



... Changing the way
wireless networks are built

A large white circle is centered on the page. Inside the circle, a plus sign (+) is positioned above the word 'CATALOGUE'. The background is a dark blue image of a hand pointing at a globe, with various white lines and dots scattered across the scene.

+ CATALOGUE

+ We listen harder. We work smarter. We deliver faster.

Alpha Wireless is a market-leading specialist in designing and manufacturing high performing, superior quality antenna solutions.

We work closely with network operators, OEMs and municipalities to design solutions that meet their individual requirements while preserving the natural landscape. The old models of network deployment are no longer sustainable, and Alpha Wireless is addressing this by changing the way wireless networks are built.

Our ability to innovate sets us apart and means that we are the first out of the starting block. We're not just about responding to current problems, we are committed to anticipating the future challenges and requirements of the wireless industry so that we can lead the way with solutions.

We have a deep understanding that one size does not necessarily fit all. Each of our customers is unique, and it is important to provide solutions that fit their individual needs. Flexibility is at the heart of our customer service philosophy, so we do not try to fit our clients into a box – instead, we create a box that suits them and adapt to their requirements.

Our customers have come to rely on our expertise and our responsiveness, and we go above and beyond to ensure they get the best result.

#InnovationisCore #LowVisualImpact #5GOurFutureTransformed

Product Families



Canister

Tri-sector demand continues to grow as we support all traditional 4G bands and our latest models include 5G bands. We have the smallest form factor available in the market.



Panel

4x4 and 8x8 MIMO antennas supporting Beamforming.



Small Cell

3.5 GHz, 2.6 GHz, 2.1 GHz, 800 MHz to drive small cell deployments includes Sectors, Omnis and Back-to-Back antennas.



Concealment

3.5 GHz, 2.6 GHz, 2.1 GHz, 800 MHz includes CAN, rCAN and Shrouds.

DISCLAIMER

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Catalogue Issue 01/2019

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Table of Contents

Canister

	Frequency	Ports	Tilt	Gain	Beamwidth	
+ AW3176-S-LSL	806-896MHz	2	Fixed	6.5	360°	PG 11 - 14
+ AW3359	1710-2690MHz	12	eRET	17.5	65°	PG 15 - 18
+ AW3363	698-960MHz	6	eRET	12.0	65°	PG 19 - 23
	1710-2690MHz	12	eRET	17.5	65°	
+ AW3449	3300 - 3800MHz	6	Fixed	18.0	65°	PG 24 - 27
+ AW3460	3300-3800MHz	6	MET	17.0	65°	PG 28 - 31
+ AW3464	698-960MHz	2	Fixed	6.5	360°	PG 32 - 35
+ AW3631	617-960MHz	18	eRET	12	65°	PG 36 - 40
	1710-2690MHz			/14		
+ AW3704	617-894MHz	6	eRET	12.0	65°	PG 41 - 45
	1710-2690MHz	12		17.5	65°	
+ AW3713	617-894MHz	18	eRET	12	65°	PG 46 - 50
	1710-2690MHz			/14		

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Catalogue Issue 01/2019

Please check our home page for new antenna releases which are not part of this catalogue.

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Table of Contents

Panel

	Frequency	Ports	Tilt	Gain	Beamwidth	
+ AW3003	2300-2700MHz	2	Fixed	18.0	65°	PG 54 - 57
+ AW3004	2300-2700MHz	2	Fixed	17.0	90°	PG 58 - 61
+ AW3007	2300-2700MHz	4	Fixed	18.0	65°	PG 62 - 65
+ AW3008	2300-2700MHz	4	Fixed	17.0	90°	PG 66 - 69
+ AW3014	3300-3800MHz	2	Fixed	18.0	65°	PG 70 - 73
+ AW3015	3300-3800MHz	2	Fixed	17.0	90°	PG 74 - 77
+ AW3023	3300-3800MHz	4	Fixed	18.0	65°	PG 78 - 81
+ AW3035	3300-3800MHz	4	Fixed	17.0	90°	PG 82 - 85
+ AW3056	3300-3800MHz	2	Fixed	19.5	45°	PG 86 - 89
+ AW3159	3300-3800MHz	2	MET	17.0	65°	PG 90 - 93
+ AW3160	3300-3800MHz	2	MET	16.0	90°	PG 94 - 97
+ AW3161	3300-3800MHz	4	MET/ eRET	17.0	65°	PG 98 - 101
+ AW3162	3300-3800MHz	4	MET	16.0	90°	PG 102 - 105
+ AW3163	2300-2700MHz	2	MET	17.0	65°	PG 106 - 109

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Catalogue Issue 01/2019

Please check our home page for new antenna releases which are not part of this catalogue.

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Table of Contents

Panel

		Frequency	Ports	Tilt	Gain	Beamwidth	
+	AW3164	2300-2700MHz	2	MET	16.0	90°	PG 110 - 113
+	AW3165	2300-2700MHz	4	MET	17.0	65°	PG 114 - 117
+	AW3166	2300-2700MHz	4	MET	16.0	90°	PG 118 - 121
+	AW3170	3300-3800MHz	2	Fixed	20.5	33°	PG 122 - 125
+	AW3193	2496-2690MHz	4	eRET	17.7	65°	PG 126 - 129
+	AW3206	2300 - 2700MHz // 3300 - 3800MHz	4	MET	17.5	65°	PG 130 - 133
+	AW3232	3300-3800MHz	2	Fixed	15.5	120°	PG 134 - 137
+	AW3254	2300-2700MHz // 3300-3800MHz	8	MET	17.0	65°	PG 138 - 141
+	AW3266	2496-2690MHz	8	RCU external	16.5	90°	PG 142 - 145
+	AW3286	2496-2690MHz	2	eRET	17.7	65°	PG 146 - 149
+	AW3295	2496-2690MHz	4	eRET	16.2	90°	PG 150 - 153
+	AW3296	2496-2690MHz	2	eRET	16.2	90°	PG 154 - 157
+	AW3375	3300 - 3800MHz	8	eRET	16.0	72°	PG 158 - 161
+	AW3376	3400-3800MHz	8	eRET	15.5	90°	PG 162 - 165

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Catalogue Issue 01/2019

Please check our home page for new antenna releases which are not part of this catalogue.

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Table of Contents

Panel

		Frequency	Ports	Tilt	Gain	Beamwidth	
+	AW3378	2496 - 2690MHz	8	eRET	16.5	65°	PG 166 - 169
+	AW3452	3300-3800MHz	4	eRET	19.2	33°	PG 170 - 173
+	AW3463	698-960MHz	2	Fixed	12.0	65°	PG 174 - 177
+	AW3647	3300-3800MHz	4	Fixed	19.5	33°	PG 178 - 181
+	AW3677	2300-2700MHz / 3300-3800MHz	4	Fixed	16.5/ 17.2	65°	PG 182 - 185
+	AW3697	3300-3800MHz / 4900-5950MHz	8	Fixed	17.0	65°	PG 186 - 189

Small Cell

		Frequency	Ports	Tilt	Gain	Beamwidth	
+	AW3088	2300-2700MHz	2	Fixed	11.0	360°	PG 192 - 195
+	AW3089	3300-3800MHz	2	Fixed	11.0	360°	PG 196 - 199
+	AW3348	2496-2690MHz	2	Fixed	12.5	65°	PG 200 - 203
+	AW3372	3300-3800MHz	2	Fixed	12.5	65°	PG 204 - 207
+	AW3373	3300-3800MHz	2	Fixed	11.0	90°	PG 208 - 211
+	AW3374	3400-3800MHz	2	Fixed	7.0	360°	PG 212 - 215

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Catalogue Issue 01/2019

Please check our home page for new antenna releases which are not part of this catalogue.

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Table of Contents

Small Cell

	Frequency	Ports	Tilt	Gain	Beamwidth	
+ AW3387	1710 - 2690MHz	2	Fixed	12.5	65°	PG 216 - 219
+ AW3388	1710-2690MHz	2	Fixed	6.7	360°	PG 220 - 223
+ AW3397	1710 - 2690MHz	4	Fixed	12.2/ 12.7	65°	PG 224 - 227
+ AW3398	1710-2690MHz	4	Fixed	6.6/ 6.9	360°	PG 228 - 231
+ AW3477-S1-G	2496-2690MHz	2	MET	8.5	360°	PG 232 - 235
+ AW3499	3400-3800MHz	4	Fixed	6.5	360°	PG 236 - 239
+ AW3613-S1-G	2496-2690MHz	4	MET	8.5	360°	PG 240 - 243
+ AW3625	3300-3800MHz	2	MET	8.5	360°	PG 244 - 247
+ AW3639	1695-2690/3400 -3800/5150-5925MHz	8	eRET	14/ 11/5	65°	PG 248 - 251
+ AW3672	3400-3800MHz	4	MET	8.5	360°	PG 252 - 255
+ AW3675	2496-2690Mhz	2	MET	11.5	65°	PG 256 - 260
+ AW3689	1695-2690/3400-3800 /5150-5925MHz	20	MET	14/ 11/6	65°	PG 261 - 264
+ AW3724	617-894/1695-2690/ 3400-3800/5150-5925MHz	18	MET	7/14 /11/6	65°	PG 265 - 269
+ AW3725	617-894/1695-2690/ 3400-3800/5150-5925MHz	24	eRET/ MET	7/14 /11/6	65°	PG 270 - 274

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Catalogue Issue 01/2019

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Table of Contents

Concealment

		Frequency	Ports	Tilt	Gain	Beamwidth	
+	AW3610-S1-G	2496-2690MHz	4	MET	10.0	360°	PG 276 - 279
+	AW3611-S1-G	2496-2690MHz	2	MET	10.0	360°	PG 280 - 283
+	AW3612-S1-G	2496 - 2690MHz	4	eRET	10.0	360°	PG 284 - 287
+	AW3658-S-G	2496 - 2690MHz	4	Fixed	8.2	360°	PG 288 - 292

CANISTER

Canisters support multiple antennas into one attractive package. These Canisters deliver an elegant macro solution for pole top, roof top and street work applications. Tri-Sector demand continues to grow as we support all traditional 4G bands and our latest models include 5G bands. Alpha Wireless produces the highest performance, smallest form factor available in the marketplace.

		Frequency	Ports	Tilt	Gain	Beamwidth	
+	AW3176-S-LSL	806-896MHz	2	Fixed	6.5	360°	PG 3 - 6
+	AW3359	1710-2690MHz	12	eRET	17.5	65°	PG 7 - 10
+	AW3363	698-960MHz	6	eRET	12.0	65°	PG 11 - 15
		1710-2690MHz	12	eRET	17.5	65°	

Canister

Panel

Small Cell

Concealment

		Frequency	Ports	Tilt	Gain	Beamwidth	
+	AW3449	3300 - 3800MHz	6	Fixed	18.0	65°	PG 16 - 19
+	AW3460	3300-3800MHz	6	MET	17.0	65°	PG 20 - 23
+	AW3464	698-960MHz	2	Fixed	6.5	360°	PG 24 - 27
+	AW3631	617-960MHz 1710-2690MHz	18	eRET	12 /14	65°	PG 28 - 32
+	AW3704	617-894MHz 1710-2690MHz	6 12	eRET	12.0 17.5	65° 65°	PG 33 - 37
+	AW3713	617-894MHz 1710-2690MHz	18	eRET	12 /14	65°	PG 38 - 42

Common Name- 2 Port BS & 26 Omni

806-896MHz	2	Fixed	6.5	360°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This small cell solution was developed to minimise potential Public Safety interference with 800MHz CDMA and LTE deployments

APPLICATION

Alpha Wireless pseudo omni antenna provides 360° coverage whilst in an ultra-compact radome design. There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. The 2 port antenna provides 2X2 MIMO for improved data throughput with options for various fixed tilt settings.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Low band antenna 806-896MHz
- Optimised Pseudo omni with reduced azimuth ripple
- Slim monopole design to reduce wind loading
- Manufactured in Ireland

The parameters in this specification follow the definitions and recommendations per 3GPP P-Band, Release 8.

Canister

Panel

Small Cell

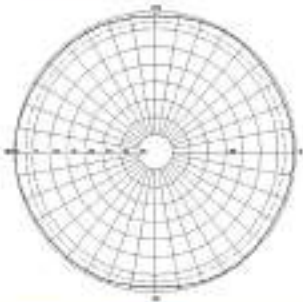
Concealment

TECHNICAL SPECIFICATION

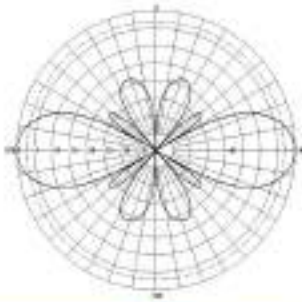
Electrical Specifications

Frequency Range	MHz	805 - 895MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	6.5
Azimuth Beamwidth	Degree	360°
Elevation Beamwidth	Degree	22°
Electrical Downtilt	Degree	10°
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>	22
Cross-Polar Discrimination	dB>	12
Maximum Effective Power Per Port	W	150

Radiation Pattern Files



Azimuth



Elevation

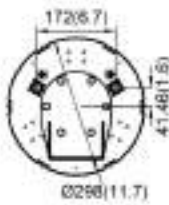
For radiation pattern files, please login at www.alpha-wireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	1033 (40.6) x 298 (11.7) - ØL x ØI
Packing Size (LxWxH)	mm (in)	1225 (48.2) x 365 (14.2) x 416 (16.3)
Net Weight (Antenna)	kg (lb)	6 (13.2)
Net Weight (mount)	kg (lb)	2.8 (6.1)
Shipping Weight	kg (lb)	8.8 (19.3)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
Connector Position	-	Bottom
Wind load Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	250 (57)
Wind load Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	250 (57)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV Stabilised PVC
Radome Colour	RAL	9030
Product Compliance Environmental	-	RoHS
Lightning Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

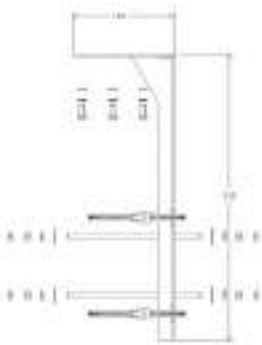
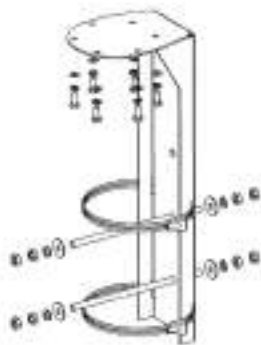
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-115 (Mounting Kit included with Antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
N/A	Stainless Steel	152mm-254mm (6" to 10")

ORDERING INFO

- AW3176-S-LSL-T0

Zero Degrees Fixed Tilt with 7/16 DIN Connectors
- AW3176-S-LSL-T0-G

Zero Degrees Fixed Tilt with 7/16 DIN Connectors with GPS

Common Name - 12 Port, AltaFlex, High Band Tri-Sector

1710-2690MHz	12	eRET	17.5	65°
Frequency	Ports	Tot.	Gain	Beamwidth

PRODUCT INFORMATION

This antenna solution is being deployed on roofs and macro pole applications globally. It is a multi-frequency solution, designed for compact, aesthetically pleasing applications.

APPLICATION

Canisters provide multiple antennas into one attractive package with low visual impact which enables quick site approval. These canisters deliver an elegant macro solution for pole top, rooftop and street works applications. Alpha Wireless produces the highest performance, smallest diameter in the marketplace. The AW3359 AltaFlex canister houses dual high band array for 4x4 or dual operation.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Multi-band Tri-sector antenna - 1710 - 2690MHz.
- Low PIM performance to reduce interference.
- Enhanced tilt range.
- Flange mount design.

The parameters in this specification follow the definitions and recommendations per 3GPP R12, Release 12.

Canister

Panel

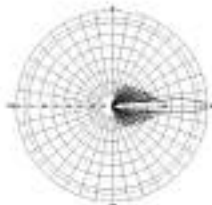
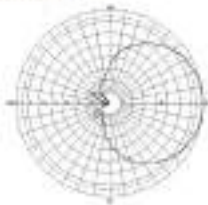
Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications						
Frequency Range	MHz	1730-1850	1850-1990	1920-2170	2360-2600	2600-2690
Polarization	Degree	N/A-45° Slant Linear				
Gain						
	Min Tilt	dBi	17.8 (T0)	17.5 (T0)	17.6 (T0)	17.7 (T0)
	Mid Tilt	dBi	17.0 (T5)	17.2 (T5)	17.3 (T5)	17.5 (T5)
	Max Tilt	dBi	16.0 (T10)	17.0 (T10)	17.1 (T30)	17.1 (T30)
	Overall Tilt	dBi	17.0	17.2	17.3	17.5
Azimuth Beamwidth	Degree		65°	67°	67°	60°
Azimuth Beam Squint	Degree		3°			
Elevation Beamwidth	Degree		6.3°	6.4°	6.2°	6.1°
Electrical Down tilt	Degree		10° - 130°			
Electrical Down tilt Deviation	Degree		2°			
Impedance	Ohms		50			
VSWR	<		1.5			
Return Loss	dB		14			
Isolation	dB		27			
Passive Intermodulation	dBc		-150			
Upper Side lobe Suppression, Peak to 20°	dB		35			15
Cross-Polar Discrimination	dB		15			
Maximum Effective Power Per Port	W		250			

Radiation Pattern Files



Azimuth

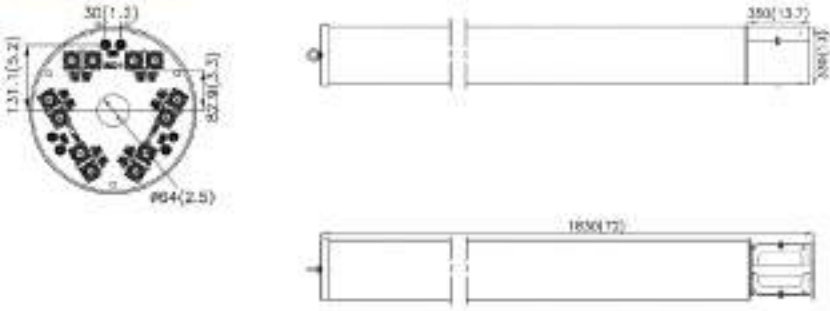
Elevation

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

TECHNICAL SPECIFICATION

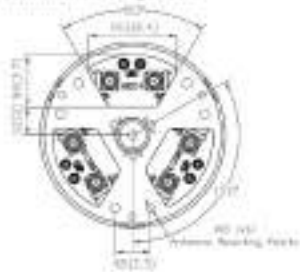
Mechanical Specifications		
Dimensions	mm (in)	1830 (72) x 330 (13) - Ø x Ø
Packing Size (LxWxD)	mm (in)	2000 (79) x 500 (20) x 590 (23)
Net Weight (Antenna)	kg (lb)	56 (123)
Shipping Weight	kg (lb)	92 (203)
Connector Type (Female)	-	4.3-50
Connector Position	-	Bottom
Connector Quantity	-	12
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	500 (113)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	500 (113)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilised PVC
Radome Colour	RAL	9010
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	Celsius (Fahrenheit)	-40 (-40)
Hot Temperature Survival	Celsius (Fahrenheit)	70 (158)

Mechanical Illustration



TECHNICAL SPECIFICATION

Mounting Bracket Kit
350mm Canister Flange Mount



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

ACCESSORIES

PADC-1000(for eRET only)
SADC-1000(for eRET only)

ORDERING INFO

AW3359-E-F Enclosed Remote Electrical Tilt (eRET) with 4.3-10 connectors

Common Name: 18 Port, AltaFlex, Low Band & High Band Tri-Sector

698-960	5	6RET	12.0	-65°
1710-2690	12		17.5	-65°
Frequency	Ports	T/R	Gain	Beamwidth

PRODUCT INFORMATION

This antenna solution is being deployed on roofs and macro pole applications globally. It is a multi-frequency solution. Designed for compact, aesthetically pleasing applications.

APPLICATION

Canisters support multiple antennas into one attractive package. These canisters deliver an elegant macro solution for pole-top, rooftop and streetworks applications. Alpha Wireless produces the highest performance, smallest diameter canister in the marketplace. The AW3363 AltaFlex canister houses both high and low band Tri-sector antennas.

STANDARD & CERTIFICATIONS

Certification: BS EN ISO 9001:2015



FEATURES

- Multi-band Tri-Sector antenna - 698-960/1710-2690MHz
- Low PIM performance to reduce interference
- Independent tilt on each band
- Flange mount design

The parameters in this specification follow the definitions and recommendations per 3GPP TR 38.014, Release 9.6.

Canister

Panel

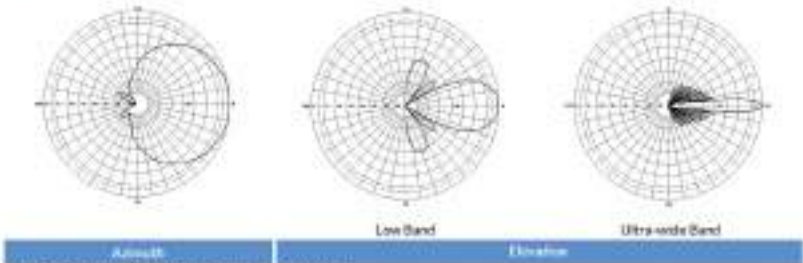
Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications							
Frequency Range	MHz	690-790	790-890	890-960	1110-1820	1820-2170	2300-2680
Polarisation	Degree	+/-45° Slant Linear					
Gain							
	Min Tilt	dB	12.2 (T6°)	12.3 (T6°)	12.4 (T6°)	17.3 (T0°)	17.6 (T9°)
	Mid Tilt	dB	11.9 (T10°)	12.0 (T10°)	12.1 (T10°)	17.0 (T9°)	17.3 (T9°)
	Max Tilt	dB	11.7 (T14°)	11.8 (T14°)	11.9 (T14°)	16.8 (T10°)	17.1 (T10°)
	Overall Tilt	dB	11.9	12.0	12.1	17.0	17.3
Azimuth Beamwidth	Degree	68°	67°	65°	66°	64°	60°
Azimuth Beam Squint	Degree	3°					
Elevation Beamwidth	Degree	26°	25°	23°	6.5°	6.2°	6.0°
Electrical Downlink	Degree	T6° - T14°		T0° - T10°			
Electrical Downlink Deviation	Degree					1°	
Impedance	Ohm					50	
VSWR	=					1.5	
Return Loss	dB					14	
Isolation	dB					27	
Passive Intermodulation	dBc					-150	
Upper Sideband Suppression, Peak to 20°	dB					16	
Cross Polar Discrimination	dB					13	
Maximum Effective Power Per Port	W	500				250	

Radiation Pattern Files



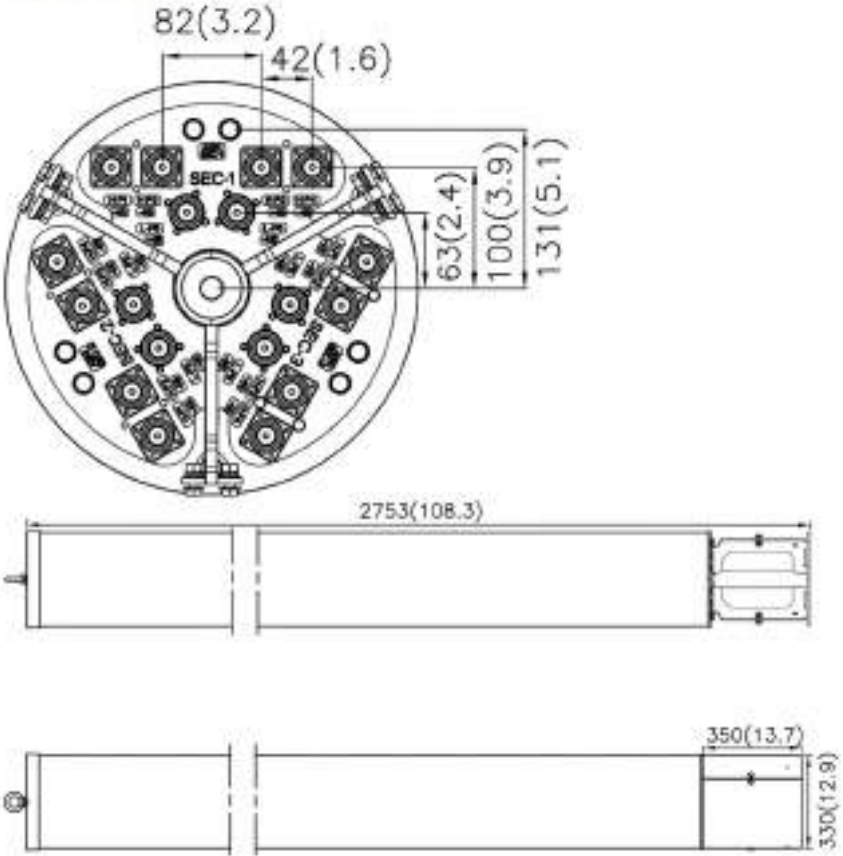
For radiation pattern files, please login at www.alpha-wireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	2753 (108.3) x 330 (12.9) - 0, x 61
Packing Size (LxWxD)	mm (in)	2910 (114) x 500 (20) x 590 (23)
Net Weight (antenna)	kg (lb)	75 (165)
Net Weight (mount)	kg (lb)	Flange mount
Shipping Weight	kg (lb)	124 (273)
Connector Type (Female)	-	4.3-16
Connector Position	-	Bottom
Connector Quantity	-	18 (6P Low Band, 12P High band)
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb)	830 (187)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb)	830 (187)
Survival Wind Speed	km/h (mph)	200 (125)
Radiator Material	-	UV-Stabilised PVC
Radiator Colour	RAL	9010
Product Compliance Environmental	-	RoHS
Lightening Protection	+	DC Grounded
Cold Temperature Survival	Celsius (Fahrenheit)	-40 (-40)
Hot Temperature Survival	Celsius (Fahrenheit)	70 (158)

TECHNICAL SPECIFICATION

Mechanical Illustration



TECHNICAL SPECIFICATION

Mounting Bracket Kit

300mm Canister Flange Mount



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

ACCESSORIES

PADC-1000 (for eRET only)

SADC-1000 (for eRET only)

ORDERING INFO

AW3363-E-F Enclosed Remote Electrical Tilt (eRET) with 4.3-10 connectors.

Common Name- 6 Port, AltaFlex, B42, 43 & 48 -Tri-Sector

3300 - 3800	6	Fixed	18.0	65°
Frequency	Ports	T/R	Gain	Beamwidth

PRODUCT INFORMATION

This product was developed to provide three sector coverage within a single small form factor housing.

APPLICATION

Canisters provide multiple antennas into one attractive package with low visual impact which enables quick site approval. These canisters deliver an elegant macro solution for pole-top, rooftop and streetworks applications. Alpha Wireless produces the highest performance, smallest diameter canister in the marketplace. The AW3449 AltaFlex canister houses a 3000-3800MHz band array for 2x2 MIMO on each sector.

STANDARD & CERTIFICATIONS

Certification	BSEN ISO 9001:2015
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FEATURES

- Wide-band antenna for 3GPP bands 42, 43 & 48.
- Dual Cross polarization antenna +/- 45°
- Slim monopole design to reduce wind loading.
- Manufactured in Ireland

The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 8.6.

