DATASHEET

AWT2-3926

Common Name 18 Port (2P/4P x 3) 1.9M Low Band, Mid Band Modular Tri-Sector, T2 Series

Frequency	Ports	Tilt	Gain	Beamwidth
612-894MHz	6	eRET	14.6	69°
1695-2690MHz	12	eRET	17.8	65°

PRODUCT INFORMATION

Stack	Part Name	Description
1	Base Stack	This is the antenna stack supplied with the AWT2-3926. There is a Mount Plate located on the bottom of the Base Stack to attach to the Monopole.
2	Extension Stack	This antenna stack is not supplied with the AWT2-3926. It can be bought at a later date and mounted on top of the Base Stack if additional capacity is required

The Modular Tri-Sector T2 Series is a flexible antenna platform designed for Streetwork deployments. The AWT2 Platform is made up using discrete parts. The AWT2-3926 consists of two modular antenna stacks which are detailed in the table below:

Stack Type	Frequency Bands	Ports per Stack
Base Stack	612-894MHz 1695-2690MHz	6 12

Each stack is made up of three panels that are positioned at 0°, 120° and 240° in the Azimuth plane. These individual panels are replaceable in the field for upgrade or maintenance purposes.

Note #1: The Alpha Wireless AWT2 series can only support a single Base Stack and a single Extension Stack. The Alpha Wireless AWT4 series can support a single Base Stack and up to three Extension Stacks.

Note #2: Both the AWT2 and AWT4 have a mounting plate to enable mounting number of Active Antenna units on top, weight permitting.

FEATURES

- The AWT2 Series supports up to two modular stacks.
- Field upgradable sectors without decommissioning the other sectors.
- Three sector canister with sectors orientated at 0°, 120° and 240° in the Azimuth Plane
- 612-894MHz x 2 Ports per sector
- 1695-2690MHz x 4 Ports per sector
- 612-894MHz tilt range T2° - T12°.
- 1695-2690MHz tilt range T2° - T12°.
- Low PIM performance to reduce interference.

APPLICATION

Sector antennas support multiple antennas into one attractive package. These canisters deliver an elegant macro solution for pole-top, rooftop and streetworks applications. Alpha Wireless produces one of the smallest diameter canisters in the marketplace.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015

RoHS COMPLIANT

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

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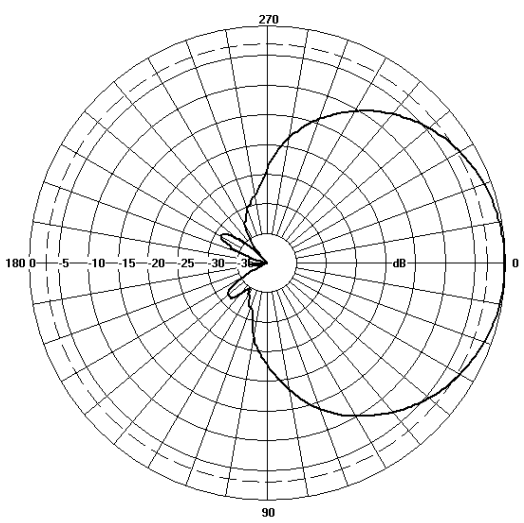
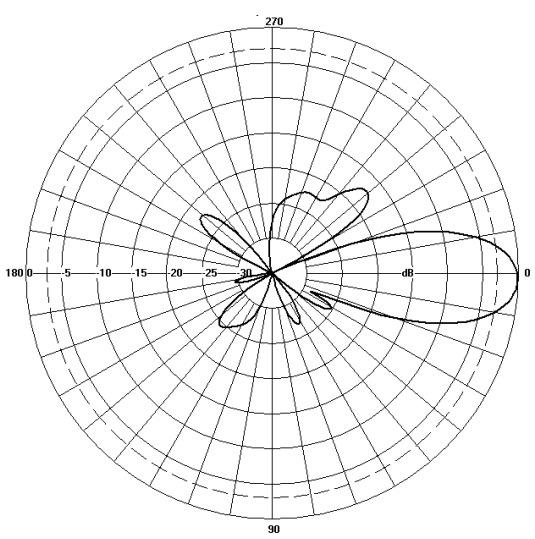
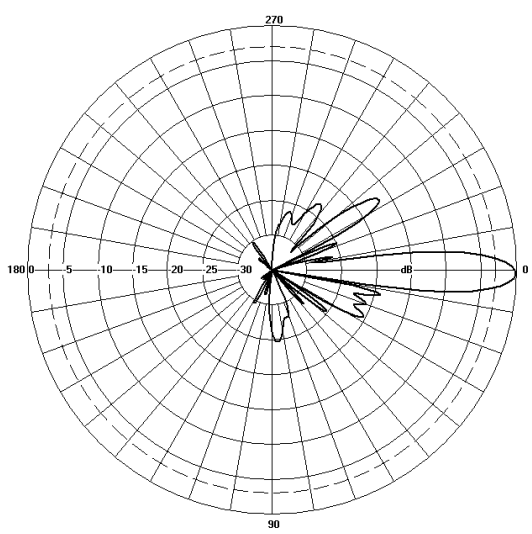
TECHNICAL SPECIFICATION

