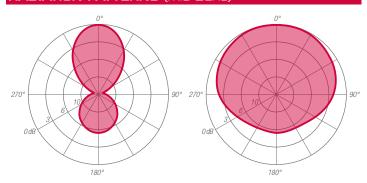




### **ANTENNA FEATURES**

- Dipole antenna.
- Vertical polarization.
- Broadband 87.5÷108 MHz.
- Omnidirectional radiation pattern.
- Aluminum version.

# **RADIATION PATTERNS** (Mid Band)

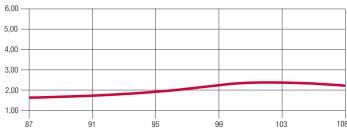


E - Plane
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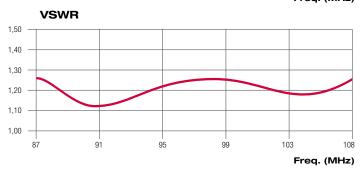
H - Plane

ELECTRICAL DATA	
WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF band FM
GAIN:	2.07 dBd (4.27 dBi)
VSWR:	≤ 1.27:1 (-18.5 dB)
POLARIZATION:	Vertical
IMPEDANCE:	50 Ohm unbalanced
HALF POWER BEAMWIDTH:	E-Plane - 70°
	H-Plane - 222°
LIGHTNING PROTECTION:	All metal parts DC grounded
	including inner conductors
AVAILABLE VERSION AND CODE:	ADE0102210 - N - max 800W rms
	ADE0102211 - DIN 7/16 female - max 3000W rms
	ADE0102212 - EIA 7/8" - max 5000W rms
	ADE0102212A - EIA 7/8" - 90° UO/DOWN - 5000W rms

# GAIN (dB)



# Freq. (MHz)



MECHANICAL	DATA				
MATERIALS:	Aluminum body and internal lines				
MOUNTING:	Directly on supporting structure				
MOUNTING BRACKETS:	Included for Ø60÷114mm pipe (Ø 2.36" - 4+1/2")				
ICING PROTECTION:	Optional feed point radome (Code XRADE)				
TREATMENTS:	Antenna body military norms treatement (MIL-C-554)				
	Silver plated connector				
PRESSURIZATION:	Optional				
ANTENNA DIMENSIONS:	1340x1010x50 mm (52.7x39.7x1.96 in)				
ANTENNA WEIGHT:	6 kg (13.2 lb)				
WIND SURFACE:	0.07m <sup>2</sup> (0.75ft <sup>2</sup> ) front - 0.12m <sup>2</sup> (1.29 ft <sup>2</sup> ) side				
WIND LOAD	0.06 kN front - 0.10 kN side				
(160 km/h and 30°C)					
SURVIVAL WIND:	220 km/h (136.7 mph)				
PACKING DIMENSIONS:	Box 1400x1200x150mm - 11.4kg				
	(55.1x47.2x5.9 in - 25.1lb)				

Specification are subject to change without notice







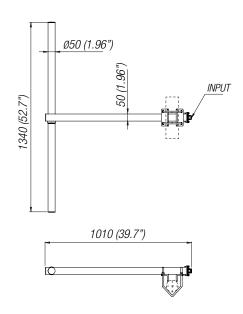
# **ARRAY FEATURES**

- Omnidirectional pattern
- Equal or unequal power distribution system
- Configurable for specific azimut and elevation pattern
- Suitable for multiplexing many channels

ARRAY ELECT			
FREQUENCY RANGE	87.5 ÷ 108 MHz		
IMPEDANCE	50 ohm		
CONNECTOR	EIA flange according to system power rating		
POWER RATING	The antenna system can accept any power		
	according to requirements		
VSWR	≤ 1.17 in the operating channels or		
	≤ 1.27 throughout the frequency range		
	Antenna system VSWR value also depending from the		
	supporting structure		
POLARIZATION	Vertical		
GAIN	Refer to table		
HORIZONTAL PATTERN	Omnidirectional		
VERTICAL PATTERN	Null fill, beam tilt and special requirements to order		
OTHER FEATURES	Antenna components and feed harnesses can be		
	optimized for channels of interest.		

ARRAY MECHANICAL DATA				
HEIGHT OF ARRAY	Subject to number of bays			
TOTAL NET WEIGHT	Refer to table			
WIND LOAD	Refer to table			
PRESSURIZABLE	Optional			
MOUNTING HARDWARE	Optional mounting for side mount configuration			

### ANTENNA DIMENSIONAL DETAILS



OPTIONS & SER	VICES
PATTERN DESIGN	Custom azimuth and elevation (beam tilt and null fill)
	patterns can be designed to meet specific
	protection/coverage requirements
PATTERN CERTIFICATION	Proof-of-performance factory test and
	pattern measurements on ALDENA test plan area
MOUNTING HARDWARE	Turn-key antenna delivering
	Tower top/side spine
	Special hardware/brackets
TRANSMISSION LINE	Transmission line system design and layout
COMBINERS/FILTERS	Combiners/Filters to suit requirements can be supplied
CALCULATION SERVICES	Coverage/interferfence simulations
	EM Near Field control and reduction (Environmental
	impact studies)
ON-SITE SERVICES	Site Survey and Inspection
	Installation/commissioning and supervisioning
	Drive test & EM Field strength measurements
	After sales maintenance
TRAINING	Techical training certification and consultancy

### ARRAY TECHNICAL DATA

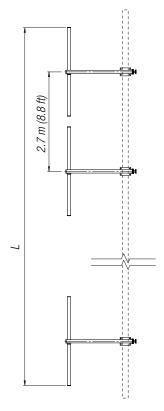
BAYS	PANELS PER BAY	GAIN <sup>(1)</sup> dB	GAIN TIMES <sup>(1)</sup>	WEIGHT <sup>(2)</sup> kg (lb)	antenna Height <sup>(L)</sup> m (ft)	WIND Load <sup>(2)</sup> kn
2	1	5.3	3.4	27.8 (61.2)	4.1 (13.4)	0.19
4	1	8.4	6.8	48.6 (107.1)	9.5 (31.2)	0.38
6	1	10.2	10.4	72.4 (159.6)	14.4 (47.2)	0.58
8	1	11.5	14.1	91.2 (201.0)	19.6 (64.3)	0.77
12	1	13.2	20.9	187.2 (412.7)	30.0 (98.4)	1.16

- (1) Gain data is relative to half-wave dipole. Values given are nominal and assume standard harness configurations Gain will vary depending in specific feed system, null fill and beam tilt.

  (2) Without mounting hardware.

  (3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

- (L) Total Antenna Height.



Total Antenna Height (L) is subject to change according to requirement. Custom designed antennas meeting special requirements such as specific azimuthal pattern, different gains and custom power input are available upon request.

Specification are subject to change without notice