



DATASHEET

AW3822-E-F

Common Name- 2 Port, 698-960MHz, 65° Panel

698- 960MHz	2	eRET	17.5	65°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This is a two port 65 degree sector antenna with variable electrical tilt. Remote electrical tilt (eRET) allows tilt optimisation to improve coverage and throughput.

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

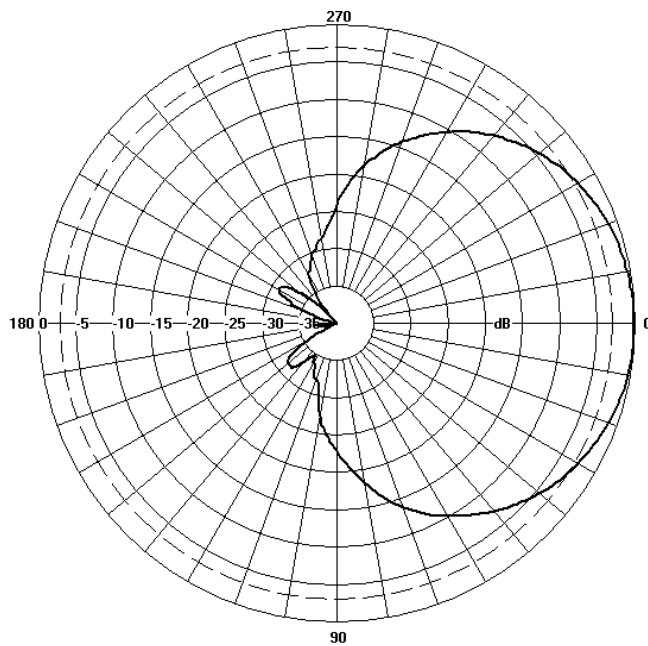
- Ultra-wide low band antenna 698-960MHz
- Integrated RCU
- Electrical down tilt 2-12deg
- Two ports for 2x2 MIMO
- Mounting bracket with variable elevation tilt (included).

The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

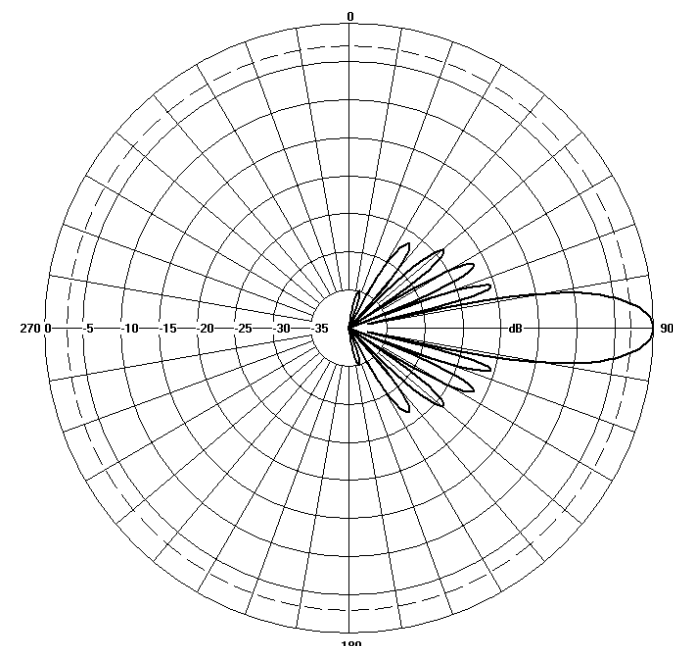
TECHNICAL SPECIFICATION

Electrical Specifications					
Frequency Range		MHz	698 - 806	806 - 880	880 - 960
Polarisation		Degree	+/-45°		
Gain	Basta	dBi	16.3±0.5	16.7±0.5	17.0±0.5
	Max	dBi	16.8	17.2	17.5
Azimuth Beamwidth		Degree	68°	65°	62°
Elevation Beamwidth		Degree	8.5°	7.5°	6.7°
Electrical Downtilt		Degree	T2° - T12°	T2° - T12°	T2° - T12°
Electrical Downtilt Deviation		Degree<	1°	1°	1°
Impedance		Ohms	50	50	50
VSWR		<	1.5	1.5	1.5
Return Loss		dB>	14	14	14
Isolation		dB>	25	25	25
Front to Back Ratio: Total Power +/-30°		dB>	22	25	25
Passive Intermodulation		dBc<	-150	-150	-150
Upper Sidelobe Suppression, Peak to 20°		dB>	15	15	15
Cross-Polar Discrimination		dB>	15	15	15
Maximum Effective Power Per Port		W	300	300	300

