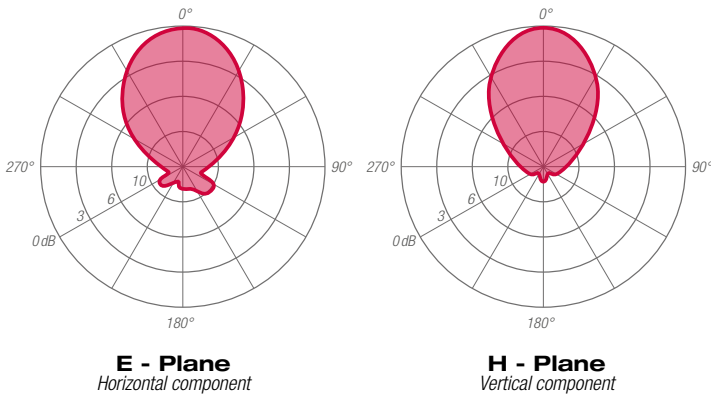




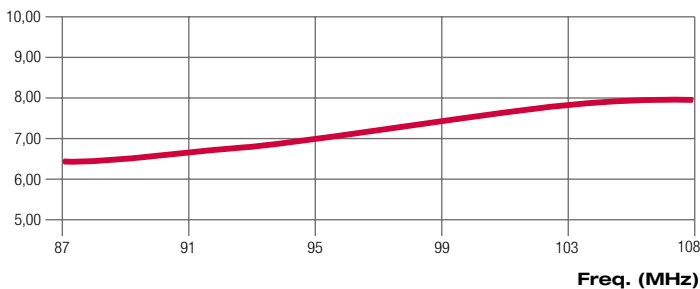
### ANTENNA FEATURES

- Panel antenna with double dipole 7.5 dBd gain.
- Reflecting grid wholly inwelded aluminium.
- Vertical or horizontal polarization.
- Broadband 87.5÷108 MHz.
- Demountable.
- Pressurizable.
- Aluminium.

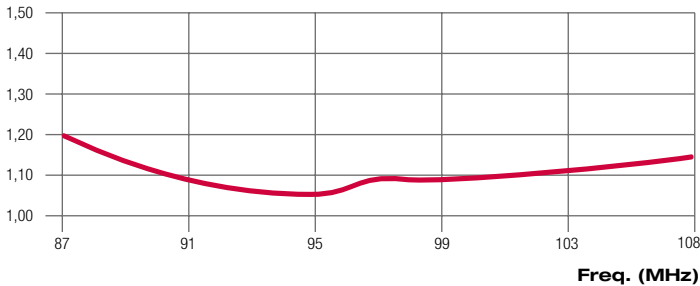
### RADIATION PATTERNS (Mid Band)



### GAIN (dB)



### VSWR



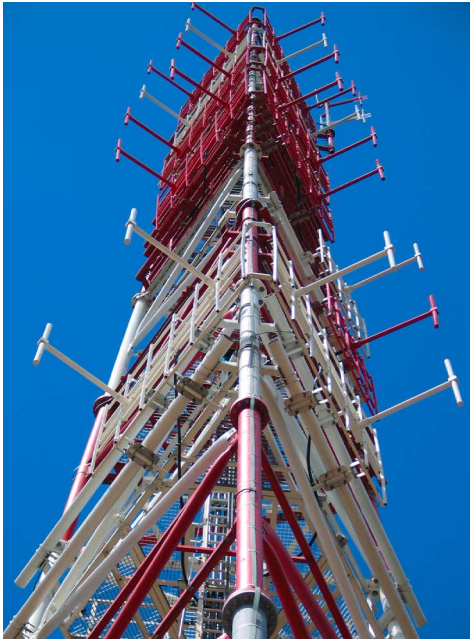
### ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF band FM
GAIN:	7.5 dBd (9.7 dBi)
VSWR:	≤ 1.2:1 (-20.8 dB)
POLARIZATION:	Vertical or Horizontal
IMPEDANCE:	50 Ohm balanced
HALF POWER BEAMWIDTH:	E-Plane - 70° H-Plane - 64°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	ADPO202415 - EIA 7/8" - max 5000W rms ADPO202416 - DIN 7/16 female - max 3000W rms ADPO202417 - N - max 800W rms

### MECHANICAL DATA

MATERIALS:	Aluminium Hot dip galvanized steel bracket and bolts
MOUNTING:	Directly on supporting structure
MOUNTING BRACKETS:	Included for Ø50÷114 mm pipe (Ø1.96" - 4+1/2")
ICING PROTECTION:	Feed point radome (2x code XRASD)
TREATMENTS:	Dipoles military norms treatment (MIL-C-5541) Silver plated internal lines and connector
ANTENNA DIMENSIONS:	2200x2200x1100 mm (86.6x86.6x43.3 in)
ANTENNA WEIGHT:	35 kg (77.2 lb)
WIND SURFACE:	0.47m <sup>2</sup> (5.05ft <sup>2</sup> ) front - 0.39m <sup>2</sup> (4.19 ft <sup>2</sup> ) side
WIND LOAD (160 km/h and 30°C)	1.53 kN front - 0.19 kN side
SURVIVAL WIND:	180 km/h (111.8 mph)
PACKING DIMENSIONS:	Dipoles: Box 1780x380x150mm (70.0x14.9x5.9 in) Reflecting grid: Box 2250x1150x150mm (88.5x45.2x5.9 in) Total weight: 50 kg (110.2 lb)

