



Common Name 16 Port (8P/8P) Multiband Fusion OMNI Antenna

1695-2690MHz	8	Fixed	8.0	360°
3300-4200MHz	8	Fixed	9.0	360°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

The AW4032 is an 16-port multiband omnidirectional antenna that provides 360° of horizontal coverage. This canister antenna has eight ports for 1695 – 2690 MHz and eight ports for 3300 – 4200 MHz.

The Fusion platform is built from two modular antenna sections that wrap around the pole. This creates a concealed antenna solution that can be mounted on existing pole infrastructures. Its small form factor reduces pole loading, streamlines aesthetics, and eliminates RF shadowing from the pole.

This antenna is a visually appealing solution to deliver 4G and 5G services for high-capacity venues, hot spots, and urban environments. The omni antenna makes efficient use of limited real estate by supporting multiple radios across dual frequency bands with 4x4 MIMO for maximum throughput. This antenna provides a strong signal to noise ratio throughout the entire small cell which is afforded through its wide elevation beamwidth, high gain, and minimal azimuth pattern ripple.

APPLICATION

Alpha Wireless multi-band small cell provides omni coverage whilst in an ultra-compact radome design. This antenna provides multiple ports for ultimate data throughput in 4G and 5G applications. The antenna is designed to be installed in an urban environment where low visual impact is required.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

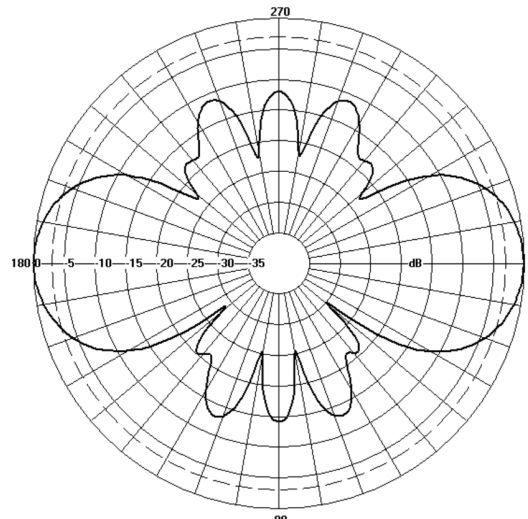
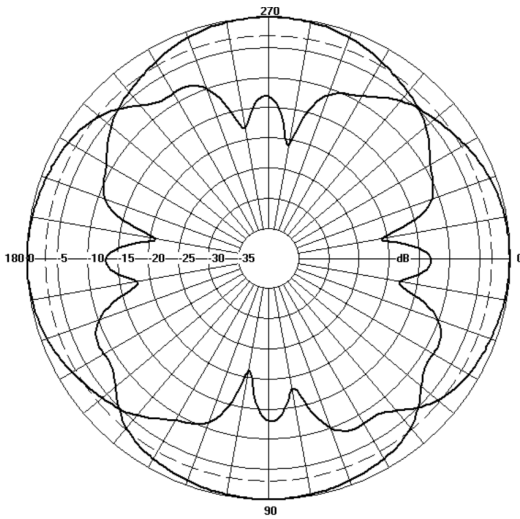
- Wraps around existing pole infrastructure
- Allows 4x4 MIMO on dual bands for multiple radios.
- Minimal nulls in the azimuth pattern for consistent azimuth coverage.
- Eight ports for 1695 – 2690 MHz (including n77).
- Eight ports for mid band 3300 – 4200 MHz (including n78).
- High port count enabling multiple operators.
- Compact design - Low visual impact.

