

Model AJ1FIII

- **Band III VHF dipole**
- **1.7 dB gain midle**
- **Vertical polarization**
- **Suitable for Digital Audio Broadcasting**
- **Stainless steel AISI 304**



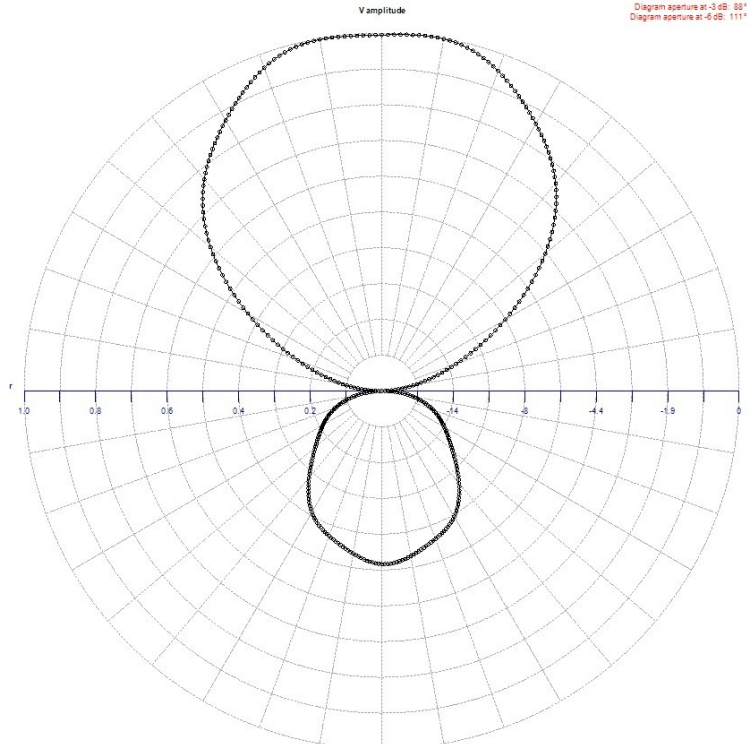
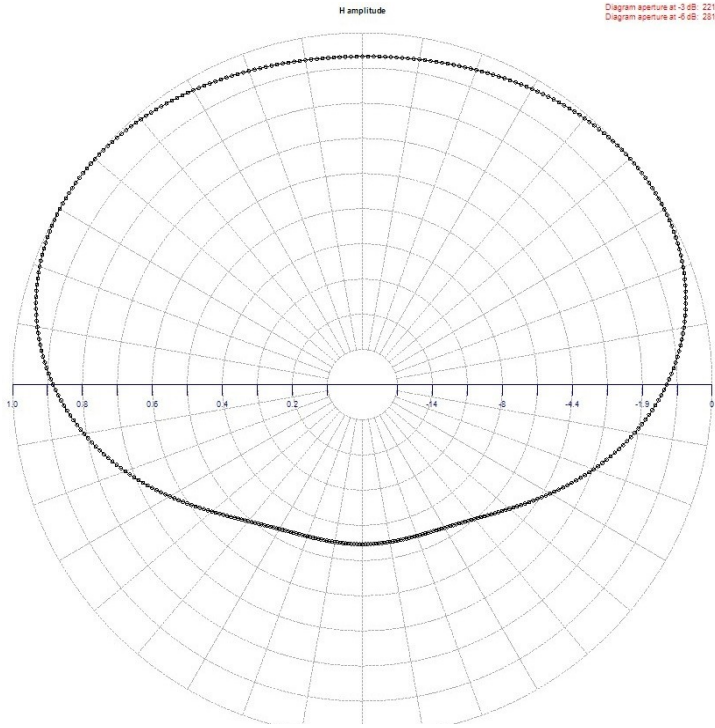
ELECTRICAL DATA