Canister

Panel

Small Cell

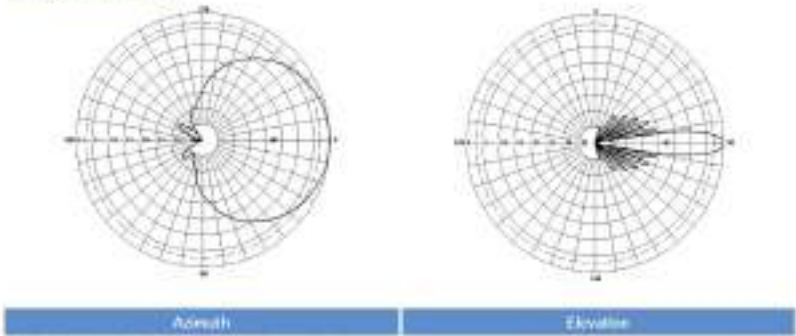
Concealment

TECHNICAL SPECIFICATION

Electrical Specifications

Frequency Range	MHz	3300 - 3800MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	18.0
Azimuth Beamwidth	Degree	65°
Azimuth Beam Squint	Degree+	3°
Elevation Beamwidth	Degree	7.0°
Electrical DownTilt	Degree	10°
Electrical DownTilt Deviation	Degree+	1°
Impedance	Ohms	50
VSWR	<	1.5
Return Loss	dB+	14
Isolation	dB+	25
Upper Sidelobe Suppression, Peak to 20°	dB+	15
Cross-Polar Discrimination	dB+	16
Maximum Effective Power Per Port	W	150

Radiation Pattern Files



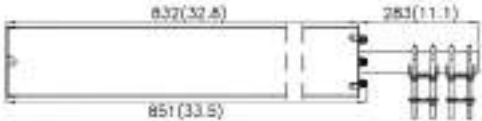
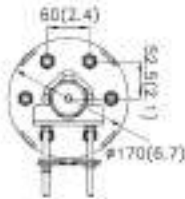
For radiation pattern files, please login at www.alpha-wireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	832 (32.8) x 170 (6.7) - (L x Ø)
Packing Size (LxWxD)	mm (in)	1150 (45.2) x 190 (7.4) x 190 (7.4)
Net Weight (antenna)	kg (lb)	7 (1.5)
Net Weight (mount)	kg (lb)	1 (2.2)
Shipping Weight	kg (lb)	8 (17.2)
Connector Type (Female)	-	N Type
Connector Quantity	-	6
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	120 (27)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	120 (27)
Survival Wind Speed	km/h (mph)	200 (125)
Radiome Material	-	UV-Stabilised PVC
Radiome Colour	RAL	9000
Product Compliance Environmental	-	RoHS
Lightning Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

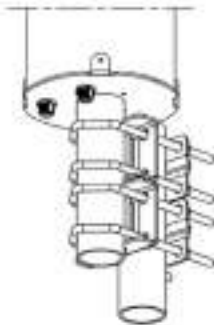
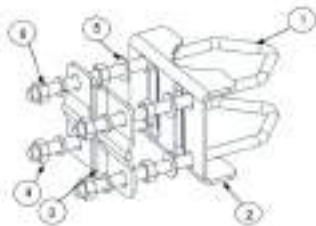
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-512 (Mounting Kit Included with Antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
N/A	Galvanised Steel	30mm-50mm (1.2" to 2")

ORDERING INFO

AW3449-T0-N Zero Degrees Fixed Tilt with N Type Connectors

Common Name: 6 Port, AltaFlex, B42, 43 & 48 - Tri-Sector

3300-3800MHz	6	MET	17.0	65°
Frequency	Ports	Tot	Gain	Beamwidth

PRODUCT INFORMATION

This product was developed to provide three sector coverage within a single small form factor housing. Mounted on pole tops this is been used to deliver fixed wireless coverage.

APPLICATION

Canisters provide multiple antennas into one attractive package with low visual impact which enables quick site approval. These canisters deliver an elegant macro solutions for pole-top, rooftop and streetworks applications. Alpha Wireless produces the highest performance, smallest diameter canister in the marketplace. The AW3460 AltaFlex canister houses a 3300-3800MHz band array for 2x2 MIMO on each sector.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Wide-band antenna for 3GPP bands 42, 43 & 48
- Dual Cross polarization antenna +/- 45°
- Enhanced tilt range of 0 to 50 degrees
- Manufactured in Ireland



The parameters in this specification follow the definitions and recommendations per 3GPP P-402, Release 9 &.

Canister

Panel

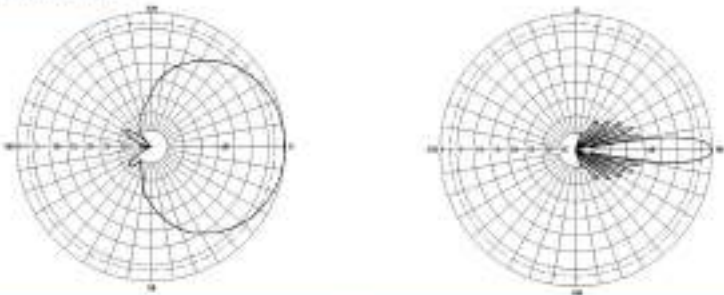
Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications			
Frequency Range	MHz	3300 - 3800MHz	
Polarisation	Degree	±45° Slant Linear	
Gain			
	Min Tilt	dBi	17.3 (T0)
	Mid Tilt	dBi	17.0 (T5)
	Max Tilt	dBi	16.7 (T10)
	Overall Tilt	dBi	17.0
Azimuth Beamwidth	Degree	65°	
Azimuth Beam Squint	Degree<	3°	
Elevation Beamwidth	Degree	7°	
Electrical DownTilt	Degree	TD°- T10°	
Electrical DownTilt Deviation	Degree°	1°	
Impedance	Ohms	50	
VSWR	"	1.5	
Return Loss	dB>	14	
Isolation	dB>	25	
Upper Sidelobe Suppression, Peak to 20°	dB>	15	
Maximum Effective Power Per Port	W	150	

Radiation Pattern Files



Azimuth	Elevation
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For radiation pattern files, please login at www.alpha-wireless.com

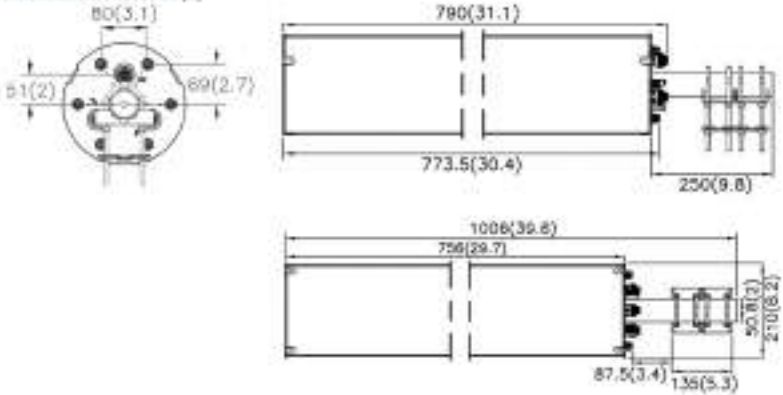
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	756(29.7) x 210(8.2) - JL x ØI
Packing Size (LxWxD)	mm (in)	3040(141) x 230(9) x 230(9)
Net Weight (Antenna)	kg (lb)	9 (19)
Net Weight (mount)	kg (lb)	3 (2.2)
Shipping Weight	kg (lb)	30 (22)
Connector Type (Female)	-	N Type
Connector Quantity	-	6
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb)	130 (30)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb)	130 (30)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilised PVC
Radome Colour	RAL	9035
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

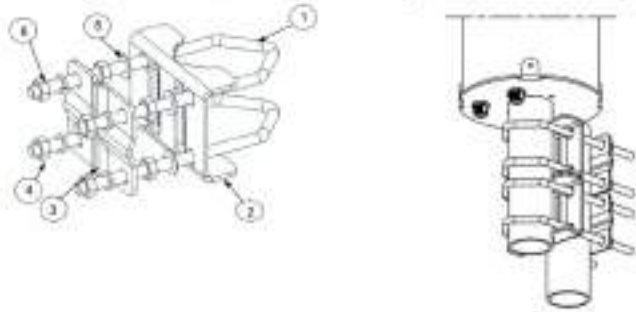
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-112 - Mount Kit for Omni's Galvanized Steel 30-50mm [Mount Kit included with antenna]



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
n/A	Galvanized Steel	30mm-50mm (1.2" to 2")

ORDERING INFO

AW3460-M-N Manual Electrical Tilt (MET) with N Type Connectors

Common Name- 2 Port UWB LB - Small Cell - Omni

698-960MHz	2	Fixed	5.5	360°
Frequency	Ports	TH	Gain	Beamwidth

PRODUCT INFORMATION

This product was developed to offer a small form factor solution for the 4G/LTE applications. The compact size is intended to minimize planning requirements.

APPLICATION

Alpha Wireless pseudo omni antenna provides 360° coverage whilst in an ultra-compact radome design. The wide-band antenna is designed to be installed in urban environment where low visual impact is required. There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. The 2 port antenna provides 2X2 MIMO for improved data throughput with options for various fixed tilt settings.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Ultra-wide low band antenna 698-960MHz
- Compact design for Small Cell deployment - Low visual impact
- Optimized Pseudo-omni with reduced side lobe ripple
- Slim monopole design to reduce wind loading

The parameters in this specification follow the definitions and recommendations per 3GPP R12, Release 12.

Canister

Panel

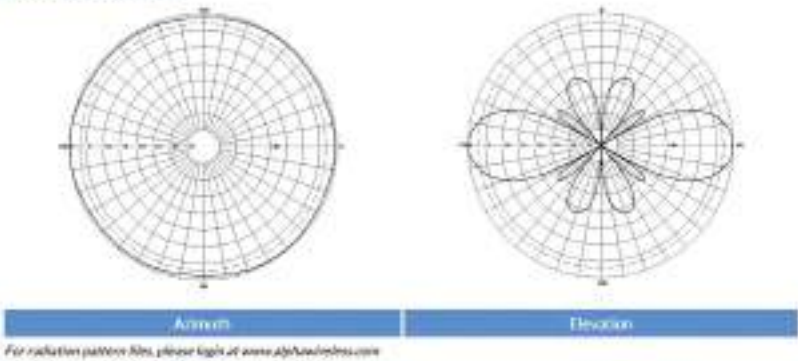
Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	698 - 960MHz
Polarisation	Degree	+/-45° Sant Linear
Gain	dBi	6.5
Azimuth Beamwidth	Degree	360°
Elevation Beamwidth	Degree	22°
Electrical Down tilt	Degree	TD° / 14°
Electrical Down tilt Deviation	Degree±	1°
Impedance	Ohm	50
VSWR	*	1.5
Return Loss	dB>	14
Isolation	dB>	25
Passive Intermodulation	dB<	-150
Upper Side lobe Suppression, Peak to 20°	dB>	15
Cross-Polar Discrimination	dB>	10
Maximum Effective Power Per Port	W	150

Radiation Pattern Files

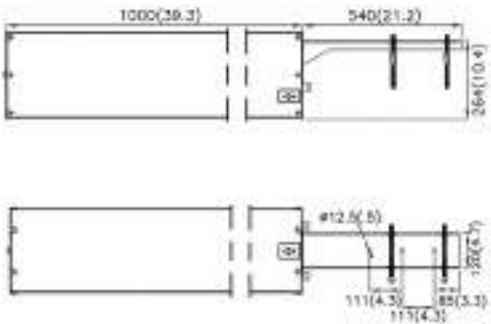
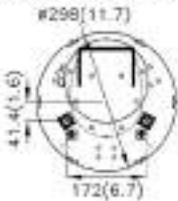


TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	1000 (39.3) x 290 (11.7) ~ 0. x Ø0
Packing Size (LxWxD)	mm (in)	1150 (46) x 351 (13.8) x 351 (13.8)
Net Weight (antenna)	kg (lb)	12 (26)
Net Weight (mount)	kg (lb)	1.5 (3.3)
Shipping Weight	kg (lb)	13.5 (29)
Connector Type (Female)	-	7/16 DIN
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbft)	230 (52)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbft)	230 (52)
Survival Wind Speed	km/h (mph)	200 (125)
Radiome Material	-	UV Stabilised PVC
Radiome Colour	RAL	9030
Product Compliance Environmental	-	RoHS
Lightning Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

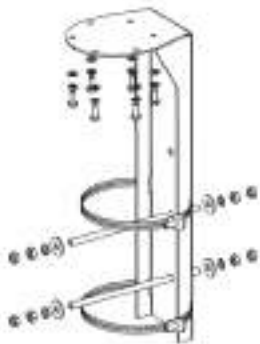
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-115 (Mounting Kit included with Antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
N/A	Stainless Steel	152mm-254mm (6" to 10")

ORDERING INFO

- AW3464-T0-0Zero Degrees Fixed Tilt with 7/16 DIN Connectors
- AW3464-T4-0Four Degrees Fixed Tilt with 7/16 DIN Connectors

Common Name: 18 Port, AltaFlex, LB & HB Compact Tri-Sector

617-960/ 1710-2690	18	±RET	12/14	65°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This product was designed to offer a lowband and high band tri-sector solution in a reduced length. This was intended to reduce windloading for mounting onto pre-existing monopoles.

APPLICATION

Canisters provide multiple antennas into one attractive package. These canisters deliver an elegant macro solution for pole-top, rooftop and streetworks applications. Alpha Wireless produces the highest performance, smallest diameter canister in the marketplace. The AltaFlex canister houses both high and low band Tri-sector antennas.

STANDARD & CERTIFICATIONS

Certification	ISEN ISO 9001:2015
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FEATURES

- Multi-band Tri-Sector antenna: 617-960/1710-2690MHz
- Low PIM performance to reduce interference
- Independent tilt on each band
- Flange Mount Design

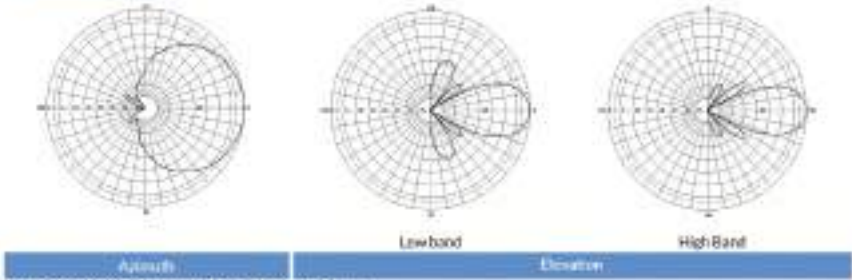
The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 11.4.

TECHNICAL SPECIFICATION

Electrical Specifications

Frequency Range	MHz	617-733	733-845	845-960	1710-1865	1825-2170	2500-2690
Polarisation	Degree	+/-45°					
Gain							
	Min Tilt	dBi	11.9 (T0)	12.0 (T0)	12.1 (T0)	13.4 (T2)	14.2 (T2)
	Mid Tilt	dBi	11.7 (T0)	11.8 (T10)	11.9 (T10)	13.2 (T6)	14.0 (T6)
	Max Tilt	dBi	11.5 (T14)	11.6 (T14)	11.7 (T14)	12.9 (T10)	13.5 (T10)
	Overall Tilt	dBi	11.7	11.8	11.9	13.2	13.8
Azimuth Beamwidth	Degree	69°	67°	65°	71°	67°	69°
Azimuth Beam Squint	Degree<	3°					
Elevation Beamwidth	Degree	26°	25°	23°	18°	17°	13°
Electrical DownTilt	Degree	T0° - T14°				T2° - T10°	
Electrical DownTilt Deviation	Degree<	1°					
Impedance	Ohms	50					
VSWR	<	1.43					
Return Loss	dB>	15					
Isolation	dB>	27					
Passive Intermodulation	dBc>	-150					
Upper SideLobe Suppression, Peak to 20°	dB>	16					
Cross-Polar Discrimination	dB>	16				15	
Maximum Effective Power Per Port	W	250				250	

Radiation Pattern Files



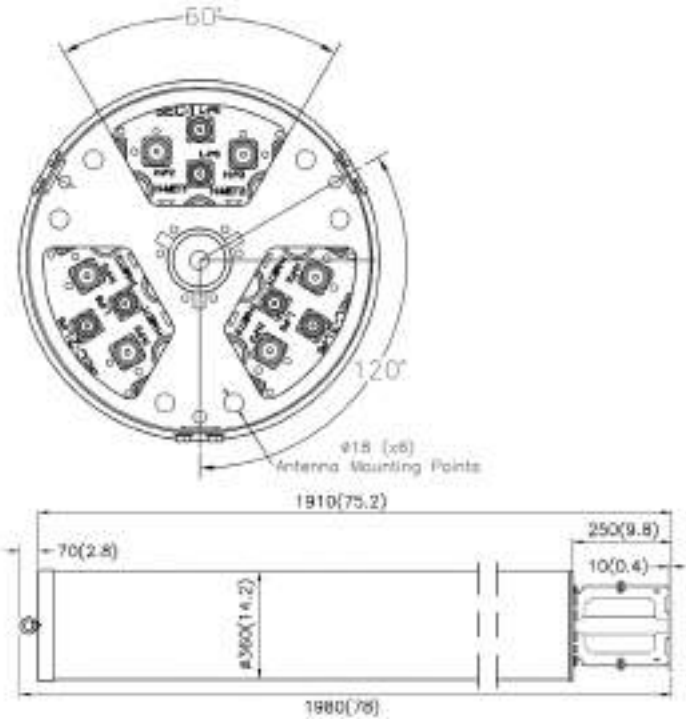
For radiation pattern files, please login at www.alpha-wireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	5960 (78) x 360 (14.2) - (L x Ø)
Packing Size (LxWxD)	mm (in)	2300 (90.6) x 500 (20) x 590 (23)
Net Weight (antenna)	kg (lb)	50 (110)
Net Weight (mount)	kg (lb)	12.3 (27.1)
Shipping Weight	kg (lb)	100 (220)
Connector Type (Female)	-	4.3-10, (6P Low Band, 12P High Band)
Connector Position	-	Bottom
Connector Quantity	-	18
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb)	550 (124)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb)	550 (124)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilised PVC
Radome Colour	RAL	9010
Product Compliance Environmental	-	RoHS
Lightening Protection	-	IDC Grounded
Cold Temperature Survival	Celsius (Fahrenheit)	-40 (-40)
Hot Temperature Survival	Celsius (Fahrenheit)	70 (158)

TECHNICAL SPECIFICATION

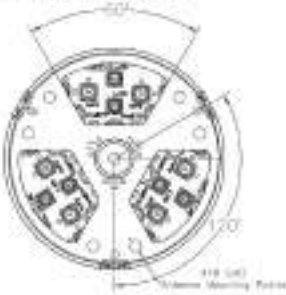
Mechanical Illustration



TECHNICAL SPECIFICATION

Mounting Bracket Kit

360mm Canister Flange Mount



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

ACCESSORIES

PADC-1000 (for eRET only)

SADC-1000 (for eRET only)

ORDERING INFO

AW3631-E-F Enclosed Remote Electrical Tilt with 4.3-50 connectors

Common Name: 16 Port, AltaFlex, Low Band & High Band Tri-Sector

617-694	6	eRET	12.0	65°
1710-2690	12		17.5	65°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This antenna has been designed to cover the 600, 700 and 800MHz frequency bands along with the higher frequency bands between 1710-2690MHz. It offers two Low Band ports and four High Band ports on each of the three sectors.

This antenna solution is being deployed on roofs and macro pole applications globally. It is a multi-frequency solution. Designed for compact, aesthetically pleasing applications.

APPLICATION

Canisters support multiple antennas into one attractive package. These canisters deliver an elegant macro solution for pole-top, rooftop and streetworks applications. Alpha Wireless produces the highest performance, smallest diameter canister in the marketplace. The canister houses both high and low band Tri-sector antennas.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

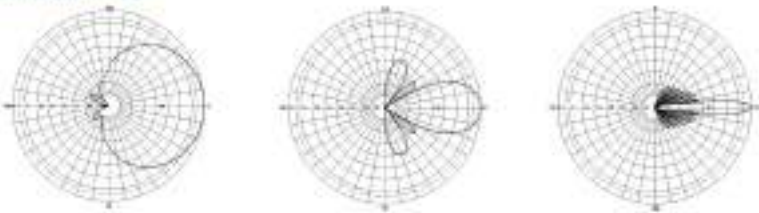
- Multi-band 617-694MHz / 1710-2690MHz
- 6 Ports 617-694MHz
- 12 Ports 1710-2690MHz
- Low band tilt range T10-T18.
- High band tilt range T0-T10
- Low PIM performance to reduce interference
- Independent tilt on each band
- Flange mount design

The parameters in this specification follow the definitions and recommendations per 3GPP R10, Release 10.

TECHNICAL SPECIFICATION

Electrical Specifications							
Frequency Range	MHz	617-703	703-788	788-894	1710-1920	1920-2170	2300 - 2690
Polarization	Degree	±45° Slant Linear					
Gain							
Min Tilt	dBi	11.9 (T10°)	12.0 (T10°)	12.1 (T10°)	17.3 (T0°)	17.0 (T0°)	17.6 (T0°)
Mid Tilt	dBi	11.7 (T14°)	11.8 (T14°)	11.9 (T14°)	17.0 (T5°)	17.3 (T5°)	17.5 (T5°)
Max Tilt	dBi	11.5 (T18°)	11.6 (T18°)	11.7 (T18°)	16.8 (T10°)	17.1 (T10°)	17.5 (T10°)
Overall Tilt	dBi	11.7	11.8	11.9	17.0	17.3	17.5
Azimuth Beamwidth	Degree	76°	72°	69°	69°	64°	60°
Azimuth Beam Squint	Degree<		5°			3°	
Elevation Beamwidth	Degree	32°	20°	25°	6.5°	6.2°	6.0°
Electrical Down tilt	Degree		T10° - T18°			T0° - T10°	
Electrical Down tilt Deviation	Degree±		2°			2°	
Impedance	Ohms				50		
VSWR	±				1.5		
Return Loss	dB>				14		
Isolation	dB±				27		
Passive Intermodulation	dBc±				-1.90		
Upper Side lobe Suppression, Peak to 20°	dB±		14°			16°	
Cross Polar Discrimination	dB>		16			15	
Maximum Effective Power Per Port	W		500			250	

Radiation Patterns Files



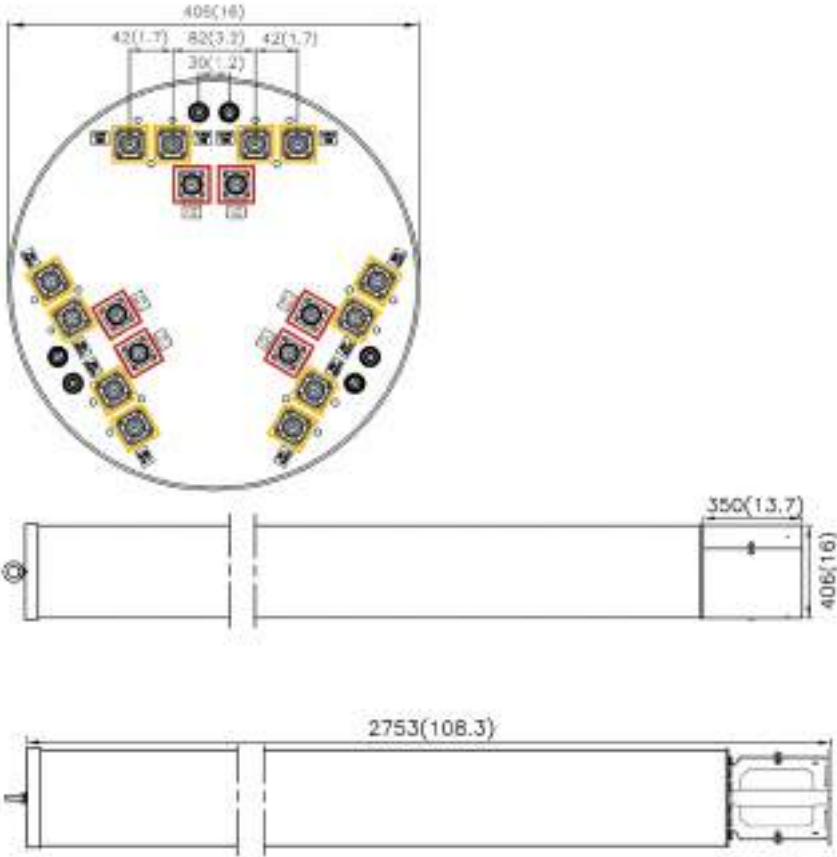
Azimuth Low Band Ultra-wide Band
For radiation pattern files, please login to www.alpha-wireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	2753 (108.3) x 406 (16) - 8 x 68
Packing Size (LxWxD)	mm (in)	2910 (114) x 500 (20) x 590 (23)
Net Weight (antenna)	kg (lb)	90 (199)
Net Weight (mount)	kg (lb)	Flange mount
Shipping Weight	kg (lb)	132 (291)
Connector Type (Female)	-	4.3-10
Connector Position	-	Bottom
Connector Quantity	-	18 (8P Low Band, 12P High band)
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb)	900 (202)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb)	900 (202)
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	Celsius (Fahrenheit)	-40 (-40)
Hot Temperature Survival	Celsius (Fahrenheit)	70 (158)

TECHNICAL SPECIFICATION

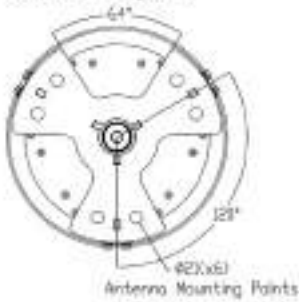
Mechanical Illustration



TECHNICAL SPECIFICATION

Mounting Bracket Kit

400mm Canister Flange Mount



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

ACCESSORIES

PADC-1000 (for eRET only)

SADC-1000 (for eRET only)

ORDERING INFO

AW3704-E-F Enclosed Remote Electrical Tilt (eRET) with 4:3:30 Connectors

Common Name: Low Height, 18 Port, Multi-Band Tri-Sector

617-894MHz / 1710-2690MHz	18	eRET	12/14	65°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This product was designed to offer a low height canister of less than 2 metres while covering Low Band frequencies 617-894MHz as well as covering Midband frequencies 1710-2690MHz.

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 under 2.0 metres height and 360mm diameter.
- 18 Port Multi-Band Tri-Sector covering Low Bands 617-894MHz and Mid Bands 1710-2690MHz.
- Remote Electrical Tilt controlling High and Low Band antennas independently on each sector.
- RET is AISG 2.0 compatible.
- Low PIM performance to reduce interference

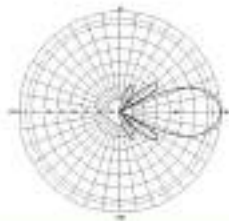
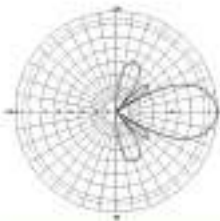
The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 8.5

TECHNICAL SPECIFICATION

Electrical Specifications

Frequency Range	MHz	617-703	703-788	788-894	1710-1995	1920-2170	2500-2600	
Polarisation	Degree	+/- 45° Slant Linear						
Gain								
	Min Tilt	dBi	11.9 (T10°)	12.0 (T10°)	12.1 (T10°)	13.4 (T2°)	13.6 (T2°)	14.2 (T2°)
	Mid Tilt	dBi	11.7 (T14°)	13.8 (T14°)	11.9 (T14°)	13.2 (T6°)	13.6 (T6°)	14.0 (T6°)
	Max Tilt	dBi	11.5 (T18°)	13.6 (T18°)	11.7 (T18°)	12.9 (T10°)	13.3 (T10°)	13.7 (T10°)
	Overall Tilt	dBi	11.7	11.8	11.9	13.2	13.6	14.0
Azimuth Beamwidth	Degree	76°	72°	69°	71°	82°	58°	
Azimuth Beam Squint	Degree°	5°			3°			
Elevation Beamwidth	Degree	32°	28°	25°	19°	17°	13°	
Electrical Down tilt	Degree	T10° - T18°			T2° - T10°			
Electrical Down tilt Deviation	Degree°	2°			2°			
Impedance	Ohms	50						
VSWR	<	1.43						
Return Loss	dB>	15						
Isolation	dB>	27						
Passive Intermodulation	dBc<	-150						
Upper Sidelobe Suppression, Peak to 20°	dB°	14°			16°			
Cross-Polar Discrimination	dB°	16			16			
Maximum Effective Power Per Port	W	500			260			

Radiation Pattern Files



Azimuth

Low band

Elevation

High Band

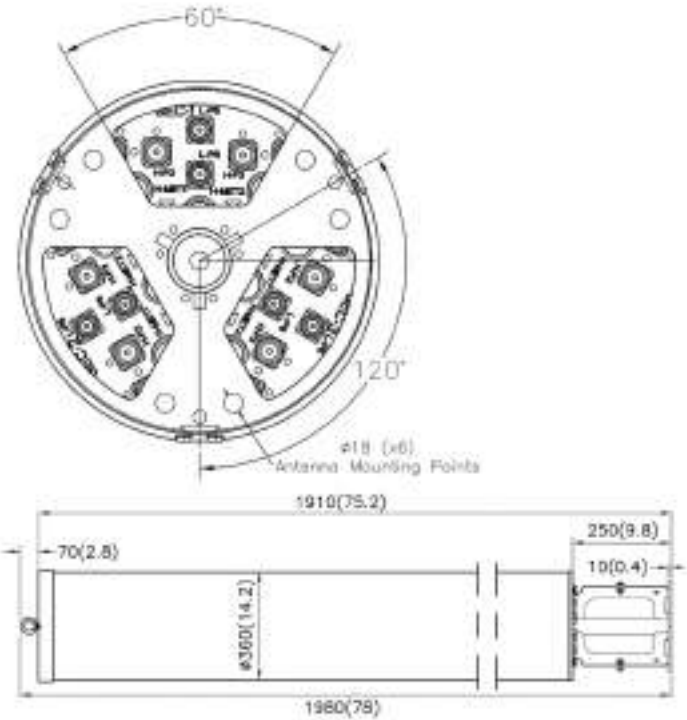
For radiation pattern files, please log in at www.alpha-wireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	1980 (78) x 360 (14.2) - (L x B)
Packing Size (LxWxD)	mm (in)	2300 (90.6) x 500 (20) x 590 (23)
Net Weight (antenna)	kg (lb)	4.7 (14.8)
Net Weight (mount)	kg (lb)	Flange Mount
Shipping Weight	kg (lb)	11.2 (24.7)
Connector Type (Female)	-	4.3-10, (6P Low Band, 12P High Band)
Connector Position	-	Bottom
Connector Quantity	-	18
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	580 (131)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	580 (131)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilised PVC
Radome Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	Celsius (Fahrenheit)	-40 (-40)
Hot Temperature Survival	Celsius (Fahrenheit)	70 (158)

TECHNICAL SPECIFICATION

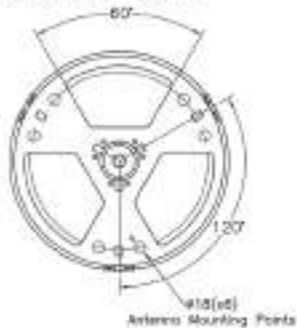
Mechanical Illustration



TECHNICAL SPECIFICATION

Mounting Bracket Kit

260mm Canister Flange Mount



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

ORDERING INFO

AW3713-E-F Enclosed Remote Electrical Tilt (eRET) with 4.3-10 connectors

PANEL

Panel antennas are the most commonly used solution for designing wireless networks. Alpha Wireless provides a wide array of solutions to meet the needs of the most intricate deployment requirements.

