DATASHEET

# AW4057-T0-F

**Common Name** 24 Port, (4P/4P)x3, Tri-Sector 65° Low Band, Mid Band, Small Cell

| Frequency | Ports | Tilt | Gain | Beamwidth |
|---|---|---|---|---|
| 698-960MHz | 12 (4x3) | Fixed | 8.2 | 65° |
| 1695-2690MHz | 12 (4x3) | Fixed | 14.2 | 65° |

## 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. There are three individual antenna sectors mounted together around a pole making up a total of 24 ports.

## 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. Each sector is uniquely shaped to create a canister shape when three individual sectors are mounted together around a pole.

## STANDARD & CERTIFICATIONS

| | |
|---|---|
| Certification | BS EN ISO 9001:2015 |

RoHS COMPLIANT

CE

## FEATURES

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

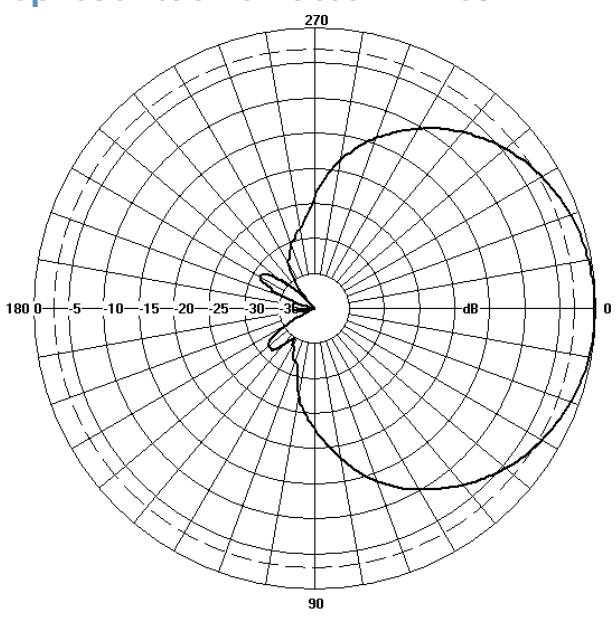
*The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.*