Models	AJ1FIII-1	AJ1FIII-2	AJ1FIII-3	AJ1FIII-4
Frequency Range (MHz)	174 ÷ 230	174 ÷ 216	182.5 ÷ 228.5	195 ÷ 240
Impedance	50 Ω			
Connectors	N female or 7-16 female or 7/8" EIA			
Max Power	800W (N) - 2kW (7-16) - 3.5 kW (7/8")			
VSWR ± 150 KHz	≤1.35	≤1.23	≤1.23	≤1.23
Polarization	Vertical			
Gain	1.2 dB (referred to half wave dipole)			
Pattern	Omni directional ± 1.5 dB in free space Omni directional ± 3 dB with Ø100 mm pole			
Lightning protection	All metal parts DC grounded			

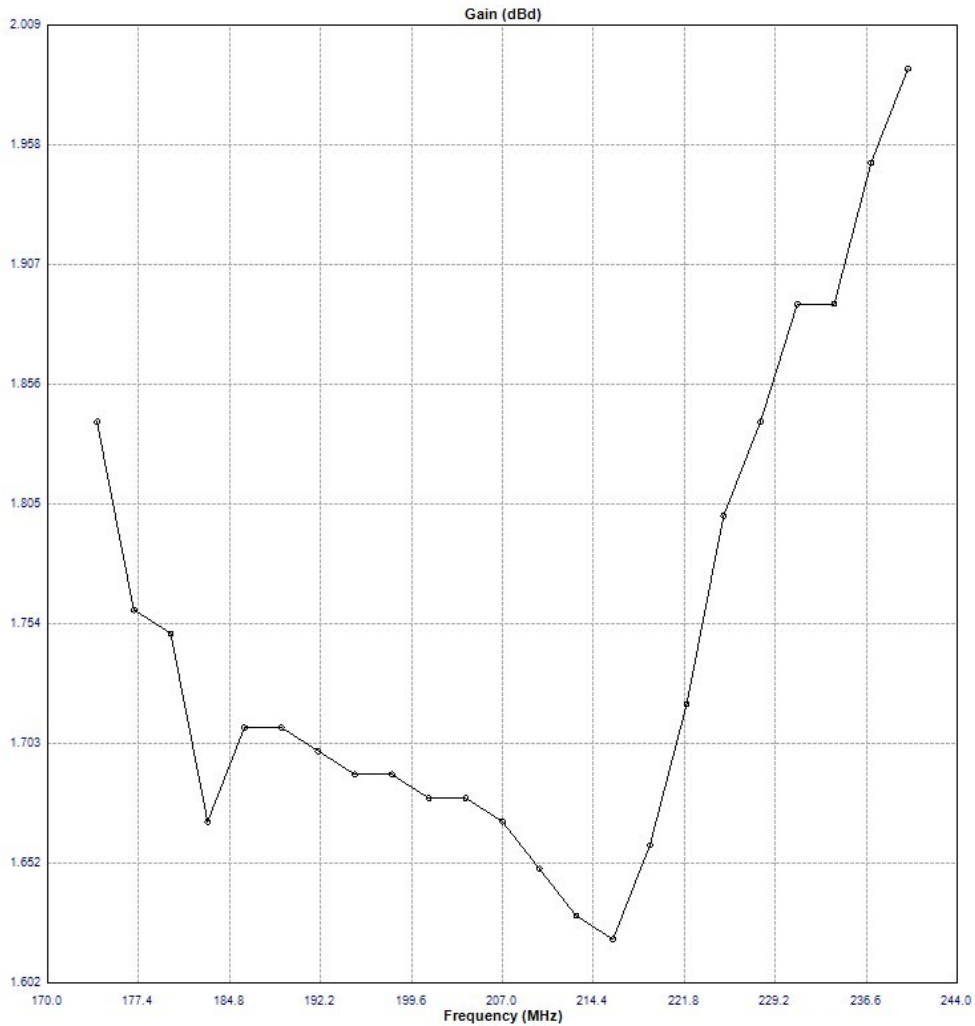
MECHANICAL DATA

Models	AJ1FIII-1	AJ1FIII-2	AJ1FIII-3	AJ1FIII-4
Dimensions (mm)	D1 730 x D2 670 x 180	D1 760 x D2 685 x 180	D1 730 x D2 670 x 180	D1 680 x D2 605 x 180
Weight	7 kg without hardware support			
Wind surface	0.114 m ²			
Wind load	16.3 kg (wind speed 150 km/h without radome)			
Max wind velocity	220km/h			
Materials	External parts: stainless steel Materials Internal parts: passivated aluminium Radome: fiberglass (option)			
Icing protection	Feed point radome			
Radome	Optional			
Mounting	With special pipe clamps Ø 50 ÷ 110 mm			

