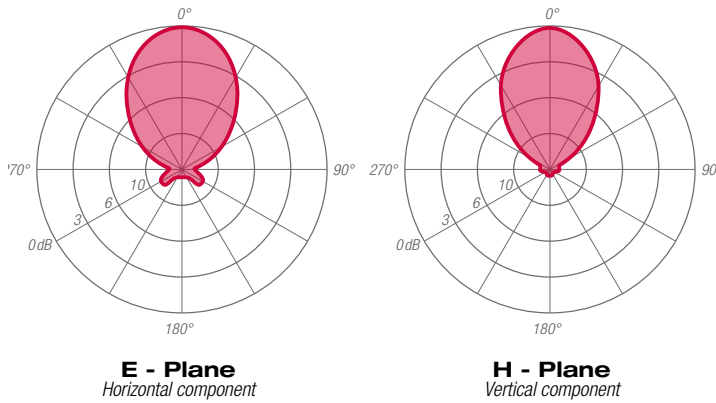




ANTENNA FEATURES

- 4 dipoles antenna panel
- Circular, Elliptical, Vertical, Horizontal polarization
- Broadband 87.5÷108 MHz.
- Directional radiation pattern.
- Demountable.
- Hot dip galvanized steel.

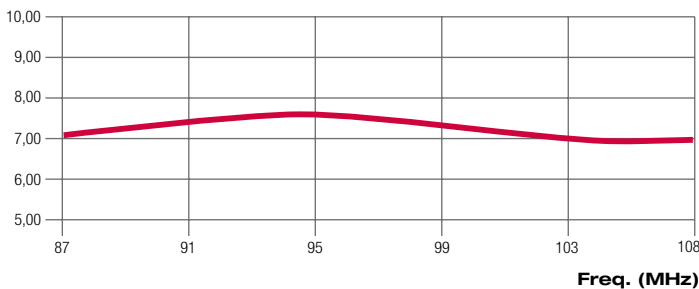
RADIATION PATTERNS (Mid Band)



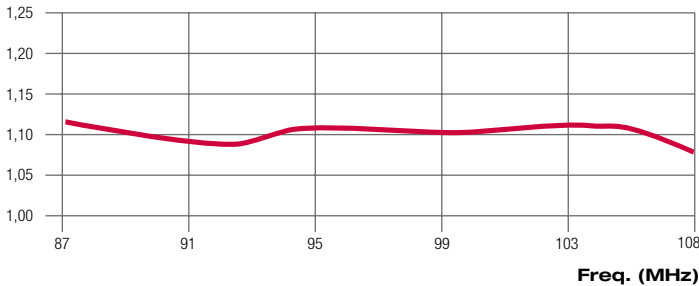
ELECTRICAL DATA

| | |
|-----------------------------|--|
| WORKING BAND: | 87.5 - 108 MHz |
| BANDWIDTH: | VHF - Band FM |
| GAIN: | 4.6 dBd (6.8 dBi) circular polarization 7.7 dBd (9.9 dBi) linear polarization |
| VSWR: | ≤ 1.13:1 (-24.3 dB) |
| POLARIZATION: | Circular, elliptical, vertical, horizontal |
| IMPEDANCE: | 50 Ohm balanced |
| HALF POWER BEAMWIDTH: | Vertical component: E-Plane - 63° - H-Plane - 53° Horizontal component: E-Plane - 68° - H-Plane - 65° |
| LIGHTNING PROTECTION: | All metal parts DC grounded including inner conductors |
| AVAILABLE VERSION AND CODE: | AQP0402420 - 2x EIA 7/8" - max 4x 4000W rms AQP0402421 - 2x DIN 7/16" - max 4x 3300W rms |

GAIN (dB)



VSWR



MECHANICAL DATA

| | |
|----------------------------------|--|
| MATERIALS: | Hot dip galvanized steel |
| MOUNTING: | Directly on supporting structure via Ø11 holes |
| MOUNTING BRACKETS: | Optional (cod. XAVP) for Ø60-114mm (2.36" - 4+1/2") mast |
| ICING PROTECTION: | Feed point radome |
| TREATMENTS: | Reflecting grid, dipoles and bolts in hot dip galvanized steel Silver-plated lines and connector |
| ANTENNA DIMENSIONS: | 2200x2200x910 mm (86.6x86.6x35.8 in) |
| WEIGHT: | 85 kg (187.4 lb) |
| WIND SURFACE: | 1.00 m ² (10.7 ft ²) front - 0.59 m ² (6.35 ft ²) side |
| WIND LOAD (160 km/h and 30°C) | 1.54 kN front - 0.93 kN side |
| SURVIVAL WIND: | 220 km/h (136.7 mph) |
| PACKING DIMENSIONS: | Wooden cage (ISMP-15) 2300x2300x400 mm - 170 kg (90.5x90.5x15.7 in - 374.7 lb) |

