



AW4053-T0-F

Common Name 8 Port, (4P/4P), Tri-Sector 65° Low Band, Mid Band, Small Cell

698-960MHz	4	Fixed	8.2	65°
1695-2690MHz	4	Fixed	14.2	65°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This antenna solution is designed to offer Low Band and Mid Band functionality in a compact 2 foot high housing. This design is intended to offer 4 ports on Low Band and 4 ports on Mid Band for each antenna sector.

APPLICATION

Alpha Wireless Low and Mid Band Fusion Panels provide 65 degree coverage whilst in an ultra compact Radome design. 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

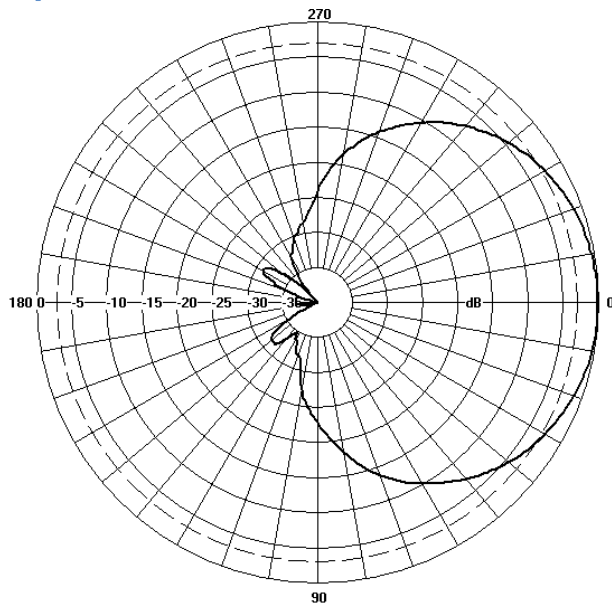
- Multi-band Small Cell - 698-960 / 1695-2690MHz.
- Compact design for low visual impact.
- Radome with rounded outer surface.
- Outer face covers one third of circle circumference.
- Panel can be mounted as a single sector, two sectors (Back to Back or other) or as a Tri-Sector.

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

TECHNICAL SPECIFICATION

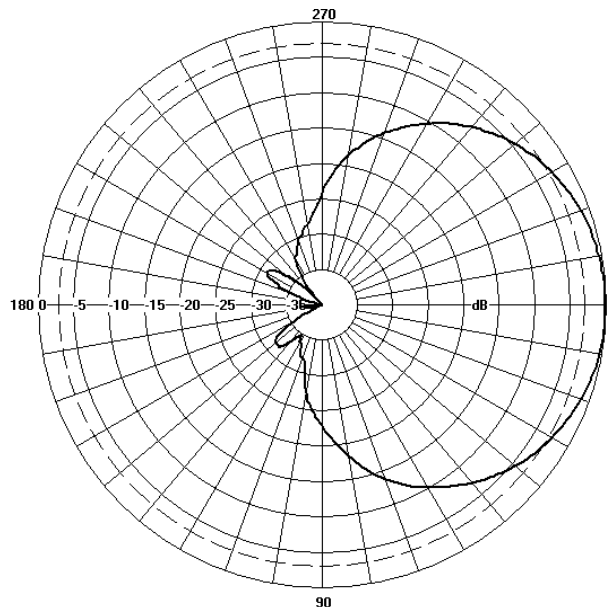
Electrical Specifications									
Frequency Range per Input	MHz	698-755	755-820	820-890	890-960	1695-1995	1920-2170	2170-2500	2500-2690
Polarisation		+/- 45° Slant Linear							
Gain Basta	dBi	6.7±0.5	7.1±0.5	7.4±0.5	7.7±0.5	12.3±0.5	12.8±0.5	13.3±0.5	13.7±0.5
Gain Max	dBi	7.2	7.6	7.9	8.2	12.8	13.3	13.8	14.2
Azimuth Beamwidth	Degree	75°	72°	70°	66°	68°	66°	62°	58°
Elevation Beamwidth	Degree	88° +/- 9°	72° +/- 8°	66° +/- 7°	64° +/- 8°	19° +/- 2°	17° +/- 2°	15° +/- 2°	13° +/- 2°
Electrical Downtilt	Degree	T0°	T0°	T0°	T0°	T0°	T0°	T0°	T0°
Electrical Downtilt Deviation	Degree <	5°	5°	5°	5°	1.5°	1.5°	1.5°	1.5°
Impedance	Ohms	50	50	50	50	50	50	50	50
VSWR	NA <	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Return Loss	dB >	14	14	14	14	14	14	14	14
Isolation	dB >	20	20	20	20	20	20	20	20
Passive Intermodulation	dBc <	-150	-150	-150	-150	-150	-150	-150	-150
Cross Polar Discrimination	dB >	16	16	16	16	16	16	16	16
Maximum Effective Power Per Port	W	100	100	100	100	250	250	250	250