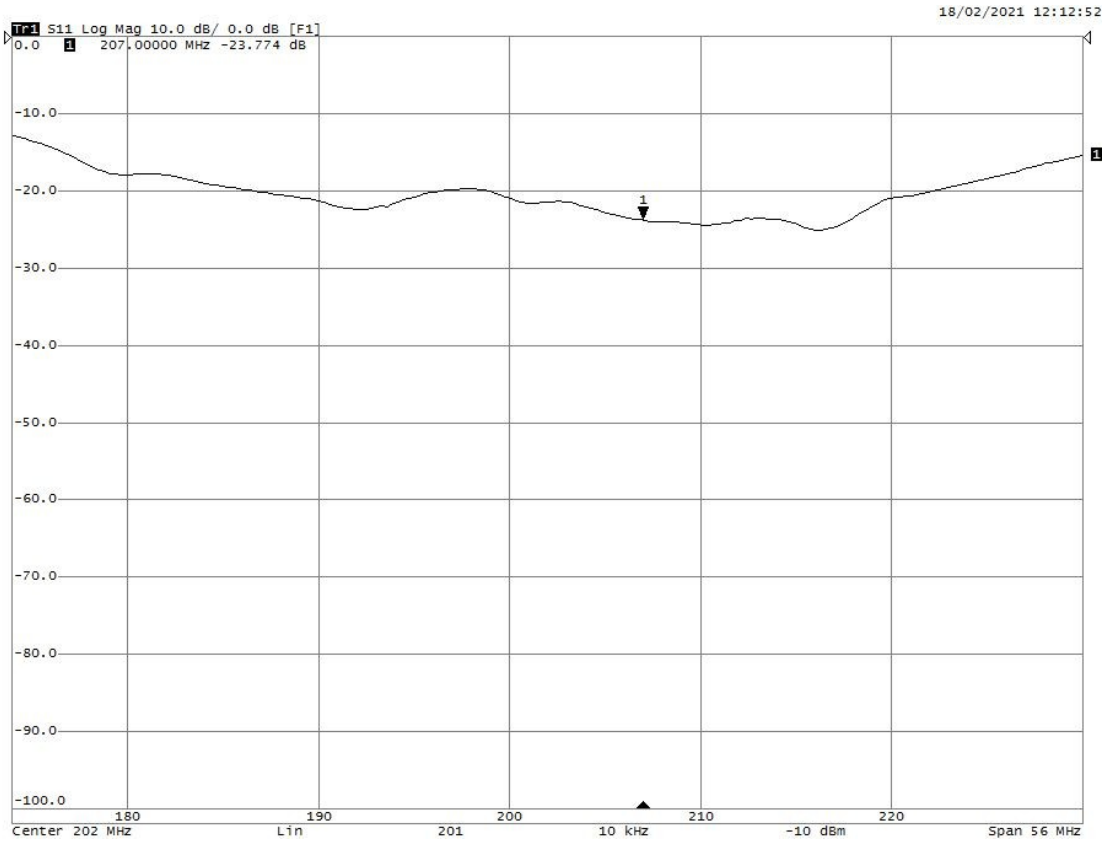
RADIATION PATTERN



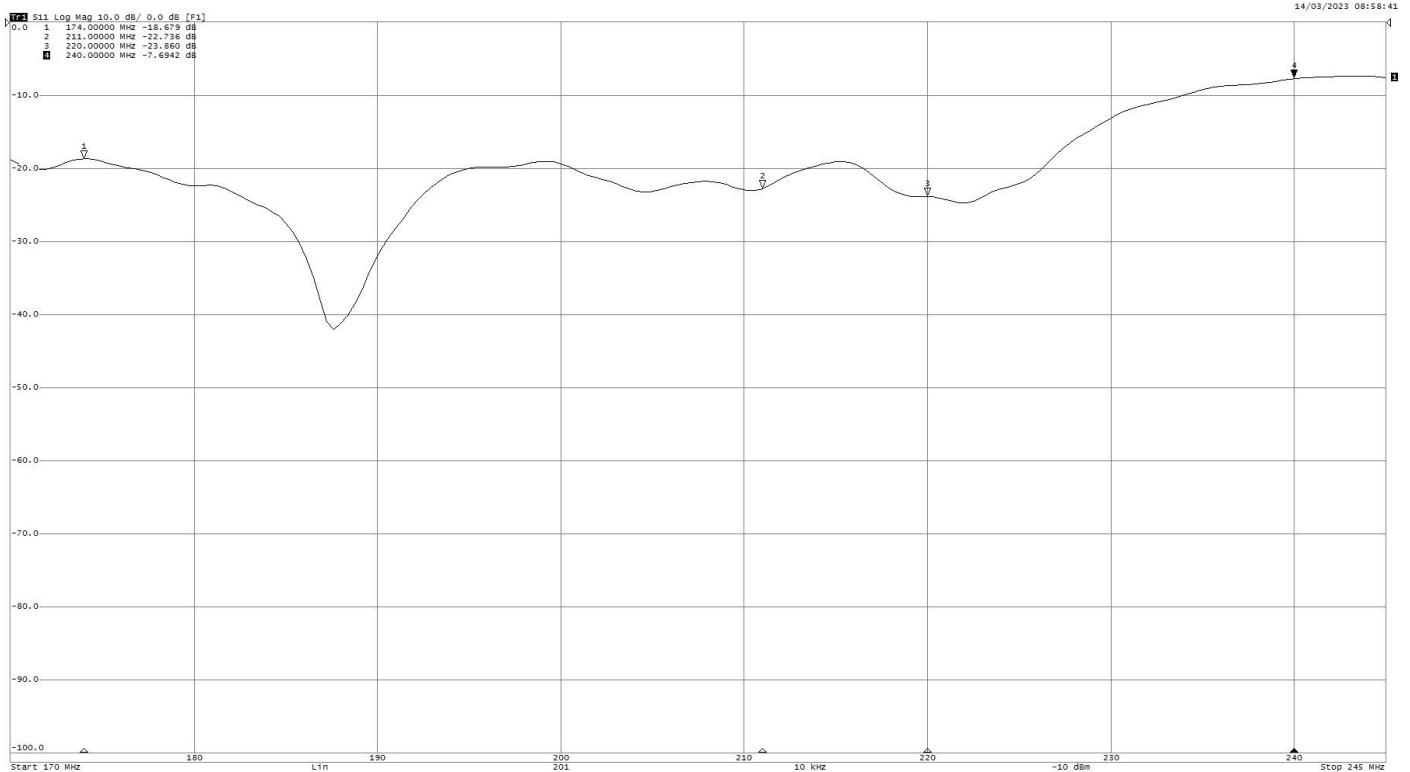
