



DATASHEET

AW3647-T4-F

Common Name- 4 Port, 30", B42, 43 & 48 - 33°, Fixed

| | | | | |
|--------------|-------|-------|------|-----------|
| 3300-3800MHz | 4 | Fixed | 19.5 | 33° |
| Frequency | Ports | Tilt | Gain | Beamwidth |

PRODUCT INFORMATION

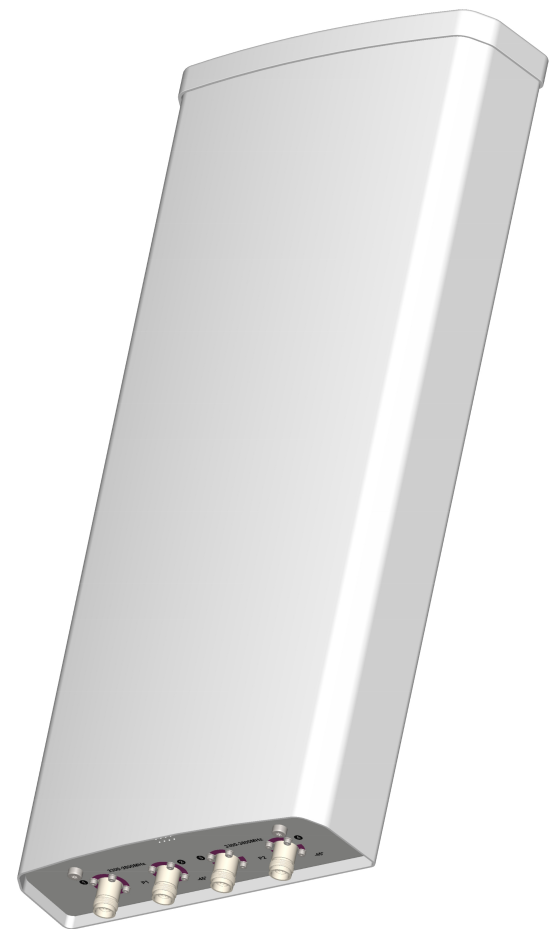
This was developed to offer narrow beam azimuth function with fixed tilt elevation operating between 3300-3800MHz covering LTE Bands B42, 43 & 48 and 5G NR Band n78.

APPLICATION

Alpha Wireless sector antennas are the most commonly used solution for designing high quality wireless networks. The 33 degree azimuth patterns allows to increase capacity to 6 sectors without increasing the number of sites. The horizontally spaced array allows optimum MIMO performance with full 4x4 operation or receive diversity RF functions. With additional options for fixed tilt settings enables improved optimization.

STANDARD & CERTIFICATIONS

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



FEATURES

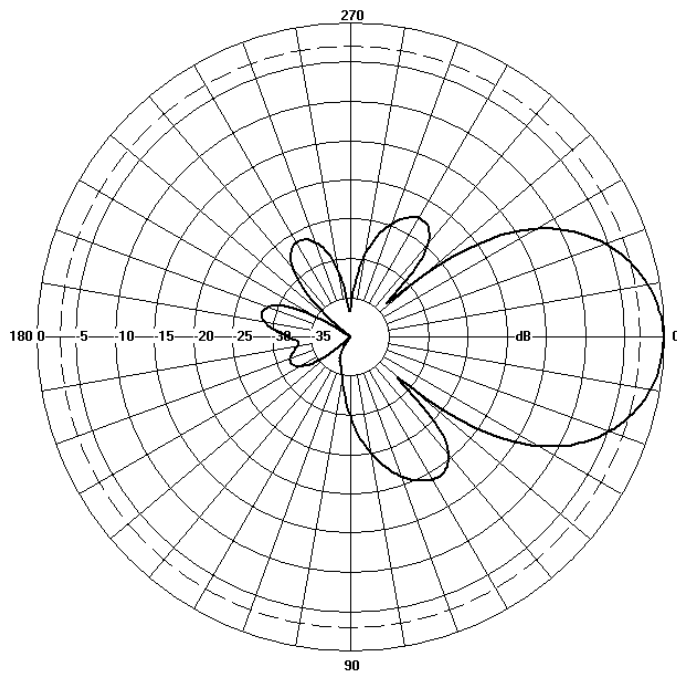
- Wide-band antenna that covers LTE Bands 42, 43 & 48 and 5G NR Band n78. Includes CBRS Band.
- 4x4 MIMO for maximum throughput
- Narrow Azimuth beam to increase site capacity
- Mounting bracket with variable tilt

