



DATASHEET

AW3828-E-F

Common Name- 4 Port, 34", 65° C-Band Panel eRET

3300-4200MHz	4	eRET	17.7	65°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This solution was developed for fixed wireless applications to cover 3300-4200MHz. It offers variable electrical tilt (eRET) that allows tilt optimisation to improve coverage and throughput. This four port antenna supports MIMO 4x4 applications.

Panel antennas are the most used solution to provide directive coverage in a wireless network. These panel antennas offer multiple ports and frequency bands and are designed to deliver high gain across the sector. They are commonly available with 33°, 45°, 60°, 90°, and 120° beamwidths. Alpha Wireless provides a wide array of sector panel solutions that meet the needs of the most intricate deployment requirements, including support for n48 and n78 frequency bands.

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. A horizontally spaced array provides enhance MIMO performance with full 4x4 operation or receive diversity RF functions.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

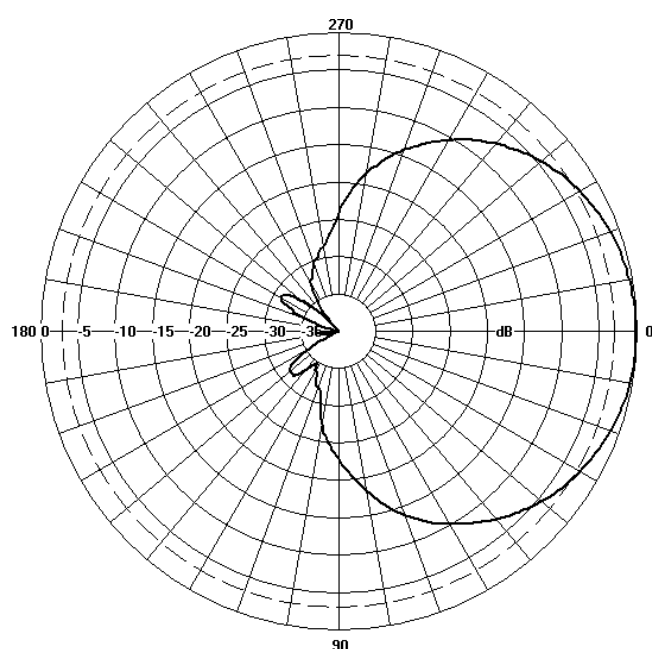
- Wide Band antenna covers n48, n77 and n78
- 4x4 MIMO for maximum throughput
- Enhanced tilt range of 0 to 10 degrees
- Remote electrical variable tilt function (eRET)
- Mounting bracket with variable tilt (included).

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

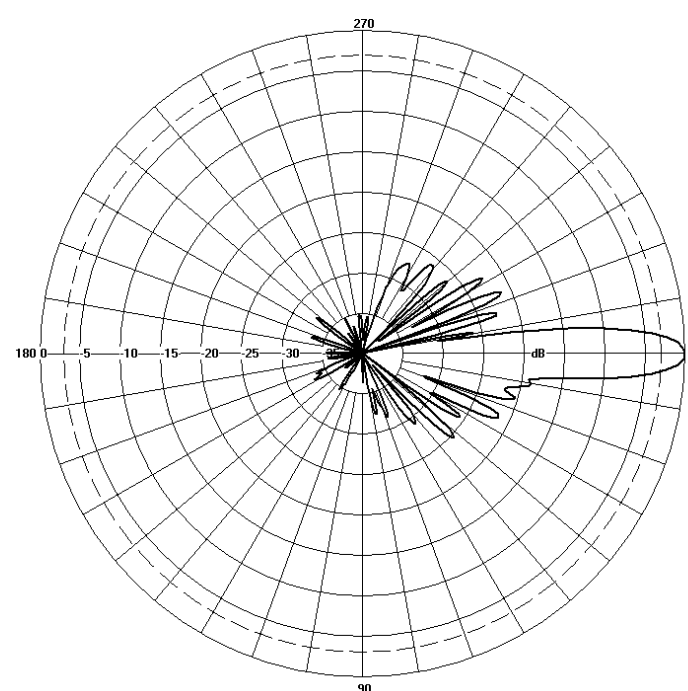
TECHNICAL SPECIFICATION

Electrical Specifications				
Frequency Range		MHz	3300 - 3800	3800 - 4200
Polarisation		Degree	+/- 45° Slant Linear	
Gain	Basta	dBi	17.0±0.5	17.2±0.5
	Max	dBi	17.5	17.7
Azimuth Beamwidth		Degree	65°	
Elevation Beamwidth		Degree	7°	7°
Electrical Downtilt		Degree	T0° - T10°	
Electrical Downtilt Deviation		Degree<	1°	
Impedance		Ohms	50	
VSWR		<	1.5	
Return Loss		dB>	14	
Isolation		dB>	25	
Front to Back Ratio: Total Power +/-30°		dB>	25	
Upper Sidelobe Suppression, Peak to 20°		dB>	18	
Cross-Polar Discrimination		dB>	16	
Maximum Effective Power Per Port		W	150	

