



Common Name - 18 (6/12) Port Small Cell Tri-Sector with eRET - 65°

1695-2690MHz	6	eRET	14	65°
3300-4200MHz	12	eRET	14.3	65°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This antenna has six Mid-band ports and twelve 3.5GHz (C-band) ports in a three foot high canister housing. The antenna is made up of three sectors orientated at 0°, 120° and 240° degrees azimuth. Each sector has two Mid-band ports and four 3.5GHz ports designed for 65° Azimuth Beamwidth.

Electrical Tilt allows optimisation of the Elevation Beam for throughput and coverage. Remote Electrical Tilt (RET) enables electrical tilt adjustment remotely over an IP Network or locally at the site using a hand held controller.

APPLICATION

Alpha Wireless multi-band small cell provides 3-sector coverage whilst in an ultra-compact radome design. This very special antenna provides 3G to 5G ports for ultimate data throughput. The antenna is designed to be installed in an urban environment where low visual impact is required. There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

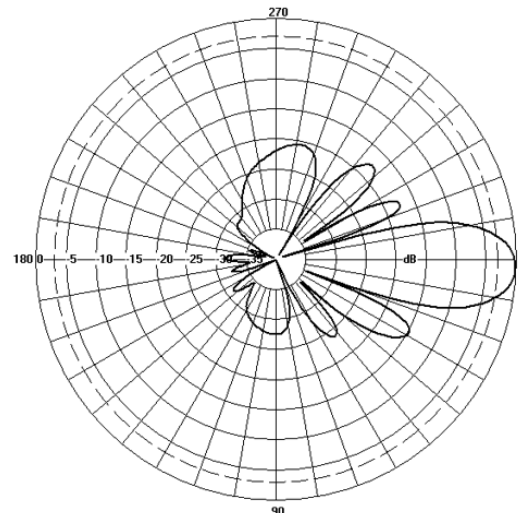
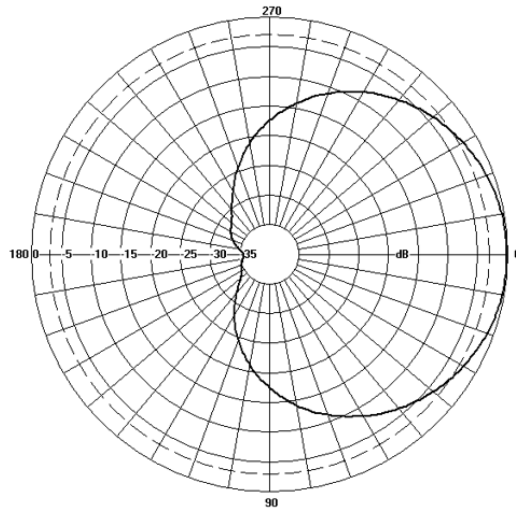
- Compact design - Low visual impact.
- 65° Azimuth Beamwidth on each of the three sectors.
- Total of six Mid-band ports and twelve 3.5GHz ports.
- Two Mid band ports per sector and four 3.5GHz ports per sector.
- High Band extends up to 4200MHz
- 1696-2690MHz eRET Tilt range of T2-T10.
- 3300-4200MHz eRET Tilt range of T2-T12.
- Three sectors orientated at 0, 120 and 240 degrees azimuth.
- Independent remote electrical tilt control across all three sectors.