Representative Pattern Files



Azimuth



Elevation

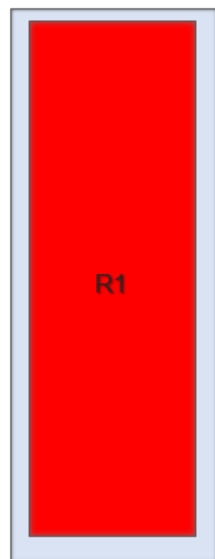
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	2585(101.8) x 295(11.6) x 145(5.7) - (LxWxD)
Packing Size (LxWxD)	mm (in)	2800(110.2) x 385(15.2) x 250(9.8) - (LxWxD)
Net Weight (antenna)	kg (lb)	25 (55)
Shipping Weight	kg (lb)	35 (77)
Connector Type (Female)	-	4.3-10
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	1046 (235)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	541 (122)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	FRP, grey
Radome Colour	RAL	7035 (light grey)
Product Compliance Environmental	-	RoHS
Lightning Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Array Layout and RET Information



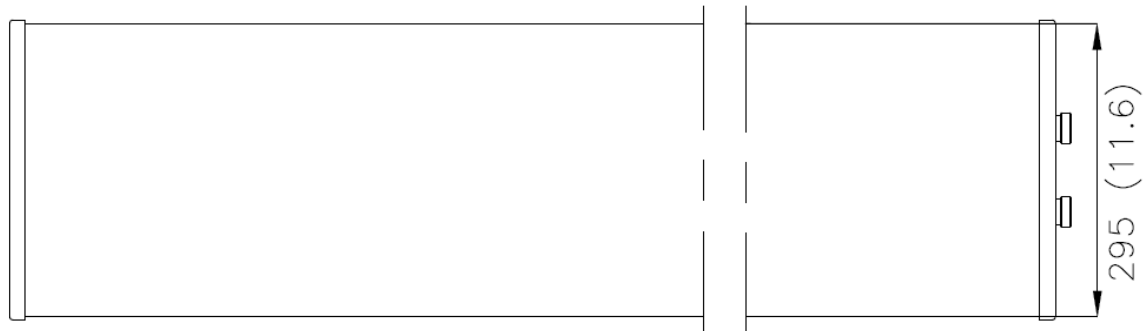
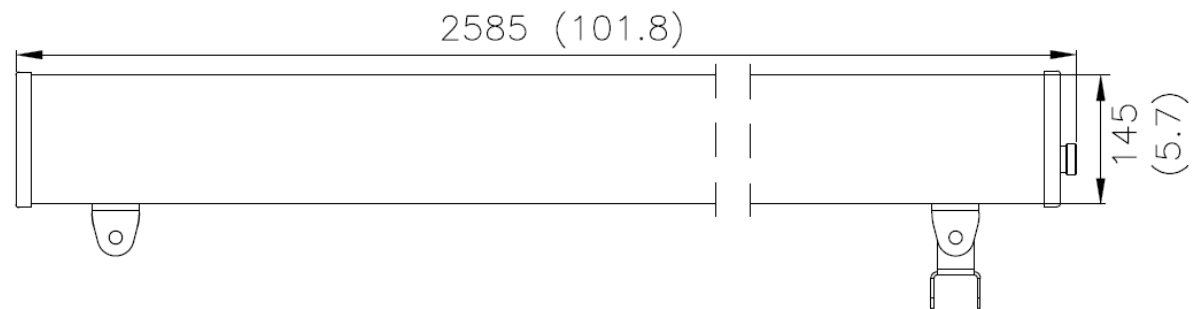
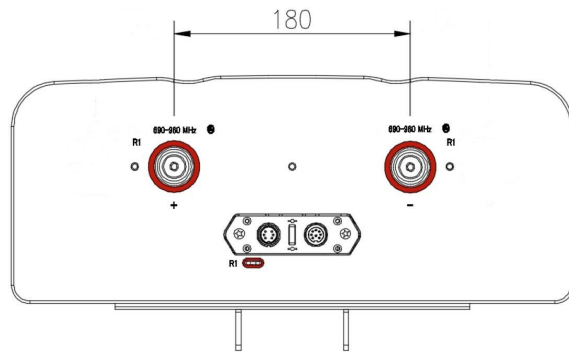
Note: Coloured box sizes do not represent antenna sizes.

