

Omni Directional

VHF Dipole Array and Collinear Antennas

136-174 MHz



Electrical Specifications

	DIPOLE ARRAYS						MEANDER COLLINEARS	
Model Number	BA80-41-P		BA4040-41-P		BA40-41-P		COL53-140-P	COL53-150-P
Nominal Gain <i>dBd (dBi)</i>		6 (8.1)		2 x 3 (5.1)		3 (5.1)		4 (6.1)
Frequency <i>MHz</i>		136-174		136-174		136-174		140-150
Tuned Bandwidth <i>MHz</i>		38		38		38		10
VSWR		<1.5 :1		<1.5 :1		<1.5 :1		<1.5:1
Nominal Impedance Ω		50		50		50		50
Downtilt $^{\circ}$		0° Std, -3°. See note (1)		NA		NA		NA
Vertical Beamwidth $^{\circ}$		$^{\circ}$ 18		2 x 35		35		23.4
Horizontal Beamwidth $^{\circ}$		Omni +/-0.5dB		Omni +/-0.5dB		Omni +/-0.5dB		Omni +/-0.5dB
Input Power <i>Watts</i>		750		750		750		400
Passive IM 3rd order (2x20W) <i>dBc</i>		<-140		<-140		<-150		<-150

Mechanical Specifications

	DIPOLE ARRAYS				MEANDER COLLINEARS	
Model Number	BA80-41-P		BA4040-41-P		COL53-140-P	COL53-150-P
Construction & Configuration	8 dipoles (4 bays) Turnstile stacked Dual section support		2 x 4 dipoles (2 bays) Turnstile stacked Dual section support		Composite fiberglass sky blue radome, aluminum mounting tube	
Length <i>inches</i>	248		248		215	204
Weight <i>lbs</i>	68		68		40	38
Shipping Weight <i>lbs</i>	288		288		93	90
Shipping Dimensions <i>inches</i>	H	26	26	26	6	6
	W	32	32	26	6	6
	L	146	146	146	223	211
Termination	4.3-10 female tail		4.3-10 female tails		4.3-10 fixed female	
Mounting Area	20" x 3" diam. aluminum		20" x 2.5" diam. aluminum		30" x 3.5" diam. aluminum	
Suggested Clamps (not included)	UC1142		UC1142		UC1143	
Projected Area <i>ft²</i>	No ice	8.9	8.9	4.5	5.3	5.0
	With ice	14.3	14.3	7.7	6.6	6.3
Lateral Thrust @ 100mph <i>lbs</i>	221		221		130	123
Wind Gust Rating <i>mph</i>	No ice	114	114	> 150	> 150	> 150
	With ice	89	89	115	139	139
Torque @ 100mph <i>ft-lbs</i>	1921		1921		866	759

(1) Factory pre-set downtilt of 3° may be specified on BA80-41-P antennas by adding -T3 to the part number ordered e.g. BA80-41-P-T3



Electrical Specifications

Model Number	MEANDER COLLINEARS									
	COL53-160-P		COL53-166-P		COL53-174-P		COL54-160-P		COL54-166-P	
Nominal Gain <i>dBd (dBi)</i>		4 (6.1)		4 (6.1)		4 (6.1)		6 (8.1)		6 (8.1)
Frequency <i>MHz</i>		150-160		156-166		162-174		150-160		156-166
Tuned Bandwidth <i>MHz</i>		10		10		12		10		10
VSWR		<1.5 :1		<1.5 :1		<1.5 :1		<1.5:1		<1.5:1
Nominal Impedance Ω		50		50		50		50		50
Downtilt		NA		NA		NA		NA		NA
Vertical Beamwidth $^{\circ}$		23.4		23.4		23.4		17		17
Horizontal Beamwidth $^{\circ}$		Omni +/-0.5dB		Omni +/-0.5dB		Omni +/-0.5dB		Omni +/-0.5dB		Omni +/-0.5dB
Input Power <i>Watts</i>		400		400		400		400		400
Passive IM 3rd order (2x20W) <i>dBc</i>		<-150		<-150		<-150		<-150		<-150