		Frequency	Ports	Tilt	Gain	Beamwidth	
+	AW3003	2300-2700MHz	2	Fixed	18.0	65°	PG 4 - 7
+	AW3004	2300-2700MHz	2	Fixed	17.0	90°	PG 8 - 11
+	AW3007	2300-2700MHz	4	Fixed	18.0	65°	PG 12 - 15
+	AW3008	2300-2700MHz	4	Fixed	17.0	90°	PG 16 - 19
+	AW3014	3300-3800MHz	2	Fixed	18.0	65°	PG 20 - 23
+	AW3015	3300-3800MHz	2	Fixed	17.0	90°	PG 24 - 27

Canister

Panel

Small Cell

Concealment

		Frequency	Ports	Tilt	Gain	Beamwidth	
+	AW3023	3300-3800MHz	4	Fixed	18.0	65°	PG 28 - 31
+	AW3035	3300-3800MHz	4	Fixed	17.0	90°	PG 32 - 35
+	AW3056	3300-3800MHz	2	Fixed	19.5	45°	PG 36 - 39
+	AW3159	3300-3800MHz	2	MET	17.0	65°	PG 40 - 43
+	AW3160	3300-3800MHz	2	MET	16.0	90°	PG 44 - 47
+	AW3161	3300-3800MHz	4	MET/ eRET	17.0	65°	PG 48 - 51
+	AW3162	3300-3800MHz	4	MET	16.0	90°	PG 52 - 55
+	AW3163	2300-2700MHz	2	MET	17.0	65°	PG 56 - 59
+	AW3164	2300-2700MHz	2	MET	16.0	90°	PG 60 - 63
+	AW3165	2300-2700MHz	4	MET	17.0	65°	PG 64 - 67
+	AW3166	2300-2700MHz	4	MET	16.0	90°	PG 68 - 71
+	AW3170	3300-3800MHz	2	Fixed	20.5	33°	PG 72 - 75
+	AW3193	2496-2690MHz	4	eRET	17.7	65°	PG 76 - 79
+	AW3206	2300 - 2700MHz // 3300 - 3800MHz	4	MET	17.5	65°	PG 80 - 83

Canister

Panel

Small Cell

Concealment

		Frequency	Ports	Tilt	Gain	Beamwidth	
+	AW3232	3300-3800MHz	2	Fixed	15.5	120°	PG 84 - 87
+	AW3254	2300-2700MHz // 3300-3800MHz	8	MET	17.0	65°	PG 88 - 91
+	AW3266	2496-2690MHz	8	RCU external	16.5	90°	PG 92 - 95
+	AW3286	2496-2690MHz	2	eRET	17.7	65°	PG 96 - 99
+	AW3295	2496-2690MHz	4	eRET	16.2	90°	PG 100 - 103
+	AW3296	2496-2690MHz	2	eRET	16.2	90°	PG 104 - 107
+	AW3375	3300 - 3800MHz	8	eRET	16.0	72°	PG 108 - 111
+	AW3376	3400-3800MHz	8	eRET	15.5	90°	PG 112 - 115
+	AW3378	2496 - 2690MHz	8	eRET	16.5	65°	PG 116 - 119
+	AW3452	3300-3800MHz	4	eRET	19.2	33°	PG 120 - 123
+	AW3463	698-960MHz	2	Fixed	12.0	65°	PG 124 - 127
+	AW3647	3300-3800MHz	4	Fixed	19.5	33°	PG 128 - 131
+	AW3677	2300-2700MHz // 3300-3800MHz	4	Fixed	16.5/ 17.2	65°	PG 132 - 135
+	AW3697	3300-3800MHz // 4900-5950MHz	8	Fixed	17.0	65°	PG 136 - 139

Canister

Panel

Small Cell

Concealment

Common Name- 2 Port B38, 40 & 41 - 65°

2300-2700MHz	2	Fixed	18.0	65°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This slimline solution was developed for fixed wireless applications.

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance. Various tilt options are available to address network optimization requirements.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Wide-band antenna for SCPP bands 38, 40 & 41
- Dual Cross polarization antenna +/- 45°
- Mounting bracket with variable tilt
- Manufactured in Ireland

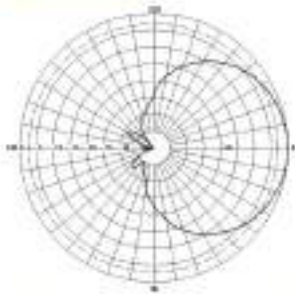
The parameters in this specification follow the definitions and recommendations per 3GPP P-Band, Release 8.6

TECHNICAL SPECIFICATION

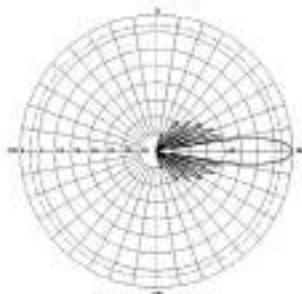
Electrical Specifications

Frequency Range	MHz	2300-2700MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain	dBi	38
Azimuth Beamwidth	Degree	65°
Azimuth Beam Squint	Degree<	3
Elevation Beamwidth	Degree	7
Electrical DownTilt	Degree	T0° or T4°
Electrical DownTilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	+	1.5
Return Loss	dB>	14
Isolation	dB>	28
Front to Back Ratio: Total Power +/-30°	dB>	30
Upper Sidelobe Suppression, Peak to 20°	dB>	38
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	150

Radiation Pattern Files



Azimuth



Elevation

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

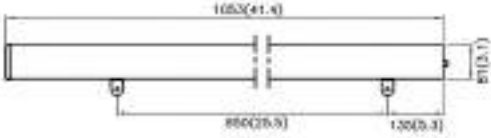
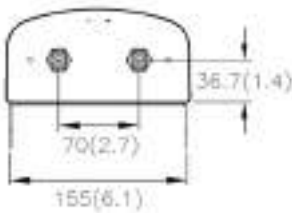
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1053 (41.4) x 160 (6.3) x 81 (3.1) (L x W x H)
Packing Size (LxWxD)	mm (in)	1129 (44.2) x 240 (9.4) x 178 (7)
Net Weight (antenna)	kg (lb)	3.2 (7)
Net Weight (mount)	kg (lb)	1.4 (3.1)
Shipping Weight	kg (lb)	4.6 (10.1)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbF)	210 (48)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbF)	110 (25)
Survival Wind Speed	km/h (mph)	200 (125)
Radiator Material	-	UV-Stabilized PVC
Radiator Colour	RAL	7025
Product Compliance Environmental	-	RoHS
Lightning Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

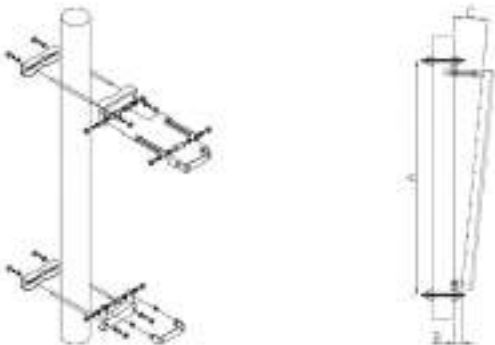
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-102 Mount Kit MB 2.0mm (Mount Kit included with antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
0° to 10°	Stainless Steel	50mm-115mm (2" to 4.5")

ORDERING INFO

AW3003-T0-N	Zero Degrees Fixed Tilt with N Type Connectors
AW3003-T4-N	Four Degrees Fixed Tilt with N Type Connectors

Common Name- 2 Port B38, 40 & 41 - 90°

2300-2700MHz	2	Fixed	17.0	90°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This slimline solution was developed for fixed wireless applications.

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance. Various tilt options are available to address network optimization requirements.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Wide-band antenna for SCPP bands 38, 40 & 41
- Dual Cross polarization antenna +/- 45°
- Mounting bracket with variable tilt (included)
- Manufactured in Ireland

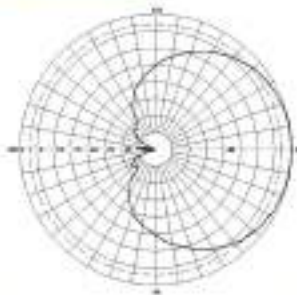
The parameters in this specification follow the definitions and recommendations per 3GPP P-Band, Release 5.

TECHNICAL SPECIFICATION

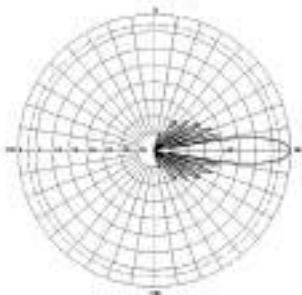
Electrical Specifications

Frequency Range	MHz	2300-2700MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	17.0
Azimuth Beamwidth	Degree	90°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	3°
Electrical Down tilt	Degree	10° or 14°
Electrical Down tilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	*	1.5
Return Loss	dB>	14
Isolation	dB>	28
Front to Back Ratio: Total Power +/30°	dB>	30
Upper Side lobe Suppression, Peak to 20°	dB>	38
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	150

Radiation Pattern Files



Azimuth



Elevation

For radiation pattern files, please login at www.alpha-wireless.com

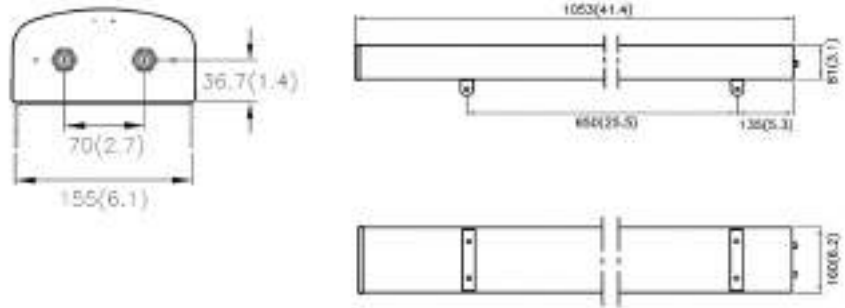
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (In)	1053 (41.4) x 180 (6.2) x 81 (3.1) - (L x W x H)
Packing Size (LxWxD)	mm (In)	1123 (44.2) x 240 (9.4) x 178 (7)
Net Weight (antenna)	kg (lb)	3.2 (7)
Net Weight (mount)	kg (lb)	1.4 (3.1)
Shipping Weight	kg (lb)	4.6 (10.1)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbft)	210 (48)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbft)	110 (25)
Survival Wind Speed	km/h (mph)	200 (125)
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)

Mechanical Illustration

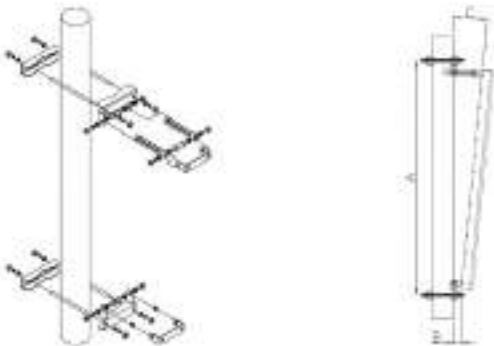
All measurements are in mm (In)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-102 Mount Kit M8 2.0mm (Mount Kit included with antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
0° to 10°	Stainless Steel	50mm-115mm (2" to 4.5")

ORDERING INFO

- AW3004-T0-N

Zero Degrees Fixed Tilt with N Type Connectors
- AW3004-T4-N

Four Degrees Fixed Tilt with N Type Connectors

Common Name- 4 Port B38, 40 & 41 - 65°

2500-2700MHz	4	Fixed	18.0	65°
Frequency	Ports	Type	Gain	Beamwidth

PRODUCT INFORMATION

This solution was developed for 4x4 fixed wireless access

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance. A horizontally spaced array provides enhance MIMO performance with full 4x4 operation or receive diversity RF functions. Various tilt options are available to address network optimization requirements.

STANDARD & CERTIFICATIONS

Certification	BSEN ISO 9001:2015
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FEATURES

- Wide-band antenna for 3GPP bands 38, 40 & 41
- 4x4 MIMO for maximum throughput
- Mounting bracket with variable tilt (included)
- Manufactured in Ireland

The parameters in this specification follow the definitions and recommendations per 3GPP P-Best, Release 9.0

Canister

Panel

Small Cell

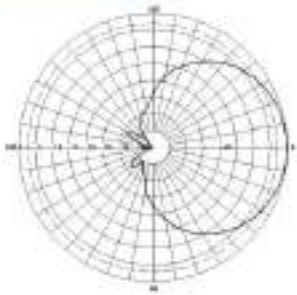
Concealment

TECHNICAL SPECIFICATION

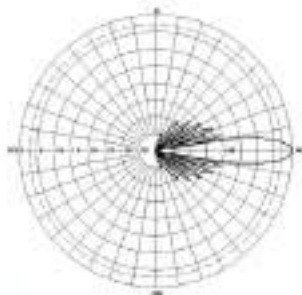
Electrical Specifications

Frequency Range	MHz	2300-2700MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	18.0
Azimuth Beamwidth	Degree	63°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	7°
Electrical Down tilt	Degree	T0° or T4°
Electrical Down tilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	s	1.5
Return Loss	dB>	14
Isolation	dB>	25
Front to Back Ratio: Total Power +/-30°	dB>	30
Upper Side lobe Suppression, Peak to 20°	dB>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	150

Radiation Pattern Filing



Azimuth



Elevation

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

Canister

Panel

Small Cell

Concealment

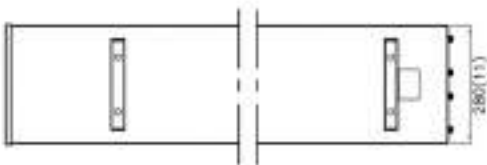
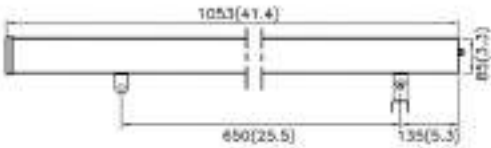
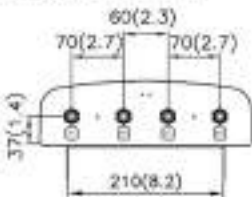
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1053 (41.4) x 280 (11) x 85 (3.3) - L x W x H
Packing Size (LxWxD)	mm (in)	1123(44.2) x 340(13.3) x 178(7)
Net Weight (antenna)	kg (lb)	9 (19.8)
Net Weight (mount)	kg (lb)	1.5 (3.4)
Shipping Weight	kg (lb)	10.5 (23.1)
Connector Type (Female)	-	N Type
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb)	320 (72)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb)	120 (27)
Survival Wind Speed	km/h (mph)	200 (125)
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)

Mechanical Illustration

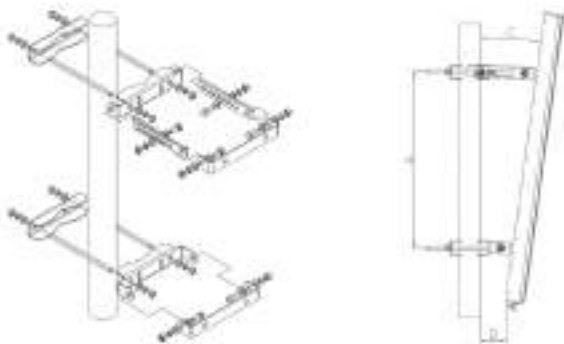
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL/V-104 Mount Kit M8 2mm (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

AW3007-TO-N	Zero Degrees Fixed Tilt with N Type Connectors
AW3007-T4-N	Four Degrees Fixed Tilt with N Type Connectors

Common Name: 4 Port B38, 40 & 41 - 90°

2500-2700MHz	4	Fixed	17.0	90°
Frequency	Ports	Type	Gain	Beamwidth

PRODUCT INFORMATION

This solution was developed for 4x4 fixed wireless applications.

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance. A horizontally spaced array provides enhance MIMO performance with full 4x4 operation or receive diversity RF functions. Various tilt options are available to address network optimization requirements.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Wide-band antenna for 3GPP bands 38, 40 & 41
- 4x4 MIMO for maximum throughput
- Mounting bracket with variable tilt (included)
- Manufactured in Ireland

The parameters in this specification follow the definitions and recommendations per 3GPP P-Bis, Release 9 & 10

Canister

Panel

Small Cell

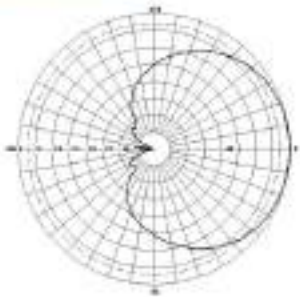
Concealment

TECHNICAL SPECIFICATION

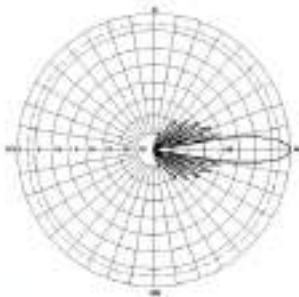
Electrical Specifications

Frequency Range	MHz	2300-2700MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	17.0
Azimuth Beamwidth	Degree	90°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	7°
Electrical Down tilt	Degree	T0° or T4°
Electrical Down tilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	s	1.5
Return Loss	dB>	14
Isolation	dB>	25
Front to Back Ratio: Total Power +/-30°	dB>	30
Upper Side lobe Suppression, Peak to 20°	dB>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	150

Radiation Pattern Files



Azimuth



Elevation

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

Canister

Panel

Small Cell

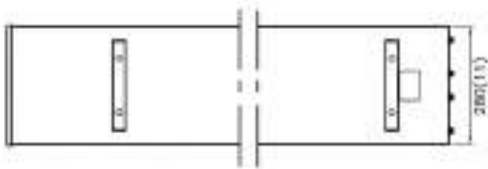
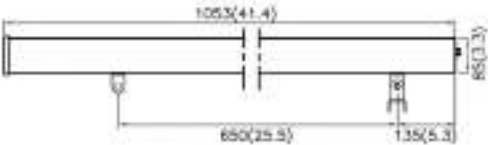
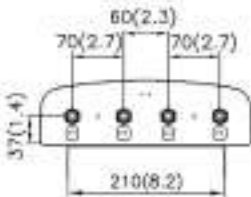
Concealment

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	1053 (41.4) x 280 (1.1) x 85 (3.3) - (L x W x H)
Packing Size (LxWxD)	mm (in)	1129(44.2) x 340(13.3) x 178(7)
Net Weight (Antenna)	kg (lb)	9 (19.8)
Net Weight (Mount)	kg (lb)	1.5 (3.4)
Shipping Weight	kg (lb)	10.5 (23.1)
Connector Type (Female)	-	N Type
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbF)	120 (72)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbF)	120 (27)
Survival Wind Speed	km/h (mph)	200 (125)
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)

Mechanical Illustration

All measurements are in mm (in)



Common Name- 2 Port B42, 43 & 48 - 65°

3300-3800MHz	2	Fixed	18.0	65°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This slimline solution was developed for fixed wireless applications.

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance. Various tilt options are available to address network optimization requirements.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Wide-band antenna for SCPP bands 42, 43 & 48
- Dual Cross polarization antenna +/- 45°
- Mounting bracket with variable tilt (included)
- Manufactured in Ireland

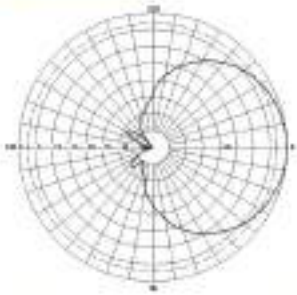
The parameters in this specification follow the definitions and recommendations per 3GPP P-Band, Release 5.

TECHNICAL SPECIFICATION

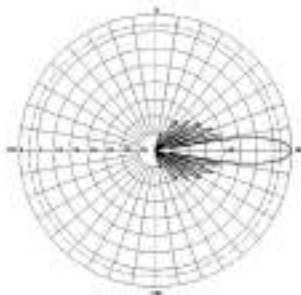
Electrical Specifications

Frequency Range	MHz	3300-3800MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	18.0
Azimuth Beamwidth	Degree	65°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	3°
Electrical Down tilt	Degree	T0° or T4°
Electrical Down tilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	*	1.5
Return Loss	dB>	14
Isolation	dB>	28
Front to Back Ratio: Total Power +/30°	dB>	30
Upper Side lobe Suppression, Peak to 20°	dB>	38
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	100

Radiation Pattern Files



Azimuth



Elevation

For radiation pattern files, please login at www.alpha-wireless.com

Canister

Panel

Small Cell

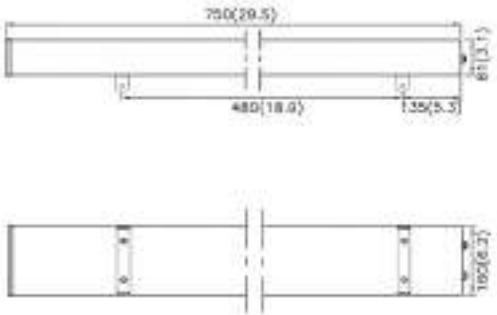
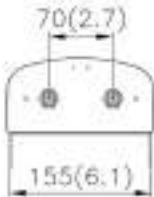
Concealment

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	750(29.5) x 190(6.2) x 81(3.1) - FL x W x H
Packing Size (LxWxD)	mm (in)	823(32.4) x 240(9.4) x 178(7)
Net Weight (Antenna)	kg (lb)	4.3(9.4)
Net Weight (Mount)	kg (lb)	1.4(3.1)
Shipping Weight	kg (lb)	5.7(12.5)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
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)	80 (18)
Survival Wind Speed	km/h (mph)	200 (125)
Radiator Material	-	UV-Stabilized PVC
Radiator 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)

Mechanical Illustration

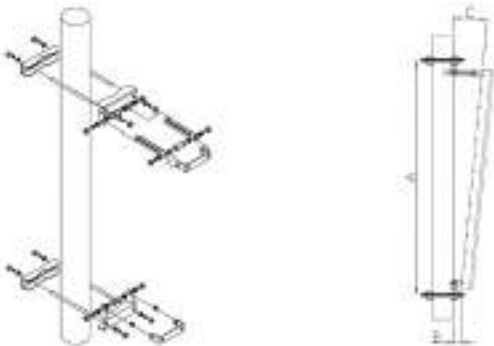
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-102 Mount Kit M8 2.0mm (Mount Kit included with antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
0° to 10°	Stainless Steel	50mm-115mm (2" to 4.5")

ORDERING INFO

- AW3014-T0-N

Zero Degrees Fixed Tilt with N Type Connectors
- AW3014-T4-N

Four Degrees Fixed Tilt with N Type Connectors

Common Name- 2 Port B42, 43 & 48 - 90°

3300-3800MHz	2	Fixed	17.0	90°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This slimline solution was developed for fixed wireless applications.

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance. Various tilt options are available to address network optimization requirements.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Wide-band antenna for SCPP bands 42, 43 & 48
- Dual Cross polarization antenna +/- 45°
- Mounting bracket with variable tilt (included)
- Manufactured in Ireland

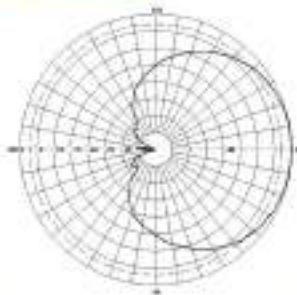
The parameters in this specification follow the definitions and recommendations per 3GPP P-Band, Release 5.

TECHNICAL SPECIFICATION

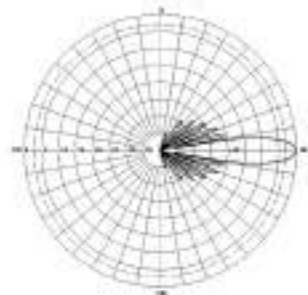
Electrical Specifications

Frequency Range	MHz	3300-3800MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	17.0
Azimuth Beamwidth	Degree	90°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	3°
Electrical Down tilt	Degree	T0° or T4°
Electrical Down tilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	+	1.5
Return Loss	dB>	14
Isolation	dB>	28
Front to Back Ratio: Total Power +/30°	dB>	30
Upper Side-lobe Suppression, Peak to 20°	dB>	38
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	100

Radiation Pattern Files



Azimuth



Elevation

For radiation pattern files, please login at www.alpha-wireless.com

Canister

Panel

Small Cell

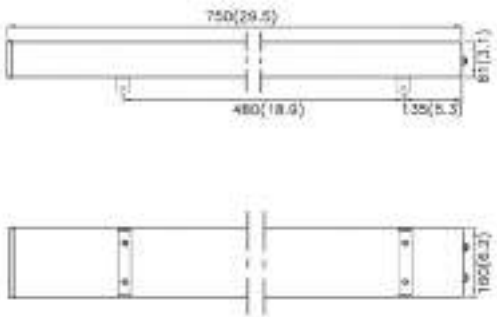
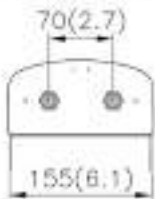
Concealment

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	750 (29.5) x 160 (6.2) x 81 (3.1) • L x W x H
Packing Size (LxWxD)	mm (in)	823 (32.4) x 240 (9.4) x 178 (7)
Net Weight (antenna)	kg (lb)	4.3 (9.4)
Net Weight (mount)	kg (lb)	1.4 (3.1)
Shipping Weight	kg (lb)	5.7 (12.5)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
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)	80 (18)
Survival Wind Speed	km/h (mph)	200 (125)
Radiome Material	-	UV-Stabilized PVC
Radiome Colour	RAL	7015
Product Compliance Environmental	-	RoHS
Lightning Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

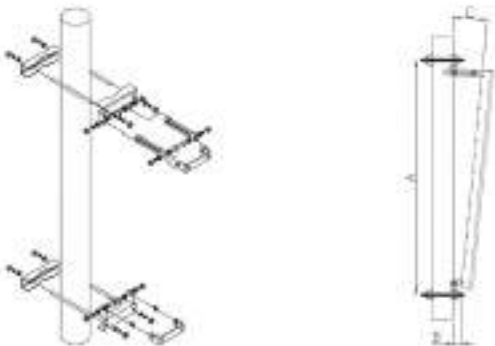
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-102 Mount Kit M8 2.0mm (Mount Kit included with antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
0° to 10°	Stainless Steel	50mm-115mm (2" to 4.5")

ORDERING INFO

AW3015-T0-N	Zero Degrees Fixed Tilt with N Type Connectors
AW3015-T4-N	Four Degrees Fixed Tilt with N Type Connectors

Common Name- 4 Port B42, 43 & 48 - 65°

3300-3800MHz	4	Fixed	18.0	65°
Frequency	Ports	Type	Gain	Beamwidth

PRODUCT INFORMATION

This solution was developed for 4x4 fixed wireless applications.