Representative Pattern Files

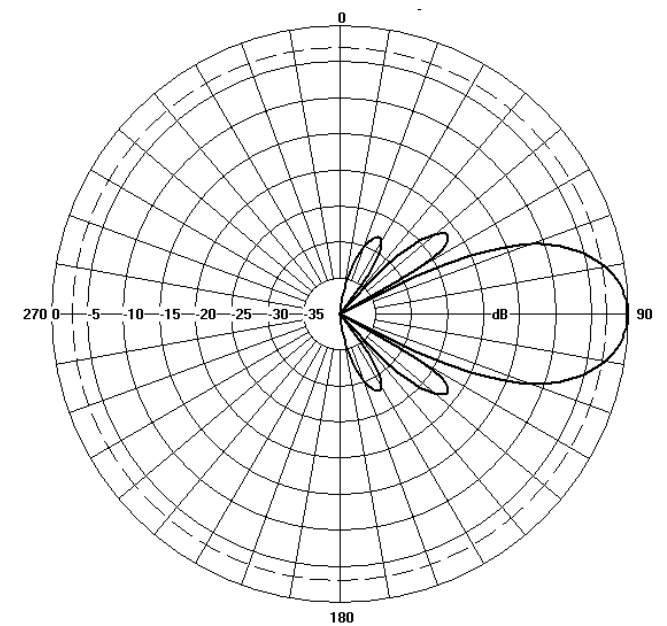


Low Band / Mid Band

Azimuth



Low Band



Mid Band

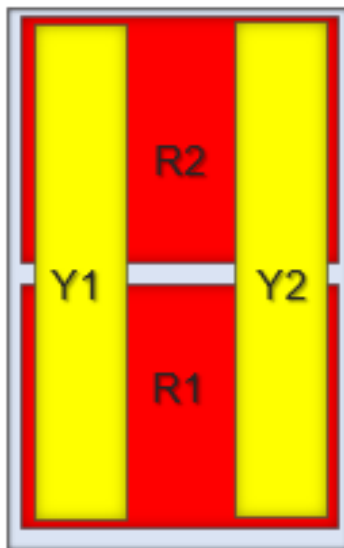
Elevation

TECHNICAL SPECIFICATION

Mechanical Specifications

Dimension of single Sector Antenna LxWxD	mm (in)	610 (24) x 350 (13.8) x 140 (5.5)
Dimension of Tri-Sector around Pole L x Ø	mm (in)	610 (24) x 406 (16.0)
Net Weight of Panel Antenna	kg (lb)	6.86 (15.1)
Connector Type (Female)	-	4.3-10
Connector Position	-	Bottom
Connector Quantity	-	8
Windload Frontal of single Sector (@ 150km/h)	N (lbf)	217 (49)
Windload Lateral of single Sector (@ 150km/h)	N (lbf)	90 (21)
Windload Frontal of Tri-Sector (@ 150km/h)	N (lbf)	252 (57)
Windload Lateral of Tri-Sector (@ 150km/h)	N (lbf)	252 (57)
Survival Wind Speed of single Sector	km/h (mph)	241 (150)
Survival Wind Speed of Tri- Sector	km/h (mph)	241 (150)
Radome Material	-	uPVC
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

