



DATASHEET

AW3161-M-F-V2

Common Name- 4 Port, 31", 3.5GHz 65° Panel

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

PRODUCT INFORMATION

The AW3161 antenna operates between 3300-3800MHz (CBRS) covering bands B42, 43 & 48 and 5G NR Band n78. It was developed for 4x4 fixed wireless applications requiring variable electrical tilt. Electrical tilt allows optimisation of the elevation beam for throughput and coverage. Manual Electric tilt (MET) enables electrical tilt adjustment at site.

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

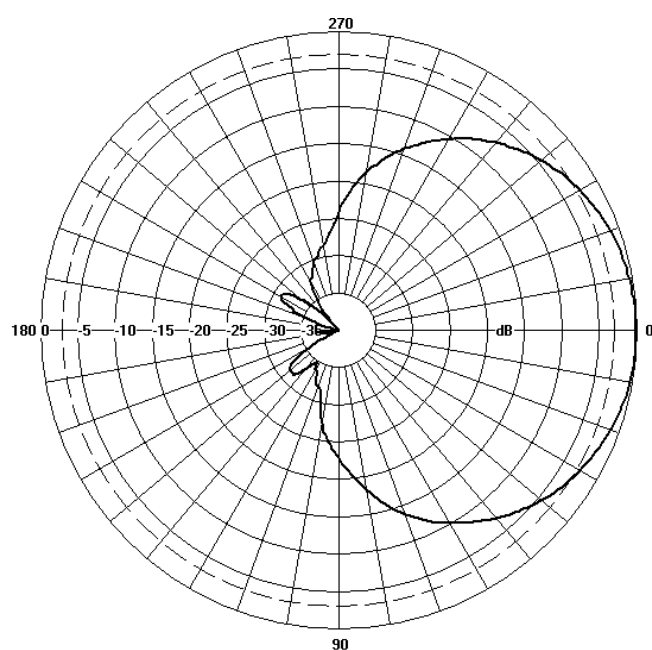
- Wide-band antenna that covers LTE Bands 42, 43 & 48 and 5G NR Band n78. Includes CBRS Band.
- 4x4 MIMO for maximum throughput.
- Enhanced tilt range of 0 to 10 degrees.

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

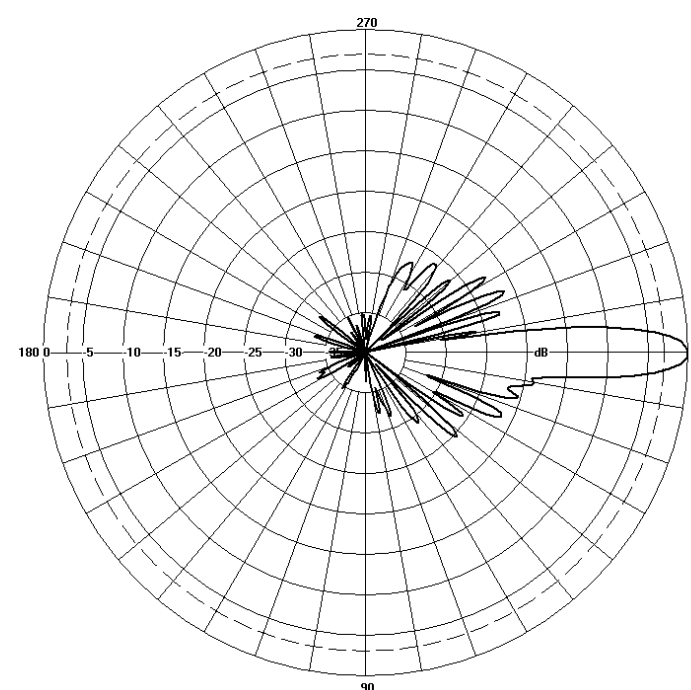
TECHNICAL SPECIFICATION

Electrical Specifications			
Frequency Range		MHz	3300-3800MHz
Polarisation		Degree	+/- 45° Slant Linear
Gain	Basta	dBi	17.4±0.5
	Max	dBi	17.9
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
Upper Sidelobe Suppression, Peak to 20°		dB>	18
Cross-Polar Discrimination (0°)		dB>	16
Maximum Effective Power Per Port		W	150