Mechanical Specifications

Model Number	MEANDER COLLINEARS					
	COL53-160-P	COL53-166-P	COL53-174-P	COL54-160-P	COL54-166-P	COL54-174-P
Construction & Configuration	Composite fiberglass sky blue radome, aluminum mounting tube					
Length <i>inches</i>	197.6	192.6	187.2	256	249	239
Weight <i>lbs</i>	39.7	37.5	37.5	46	44	42
Shipping Weight <i>lbs</i>	57.3	55.1	55.1	99	97	95
Shipping Dimensions <i>inches</i>	H	6	6	6	6	6
	W	6	6	6	6	6
	L	212.6	206.1	200.8	261	247
Termination	4.3-10 fixed female					
Mounting Area	30" x 3.5" diam. aluminum					
Suggested Clamps (not included)	UC1143					
Projected Area <i>ft²</i>	No ice	4.79	4.67	4.53	6.3	5.8
	With ice	6.06	5.90	5.71	7.9	7.4
Lateral Thrust @ 100mph <i>lbs</i>		118.9	115.8	112.4	155	145
Wind Gust Rating <i>mph</i>	No ice	>150	>150	>150	>150	>150
	With ice	139	139	139	139	139
Torque @ 100mph <i>ft-lbs</i>		706	662	619	1296	1105



Directional
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Electrical Specifications

	DIPOLE ARRAYS							
Model Number	EA40-41-P		EA80-41-P		OA20-41-P		OA40-41-P	
Nominal Gain <i>dBd (dBi)</i>		5 (7.1)		8 (10.1)		5 (7.1)		9 (11.1)
Frequency <i>MHz</i>		136-174		136-174		136-174		136-174
Tuned Bandwidth <i>MHz</i>		38		38		38		38
VSWR		<1.5 :1		<1.5 :1		<1.5 :1		<1.5 :1
Nominal Impedance Ω		50		50		50		50
Downtilt		NA		0° Std, -3° See note (1)		NA		0° Std, -3° See note (2)
Vertical Beamwidth °		35		17		35		17
Horizontal Beamwidth °		104		128		178		176
Input Power <i>Watts</i>		750		750		750		750
Passive IM 3rd order (2x20W) <i>dBc</i>		<-150		<-140		<-150		<-140

Mechanical Specifications

		DIPOLE ARRAYS			
Model Number		EA40-41-P	EA80-41-P	OA20-41-P	OA40-41-P
Construction & Configuration		4 dipoles (2 bays) In-line stacked Single section support	8 dipoles (4 bays) In-line stacked Dual section support	2 dipoles Single sided Single section support	4 dipoles Single sided Dual section support
Length <i>inches</i>		138	248	138	248
Weight <i>lbs</i>		32	68	28	64
Shipping Weight <i>lbs</i>		192	288	188	282
Shipping Dimensions <i>inches</i>	H	26	26	21	21
	W	26	32	8	12
	L	146	146	146	146
Termination		4.3-10 female on cable tail			
Mounting Area		20" x 2.5" diam. aluminum	20" x 3" diam. aluminum	20" x 2.5" diam. aluminum	20" x 3" diam. aluminum
Suggested Clamps (not included)		UC1142	UC1142	UC1142	UC1142
Projected Area <i>ft²</i>	No ice	5.2	10.2	4.0	8.0
	With ice	9.4	17.7	6.7	12.4
Lateral Thrust @ 100mph <i>lbs</i>		128	253	99	197
Wind Gust Rating <i>mph</i>	No ice	> 150	109	>150	119
	With ice	111	82	117	95
Torque @ 100mph <i>ft-lbs</i>		522	2204	406	1713

(1) Factory pre-set downtilt of 3° may be specified on EA80-41-P antennas by adding -T3 to the part number ordered e.g. EA80-41-P-T3
(2) Factory pre-set downtilt of 3° may be specified on OA40-41-P antennas by adding -T3 to the part number ordered e.g. OA40-41-P-T3

