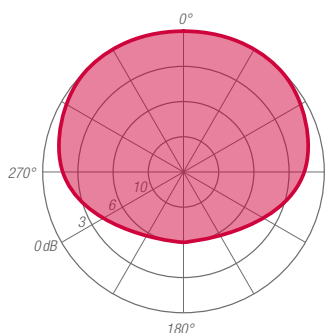




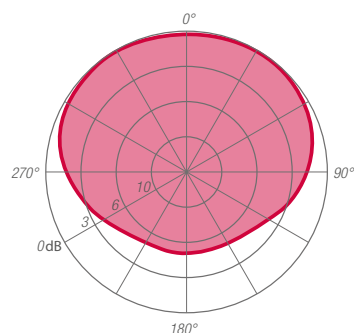
ANTENNA FEATURES

- Double dipole MULTIBAND antenna.
- Broadband 87.5÷108MHz & 174÷240 MHz.
- Vertical polarization.
- Omnidirectional radiation pattern.
- Analogue/Digital Service.

RADIATION PATTERNS (Mid Band)

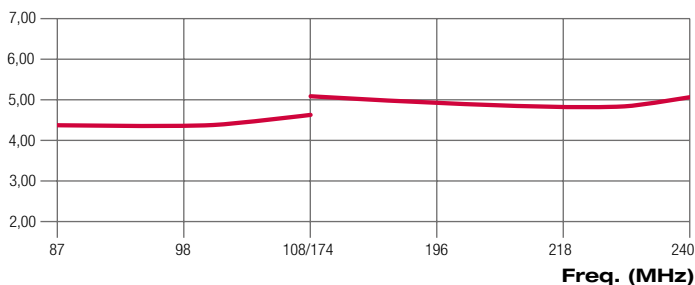


**H - Plane
FM**



**H - Plane
DAB**

GAIN (dB)



VSWR



ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz & 174 - 240 MHz
BANDWIDTH:	VHF band II & VHF band III
GAIN:	FM 4.4 dBd (6.6 dBi) DAB 5.0 dBd (7.2 dBi)
VSWR:	FM ≤ 1.27:1 (-18.5 dB) DAB ≤ 1.15:1 (-23.1 dB)
POLARIZATION:	Vertical
IMPEDANCE:	50 Ohm balanced
HALF POWER BEAMWIDTH:	FM E-Plane - 28° DAB E-Plane 30° H-Plane - 240° H-Plane 220°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	ADD022423XY

X = FM input

- 1: DIN 7/16 female - max 3000W rms
- 2: EIA 7/8" - max 5000W rms
- 2A: EIA 7/8" 90° up/down - 5000W rms
- 8: EIA 1 5/8" 90° up/down - max 10000W rms

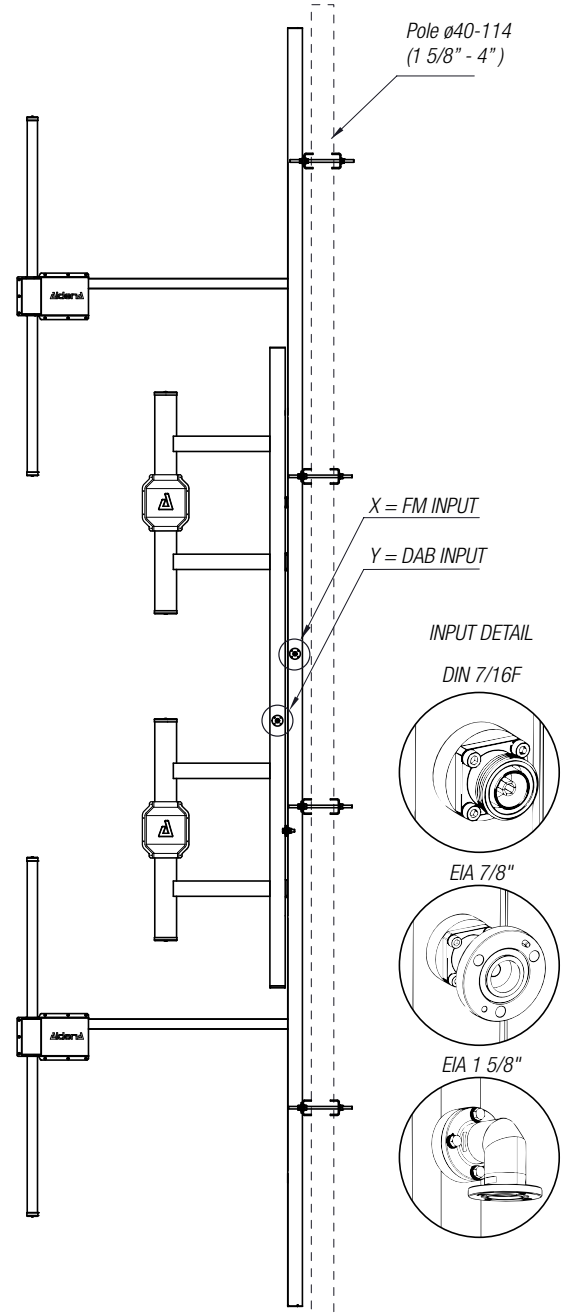
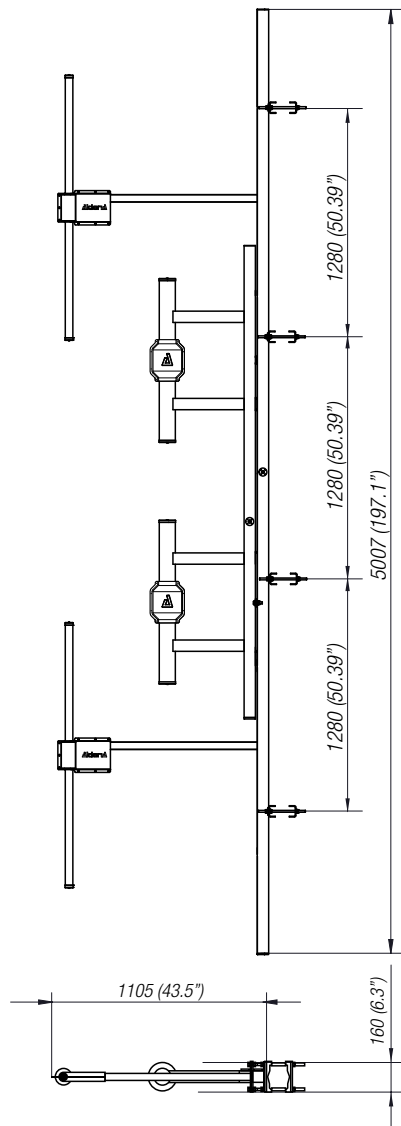
Y = DAB input

- 1: DIN 7/16 female - max 2000W rms
- 2: EIA 7/8" - max 3500W rms
- 2A: EIA 7/8" 90° up/down - 3500W rms
- 8: EIA 1 5/8" 90° up/down - max 5000W rms

MECHANICAL DATA

MATERIALS:	Stainless steel
MOUNTING:	Directly on supporting structure
MOUNTING BRACKETS:	Included for Ø40÷114mm pipe (Ø1 5/8" - 4")
ICING PROTECTION:	ABS radome
TREATMENTS:	Silver plated internal lines and connector
PRESSURIZATION:	No
ANTENNA DIMENSIONS:	5007x1105x160 mm (197.1x43.5x6.3 in)
ANTENNA WEIGHT:	60 kg (132.3 lb)
BRACKET WEIGHT:	4.8 kg (5.3 lb)
WIND SURFACE:	0.47m² (3.65ft²) front - 0.75m² (5.27ft²) side
WIND LOAD (160 km/h and 30°C)	0.5 kN front - 1.7 kN side
SURVIVAL WIND:	220 km/h (136.7 mph)
PACKING DIMENSIONS:	Wooden cage (ISPM-15) 5200X1300X330mm - 100kg (204.7x51.18x12.9 in - 220.4lb)

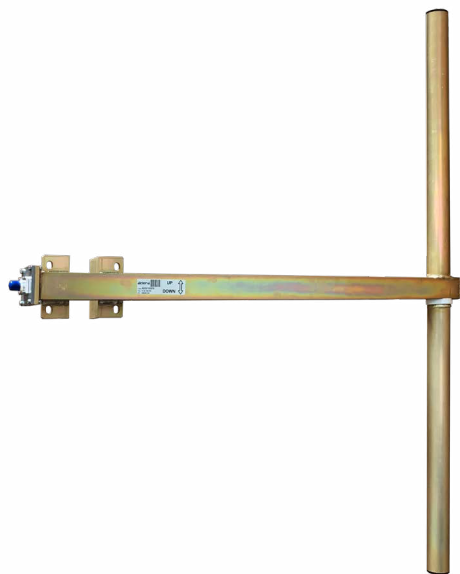
ANTENNA DIMENSIONAL DETAILS



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

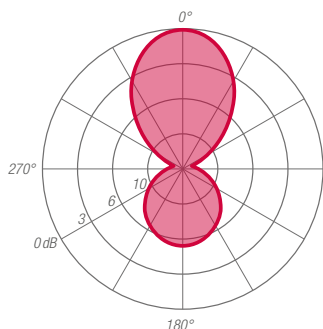
Specification are subject to change without notice



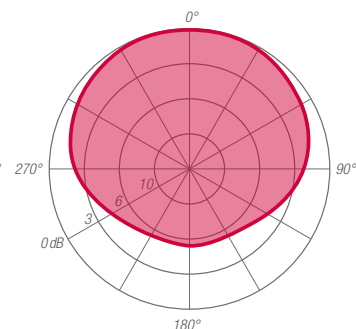
ANTENNA FEATURES

- Dipole antenna.
- Vertical polarization.
- Broadband 87.5÷108 MHz.
- Omnidirectional radiation pattern.
- Aluminum version.

RADIATION PATTERNS (Mid Band)



E - Plane

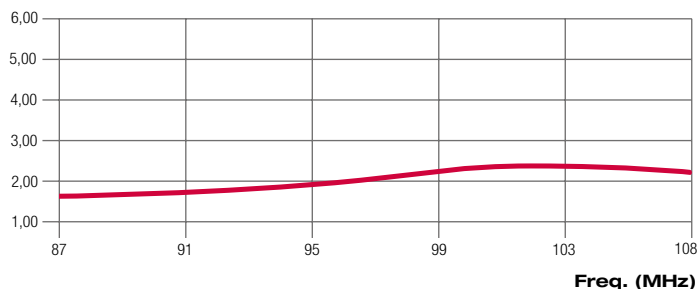


H - Plane

ELECTRICAL DATA

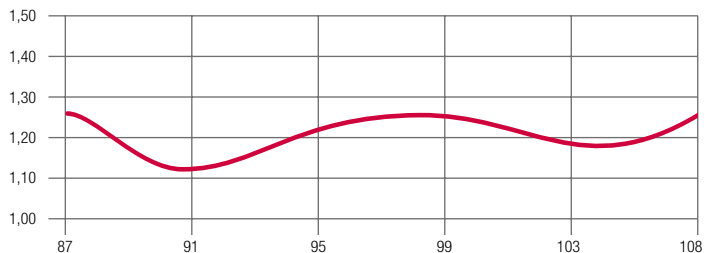
WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF band FM
GAIN:	2.07 dBd (4.27 dBi)
VSWR:	≤ 1.27:1 (-18.5 dB)
POLARIZATION:	Vertical
IMPEDANCE:	50 Ohm unbalanced
HALF POWER BEAMWIDTH:	E-Plane - 70° H-Plane - 222°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	ADE0102210 - N - max 800W rms ADE0102211 - DIN 7/16 female - max 3000W rms ADE0102212 - EIA 7/8" - max 5000W rms ADE0102212A - EIA 7/8" - 90° UO/DOWN - 5000W rms

GAIN (dB)



Freq. (MHz)

VSWR



Freq. (MHz)

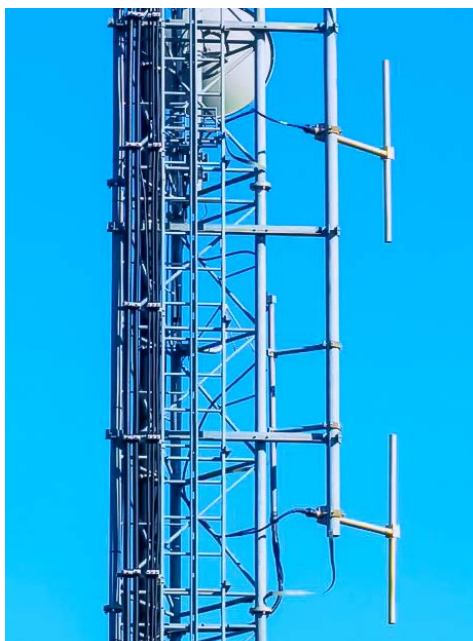
MECHANICAL DATA

MATERIALS:	Aluminum body and internal lines
MOUNTING:	Directly on supporting structure
MOUNTING BRACKETS:	Included for Ø60÷114mm pipe (Ø 2.36" - 4+1/2")
ICING PROTECTION:	Optional feed point radome (Code XRADE)
TREATMENTS:	Antenna body military norms treatment (MIL-C-554) Silver plated connector
PRESSURIZATION:	Optional
ANTENNA DIMENSIONS:	1340x1010x50 mm (52.7x39.7x1.96 in)
ANTENNA WEIGHT:	6 kg (13.2 lb)
WIND SURFACE:	0.07m² (0.75ft²) front - 0.12m² (1.29 ft²) side
WIND LOAD (160 km/h and 30°C)	0.06 kN front - 0.10 kN side
SURVIVAL WIND:	220 km/h (136.7 mph)
PACKING DIMENSIONS:	Box 1400x1200x150mm - 11.4kg (55.1x47.2x5.9 in - 25.1lb)

Specification are subject to change without notice

TELECOMUNICAZIONI ALDENASRL

www.aldena.it - aldena@aldena.it



ARRAY FEATURES

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

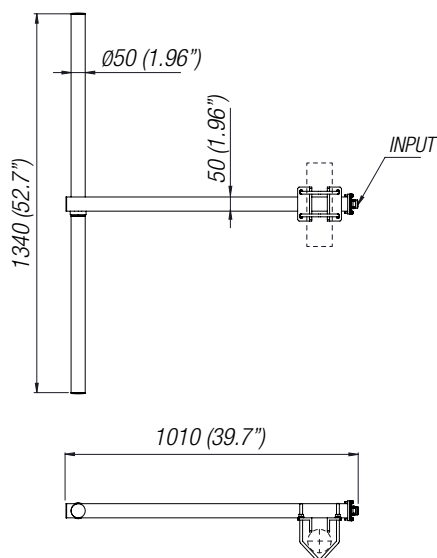
ARRAY ELECTRICAL DATA

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 ≤ 1.27 throughout the frequency range Antenna system VSWR value also depending from the supporting structure
POLARIZATION	Vertical
GAIN	Refer to table
HORIZONTAL PATTERN	Omnidirectional
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.

ARRAY MECHANICAL DATA

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

ANTENNA DIMENSIONAL DETAILS



ARRAY TECHNICAL DATA

BAYS	PANELS PER BAY	GAIN ⁽¹⁾ dB	GAIN TIMES ⁽¹⁾	WEIGHT ⁽²⁾ kg (lb)	ANTENNA HEIGHT ^(L) m (ft)	WIND LOAD ⁽²⁾ kN
2	1	5.3	3.4	27.8 (61.2)	4.1 (13.4)	0.19
4	1	8.4	6.8	48.6 (107.1)	9.5 (31.2)	0.38
6	1	10.2	10.4	72.4 (159.6)	14.4 (47.2)	0.58
8	1	11.5	14.1	91.2 (201.0)	19.6 (64.3)	0.77
12	1	13.2	20.9	187.2 (412.7)	30.0 (98.4)	1.16

(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.

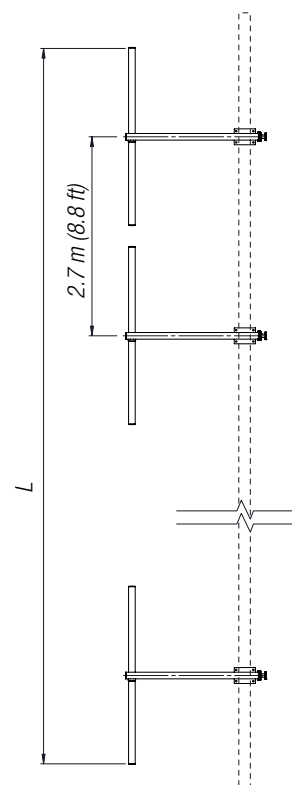
(2) Without mounting hardware.

(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

(L) Total Antenna Height.

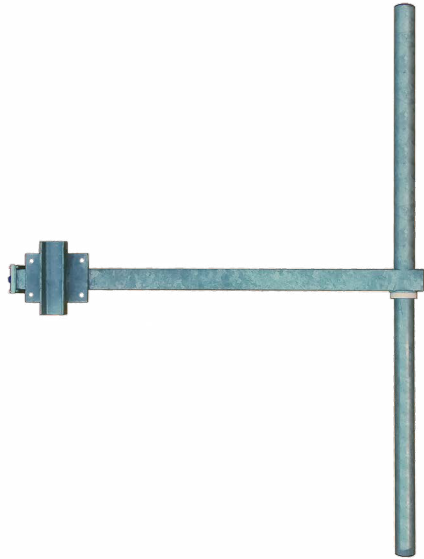
OPTIONS & SERVICES

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy



Note:
Total Antenna Height (L) is 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.

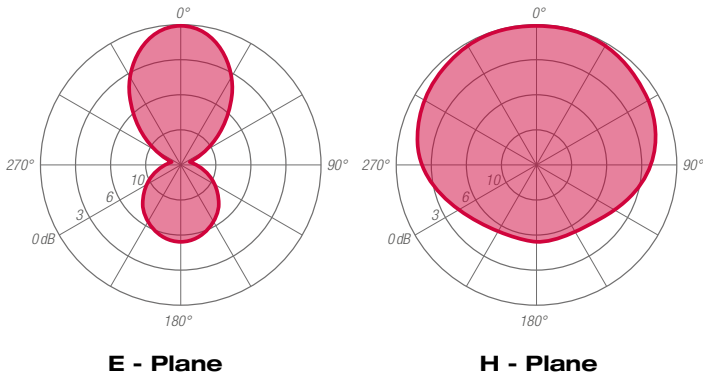
Specification are subject to change without notice



ANTENNA FEATURES

- Dipole antenna.
- Vertical polarization.
- Broadband 87.5÷108 MHz.
- Omnidirectional radiation pattern.
- Hot dip galvanized steel version.

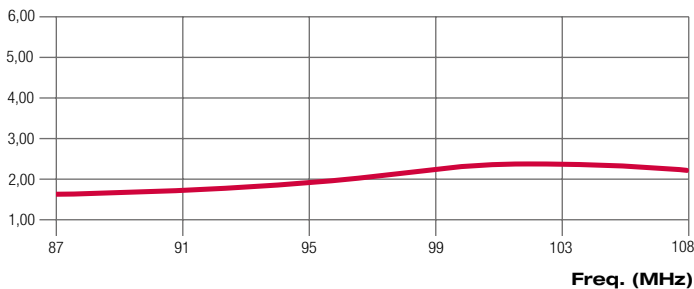
RADIATION PATTERNS (Mid Band)



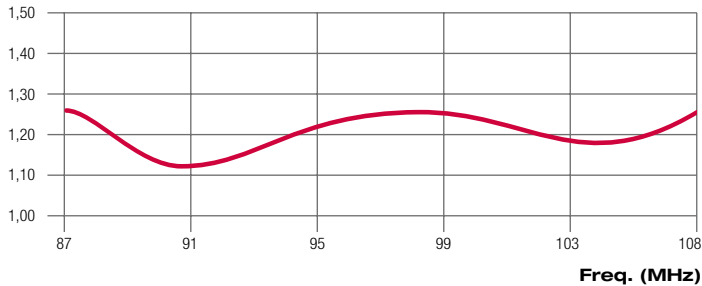
ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF band FM
GAIN:	2.07 dBd (4.27 dBi)
VSWR:	≤ 1.27:1 (-18.5 dB)
POLARIZATION:	Vertical
IMPEDANCE:	50 Ohm unbalanced
HALF POWER BEAMWIDTH:	E-Plane - 70° H-Plane - 222°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	ADE0102220 - N - max 800W rms ADE0102221 - DIN 7/16 female - max 3000W rms ADE0102222 - EIA 7/8" - max 5000W rms ADE0102222A - EIA 7/8" 90° UP/DOWN - 5000W rms

GAIN (dB)



VSWR



MECHANICAL DATA

MATERIALS:	Hot dip galvanized steel body Aluminum internal lines
MOUNTING:	Directly on supporting structure
MOUNTING BRACKETS:	Included for Ø60÷114mm pipe (Ø 2.36" - 4+1/2")
ICING PROTECTION:	Optional feed point radome (Code XRADE)
TREATMENTS:	Hot dip galvanized steel antenna body Silver plated lines and connector
PRESSURIZATION:	No
ANTENNA DIMENSIONS:	1340x1010x50 mm (52.7x39.7x1.96 in)
ANTENNA WEIGHT:	9.6 kg (21.16 lb)
WIND SURFACE:	0.07m² (0.75ft²) front - 0.12m² (1.29 ft²) side
WIND LOAD (160 km/h and 30°C)	0.05 kN front - 0.09 kN side
SURVIVAL WIND:	220 km/h (136.7 mph)
PACKING DIMENSIONS:	Box 1400x1200x150mm - 15kg (55.1x47.2x5.9 in - 33.06lb)



ARRAY FEATURES

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

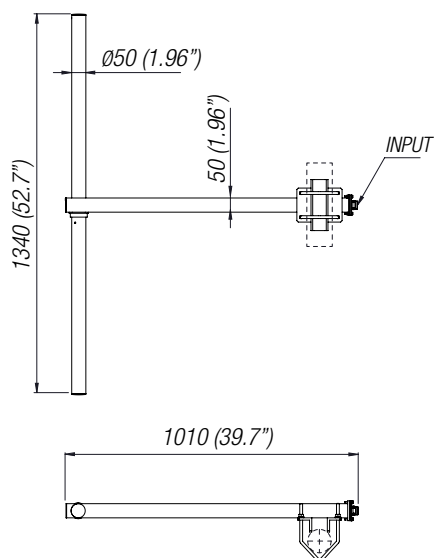
ARRAY ELECTRICAL DATA

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 ≤ 1.27 throughout the frequency range Antenna system VSWR value also depending from the supporting structure
POLARIZATION	Vertical
GAIN	Refer to table
HORIZONTAL PATTERN	Omnidirectional
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.

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 for side mount configuration

ANTENNA DIMENSIONAL DETAILS



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	5.3	3.4	35 (77.1)	4.1 (13.4)	0.19
4	1	8.4	6.8	63 (138.8)	9.5 (31.2)	0.38
6	1	10.2	10.4	94 (207.2)	14.4 (47.2)	0.58
8	1	11.5	14.1	120 (264.5)	19.6 (64.3)	0.77
12	1	13.2	20.9	180 (396.8)	30.0 (98.4)	1.16

(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.

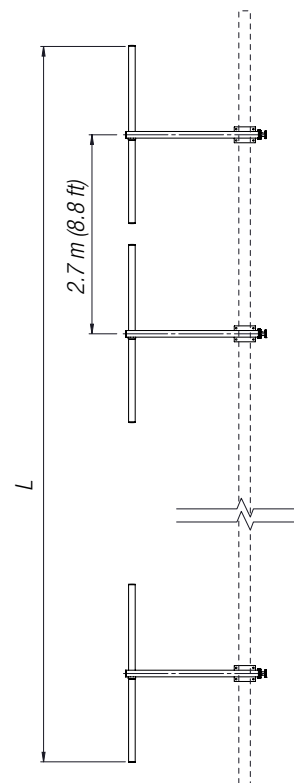
(2) Without mounting hardware.

(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

(L) Total Antenna Height.

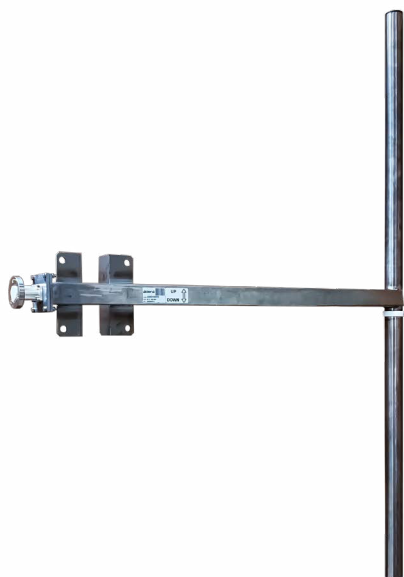
OPTIONS & SERVICES

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy



Note:
Total Antenna Height (L) is 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.

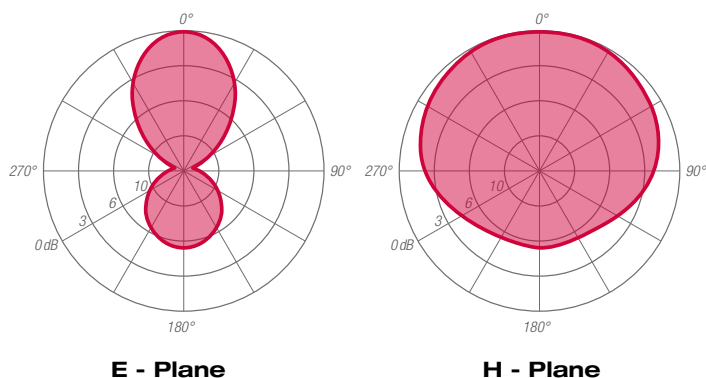
Specification are subject to change without notice



ANTENNA FEATURES

- Dipole antenna.
- Vertical polarization.
- Broadband 87.5÷108 MHz.
- Omnidirectional radiation pattern.
- Stainless steel version.

RADIATION PATTERNS (Mid Band)



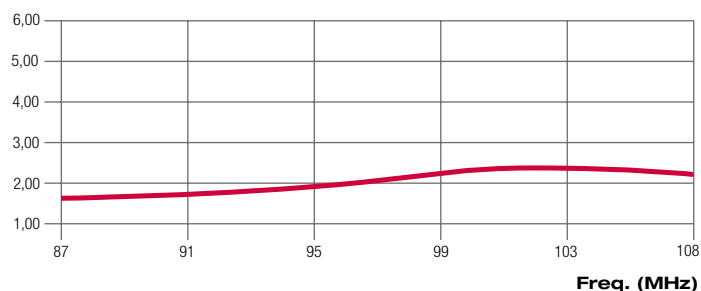
ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF band FM
GAIN:	2.07 dBd (4.27 dBi)
VSWR:	≤ 1.27:1 (-18.5 dB)
POLARIZATION:	Vertical
IMPEDANCE:	50 Ohm unbalanced
HALF POWER BEAMWIDTH:	E-Plane - 70° H-Plane - 222°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	ADE0102230 - N - max 800W rms ADE0102231 - DIN 7/16 female - max 3000W rms ADE0102232 - EIA 7/8" - max 5000W rms ADE0102232A - EIA 7/8" 90° UP/DOWN - 5000W rms

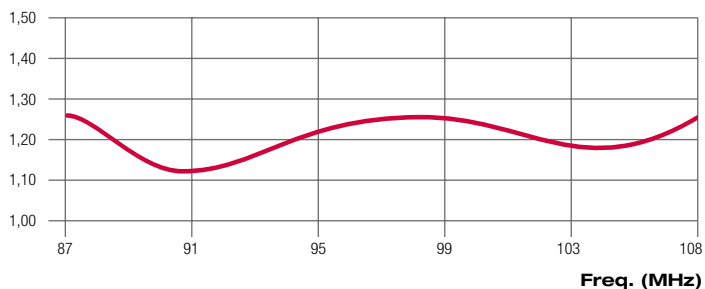
MECHANICAL DATA

MATERIALS:	Stainless steel body Aluminum internal lines
MOUNTING:	Directly on supporting structure
MOUNTING BRACKETS:	Included for Ø60÷114mm pipe (Ø 2.36" - 4+1/2")
ICING PROTECTION:	Optional feed point radome (Code XRADEI)
TREATMENTS:	Silver plated connector
PRESSURIZATION:	Optional
ANTENNA DIMENSIONS:	1350x910x40 mm (53.1x35.8x1.57 in)
ANTENNA WEIGHT:	7 kg (15.4 lb)
WIND SURFACE:	0.06m² (0.64ft²) front - 0.09m² (0.96 ft²) side
WIND LOAD (160 km/h and 30°C)	0.04 kN front - 0.07 kN side
SURVIVAL WIND:	220 km/h (136.7 mph)
PACKING DIMENSIONS:	Box 1400x1200x150mm - 12.4kg (55.1x47.2x5.9 in - 27.3lb)

GAIN (dB)



VSWR



Specification are subject to change without notice



ARRAY FEATURES

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

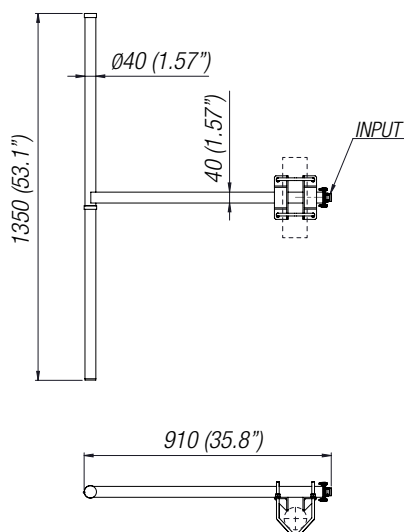
ARRAY ELECTRICAL DATA

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 ≤ 1.27 throughout the frequency range Antenna system VSWR value also depending from the supporting structure
POLARIZATION	Vertical
GAIN	Refer to table
HORIZONTAL PATTERN	Omnidirectional
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.

