

HF Tri-Banders

High Gain, Compact and Light Weight
Trap Beam for 7-21-28MHz



CD218 series is a compact sized trap beam antennas designed for the operation for 7, 21 and 28MHz offering performance characteristics comparable to a full size antenna. The length of element for 28MHz is full size, 15% reduced for the element for 21MHz and 45% reduced for the element for 7MHz.

Larger diameter of Hy-Q trap and loading capacitor are used that assure to perform incomparable performance closed to full sized element of antenna. As the characteristics of multi-band antenna, VSWR is tend to be unstable due to affection of trap's unconstant or manufacturing accuracy of conformity.

CD assures these factor to be carefully adjusted through rigorous experiments resulted that the tolerance is maintain high accuracy within 0.5%. Mechanically specially shaped high quality aluminum tubing and brackets are used that allow to rugged construction and stable stability.

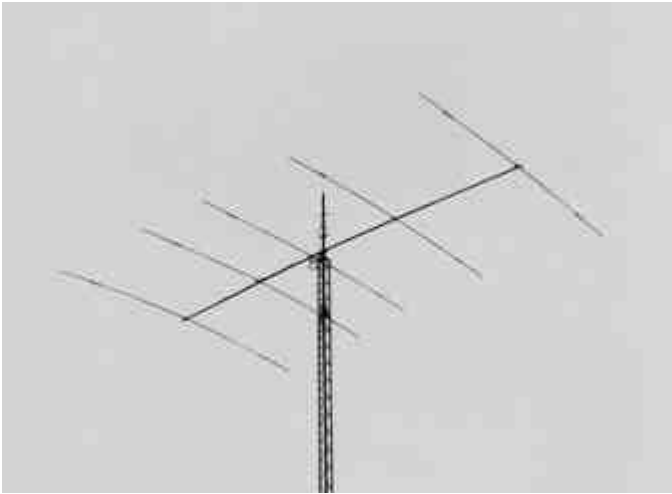
Model	218B			218Bjr			218J			218C			218H			218F		
Frequency (MHz)	7	21	28	7	21	28	7	21	28	7	21	28	7	21	28	7	21	28
No. of Element	1	3	3	1	3	3	1	4	4	2	3	3	2	4	4	2	5	5
Forward Gain (dBi)		9.5	9.7		9.5	9.7		10.5	10.7	6.5	8.5	8.7	6.5	11.0	11.2	6.5	13.0	13.2
F/B Ratio (dB)		20	20		20	20		23	22	10	12	12	10	22	20	10	22	20
Power Capability (PEP/kW)	0.8	1.5	1.5	0.8	1.5	1.5	0.8	1.5	1.5	0.8	1.5	1.5	0.8	1.5	1.5	0.8	1.5	1.5
Boom Length (m)	4.0			3.3			5.6			4.0			6.0			9.1		
Element Length (m)	10.5			8.5			8.5			10.8			10.5			10.5		
Element Diameter (mm)	30			30			30			30			30			30		
Rotational Radius (m)	5.2			4.3			4.4			5.7			5.8			5.5		
Mast Diameter (mm)	48 ~ 61			48 ~ 61			48 ~ 61			48 ~ 61			48 ~ 61			48 ~ 61		
Wind Surface Area (m ²)	0.4			0.38			0.68			0.5			0.7			0.8		
Weight (kg)	11.0			10.0			13.5			13.0			16.0			25.5		
Recommended Rotator	RC5-x			RC5-x			RC5-x			RC5-x			RC5-x			RC5A-x		

All the models include balun standard, connector type -M-

Wind survival rating of all the modes is above 35m/s

HF Duo-Banders

Excellent Forward Gain, Clean Beam Patter, Compact & Rugged Design
Performance Comparable to Full Size Beam, Designed for Maximum Forward Gain & F/B Ratio



If you are an operator just interested in 20 and 15 or 19 and 15 meters, then there is a CD antenna designed especially for you. For those interested in 20 and 15 meters there is the Model 214 Series. The 214A offers a combination on 3 elements on 14MHz and 4 elements on 21MHz. The 214C is based upon the proven 214A design but offers 4 elements on both bands. However, for those who prefer 10 and 15meters, the 218 series is the one to chose. The 218 comes with 3 elements on 15 and 3 on 10 meters. The 218A comes with 4 elements on both 10 and 15. Whatever your choice is CD's 214 and 218 series dual band antennas includes a high performance balun at no extra cost, a maximum VSWR of 1.6:1 across each band and all elements are medium spaced. The boom, all elements, and other components are of high strength aluminum to minimize weight without sacrificing mechanical strength. All models in the 214 and 218 series, of course, include special matching stub and balun for maximum efficiency.

Model	214A		214C		214F		248S		248A		248C		248F	
Frequency (MHz)	14	21	14	21	14	21	18	24	18	24	18	24	18	24
No. of Element	3	4	4	4	5	5	1	1	3	4	4	4	5	5
Forward Gain (dBi)	9.5	11.2	11.0	11.2	12.5	13.2	-	-	9.5	11.2	11.0	11.2	12.5	13.2
F/B Ratio (dB)	20	20	18	20	23	22	-	-	20	20	18	20	23	22
Power Capability (PEP/kW)	2	3	2	3	2	3	2	3	2	3	2	3	2	3
BoomLength (m)	6.1		8.3		12.2				4.6		6.3		9.3	
Element Length (m)	9.5		9.5		9.5		6.9		7.5		7.5		7.5	
Element Diameter (mm)	30		30		30		25		25		25		25	
Rotational Radius (m)	5.8		6.0		7.8		3.4		4.7		4.9		5.8	
Mast Diameter (mm)	48 ~ 61		48 ~ 61		48 ~ 61		48 ~ 61		48 ~ 61		48 ~ 61		48 ~ 61	
Wind Surface Area (m ²)	0.8		0.95		1.5		0.1		0.5		0.6		*call	
Weight (kg)	16.9		20.0		35.0		2.8		14.0		16.5		25.0	
Recommended Rotator	RC5-x		RC5-x		RC5A-x		RC5-x		RC5-x		RC5-x		RC5A-x	