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

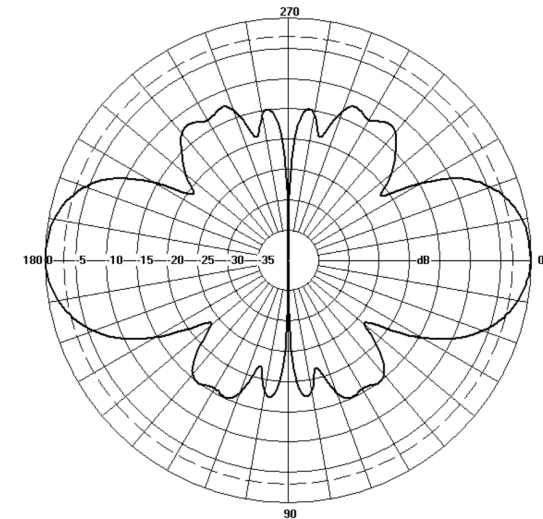
TECHNICAL SPECIFICATION

Electrical Specifications								
Frequency Range	MHz	1695-1995	1920-2170	2170-2500	2500-2690	3300-3600	3600-4200	
Polarisation	Degree	+/- 45° Slant Linear						
Gain	Basta	dBi	6.0±0.5	6.5±0.5	6.9±0.5	7.5±0.5	8.0±0.5	8.5±0.5
	Max	dBi	6.5	7.0	7.4	8.0	8.5	9.0
Azimuth Beamwidth	Degree	360°	360°	360°	360°	360°	360°	
Elevation Beamwidth	Degree	40°	38°	32°	30°	32°	28°	
Electrical Downtilt	Degree	T0°	T0°	T0°	T0°	T0°	T0°	
Electrical Downtilt Deviation	Degree<	3°	3°	3°	3°	3°	3°	
Impedance	Ohms	50						
VSWR	<	1.5						
Return Loss	dB>	14						
Isolation	dB>	25	25	25	25	25	25	
Passive Intermodulation	dBc<	-150	-150	-150	-150	N/A	N/A	
Cross-Polar Discrimination (0°)	dB>	10	10	10	10	10	10	
Maximum Effective Power Per Port	W	50	50	50	50	50	50	

Representative Pattern Files



1695- 2690MHz



3300 - 4200MHz

Azimuth

Elevation

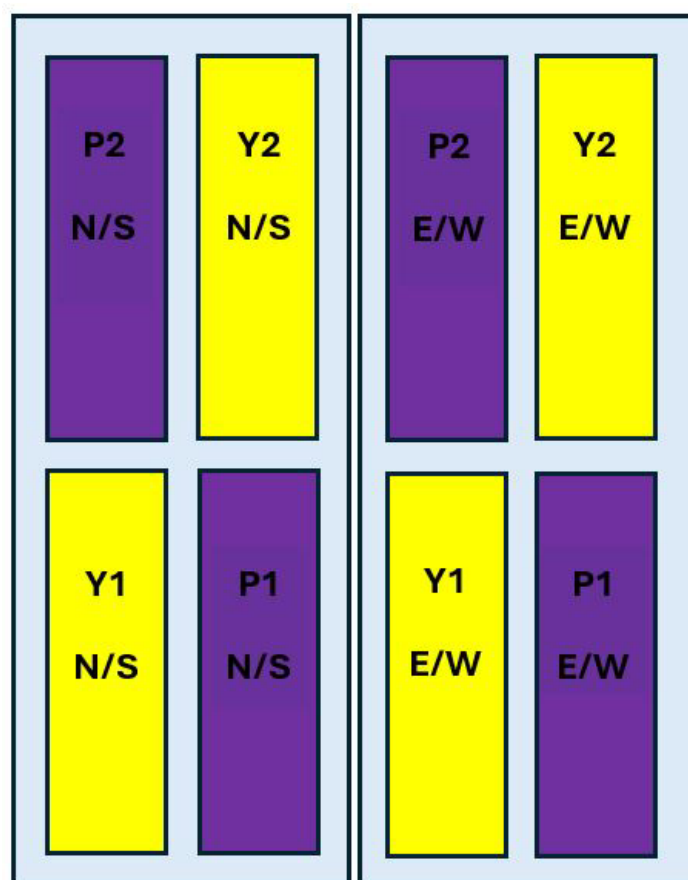
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions (LxWxD) or (L x Diameter)	mm (in)	440 (17.2) x 310 (12.2) x 310 (12.2)
Packing Size (LxWxD)	mm (in)	560 (22.0) x 415 (16.3) x 425 (16.7)
Net Weight (antenna)	kg (lb)	8.95 (19.7)
Shipping Weight	kg (lb)	13.3 (29.3)
Connector Type (Female)	-	4.3-10
Connector Position	-	Bottom
Connector Quantity	-	16 (8 Ports Mid Band, 8 Ports High Band)
Windload Frontal (at Rated Wind Speed: 150km/h)	N	75 (17)
Windload Lateral (at Rated Wind Speed: 150km/h)	N	75 (17)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	ASA
Radome Colour	RAL	9005
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