Electrical Specifications			Low Band			Mid Band		
Frequency Range		MHz	612-703	703-788	788-894	1695-1920	1920-2170	2300-2690
Polarisation		Degree	+/- 45° Slant Linear					
Gain	Basta	dBi	13.1±0.5	13.8±0.5	14.1±0.5	16.8 ±0.5	17.1 ±0.5	17.0 ±0.5
	Max	dBi	13.6	14.3	14.6	17.3	17.6	17.8
Azimuth Beamwidth		Degree	76°	77°	77°	64°	67°	66°
Elevation Beamwidth		Degree	18.1°	15.5°	14.0°	7.2°	6.5°	5.5°
Electrical Downtilt		Degree	T2° - T12°			T2° - T12°		
Electrical Downtilt Deviation		Degree<	1.5°	1.5°	1.5°	1°	1°	1°
Impedance		Ohms	50					
VSWR		<	1.5					
Return Loss		dB>	14					
Isolation		dB>	25	25	25	25	25	25
Passive Intermodulation		dBc<	-150	-150	-150	-150	-150	-150
Upper Sidelobe Suppression, Peak to 20°		dB>	16	16	16	15	15	15
Cross-Polar Discrimination		dB>	15	15	15	15	15	15
Max Power Per Port		W	300			250		

Radiation Pattern Files







	Low Band	Mid Band
Azimuth	Elevation	

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

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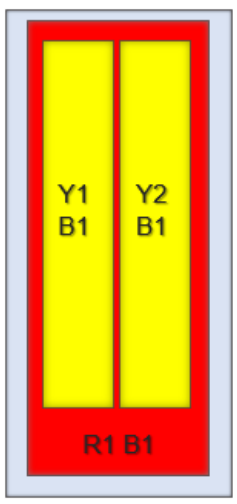
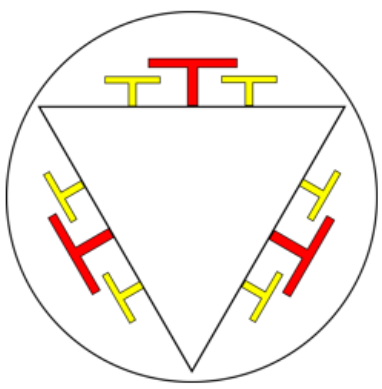
TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions Base (Length x Diameter)	mm (in)	1911 (75.2) x 406 (16)
Weight of Base Stack	kg (lb)	96.5 (212.3)
Total Tri-Sector Weight	kg (lb)	96.5 (212.3)
Connector Type (Female)	-	4.3-10
Connector Position	-	Bottom
Connector Quantity	-	18 (6P Low Band, 12P Mid Band)
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	640 (144)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	640 (144)
Survival Wind Speed	km/h (mph)	241 (150)
Radome Material	-	UV Stabilised ASA capped ABS
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)
Shipping Information	-	-
Size of Crate Type 1 - Base Stack and Interface (LxWxD)	mm (in)	2100 (82.6) x 570 (22.4) x 628 (24.7)
Shipping Weight of Crate Type 1 - Base Stack	kg (lb)	149 (327.8)
Total Number of Crates (Types 1 and 2)	Quantity	1 x Crate Type 1