GAIN dB



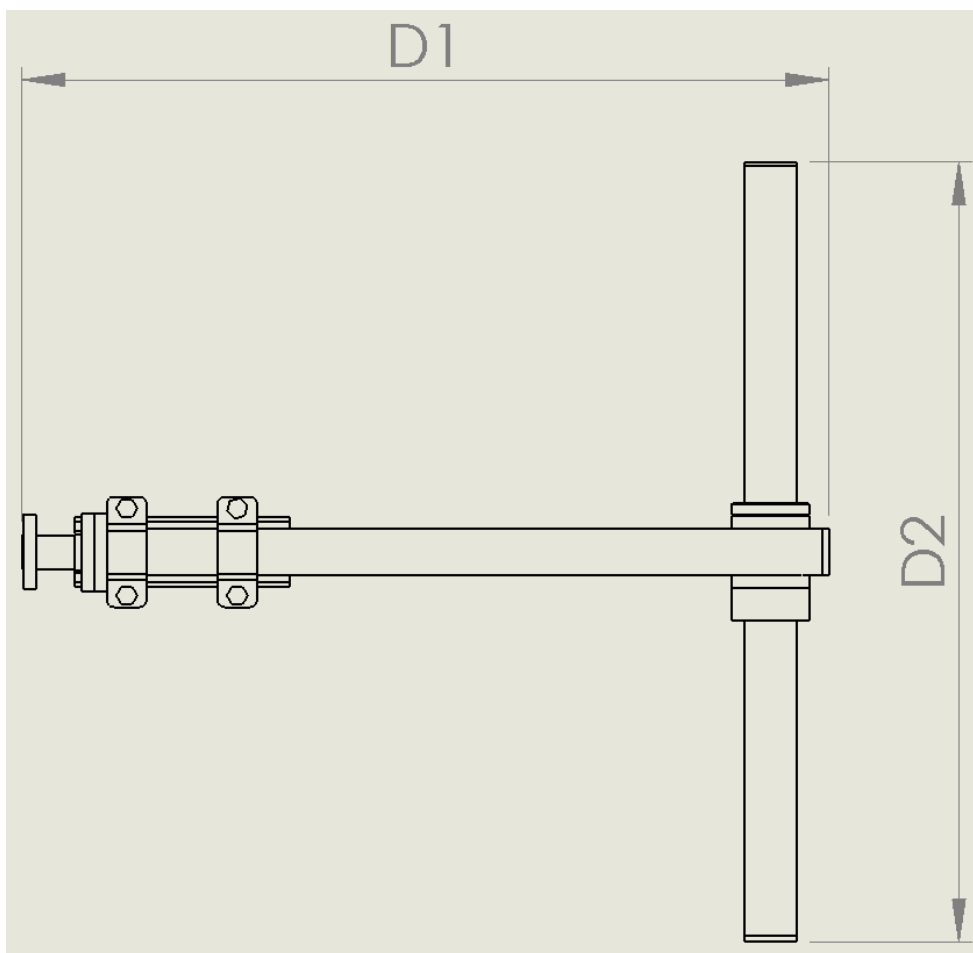
Return loss



