

FMC-03

FM PANEL ANTENNA

FEATURES

- circular polarization
- broadband 87.5 ÷ 108 MHz
- 4.5 dB gain
- directional pattern
- suitable as a component in various arrays on square towers
- stainless steel dipoles



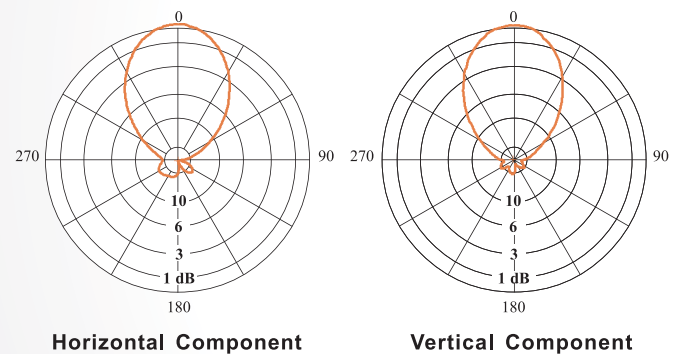
ELECTRICAL DATA

ANTENNA TYPE	FMC-03
FREQUENCY RANGE	87.5 ÷ 108 MHz
IMPEDANCE	50 ohm
CONNECTOR	4 x 7/8" EIA
MAX POWER	20 kW (5KW per dipole)
VSWR	≤ 1.1 (in circular polarization)
POLARIZATION	Circular
GAIN (referred to half wave dipole)	4.5 dB (Circular polarization)
	7.5 dB (Linear polarization)
HALF POWER BEAMWIDTH	Horizontal Component: ± 32°
	Vertical component: ± 32°
LIGHTNING PROTECTION	ALL Metal Parts DC Grounded

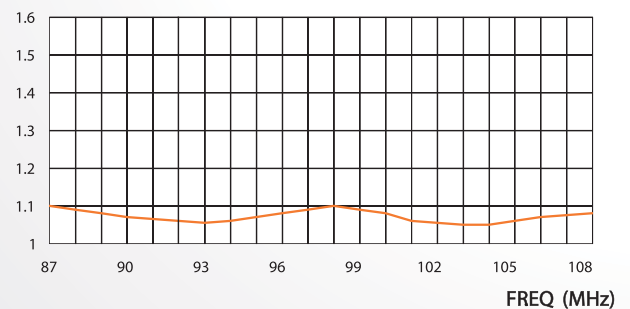
MECHANICAL DATA

DIMENSIONS	2200 x 2200 x 1018 mm
WEIGHT	99 kg
WIND SURFACE	1.07 m ²
WIND LOAD (at 150km/h)	1.4 kN
MAX WIND VELOCITY	270 km/h
MATERIALS	Reflector (hot dip galvanized steel)
	Dipoles (stainless steel)
	Internal parts (silver plated brass, polished brass, deoxidized aluminium)
	Radome (fiberglass)
ICING PROTECTION	Feed point radome
RADOME COLOUR	Grey (standard)
MOUNTING	Directly on supporting mast

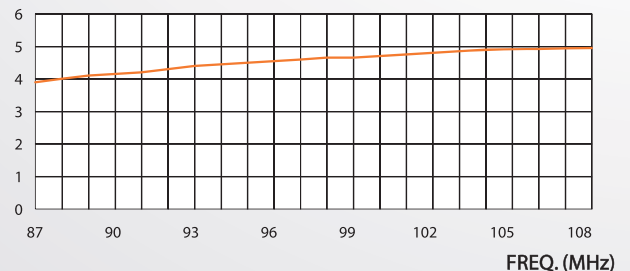
RADIATION PATTERNS (Mid Band)



VSWR



GAIN (dB)



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FEATURES

- radiating systems with FMC-03 panel on square towers
- high power systems
- omnidirectional or directional patterns
- equal or unequal split ratio power distribution network
- broadband 87.5÷108 MHz



FMC-03/12 (4x3)
IMPERIA, ITALY

ELECTRICAL DATA

FREQUENCY RANGE	87.5 ÷ 108 MHz
IMPEDANCE	50 ohm
CONNECTOR	EIA flange according to system power rating
POWER RATING	The antenna system can accept any power according to requirements
VSWR	≤ 1.1 Throughout the frequency range (Lower figures for individual channels on request)
POLARIZATION	Circular / Elliptical on request
GAIN	Refer to table
HORIZONTAL PATTERN	Any type according to requirement
VERTICAL PATTERN	Null fill, beam tilt and special requirements to order
OTHER FEATURES	The antenna system can be supplied in split feed configuration (two equal halves) Each half can accept full power

