



# DATASHEET

## AW3165-E-F

Common Name- 4 Port, 1.1M, 2.5GHz 65° Panel eRET

2300-2700MHz	4	eRET	17.0	65°
Frequency	Ports	Tilt	Gain	Beamwidth

### PRODUCT INFORMATION

This antenna has 4 ports covering 2300-2700MHz (B38, B40 & B41). It was developed for 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
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### FEATURES

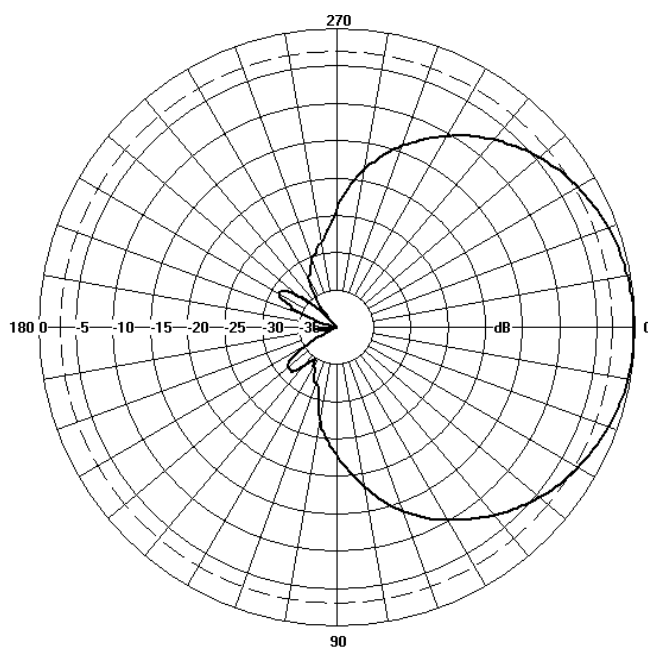
- Wide-band antenna for 3GPP bands 38, 40 & 41
- 4x4 MIMO for maximum throughput
- Enhanced tilt range of 0 to 10 degrees
- Manufactured in Ireland

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

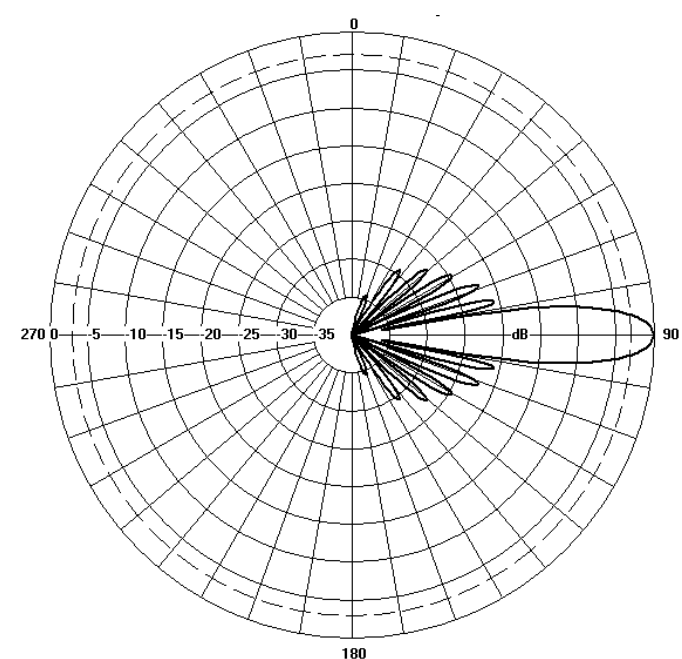
## TECHNICAL SPECIFICATION

Electrical Specifications			
Frequency Range		MHz	2300 - 2700MHz
Polarisation		Degree	+/- 45° Slant Linear
Gain	Basta	dBi	16.8±0.5
	Max	dBi	17.3
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>	25
Front to Back Ratio: Total Power +/-30°		dB>	30
Upper Sidelobe Suppression, Peak to 20°		dB>	17
Cross-Polar Discrimination (0°)		dB>	16
Maximum Effective Power Per Port		W	150

