



AW3689-M-F

Common Name 20 Port (8P/8P/4P) 24" Multiband Small Cell Panel

Frequency	Ports	Tilt	Gain	Beamwidth
1695-2690MHz	8	MET	14	65°
3300-3800MHz	8	Fixed	11	65°
5150-5925MHz	4	Fixed	6	65°

PRODUCT INFORMATION

This Product design is intended to offer eight ports on Mid Band, eight ports on CBRS and four ports on LAA. The Mid Band arrays have Manual Electrical Tilt (MET). The connector type is 4.3-10. The product is contained within a two foot high housing.

APPLICATION

This Alpha Wireless multi-band small cell provides sector coverage in an ultra compact radome design. This very special antenna provides 2G to 5G ports with LAA for ultimate data throughput. The antenna is designed to be installed in an urban environment where high port count and 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

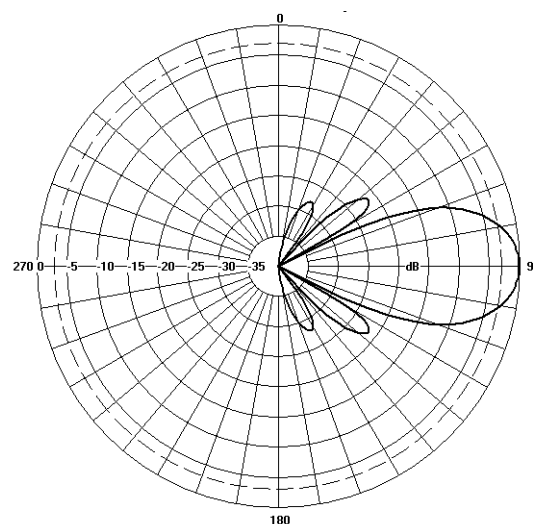
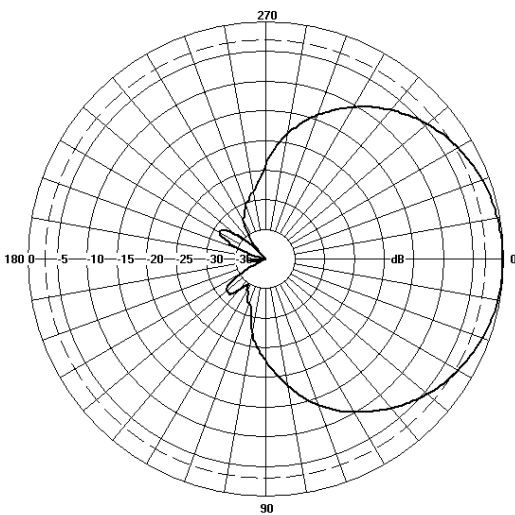
- High port enabling multiple operators.
- High Data rate frequency bands covered including Mid-Band, CBRS (3300-3800MHz) and LAA.
- Compact design for low visual impact.
- Mechanical electrical tilt of 2 to 10 degrees on Mid Band.
- Manufactured in Ireland.