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance. A horizontally spaced array provides enhance MIMO performance with full 4x4 operation or receive diversity RF functions. Various tilt options are available to address network optimization requirements.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

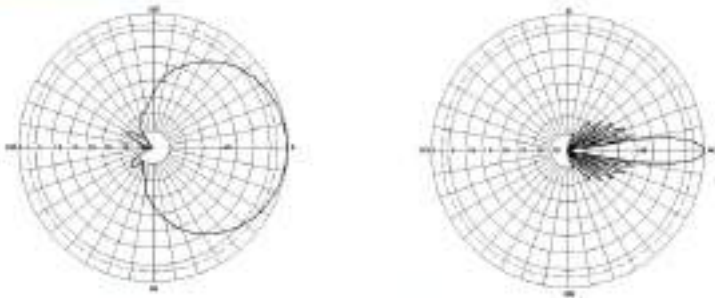
- Wide-band antenna for 3GPP bands 42, 43 & 48
- 4x4 MIMO for maximum throughput
- Mounting bracket with variable tilt (included)
- Manufactured in Ireland

The parameters in this specification follow the definitions and recommendations per 3GPP P-Bis, Release 9 &

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	3300-3800MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	18.0
Azimuth Beamwidth	Degree	63°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	7°
Electrical Down tilt	Degree	T0° or T4°
Electrical Down tilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	s	1.5
Return Loss	dB>	14
Isolation	dB>	28
Front to Back Ratio: Total Power +/-30°	dB>	30
Upper Side lobe Suppression, Peak to 20°	dB>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	100

Radiation Pattern Filing



Azimuth

Elevation

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

Canister

Panel

Small Cell

Concealment

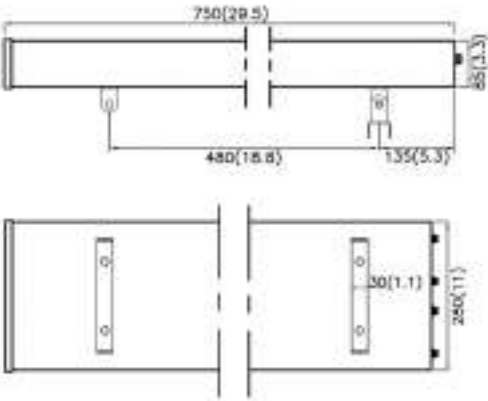
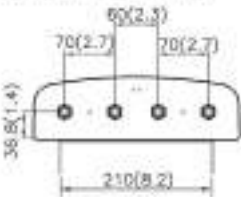
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	750 (29.5) x 200 (11) x 85 (3.3) - (L x W x H)
Packing Size (LxWxD)	mm (in)	822 (32.4) x 240 (13.3) x 170 (7)
Net Weight (antenna)	kg (lb)	4.3 (9.4)
Net Weight (mount)	kg (lb)	1.5 (3.4)
Shipping Weight	kg (lb)	5.8 (12.8)
Connector Type (Female)	-	N Type
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbft)	220 (50)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbft)	80 (18)
Survival Wind Speed	km/h (mph)	200 (125)
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)

Mechanical Illustration

All measurements are in mm (in)



Common Name- 4 Port B42, 43 & 48 - 90°

3300-3800MHz	4	Fixed	17.0	90°
Frequency	Ports	Type	Gain	Beamwidth

PRODUCT INFORMATION

This solution was developed for 4x4 fixed wireless applications.

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance. A horizontally spaced array provides enhance MIMO performance with full 4x4 operation or receive diversity RF functions. Various tilt options are available to address network optimization requirements.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

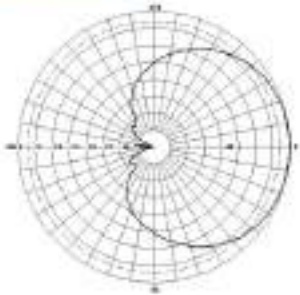
- Wide-band antenna for 3GPP bands 42, 43 & 48
- 4x4 MIMO for maximum throughput
- Mounting bracket with variable tilt (included)
- Manufactured in Ireland

The parameters in this specification follow the definitions and recommendations per 3GPP P-Bis, Release 9 & 10

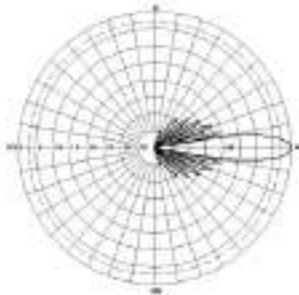
TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	3300-3800MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	17.0
Azimuth Beamwidth	Degree	90°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	7°
Electrical Down tilt	Degree	T0° or T4°
Electrical Down tilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	s	1.5
Return Loss	dB>	14
Isolation	dB>	28
Front to Back Ratio: Total Power +/-30°	dB>	30
Upper Side lobe Suppression, Peak to 20°	dB>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	100

Radiation Pattern (Fini)



Azimuth



Elevation

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

Canister

Panel

Small Cell

Concealment

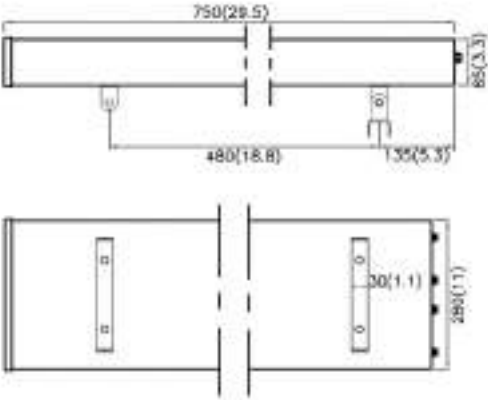
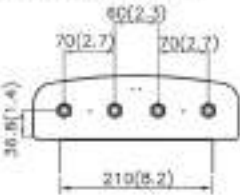
TECHNICAL SPECIFICATION

Mechanical Specifications:

Dimensions	mm (in)	750(29.5) x 200(13) x 85(3.3) - (L x W x H)
Packing Size (LxWxD)	mm (in)	823(32.4) x 340(13.3) x 178(7)
Net Weight (Antenna)	kg (lb)	4.3(9.4)
Net Weight (mount)	kg (lb)	1.5(3.4)
Shipping Weight	kg (lb)	5.8(12.8)
Connector Type (Female)	-	N Type
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbft)	220 (50)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbft)	80 (18)
Survival Wind Speed	km/h (mph)	200 (125)
Radiator Material	-	UV-Stabilized PVC
Radiator 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)

Mechanical Illustration

All measurements are in mm (in)



Common Name- 2 Port B42, 43 & 48 - 45°

3300-3800MHz	2	Fixed	19.3	45°
Frequency	Ports	Type	Gain	Beamwidth

PRODUCT INFORMATION

Developed for fixed wireless access applications requiring narrow azimuth

APPLICATION

Alpha Wireless sector antennas are the most commonly used solution for designing high quality wireless networks. The 45 degree azimuth pattern allows to increase capacity to 4 sectors without increasing the number of sites. With additional options for fixed tilt settings, enables improved optimization.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

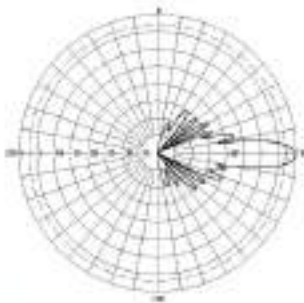
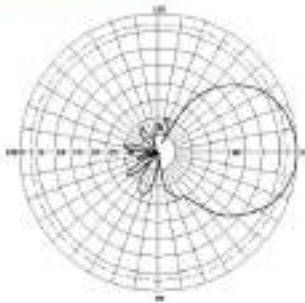
- Wide-band antenna for 3GPP bands 42, 43 & 48
- Dual Cross polarization antenna +/- 45°
- Narrow Azimuth beam to increase site capacity
- Mounting bracket with variable tilt

The parameters in this specification follow the definitions and recommendations per 3GPP P-RS2a, Release 9.0

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	3300-3800MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	19.5
Azimuth Beamwidth	Degree	45°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	7°
Electrical Down tilt	Degree	10°
Electrical Down tilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	1	1.5
Return Loss	dB>	14
Isolation	dB>	25
Front to Back Ratio: Total Power +/- 30°	dB>	30
Upper Side lobe Suppression, Peak to 20°	dB>	17
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	300

Radiation Pattern Files



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

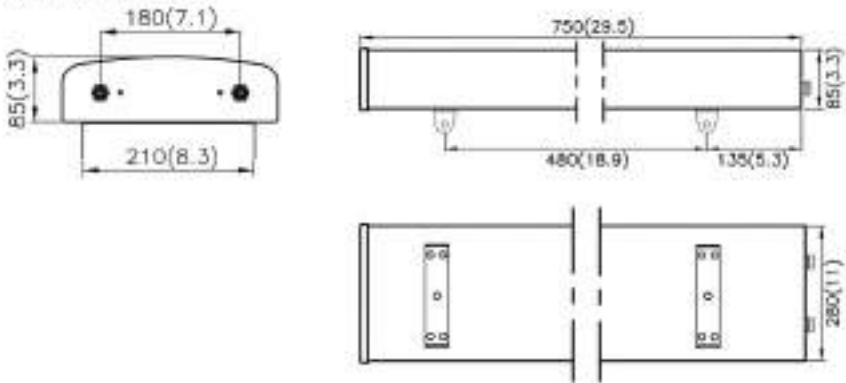
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	750 (29.5) x 280 (11) x 85 (3.3) - (L x W x H)
Packing Size (LxWxD)	mm (in)	813 (32) x 327 (12.8) x 165 (6.4)
Net Weight (Antenna)	kg (lb)	6 (13.2)
Net Weight (Mount)	kg (lb)	2 (4.4)
Shipping Weight	kg (lb)	10 (22)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbF)	220 (50)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbF)	80 (18)
Survival Wind Speed	km/h (mph)	200 (125)
Radiome Material	-	UV-Stabilised PVC
Radiome 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)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

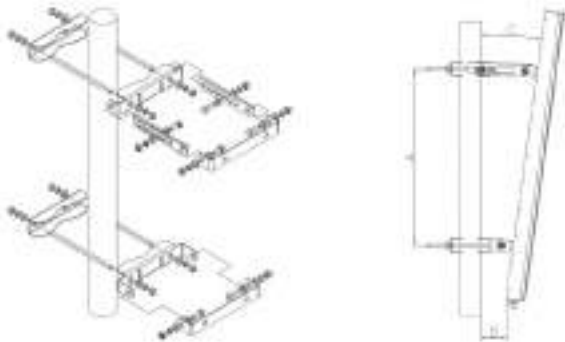
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-304 Mount Kit M8 2mm (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

AW3056-T0-H Zero Degrees Fixed Tilt with H Type Connectors

Common Name- 2 Port B42, 43 & 48 - 65° - MET

3300-3800MHz	2	MET	17.0	65°
Frequency	Ports	Type	Gain	Beamwidth (dB)

PRODUCT INFORMATION

This solution was developed for fixed wireless applications requiring variable electrical tilt.

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

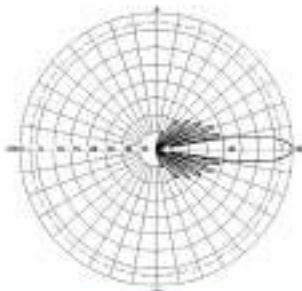
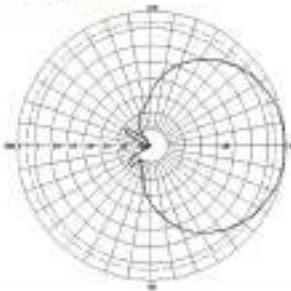
- Wide-band antenna for 3GPP bands 42, 43 & 48
- Dual Cross polarization antenna +/- 45°
- Enhanced tilt range of 0 to 10 degrees
- Manufactured in Ireland

The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 8.0.

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	3300-3800MHz
Polarisation	Degree	+/-45° Slant Linear
Gain		
Min Tilt	dBi	17.5 (T0)
Mid Tilt	dBi	17.0 (T5)
Max Tilt	dBi	16.7 (T10)
Overall Tilts	dBi	17.0
Azimuth Beamwidth	Degree	65°
Azimuth Beam Squint	Degree±	3°
Elevation Beamwidth	Degree	7°
Electrical Down tilt	Degree	T0°-T10°
Electrical Down tilt Deviation	Degree±	1°
Impedance	Ohms	50
VSWR	=	1.5
Return Loss	dB>	14
Isolation	dB>	28
Front to Back Ratio, Total Power +/-30°	dB>	30
Upper Sidelobe Suppression, Peak to 20°	dB>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	150

Radiation Pattern Files



Azimuth

Elevation

For radiation pattern files, please login at www.alpha-wireless.com

Canister

Panel

Small Cell

Concealment

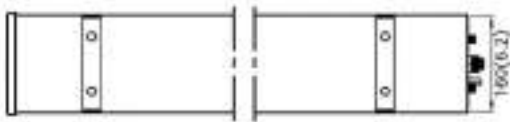
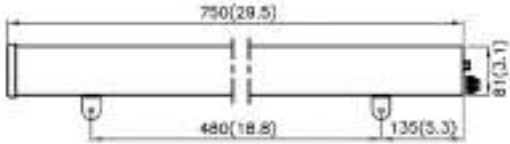
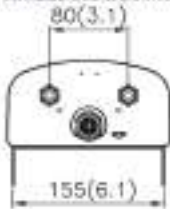
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	750 (29.5) x 160 (6.2) x 81 (3.1) - (LxWxH)
Packing Size (LxWxD)	mm (in)	823 (32.4) x 240 (9.4) x 178 (7)
Net Weight (antenna)	kg (lb)	6 (13.2)
Net Weight (mount)	kg (lb)	1.4 (3.1)
Shipping Weight	kg (lb)	7.4 (16.3)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
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)	80 (18)
Survival Wind Speed	km/h (mph)	200 (125)
Radiome Material	-	UV-Stabilised PVC
Radiome Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)



Common Name- 2 Port B42, 43 & 48 - 90° - MET

3300-3800MHz	2	MET	16.0	90°
Frequency	Ports	T18	Gain	Beamwidth

PRODUCT INFORMATION

This solution was developed for fixed wireless applications requiring variable electrical tilt.

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Wide-band antenna for 3GPP bands 42, 43 & 48
- Dual Cross polarization antenna +/- 45°
- Enhanced tilt range of 0 to 30 degrees
- Manufactured in Ireland

The parameters in this specification follow the definitions and recommendations per 3GPP N-P-Series Release 14.

Canister

Panel

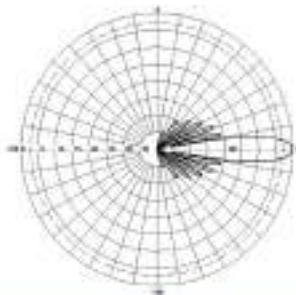
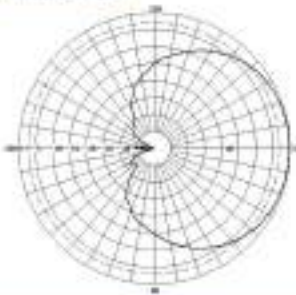
Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	3300-3800MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
Min Tilt	dBi	16.3 (T0)
Mid Tilt	dBi	16.0 (T5)
Max Tilt	dBi	15.7 (T10)
Overall Tilt	dBi	16.0
Azimuth Beamwidth	Degree	90°
Azimuth Beam Squint	Degree±	3°
Elevation Beamwidth	Degree	3°
Electrical Down tilt	Degree	T0° - T10°
Electrical Down tilt Deviation	Degree±	1°
Impedance	Ohms	50
VSWR	=	1.5
Return Loss	dB>	14
Isolation	dB>	28
Front to Back Ratio, Total Power +/- 30°	dB>	30
Upper Sidelobe Suppression, Peak to 20°	dB>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	150

Radiation Pattern Files



Azimuth

Elevation

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

Canister

Panel

Small Cell

Concealment

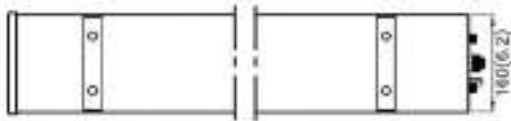
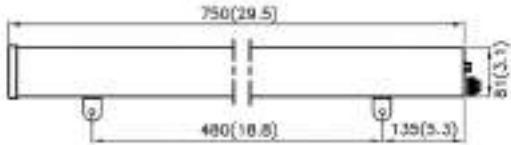
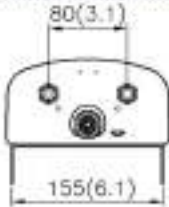
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	750 (29.5) x 160 (6.2) x 81 (3.1) - 0.5xWxD
Packing Size (LxWxD)	mm (in)	823 (32.4) x 240 (9.4) x 178 (7)
Net Weight (antenna)	kg (lb)	6 (13.2)
Net Weight (mount)	kg (lb)	1.4 (3.1)
Shipping Weight	kg (lb)	7.4 (16.3)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb)	130 (30)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb)	80 (18)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV Stabilised PVC
Radome Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

Small Cell

Concealment

Mounting Bracket Kit



ORDERING INFO

AW3160-M-N Manual Electrical Tilt (MET) with N Type Connectors

Common Name- 4 Port B42, 43 & 48 - 65° - MET/eRET

3300-3800MHz	4	MET/ eRET	170°	65°
Frequency	Ports	Tx	Gain	Beamwidth

PRODUCT INFORMATION

This solution was developed for 4x4 fixed wireless applications requiring variable electrical tilt.

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance. A horizontally spaced array provides enhance MIMO performance with full 4x4 operation or receive diversity RF functions.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

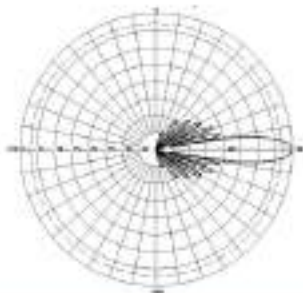
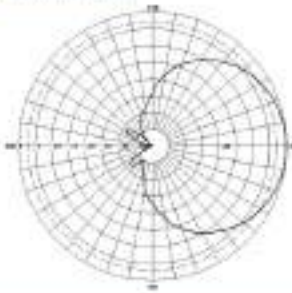
- Wide-band antenna for 3GPP bands 42, 43 & 48
- 4x4 MIMO for maximum throughput
- Enhanced tilt range of 0 to 30 degrees

The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Volume 8.6.

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	3300-3800MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
Min Tilt	dBi	17.3 (T0)
Mid Tilt	dBi	17.0 (TS)
Max Tilt	dBi	16.7 (T10)
Overall Tilt	dBi	17.0
Azimuth Beamwidth	Degree	65°
Azimuth Beam Squint	Degree±	3°
Elevation Beamwidth	Degree	2°
Electrical DownTilt	Degree	T0° - T10°
Electrical DownTilt Deviation	Degree±	1°
Impedance	Ohms	50
VSWR	<	1.5
Return Loss	dB>	14
Isolation	dB>	28
Front to Back Ratio: Total Power +/ - 90°	dB>	30
Upper SideLobe Suppression, Peak to 20°	dB>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	150

Radiation Pattern Files



Azimuth

Elevation

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

Canister

Panel

Small Cell

Concealment

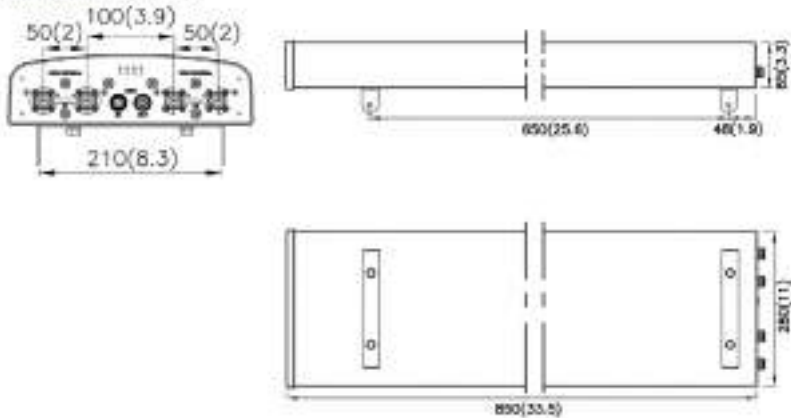
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	850 (33.5) x 280 (11) x 85 (3.3) - (LxWxD)
Packing Size (LxWxD)	mm (in)	970 (38.2) x 335 (13.2) x 175 (6.9)
Net Weight (antenna)	kg (lb)	9 (19.8)
Net Weight (mount)	kg (lb)	1.5 (3.4)
Shipping Weight	kg (lb)	10.5 (23.2)
Connector Type (Female)	-	4-3-10 or N Type
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb)	220 (50)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb)	80 (18)
Survival Wind Speed	km/h (mph)	200 (125)
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)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

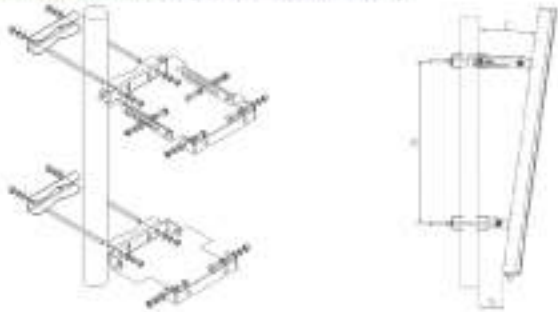
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-104 Mount Kit M8 2mm (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

AW3161-E-F	Enclosed Remote Electrical Tilt (eRET) with 4.3-10 Connectors.
AW3161-M-F	Manual Electrical Tilt (MET) with 4.3-10 Connectors
AW3161-E-N	Enclosed Remote Electrical Tilt (eRET) with N Type Connectors.
AW3161-M-N	Manual Electrical Tilt (MET) with N Type Connectors

Common Name- 4 Port B42, 43 & 48 - 90° - MET

3300-3800MHz	4	MET	16.0	90°
Frequency	Ports	TH	Gain	Beamwidth

PRODUCT INFORMATION

This solution was developed for 4x4 fixed wireless applications requiring variable electrical tilt.

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance. A horizontally spaced array provides enhance MIMO performance with full 4x4 operation or receive diversity RF functions.

STANDARD & CERTIFICATIONS

Certification	BSEN ISO 9001:2015
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FEATURES

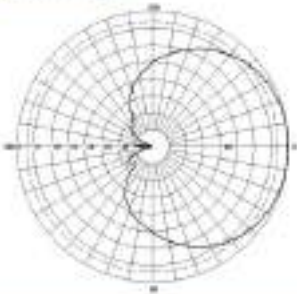
- Wide-band antenna for 3GPP bands 42, 43 & 48
- 4x4 MIMO for maximum throughput
- Enhanced tilt range of 0 to 30 degrees
- Manufactured in Ireland

The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Volume 36.

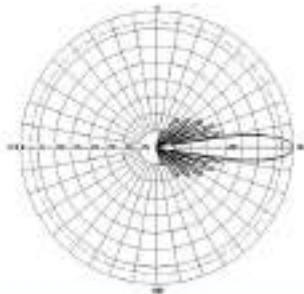
TECHNICAL SPECIFICATION

Electrical Specifications			
Frequency Range	MHz	3300-3800MHz	
Polarisation	Degree	+/- 45° Slant Linear	
Gain			
	Min Tilt	dBi	14.3 (T0)
	Mid Tilt	dBi	14.0 (T5)
	Max Tilt	dBi	15.7 (T10)
	Overall Tilts	dBi	16.0
Azimuth Beamwidth	Degree	90°	
Azimuth Beam Squint	Degree <	3°	
Elevation Beamwidth	Degree	7°	
Electrical Down-tilt	Degree	T0° - T10°	
Electrical Down-tilt Deviation	Degree <	1°	
Impedance	Ohms	50	
VSWR	<	1.5	
Return Loss	dB>	14	
Isolation	dB>	26	
Front to Back Ratio: Total Power +/- 30°	dB>	30	
Upper Sidelobe Suppression, Peak to 20°	dB>	18	
Cross-Polar Discrimination	dB>	16	
Maximum Effective Power Per Port	W	150	

Radiation Pattern Files



Azimuth



Elevation

For radiation pattern files, please login at www.alpha-wireless.com

Canister

Panel

Small Cell

Concealment

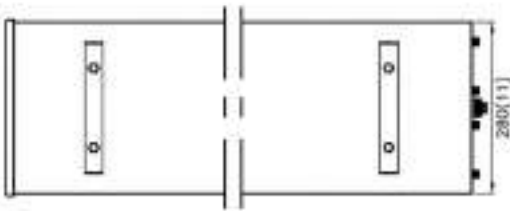
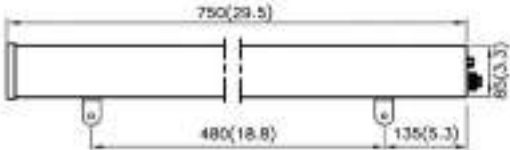
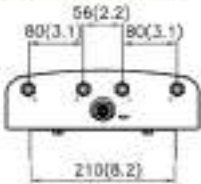
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	750 (29.5) x 280 (11) x 85 (3.3) - (L x W x H)
Packing Size (LxWxD)	mm (in)	823 (32.4) x 340 (13.3) x 178 (7)
Net Weight (antenna)	kg (lb)	9 (19.8)
Net Weight (mount)	kg (lb)	1.5 (3.4)
Shipping Weight	kg (lb)	10.5 (23.2)
Connector Type (Female)	-	N Type
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbF)	220 (50)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbF)	90 (18)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilised PVC
Radome Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

Small Cell

Concealment

Mounting Bracket Kit



AW3162-M-N Manual Electrical Tilt (MET) with N Type Connectors

Common Name- 2 Port B38, 40 & 41 - 65° - MET

2300-2700MHz	2	MET	17.0	65°
Frequency	Ports	Tilt	Gain	Beamwidth (dB)

PRODUCT INFORMATION

This solution was developed for fixed wireless applications requiring variable electrical tilt.

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Wide-band antenna for SCPP bands 38, 40 & 41
- Dual Cross polarization antenna +/- 45°
- Enhanced tilt range of 0 to 10 degrees
- Manufactured in Ireland

The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 8.0.

Canister

Panel

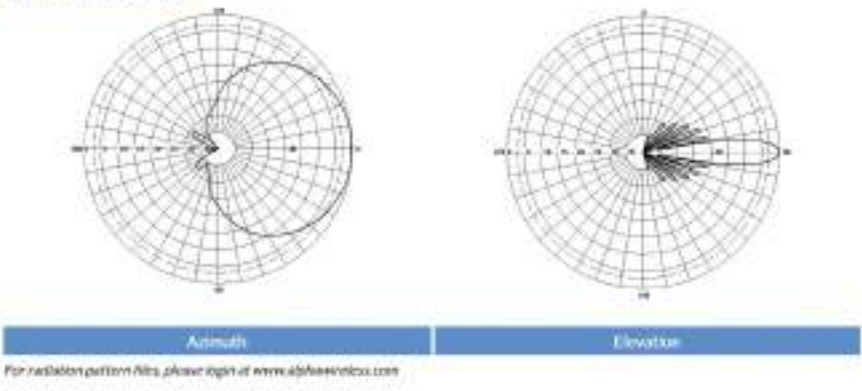
Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2300 - 2700MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
	Min Tilt	dBi
	Mid Tilt	dBi
	Max Tilt	dBi
	Overall Tilt	dBi
Azimuth Beamwidth	Degree	65°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	7°
Electrical Down-tilt	Degree	T0° - T10°
Electrical Down-tilt Deviation	Degree±	1°
Impedance	Ohms	50
VSWR	=	1.5
Return Loss	dB>	14
Isolation	dB>	27
Front to Back Ratio; Total Power +/- 90°	dB>	30
Upper Side-lobe Suppression; Peak to 20°	dB>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	150

Radiation Pattern Files



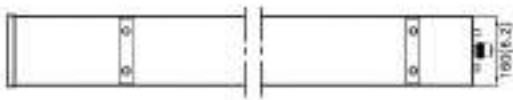
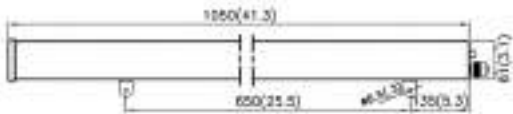
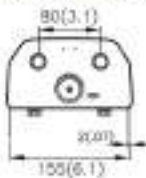
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1050 (41.3) x 140 (5.2) x 81 (3.1) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1123 (44.4) x 240 (9.4) x 178 (7)
Net Weight (antenna)	kg (lb)	8 (17.6)
Net Weight (mount)	kg (lb)	1.4 (3.1)
Shipping Weight	kg (lb)	9.4 (20.7)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb)	210 (48)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb)	110 (25)
Survival Wind Speed	km/h (mph)	200 (125)
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)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

Small Cell

Concealment

Mounting Bracket Kit

A technical drawing of a vertical shaft with a sliding collar assembly. The assembly consists of a central shaft, a collar, and a sliding mechanism. The collar is shown in two positions: one where it is fully extended and another where it is retracted. The drawing includes dimension lines and labels for various components and measurements.



