



DATASHEET

AW3499-T0-F

Common Name- 4Ports, 13", Bands 42, 43 & 48, MIMO Small Cell Omni

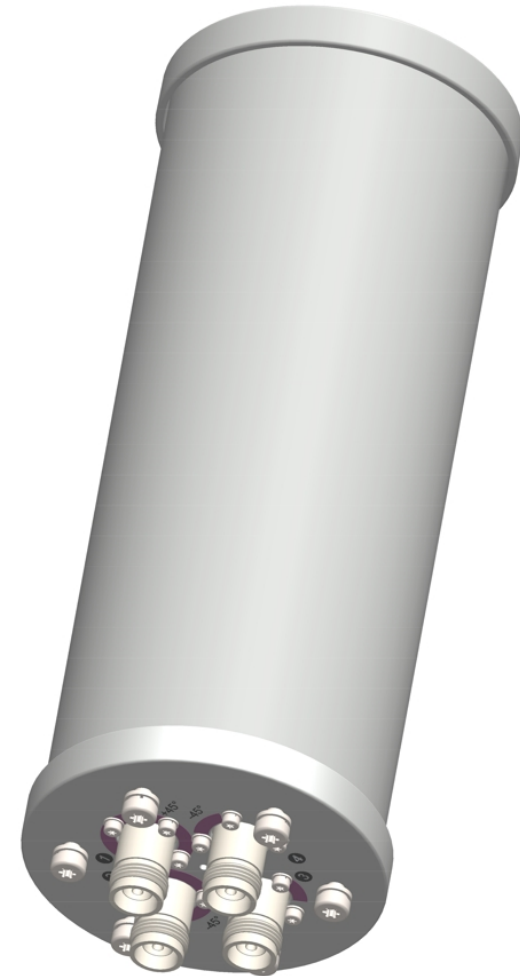
3400-3800MHz	4	Fixed	6.5	360°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

The **AW3499** is a four-port omni canister antenna that provides 360° horizontal coverage in the 3400 – 3800 MHz frequency band whilst in an ultra-compact radome design.

This wide-band antenna has four ports with dual $\pm 45^\circ$ slant polarization for 4x4 MIMO. The AW3374 has a compact 13" length and 5" diameter yet delivers a uniform 6.5 dBi gain with minimal azimuth pattern ripple. The AW3499 is ideal for maximizing throughput in private LTE and 5G networks using the 3.5 GHz Citizens Broadband Radio Service (CBRS) and C-band spectrums.

Small Cells are a family of ultra-compact antennas which allows for network coverage and capacity increases almost anywhere. These aesthetically pleasing antennas small form factor allows for easier architectural approval. A number of mounting options are available and the small cell solutions can be deployed on lamp posts, utility poles, and walls. Small cell antennas support 2x2 MIMO and 4x4 MIMO with fixed and variable electrical tilt of the elevation beam.



APPLICATION

Alpha Wireless pseudo omni antenna provides 360° coverage whilst in an ultra-compact radome design. The wide-band antenna is designed to be installed in 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. The 4 port antenna provides 4X4 MIMO for improved data throughput or multi-operator applications.

FEATURES

- Wide-band antenna for 3GPP bands 42, 43 & 48.
- Optimized Pseudo omni with reduced azimuth ripple
- 4x4 MIMO for maximum throughput
- Slim monopole design to reduce wind loading

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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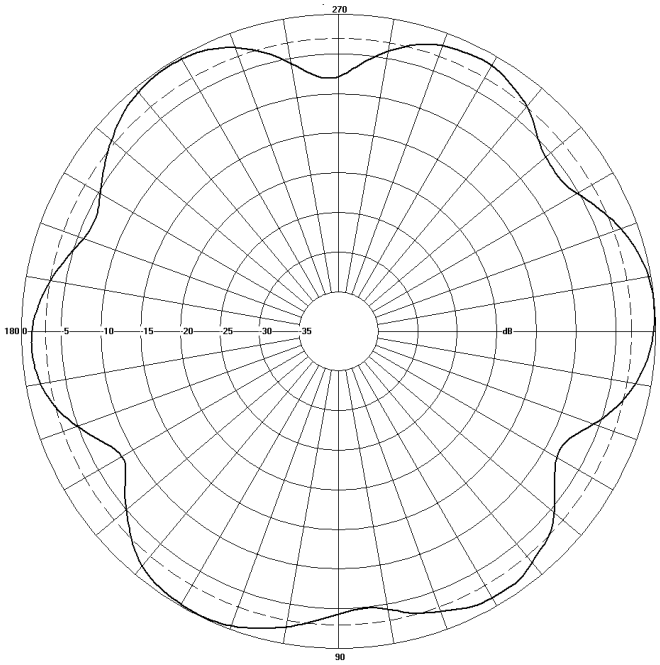