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

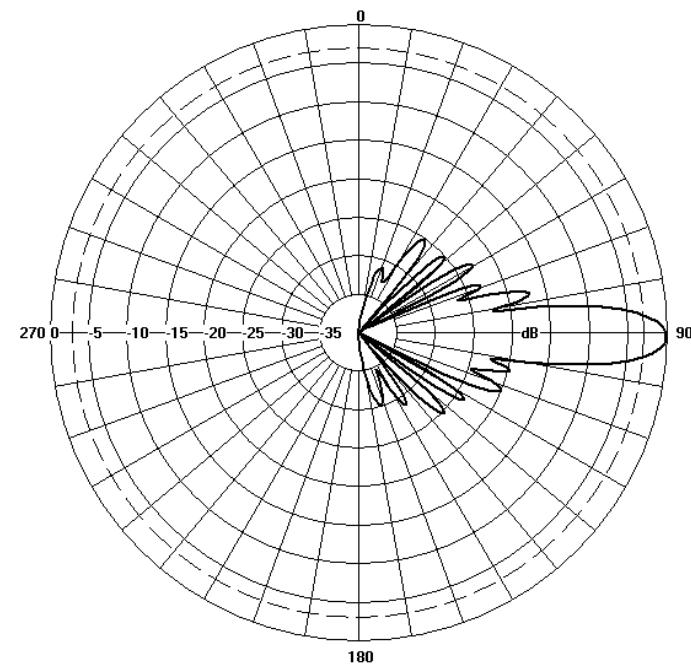
TECHNICAL SPECIFICATION

| Electrical Specifications | | | |
|---|-------|---------|----------------------|
| Frequency Range | | MHz | 3300 - 3800MHz |
| Polarisation | | Degree | +/- 45° Slant Linear |
| Gain | Basta | dBi | 19.0±0.5 |
| | Max | dBi | 19.5 |
| Azimuth Beamwidth | | Degree | 33° |
| Azimuth Beam Squint | | Degree< | 3° |
| Elevation Beamwidth | | Degree | 7° |
| Electrical Downtilt | | Degree | T0° or T4° |
| Electrical Downtilt Deviation | | Degree< | 1° |
| Impedance | | Ohms | 50 |
| VSWR | | < | 1.5 |
| Return Loss | | dB> | 14 |
| Isolation | | dB> | 25 |
| Front to Back Ratio: Total Power +/-30° | | dB> | 27 |
| Upper Sidelobe Suppression, Peak to 20° | | dB> | 15 |
| Cross-Polar Discrimination | | dB> | 16 |
| Maximum Effective Power Per Port | | W | 100 |

Representative Pattern Files



Azimuth



Elevation

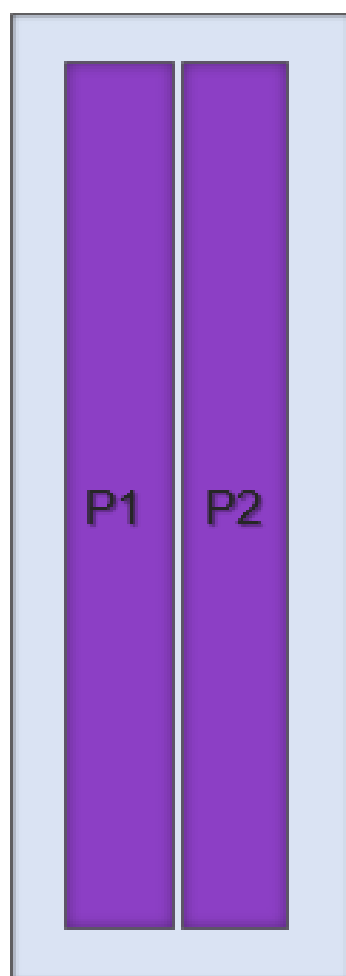
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications

| | | |
|---|------------|---|
| Dimensions | mm (in) | 753 (29.9) x 319 (12.5) x 100 (3.9) - (LxWxH) |
| Packing Size (LxWxD) | mm (in) | 855 (33.7) x 480 (18.9) x 210 (8.3) |
| Net Weight (antenna) | kg (lb) | 8 (13.2) |
| Net Weight (mount) | kg (lb) | 1.57 (3.41) |
| Shipping Weight | kg (lb) | 9.5 (16.7) |
| Connector Type (Female) | - | 4.3-10 |
| Connector Quantity | - | 4 |
| Connector Position | - | Bottom |
| Windload Frontal (at Rated Wind Speed: 150km/h) | N (lbf) | 250 (57) |
| Windload Lateral (at Rated Wind Speed: 150km/h) | N (lbf) | 90 (21) |
| 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

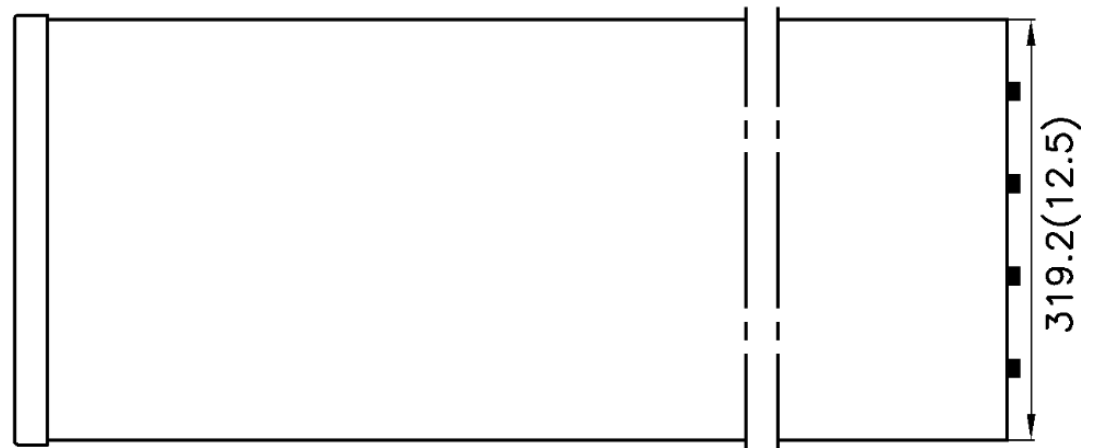
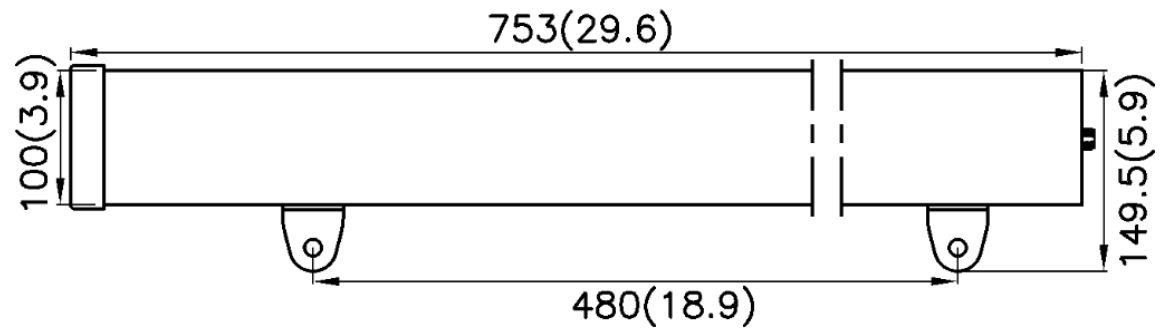
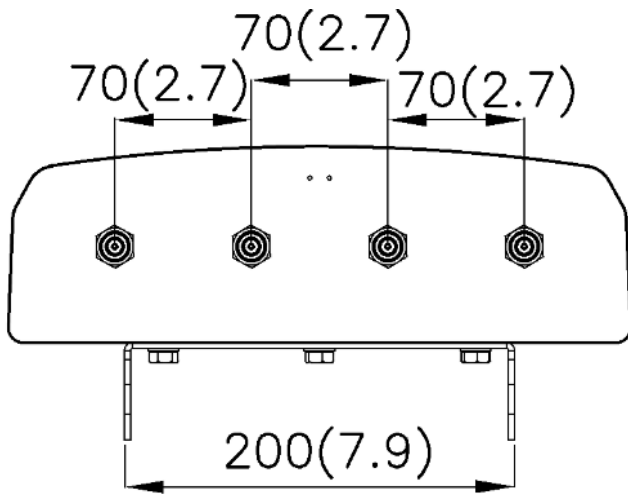