ORDERING INFO

AW3163-M-N Manual Electrical Tilt (MET) with N Type Connectors

Common Name- 2 Port B38, 40 & 41 - 90° - MET

2300-2700MHz	2	MET	15.0	90°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This solution was developed for fixed wireless applications requiring variable electrical tilt.

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

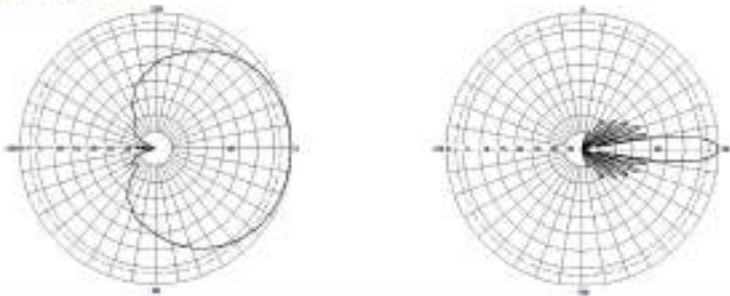
- Wide-band antenna for SCPP bands 38, 40 & 41
- Dual Cross polarization antenna +/- 45°
- Enhanced tilt range of 0 to 10 degrees
- Manufactured in Ireland

The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 8.0.

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2300 - 2700MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
Min Tilt	dBi	16.3 (T0)
Mid Tilt	dBi	16.0 (T5)
Max Tilt	dBi	15.7 (T10)
Overall Tilt	dBi	16.0
Azimuth Beamwidth	Degree	90°
Azimuth Beam Squint	Degree±	3°
Elevation Beamwidth	Degree	7°
Electrical Down tilt	Degree	T0° - T10°
Electrical Down tilt Deviation	Degree±	2°
Impedance	Ohms	50
VSWR	=	1.5
Return Loss	dB>	14
Isolation	dB>	25
Front to Back Ratio, Total Power +/- 90°	dB>	30
Upper Sidelobe Suppression, Peak to 20°	dB>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	150

Radiation Pattern Files



Azimuth

Elevation

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

Canister

Panel

Small Cell

Concealment

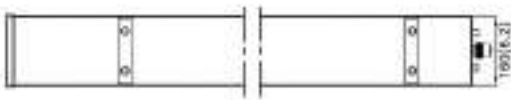
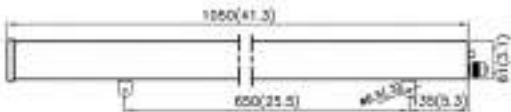
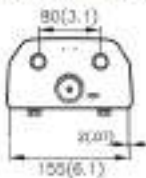
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1050 (41.3) x 140 (5.2) x 81 (3.1) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1123 (44.4) x 240 (9.4) x 178 (7)
Net Weight (antenna)	kg (lb)	9 (19.8)
Net Weight (mount)	kg (lb)	1.4 (3.1)
Shipping Weight	kg (lb)	10.4 (22.9)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb)	210 (46)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb)	110 (25)
Survival Wind Speed	km/h (mph)	200 (125)
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)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

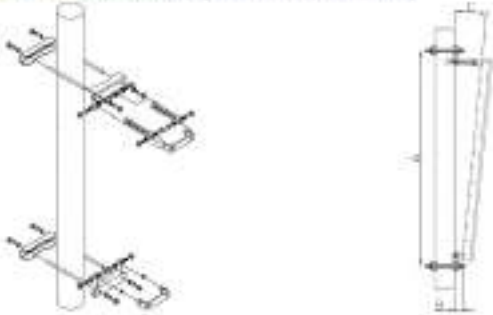
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-102 Mount Kit M0 2.0mm (Mount Kit included with antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
0° to 10°	Stainless Steel	50mm-115mm (2" to 4.5")

ORDERING INFO

AW3164-M-N Manual Electrical Tilt (MET) with N Type Connectors

Common Name- 4 Port B38, 40 & 41 - 65° - MET

2300-2700MHz	4	MET	170	65°
Frequency	Ports	TTR	Gain	Beamwidth

PRODUCT INFORMATION

This solution was developed for fixed wireless applications requiring variable electrical tilt.

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance. A horizontally spaced array provides enhance MIMO performance with full 4x4 operation or receive diversity RF functions.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

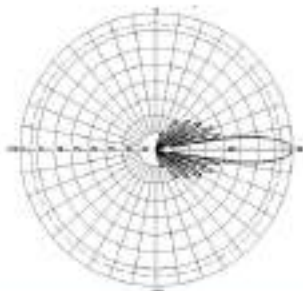
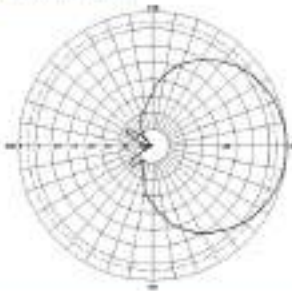
- Wide band antenna for 3GPP bands 38, 40 & 41
- 4x4 MIMO for maximum throughput
- Enhanced tilt range of 0 to 30 degrees
- Manufactured in Ireland

The parameters in this specification follow the definitions and recommendations per 3GPP T-RP. Release 9.8.

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2300 - 2700MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
Min Tilt	dBi	12.3 (T0)
Mid Tilt	dBi	17.0 (T5)
Max Tilt	dBi	16.7 (T10)
Overall Tilt	dBi	17.0
Azimuth Beamwidth	Degree	65°
Azimuth Beam Squint	Degree±	3°
Elevation Beamwidth	Degree	7°
Electrical Downtilt	Degree	T0° - T10°
Electrical Downtilt Deviation	Degree±	3°
Impedance	Ohms	50
VSWR	<	1.5
Return Loss	dB>	14
Isolation	dB>	27
Front to Back Ratio: Total Power +/ - 90°	dB>	30
Upper Sidelobe Suppression, Peak to 20°	dB>	17
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	150

Radiation Pattern Files



Azimuth

Elevation

For radiation pattern files, please log in at www.alphawireless.com

Canister

Panel

Small Cell

Concealment

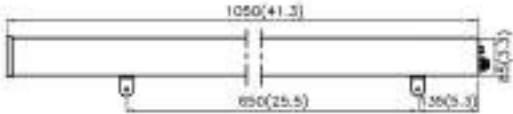
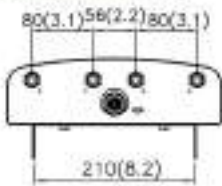
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1090(41.3) x 290(11) x 85(3.3) - 0.4xWxH
Packing Size (LxWxD)	mm (in)	1320(52) x 240(9.4) x 178(7)
Net Weight (Antenna)	kg (lb)	9 (19.8)
Net Weight (Mount)	kg (lb)	1.5 (3.4)
Shipping Weight	kg (lb)	10.5 (23.21)
Connector Type (Female)	-	N Type
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbF)	320 (72)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbF)	120 (27)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilised PVC
Radome Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

Small Cell

Concealment

Mounting Bracket Kit



ORDERING INFO

AW316S M-N Manual Electrical Tilt (MET) with N Type Connectors

Common Name- 4 Port B38, 40 & 41 - 90° - MET

2500-2700MHz	4	MET	16.0	90°
Frequency	Ports	FR	Gain	Beamwidth

PRODUCT INFORMATION

This solution was developed for 4x4 fixed wireless applications requiring variable electrical tilt.

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance. A horizontally spaced array provides enhance MIMO performance with full 4x4 operation or receive diversity RF functions.

STANDARD & CERTIFICATIONS

Certification	BSEN ISO 9001:2015
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FEATURES

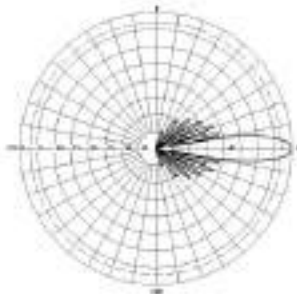
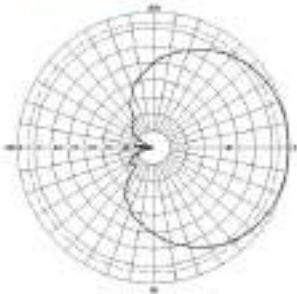
- Wide-band antenna for 3GPP bands 38, 40 & 41
- 4x4 MIMO for maximum throughput
- Enhanced tilt range of 0 to 30-degree
- Manufactured in Ireland

The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Volume 8.6.

TECHNICAL SPECIFICATION

Electrical Specifications			
Frequency Range	MHz	2300 - 2700MHz	
Polarisation	Degree	+/- 45° Slant Linear	
Gain			
	Min Tilt	dBi	16.3 (T0)
	Mid Tilt	dBi	16.0 (T5)
	Max Tilt	dBi	15.7 (T90)
	Overall Tilt	dBi	16.0
Azimuth Beamwidth	Degree	90°	
Azimuth Beam Squint	Degree+	3°	
Elevation Beamwidth	Degree	7°	
Electrical DownTilt	Degree	T0° - T10°	
Electrical DownTilt Deviation	Degree+	1°	
Impedance	Ohms	50	
VSWR	<	1.5	
Return Loss	dBi+	14	
Isolation	dB>	25	
Front to Back Ratio: Total Power +/- 30°	dBi+	30	
Upper Sidelobe Suppression, Peak to 20°	dB>	16	
Cross-Polar Discrimination	dBi+	16	
Maximum Effective Power Per Port	W	150	

Radiation Pattern Files



Azimuth

Elevation

For radiation pattern files, please login at www.alpha-wireless.com

Canister

Panel

Small Cell

Concealment

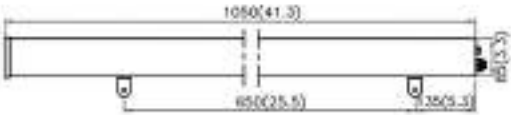
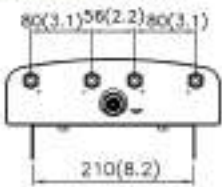
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1050(41.3) x 280(11) x 85(3.3) – 0.3WxH
Packing Size (LxWxD)	mm (in)	1123(44.4) x 240(9.4) x 178(7)
Net Weight (Antenna)	kg (lb)	90(22)
Net Weight (Inoue)	kg (lb)	1.5(3.4)
Shipping Weight	kg (lb)	11.5(25.4)
Connector Type (Female)	-	N Type
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb)	520(72)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb)	120(27)
Survival Wind Speed	km/h (mph)	200(125)
Radome Material	-	UV-Stabilized 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)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

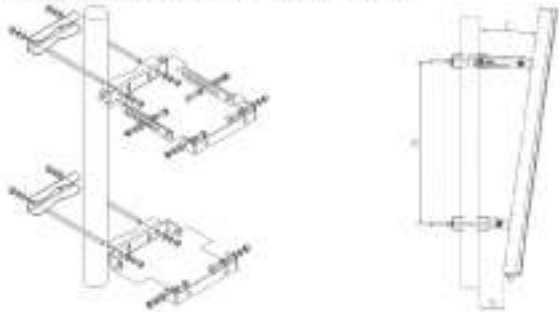
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-104 Mount Kit M6 2mm (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

AW3166-M/N Manual Electrical Tilt (MET) with N Type Connectors

Common Name- 2 Port B42, 43 & 48 - 33°

3300-3800MHz	2	Fixed	20.3	33°
Frequency	Ports	Type	Gain	Beamwidth

PRODUCT INFORMATION

Developed for fixed wireless access applications requiring narrow azimuth

APPLICATION

Alpha Wireless sector antennas are the most commonly used solution for designing high quality wireless networks. The 33 degree azimuth pattern allows the capacity to increase to 6 sectors without increasing the number of sites.

STANDARD & CERTIFICATIONS

Certification	BSEN ISO 9001:2015
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FEATURES

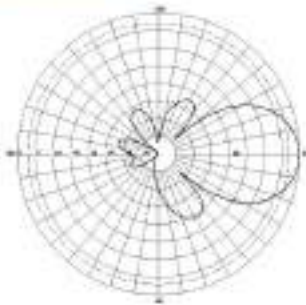
- Wide-band antenna for 3GPP bands 42, 43 & 48
- Dual Cross polarization antenna +/- 45°
- Narrow Azimuth beam to increase site capacity
- Mounting bracket with variable tilt

The parameters in this specification follow the definitions and recommendations per 3GPP P-Bis, Release 9 & 10

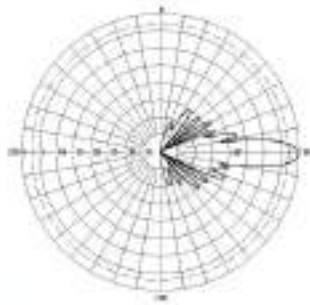
TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	3300-3800MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	20.5
Azimuth Beamwidth	Degree	33°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	7°
Electrical Down tilt	Degree	T0° or T4°
Electrical Down tilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	s	1.5
Return Loss	dB>	14
Isolation	dB>	25
Front to Back Ratio: Total Power +/-30°	dB>	27
Upper Side lobe Suppression, Peak to 20°	dB>	17
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	100

Radiation Pattern Filing



Azimuth



Elevation

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

Canister

Panel

Small Cell

Concealment

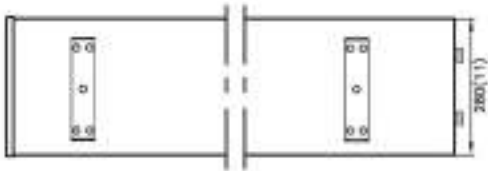
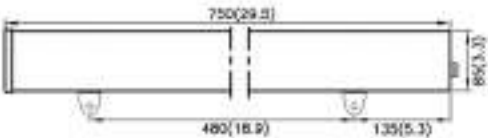
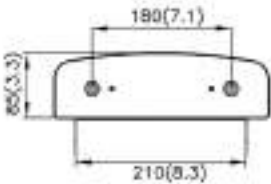
TECHNICAL SPECIFICATION

Mechanical Specifications:

Dimensions	mm (in)	750 (29.5) x 280 (11) x 85 (3.3) - (L x W x H)
Packing Size (LxWxD)	mm (in)	799 (31.25) x 340 (13.38) x 178 (7)
Net Weight (antenna)	kg (lb)	6 (13.2)
Net Weight (mount)	kg (lb)	1.5 (3.4)
Shipping Weight	kg (lb)	7.5 (16.6)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb/f)	220 (50)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb/f)	80 (18)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilized 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)

Mechanical Illustration

All measurements are in mm (in)



Common Name- 4 Port B41 - eRET

2496-2690MHz	4	eRET	17.7	65°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

Introduced into the solutions portfolio to address a number of different macro site deployment options

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance. A horizontally spaced array provides enhance MIMO performance with full 4x4 operation or receive diversity RF functions. The integrated remote electrical tilt antenna allow instant optimisation to improve coverage and throughput.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Optimised for 3GPP band 38 & 41
- 4x4 MIMO for maximum throughput
- Enhanced tilt range of 0 to 6 degrees
- 4G LTE compatible

The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 14.

Canister

Panel

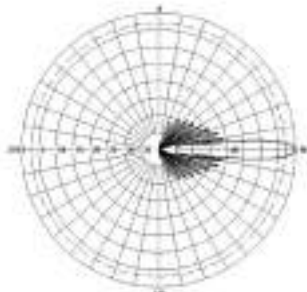
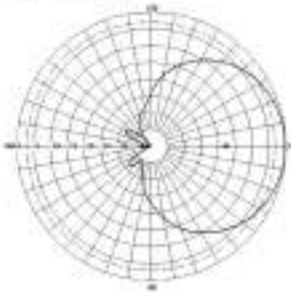
Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2456 - 2690MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
Min Tilt	dBi	18.0 (T0)
Mid Tilt	dBi	17.7 (T3)
Max Tilt	dBi	17.5 (T6)
Overall Tilts	dBi	17.7
Azimuth Beamwidth	Degree	65°
Azimuth Beam Squint	Degree	3°
Elevation Beamwidth	Degree	5.5°
Electrical Down tilt	Degree	T0° - T6°
Electrical Down tilt Deviation	Degree	1°
Impedance	Ohms	50
VSWR	=	1.43
Return Loss	dB>	15
Isolation	dB>	28
Front to Back Ratio: Total Power +/- 90°	dB>	28
Passive Intermodulation	dBc>	-150
Upper Side lobe Suppression, Peak to 20°	dB>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	250

Radiation Pattern Files



AzimuthElevation

For radiation pattern files, please login at www.alpha-wireless.com

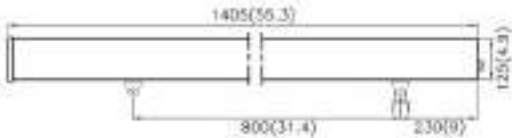
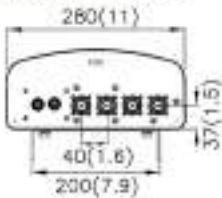
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1405 (55.3) x 280 (11) x 125 (4.9) - LxWxH
Packing Size (LxWxD)	mm (in)	1640 (65.6) x 340 (13.3) x 225 (8.8)
Net Weight (antenna)	kg (lb)	12.5 (27.5)
Net Weight (mount)	kg (lb)	3 (6.6)
Shipping Weight	kg (lb)	15.5 (34.1)
Connector Type (Female)	-	7/16 DIN
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbF)	430 (97)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbF)	200 (52)
Survival Wind Speed	km/h (mph)	200 (125)
Radiome Material	-	UV Stabilised PVC
Radiome 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)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

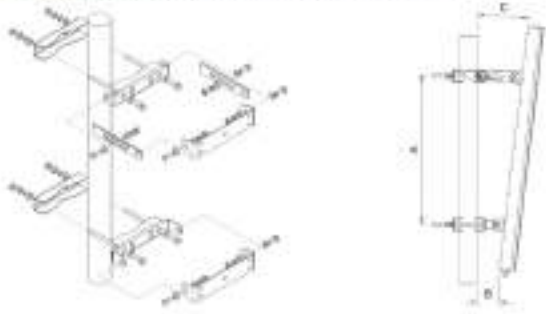
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-110 - Mounting Kit M12 3.0mm (Mount Kit included with antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
+2° to -7°	Stainless Steel	90mm-115mm (2" to 4.5")

ACCESSORIES

IFADC-1000 (for eRET or External RET only)

SADC-1000 (for eRET or External RET only)

ORDERING INFO

AW3193-E-D Enclosed Remote Electrical Tilt (eRET) with 7/16 DIN Connectors

Common Name- 2 port B38, B40, B41, and 2 port B42, B43, B48 - 65° - MET

2300-2700MHz // 3300-3800MHz	4	MET	17.3	65°
Frequency	Ports	Tx	Gain	Beamwidth

PRODUCT INFORMATION

Developed to offer a dual band antenna solution to Fixed wireless carriers.

APPLICATION

Alpha Wireless multi-band panel antennas provide wireless network operators the highest performance and quality. The multi-band antenna can cover all your TDD bands for sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance. Remote electrical tilt antenna allow instant optimization to improve coverage and throughput.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Multi-band antenna - 2300-2700/3300-3800MHz
- Dual cross polarization antenna +/-45°
- LTE TDD Carrier grade aggregation ready
- Enhanced tilt range of 0 to 50-degrees

The parameters in this specification follow the definitions and recommendations per 3GPP R14 (Release 14)

Canister

Panel

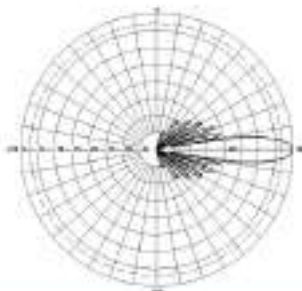
Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications				
Frequency Range	MHz	2300 - 2700	3300 - 3800	
Polarisation	Degree	±/- 45° Slant Linear		
Gain				
	Min Tilt	dBi	17.7 (T0)	17.7 (T0)
	Mid Tilt	dBi	17.5 (T3)	17.5 (T3)
	Max Tilt	dBi	17.3 (T6)	17.3 (T6)
	Overall Tilt	dBi	17.5	17.5
Azimuth Beamwidth	Degree	65°		
Azimuth Beam Squint	Degree	3°		
Elevation Beamwidth	Degree	2°		
Electrical DownTilt	Degree	T0° - T10°		
Electrical DownTilt Deviation	Degree	1°		
Impedance	Ohms	50		
VSWR		1.43		
Return Loss	dB>	15		
Isolation	dB>	28		
Front to Back Ratio: Total Power ±/- 30°	dB>	30		
Upper SideLobe Suppression, Peak to 20°	dB>	17		
Cross-Polar Discrimination	dB>	16		
Maximum Effective Power Per Port	W	150		

Radiation Pattern Files



Azimuth

Elevation

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

Canister

Panel

Small Cell

Concealment

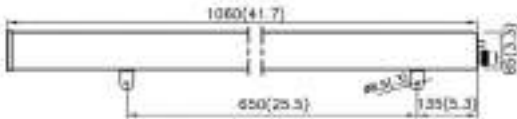
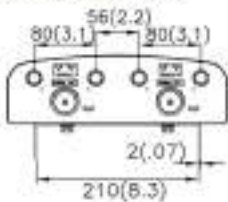
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1060 (41.7) x 280 (11) x 85 (3.3) - 0.4WxHx0
Packing Size (LxWxD)	mm (in)	1133 (44.6) x 340 (13.3) x 178 (7)
Net Weight (antenna)	kg (lb)	9 (19.8)
Net Weight (mount)	kg (lb)	1.5 (3.4)
Shipping Weight	kg (lb)	30.5 (23.1)
Connector Type (Female)	-	N Type
Connector Quantity	-	4 (2P 2.5GHz, 2P 3.5GHz)
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb)	330 (75)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb)	120 (27)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilised PVC
Radome Colour	RAL	7005
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

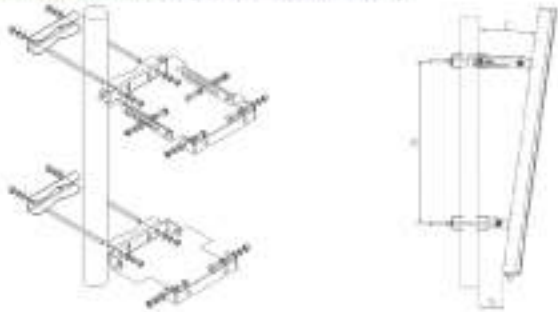
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-104 Mount Kit M6 2mm (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

AW3206-64-N Manual Electrical Tilt (MET) with N Type Connectors

Common Name- 2 Port B42, 43 & 48 - 120°

3300-3800MHz	2	Fixed	15.5	120°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

Developed to offer a wide Azimuth Beamwidth to feed wireless carriers.

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance. Various tilt options are available to address network optimization requirements.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Wide-band antenna for SCPP bands 42, 43 & 48.
- Dual Cross polarization antenna +/- 45°.
- Mounting bracket with variable tilt.
- Manufactured in Ireland

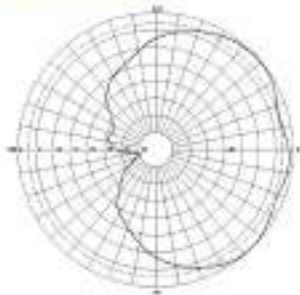
The parameters in this specification follow the definitions and recommendations per 3GPP P-Band, Release 8.

TECHNICAL SPECIFICATION

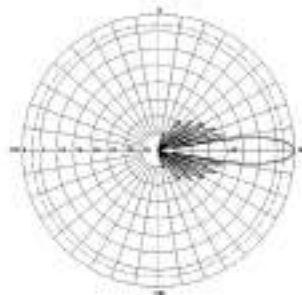
Electrical Specifications

Frequency Range	MHz	3300 - 3800MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	15.5
Azimuth Beamwidth	Degree	120°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	3°
Electrical Down tilt	Degree	T0° or T4°
Electrical Down tilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	+	1.43
Return Loss	dB>	15
Isolation	dB>	25
Front to Back Ratio: Total Power +/-30°	dB>	25
Upper Side-lobe Suppression, Peak to 20°	dB>	17
Cross-Polar Discrimination	dB>	12
Maximum Effective Power Per Port	W	100

Radiation Pattern Files



Azimuth



Elevation

For radiation pattern files, please login at www.alpha-wireless.com

Canister

Panel

Small Cell

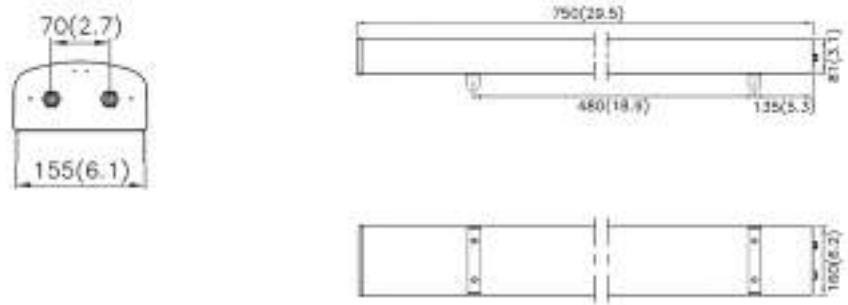
Concealment

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	750 (29.5) x 160 (6.2) x 81 (3.1) - (L x W x H)
Packing Size (LxWxD)	mm (in)	823 (32.4) x 240 (9.4) x 178 (7)
Net Weight (antenna)	kg (lb)	3 (6.6)
Net Weight (mount)	kg (lb)	1.4 (3.1)
Shipping Weight	kg (lb)	4.4 (9.7)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
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)	90 (18)
Survival Wind Speed	km/h (mph)	200 (125)
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)

Mechanical Illustration

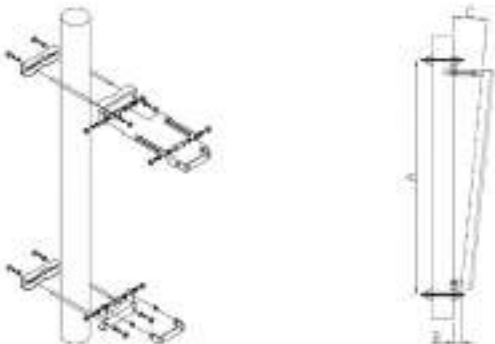
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-102 Mount Kit M8 2.0mm (Mount Kit included with antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
0° to 10°	Stainless Steel	50mm-115mm (2" to 4.5")

ORDERING INFO

AW3232-T0-N	Zero Degrees Fixed Tilt with N Type Connectors
AW3232-T4-N	Four Degrees Fixed Tilt with N Type Connectors

Common Name- 4 port B38, 40, 41 and 4 port Bands 42, 43, 48 - 65° - MET

2300-2700MHz/3300-3800MHz	8	MET	17.0	65°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

Developed to offer a dual band antenna solution to fixed wireless carriers.

APPLICATION

Alpha Wireless multi-band panel antennas provide wireless network operators the highest performance and quality. The ultra wide-band antenna can cover all your TDD bands for sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance. The horizontally spaced array allows optimum MIMO performance with full 4x4 operation or receive diversity RF functions. Remote electrical tilt antenna allow instant optimization to improve coverage and throughput.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Multi-band antenna - 2300-2700/3300-3800MHz
- 4x4 MIMO for maximum throughput
- LTE TDD Carrier aggregation ready
- Enhanced tilt range of 0 to 10 degrees

The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 8.4.

