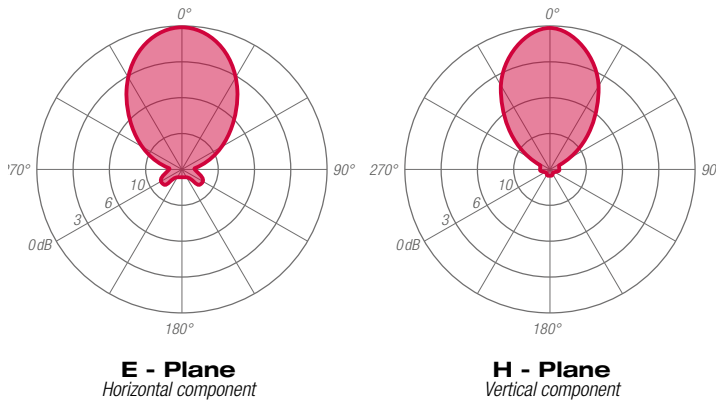




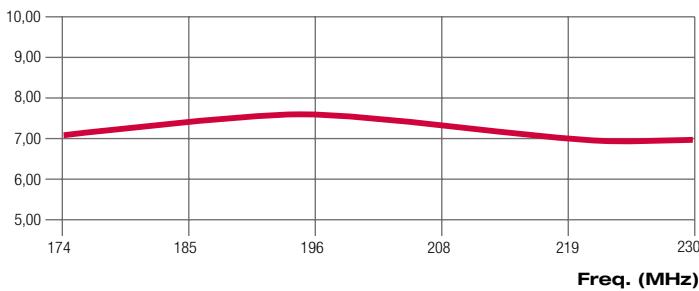
## ANTENNA FEATURES

- 4 dipoles antenna panel
- Circular, Elliptical, Horizontal, Vertical polarization
- Broadband 174÷230 MHz.
- Directional radiation pattern.
- Suitable for simulcast operation (DAB+ & analogue/digital TV).

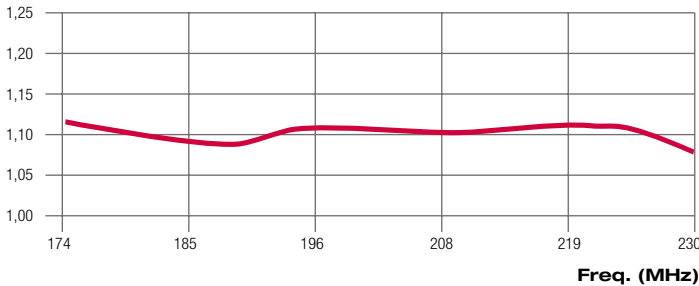
## RADIATION PATTERNS (Mid Band)



## GAIN (dB)



## VSWR



## ELECTRICAL DATA

<b>WORKING BAND:</b>	174-230 MHz
<b>BANDWIDTH:</b>	VHF - Band III
<b>GAIN:</b>	4.5 dBd (6.7 dBi) circular polarization 7.5 dBd (9.7 dBi) linear polarization
<b>VSWR:</b>	≤ 1.12:1 (-25 dB)
<b>POLARIZATION:</b>	Mixed, circular, vertical, horizontal
<b>IMPEDANCE:</b>	50 Ohm balanced
<b>HALF POWER BEAMWIDTH:</b>	Vertical component: E-Plane - 63° - H-Plane - 64° Horizontal component: E-Plane - 64° - H-Plane - 58°
<b>LIGHTNING PROTECTION:</b>	All metal parts DC grounded including inner conductors
<b>AVAILABLE VERSION AND CODE:</b>	AQP0204421 - 2x DIN 7/16 fem. - max 2x 2000W rms AQP0204422 - 2x EIA 7/8" - max 2x 3000W rms

## MECHANICAL DATA

<b>MATERIALS:</b>	Hot dip galvanized steel
<b>MOUNTING:</b>	Directly on supporting structure via Ø11 holes
<b>MOUNTING BRACKETS:</b>	Optional (cod. XAVP) for ø40-114mm mast
<b>ICING PROTECTION:</b>	Dipoles covered by ABS radome
<b>TREATMENTS:</b>	Reflecting grid, dipoles and bolts in hot dip galvanized steel Silver-plated lines and connector
<b>ANTENNA DIMENSIONS:</b>	1300x1300x490 mm (51.2x51.2x19.3 in)
<b>WEIGHT:</b>	43 kg (94.8 lb)
<b>WIND SURFACE:</b>	0.59 m <sup>2</sup> (1.93 ft <sup>2</sup> ) front - 0.26 m <sup>2</sup> (0.85 ft <sup>2</sup> ) side
<b>WIND LOAD</b> (160 km/h and 30°C)	0.9 kN front - 0.5 kN side
<b>SURVIVAL WIND:</b>	220 km/h (136.7 mph)
<b>PACKING DIMENSIONS:</b>	Wooden cage (ISMP-15) 1400x1400x800 mm - 80 kg (55.1x55.1x31.5 in - 176.4 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	174 ÷ 230 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
POLARIZATION	Linear or circular
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.