ARRAY MECHANICAL DATA

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

ANTENNA DIMENSIONAL DETAILS



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	5.3	3.4	29.8 (65.7)	4.1 (13.4)	0.19
4	1	8.4	6.8	52.6 (115.9)	9.5 (31.2)	0.38
6	1	10.2	10.4	78.4 (172.8)	14.4 (47.2)	0.58
8	1	11.5	14.1	99.2 (218.7)	19.6 (64.3)	0.77
12	1	13.2	20.9	148.8 (328.0)	30.0 (98.4)	1.16

(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.

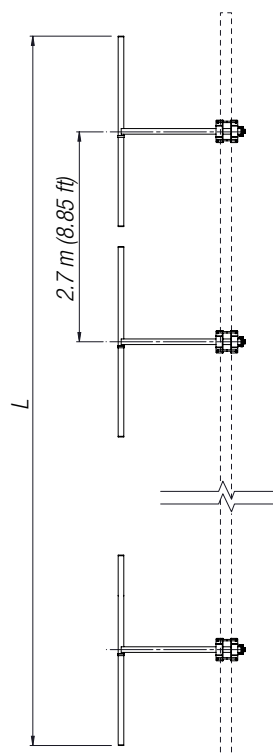
(2) Without mounting hardware.

(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

(L) Total Antenna Height.

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy

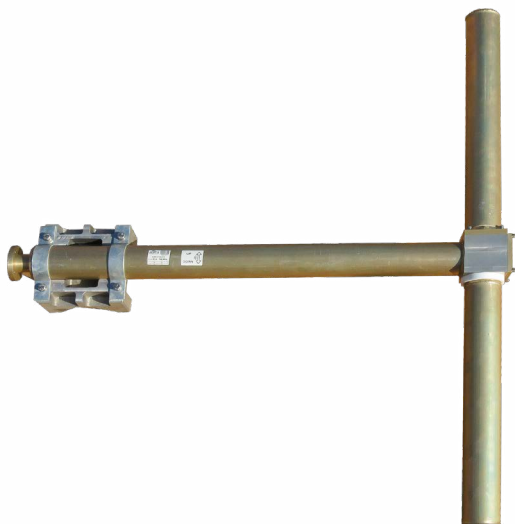


Note:

Total Antenna Height (L) is 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.

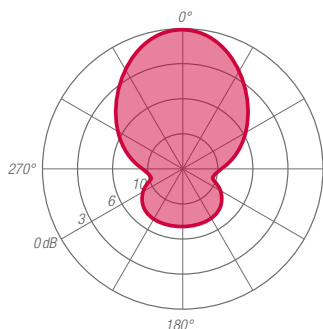
Specification are subject to change without notice



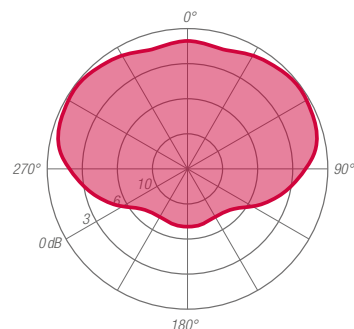
ANTENNA FEATURES

- Dipole antenna - HIGH POWER.
- Vertical polarization.
- Broadband 87.5÷108 MHz.
- Omnidirectional radiation pattern.
- Stainless steel or aluminium version.
- Pressurizable.

RADIATION PATTERNS (Mid Band)



E - Plane

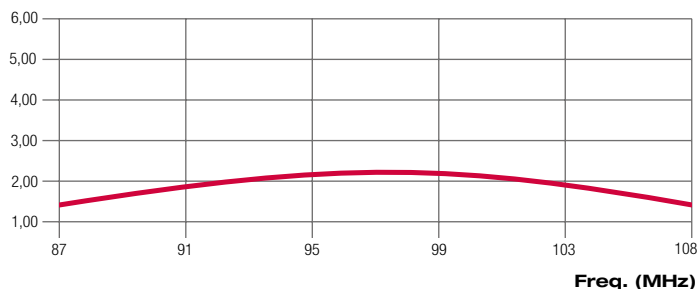


H - Plane

ELECTRICAL DATA

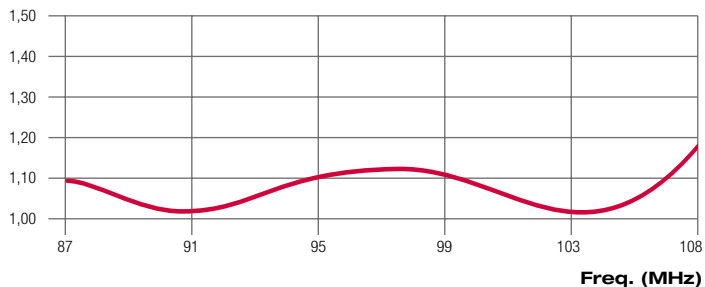
WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF band II
GAIN:	2.05 dBd (4.2 dBi)
VSWR:	≤ 1.2:1 (-20.8 dB)
POLARIZATION:	Vertical
IMPEDANCE:	50 Ohm balanced
HALF POWER BEAMWIDTH:	E-Plane - 79° H-Plane - 201°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	ASE0102210 - EIA 1+5/8" - max 15000W rms ASE0102230 - EIA 1+5/8" - max 15000W rms

GAIN (dB)



Freq. (MHz)

VSWR

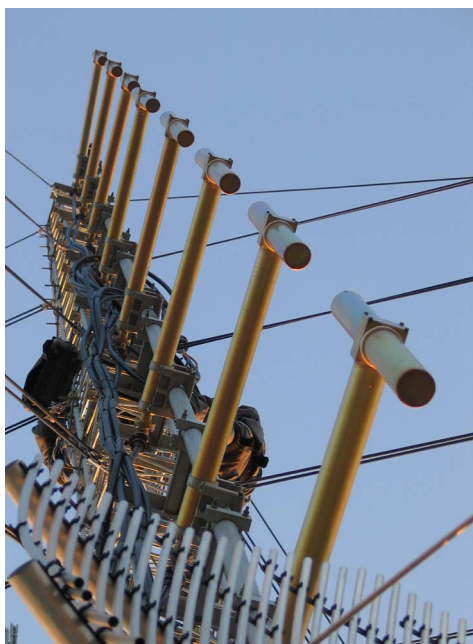


Freq. (MHz)

MECHANICAL DATA

MATERIALS:	Aluminium (version ASE0102210) Stainless steel (version ASE0102230)
MOUNTING:	Directly on supporting structure
MOUNTING BRACKETS:	Included for Ø90÷150mm pipe (Ø3.54" - 5.9")
TREATMENTS:	Antenna body military norms treatment (MIL-C-5541 ver. ASE0102210) Military norms treatment (MIL-C-5541) internal lines Silver plated connector
PRESSURIZATION:	5.0 psi
ANTENNA DIMENSIONS:	13365x1160x162.5 mm (52.5x45.6x6.4 in)
ANTENNA WEIGHT:	16 kg (35.27 lb) (version ASE0102210) 26 kg (57.32 lb) (version ASE0102230)
WIND SURFACE:	0.11m² (1.18ft²) front - 0.21m² (2.26 ft²) side
WIND LOAD (160 km/h and 30°C)	0.09 kN front - 0.17 kN side
SURVIVAL WIND:	220 km/h (136.7 mph)
PACKING DIMENSIONS:	Box 1210x360x360mm - 22kg gross (ASE0102210) (47.6x14.1x14.1in - 48.05lb) Box 1210x360x360mm - 34kg gross (ASE0102210) (47.6x14.1x14.1in - 74.9lb)

Specification are subject to change without notice



ARRAY FEATURES

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

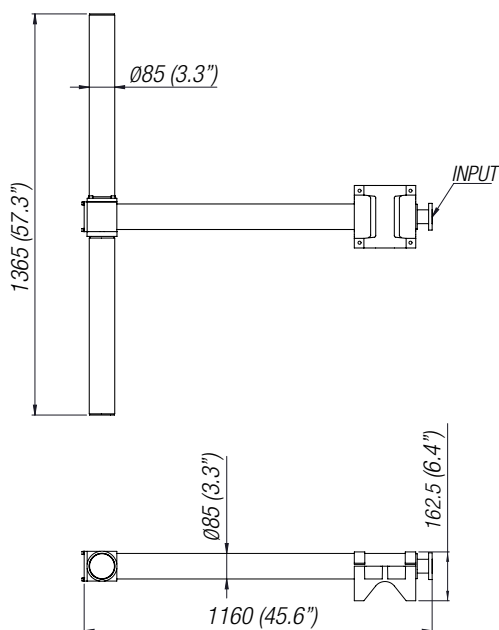
ARRAY ELECTRICAL DATA

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	≤ 1.15 in the operating channels or ≤ 1.25 throughout the frequency range Antenna system VSWR value also depending from the supporting structure
POLARIZATION	Vertical
GAIN	Refer to table
HORIZONTAL PATTERN	Omnidirectional
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.

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 for side mount configuration

ANTENNA DIMENSIONAL DETAILS



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	5.5	3.5	50 (110.2)	3.9 (12.8)	0.34
4	1	8.5	7.1	90 (198.4)	9.1 (29.8)	0.68
6	1	9.7	9.4	130 (286.6)	14.3 (46.9)	1.03
8	1	11.5	14.1	180 (396.8)	19.5 (63.9)	1.38
12	1	13.2	21.1	260 (573.2)	30 (98.4)	2.06

(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.

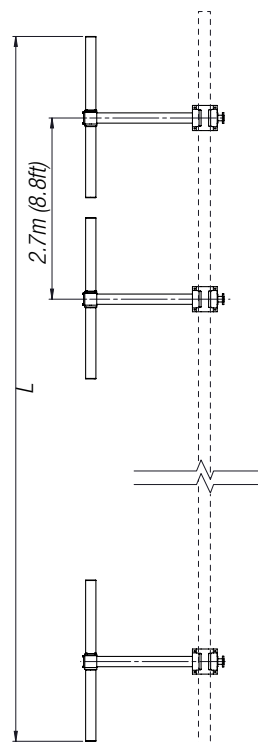
(2) Referred to Aluminum model ASE0102210 and without mounting hardware.

(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

(L) Total Antenna Height.

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy



Note:

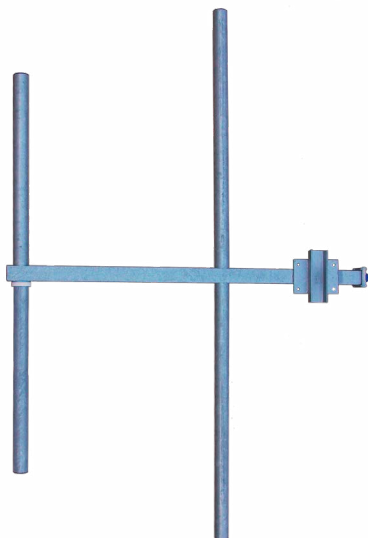
Total Antenna Height (L) is subject to change according to requirement.

Custom designed antennas meeting special requirements such as specific azimuthal pattern, different gains and custom power input are available upon request.

Specification are subject to change without notice

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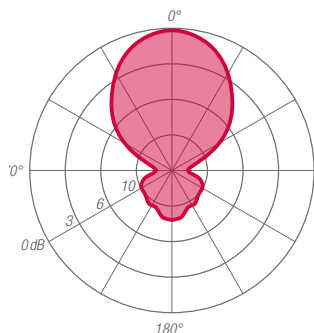
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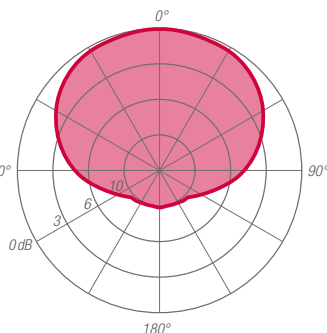
ANTENNA FEATURES

- Yagi 2 elements antenna.
- Vertical or horizontal polarization.
- Broadband 87.5÷108 MHz.
- Directional radiation pattern.
- Hot dip galvanized steel or aluminum version.

RADIATION PATTERNS (Mid Band)

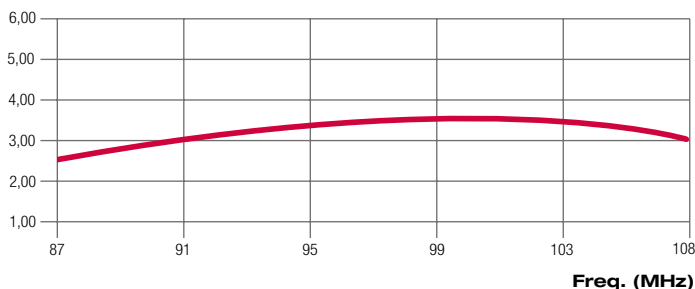


E - Plane

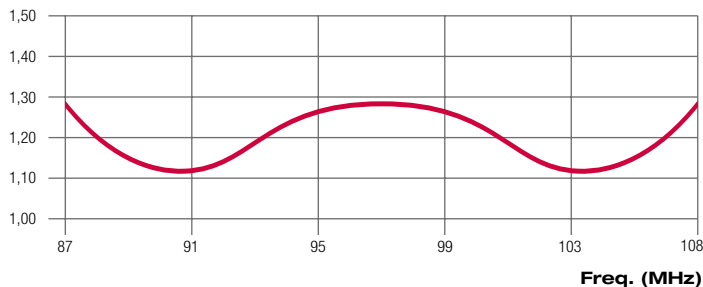


H - Plane

GAIN (dB)



VSWR



ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF band FM
GAIN:	3.3 dBd (5.45 dBi)
VSWR:	≤ 1.28:1 (-18.0 dB)
POLARIZATION:	Vertical (or horizontal upon request)
IMPEDANCE:	50 Ohm unbalanced
HALF POWER BEAMWIDTH:	E-Plane - 73° H-Plane - 161°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	ASR0202320 - N - max 800W rms ASR0202321 - DIN 7/16" female - max 3000W rms ASR0202322 - EIA 7/8" - max 5000W rms ASR0202322A - EIA 7/8" 90° UP/DOWN 5000W rms ASR0202311 - DIN 7/16" female - max 3000W rms ASR0202312 - EIA 7/8" - max 5000W rms ASR0202312A - EIA 7/8" 90° UP/DOWN 5000W rms

MECHANICAL DATA

MATERIALS:	Hot dip galvanized steel body (ASR020232X Version) Aluminum body (ASR020231X Version) Aluminum internal lines
MOUNTING:	Directly on supporting structure
MOUNTING BRACKETS:	Included for Ø60÷114mm pipe (Ø 2.36" - 4+1/2")
ICING PROTECTION:	Optional feed point radome (code XRADE)
TREATMENTS:	Hot dip galvanized steel antenna body. Silver-plated lines and connector
PRESSURIZATION:	No
ANTENNA DIMENSIONS:	1850x1280x50mm (72.8x50.4x1.93 in)
ANTENNA WEIGHT:	15 kg (33.0 lb) (ASR020232X Version) 8 kg (17.6 lb) (ASR020231X Version)
WIND SURFACE:	0.09m² (0.96ft²) front - 0.22m² (2.36 ft²) side
WIND LOAD (160 km/h and 30°C)	0.07 kN front - 0.17 kN side
SURVIVAL WIND:	220 km/h (136.7 mph)
PACKING DIMENSIONS:	Box 1900x1600x150mm - 19 kg (74.8x62.9x5.9 in - 41.8 lb)

Specification are subject to change without notice

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ARRAY FEATURES

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

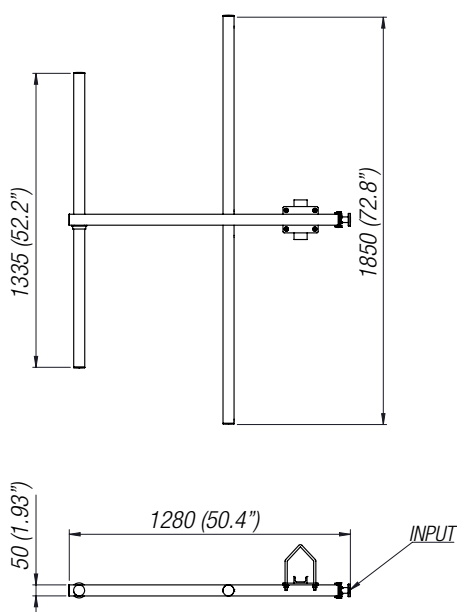
ARRAY ELECTRICAL DATA

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 ≤ 1.28 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	Directional
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.

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 for side mount configuration

ANTENNA DIMENSIONAL DETAILS



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	6.48	4.45	48 (105.8)	4.4 (14.4)	0,36
4	1	9.56	9.04	86 (189.5)	9.6 (31.4)	0,71
6	1	11.33	13.58	124 (273.3)	14.8 (48.5)	1,06
8	1	12.57	18.07	172 (379.1)	20.0 (65.6)	1,42
12	1	14.34	27.16	248 (546.7)	30.5 (100.0)	2,13

(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.

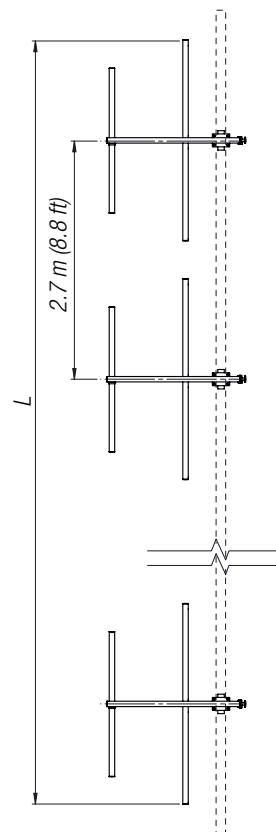
(2) Referred to Hot dip galvanized steel model ASR020232X and without mounting hardware.

(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

(L) Total Antenna Height.

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy



Note:

Total Antenna Height (L) is 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.

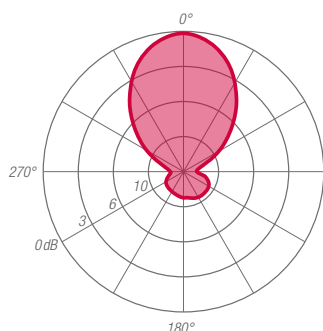
Specification are subject to change without notice



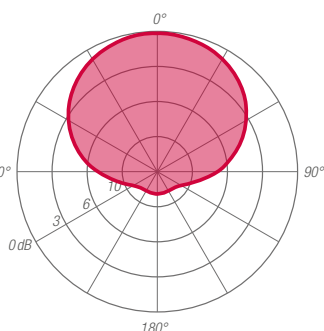
ANTENNA FEATURES

- Yagi 3 elements antenna.
- Vertical or horizontal polarization.
- Broadband 87.5÷108 MHz.
- Directional radiation pattern.
- Demountable.
- Pressurizable.
- Aluminium.

RADIATION PATTERNS (Mid Band)

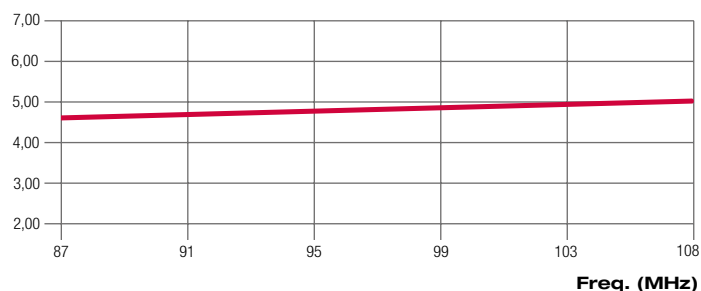


E - Plane

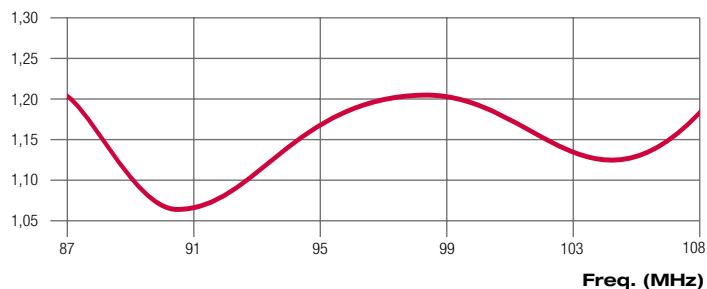


H - Plane

GAIN (dB)



VSWR



ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF band FM
GAIN:	5 dBd (7.15 dBi)
VSWR:	≤ 1.23:1 (-19.7 dB)
POLARIZATION:	Vertical (or horizontal)
IMPEDANCE:	50 Ohm unbalanced
HALF POWER BEAMWIDTH:	E-Plane - 66° H-Plane - 128°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	ASR0302315 - EIA 7/8" - max 5000W rms ASR0302316 - DIN 7/16" female - max 3000W rms ASR0302317 - N - max 800W rms ASR0302315A - EIA 7/8" 90° UP/DOWN - 5000W rms

MECHANICAL DATA

MATERIALS:	Aluminum body
MOUNTING:	Directly on supporting structure
MOUNTING BRACKETS:	Included for Ø60÷114mm pipe (Ø 2.36" - 4+1/2")
ICING PROTECTION:	Optional feed point radome (code XRASR)
TREATMENTS:	Dipoles and antenna body military norms treatment (MIL-C-554) Silver-plated lines and connector
PRESSURIZATION:	5.0 psi
ANTENNA DIMENSIONS:	1820x1590x50mm (71.6x62.5x1.96 in)
ANTENNA WEIGHT:	10 kg (22.04 lb)
WIND SURFACE:	0.05m² (0.5ft²) front - 0.20m² (2.15 ft²) side
WIND LOAD (160 km/h and 30°C)	0.05 kN front - 0.16 kN side
SURVIVAL WIND:	180 km/h (111.8 mph)
PACKING DIMENSIONS:	Box 1760x370x150mm - 15 kg (69.2x14.5x5.9 in - 33.0 lb)



ARRAY FEATURES

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

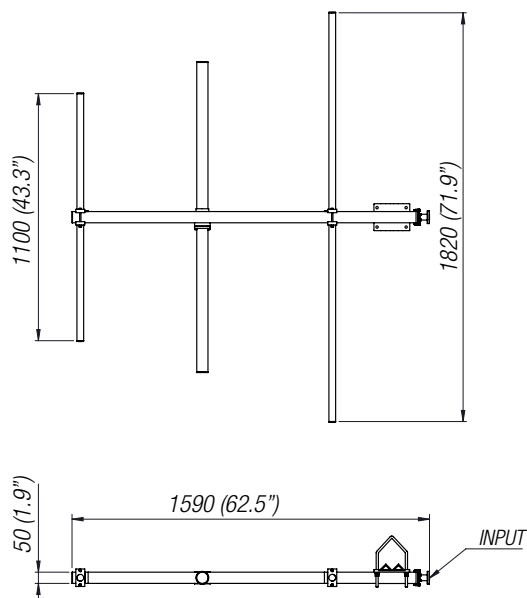
ARRAY ELECTRICAL DATA

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	Vertical (or horizontal upon request)
GAIN	Refer to table
HORIZONTAL PATTERN	Directional
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.

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 for side mount configuration

ANTENNA DIMENSIONAL DETAILS



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	6.48	4.45	42 (92.5)	4.4 (14.4)	0.38
4	1	9.56	9.04	74 (163.1)	9.6 (31.4)	0.76
6	1	11.33	13.58	106 (233.6)	14.8 (48.5)	1.14
8	1	12.57	18.07	156 (343.9)	20.0 (65.6)	1.52
12	1	14.34	27.16	212 (437.3)	30.5 (100.0)	2.28

(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.

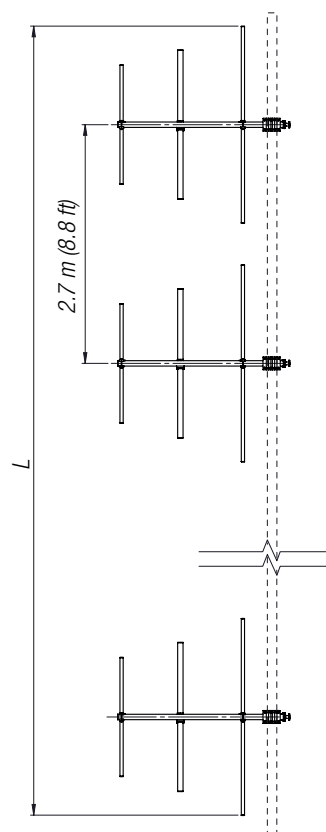
(2) Without mounting hardware.

(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

(L) Total Antenna Height.

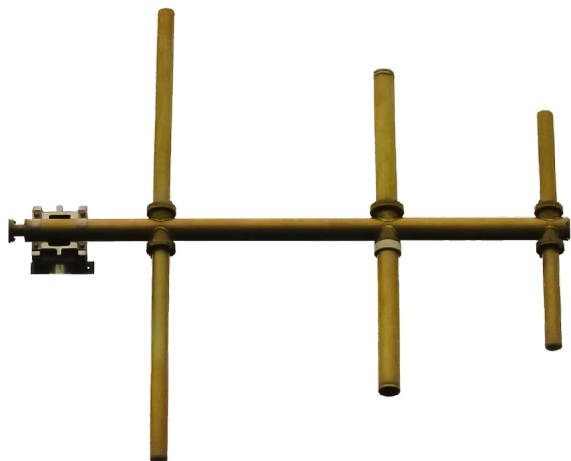
OPTIONS & SERVICES

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy



Note:
Total Antenna Height (L) is 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.

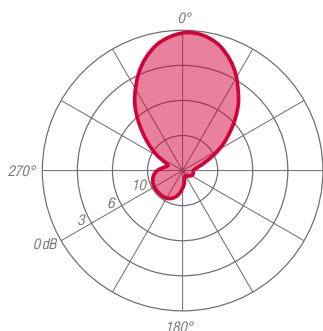
Specification are subject to change without notice



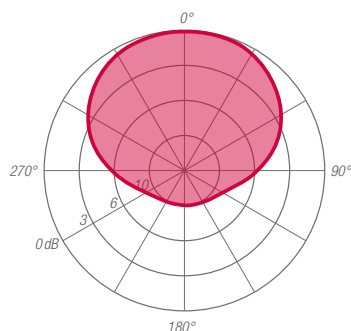
ANTENNA FEATURES

- Yagi 3 elements antenna - HIGH POWER.
- Vertical or horizontal polarization.
- Broadband 87.5÷108 MHz.
- Directional radiation pattern.
- Demountable.
- Pressurizable.
- Aluminium.

