



## AW3790-E-F

**Common Name** - 12 Port (6P/6P) Multi-Band 65° Tri-sector

Frequency	Ports	Tilt	Gain	Beamwidth
1452-2400MHz	6	Fixed	12.5	65°
1710-2690MHz	6	eRET	17.1	65°

## PRODUCT INFORMATION

This antenna has three sectors orientated at 0, 120 and 240 degrees azimuth. Each sector has two 1452-2400MHz (L Band) ports and two (1710-2690MHz) Mid Band ports. Enclosed Remote Electrical tilt on Mid Band allows tilt optimisation to improve coverage and throughput. Designed for compact, aesthetically pleasing applications.

## APPLICATION

Canisters provide multiple antennas into one attractive package. These canisters deliver elegant macro solutions for pole-top, rooftop and street-works applications. This Alpha Wireless canister delivers a high port count within one of the smallest diameter canisters in the marketplace.

## STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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## FEATURES

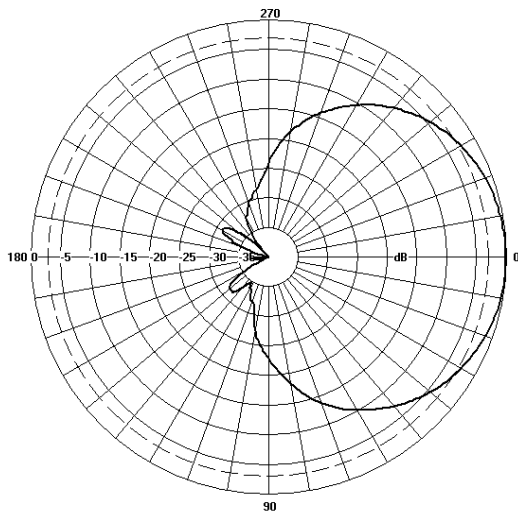
- Small form factor Canister with 220mm diameter.
- 6 L-Band ports covering 1452-2400MHz
- 6 Mid Band ports covering 1710-2690MHz.
- Low PIM performance to reduce interference.

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

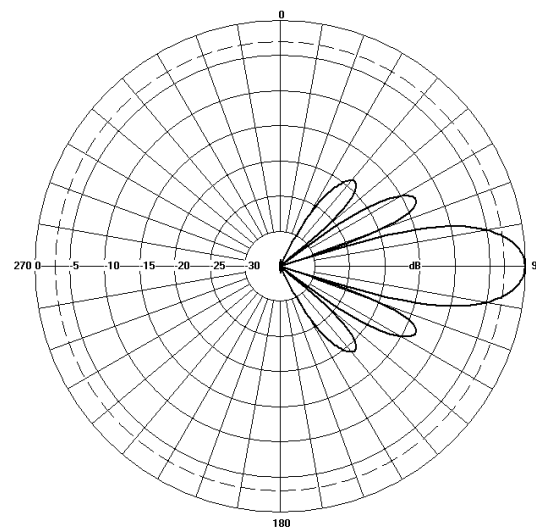
## TECHNICAL SPECIFICATION

Electrical Specifications									
Frequency Range	MHz	1452-1492	1710-1920	1920-2170	2300-2400	1710-1920	1920-2170	2300-2690	
Polarisation	Degree	+/- 45° Slant Linear							
Gain	Basta	dBi	12.0±0.5	12.3±0.5	12.5±0.5	12.9±0.5	16.8±0.5	17.1±0.5	17.2±0.5
	Max	dBi	12.5	12.8	13.0	13.4	17.3	17.6	17.7
Azimuth Beamwidth	Degree	75°	70°	65°	63°	69°	64°	60°	
Elevation Beamwidth	Degree	20°	18°	17°	15°	6.5°	6.2°	6.0°	
Electrical Downtilt	Degree	T2°	T2°	T2°	T2°	T0°-T10°	T0°-T10°	T0°-T10°	
Electrical Downtilt Deviation	Degree<	1°	1°	1°	1°	1°	1°	1°	
Impedance	Ohms	50							
VSWR	<	1.5							
Return Loss	dB>	14							
Isolation	dB>	25	25	25	25	25	25	25	25
Passive Intermodulation	dBc<	-150	-150	-150	-150	-150	-150	-150	-150
Upper Sidelobe Suppression, Peak to 20°	dB>	16	16	16	16	16	16	16	16
Cross-Polar Discrimination	dB>	15	15	15	15	15	15	15	15
Maximum Effective Power Per Port	W	250	250	250	250	250	250	250	250

