



**Common Name** 16 Port (8P/8P) Multiband Omni Antenna

1695-2690MHz	8	Fixed	8.0	360°
3300-4200MHz	8	Fixed	9.1	360°
Frequency	Ports	Tilt	Gain	Beamwidth

## PRODUCT INFORMATION

This product was designed to offer Mid-band as well as 3.5GHz functionality in a compact housing for multi-operator applications. This omni-directional antenna provides 8 ports on Mid Band and 8 ports on 3.5GHz (CBRS).

## 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
---------------	---------------------



## FEATURES

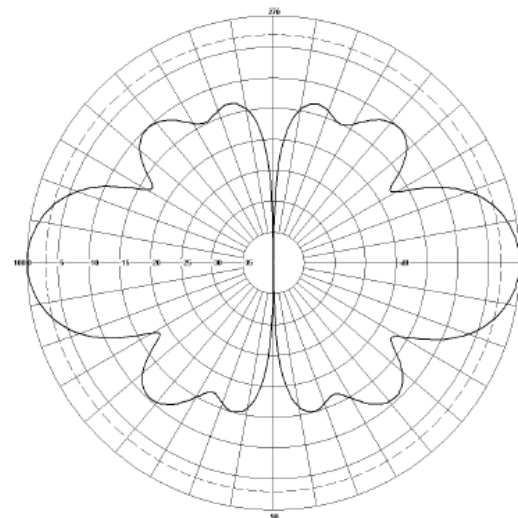
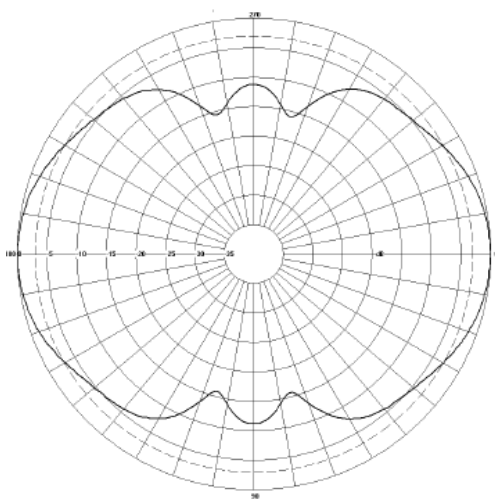
- Allows 4x4 MIMO on dual bands for multiple operators
- Minimal nulls in the azimuth pattern for consistent azimuth coverage
- Pole-top and side-arm mounting options
- High port count enabling multiple operators
- Compact design - Low visual impact.

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

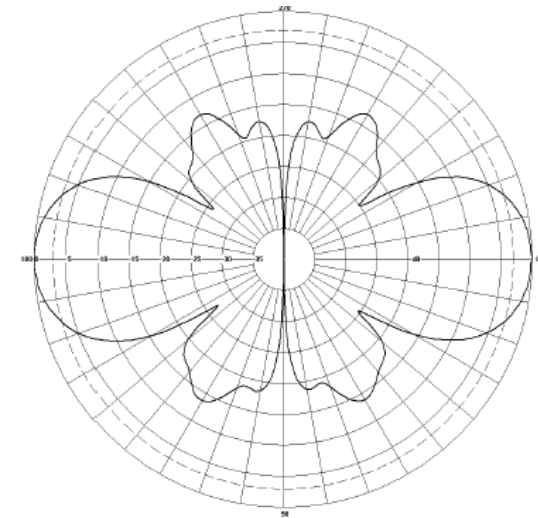
## TECHNICAL SPECIFICATION

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	8.5±0.5	8.6±0.5
	Max	dBi	6.5	7.0	7.4	8.0	9.0	9.1
Azimuth Beamwidth	Degree	360°	360°	360°	360°	360°	360°	360°
Elevation Beamwidth	Degree	40°	38°	32°	30°	31°	30°	
Electrical Downtilt	Degree	T0°	T0°	T0°	T0°	T0°	T0°	T0°
Electrical Downtilt Deviation	Degree<	3°	3°	3°	3°	3°	3°	3°
Impedance	Ohms	50						
VSWR	<	1.5						
Return Loss	dB>	14						
Isolation	dB>	25	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	10
Maximum Effective Power Per Port	W	50	50	50	50	50	50	50

