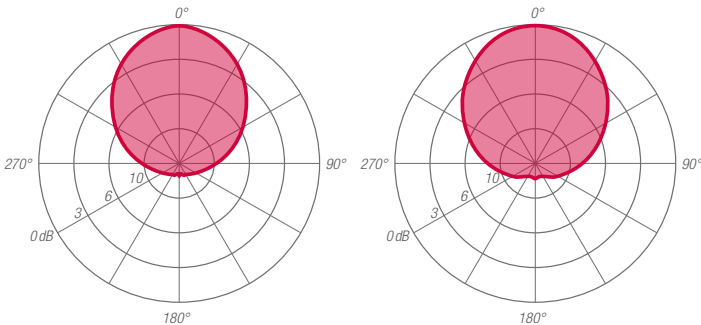


ANTENNA FEATURES

- Double dipole antenna panel
- Circular, Elliptical, Horizontal, Vertical polarization.
- Broadband 87.5÷108 MHz.
- Omnidirectional radiation pattern.
- Demountable.
- Pressurizable.
- Suitable for triangular tower.

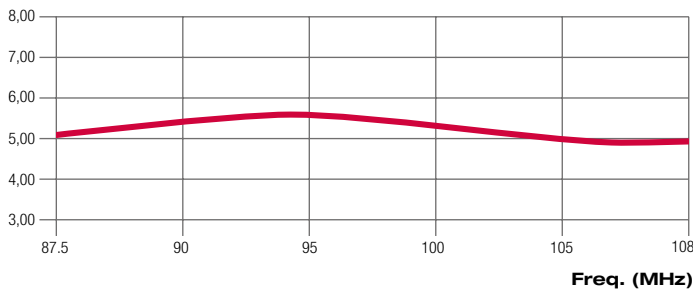
RADIATION PATTERNS (Mid Band)



E - Plane
Horizontal component

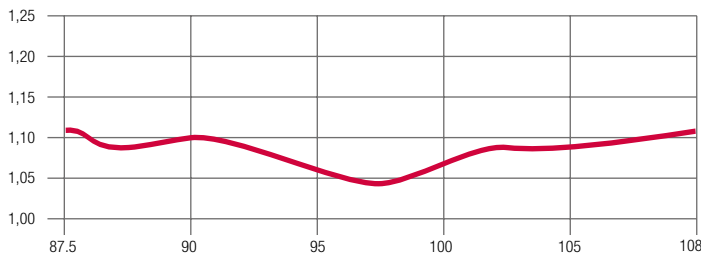
H - Plane
Vertical component

GAIN (dB)



Freq. (MHz)

VSWR



Freq. (MHz)

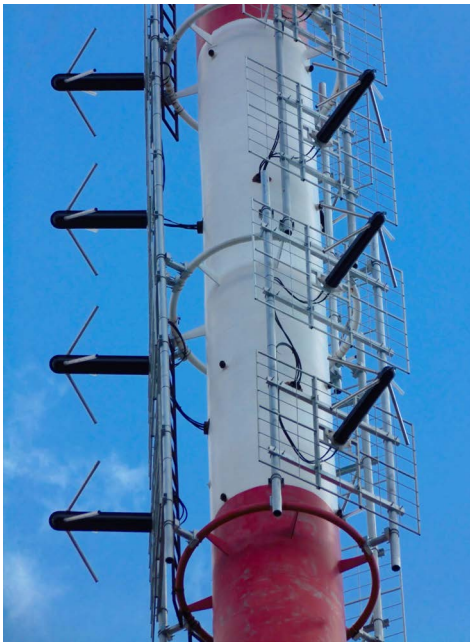
ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF - Band FM
GAIN:	2.5 dBd (4.7 dBi) circular polarization 5.5 dBd (7.7 dBi) linear polarization
VSWR:	< 1.11:1 (-26 dB)
POLARIZATION:	Circular, elliptical, vertical, horizontal
IMPEDANCE:	50 Ohm balanced
HALF POWER BEAMWIDTH:	E-Plane - 83° - H-Plane - 78°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	APY0202431 - 2x EIA 7/8" - max 2x 4000W rms