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

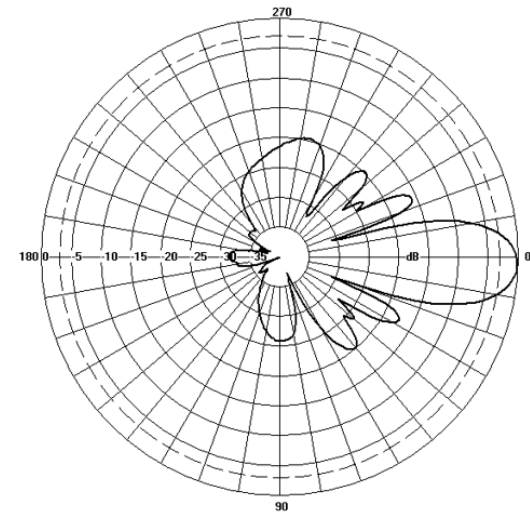
TECHNICAL SPECIFICATION

Electrical Specifications								
Frequency Range	MHz	1695-1995	1920-2300	2300-2690	3300-3500	3500-3800	3800-4200	
Polarisation	Degree	+/- 45° Slant Linear						
Gain	Basta	dBi	12.9±0.5	13.2±0.5	13.5±0.5	13.2±0.5	12.9±0.5	13.3±0.5
	Max	dBi	13.4	13.7	14.0	13.7	13.4	13.8
Azimuth Beamwidth	Degree	69°	65°	60°	67°	65°	62°	
Azimuth Beam Squint	Degree<	3°						
Elevation Beamwidth	Degree	19°	17°	15°	18°	16°	14°	
Electrical Downtilt	Degree	T2° - T10°	T2° - T10°	T2° - T10°	T2° - T12°	T2° - T12°	T2° - T12°	
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	
Passive Intermodulation	dBc<	-140	-140	-140	N/A	N/A	N/A	
Cross-Polar Discrimination (0°)	dB>	15	15	15	15	15	15	
Maximum Effective Power Per Port	W	100	100	100	50	50	50	

Representative Pattern Files



1695 - 2690MHz



3300 - 4200MHz

Azimuth

Elevation

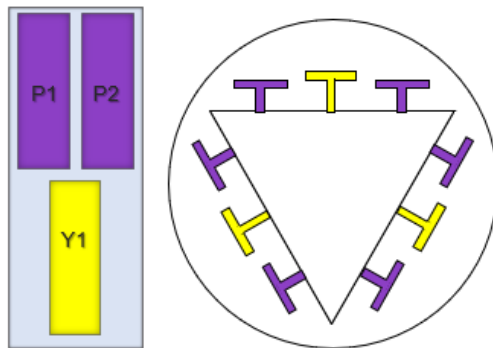
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	900 (35.4) x 273 (10.7)
Volume	ft ³ (l)	7.44 (210)
Packing Size (LxWxD)	mm (in)	1025 (40.3) x 380 (15.0) x 380 (15.0)
Net Weight (antenna)	kg (lb)	10 (22)
Shipping Weight	kg (lb)	12 (26.4)
Connector Type (Female)	-	4.3-10
Connector Position	-	Bottom
Connector Quantity	-	18 (6P Mid-Band, 12P High-Band)
Windload Frontal (at Rated Wind Speed: 150km/h)	N	199 (45)
Windload Lateral (at Rated Wind Speed: 150km/h)	N	199 (45)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV Stabilised ABS capped ASA
Radome Colour	RAL	7035 (light grey)
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