RADIATION PATTERNS (Mid Band)

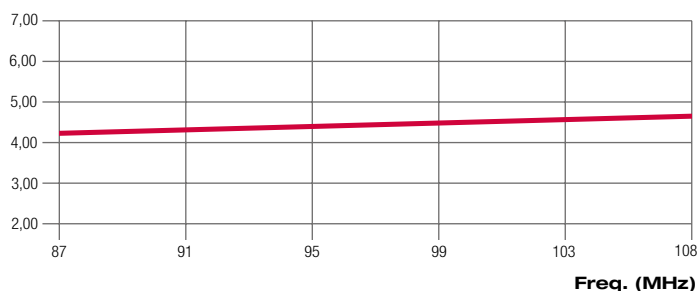


E - Plane

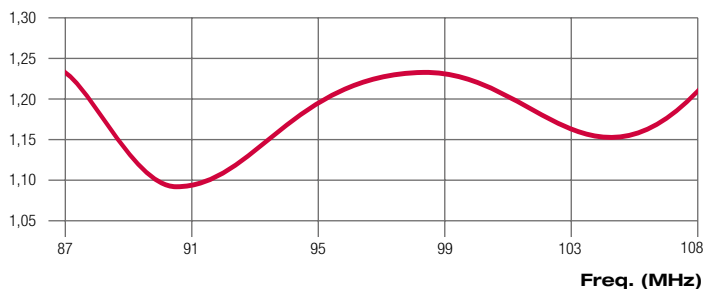


H - Plane

GAIN (dB)



VSWR



ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF band FM
GAIN:	4.5 dBd (6.7 dBi)
VSWR:	≤ 1.23:1 (-19.7 dB)
POLARIZATION:	Vertical (or horizontal upon request)
IMPEDANCE:	50 Ohm unbalanced
HALF POWER BEAMWIDTH:	E-Plane - 64° H-Plane - 140°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	ASR0302318 - EIA 1+5/8" flange - max 15000W rms

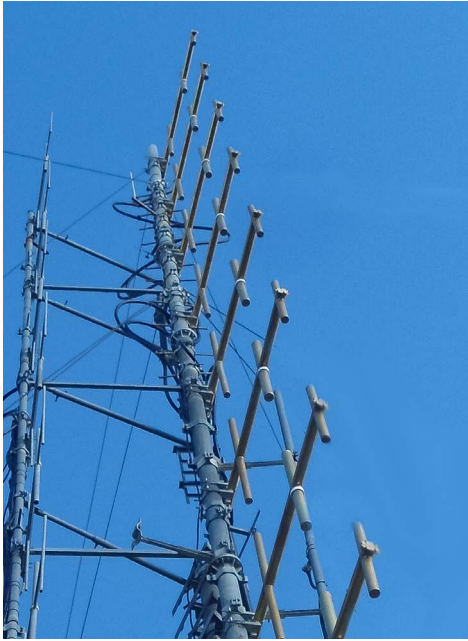
MECHANICAL DATA

MATERIALS:	Aluminum body Hot dip galvanized steel brackets and bolts
MOUNTING:	Directly on supporting structure
MOUNTING BRACKETS:	Included for Ø90÷150mm pipe (Ø 3.54" - 5.9")
TREATMENTS:	Dipoles and antenna body military norms treatment (MIL-C-5541) Silver-plated lines and connector
PRESSURIZATION:	5.0 psi
ANTENNA DIMENSIONS:	2080x1870x85 (81.8x73.6x3.34 in)
ANTENNA WEIGHT:	30 kg (66.1 lb)
WIND SURFACE:	0.11m² (1.18 ft²) front - 0.44m² (4.7 ft²) side
WIND LOAD (160 km/h and 30°C)	0.09 kN front - 0.35 kN side
SURVIVAL WIND:	180 km/h (111.8 mph)
PACKING DIMENSIONS:	Box 2150x250x250mm - 35 kg (84.6x9.8x9.8 in - 77.1 lb)

Specification are subject to change without notice

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ARRAY FEATURES

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

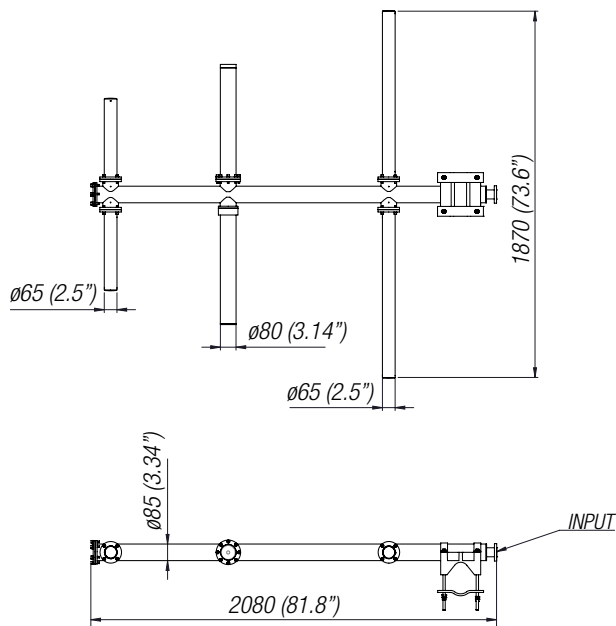
ARRAY ELECTRICAL DATA

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	Vertical (or horizontal upon request)
GAIN	Refer to table
HORIZONTAL PATTERN	Directional
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.

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 for side mount configuration

ANTENNA DIMENSIONAL DETAILS



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	7.15	5.12	86 (189.5)	4.7 (15.4)	0,71
4	1	10.01	10.02	162 (357.1)	9.9 (32.4)	1,42
6	1	11.83	15.24	238 (524.7)	15.1 (49.5)	2,12
8	1	13.07	20.28	332 (731.9)	20.3 (66.6)	2,83
12	1	14.81	25.18	476 (1049.4)	30.8 (101.0)	4,25

(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.

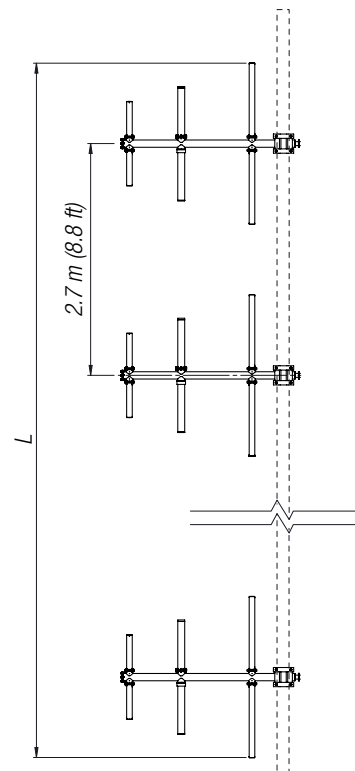
(2) Without mounting hardware.

(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

(L) Total Antenna Height.

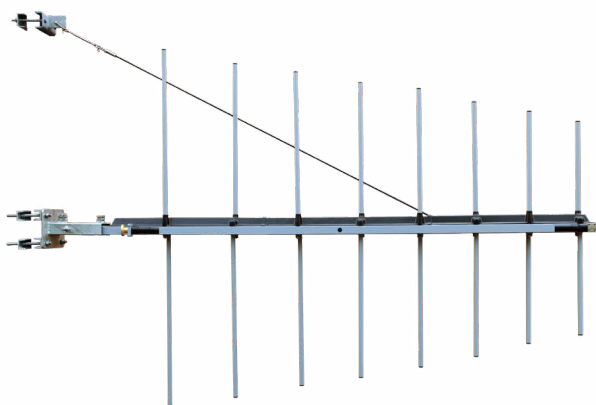
OPTIONS & SERVICES

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy



Note:
Total Antenna Height (L) is 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.

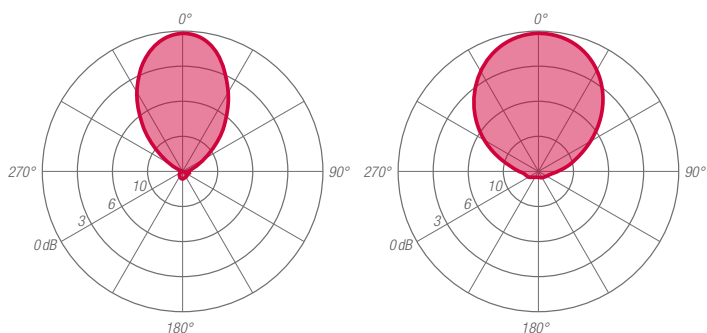
Specification are subject to change without notice



ANTENNA FEATURES

- Log periodic 8 elements 7.5 dBd gain.
- Vertical or horizontal polarization.
- Broadband 87.5÷108 MHz.
- Directional radiation pattern.
- Demountable.
- Aluminium.

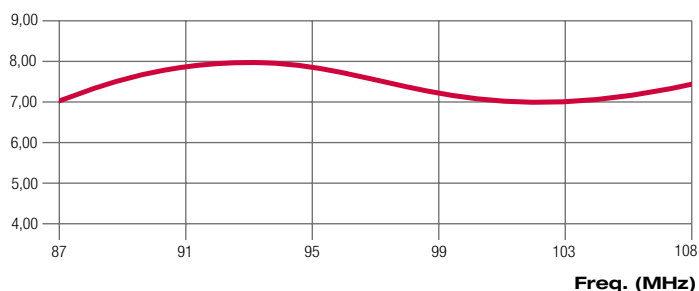
RADIATION PATTERNS (Mid Band)



E - Plane

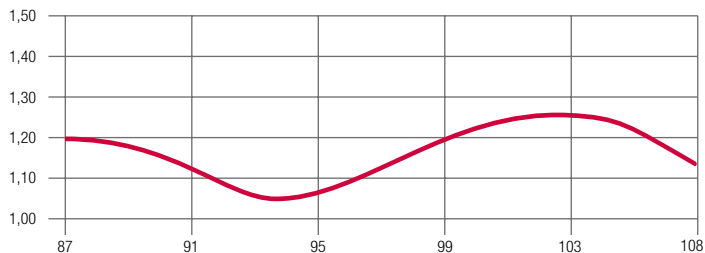
H - Plane

GAIN (dB)



Freq. (MHz)

VSWR



Freq. (MHz)

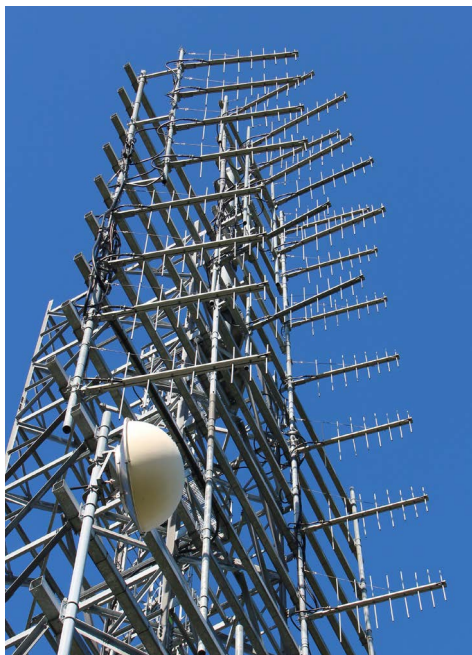
ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF band FM
GAIN:	7.5 dBd (9.7 dBi)
VSWR:	≤ 1.28:1 (-18.2 dB)
POLARIZATION:	Linear (Vertical or Horizontal)
IMPEDANCE:	50 Ohm unbalanced
HALF POWER BEAMWIDTH:	E-Plane - 55° H-Plane - 78°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	ALP0802712 - EIA 7/8" - max 5000W rms ALP0802713 - DIN 7/16" - max 3000W rms

MECHANICAL DATA

MATERIALS:	Aluminium Hot dip galvanized steel brackets and bolts
MOUNTING:	Directly on supporting structure Safety parafil kit included
MOUNTING BRACKETS:	Included for Ø60÷114mm pipe (Ø 2.36" - 4+1/2")
ICING PROTECTION:	Optional radome (code XRALP)
TREATMENTS:	Antenna body military norms treatment (MIL-C-5541) Powder painted elements and body grey color - RAL 7001 Silver-plated lines and connector
PRESSURIZATION:	No
ANTENNA DIMENSIONS:	2630x1770x117 mm (103.5x69.6x4.6 in)
ANTENNA WEIGHT:	26 kg (57.3 lb)
WIND SURFACE:	0.07m² (0.75ft²) front - 0.47m² (5.05 ft²) side
WIND LOAD (160 km/h and 30°C)	0.05 kN front - 0.64 kN side
SURVIVAL WIND:	220 km/h (136.7 mph)
PACKING DIMENSIONS:	Box 2980x250x250mm - 18 kg (Antenna) (117.3x9.8x9.8 in - 39.6 lb) Box 360x310x400 - 20 kg (Bracket) (14.2x12.2x15.7 in - 44.01 lb)x
SPECIAL FEATURES	Mounting brackets for slant polarization (Cod. XSTLOG-ROT) Mounting brackets for parallel arrays (Cod. XSTLOG-PER) Antirotation fiberglass brace (Cod. XSTRUALP)

Specification are subject to change without notice



ARRAY FEATURES

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

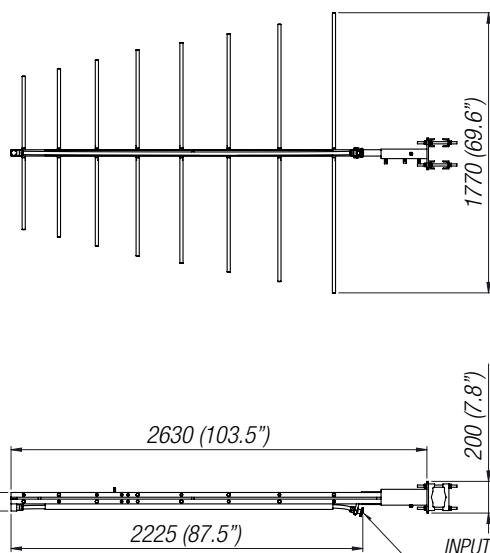
ARRAY ELECTRICAL DATA

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	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.

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 for side mount configuration

ANTENNA DIMENSIONAL DETAILS



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	9.2	8.32	75 (165.3)	5.5 (13.4)	1.31
4	1	12.1	16.22	145 (319.6)	10.9 (31.1)	2.61
6	1	13.8	23.99	220 (485.0)	16.3 (46.5)	3.93
8	1	15.1	32.36	295 (650.3)	21.7 (48.8)	5.23
12	1	16.8	47.86	450 (992.1)	32.5 (102.0)	2.61

(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.

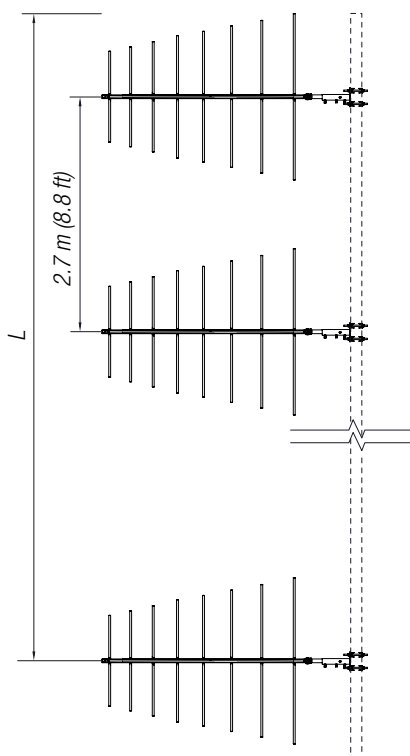
(2) Without mounting hardware.

(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

(L) Total Antenna Height.

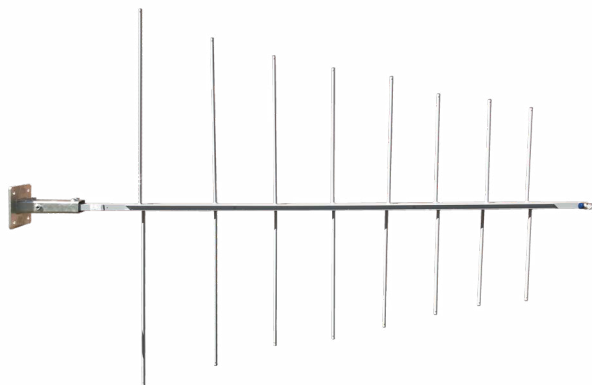
OPTIONS & SERVICES

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy



Note:
Total Antenna Height (L) is 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.

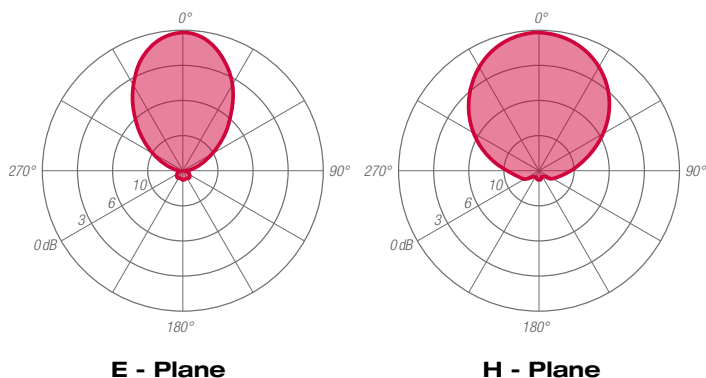
Specification are subject to change without notice



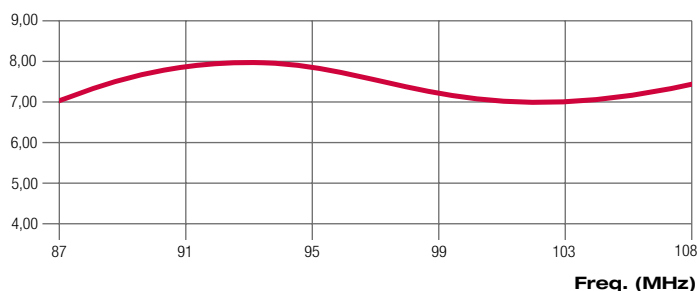
ANTENNA FEATURES

- Log periodic 8 elements 7.5 dBd gain.
- Vertical or horizontal polarization.
- Broadband 87.5÷108 MHz.
- Directional radiation pattern.
- Aluminium.

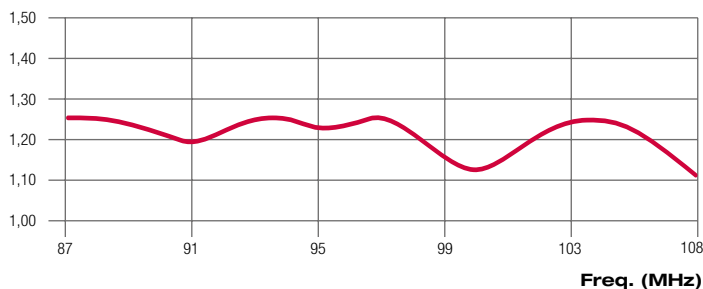
RADIATION PATTERNS (Mid Band)



GAIN (dB)



VSWR



ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF band FM
GAIN:	7.5 dBd (9.7 dBi)
VSWR:	≤ 1.28:1 (-18.2 dB)
POLARIZATION:	Linear (Vertical or Horizontal)
IMPEDANCE:	50 Ohm unbalanced
HALF POWER BEAMWIDTH:	E-Plane - 60° H-Plane - 92°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	ALP0802715 - DIN 7/16" female - max 3000W rms ALP0802716 - EIA 7/8" flange - max 3000W rms

MECHANICAL DATA

MATERIALS:	Aluminium Hot dip galvanized steel brackets and bolts
MOUNTING:	Directly on supporting structure
MOUNTING BRACKETS:	Included for Ø60÷114mm pipe (Ø 2.36" - 4+1/2")
TREATMENTS:	Powder painted elements and body grey color - RAL 7001 Silver-plated lines and connector
PRESSURIZATION:	No
ANTENNA DIMENSIONS:	2800x1900x230 mm (110.2x74.8x9.0 in)
ANTENNA WEIGHT:	18 kg (39.6 lb)
WIND SURFACE:	0.07m² (0.75ft²) front - 0.47m² (5.05 ft²) side
WIND LOAD (160 km/h and 30°C)	0.05 kN front - 0.65 kN side
SURVIVAL WIND:	220 km/h (136.7 mph)
PACKING DIMENSIONS:	Box 2900x2900x300mm - 90 kg (114.1x114.1x11.8 in - 198.4 lb)
SPECIAL FEATURES	Optional safety rope in parafil® and stainless steel turnbuckle (code XPAR & XTEN1.5T) Mounting brackets for slant polarization (Cod. XSTLOG-ROT) Mounting brackets for parallel arrays (Cod. XSTLOG-PER)



ARRAY FEATURES

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

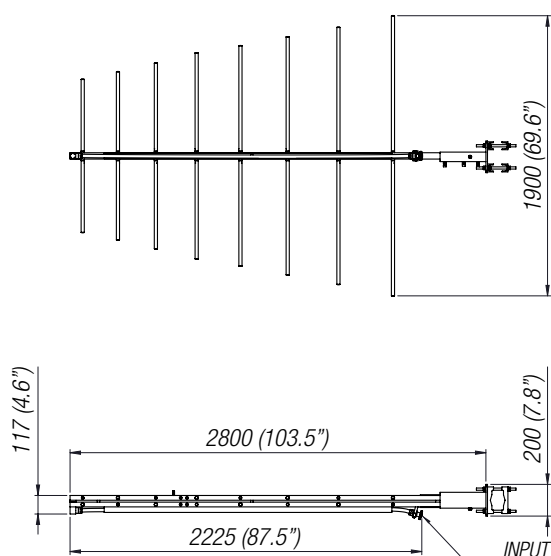
ARRAY ELECTRICAL DATA

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	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.

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 for side mount configuration

ANTENNA DIMENSIONAL DETAILS



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	9.2	8.32	55 (121.2)	5.5 (13.4)	1.31
4	1	12.1	16.22	105 (231.4)	10.9 (31.1)	2.61
6	1	13.8	23.99	260 (352.7)	16.3 (46.5)	3.93
8	1	15.1	32.36	215 (473.9)	21.7 (48.8)	5.23
12	1	16.8	47.86	330 (727.5)	32.5 (102.0)	2.61

(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.

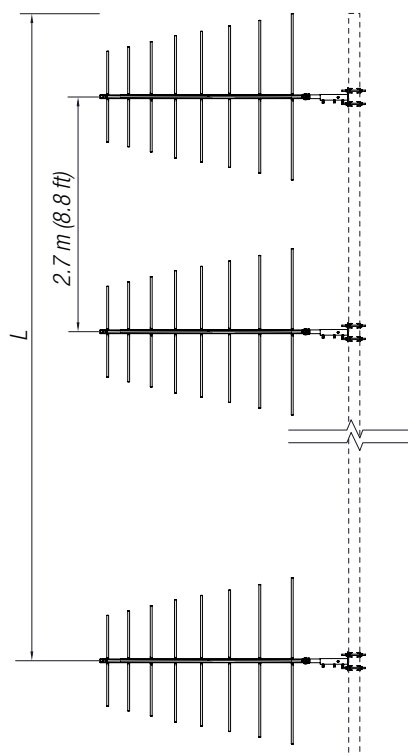
(2) Without mounting hardware.

(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

(L) Total Antenna Height.

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy



Note:
Total Antenna Height (L) is 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.

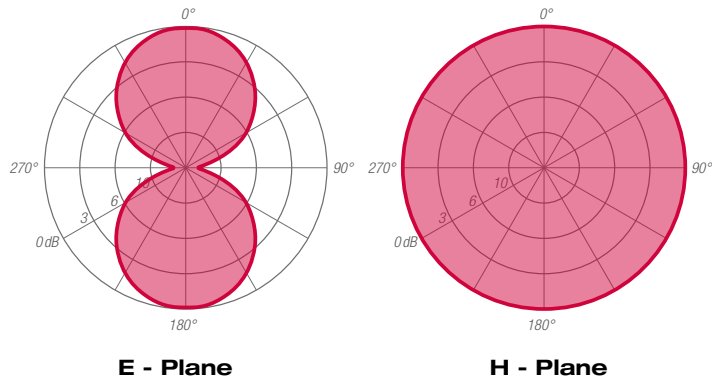
Specification are subject to change without notice



ANTENNA FEATURES

- Tuned coaxial dipole antenna 1.0 dBd gain.
- Vertical polarization.
- Bandwidth 2 MHz.
- Omnidirectional radiation pattern.
- Fiberglass radome.
- Plug & play installation.

RADIATION PATTERNS (Mid Band)

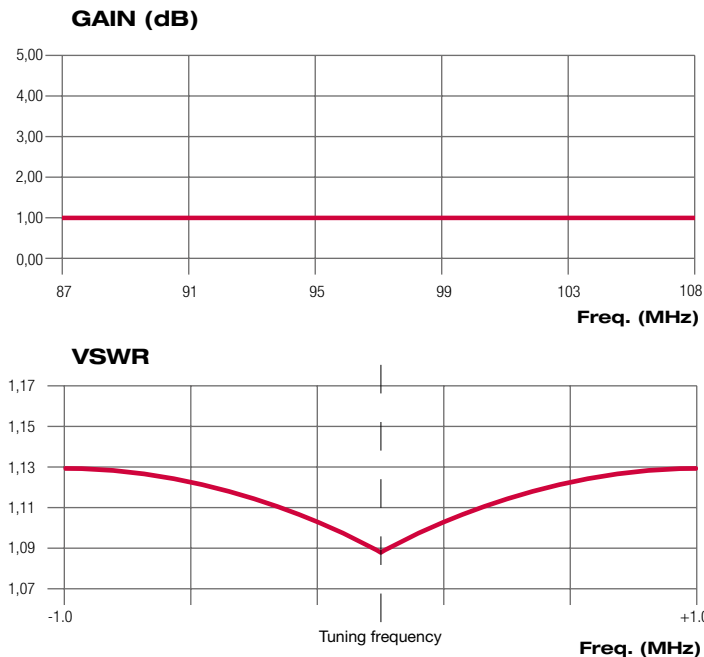


ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	2 MHz - factory tuned
GAIN:	1.0 dBd (3.2 dBi)
VSWR:	≤ 1.13:1 (-24 dB)
POLARIZATION:	Vertical
IMPEDANCE:	50 Ohm unbalanced
HALF POWER BEAMWIDTH:	E-Plane - 90° H-Plane - 360°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	ADC0202215 - DIN 7/16" female - max. 3000W rms

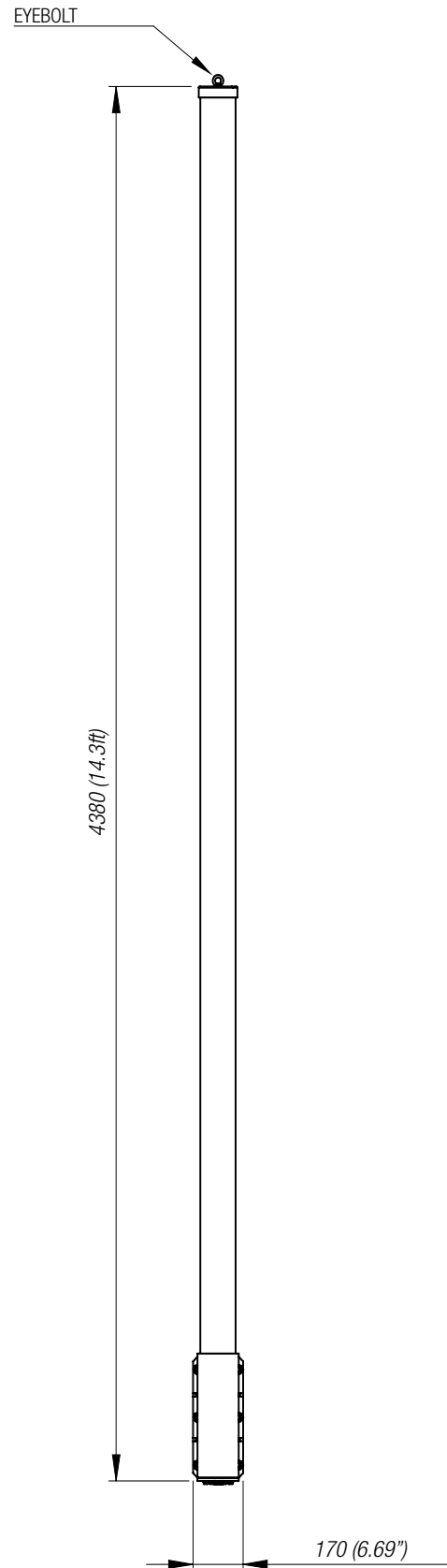
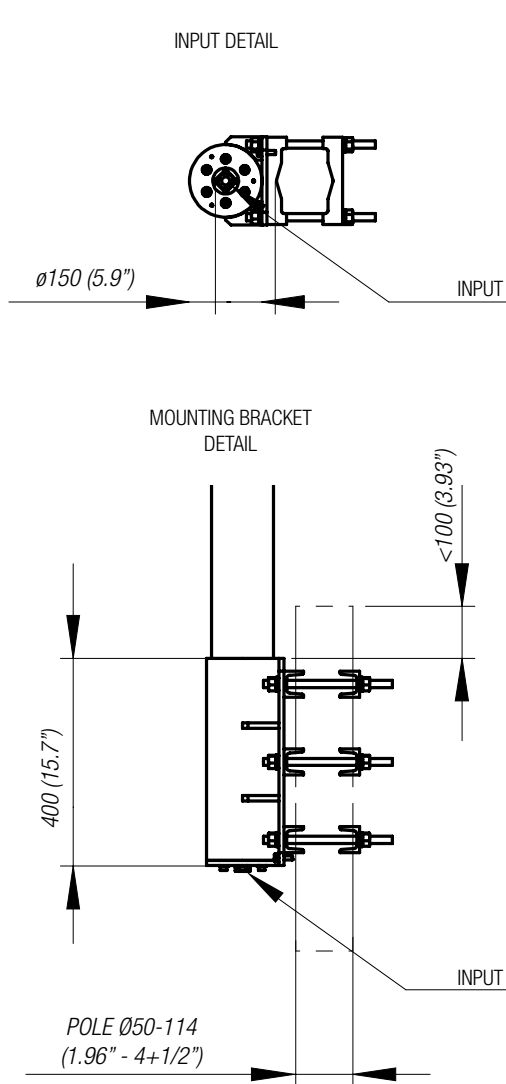
MECHANICAL DATA

MATERIALS:	Aluminium
MOUNTING:	Directly on supporting structure
MOUNTING BRACKETS:	Included for Ø50÷114mm pipe (Ø1.96" - 4.48")
INCING PROTECTION:	Whole antenna fully covered by fiberglass radome Standard grey color
TREATMENTS:	Hot dip galvanized steel bracket and bolts
ANTENNA DIMENSIONS:	Max. 4380x170x150 mm (172.4x6.69x5.9 in)
WEIGHT:	43.7 kg (96.3 lb)
WIND SURFACE:	0.55 m² (5.92 ft²) front - 0.55m² (5.92 ft²) side
WIND LOAD	0.58 kN front - 0.58 kN side
(160 km/h and 30°C)	
SURVIVAL WIND:	180 km/h (111.85 mph)
PACKING DIMENSIONS:	4740x350x410 mm - 64 kg (186.61x13.7x16.1 in - 141.1 lb)



ANTENNA DIMENSIONAL DETAILS

ANTENNA DIMENSIONAL DETAILS - SIDE



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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy

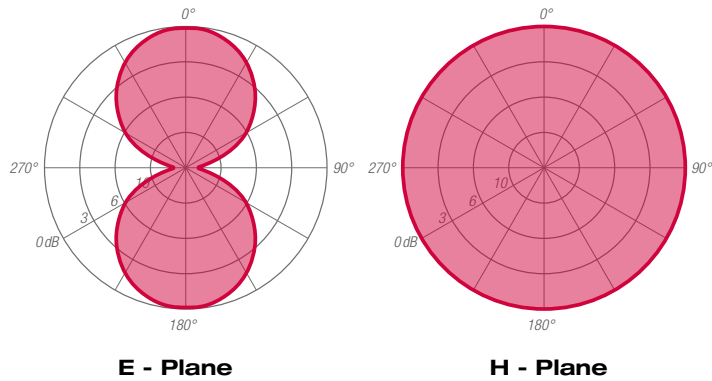
Specification are subject to change without notice



ANTENNA FEATURES

- Tuned coaxial dipole antenna 1.0 dBd gain.
- Vertical polarization.
- Bandwidth 0.2 MHz.
- Omnidirectional radiation pattern.
- Plug & play installation.

