



DATASHEET

AW3620-E-F-G

Common Name- 4Ports, 30", B41 4x4 eRET MIMO Small Cell Omni

2496-2690MHz	4	eRET	8.5	360°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

The **AW3620** is a four-port omnidirectional canister covering the 2496 – 2690 MHz frequency band. This next generation antenna delivers 360° of horizontal coverage and allows cell splitting through independent tilt control of the elevation beam in three sectors. Each sector's downtilt is adjustable from 0° to 14° using the AISG compatible enclosed remote electrical tilt (eRET). Adjustment of the down tilt allows independent optimization of the three cells throughput and coverage. The AW3620 is an aesthetically pleasing solution to provide 360° of horizontal coverage for 4G and 5G private networks using the 2.5 GHz S-band, Broadband Radio Service (BRS), and Education Broadband Service (EBS) spectrums.



APPLICATION

Traditional mobile networks were designed for voice call continuity and principally relied on macro sites. The seemingly insatiable demand for data requires cell splitting at a much finer level, placing network access points closer to the subscriber. Network access points will be closer to where subscribers live, work and play. The CONCEALMENT set of solutions are designed to minimize the visual impact to the community. These solutions will enable the MNO to reduce the rent, backhaul and potentially power costs. They will help drive increased revenue.

FEATURES

- Optimised for 3GPP band 38 & 41
- 4x4 MIMO for maximum throughput
- 3-sector independent electronic Remote Electrical Tilt
- AISG 2.0 compatible