The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

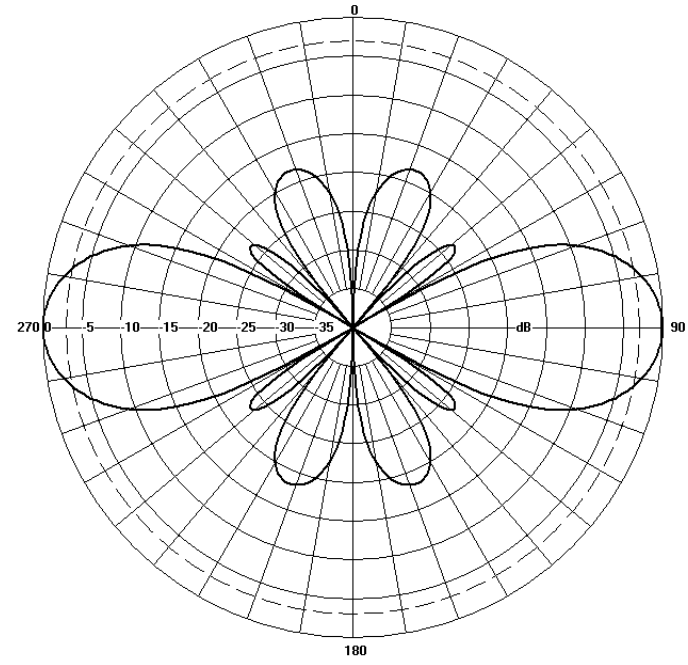
TECHNICAL SPECIFICATION

Electrical Specifications			
Frequency Range	MHz	3400 - 3800MHz	
Polarisation	Degree	+/- 45° Slant Linear	
Gain	Basta	dBi	6.0±0.5
	Max	dBi	6.5
Azimuth Beamwidth	Degree	360°	
Elevation Beamwidth	Degree	22°	
Electrical Downtilt	Degree	T0°	
Electrical Downtilt Deviation	Degree<	1°	
Impedance	Ohms	50	
VSWR	<	1.5	
Return Loss	dB>	14	
Isolation	dB>	25	
Upper Sidelobe Suppression, Peak to 20°	dB>	15	
Cross-Polar Discrimination	dB>	12	
Maximum Effective Power Per Port	W	50	

Representative Pattern Files



Azimuth



Elevation

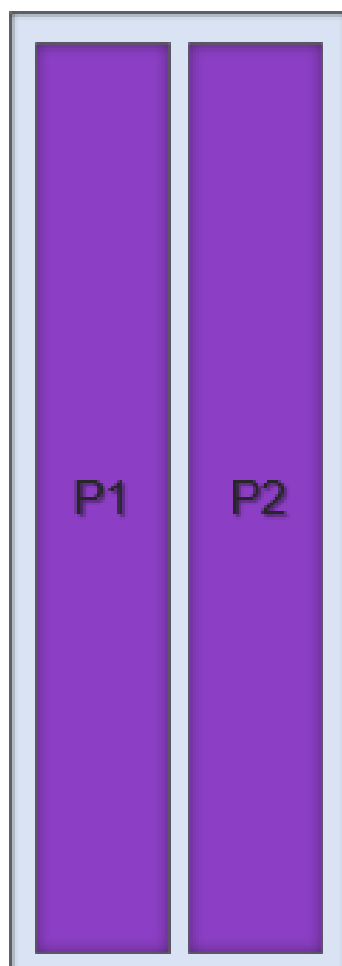
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	340 (13.4) x 125 (4.9) - (L x Ø)
Packing Size (LxWxD)	mm (in)	410 (16.1) x 170 (6.7) x 170 (6.7)
Net Weight (antenna)	kg (lb)	4.5 (9.9)
Net Weight (mount)	kg (lb)	0.5 (1.1)
Shipping Weight	kg (lb)	5 (11)
Connector Type (Female)	-	4.3-10
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	40 (9)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	40 (9)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilised PVC
Radome Colour	RAL	7035 (light grey)
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