Representative Pattern Files



Azimuth



Elevation

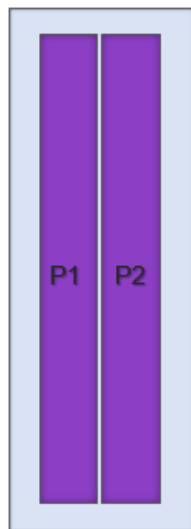
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	850 (33.5) x 280 (11) x 85 (3.3) - (LxWxD)
Packing Size (LxWxD)	mm (in)	1012 (39.8) x 337 (13.2) x 175 (6.9)
Net Weight (antenna)	kg (lb)	9 (19.8)
Net Weight (mount)	kg (lb)	1.5 (3.4)
Shipping Weight	kg (lb)	10.5 (23.2)
Connector Type (Female)	-	4.3-10
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	220 (50)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	80 (18)
Survival Wind Speed	km/h (mph)	241.4 (150)
Radome Material	-	ASA
Radome Colour	RAL	7035
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.

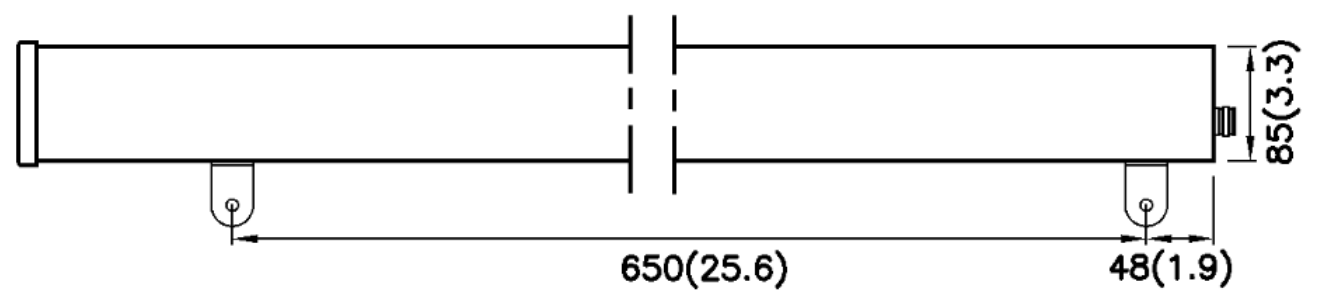
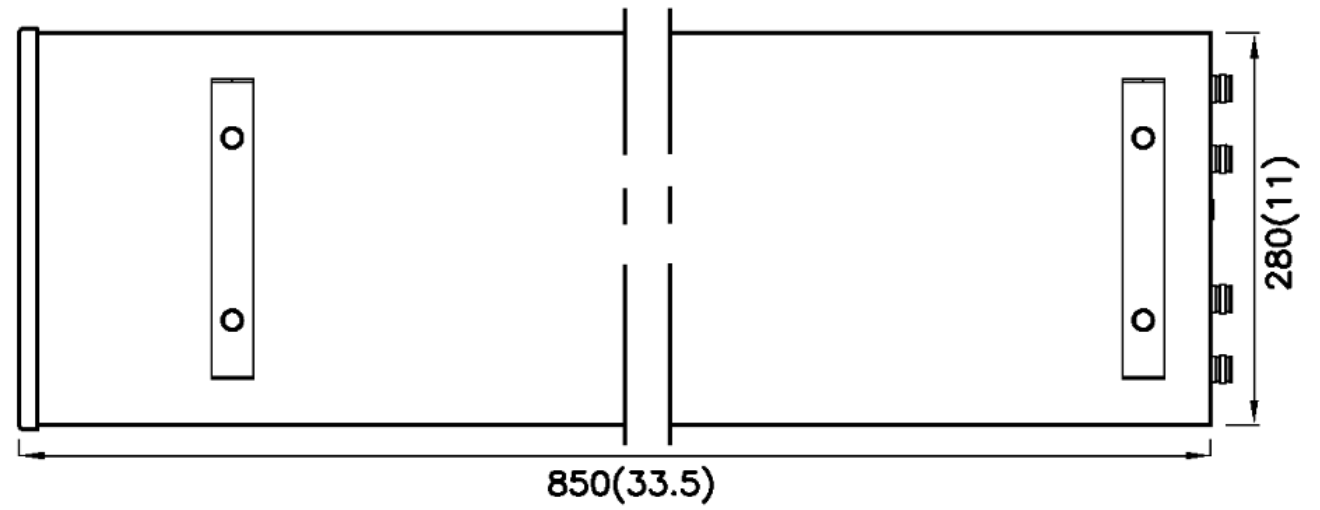
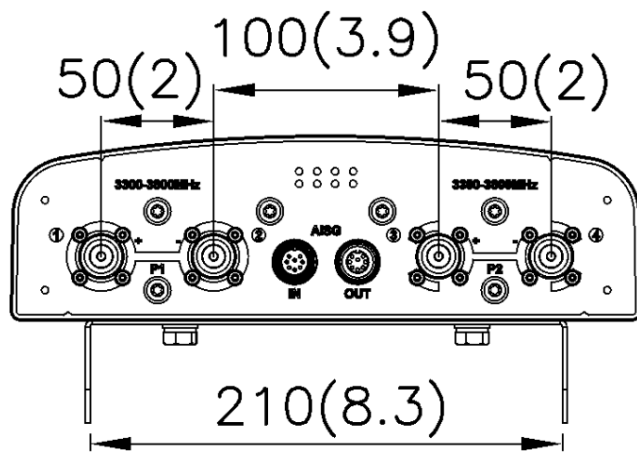
Array	Frequency MHz	Ports	RET ID
P1	3300 - 4200	1 - 2	1
P2	3300 - 4200	3 - 4	1

