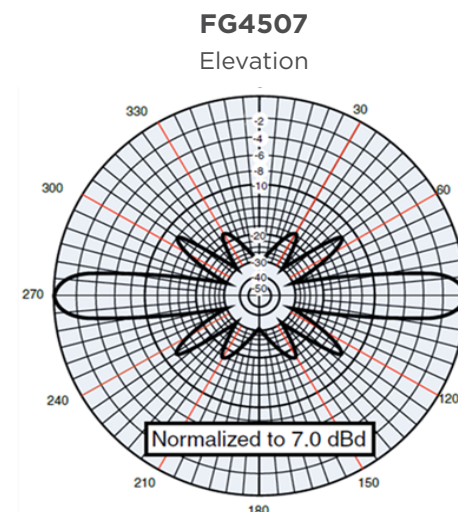
Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Adjusted Band (MHz)	Vertical Beam Width	Height (cm)	Weight (kg)
360-380	FG3600	2	370	75	66	2.72
	FG3603	5	370	33	112	2.72
380-406	FG3800	2	385	75	66	2.72
	FG3803	5	385	33	112	2.72
406-416	FG4060	2	411	75	66	2.72
	FG4063	5	411	33	112	2.72
	FG4065	7	411	20	193	2.72
410-430	FG4100	2	420	75	66	2.72
410-420	FG4103	5	415	33	112	2.72
420-430	FG4203	5	425	33	112	2.72
	FG4205	7	425	20	193	2.72
430-450	FG4300	2	440	75	66	2.72
430-440	FG4303	5	435	33	112	2.72
	FG4305	7	435	20	193	2.72

Ordering Information (Cont'd)

Frequency (MHz)	Part #	Gain (dBi)	Adjusted Band (MHz)	Vertical Beam Width	Height (cm)	Weight (kg)
440-450	FG4400	2	445	75	66	2.72
	FG4403	5	445	33	112	2.72
	FG4405	7	445	20	193	2.72
450-470	FG4500	2	460	75	66	2.72
	FG4500PL	2	460	75	66	2.72
450-460	FG4503	5	455	33	112	2.72
	FG4505	7	455	20	193	2.72
450-470	FG4505W	7	460	20	193	2.72
450-460	FG4507	9	455	14	272	3.62
460-470	FG4603	5	465	33	112	2.72
	FG4605	7	465	20	193	2.72
	FG4607	9	465	14	272	3.62
470-490	FG4700	2	480	75	66	2.72
470-480	FG4705	7	475	20	193	2.72
	FG4707	9	475	14	272	3.62
480-490	FG4803	5	485	33	112	2.72
	FG4805	7	485	20	193	2.72
	FG4807	9	485	14	272	2.72
490-500	FG4900	2	495	75	66	2.72
	FG4903	5	495	33	112	2.72
	FG4905	7	495	20	193	2.72
	FG4905PL	7	495	20	193	2.72
	FG4907	9	495	14	272	3.62
500-512	FG5003	5	506	33	112	2.72
	FG5005	7	506	20	193	2.72

Radiation Patterns



FR Series

Omnidirectional UHF Base Station Antenna (380 - 490 MHz)

Electrical Characteristics

Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	1.5:1
Horizontal Beam Width (Azimuth)	360°
Input Power (W)	150
Impedance	50
Electrostatic Discharge Protection	Grounding

Mechanical Characteristics

Connectory Type	N-Female
Cable Length (cm)	30.5
Radome Material	Fiberglass
Finish	White
Maximum Wind Resistance (KM/H)	200



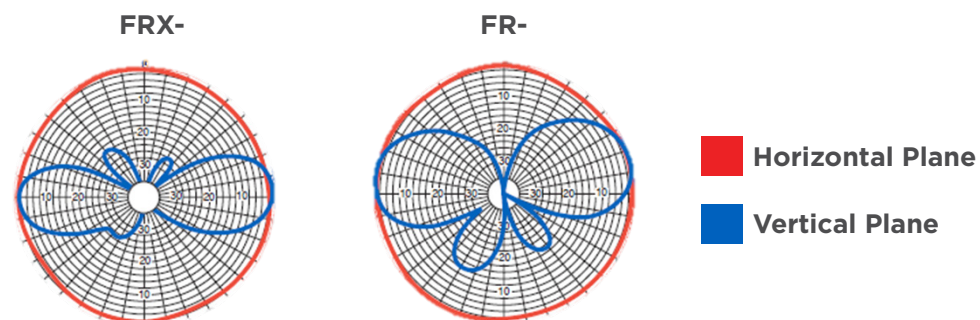
FRX380 FRX450 FR450

- **Low-profile fiberglass antenna:** Blends in to surroundings
- **Environmental resistance:** UV protection, built-in discharge, and excellent weather resistance
- **Effortless installation:** Comes fully assembled and does not require field adjustment or ground plane
- **Durable:** Highly reliable brass radiator
- **Selectable gain:** 3 dBi and 5dBi models
- **Mount included:** 30.3 cm cable with insulated N-Female connector
- **Mount included:** 30.3 cm cable with insulated N-Female connector

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Adjusted Band (MHz)	Vertical Beam Width	Height (cm)	Weight (kg)
380-400	FRX380	5	20	24	119	0.72
406-430	FRX406	5	24	24	117	0.50
430-450	FRX430	5	20	24	116	0.47
450-470	FR450	3	20	40	86	0.48
	FRX450	5	20	24	107	0.51
470-490	FRX470	5	20	24	107	0.47

Radiation Patterns



CRX Series

Omnidirectional UHF Base Station Antenna (450 - 512 MHz)

Electrical Characteristics

Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	1.5:1
Horizontal Beam Width (Azimuth)	360°
Input Power (W)	250
Impedance	50
Electrostatic Discharge Protection	Grounding

Mechanical Characteristics

Connectory Type	N-Female
Radiator Material	Anodized Aluminum 6061-T6
Finish	Gold
Maximum Wind Resistance (KM/H)	160



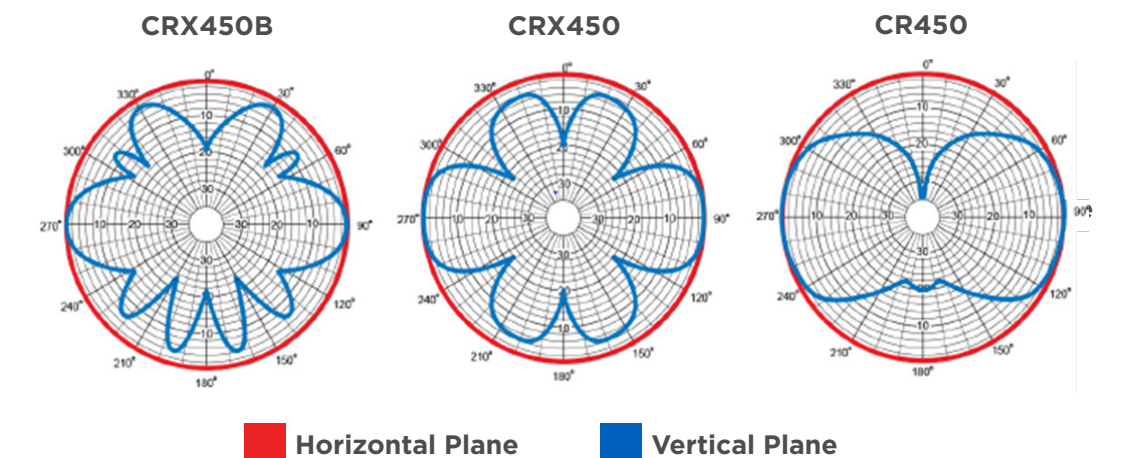
CR450 CRX450 CRX450B

- **Collinear design:** high performance
- **Highly durable:** High-density fiberglass material
- **Specially UV Treated:** Resists sun damage
- **Fully tested with an analyzer:** ensures the best performance
- **Gold anodized aluminum base and cap:** Will not oxidize

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Bandwidth (%)	Vertical Beam Width	Height (cm)	Weight (kg)
450-470	CR450	2	20	73	43	0.24
	CRX450	5	10	36	96.5	0.9
	CRX450B	7	8	30	137	1.2
490-512	CRX490	5	10	36	96.5	0.9

Radiation Patterns



Voyager Series

Omnidirectional UHF Base Station Antenna (406 - 512 MHz)



VG4505

Electrical Characteristics

Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	1.5:1
Input Power (W)	250
Impedance	50
Electrostatic Discharge Protection	Grounding

Mechanical Characteristics

Connectory Type	N-Female
Radiator Material	Anodized aluminum 6061-T6
Finish	Dorado
Maximum Wind Resistance (KM/H)	160

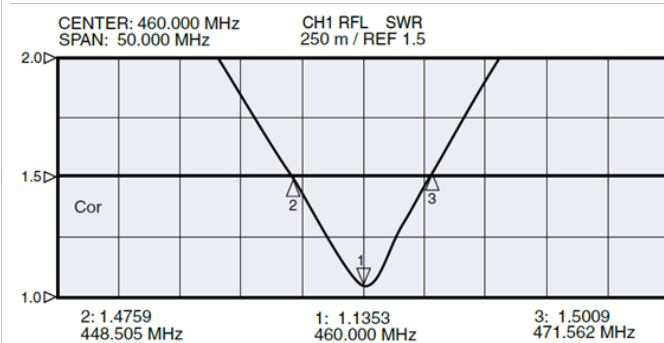
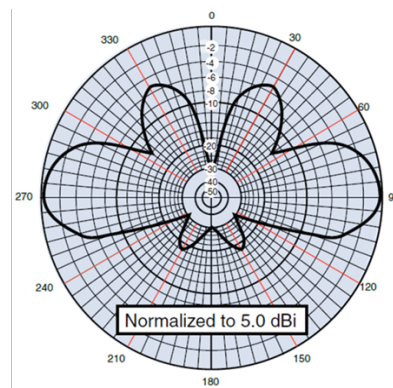
Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Horizontal Beam Width	Vertical Beam Width	Front to Back Ratio (db)	# of Elements
406-450	VG4065	5	2.5%	35	89	0.68
450-512	VG4505	5	2.5%	35	89	0.68

Radiation Patterns

VG4505

Elevation



- **Economical:** Magnificent design and manufacturing at a low price
- **N-Female connector in gold anodized aluminum base sheath:** Provides protective cover and a strong mount
- **Patented internal adapter:** Does not freeze, corrode, or de-tune
- **Rubber and plastic coated adapter:** Vibration and moisture resistant
- **UV protected:** Does not crack, deteriorate, or break from sun exposure
- **Thick wall mount:** More durable, safe installation
- **Broadband:** Easily adjusted and operated in wide range of channels and frequencies
- **Field adjustable:** For quicker deployment
- **Telescopic radiating elements:** Easy to transport
- **Fully tested:** reliable performance

YDA Series

4-Dipole UHF Base Station Antenna (450 - 470 MHz)



YDA4504

Electrical Characteristics

Radiation Pattern	Omnidirectional/Directional
Polarization	Vertical
VSWR	1.5:1
Horizontal Beam Width	15°, 24°, 39°, 360°
Input Power (W)	300
Impedance	50
Electrostatic Discharge Protection	Grounding

Mechanical Characteristics

Connectory Type	N-Female
Radiator Material	Anodized aluminum 6061-T6
Boom Material	Anodized aluminum 6061-T6
Finish	Chrome
Maximum Wind Resistance (KM/H)	160

Ordering Information

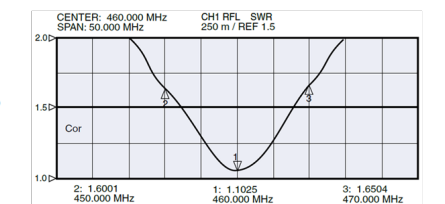
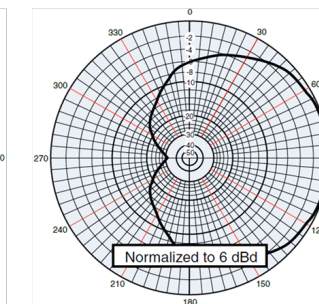
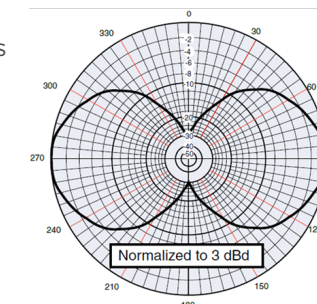
Frequency (MHz)	Part #	Gain (dBi)			
		@ 90° Beam Width	@ 39° Beam Width	@ 24 Beam Width	@ 15° Beam Width
450-470	YDA4504	2	5	8	11

Radiation Patterns

YDA4504

Omnidirectional Pattern

Directional Pattern



- **Quality construction:** Boom and radiator constructed of aluminum 6061-T6
- **High quality power splitter:** Maximum performance across the frequency band
- **Welded elements:** Eliminate pattern degradation, maintain dimensional stability, and resist corrosion
- **Gold anodized:** Durable and corrosion resistant
- **Nickel-plated N-Female brass connector:** Provides durable performance
- **Pre-tuned to medium frequency:** Doesn't require field adjustment
- **Designed for effortless installation:** comes pre-assembled and includes YM78 assembly for each element

P Series

Directional Yagi UHF Base Station Antenna (406 - 470 MHz)

Electrical Characteristics

Radiation Pattern	Directional
Polarization	Vertical/Horizontal
VSWR	<2.0:1
Input Power (W)	250
Impedance	50
Electrostatic Discharge Protection	Grounding



P4573



PE4576

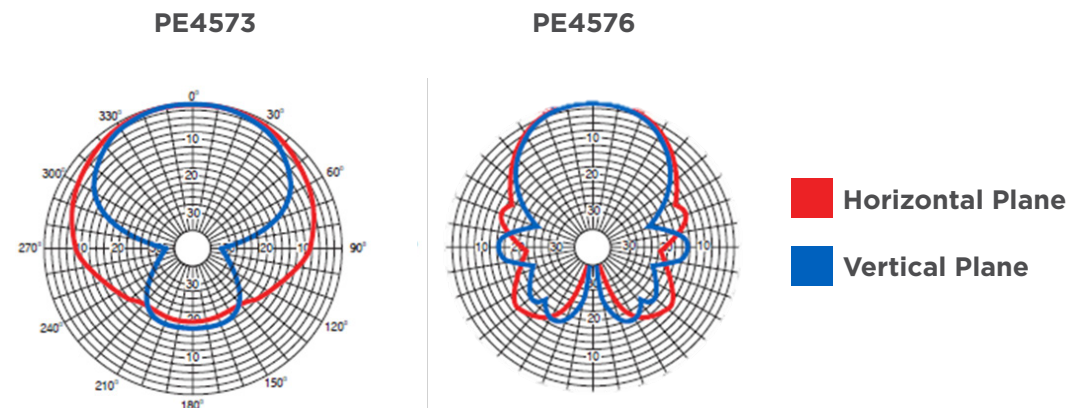
Mechanical Characteristics

Connectory Type	N-Female
Element Material	Aluminum 5005-H19
Boom Material	Aluminum 6063-T832
Boom Diameter (cm)	2.2
Finish	Chrome
Maximum Wind Resistance (KM/H)	200
Maximum Mast Diameter (cm)	5.4

Ordering Information

Freq. (MHz)	Part #	Gain (dBi)	Horiz. Beam Width	Vert. Beam Width	Front to Back ratio (dB)	# of Elements	Length (cm)	Weight (kg)
406-420	P4063	8	100	65	18	3	39	.68
450-470	P4573	8	100	65	18	3	39	.68
	PE4576	10	59	50	12	6	91	1.1

Radiation Patterns



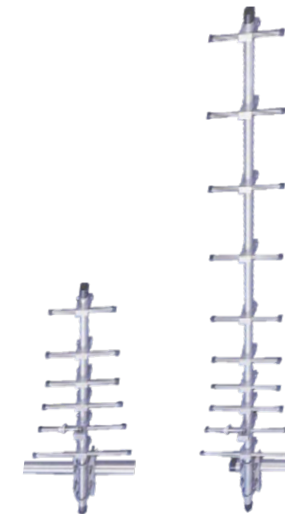
- **Economical:** Affordable high-gain antenna
- **Quality elements:** Aluminum 5005-H19 elements
- **Quality boom:** 2.2 cm diameter aluminum 6063-T832 boom

PLC Series

Directional Yagi UHF Base Station Antenna (406 - 470 MHz)

Electrical Characteristics

Radiation Pattern	Directional
Polarization	Vertical/Horizontal
VSWR	1.5:1
Input Power (W)	250
Impedance	50
Electrostatic Discharge Protection	Grounding



PLC406

PLC4510

Mechanical Characteristics

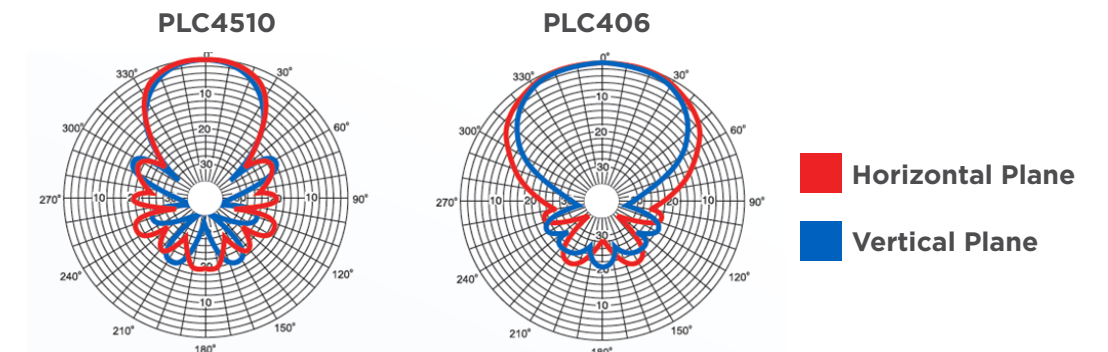
Connectory Type	UHF or N-Female
Element Material	Anodized Aluminum 6063-T6832
Boom Material	Anodized Aluminum 6063-T6832
Element Diameter (cm)	1.3
Boom Diameter (cm)	2.9
Maximum Mast Diameter (cm)	5.4
Finish	Chrome
Maximum Wind Resistance (KM/H)	200

Ordering Information

Freq. (MHz)	Part #	Gain (dBi)	Horiz. Beam Width	Vert. Beam Width	Front to Back ratio (dB)	# of Elements	Element Length (cm)	Weight (kg)
406-420	PLC406	9,5	74	53	25	6	79.4	1.7
	PLC406N	9,5	74	53	25	6	79.4	1.7
	PLC4010N	13,5	42	37	25	10	167	2.38
450-470	PLC456	9,5	74	53	25	6	79.4	1.7
	PLC456N	9,5	74	53	25	6	79.4	1.7
	PLC4510	13,5	42	37	25	10	167	2.38
	PLC4510N	13,5	42	37	25	10	167	2.38

- **Robust construction:** With 6 and 10 element configurations
- **Anodized elements:** Solid 6063-T832 aluminum with 1.3 cm diameter
- **Solid boom:** 6063-T832 aluminum with 2.9 cm diameter
- **Flexible:** Can be installed in parallel to increase gain
- **Quick installation:** Assembled and tuned in produce for fast, easy installation

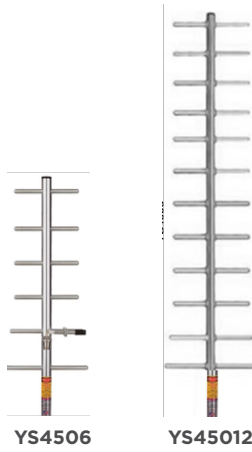
Radiation Patterns



Directional Yagi UHF Base Station Antenna (340 - 512 MHz)