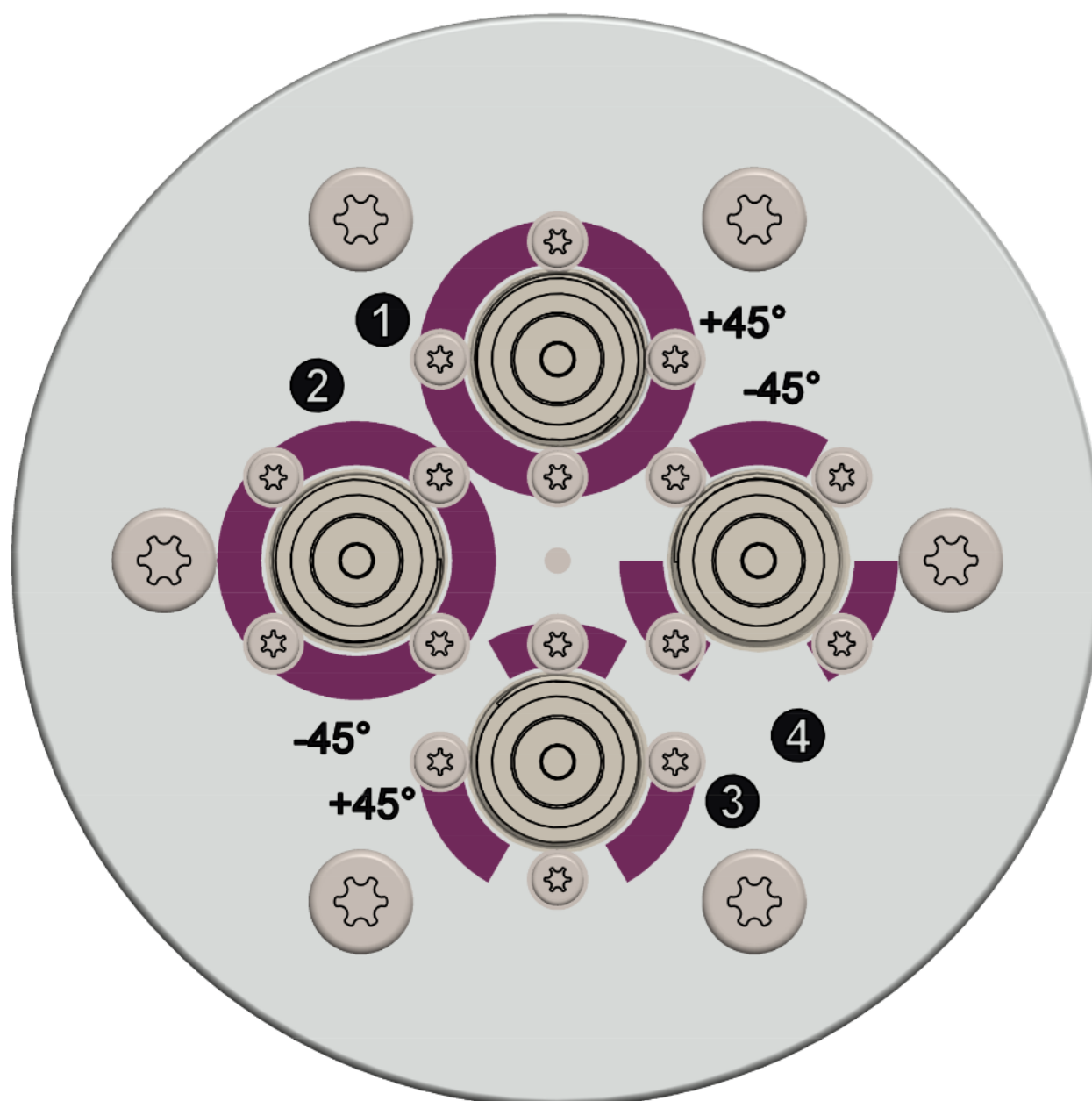
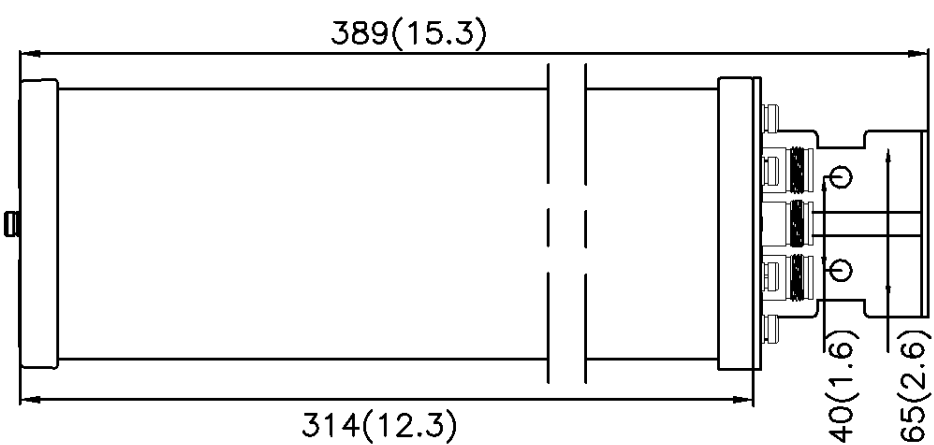
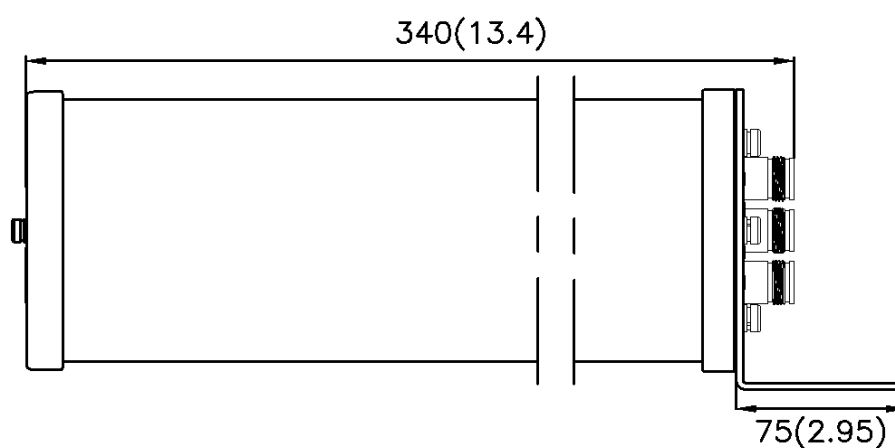
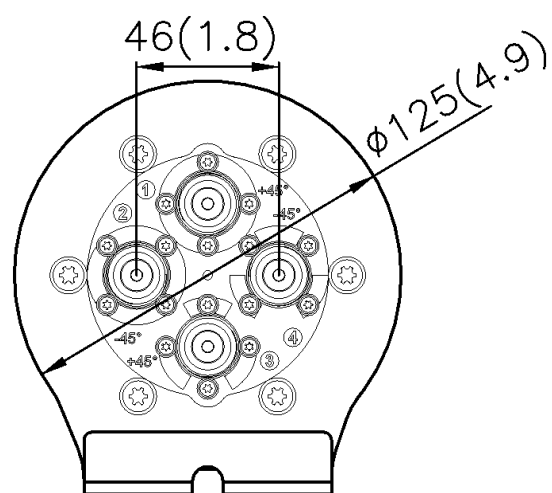
Array	Frequency MHz	Ports
R1	3400- 3800	1 – 2
R2	3400- 3800	3 – 4