## Representative Pattern Files



Azimuth



Elevation

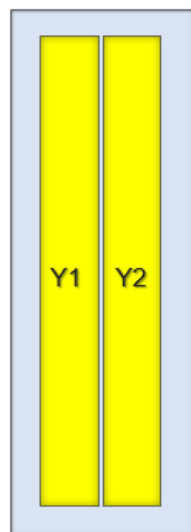
For radiation pattern files, please login at [www.alphawireless.com](http://www.alphawireless.com)

## TECHNICAL SPECIFICATION

## Mechanical Specifications

Dimensions	mm (in)	1050 (41.3) x 280 (11) x 85 (3.3) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1320 (52) x 240 (9.4) x 178 (7)
Net Weight (antenna)	kg (lb)	9 (19.8)
Net Weight (mount)	kg (lb)	1.5 (3.4)
Shipping Weight	kg (lb)	10.5 (23.21)
Connector Type (Female)	-	4.3-10
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	320 (72)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	120 (27)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilised PVC
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



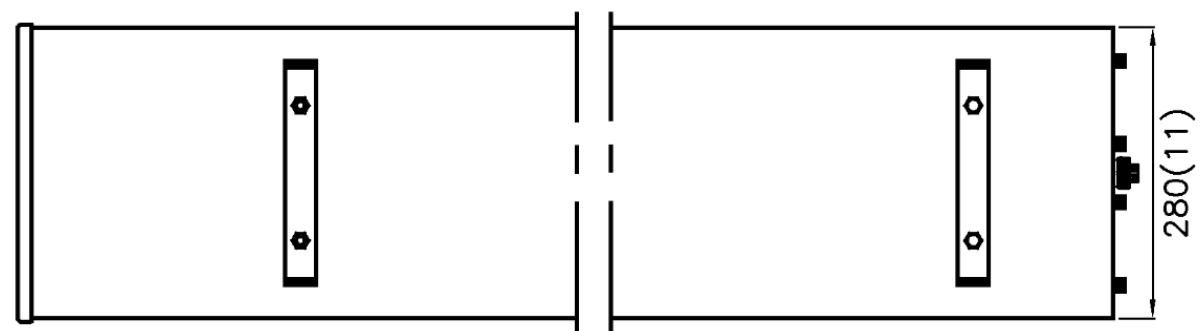
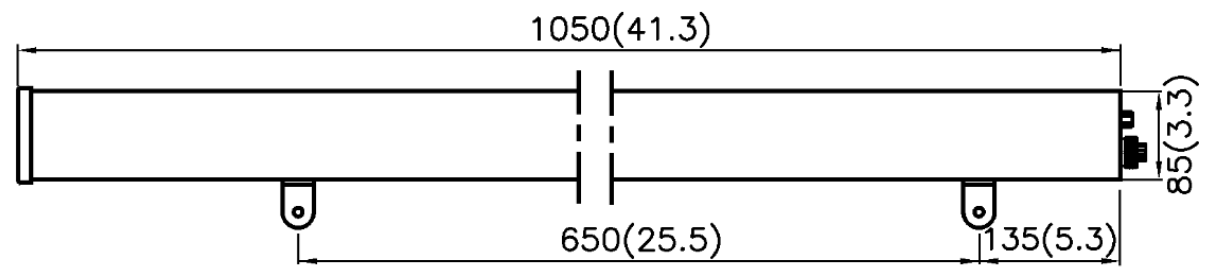
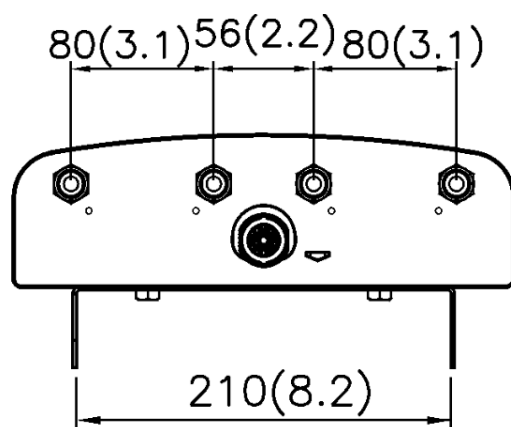
Note: Coloured box sizes do not represent antenna sizes.