MECHANICAL DATA

MATERIALS:	Stainless steel, Hot dip galvanized steel
MOUNTING:	Directly on supporting structure via Ø16 holes
ICING PROTECTION:	Dipoles covered by Fiberglass radome
TREATMENTS:	Hot dip galvanized steel reflecting grid Silver-plated lines and connector
ANTENNA DIMENSIONS:	1900x1900x1120 mm (74.8x74.8x44.1 in)
WEIGHT:	53 kg (116.8 lb)
WIND SURFACE:	0.59 m ² (6.35 ft ²) front - 0.28 m ² (3.01 ft ²) side
WIND LOAD (160 km/h and 30°C)	1.14 kN front - 0.54 kN side
SURVIVAL WIND:	220 km/h (136.7 mph)
PACKING DIMENSIONS:	Wooden cage (ISMP-15) 1950x1250x1200 mm - 81 kg (76.7x49.2x47.2 in - 178.5 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	≤ 1.11 in the operating channels or ≤ 1.24 throughout the frequency range Antenna system VSWR value also depending from the supporting structure
POLARIZATION	Circular, elliptical, vertical, horizontal
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.

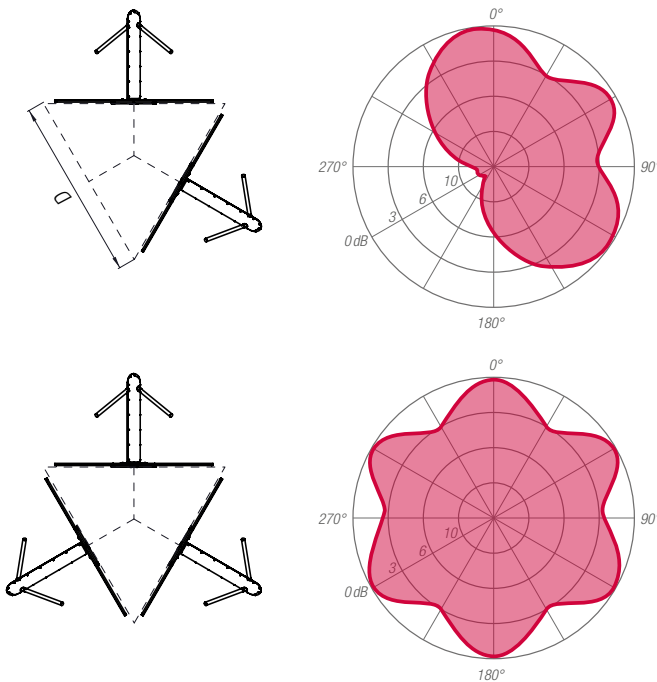
TYPICAL HORIZONTAL PATTERNS

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 ⁽¹⁾ dB	GAIN TIMES ⁽¹⁾	WEIGHT ⁽²⁾ kg (lb)	ANTENNA HEIGHT ^(L) m (ft)	WIND LOAD ⁽³⁾ kN
2	1	5.6	3.63	128 (282.2)	4.9 (16.0)	2.28
4	1	8.6	7.24	253(557.7)	10.3 (33.7)	4.56
6	1	10.6	11.48	397 (875.2)	15.7 (51.5)	6.84
8	1	11.8	15.14	519 (1144.2)	21.1 (69.2)	9.12
1	2	-0.4	0.91	128 (282.2)	2.2 (7.2)	1.68
2	2	2.6	1.82	253 (557.7)	4.9 (16.0)	3.36
4	2	5.6	3.63	519 (1144.2)	10.3 (33.7)	6.72
6	2	7.6	5.75	776 (1710.8)	15.7 (51.5)	10.1
8	2	8.8	7.59	1025 (2258.7)	21.1 (69.2)	13.44
1	3	-2.2	0.60	191 (421.1)	2.2 (7.2)	2.22
2	3	0.8	1.20	397 (875.2)	4.9 (16.0)	4.44
4	3	3.8	2.40	776 (1710.8)	10.3 (33.7)	8.88
6	3	5.8	3.81	1191 (2625.7)	15.7 (51.5)	13.32
8	3	7.0	5.01	1552 (3421.5)	21.1 (69.2)	17.76