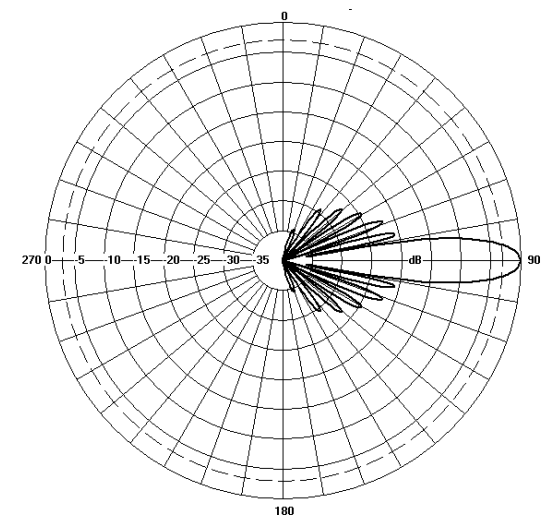
## Representative Pattern Files



Azimuth



L Band



Mid Band

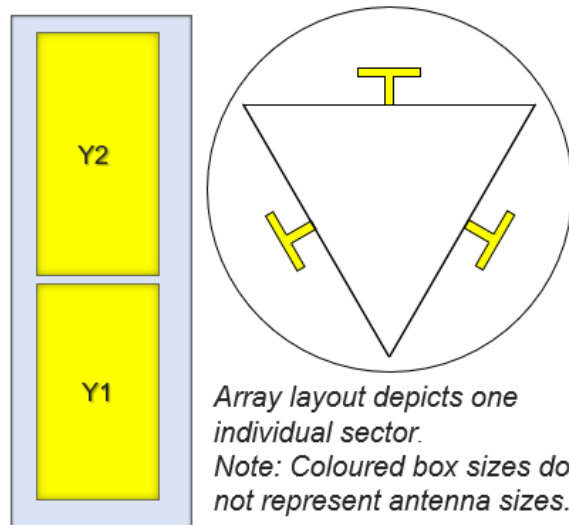
Elevation

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

## TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	2300 (90.6) x 220 (8.6) - (L x Ø) (Including access hatch)
Packing Size (LxWxD)	mm (in)	2500 (98.4) x 500 (20) x 590 (23)
Net Weight (antenna)	kg (lb)	45 (99)
Net Weight (mount)	kg (lb)	Flange Mount
Shipping Weight	kg (lb)	75 (165)
Connector Type (Female)	-	4.3-10
Connector Position	-	Bottom
Connector Quantity	-	12 x 4.3-10 (3 x 2 Ports of L-Band & 3 x 2 Ports of Mid Band)
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	464 (104)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	464 (104)
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	Celsius (Fahrenheit)	-40 (-40)
Hot Temperature Survival	Celsius (Fahrenheit)	+ 70 (158)

## Array Layout and RET Information



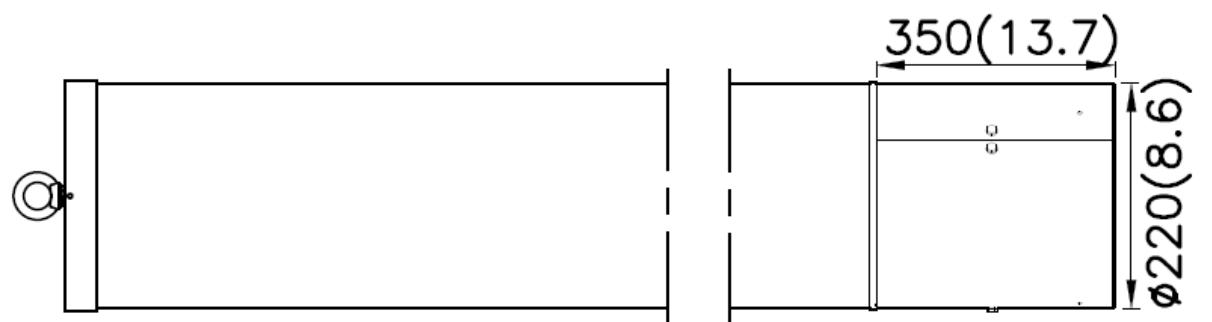
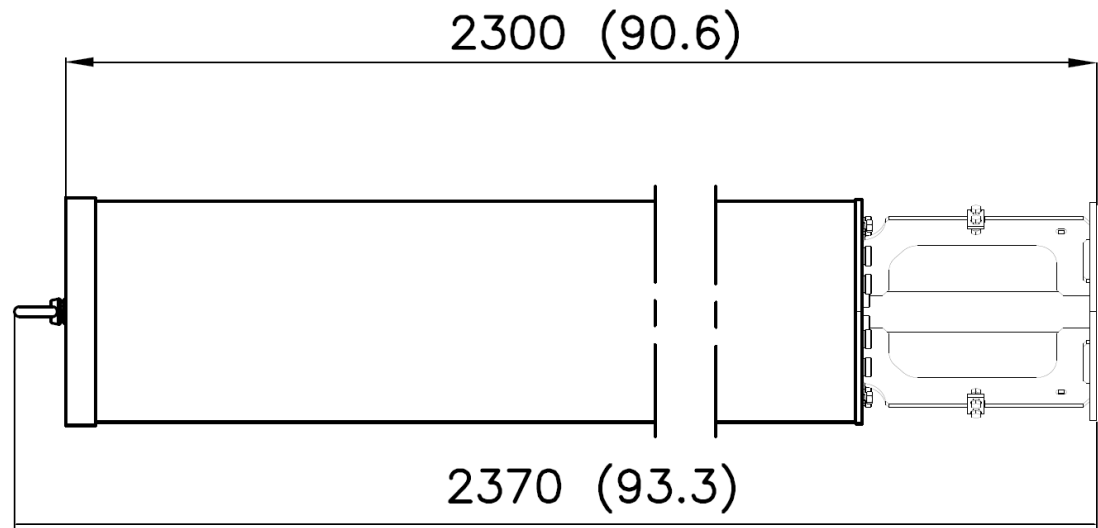
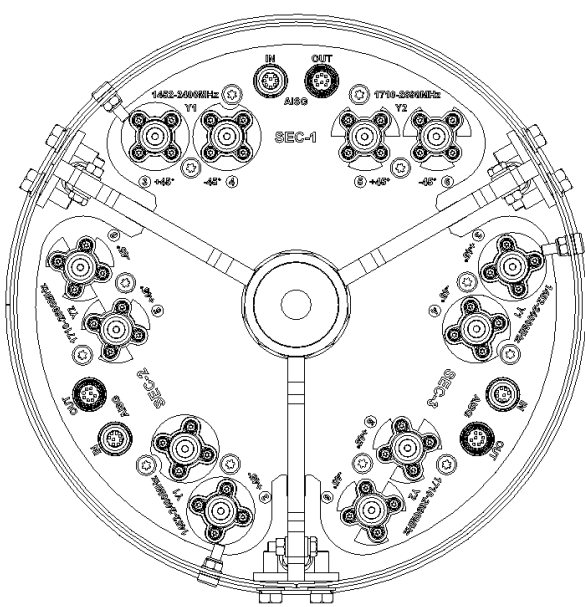
Array	Frequency MHz	Ports	RET ID
Y1	1452 - 2400	1 - 2	NA
Y2	1710 - 2690	3 - 4	1

