MODEL: AJ3EIX0810

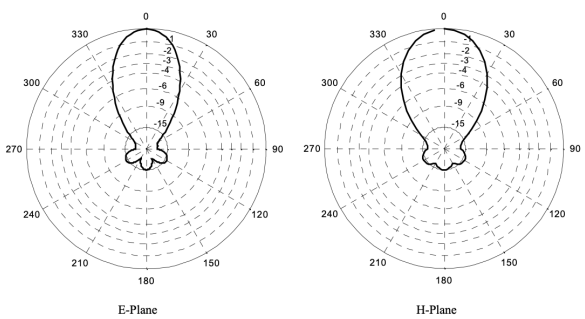
Brand: R.V.R.
Manufacturer: R.V.R. Elettronica s.r.l.

- **Tuned Yagi Antenna 3 Elements**
- **FM Band 87.5÷108 MHz**
- **Suitable for VHF, Band I, OIRT Band on request**
- **Gamma Match Tuned**
- **Vertical polarization**
- **Inox Elements**
- **Light and demountable**

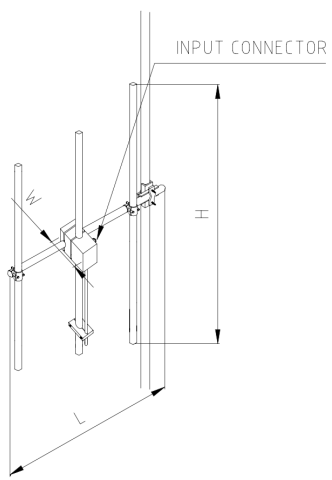
AJ3 SINGLE ELEMENT - ELECTRICAL DATA	
Frequency range	87.5÷108 MHz
Impedance	50 Ohm
Connectors	N or 7/16" female or 7/8" EIA
Max Power	650W (N) – 1.3KW (7/16") – 3.5KW (7/8" EIA)
VSWR ±2MHz	≤1.1:1 in the operating channel
Polarization	Vertical
Single Element Gain	7 dBd Refered to half-wave dipole
Half power beamwidth	E plane ± 23.5° H plane ± 33.5°
Lightning protection	No DC grounded

AJ3 SINGLE ELEMENT- MECHANICAL DATA	
Dimensions	1500 H x 1480 L x 100 W mm. at 98MHz Depending to the working frequency.
Wind surface	0.14 m^2 (at 98 MHz)
Wind load	18 kg. (wind speed at 160 km/h – without radome).
Max wind velocity	200 km/h.
Materials	Stainless steel. On request (optional) in alluminium.
Mounting	With special pipe clamps 50÷110 mm dia.
Radome	Optional.
Icing protection	Feed point radome (optional)
Temperature range	From -40°C up to +80°C
Humidity	100%

Radiation Pattern (Mid Band)



Dimension



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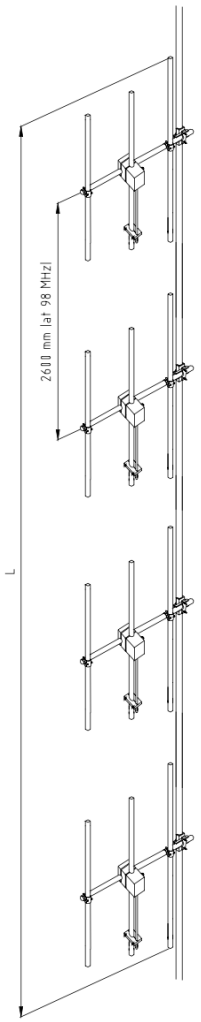

Radiations system with AJ3 Yagi Antenna
Directional pattern

SYSTEM - ELECTRICAL DATA

Frequency range	87.5 ÷ 108 MHz
Impedance	50 Ohm
Connectors	According to system max power.
VSWR ±2MHz	≤ 1.1:1 max
Polarization	Vertical
Gain [1]	16 dBd
Horizontal pattern	Any type according to requirements
Vertical pattern	Null fill, beam tilt, or 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.

SYSTEM - MECHANICAL DATA

Height of array	Refer to table
Total net weight	Refer to table
Wind load	Refer to table
Pressurizzable	Yes (on request)
Mounting hardware	Hot dip galvanized steel clamps

AJ3EIX0810 - TECHNICAL DATA REFERRED TO A HALF WAVE DIPOLE

NUMBER OF BAYS	ANTENNA PER BAY	WEIGHT[2] Kg.	ANTENNA HEIGHT L m.	WIND LOAD (v=160 km/h) Kg.	SYSTEM
8	1	100	19.7	144	AJ3EIX0810

1 Referred to a half wave dipole. Attenuation of connecting cables not taken into account.
2 Without mounting hardware.
3 The systems comprised: antennas, cables and splitter. Different versions on request.

- Gain is provided for verticalp olarisation.
- 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.
- Gain will be reduced if null fill, beam tilt or special wave length 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 100Mph (160Km/h) per EIA-222-C standard.

ORDERING INFO

CODE	DESCRIPTION
AJ3EIX0810	Tuned Antenna System Vertical polarization, composed as it follows: Q.8) 3 Element Yagi AJ3 Tuned IN 7/16 Q.8) Cable 1/2" IN-OUT 7/16. 12 meters/each Q.1) Divider IN 1+5/8 OUT 8 7/16 Tuned, Q.1) Adapter 1+5/8-7/8 disco C/INNER Specify Operating Frequency at the order.

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