



DATASHEET

AW3842-E-F

Common Name- 8 Port (4P/4P) 1.1M Multiband Panel - 65°

2300-2700MHz	4	eRET	18.0	63°
3400-3800MHz	4	eRET	18.0	62°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This solution provides 4 ports covering 2300-2700MHz (B40, B41) and 4 ports covering 3400-3800MHz (B42, B43 & B48) in a single compact housing. Remote Electrical Tilt allows tilt optimisation to improve coverage and throughput.

The AW3842-E-F provides sectorized coverage for 4G and 5G private networks using the 2.5GHz S-band, Broadband Radio Service (BRS), and Education Broadband Service (EBS) spectrums and 3.5 GHz Citizens Broadband Radio Service (CBRS) and C-band spectrum. This antenna supports LTE bands 41, 42, 43, and 48 and 5G NR bands n7, n41, n77, and n78.

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

- Wide-band antenna that covers LTE Bands 42, 43 & 48 and 5G NR Band n48 and n78. Includes CBRS Band.
- Dual Band antenna.
- 4x4 MIMO per each band
- Integrated variable electrical tilt (eRET)
- Tilt range 0-10 degrees
- Mounting bracket with variable tilt (included)

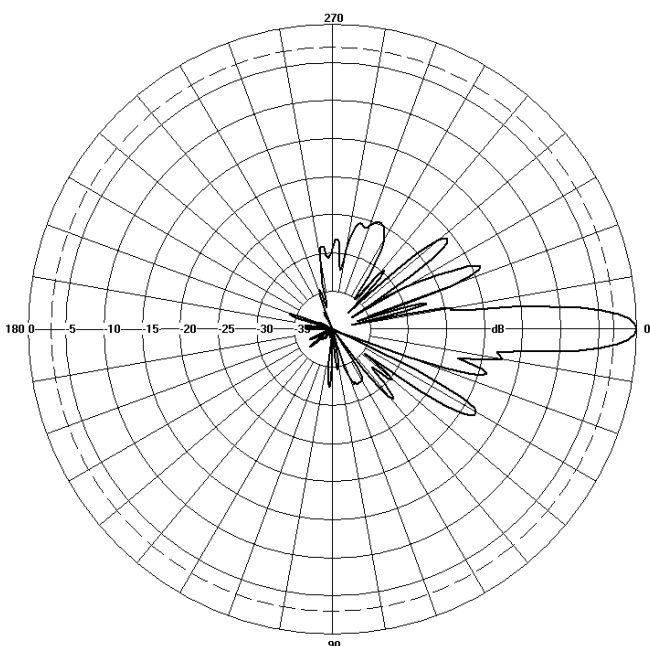
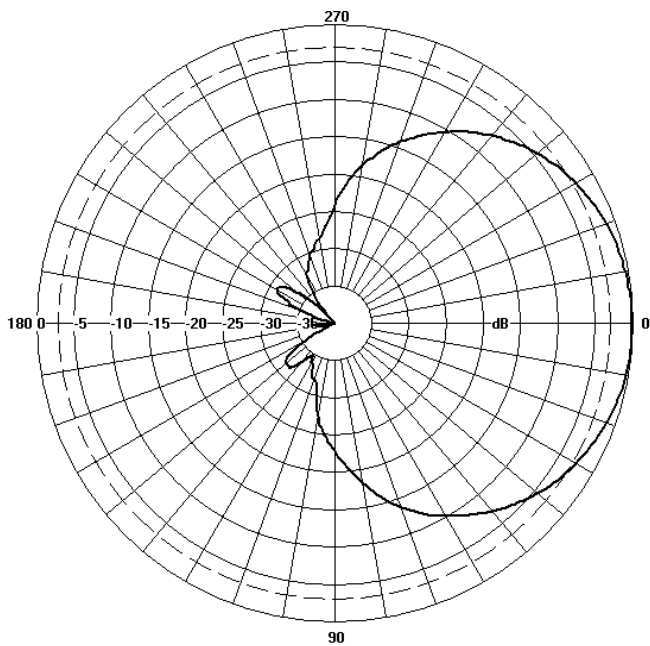
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.