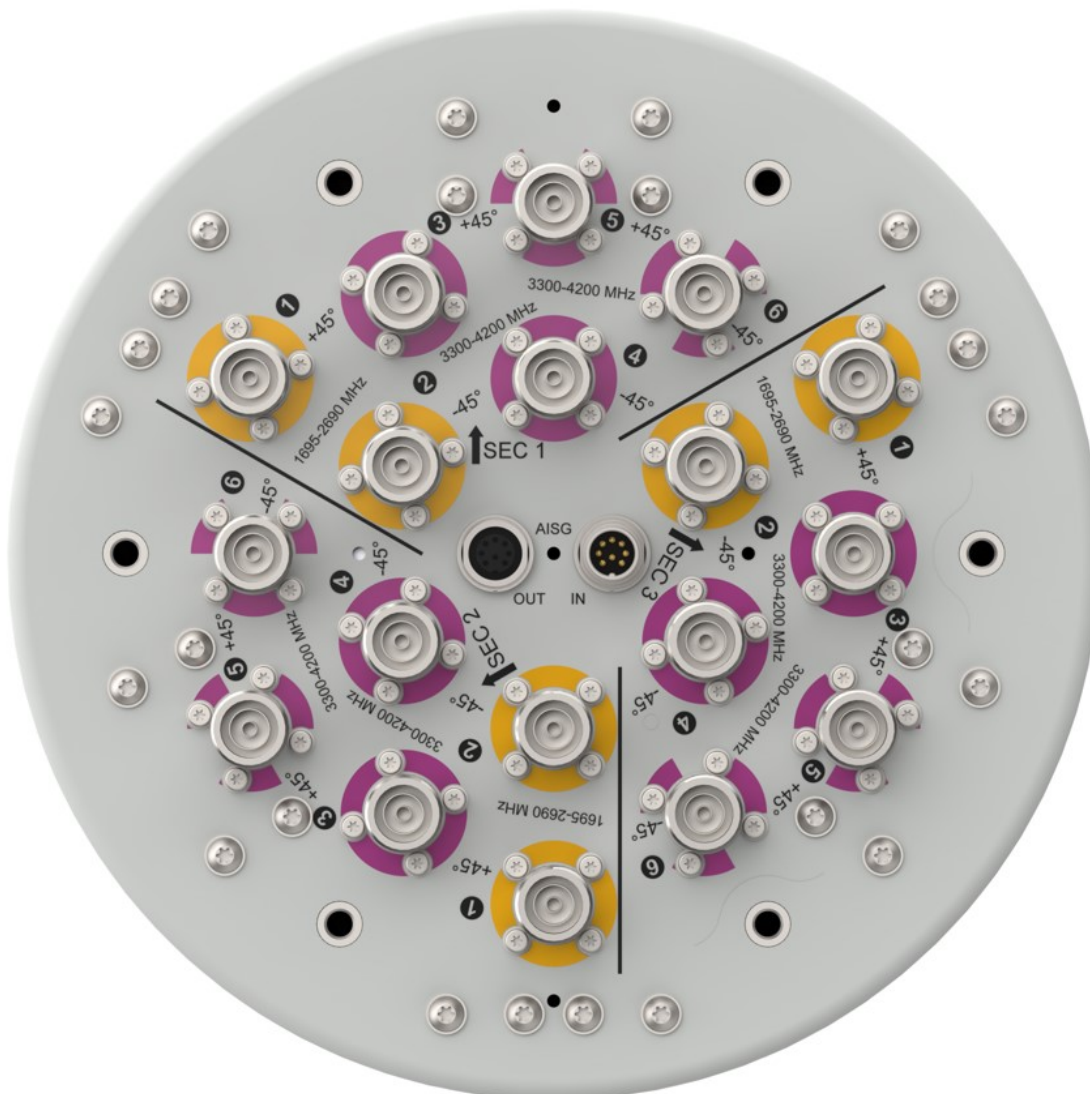
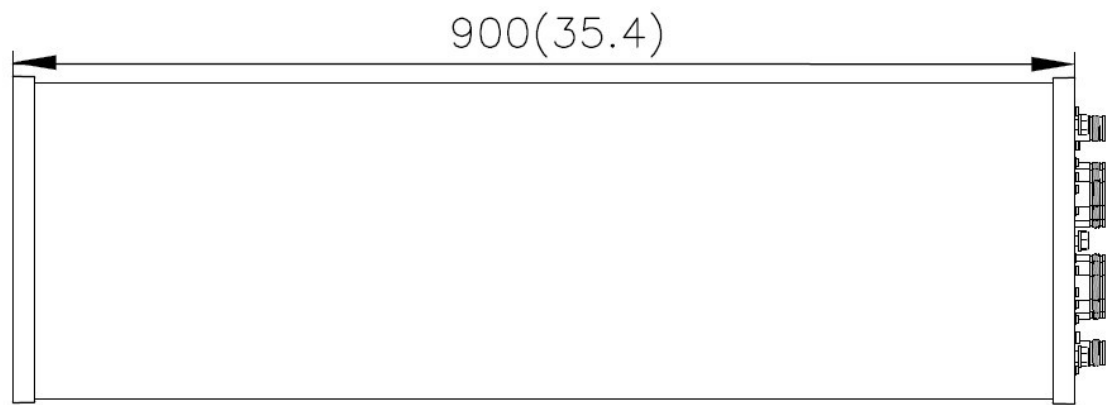
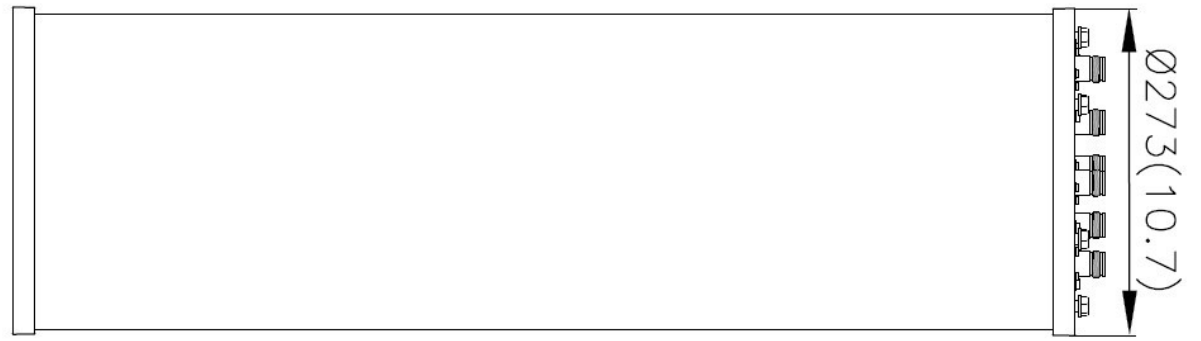
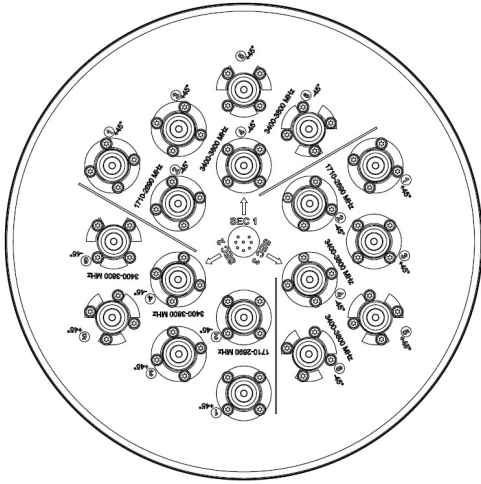


