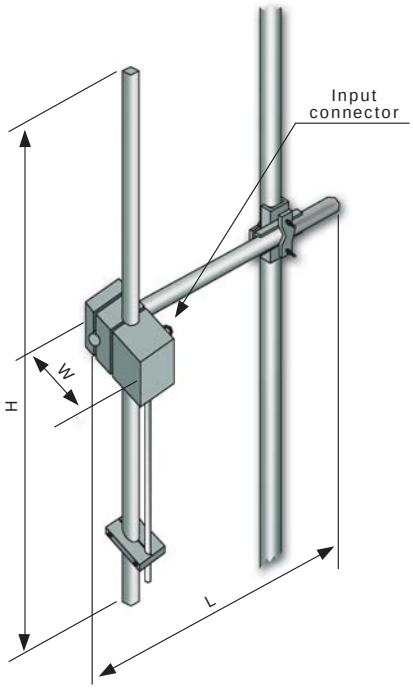
Model AJ1E – AJ1EBI – AJ1E/INOX – AJ1E/IT

- High Power Version (H.P.)
- FM Band 87.5÷108 MHz
- Suitable for VHF, Band I and OIRT Band
- Gamma Match Tuned
- Omni directional pattern
- Vertical polarization
- Light - Low Cost - Demountable



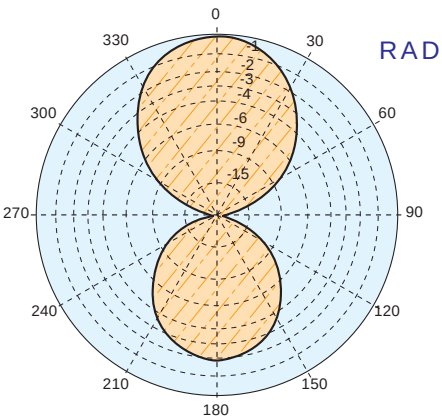
ELECTRICAL DATA

Frequency range	87.5÷108 MHz
Impedance	50 Ohm
Connectors	N or 7/16" female or 7/8" EIA
Max Power	650W (N) – 1300W (7/16" – H.P. Version)
VSWR	≤ 1.1:1 in the operating channel
Polarization	Vertical
Gain	1 dB (referred to half-wave dipole)
Pattern	Omni directional ± 1.5 dB in free space Omni directional ± 3 dB with 100mm dia. pole
Lightning protection	No DC grounded

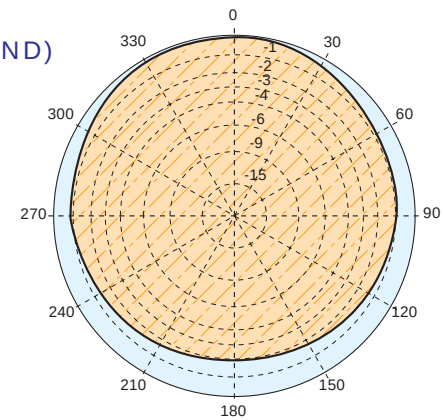
MECHANICAL DATA

Dimensions	According to the working frequency 1380 (H) x 760 (L) x 100 (W) mm at 98 MHz
Weight	According to the working frequency (aluminium or stainless steel)
Wind surface	0.05 m^2 (at 98 MHz)
Wind load	6.7 kg (wind speed at 160 km/h)
Max wind velocity	200 km/h (AJ1E/IT model)
Materials	AJ1E: Aluminium elements and boom AJ1EBI: Aluminium elements and inox boom AJ1E/INOX: Stainless steel elements and boom AJ1E/IT: Stainless steel elements and boom Tig Welded Version Teflon insulator Radome: fiberglass (option)
Icing protection	Feed point radome (optional)
Radome	Optional
Mounting	With special pipe clamps 50÷110 mm dia.

RADIATION PATTERN (MID BAND)



E-Plane



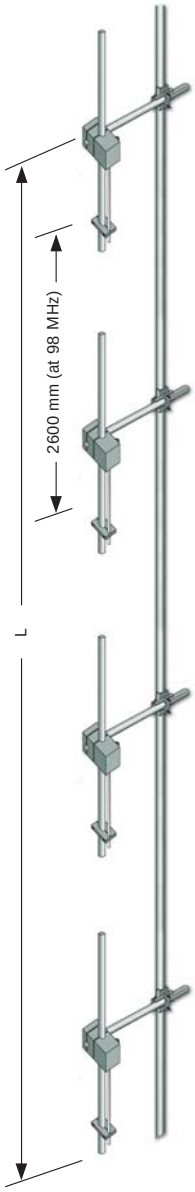
H-Plane

"These specifications are subject to change without notice"

Model AJ1E – AJ1EBI – AJ1E/INOX – AJ1E/IT

Radiations systems with AJ1E/IT antenna

Omni-directional pattern



ELECTRICAL DATA	
Frequency range	87.5÷108 MHz
Impedance	50 Ohm
Connector	EIA flange according to system power rating
VSWR	≤ 1.1:1 Max
Polarization	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	According to the working frequency
Wind load	Refer to table (at 98 MHz)
Pressurizzable	No
Radome	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	COLLINEARS SYSTEMS[3]				
		dB	times				800 W	1 KW	2 KW	3 KW	5 KW
1	1	1.0	1.2	-	1.4	6.7	AJ1E	AJ1E(HP)	-	-	-
2	1	4.0	2.5	-	4.0	13.5	-	AJ1EX21	-	-	-
4	1	7.0	5.0	-	9.2	27	AJ1EX41	-	AJ1EX42	AJ1EX43	-
6	1	8.8	8.5	-	14.4	40.5	AJ1EX61	-	AJ1EX62	AJ1EX63	-
8	1	10.0	10.0	-	19.6	54	AJ1EX81	-	AJ1EX82	-	AJ1EX85

[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 – for more details to see catalog – different version on request.

- Gain is provided for vertical polarization.
- When antenna is pole mounted on the top 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 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 100 Mph (160Km/h) per EIA-222-C standard.

"These specifications are subject to change without notice"