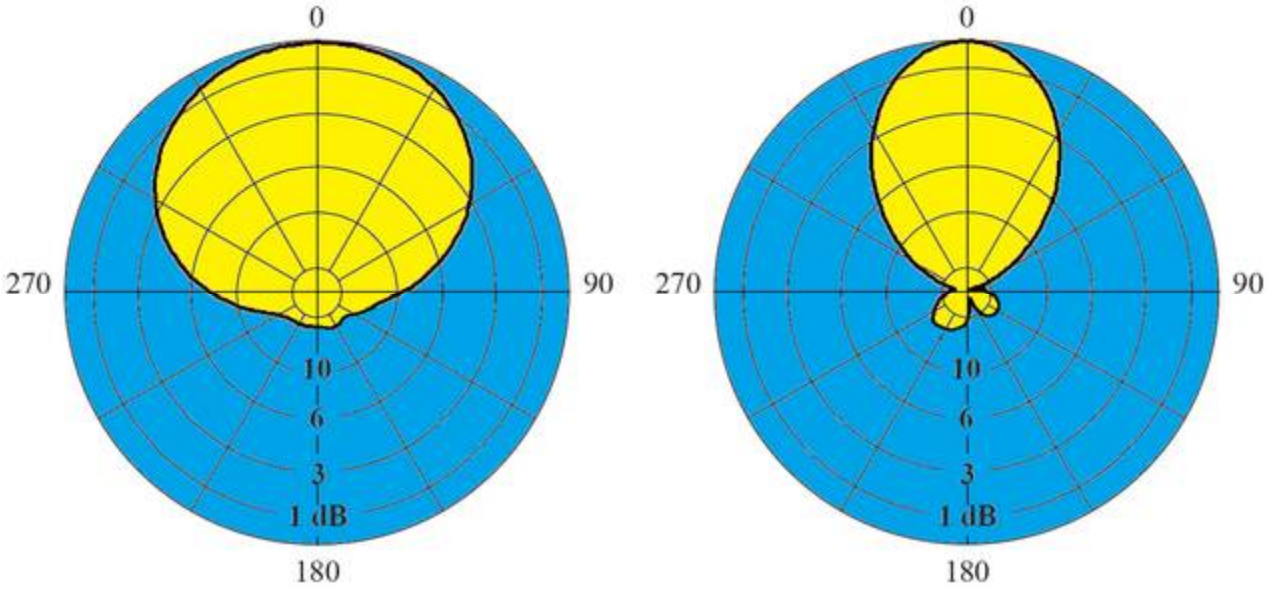
Model : AJ4III

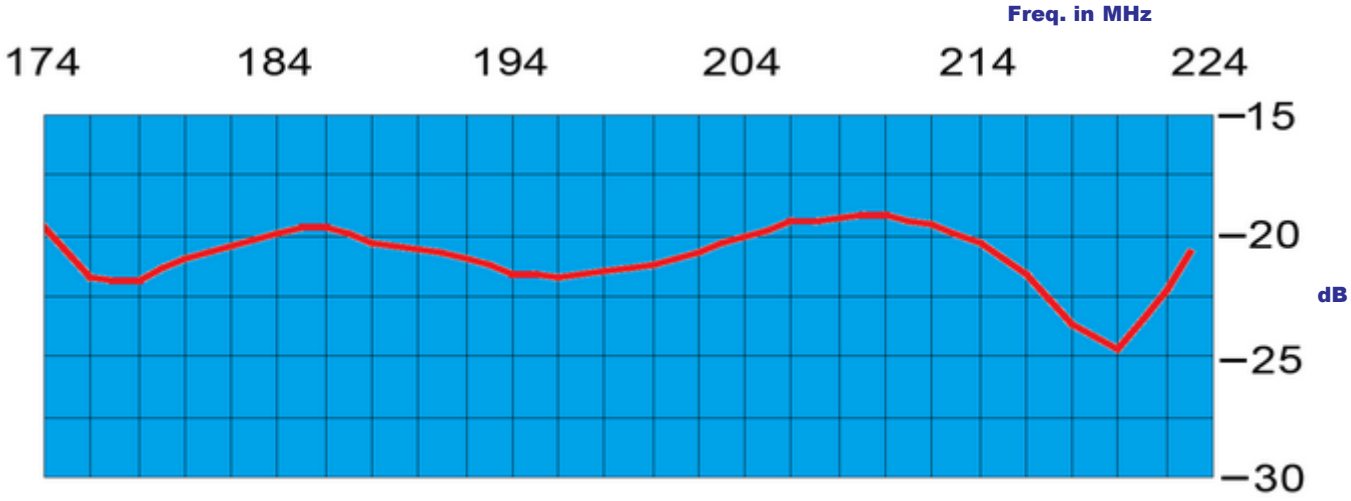
- Band III
- Broadband 174 ÷ 223 MHz
- Demountable
- Vertical or Horizontal polarization
- Pressurizzable on request

