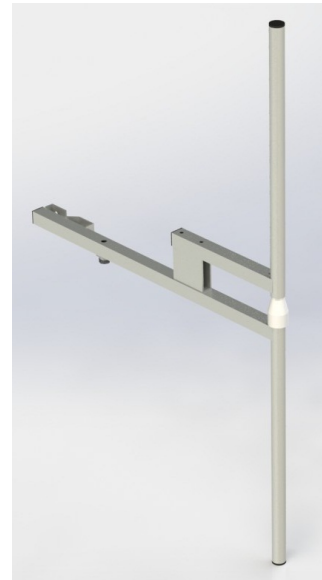


Model AJ1 FENA

BROADBAND COST EFFECTIVE DIPOLE

LOW WEIGHT HIGHT PERFORMANCE

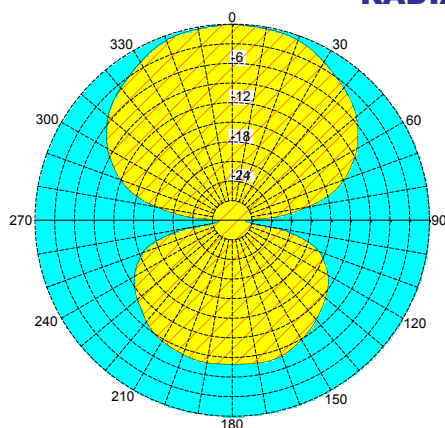
- Model A1JFENA – AJ1FEA6 – AJ1FEA7
- Band II dipole
- Broadband 87.5÷108 MHz
- 2 dBd gain
- Vertical polarization
- Omni directional pattern
- Aluminium anticorodal



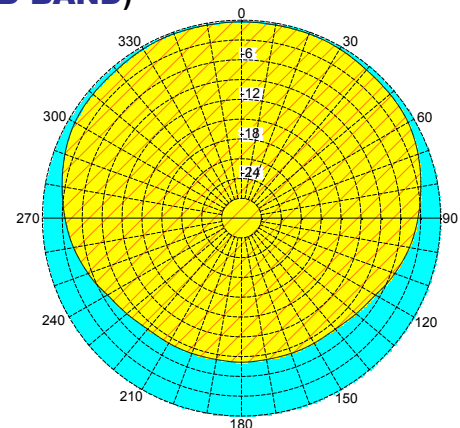
| ELECTRICAL DATA | |
|----------------------|---|
| Frequency range | 87.5÷108 MHz |
| Impedance | 50 Ohm |
| Connectors | N (AJ1FENA) – 7/16 female (AJ1FEA6) – 7/8 EIA (AJ1FEA7) |
| Max Power | 800W (N) – 2KW (7/16" - 7/8" EIA) |
| VSWR | ≤ 1.35:1 |
| Polarization | Vertical |
| Gain | 2 dB (referred to half-wave dipole) at 98 MHz |
| Pattern | Omni directional ± 1.5 dB in free space Omni directional ± 3 dB with 100mm diameter pole |
| Lightning protection | All metal parts DC grounded |

| MECHANICAL DATA | |
|-------------------|---|
| Dimensions | 1400x900x50 mm |
| Weight | 4 kg with hardware mounting |
| Wind surface | 0.05m2 |
| Wind load | 9.8 kg (wind speed at 160 km/h – without radome) |
| Max wind velocity | 220 km/h. |
| Materials | External parts: Aluminium anticorodal Internal parts: brass Radome: fiberglass (optional) |
| Icing protection | Feed point radome (optional) |
| Radome (optional) | Color white |
| Mounting | With special pipe clamps 40÷110 mm diameter |

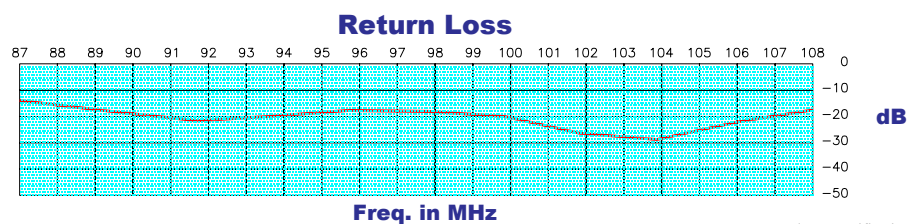
RADIATION PATTERN (MID BAND)



