



DATASHEET

AW3161

Common Name- 4 Port B42, 43 & 48 - 65° - MET/eRET

3300-3800MHz	4	MET / eRET	17.9	65°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This solution was developed for 4x4 fixed wireless applications requiring variable electrical tilt.

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
---------------	---------------------



FEATURES

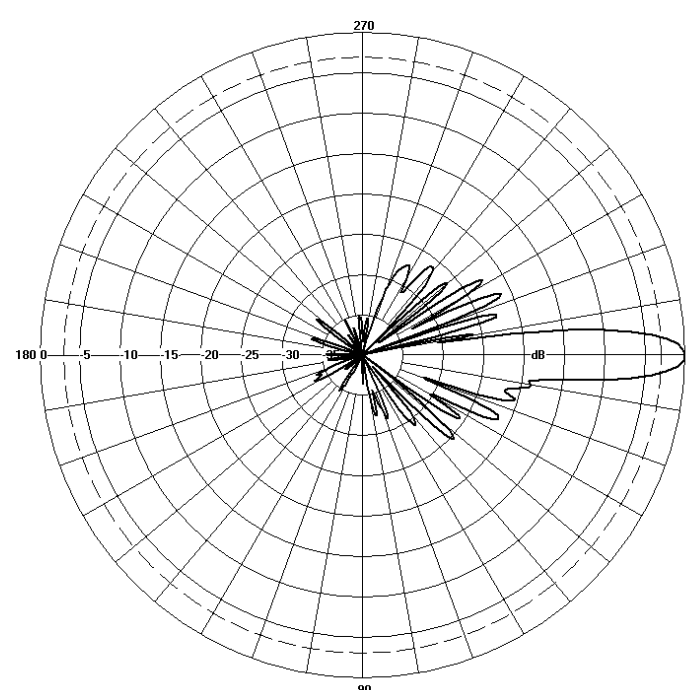
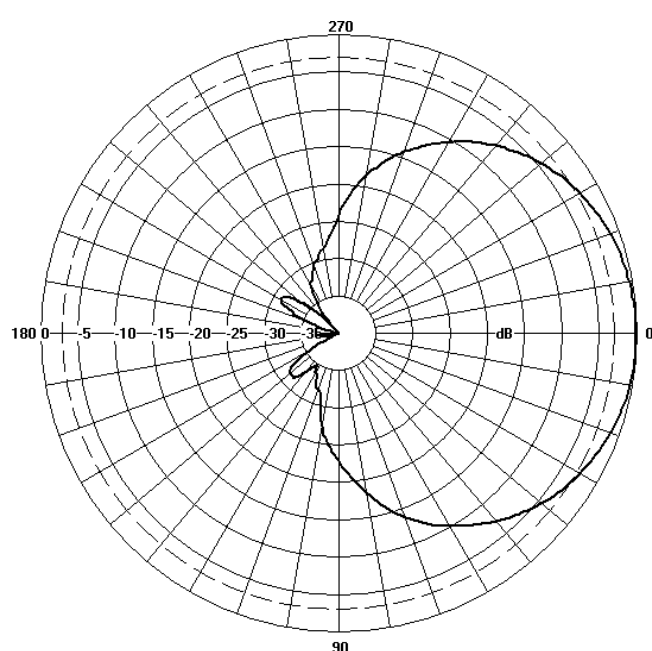
- Wide-band antenna for 3GPP bands 42, 43 & 48.
- 4x4 MIMO for maximum throughput.
- Enhanced tilt range of 0 to 10 degrees.

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

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	3300-3800MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
Min Tilt	dBi	17.9 (T0)
Mid Tilt	dBi	17.7 (T5)
Max Tilt	dBi	17.6 (T10)
Overall Tilts	dBi	17.7
Azimuth Beamwidth	Degree	65°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	7°
Electrical Downtilt	Degree	T0° - T10°
Electrical Downtilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	<	1.5
Return Loss	dB>	14
Isolation	dB>	28
Front to Back Ratio: Total Power +/-30°	dB>	30
Passive Intermodulation	dBc<	150
Upper Sidelobe Suppression, Peak to 20°	dB>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	150

Radiation 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)	970 (38.2) x 335 (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)	200 (125)
Radome Material	-	UV-Stabilised PVC
Radome Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Remote Electrical Tilt (RET) Information