RADIATION PATTERNS (Mid Band)



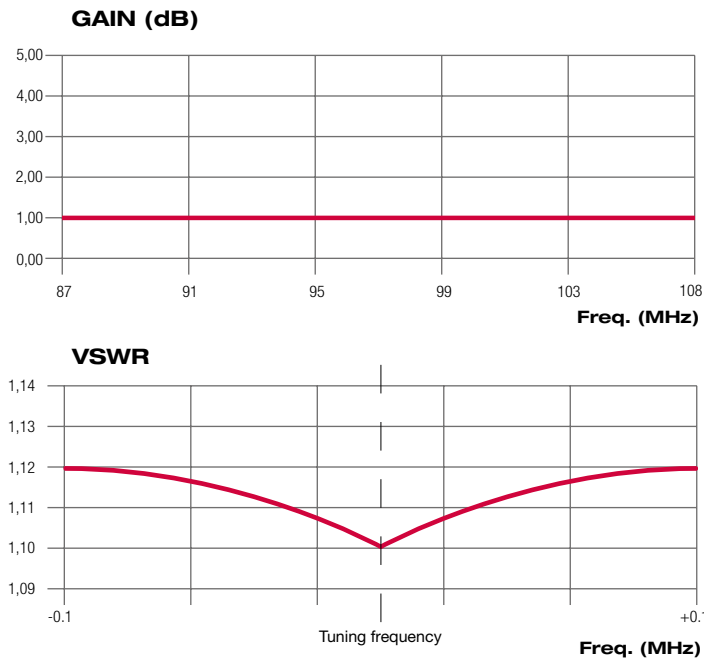
ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	0.2 MHz - factory tuned
GAIN:	1.0 dBd (3.2 dBi)
VSWR:	≤ 1.12:1 (-25 dB)
POLARIZATION:	Vertical
IMPEDANCE:	50 Ohm unbalanced
HALF POWER BEAMWIDTH:	E-Plane - 90° H-Plane - 360°
AVAILABLE VERSION AND CODE:	ADC0202110 - DIN 7/16" female - max. 3000W rms

MECHANICAL DATA

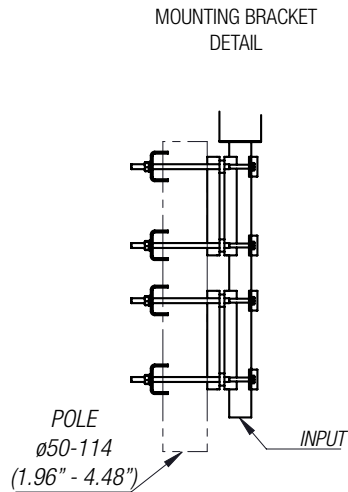
MATERIALS:	Aluminium
MOUNTING:	Directly on supporting structure
MOUNTING BRACKETS:	Included for Ø50÷114mm pipe (Ø1.96" - 4.48")
TREATMENTS:	Hot dip galvanized steel bracket and bolts
ANTENNA DIMENSIONS:	Max. 3940x95 mm (155.1x3.7 in) ^a
WEIGHT:	10 kg (22.05 lb)
WIND SURFACE:	0.22 m ² (2.36 ft ²) front - 0.22m ² (2.36 ft ²) side ^a
WIND LOAD (160 km/h and 30°C)	0.37 kN front - 0.37 kN side ^a
SURVIVAL WIND:	180 km/h (111.85 mph)
PACKING DIMENSIONS:	3000x250x250 mm - 20 kg (118.1x9.84x9.84 in - 44.1 lb)

(a) Final value depending on working frequency

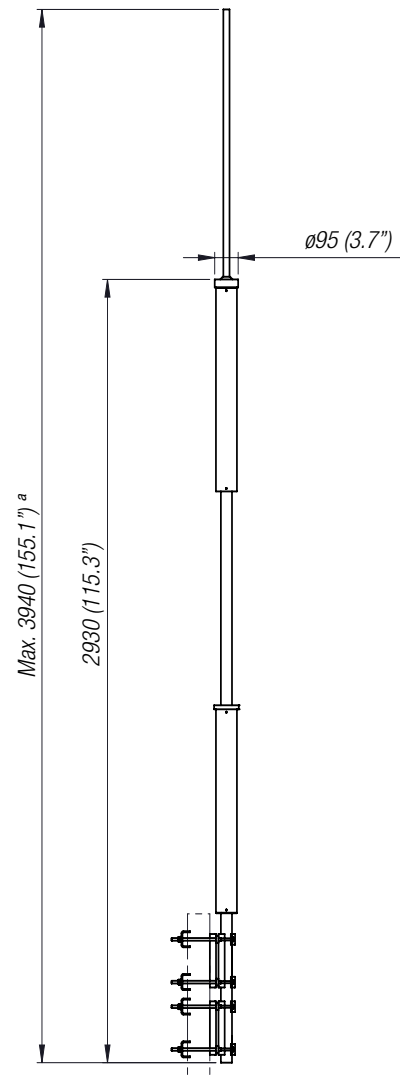


Specification are subject to change without notice

ANTENNA DIMENSIONAL DETAILS



ANTENNA DIMENSIONAL DETAILS - SIDE



(a) Final value depending on working frequency

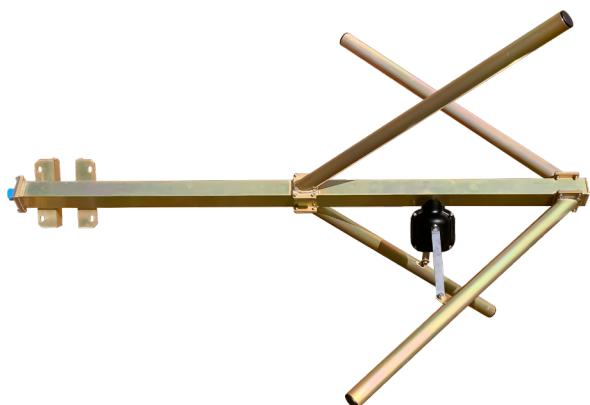
OPTIONS & SERVICES

<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

TELECOMUNICAZIONI ALDENA SRL

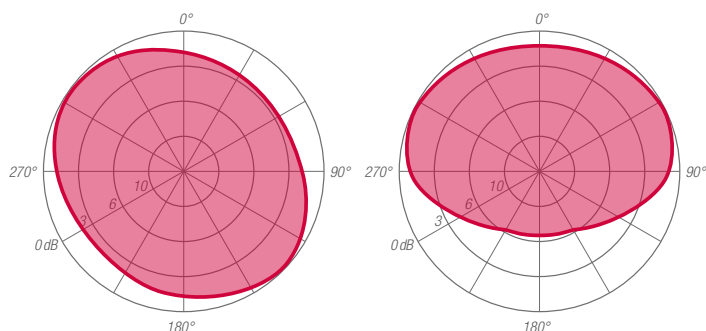
www.aldena.it - aldena@aldena.it



ANTENNA FEATURES

- Double-crossed dipole antenna.
- Circular polarization.
- Broadband 87.5÷108 MHz.
- Omnidirectional radiation pattern.
- Demountable.
- Pressurizable.
- Aluminum or stainless steel version.

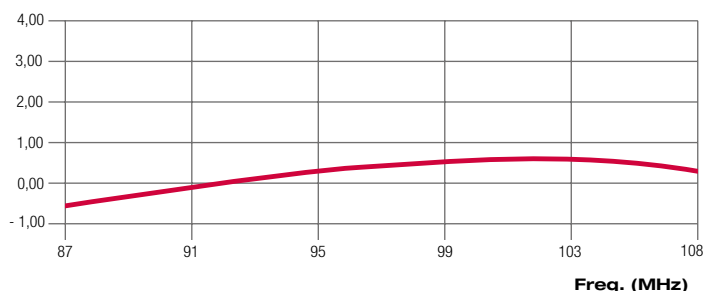
RADIATION PATTERNS (Mid Band)



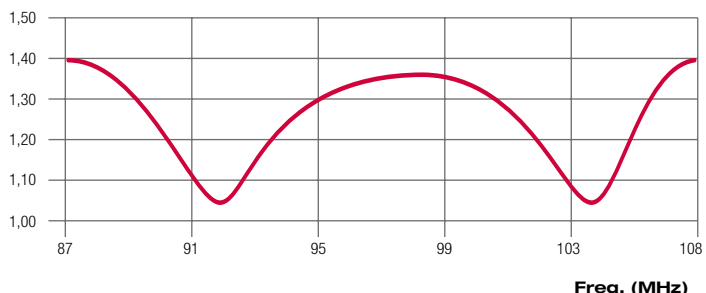
E - Plane
Horizontal component

H - Plane
Vertical component

GAIN (dB)



VSWR



ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF - Band FM
GAIN:	0.45 dBd (2.65 dBi)
VSWR:	≤ 1.4:1 (-15.5 dB) (ACF02022XX) ≤ 1.29:1 (-18 dB) (ACF020221X Hi or Lo version)
POLARIZATION:	Circular
IMPEDANCE:	50 Ohm unbalanced
HALF POWER BEAMWIDTH:	Omnidirectional ± 1.5 dB in free space Omnidirectional ± 2.0 dB with pole ø104mm (4")
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	ACF0202215 - EIA 7/8" - max 5000W rms ACF0202216 - DIN 7/16" - max 3000W rms ACF0202217 - N - max 800W rms ACF0202215A - EIA 7/8" 90° UP/DOWN 5000W rms ACF0202235 - EIA 7/8" - max 5000W rms ACF0202236 - DIN 7/16" - max 3000W rms ACF0202237 - N - max 800W rms ACF0202235A - EIA 7/8" 90° UP/DOWN 5000W rms
AVAILABLE SEMI-BAND MODEL	ACF020221XHi (Freq. 94 - 108 MHz) ACF020221XLo (Freq. 87.5 - 104 MHz)

MECHANICAL DATA

MATERIALS:	Stainless steel version (ACF020223X) Aluminium version (ACF020221X) Aluminium internal lines
MOUNTING:	Directly on supporting structure
MOUNTING BRACKETS:	Included for Ø60÷114mm pipe (Ø 2.36" - 4+1/2")
ICING PROTECTION:	Feed point radome included
TREATMENTS:	Dipoles and antenna body military norms treatment (MIL-C-5541) (Version ACF020221X)
PRESSURIZATION:	5.0 psi
ANTENNA DIMENSIONS:	1505x1180x1180 mm (59.2x46.4x46.4 in)
ANTENNA WEIGHT:	15 kg (33.1 lb) (Version ACF020223X) 7 kg (15.4 lb) (Version ACF020221X)
WIND SURFACE:	0.09m² (1.18ft²) front - 0.20m² (2.04 ft²) side
WIND LOAD (160 km/h and 30°C)	0.07 kN front - 0.21 kN side
SURVIVAL WIND:	220 km/h (136.7 mph)
PACKING DIMENSIONS:	Box 1670x410x250mm - 32kg (Version ACF020223X) (65.7x16.1x9.8 in - 70.54lb) Box 1670x410x250mm - 18kg (Version ACF020221X) (65.7x16.1x9.8 in - 39.68lb)
SPECIAL FEATURES	Additional reflector (XREFACF - ACF020221X) (XREFACFI - ACF020223X)

Specification are subject to change without notice



ARRAY FEATURES

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

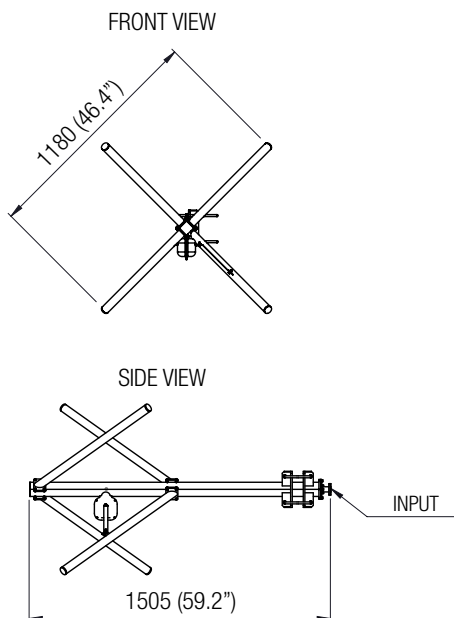
ARRAY ELECTRICAL DATA

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
GAIN	Refer to table
HORIZONTAL PATTERN	Omnidirectional
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.

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 for side mount configuration

ANTENNA DIMENSIONAL DETAILS



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	3.45	2.2	39 (85.9)	3.9 (12.7)	0,43
4	1	6.45	4.4	73 (160.9)	9.3 (30.5)	0,86
6	1	8.25	6.6	108 (238.0)	14.2 (46.5)	1,28
8	1	9.45	8.8	164 (361.5)	19.4 (63.6)	1,71
12	1	11.25	13.3	267 (588.6)	30.0 (98.4)	2,57

(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.

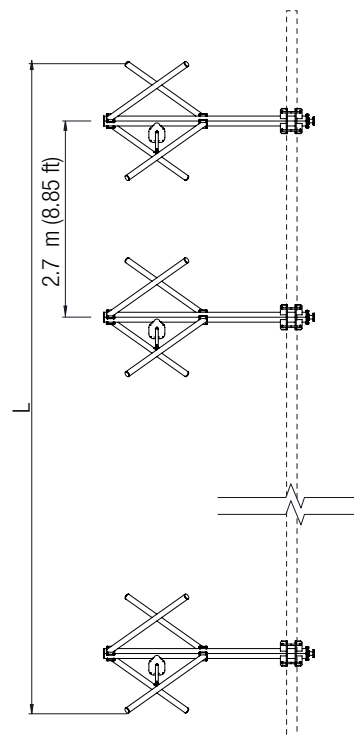
(2) Referred to Aluminum model ACF020221X and without mounting hardware.

(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

(L) Total Antenna Height.

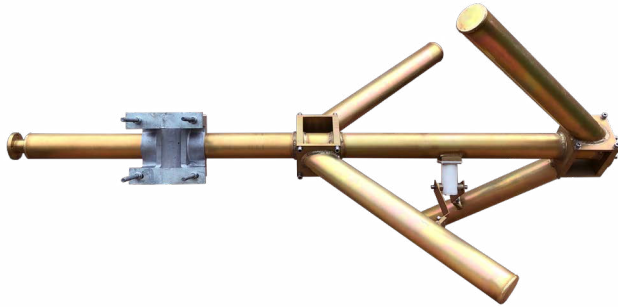
OPTIONS & SERVICES

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy



Note:
Total Antenna Height (L) is 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.

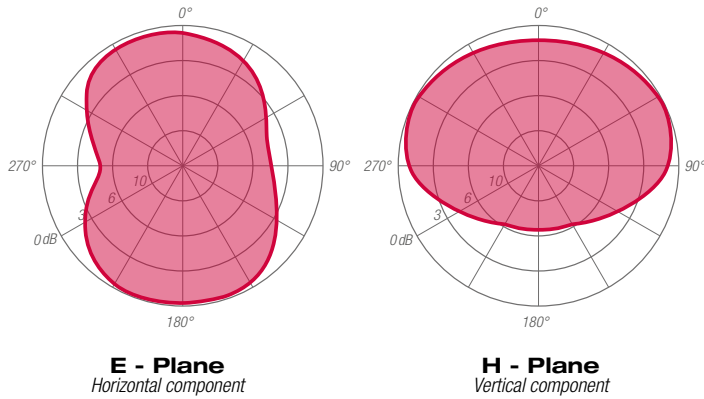
Specification are subject to change without notice



ANTENNA FEATURES

- Double-crossed dipole antenna - HIGH POWER.
- Circular polarization.
- Broadband 87.5÷108 MHz.
- Omnidirectional radiation pattern.
- Demountable.
- Pressurizable.
- Aluminium.

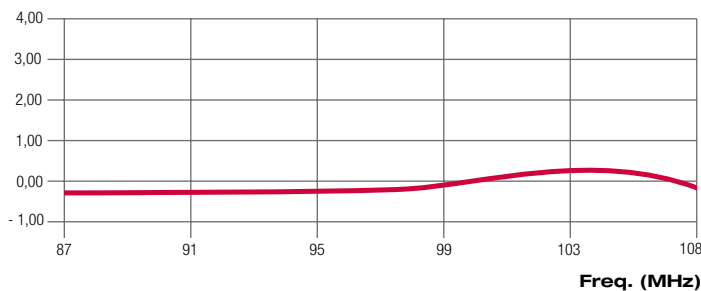
RADIATION PATTERNS (Mid Band)



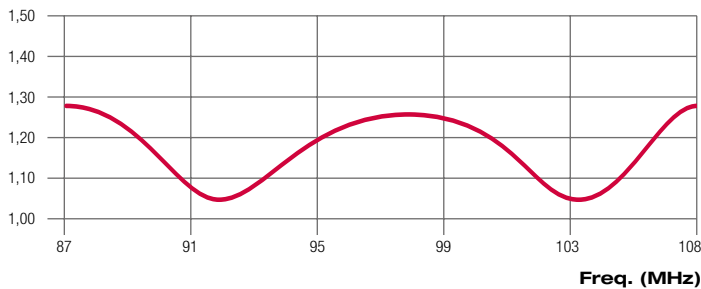
ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF band FM
GAIN:	- 0.25 dBd (1.95 dBi)
VSWR:	≤ 1.27:1 (-18.5 dB)
POLARIZATION:	Circular
IMPEDANCE:	50 Ohm unbalanced
HALF POWER BEAMWIDTH:	Omnidirectional ± 1.5 dB in free space Omnidirectional ± 2.0 dB with pole Ø104mm (4")
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	ACF0202218 - EIA 1+5/8" flange - max 15000W rms

GAIN (dB)

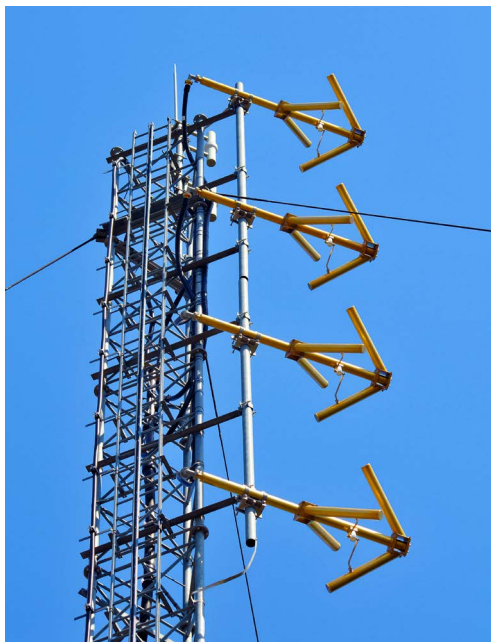


VSWR



MECHANICAL DATA

MATERIALS:	Aluminum dipoles and body version and internal lines
MOUNTING:	Directly on supporting structure
MOUNTING BRACKETS:	Included for Ø90÷150mm pipe (Ø3.54" - 5.9")
ICING PROTECTION:	Feed point radome
TREATMENTS:	Dipoles and antenna body military norms treatment (MIL-C-5541) Silver plated lines and connector
PRESSURIZATION:	5.0 psi
ANTENNA DIMENSIONS:	1950x1160x1160 mm (76.7x45.6x45.6 in)
ANTENNA WEIGHT:	33.5 kg (73.8 lb)
WIND SURFACE:	0.2m² (2.15ft²) front - 0.34m² (3.65 ft²) side
WIND LOAD (160 km/h and 30°C)	0.16 kN front - 0.27 kN side
SURVIVAL WIND:	220 km/h (136.7 mph)
PACKING DIMENSIONS:	Box 2000x360x300mm - 40kg (78.7x14.2x11.8in - 88.1lb)



ARRAY FEATURES

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

ARRAY ELECTRICAL DATA

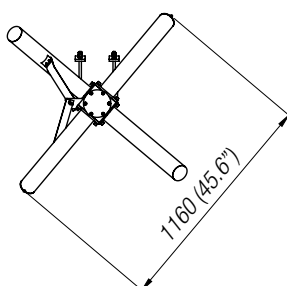
FREQUENCY RANGE	87.5 ÷ 108 MHz
IMPEDANCE	50 ohm
CONNECTOR	EIA flange according to system power rating
POWER RATING	The antenna system can accept any power according to requirements
VSWR	≤ 1.17 in the operating channels or ≤ 1.25 throughout the frequency range Antenna system VSWR value also depending from the supporting structure
POLARIZATION	Vertical
GAIN	Refer to table
HORIZONTAL PATTERN	Omnidirectional
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.

ARRAY MECHANICAL DATA

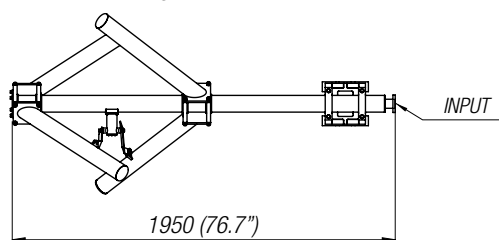
HEIGHT OF ARRAY	Subject to number of bays
TOTAL NET WEIGHT	Refer to table
WIND LOAD	Refer to table
PRESSURIZABLE	Yes
MOUNTING HARDWARE	Optional mounting for side mount configuration

ANTENNA DIMENSIONAL DETAILS

FRONT VIEW



SIDE VIEW



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	2.75	1.8	107 (235.9)	3.5 (11.5)	0,55
4	1	5.75	3.7	217 (478.4)	8.9 (29.2)	1,10
6	1	7.55	5.7	341 (751.7)	13.8 (45.3)	1,65
8	1	8.75	7.5	487 (1073.6)	19.0 (62.3)	2,21
12	1	10.55	11.3	732 (1613.7)	28.6 (93.8)	3,31

(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.

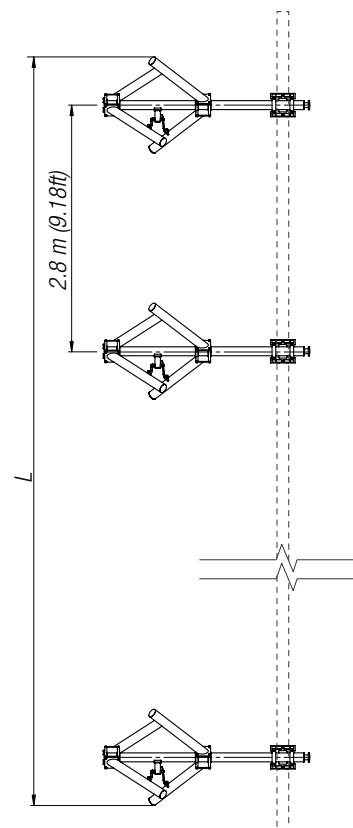
(2) Without mounting hardware.

(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

(L) Total Antenna Height.

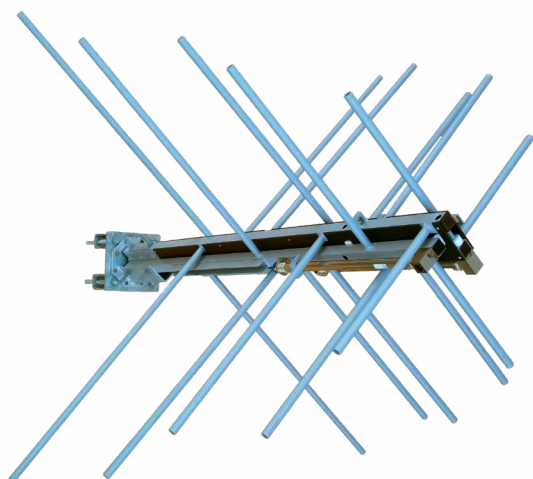
OPTIONS & SERVICES

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy



Note:
Total Antenna Height (L) is 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.

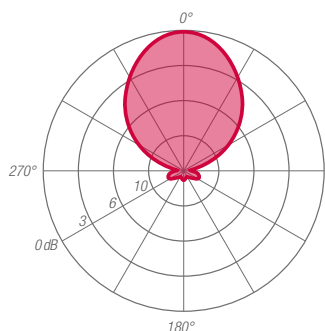
Specification are subject to change without notice



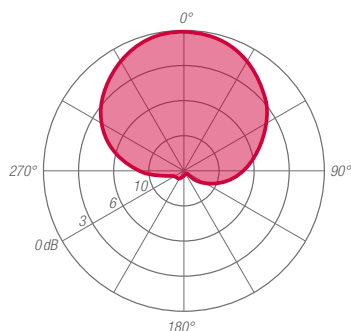
ANTENNA FEATURES

- Log periodic 5 elements 5.5 dBd gain.
- Circular, mixed, linear polarization.
- Broadband 87.5÷108 MHz.
- Directional radiation pattern.
- Aluminium or stainless steel version.

RADIATION PATTERNS (Mid Band)

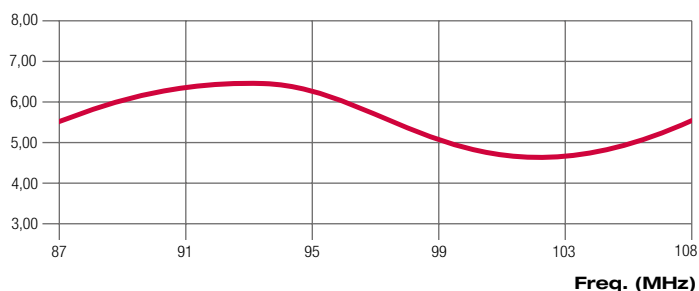


E - Plane
Horizontal component

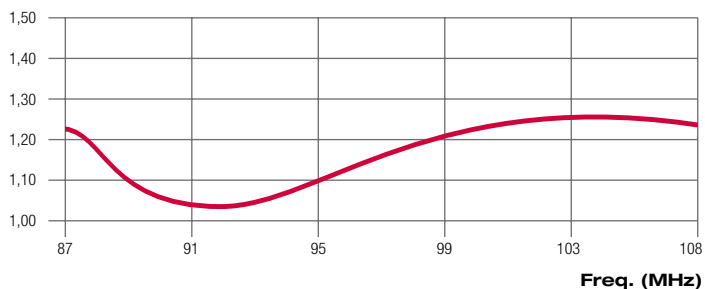


H - Plane
Vertical component

GAIN (dB)



VSWR



ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF band FM
GAIN:	5.5 dBd (7.7 dBi)
VSWR:	≤ 1.3:1 (-17.7 dB) Linear polarization ≤ 1.3:1 (-24.3 dB) Circular polarization
POLARIZATION:	Circular, mixed, linear
IMPEDANCE:	50 Ohm unbalanced
HALF POWER BEAMWIDTH:	Vertical component: E-Plane - 69° - H-Plane - 129° Horizontal component: E-Plane - 69° - H-Plane - 129°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	ALP0502910 - 2xEIA 7/8" flange - max 2x5000W rms ALP0502912 - 2xDIN 7/16 female - max 2x3000W rms ALP0502930 - 2xDIN 7/16 female - max 2x3000W rms ALP0502931 - 2xEIA 7/8" flange - max 2x5000W rms

MECHANICAL DATA

MATERIALS:	Stainless steel version (ALP050293X) Aluminium version (ALP050291X) Hot dip galvanized steel brackets and bolts
MOUNTING:	Directly on supporting structure Safety parafil kit included
MOUNTING BRACKETS:	Included for Ø60÷114mm pipe (Ø 2.36" - 4+1/2")
ICING PROTECTION:	ABS radome included
TREATMENTS:	Powder painted elements and body grey color - RAL 7001 (version ALP050291X) Silver-plated lines and connector
PRESSURIZATION:	No
ANTENNA DIMENSIONS:	1500x1716x1716 mm (62.2x67.5x67.5 in)
ANTENNA WEIGHT:	25.7 kg (56.6 lb) (Version ALP050293X) 11.5 kg (25.3 lb) (Version ALP050291X)
BRACKET WEIGHT:	11.5 kg (25.3 lb)
WIND SURFACE:	0.1m² (1.07ft²) front - 0.38m² (4.09 ft²) side
WIND LOAD (160 km/h and 30°C)	0.09 kN front - 0.70 kN side
SURVIVAL WIND:	220 km/h (136.7 mph)
PACKING DIMENSIONS:	Box 1900x1600x200mm - 13kg (Version ALP050291X) (74.8x62.9x7.8 in - 28.6lb) Box 1900x1600x200mm - 25kg (Version ALP050293X) (74.8x62.9x7.8 in - 55.1lb)
SPECIAL FEATURES	Optional brackets side-by-side arrays (code XSTLOG-PER)

Specification are subject to change without notice



ARRAY FEATURES

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

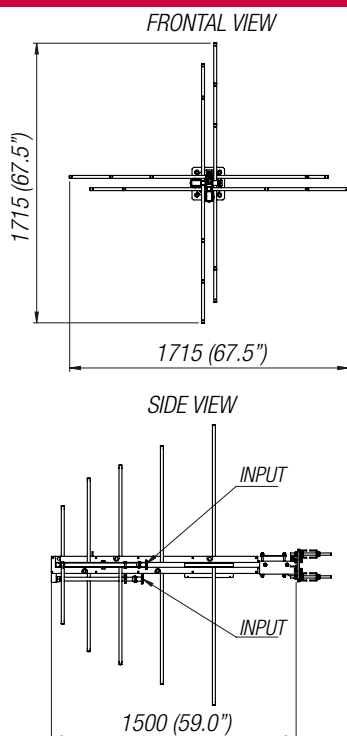
ARRAY ELECTRICAL DATA

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 ≤ 1.30 throughout the frequency range Antenna system VSWR value also depending from the supporting structure
POLARIZATION	Circular, mixed, linear
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.

