

FM-04

FM DIPOLE ANTENNA

FEATURES

- vertical polarization
- broadband 87.5 ÷ 108 MHz
- 2 dB gain
- omnidirectional pattern with preferred direction
- stainless steel



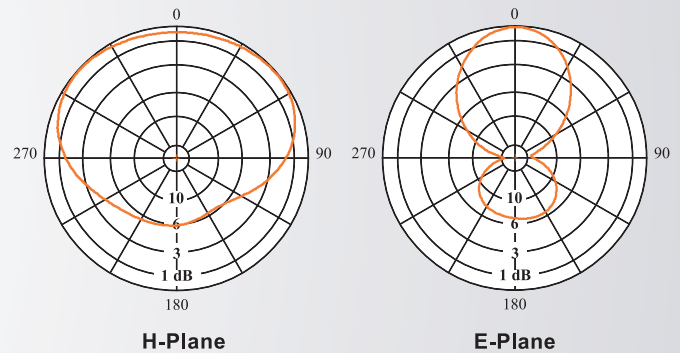
ELECTRICAL DATA

ANTENNA TYPE	FM-04
FREQUENCY RANGE	87.5 ÷ 108 MHz
IMPEDANCE	50 ohm
CONNECTOR	7/16 F or 7/8" EIA
MAX POWER	3 kW (7/16 F) 5 kW (7/8" EIA)
VSWR	≤ 1.25 TYPICAL
POLARIZATION	Vertical
GAIN (referred to half wave dipole)	2 dB
HALF POWER BEAMWIDTH	E-Plane ± 37° H-Plane ± 105°
LIGHTNING PROTECTION	All metal parts DC grounded

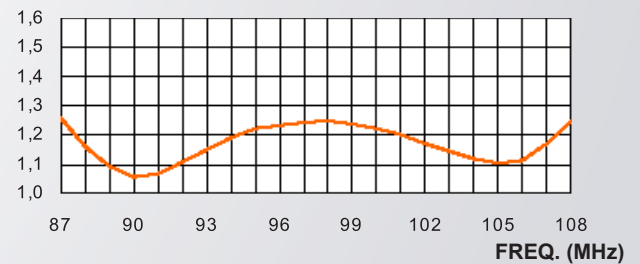
MECHANICAL DATA

DIMENSIONS mm (in)	1138 x 1442 x 136 (44.8 x 56.77 x 5.35)
WEIGHT kg (lb)	10 (22)
WIND SURFACE m ² (ft ²)	0.20 (2.15) front 0.10 (1.07) side
WIND LOAD kN (lbf) at 160 km/h (100 mph)	0.23 (51.7) front 0.12 (27) side
MAX WIND VELOCITY km/h (mph)	220 (136.7)
MATERIALS	External parts (stainless steel, nickel plated brass) Internal parts (silver plated brass, polished brass, deoxidized aluminium) Radome (fiberglass)
ICING PROTECTION	Feed point radome
RADOME COLOUR	Grey (standard)
MOUNTING mm (in)	with special pipe clamps ø 60 ÷ 114 (2.36 ÷ 4.5)

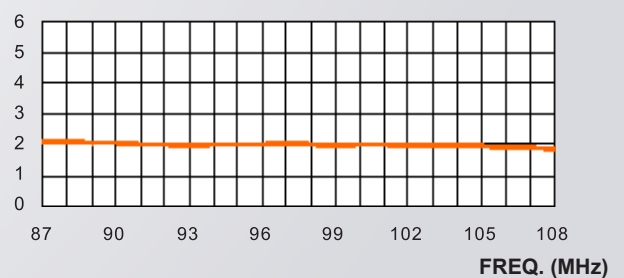
RADIATION PATTERNS (Mid Band)



VSWR



GAIN (dB)



FM-04

FM DIPOLE ANTENNA

FEATURES

- radiating systems with FM-04
- omnidirectional patterns with preferred direction
- high power systems

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	≤ 1.25 in the operating frequency or ≤ 1.3 Throughout the frequency range (Lower figures for individual frequencies on request)
POLARIZATION	Vertical
GAIN	Refer to table
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.

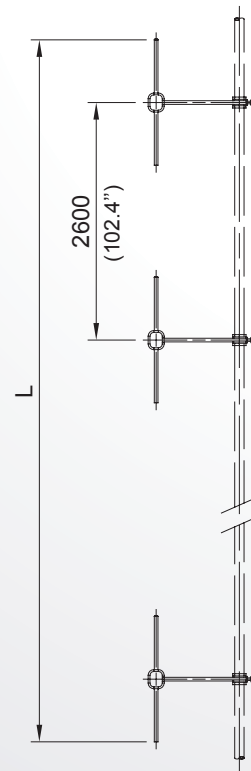
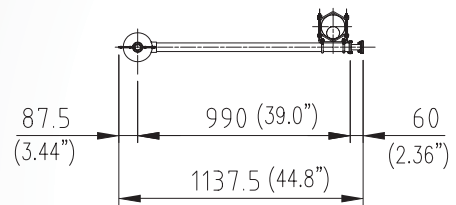
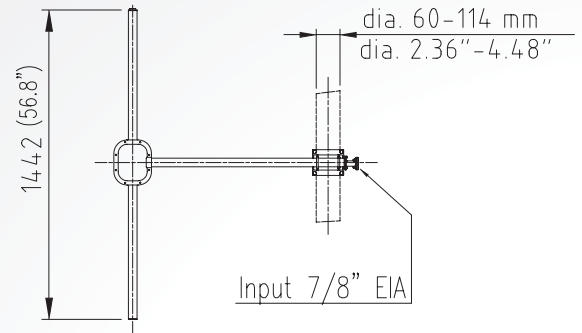
MECHANICAL DATA

HEIGHT OF ARRAY	Subject to number of bays
TOTAL NET WEIGHT	Refer to table
WIND LOAD	Refer to table
PRESSURIZABLE	Yes
RADOME COLOUR	Grey (standard)
MOUNTING HARDWARE	One clamp for pole, supplied

TECHNICAL DATA

NUMBER OF BAYS	PANELS PER BAY	GAIN dB (1)	GAIN TIMES (1)	WEIGHT (2) kg (lb)	ANTENNA HEIGHT L m (ft)	WIND LOAD (3) kN (lbf)
2	1	5	3.16	27 (59.5)	4.0 (13.1)	0.47 (106)
4	1	8	6.31	54 (119)	9.2 (30.2)	0.95 (214)
6	1	9.8	9.55	81 (178.6)	14.4 (47.2)	1.43 (321)
8	1	11	12.59	108 (238)	19.6 (64.3)	1.91 (429)
12	1	12.8	19.05	162 (357)	30.0 (98.4)	2.86 (643)

(1) referred to half wave dipole. Losses of power distribution network not included.
 (2) without mounting hardware.
 (3) v= 160 km/h (100 mph)



All dimensions are in millimeters (inches)