Specification are subject to change without notice



### ARRAY FEATURES

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

### ARRAY ELECTRICAL DATA

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	≤ 1.09 in the operating channels or ≤ 1.13 throughout the frequency range Antenna system VSWR value also depending from the supporting structure
POLARIZATION	Vertical (or horizontal upon request)
GAIN	Refer to table
HORIZONTAL PATTERN	Any type according to requirement
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. The antenna system can be supplied in split feed configuration (two equal halves). Each half can accept full power.

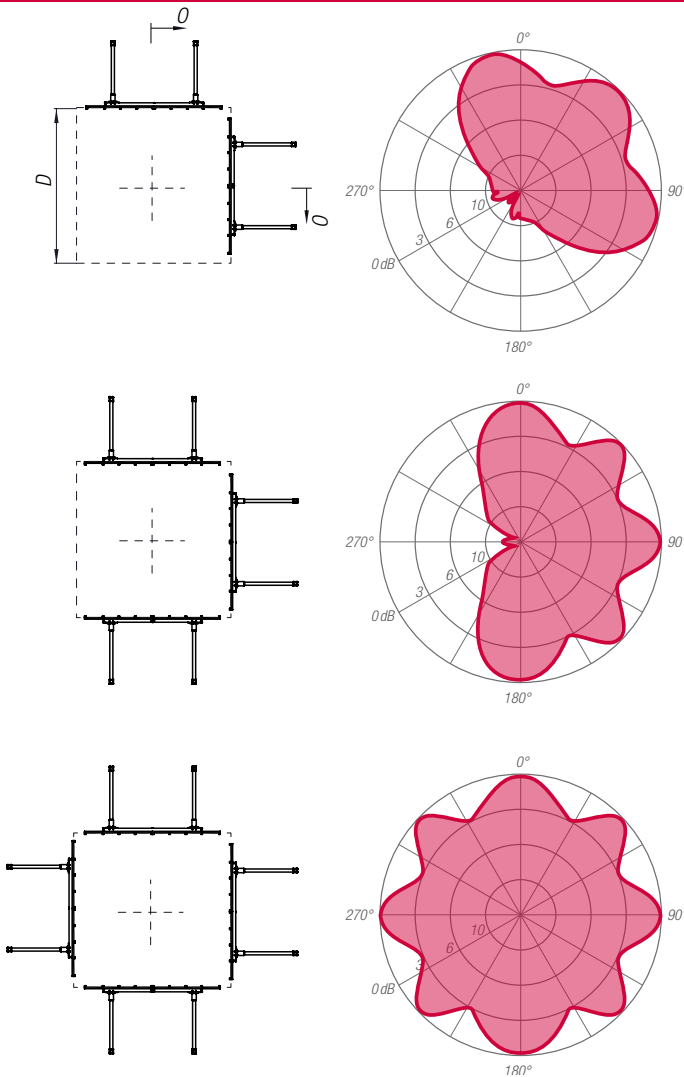
### TYPICAL HORIZONTAL PATTERNS

### ARRAY MECHANICAL DATA

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

### 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>(3)</sup> kN
2	1	10.5	11.2	98 (216.0)	4.9 (16.0)	3,1
4	1	13.5	22.4	193(643.7)	10.3 (33.8)	6,1
6	1	15.3	33.8	292 (939.2)	15.7 (51.5)	9,2
8	1	16.5	44.6	399 (879.6)	21.1 (69.2)	12,3
12	1	18.3	67.6	596 (1728.4)	31.9 (104.6)	18,4
1	2	5.3	3.4	98 (216.0)	2.2 (7.2)	1,7
2	2	8.3	6.7	193 (425.5)	4.9 (16.0)	3,5
4	2	11.3	13.5	399 (879.6)	10.3 (33.8)	6,9
6	2	13.1	20.4	596 (1313.9)	15.7 (51.5)	10,4
8	2	14.3	26.9	785 (1730.6)	21.1 (69.2)	13,9
12	2	17.1	51.3	1183 (2608.1)	31.9 (104.6)	20,8
1	3	3.6	2.3	146 (321.8)	2.2 (7.2)	1,9
2	3	6.6	4.5	292 (643.7)	4.9 (16.0)	3,9
4	3	9.6	9.1	596 (1313.9)	10.3 (33.8)	7,7
6	3	11.4	13.8	889 (1959.9)	15.7 (51.5)	11,6
8	3	12.6	18.2	1183 (2608.1)	21.1 (69.2)	15,4
12	3	14.4	27.5	1774 (3911.0)	31.9 (104.6)	23,2
1	4	2.6	1.8	193 (425.5)	2.2 (7.2)	1,9
2	4	5.6	3.6	399 (879.6)	4.9 (16.0)	3,9
4	4	8.6	7.2	785 (1730.6)	10.3 (33.8)	7,7
6	4	10.4	10.9	1183 (2608.1)	15.7 (51.5)	11,6
8	4	11.6	14.4	1999 (4407.0)	21.1 (69.2)	15,4
12	4	13.4	21.8	2394 (5277.8)	31.9 (104.6)	23,2