Configuration	
3300-4200 MHz	One RET for both arrays : P1, P2
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

TECHNICAL SPECIFICATION

Mechanical Illustration

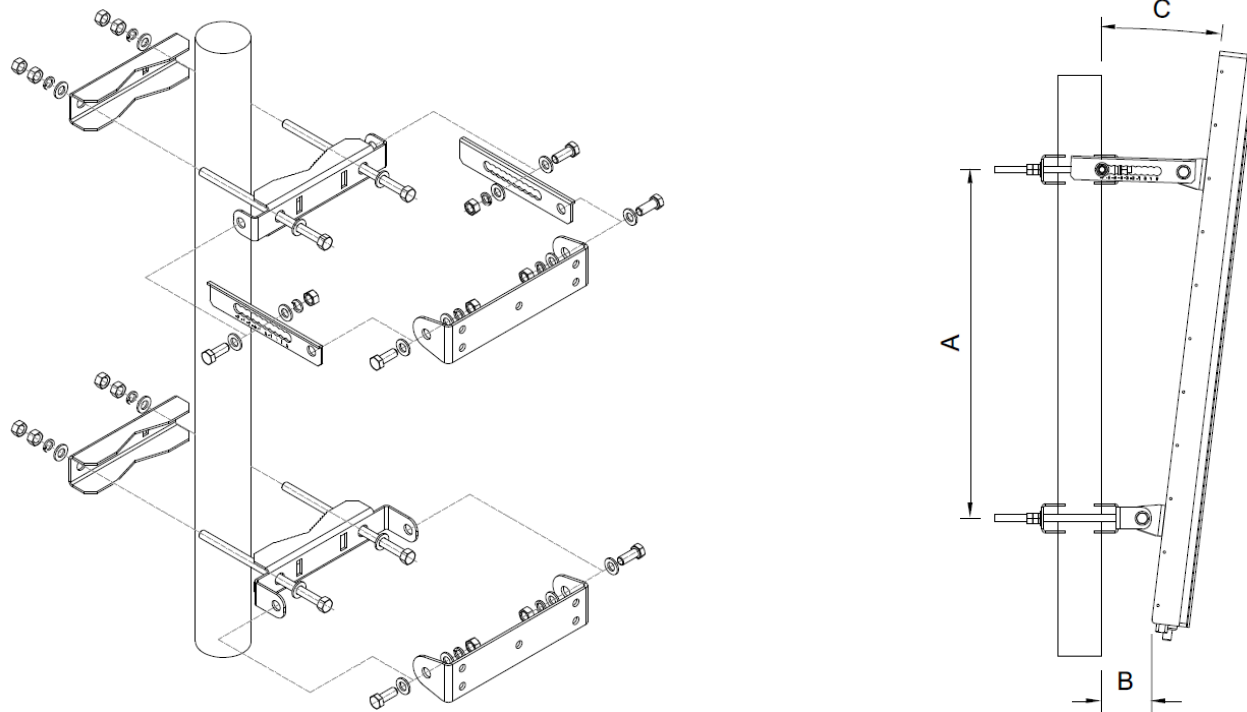
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-186 Mount Kit (Mount Kit included with antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
+1° to -7°	Stainless Steel	50mm-115mm (2" to 4.5")

Ordering Info

Order Code - Antenna

AW3828-E-F

Description

AW1012-2-FM-FM
 AW1012-2-FM-NM
 AW1014-2-FM-TM
 PADC 1000
 SADC 2000
 AW0326-3-PM-PF
 AW0326-10-PM-PF
 AW0326-25-PM-PF
 AW0326-50-PM-PF

Description

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

Order Code - Antenna

RF Jumper Cable, connector types 4.3-10 (m) / 4.3-10 (m), length 2 metres (6'6")
 RF Jumper Cable, connector types 4.3-10 (m) / N-Type (m), length 2 metres (6'6")
 RF Jumper Cable, connector types 4.3-10 (m) / Nex10 (m), length 2 metres (6'6")
 Portable AISG Controller
 Site AISG Controller
 AISG Jumper Cable Lengths 3 metres (9' 10")
 AISG Jumper Cable Lengths 10 metres (32' 9")
 AISG Jumper Cable Lengths 25 metres (82')
 AISG Jumper Cable Lengths 50 metres (164')

Enquiries

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