STANDARD & CERTIFICATIONS

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

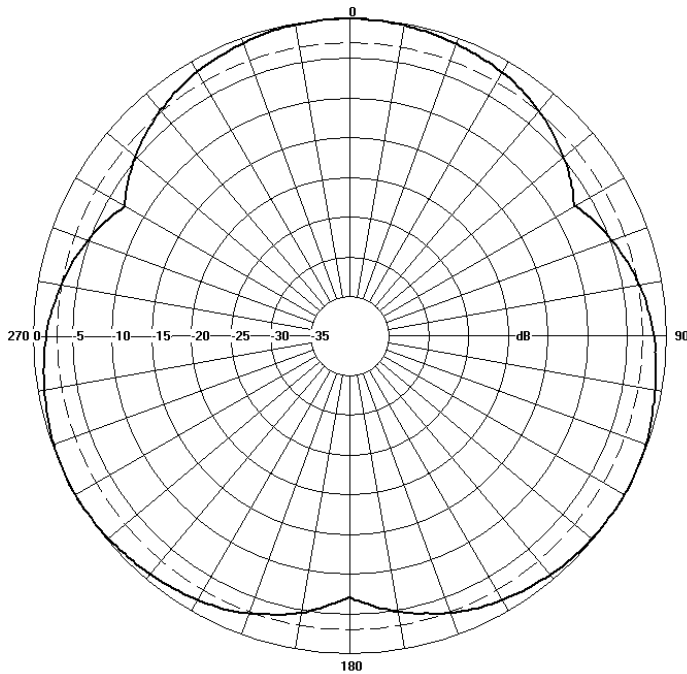


The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

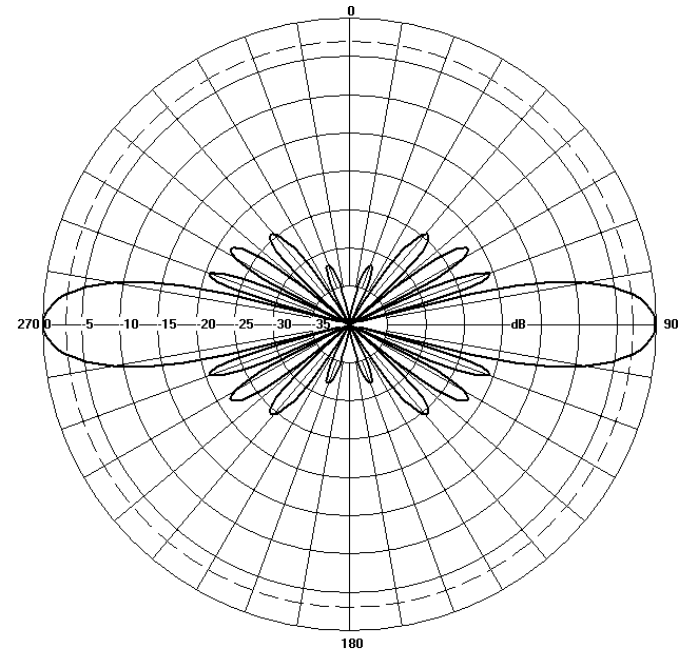
TECHNICAL SPECIFICATION

Electrical Specifications			
Frequency Range	MHz	2496-2690MHz	
Polarisation	Degree	+/- 45° Slant Linear	
Gain	Basta	dBi	8.0±0.5
	Max	dBi	8.5
Azimuth Beamwidth	Degree	360°	
Elevation Beamwidth	Degree	12°	
Electrical Downtilt	Degree	T0° - T14°	
Electrical Downtilt Deviation	Degree<	1°	
Impedance	Ohms	50	
VSWR	<	1.43	
Return Loss	dB>	15	
Isolation	dB>	28	
Passive Intermodulation	dBc<	-150	
Upper Sidelobe Suppression, Peak to 20°	dB>	18	
Cross-Polar Discrimination	dB>	12	
Maximum Effective Power Per Port	W	50	

Representative Pattern Files



Azimuth



Elevation

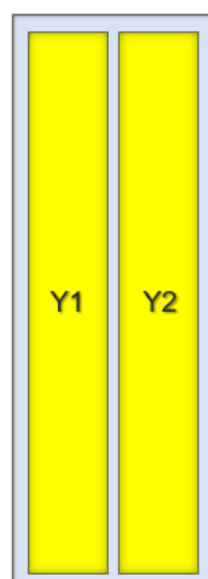
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	749 (29.5) x 220 (8.7)
Packing Size (LxWxD)	mm (in)	830 (32.7) x 295 (11.6) x 445 (17.5)
Net Weight (antenna)	kg (lb)	8.5 (18.7)
Net Weight (mount)	kg (lb)	7.5 (16.5)
Shipping Weight	kg (lb)	16 (35.2)
Connector Type (Female)	-	4.3-10 and N Type (GPS)
Connector Quantity	-	5 (4 x 4.3-10 & 1 x N Type GPS)
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	130 (30)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	130 (30)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilised PVC
Radome Colour	RAL	9010
Product Compliance Environmental	-	RoHS
Lightning Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)
IP Rating	-	