YS4503 YS4505



YS4506 YS45012

Electrical Characteristics

Radiation Pattern	Directional
Polarization	Vertical/Horizontal
VSWR	1.5:1
Input Power (W)	300
Impedance	50
Electrostatic Discharge Protection	Grounding

Mechanical Characteristics

Connectory Type	N-Female
Element Material	Anodized Aluminum 6061-T6
Boom Material	Anodized Aluminum 6061-T6
Boom Diameter (cm)	2.2
Maximum Mast Diameter (cm)	4.1
Fixture of Elements to Boom	Screw
Finish	Chrome
Maximum Wind Resistance (KM/H)	200

Ordering Information

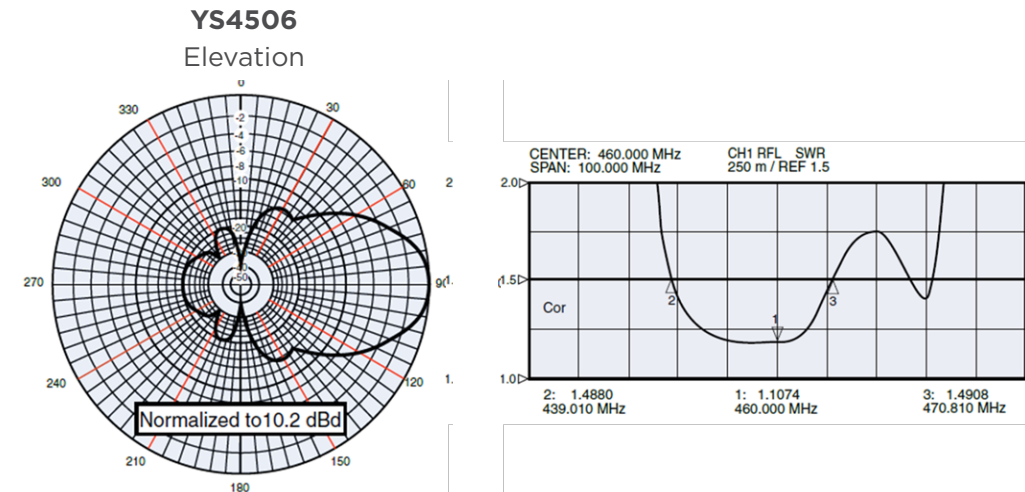
Freq. (MHz)	Part #	Gain (dBi)	Horiz. Beam Width	Vert. Beam Width	Front to Back ratio (dB)	# of Elements	Element Length (cm)	Boom Diameter (cm)
340-360	YS3405	11	110	113	20	5	94	2.22
360-380	YS3606	12	67	58	20	6	112	2.22
380-406	YS3803	9,1	115	114	17	3	51	2.22
	YS3805	11	110	113	20	5	94	2.22
	YS3806	12	67	58	20	6	112	2.22
406-430	YS4063	9,1	115	114	17	3	51	2.22
	YS4065	11	110	113	20	5	94	2.22
	YS4066	12	67	58	20	6	112	2.22
430-450	YS4303	9,1	115	114	17	3	51	2.22
	YS4305	11	110	113	20	5	94	2.22
	YS4306	12	67	58	20	6	112	2.22

- **Boom terminates in N-Female connector:** Feeds elements via internal line
- **Internal harmonization:** 4 MHz bandwidth and weather resistance
- **Anodized in gold and black:** Will not corrode
- **No gamma combination:** Will not freeze, corrode, or detune
- **Economical:** Mounting kit model YM78HD included
- **Fully tested on an analyzer:** Provides best performance and VSWR
- **Quick installation:** comes fully assembled and doesn't require field adjustment

Ordering Information (Cont'd)

Freq. (MHz)	Part #	Gain (dBi)	Horiz. Beam Width	Vert. Beam Width	Front to Back ratio (dB)	# of Elements	Element Length (cm)	Boom Diameter (cm)
450-470	YS4503	9,1	115	114	17	3	51	2.22
	YS4503PL	9,1	115	114	17	3	51	2.22
	YS4505	11	110	113	20	5	94	2.22
	YS4506	12	67	58	20	6	112	2.22
	YS45012	13	33	37	20	12	183	3.17
470-490	YS4703	9,1	115	114	17	3	51	2.22
	YS4705	11	110	113	20	5	94	2.22
	YS4706	12	67	58	20	6	112	2.22
	YS47012	13	33	37	20	12	183	3.17
490-512	YS4906	12	67	58	20	6	112	2.22

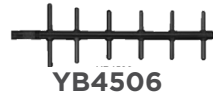
Radiation Patterns



Directional Yagi UHF Base Station Antenna (350 - 512 MHz)

Electrical Characteristics

Radiation Pattern	Directional
Polarization	Vertical/Horizontal
VSWR	1.5:1
Input Power (W)	300
Impedance	50
Electrostatic Discharge Protection	Grounding



Mechanical Characteristics

Connectory Type	N-Female
Element Material	Anodized Aluminum 6061-T6
Boom Material	Anodized Aluminum 6061-T6
Boom Diameter (cm)	2.2
Boom Elements	Welded, 360°
Finish	Gold-anodized or Black
Maximum Wind Resistance (KM/H)	200

Ordering Information

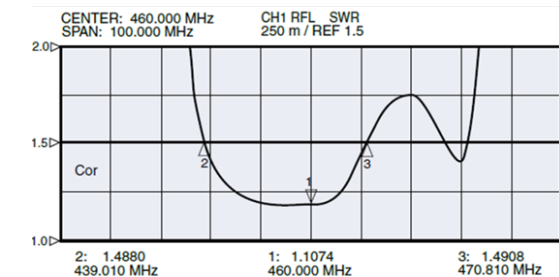
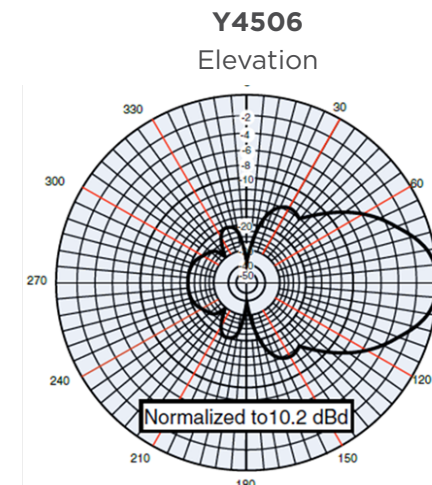
Freq. (MHz)	Part #	Gain (dBi)	Horiz. Beam Width	Vert. Beam Width	Front to Back ratio (dB)	# of Elements	Element Length (cm)	Boom Diameter (cm)
380-406	Y3803	9,1	115	114	17	3	51	2.22
	YB3803	9,1	115	114	17	3	51	2.22
	YB3805	11	110	113	20	5	94	2.22
	Y3806	12	67	58	20	6	112	2.22
384-394	YB3806	12	67	58	20	6	112	2.22
	YB3846	12	67	58	20	6	112	2.22
406-430	Y4063	9,1	115	114	17	3	51	2.22
	Y40612	13	33	37	20	12	183	3.17
	YB4063	9,1	115	114	17	3	51	2.22
	Y4065	11	110	113	20	5	94	2.22
	Y4066	12	67	58	20	6	112	2.22
	YB4066	12	67	58	20	6	112	2.22
430-450	Y4303	9,1	115	114	17	3	51	2.22
	Y4306	12	67	58	20	6	112	2.22

Ordering Information (Cont'd)

Freq. (MHz)	Part #	Gain (dBi)	Horiz. Beam Width	Vert. Beam Width	Front to Back ratio (dB)	# of Elements	Element Length (cm)	Boom Diameter (cm)
	YB4306	12	67	58	20	6	112	2.22
	YB43012	13	33	37	20	12	183	3.17
450-470	Y4503	9,1	115	114	17	3	51	2.22
	Y4505	11	110	113	20	5	94	2.22
	YB4506	12	67	58	20	6	112	2.22
	Y45010	13	33	37	20	12	183	3.17
	Y45010WA	13	33	37	20	12	183	3.17
	Y45012	13	33	37	20	12	183	3.17
470-490	Y47012	13	33	37	20	12	183	3.17
470-512	YB4703	9,1	115	114	17	3	51	2.22
	Y4705	11	110	113	20	5	94	2.22
	YB4705	11	110	113	20	5	94	2.22
	Y4706	12	67	58	20	6	112	2.22

- **Boom with N-Female Connector:** Feeds elements via internal transmission line
- **Internal Harmonization:** Broadband performance and weather resistant
- **Welded 360° elements anodized in gold/black:** Eliminates corrosion
- **Economical:** Includes mounting kit (YM78HD)
- **Quick installation:** Comes fully assembled, requires no field adjustment

Radiation Patterns



YF Series

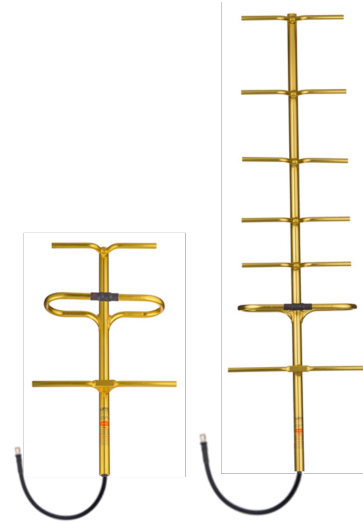
Directional Yagi UHF Base Station Antenna (450 - 490 MHz)

Electrical Characteristics

Radiation Pattern	Directional
Polarization	Vertical/Horizontal
VSWR	<1.5:1
Input Power (W)	250
Impedance	50
Electrostatic Discharge Protection	Grounding

Mechanical Characteristics

Connectory Type	N-Female
Cable	RG213, 61 cm
Boom Material	Anodized Aluminum 6063-T6832
Finish	Anodized in Gold
Ingress Protection	IP67
Boom Diameter (cm)	3.8
Maximum Mast Diameter (cm)	5.4
Operating Temperature	-30 to 70° C
Boom Elements	Welded, 360°
Maximum Wind Resistance (KM/H)	219



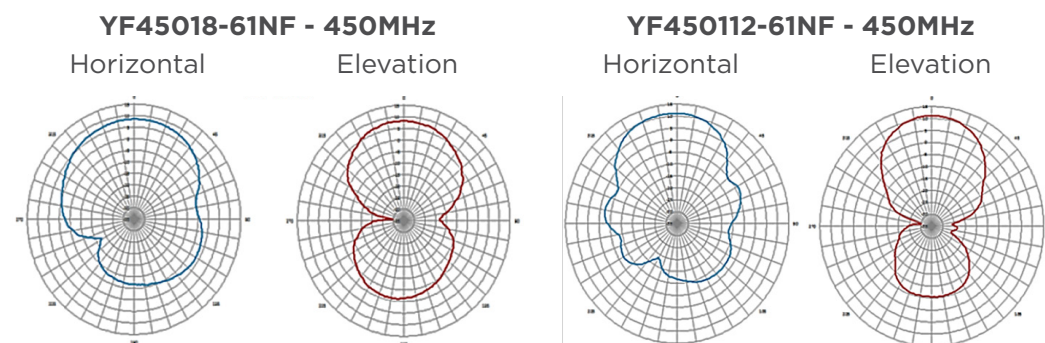
YF45018 YF450112

- **IP67 Rated:** Protected against dust and water
- **Boom with RG213 cable and N-female connector:** Feeds elements via internal transmission line
- **Internal Harmonization:** Broadband performance and weather resistant
- **Welded 360° elements anodized in gold:** Eliminates corrosion
- **Economical:** Includes mounting kit (YM78HD)
- **Fully tested on an analyzer:** Provides best performance and VSWR
- **Quick installation:** Comes fully assembled, requires no field adjustment

Ordering Information











Freq. (MHz)	Part #	Gain (dBi)	Horiz. Beam Width	Vert. Beam Width	Front to Back ratio (dB)	# of Elements	Element Length (cm)	Weight (kg)
450-490	YF45018-61NF	9.1	90	62	15	3	46	.68
	YF450112-61NF	12.2	56	46	20	7	107	1.26

Radiation Patterns










Accessories

UHF Base Station Antenna Accessories

	Part #	Description
	AD-NM-NM	Barrel Adapter - N-Male to N-Male
	AD-NF-NF	Barrel Adapter - N-Female to N-Female
	FM1	"U" type stainless steel mounting kit for masts up to 4.76 cm in diameter; Quantity: 2
	FM2	"U" type fiberglass mounting kit for masts up to 6.35 cm in diameter; Quantity: 2
	FM2SP	"U" type fiberglass mounting kit for masts up to 6.35 cm in diameter; Quantity 1
	FM3	Robust mounting kit for heavy antennas and masts up to 7.62 cm in diameter; Quantity: 2
	FM3W	Robust mounting kit with welded center for heavy antennas and masts up to 7.62 cm in diameter; Quantity: 2
	FMW4	10 cm (4 ") side wall mount for YMST4 and YMST18 masts or any of up to 6.35 cm in diameter; quantity: 2
	IASFST	Silicone waterproofing tape for joints and connectors, 10.97 m (36 feet)
	IASFST10	Silicone waterproofing tube for joints, 6 25.4 cm (10 inch) tapes
	LAC4	Coaxial lightning and over voltage protector, gas discharge, DC-500 MHz, Maximum Power: 200 W, Connector: Female UHF
	LAC4N	Coaxial lightning and over voltage protector, gas discharge, DC-3000 MHz, Maximum Power: 200 W, Connector: N Female
	LAC6NFF	Coaxial lightning and overvoltage protector, gas discharge, DC-6000 MHz, Connector: N Female to N Female
	LAC6NMF	Coaxial lightning and overvoltage protector, gas discharge, DC-6000 MHz, Connector: N Male to N Female

Accessories

UHF Base Station Antenna Accessories (Cont'd)

Part #	Description
 LAIL350NN	Coaxial lightning and overvoltage protector, gas discharge, DC-1000 MHz, 350V, N-Male to N-Male
LABH2400NN	Coaxial lightning and surge protection, gas discharge, DC-4000 MHz, Maximum Power: 200 W, Connector: N-Male to N-Male
LABH350NN	Coaxial lightning and overvoltage protector, gas discharge, DC-1000 MHz, Connector: N-Male to N-Male
LA350GT	Replacement Gas Pipe for Protector
PT4002NN	ATX400 series assembled cable with N-Male to N-Male connectors, 0.60 m (2 feet)
PT4003NN	ATX400 series assembled cable with N-Male to N-Male connectors, 0.91 m (3 feet)
 LAIL350NN	ATX400 series assembled cable with N-Male to N-Male connectors, 3.04 m (10 feet)
PT40017NN	ATX400 series assembled cable with N-Male to N-Male connectors, 5.18 m (17 feet)
 SEALTUBE3	Heat shrinkable adhesive tube 5.08 cm long by 2.54 cm in diameter
 SP3-90-6-BFF	Coaxial lightning and overvoltage protector, gas discharge, DC-3000 MHz, 90 V, N-Male to N-Male
SP3-90-6-BFM	Coaxial lightning and overvoltage protector, gas discharge, DC-3000 MHz, 90 V, N-Male to N-Female
 SP3-90-6-BFF	Coaxial lightning and overvoltage protector, gas discharge, DC-6000 MHz, 230V, N-Male to N-Male
SP6-230-BFM	Coaxial lightning and overvoltage protector, gas discharge, DC-6000 MHz, 230V, N-Male to N-Female
 UM	Wall or mast mount with 90 ° adjustable tilt, galvanized steel tube, length: 38 cm, diameter; 3.81 cm
UML	Wall or mast mount with 90 ° adjustable tilt, galvanized steel tube, length: 63 cm, diameter; 3.81 cm
 UM-UB	"U" type mounting kit for the installation of UM and UML mounts on masts; Quantity: 2

Accessories

UHF Base Station Antenna Accessories (Cont'd)

Part #	Description
 WMB-8	Wall mount galvanized steel anti-corrosion plating, distance between wall: 20 cm, tube diameter; 3.81 cm
 YMST4	Aluminum wall mast, length 1,21 m (4 ') and external diameter 3,175 cm (1.25 ")
YMST18	Aluminum wall mast, length 5.48 m (18 ') and external diameter 3,175 cm (1.25 "), 2 sections
 YM78	Mounting for Yagi antenna with boom up to 2.22 cm in diameter and mast of 4.12 cm in diameter; Quantity 1
 YM78HD	Robust mounting for Yagi antenna with boom up to 2.22 cm in diameter and mast of 6.35 cm in diameter; Quantity 1
YM100HD	Robust mounting for Yagi antenna with boom up to 2.54 cm in diameter and mast of 6.35 cm in diameter; Quantity 1
YM125HD	Robust mounting for Yagi antenna with boom up to 3.17 cm in diameter and mast of 6.35 cm in diameter; Quantity 1
YPD1502	Power splitter for arrangement of two Yagi antennas, 150 MHz, Connector: N Male
YPD1502P	Power splitter for arrangement of two Yagi antennas, 150 MHz, Connector: PL259
YPD1504	Power splitter for arrangement of four Yagi antennas, 150 MHz, Connector: N Male
YPD4502	Power splitter for arrangement of two Yagi antennas, 450 MHz, Connector: N Male
 YPD4504	Power splitter for arrangement of four Yagi antennas, 450 MHz, Connector: N Male
YPD4504P	Power splitter for arrangement of four Yagi antennas, 450 MHz, Connector: PI259
YPD4704P	Power splitter for arrangement of four Yagi antennas, 470 MHz, Connector: PI259
YPD4904P	Power splitter for arrangement of four Yagi antennas, 490 MHz, Connector: PI259

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A Series



- **1/4 Wavelength**
- **Economical**
- **Requires Ground Plane**
- **403-490 MHz**
Frequency: adjustable by cutting
- **Gain:** 2 dBi
- **Stainless steel radiating element:** 17-7 PH
- **Gold anodized connector:** Corrosion-resistant and better transmission
- **Adjustable whip:** allows greater adjustment of frequency without cutting antenna
- **Robust molded ABS base:** extreme power retention

Omnidirectional UHF Mobile Antenna (403 - 490 MHz)

Electrical Characteristics

Antenna Style	Whip
Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	<1.5:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	200
Impedance (Ohms)	50

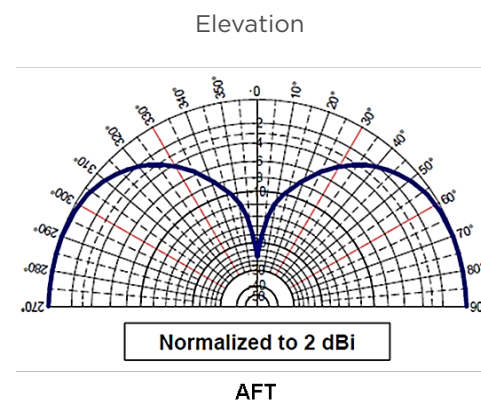
Mechanical Characteristics

Contact Material	Gold Plated
Radiator Material	Stainless Steel Alloy 17-7 PH
Base Material	ABS
Color	Bright Chrome or Black
Connector	NMO