Canister

Panel

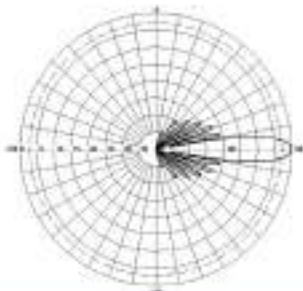
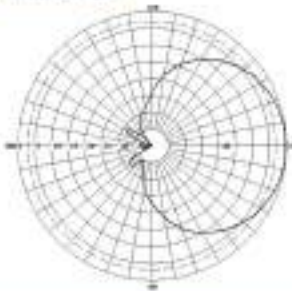
Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications				
Frequency Range	MHz		2300 - 2700MHz	3300 - 3800MHz
Polarisation	Degree		+/- 45° Slant Linear	
Gain				
	Min Tilt	dBi	17.3 (T0)	17.3 (T0)
	Mid Tilt	dBi	17.0 (T5)	17.0 (T5)
	Max Tilt	dBi	16.7 (T10)	16.7 (T10)
	Overall Tilt	dBi	17.0	17.0
Azimuth Beamwidth	Degree		65°	
Azimuth Beam Squint	Degree±		3°	
Elevation Beamwidth	Degree		7°	
Electrical Down tilt	Degree		T0° - T10°	
Electrical Down tilt Deviation	Degree±		1°	
Impedance	Ohms		50	
VSWR	=		1.43	
Return Loss	dB>		15	
Isolation	dB±		20	
Front to Back Ratio, Total Power +/-90°	dB>		30	
Upper Sidelobe Suppression, Peak to 20°	dB±		17	
Cross-Polar Discrimination	dB>		16	
Maximum Effective Power Per Port	W		150	

Radiation Pattern Files



Azimuth

Elevation

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

Canister

Panel

Small Cell

Concealment

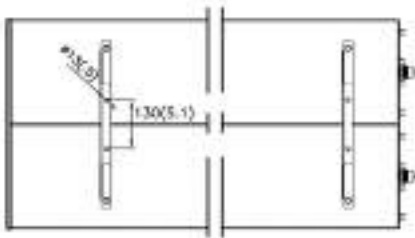
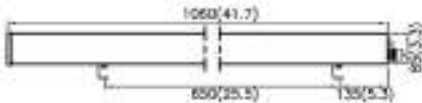
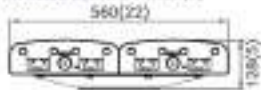
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1060 (41.7) x 560 (22) x 85 (3.3) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1133 (44.6) x 620 (24.4) x 178 (7)
Net Weight (antenna)	kg (lb)	15.5 (34.1)
Net Weight (mount)	kg (lb)	1.5 (3.4)
Shipping Weight	kg (lb)	17 (37.4)
Connector Type (Female)	-	N Type
Connector Quantity	-	8 (4P 2.5GHz, 4P 3.5GHz)
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb)	620 (140)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb)	120 (27)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilised PVC
Radome Colour	RAL	7005
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

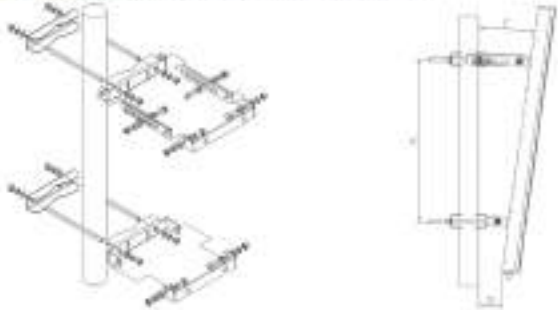
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-104 Mount Kit M12 2.5mm (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

AW3254-84-N Manual Electrical Tilt (MET) with N Type Connectors

Common Name: 8 Port Beamformer - B41 - 90°

2496-2690MHz	8	RCU external	15.5	90
Frequency	Ports	TS	Gain	Beamwidth

PRODUCT INFORMATION

Introduced into Sprint's solutions portfolio to facilitate Samsung B41 network modernization program.

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. Alpha Wireless antenna has been tested for seamless calibration point operation with all the radio vendors.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Optimised for 3GPP band 38 & 41
- Designed to work with any Radio vendor at TMR
- AISG 2.0 compatible
- Manufactured in Ireland

The dimensions in this specification follow the definitions and recommendations per NGMVP-R-Radio, Release 3.0.

Canister

Panel

Small Cell

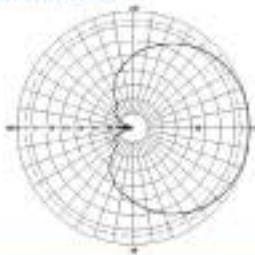
Concealment

TECHNICAL SPECIFICATION

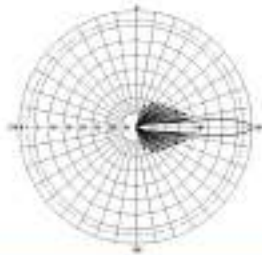
Electrical Specifications

Frequency Range	MHz	2495 - 2690MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
Single Column	dBi	16.5 +/- 0.5
Broadcast Beam	dBi	17.0 +/- 0.5
Service Beam	dBi	21.5 +/- 0.5
Calibration Network		
Coupling Factor	dB	26 +/- 2 dB
Max amp deviation	dB <	<0.7 dB
Max phase deviation	Degree <	5
Azimuth Beamwidth		
Single Column	3dB BW	90° +/- 7°
Broadcast Beam	3dB BW	90° +/- 5°
Service Beam	3dB BW	20.5° +/- 3°
Azimuth Beam Squint	Degree <	3°
Elevation Beamwidth	Degree	5°
Electrical Down tilt	Degree	T0° - T6°
Electrical Down tilt Deviation	Degree <	1°
Impedance	Ohms	90
vSWR	=	1.43
Return Loss	dB >	35
Isolation	dB >	23
Front to Back Ratio: Total Power +/-30°	dB >	27
Upper Sidelobe Suppression, Peak to 20°	dB >	38
Cross-Polar Discrimination	dB >	35
Maximum Effective Power Per Port	W	150

Radiation Pattern Files



Azimuth



Elevation

For radiation pattern files, please apply at www.alpha-wireless.com

Canister

Panel

Small Cell

Concealment

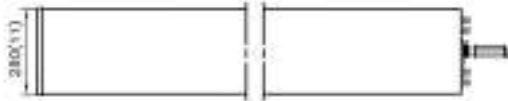
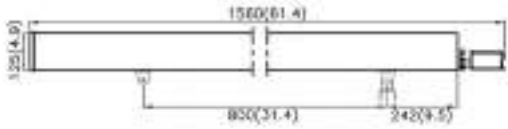
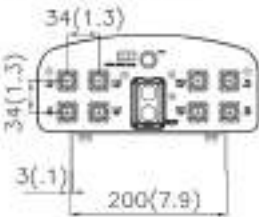
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1560 (61.4) x 280 (11) x 125 (4.9) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1623 (63.8) x 340 (13.3) x 178 (7)
Net Weight (antenna)	kg (lb)	20.5 (45.1)
Net Weight (mount)	kg (lb)	3 (6.6)
Shipping Weight	kg (lb)	23.5 (51.7)
Connector Type	-	Mini DIN / N type (Calibration Port)
Connector Quantity	-	8/1
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb)	480 (108)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb)	250 (57)
Survival Wind Speed	km/h (mph)	200 (125)
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)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

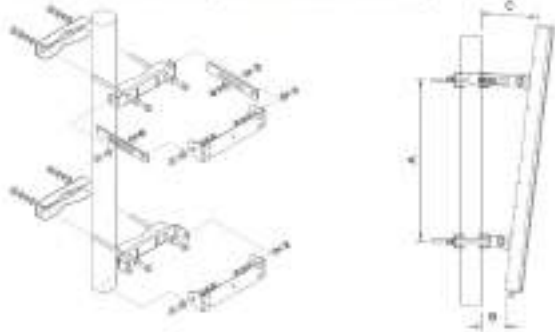
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-110 Mount Kit M12 3.0mm (Mount Kit included with antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
+1° to -7°	Stainless Steel	50mm-115mm (2" to 4.5")

ORDERING INFO

AW3266 R-A External Remote Electrical Tilt (RET) Motor with Mini DIN Connectors

Common Name-2 Port B41 - 65° - eRET

2496-2690MHz	2	eRET	17.7	65°
Frequency	Ports	Type	Gain	Beamwidth

PRODUCT INFORMATION

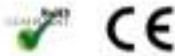
Solution was introduced to facilitate upgrade and expansion of Clearwire B41 Spectrum Protect sites.

APPLICATION

Alpha Wireless BTR 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 65° with 0.65 lambda spacing provides the best option for coverage with high performance in the complete sector.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

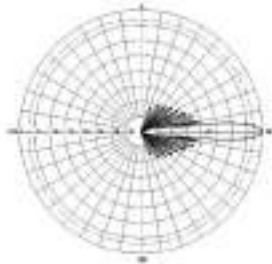
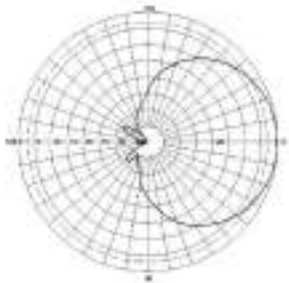
- Optimised for 3GPP band 38 & 41
- Dual Cross polarization antenna +/- 45°
- Enhanced tilt range of 0 to 6 degrees
- MIMO 2x2 compatible

The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 9.0.

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2496 - 2690MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
Min Tilt	dBi	18.0 (T0)
Mid Tilt	dBi	17.7 (T3)
Max Tilt	dBi	17.5 (T6)
Overall Tilt	dBi	17.7
Azimuth Beamwidth	Degree	65°
Azimuth Beam Squint	Degree±	3°
Elevation Beamwidth	Degree	5.5°
Electrical Down tilt	Degree	T0° - T6°
Electrical Down tilt Deviation	Degree±	1°
Impedance	Ohms	50
VSWR	=	1.43
Return Loss	dB>	15
Isolation	dB±	28
Front to Back Ratio: Total Power +/-90°	dB±	30
Passive Intermodulation	dBc±	-150
Upper Sidelobe Suppression, Peak to 20°	dB>	18
Cross-Polar Discrimination	dB±	16
Maximum Effective Power Per Port	W	250

Radiation Pattern Files



Azimuth

Elevation

For radiation pattern files, please login at www.alpha-wireless.com

Canister

Panel

Small Cell

Concealment

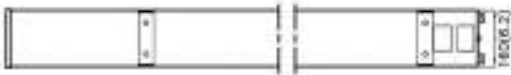
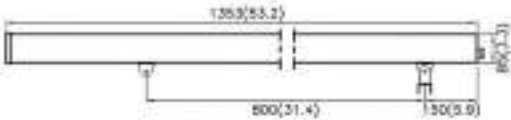
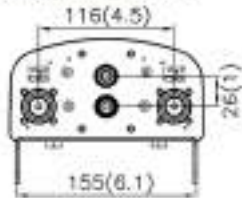
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1353 (53.2) x 140 (5.2) x 85 (3.3) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1505 (59.2) x 240 (9.4) x 178 (7)
Net Weight (antenna)	kg (lb)	8 (17.6)
Net Weight (mount)	kg (lb)	1.4 (3.1)
Shipping Weight	kg (lb)	9.4 (20.7)
Connector Type (Female)	-	7/16 DIN
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbF)	260 (59)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbF)	150 (34)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilized 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)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

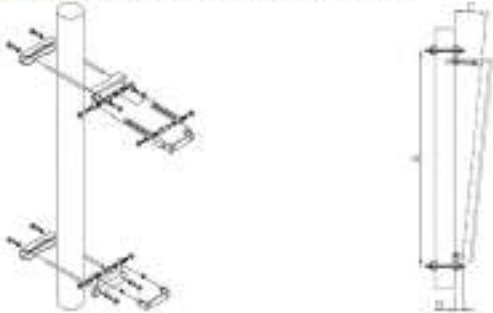
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-102 Mount Kit MB 2.0mm (Mount Kit included with antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
0° to 10°	Stainless Steel	50mm-115mm (2" to 4.5")

ACCESSORIES

PADC-1000 (for eRET only)

SADC-3000 (for eRET only)

ORDERING INFO

AW3286-E-D Enclosed Remote Electrical Tilt (eRET) with 7/56 DIN Connectors

Common Name- 4 Port B41 - 90°- eRET

2496-2690MHz	4	eRET	15.2	90°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

Introduced into the solutions portfolio to address a number of different macro site deployment options

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance. A horizontally spaced array provides enhance MIMO performance with full 4x4 operation or receive diversity RF functions. The integrated remote electrical tilt antenna allow instant optimisation to improve coverage and throughput.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Optimised for 3GPP band 38 & 41
- 4x4 MIMO for maximum throughput
- Enhanced tilt range of 0 to 6 degrees
- 4G LTE compatible

The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 9.0.

Canister

Panel

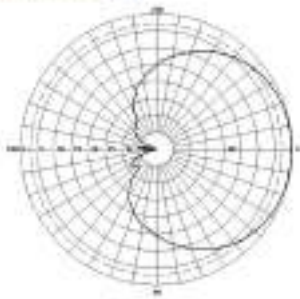
Small Cell

Concealment

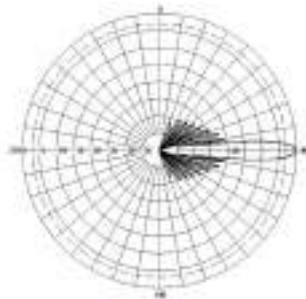
TECHNICAL SPECIFICATION

Electrical Specifications			
Frequency Range	MHz	2496 - 2690MHz	
Polarisation	Degree	+/- 45° Slant Linear	
Gain			
	Min Tilt	dBi	16.5 (T0°)
	Mid Tilt	dBi	16.3 (T3°)
	Max Tilt	dBi	16.0 (T6°)
	Overall Tilt	dBi	16.2
Azimuth Beamwidth	Degree	90°	
Azimuth Beam Squint	Degree	3°	
Elevation Beamwidth	Degree	5.5°	
Electrical Down-tilt	Degree	T0° - T6°	
Electrical Down-tilt Deviation	Degree	1°	
Impedance	Ohms	50	
VSWR	=	1.43	
Return Loss	dB>	15	
Isolation	dB>	26	
Front to Back Ratio: Total Power +/- 30°	dB>	28	
Passive Intermodulation	dBc<	-150	
Upper Side-lobe Suppression: Peak to 20°	dB>	18	
Cross-Polar Discrimination	dB>	16	
Maximum Effective Power Per Port	W	250	

Radiation Pattern Files



Azimuth



Elevation

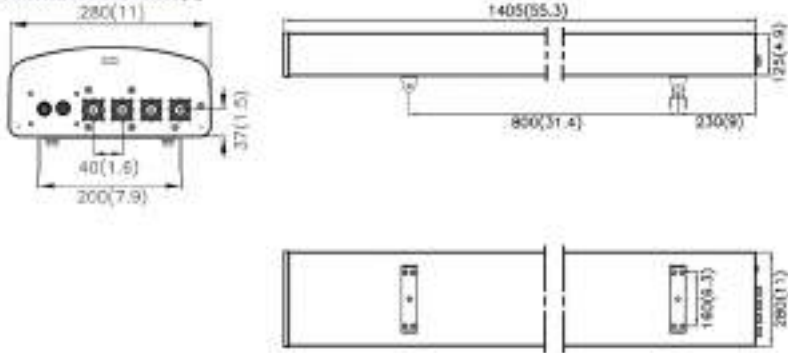
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	1405 (55.3) x 280 (11) x 125 (4.9) (LxWxH)
Packing Size (LxWxD)	mm (in)	1640 (65.6) x 340 (13.3) x 225 (8.8)
Net Weight (antenna)	kg (lb)	12 (26.45)
Net Weight (mount)	kg (lb)	3 (6.6)
Shipping Weight	kg (lb)	15 (33)
Connector Type (Female)	-	7/16 DIN
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb)	430 (97)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb)	290 (65)
Survival Wind Speed	km/h (mph)	200 (125)
Radiome Material	-	UV Stabilised PVC
Radiome 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)

Mechanical Illustration

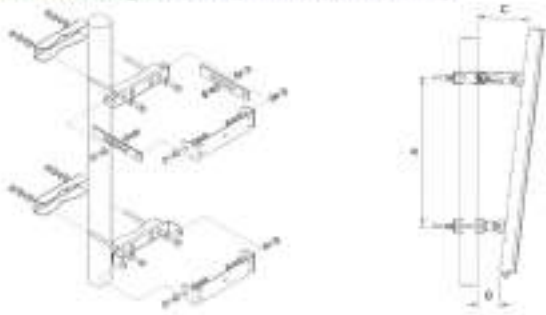
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-150 - Mounting Kit M12 3.0mm (Mount Kit included with antenna)



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

ACCESSORIES

#ADC-1000 (for eRET only)

#ADC-1000 (for eRET only)

ORDERING INFO

AW3295-E-D Enclosed Remote Electrical Tilt (eRET) with 7/16 DIN Connectors

Common Name- 2 Port B41 - 90°- eRET

2496-2690MHz	2	eRET	15.2	90°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

Introduced into the solutions portfolio to address a number of different macro site deployment options

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance. The integrated remote electrical tilt antenna allow instant optimization to improve coverage and throughput.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Optimised for 3GPP band 38 & 41
- Dual Cross polarization antenna +/- 45°
- Enhanced tilt range of 0 to 6 degrees
- 4G/LTE compatible

The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 9.0.

Canister

Panel

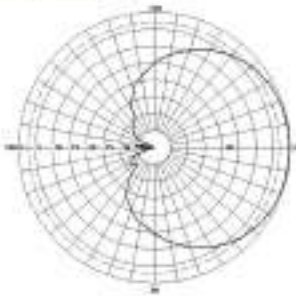
Small Cell

Concealment

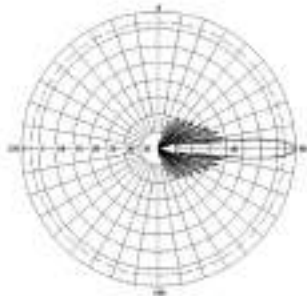
TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2496 - 2690MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
Min Tilt	dBi	16.5 (T0)
Mid Tilt	dBi	16.3 (T3)
Max Tilt	dBi	16.0 (T6)
Overall Tilt	dBi	16.2
Azimuth Beamwidth	Degree	90°
Azimuth Beam Squint	Degree+	3°
Elevation Beamwidth	Degree	5.5°
Electrical Down tilt	Degree	T0° - T6°
Electrical Down tilt Deviation	Degree+	1°
Impedance	Ohms	50
VSWR	=	1.43
Return Loss	dB>	15
Isolation	dB>	28
Front to Back Ratio: Total Power +/-90°	dB>	28
Passive Intermodulation	dBc>	-150
Upper Side-lobe Suppression, Peak to 20°	dB>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	250

Radiation Pattern Files



Azimuth



Elevation

For radiation pattern files, please login at www.alpha-wireless.com

Canister

Panel

Small Cell

Concealment

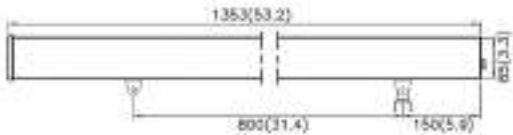
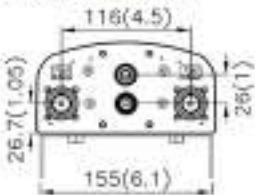
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1353 (53.2) x 140 (5.2) x 85 (3.3) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1505 (59.2) x 240 (9.4) x 178 (7)
Net Weight (antenna)	kg (lb)	8 (17.6)
Net Weight (mount)	kg (lb)	1.4 (3.1)
Shipping Weight	kg (lb)	9.4 (20.7)
Connector Type (Female)	-	7/16 DIN
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbF)	280 (59)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbF)	150 (34)
Survival Wind Speed	km/h (mph)	200 (125)
Radiome Material	-	UV-Stabilised PVC
Radiome 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)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-102 Mount Kit MB 2.0mm (Mount Kit included with antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
0° to 10°	Stainless Steel	50mm-115mm (2" to 4.5")

ACCESSORIES

#ADC-1000 (for eRET only)

#ADC-1000 (for eRET only)

ORDERING INFO

AW3296-E-D Enclosed Remote Electrical Tilt (eRET) with 7/16 DIN Connectors

Common Name- 8 Port Beamformer - B42, 43 & 48 - 72° - eRET

3300 - 3800MHz	8	eRET	15.0	72°
Frequency	Ports	Type	Gain	Beamwidth

PRODUCT INFORMATION

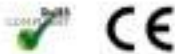
This Product was designed to evolve from 4 port to 8 port beamforming on B42/B43 to improve cell edge throughput.

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 72° with 0.65 lambda spacing provides the best option for coverage with high performance in the complete sector.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

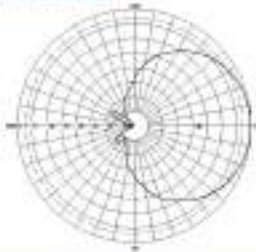
- Wide-band antenna for 3GPP bands 42, 43 & 48.
- Designed to work with any Radio vendor at TM43.
- 4x5G 2.0 compatible.
- Manufactured in Ireland.

The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 9.6.

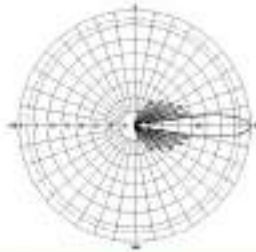
TECHNICAL SPECIFICATION

Electrical Specifications				
Frequency Range per Input		MHz	3300 - 3400	3400 - 3600
Polarization			+/-45° Slant Linear	
Gain				
	Single Column	dB	15 +/- 1	15.5 +/- 1
	Broadcast Beam	dB	16 +/- 1	16.5 +/- 1
	Service Beam	dB	19 +/- 1	20 +/- 1
Calibration Network				
	Coupling Factor	dB	26 +/- 2	
	Max amp deviation	dB<	0.7	
	Max phase deviation	deg <	5	
Single Column Azimuth Beamwidth		3dB BW	83 +/- 1.2	70 +/- 1.6
Broadcast Beam Azimuth Beamwidth		3dB BW	62 +/- 6	62 +/- 6
Service Beam Azimuth Beamwidth		3dB BW	24 +/- 1	23 +/- 1.2
Service Beam Scanning Angle		Degree	+/- 30	
Azimuth Beam Squint (Single Column)		Degree <	9	
Azimuth Beam Squint (Broadcast Beam)		Degree <	5	
Azimuth Beam Squint (Service Beam)		Degree <	2	
Elevation Beamwidth		Degree	7 +/- 1	6.5 +/- 1
Electrical Down tilt		Degree	10° - 18°	
Electrical Down tilt Deviation		Degree <	1°	
Impedance		Ohms	50	
VSWR		<	1.5	
Return Loss		dB >	14	
Isolation between polarization		dB >	25	
Front to Back Ratio: Total Power +/-30°		dB >	29	
First Upper Sidelobe Suppression		dB >	15	
Cross-Polar Discrimination at 0°		dB >	17	14
Maximum Effective Power Per Port		W	150	

Radiation Pattern Files



Azimuth



Elevation

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

Canister

Panel

Small Cell

Concealment

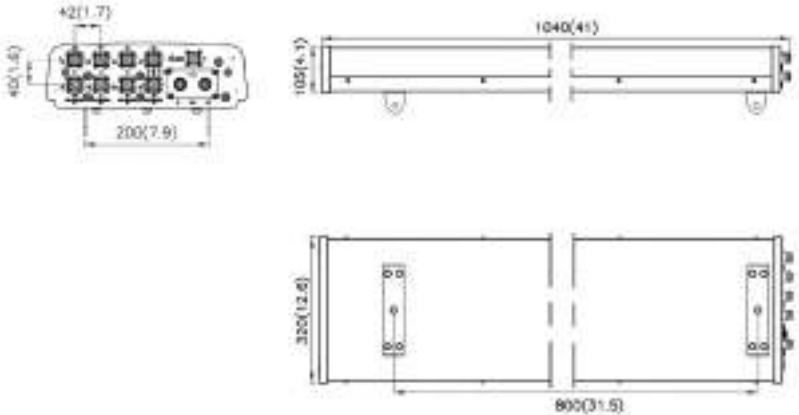
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	3040 (141) x 820 (112.4) x 105 (4.1) - LxWxH
Packing Size (LxWxD)	mm (in)	1192 (46.9) x 377 (14.8) x 243 (9.6)
Net Weight (antenna)	kg (lb)	9.4 (20.7)
Net Weight (mount)	kg (lb)	3 (6.6)
Shipping Weight	kg (lb)	13 (28.7)
Connector Type	-	4.3-10
Connector Quantity	-	8 x 4.3-10 + 1 x 4.3-10 (Cal 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
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

Small Cell

Concealment

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

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

PRODUCT INFORMATION

This product was designed to evolve from 4 port to 8 port beamforming on B42/B43 to improve cell edge throughput.

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
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FEATURES

- Wide-band antenna for 3GPP bands 42, 43 & 48
- Designed to work with any Radio vendor at TM43
- 90° antenna designed for soft split applications
- AISG 2.0 compatible

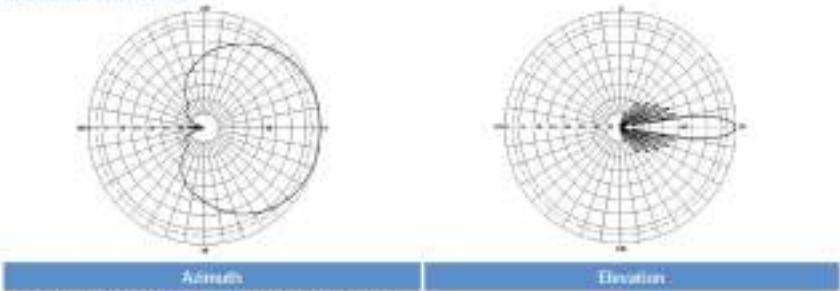
The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 8.8.

TECHNICAL SPECIFICATION

Electrical Specifications

Frequency Range	MHz	3400 - 3800MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
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°
Azimuth Beam Squint	Degree <	5°
Elevation Beamwidth	Degree	7°
Electrical Down tilt	Degree	T0° - T10°
Electrical Down 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 >	26
Upper Sidelobe Suppression, Peak to 20°	dB >	36
Cross-Polar Discrimination	dB >	35
Maximum Effective Power Per Port	W	150

Radiation Pattern Files



For radiation pattern files, please apply at www.alpha-wireless.com

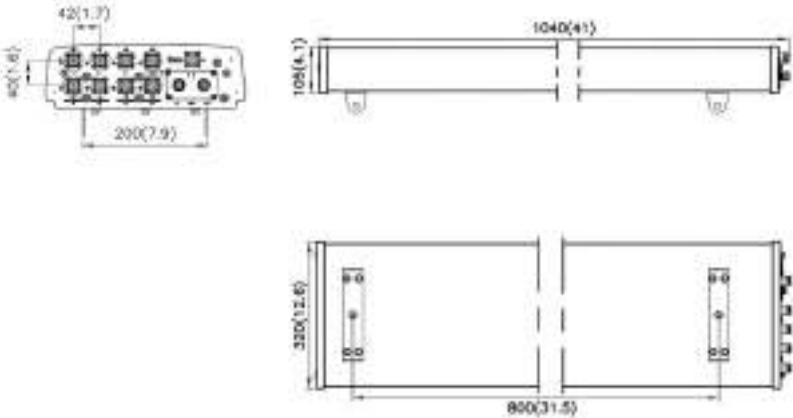
TECHNICAL SPECIFICATION

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 230 (9.1)
Net Weight (antenna)	kg (lb)	11.1 (25.5)
Net Weight (mount)	kg (lb)	3 (6.6)
Shipping Weight	kg (lb)	15 (33.3)
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
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

Small Cell

Concealment

Common Name- 8 Port Beamformer - B41 - 65°

2496 - 2690MHz	8	eRET	15.5	65°
Frequency	Ports	T/R	Gain	Beamwidth

PRODUCT INFORMATION

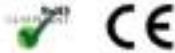
Introduced into Sprint's solutions portfolio to facilitate Samsung B41 network modernization program in locations with antenna height restrictions.