Note: Coloured box sizes do not represent antenna sizes.

Array	Frequency MHz	Ports	RET ID
Y1	1695 - 2690	1 - 2	1
P1	3300 - 4200	3 - 4	2
P2	3300 - 4200	5 - 6	2

Configuration	
1695 - 2690 MHz	One RET per array: Y1
3300 - 4200 MHz	One RET per two arrays: P1, P2
Total Quantity	Six RET Motor Controllers
Location and Interface	
RET Controller Location	Inside antenna radome housing
RET Interface	Male AISG 8 Pin DIN connector.
RET Interface Quantity	Single Male AISG 8 Pin DIN connector
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

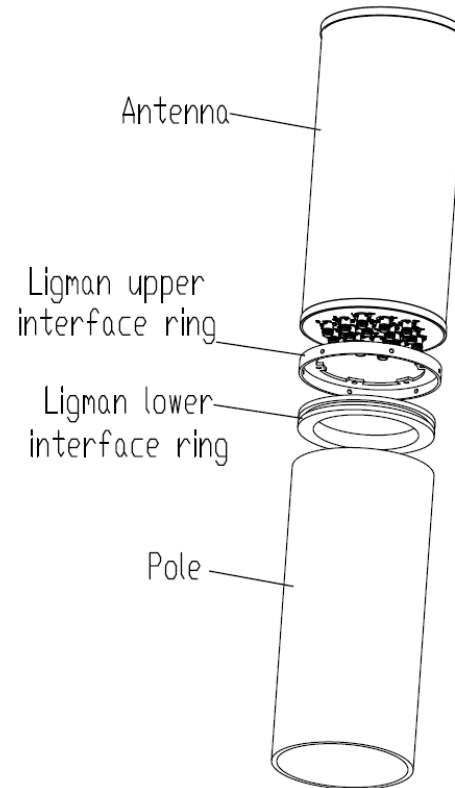
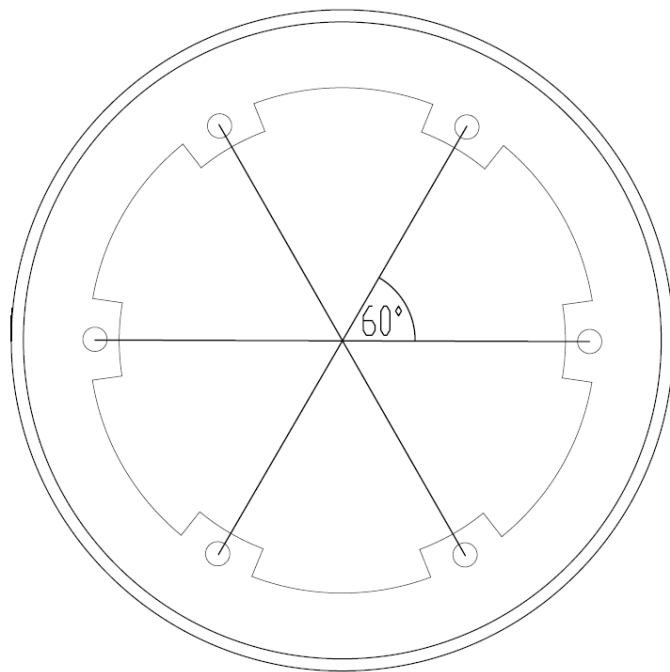
Mechanical Illustration



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-190 (For Illustration only. Upper and Lower mount interface rings are not included with antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
N/A	Stainless Steel	N/A

Ordering Info

Order Code - Antenna

AW3913-E-F-ZB

Order Code - Accessories

AW1012-2-FM-FM

AW1012-2-FM-NM

AW1014-2-FM-TM

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")

Enquiries

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