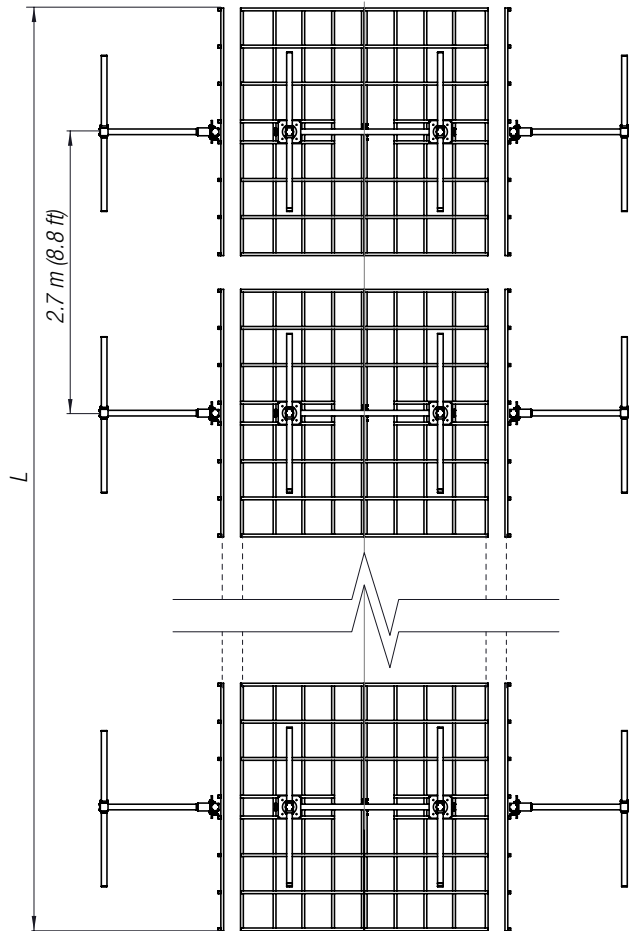
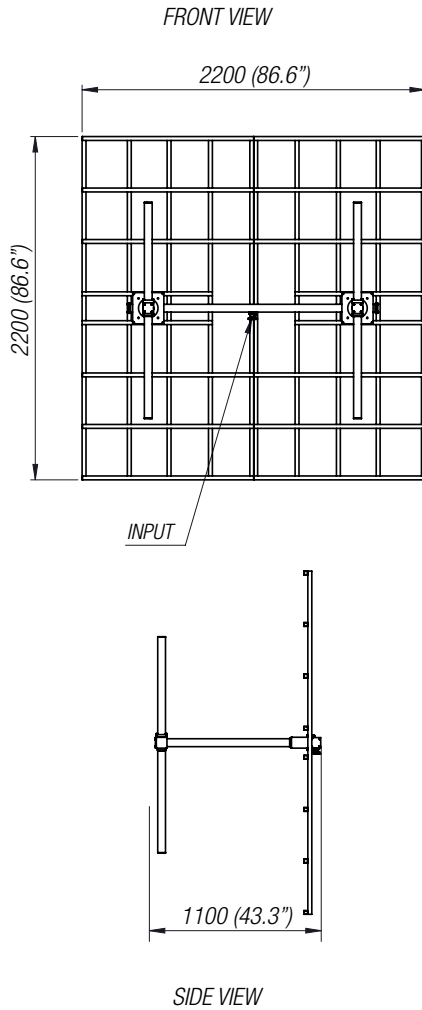
Note:  
Antenna Distance (D) and Antenna Offset (O) are subject to change according to requirement.  
Custom designed antennas meeting special requirements such as specific azimuthal pattern, different gains and custom power input are available upon request.

(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.  
Gain data in relative to array in horizontal polarization.  
(2) Without mounting hardware.  
(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.  
(L) Total Antenna Height.

Specification are subject to change without notice

**ANTENNA DIMENSIONAL DETAILS**

**ARRAY VERTICAL HEIGHT**



Note:  
Total Antenna Height (L) is subject to change according to requirement.

**OPTIONS & SERVICES**

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

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