



AW3929-E-F

Common Name 8 Port, (4P/4P) 2.0M High Gain Multi-band Panel 65°

Frequency	Ports	Tilt	Gain	Beamwidth
896-960MHz	4	eRET	15.5	65°
3300-3800MHz	4	eRET	18.0	65°

PRODUCT INFORMATION

This 2 meter panel antenna has four Low Band ports and four 3.5GHz ports operating between 3300-3800MHz covering LTE Bands B42, 43 & 48 and 5G NR Band n78. This antenna supports 4x4 MIMO and provides individual elevation tilt control of each band. Remote Electrical tilt allows tilt optimisation to improve coverage and throughput. Designed for compact, aesthetically pleasing applications.

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

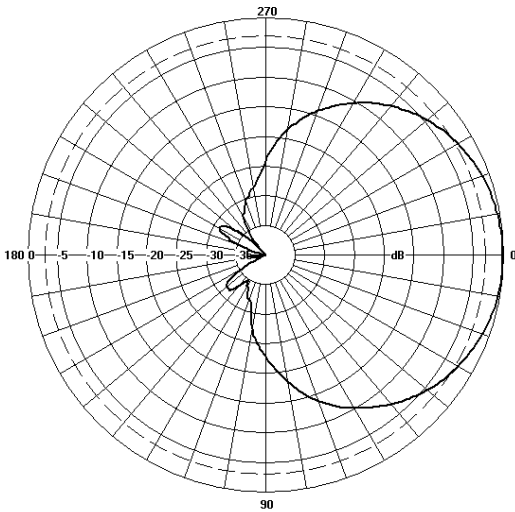
- Dual-band antenna supports 900MHz Anterix and 3.5GHz CBRS and C-Band A Block
- Wide-band antenna that covers LTE Bands 42, 43 & 48 and 5G NR Band n78. Includes CBRS Band.
- High gain in 2 Meter length
- 4x4 MIMO for maximum throughput
- Remote Electrical Tilt controlling High and Low Band
- RET is AISG 2.0 compatible.

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

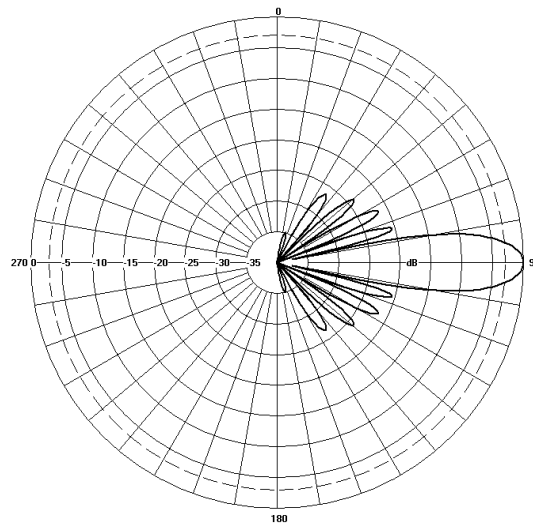
TECHNICAL SPECIFICATION

Electrical Specifications								
Frequency Range	MHz	896-918	918-940	940-960	3300-3400	3400-3600	3600-3800	
Polarisation	Degree	+/- 45° Slant Linear						
Gain	Basta	dBi	14.8±0.5	15.0±0.5	15.0±0.5	17.3±0.5	17.4±0.5	17.5±0.5
	Max	dBi	15.3	15.5	15.5	17.8	17.9	18.0
Azimuth Beamwidth	Degree	65°	65°	65°	67°	68°	69°	
Azimuth Beam Squint	Degree<	5°			5°			
Elevation Beamwidth	Degree	9.5°	9.3°	9.0°	7.0°	6.9°	6.8°	
Electrical Downtilt	Degree	T2°-T10°	T2-T10°	T2°-T10°	T0°-T10°	T0°-T10°	T0°-T10°	
Electrical Downtilt Deviation	Degree<	2°	2°	2°	2°	2°	2°	
Impedance	Ohms	50						
VSWR	<	1.5						
Return Loss	dB>	14						
Isolation	dB>	25	25	25	25	25	25	
Front to Back Ratio: Total Power +/-30°	dB>	22	22	22	25	25	25	
Passive Intermodulation	dBc<	150	150	150	N/A	N/A	N/A	
Upper Sidelobe Suppression, Peak to 20°	dB>	16	16	16	18	18	18	
Cross-Polar Discrimination (0°)	dB>	15	15	15	15	15	15	
Maximum Effective Power Per Port	W	300	300	300	150	150	150	