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

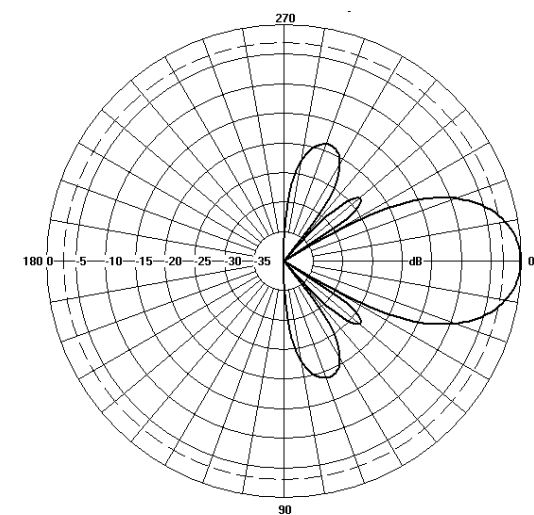
TECHNICAL SPECIFICATION

Electrical Specifications								
Frequency Range	MHz	1695-1995	1920-2170	2170-2500	2500-2690	3300-3800	5150-5925	
Polarisation	Degree	+/- 45° Slant Linear						
Gain	Basta	dBi	12.9 ±0.5	13.3 ±0.5	13.5 ±0.5	13.7 ±0.5	10.5 ±0.5	5.5 ±0.5
	Max	dBi	13.4	13.8	14.0	14.2	11.0	6.0
Azimuth Beamwidth	Degree	71°	67°	63°	58°	60°	60°	
Azimuth Beam Squint	Degree<	5°						
Elevation Beamwidth	Degree	19°	17°	15°	13°	30°	25°	
Electrical Downtilt	Degree	T2° - T10°	T2° - T10°	T2° - T10°	T2° - T10°	T0°	T0°	
Electrical Downtilt Deviation	Degree<	1.5	1.5	1.5	1.5	3.0	3.0	
Impedance	Ohms	50						
VSWR	<	1.5						
Return Loss	dB>	14						
Intraband (same band/same array)	dB>	25	25	25	25	25	25	
Network to Network (same band different array)	dB>	28	28	28	28	28	28	
Interband (different band and array)	dB>	28	28	28	28	28	28	
Passive Intermodulation	dBc<	-153	-153	-153	-153	-145	N/A	
Upper Sidelobe Suppression, Peak to 20°	dB>	16	16	16	16	N/A	N/A	
Cross-Polar Discrimination	dB>	16	16	16	16	16	16	
Maximum Effective Power Per Port	W	250	250	250	250	50	1	

Representative Pattern Files



1695 - 2690MHz



3.5GHz / 5.5GHz

Azimuth

Elevation

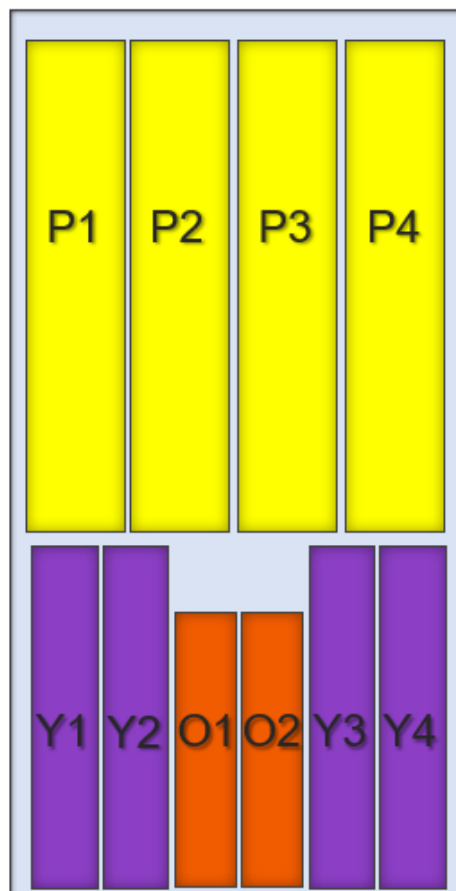
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	610 (24) x 470 (18.5) x 125 (4.9)-(LxWxH)
Volume	ft ³ (l)	1.3 (36.8)
Packing Size (LxWxD)	mm (in)	800 (31.5) x 510 (20.1) x 190 (7.5)
Net Weight (antenna)	kg (lb)	9.5 (21)
Net Weight (mount)	kg (lb)	1.5 (3.3)
Shipping Weight	kg (lb)	11.0 (24)
Connector Type (Female)	-	4.3-10
Connector Position	-	Bottom
Connector Quantity	-	20 (8P Mid band, 8P High Band CBRS and 4P High Band LAA)
Windload Frontal (at Rated Wind Speed: 150km/h)	N	260 (59)
Windload Lateral (at Rated Wind Speed: 150km/h)	N	90 (20)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	ASA capped ABS
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)