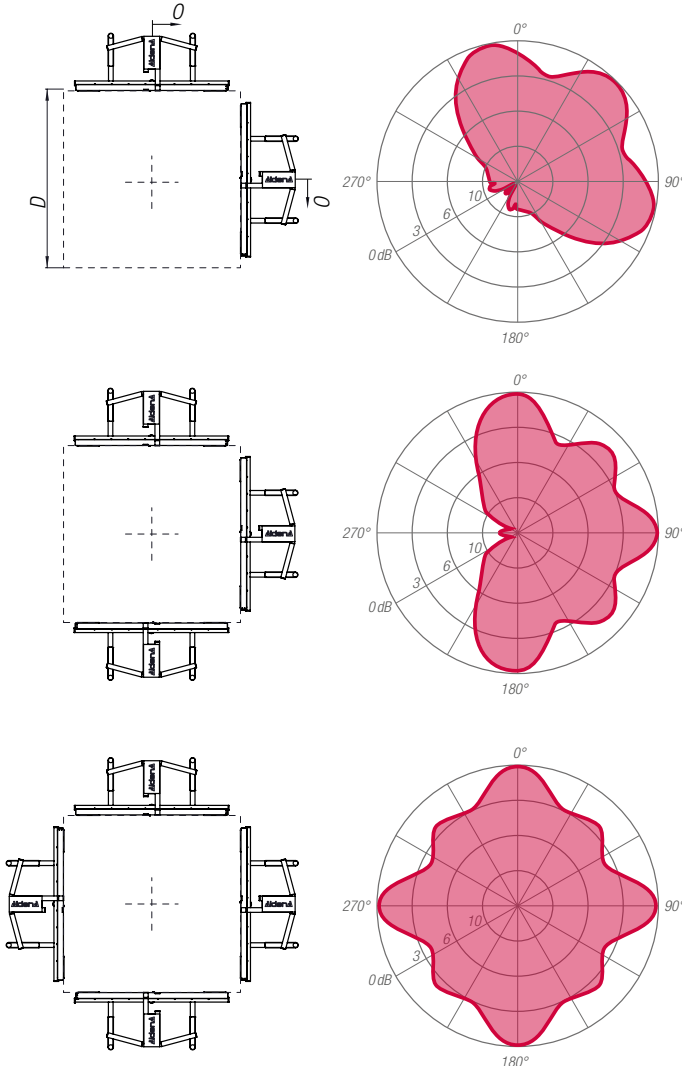
**TYPICAL HORIZONTAL PATTERNS**

**ARRAY MECHANICAL DATA**

HEIGHT OF ARRAY	Subject to number of bays
TOTAL NET WEIGHT	Refer to table
WIND LOAD	Refer to table
PRESSURIZABLE	No
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	10.8	17.5	149 (328.5)	2.7 (8.9)	1.8
4	1	13.7	23.7	287(632.7)	5.5 (18.0)	3.6
6	1	15.5	35.2	426 (939.2)	8.3 (27.2)	5.4
8	1	16.7	47.1	526 (1159.6)	11.1 (36.4)	7.2
12	1	18.5	70.6	784 (1728.4)	17.1 (56.1)	10.7
16	1	19.7	93.3	1045 (2303.8)	20.9 (68.6)	14.3
1	2	5.6	3.6	149 (328.5)	1.3 (4.1)	1.4
2	2	8.6	7.2	287 (632.7)	2.7 (8.9)	2.8
4	2	11.6	14.3	526 (1159.6)	5.5 (18.0)	5.6
6	2	13.3	24.6	784 (1728.4)	8.3 (27.2)	8.4
8	2	14.6	28.8	1045 (2303.8)	11.1 (36.4)	11.2
12	2	16.4	43.4	1568 (3456.8)	17.1 (56.1)	16.7
16	2	17.6	57.5	2090 (4607.7)	20.9 (68.6)	22.3
1	3	4.4	2.8	218 (480.6)	1.3 (4.1)	1.9
2	3	7.3	5.4	436 (961.2)	2.7 (8.9)	3.8
4	3	10.3	10.8	872 (1922.4)	5.5 (18.0)	7.6
6	3	12.1	16.2	1308 (2883.6)	8.3 (27.2)	11.4
8	3	13.3	21.6	1744 (3844.9)	11.1 (36.4)	15.2
12	3	15.1	32.5	2616 (5767.3)	17.1 (56.1)	22.7
16	3	16.3	42.6	3450 (7605.9)	20.9 (68.6)	30.3
1	4	3.6	2.3	297 (654.8)	1.3 (4.1)	1.9
2	4	6.7	4.7	594 (1309.5)	2.7 (8.9)	3.8
4	4	9.7	9.4	1188 (2619.1)	5.5 (18.0)	7.6
6	4	11.5	14.1	1782 (3289.6)	8.3 (27.2)	11.4
8	4	12.7	18.7	2376 (5238.2)	11.1 (36.4)	15.2
12	4	14.5	28.1	3564 (7857.3)	17.1 (56.1)	22.7
16	4	15.7	37.1	4720 (104045)	20.9 (68.6)	30.3