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
403-470	A403S	2	Chrome	15
	A450	2	Chrome	13,6
	AB450	2	Black	13,6
	A450S	2	Chrome	13,6
	AB450S	2	Black	13,6
470-490	A470	2	Chrome	12,7
	AB470	2	Black	12,7
	A470S	2	Chrome	12,7
	AB470S	2	Black	12,7
	118-896	AFT	2	Chrome
ABFT		2	Black	63,5
AFTS		2	Cromo	63,5
ABFTS		2	Black	63,5

Radiation Patterns



A Series - Collinear



- **Wavelength:** Collinear
- **Economical**
- **Requires Ground Plane**
- **380-490 MHz**
Frequency: adjustable by cutting
- **Gain:** 2 dBi
- **Stainless steel radiating element:** Alloy 302
- **Gold anodized connector:** Corrosion-resistant and better transmission
- **Open or closed coil**
- **Stainless steel spring option**
- **Adjustable whip:** allows greater adjustment of frequency without cutting antenna
- **Robust molded ABS base:** extreme power retention

Omnidirectional UHF Mobile Antenna (380 - 490 MHz)

Electrical Characteristics

Antenna Style	Whip
Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	<1.5:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	200
Impedance (Ohms)	50

Mechanical Characteristics

Contact Material	Gold Plated
Radiator Material	Stainless Steel Alloy 302
Base Material	ABS
Color	Bright Chrome or Black
Connector	NMO

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
380-406	A3803	5.5	Chrome	18
	AB3803	5.5	Black	18
450-470	A4503	5.5	Chrome	13.6
	AB4503	5.5	Black	13.6
	A4503S	5.5	Chrome	13.6
	AB4503S	5.5	Black	13.6
	A4503C	5.5	Chrome	13.6
	AB4503C	5.5	Black	13.6
470-490	A4703	5.5	Chrome	12.7
	AB4703	5.5	Black	12,7

B Series - Broadband



B3803W B3803WR B3803WS



BB3803W BB3803WR BB3803WS

Omnidirectional UHF Mobile Antenna (380 - 520 MHz)

Electrical Characteristics

Antenna Style	Whip w/ charging coil in base
Radiation Pattern	Omnidirectional
Polarization	Vertical
Tuning	Requires no adjustment, broadband
VSWR	<2.0:1
Horizontal Beam Width (Azimuth)	360°
Vertical Beam Width	100°
Maximum Input Power (W)	200
Impedance (Ohms)	50

Mechanical Characteristics

Contact Material	Gold Plated
Radiator Material	Stainless Steel Alloy 17-7 PH
Base Material	ABS
Color	Bright Chrome or Black
Connector	NMO
Base Diameter (cm)	3.65
Weight (kg)	.22

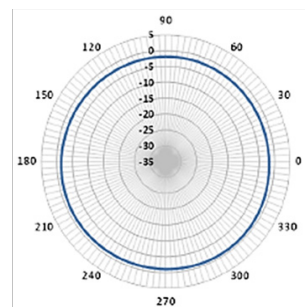
Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
380-520	B3803W	3	Chrome	23
	BB3803W	3	Black	23
	B3803WR	3	Chrome	23
	BB3803WR	3	Black	23
	B3803WS	3	Chrome	23
	BB3803WS	3	Black	23

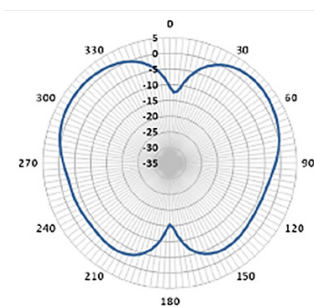
Radiation Patterns

B3803W

Horizontal, 450MHz



Elevation 0°, 450MHz



B Series - 5/8 Wavelength



B4503 B4503S B4503R



BB4503 BB4503S BB4503R

Omnidirectional UHF Mobile Antenna (300 - 512 MHz)

Electrical Characteristics

Antenna Style	Whip w/ charging coil in base
Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	<2.0:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	200
Impedance (Ohms)	50

Mechanical Characteristics

Contact Material	Gold Plated
Radiator Material	Stainless Steel Alloy 17-7 PH
Base Material	ABS
Color	Bright Chrome or Black
Connector	NMO
Base Diameter (cm)	3.65
Weight (kg)	.22

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
300-340	B3003	5	Chrome	42
	B3003S	5	Chrome	42
380-400	B3803	5	Chrome	40
	B3803S	5	Chrome	40
406-430	B4063	5	Chrome	38
	BB4063	5	Black	38
430-450	B4063S	5	Chrome	38
	B4303	5	Chrome	35
450-470	BB4303	5	Black	35
	B4303S	5	Chrome	35
	BB4303S	5	Black	35
470-490	B4503	5	Chrome	33
	BB4503	5	Black	33
	B4503R	5	Chrome	33
	BB4503R	5	Black	33
	B4503S	5	Chrome	33
	BB4503S	5	Black	33
490-512	B4703	5	Chrome	32
	BB4703	5	Black	32
	B4703R	5	Chrome	32
	BB4703R	5	Black	32
	B4703S	5	Chrome	32
	BB4703S	5	Black	32
490-512	B4903	5	Chrome	32
	B4903S	5	Chrome	32
	BB4903S	5	Black	32

- Wavelength: 1/4
- Low loss base load coil
- Requires Ground Plane
- 380-520 MHz
- Frequency: adjustable by cutting
- Gain: 3 dBi
- Stainless steel radiating element: Alloy 17-7 PH
- Gold anodized connector: Corrosion-resistant and better transmission

- Wavelength: 5/8
- Low loss base load coil
- Requires Ground Plane
- 300-512 MHz
- Frequency: adjustable by cutting
- Gain: 3 dBi
- Stainless steel radiating element: Alloy 17-7 PH
- Gold anodized connector: Corrosion-resistant and better transmission

B Series - Collinear



B4505C B4505CS B4505CR



BB4505C BB4505CS BB4505CR

- Wavelength: 5/8
- Low loss base load coil
- Requires Ground Plane
- 300-512 MHz
Frequency: adjustable by cutting
- Gain: 3 dBi
- Stainless steel radiating element: Alloy 17-7 PH
- Gold anodized connector: Corrosion-resistant and better transmission

Omnidirectional UHF Mobile Antenna (300 - 512 MHz)

Electrical Characteristics

Antenna Style	Whip w/ charging coil in base
Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	<2.0:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	200
Impedance (Ohms)	50

Mechanical Characteristics

Contact Material	Gold Plated
Radiator Material	Stainless Steel Alloy 17-7 PH
Base Material	ABS
Color	Bright Chrome or Black
Connector	NMO
Base Diameter (cm)	3.65
Weight (kg)	.22

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
300-340	B3003	5	Chrome	42
	B3003S	5	Chrome	42
380-400	B3803	5	Chrome	40
	B3803S	5	Chrome	40
406-430	B4063	5	Chrome	38
	BB4063	5	Black	38
	B4063S	5	Chrome	38
	BB4063S	5	Black	38
430-450	B4303	5	Chrome	35
	BB4303	5	Black	35
	B4303S	5	Chrome	35
	BB4303S	5	Black	35
450-470	B4503	5	Chrome	33
	BB4503	5	Black	33
	B4503R	5	Chrome	33
	BB4503R	5	Black	33
	B4503S	5	Chrome	33
	BB4503S	5	Black	33

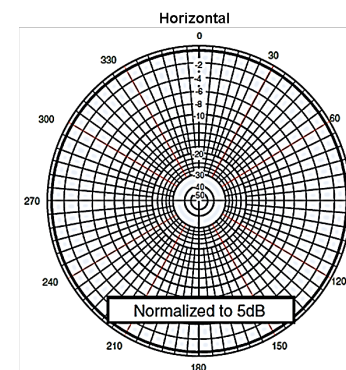
Ordering Information, Continued

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
470-490	B4703	5	Chrome	32
	BB4703	5	Black	32
	B4703R	5	Chrome	32
	BB4703R	5	Black	32
	B4703S	5	Chrome	32
	BB4703S	5	Black	32
490-512	B4903	5	Chrome	32
	B4903S	5	Chrome	32
	BB4903S	5	Black	32

Radiation Patterns

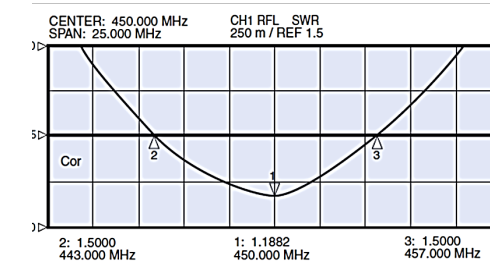
B4505C

Horizontal



B4505C

ROE 450 MHz



B Series - No Ground Plane Required



Omnidirectional UHF Mobile Antenna (340 - 512 MHz)

Electrical Characteristics

Antenna Style	Whip w/ charging coil in base
Radiation Pattern	Omnidirectional
Tuning	Adjustable by cutting
Polarization	Vertical
VSWR	<2.0:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	200
Impedance (Ohms)	50

Mechanical Characteristics

Contact Material	Gold Plated
Radiator Material	Stainless Steel Alloy 17-7 PH
Base Material	ABS
Color	Bright Chrome or Black
Connector	NMO
Base Diameter (cm)	3.65
Weight (kg)	.22

Ordering Information

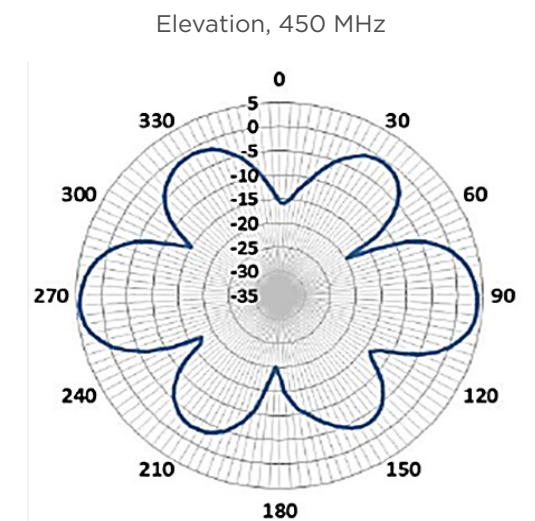
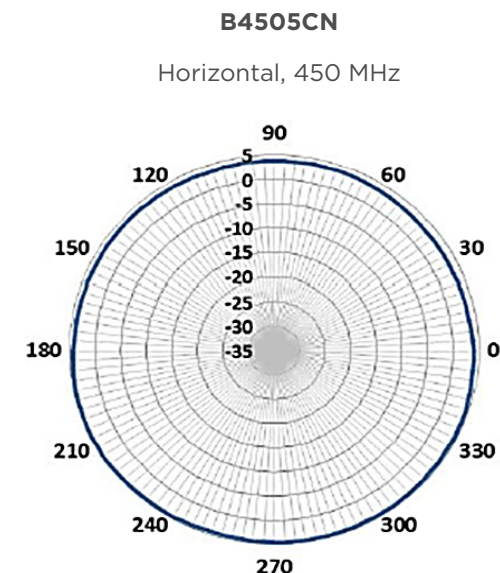
Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
1/2 Wavelength				
406-430	B4062N	4,4	Chrome	36
	BB4062N	4,4	Black	36
430-450	B4062NS	4,4	Chrome	36
	BB4302N	4,4	Black	32
430-450	B4302N	4,4	Chrome	32
	BB4302NS	4,4	Chrome	32
450-470	B4502N	4,4	Chrome	32
	BB4502N	4,4	Black	32
	B4502NR	4,4	Chrome	32
	BB4502NR	4,4	Black	32
	B4502NS	4,4	Chrome	32
	BB4502NS	4,4	Black	32
470-490	B4702NS	4,4	Chrome	30
490-512	B4902N	4,4	Chrome	30
	B4902NS	4,4	Chrome	30
5/8 Wavelength				
340-360	B3403N	5	Chrome	95
	BB3403N	5	Black	95
	B3403NS	5	Chrome	95

- **Wavelength:** 1/2, 5/8, collinear
- **Low loss base load coil**
- **Doesn't require a ground plane**
- **340-512 MHz Frequency:** adjustable by cutting
- **Gain:** 3 dBi
- **Stainless steel radiating element:** Alloy 17-7 PH
- **Choice of stainless steel spring or low-loss rubber**
- **Gold anodized connector:** Corrosion-resistant and better transmission

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
Collinear				
380-400	B3805CN	7	Chrome	95
	BB3805CN	7	Black	95
406-430	B4065CN	7	Chrome	91
	B4065CNS	7	Chrome	91
430-450	B4305CN	7	Chrome	90
	BB4305CN	7	Black	90
	B4305CNS	7	Chrome	90
450-470	BB4305CNS	7	Black	90
	B4505CN	7	Chrome	82
	BB4505CN	7	Black	82
450-470	B4505CNR	7	Chrome	82
	B4505CNS	7	Chrome	82
	BB4505CNS	7	Black	82
470-490	B4705CN	7	Chrome	77
	B4705CNR	7	Chrome	77
	B4705CNS	7	Chrome	77
490-512	B4905CN	5	Chrome	74

Radiation Patterns



QW Series



Omnidirectional UHF Mobile Antenna (370 - 512 MHz)

Electrical Characteristics

Antenna Style	Whip
Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	<2.0:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	200
Impedance (Ohms)	50

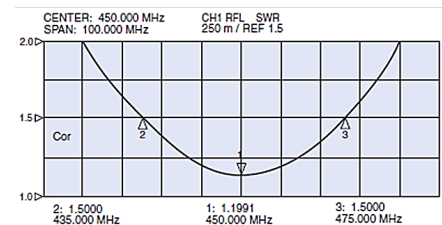
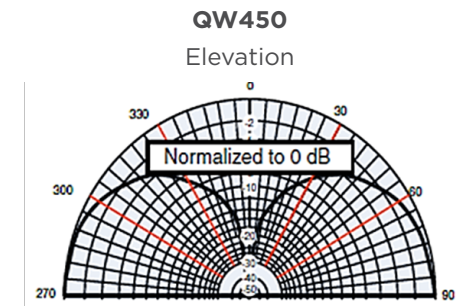
Mechanical Characteristics

Contact Material	Gold Plated
Radiator Material	Stainless Steel Alloy 17-7 PH
Base Material	Triple Chrome Plated Brass
Color	Bright Chrome or Black
Connector	NMO

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
370-390	QW370	2	Chrome	20
	QWB370	2	Black	20
380-400	QW380	2	Chrome	19
	QWB380	2	Black	19
406-430	QW406	2	Chrome	18
	QWB406	2	Black	18
430-450	QW430	2	Chrome	16,5
	QWB430	2	Black	16,5
450-470	QW450	2	Chrome	15
	QWB450	2	Black	15
470-490	QW470	2	Chrome	14,6
	QWB470	2	Black	14,6
490-512	QW490	2	Chrome	14
	QWB490	2	Black	14
118-970	QWFT120	2	Chrome	61
	QWFTB120	2	Black	61

Radiation Patterns



- 1/4 Wavelength
- Economical
- Requires Ground Plane
- 380-512 MHz Frequency: adjustable by cutting
- Gain: 2 dBi
- Stainless steel radiating element: 17-7 PH
- Gold anodized connector: Corrosion-resistant and better transmission

CW Series - Collinear



Omnidirectional UHF Mobile Antenna (406 - 470 MHz)

Electrical Characteristics

Antenna Style	Whip w/ base load per circuit
Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	<2.0:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	200
Impedance (Ohms)	50

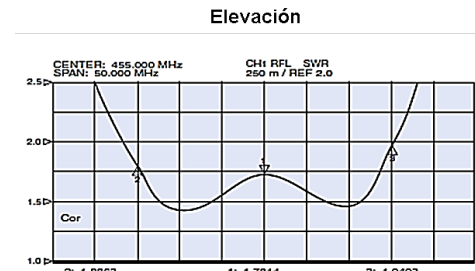
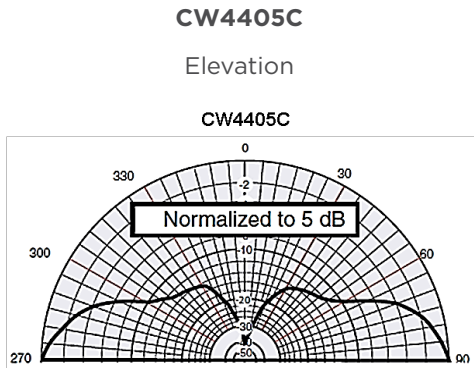
Mechanical Characteristics

Contact Material	Gold Plated
Radiator Material	Stainless Steel Alloy 17-7 PH
Base Material	ABS
Base Diameter (cm)	3.65
Weight (kg)	.22
Color	Bright Chrome or Black
Connector	NMO

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
406-430	CW4065C	7	Chrome	95
	CW4065CS	7	Chrome	95
440-470	CW4405C	7	Chrome	90
	CWB4405C	7	Black	90
	CW4405CS	7	Chrome	90
	CWB4405CS	7	Black	90

Radiation Patterns



- Collinear wavelength
- Base coil per circuit
- Requires ground plane
- 406-470 MHz frequency: adjustable by cutting
- Broadband: Does not require adjustment
- Gain: 2 dBi
- Stainless steel radiating element: 17-7 PH
- Gold anodized connector: Corrosion-resistant and better transmission

E Series



- **Wavelength: 1/4 or collinear**
- **Internal circuit load:** high performance and stability
- **Raised radiating element:** improves coverage on vehicle roof
- **Doesn't require ground plane**
- **Long splint:** allows rod to be moved for better tuning flexibility
- **Broadband:** Does not require adjustment
- **Gold anodized connector:** Corrosion-resistant and better transmission

Omnidirectional UHF Mobile Antenna (406 - 512MHz)

Electrical Characteristics

Wavelength	1/4 or collinear
Antenna Style	Whip - high radiant load per circuit
Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	<2.0:1
Horizontal Beam Width (Azimuth)	360°
Vertical Beam Width	70°
Maximum Input Power (W)	200
Impedance (Ohms)	50

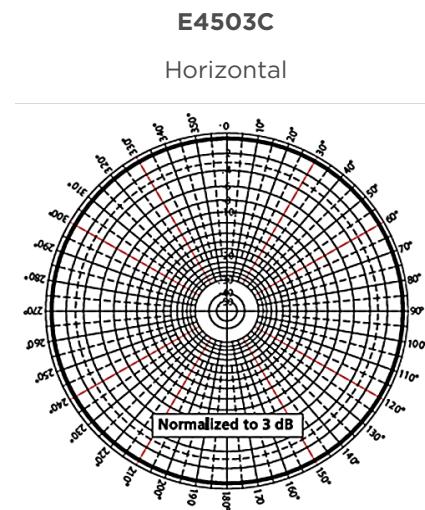
Mechanical Characteristics

Contact Material	Gold Plated
Radiator Material	Stainless Steel Alloy 17-7 PH
Base Material	Fiberglass
Base Diameter (cm)	3.65
Weight (kg)	.22
Color	Bright Chrome or Black
Connector	NMO

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
406-430	EB4063C	5	Black	102
430-450	E4300	2	Chrome	102
	EB4303C	5	Black	102
450-470	E4503C	5	Chrome	102
	EB4503C	5	Black	102
450-512	EB4500	2	Black	102

Radiation Patterns



32

Phantom Elite Series



- **Low profile:** 8.9 cm high
- **Robust construction**
- **Ground plane and no ground plane options**
- **Broadband:** Does not require adjustment
- **Gold anodized connector:** Corrosion-resistant and better transmission

Omnidirectional UHF Mobile Antenna (380 - 512 MHz)

Electrical Characteristics

Bandwidth	20 MHz
Antenna Style	Low Profile
Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	<2.0:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	150
Impedance (Ohms)	50