| Array | Frequency MHz | Ports |
|-------|---------------|-------|
| P1 | 3300 – 3800 | 1 – 2 |
| P2 | 3300 – 3800 | 3 – 4 |

Note: Coloured box sizes do not represent antenna sizes.

Mechanical Illustration

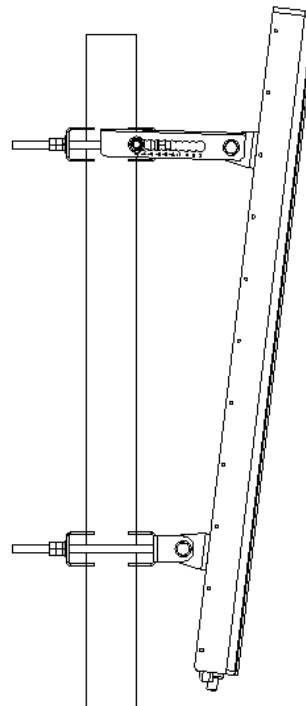
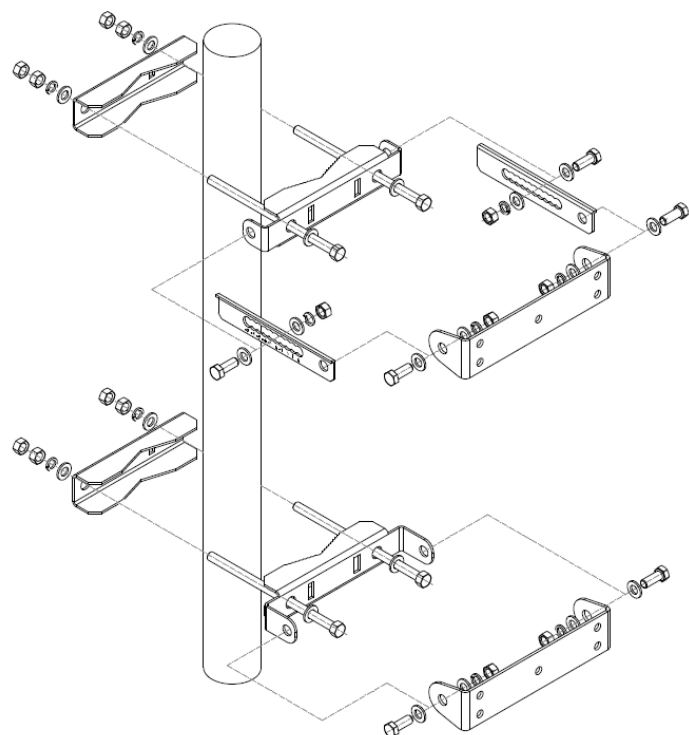
All measurements are in mm (in)





TECHNICAL SPECIFICATION
Mounting Bracket Kit

CL-V-111 Mount Kit (Mount Kit included with antenna)



| Mounting Kit Tilt Range | Mounting Kit Material | Mounting Kit Pole Diameter |
|-------------------------|-----------------------|----------------------------|
| +2° to -10° | Stainless Steel | 50mm-115mm (2" to 4.5") |

Ordering Info

Order Code - Antenna
 AW3647-T4-F

Description
 Zero Degrees Fixed Tilt with 4.3-10 Connectors

Enquiries

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