



DATASHEET

AW3740-E-F

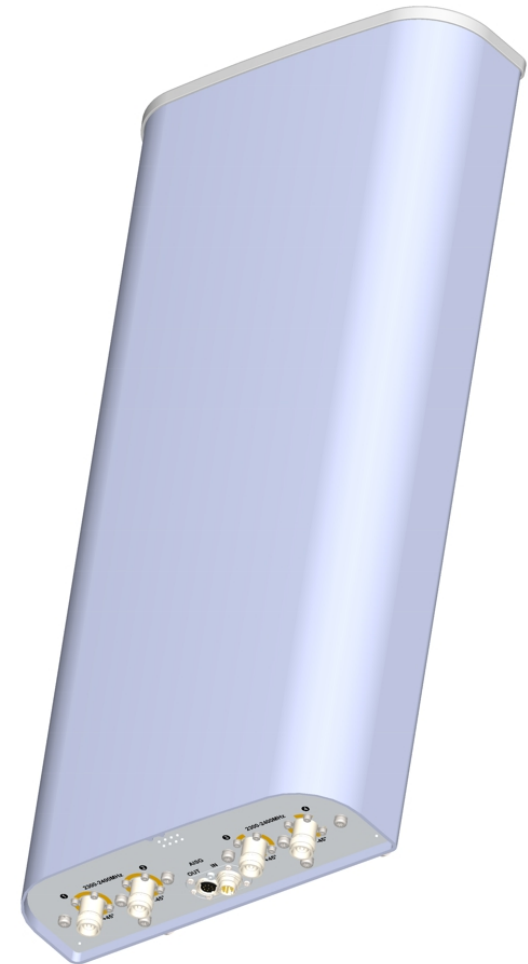
Common Name- 4 Port, 34", eRET, 45°, Panel

2300 - 2400MHz	4	eRET	14.5	45°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

The **AW3740** is an Air to Ground (A2G) panel antenna. Panel antennas typically have electrical down tilt to point down from a tower to users on the ground. This A2G antenna is designed to have up-tilt to point toward the sky to communicate with cellular users travelling by aeroplane. AW3740 is a 4-port, 45° antenna covering the 2300-2400 MHz frequency band and with electrical variable tilt. This antenna is offered with remote electrical tilt (eRET). Remote electrical tilt adjustment enables elevation tilt adjustment without the need for site visits or tower climbs.

Panel antennas are the most used solution to provide directive coverage in a wireless network. These panel antennas offer multiple ports and frequency bands and are designed to deliver high gain across the sector. They are commonly available with 33°, 45°, 60°, 90°, and 120° beamwidths. Alpha Wireless provides a wide array of sector panel solutions that meet the needs of the most intricate deployment requirements.



APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Enclosed Remote Electrical Up Tilt of 4 to 18 degrees.
- Mount Kit with variable tilt included.
- Manufactured in Ireland.

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



TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2300 - 2400
Polarisation	Degree	+/- 45° Slant Linear
Gain		
4° Up Tilt	dBi	14.0
10° Up Tilt	dBi	14.5
18° Up Tilt	dBi	15.0
Overall Tilts	dBi	14.5
Azimuth Beamwidth	Degree	45
Azimuth Beam Squint	Degree<	3
Elevation Beamwidth	Degree	10.5
Electrical Up tilt	Degree	T4 - T18
Electrical Up tilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	<	1.5
Return Loss	dB>	14
Isolation	dB>	25
Front to Back Ratio: Total Power +/-30°	dB>	25
Cross-Polar Discrimination	dB>	16 (@ boresight)
Maximum Effective Power Per Port	W	100
Null from Horizontal to Zenith	dB<	20 (typical)

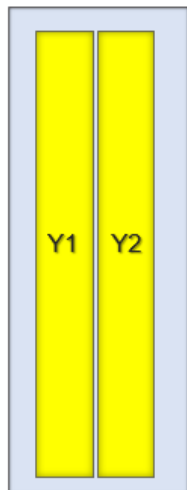
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	752.7 (29.6) x 320 (12.6) x 106 (4.2) - (LxWxH)
Packing Size (LxWxD)	mm (in)	900 (35.4) x 370 (14.5) x 210 (8.2)
Net Weight (antenna)	kg (lb)	7.5 (16.5)
Net Weight (mount)	kg (lb)	2 (4.4)
Shipping Weight	kg (lb)	10 (22)
Connector Type (Female)	-	4.3-10
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	249 (56)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	94 (21)
Survival Wind Speed	km/h (mph)	252 (156)
Radome Material	-	UV-Stabilised PVC
Radome Colour	RAL	7035
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