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 for side mount configuration

ANTENNA DIMENSIONAL DETAILS



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	7.0	5.01	42 (92.5)	4.1 (13.4)	1,40
4	1	10.0	10.00	79 (174.1)	9.5 (31.1)	2,81
6	1	11.8	15.14	114 (251.7)	14.9 (46.5)	4,21
8	1	13.0	19.95	182 (401.2)	20.3 (48.8)	5,60
12	1	14.8	30.20	258 (568.7)	31.1 (102.0)	5,77

(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.

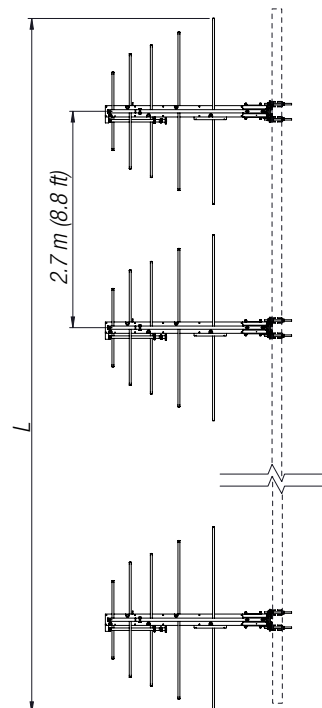
(2) Referred to Aluminum model ALP050291X and without mounting hardware.

(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

(L) Total Antenna Height.

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy



Note:

Total Antenna Height (L) is 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.

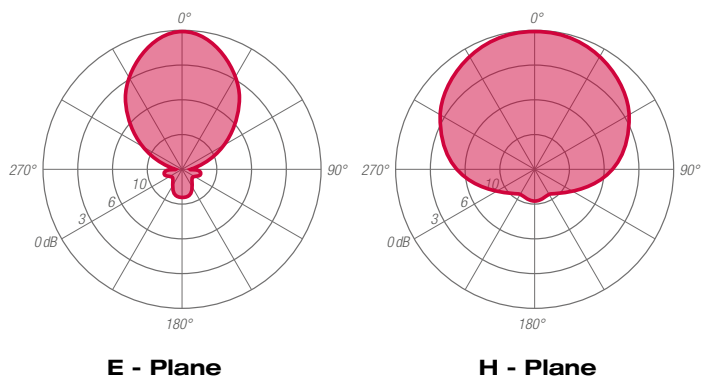
Specification are subject to change without notice



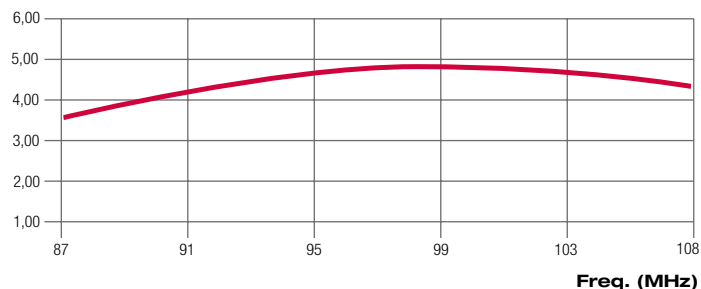
ANTENNA FEATURES

- Panel antenna with dipole 4.5 dBd gain.
- Vertical or horizontal polarization.
- Directional irradiation pattern.
- Broadband 87.5÷108 MHz.
- Demountable.
- Pressurizable.
- Aluminium or hot dip galvanized steel.

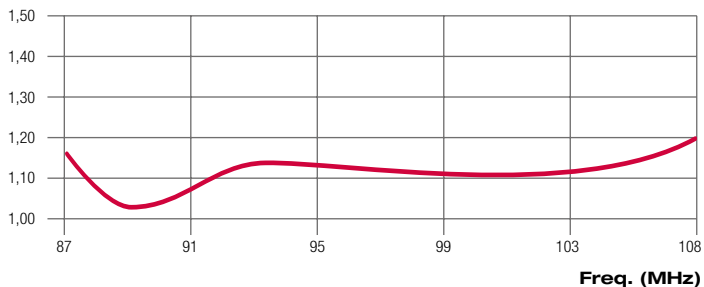
RADIATION PATTERNS (Mid Band)



GAIN (dB)



VSWR



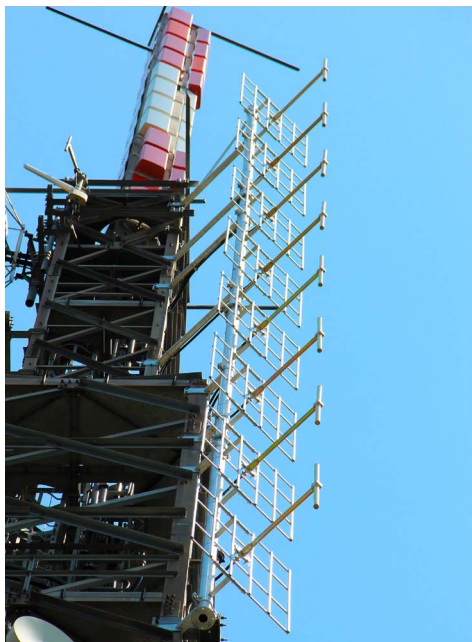
ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF band FM
GAIN:	4.5 dBd (6.7 dBi)
VSWR:	≤ 1.2:1 (-20.8 dB)
POLARIZATION:	Vertical or Horizontal
IMPEDANCE:	50 Ohm balanced
HALF POWER BEAMWIDTH:	E-Plane - 74° H-Plane - 152°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	ADP0102410 - EIA 7/8" connector - max 5000W rms ADP0102411 - DIN 7/16 connector - max 3000W rms ADP0102412 - N connector - max 800W rms ADP0102420 - EIA 7/8" connector - max 5000W rms ADP0102421 - DIN 7/16 connector - max 3000W rms ADP0102422 - N connector - max 800W rms

MECHANICAL DATA

MATERIALS:	Aluminium reflector (version ADP010241X) Hot dip galvanized steel reflector (version ADP010242X) 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:	Optional feed point radome (code XRASD)
TREATMENTS:	Antenna body military norms treatment (MIL-C-5541 ver. ADB010421X) Silver plated internal lines and connector
ANTENNA DIMENSIONS:	1825x1080x1275 mm (71.8x42.5x50.2 in)
ANTENNA WEIGHT:	15 kg (33 lb) (ADP010241X version) 24 kg (52.9 lb) (ADP010242X version)
WIND SURFACE:	0.47m² (5.05ft²) front - 0.39m² (4.19 ft²) side
WIND LOAD (160 km/h and 30°C)	0.79 kN front - 0.60 kN side
SURVIVAL WIND:	220 km/h (136.7 mph)
PACKING DIMENSIONS:	Dipole: Box 1140x300x220mm (44.8x11.8x8.6 in) Reflecting grid: Box 1830x1280x80mm (72x50.3x3.14 in) Total weight: 21 kg gross (46.2 lb)
SPECIAL FEATURES:	ADP0102510 - as ADP0102410 with side ailreons ADP0102511 - as ADP0102411 with side ailreons ADP0102512 - as ADP0102412 with side ailreons

Specification are subject to change without notice



ARRAY FEATURES

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

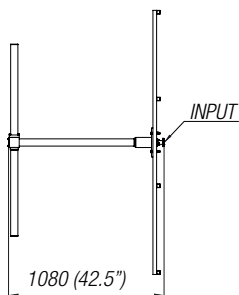
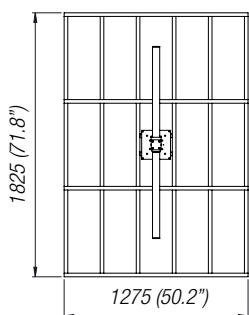
ARRAY ELECTRICAL DATA

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	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.

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 for side mount configuration

ANTENNA DIMENSIONAL DETAILS



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	7.5	5.6	45 (99.2)	4.5 (14.7)	1,67
4	1	10.5	11.2	85 (187.4)	9.9 (32.4)	3,34
6	1	12.3	16.9	126 (277.7)	15.3 (50.2)	5,00
8	1	13.5	22.4	188 (414.5)	20.7 (67.9)	6,67
12	1	15.3	33.8	272 (599.5)	31.5 (103.3)	10,00

(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.

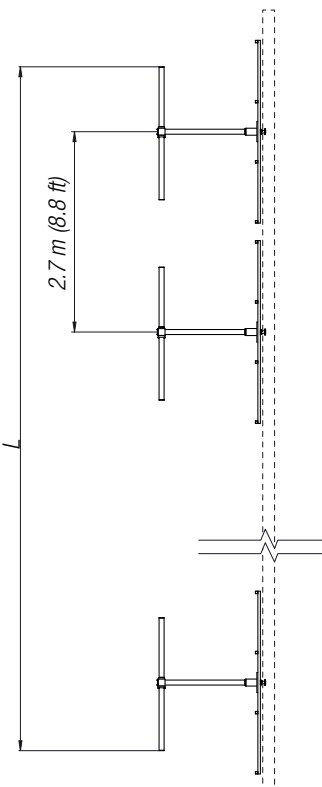
(2) Referred to Aluminum model ADP010241X and without mounting hardware.

(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

(L) Total Antenna Height.

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy



Note:
Total Antenna Height (L) is 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.

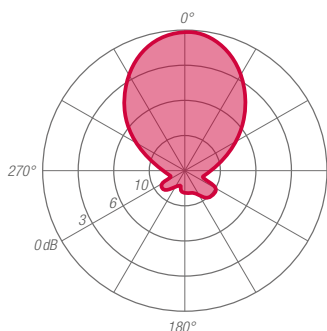
Specification are subject to change without notice



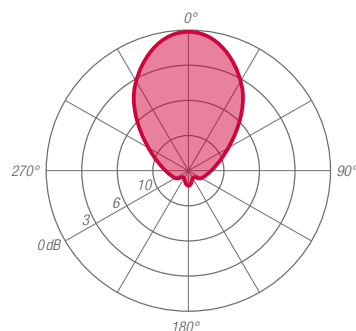
ANTENNA FEATURES

- 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)

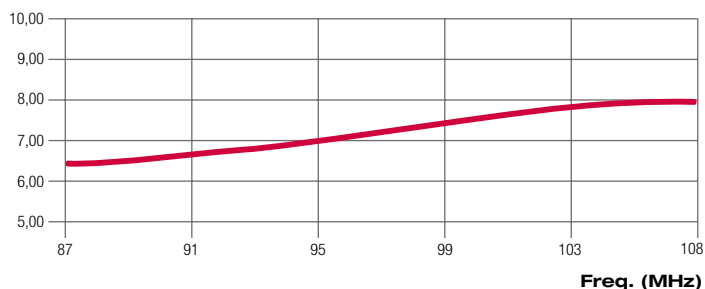


E - Plane
Horizontal component



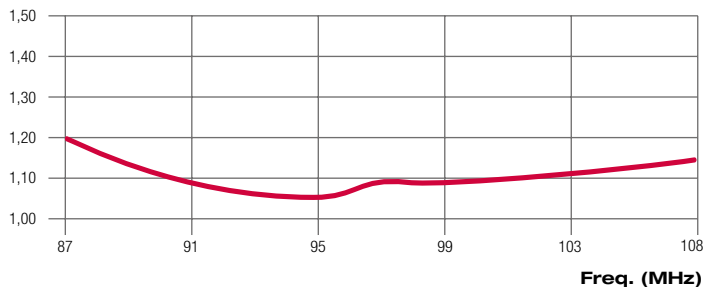
H - Plane
Vertical component

GAIN (dB)



Freq. (MHz)

VSWR



Freq. (MHz)

ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF band FM
GAIN:	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:	ADP0202415 - EIA 7/8" - max 5000W rms ADP0202416 - DIN 7/16 female - max 3000W rms ADP0202417 - N - max 800W rms

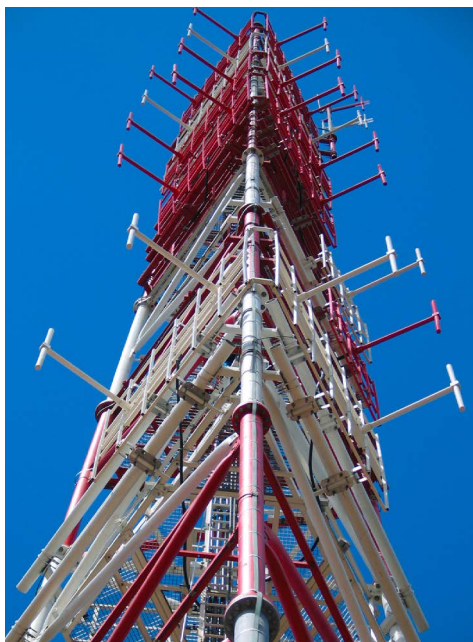
MECHANICAL DATA

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:	0.47m² (5.05ft²) front - 0.39m² (4.19 ft²) 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

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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 ⁽¹⁾ dB	GAIN TIMES ⁽¹⁾	WEIGHT ⁽²⁾ kg (lb)	ANTENNA HEIGHT ^(L) m (ft)	WIND LOAD ⁽³⁾ 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

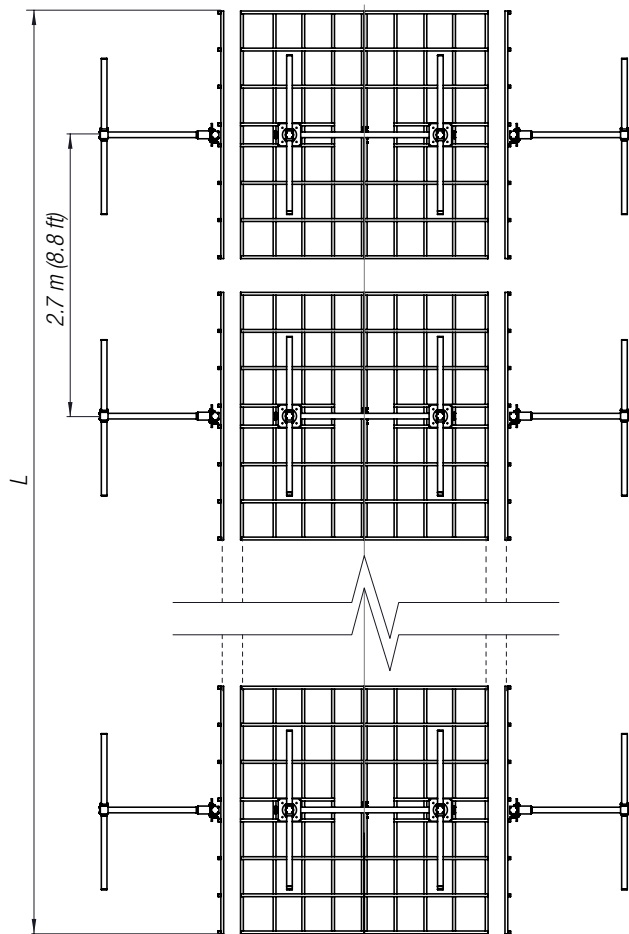
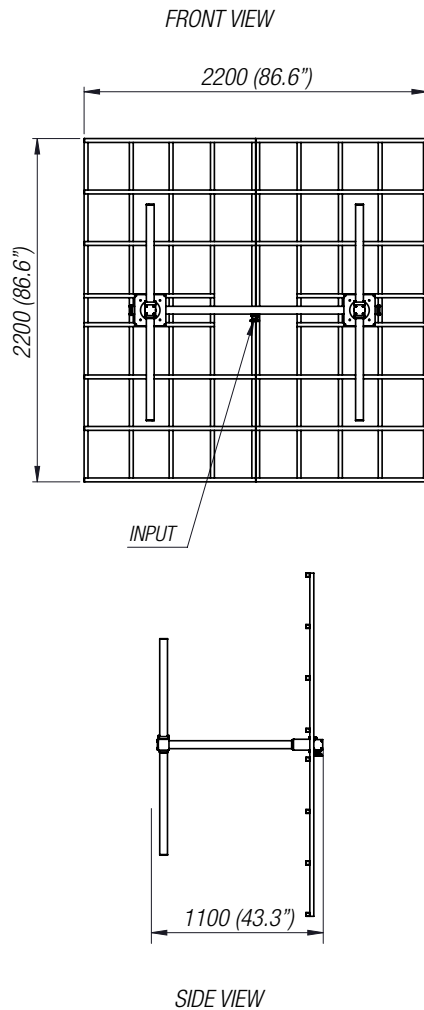
Note:
Antenna Distance (D) and Antenna Offset (O) are subject to change according to requirement.
Custom designed antennas meeting special requirements such as specific azimuthal pattern, different gains and custom power input are available upon request.

(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.

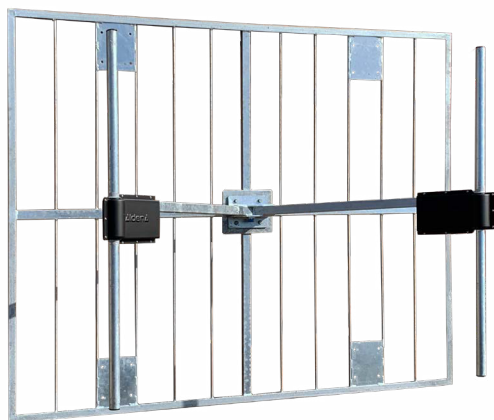
OPTIONS & SERVICES

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy

Specification are subject to change without notice

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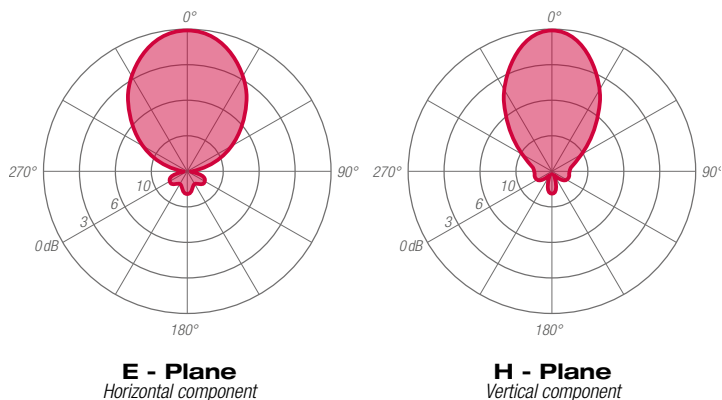
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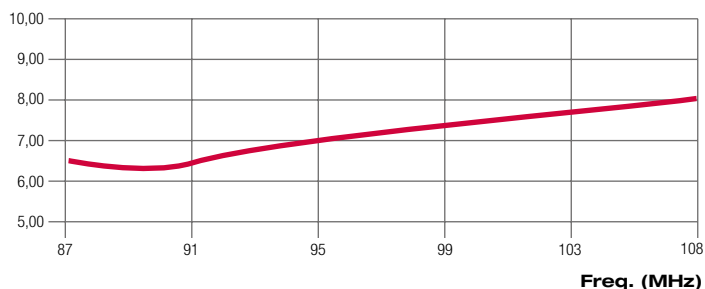
ANTENNA FEATURES

- Double dipole antenna panel
- Vertical or horizontal polarization.
- Broadband 87.5÷108 MHz.
- Directional radiation pattern.
- Hot dip galvanized steel.

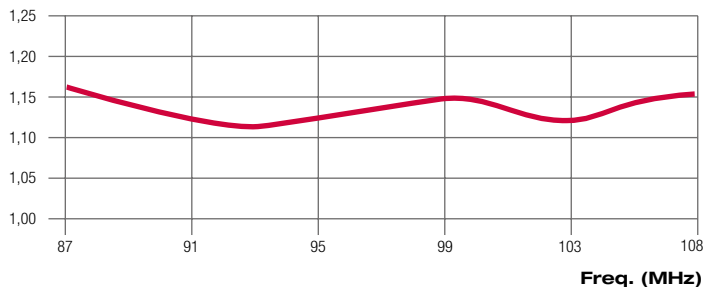
RADIATION PATTERNS (Mid Band)



GAIN (dB)



VSWR



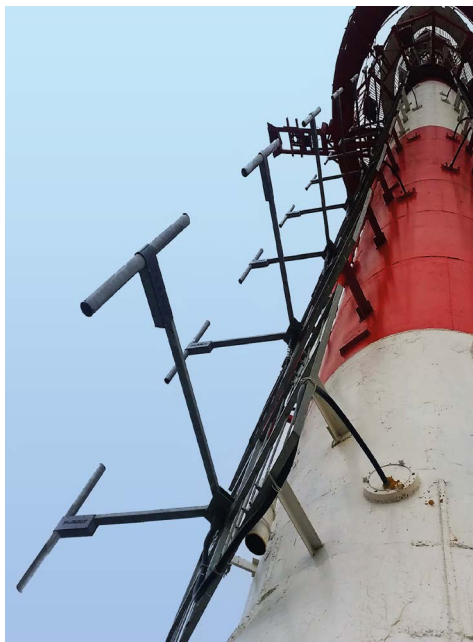
ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF - Band FM
GAIN:	7.5 dBd (9.7 dBi)
VSWR:	≤ 1.16:1 (-22.6 dB)
POLARIZATION:	Linear (vertical or horizontal)
IMPEDANCE:	50 Ohm balanced
HALF POWER BEAMWIDTH:	E-Plane - 69° H-Plane - 55°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	AVP0202420 - EIA 7/8" - max 5000W rms AVP0202421 - DIN 7/16" fem. - max 3000W rms AVP0202428 - EIA 1+5/8" - max 15000W rms

MECHANICAL DATA

MATERIALS:	Hot dip galvanized steel (AVP020242X Version) Stainless steel dipoles (AVP0202428 Version)
MOUNTING:	Directly on supporting structure via Ø11 holes
MOUNTING BRACKETS:	Optional (cod. XAVP) for Ø40-114mm mast (1+1/2" - 4+1/2")
ICING PROTECTION:	Feed point radome
TREATMENTS:	Reflecting grid, dipoles and bolts in hot dip galvanized steel Silver-plated lines and connector
ANTENNA DIMENSIONS:	2200x1740x790 mm (86.6x68.5x31.1 in)
WEIGHT:	65 kg (143.3 lb)
WIND SURFACE:	0.87 m² (9.36 ft²) front - 0.24 m² (2.58 ft²) side
WIND LOAD (160 km/h and 30°C)	1.41 kN front - 0.27 kN side
SURVIVAL WIND:	220 km/h (136.7 mph)
PACKING DIMENSIONS:	Wooden cage (ISMP-15) 2300x1850x1000 mm - 120 kg (90.5x72.8x39.3 in - 264.5 lb)

Specification are subject to change without notice



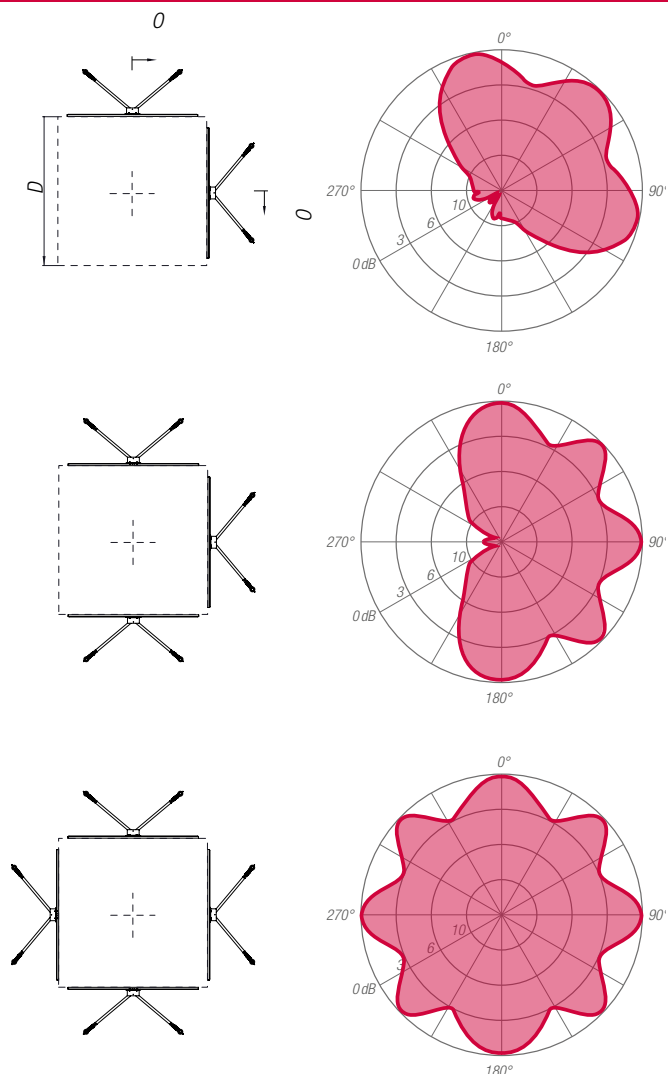
ARRAY FEATURES

- 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	≤ 1.17 in the operating channels or ≤ 1.25 throughout the frequency range Antenna system VSWR value also depending from the supporting structure
POLARIZATION	Linear (Vertical or 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	10.5	11.22	158 (348.3)	2.7 (8.9)	2,8
4	1	13.5	22.39	313(690.0)	5.5 (18.0)	5,7
6	1	15.3	33.84	472 (1040.5)	8.3 (27.2)	8,5
8	1	16.5	44.67	639 (1408.7)	11.1 (36.4)	11,3
12	1	18.3	67.61	956 (2107.6)	17.1 (56.1)	17,0
1	2	5.3	3.39	158 (348.3)	1.3 (4.1)	1,7
2	2	8.3	6.76	313 (690.0)	2.7 (8.9)	3,4
4	2	11.3	13.49	639 (1408.7)	5.5 (18.0)	6,7
6	2	13.1	20.42	956 (2107.6)	8.3 (27.2)	10,1
8	2	14.3	26.92	1265 (2788.8)	11.1 (36.4)	13,5
12	2	17.1	51.29	1903 (4195.4)	17.1 (56.1)	20,2
1	3	3.6	2.29	236 (520.3)	1.3 (4.1)	2,0
2	3	6.6	4.57	472 (1040.5)	2.7 (8.9)	3,9
4	3	11.3	9.12	956 (1408.7)	5.5 (18.0)	7,8
6	3	13.1	18.80	1429 (3150.4)	8.3 (27.2)	11,7
8	3	14.3	18.20	1903 (4195.4)	11.1 (36.4)	15,6
12	3	17.1	27.54	2854 (6291.9)	17.1 (56.1)	228,5
1	4	2.6	1.82	313 (690.0)	1.3 (4.1)	2,0
2	4	5.6	3.63	639 (1408.7)	2.7 (8.9)	3,9
4	4	8.6	7.24	1265 (2788.8)	5.5 (18.0)	7,8
6	4	10.4	10.97	1903 (4195.4)	8.3 (27.2)	11,7
8	4	11.6	14.45	2959 (6303.0)	11.1 (36.4)	15,6
12	4	13.4	21.88	3834 (8452.5)	17.1 (56.1)	23,5

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) Referred to AVP020242X version without mounting hardware.