Array Layout and RET Information





Note: Coloured box sizes do not represent antenna sizes.

Stack	Sector	Array	Frequency MHz	Ports	RET ID	AISG Serial Number Format
B1	S1	R1	612 – 894	1 – 2	1	ASxxxxxxxxxB1S1R1
B1	S1	Y1	1695 –2690	3 – 4	2	ASxxxxxxxxxB1S1Y1
B1	S1	Y2	1695 –2690	5 – 6	3	ASxxxxxxxxxB1S1Y2
B1	S2	R1	612 – 894	1 – 2	4	ASxxxxxxxxxB1S2R1
B1	S2	Y1	1695 –2690	3 – 4	5	ASxxxxxxxxxB1S2Y1
B1	S2	Y2	1695 –2690	5 – 6	6	ASxxxxxxxxxB1S2Y2
B1	S3	R1	612 – 894	1 – 2	7	ASxxxxxxxxxB1S3R1
B1	S3	Y1	1695 –2690	3 – 4	8	ASxxxxxxxxxB1S3Y1
B1	S3	Y2	1695 –2690	5 – 6	9	ASxxxxxxxxxB1S3Y2

Configuration	
698-960 MHz	One RET per array: R1 x 3 Sectors
1710-2690 MHz	One RET per array: Y1, Y2 x 3 Sectors
Total Quantity	Nine 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

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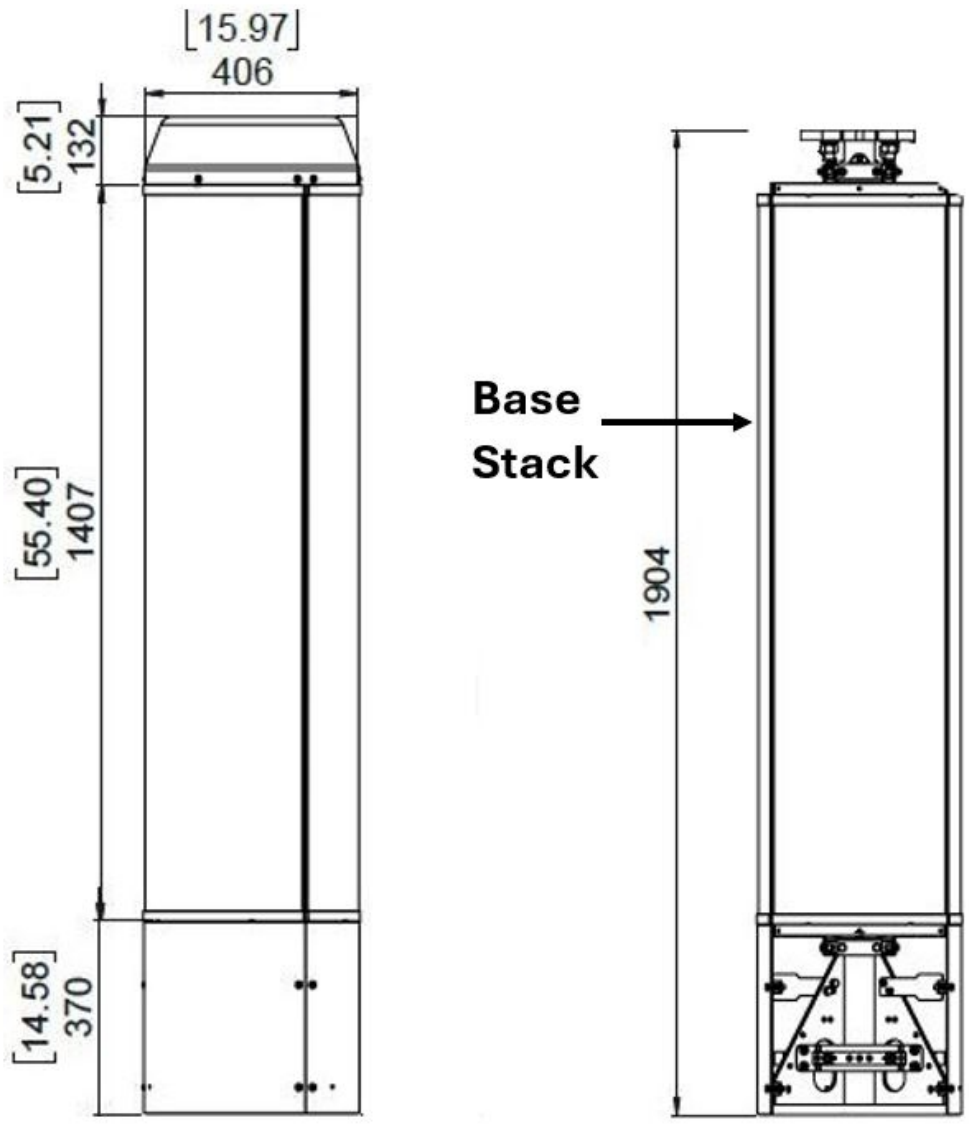
Mechanical Illustration