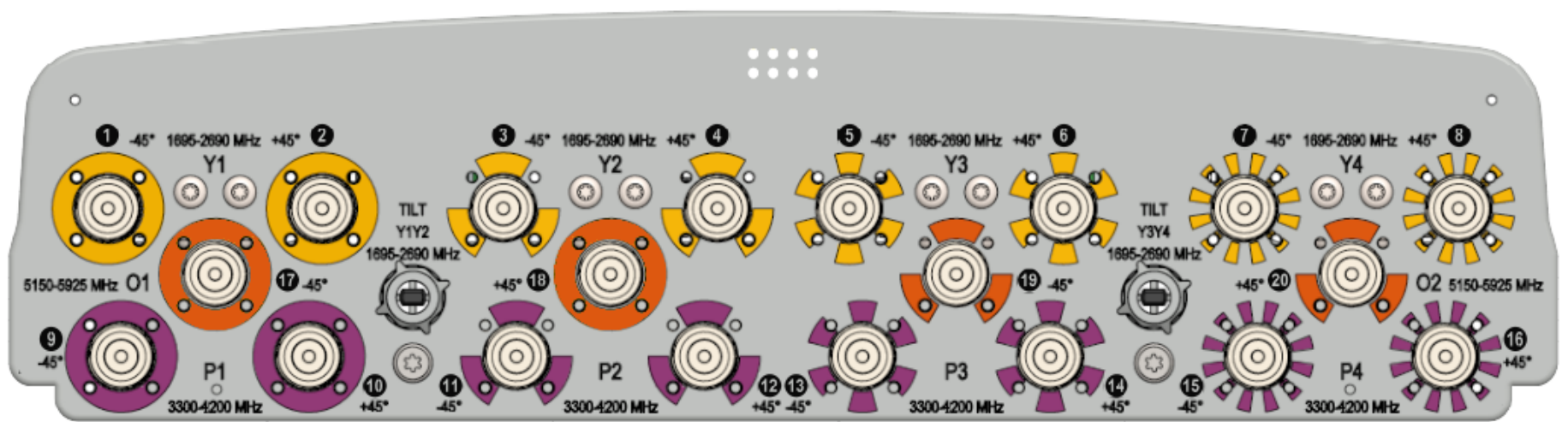
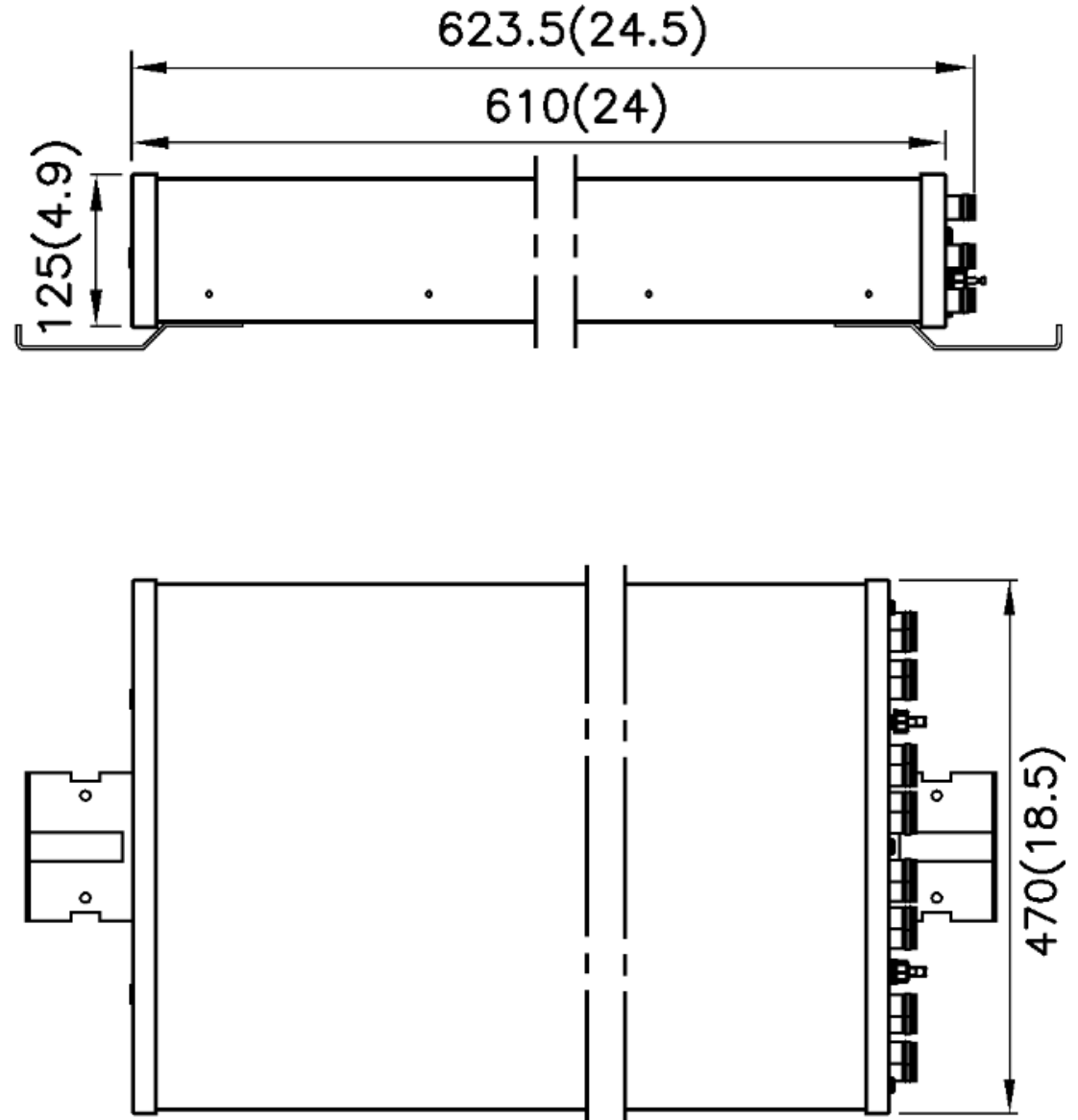
Array Layout and RET Information