Representative Pattern Files



Azimuth



Elevation

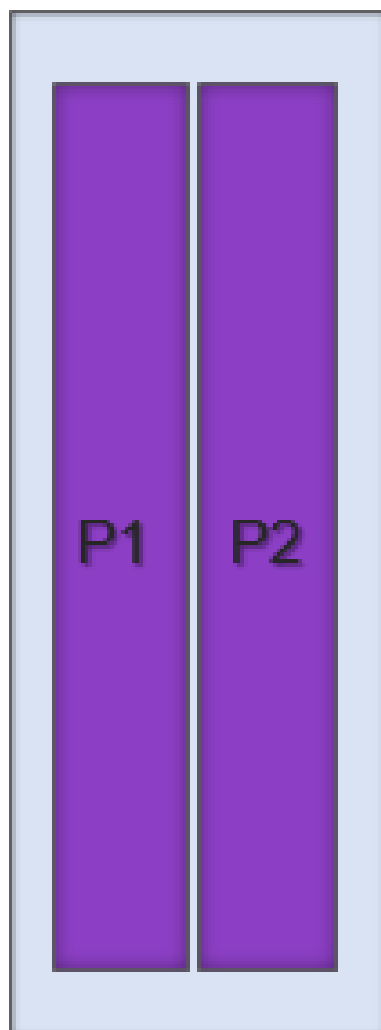
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	783 (30.8) x 280 (11) x 85 (3.3) - (LxWxD)
Packing Size (LxWxD)	mm (in)	950 (37.4) x 340 (13.4) 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)	230 (52)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	70 (15.7)
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



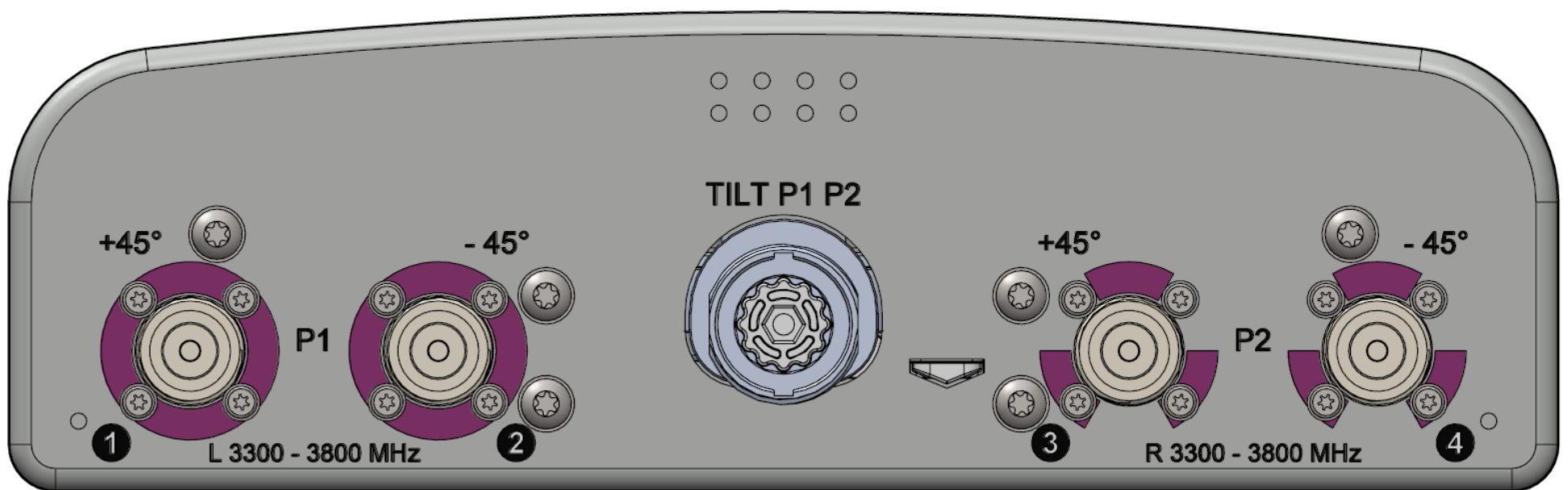
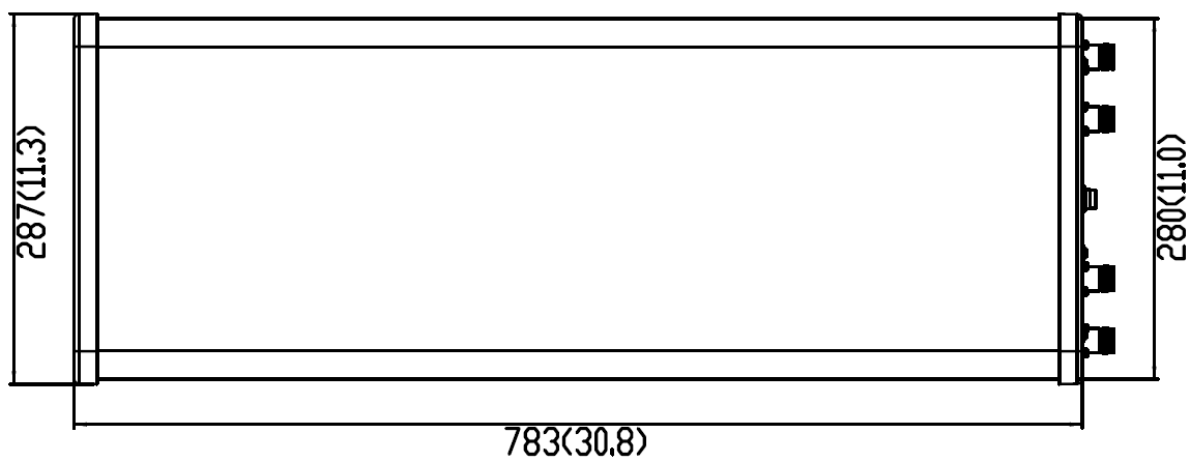
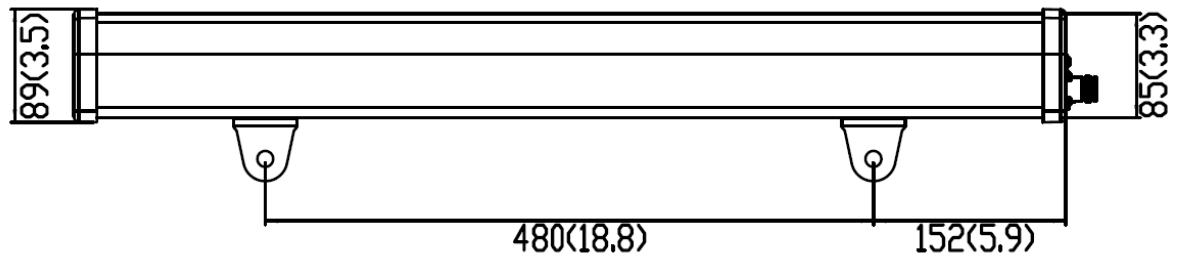
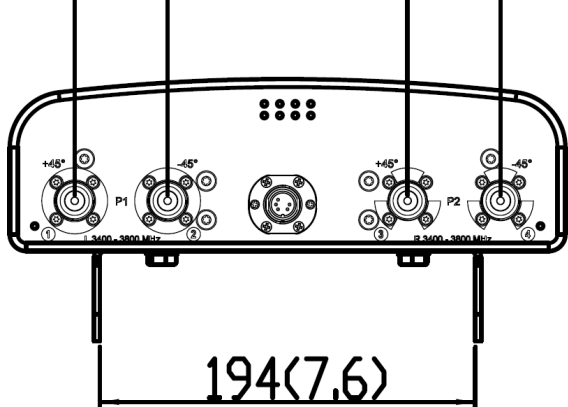
Array	Frequency MHz	Ports	MET ID
P1	3300 – 3800	1 – 2	1
P2	3300 – 3800	3 – 4	1