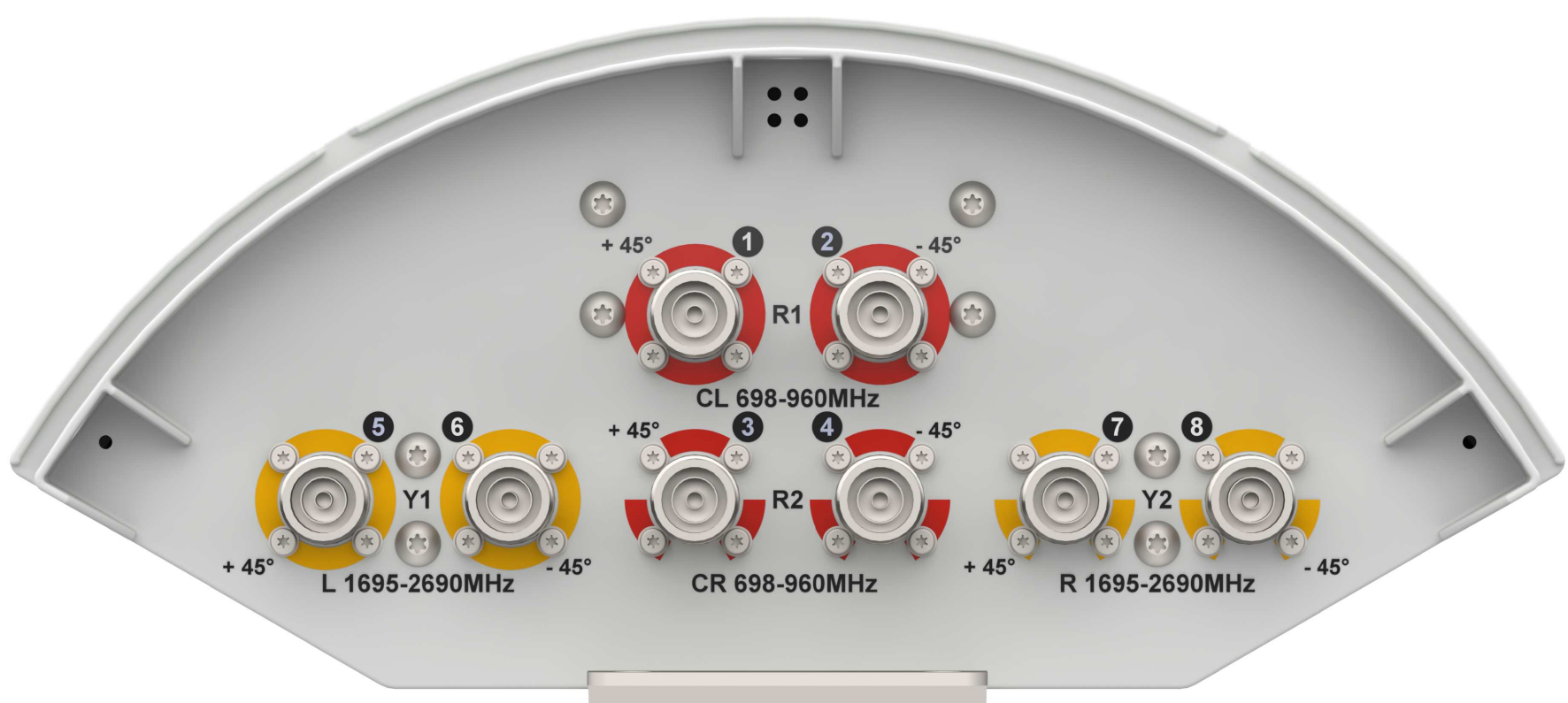