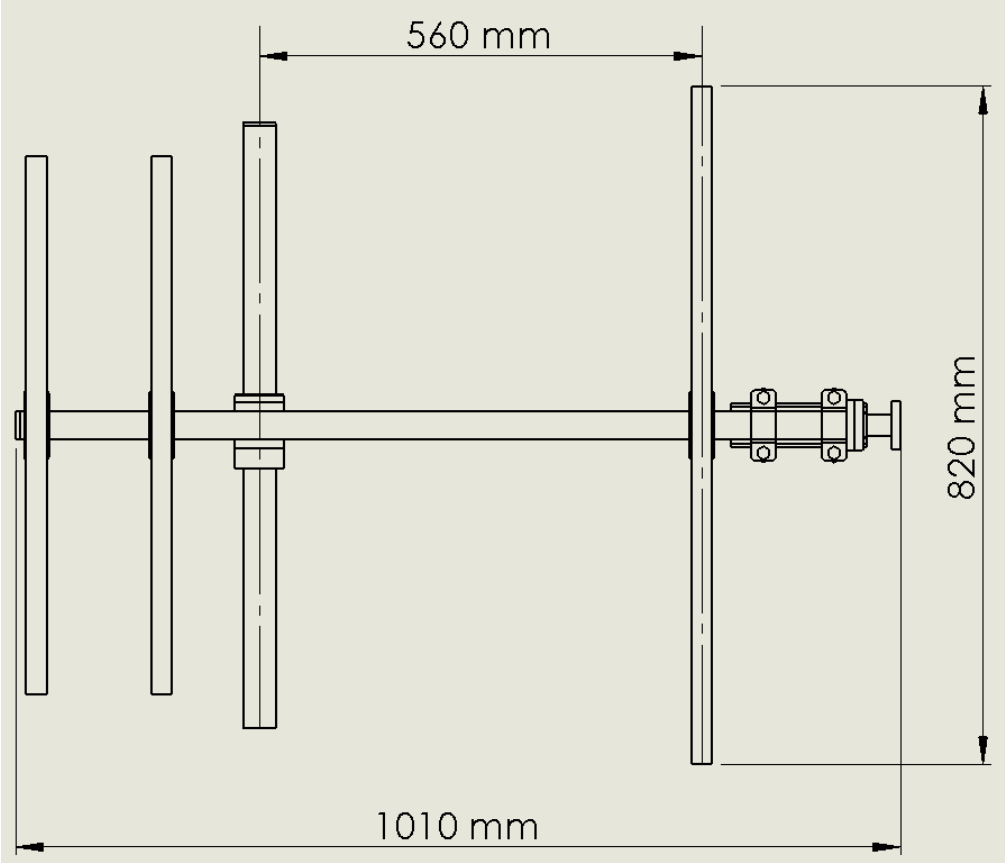
RADIATION PATTERN (MID BAND)