Mechanical Characteristics

Contact Material	Gold Plated
Radiant Element Material	Radiant Circuit
Base Material	ABS
Base Diameter (cm)	3.65
Weight (kg)	.095
Color	Black or White
Connector	NMO or N

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
380-400	ETRAB3803	5	Black	8.6
406-425	ETRA4063	5	White	8.6
	ETRAB4063	5	Black	8.6
410-430	ETRA4103	5	White	8.6
	ETRAB4103	5	Black	8.6
430-450	ETRA4303	5	White	8.6
	ETRAB4303	5	Black	8.6
	ETRA4303P	5	White	8.6
	ETRAB4303P	5	Black	8.6
450-470	ETRA4503	5	White	8.6
	ETRAB4503	5	Black	8.6
	ETRA4500N	5	White	8.6
	ETRAB4500N	5	Black	8.6
	ETRA4503P	5	White	8.6
	ETRAB4503P	5	Black	8.6
470-490	ETRA4703	5	White	8.6
	ETRAB4703	5	Black	8.6
	ETRA4703P	5	White	8.6
490-512	ETRA4903	5	White	8.6
	ETRAB4903	5	Black	8.6

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Phantom Series



- **Low profile:** 8.9 cm high
- **Robust construction**
- **Ground plane and no ground plane options**
- **Broadband:** Does not require adjustment
- **Gold anodized connector:** Corrosion-resistant and better transmission

Omnidirectional UHF Mobile Antenna (380 - 600 MHz)

Electrical Characteristics

Bandwidth	20 MHz
Antenna Style	Low Profile
Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	<2.0:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	150
Impedance (Ohms)	50

Mechanical Characteristics

Contact Material	Gold Plated
Radiator Material	Solid Brass
Base Material	ABS
Base Diameter (cm)	3.65
Weight (kg)	.095
Color	Black or White
Connector	NMO or N

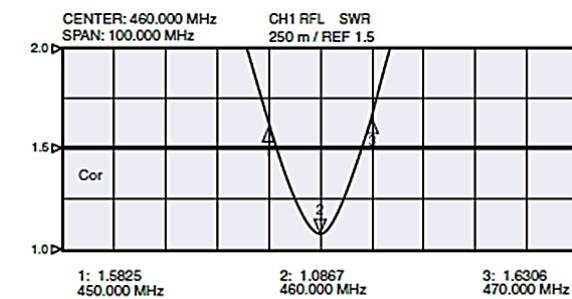
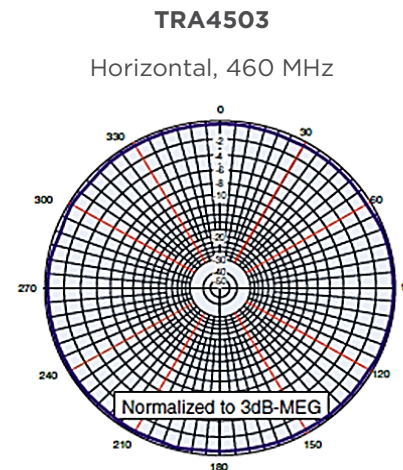
Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
380-400	TRA3803	5	White	8.9
	TRAB3803	5	Blanco	8.9
	TRA3803P	5	White	8.9
	TRAB3803P	5	Blanco	8.9
410-430	TRA4103	5	White	8.9
	TRAB4103	5	Blanco	8.9
	TRA4103P	5	White	8.9
	TRAB4103P	5	Blanco	8.9
420-430	TRA4203	5	White	8.9
	TRAB4203	5	Blanco	8.9
430-450	TRA4303	5	White	8.9
	TRAB4303	5	Blanco	8.9
	TRA4303P	5	White	8.9
	TRAB4303P	5	Blanco	8.9
450-470	TRA4503	5	White	8.9
	TRAB4503	5	Blanco	8.9
	TRA4503P	5	White	8.9
	TRA4500N	5	White	8.9
	TRAB4500N	5	Blanco	8.9
	TRA4500NP	5	White	8.9
	TRAB4500NP	5	Blanco	8.9

Ordering Information, Continued

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
470-490	TRA4703	5	White	8.9
	TRAB4703	5	Blanco	8.9
	TRA4703P	5	White	8.9
	TRAB4703P	5	Blanco	8.9
490-512	TRA4903	5	White	8.9
	TRAB4903	5	Blanco	8.9
	TRA4903P	5	White	8.9
	TRAB4903P	5	Blanco	8.9
500-520	TRA5003	5	White	8.9
	TRAB5003	5	Blanco	8.9
560-600	TRA5603	5	White	8.9
	TRAB5603	5	Blanco	8.9

Radiation Patterns



Ultra Phantom Series



UTRA3802S1NB



UTRA3802S1NW

- **Low profile:** 8.6 cm high
- **Robust construction**
- **IP67 rated**
- **Requires ground plane**
- **Broadband:** Does not require adjustment
- **Gold anodized connector:** Corrosion-resistant and better transmission

Omni-directional UHF Mobile Antenna (380 - 512 MHz)

Electrical Characteristics

Bandwidth	<65 MHz
Antenna Style	Low Profile
Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	<2.5:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	150
Impedance (Ohms)	50

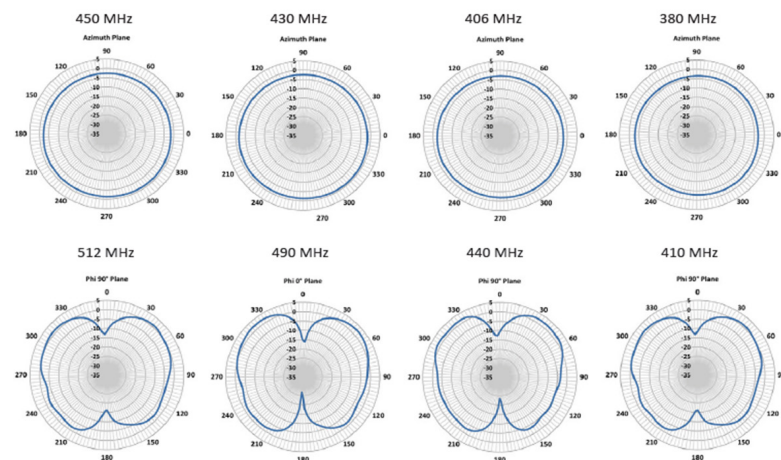
Mechanical Characteristics

Contact Material	Gold Plated
Radiating Element Material	Radiant Circuit
Base Material	ABS
Base Diameter (cm)	3.55
Weight (kg)	.163
Color	Black or White
Connector	NMO

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
380-410	UTRA3802S1NB-001	2	White	8.6
	UTRA3802S1NW-001	2	Black	8.6
406-440	UTRA4061S2NB-001	2.9	White	8.6
	UTRA4061S2NW-001	2.9	Black	8.6
430-490	UTRA4301S3NB-001	3.6	White	8.6
	UTRA4301S3NW-001	3.6	Black	8.6
450-512	UTRA4502S3NB-001	4.1	White	8.6
	UTRA4502S3NW-001	4.1	Black	8.6

Radiation Patterns



Base A Series



A150/450C



AB150/450C



A150/450CS



AB150/450CS

- **Multiband antenna:** UHF and VHF
- **Frequency:** 144-174 MHz / 440-470 MHz
- **Wavelength:** 1/2 (VHF), 5/8 (UHF)
- **Encapsulated tempered silver brass coil**
- **Gold anodized connector:** Corrosion-resistant and better transmission

Omni Multiband UHF Mobile Antenna (144-174/440-470 MHz)

Electrical Characteristics

Wavelength	1/2 (VHF), 5/8 to 1/2 (UHF)
Bandwidth	20 MHz
Antenna Style	Encapsulated Coil Whip
Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	<2.0:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	200
Impedance (Ohms)	50

Mechanical Characteristics

Contact Material	Gold Plated
Radiating Element Material	Stainless Steel Alloy 17-7 PH
Base Material	ABS
Base Diameter (cm)	3.2
Finish	Chrome or Black
Connector	NMO

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
144-148 / 440-450	A144/440C	2	Chrome	97
	AB144/440C	2	Black	97
150-174 / 450-470	A150/450C	2	Chrome	97
	AB150/450C	2	Black	97
	A150/450CS	2	Chrome	97
	AB150/450CS	2	Black	97

Base C Series



C150/450C

CB150/450C



C150/450CS

CB150/450CS

- **Multiband antenna:** UHF and VHF
- **Frequency:** 144-174 MHz / 440-470 MHz
- **Wavelength:** 1/2 (VHF), 5/8 (UHF)
- **Encapsulated tempered silver brass coil**
- **Gold anodized connector:** Corrosion-resistant and better transmission

Omni Multiband UHF Mobile Antenna (144-174/440-470 MHz)

Electrical Characteristics

Wavelength	1/2 (VHF), 5/8 to 1/2 (UHF)
Antenna Style	Encapsulated Coil Whip
Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	<1.5:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	200
Impedance (Ohms)	50

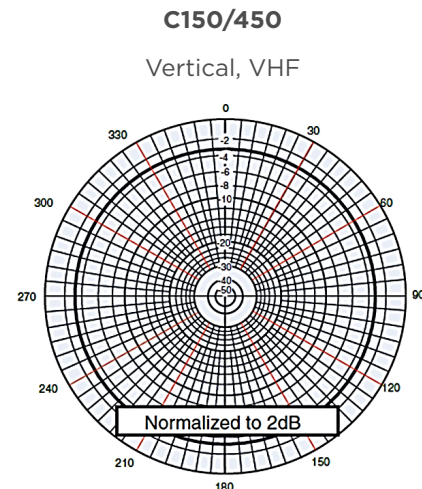
Mechanical Characteristics

Contact Material	Gold Plated
Radiating Element Material	Stainless Steel Alloy 17-7 PH
Encapsulated Coil Material	Tempered Silver-Plated Brass
Base Material	ABS
Base Diameter (cm)	3.2
Finish	Chrome or Black
Connector	NMO

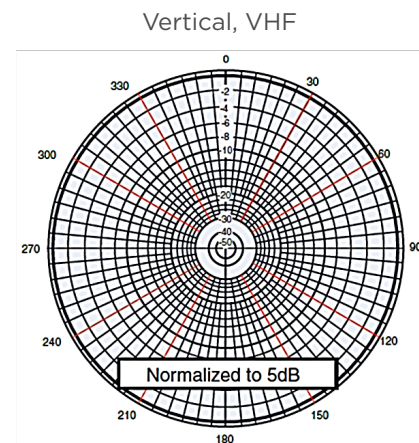
Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
144-148 / 440-450	C144/440C	4	Chrome	97
	CB144/440C	7	Black	97
	C144/440CS	4	Chrome	97
150-174 / 450-470	CB144/440CS	7	Black	97
	C150/450C	2	Chrome	97
	CB150/450C	2	Black	97
C150/450CS	2	Chrome	97	
CB150/450CS	2	Black	97	

Radiation Patterns



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Phantom Fin Series



FHQ69273CD

- **Multiband antenna:** UHF, Cellular/PCS/LTE, Wi-Fi, GPS
- **Doesn't require adjustment in field**
- **IP67 rated**
- **A single hole needed for mounting:** allows passage of all four cables

Omni UHF Mobile Antenna (380-520/698-2700/2400-5875 MHz + GPS)

Electrical Characteristics

Antenna Style	Multiband shark fin with GPS
Frequency	380-430 / 430-520 (UHF) 698-960 / 1710-2700 (Cellular/PCS/LTE) 2400-2500 / 4900-5875 (Wi-Fi) 1575.42 (GPS)
Gain (dBi)	2 (UHF) 4 (Cellular/PCS/LTE) 6 (Wi-Fi) 29 (GPS)
Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	<2.0:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	10
Impedance (Ohms)	50

Mechanical Characteristics

Base Radome Material	PC/ASA
Base Surface Material	Aluminum
Cable Material	LRM-100
Finish	Black
Ingress Protection	IP67
Base Diameter (cm)	7 x 16
Weight (kg)	0.52
Connector Type	PL259 or GME (UHF) SMA-Male (Cellular/PCS/LTE and GPS) SMA-Male or RP-SMA (Wi-Fi)

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
380-430	FHQ69273CD	2	Black	9.8
698-2700		4		
2400-5875		6		
1575,42		29		
430-520	FHQ69273CE	2	Black	9.8
698-2700		4		
2400-5875		6		
1575,42		29		

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WPD136M6C-001



WPD136M6C-001

- **Multiband antenna:** UHF, VHF
- **Doesn't require adjustment in field**
- **IP66 rated**
- **A single hole needed for mounting:** allows passage of all four cables

Omni UHF Mobile Antenna (136-174/380-520/760-870 MHz)

Electrical Characteristics

Antenna Style	Encapsulated Coil Whip
Wavelength	1/2 (VHF), 5/8 (UHF)
Frequency	136-174 (VHF) 380-520 (UHF) 760-870 (Cellular)
Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	<2.5:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	100
Impedance (Ohms)	50

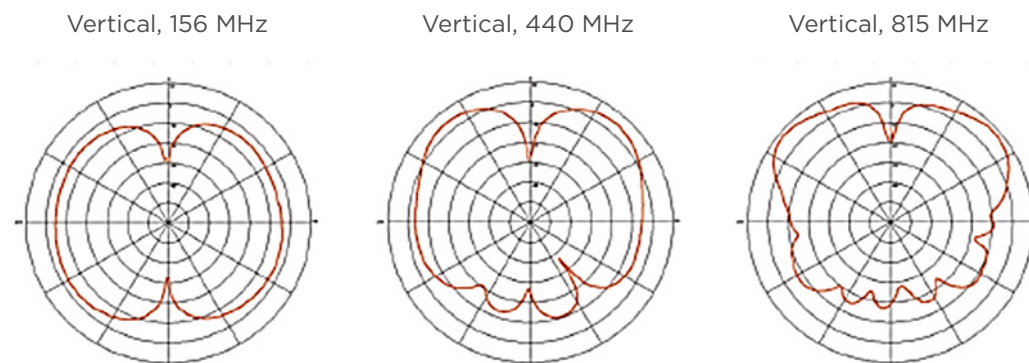
Mechanical Characteristics

Contact Material	Gold-anodized
Radiator Material	Stainless Steel Alloy 17-7 PH
Encapsulated Coil Material	Tempered Silver-Plated Brass
Base Material	ABS
Finish	Black
Ingress Protection	IP66
Base Diameter (cm)	6.35
Connector Type	NMO

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
136-174	WPD136M6C-001	2	Black	51
380-520		2		
760-870		2		

Radiation Patterns




Accessories

UHF Mobile Antenna Accessories

	Part #	Description
	MBO	Ceiling mount NMO, 3/4" hole (19 mm), loose, no cable
	MABO	Ceiling mount NMO, 3/8" hole (9.5 mm), loose, no cable
	MABTO	Ceiling mount NMO, 3/4" hole (19 mm) or 3/8" (9.5 mm), plate up to 6.5 mm thickness, loose, no cable
	MABVTO	Ceiling mount NMO, 3/4" hole (19 mm) or 3/8" (9.5 mm), plate up to 13 mm thickness, loose, no cable
	VTPM	Ceiling mount NMO, 5/8" hole (16 mm), plate up to 25.4 mm thickness, loose, no cable
	VTPM800	Ceiling mount NMO, 5/8" hole (16 mm), plate up to 13 mm thickness, 800 MHz, N-type barrel, loose, no cable
	NMOHPC	High-performance NMO mount barrel, 3/4" hole (19 mm), 0-6000 MHz, IP67 Rated, chrome, loose, no cable
	MB8U	NMO ceiling mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), no connector
	MB8UB	NMO ceiling mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector) and loose folding BNC connector
	MB8UM	NMO ceiling mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector) and loose folding mini UHF connector
	MB8UN	NMO ceiling mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector) and loose folding N connector
	MB8UP	NMO ceiling mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector) and loose folding PL259 connector
	MB8USM	NMO ceiling mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector) and loose folding SMA connector
	MB8UT	NMO ceiling mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector) and loose folding TNC connector
	TM8U	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), chrome color, no connector
	TM8UB	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), chrome color, and loose folding BNC connector





Accessories

UHF Mobile Antenna Accessories (Cont'd)

Part #	Description
 TM8UM	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), chrome color, and loose folding Mini UHF connector
TM8UNS	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), chrome color, and loose folding N connector
TM8UP	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), chrome color, and loose folding PL259 connector
TM8UT	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), chrome color, and loose folding TNC connector
TMB8U	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), black color, no connector
TMB8UB	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), black color, and loose folding BNC connector
TMB8UM	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), black color, and loose folding Mini UHF connector
TMB8UN	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), black color, and loose folding N connector
TMB8UP	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), black color, and loose folding PL259 connector
G8U	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), chrome color, no connector
G8UB	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), chrome color, and loose folding BNC connector
 G8UM	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), chrome color, and loose folding Mini UHF connector
G8UN	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), chrome color, and loose folding N connector
G8UP	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), chrome color, and loose folding PL259 connector
G8UT	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), chrome color, and loose folding TNC connector
GB8U	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), black color, no connector
GB8UB	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), black color, and loose folding BNC connector
 GB8UM	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), black color, and loose folding Mini UHF connector
GB8UN	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), black color, and loose folding N connector
GB8USM	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), black color, and loose folding SMA connector
GB8UT	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), black color, and loose folding TNC connector
GM8U	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), chrome color, no connector
GM8UB	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), chrome color, and loose folding BNC connector

Accessories

UHF Mobile Antenna Accessories (Cont'd)

Part #	Description
 GM8UM	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), chrome color, and loose folding Mini UHF connector
GM8UP	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), chrome color, and loose folding PL259 connector
GM8USM	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), chrome color, and loose folding SMA connector
GM8UT	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), chrome color, and loose folding TNC connector
GMB8U	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), black color, no connector
GMB8UB	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), black color, and loose folding BNC connector
GMB8UM	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), black color, and loose folding BNC connector
GMB8UN	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), black color, and loose folding N connector
GMB8UP	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), black color, and loose folding PL259 connector
GMB8UT	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), black color, and loose folding TNC connector
 NMOHPCG518	High performance NMO mount, 3/4" hole (19 mm), 0-6000 MHz, IP67 Rated, chrome color, with 5.18m RG58U cable (solid central conductor), no connector
NMOHPCGFMEM518	High performance NMO mount, 3/4" hole (19 mm), 0-6000 MHz, IP67 Rated, chrome color, with 5.18m RG58U cable (solid central conductor), loose Male FME connector
NMOHPCGMUHM518	High performance NMO mount, 3/4" hole (19 mm), 0-6000 MHz, IP67 Rated, chrome color, with 5.18m RG58U cable (solid central conductor), loose Male Mini UHF connector
NMOHPCGSMAM518	High performance NMO mount, 3/4" hole (19 mm), 0-6000 MHz, IP67 Rated, chrome color, with 5.18m RG58U cable (solid central conductor), loose Male SMA connector
NMOHPCGTNCM518	High performance NMO mount, 3/4" hole (19 mm), 0-6000 MHz, IP67 Rated, chrome color, with 5.18m RG58U cable (solid central conductor), loose Male TNC connector
NMOHPCGUHFM518	High performance NMO mount, 3/4" hole (19 mm), 0-6000 MHz, IP67 Rated, chrome color, with 5.18m RG58U cable (solid central conductor), loose Male UHF PL259 connector
 AO	Low profile base for Base Series A antennas
 AS	Base Series A antenna coil sprint with key and nut, chrome color