Example standard dipole

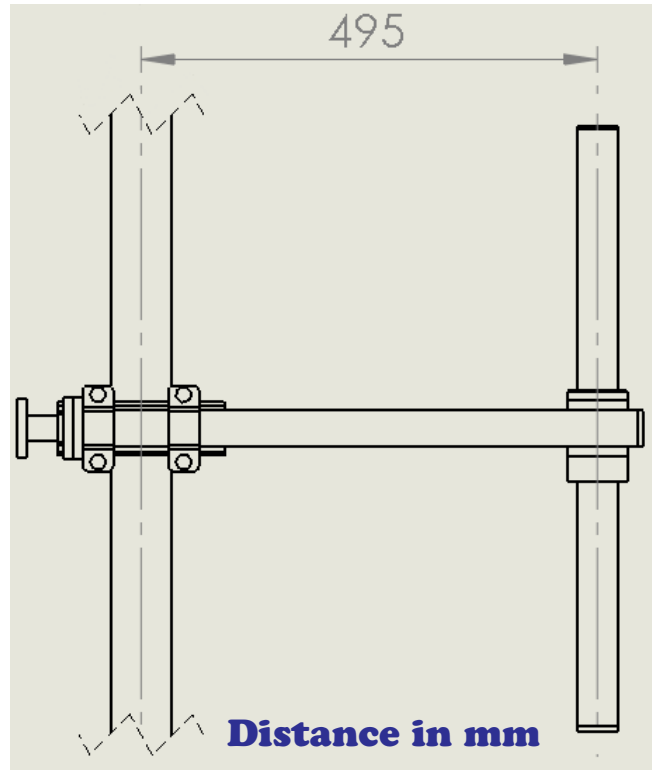


Example system 4 dipole