E-plane



H-plane



“These specifications are subject to change without notice”

Broad Band Cost Effective Antenna Systems with the AJ1FENA

Omni - directional pattern

| ELECTRICAL DATA | |
|--------------------|--|
| Frequency range | 87.5÷108 MHz |
| Impedance | 50 Ohm |
| Connector | EIA flange according to system power rating |
| VSWR | ≤ 1.35:1 Max |
| Polarization | Vertical |
| Gain | According to requirement |
| Horizontal pattern | Any type according to the customer requirements |
| Vertical pattern | Null fill, beam tilt and special requirements on demand |
| 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 demand) |
| Radome colour | White (optional) |
| Mounting hardware | Hot dip galvanized steel clamps |
| Shipping | As required |

TECHNICAL DATA

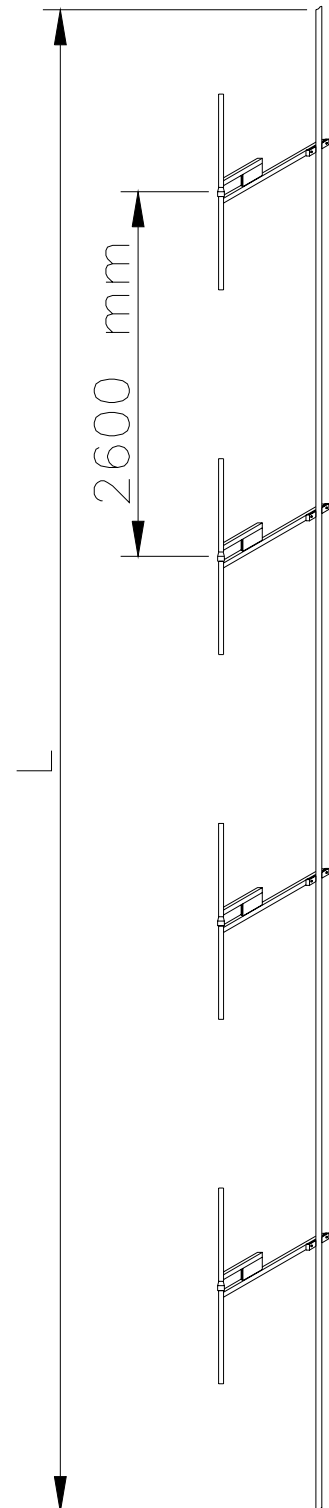
| Number of bays | Dipole per bay | Gain ¹ | | Weight ² kg | Antenna height L m | Wind load (v=160 km/h) kg |
|----------------|----------------|-------------------|-------|------------------------|--------------------|---------------------------|
| | | dB | times | | | |
| 1 | 1 | 2.0 | 1.6 | 4 | 1.4 | 9.8 |
| 2 | 1 | 5.0 | 3.2 | 8 | 4.0 | 19.6 |
| 4 | 1 | 8.0 | 6.3 | 16 | 9.2 | 39.2 |
| 6 | 1 | 9.8 | 9.5 | 24 | 14.4 | 58.8 |
| 8 | 1 | 11.0 | 12.7 | 32 | 19.6 | 78.4 |

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

² Without mounting hardware.

³ Systems comprise: antennas, cables and splitter – for more details look on catalog – different versions on demand

- Gain is provided for vertical polarisation.
- When antenna is pole mounted on the top of a tower the horizontally polarized radiation pattern is omni - directional.
- 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 are provided.
- Antenna radiation aperture is the distance from the centre of the top bay to the centre of the bottom bay.
- A length of five ft(1.6mt) of pipe is required above the top bay and below the bottom bay to protect from pattern interference by other antennas.
- Antenna wind load is calculated for 100 Mph (160Km/h) per EIA-222-C standard.



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