Description of Parts	
Base Stack	This contains the Antenna Sectors. Mounted onto the Base Stack Interface. The top of the Base Stack has a mounting flange onto which the Extension Stack is mounted.
Extension Stack	**Note:** The Extension Stack is not supplied with the AWT2-3926. It can be ordered separately. At the top of the Extension Stack there is a a mounting flange onto which an Active Antenna unit (AAU) can be mounted.
RF Jumpers Base Stack	Feeders from the Radio Cabinet feed directly into the connectors located at the bottom of the Base Stack.
RF Jumpers Extension Stack	RF Jumpers are routed behind the Base Stack Radomes.

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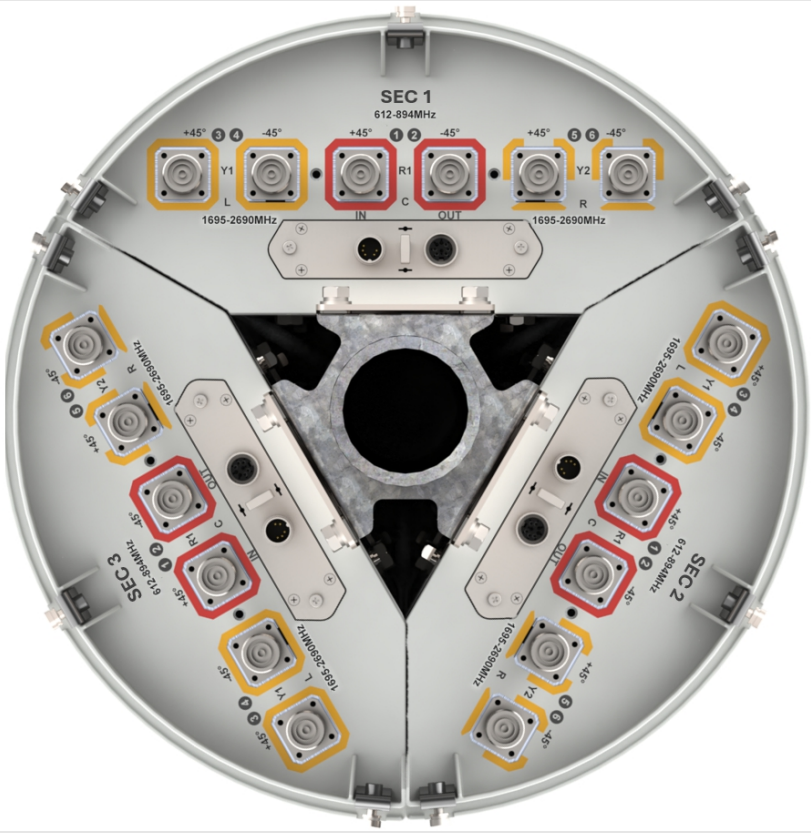
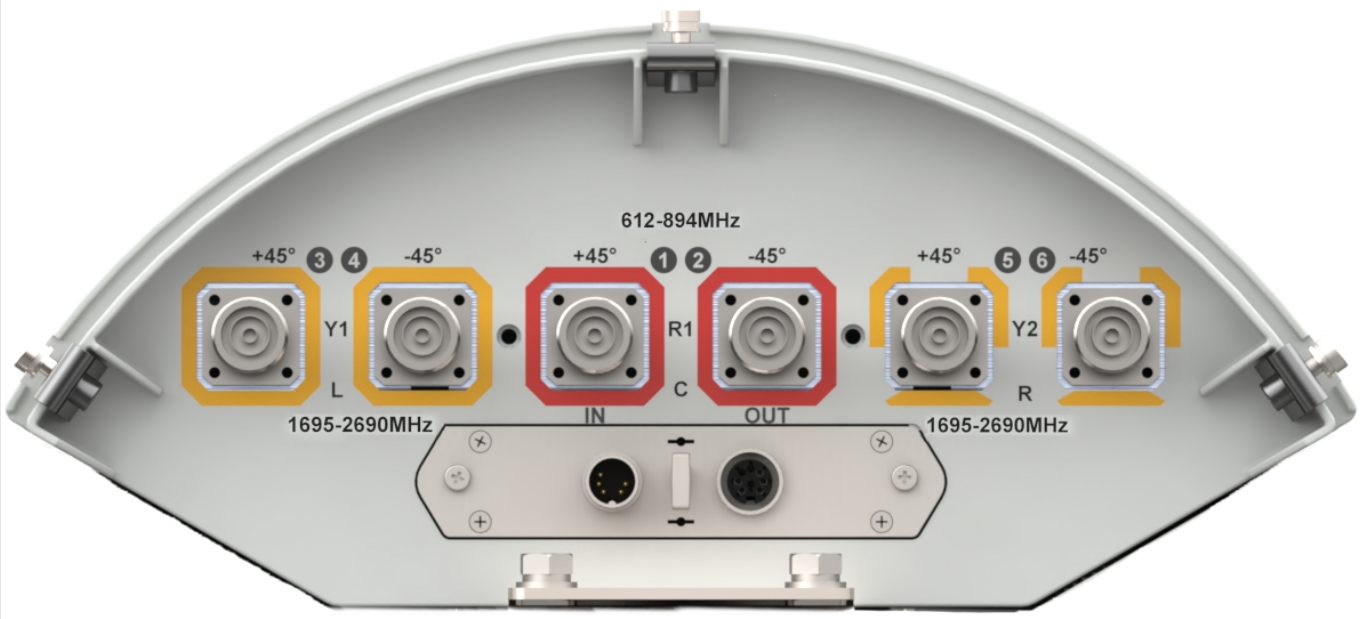
TECHNICAL SPECIFICATION

Connector Plate Images



View of the full Connector Plate at the bottom of the Stack . Each Stack has the same Connector Plate.



Showing Low Band / Mid Band Connector Plate located at bottom of Base Stack.