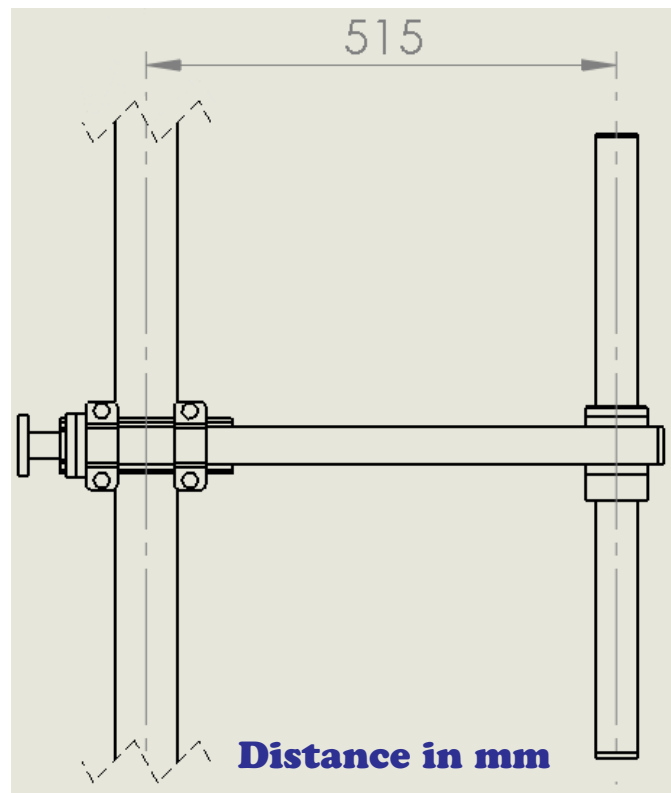
DIMENSIONS (mm) (See table MECHANICAL DATA)