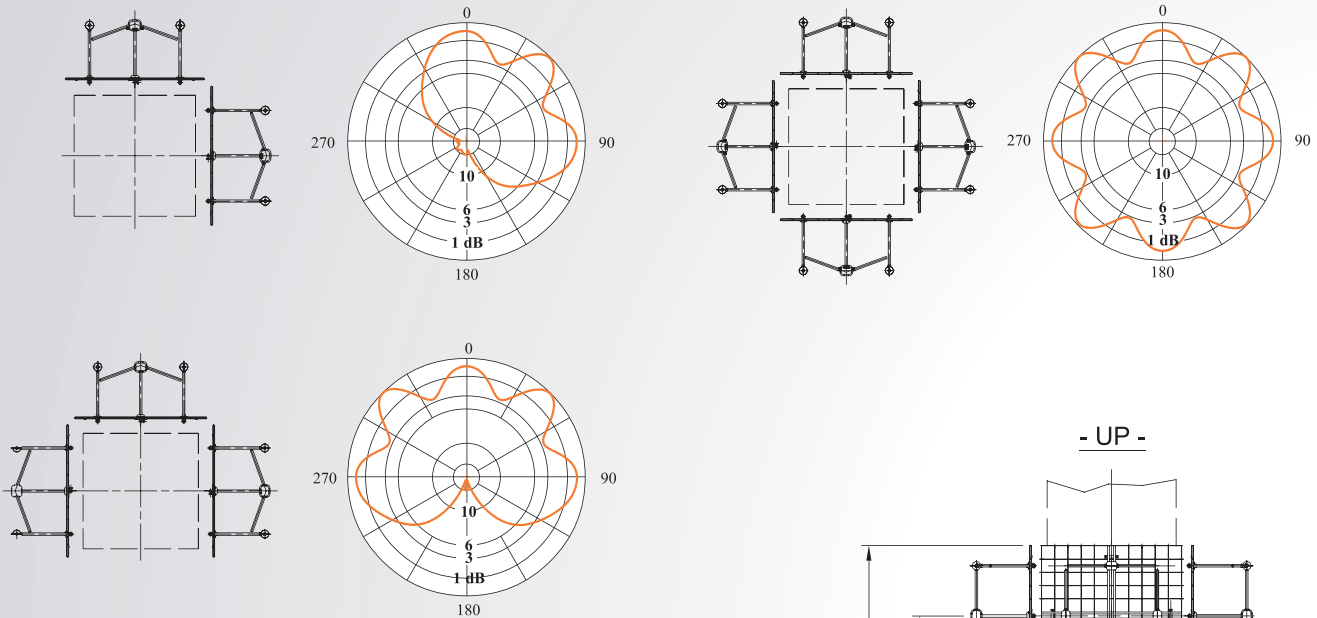
MECHANICAL DATA

HEIGHT OF ARRAY	Subject to number of bays
TOTAL NET WEIGHT	Refer to table
WIND LOAD	Refer to table
PRESSURIZZABLE	Yes
RADOME COLOUR	Grey (standard)
MOUNTING HARDWARE	Available upon request

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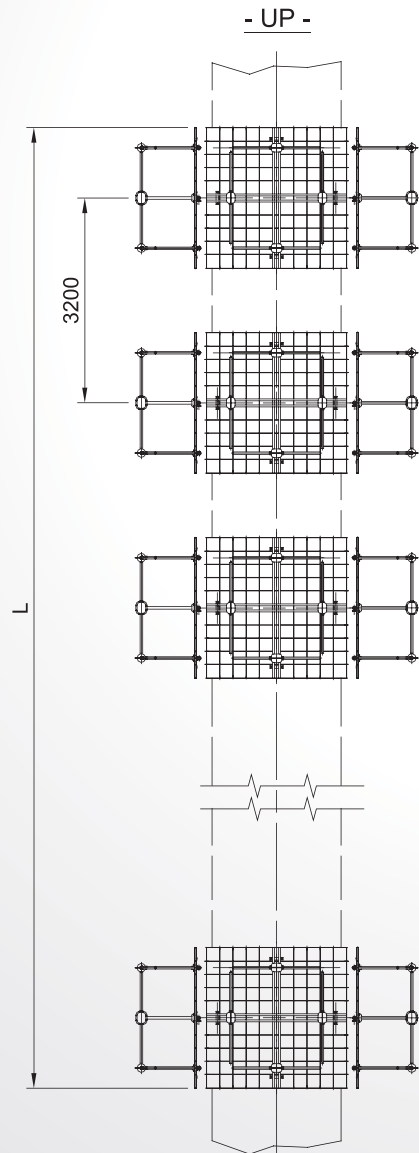
HORIZONTAL PATTERNS WITH 2, 3 AND 4 FACES AT 98 MHz