Enclosed Remote Electrical Tilt (eRET) Information

Configuration

3300 - 3800MHz	One RET Motor Controller
Total quantity	1

Location and Interface

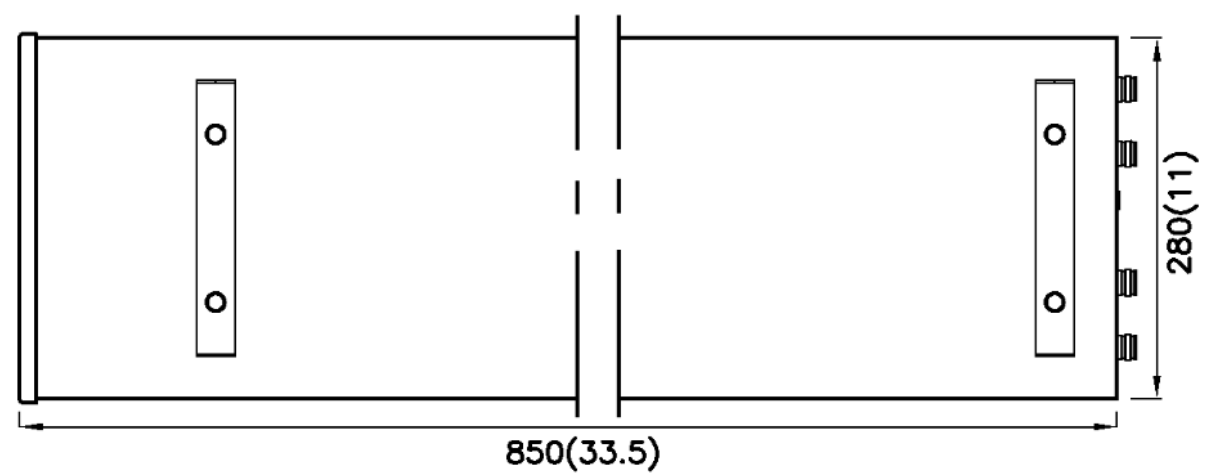
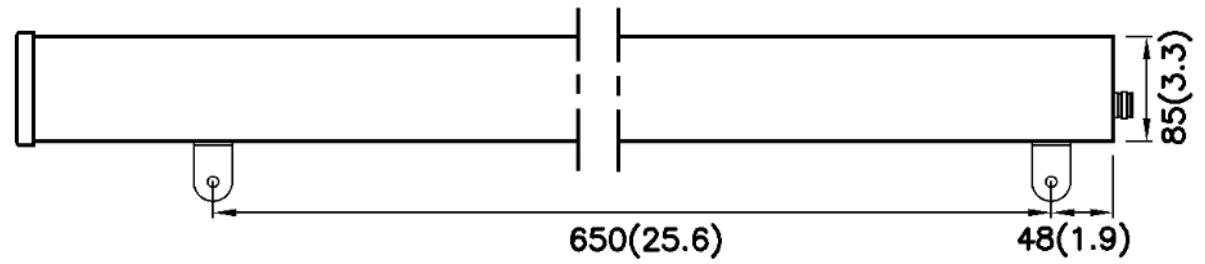
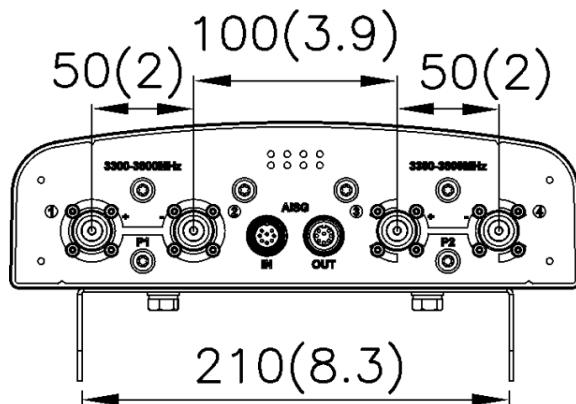
RET Controller Location	Inside antenna Radome housing.
RET Interface	Pair of AISG 8 Pin DIN Connectors, one Male, one Female.
RET Interface Quantity	One pair of AISG 8 Pin DIN Connectors
RET Interface Location	On Connector Plate Located at the Bottom of the Antenna

Electrical Specifications

Input Voltage	10 - 30V
Power Consumption Idle	<1W
Power Consumption Active	<10W
Protocol	3GPP / AISG 2.0