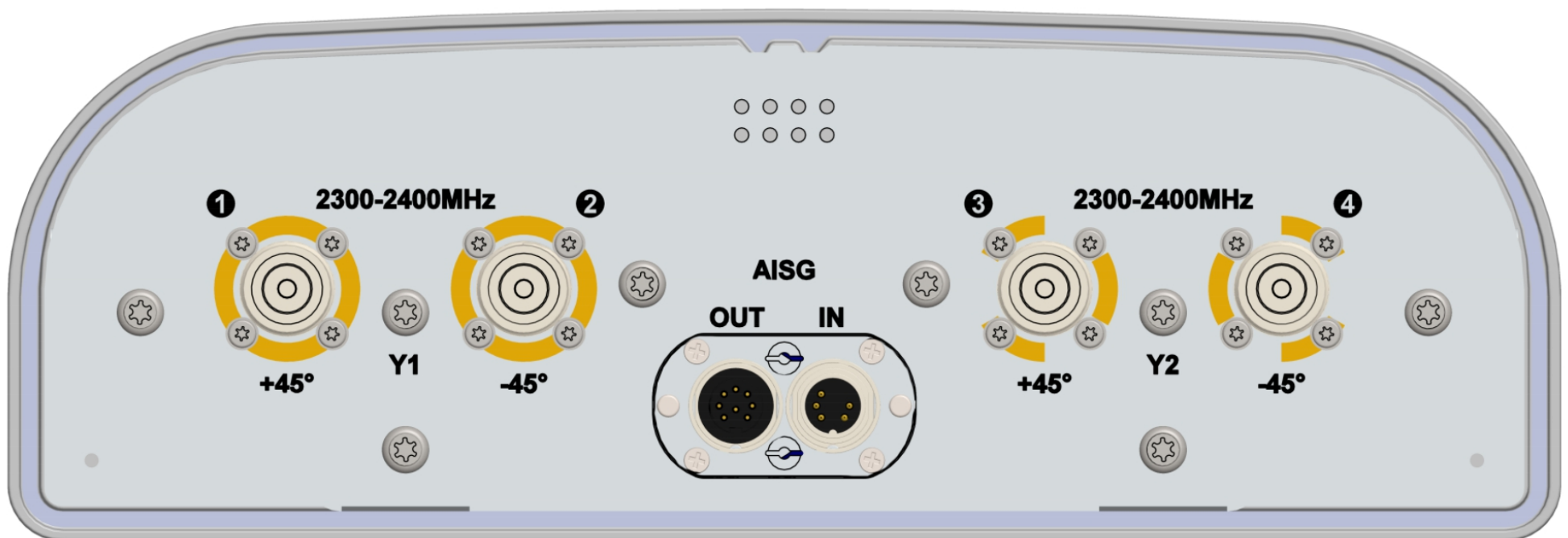
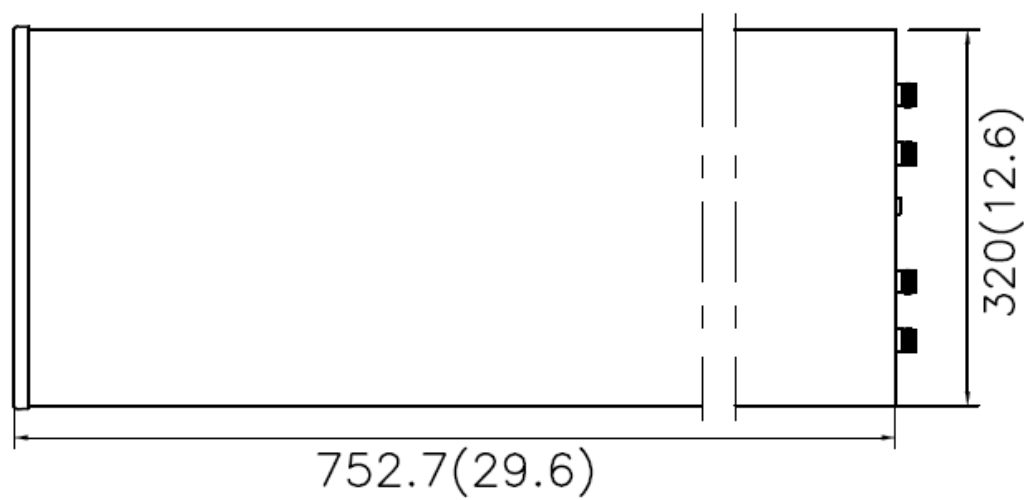
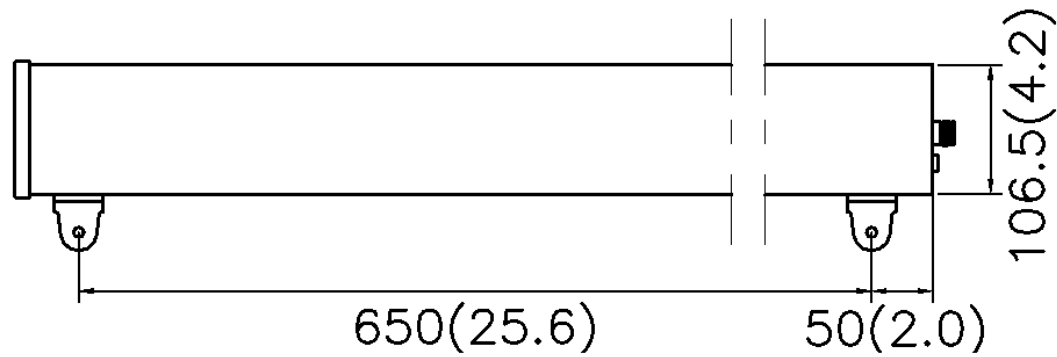
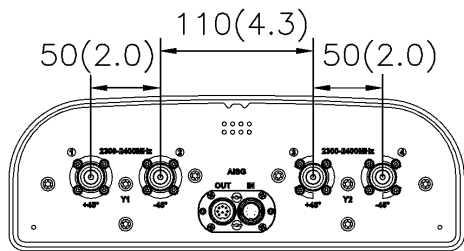
Note: Coloured box sizes do not represent antenna sizes.