Accessories

UHF Mobile Antenna Accessories (Cont'd)

Part #	Description
 ASB	Base Series A antenna coil sprint with key and nut, black color
 BCORNG	O rings for Base Series B and Base Series C antennas, pack of six
 CCT	Crimping pliers for RG58 connectors
 CCT213	Crimping pliers for RG213/LMR400 connectors
 CBNC58	BNC male connector for RG58 cable crimping
CMUHF58	Mini UHF male connector for RG58 cable crimping
CN58	N male connector for RG58 cable crimping
CNF58	N female connector for RG58 cable crimping
CPL9C	PL259 male connector for RG58 cable crimping
CPL9CF	PL259 female connector for RG58 cable crimping
CTNC58	TNC male connector for RG58 cable crimping
 GRO	Rubber boot for magnetic NMO mounting, 8.25 cm diameter
 GMRO	Rubber boot for mini magnetic NMO mounting, 6.03 cm
 HWS0316	#10 32 x 3/16 nut for splints of Base Series B and C antennas, pack of 12
 HS34	Hole saw with 3/4" drill bit
 HS34DB	3/4" drill bit replacement for punch
 HS34RB	Replacement 3/4" drill bit for punch, 2 pack
 HS38DB	3/8" drill bit replacement for punch
 LBT3400	Mounting plate for L-type trunk with 3/4" hole, chrome color
 LBTB3400	Mounting plate for L-type trunk with 3/4" hole, black color
 LBT3800	Mounting plate for L-type trunk with 3/8" hole, chrome color
 LBTB3800	Mounting plate for L-type trunk with 3/8" hole, black color
 LBH3400	Mounting plate for Z-type fender with 3/4" hole, chrome color

Accessories

UHF Mobile Antenna Accessories (Cont'd)

Part #	Description
 LBM9034	Mounting plate for 90° L-type mirror with 3/4" hole, chrome color
 LBM9038	Mounting plate for 90° L-type mirror with 3/8" hole, chrome color
 LBMB9034	Mounting plate for 90° L-type mirror with 3/4" hole, black color
 MABNUT	External nut for 3/8" mounts
 MBNUT	External nut for 3/4" mounts
 MBC	VHF mobile antenna to VHF base antenna converter, UHF connector, SO239
 MBCN	VHF mobile antenna to VHF base antenna converter, UHF connector, N
 MBC800	800/900 MHz mobile antenna to 800/900 MHz base antenna converter, N connector
 MBC800LBT	>800 MHz mobile antenna to >800 MHz base antenna converter, N connector and wall mounting
 MBC800-NGP	800/900 MHz mobile antenna to 800/900 MHz base antenna converter, N connector, doesn't require ground plane
 MORNG	O rings for NMO assemblies, six pack
 MOGSK	Gaskets for 3/4" NMO mounts, six pack
 NS1535	Noise suppressor, 1-35 V, 15 amps
 NS3035	Noise suppressor, 1-35 V, 30 amps
 P34	3/4" plugs, six pack
 P38	3/8" plugs, six pack
 QWNUT	External nut for QW series antennas, chrome color

UHF Mobile Antenna Accessories (Cont'd)






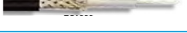







Part #	Description
 QWNUTB	External nut for QW series antennas, black color
 QWRC	Plugs for QW series antennas, chrome color
 QWRCB	Plugs for QW series antennas, black color
QWRC-6	Plugs for QW series antennas, chrome color, six pack
QWRCB-6	Plugs for QW series antennas, black color, six pack
 RO49T	Replacement 106 cm whip rod with ball, chrome color
 ROB49T	Replacement 106 cm whip rod with ball, black color
 R8U1000	Cable coil RG58U, 304 m (1000 ft)
 R81000	Cable coil RG58A/U, 304 m (1000 ft)
 S	Coil spring for Base Series B and C antennas, chrome color
 SB	Coil spring for Base Series B and C antennas, black color
 SBH3400	Mounting plate for Z-type fender with 3/4" hole, chrome color
 SBT3400	Mounting plate with 3/4" hole, chrome color
 SBTB3400	Mounting plate with 3/4" hole, black color
 SRS-100-B-001	Elastomer spring for Base Series B coils, 2.54 mm diameter rod, black color
 SRS-100-C-001	Elastomer spring for Base Series C coils, 2.54 mm diameter rod, black color

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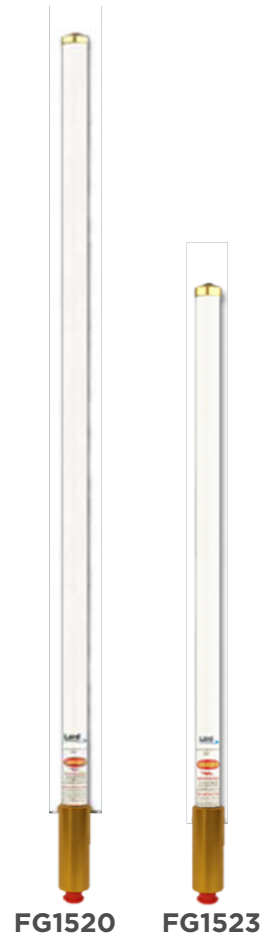
Omnidirectional VHF Base Station Antenna (136 - 174 MHz)

Electrical Characteristics

Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	2.0:1
Horizontal Beam Width (Azimuth)	360°
Input Power (W)	150
Impedance	50
Electrostatic Discharge Protection	Grounding

Mechanical Characteristics

Connectory Type	N-Female
Radiator Material	Copper Coated
Radome Material	Fiberglass
Base and Cap Material	Gold-anodized Aluminum
Color	White
Maximum Wind Resistance (KM/H)	201
Operating Temperature(C)	-35 - 80
Diameter (cm)	3.33
Mounting (Optional)	FM2



- **High-density fiberglass:** Very durable
- **Collinear design with J-pole style element:** High performance
- **Doesn't require adjustment in the field:** Broadband 4 MHz
- **Treated for UV:** Resists sun damage

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Adjusted Band (MHz)	Vertical Beam Width	Height (cm)	Weight (kg)
136-139	FG1360	2	4	75	234	2.72
137-139	FG1373	5	4	33	272	2.72
140-144	FG1400	2	4	75	234	2.72
	FG1403	5	4	33	272	2.72
144-148	FG1440	2	4	75	234	2.72
	FG1443	5	4	33	272	2.72
148-152	FG1480	2	4	75	173	2.72
	FG1483	5	4	33	272	3.62

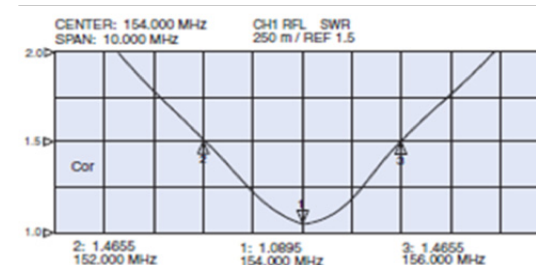
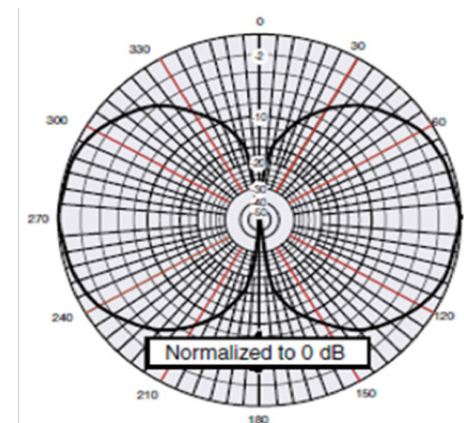
Ordering Information (Cont'd)

Frequency (MHz)	Part #	Gain (dBi)	Adjusted Band (MHz)	Vertical Beam Width	Height (cm)	Weight (kg)
152-156	FG1520	2	4	75	173	2.72
	FG1523	5	4	33	272	3.62
156-162	FG1560	2	4	75	173	2.72
	FG1563	5	4	33	272	6.62
162-168	FG1620	2	4	75	173	2.72
	FG1623	5	4	33	272	3.62
168-174	FG1680	2	4	75	173	2.72
	FG1683	5	4	33	272	3.62

Radiation Patterns

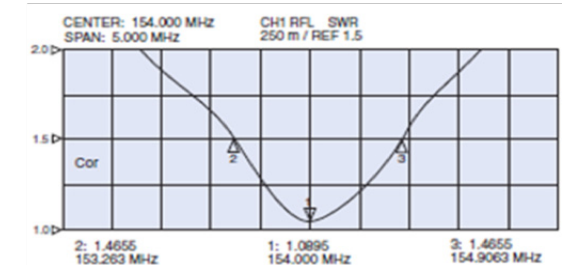
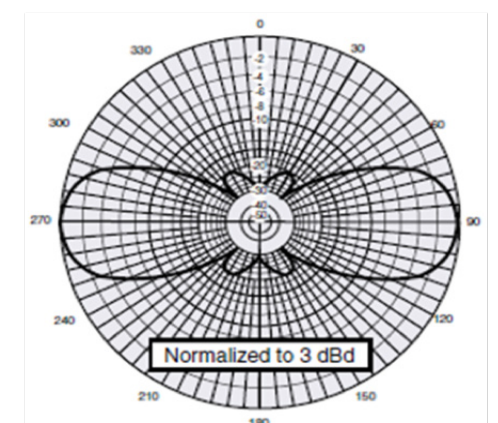
FG1520

Elevation



FG1523

Elevation



CRX Series



CRS150 CRX150 CRX150B

- **High-density fiberglass:** Very durable
- **Collinear design:** High performance
- **Treated for UV:** Resists sun damage
- **Fully tested with an RF analyzer:** Ensures the best performance
- **Gold anodized aluminum base and cap:** Will not rust

Omnidirectional VHF Base Station Antenna (150 - 174 MHz)

Electrical Characteristics

Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	1.5:1
Horizontal Beam Width (Azimuth)	360°
Input Power (W)	250
Impedance	50
Electrostatic Discharge Protection	Grounding

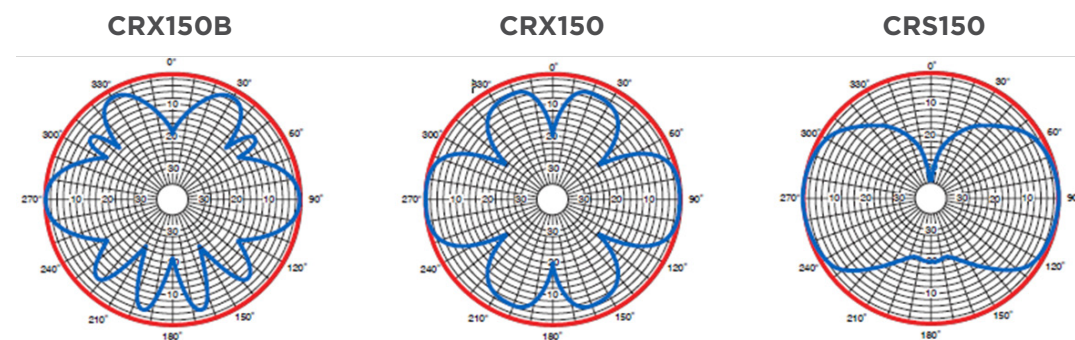
Mechanical Characteristics

Connectory Type	UHF-Female
Radiator Material	Aluminum 6063-T832
Finish	Chrome plated
Maximum Wind Resistance (KM/H)	128
Diameter (cm)	2.2

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Adjusted Band (MHz)	Vertical Beam Width	Height (cm)	Weight (kg)
150-174	CRS150	2	7	73	114	0.9
	CRX150	5	6	36	294	2.2
	CRX150B	7	4	30	412	3.2

Radiation Patterns



Horizontal Plane Vertical Plane

P Series



P1544

- **Economical 4-element antenna:** Provides 8.5 dBi of gain
- **Solid elements:** 6063-T832 aluminum with .48 cm diameter
- **Solid boom:** 6063-T832 aluminum with 2.2 cm diameter
- **Can be placed in parallel:** Increased gain
- **Pre-assembled and frequency adjusted:** Quick and easy installation

Directional Yagi VHF Base Station Antenna (138 - 174.5 MHz)

Electrical Characteristics

Radiation Pattern	Omnidirectional
Polarization	Vertical & Horizontal
VSWR	2.0:1
Input Power (W)	400
Impedance	50
Electrostatic Discharge Protection	Grounding

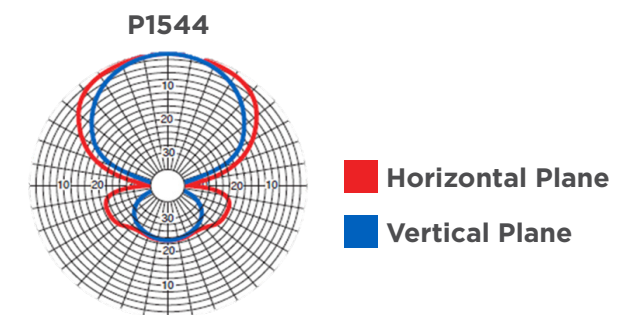
Mechanical Characteristics

Connectory Type	UHF
Radiator Material	Aluminum 6063-T832
Radome Material	Aluminum 6063-T832
Boom Diameter (cm)	2.2
Base and Cap Material	Gold-anodized Aluminum
Finish	Chrome
Maximum Wind Resistance (KM/H)	200
Element Dimensions (cm)	110
Weight (kg)	1.2
Maximum Mast Diameter (cm)	5.2

Ordering Information

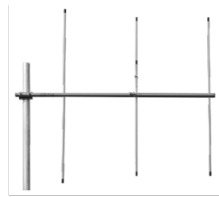
Frequency (MHz)	Part #	Gain (dBi)	Horizontal Beam Width	Vertical Beam Width	Front to Back Ratio (db)	# of Elements
138-142.5	P1424	8.5	80	65	18	4
146-150.5	P1504	8.5	80	65	18	4
150-154.5	P1544	8.5	80	50	18	4
154-158.5	P1584	8.5	80	65	18	4
158-162.5	P1624	8.5	80	65	18	4
162-166.5	P1664	8.5	80	65	18	4
170-174.5	P1744	8.5	80	65	18	4

Radiation Patterns

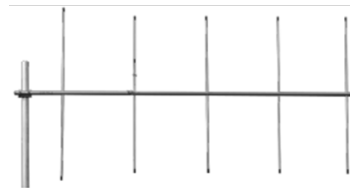


Horizontal Plane Vertical Plane

Directional Yagi VHF Base Station Antenna (150 - 250 MHz)



YS1503



YS1505

Electrical Characteristics

Radiation Pattern	Directional
Polarization	Vertical/Horizontal
VSWR	<2.0:1
Input Power (W)	300
Impedance	50
Electrostatic Discharge Protection	Grounding

Mechanical Characteristics

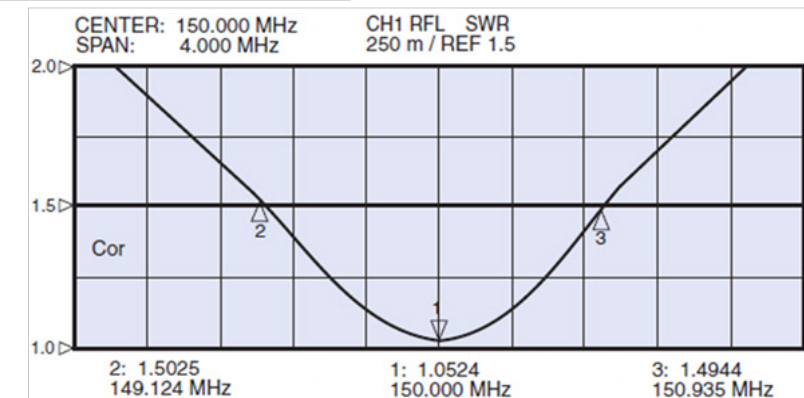
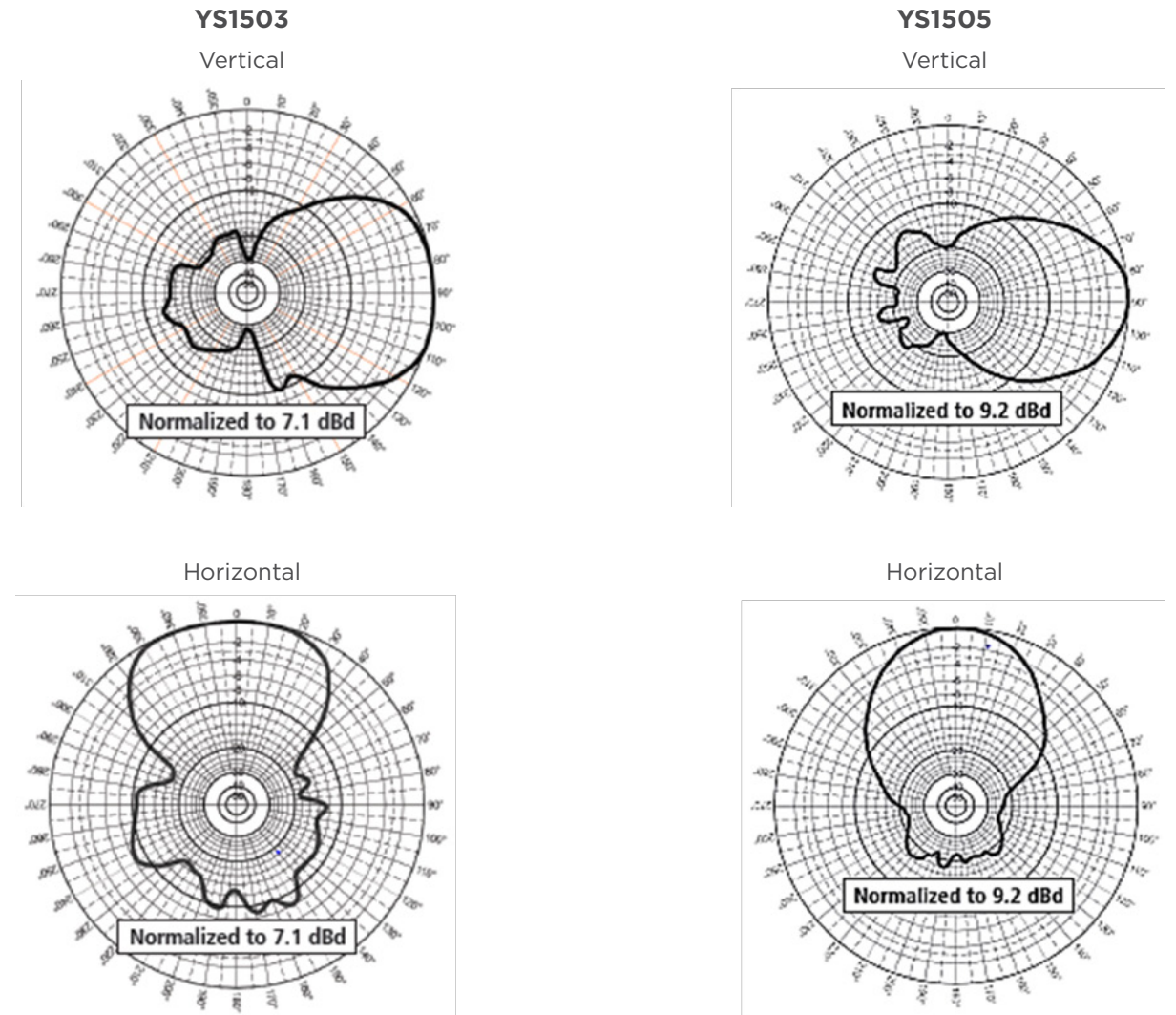
Connectory Type	N-Female
Radiator Material	Aluminum 6061-T6
Boom Material	Aluminum 6061-T6
Boom Diameter (cm)	2.2
Fixture of Elements to Boom	Screw
Finish	Chrome
Maximum Wind Resistance (KM/H)	200
Maximum Mast Diameter (cm)	5.08