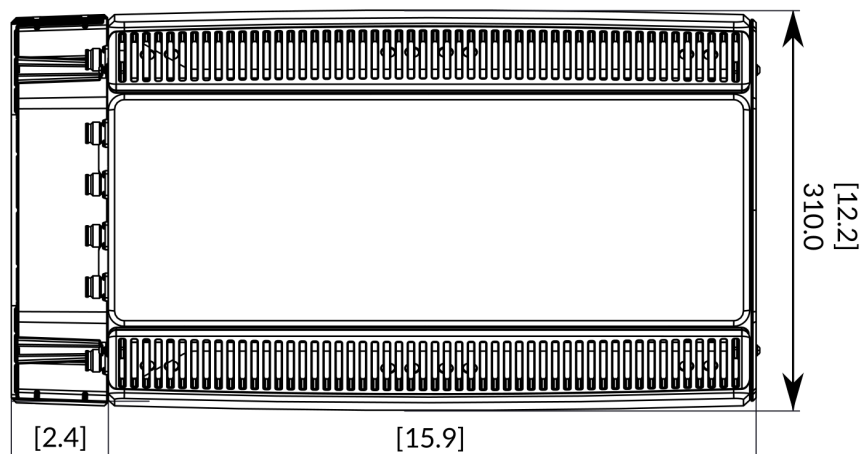
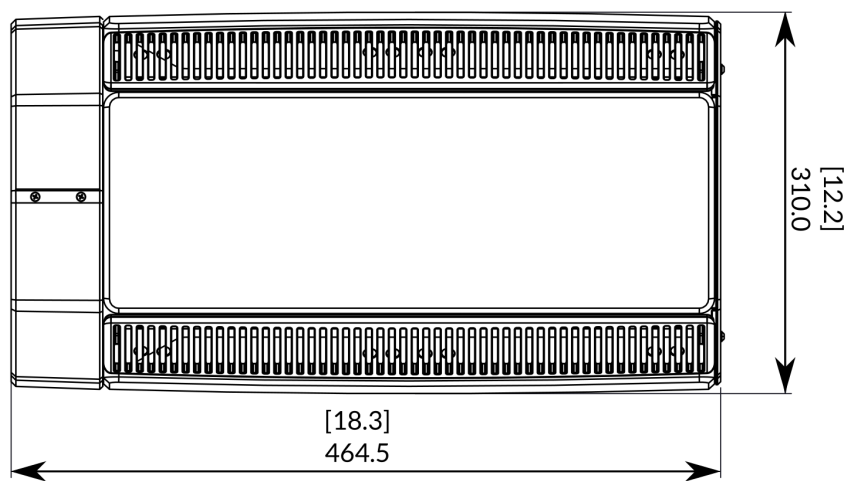
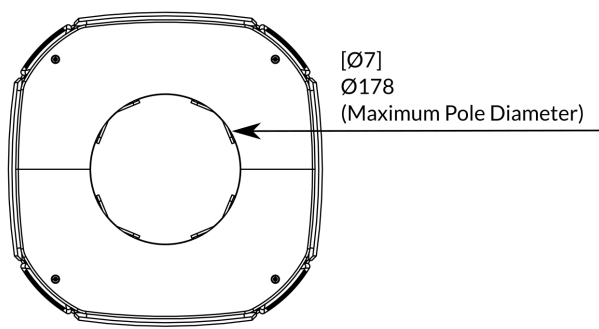
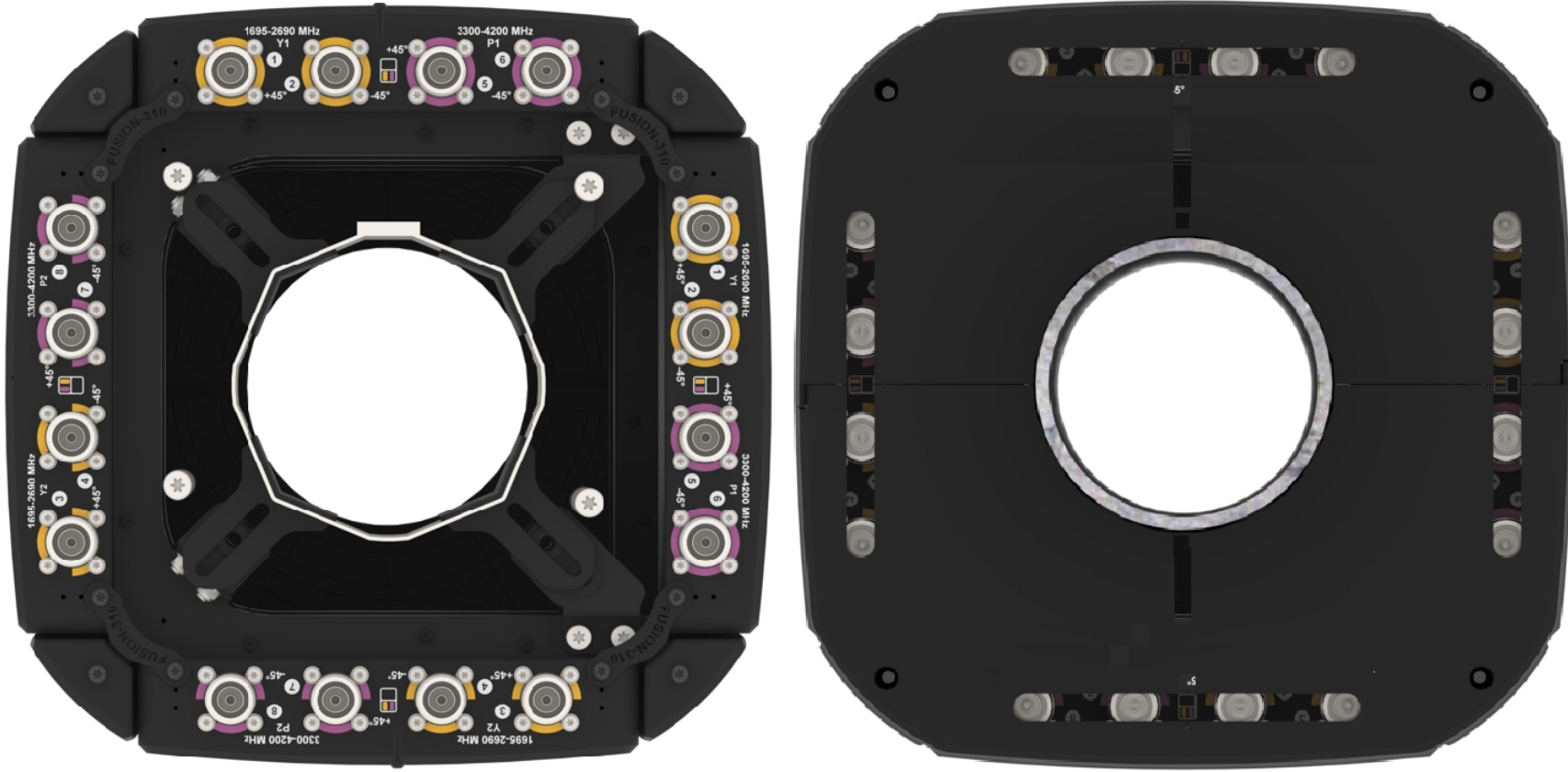
Orientation	Array	Frequency	Ports
North/South (N/S)	Y1	1695 -2690 MHz	1 – 2
North/South (N/S)	Y2		3 – 4
East/West (E/W)	Y1		1 – 2
East/West (E/W)	Y2		3 – 4
North/South (N/S)	P1	3300 – 4200 MHz	5 – 6
North/South (N/S)	P2		7 – 8
East/West (E/W)	P1		5 – 6
East/West (E/W)	P2		7 – 8