Note: Coloured box sizes do not represent antenna sizes.

Mechanical Illustration

All measurements are in mm (in)

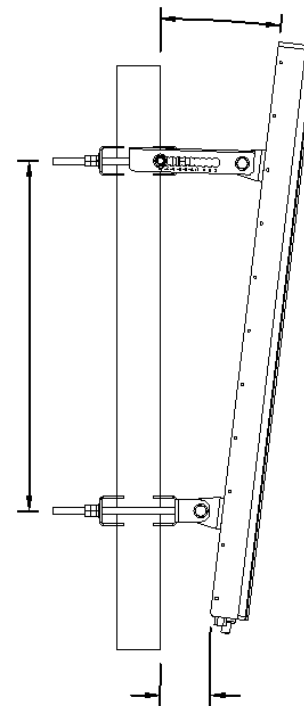
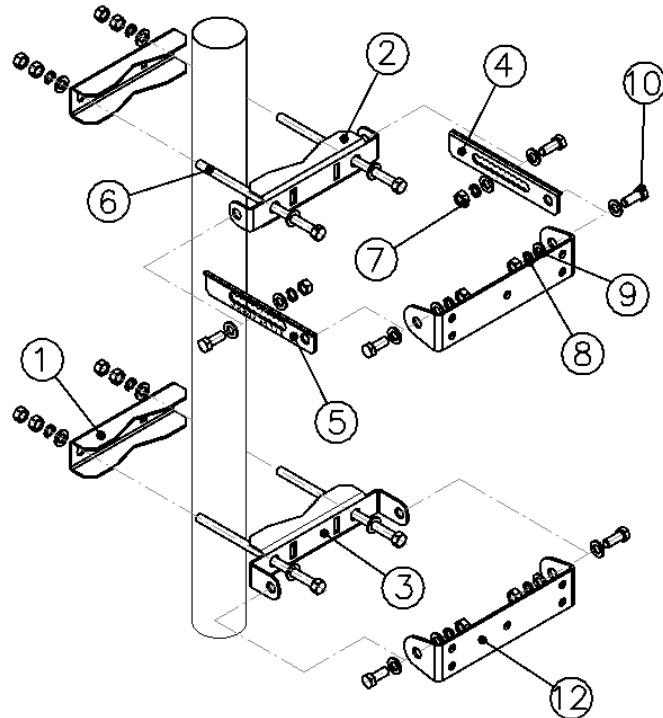
48(1.8) 124(4.8) 48(1.8)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

Ordering Info

Order Code - Antenna

AW3161-M-F-V2

Description

Manual Electrical Tilt (MET) 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")

Enquiries

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