# AW4057-T0-F

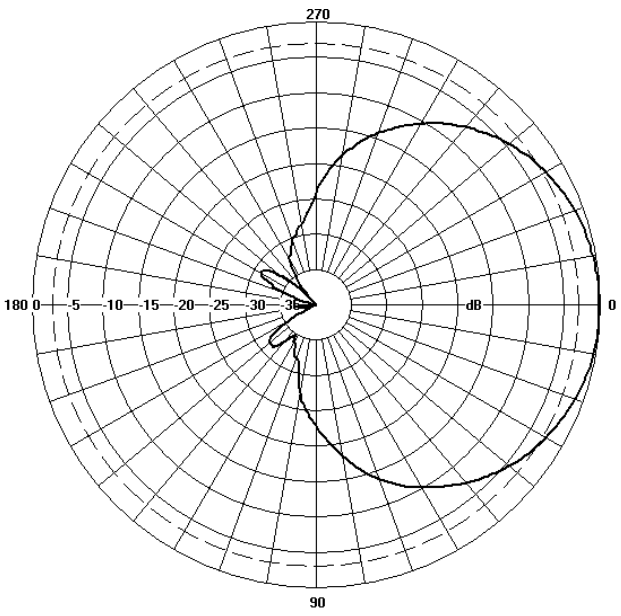
## TECHNICAL SPECIFICATION

| 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 |

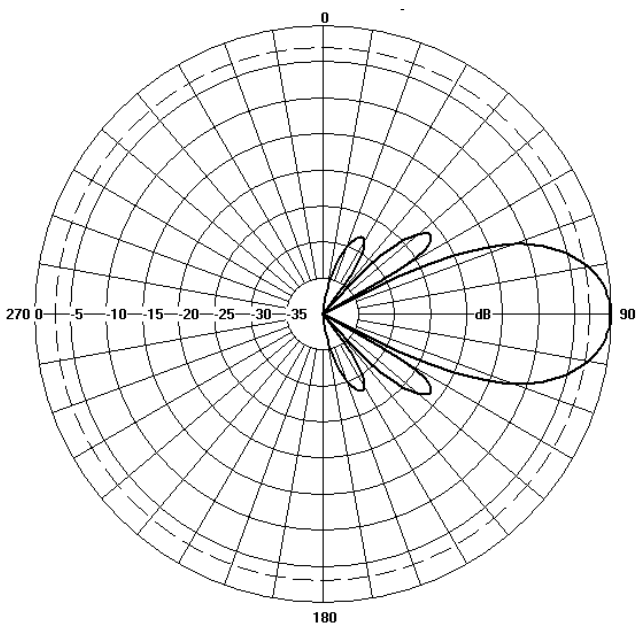
## Representative Pattern Files




Low Band / Mid Band




Low Band




Mid Band

| Azimuth | Elevation |
|---|---|

ALPHA WIRELESS

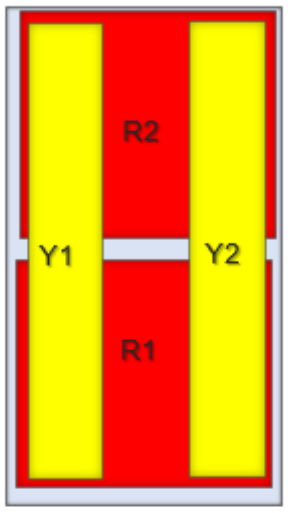
# AW4057-T0-F

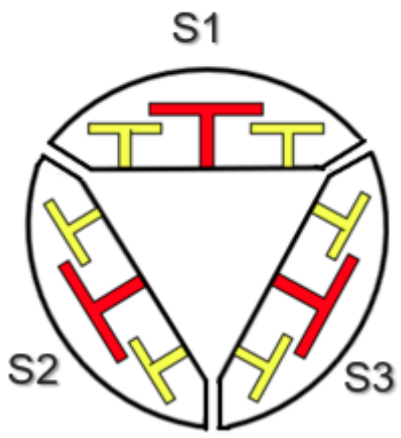
## TECHNICAL SPECIFICATION

### 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 | Sector |
|---|---|---|---|
| R1 | 698 – 960 | 1 – 2 | S1 |
| R2 | 698 – 960 | 3 – 4 | S1 |
| Y1 | 1695 - 2690 | 5 – 6 | S1 |
| Y2 | 1695 - 2690 | 7 – 8 | S1 |
| R1 | 698 – 960 | 1 – 2 | S2 |
| R2 | 698 – 960 | 3 – 4 | S2 |
| Y1 | 1695 - 2690 | 5 – 6 | S2 |
| Y2 | 1695 - 2690 | 7 – 8 | S2 |
| R1 | 698 – 960 | 1 – 2 | S3 |
| R2 | 698 – 960 | 3 – 4 | S3 |
| Y1 | 1695 - 2690 | 5 – 6 | S3 |
| Y2 | 1695 - 2690 | 7 – 8 | S3 |