Array	Frequency MHz	Ports	RET ID
Y1	2300 - 2400	1 - 2	1
Y2	2300 - 2400	3 - 4	1

Configuration	
2300-2400 MHz	One RET for both arrays : Y1, Y2
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

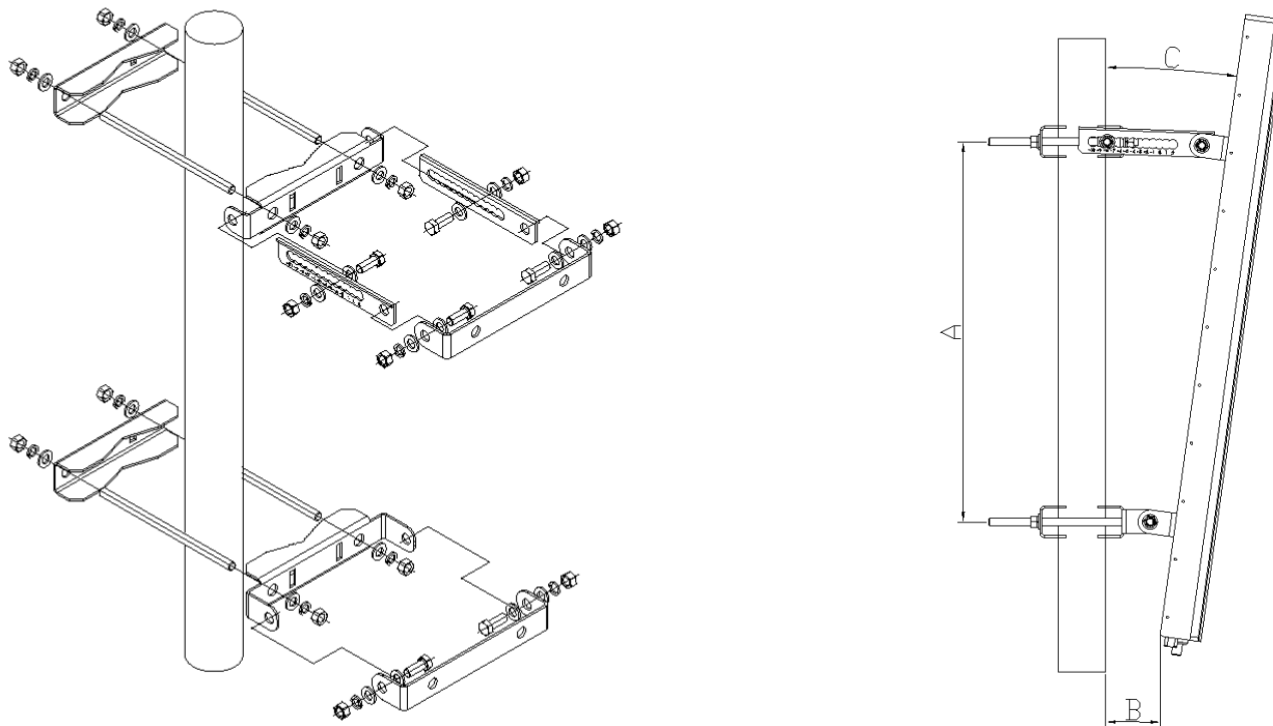
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-105 Mount Kit (Mount Kit included with antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
+2° to -10°	Stainless Steel	50mm-115mm (2" to 4.5")

Ordering info

Order Code - Antenna

AW3740-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')

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