

FM-04

FM DIPOLE ANTENNA

FEATURES

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



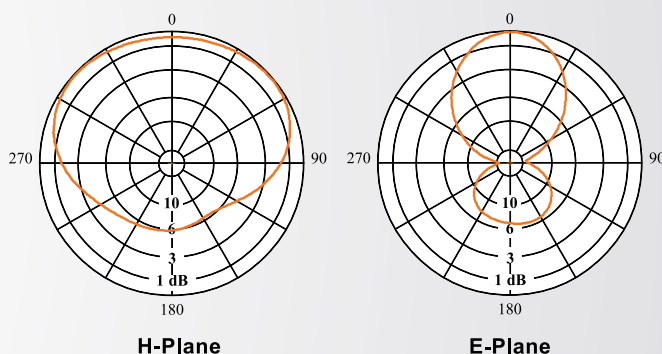
ELECTRICAL DATA

| | |
|-------------------------------------|----------------------------------|
| 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 |

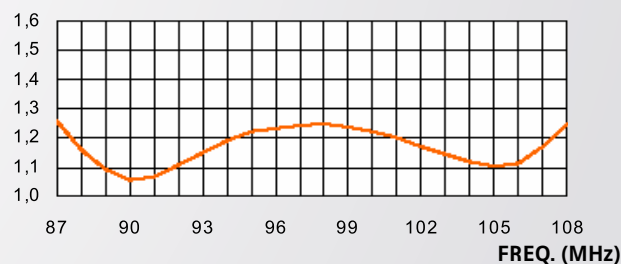
MECHANICAL DATA

| | |
|--|--|
| 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 (1.08) 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) |

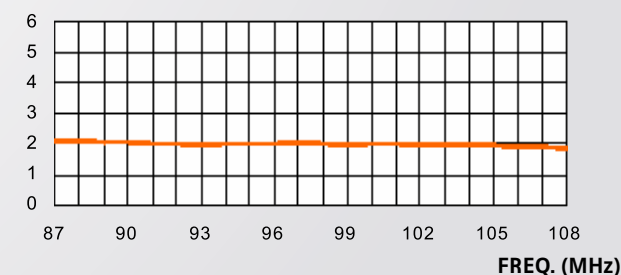
RADIATION PATTERNS (Mid Band)



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. |

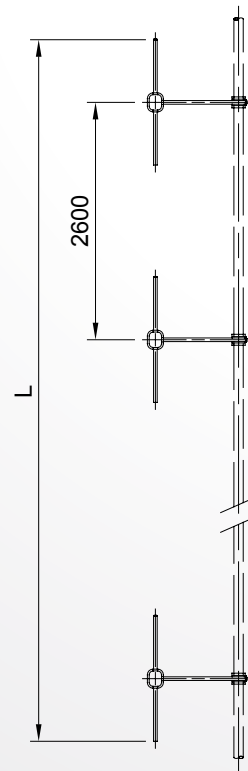
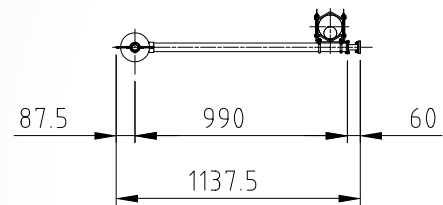
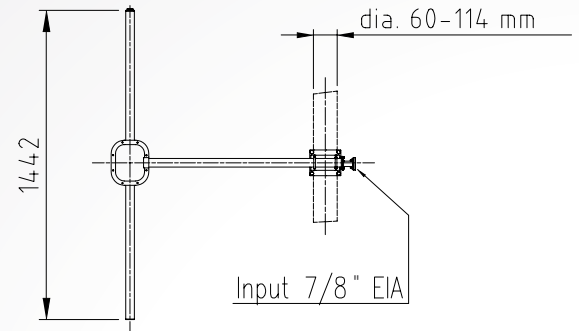
MECHANICAL DATA

| | |
|-------------------|------------------------------|
| 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 (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