Array Layout and RET Information



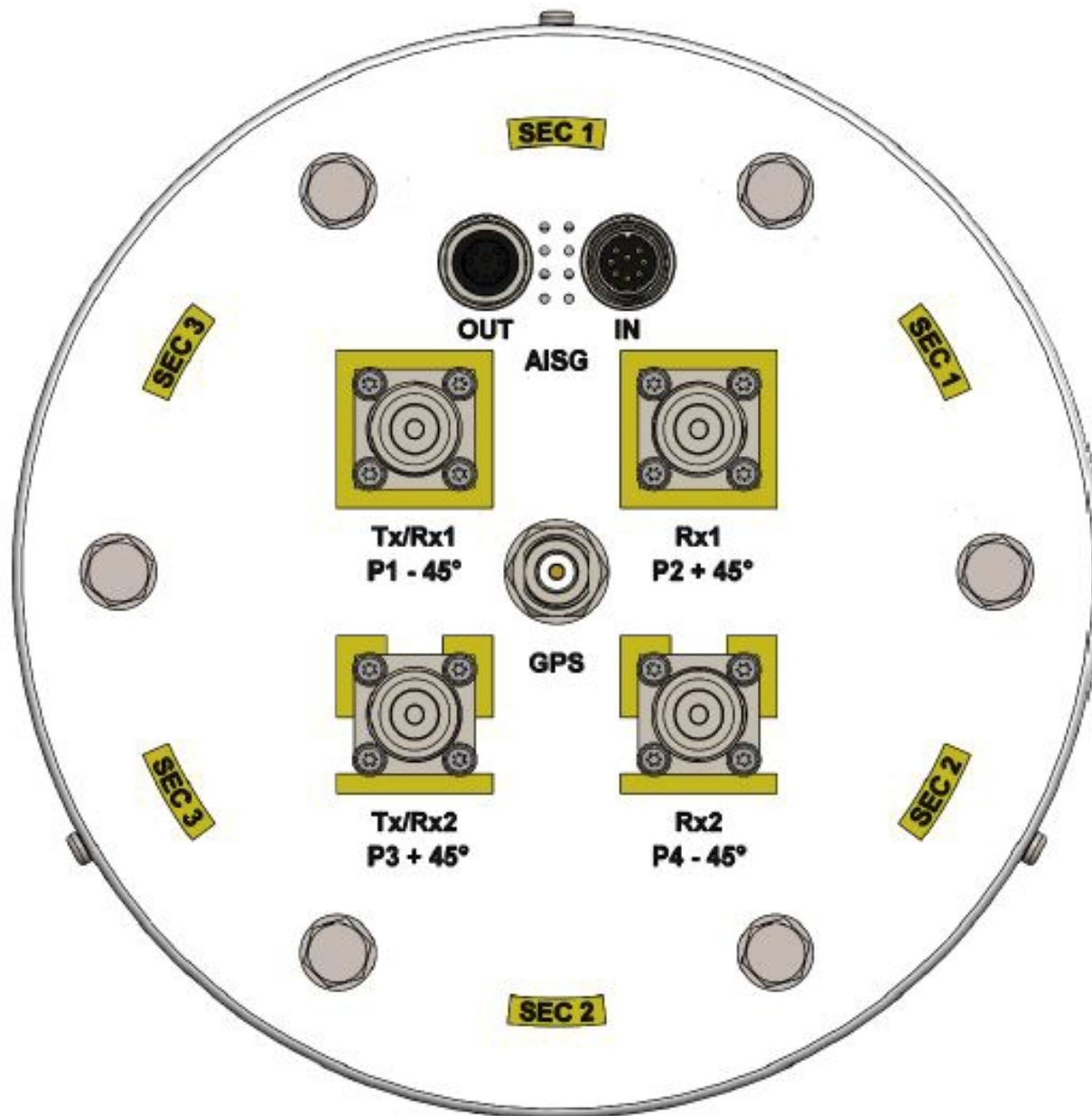
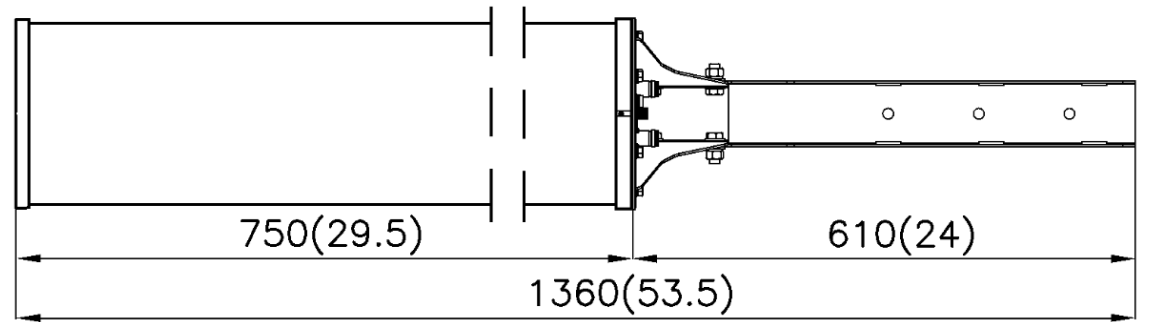
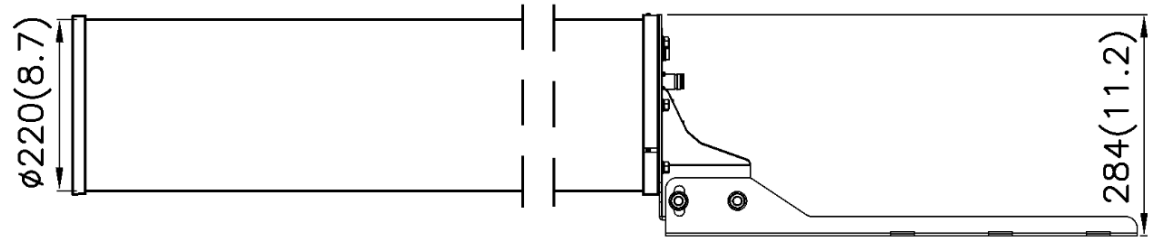
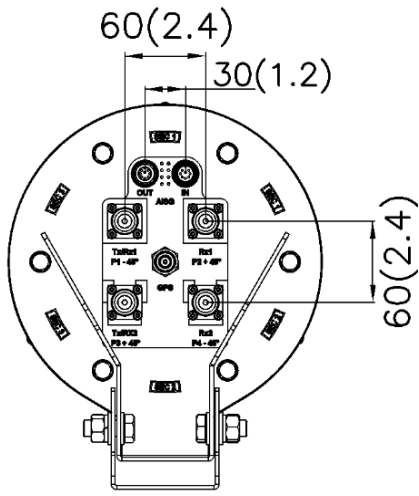
Note: Coloured box sizes do not represent antenna sizes.