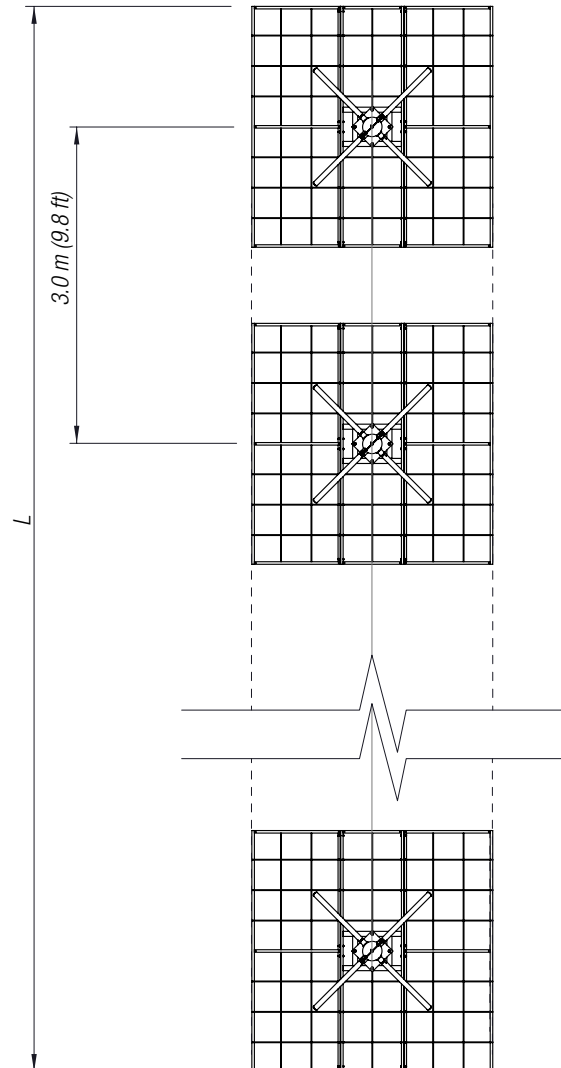
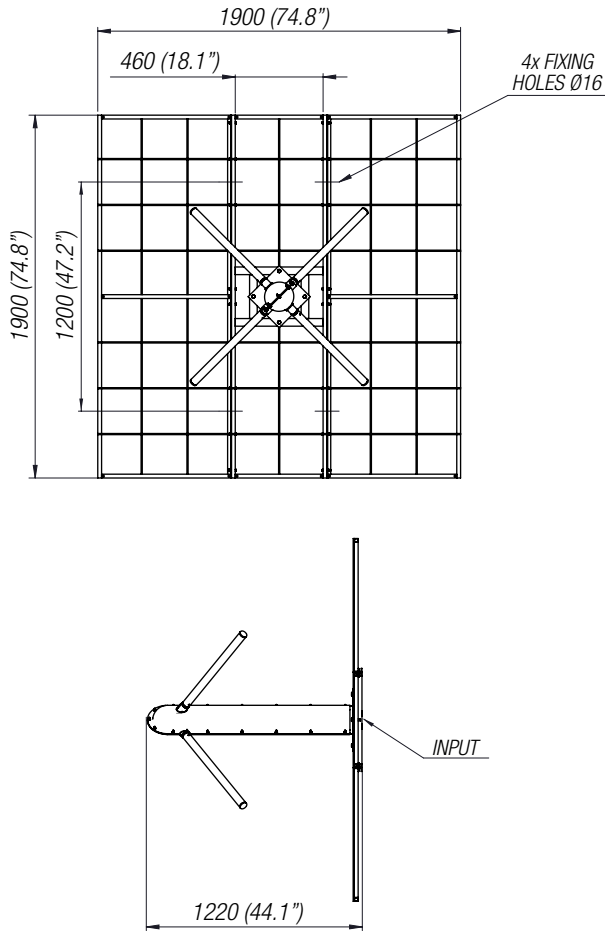
Note:
Antenna Distance (D) and Antenna Offset (O) are subject to change according to requirement.
Custom designed antennas meeting special requirements such as specific azimuthal pattern, different gains and custom power input are available upon request.

(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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