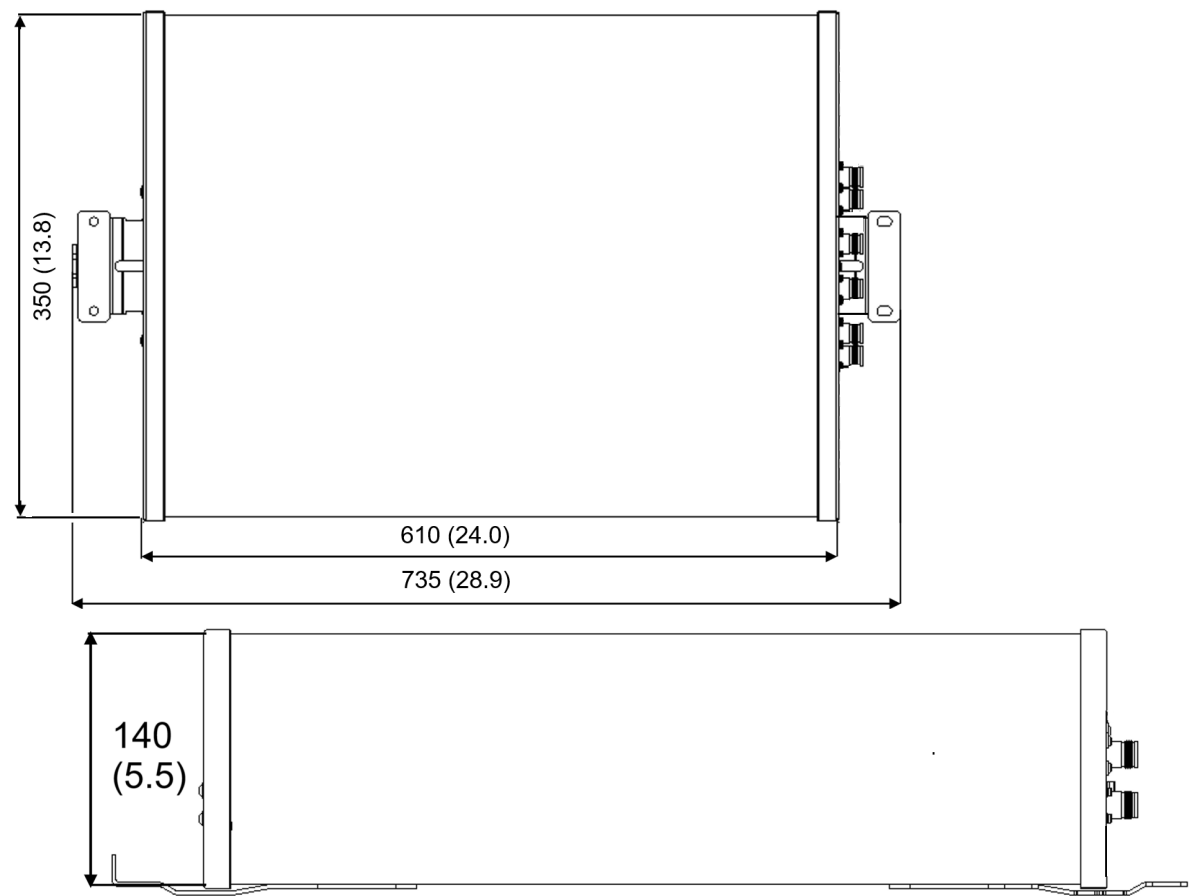