Array	Frequency MHz	Ports	RET ID
Y1	2300 - 2700	1 - 2	1
Y2	2300 - 2700	3 - 4	1

<b>Configuration</b>	
2300-2700MHz	One RET for both arrays : Y1, Y2
<b>Total Quantity</b>	One RET Motor Controller
<b>Location and Interface</b>	
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
<b>Electrical</b>	
Input Voltage	10 - 30V
Power Idle Mode	< 1W
Power Active Mode	< 10W
Protocol	3GPP / AISG 2.0

### Mechanical Illustration

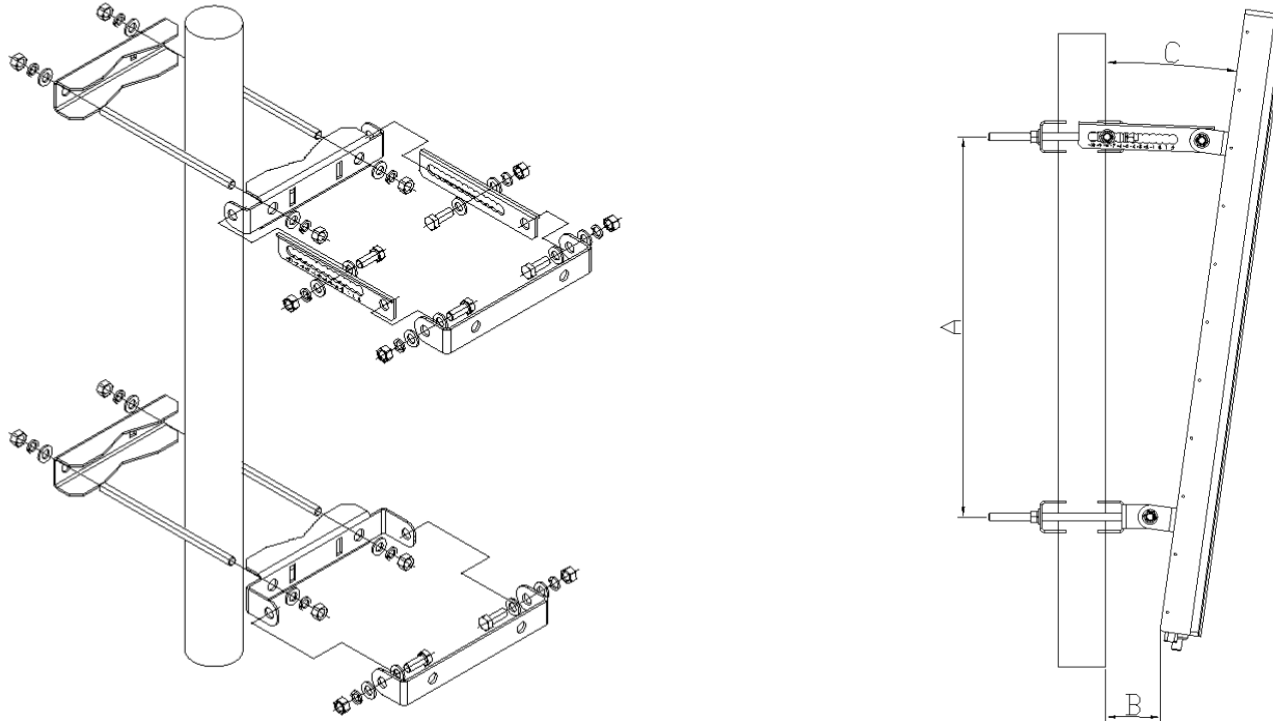
All measurements are in mm (in)



## TECHNICAL SPECIFICATION

### Mounting Bracket Kit

CL-V-105 Dual Port Mounting Kit for Panel (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

AW3165-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")

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')

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