Ordering Information

Freq. (MHz)	Part #	Gain (dBi)	Horiz. Beam Width	Vert. Beam Width	Front to Back ratio (dB)	# of Elements	Length (cm)	Boom Diameter (cm)
150-174	YS1503	9.25	78	74	17	3	105	2.22
	YS1505	11.2	60	54	20	5	183	3.17
216-225	YS2163	9.25	78	74	17	3	105	2.22
220-250	YS2203	9.25	78	74	17	3	105	2.22
	YS2205	11.2	60	54	20	5	183	3.17

- **Boom terminates in N-Female connector:** Feeds elements via internal line
- **Internal harmonization:** 4 MHz bandwidth and weather resistance
- **No gamma combination:** Will not freeze, corrode, or detune
- **Economical:** Mounting kit model YM78HD included
- **Field adjustable:** Factory tuned to lowest freq.
- **Quick intallation:** Arrives partially assembled

Radiation Patterns



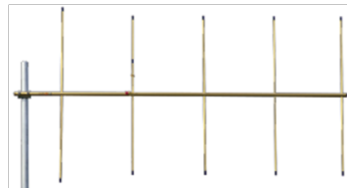
Y Series



Y1503



YB1503



Y1505



YB1505

Directional Yagi VHF Base Station Antenna (136 - 285 MHz)

Electrical Characteristics

Radiation Pattern	Directional
Polarization	Vertical/Horizontal
VSWR	2,0:1
Input Power (W)	300
Impedance	50
Electrostatic Discharge Protection	Grounding

Mechanical Characteristics

Connectory Type	N-Female
Element Material	Anodized Aluminum 6061-T6
Boom Material	Anodized Aluminum 6061-T6
Boom Diameter (cm)	2.2
Fixture of Elements to Boom	Screw
Finish	Anodized in Gold (Y) and Black (YB)
Maximum Wind Resistance (KM/H)	200

Ordering Information

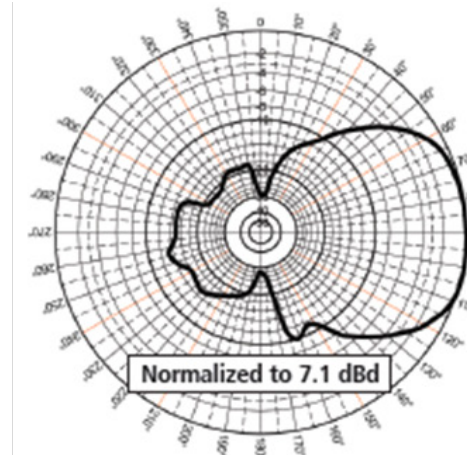
Freq. (MHz)	Part #	Gain (dBi)	Horiz. Beam Width	Vert. Beam Width	Front to Back Ratio (dB)	# of Elements	Length (cm)	Boom Diameter (cm)
136-150	Y1363	9.25	78	74	17	3	105	2.22
	Y1365	11.2	60	54	20	5	183	3.17
150-174	YB1505	11,2	60	54	20	5	183	3.17
220-250	Y2205	11,2	60	54	20	5	183	3.17
250-285	Y2503	9,25	78	74	17	3	105	2.22
	Y2505	11,2	60	54	20	5	183	3.17

- **Boom terminates in N-Female connector:** Feeds elements via internal line
- **Internal harmonization:** 4 MHz bandwidth and weather resistance
- **Anodized in gold and black:** Will not corrode
- **No gamma combination:** Will not freeze, corrode, or detune
- **Economical:** Mounting kit model YM78HD included
- **Fully tested on an analyzer:** Provides best performance and VSWR

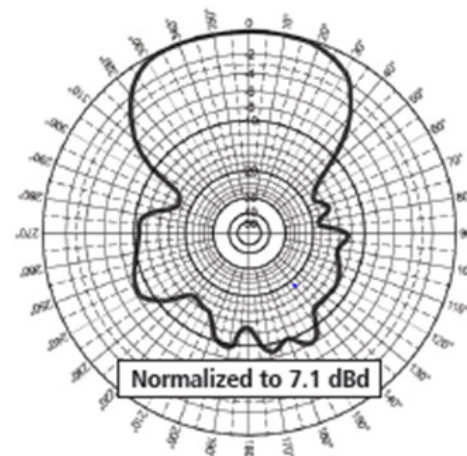
Radiation Patterns

Y1503

Vertical Polarization

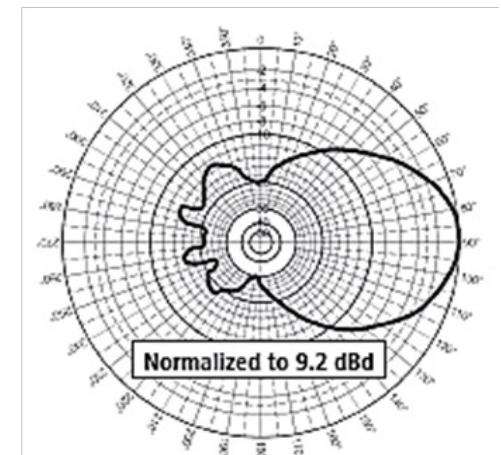


Horizontal Polarization

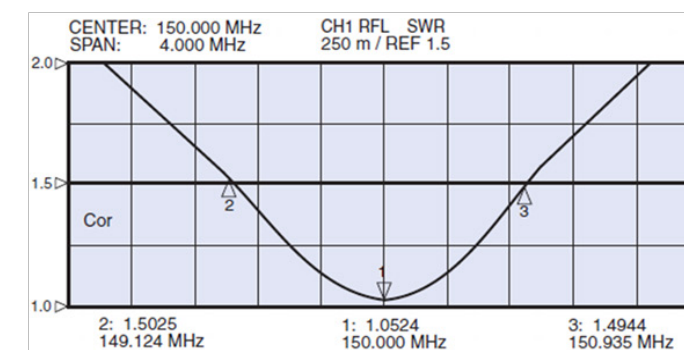
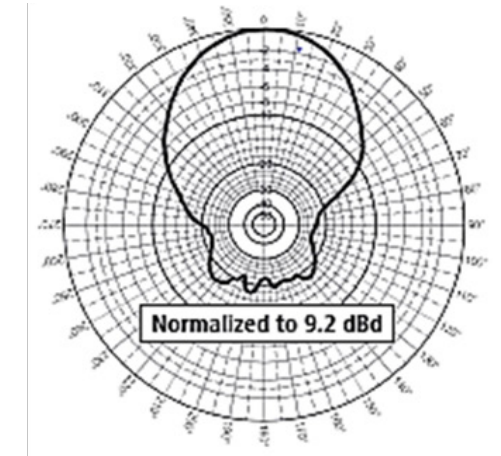


Y1505

Elevation



Horizontal Polarization



Directional Yagi VHF Base Station Antenna (129 - 222 MHz)



PLC1506

Electrical Characteristics

Radiation Pattern	Directional
Polarization	Vertical/Horizontal
VSWR	1.5:1
Input Power (W)	400
Impedance	50
Electrostatic Discharge Protection	Grounding



PLC1509

Mechanical Characteristics

Connectory Type	UHF or N-Female
Element Material	Aluminum 6063-T832
Boom Material	Aluminum 6063-T832
Element Diameter	1.3
Boom Diameter	2.9
Maximum Mast Diameter (cm)	5.4
Finish	Chrome
Maximum Wind Resistance (KM/H)	200

Ordering Information

Freq. (MHz)	Part #	Gain (dBi)	Horiz. Beam Width	Vert. Beam Width	Front to Back Ratio (dB)	# of Elements	Length (cm)	Weight (kg)
129-137	PLC1296N	9.1	74	53	20	6	190	3.3
134-142	PLC1346	9.1	74	53	20	6	190	3.3
136-142	PLC1369	13.1	45	35	20	9	386	4.9
142-150	PLC1426	9.1	74	53	20	6	190	3.3
	PLC1426N	9.1	74	53	20	6	190	3.3
	PLC1429N	13.1	45	35	20	9	386	4.9
150-158	PLC1506	9.1	74	53	20	6	190	3.3
	PLC1509	13.1	45	35	20	9	386	4.9
	PLC1509N	13.1	45	35	20	9	386	4.9

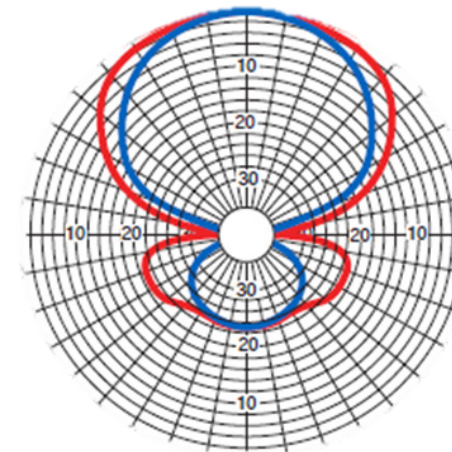
- **High-density fiberglass:** Very durable
- **Collinear design with J-pole style element:** High performance
- **Doesn't require adjustment in the field:** Broadband 4 MHz
- **Treated for UV:** Resists sun damage

Ordering Information (Cont'd)

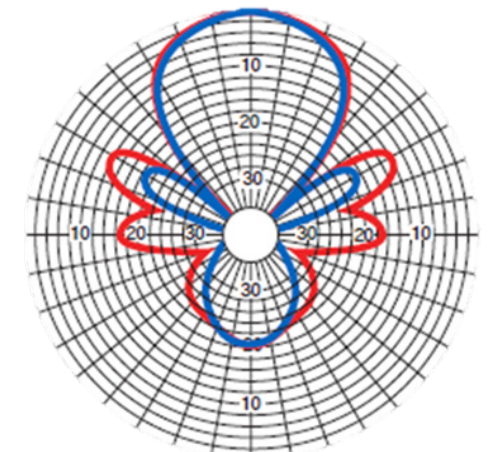
Freq. (MHz)	Part #	Gain (dBi)	Horiz. Beam Width	Vert. Beam Width	Front to Back Ratio (dB)	# of Elements	Length (cm)	Weight (kg)
158-166	PLC1586	9.1	74	53	20	6	190	3.3
	PLC1586N	9.1	74	53	20	6	190	3.3
	PLC1589	13.1	45	35	20	9	386	4.9
	PLC1589N	13.1	45	35	20	9	386	4.9
166-174	PLC1666	9.1	74	53	20	6	190	3.3
	PLC1669	13.1	45	35	20	9	386	4.9
220-222	PLC2206	9.1	74	53	20	6	190	3.3
	PLC2206N	9.1	74	53	20	6	190	3.3
	PLC2209N	13.1	45	35	20	9	386	4.9

Radiation Patterns

PLC1506



PLC1509



■ Horizontal Plane
■ Vertical Plane

Omnidirectional VHF Base Station Antenna (132 - 174 MHz)



Electrical Characteristics

Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	1.5:1
Horizontal Beam Width (Azimuth)	360°
Input Power (W)	250
Impedance	50
Electrostatic Discharge Protection	Grounding

Mechanical Characteristics

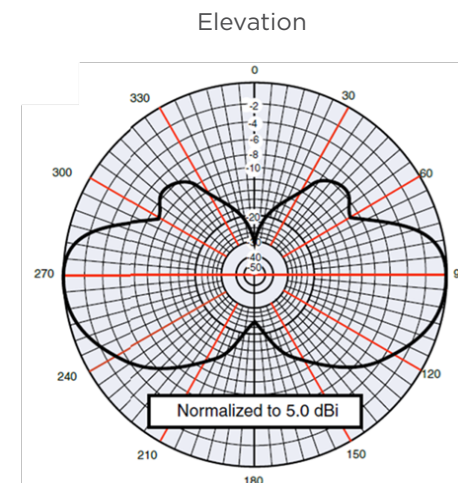
Connectory Type	N-Female
Radiator Material	Anodized Aluminum 6061-T6
Finish	Gold
Maximum Wind Resistance (KM/H)	160

Ordering Information

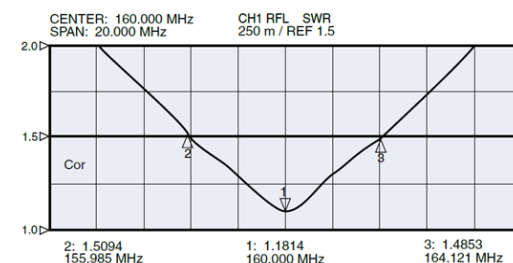
Frequency (MHz)	Part #	Gain (dBi)	Bandwidth (%)	Vertical Beam Width	Height (cm)	Weight (kg)
132-150	VG1325	5	2.5%	70	259	1.13
150-174	VG1502	2	5%	70	140	0.54
150-174	VG1505	5	2.5%	70	259	1.13

Radiation Patterns

VG1505













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- **Economical:** Magnificent design and manufacturing at a low price
- **N-type connector with gold-anodized aluminum cover:** Protective and provides a strong mount
- **Patented internal adapter:** Will not freeze, corrode, or detune
- **Rubberized plastic coating:** Resists moisture and vibrations
- **UV resistant:** Won't crack or wear in sun
- **Thick wall mount:** Durable, safe installation
- **Broadband:** Easy adjustment/operation across many channels and frequencies
- **Field-adjustable:** For quick deployment
- **Telescoping elements:** Easy to transport
- **Fully tested:** Reliable performance







VHF Base Station Antenna Accessories

Part #	Description
 AD-NM-NM	Barrel Adapter - N-Male to N-Male
 AD-NF-NF	Barrel Adapter - N-Female to N-Female
 FM1	"U" type stainless steel mounting kit for masts up to 4.76 cm in diameter; Quantity: 2
 FM2	"U" type fiberglass mounting kit for masts up to 6.35 cm in diameter; Quantity: 2
 FM2SP	"U" type fiberglass mounting kit for masts up to 6.35 cm in diameter; Quantity 1
 FM3	Robust mounting kit for heavy antennas and masts up to 7.62 cm in diameter; Quantity: 2
 FM3W	Robust mounting kit with welded center for heavy antennas and masts up to 7.62 cm in diameter; Quantity: 2
 FMW4	10 cm (4 ") side wall mount for YMST4 and YMST18 masts or any of up to 6.35 cm in diameter; quantity: 2
 IASFST	Silicone waterproofing tape for joints and connectors, 10.97 m (36 feet)
 IASFST10	Silicone waterproofing tube for joints, 6 25.4 cm (10 inch) tapes
LAC4	Coaxial lightning and over voltage protector, gas discharge, DC-500 MHz, Maximum Power: 200 W, Connector: Female UHF
LAC4N	Coaxial lightning and over voltage protector, gas discharge, DC-3000 MHz, Maximum Power: 200 W, Connector: N Female
LAC6NFF	Coaxial lightning and overvoltage protector, gas discharge, DC-6000 MHz, Connector: N Female to N Female
LAC6NMF	Coaxial lightning and overvoltage protector, gas discharge, DC-6000 MHz, Connector: N Male to N Female

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Accessories

VHF Base Station Antenna Accessories (Cont'd)

Part #	Description
 LAIL350NN	Coaxial lightning and overvoltage protector, gas discharge, DC-1000 MHz, 350V, N-Male to N-Male
LABH2400NN	Coaxial lightning and surge protection, gas discharge, DC-4000 MHz, Maximum Power: 200 W, Connector: N-Male to N-Male
LABH350NN	Coaxial lightning and overvoltage protector, gas discharge, DC-1000 MHz, Connector: N-Male to N-Male
LA350GT	Replacement Gas Pipe for Protector
PT4002NN	ATX400 series assembled cable with N-Male to N-Male connectors, 0.60 m (2 feet)
PT4003NN	ATX400 series assembled cable with N-Male to N-Male connectors, 0.91 m (3 feet)
 LAIL350NN	ATX400 series assembled cable with N-Male to N-Male connectors, 3.04 m (10 feet)
PT40017NN	ATX400 series assembled cable with N-Male to N-Male connectors, 5.18 m (17 feet)
SEALTUBE3	Heat shrinkable adhesive tube 5.08 cm long by 2.54 cm in diameter
 SP3-90-6-BFF	Coaxial lightning and overvoltage protector, gas discharge, DC-3000 MHz, 90 V, N-Male to N-Male
SP3-90-6-BFM	Coaxial lightning and overvoltage protector, gas discharge, DC-3000 MHz, 90 V, N-Male to N-Female
 SP3-90-6-BFF	Coaxial lightning and overvoltage protector, gas discharge, DC-6000 MHz, 230V, N-Male to N-Male
SP6-230-BFM	Coaxial lightning and overvoltage protector, gas discharge, DC-6000 MHz, 230V, N-Male to N-Female
 UM	Wall or mast mount with 90 ° adjustable tilt, galvanized steel tube, length: 38 cm, diameter; 3.81 cm
UML	Wall or mast mount with 90 ° adjustable tilt, galvanized steel tube, length: 63 cm, diameter; 3.81 cm
 UM-UB	"U" type mounting kit for the installation of UM and UML mounts on masts; Quantity: 2

Accessories

VHF Base Station Antenna Accessories (Cont'd)





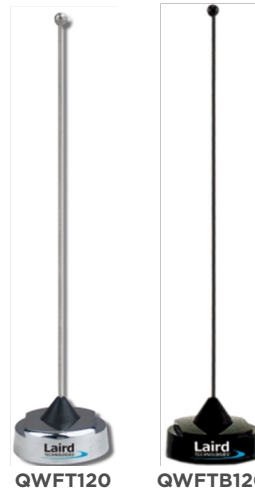
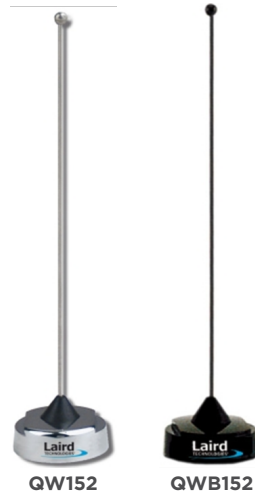
Part #	Description
 WMB-8	Wall mount galvanized steel anti-corrosion plating, distance between wall: 20 cm, tube diameter; 3.81 cm
 YMST4	Aluminum wall mast, length 1,21 m (4 ') and external diameter 3,175 cm (1.25 ")
YMST18	Aluminum wall mast, length 5.48 m (18 ') and external diameter 3,175 cm (1.25 "), 2 sections
 YM78	Mounting for Yagi antenna with boom up to 2.22 cm in diameter and mast of 4.12 cm in diameter; Quantity 1
 YM78HD	Robust mounting for Yagi antenna with boom up to 2.22 cm in diameter and mast of 6.35 cm in diameter; Quantity 1
YM100HD	Robust mounting for Yagi antenna with boom up to 2.54 cm in diameter and mast of 6.35 cm in diameter; Quantity 1
YM125HD	Robust mounting for Yagi antenna with boom up to 3.17 cm in diameter and mast of 6.35 cm in diameter; Quantity 1
YPD1502	Power splitter for arrangement of two Yagi antennas, 150 MHz, Connector: N Male
YPD1502P	Power splitter for arrangement of two Yagi antennas, 150 MHz, Connector: PL259
YPD1504	Power splitter for arrangement of four Yagi antennas, 150 MHz, Connector: N Male
YPD4502	Power splitter for arrangement of two Yagi antennas, 450 MHz, Connector: N Male
YPD4504	Power splitter for arrangement of four Yagi antennas, 450 MHz, Connector: N Male
YPD4504P	Power splitter for arrangement of four Yagi antennas, 450 MHz, Connector: PI259
YPD4704P	Power splitter for arrangement of four Yagi antennas, 470 MHz, Connector: PI259
YPD4904P	Power splitter for arrangement of four Yagi antennas, 490 MHz, Connector: PI259