-CustomOrderItem-

Model	218		218A		218U		218U-7	
Frequency (MHz)	21	28	21	28	21	28	21	28
No. of Element	3	3	4	4	5	5	7	7
Forward Gain (dBi)	9.5	9.7	10.5	10.7	13.2	13.2	13.8	14.0
F/B Ratio (dB)	23	22	23	22	25	23	25	23
Power Capability (PEP/kW)	1.6		1.6		1.6		1.6	
BoomLength (m)	4.0		5.6		9.3		13.1	
Element Length (m)	6.5		6.5		6.5		6.79	
Element Diameter (mm)	25		25		25		25	
Rotational Radius (m)	3.9		4.2		5.2		7.6	
Mast Diameter (mm)	48 ~ 61		48 ~ 61		48 ~ 61		42 ~ 61	
Wind Surface Area (m ²)	0.4		0.55		0.65		*call	
Weight (kg)	8.3		11.0		21.0		34.0	
Recommended Rotator	RC5-x		RC5-x		RC5A-x		RC5B-x	

All the models include balun standard, connector type -M-

Wind survival rating of all the modes is above 35m/s

HF Multi-Banders

Unique in Radiation Pattern, Incorporates High-Performance Traps, Light Weight and Compact



CD introduces the 318 series of DX Tri-band beam antennas that offer outstanding efficiency with High-Q traps especially designed for 14, 21 and 28MHz. Design emphasis is placed on full-sized mono-banders. Each model functions as a full-sized beam on 28MHz, physically reduced by 15% on 21MHz and 25% on 14MHz. Large High-Q wave traps are employed, resulting in performance comparable to that of full-sized elements. In the past, multi-band trap antennas were difficult to tune, and performance parameters varies considerably-especially VSWR curves. These irregularities and performance distortions were due largely to design in wave trap constants and tolerances in manufacturing. CD assures stable, uniform VSWR characteristics with an accuracy of 0.5% (max.) by using only the best combination of long life, maximum reliability, and light weight. At key stress points, such as the center section, tubing is dual-structured and overlapped, and hardware clamps are die-cast.

Model	714T (714T-3)			714X (714X-3)			714XX (714XX-3)			714S		
	7	14	21	7	14	21	7	14	21	7	14	21
Frequency (MHz)	7	14	21	7	14	21	7	14	21	7	14	21
No. of Element	2	4	4	3	4	4	3	5	5	1	1	1
Forward Gain (dBi)	7.5	11.0	11.2	9.0	11.0	11.2	9.0	12.0	13.0	0	0	0
F/B Ratio (dB)	14	21	22	20	21	22	20	21	22	-	-	-
Power Capability (PEP/kW)	1.2 (3)	2.5 (3)	2.5 (3)	1.2 (3)	2.5 (3)	2.5 (3)	1.2 (3)	2.5 (3)	2.5 (3)	2	2	2
Boom Length (m)	8.7			9.9			13.7					
Element Length (m)	13.4			14.2			14.2			13.1		
Element Diameter (mm)	35			35			35			35		
Rotational Radius (m)	7.7			8.6			9.2			6.6		
Mast Diameter (mm)	48 ~ 61			48 ~ 61			48 ~ 61			48 ~ 61		
Wind Surface Area (m ²)	1.1			1.4			1.7			*call		
Weight (kg)	32.0			38.0			54.0			6.0		
Recommended Rotator	RC5A-x			RC5A-x			RC5B-x			RC5-x		

Model	318Jr			318			318B			318C			318S		
	14	21	28	14	21	28	14	21	28	14	21	28	14	21	28
Frequency (MHz)	14	21	28	14	21	28	14	21	28	14	21	28	14	21	28
No. of Element	3	3	3	3	3	3	3	4	4	4	5	5	1	1	1
Forward Gain (dBi)	8.7	9.2	9.4	9.0	9.5	9.7	9.0	10.5	10.7	11.0	13.0	13.2	-	-	-
F/B Ratio (dB)	18	18	18	20	18	22	20	18	20	20	18	22	-	-	-
Power Capability (PEP/kW)	1.2	2	2	2			2			2			2		
Boom Length (m)	4.0			5.0			6.4			9.1					
Element Length (m)	8.7			8.6			8.6			8.7			8.2		
Element Diameter (mm)	28			30			30			30			30		
Rotational Radius (m)	4.7			5.0			5.3			6.4			4.1		
Mast Diameter (mm)	48 ~ 61			48 ~ 61			48 ~ 61			48 ~ 61			48 ~ 61		
Wind Surface Area (m ²)	0.55			0.7			0.9			1.2			*call		
Weight (kg)	13.0			18.0			20.0			26.0			5.0		
Recommended Rotator	RC5-x			RC5-x			RC5A-x			RC5A-x			RC5-x		

Model 318x-40 is the model that 7MHz is operable.
(7MHz works as a dipole.)

*Power Capability (PEP): 1kW

*Element Length: 11.5 m

*Weight Consequently Added: 2kg

All the models include balun standard, connector type -M-
Wind survival rating of all the modes is above 35m/s