Array layout depicts one individual sector.

Note: Coloured box sizes do not represent antenna sizes.

Mechanical Illustration

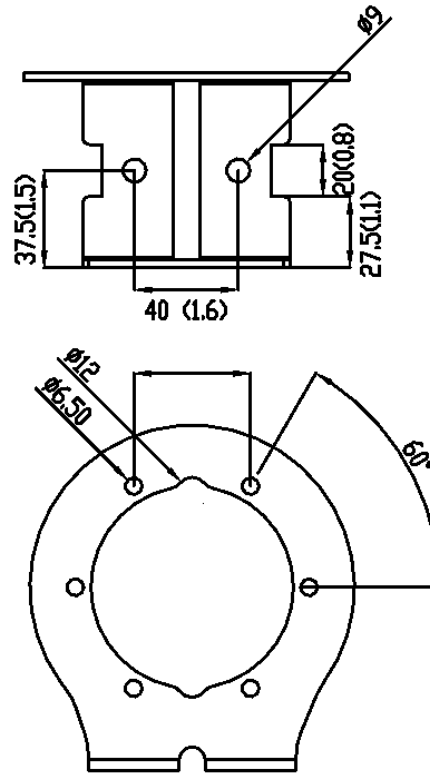
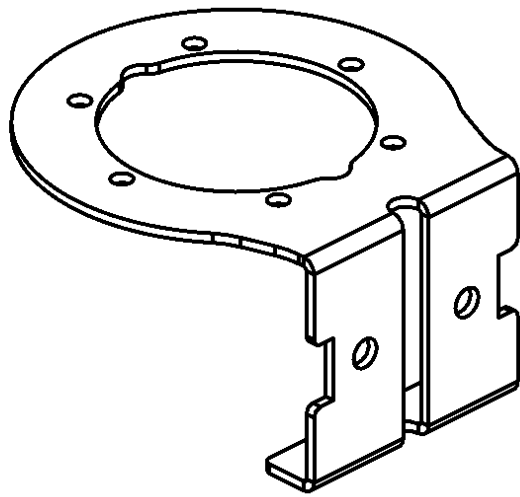
All measurements are in mm (in)





TECHNICAL SPECIFICATION
Mounting Bracket Kit

CL-V-152 (Mounting Kit Included with antenna)



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

Ordering Info

Order Code - Antenna

AW3499-T0-F

Description

Zero Degrees Fixed Tilt 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")

Enquiries

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