Note: Coloured box sizes do not represent antenna sizes.

Array	Frequency MHz	Ports
R1	698 – 960	1 – 2
R2	698 – 960	3 – 4
Y1	1695 – 2690	5 – 6
Y2	1695 – 2690	7 – 8

TECHNICAL SPECIFICATION

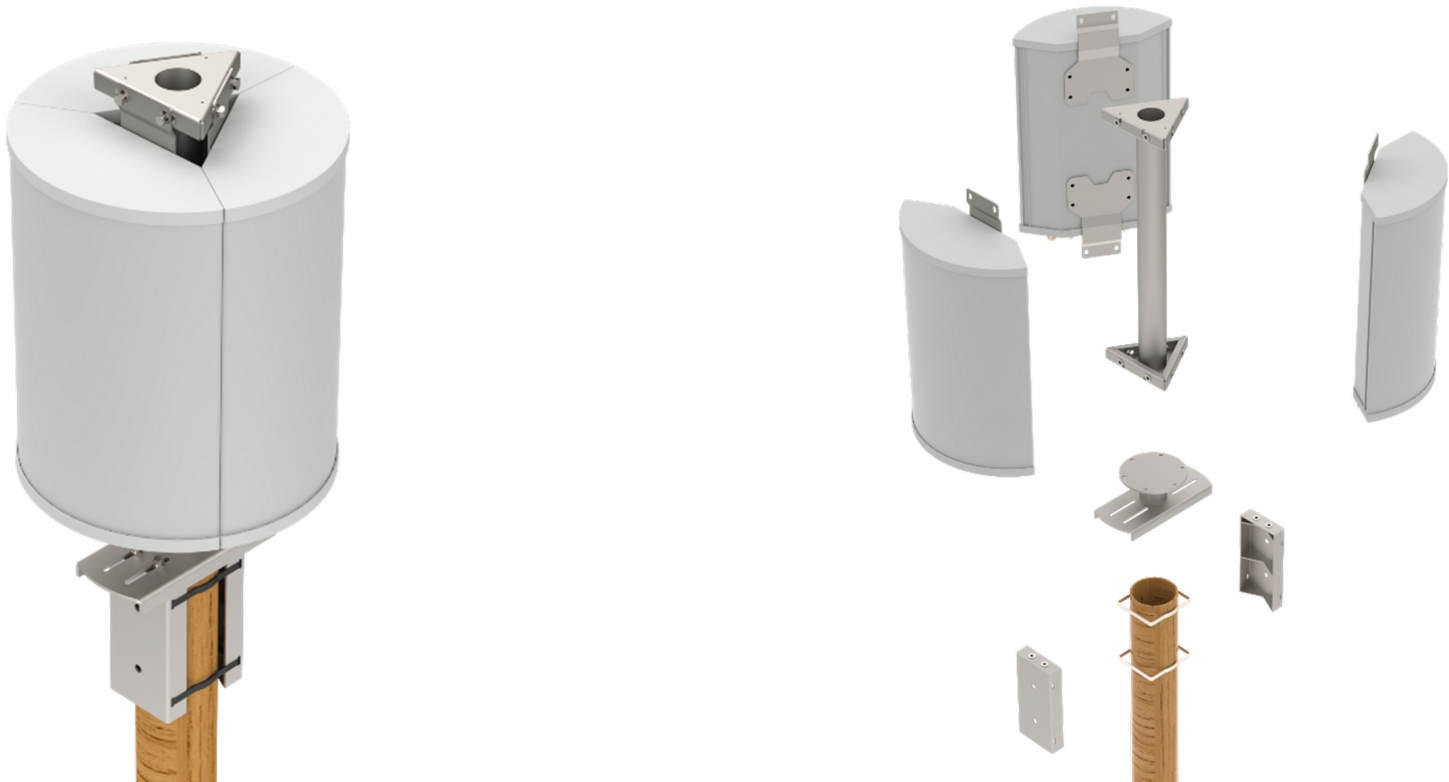
Mechanical Illustration



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-236 Top of Pole Mounting Kit for 406mm Fusion Small Cell Tri-Sector



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
0	Stainless Steel	152mm-254mm (6" to 10")

Ordering Info

Order Code - Antenna	Description
AW4053-T0-F	Zero degrees Fixed Tilt with 4.3-10 Connectors.
Order Code - Accessories	Order Code - Accessories
AW1012-2-FM-FM	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")

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