## Representative Pattern Files



1695- 2690MHz



3300 - 4200MHz

Azimuth

Elevation

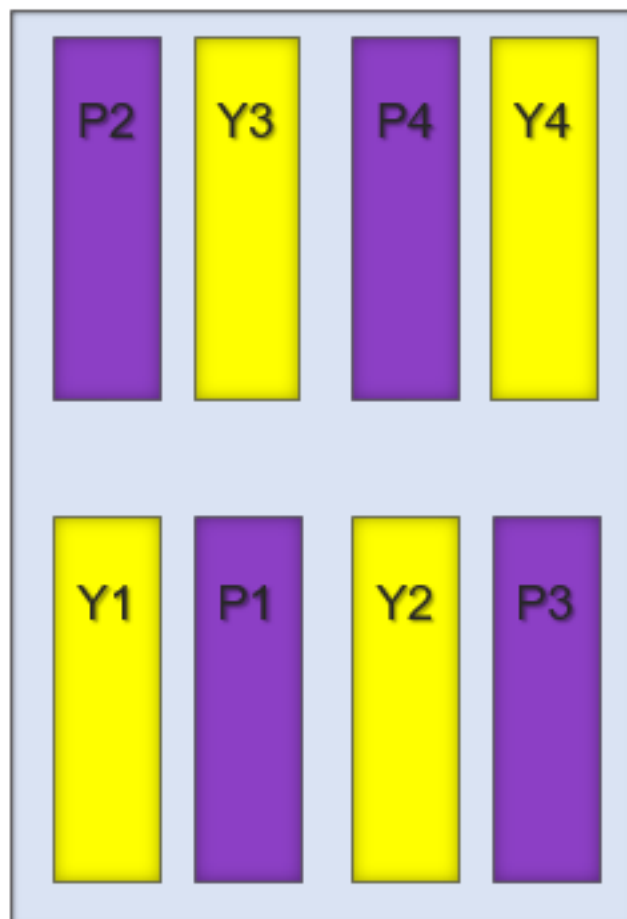
For radiation pattern files, please login at [www.alphawireless.com](http://www.alphawireless.com)