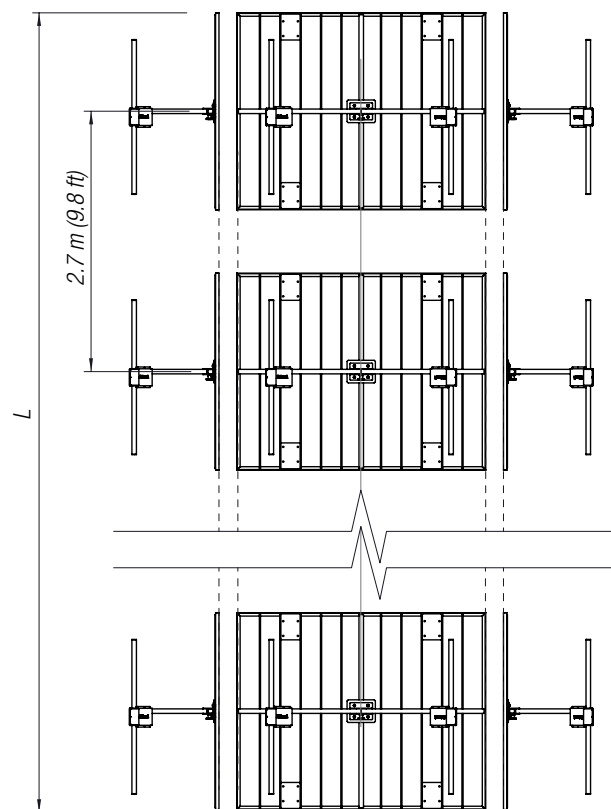
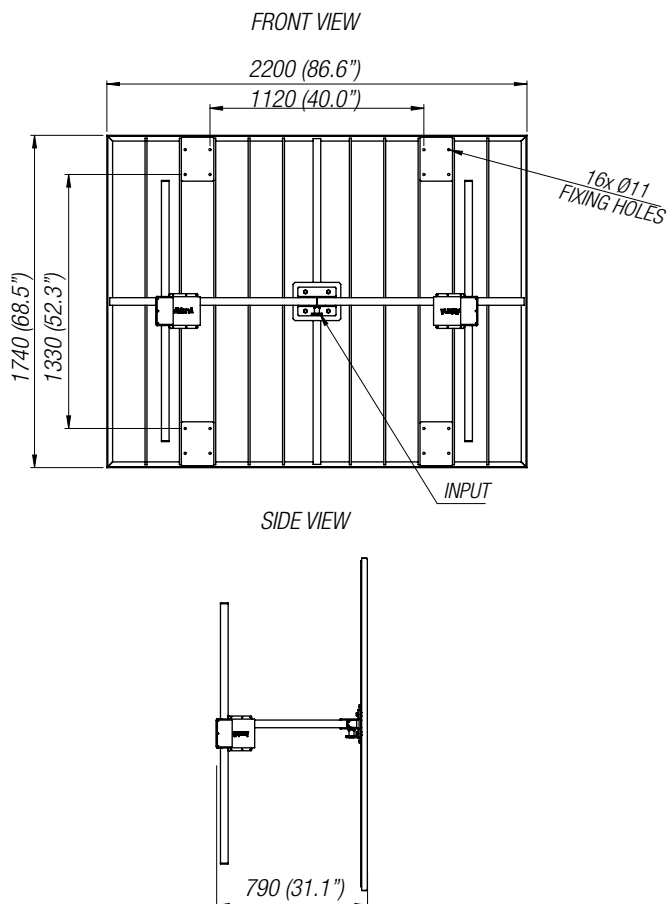
(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

(L) Total Antenna Height.

Specification are subject to change without notice

ANTENNA DIMENSIONAL DETAILS

ARRAY VERTICAL HEIGHT

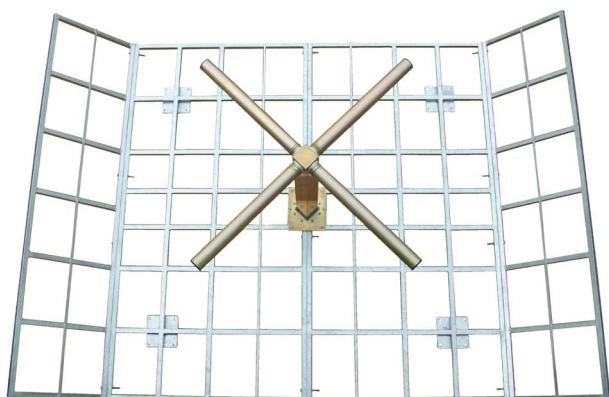


Note:
Total Antenna Height (L) is subject to change according to requirement.

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy

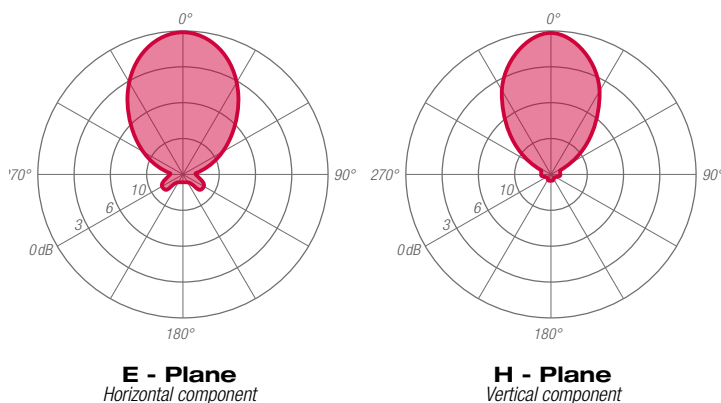
Specification are subject to change without notice



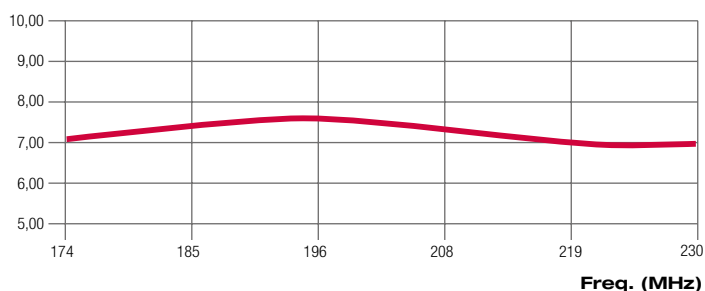
ANTENNA FEATURES

- Double dipole antenna panel.
- Circular, Elliptical, Horizontal, Vertical polarization.
- Broadband 87.5÷108 MHz.
- Directional radiation pattern.
- Demountable.
- Pressurizable.
- Aluminium or hot dip galvanized steel version.

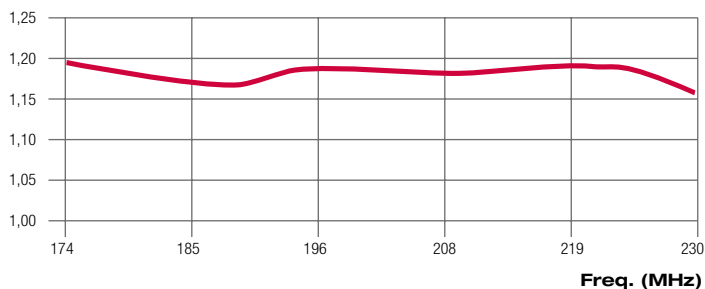
RADIATION PATTERNS (Mid Band)



GAIN (dB)



VSWR



ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF - Band FM
GAIN:	3 dBd (5.2 dBi)
VSWR:	< 1.19:1 (-21.23 dB)
POLARIZATION:	Mixed, circular, vertical, horizontal
IMPEDANCE:	50 Ohm balanced
HALF POWER BEAMWIDTH:	Vertical component: E-Plane - 79° - H-Plane - 62° Horizontal component: E-Plane - 63° - H-Plane - 119°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	APX0202510 - 2x EIA 7/8" - max 2x 2500W rms APX0202520 - 2x EIA 7/8" - max 2x 2500W rms

MECHANICAL DATA

MATERIALS:	Reflecting grid in Hot dip galvanized st (APX0202520 version) Reflecting grid in aluminum (APX0202510 version)
MOUNTING:	Directly on supporting structure via Ø11 holes
MOUNTING BRACKETS:	Optional (cod. XZACP) for ø60-114mm (2.36"- 4+1/2") mast
ICING PROTECTION:	Dipoles covered by Fiberglass radome
TREATMENTS:	Dipoles and antenna body military norms treatment (MIL-C-5541) Reflecting grid in Hot dip galvanized st (APX0202520 version) Reflecting grid in aluminum (APX0202510 version) Silver-plated lines and connector
ANTENNA DIMENSIONS:	2790x2000x890 mm (109.8x78.7x35.1 in)
WEIGHT:	80 kg (176.3 lb) (APX0202520 version) 50 kg (110.2 lb) (APX0202510 version)
WIND SURFACE:	1.25 m² (13.4 ft²) front - 0.36 m² (3.8 ft²) side
WIND LOAD (160 km/h and 30°C)	1.88 kN front - 0.47 kN side
SURVIVAL WIND:	220 km/h (136.7 mph)
PACKING DIMENSIONS:	Dipoles: box 1100x300x300 (43.3x11.8x11.8 in) Reflecting grid: box 2200x1200x135 (86.6x47.2x5.3 in) APX0202520: 110 kg (242.5 lb) APX0202510: 80 kg (110.2 lb)

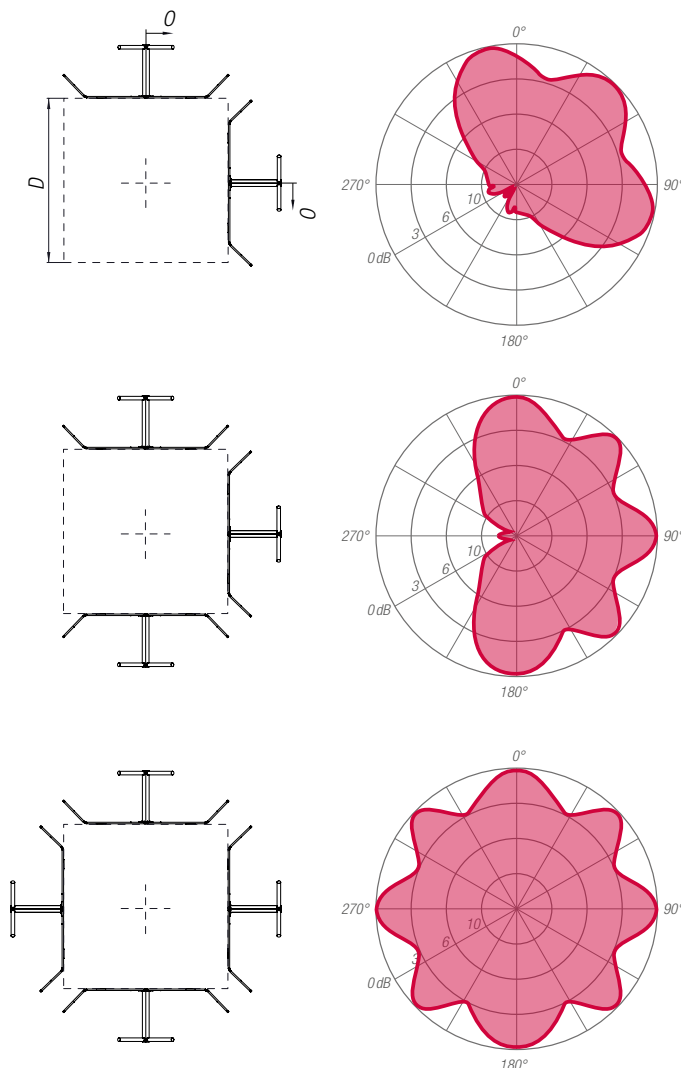
ARRAY FEATURES

- 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
POLARIZATION	Mixed, circular, 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	6.0	3.98	128 (282.2)	4.9 (16.0)	3,76
4	1	9.0	7.94	253 (557.7)	10.3 (33.7)	7,52
6	1	10.8	12.02	397 (875.2)	15.7 (51.5)	11,28
8	1	12.0	15.85	519 (1144.2)	21.1 (69.2)	15,04
1	2	0.3	1.07	128 (282.2)	2.2 (7.2)	3,44
2	2	3.3	2.14	253 (557.7)	4.9 (16.0)	4,71
4	2	6.4	4.37	519 (1144.2)	10.3 (33.7)	9,43
6	2	8.1	6.46	776 (1710.8)	15.7 (51.5)	14,14
8	2	9.4	8.71	1025 (2258.7)	21.1 (69.2)	18,85
1	3	-0.3	0.93	191 (421.1)	2.2 (7.2)	2,83
2	3	2.7	1.86	397 (875.2)	4.9 (16.0)	5,66
4	3	5.7	3.72	776 (1710.8)	10.3 (33.7)	11,33
6	3	7.5	5.62	1191 (2625.7)	15.7 (51.5)	2,83
8	3	8.7	7.41	1552 (3421.5)	21.1 (69.2)	5,66
1	4	0.6	1.15	253 (557.7)	2.2 (7.2)	11,33
2	4	2.5	1.78	519 (1144.2)	4.9 (16.0)	22,66
4	4	5.5	3.55	1025 (2258.7)	10.3 (33.7)	7.6
6	4	7.2	5.25	1552 (3421.5)	15.7 (51.5)	11.4
8	4	8.5	7.08	2479 (5465.2)	21.1 (69.2)	15.2

(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) Referred to Aluminum model APX0202510 and without mounting hardware.

(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

(L) Total Antenna Height.

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.

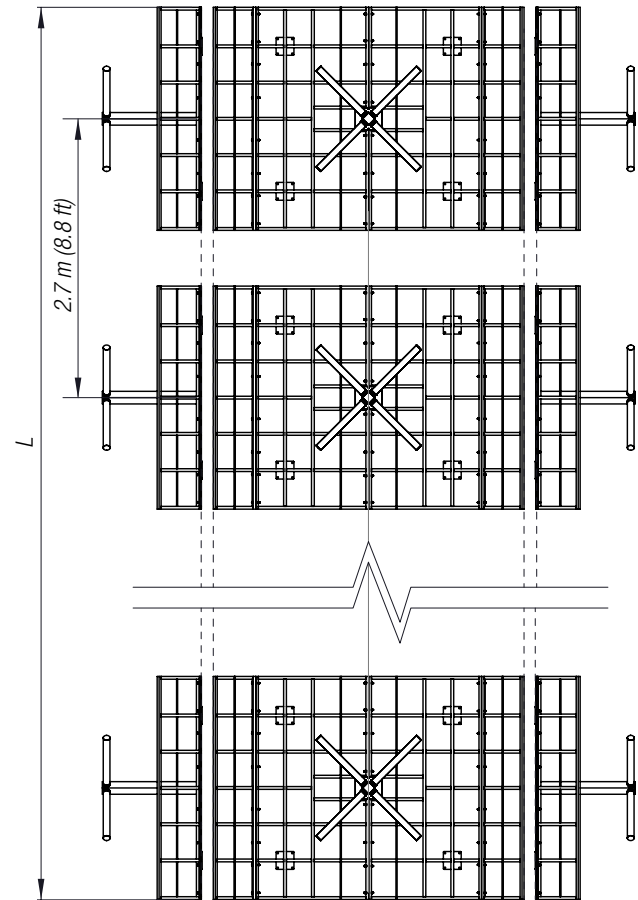
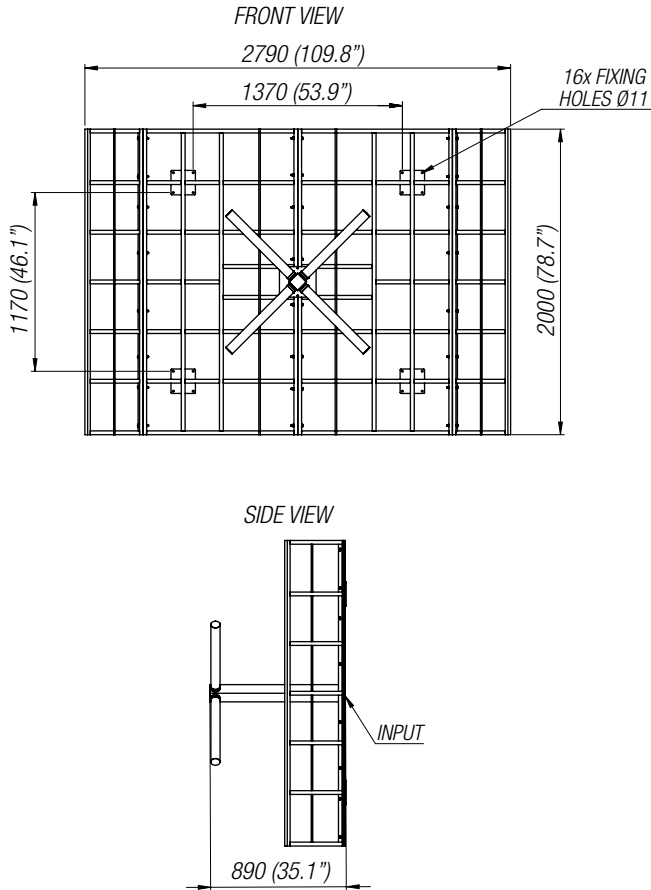
Specification are subject to change without notice

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ANTENNA DIMENSIONAL DETAILS

ARRAY VERTICAL HEIGHT

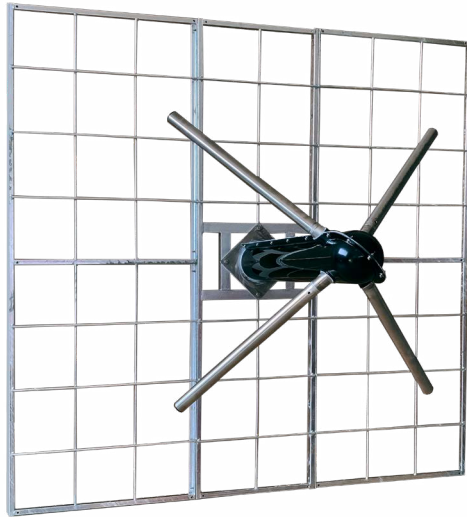


Note:
Total Antenna Height (L) is subject to change according to requirement.

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy

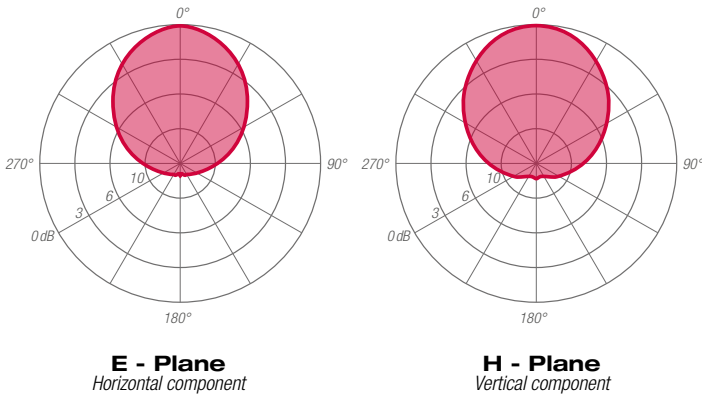
Specification are subject to change without notice



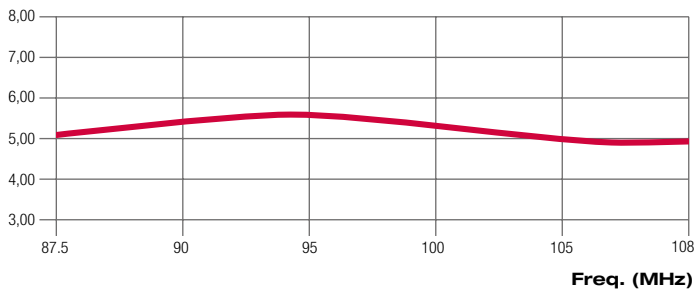
ANTENNA FEATURES

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

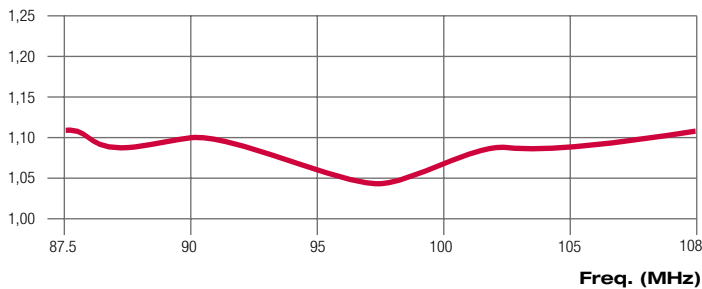
RADIATION PATTERNS (Mid Band)



GAIN (dB)



VSWR



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 m² (6.35 ft²) front - 0.28 m² (3.01 ft²) 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)



ARRAY FEATURES

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

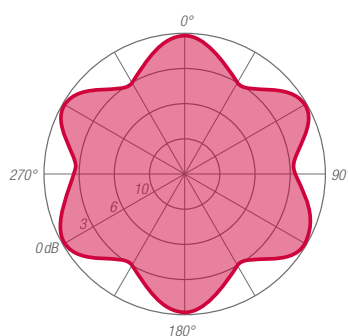
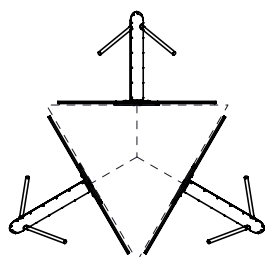
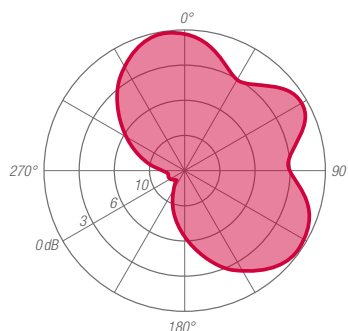
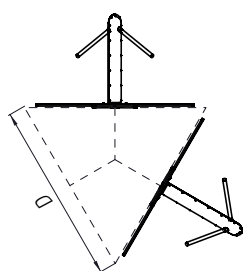
ARRAY ELECTRICAL DATA

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.

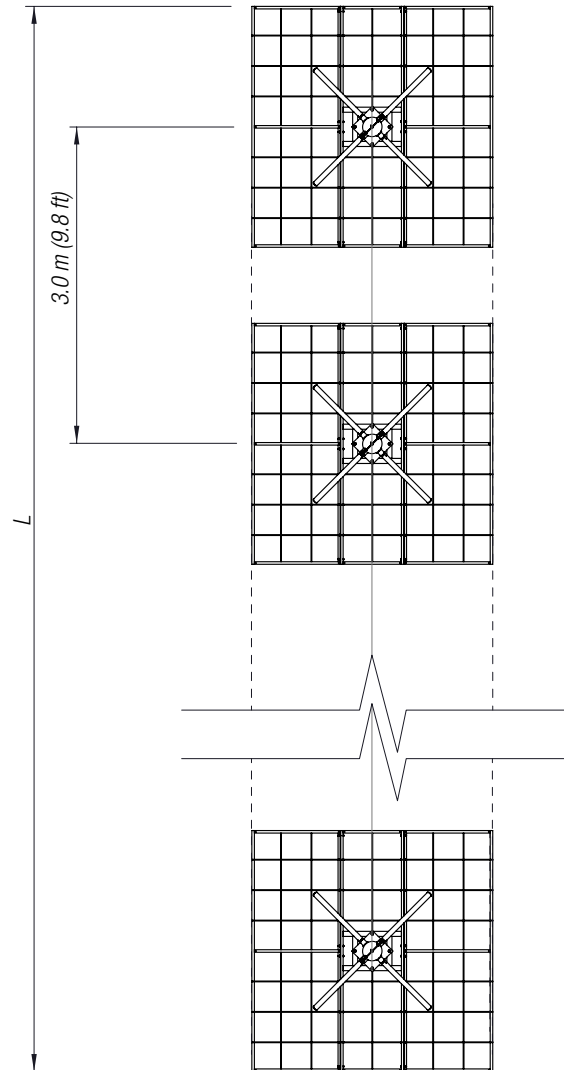
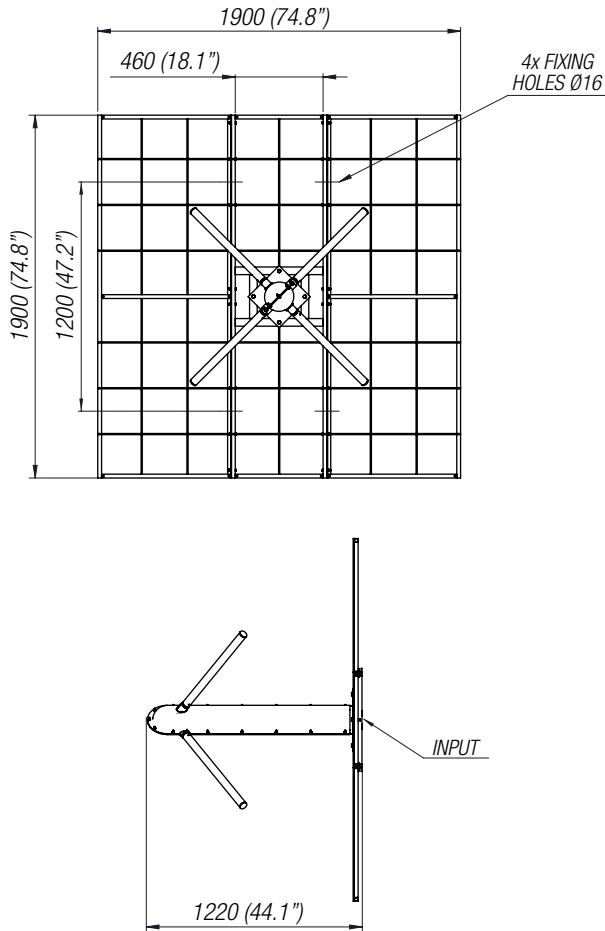
(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

(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

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy

Specification are subject to change without notice

TELECOMUNICAZIONI ALDENA SRL

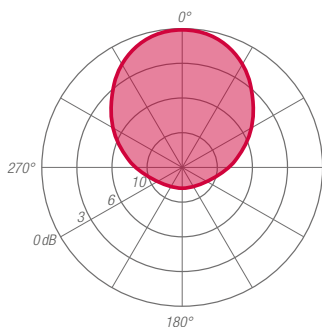
www.aldena.it - aldena@aldena.it



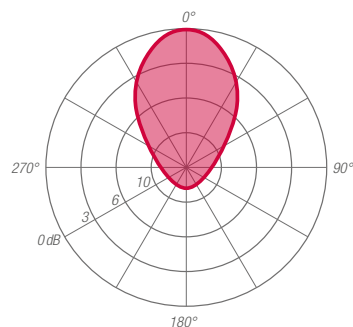
ANTENNA FEATURES

- Double dipole antenna panel
- Horizontal polarization.
- Broadband 87.5÷108 MHz.
- Omnidirectional radiation pattern.
- Suitable for triangular tower.

RADIATION PATTERNS (Mid Band)

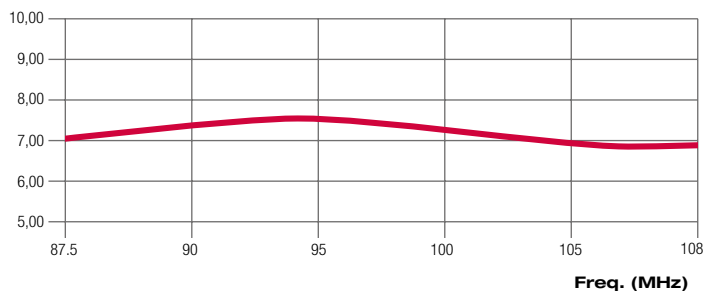


E - Plane
Horizontal component

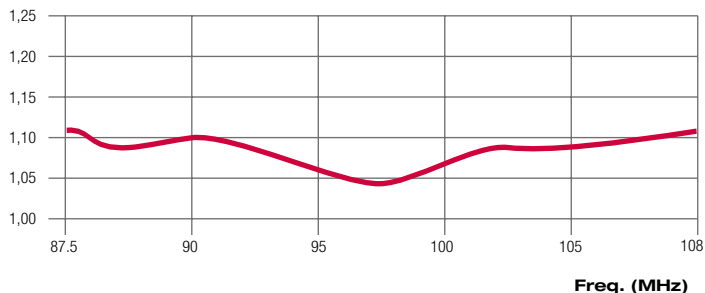


H - Plane
Vertical component

GAIN (dB)



VSWR



ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF - Band FM
GAIN:	7.0 dBd (9.15 dBi)
VSWR:	< 1.2:1 (-20.8 dB)
POLARIZATION:	Horizontal
IMPEDANCE:	50 Ohm balanced
HALF POWER BEAMWIDTH:	E-Plane - 80° - H-Plane - 56°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	AHP0202421 - DIN 7/16" - max 3000W rms AHP0202422 - EIA 7/8" - max 5000W rms

MECHANICAL DATA

MATERIALS:	Hot dip galvanized steel
MOUNTING:	Directly on supporting structure via Ø18mm holes or 12mm rails
MOUNTING BRACKETS:	Optional (cod. XAVP) for Ø40-114mm mast (1+1/2" - 4+1/2")
ICING PROTECTION:	Dipoles covered by Fiberglass radome
TREATMENTS:	Hot dip galvanized steel reflecting grid Silver-plated lines and connector
ANTENNA DIMENSIONS:	2490x1740x900 mm (98x68.5x35.4 in)
WEIGHT:	72 kg (158.73 lb)
WIND SURFACE:	0.98 m² (6.35 ft²) front - 0.2 m² (3.01 ft²) side
WIND LOAD (160 km/h and 30°C)	1.7 kN front - 0.87 kN side
SURVIVAL WIND:	220 km/h (136.7 mph)
PACKING DIMENSIONS:	Wooden cage (ISMP-15) 2500x1750x1000 mm - 85 kg (98.4x68.9x39.3 in - 187.4 lb)

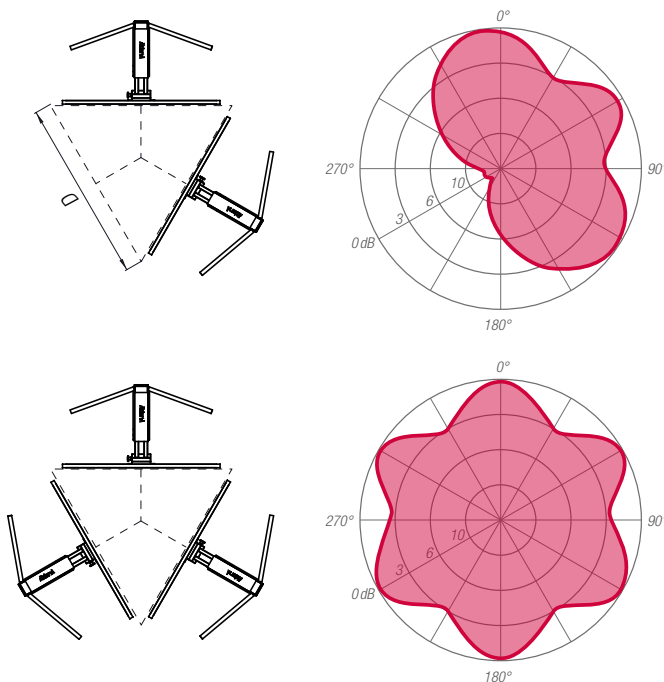
ARRAY FEATURES

- 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	≤ 1.2 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.