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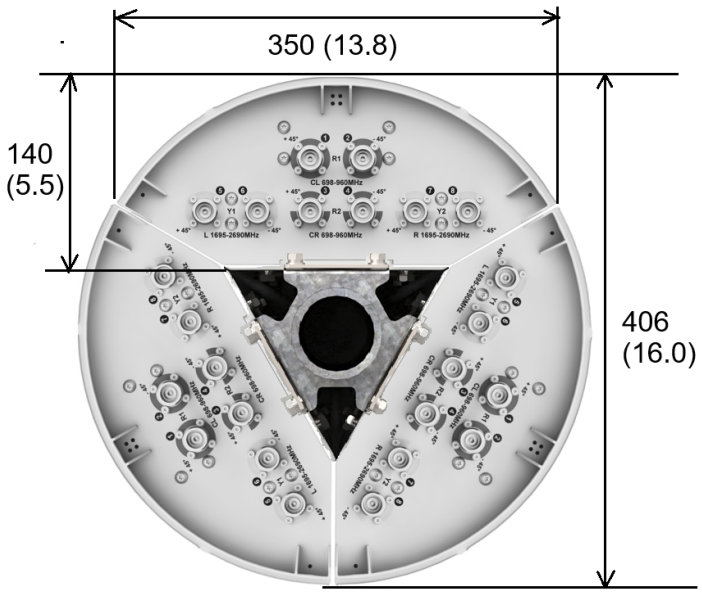
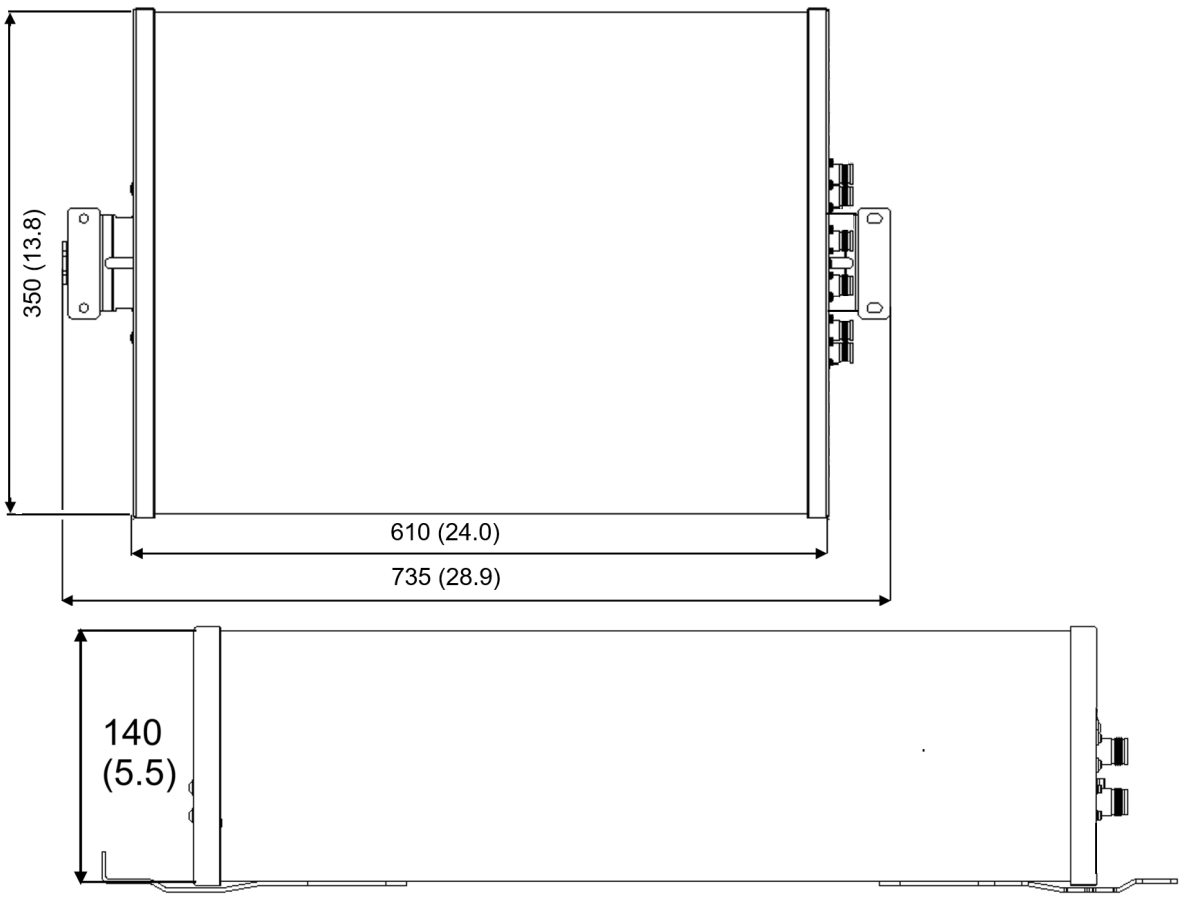
## TECHNICAL SPECIFICATION

### Mechanical Illustration

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## 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") |

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## Ordering Info

| Order Code - Antenna | Description |
|---|---|
| AW4057-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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| | |
| | |

## Enquiries

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