## TECHNICAL SPECIFICATION

### Mechanical Specifications

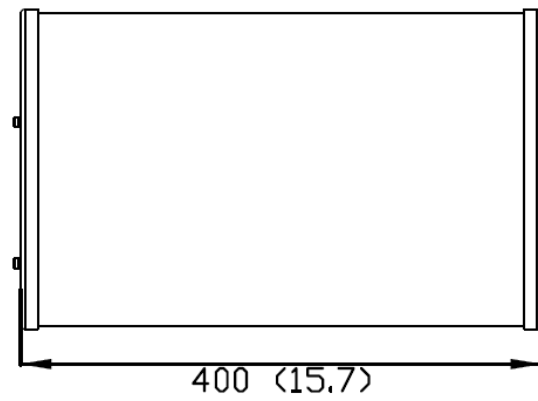
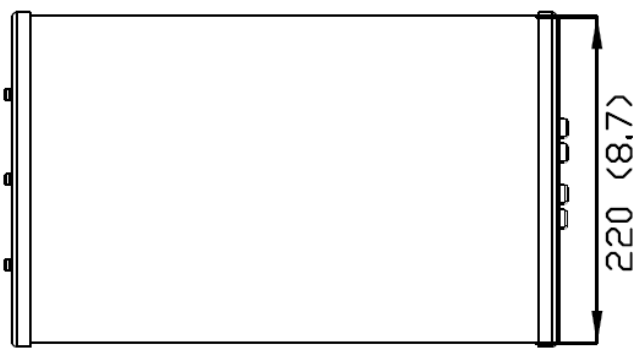
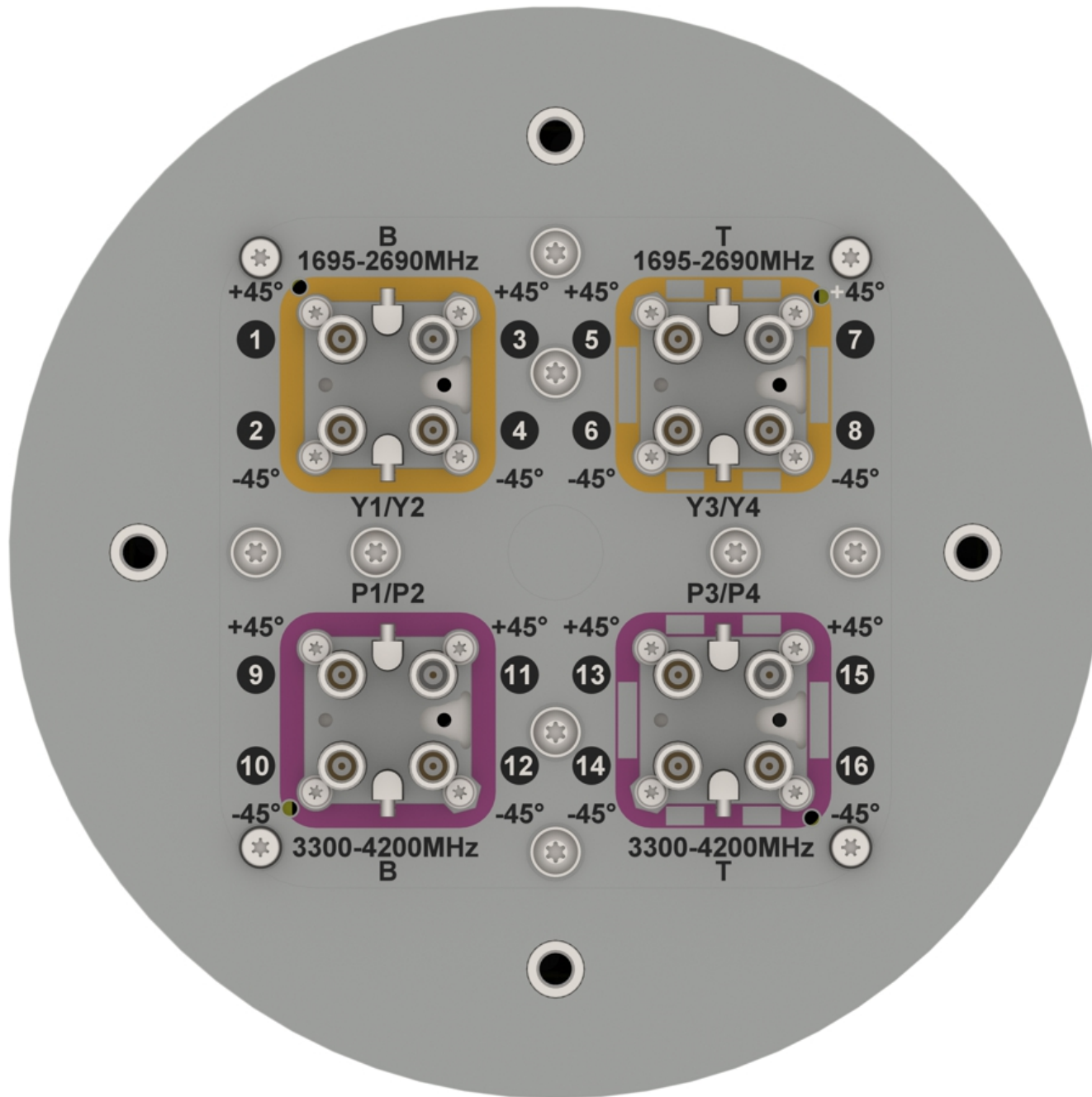
Dimensions	mm (in)	400 (15.7) x 220 (8.7) - Antenna
Packing Size (LxWxD)	mm (in)	TBD
Net Weight (antenna)	kg (lb)	4.1 (9.0)
Net Weight (mount)	kg (lb)	1.55 (3.4)
Shipping Weight	kg (lb)	9 (19.8)
Connector Type (Female)	-	M-LOC
Connector Position	-	Bottom
Connector Quantity	-	16 8 Ports Mid Band, 8 Ports High Band.
Windload Frontal (at Rated Wind Speed: 150km/h)	N	68 (15)
Windload Lateral (at Rated Wind Speed: 150km/h)	N	68 (15)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	ASA capped ABS
Radome Colour	RAL	7035
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



