



DATASHEET

AW3376-E-F

Common Name- 8 Port Beamformer - B42, 43 & 48 - 90° - eRET

3400-3800MHz	8	eRET	15.5	90°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

The AW3376-E-F is an eight-port 3400 - 3800 MHz beamforming panel antenna with electrical variable tilt. This product was designed to evolve from 4 port to 8 port beamforming on B42/B43 to improve cell edge throughput. bands n48 and n78

APPLICATION

Alpha Wireless 8T8R beamforming antennas are designed for high performance LTE networks. The beams are optimized to provide coverage directly to the user and improves data throughput at the cell edge without additional bandwidth. The 90° with 0.5 lambda spacing provides the best option for soft split and extended coverage at the cell edge.

STANDARD & CERTIFICATIONS

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



FEATURES

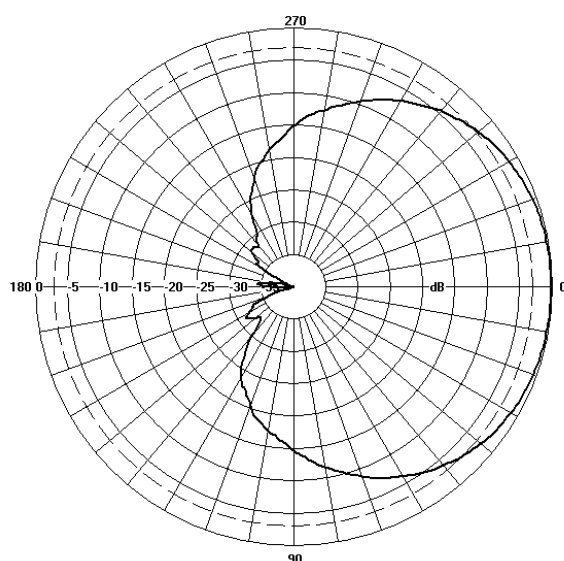
- Wide-band antenna for 3GPP bands 42, 43 & 48 bands n48 and n78
- Designed to work with any Radio vendor at TM8
- 90° antenna designed for soft split applications
- AISG 2.0 compatible
- Removable RET

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

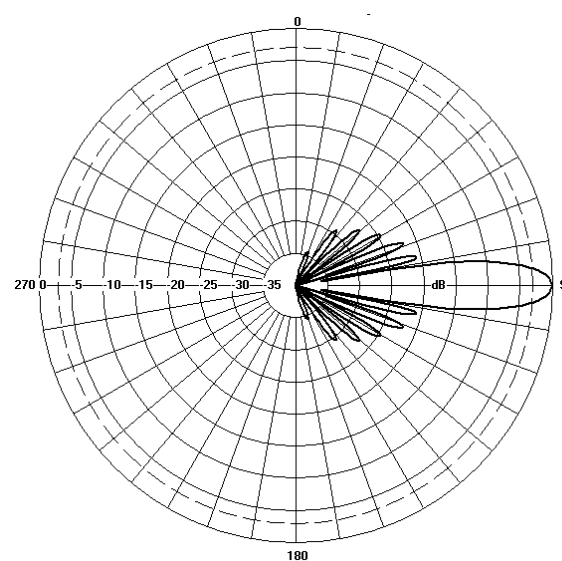
TECHNICAL SPECIFICATION

Electrical Specifications			
Frequency Range	MHz		3400 - 3800MHz
Polarisation	Degree		+/- 45° Slant Linear
Gain	Basta	dBi	15.0±0.5
	Max	dBi	15.5
	Single Column	dBi	15.5 +/- 1
	Broadcast Beam	dBi	16 +/- 0.5
	Service Beam	dBi	20.5 +/- 0.5
Calibration Network	Coupling Factor	dB	26 +/- 1
	Max amp deviation	dB <	0.7
	Max phase deviation	Degree <	5
Azimuth Beamwidth			
	Single Column	3dB BW	90° +/- 15°
	Broadcast Beam	3dB BW	85°
	Service Beam	3dB BW	30°
Elevation Beamwidth	Degree		7°
Electrical Downtilt	Degree		T0° - T10°
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 >		26
Upper Sidelobe Suppression, Peak to 20°	dB >		16
Cross-Polar Discrimination	dB >		15
Maximum Effective Power Per Port	W		150

Representative Pattern Files



Azimuth



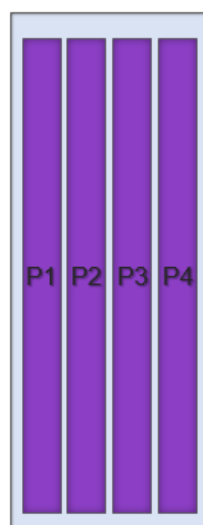
Elevation

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

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	1040 (41) x 320 (12.6) x 105 (4.1) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1100 (43.3) x 380 (15) x 210 (8.3)
Net Weight (antenna)	kg (lb)	11.1 (25.5)
Net Weight (mount)	kg (lb)	3 (6.6)
Shipping Weight	kg (lb)	15 (33.1)
Connector Type	-	4.3-10
Connector Quantity	-	9 (8 x input ports, 1 x calibration port)
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	350 (79)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	130 (30)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	ASA
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