Array	Frequency MHz	Ports	RET ID
R1	698 – 960	1 – 2	1

Configuration	
698-960 MHz	One RET for array: R1
Total Quantity	One RET Motor Controller
Location and Interface	
RET Controller Location	Inside antenna radome housing
RET Interface	Pair of AISG 8 Pin DIN connectors, one male, one female
RET Interface Quantity	One pair of AISG 8 Pin DIN connectors
RET Interface Location	On connector plate located at bottom of antenna
Electrical	
Input Voltage	10 – 30V
Power Idle Mode	< 1W
Power Active Mode	< 10W
Protocol	3GPP / AISG 2.0

Mechanical Illustration

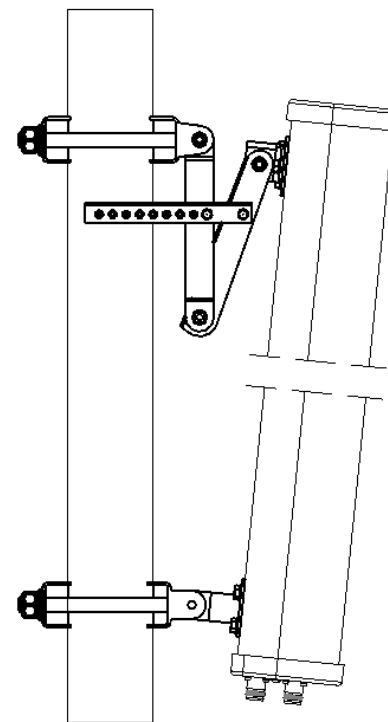
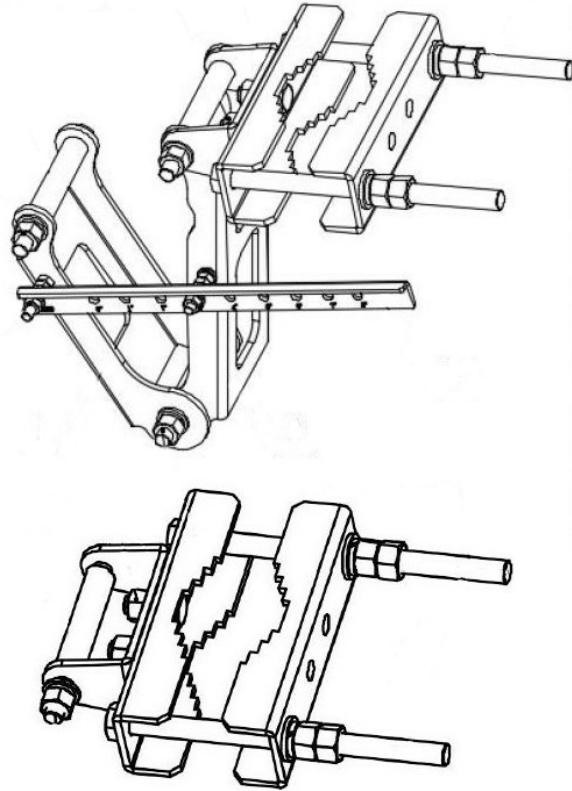
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-164 Adjustable Mount Kit (Mount Kit included with antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Diameter
0° to -10°	Stainless Steel	50mm-115mm (2" to 4.5")

Ordering Info

Order Code - Antenna

AW3822-E-F

Description

Enclosed Remote Electrical Tilt (eRET) with 4.3-10 Connectors.

Order Code - Accessories

AW1012-2-FM-FM

Description

RF Jumper Cable, connector types 4.3-10 (m) / 4.3-10 (m), length 2 metres (6'6")

AW1012-2-FM-NM

RF Jumper Cable, connector types 4.3-10 (m) / N-Type (m), length 2 metres (6'6")

AW1014-2-FM-TM

RF Jumper Cable, connector types 4.3-10 (m) / Nex10 (m), length 2 metres (6'6")

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