Note: Coloured box sizes do not represent antenna sizes.

Array	Frequency MHz	Ports	MET ID
Y1	1695 - 2690	1 - 2	1
Y2	1695 - 2690	3 - 4	1
Y3	1695 - 2690	5 - 6	2
Y4	1695 - 2690	7 - 8	2
P1	3300 - 4200	9 - 10	N/A
P2	3300 - 4200	11 - 12	N/A
P3	3300 - 4200	13 - 14	N/A
P4	3300 - 4200	15 - 16	N/A
O1	5150 - 5925	17 - 18	N/A
O2	5150 - 5925	19 - 20	N/A

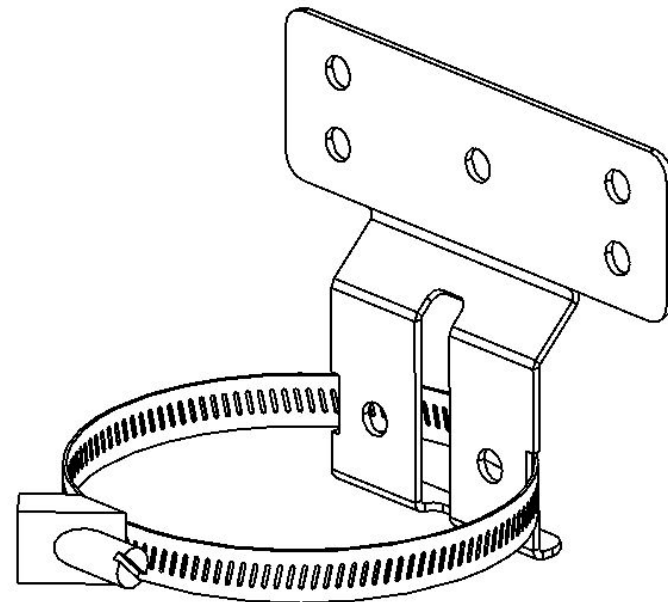
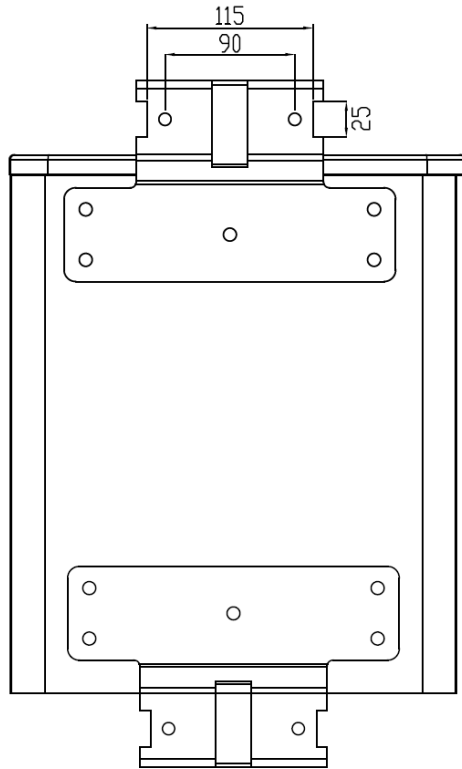
Mechanical Illustration



