



AW3790-E-F

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

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

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

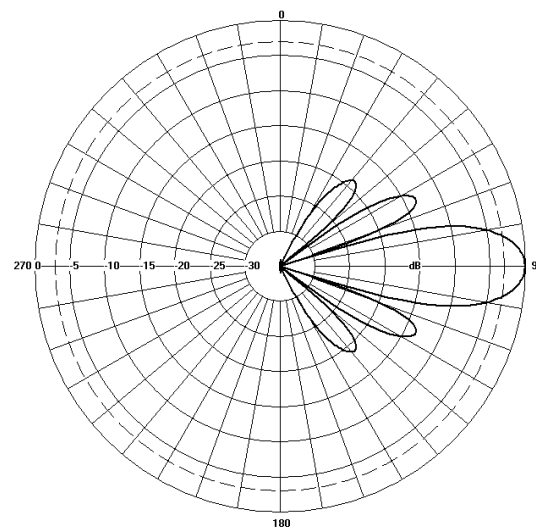
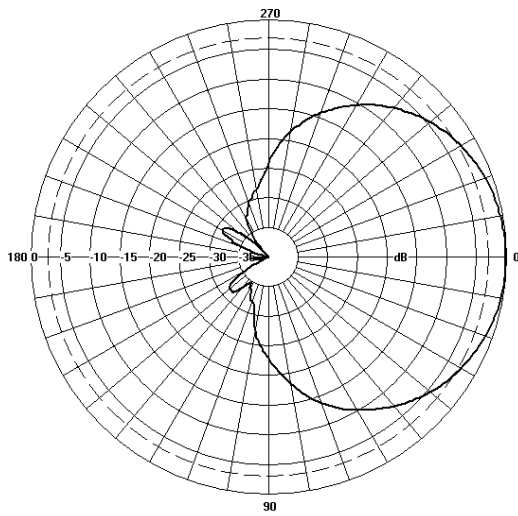
- Small form factor Canister with 220mm diameter.
- 6 L-Band ports covering 1452-2400MHz
- 6 Mid Band ports covering 1710-2690MHz.
- Low PIM performance to reduce interference.

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

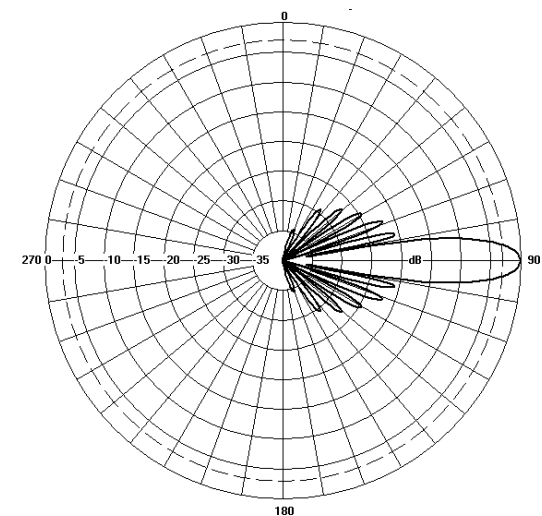
TECHNICAL SPECIFICATION

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



L Band



Mid Band

Azimuth

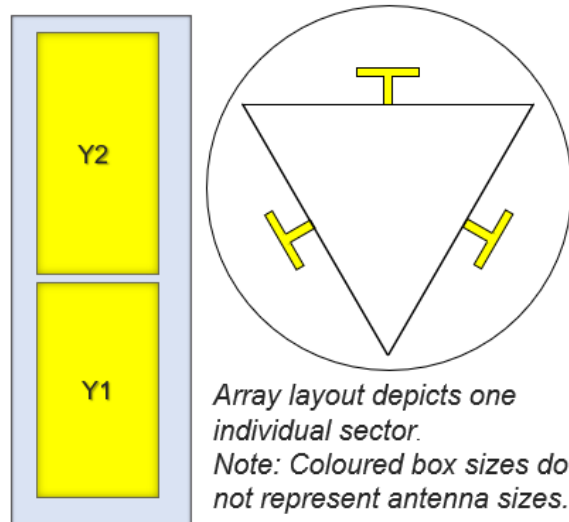
Elevation

For radiation pattern files, please login at 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