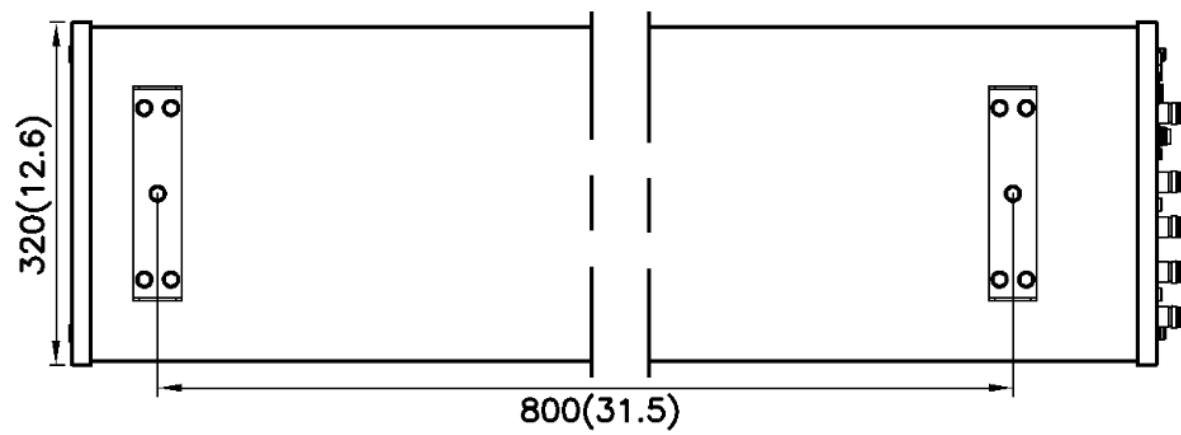
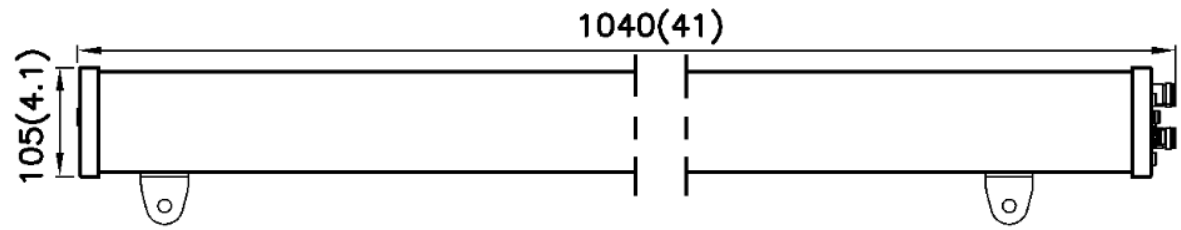
Note: Coloured box sizes do not represent antenna sizes.

Array	Frequency MHz	Ports	RET ID
P1	3400-3800	1 - 2	1
P2	3400-3800	3 - 4	1
P3	3400-3800	5 - 6	1
P4	3400-3800	7 - 8	1

Configuration	
3400 - 3800MHz	One RET for Four arrays : P1, P2, P3, P4
Total Quantity	One RET Motor Controller
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
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

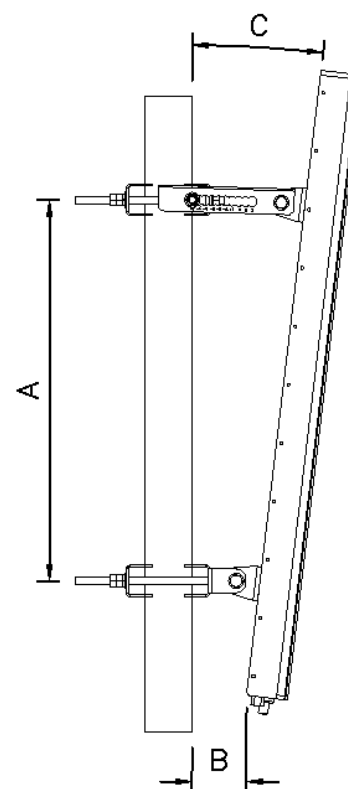
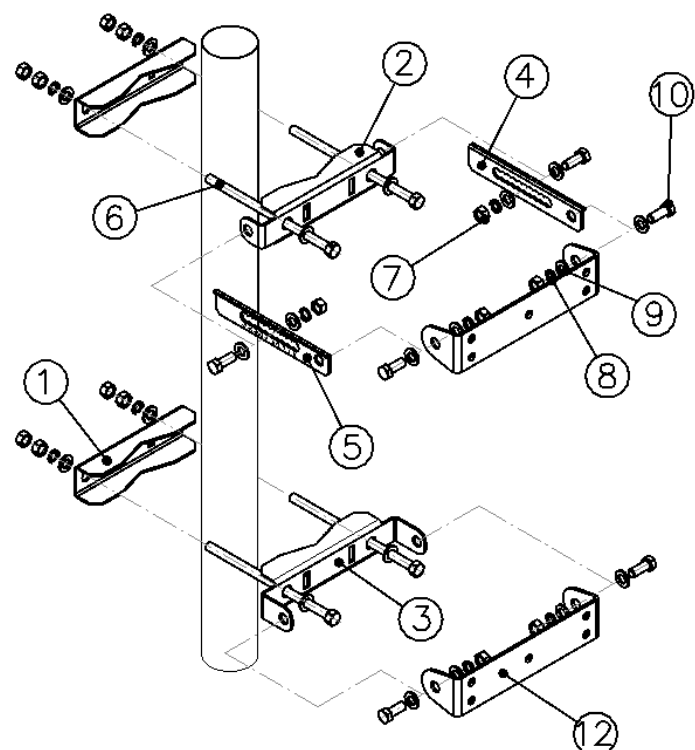
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-153 Mount Kit (Mount Kit included with antenna)



Ordering Info

Order Code - Antenna

AW3376-E-F

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 DTOA, 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.

© Alpha Wireless Limited 2022