Specification are subject to change without notice



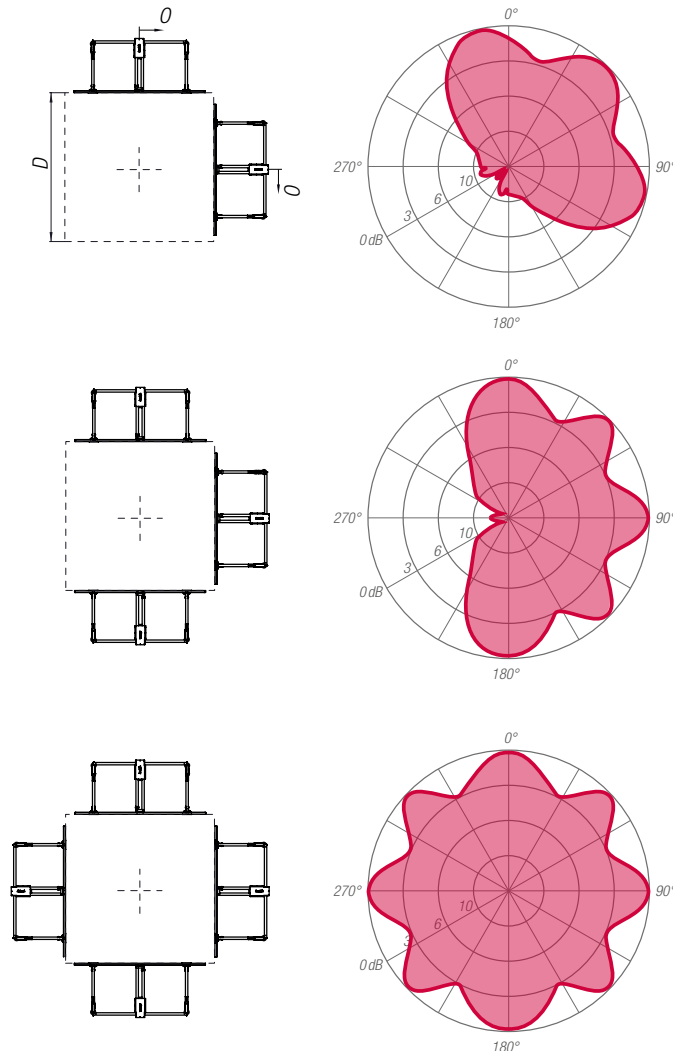
ARRAY FEATURES

- 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 | ≤ 1.17 in the operating channels or ≤ 1.25 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 | No |
| 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 | 7.99 | 6.3 | 225 (496) | 4.9 (16.0) | 3,08 |
| 4 | 1 | 11.0 | 12.59 | 465 (1025.1) | 10.3 (33.8) | 6,13 |
| 6 | 1 | 12.78 | 18.97 | 698 (1538.8) | 15.7 (51.5) | 9,20 |
| 8 | 1 | 14.01 | 25.18 | 934 (2059.1) | 21.1 (69.2) | 12,26 |
| 1 | 2 | 2.62 | 1.83 | 225 (496) | 2.2 (7.2) | 1,73 |
| 2 | 2 | 5.63 | 3.66 | 465 (1025.1) | 4.9 (16.0) | 3,46 |
| 4 | 2 | 8.64 | 7.31 | 934 (2059.1) | 10.3 (33.8) | 9,88 |
| 6 | 2 | 10.4 | 10.95 | 1403 (3093.1) | 15.7 (51.5) | 14,82 |
| 8 | 2 | 11.65 | 14.62 | 1875 (4133.6) | 21.1 (69.2) | 19,76 |
| 1 | 3 | 1.5 | 1.41 | 343 (756.1) | 2.2 (7.2) | 1,93 |
| 2 | 3 | 4.51 | 2.82 | 698 (1538.8) | 4.9 (16.0) | 3,86 |
| 4 | 3 | 7.53 | 5.66 | 1403 (3093.1) | 10.3 (33.8) | 7,72 |
| 6 | 3 | 9.29 | 8.49 | 2115 (4662.7) | 15.7 (51.5) | 11,59 |
| 8 | 3 | 10.54 | 11.32 | 2820 (6217.0) | 21.1 (69.2) | 15,45 |
| 1 | 4 | 0.19 | 1.04 | 465 (1025.1) | 2.2 (7.2) | 1,93 |
| 2 | 4 | 3.2 | 2.09 | 934 (2059.1) | 4.9 (16.0) | 3,86 |
| 4 | 4 | 6.21 | 4.18 | 1875 (4133.6) | 10.3 (33.8) | 7,82 |
| 6 | 4 | 7.97 | 6.27 | 2820 (6217.0) | 15.7 (51.5) | 11,59 |
| 8 | 4 | 9.22 | 8.36 | 3770 (8311.4) | 21.1 (69.2) | 15,45 |