Each RET Motor is located at the bottom of each antenna sector as part of the Connector Plate. Each RET motor can be accessed individually and if necessary replaced individually by releasing two screws and sliding out the RET Motor Cartridge. A new RET Motor Cartridge can be slid back in as replacement.

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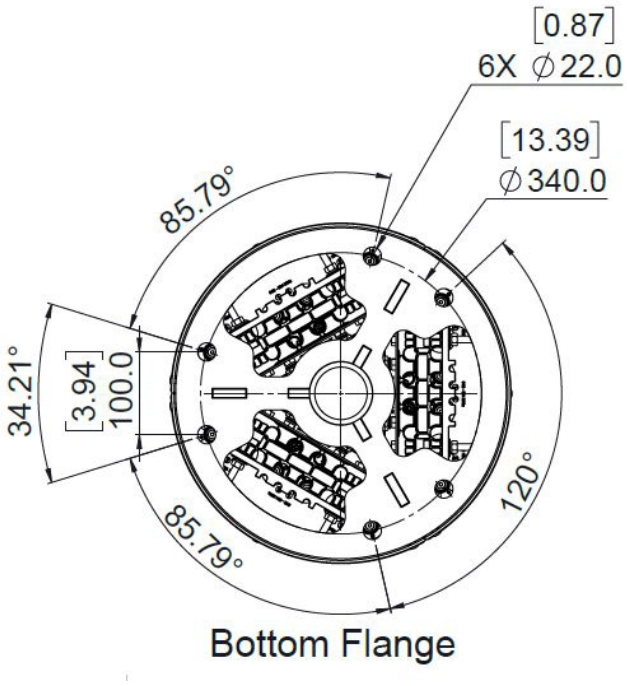
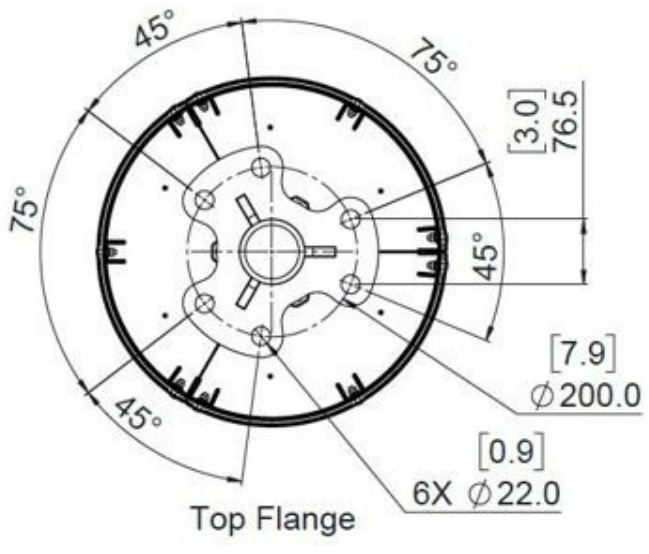
TECHNICAL SPECIFICATION

Mounting Bracket Kit

3 inch Bracket description



Bottom Flange



Top Flange

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

Ordering Info

Order Code - Antenna	Description
AWT2-3926	Enclosed Remote Electrical Tilt (eRET) with 4.3-10 Connectors.
Order Code - Accessories	**Description**
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")
PADC 1000	Portable AISG Controller
AW0326-3-PM-PF	AISG Jumper Cable Lengths 3 metres (9' 10")
AW0326-10-PM-PF	AISG Jumper Cable Lengths 10 metres (32' 9")

Enquiries

Global Headquarters
Ashgrove Business Centre,
Ballybrittas, Portlaoise,
R32 DT0A, IRELAND
sales@alphawireless.com
+353 57 86 33847

North America
7301 W. 129th Street, Suite 150,
Overland Park,
KS 66213, USA
sales@alphawireless.com
+1 913 279 0008

Australia
3/76 Regentville Rd,
Jamisontown,
NSW 2750, AUSTRALIA
sales@alphawireless.com
+ 61 2 4504 8212