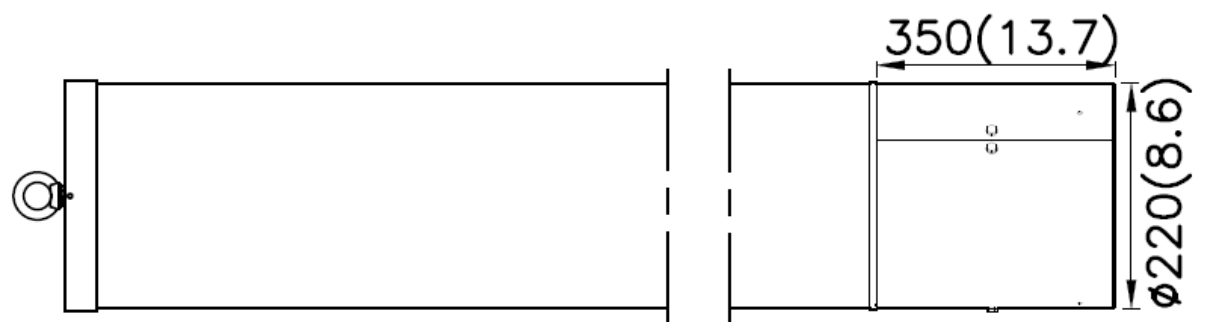
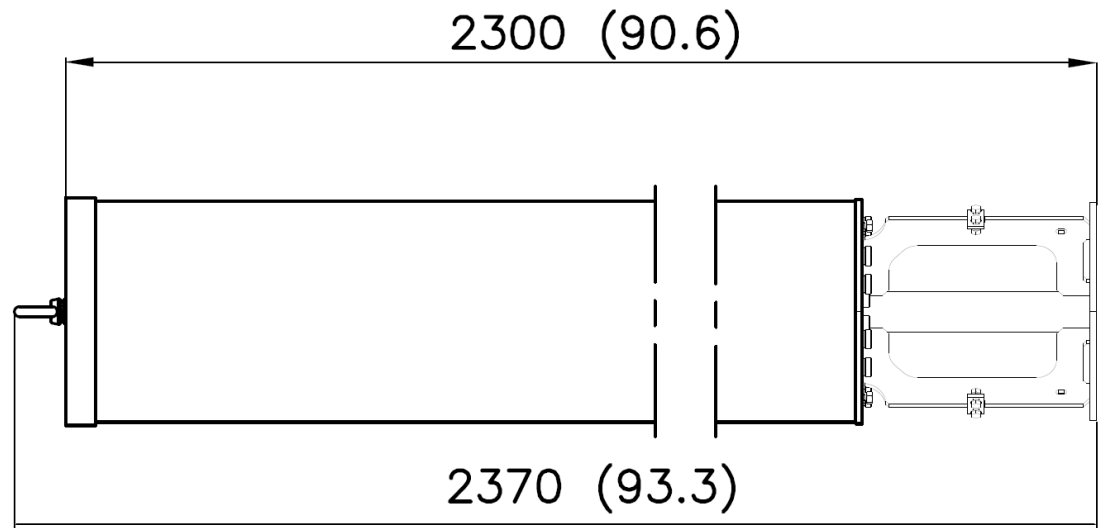
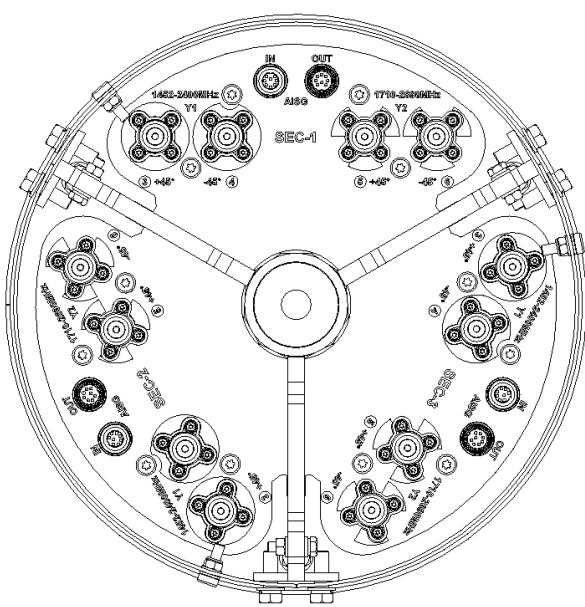
Array	Frequency MHz	Ports	RET ID
Y1	1452 - 2400	1 - 2	1
Y2	1710 - 2690	3 - 4	2

Configuration	
1452-2400 MHz	One RET per array: Y1 x 3 Sectors
1710-2690 MHz	One RET per array: Y2 x 3 Sectors
Total Quantity	Six RET Motor Controllers
Location and Interface	
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
Electrical	
Input Voltage	10 - 30V
Power Idle Mode	< 1W
Power Active Mode	< 10W
Protocol	3GPP / AISG 2.0

TECHNICAL SPECIFICATION

Mechanical Illustration

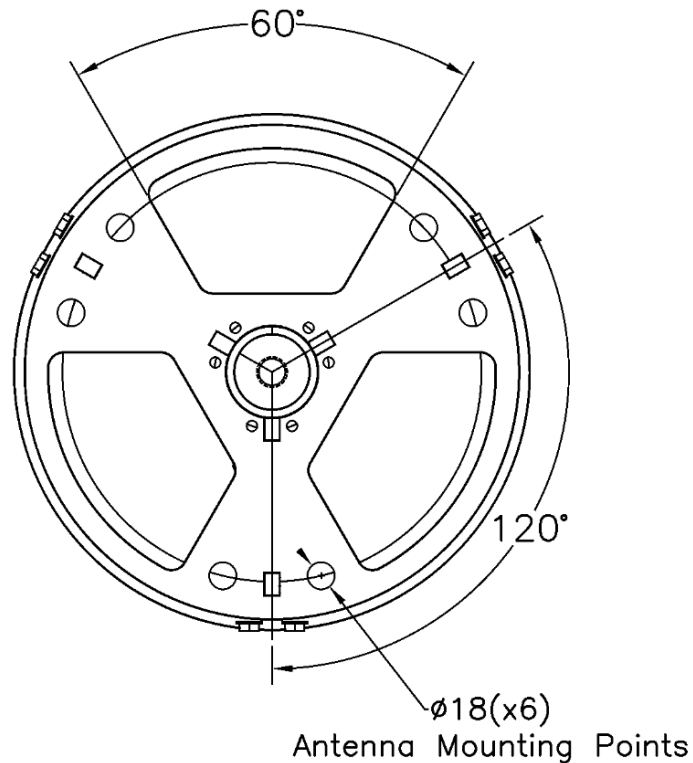
All measurements are in mm (in)



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

Description

Enclosed Remote Electrical Tilt (eRET) 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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