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 ⁽⁴⁾ m (ft)	WIND LOAD ⁽³⁾ kN
1	2	4.0	2.5	164 (361.55)	2.5 (8.20)	1.7
2	2	6.6	4.5	328 (723.11)	5.2 (17.06)	3.4
4	2	9.5	8.8	656 (1446.23)	10.6 (34.77)	6.8
6	2	11.2	13.1	984 (2169.35)	16 (52.49)	10.2
8	2	12.4	17.3	1312 (2892.46)	21.4 (70.20)	13.6
1	3	1.9	1.5	246 (542.33)	2.5 (8.20)	2.2
2	3	4.5	2.8	492 (1084.67)	5.2 (17.06)	4.4
4	3	7.4	5.5	984 (2169.35)	10.6 (34.77)	8.8
6	3	9.1	8.1	1476 (3254.02)	16 (52.49)	13.2
8	3	10.3	10.7	1968 (4338.69)	21.4 (70.20)	17.6

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.

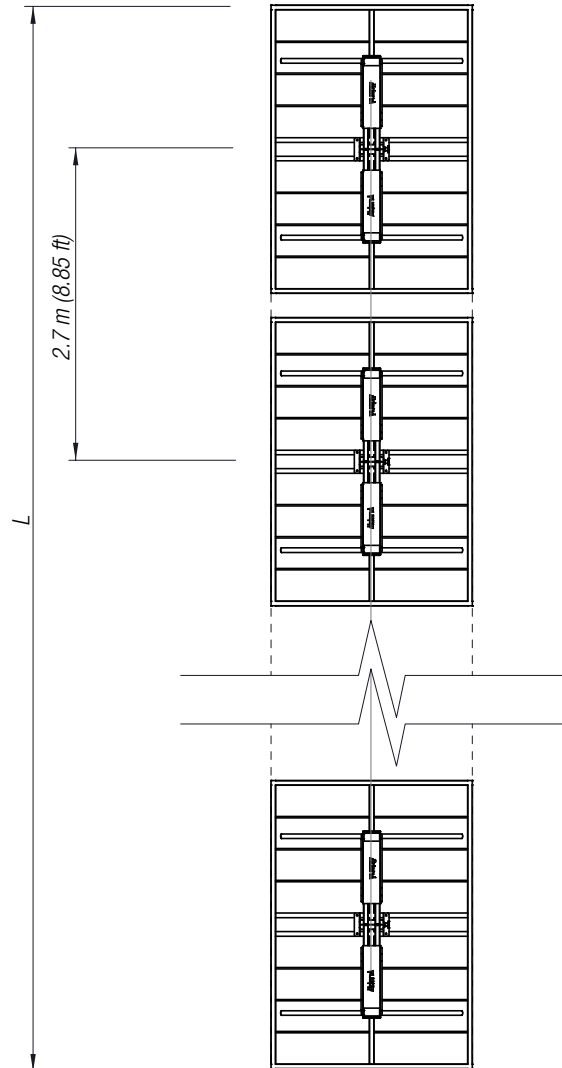
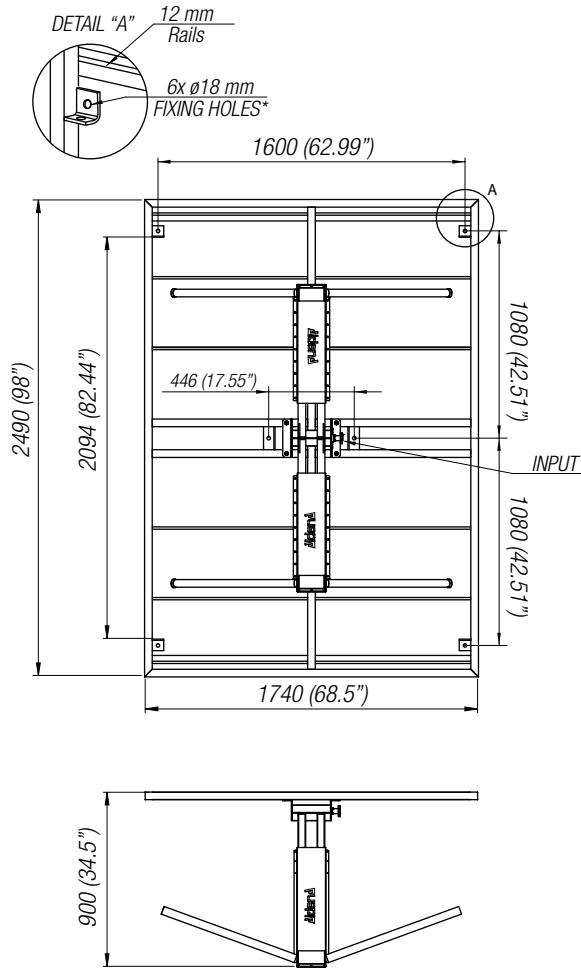
(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

(4) Total Antenna Height.

Specification are subject to change without notice

ANTENNA DIMENSIONAL DETAILS

ARRAY VERTICAL HEIGHT



* 6 fixing holes for vertical polarization and 6 fixing holes for horizontal polarization.

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy

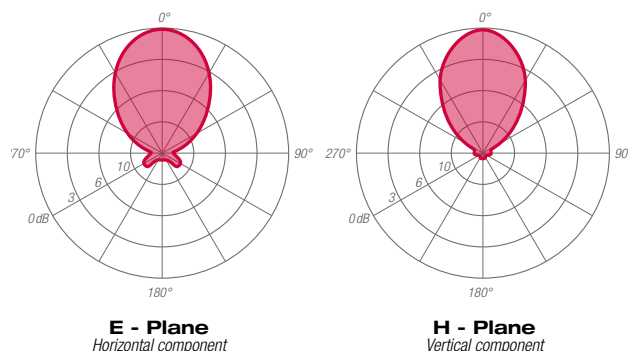
Specification are subject to change without notice



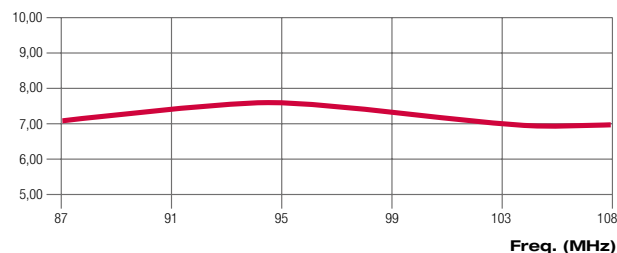
ANTENNA FEATURES

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

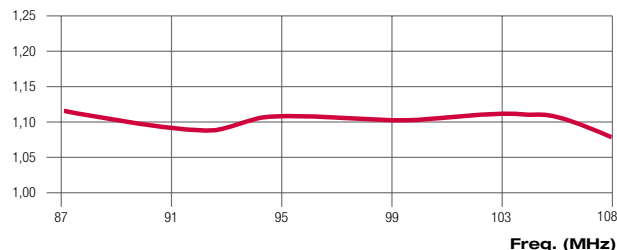
RADIATION PATTERNS (Mid Band)



GAIN (dB)



VSWR



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

MECHANICAL DATA

MATERIALS:	Hot dip galvanized steel
MOUNTING:	Directly on supporting structure via Ø11holes
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 m² (10.7 ft²) front - 0.59 m² (6.35 ft²) 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



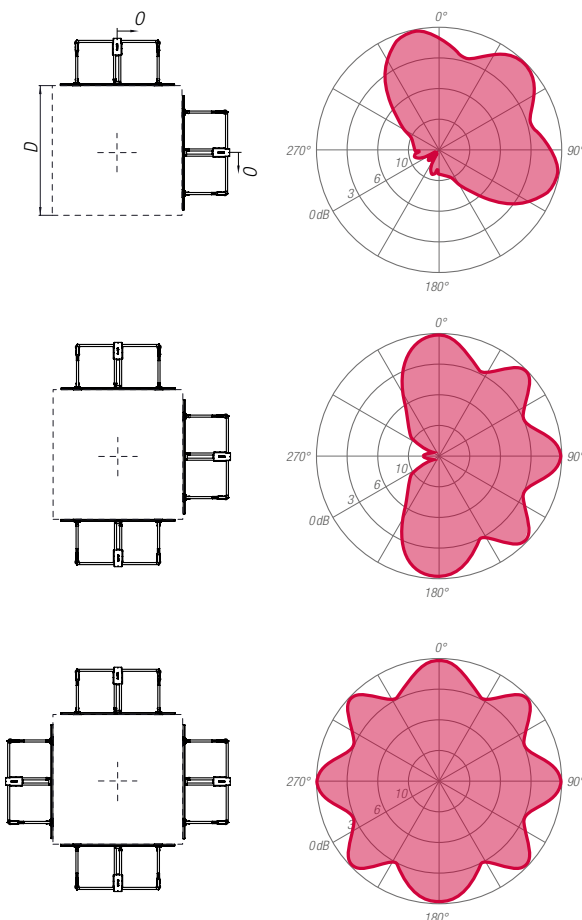
ARRAY FEATURES

- 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 ⁽⁴⁾ 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.

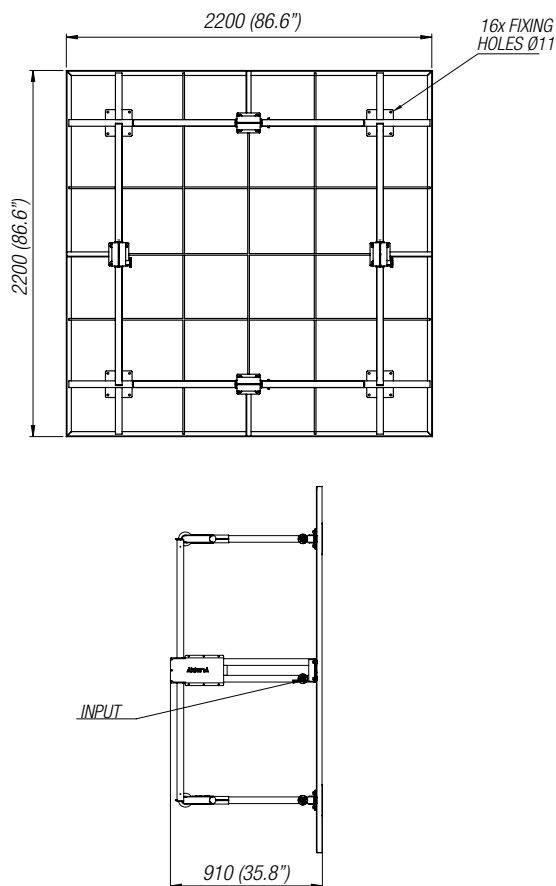
(2) Without mounting hardware.

(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

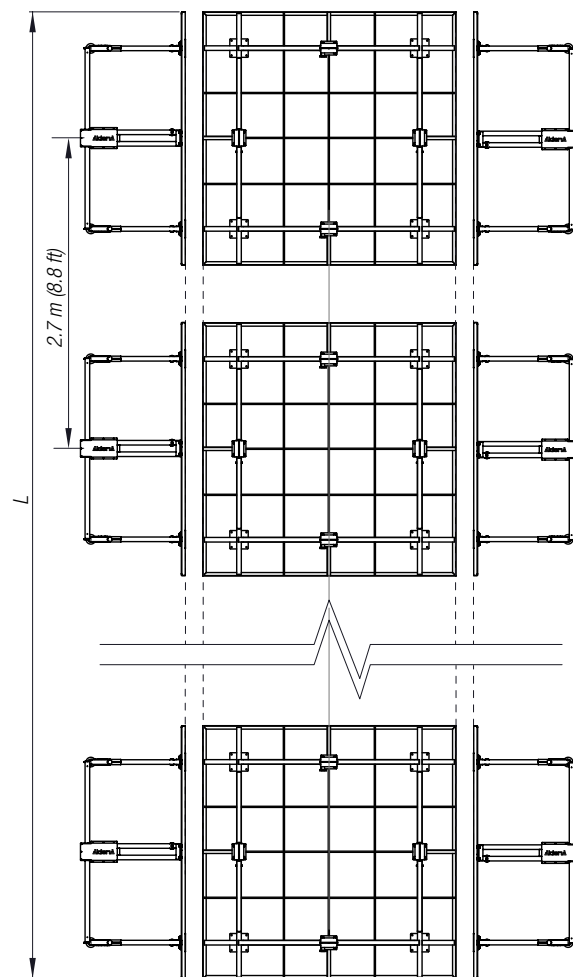
(4) Total Antenna Height.

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

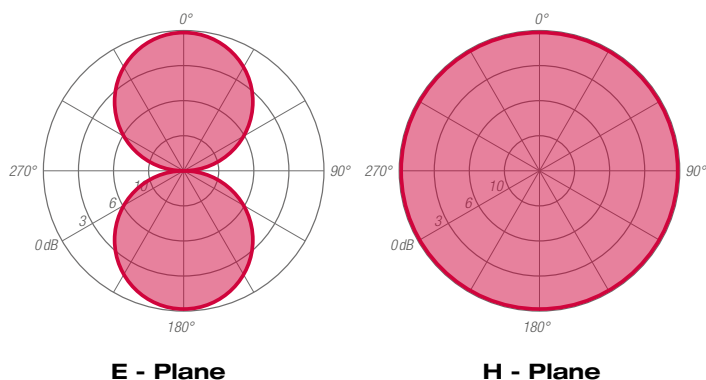
Specification are subject to change without notice



ANTENNA FEATURES

- Ground plane antenna.
- Vertical polarization.
- Broadband 87.5÷108 MHz.
- Omnidirectional radiation pattern.
- Demountable.

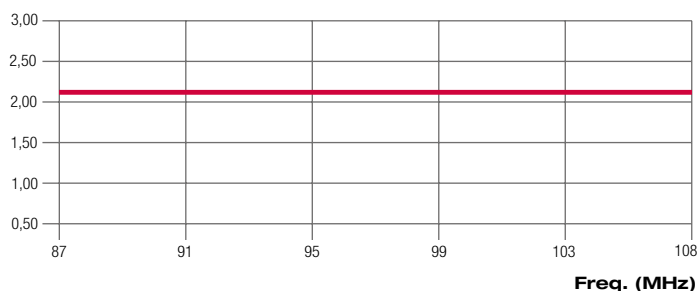
RADIATION PATTERNS (Mid Band)



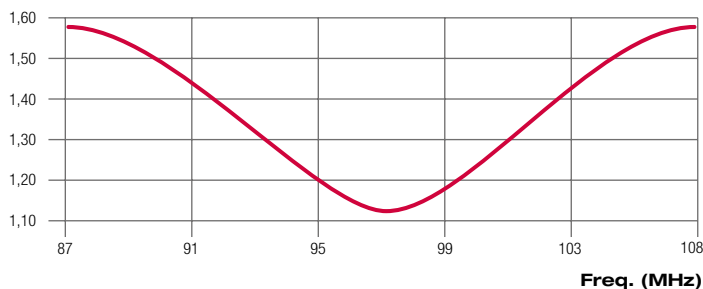
ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	VHF - Band FM
GAIN:	2.15 dBi
VSWR:	≤ 1.65:1 (-12.0 dB)
POLARIZATION:	Vertical
IMPEDANCE:	50 Ohm unbalanced
HALF POWER BEAMWIDTH:	Omnidirectional
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	ASGP010216- DIN 7/16 - max 1500W rms ASGP010202- "N" female - max 800W rms

GAIN (dB)



VSWR

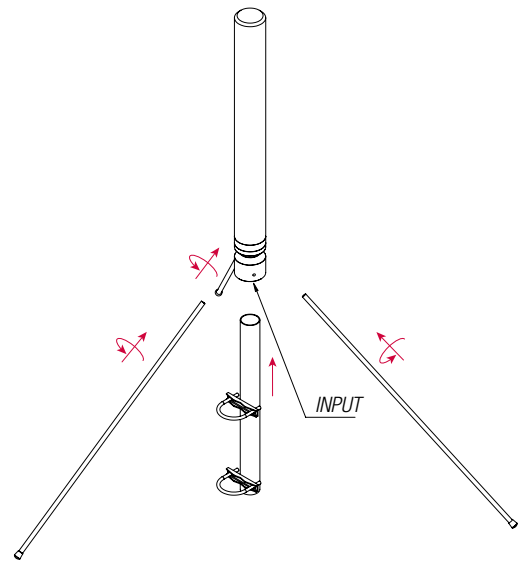
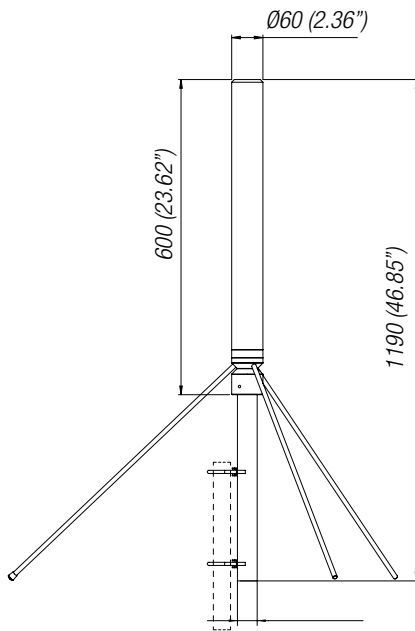


MECHANICAL DATA

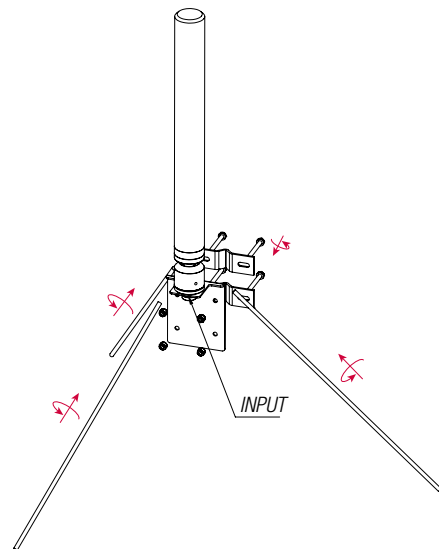
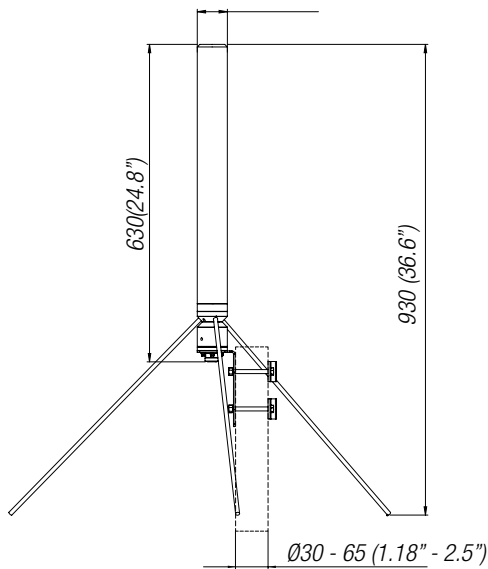
MATERIALS:	Aluminum body Stainless steel brackets
MOUNTING:	Directly on supporting structure
MOUNTING BRACKETS:	Included for Ø30÷65mm pipe (Ø 1.18" - 2+1/2")
TREATMENTS:	Anodizing body
ANTENNA DIMENSIONS:	1190x60 mm (46.85x2.36 in)
ANTENNA WEIGHT:	1.5 kg (3.30 lb) (ASGP010202) 3.4 kg (7.35 lb) (ASGP010216)
PACKING DIMENSIONS:	Box 1000x210 - 5.5kg (39.37x8.26 in - 12.12lb)

ANTENNA DIMENSIONAL DETAILS

ASGP010202 Version



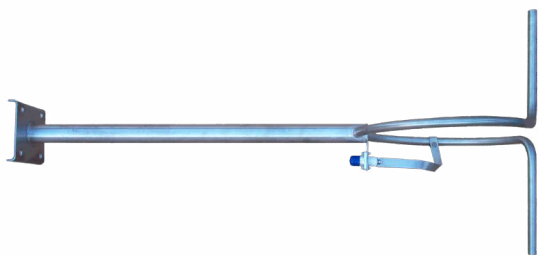
ASGP010216 Version



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

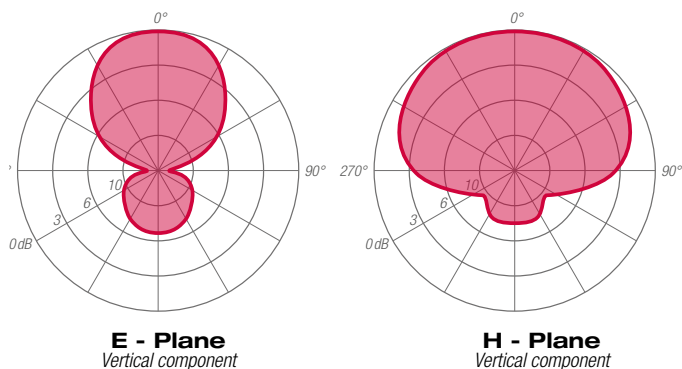
Specification are subject to change without notice



ANTENNA FEATURES

- Tuned antenna.
- Circular polarization.
- Bandwidth 0.2 MHz.
- Stainless steel.
- Omnidirectional radiation pattern.

RADIATION PATTERNS (Mid Band)



GAIN (dBi)

ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	0.2 MHz
GAIN:	-2.15 dBd (0 dBi)
VSWR:	≤ 1.12:1 (-25 dB)
POLARIZATION:	Circular
IMPEDANCE:	50 Ohm balanced
HALF POWER BEAMWIDTH:	Omnidirectional ± 1.5 dB in free space Omnidirectional ± 2.0 dB with pole ø104mm (4")
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	ACG0102230- N f. conn.r - max 500W rms To be tuned on field. ACG0102231- N f. conn. - max 500W rms Factory tuned. ACG0102232- DIN 7/16" f. conn. - max 1500W rms Factory tuned. ACG0102233- DIN 7/16" f. conn. - max 1500W rms To be tuned on field

MECHANICAL DATA

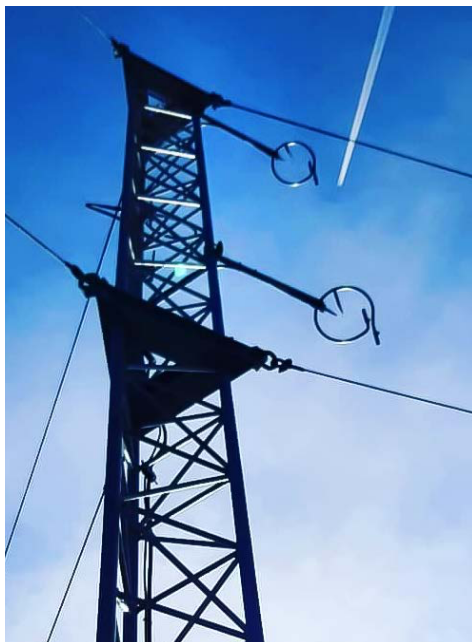
MATERIALS:	Stainless steel
MOUNTING:	Directly on supporting structure
MOUNTING BRACKETS:	Included for Ø30÷65mm pipe (Ø1.18" - 2+1/2")
TREATMENTS:	Silver plated connector
ANTENNA DIMENSIONS:	Min. 885x410x295 mm (34.8x16.1x11.6 in)*
ANTENNA WEIGHT:	4.5 kg (9.9 lb)*
WIND SURFACE:	Min. 0.01m ² (0.10ft ²) front - 0.04m ² (0.43 ft ²) side*
WIND LOAD (160 km/h and 30°C)	Min. 0.01 kN front - 0.03 kN side*
SURVIVAL WIND:	180 km/h (111.8 mph)
PACKING DIMENSIONS:	Box 1100x1100x360mm - 7kg (43.3x43.3x14.1 in - 15.4lb)

Note: (*) Dimensions depend on working frequency.
Current values are referred to 98.00 MHz frequency.

Specification are subject to change without notice

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ARRAY FEATURES

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

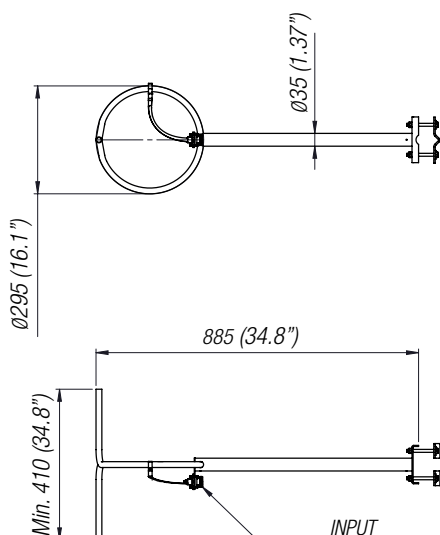
ARRAY ELECTRICAL DATA

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	≤ 1.10 in the operating channel Antenna system VSWR value also depending from the supporting structure
POLARIZATION	Circular
GAIN	Refer to table
HORIZONTAL PATTERN	Omnidirectional
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.

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 for side mount configuration

ANTENNA DIMENSIONAL DETAILS



Note: Dimensions depend on working frequency.
Current values are referred to 98.00 MHz frequency.

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy

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	0.8	1.2	18 (39.6)	3.5 (11.4)	0,06
4	1	3.8	2.4	30 (66.1)	8.9 (29.2)	0,12
6	1	5.5	3.6	46 (101.4)	14.3 (46.9)	0,18
8	1	6.8	4.8	60 (132.2)	19.7 (64.6)	0,25
12	1	8.5	7.2	94 (207.2)	30.5 (100.0)	0,37

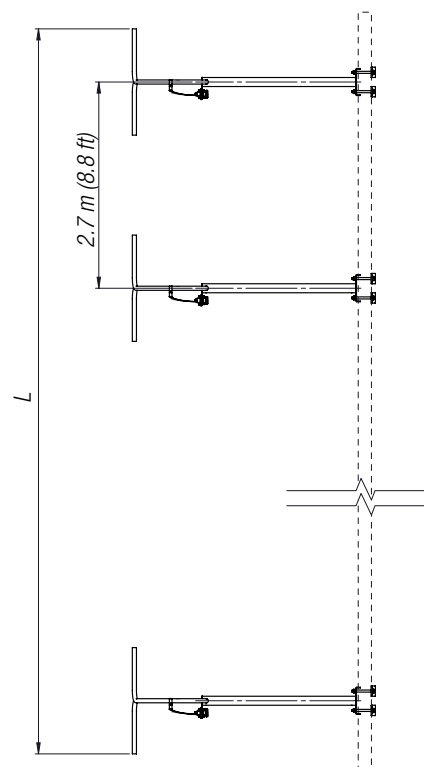
(1) Gain data is relative to half-wave dipole. Values given are nominal and assume standard harness configurations
Gain will vary depending in specific feed system, null fill and beam tilt.

(2) Without mounting hardware.

(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

(L) Total Antenna Height.

Note: Current values are referred to 98.00 MHz frequency.



Note:
Total Antenna Height (L) is 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.