E-plane **H-plane**

RETURN LOSS





ELECTRICAL DATA

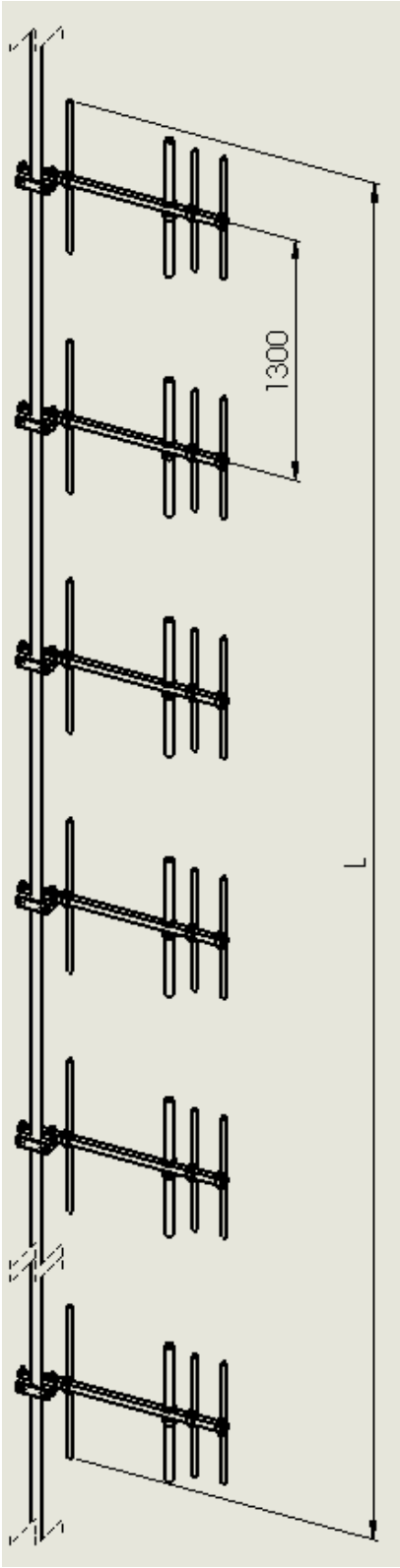
Frequency range	174 ÷ 223 MHz
Impedance	50 Ohm
Connectors	N or 7/16" or 7/8" EIA
Max Power	800W (N)–2KW (7/16")–3 KW (7/8" EIA)
VSWR	≤ 1.22:1 Horizontal polarization with pole diam. 100 mm ≤ 1.25:1 Vertical polarization with pole diam. 100 mm
Polarization	Horizontal or Vertical
Gain	4.8 dB (referred to half-wave dipole)
Half power beam width	E plane ± 32° H plane ± 62°
Lightning protection	All metal parts DC grounded

MECHANICAL DATA

Dimensions	1010x820x180 mm
Weight	11 Kg without hardware mounting
Wind surface	0.16 m^2
Wind load	21.4 Kg (wind speed at 150 km/h – without radome)
Max wind velocity	220 Km/h
Materials	External parts: stainless steel Internal parts: passivated aluminium, brass Radome : fiberglass or PTFE(option)
Icing protection	Feed point radome (optional)
Radome color	White (optional)
Mounting	With special pipe clamps 50 ÷ 110 mm dia.

Radiations systems with AJ4III Yagi antenna

Directional pattern



ELECTRICAL DATA

Frequency range	174 ÷ 223 MHz
Impedance	50 Ohm
Connector	EIA flange according to system power rating
VSWR	≤ 1.25:1 Max
Polarization	Horizontal or Vertical
Gain	According to requirement
Horizontal pattern	Any type according to requirements
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
Pressurizzable	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	Wind load (v=150 km/h) kg
		dB	times			
2	1	7.8	6.0	22	2.1	42.8
4	1	10.8	12.0	44	4.7	85.6
6	1	12.6	18.1	66	7.3	128.4
8	1	13.8	23.9	88	9.9	171.2
12	1	15.6	36.3	132	15.1	256.8

[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.