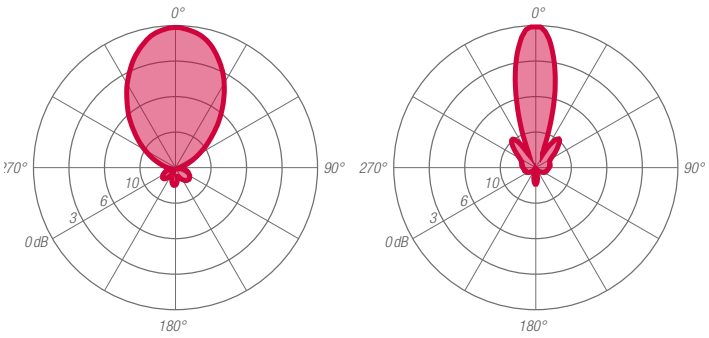
ANTENNA FEATURES

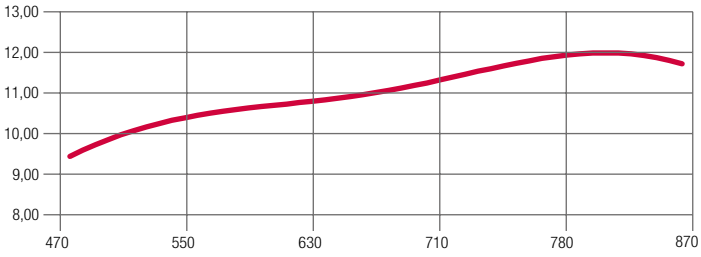
- Panel antenna 11.1 dBd gain.
- Horizontal polarization.
- Broadband 470÷862 MHz.
- Directional radiation pattern.
- Designed for digital and/or analogue services.
- Pressurizable.

RADIATION PATTERNS (Mid Band)

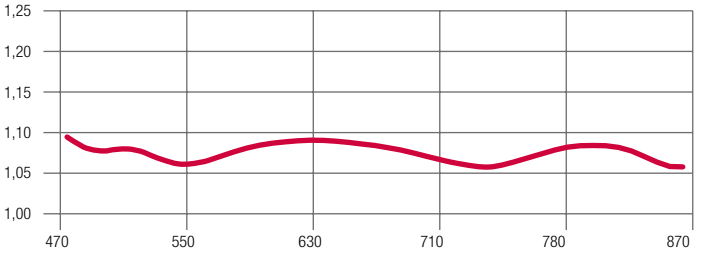


E - Plane H - Plane

GAIN (dB)



VSWR



ELECTRICAL DATA

WORKING BAND:	470-862 MHz
BANDWIDTH:	UHF IV/V band
GAIN:	11.1 dBd (13.3 dBi)
VSWR:	≤ 1.1:1 (-26.4 dB)
POLARIZATION:	Horizontal
IMPEDANCE:	50 Ohm balanced
HALF POWER BEAMWIDTH:	E-Plane - 57° H-Plane - 23°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	ATU0807420 - DIN 7/16 female - max 1000W rms ATU0807421 - EIA 7/8" - max 2500W rms ATU0807422 - N female - max 400W rms ATU0807428 - EIA 1 5/8" - max 5000W rms

MECHANICAL DATA

MATERIALS:	Reflector in stainless steel, lines and dipoles in copper and brass, teflon isolators, silicon O-rings
MOUNTING:	Directly on supporting structure via 4x M8 holes
MOUNTING BRACKETS:	Optional fixed brackets (cod. XZATUF) tiltable brackets (cod. XZATU)
ICING PROTECTION:	Whole antenna fully covered by fiberglass (SMC) radome Standard color RAL9010 white
TREATMENTS:	Silver-plated lines, dipoles and connector
PRESSURIZATION:	5.0 psi
ANTENNA DIMENSIONS:	450x215x1000 mm (17.72x8.46x39.37 in)
WEIGHT:	13 kg (28.66 lb) (ATU0807428 version 15 kg - 33.07 lb)
WIND SURFACE:	0.45 m² (4.84 ft²) front - 0.22 m² (2.37 ft²) side
WIND LOAD (160 km/h and 30°C)	0.83 kN front - 0.41 kN side
SURVIVAL WIND:	220 km/h (136.7 mph)
PACKING DIMENSIONS:	Box 530x1050x370 mm - 15.5 kg (20.87x41.34x14.57 in - 34.17 lb)
SPECIAL FEATURES:	Colored radome upon request (typically red, grey, green)