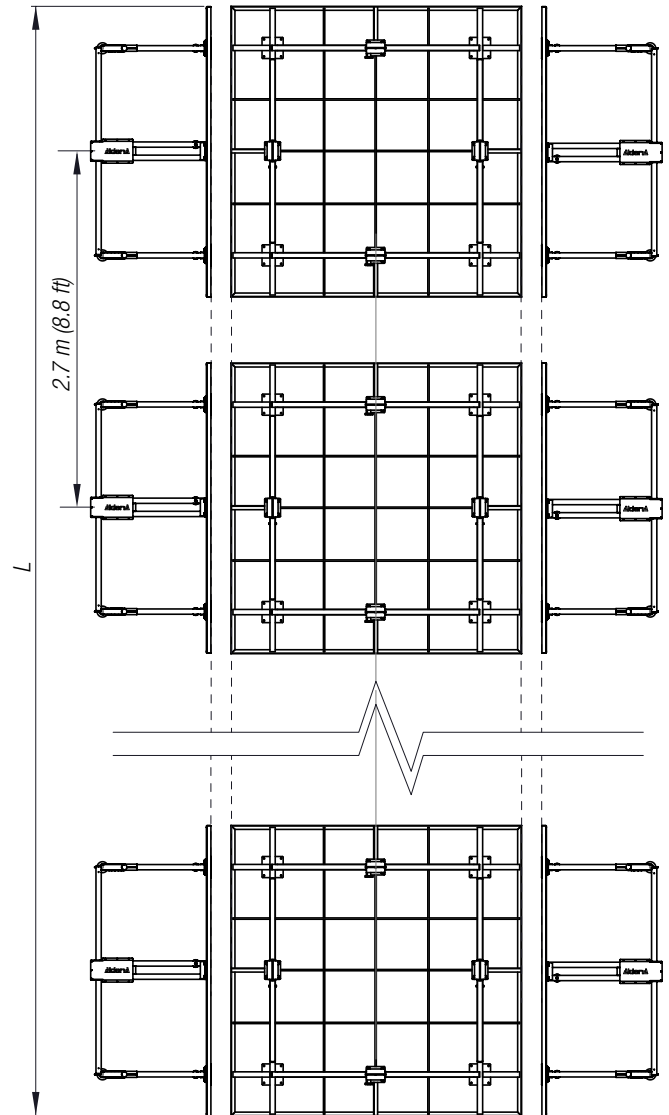
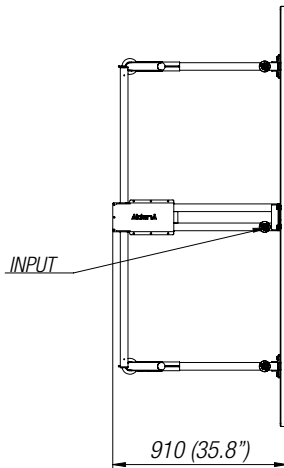
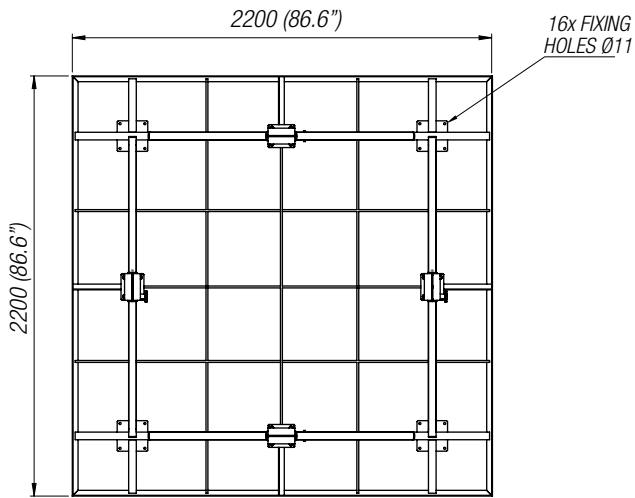
Note:
Antenna Distance (D) and Antenna Offset (O) are subject to change according to requirement.
Custom designed antennas meeting special requirements such as specific azimuthal pattern, different gains and custom power input are available upon request.

(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 |

Specification are subject to change without notice