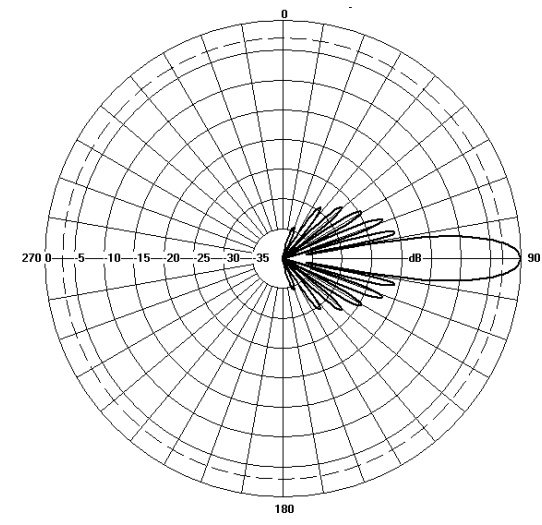
Representative Pattern Files



Azimuth



Low Band



High Band

Elevation

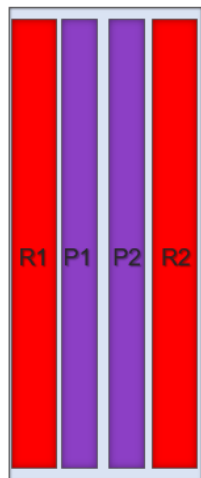
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	2040 (80.3) x 480 (18.9) x 115 (4.5)
Packing Size (LxWxD)	mm (in)	2250 (88.5) x 530 (20.9) x 275 (10.8)
Net Weight (antenna)	kg (lb)	30 (66)
Net Weight (mount)	kg (lb)	3 (6.6)
Shipping Weight	kg (lb)	33 (72.6)
Connector Type (Female)	-	4.3-10 (4P Low Band, 4P High Band)
Connector Position	-	Bottom
Connector Quantity	-	8 (4P Mid band, 4P High Band)
Windload Frontal (at Rated Wind Speed: 150km/h)	N	1063 (239)
Windload Lateral (at Rated Wind Speed: 150km/h)	N	255 (58)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	Fibreglass
Radome Colour	RAL	9010
Product Compliance Environmental	-	RoHS
Lightning Protection	-	DC Grounded
Cold Temperature Survival	Celsius (Fahrenheit)	-40 (-40)
Hot Temperature Survival	Celsius (Fahrenheit)	70 (158)

Array Layout and RET Information

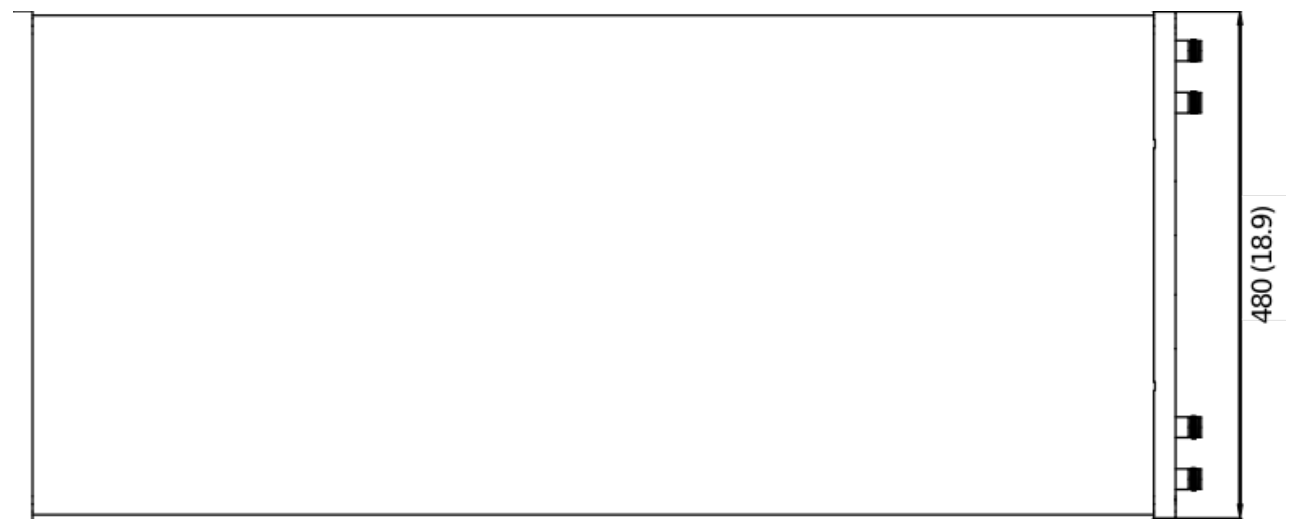
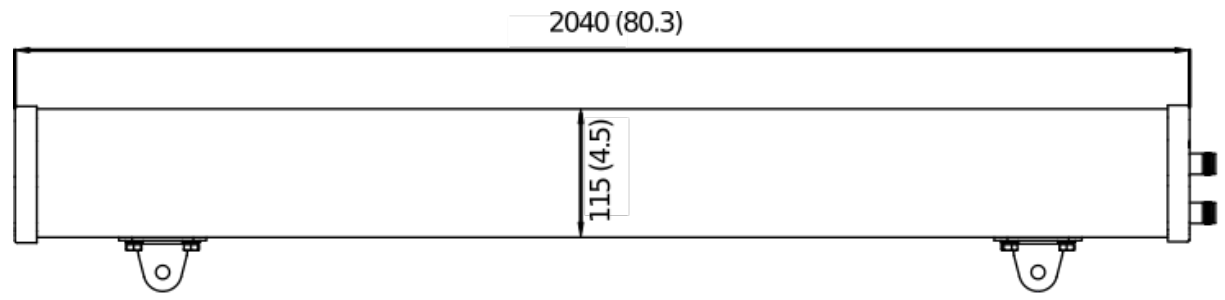
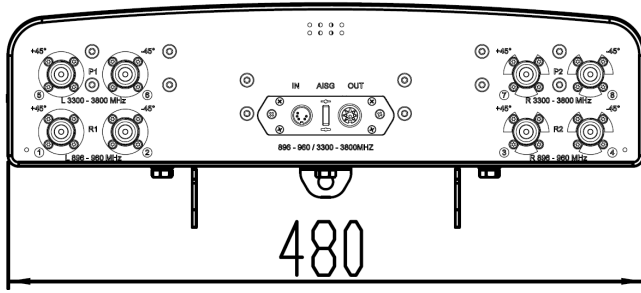