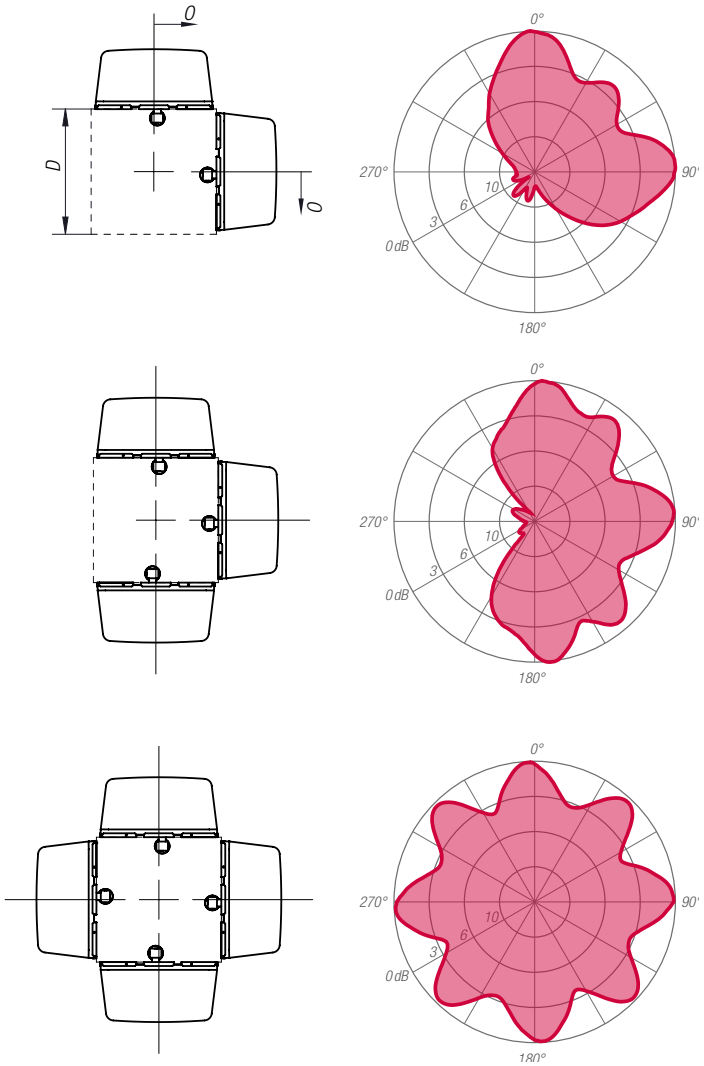
ARRAY FEATURES

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

ARRAY ELECTRICAL DATA

FREQUENCY RANGE	470 ÷ 862 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	≤ 1.05 in the operating channels or ≤ 1.15 throughout the frequency range Antenna system VSWR value also depending from the supporting structure
POLARIZATION	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. 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