Mechanical Illustration

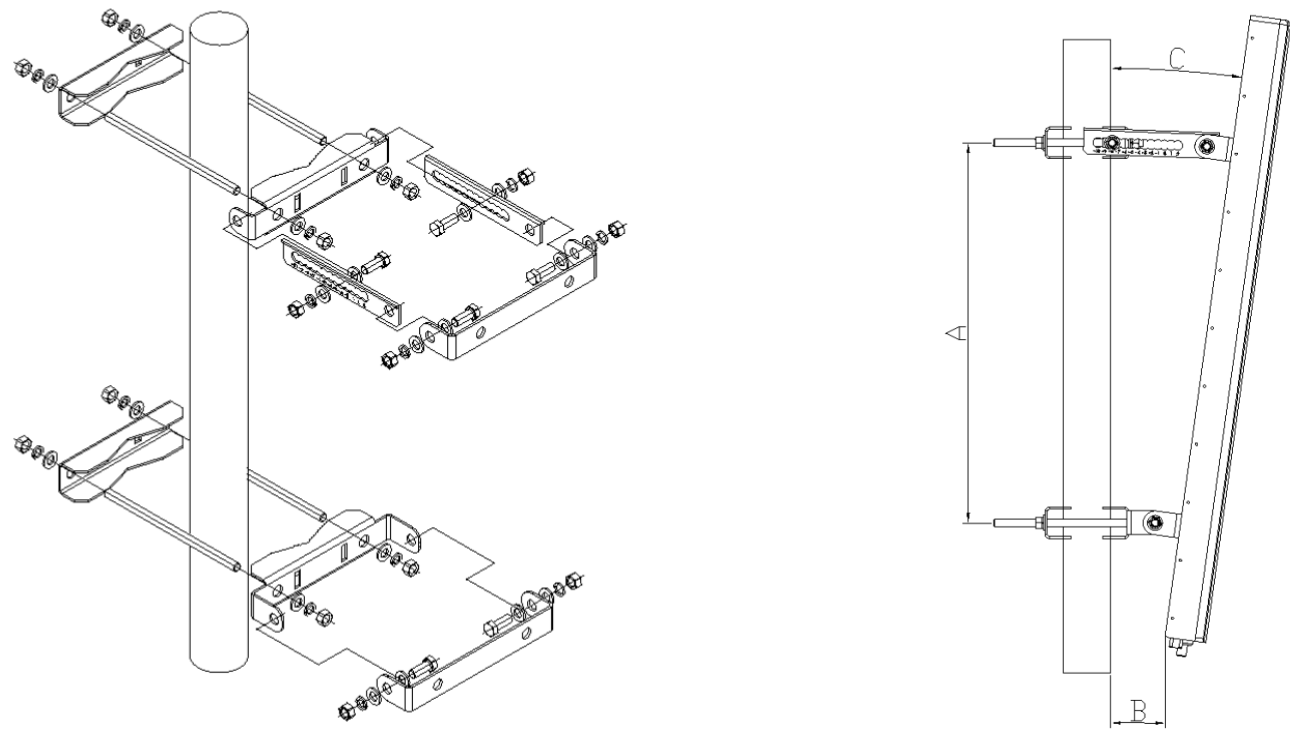
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-104 Mount Kit M8 2mm (Mount Kit included with antenna)



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

Ordering Info

Order Code - Antenna

AW3161-E-F

Description

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

AW3161-M-F

Manual Electrical Tilt (MET) with 4.3-10 Connectors

Order Code - Accessories

Description

AW1012-2-FM-FM

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")

AW1012-2-FM-TM

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

PADC 1000

Portable AISG Controller

SADC 2000

Site AISG Controller

AW0326-3-PM-PF

AISG Jumper Cable Lengths 3 metres (9' 10")

AW0326-10-PM-PF

AISG Jumper Cable Lengths 10 metres (32' 9")

AW0326-25-PM-PF

AISG Jumper Cable Lengths 25 metres (82')

AW0326-50-PM-PF

AISG Jumper Cable Lengths 50 metres (164')

Enquiries

Ireland
Ashgrove Business Centre,
Ballybrittas, Portlaoise, Ireland
Post code: R32 DT0A
sales@alphawireless.com
+353 57 86 33847

USA
11322 W 79th St, Lenexa, KS
66214, USA
sales@alphawireless.com
+1 913 279 0008

Alpha Wireless



DISCLAIMER

The information in this document is provided solely regarding Alpha Wireless products. The information is not a guarantee of performance or characteristics. Alpha Wireless reserves the right to modify, change, amend, improve or make corrections to this document and its products, at any time and its sole discretion without prior written consent or notice. No license to any intellectual property rights is granted or implied under this document. Alpha Wireless disclaims warranties and liabilities of any kind including non-infringement of intellectual property rights of any third party.