Configuration	
1452-2400 MHz	Fixed Tilt
1710-2690 MHz	One RET per array: Y2 x 3 Sectors
<b>Total Quantity</b>	Three RET Motor Controllers
<b>Location and Interface</b>	
RET Controller Location	Inside antenna radome housing
RET Interface	Pair of AISG 8 Pin DIN connectors, one male, one female
RET Interface Quantity	Three pairs of AISG 8 Pin DIN connectors, one per sector
RET Interface Location	On connector plate located at bottom of antenna
<b>Electrical</b>	
Input Voltage	10 - 30V
Power Idle Mode	< 1W
Power Active Mode	< 10W
Protocol	3GPP / AISG 2.0

TECHNICAL SPECIFICATION

Mechanical Illustration

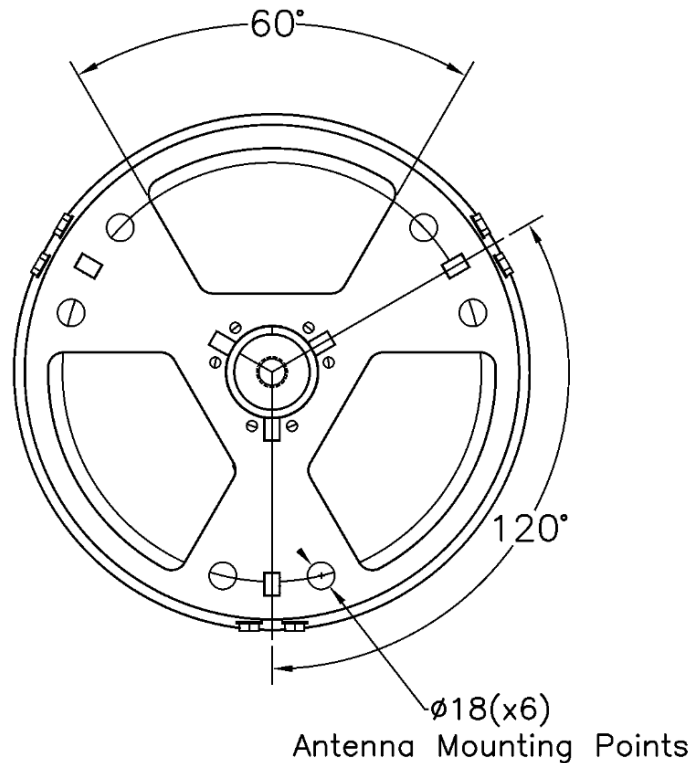
All measurements are in mm (in)



## TECHNICAL SPECIFICATION

### Mounting Bracket Kit

220mm Canister Flange Mount



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

### Ordering Info

#### Order Code - Antenna

AW3790-E-F

#### Order Code - Accessories

AW1012-2-FM-FM

AW1012-2-FM-NM

AW1014-2-FM-TM

#### Description

Enclosed Remote Electrical Tilt (eRET) 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

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