APPLICATION

Alpha Wireless BTDR 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 65° with 0.65 lambda spacing provides the best option for coverage with high performance in the complete sector.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Optimised for 3GPP band 38 & 41
- Designed to work with any Radio vendor at TM43
- 4T 5G 2.0 compatible
- Manufactured in Ireland

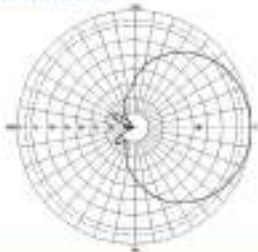
The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 13.6.

TECHNICAL SPECIFICATION

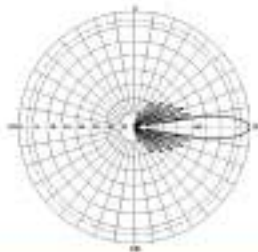
Electrical Specifications

Frequency Range	MHz	2496 - 2590
Polarisation	Degree	+/-45° Slant Linear
Gain		
Single Column	dBi	16.5 +/- 0.5
Broadcast Beam	dBi	17.0 +/- 0.5
Service Beam	dBi	21.0 +/- 0.5
Calibration Network		
Coupling Factor	dB	26 +/- 2
Max amp deviation	dB <	+0.7
Max phase deviation	Degree <	+5.0°
Azimuth Beamwidth		
Single Column	3dB BW	65° +/- 7°
Broadcast Beam	3dB BW	65° +/- 5°
Service Beam	3dB BW	22° +/- 3°
Azimuth Beam Squint	Degree <	3°
Elevation Beamwidth	Degree	7°
Electrical Down tilt	Degree	10° - 16°
Electrical Down tilt Deviation	Degree <	1°
Impedance	Ohms	50
VSWR	=	1.43
Return Loss	dB >	15
Isolation	dB >	28
Front to Back Ratio: Total Power +/-30°	dB >	27
Upper Sidelobe Suppression, Peak to 20°	dB >	18
Cross-Polar Discrimination	dB >	16
Maximum Effective Power Per Port	W	50

Radiation Pattern Files



Azimuth



Elevation

For radiation pattern files, please apply at www.alpha-wireless.com

Canister

Panel

Small Cell

Concealment

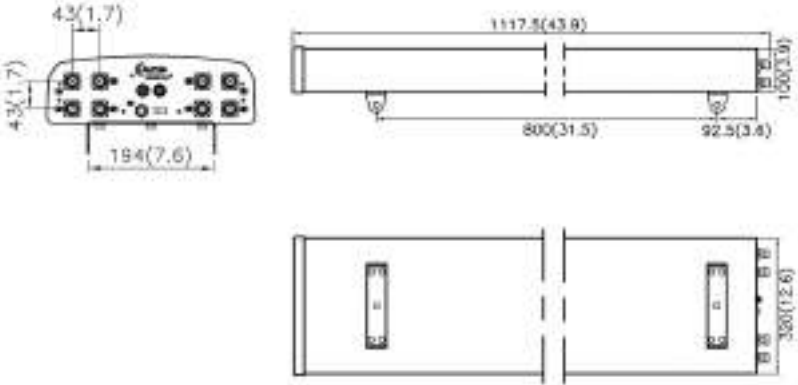
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1117.5 (43.9) x 320 (12.6) ± 100 (3.9) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1180 (46.5) x 395 (15.5) x 220 (8.6)
Net Weight (antenna)	kg (lb)	18 (39.6)
Net Weight (mount)	kg (lb)	1.4 (3)
Shipping Weight	kg (lb)	19.4 (42.6)
Connector Type	-	Mini DIN / N type (Calibration Port)
Connector Quantity	-	8 / 1
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	390 (88)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	150 (34)
Survival Wind Speed	km/h (mph)	200 (125)
Radiator Material	-	UV-Stabilised PVC
Radiator Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

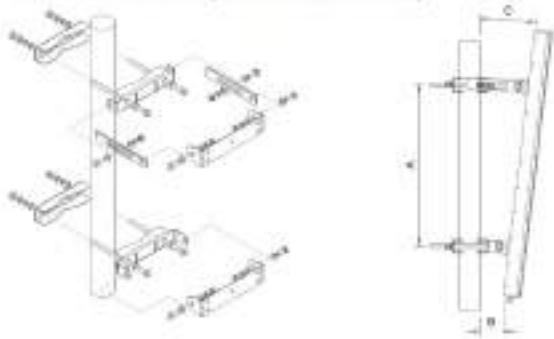
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-150 Mount Kit M12 3.0mm (Mount Kit included with antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
+1° to -7°	Stainless Steel	50mm-115mm (2" to 4.5")

ORDERING INFO

AW3378 E-A Endpoed Remote Electrical Tilt (eRET) with Mini DIN Connectors

Common Name: 4 Port B42, 43 & 48 - 33° - eRET

3300-3800MHz	4	eRET	19.2	33°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This product was developed to offer narrow Azimuth beam with four port functionality and remote RET control.

APPLICATION

Alpha Wireless sector antennas are the most commonly used solution for designing high quality wireless networks. The 33 degree azimuth patterns allows to increase capacity to 6 sectors without increasing the number of sites. The horizontally spaced array allows optimum MIMO performance with full dual operation or receive diversity RF functions. Integrated remote electrical tilt antenna allow instant optimisation to improve coverage and throughput.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

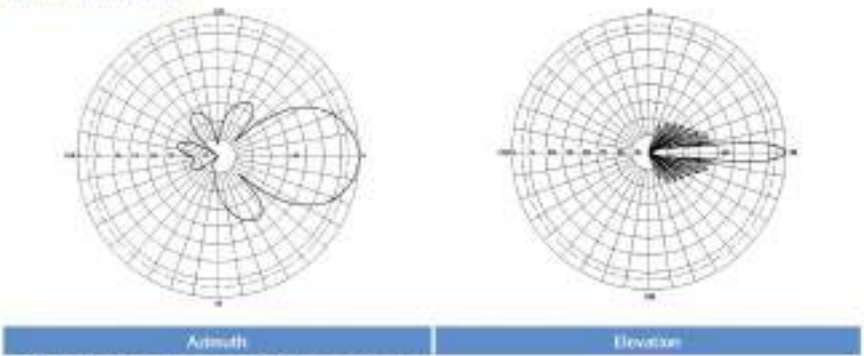
- Wide-band antenna for SCPP bands 42, 43 & 48
- 4x4 MIMO for maximum throughput
- Narrow Azimuth beam to increase site capacity
- Enhanced tilt range of 0 to 10 degrees

The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 9.0.

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	3300 - 3800MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
Min Tilt	dBi	19.3 (T0)
Mid Tilt	dBi	19.2 (T5)
Max Tilt	dBi	18.9 (T10)
Overall Tilt	dBi	19.2
Azimuth Beamwidth	Degree	33°
Azimuth Beam Squint	Degree±	3°
Elevation Beamwidth	Degree	7°
Electrical Down tilt	Degree	T0° - T10°
Electrical Down tilt Deviation	Degree±	1°
Impedance	Ohms	50
VSWR	=	1.40
Return Loss	dB>	15
Isolation	dB>	20
Front to Back Ratio: Total Power +/-90°	dB>	30
Upper Side-lobe Suppression, Peak to 20°	dB>	16
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	100

Radiation Pattern Files



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

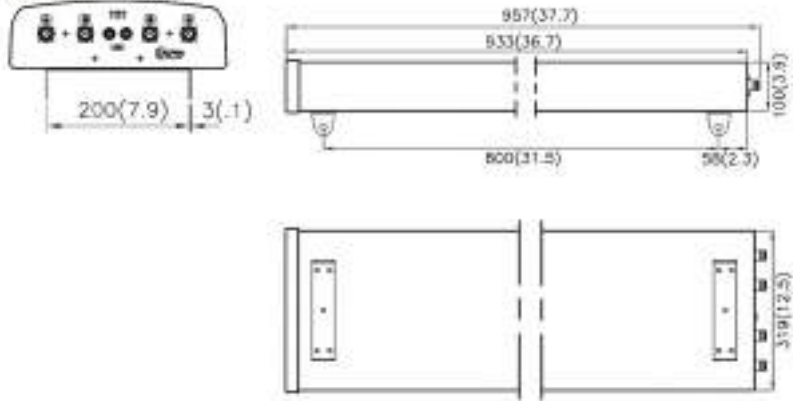
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	957 (37.7) x 319 (12.5) x 100 (3.9) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1100 (43.3) x 460 (18.1) x 178 (7)
Net Weight (antenna)	kg (lb)	15 (33)
Net Weight (mount)	kg (lb)	3 (6.6)
Shipping Weight	kg (lb)	18 (39.6)
Connector Type (Female)	-	4 3-10 or N Type
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbF)	320 (72)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbF)	120 (27)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV Stabilised PVC
Radome Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

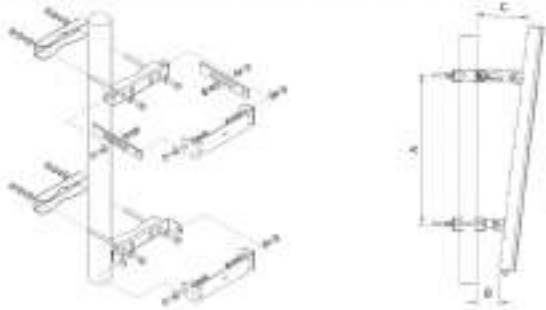
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-150 - Mounting Kit M12 3.0mm (Mount Kit included with antenna)



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

ACCESSORIES

PADC-1000 (for eRET only)

SADC-3000 (for eRET only)

ORDERING INFO

AW3452-E-F	Enclosed Remote Electrical Tilt (eRET) with 4.3/50 Connectors
AW3452-E-N	Enclosed Remote Electrical Tilt (eRET) with N Type Connectors

Common Name- 2 Port UNWB LB - Small Cell - 65°

698-960MHz	2	Fixed	12.0	65°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This product was developed to offer a small form factor solution for the 600Mhz LTE applications. The compact size is intended to minimize planning requirements.

APPLICATION

Alpha Wireless small cell provides sector coverage whilst in an ultra-compact radome design. The wide-band antenna is designed to be installed in urban environment where low visual impact is required. There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. The 2 port antenna provides 2x2 MIMO for improved data throughput with options for various fixed tilt settings.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Ultra-wide low band antenna 698-960MHz
- Compact design for Small Cell deployment - Low visual impact.
- Mounting bracket with variable tilt
- Manufactured in Ireland

The parameters in this specification follow the definitions and recommendations per 3GPP R-P-Band, Release 8.5.

Canister

Panel

Small Cell

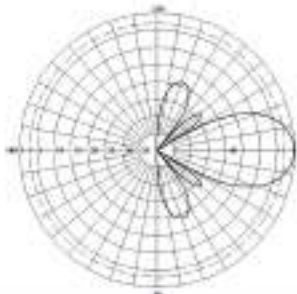
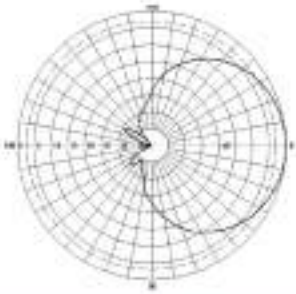
Concealment

TECHNICAL SPECIFICATION

Electrical Specifications

Frequency Range	MHz	698 - 960MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	12
Azimuth Beamwidth	Degree	65°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	22°
Electrical Down tilt	Degree	T0° / T4°
Electrical Down tilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	*	1.43
Return Loss	dB>	15
Isolation	dB>	28
Front to Back Ratio: Total Power +/-30°	dB>	28
Passive Intermodulation	dBc<	-150
Upper Side-lobe Suppression, Peak to 20°	dB>	16
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	200

Radiation Pattern Files



Azimuth

Elevation

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

Canister

Panel

Small Cell

Concealment

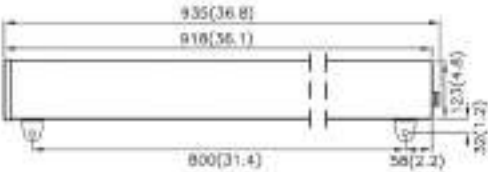
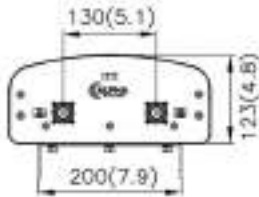
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	935 (36.8) x 280 (11) x 123 (4.8) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1100 (43) x 230 (9) x 150 (6)
Net Weight (antenna)	kg (lb)	8 (17.6)
Net Weight (mount)	kg (lb)	2.5 (5.5)
Shipping Weight	kg (lb)	10.5 (23)
Connector Type (Female)	-	7/16 DIN or N Type
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbft)	270 (61)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbft)	140 (32)
Survival Wind Speed	km/h (mph)	200 (125)
Radiome Material	-	UV-Stabilised PVC
Radiome 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)

Mechanical Illustration

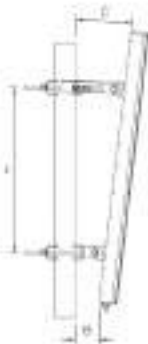
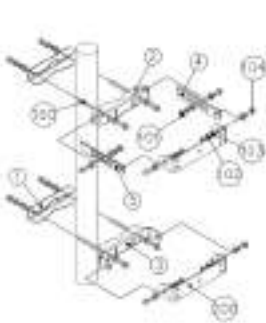
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-110 Mount Kit M12 3.0mm (Mount Kit included with antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
+1° to -7°	Stainless Steel	50mm-115mm (2" to 4.5")

ORDERING INFO

- AW3463-T0-D Zero Degrees Fixed Tilt with 7/16 DIN Connectors
- AW3463-T0-N Zero Degrees Fixed Tilt with N Type Connectors
Note: Antennas with an N Type Connector are not PIM rated
- AW3463-T4-D Four Degrees Fixed Tilt with 7/16 DIN Connectors
- AW3463-T4-N Four Degrees Fixed Tilt with N Type Connectors
Note: Antennas with an N Type Connector are not PIM rated

Common Name- 4 Port B42, 43 & 48 - 33°

3300-3800MHz	4	Fixed	33.5	33°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This was developed to offer narrow beam azimuth function with fixed tilt elevation on LTE B42/B43 and B48 (CBRS).

APPLICATION

Alpha Wireless sector antennas are the most commonly used solution for designing high quality wireless networks. The 33 degree azimuth patterns allows to increase capacity to 6 sectors without increasing the number of sites. The horizontally spaced array allows optimum MIMO performance with full dual operation or receive diversity RF functions. With additional options for fixed tilt settings enables improved optimization.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Wide-band antenna for 3GPP bands 42, 43 & 48
- 4x4 MIMO for maximum throughput
- Narrow Azimuth beam to increase site capacity
- Mounting bracket with variable tilt

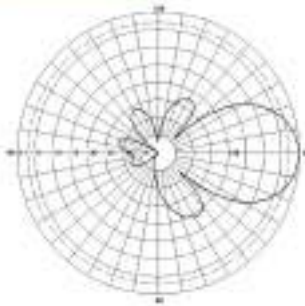
The parameters in this specification follow the definitions and recommendations per 3GPP P-Band, Release 5.5

TECHNICAL SPECIFICATION

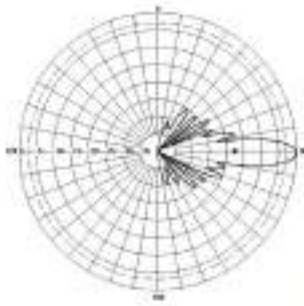
Electrical Specifications

Frequency Range	MHz	3300 - 3800MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain	dBi	19.5
Azimuth Beamwidth	Degree	33°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	7°
Electrical Downtilt	Degree	T0° or T4°
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>	27
Upper Sidelobe Suppression, Peak to 20°	dB>	15
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	100

Radiation Pattern Files



Azimuth



Elevation

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

Canister

Panel

Small Cell

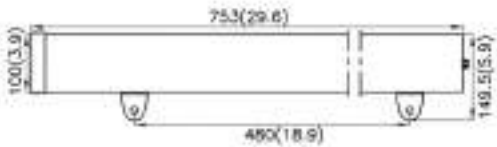
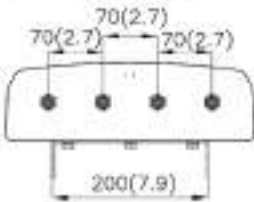
Concealment

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	753 (29.9) x 319 (12.5) x 100 (3.9) – (LxWxH)
Packing Size (LxWxD)	mm (in)	855 (33.7) x 480 (18.9) x 210 (8.3)
Net Weight (external)	kg (lb)	8 (13.2)
Net Weight (mount)	kg (lb)	1.57 (3.41)
Shipping Weight	kg (lb)	9.5 (16.7)
Connector Type (Female)	-	N Type
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbF)	250 (57)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbF)	90 (21)
Survival Wind Speed	km/h (mph)	200 (125)
Radiator Material	-	UV-Stabilised PVC
Radiator 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)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

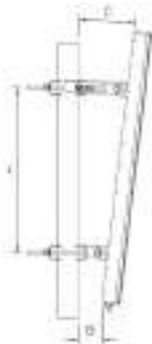
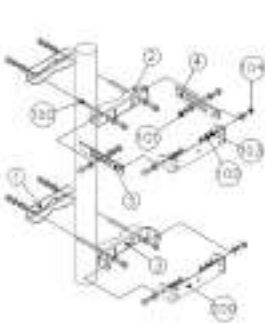
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-Y-110 Mount Kit M12 3.0mm (Mount Kit included with antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
+1° to -7°	Stainless Steel	50mm-115mm (2" to 4.5")

ORDERING INFO

- AW3647-T0-NZero Degrees Fixed Tilt with N Type Connectors
- AW3647-T4-NFour Degrees Fixed Tilt with N Type Connectors

Common Name: 4 Port Panel - B40, 41, 42, 43 & 48 - 65°

2300-2700 / 3300-3800MHz	4	Fixed	16.5/17.2	65°
Frequency	Ports	Type	Gain	Beamwidth

PRODUCT INFORMATION

This solution provides 2.5GHz and 3.5GHz bands in a single compact housing.

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance.

Each of the four ports (connectors) are connected to a wide band dipole array, therefore enabling all four ports to be used either for the 2.5GHz or 3.5GHz. Alternatively, 2 ports may be used for the 2.5GHz while the remaining 2 ports may be used for the 3.5GHz.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Wide Band antenna.
- Each port can cover 2.3 - 3.8GHz.
- 2x2 or 4x4 MIMO configuration possible.
- Mounting bracket with variable tilt (included)
- Manufactured in Ireland.

The parameters in this specification follow the definitions and recommendations per 3GPP P-1 (June Release 9.8)

Canister

Panel

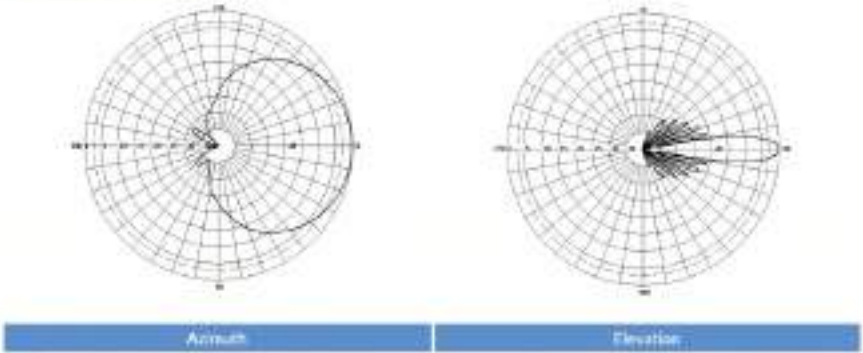
Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications			
Frequency Range	MHz	2300 - 2700	3300 - 3800
Polarisation	Degree	+/- 45° Slant Linear	
Gain	dBi	16.5	17.2
Azimuth Beamwidth	Degree	45°	
Azimuth Beam Squint	Degree±	3°	
Elevation Beamwidth	Degree	9°	6°
Electrical DownTilt	Degree	TD° or T4°	
Electrical DownTilt Deviation	Degree±	1°	
Impedance	Ohms	50	
VSWR	±	1.5	
Return Loss	dB>	14	
Isolation	dB>	26	
Front to Back Ratio: Total Power +/- 30°	dB>	25	
Upper Side-lobe Suppression: Peak to 20°	dB>	18	
Cross-Polar Discrimination	dB>	16	
Maximum Effective Power Per Port	W	100	

Radiation Pattern Files



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

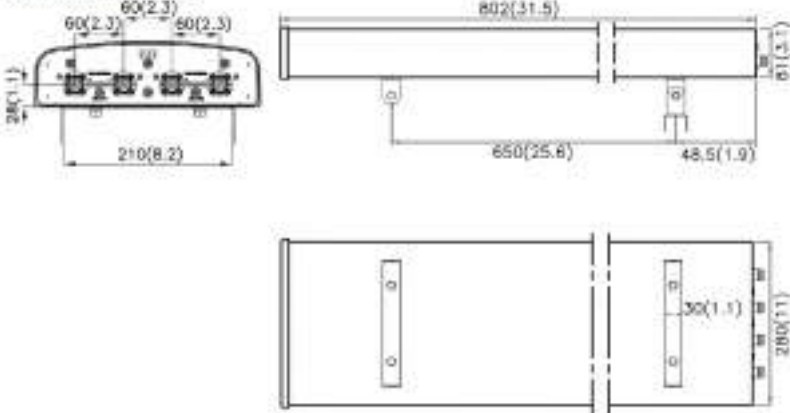
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	802 (31.5) x 280 (11) x 81 (3.1) - (LxWxH)
Packing Size (LxWxD)	mm (in)	990 (37.4) x 340 (13.3) x 178 (7)
Net Weight (antenna)	kg (lb)	7 (15.4)
Net Weight (mount)	kg (lb)	1.57 (3.4)
Shipping Weight	kg (lb)	8.5 (18.8)
Connector Type (Female)	-	4.3-10 or N Type
Connector Quantity	-	4 (4P 2.5GHz or 4P 3.5GHz)
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbft)	220 (50)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbft)	60 (18)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilised PVC
Radome Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

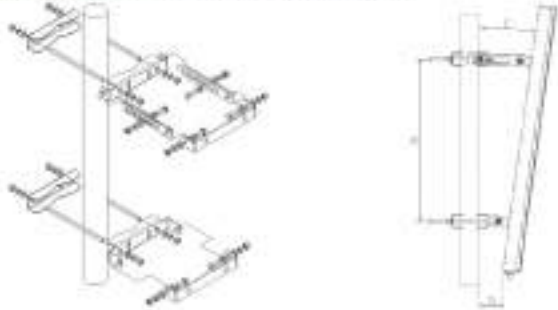
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-104 Mount Kit M8 2mm (Mount Kit included with antenna)



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

ORDERING INFO

AW3677-T0-F	Zero Degrees Fixed Tilt with 4.3-10 Connectors.
AW3677-T4-F	Four Degrees Fixed Tilt with 4.3-10 Connectors.
AW3677-T4-N	Four Degrees Fixed Tilt with N Type Connectors.

Common Name- 8 Port - 4P B42, 43 & 48 - 4P B46 - Panel

3300-3800MHz / 4900-5950MHz	8	Fixed	17	65°
Frequency	Ports	Type	Gain	Beamwidth

PRODUCT INFORMATION

This antenna solution was developed for fixed wireless applications providing 3.5GHz and 5.5GHz bands in a single compact housing.

APPLICATION

Alpha Wireless panel antennas provide wireless network operators the highest performance and quality. Panel antennas are generally used in sectorized applications. These antennas are designed for optimal radiation patterns improving overall network performance. The beams are optimized to provide coverage directly to the user and improves data throughput at the cell edge without additional bandwidth.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Multi-band antenna - 3300-3800/4900-5950MHz
- Dual cross polarisation +/- 45°
- Mounting bracket with variable tilt
- Manufactured in Ireland

The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 14.

Canister

Panel

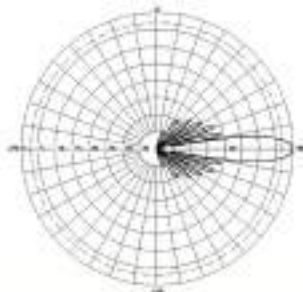
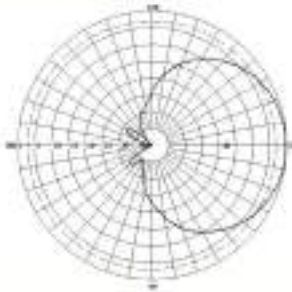
Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications			
Frequency Range	MHz	3300 - 3800	4900 - 5950
Polarisation	Degree	+/- 45° Slant Linear	
Gain	dBi	17.5	17.0
Azimuth Beamwidth	Degree	60°	58°
Azimuth Beam Squint	Degree	5°	
Elevation Beamwidth	Degree	6.5°	7°
Electrical Down tilt	Degree	T4°	T0°
Electrical Down tilt Deviation	Degree	1°	
Impedance	Ohms	50	
VSWR	-	1.5	
Return Loss	dB>	14	
Isolation	dB>	28	20
Front to Back Ratio, Total Power +/- 30°	dB>	30	25
Upper Sidelobe Suppression, Peak to 20°	dB>	18	15
Cross-Polar Discrimination	dB>	15	
Maximum Effective Power Per Port	W	100	50

Radiation Pattern Files



Azimuth

Elevation

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

Canister

Panel

Small Cell

Concealment

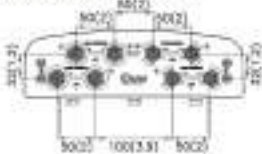
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1200 (47.2) x 280 (11) x 85 (3.3) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1300 (51.2) x 340 (13.3) x 178 (7)
Net Weight (Antenna)	kg (lb)	9 (19.8)
Net Weight (Mount)	kg (lb)	1.57 (3.4)
Shipping Weight	kg (lb)	30.5 (23.0)
Connector Type (Female)	-	N Type
Connector Quantity	-	8 (4P High Band CBRS , 4P High Band LAA)
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb)	364 (82)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb)	129 (29)
Survival Wind Speed	km/h (mph)	200 (125)
Radiome Material	-	UV-Stabilised PVC
Radiome Colour	RAL	7005
Product Compliance Environmental	-	RoHS
Lightening Protection	-	IDC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

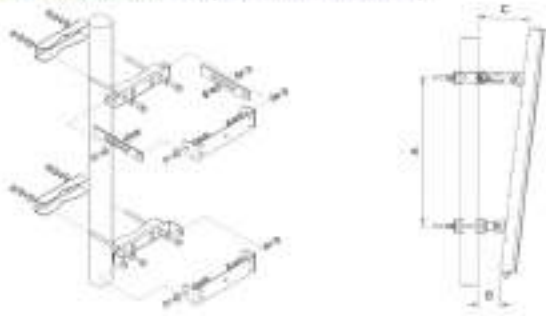
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-110 Mount Kit M12 3.0mm (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

AW3697-T4/T0-N Four degrees Fixed tilt (3.5GHz) Zero degrees Fixed Tilt (5.5GHz) with N-Type Connectors.

SMALL CELL

A family of ultra-compact antennas which allows you to deploy coverage and capacity anywhere. Our small cells cover a wide variety of applications including lamp posts, utility poles and walls and deliver cost-effective capacity to urban and rural areas.

