



P1 1-5/8

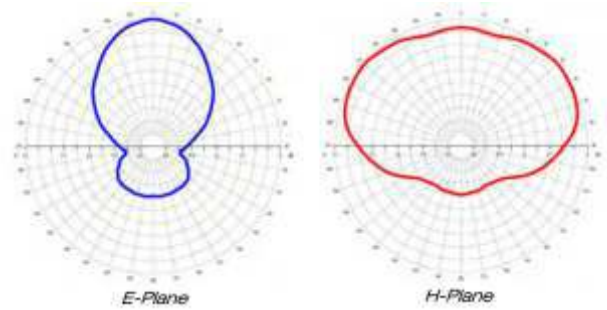
FM DIPOLE ANTENNA

VHF Band FM Radio broadcasting

Dipole antenna in welded aluminium or stainless steel
Omnidirectional pattern with preferred direction.
Suitable for high power FM stacked-array antenna system
Demountable - Pressurizable
Broadband 87.5 - 108 Mhz

ELECTRICAL FEATURES:

WORKING BAND: 87.5-108 MHz
BANDWIDTH: FM band
GAIN: 1.5 dBd (3.7 dBi)
VSWR: $\leq 1.2:1$ (-20.8 dB)
POLARIZATION: vertical
IMPEDANCE: 50 Ohm unbalanced
HALF POWER BEAMWIDTH:
E-Plane - 79°
H-Plane - 201°
LIGHTNING PROTECTION: all metal parts DC grounded
including inner conductors
AVAILABLE VERSIONS AND CODE:
EIA 1 5/8" - max 12000 W



MECHANICAL FEATURES:

MATERIALS: body in treated aluminium or stainless steel
teflon isolators
silicon O-Rings, hot dip galvanized steel bolts
MOUNTING: directly on supporting structure
MOUNTING BRACKETS: included for $\varnothing 90:150$ mm. pipe
TREATMENTS: military grade treated (MIL-C-4451)
silver plated internal lines
PRESSURIZATION: 5.0 psi
ANTENNA DIMENSIONS: 1340x1170x260 mm
WEIGHT: 26 Kg
WIND SURFACE: 0.11 m² front - 0.21 m² side
WIND LOAD (at 160Km/h and 30° C air temperature):
9.38 Kg front - 17.57 Kg side
SURVIVAL WIND: 220Km/h

ARRAY DATA

BAY	PANEL PER BAY	SYSTEM GAIN (dBd)	GAIN TIMES ¹	WEIGHT (Kg) ²	SYSTEM HEIGHT (mt)	WIND LOAD (Kg) ³
2	1	5.49	3.54	50	3.9	35.1
4	1	8.5	7.08	90	9.1	70.3
6	1	9.74	9.42	130	14.3	105.4
8	1	11.48	14.06	180	19.5	140.6
12	1	13.24	21.09	260	30	210.8

1 - gain referred at mid band -1" null filling and electrical lift not take into account
2 - mounting hardware not take into account
3 - 160Km/h wind and 30° C air temperature