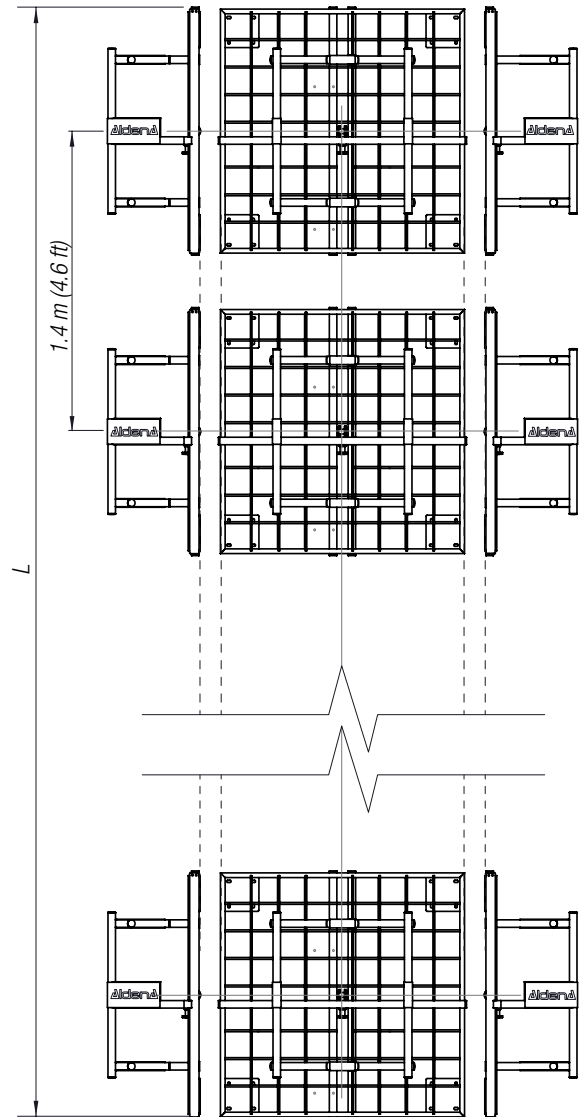
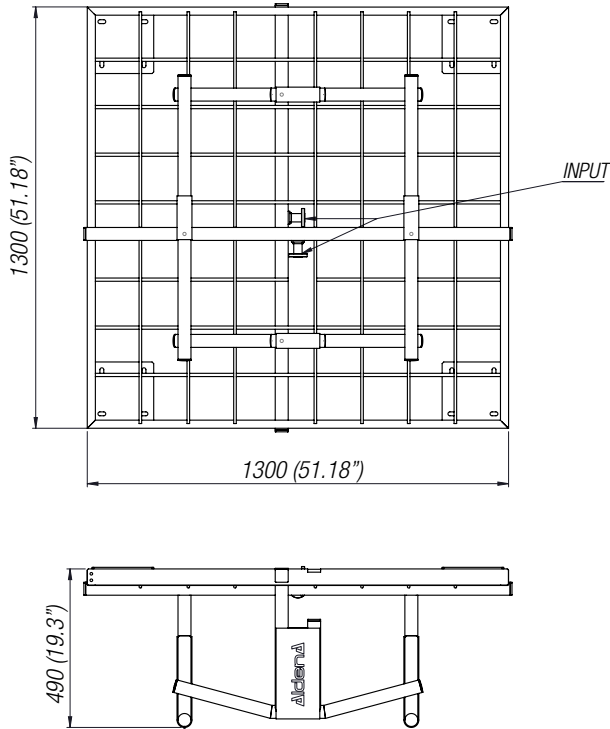
Note:  
Antenna Distance (D) and Antenna Offset (O) are subject to change according to requirement.  
Custom designed antennas meeting special requirements such as specific azimuthal pattern, different gains and custom power input are available upon request.

(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