TECHNICAL SPECIFICATION

Mounting Bracket Kit

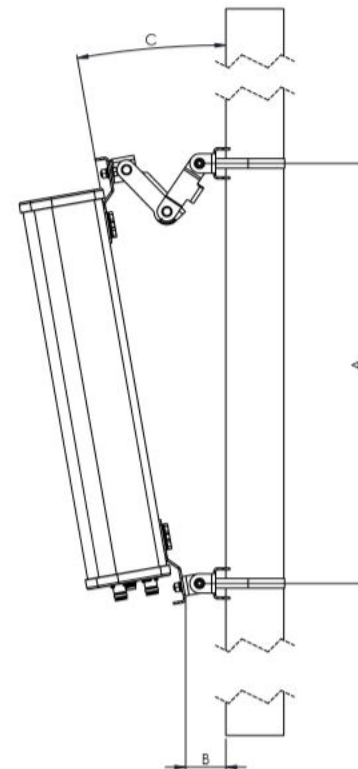
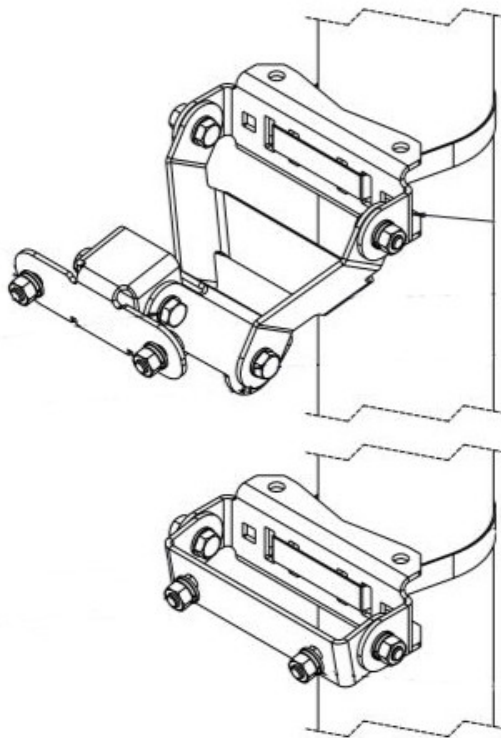
CL-V-158 (210mm-242mm Quick Release Hose Strap & Mounting Kit Included with Antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
0° to -10°	Stainless Steel	N/A

Mounting Bracket Kit

CL-V-156 Adjustable Mount Kit Accessory



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
0° to 10°	Stainless Steel	N/A



Ordering Options

Order Code - Antenna

AW3689-M-F

Order Code - Accessories

CL-V-156

AW1012-2-FM-FM

AW1012-2-FM-NM

AW1014-2-FM-TM

Description

Manual Electrical Tilt with 4.3-10 connectors.

Description

Adjustable Mounting Accessory for CL-V-158

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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