

FM two field antenna panels

TYPES

FMA II/02-N

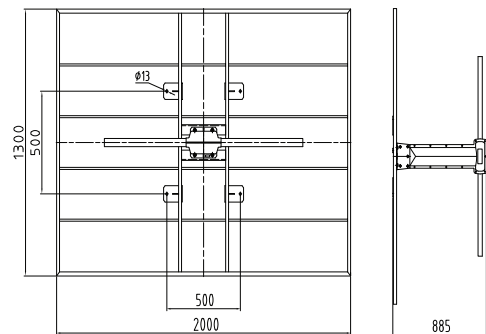
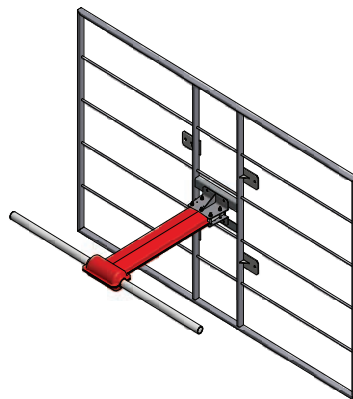
FMA II/02-7

FMA II/02-8

The two field FM panel constitutes the basic element of an aerial. It allows radiating the energy originated in the frequency modulation transmitters and covers without adjustment the whole 87,5 to 108 MHz band. On a same mast, a special radiation pattern can be achieved by the horizontal and vertical displacement of several antennas FMA II/02.

Antenna panels FMA II/02 are especially suitable to achieve omnidirectional pattern in vertical polarized antenna systems - with only two panels per bay placing opposite one to another. Directivity of such solution is below +/- 2dB which adequately replaces the vertical dipoles.

Next, vertical radiating patterns can be customized for beam tilt and null filling. Typical VRP's are presented for 1-4 bays on the next page. In the case more bays are required D II/06 or D II/06-L should be used.



Bays	Aperture H polarization	Aperture V polarization	Notes
1	1,3 m	2,0 m	Horizontal polarization recommendations: <ul style="list-style-type: none"> Vertical spacing 2,1 m Tower side dimension 2 m Vertical polarization recommendations: <ul style="list-style-type: none"> Vertical spacing 2,6 m To be installed on the pipe up to 0,5m from the centre for best HRP diagram
2	3,4 m	4,6 m	
3	5,5 m	7,2 m	
4	7,6 m	9,8 m	
6	11,8 m	15,0 m	
8	16,0 m	20,2 m	

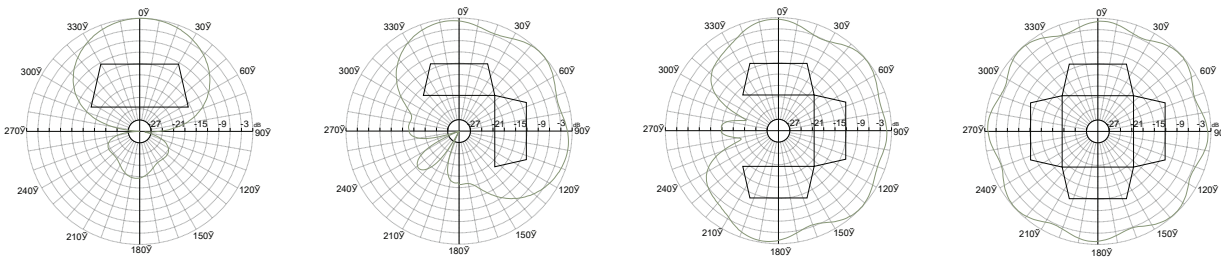
Specifications

	FMA II/02-N	FMA II/02-7	FMA II/02-8
Input connector	N female	DIN 7/16 female	EIA 7/8" flange
Impedance	50 Ω		
VSWR	≤ 1:1,3		
Frequency range	87,5 – 108 MHz		
Gain (ref. to half wave dipole)	4,5 dB		
Polarization	horizontal or vertical		
Max. input power	600 W	2,5 kW	5 kW
Radiation patterns at mid-band: - beam width at -3 dB E plane - beam width at -3 dB H plane	± 35° ± 60°		
Combinations	Certain number of identical panels can be associated to cover determined geographic area		
Material:	Reflector: hot dip galvanised steel, Radiating dipoles: anodised aluminium, Feeders: copper and brass and radome: polyester		
Mounting	four holes for M12 mounting bolts		
Icing protection	efficient anti-frost polyester protection covering at the centre of the radiating dipoles		
Lightning protection	all metal parts of antenna are D.C. grounded		
Dimensions	2.000 x 1.300 x 885 mm		
Weight	28,5 kg	29 kg	30 kg
Wind load - horizontal polarization - vertical polarization	from the front side - 1209 N at 160 km/h, from side - 310 N at 160 km/h from the front side - 1209 N at 160 km/h, from side - 857 N at 160 km/h		

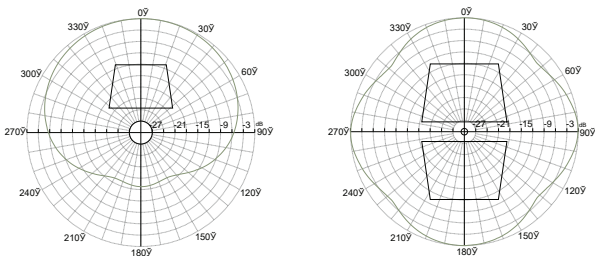
Radiation patterns

at mid-band 98 MHz

Horizontal diagrams - horizontal polarization



Horizontal diagrams - vertical polarization



Vertical diagrams