Note: Coloured box sizes do not represent antenna sizes.

Array	Frequency MHz	Ports	RET ID
R1	896 - 960	1 - 2	1
R2	896 - 960	3 - 4	1
P1	3300 - 3800	5 - 6	2
P2	3300 - 3800	7 - 8	2

Configuration	
896 - 960 MHz	One RET for both arrays: R1, R2
3300-3800 MHz	One RET for both arrays: P1, P2
Total Quantity	Two 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

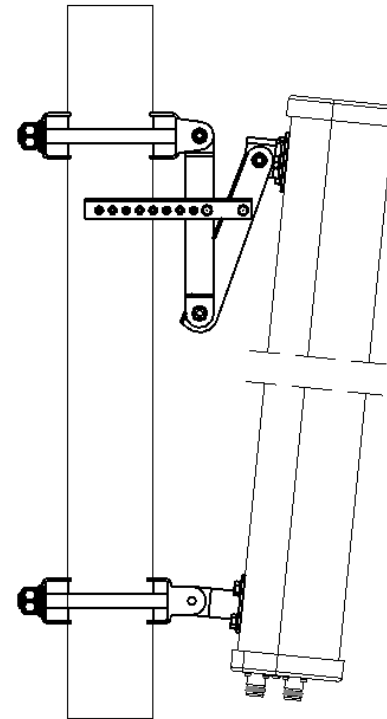
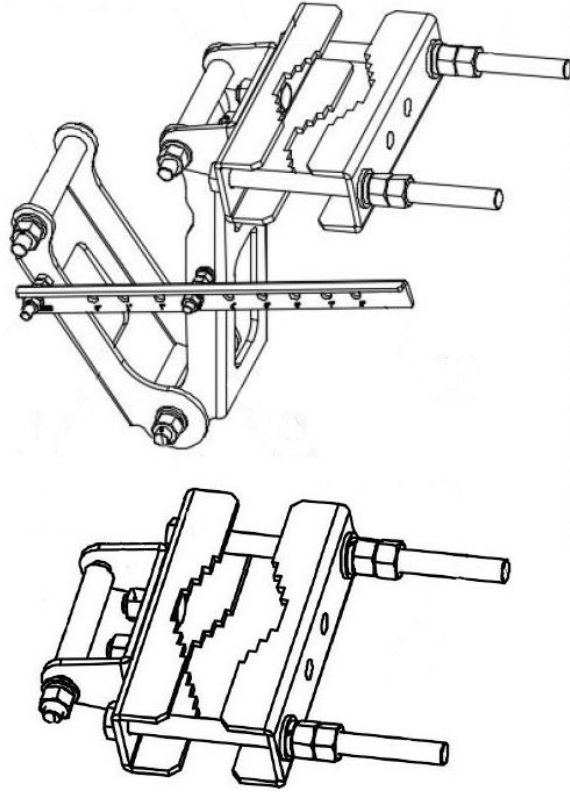
Mechanical Illustration



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-164 Adjustable Mount Kit (Mount Kit included with antenna)



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

Ordering Info

Order Code - Antenna

AW3929-E-F

Order Code - Accessories

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.

Description

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

Global Headquarters

Ashgrove Business Centre,
Ballybrittas, Portlaoise,
R32 DT0A, IRELAND
sales@alphawireless.com
+353 57 86 33847

North America

7301 W. 129th Street, Suite 150,
Overland Park,
KS 66213, USA
sales@alphawireless.com
+1 913 279 0008

Australia

3/76 Regentville Rd,
Jamisontown,
NSW 2750, AUSTRALIA
sales@alphawireless.com
+ 61 2 4504 8212

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.

© Alpha Wireless Limited 2022