Note: Coloured box sizes do not represent antenna sizes



AW4032-T0-F-BL

Mechanical Illustration



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-225 Mount Kit (Included with Antenna)

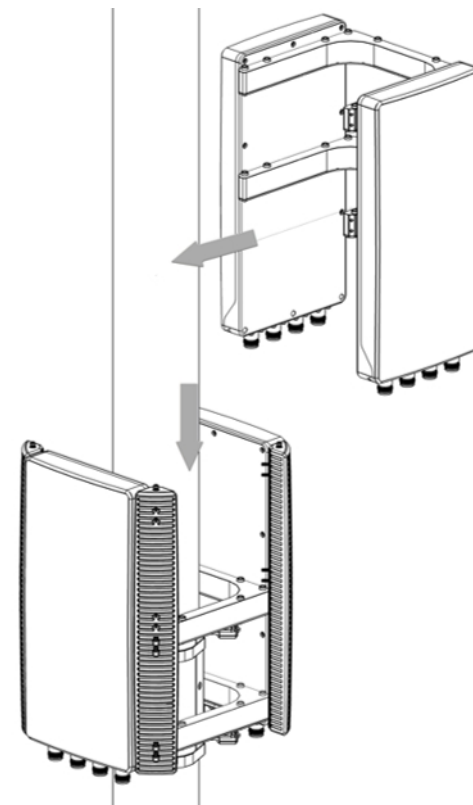
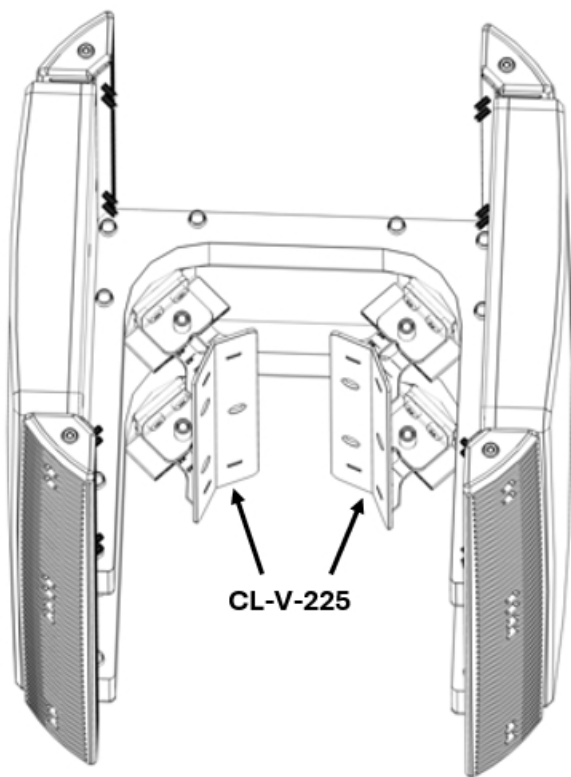


Quick Release Hose Clip used on Metal Pole



Hex Head Self Driving Screws and Quick Release Hose Clips used on Wooden Pole

N/A	Black Powder Coated Stainless Steel	88.9mm-180mm (3.5" to 7.1")
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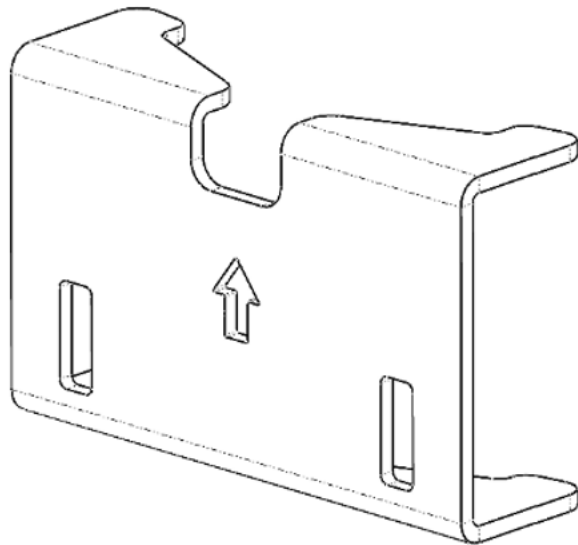
AW4032-T0-F-BL

TECHNICAL SPECIFICATION

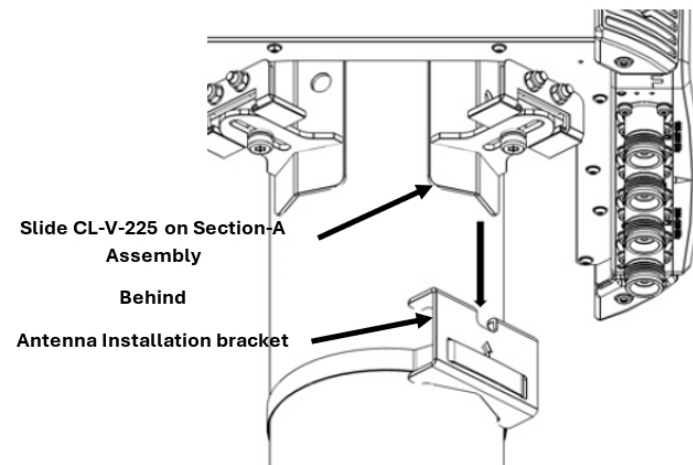
Mounting Bracket Kit

Antenna Installation Bracket (Included with Antenna)

Antenna Installation Bracket is not an individually orderable item.



Antenna Installation Bracket



Ordering Info

Order Code - Antenna

AW4032-T0-F-BL

Description

Enclosed Remote Electrical Tilt (eRET) with 4.3-10 Connectors.

Order Code - Accessories

AW1012-2-FM-FM

AW1012-2-FM-NM

AW1014-2-FM-TM

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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