Array	Frequency MHz	Ports	RET ID
Y1	2496 - 2690	1 - 2	1
Y2	2496 - 2690	3 - 4	1

Configuration	
2496 - 2690 MHz	One RET for both arrays: Y1, Y2 x 3 Sectors
Total Quantity	Three 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	One pair 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

Mechanical Illustration

All measurements are in mm (in)

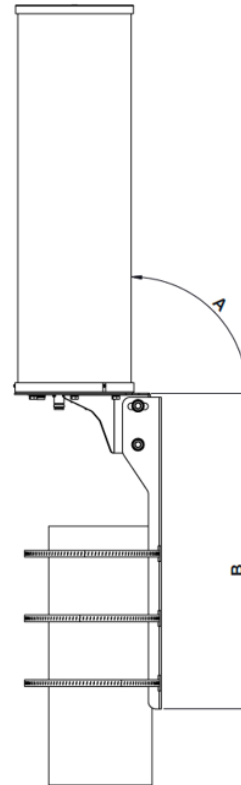
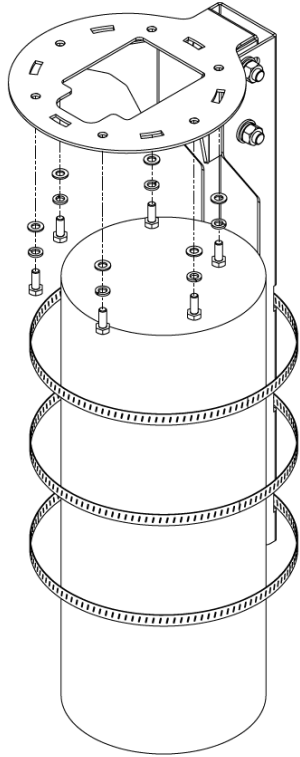




TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-142 (Mount Kit included with Antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
-10° to +10°	Stainless Steel	N/A

Ordering Info

Order Code - Antenna

AW3620-E-F-G

Order Code - Accessories

AW1012-2-FM-FM

AW1012-2-FM-NM

AW1014-2-FM-TM

PADC 1000

SADC 2000

AW0326-3-PM-PF

AW0326-10-PM-PF

AW0326-25-PM-PF

AW0326-50-PM-PF

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")

Portable AISG Controller

Site AISG Controller

AISG Jumper Cable Lengths 3 metres (9' 10")

AISG Jumper Cable Lengths 10 metres (32' 9")

AISG Jumper Cable Lengths 25 metres (82')

AISG Jumper Cable Lengths 50 metres (164')

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

DISCLAIMER

The information in this document is provided solely regarding Alpha Wireless products. The information is not a guarantee of performance or characteristics. Alpha Wireless reserves the right to modify, change, amend, improve or make corrections to this document and its products, at any time and its sole discretion without prior written consent or notice. No license to any intellectual property rights is granted or implied under this document. Alpha Wireless disclaims warranties and liabilities of any kind including non-infringement of intellectual property rights of any third party.