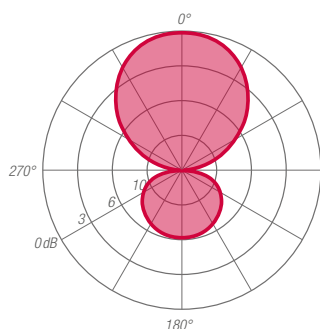
Specification are subject to change without notice



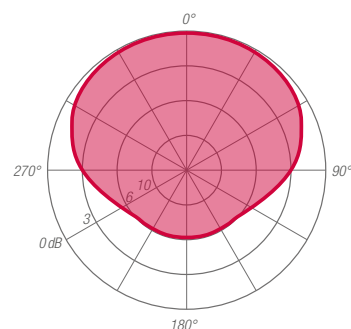
ANTENNA FEATURES

- Tuned dipole antenna.
- Vertical polarization.
- Bandwidth 0.2 MHz.
- Omnidirectional radiation pattern.
- Stainless steel.
- Demountable

RADIATION PATTERNS (Mid Band)



E - Plane

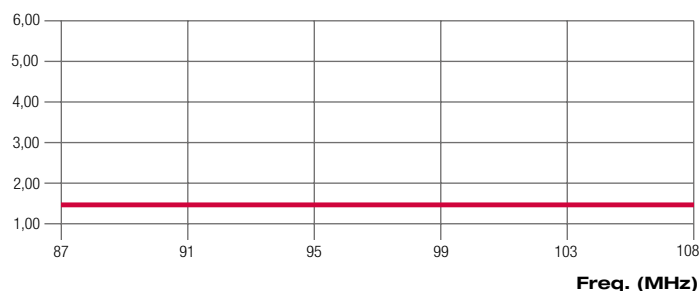


H - Plane

ELECTRICAL DATA

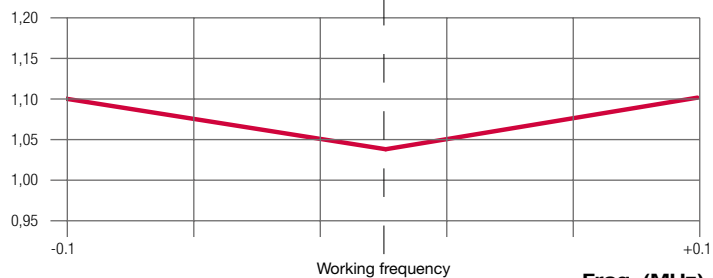
WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	0.2 MHz
GAIN:	1.5 dBd (3.7 dBi)
VSWR:	≤ 1.1:1 (-26.4 dB)
POLARIZATION:	Vertical
IMPEDANCE:	50 Ohm unbalanced
HALF POWER BEAMWIDTH:	E-Plane - 86° H-Plane - 192°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	AST0102235 - N - max 400W rms AST0102236 - DIN 7/16 female - max 1200W rms AST0102237 - EIA 7/8" - max 1800W rms

GAIN (dB)



Freq. (MHz)

VSWR



Freq. (MHz)

MECHANICAL DATA

MATERIALS:	Stainless steel body, bracket and bolts Aluminum junctions
MOUNTING:	Directly on supporting structure
MOUNTING BRACKETS:	Included for Ø60÷114mm pipe (Ø 2.36" - 4")
ICING PROTECTION:	Optional ABS radome (Code XRAST25)
TREATMENTS:	Aluminum components military norms treatment (MIL-C-5541) Silver plated connector
PRESSURIZATION:	No
ANTENNA DIMENSIONS:	1500x1000x60 mm (59.0x39.3x2.36 in) *
ANTENNA WEIGHT:	3.5 kg (7.71 lb)*
WIND SURFACE:	0.04m² (0.43ft²) front - 0.06m² (0.64 ft²) side*
WIND LOAD (160 km/h and 30°C)	0.03 kN front - 0.05 kN side*
SURVIVAL WIND:	160 km/h (99.4 mph)
PACKING DIMENSIONS:	Box 1700x200x150mm - 5kg* (66.9x7.8x5.9 in - 11.0lb)

Note: (*) Dimensions depend on working frequency.
Current values are referred to 98.00 MHz frequency.

Specification are subject to change without notice

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ARRAY FEATURES

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

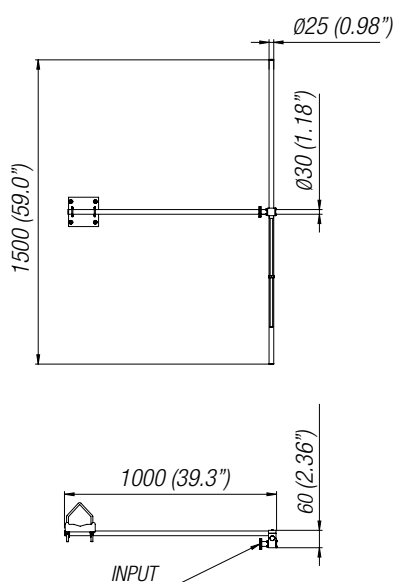
ARRAY ELECTRICAL DATA

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	≤ 1.1 in the working frequency Antenna system VSWR value also depending from the supporting structure
POLARIZATION	Vertical
GAIN	Refer to table
HORIZONTAL PATTERN	Omnidirectional
VERTICAL PATTERN	Null fill, beam tilt and special requirements to order

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 for side mount configuration

ANTENNA DIMENSIONAL DETAILS



Note: Dimensions depend on working frequency.
Current values are referred to 98.00 MHz frequency.

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy

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	5.2	3.31	26 (57.3)	4.1 (13.4)	0.10
4	1	8.42	6.64	45 (99.2)	9.5 (31.2)	0.20
6	1	10.22	10.52	67 (147.7)	14.4 (47.2)	0.30
8	1	11.49	14.09	84 (185.2)	19.6 (64.3)	0.41
12	1	13.27	21.23	126 (277.8)	30.0 (98.4)	0.60

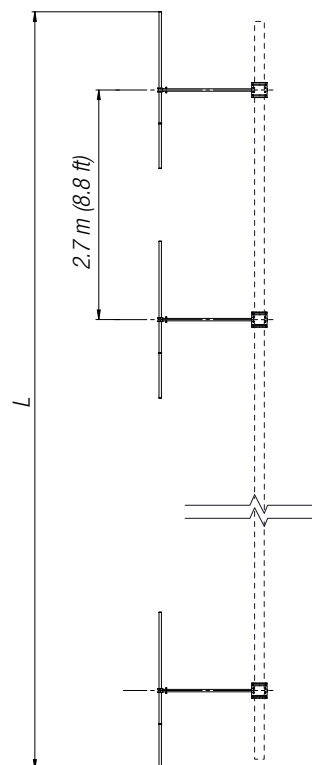
(1) Gain data is relative to half-wave dipole. Values given are nominal and assume standard harness configurations
Gain will vary depending in specific feed system, null fill and beam tilt.

(2) Without mounting hardware.

(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

(L) Total Antenna Height.

Note: Current values are referred to 98.00 MHz frequency.



Note:
Total Antenna Height (L) is 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.

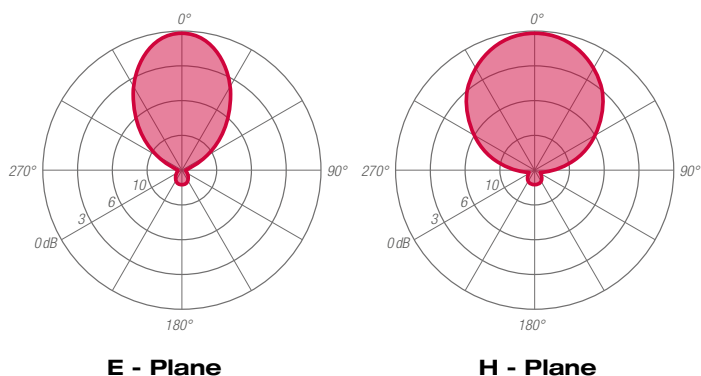
Specification are subject to change without notice



ANTENNA FEATURES

- Yagi 3 elements tuned antenna.
- Vertical or horizontal polarization.
- Bandwidth 0.2 MHz.
- Directional radiation pattern.
- Stainless steel.
- Demountable.

RADIATION PATTERNS (Mid Band)



ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	0.2 MHz
GAIN:	7.0 dBd (9.2 dBi)
VSWR:	≤ 1.1:1 (-26.4 dB)
POLARIZATION:	Vertical or horizontal
IMPEDANCE:	50 Ohm unbalanced
HALF POWER BEAMWIDTH:	E-Plane - 60° H-Plane - 90°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	AST0302335 - N - max 400W rms AST0302336 - DIN 7/16 female - max 1200W rms AST0302337 - EIA 7/8" - max 1800W rms

MECHANICAL DATA

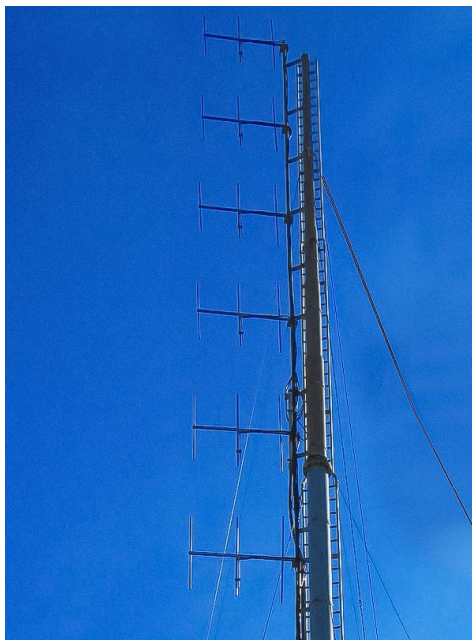
MATERIALS:	Stainless steel body, bracket and bolts Aluminum junctions
MOUNTING:	Directly on supporting structure
MOUNTING BRACKETS:	Included for Ø60÷114mm pipe (Ø 2.36" - 4")
ICING PROTECTION:	Optional ABS radome (Code XRAST25)
TREATMENTS:	Aluminum compenets military norms treatment (MIL-C-5541) Silver plated connector
PRESSURIZATION:	No
ANTENNA DIMENSIONS:	1790x1730x92.5 mm (70.6x68.1x3.64 in)*
ANTENNA WEIGHT:	5.5 kg (12.12 lb)*
WIND SURFACE:	0.04m² (0.43ft²) front - 0.16m² (1.72 ft²) side*
WIND LOAD (160 km/h and 30°C)	0.03 kN front - 0.12 kN side*
SURVIVAL WIND:	160 km/h (99.4 mph)
PACKING DIMENSIONS:	Box 1700x200x150mm - 7.5 kg* (66.9x7.8x5.9 in - 16.5 lb)

Note: (*) Dimensions depend on working frequency.
Current values are referred to 98.00 MHz frequency.

Specification are subject to change without notice

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ARRAY FEATURES

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

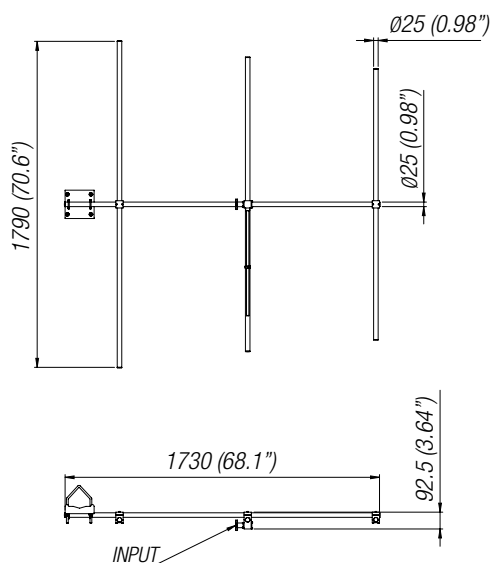
ARRAY ELECTRICAL DATA

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	≤ 1.1 in the working frequency Antenna system VSWR value also depending from the supporting structure
POLARIZATION	Vertical or horizontal
GAIN	Refer to table
HORIZONTAL PATTERN	Directional
VERTICAL PATTERN	Null fill, beam tilt and special requirements to order

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 for side mount configuration

ANTENNA DIMENSIONAL DETAILS



Note: Dimensions depend on working frequency.
Current values are referred to 98.00 MHz frequency.

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy

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	9.45	8.81	30 (66.1)	4.1 (13.4)	0.25
4	1	12.33	17.10	53 (116.8)	9.5 (31.2)	0.51
6	1	14.04	25.35	79 (174.2)	14.4 (47.2)	0.77
8	1	15.27	33.65	100 (220.4)	19.6 (64.3)	1.03
12	1	17.01	50.23	150 (330.7)	30.0 (98.4)	1.55

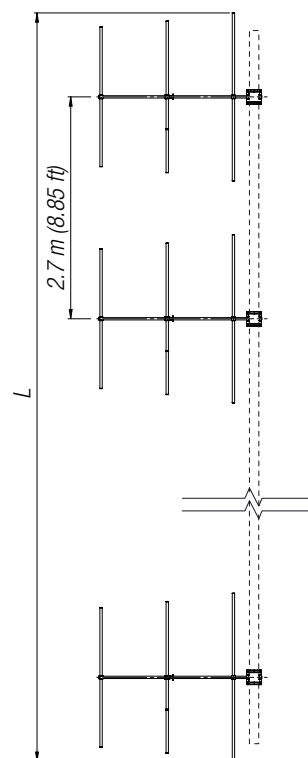
(1) Gain data is relative to half-wave dipole. Values given are nominal and assume standard harness configurations
Gain will vary depending in specific feed system, null fill and beam tilt.

(2) Without mounting hardware.

(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

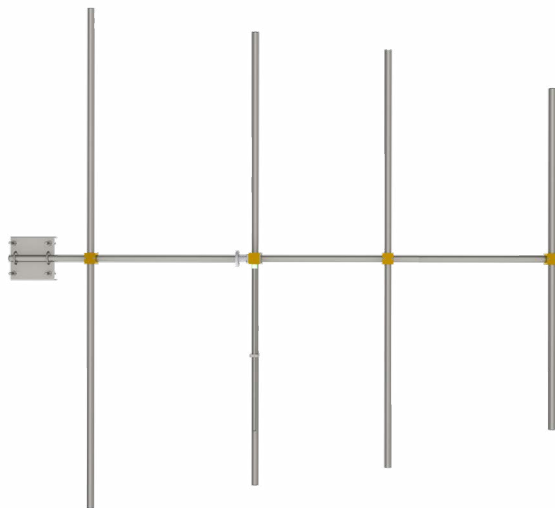
(L) Total Antenna Height.

Note: Current values are referred to 98.00 MHz frequency.



Note:
Total Antenna Height (L) is 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.

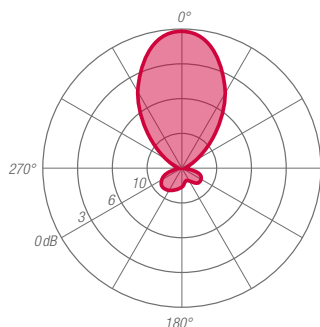
Specification are subject to change without notice



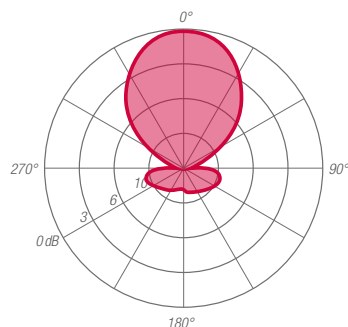
ANTENNA FEATURES

- Yagi 4 elements tuned antenna.
- Vertical or horizontal polarization.
- Bandwidth 0.2 MHz.
- Directional radiation pattern.
- Stainless steel.
- Demountable.

RADIATION PATTERNS (Mid Band)



E - Plane

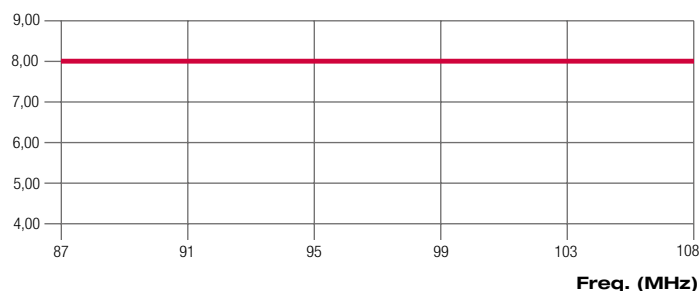


H - Plane

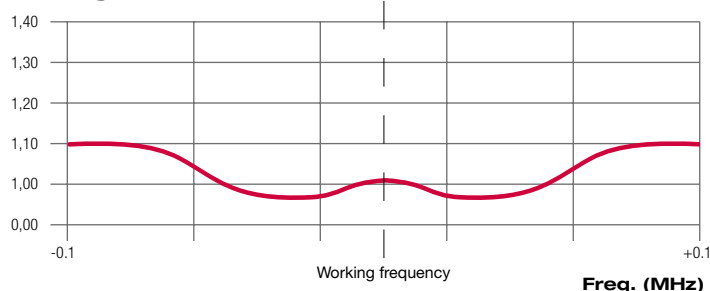
ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	0.2 MHz
GAIN:	8.0 dBd (10.2 dBi)
VSWR:	≤ 1.1:1 (-26.4 dB)
POLARIZATION:	Vertical or horizontal
IMPEDANCE:	50 Ohm unbalanced
HALF POWER BEAMWIDTH:	E-Plane - 55° H-Plane - 73°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	AST0402335 - N - max 400W rms AST0402336 - DIN 7/16 female - max 1200W rms AST0402337 - EIA 7/8" - max 1800W rms

GAIN (dB)



VSWR



MECHANICAL DATA

MATERIALS:	Stainless steel body, bracket and bolts Aluminum junctions
MOUNTING:	Directly on supporting structure
MOUNTING BRACKETS:	Included for Ø60÷114mm pipe (Ø 2.36" - 4")
ICING PROTECTION:	Optional ABS radome (Code XRAST35)
TREATMENTS:	Aluminum componets military norms treatment (MIL-C-5541) Silver plated connector
PRESSURIZATION:	No
ANTENNA DIMENSIONS:	2200x1600x110 mm (86.6x62.9x4.3 in)*
ANTENNA WEIGHT:	14 kg (33.06 lb)*
WIND SURFACE:	0.04m² (0.43 ft²) front - 0.22m² (2.36 ft²) side*
WIND LOAD (160 km/h and 30°C)	0.03 kN front - 0.17 kN side*
SURVIVAL WIND:	160 km/h (99.4 mph)
PACKING DIMENSIONS:	Box 2500x250x250mm - 15 kg* (98.4x9.8x9.8 in - 33.06 lb)

Note: (*) Dimensions depend on working frequency.
Current values are referred to 98.00 MHz frequency.



ARRAY FEATURES

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

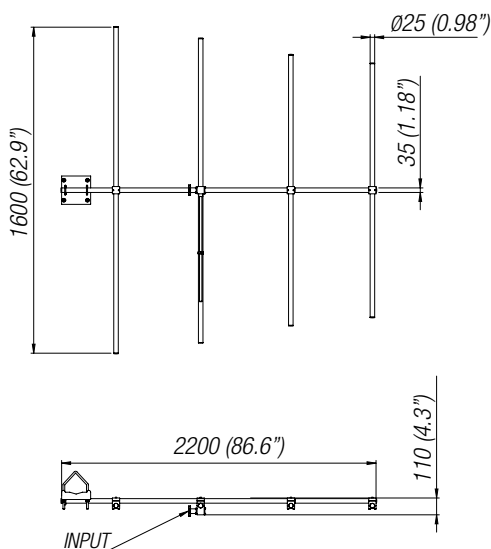
ARRAY ELECTRICAL DATA

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	≤ 1.1 in the working frequency Antenna system VSWR value also depending from the supporting structure
POLARIZATION	Vertical or horizontal
GAIN	Refer to table
HORIZONTAL PATTERN	Directional
VERTICAL PATTERN	Null fill, beam tilt and special requirements to order

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 for side mount configuration

ANTENNA DIMENSIONAL DETAILS



Note: Dimensions depend on working frequency.
Current values are referred to 98.00 MHz frequency.

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy

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	10.12	10.28	38 (83.7)	4.3 (14.01)	0.34
4	1	12.95	19.72	69 (152.1)	9.7 (31.8)	0.69
6	1	14.65	29.17	103 (227.1)	14.6 (47.9)	1.04
8	1	15.87	38.64	132 (291.0)	19.8 (64.9)	1.39
12	1	17.60	57.54	198 (463.5)	30.2 (99.1)	2.09

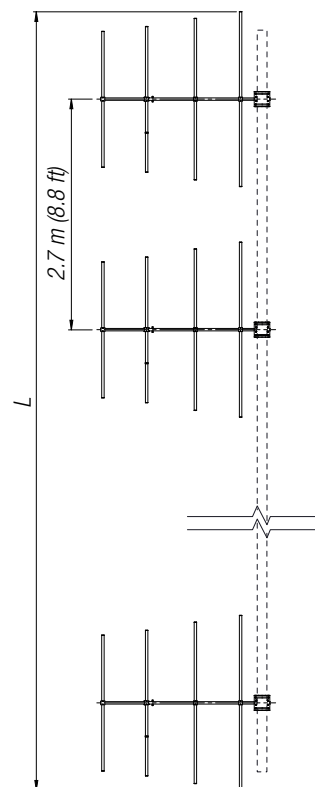
(1) Gain data is relative to half-wave dipole. Values given are nominal and assume standard harness configurations
Gain will vary depending in specific feed system, null fill and beam tilt.

(2) Without mounting hardware.

(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

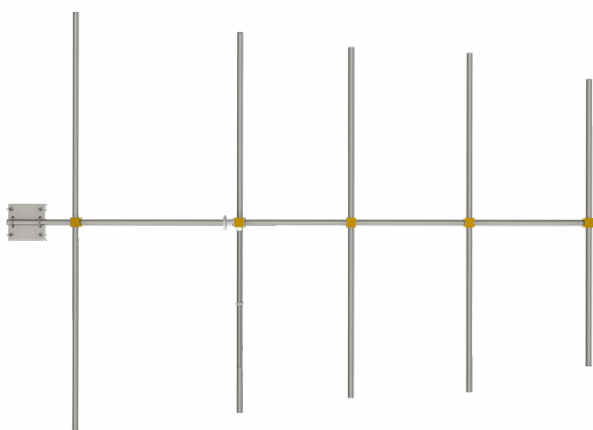
(L) Total Antenna Height.

Note: Current values are referred to 98.00 MHz frequency.



Note:
Total Antenna Height (L) is 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.

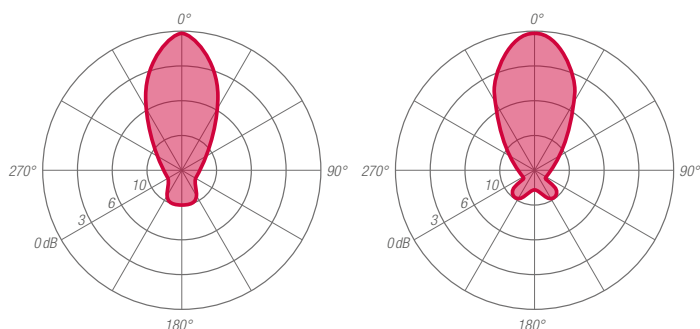
Specification are subject to change without notice



ANTENNA FEATURES

- Yagi 5 elements tuned antenna.
- Vertical or horizontal polarization.
- Bandwidth 0.2 MHz.
- Directional radiation pattern.
- Stainless steel.
- Safety parafil kit included.
- Demountable.

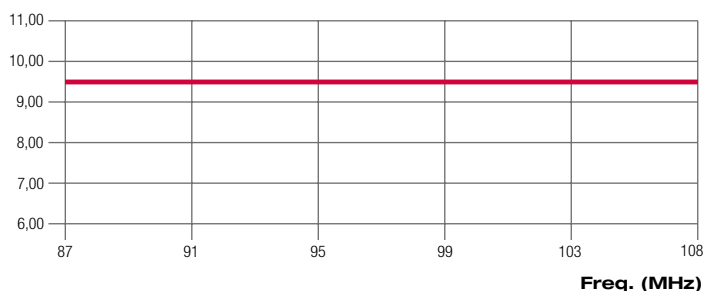
RADIATION PATTERNS (Mid Band)



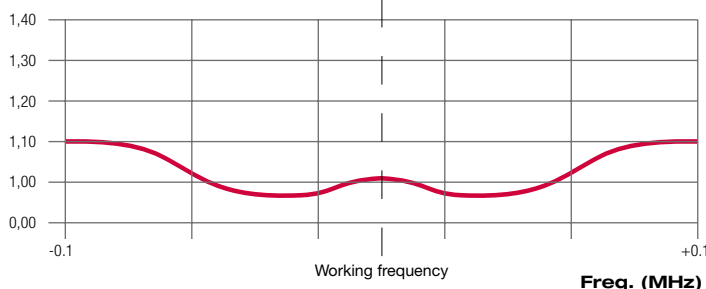
E - Plane

H - Plane

GAIN (dB)



VSWR



ELECTRICAL DATA

WORKING BAND:	87.5 - 108 MHz
BANDWIDTH:	0.2 MHz
GAIN:	9.5 dBd (11.7 dBi)
VSWR:	≤ 1.1:1 (-26.4 dB)
POLARIZATION:	Vertical or horizontal
IMPEDANCE:	50 Ohm unbalanced
HALF POWER BEAMWIDTH:	E-Plane - 39° H-Plane - 45°
LIGHTNING PROTECTION:	All metal parts DC grounded including inner conductors
AVAILABLE VERSION AND CODE:	AST0502335 - N - max 400W rms AST0502336 - DIN 7/16 female - max 1200W rms AST0502337 - EIA 7/8" - max 1800W rms

MECHANICAL DATA

MATERIALS:	Stainless steel body, bracket and bolts Aluminum junctions
MOUNTING:	Directly on supporting structure Safety parafil kit included
MOUNTING BRACKETS:	Included for Ø60÷114mm pipe (Ø 2.36" - 4")
ICING PROTECTION:	Optional ABS radome (Code XRAST35)
TREATMENTS:	Aluminum componets military norms treatment (MIL-C-5541) Silver plated connector
PRESSURIZATION:	No
ANTENNA DIMENSIONS:	2800x1600x110 mm (110.2x62.9x4.3 in)*
ANTENNA WEIGHT:	18 kg (39.6 lb)*
WIND SURFACE:	0.04m² (0.43 ft²) front - 0.27m² (2.90 ft²) side*
WIND LOAD (160 km/h and 30°C)	0.03 kN front - 0.22 kN side*
SURVIVAL WIND:	160 km/h (99.4 mph)
PACKING DIMENSIONS:	Box 2900x250x250mm - 25 kg* (114.2x9.8x9.8 in - 55.1 lb)

Note: (*) Dimensions depend on working frequency.
Current values are referred to 98.00 MHz frequency.

Specification are subject to change without notice

TELECOMUNICAZIONI ALDENASRL

www.aldena.it - aldena@aldena.it



ARRAY FEATURES

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

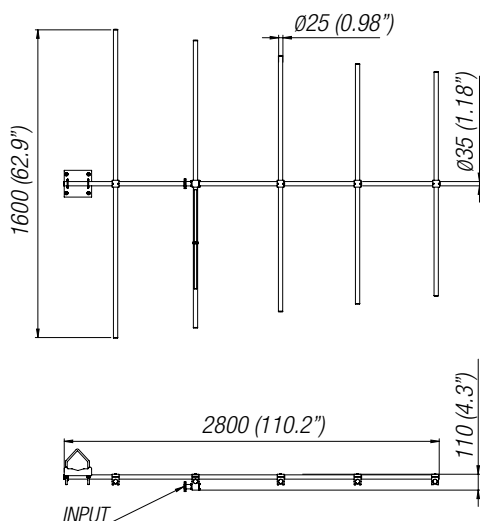
ARRAY ELECTRICAL DATA

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	≤ 1.1 in the working frequency Antenna system VSWR value also depending from the supporting structure
POLARIZATION	Vertical or horizontal
GAIN	Refer to table
HORIZONTAL PATTERN	Directional
VERTICAL PATTERN	Null fill, beam tilt and special requirements to order

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 for side mount configuration

ANTENNA DIMENSIONAL DETAILS



Note: Dimensions depend on working frequency.
Current values are referred to 98.00 MHz frequency.

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/interference simulations EM Near Field control and reduction (Environmental impact studies)
ON-SITE SERVICES	Site Survey and Inspection Installation/commissioning and supervising Drive test & EM Field strength measurements After sales maintenance
TRAINING	Technical training certification and consultancy

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	12.62	18.28	52 (114.6)	4.3 (14.01)	0.43
4	1	15.24	33.42	97 (213.8)	9.7 (31.8)	0.87
6	1	16.86	48.53	145 (319.6)	14.6 (47.9)	1.30
8	1	18.03	63.53	188 (414.4)	19.8 (64.9)	1.74
12	1	19.71	93.54	282 (621.7)	30.2 (99.1)	2.61

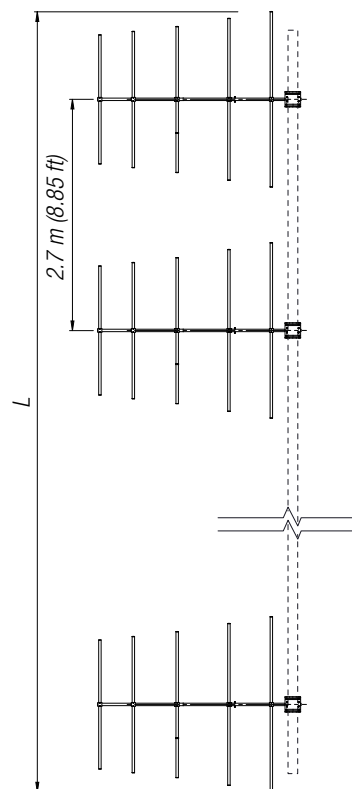
(1) Gain data is relative to half-wave dipole. Values given are nominal and assume standard harness configurations
Gain will vary depending in specific feed system, null fill and beam tilt.

(2) Without mounting hardware.

(3) 160 km/h (100 mph) wind and 30°C (86°F) air temperature.

(L) Total Antenna Height.

Note: Current values are referred to 98.00 MHz frequency.



Note:
Total Antenna Height (L) is 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.

Specification are subject to change without notice