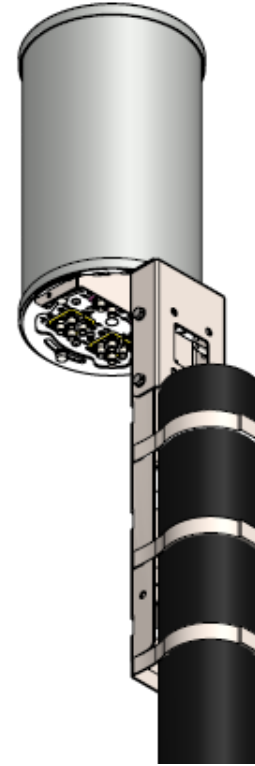
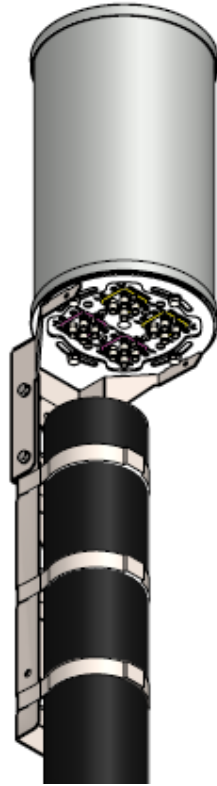
Array	Frequency	Ports
Y1	1695 – 2690 MHz	1 – 2
Y2		3 – 4
Y3		5 – 6
Y4		7 – 8
P1	3300 – 4200 MHz	9 - 10
P2		11 - 12
P3		13 - 14
P4		15 - 16

## Mechanical Illustration



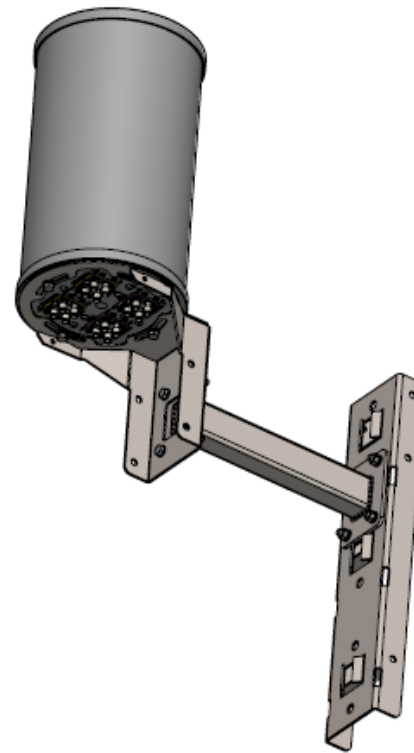
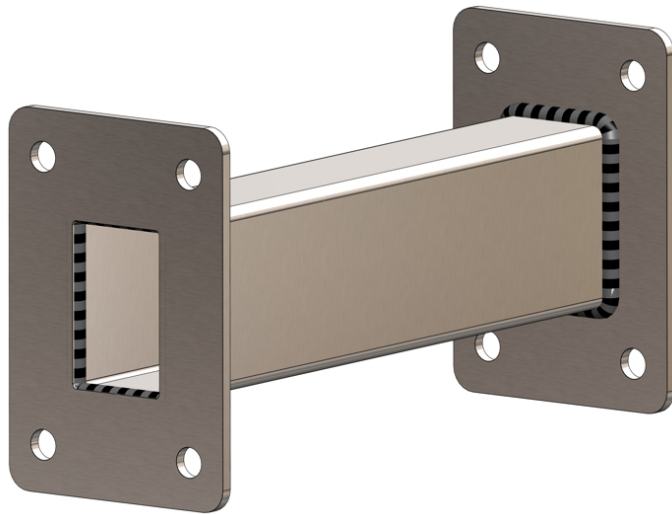
**Mounting Bracket Kit**

CL-V-205 Pole Mount Bracket. Included with antenna. Note: Pole Mount Straps are not included with the antenna.



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
N/A	Galvanized Steel	76mm-127mm (3" to 5")

CL-V-206 Horizontal Extension Arm for CL-V-205. Note: CL-V-206 is not included with antenna, must be ordered separately.



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



## TECHNICAL SPECIFICATION

### Ordering Info

#### Order Code - Antenna

AWL3964-T0-C

#### Order Code - Accessories

AW1012-2-FM-FM

AW1012-2-FM-NM

AW1014-2-FM-TM

#### Description

Zero Degrees Fixed Tilt 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

#### Global Headquarters

Ashgrove Business Centre,  
Ballybrittas, Portlaoise,  
R32 DT0A, IRELAND  
[sales@alphawireless.com](mailto:sales@alphawireless.com)  
+353 57 86 33847

#### North America

7301 W. 129th Street, Suite 150,  
Overland Park,  
KS 66213, USA  
[sales@alphawireless.com](mailto:sales@alphawireless.com)  
+1 913 279 0008

#### Australia

3/76 Regentville Rd,  
Jamisontown,  
NSW 2750, AUSTRALIA  
[sales@alphawireless.com](mailto: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