TECHNICAL SPECIFICATION

Electrical Specifications				
Frequency Range		MHz	2300 - 2700	3400 - 3800
Polarisation		Degree	+/- 45° Slant Linear	
Gain	Basta	dBi	17.5±0.5	17.6±0.5
	Max	dBi	18.0	18.1
Azimuth Beamwidth		Degree	63°	62°
Azimuth Beam Squint		Degree<	5°	
Elevation Beamwidth		Degree	7.0°	7.0°
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	25
Upper Sidelobe Suppression, Peak to 20°		dB>	18	
Cross-Polar Discrimination		dB>	15	
Maximum Effective Power Per Port		W	150	

Representative Pattern Files



Azimuth

Elevation

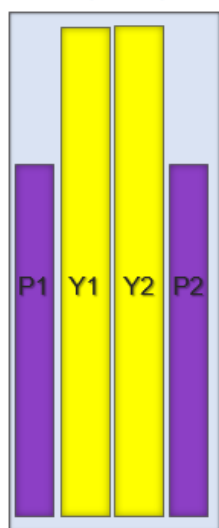
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1076 (42.3) x 470 (18.5) x 115 (4.5) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1160 (45.7) x 570 (22.5) x 260 (10.3)
Net Weight (antenna)	kg (lb)	15 (33)
Net Weight (mount)	kg (lb)	3.1 (6.8)
Shipping Weight	kg (lb)	23 (50.2)
Connector Type (Female)	-	4.3-10
Connector Quantity	-	8 (4P x 2.5GHz, 4P x 3.5GHz)
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	408 (91.7)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	79 (17.7)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	Fibreglass
Radome Colour	RAL	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: Colored box sizes do not represent antenna sizes.

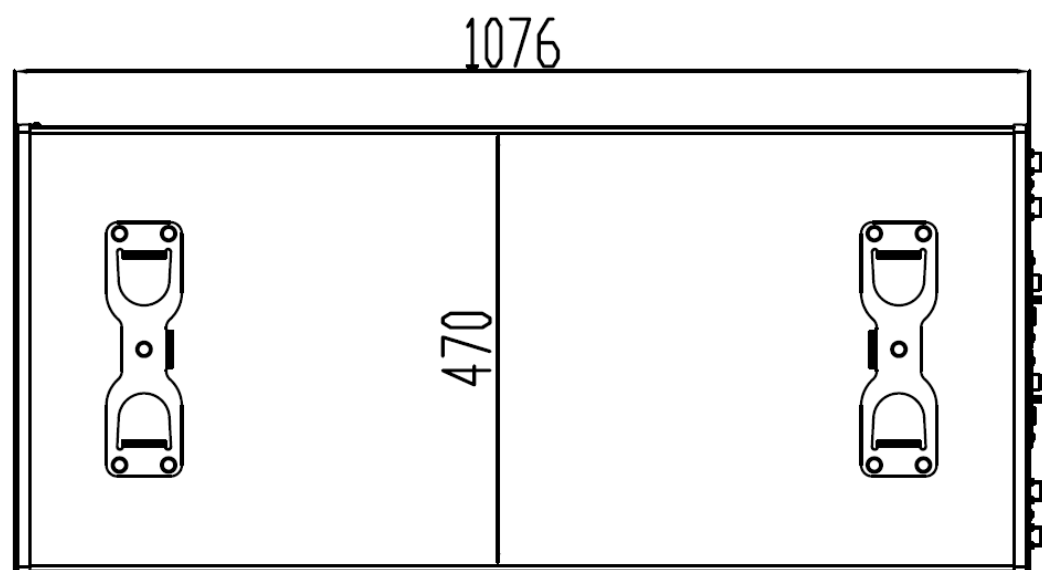
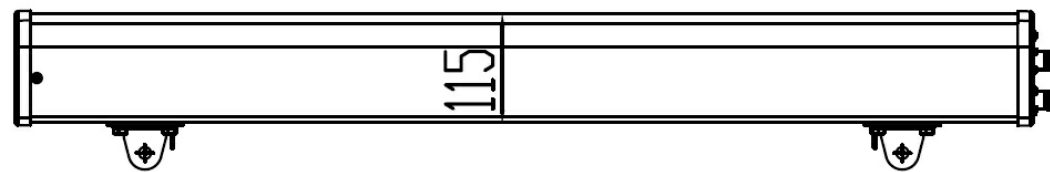
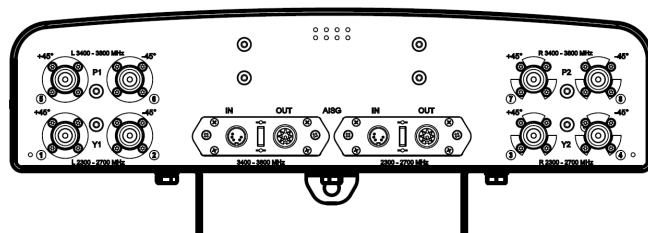
Array	Frequency MHz	Ports	RET ID
Y1	2300 - 2700	1 - 2	1
Y2	2300 - 2700	3 - 4	2
P1	3400 - 3800	5 - 6	3
P2	3400 - 3800	7 - 8	4