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QW Series



- 1/4 Wavelength
- Economical
- Requires Ground Plane
- 136-256 MHz Frequency: adjustable by cutting
- Gain: 2 dBi
- Stainless steel radiating element: 17-7 PH
- Gold anodized connector: Corrosion-resistant and better transmission

Omnidirectional VHF Mobile Antenna (136 - 256 MHz)

Electrical Characteristics

Antenna Style	Whip
Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	<2.0:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	200
Impedance (Ohms)	50

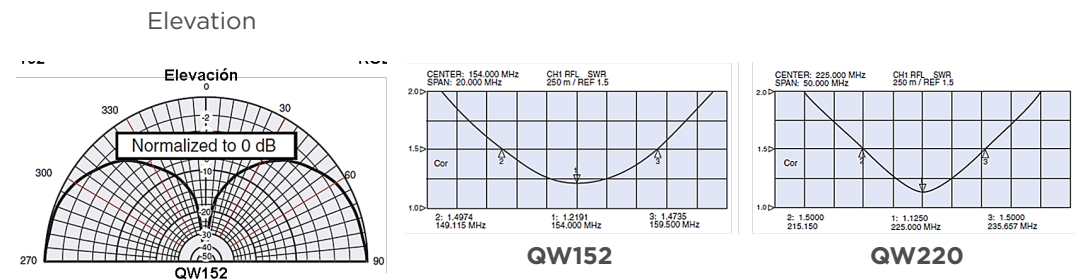
Mechanical Characteristics

Contact Material	Gold Plated
Radiator Material	Stainless Steel Alloy 17-7 PH
Base Material	Triple chrome plated brass
Color	Bright Chrome or Black
Connector	NMO

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
136-144	QW136	2	Chrome	56
	QWB136	2	Black	56
144-152	QW144	2	Chrome	48
	QWB144	2	Black	48
152-162	QW152	2	Chrome	46
	QWB152	2	Black	46
162-174	QW162	2	Chrome	43
	QWB162	2	Black	43
220-225	QW220	2	Chrome	32
	QWB220	2	Black	32
232-256	QW246	2	Chrome	30
	QWB246	2	Black	30
118-970	QWFT120	2	Chrome	61
	QWFTB120	2	Black	61

Radiation Patterns



Base A Series



Omnidirectional VHF Mobile Antenna (118 - 174 MHz)

Electrical Characteristics

Antenna Style	Whip
Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	<1.5:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	200
Impedance (Ohms)	50

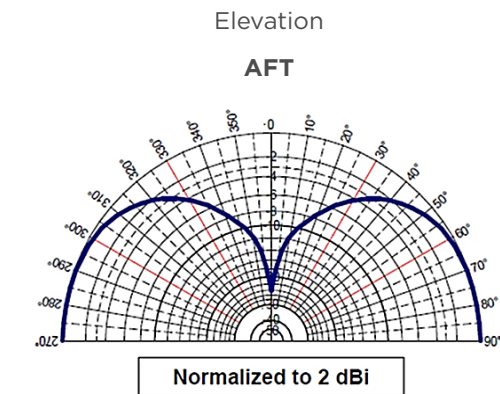
Mechanical Characteristics

Contact Material	Gold Plated
Radiator Material	Stainless Steel Alloy 17-7 PH
Base Material	ABS
Color	Bright Chrome or Black
Connector	NMO

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Base Style	Color	Height (cm)
150-174	A150	2	Solid	Chrome	44.7
	AB150	2	Solid	Black	44.7
	A150S	2	Spring	Chrome	43
	AB150S	2	Spring	Black	43
118-896	AFT	2	Solid	Chrome	63.5
	ABFT	2	Solid	Black	63.5
	AFTS	2	Spring	Chrome	63.5
	ABFTS	2	Spring	Black	63.5

Radiation Patterns



- 1/4 Wavelength
- Requires Ground Plane
- Robust ABS base
- 118-174 MHz Frequency: adjustable by cutting
- Gain: 2 dBi
- Stainless steel radiating element: 17-7 PH
- Gold anodized connector: Corrosion-resistant and better transmission
- Long triple-chrome splint: allows more adjustment range without cutting
- Robust ABS base with moderate threads: extreme power retention

Base B Series - 1/4 Wavelength



Omnidirectional VHF Mobile Antenna (132 - 250 MHz)

Electrical Characteristics

Antenna Style	Whip w/ charging coil in base
Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	<1.5:1
Horizontal Beam Width (Azimuth)	360°
Vertical Beam Width	110°
Maximum Input Power (W)	200
Impedance (Ohms)	50

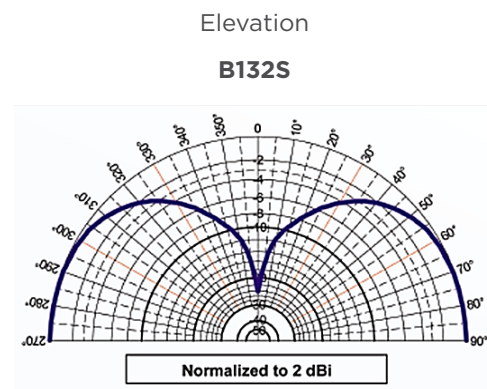
Mechanical Characteristics

Contact Material	Gold Plated
Radiator Material	Stainless Steel Alloy 17-7 PH
Base Material	ABS
Color	Bright Chrome or Black
Base Diameter (cm)	3.65
Weight (kg)	0.22
Connector	NMO

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Base Style	Color	Height (cm)
132-928	B132	2	Solid	Chrome	53
	BB132	2	Solid	Black	53
132-525	B132R	2	Spring	Chrome	53
	BB132R	2	Spring	Black	53
	B132S	2	Spring	Chrome	53
	BB132S	2	Spring	Black	53

Radiation Patterns



- **1/4 Wavelength**
- **Robust ABS base:** injection molded around brass core, waterproof
- **118-174 MHz Frequency:** adjustable by cutting
- **Gain:** 2 dBi
- **Stainless steel radiating element:** 17-7 PH
- **Gold anodized connector:** Corrosion-resistant and better transmission
- **Easily remove rod for car wash:** waterproof base
- **Stainless steel rod:** 17-7 PH anodized, resists rust and bending
- **Triple chrome plated brass insert:** bridges base and rod
- **Silver welded joints**
- **Tight-sealed base O ring**
- **Low loss coil:** provides dimension and frequency stability

Base B Series - 1/2 Wavelength Broadband



Omnidirectional VHF Mobile Antenna (132 - 174 MHz)

Electrical Characteristics

Antenna Style	Whip w/ charging coil in base
Radiation Pattern	Omnidirectional
Polarization	Vertical
Bandwidth (MHz)	23
VSWR	<1.5:1
Horizontal Beam Width (Azimuth)	360°
Vertical Beam Width	110°
Maximum Input Power (W)	100
Impedance (Ohms)	50

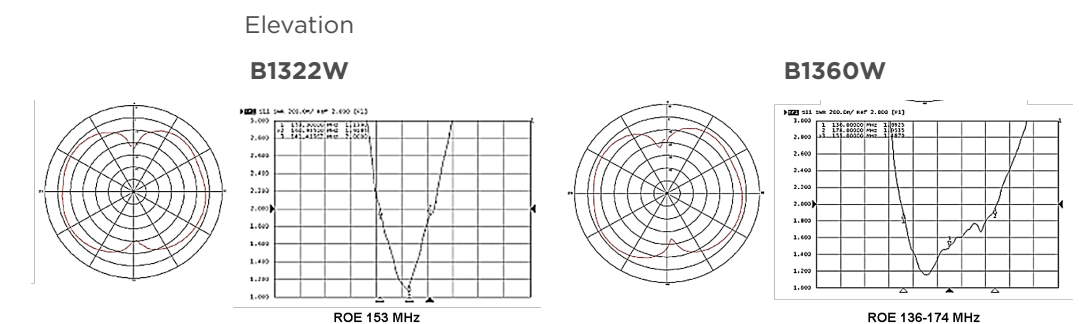
Mechanical Characteristics

Contact Material	Gold Plated
Radiator Material	Stainless Steel Alloy 17-7 PH
Base Material	ABS
Color	Bright Chrome or Black
Base Diameter (cm)	3.65
Weight (kg)	0.22
Connector	NMO

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Base Style	Color	Height (cm)
132-174	B1322W	4.4	Solid	Chrome	102
	BB1322W	4.4	Solid	Black	102
	B1322WS	4.4	Spring	Chrome	102
	BB1322WS	4.4	Spring	Black	102
136-174	B1360W	2	Solid	Chrome	49
	BB1360W	2	Solid	Black	49
	B1360WS	2	Spring	Chrome	49
	BB1360WS	2	Spring	Black	49

Radiation Patterns



- **1/2 Wavelength**
- **Bandwidth:** 23 MHz
- **Robust ABS base:** injection molded around brass core, waterproof
- **Low-loss base load coil**
- **132-174 MHz Frequency:** requires no adjustment
- **Stainless steel radiating element:** 17-7 PH
- **Gold anodized connector:** Corrosion-resistant and better transmission

Base B Series - 1/2 Wavelength



B1322N B1422NS B1322NR



BB1372N BB1442NS BB1442NR

Omnidirectional VHF Mobile Antenna (132 - 174 MHz)

Electrical Characteristics

Antenna Style	Whip w/ charging coil in base
Radiation Pattern	Omnidirectional
Polarization	Vertical
Bandwidth (MHz)	23
VSWR	<1.5:1
Horizontal Beam Width (Azimuth)	360°
Vertical Beam Width	70°
Maximum Input Power (W)	100
Impedance (Ohms)	50

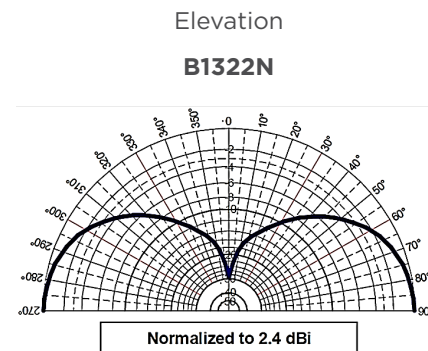
Mechanical Characteristics

Contact Material	Gold Plated
Radiator Material	Slainless Steel Alloy 17-7 PH
Base Material	ABS
Color	Bright Chrome or Black
Base Diameter (cm)	3.65
Weight (kg)	0.22
Connector	NMO

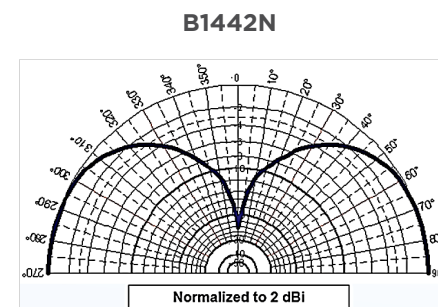
Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Vert. Beam Width	Base Style	Color	Height (cm)
132-174	B1322N	2	70°	Solid	Chrome	140
	B1322NR	2	70°	Rubber spring	Chrome	124
	BB1322NR	2	70°	Rubber spring	Black	124
137-150	B1322NS	2	70°	Metal spring	Chrome	124
	BB1372N	2	70°	Solid	Black	140
144-174	BB1372N	2	70°	Solid	Black	140
	B1442N	2	70°	Solid	Chrome	124
	BB1442N	2	70°	Solid	Black	124
	B1442NS	2	70°	Metal spring	Chrome	124
	BB1442NS	2	70°	Metal spring	Black	124

Radiation Patterns



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- 1/2 Wavelength
- No ground plane needed
- Low-loss base load coil
- 132-174 MHz Frequency: adjustable by cutting
- Stainless steel radiating element: 17-7 PH
- Gold anodized connector: Corrosion-resistant and better transmission

Base B Series - 5/8 Wavelength



B1323 B1323S B1323R



BB1443 BB1443S BB1323R

Omnidirectional VHF Mobile Antenna (132 - 174 MHz)

Electrical Characteristics

Antenna Style	Whip w/ charging coil in base
Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	<1.5:1
Horizontal Beam Width (Azimuth)	360°
Vertical Beam Width	70°
Maximum Input Power (W)	100
Impedance (Ohms)	50

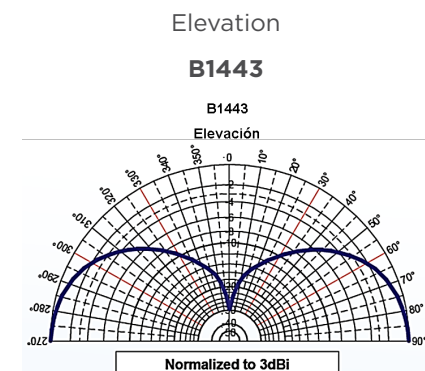
Mechanical Characteristics

Contact Material	Gold Plated
Radiator Material	Slainless Steel Alloy 17-7 PH
Base Material	ABS
Color	Bright Chrome or Black
Base Diameter (cm)	3.65
Weight (kg)	0.22
Connector	NMO

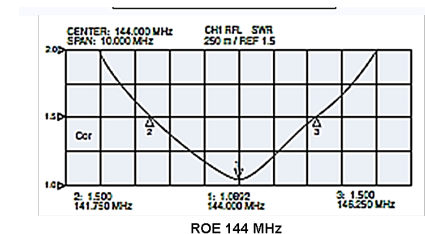
Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Base Style	Color	Height (cm)
132-174	B1323	5	Solid	Chrome	140
	B1323R	5	Rubber Spring	Chrome	140
	BB1323R	5	Rubber Spring	Black	140
	B1323S	5	Metal Spring	Chrome	140
	BB1323S	5	Metal Spring	Black	140
144-174	B1443	5	Solid	Chrome	124
	BB1443	5	Solid	Black	124
	B1443R	5	Rubber Spring	Chrome	124
	BB1443R	5	Rubber Spring	Black	124
	B1443S	5	Metal Spring	Chrome	124
BB1443S	5	Metal Spring	Black	124	

Radiation Patterns



71



- 5/8 Wavelength
- Low-loss base load coil
- 132-174 MHz Frequency: adjustable by cutting
- Stainless steel radiating element: 17-7 PH
- Gold anodized connector: Corrosion-resistant and better transmission

Base CW Series - 5/8 Wavelength Broadband



CW1503 CWB1503



CW1503S CWB1503S

- 5/8 Wavelength
- Patented base load per circuit
- 132-174 MHz Frequency: doesn't require adjusting
- Broadband
- Stainless steel radiating element: 17-7 PH
- Gold anodized connector: Corrosion-resistant and better transmission

Omnidirectional VHF Mobile Antenna (142 - 225 MHz)

Electrical Characteristics

Antenna Style	Whip w/ base load per circuit
Radiation Pattern	Omnidirectional
Polarization	Vertical
Percentage bandwidth (MHz)	Exceeds 10% @ VSWR 1.8:1
VSWR	<2.0:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	200
Impedance (Ohms)	50

Mechanical Characteristics

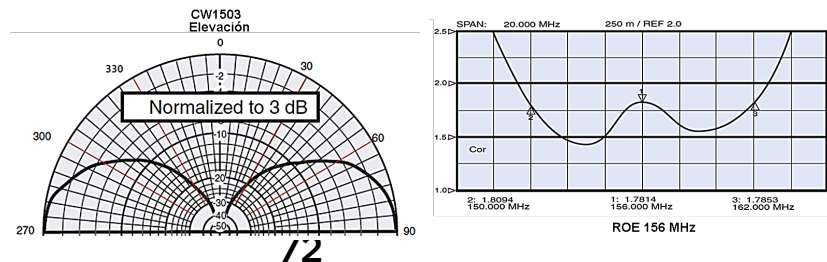
Contact Material	Gold Plated
Radiator Material	Stainless Steel Alloy 17-7 PH
Base Material	ABS
Color	Bright Chrome or Black
Connector	NMO

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Base Style	Color	Height (cm)	Base Diameter (cm)	Weight (kg)
132-144	CW1323	5	Solid	Chrome	128	3.65	0.22
	CW1323S	5	Spring	Chrome	128	3.65	0.22
138-150	CW1383	5	Solid	Chrome	128	3.65	0.22
	CW1383S	5	Spring	Chrome	128	3.65	0.22
144-156	CWB1383S	5	Spring	Black	128	3.65	0.22
	CW1443	5	Solid	Chrome	128	3.65	0.22
150-162	CWB1443	5	Solid	Black	128	3.65	0.22
	CW1443S	5	Spring	Chrome	128	3.65	0.22
153-169	CWB1443S	5	Spring	Black	128	3.65	0.22
	CW1503	5	Solid	Chrome	128	3.65	0.22
162-174	CWB1503	5	Solid	Black	128	3.65	0.22
	CW1503S	5	Spring	Chrome	128	3.65	0.22
155-168	CWB1503S	5	Spring	Black	128	3.65	0.22
	CW1533	5	Solid	Chrome	128	3.65	0.22
162-174	CWB1533	5	Solid	Black	128	3.65	0.22
	CW1533S	5	Spring	Chrome	128	3.65	0.22
155-168	CWB1533S	5	Spring	Black	128	3.65	0.22
	CW1623	5	Solid	Chrome	128	3.65	0.22
155-168	CWB1623	5	Solid	Black	128	3.65	0.22
	CW1623S	5	Spring	Chrome	128	3.65	0.22

Radiation Patterns

Elevation - CW1503



Phantom Series - Adjustable



TRAT1500 TRABT1500



TRAT1500P TRABT1500P

- Low profile: 9 cm height
- 142-225 MHz Frequency: adjustable by allen key
- 1 MHz Bandwidth
- NMO or N connector
- Gold anodized connector: Corrosion-resistant and better transmission

Omnidirectional VHF Mobile Antenna (142 - 225 MHz)

Electrical Characteristics

Antenna Style	Low Profile
Radiation Pattern	Omnidirectional
Polarization	Vertical
VSWR	<2.0:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	60
Impedance (Ohms)	50

Mechanical Characteristics

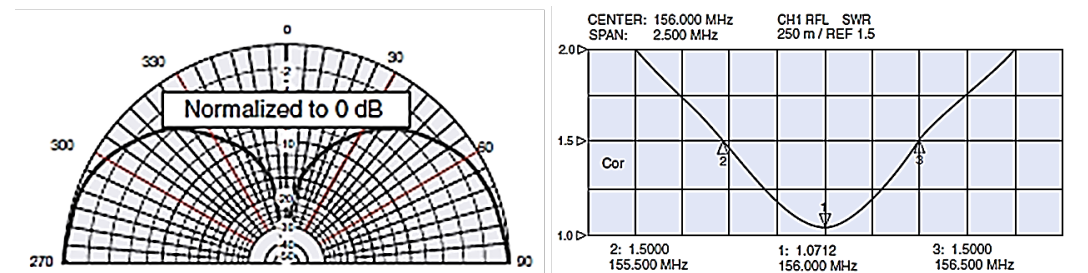
Contact Material	Gold Plated
Radiator Material	Solid Brass
Base Material	ABS
Color	White or Black
Base Diameter (cm)	8.5
Weight (kg)	0.11
Connector	NMO

