



DATASHEET

AW3931-E-F

Common Name- 4 Port, 2.0M, 896-960MHz High Gain Panel 65°

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

PRODUCT INFORMATION

This product was developed to offer a high gain 4x4 MIMO solution for the Anterix ecosystem. This macro solution delivers high gain for optimal coverage.

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

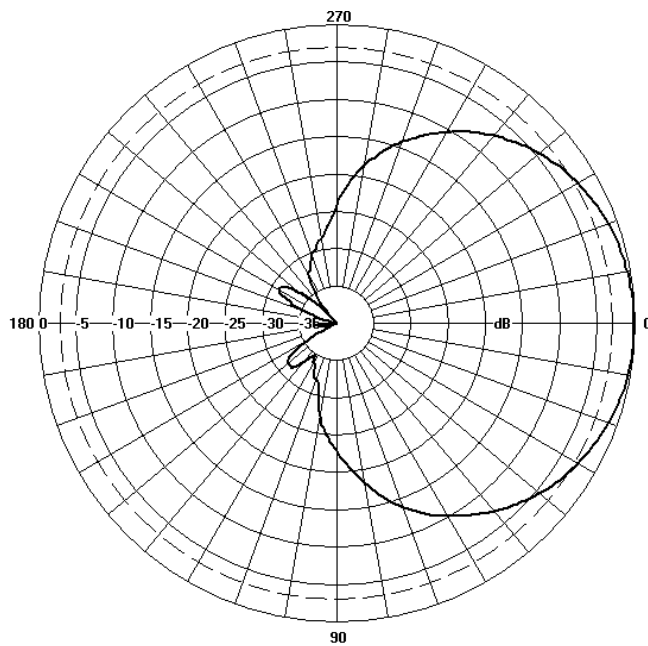
- Low band antenna 896-960MHz optimized for Anterix
- Optimised for 65 degree azimuth beamwidth.
- Electrical down tilt 2-10deg
- 4x4 MIMO for maximum throughput.
- Mounting bracket with variable elevation tilt (included).