Configuration	
2300-2700 MHz	One RET for each array: Y1, Y2
3400-3800 MHz	One RET for each array: P1, P2
Total Quantity	Four RET Motor Controllers
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

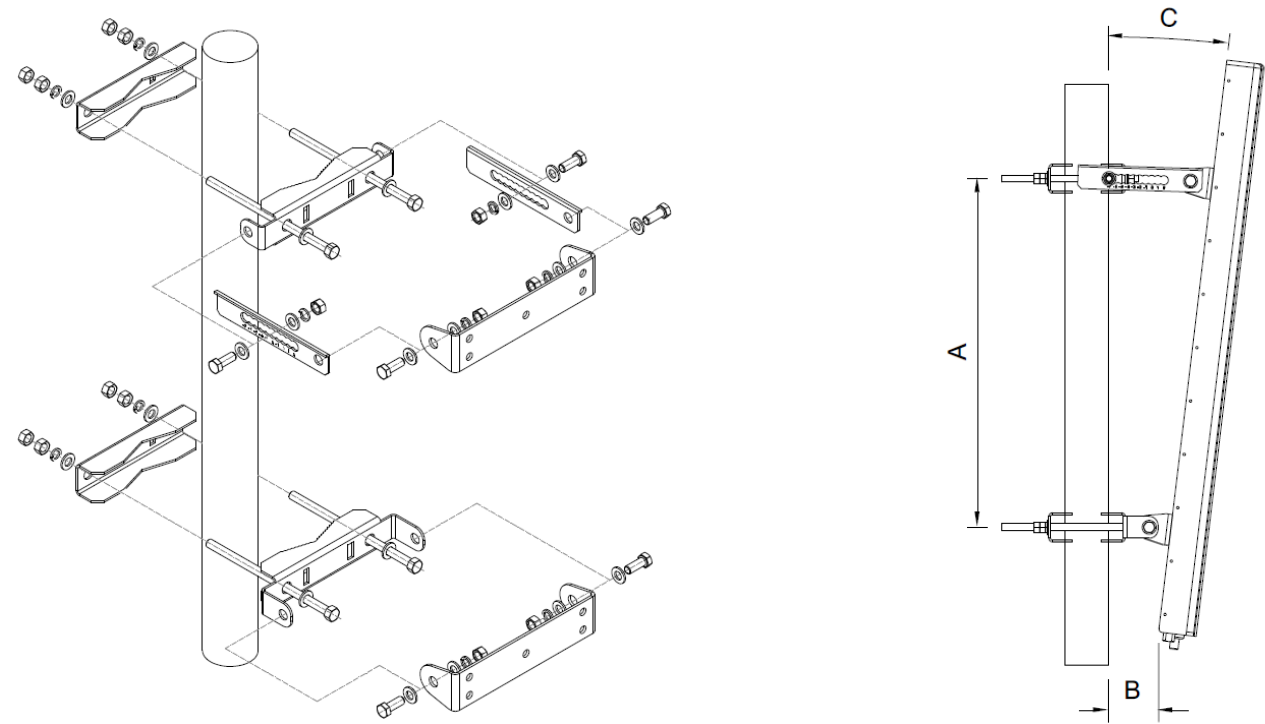
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-110 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
AW3842-E-F

Description
AW1012-2-FM-FM
AW1012-2-FM-NM
AW1014-2-FM-TM

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")

Enquiries

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