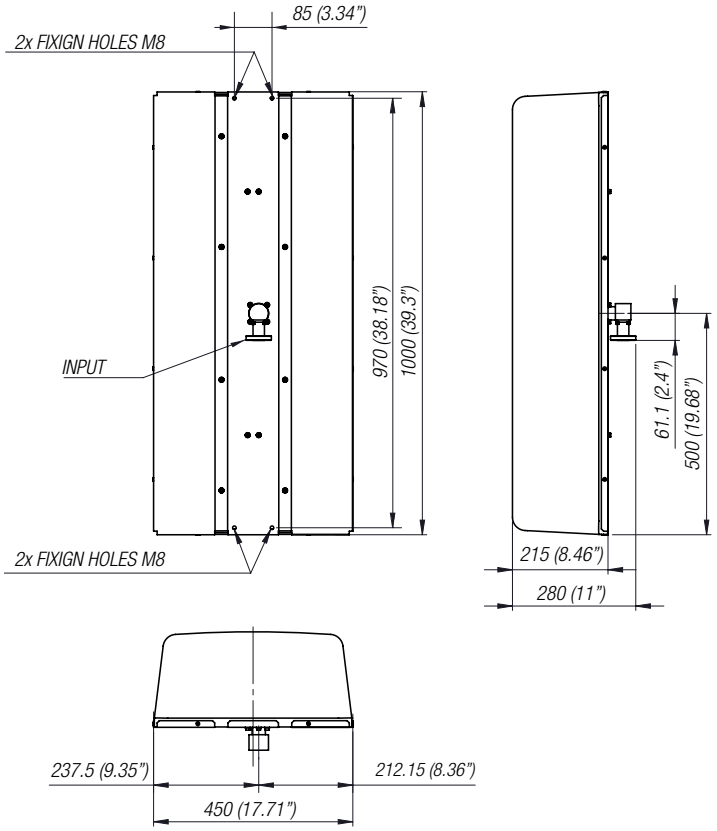
BAYS	PANELS PER BAY	GAIN(1) dB	GAIN TIMES(1)	WEIGHT(2) kg (lb)	ANTENNA HEIGHT(L) m (ft)	WIND LOAD(3) kN
2	1	15.1	32.4	35 (77.2)	2.2 (7.2)	1.7
4	1	18.1	64.6	70 (154.3)	4.6 (15.1)	3.3
6	1	19.9	97.7	105 (231.5)	7.0 (23.0)	5.0
8	1	21.2	131.8	140 (308.6)	9.4 (30.8)	6.6
12	1	23.0	199.6	220 (485.0)	14.2 (46.6)	10.0
16	1	24.2	263.0	330 (727.5)	19.0 (62.3)	13.3
1	2	9.1	8.1	35 (77.2)	1.0 (3.3)	1.2
2	2	12.2	16.6	70 (154.3)	2.2 (7.2)	2.5
4	2	15.2	33.1	140 (308.6)	4.6 (15.1)	5.0
6	2	17.0	50.1	220 (485.0)	7.0 (23.0)	7.4
8	2	18.3	67.6	330 (727.5)	9.4 (30.8)	9.9
12	2	20.0	100.0	440 (970.0)	14.2 (46.6)	14.9
16	2	21.3	134.9	660 (1455.1)	19.0 (62.3)	19.8
1	3	7.6	5.8	50 (110.2)	1.0 (3.3)	1.7
2	3	10.6	11.5	100 (220.5)	2.2 (7.2)	3.3
4	3	13.7	23.4	200 (440.9)	4.6 (15.1)	6.6
6	3	15.5	35.5	310 (683.4)	7.0 (23.0)	9.9
8	3	16.7	46.8	450 (992.1)	9.4 (30.8)	13.2
12	3	18.5	70.8	620 (1366.9)	14.2 (46.4)	19.8
16	3	19.8	95.5	880 (1940.1)	19.0 (62.3)	26.4
1	4	5.5	3.5	70 (154.3)	1.0 (3.3)	1.7
2	4	8.6	7.2	140 (308.6	2.2 (7.2)	3.3
4	4	11.7	14.8	330 (727.5)	4.6 (15.1)	6.6
6	4	13.5	22.4	440 (970.0)	7.0 (23.0)	9.9
8	4	14.7	29.5	660 (1455.1)	9.4 (30.8)	13.2
12	4	16.5	44.7	880 (1940.1)	14.2 (46.4)	19.8
16	4	17.8	60.3	1320 (2910.1)	19.0 (62.3)	26.4

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.

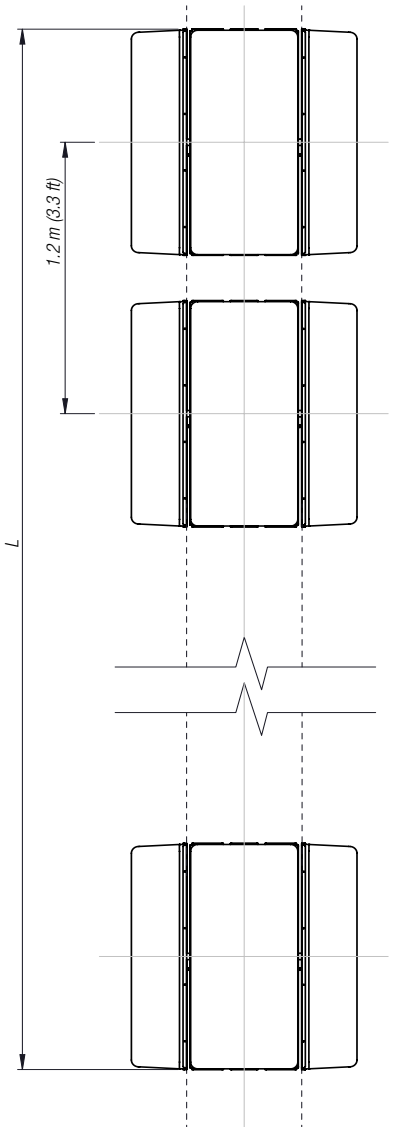
(1) Gain data is relative to half-wave dipole. Values given are nominal and assume standard harness connfigurations. Gain will vary depending in specific feed system, null fill and beam tilt.
(2) Without mounting hardware.
(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.
(L) Total Antenna Height.

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

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