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

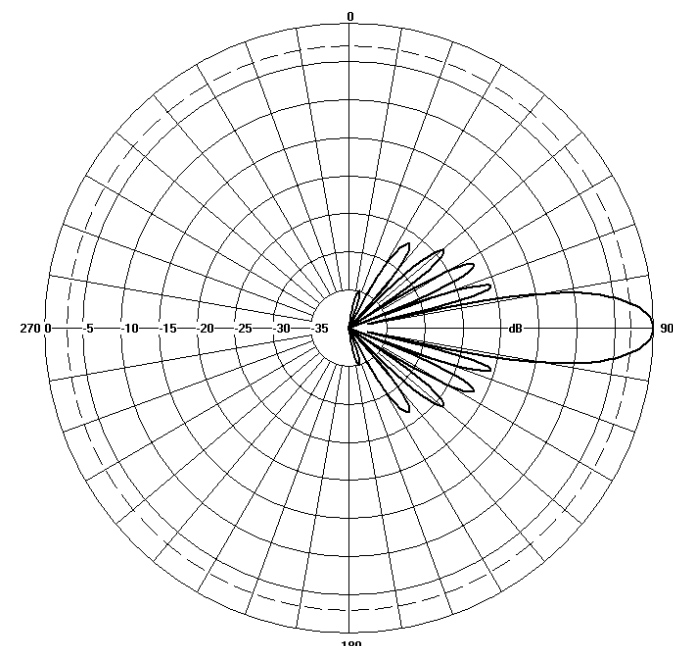
TECHNICAL SPECIFICATION

Electrical Specifications					
Frequency Range		MHz	896 - 918	918 - 940	940 - 960
Polarisation		Degree	+/-45°		
Gain	Basta	dBi	14.8±0.5	15.0±0.5	15.0±0.5
	Max	dBi	15.3	15.5	15.5
Azimuth Beamwidth		Degree	65°	65°	65°
Azimuth Beam Squint		Degree<	5°	5°	5°
Elevation Beamwidth		Degree	9.5°	9.3°	9°
Electrical Downtilt		Degree	T2° - T10°	T2° - T10°	T2° - T10°
Electrical Downtilt Deviation		Degree<	2°	2°	2°
Impedance		Ohms	50	50	50
VSWR		<	1.5	1.5	1.5
Return Loss		dB>	14	14	14
Isolation		dB>	25	25	25
Front to Back Ratio: Total Power +/-30°		dB>	22	22	22
Passive Intermodulation		dBc<	-150	-150	-150
Cross-Polar Discrimination		dB>	15	15	15
Maximum Effective Power Per Port		W	300	300	300

Representative Pattern Files



Azimuth



Elevation

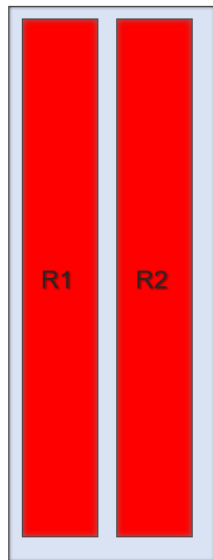
For radiation pattern files, please login at www.alphawireless.com

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
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	1063 (239)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	255 (58)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	Fiberglass
Radome Colour	RAL	9010
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



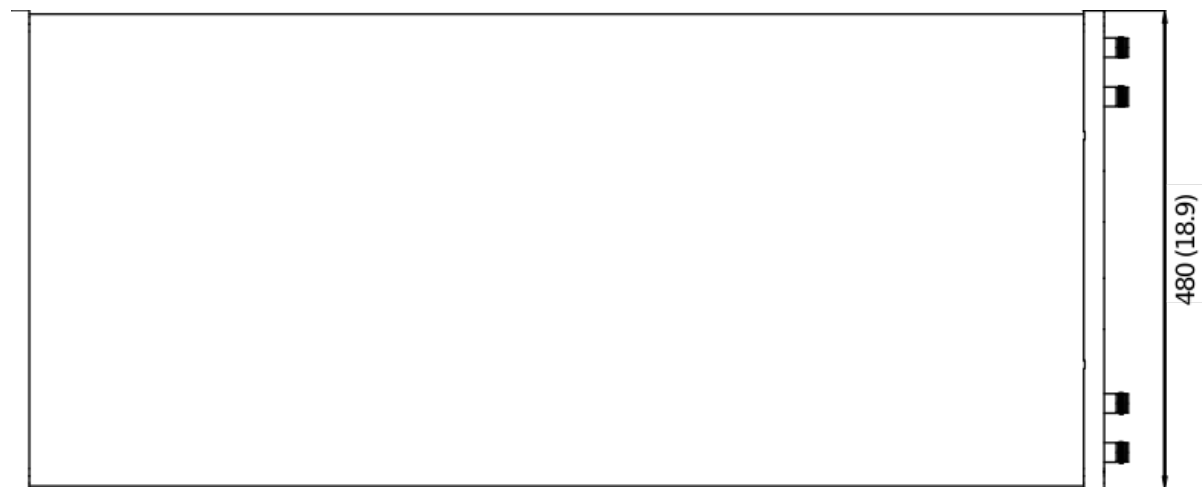
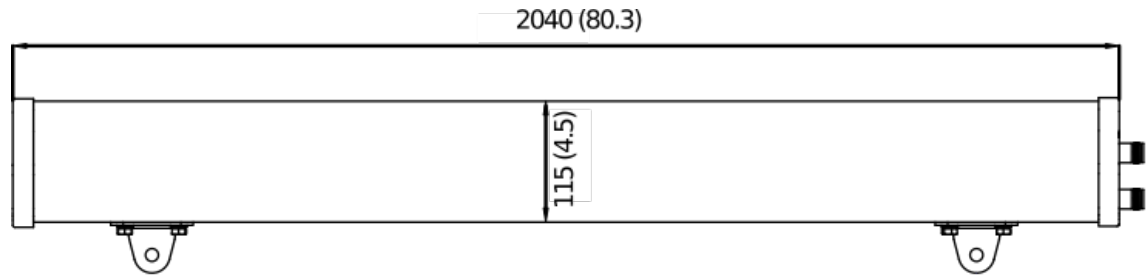
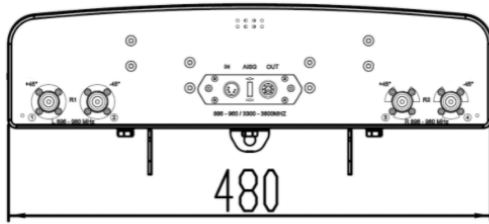
Note: Coloured box sizes do not represent antenna sizes.