TECHNICAL DATA

NUMBER OF BAYS	PANELS PER BAY	GAIN (1) dB	GAIN (1) TIMES	WEIGHT (2) kg	ANTENNA HEIGHT L m	WIND LOAD (3) kN
1	2	1.9	1.55	249	2.2	3.47
	3	0.4	1.1	388		4.32
	4	-0.7	0.85	494		5.18
2	1	7.6	5.75	249	5.4	2.83
	2	4.9	3.09	494		6.94
	3	3.4	2.19	771		8.64
4	4	2.4	1.74	1004	11.8	10.36
	1	10.6	11.5	494		5.66
	2	7.9	6.16	1004		13.89
	3	6.4	4.36	1464		17.28
6	4	5.4	3.47	1956	18.2	20.70
	1	12.4	17.38	771		8.50
	2	9.8	9.55	1464		20.84
	3	8.3	6.76	2245		25.92
8	4	7.1	5.13	2951	24.6	31.06
	1	13.8	23.98	1004		11.34
	2	11.1	12.88	1956		27.79
	3	9.6	9.12	2951		34.56
	4	8.6	7.24	3857		41.41

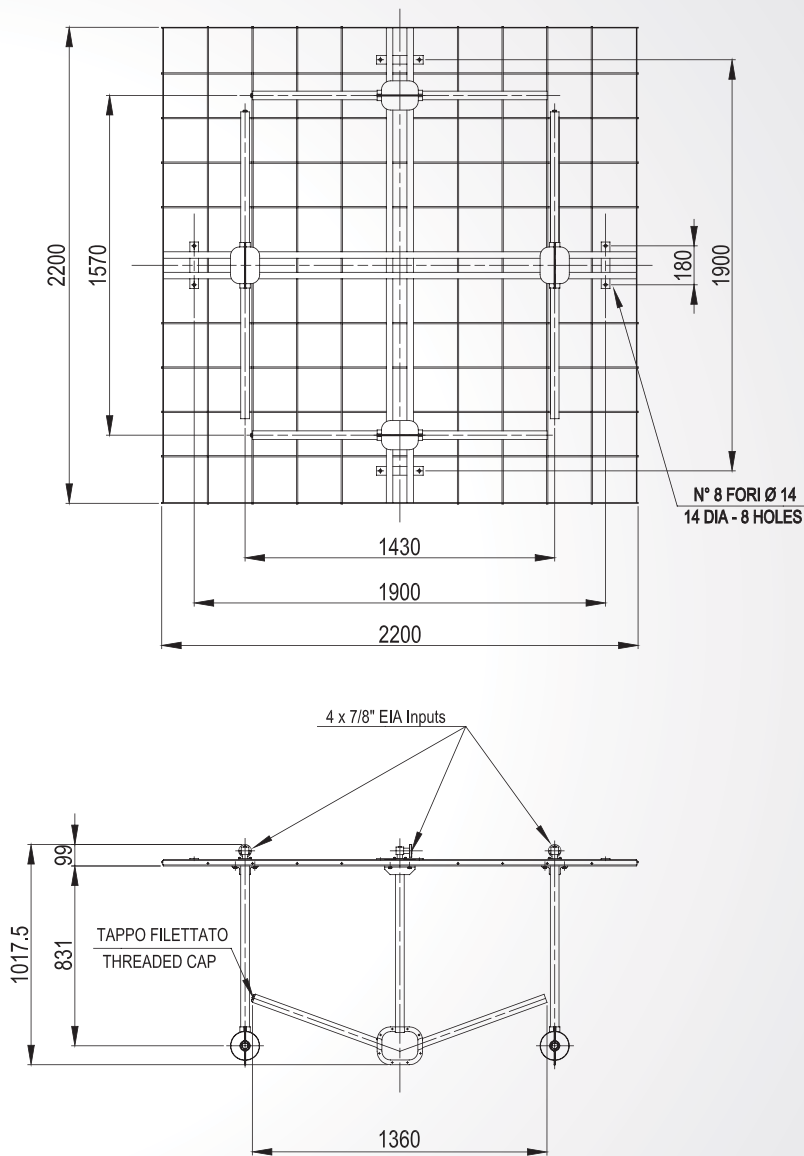
(1) referred to half wave dipole. Losses of power distribution network not included.
 (2) without mounting hardware
 (3) v= 150 km/h



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DIMENSIONAL DETAILS



VERTICAL PATTERN

— Without null fill
 — With null fill and beam tilt