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Connector	Color	Height (cm)
142-160	TRAT1420	2	NMO	White	9
	TRABT1420	2	NMO	Black	9
150-168	TRABT1420P	2	N	Black	9
	TRAT1500	2	NMO	White	9
156-172	TRABT1500	2	NMO	Black	9
	TRAT1500P	2	N	White	9
155-168	TRABT1500P	2	N	Black	9
	TRAT1560	2	NMO	White	9
210-225	TRABT1560	2	NMO	Black	9
	TRAT1560P	2	N	White	9
155-168	TRAT2100	2	NMO	White	7
	TRABT2100	2	NMO	Black	7

Radiation Patterns

Elevation
TRAT1420



Phantom Elite Series



Omnidirectional VHF Mobile Antenna (144 - 170 MHz)

Electrical Characteristics

Antenna Style	Low Profile
Radiation Pattern	Omnidirectional
Polarization	Vertical
Bandwidth (MHz)	5
VSWR	<2.0:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	60
Impedance (Ohms)	50

Mechanical Characteristics

Contact Material	Gold Plated
Radiating Element Material	Radiant Circuit
Base Material	ABS
Color	White or Black
Base Diameter (cm)	8.2
Weight (kg)	0.11
Connector	NMO

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
144-148	ETRA1440	2	White	6
	ETRAB1440	2	Black	6
150-155	ETRA1500	2	White	6
	ETRAB1500	2	Black	6
155-160	ETRA1550	2	White	6
	ETRAB1550	2	Black	6
160-165	ETRA1600	2	Black	6
	ETRA1650	2	White	6
165-170	ETRA1650	2	White	6
	ETRAB1650	2	Black	6

- **Low profile:** 6 cm height
- **Patented radiant PCB**
- **144-170 MHz Frequency:** adjustable by allen key
- **Silver-tin welded joints:** ensure mechanical and electrical connection
- **Molded ABS plastic frame:** nearly indestructible
- **Bayonet insert notch on mount:** point toward front and rear of vehicle
- **5 MHz Bandwidth**
- **Requires no adjustment**
- **NMO connector**
- **Gold anodized connector:** Corrosion-resistant and better transmission

Base A Series - Multiband



Omnidirectional VHF Mobile Antenna (144-170/440-450 MHz)

Electrical Characteristics

Antenna Style	Low Profile
Radiation Pattern	Omnidirectional
Polarization	Vertical
Wavelength	1/2 (VHF), 5/8 to 1/2 (UHF)
VSWR	<1.5:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	200
Impedance (Ohms)	50

Mechanical Characteristics

Contact Material	Gold Plated
Radiator Material	Stainless Steel Alloy 17-7 PH
Base Material	ABS
Color	Chrome or Black
Base Diameter (cm)	3.2
Connector	NMO

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Base Style	Color	Height (cm)
144-148 / 440-450	A144/440C	2	Solid	Chrome	97
	AB144/440C	2	Solid	Black	97
150-174 / 450-470	A150/450C	2	Solid	Chrome	97
	AB150/450C	2	Solid	Black	97
	A150/450CS	2	Metal Spring	Chrome	97
	AB150/450CS	2	Metal Spring	Black	97

- **Multiband:** UHF and VHF
- **144-174 MHz and 440-470 MHz**
- **1 MHz Bandwidth**
- **NMO or N connector**
- **Gold anodized connector:** Corrosion-resistant and better transmission

Base C Series - Multiband



C150/450C CB150/450C



C150/450CS CB150/450CS

- **Multiband:** UHF and VHF
- **144-174 MHz and 440-470 MHz** - adjustable by cutting
- **Base loading coil and encapsulated tempered silver brass coil**
- **NMO connector**
- **Gold anodized connector:** Corrosion-resistant and better transmission

Omnidirectional VHF Mobile Antenna (144-170 / 440-450 MHz)

Electrical Characteristics

Antenna Style	Whip w/ charging coil in base
Radiation Pattern	Omnidirectional
Polarization	Vertical
Wavelength	1/2 (VHF), 5/8 to 1/2 (UHF)
VSWR	<1.5:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	200
Impedance (Ohms)	50

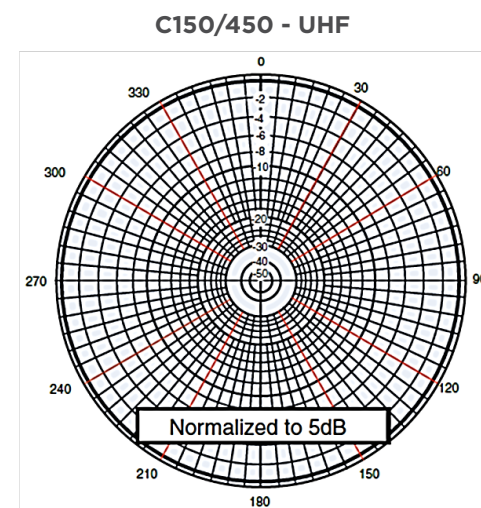
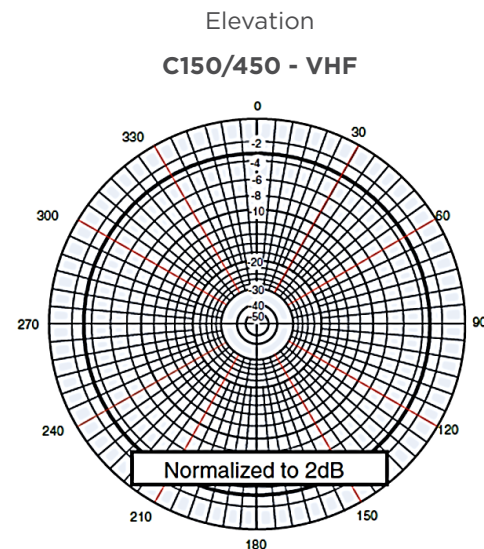
Mechanical Characteristics

Contact Material	Gold Plated
Radiator Material	Stainless Steel Alloy 17-7 PH
Encapsulated Coil Material	Tempered Silver-plated Brass
Base Material	ABS
Color	Chrome or Black
Base Diameter (cm)	3.2
Connector	NMO

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Base Style	Color	Height (cm)
144-148 / 440-450	C144/440C	4	Solid	Chrome	97
	CB144/440C	7	Solid	Black	97
	C144/440CS	4	Metal Spring	Chrome	97
	CB144/440CS	7	Metal Spring	Black	97
150-174 / 450-470	C150/450C	2	Solid	Chrome	97
	CB150/450C	2	Solid	Black	97
	C150/450CS	2	Metal Spring	Chrome	97
	CB150/450CS	2	Metal Spring	Black	97

Radiation Patterns



WPD Series - Multiband



WPD136M6C-001

- **Multiband:** UHF and VHF
- **136-174 MHz (VHF), 380-520 MHz (UHF), 760-870 MHz (Cellular):** Requires no adjustment
- **Base loading coil and encapsulated tempered silver brass coil**
- **Ingress protection:** IP66
- **NMO connector**
- **Gold anodized connector:** Corrosion-resistant and better transmission

Omni VHF Mobile Antenna (136-174 / 380-520 / 760-870 MHz)

Electrical Characteristics

Antenna Style	Whip w/ charging coil in base
Radiation Pattern	Omnidirectional
Polarization	Vertical
Wavelength	1/2 (VHF), 5/8 to 1/2 (UHF)
VSWR	<2.5:1
Horizontal Beam Width (Azimuth)	360°
Maximum Input Power (W)	100
Impedance (Ohms)	50

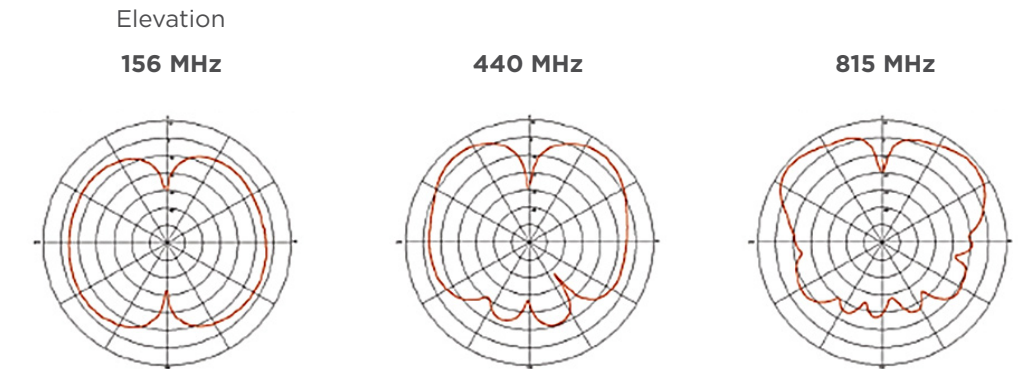
Mechanical Characteristics

Contact Material	Gold Plated
Radiator Material	Stainless Steel Alloy 17-7 PH
Encapsulated Coil Material	Tempered Silver-plated Brass
Base Material	ABS
Color	Black
Base Diameter (cm)	6.35
Connector	NMO

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Base Style	Color	Height (cm)
136-174 / 380-520 / 760-870	WPD136M6C-001	2	Solid	Black	51

Radiation Patterns



GPS Series



WPD136M6C-001



WPD136M6C-001



(Phantom Antenna and NMO connector not included)

- **Multiband:** VHF/GPS AVL
- **132-285 MHz (VHF), 1.575 MHz (GPS),**
- **GPS AVL antenna (automatic vehicle location) with integrated spring for external NMO antenna**
- **Low profile**
- **Includes 5.18 meter RG174 cable with connector of your choice**









GPS and Spring for External VHF Antenna

Ordering Information

Frequency (MHz)	Part #	Gain (dBi)	Color	Height (cm)
1.575 MHz	GPSNMOAO	4	Chrome	1.9
	GPSBNMOAO	7	Black	1.9




Accessories

VHF Mobile Antenna Accessories

	Part #	Description
	MBO	Ceiling mount NMO, 3/4" hole (19 mm), loose, no cable
	MABO	Ceiling mount NMO, 3/8" hole (9.5 mm), loose, no cable
	MABTO	Ceiling mount NMO, 3/4" hole (19 mm) or 3/8" (9.5 mm), plate up to 6.5 mm thickness, loose, no cable
	MABVTO	Ceiling mount NMO, 3/4" hole (19 mm) or 3/8" (9.5 mm), plate up to 13 mm thickness, loose, no cable
	VTPM	Ceiling mount NMO, 5/8" hole (16 mm), plate up to 25.4 mm thickness, loose, no cable
	VTPM800	Ceiling mount NMO, 5/8" hole (16 mm), plate up to 13 mm thickness, 800 MHz, N-type barrel, loose, no cable
	NMOHPC	High-performance NMO mount barrel, 3/4" hole (19 mm), 0-6000 MHz, IP67 Rated, chrome, loose, no cable
	MB8U	NMO ceiling mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), no connector
	MB8UB	NMO ceiling mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector) and loose folding BNC connector
	MB8UM	NMO ceiling mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector) and loose folding mini UHF connector
	MB8UN	NMO ceiling mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector) and loose folding N connector
	MB8UP	NMO ceiling mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector) and loose folding PL259 connector
	MB8USM	NMO ceiling mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector) and loose folding SMA connector
	MB8UT	NMO ceiling mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector) and loose folding TNC connector
	TM8U	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), chrome color, no connector
	TM8UB	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), chrome color, and loose folding BNC connector





Accessories

VHF Mobile Antenna Accessories (Cont'd)

Part #	Description
 TM8UM	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), chrome color, and loose folding Mini UHF connector
TM8UNS	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), chrome color, and loose folding N connector
TM8UP	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), chrome color, and loose folding PL259 connector
TM8UT	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), chrome color, and loose folding TNC connector
TMB8U	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), black color, no connector
TMB8UB	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), black color, and loose folding BNC connector
TMB8UM	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), black color, and loose folding Mini UHF connector
TMB8UN	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), black color, and loose folding N connector
TMB8UP	NMO trunk mount, 3/4" hole (19 mm), with 5.18 m RG58U cable (solid center connector), black color, and loose folding PL259 connector
G8U	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), chrome color, no connector
G8UB	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), chrome color, and loose folding BNC connector
 G8UM	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), chrome color, and loose folding Mini UHF connector
G8UN	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), chrome color, and loose folding N connector
G8UP	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), chrome color, and loose folding PL259 connector
G8UT	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), chrome color, and loose folding TNC connector
GB8U	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), black color, no connector
GB8UB	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), black color, and loose folding BNC connector
 GB8UM	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), black color, and loose folding Mini UHF connector
GB8UN	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), black color, and loose folding N connector
GB8USM	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), black color, and loose folding SMA connector
GB8UT	Magnetic NMO mount, 8.25 cm diameter, with 3.66 m RG58U cable (solid center connector), black color, and loose folding TNC connector
GM8U	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), chrome color, no connector
GM8UB	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), chrome color, and loose folding BNC connector

Accessories

VHF Mobile Antenna Accessories (Cont'd)

Part #	Description
 GM8UM	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), chrome color, and loose folding Mini UHF connector
GM8UP	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), chrome color, and loose folding PL259 connector
GM8USM	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), chrome color, and loose folding SMA connector
GM8UT	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), chrome color, and loose folding TNC connector
GMB8U	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), black color, no connector
GMB8UB	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), black color, and loose folding BNC connector
GMB8UM	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), black color, and loose folding BNC connector
GMB8UN	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), black color, and loose folding N connector
GMB8UP	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), black color, and loose folding PL259 connector
GMB8UT	Mini magnetic NMO mount, 6.03 cm diameter, 3/4" hole (19 mm) with 3.66 m RG58U cable (solid center connector), black color, and loose folding TNC connector
 NMOHPCG518	High performance NMO mount, 3/4" hole (19 mm), 0-6000 MHz, IP67 Rated, chrome color, with 5.18m RG58U cable (solid central conductor), no connector
NMOHPCGFMEM518	High performance NMO mount, 3/4" hole (19 mm), 0-6000 MHz, IP67 Rated, chrome color, with 5.18m RG58U cable (solid central conductor), loose Male FME connector
NMOHPCGMUHM518	High performance NMO mount, 3/4" hole (19 mm), 0-6000 MHz, IP67 Rated, chrome color, with 5.18m RG58U cable (solid central conductor), loose Male Mini UHF connector
NMOHPCGSMAM518	High performance NMO mount, 3/4" hole (19 mm), 0-6000 MHz, IP67 Rated, chrome color, with 5.18m RG58U cable (solid central conductor), loose Male SMA connector
NMOHPCGTNCM518	High performance NMO mount, 3/4" hole (19 mm), 0-6000 MHz, IP67 Rated, chrome color, with 5.18m RG58U cable (solid central conductor), loose Male TNC connector
NMOHPCGUHFM518	High performance NMO mount, 3/4" hole (19 mm), 0-6000 MHz, IP67 Rated, chrome color, with 5.18m RG58U cable (solid central conductor), loose Male UHF PL259 connector
 AO	Low profile base for Base Series A antennas
 AS	Base Series A antenna coil sprint with key and nut, chrome color



Accessories

VHF Mobile Antenna Accessories (Cont'd)

Part #	Description
 ASB	Base Series A antenna coil sprint with key and nut, black color
 BCORNG	O rings for Base Series B and Base Series C antennas, pack of six
 CCT	Crimping pliers for RG58 connectors
 CCT213	Crimping pliers for RG213/LMR400 connectors
 CBNC58	BNC male connector for RG58 cable crimping
CMUHF58	Mini UHF male connector for RG58 cable crimping
CN58	N male connector for RG58 cable crimping
CNF58	N female connector for RG58 cable crimping
CPL9C	PL259 male connector for RG58 cable crimping
CPL9CF	PL259 female connector for RG58 cable crimping
CTNC58	TNC male connector for RG58 cable crimping
 GRO	Rubber boot for magnetic NMO mounting, 8.25 cm diameter
 GMRO	Rubber boot for mini magnetic NMO mounting, 6.03 cm
 HWS0316	#10 32 x 3/16 nut for splints of Base Series B and C antennas, pack of 12
 HS34	Hole saw with 3/4" drill bit
 HS34DB	3/4" drill bit replacement for punch
 HS34RB	Replacement 3/4" drill bit for punch, 2 pack
 HS38DB	3/8" drill bit replacement for punch
 LBT3400	Mounting plate for L-type trunk with 3/4" hole, chrome color
 LBTB3400	Mounting plate for L-type trunk with 3/4" hole, black color
 LBT3800	Mounting plate for L-type trunk with 3/8" hole, chrome color
 LBTB3800	Mounting plate for L-type trunk with 3/8" hole, black color
 LBH3400	Mounting plate for Z-type fender with 3/4" hole, chrome color

Accessories

VHF Mobile Antenna Accessories (Cont'd)

Part #	Description
 LBM9034	Mounting plate for 90° L-type mirror with 3/4" hole, chrome color
 LBM9038	Mounting plate for 90° L-type mirror with 3/8" hole, chrome color
 LBMB9034	Mounting plate for 90° L-type mirror with 3/4" hole, black color
 MABNUT	External nut for 3/8" mounts
 MBNUT	External nut for 3/4" mounts
 MBC	VHF mobile antenna to VHF base antenna converter, UHF connector, SO239
 MBCN	VHF mobile antenna to VHF base antenna converter, UHF connector, N
 MBC800	800/900 MHz mobile antenna to 800/900 MHz base antenna converter, N connector
 MBC800LBT	>800 MHz mobile antenna to >800 MHz base antenna converter, N connector and wall mounting
 MBC800-NGP	800/900 MHz mobile antenna to 800/900 MHz base antenna converter, N connector, doesn't require ground plane
 MORNG	O rings for NMO assemblies, six pack
 MOGSK	Gaskets for 3/4" NMO mounts, six pack
 NS1535	Noise suppressor, 1-35 V, 15 amps
 NS3035	Noise suppressor, 1-35 V, 30 amps
 P34	3/4" plugs, six pack
 P38	3/8" plugs, six pack
 QWNUT	External nut for QW series antennas, chrome color

VHF Mobile Antenna Accessories (Cont'd)

	Part #	Description
	QWNUTB	External nut for QW series antennas, black color
	QWRC	Plugs for QW series antennas, chrome color
	QWRCB	Plugs for QW series antennas, black color
	QWRC-6	Plugs for QW series antennas, chrome color, six pack
	QWRCB-6	Plugs for QW series antennas, black color, six pack
	RO49T	Replacement 106 cm whip rod with ball, chrome color
	ROB49T	Replacement 106 cm whip rod with ball, black color
	R8U1000	Cable coil RG58U, 304 m (1000 ft)
	R81000	Cable coil RG58A/U, 304 m (1000 ft)
	S	Coil spring for Base Series B and C antennas, chrome color
	SB	Coil spring for Base Series B and C antennas, black color
	SBH3400	Mounting plate for Z-type fender with 3/4" hole, chrome color
	SBT3400	Mounting plate with 3/4" hole, chrome color
	SBTB3400	Mounting plate with 3/4" hole, black color
	SRS-100-B-001	Elastomer spring for Base Series B coils, 2.54 mm diameter rod, black color
	SRS-100-C-001	Elastomer spring for Base Series C coils, 2.54 mm diameter rod, black color