Array	Frequency MHz	Ports	RET ID
R1	896 – 960	1 – 2	1
R2	896 – 960	3 – 4	2

Configuration	
896-960 MHz	One RET per 2 Port Array: R1, R2
Total Quantity	Two RET Motor Controller
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

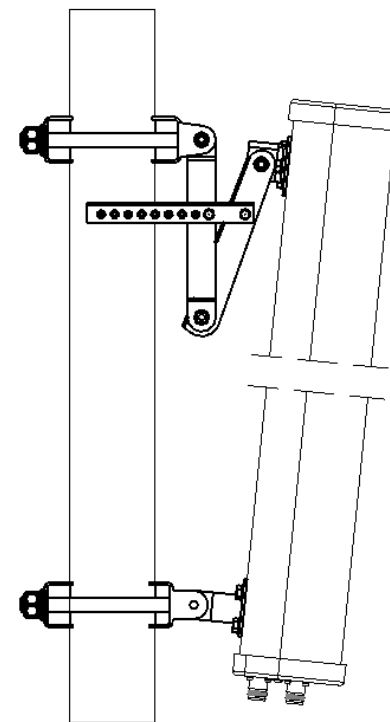
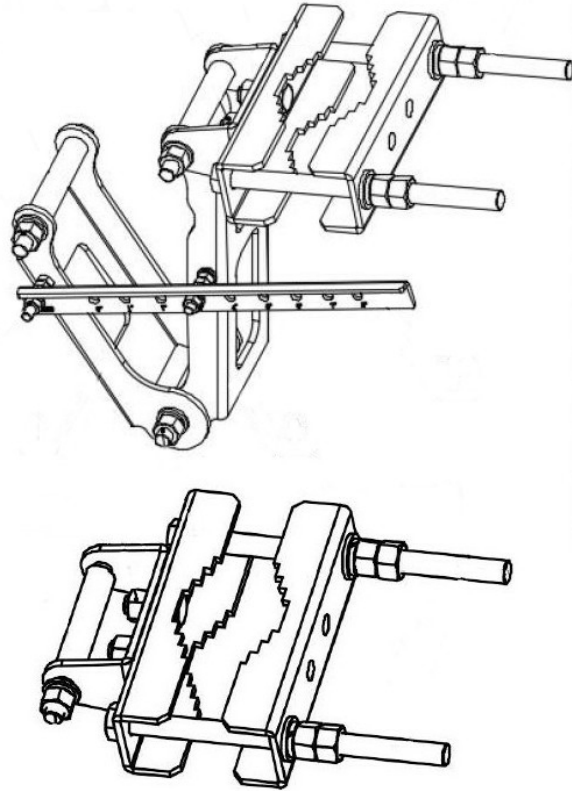
All measurements are in mm (in)



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 Diameter
+2° to -10°	Galvanised Steel	50mm-115mm (2" to 4.5")

Ordering Info

Order Code - Antenna

AW3931-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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