Model AJiFIII

AJiFIII-1

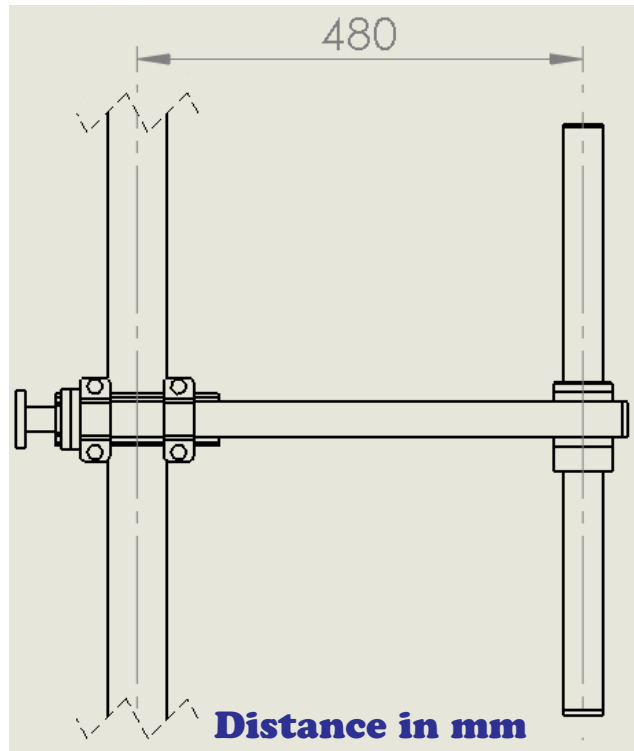


AJiFIII-2

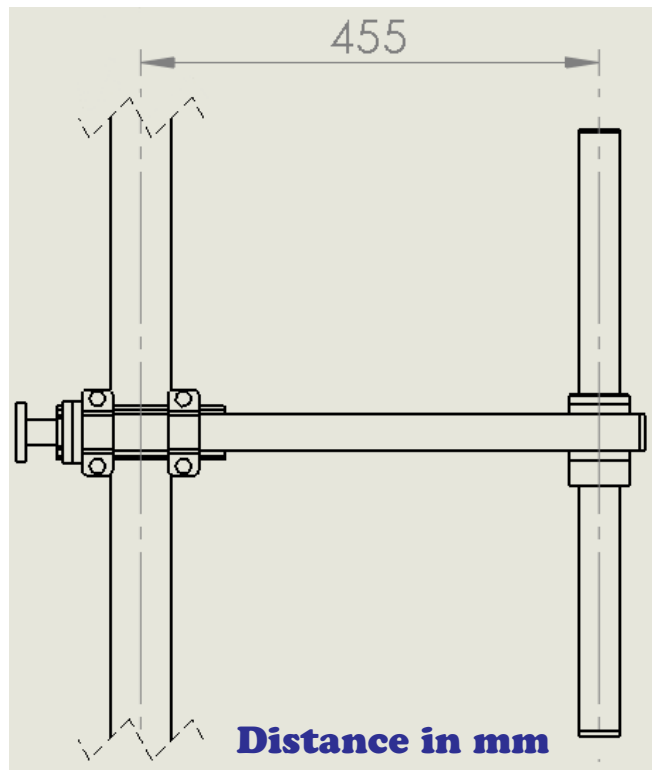


Model AJ1FIII

AJ1FIII-3



AJ1FIII-4



Radiation systems with AJ1FIII antenna Omni-directional pattern

ELECTRICAL DATA

Frequency range	See table
Impedance	50 Ohm
Connector	EIA flange according to system power rating
VSWR	≤ 1.25:1 Max
Polarization	Vertical
Gain	According to requirement
Vertical pattern	Null fill, beam tilt and special requirements to order
Other facilities	The antenna system can be supplied in split feed with two equal half antennas. Each half can accept full power

MECHANICAL DATA

Height of array	Subject to number of bays (refer to table)
Total net weight	Refer to table
Wind load	Refer to table
Pressurizable	Yes (on request)
Radome colour	White (optional)
Mounting hardware	Hot dip galvanized steel clamps (option)
Shipping	As required

TECHNICAL DATA

Number of bays	Dipoles per bay	Gain ¹		Weight ² kg	Antenna height L m (approx.)	Wind load (v=150 km/h) kg
		dB	times			
2	1	5	3	14	2	26.5
4	1	8	6.3	28	4.6	53
6	1	9.8	9.5	42	7.2	79.6
8	1	11	12.5	56	9.8	106
12	1	12.8	19	84	15	159

¹ referred to a half wave dipole. Attenuation of connecting cables not taken into account.

² without mounting hardware

- Gain is provided for vertical polarization.
- If the antenna is side mounted, the supporting structure will have a slight effect on the radiation pattern and VSWR.
- Vertical tower space, wind load and weight numbers given are typical. Actual values vary with the specific installation. Contact us for more details of your installation.
- Gain will be reduced if null fill, beam tilt or special wavelength spacing is provided.
- Antenna radiation aperture is the distance from the centre of the top bay to the centre of the bottom bay.
- Five ft(1.6mt) of pipe required above the top bay and below the bottom bay for to protect from pattern interference by other antennas.
- Antenna wind load is calculated for 93 Mph (150Km/h) per EIA-222-C standard.

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