		Frequency	Ports	Tilt	Gain	Beamwidth	
+	AW3088	2300-2700MHz	2	Fixed	11.0	360°	PG 3 - 6
+	AW3089	3300-3800MHz	2	Fixed	11.0	360°	PG 7 - 10
+	AW3348	2496-2690MHz	2	Fixed	12.5	65°	PG 11 - 14
+	AW3372	3300-3800MHz	2	Fixed	12.5	65°	PG 15 - 18
+	AW3373	3300-3800MHz	2	Fixed	11.0	90°	PG 19 - 22
+	AW3374	3400-3800MHz	2	Fixed	7.0	360°	PG 23 - 26

Canister

Panel

Small Cell

Concealment

	Frequency	Ports	Tilt	Gain	Beamwidth	
+ AW3387	1710 - 2690MHz	2	Fixed	12.5	65°	PG 27 - 30
+ AW3388	1710-2690MHz	2	Fixed	6.7	360°	PG 31 - 34
+ AW3397	1710 - 2690MHz	4	Fixed	12.2/ 12.7	65°	PG 35 - 38
+ AW3398	1710-2690MHz	4	Fixed	6.6/ 6.9	360°	PG 39 - 42
+ AW3477-S1-G	2496-2690MHz	2	MET	8.5	360°	PG 43 - 46
+ AW3499	3400-3800MHz	4	Fixed	6.5	360°	PG 47 - 50
+ AW3613-S1-G	2496-2690MHz	4	MET	8.5	360°	PG 51 - 54
+ AW3625	3300-3800MHz	2	MET	8.5	360°	PG 55 - 58
+ AW3639	1695-2690/3400 -3800/5150-5925MHz	8	eRET	14/ 11/5	65°	PG 59 - 62
+ AW3672	3400-3800MHz	4	MET	8.5	360°	PG 63 - 66
+ AW3675	2496-2690Mhz	2	MET	11.5	65°	PG 67 - 71
+ AW3689	1695-2690/3400-3800 /5150-5925MHz	20	MET	14/ 11/6	65°	PG 72 - 75
+ AW3724	617-894/1695-2690/ 3400-3800/5150-5925MHz	18	MET	7/14 /11/6	65°	PG 76 - 80
+ AW3725	617-894/1695-2690/ 3400-3800/5150-5925MHz	24	eRET/ MET	7/14 /11/6	65°	PG 81 - 85

Canister

Panel

Small Cell

Concealment

Common Name- 2 Port B38, 40 & 41 Omni

2300-2700MHz	2	Fixed	11.0	360°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This solution was developed for fixed wireless omni directional applications.

APPLICATION

Alpha Wireless pseudo omni antenna provides 360° coverage whilst in an ultra-compact radome design. There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. The 2 port antenna provides 2X2 MIMO for improved data throughput with options for various fixed tilt settings.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Wide-band antenna for SCPP bands 38, 40 & 41
- Optimized Pseudo omni with reduced azimuth ripple
- Slim monopole design to reduce wind loading
- Manufactured in Ireland

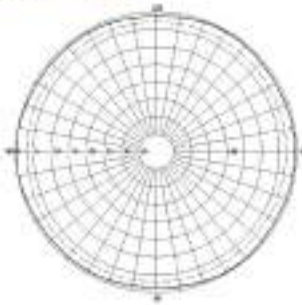
The parameters in this specification follow the definitions and recommendations per 3GPP R16-R17, Release 16.

TECHNICAL SPECIFICATION

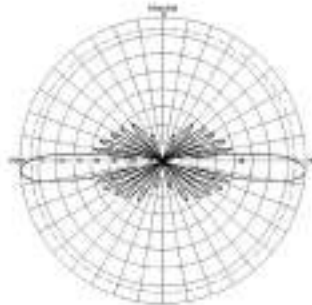
Electrical Specifications

Frequency Range	MHz	2300 - 2700MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain	dBi	11
Azimuth Beamwidth	Degree	360°
Elevation Beamwidth	Degree	8°
Electrical Downtilt	Degree	14°
Electrical Downtilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	x	1.5
Return Loss	dB>	14
Isolation	dB>	25
Upper Side-lobe Suppression, Peak to 20°	dB>	15
Cross-Polar Discrimination	dB>	30
Maximum Effective Power Per Port	W	200

Radiation Pattern Files



Azimuth



Elevation

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

Canister

Panel

Small Cell

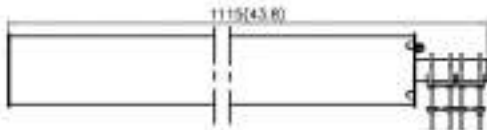
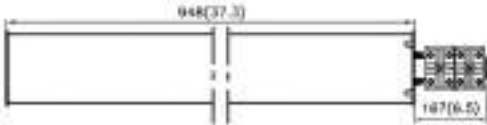
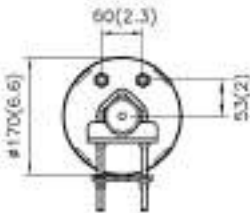
Concealment

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	948 (37.3) x 170 (6.6) - (L x Ø)
Packing Size (LxWxD)	mm (in)	1150 (45.2) x 200 (7.8) x 200 (7.8)
Net Weight (antenna)	kg (lb)	5.5 (12.1)
Net Weight (mount)	kg (lb)	1.0 (2.2)
Shipping Weight	kg (lb)	6.5 (14.3)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbF)	140 (32)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbF)	140 (32)
Survival Wind Speed	km/h (mph)	200 (125)
Radiator Material	-	UV-Stabilised PVC
Radiator 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)

Mechanical Illustration

All measurements are in mm (in)



Common Name- 2 Port B42, 43 & 48 Omni

3300-3800MHz	2	Fixed	11.0	360°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This solution was developed for fixed wireless omni directional applications.

APPLICATION

Alpha Wireless pseudo omni antenna provides 360° coverage whilst in an ultra-compact radome design. There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. The 2 port antenna provides 2X2 MIMO for improved data throughput with options for various fixed tilt settings.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Wide-band antenna for 3GPP bands 42, 43 & 48.
- Optimized Pseudo omni with reduced azimuth ripple.
- Slim monopole design to reduce wind loading.
- Manufactured in Ireland.

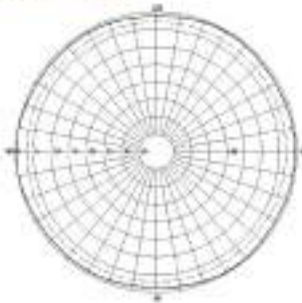
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TECHNICAL SPECIFICATION

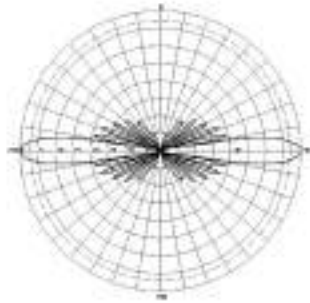
Electrical Specifications

Frequency Range	MHz	3300 - 3800MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain	dBi	11
Azimuth Beamwidth	Degree	360°
Elevation Beamwidth	Degree	8°
Electrical Down tilt	Degree	T0° or T4°
Electrical Down tilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	x	1.5
Return Loss	dB>	14
Isolation	dB>	25
Upper Side-lobe Suppression, Peak to 20°	dB>	15
Cross-Polar Discrimination	dB>	30
Maximum Effective Power Per Port	W	50

Radiation Pattern Files



Azimuth



Elevation

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

Canister

Panel

Small Cell

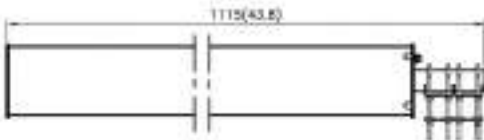
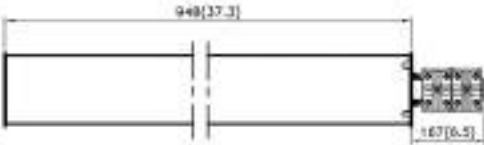
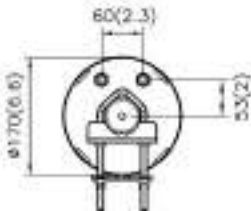
Concealment

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	948 (37.3) x 170 (6.6) - (L x Ø)
Packing Size (LxWxD)	mm (in)	1150 (45.2) x 200 (7.8) x 200 (7.8)
Net Weight (Antenna)	kg (lb)	5 (11)
Net Weight (mount)	kg (lb)	1 (2.2)
Shipping Weight	kg (lb)	6.1 (13.2)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb/f)	140 (32)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb/f)	140 (32)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV Stabilized PVC
Radome Colour	RAL	9030
Product Compliance Environmental	-	RoHS
Lightning Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

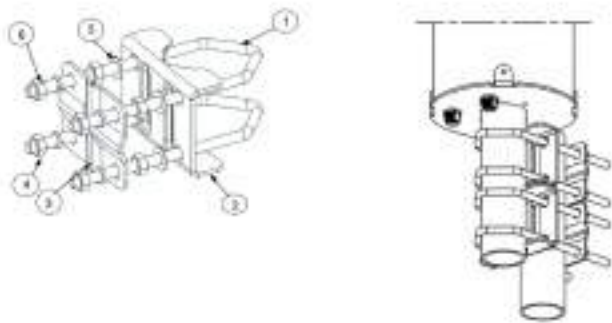
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-112 (Mounting Kit included with Antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
N/A	Galvanized Steel	30mm-50mm (1.2" to 2")

ORDERING INFO

AW3089-T0-N	Zero Degrees Fixed Tilt with N Type Connectors
AW3089-T4-N	Four Degrees Fixed Tilt with N Type Connectors

Canister

Panel

Small Cell

Concealment

Common Name-B41 Compact 2x2 MIMO Panel

2496-2690MHz	2	Fixed	12.5	65°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

Developed to address B41 densification program for both mini macro and macro applications.

APPLICATION

Alpha Wireless small cell provides sector coverage whilst in an ultra-compact radome design. This antenna is designed to be installed in urban environment where low visual impact is required. There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. The 2 port antenna provides 2x2 MIMO for improved data throughput with options for various fixed tilt settings.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Optimised for 3GPP band 38 & 41
- Compact design for Small Cell deployment - Low visual impact
- Mounting bracket with variable tilt (included)
- Manufactured in Ireland

The parameters in this specification follow the definitions and recommendations per 3GPP R15, Release 15.

Canister

Panel

Small Cell

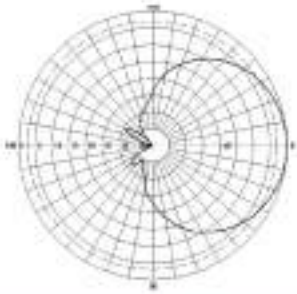
Concealment

TECHNICAL SPECIFICATION

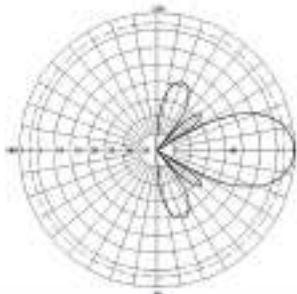
Electrical Specifications

Frequency Range	MHz	2496 - 2690MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	12.5
Azimuth Beamwidth	Degree	65°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	22°
Electrical Down tilt	Degree	10°
Electrical Down tilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	+	1.43
Return Loss	dB>	15
Isolation	dB>	28
Front to Back Ratio: Total Power +/-30°	dB>	28
Passive Intermodulation	dBc<	-150
Upper Side-lobe Suppression, Peak to 20°	dB>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	50

Radiation Pattern Files



Azimuth



Elevation

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

Canister

Panel

Small Cell

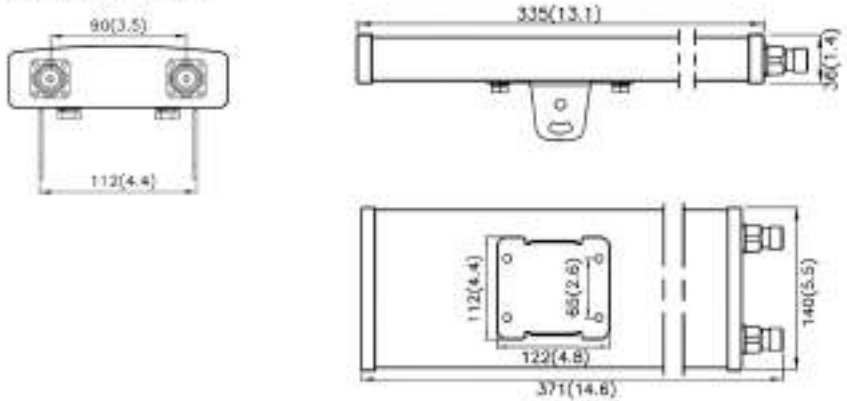
Concealment

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	335 (13.2) x 140 (5.5) x 36 (1.4) - (L x W x D)
Packing Size (LxWxD)	mm (in)	420 (16.5) x 155 (6.1) x 94 (3.7)
Net Weight (antenna)	kg (lb)	1 (2.1)
Net Weight (mount)	kg (lb)	0.4 (0.9)
Shipping Weight	kg (lb)	1.4 (3.0)
Connector Type (Female)	-	Mini DIN
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbft)	50 (12)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbft)	20 (5)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilized 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)

Mechanical Illustration

All measurements are in mm (in)



Common Name- 2 Port B42, 43 & 48 - Small Cell - 65°

3300-3800MHz	2	Fixed	12.5	65°
Frequency	Ports	Type	Gain	Beamwidth

PRODUCT INFORMATION

Developed to offer an ultra compact form factor solution for B42/B43 in advance of CRRS and 5G Deployment

APPLICATION

Alpha Wireless small cell provides sector coverage whilst in an ultra-compact radome design. The wide-band antenna is designed to be installed in urban environment where low visual impact is required. There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. The 2 port antenna provides 2x2 MIMO for improved data throughput with options for various fixed tilt settings.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Wide-band antenna for SCPP bands 42, 43 & 48
- Compact design for Small Cell deployment - Low visual impact
- Dual Cross polarization antenna +/- 45°
- Manufactured in Ireland

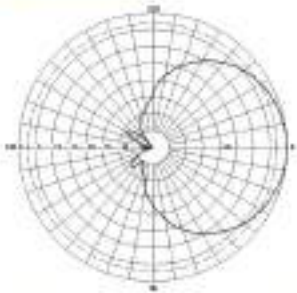
The parameters in this specification follow the definitions and recommendations per 3GPP R17-P-Beta, Release 17

TECHNICAL SPECIFICATION

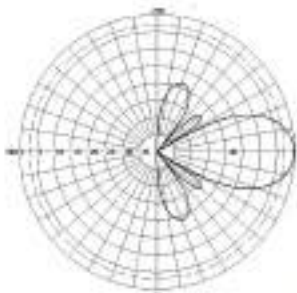
Electrical Specifications

Frequency Range	MHz	3300 - 3800MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	12.5
Azimuth Beamwidth	Degree	65°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	22°
Electrical Downtilt	Degree	10°
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>	28
Upper Side-lobe Suppression, Peak to 20°	dB>	38
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	90

Radiation Pattern Files



Azimuth



Elevation

For radiation pattern files, please login at www.alpha-wireless.com

Canister

Panel

Small Cell

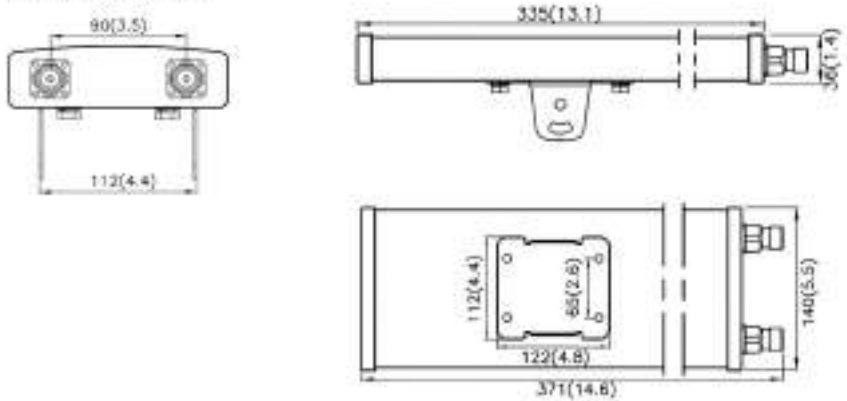
Concealment

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	335 (13.2) x 140 (5.5) x 36 (1.4) - (L x W x D)
Packing Size (LxWxD)	mm (in)	420 (16.5) x 156 (6.2) x 94 (3.7)
Net Weight (antenna)	kg (lb)	1 (2.1)
Net Weight (mount)	kg (lb)	0.4 (0.9)
Shipping Weight	kg (lb)	1.4 (3.0)
Connector Type (Female)	-	Mini DIN
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbft)	50 (12)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbft)	20 (5)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilized 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)

Mechanical Illustration

All measurements are in mm (in)



Common Name- 2 Port B42, 43 & 48 - Small Cell - 90°

3300-3800MHz	2	Fixed	11.0	90°
Frequency	Ports	Type	Gain	Beamwidth

PRODUCT INFORMATION

Developed to offer an ultra compact form factor solution for B42 and B43 in advance of 5G and 4G Deployment

APPLICATION

Alpha Wireless small cell provides sector coverage whilst in an ultra-compact radome design. The wide-band antenna is designed to be installed in urban environment where low visual impact is required. There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. The 2 port antenna provides 2x2 MIMO for improved data throughput with options for various fixed tilt settings.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Wide-band antenna for 5G bands 42, 43 & 48
- Compact design for Small Cell deployment - Low visual impact
- Mounting bracket with variable tilt
- Manufactured in Ireland

The parameters in this specification follow the definitions and recommendations per 3GPP R16, Release 16.

Canister

Panel

Small Cell

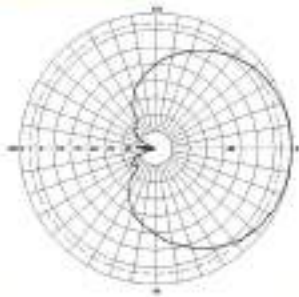
Concealment

TECHNICAL SPECIFICATION

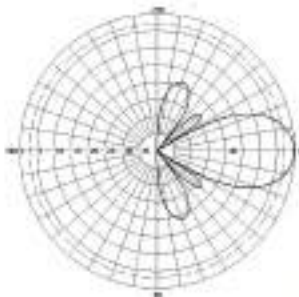
Electrical Specifications

Frequency Range	MHz	3300 - 3800MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	11.0
Azimuth Beamwidth	Degree	90°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	22°
Electrical Downtilt	Degree	10°
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>	25
Upper Side-lobe Suppression, Peak to 20°	dB>	38
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	90

Radiation Pattern Files



Azimuth



Elevation

For radiation pattern files, please login at www.alpha-wireless.com

Canister

Panel

Small Cell

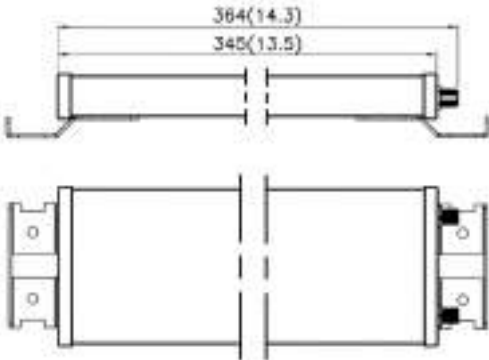
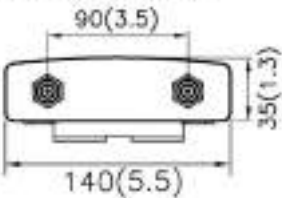
Concealment

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	364 (14.3) x 145 (5.7) x 41 (1.6) - (L x W x H)
Packing Size (LxWxD)	mm (in)	400 (15.7) x 160 (6.2) x 50 (1.9)
Net Weight (antenna)	kg (lb)	1 (2.2)
Net Weight (mount)	kg (lb)	0.4 (0.8)
Shipping Weight	kg (lb)	1.4 (3.0)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbF)	60 (14)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbF)	20 (5)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilized 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)

Mechanical Illustration

All measurements are in mm (in)



Common Name- 2 Port B42, 43 & 48 - Small Cell - Omni

3400-3800MHz	2	Fixed	7.0	360°
Frequency	Ports	Type	Gain	Beamwidth

PRODUCT INFORMATION

Developed to offer an ultra compact form factor solution for B42/B43 to in advance of CBRS and 5G deployment.

APPLICATION

Alpha Wireless pseudo omni antenna provides 360° coverage whilst is an ultra-compact rod-pole design. The wide-band antenna is designed to be installed in urban environment where low visual impact is required. There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. The 2 port antenna provides 2X2 MIMO for improved data throughput with options for various fixed tilt settings.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Wide-band antenna for SCPP bands 42, 43 & 48
- Optimized Pseudo omni with reduced azimuth ripple
- Slim monopole design to reduce wind loading
- Manufactured in Ireland

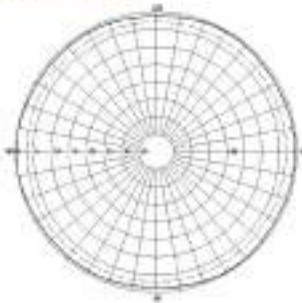
The parameters in this specification follow the definitions and recommendations per 3GPP R16, Release 16.

TECHNICAL SPECIFICATION

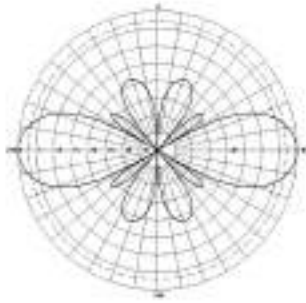
Electrical Specifications

Frequency Range	MHz	3400 - 3800MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	7.0
Azimuth Beamwidth	Degree	360°
Elevation Beamwidth	Degree	22°
Electrical Downtilt	Degree	10°
Electrical Downtilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	x	1.5
Return Loss	dB>	14
Isolation	dB>	25
Upper Sidelobe Suppression, Peak to 20°	dB>	15
Cross-Polar Discrimination	dB>	30
Maximum Effective Power Per Port	W	50

Radiation Pattern Files



Azimuth



Elevation

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

Canister

Panel

Small Cell

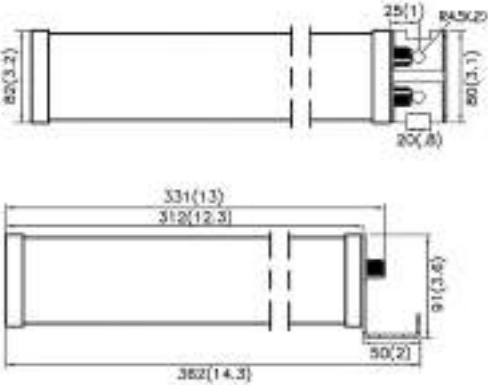
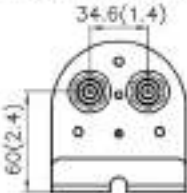
Concealment

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	312 (12.3) x 80 (3.1) - Ø x Ø
Packing Size (LxWxD)	mm (in)	400 (15.7) x 150 (5.9) x 150 (5.9)
Net Weight (antenna)	kg (lb)	1 (2.2)
Net Weight (mount)	kg (lb)	0.5 (1.1)
Shipping Weight	kg (lb)	1.5 (3.3)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbF)	20 (5)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbF)	20 (5)
Survival Wind Speed	km/h (mph)	200 (125)
Radiome Material	-	UV-Stabilized PVC
Radiome 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)

Mechanical Illustration

All measurements are in mm (in)



Common Name- 2 Port UWB HB - Small Cell - 65°

1710 - 2690MHz	2	Fixed	12.5	65°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

Developed to address densification program for both macro and mini applications.

APPLICATION

Alpha Wireless small cell provides sector coverage whilst in an ultra-compact radome design. The wide-band antenna is designed to be installed in an urban environment where low visual impact is required. There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. The 2 port antenna provides 2x2 MIMO for improved data throughput with options for various fixed tilt settings.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

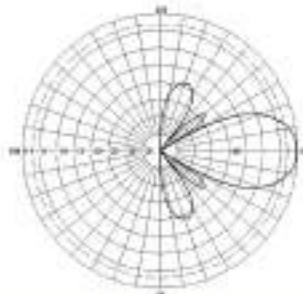
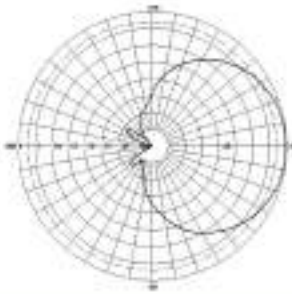
- Ultra-wide high band antenna 1710 - 2690MHz.
- Compact design for Small Cell deployment - Low Visual Impact.
- Mounting Bracket with Variable tilt (included).
- Low PIM performance to reduce interference.

The parameters in this specification follow the definitions and recommendations per 3GPP R-10, Release 10.

TECHNICAL SPECIFICATION

Electrical Specifications				
Frequency Range	MHz	1710 - 1880	1920 - 2170	2300 - 2690
Polarisation	Degree	+/- 45° Slant Linear		
Gain				
	Overall Tilt	dBi	12.2	12.5
Azimuth Beamwidth	Degree	68°	65°	60°
Azimuth Beam Squint	Degree°	2°	2°	2.5°
Elevation Beamwidth	Degree	23°	20°	18°
Electrical DownTilt	Degree	10°, 18°, 114°	10°, 18°, 114°	10°, 18°, 114°
Electrical DownTilt Deviation	Degree<	1°	1°	1°
Impedance	Ohms	50	50	50
VSWR	<	1.43	1.43	1.43
Return Loss	dB>	15	15	15
Isolation	dB>	28	28	28
Front to Back Ratio: Total Power +/-30°	dB>	27	27	27
Passive Intermodulation	dBc<	-150	-150	-150
Upper Sidelobe Suppression, Peak to 20°	dB>	17	17	17
Cross-Polar Discrimination	dB>	16	16	16
Maximum Effective Power Per Port	W	200	200	200

Radiation Pattern Files



Azimuth

Elevation

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

Canister

Panel

Small Cell

Concealment

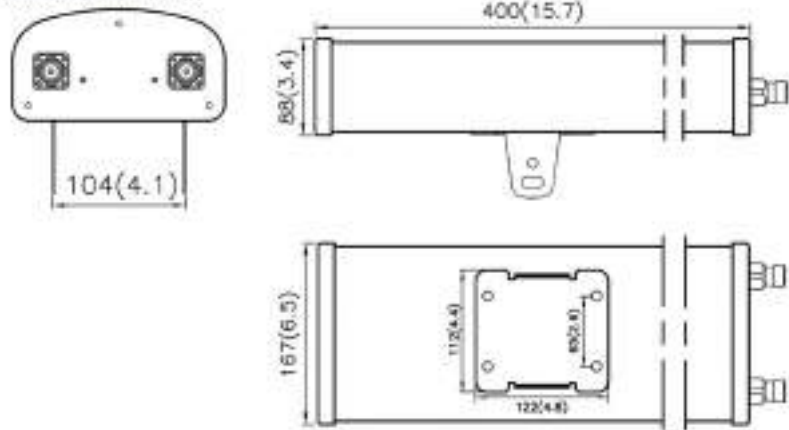
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	400 (15.7) x 167 (6.5) x 88 (3.4) - (L x W x H)
Packing Size (LxWxD)	mm (in)	460 (18) x 190 (7.5) x 170 (6.7)
Net Weight (antenna)	kg (lb)	2 (4.4)
Net Weight (mount)	kg (lb)	0.5 (1.1)
Shipping Weight	kg (lb)	2.5 (5.5)
Connector Type (Female)	-	7/16 DIN or 4.3-10
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	70 (16)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	40 (9)
Survival Wind Speed	km/h (mph)	200 (125)
Radiome Material	-	UV-Stabilized PVC
Radiome Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)

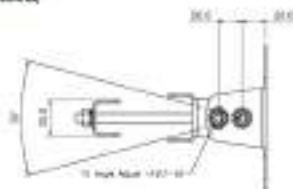
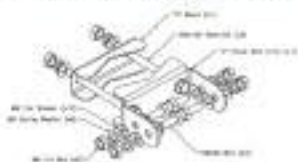


Canister

Panel

Small Cell

Concealment



Common Name- 2 Port UWB HB - Small Cell - Omni

1710 - 2690MHz	2	Fixed	6.7	360°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

Developed to address densification program for both macro and mini macro applications.

APPLICATION

Alpha Wireless small cell provides sector coverage whilst in an ultra-compact radome design. The wide-band antenna is designed to be installed in urban environment where low visual impact is required. There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. The 2 port antenna provides 2x2 MIMO for improved data throughput with options for various fixed tilt settings.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Ultra-wide high band antenna 1710 - 2690MHz.
- Optimized Pseudo omni with reduced azimuth ripple.
- Slim monopole design to reduce wind loading.
- Low PIM performance to reduce interference.

The parameters in this specification follow the definitions and recommendations per 3GPP R-10, Release 10.

Canister

Panel

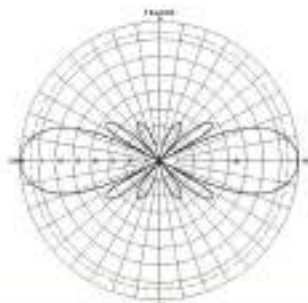
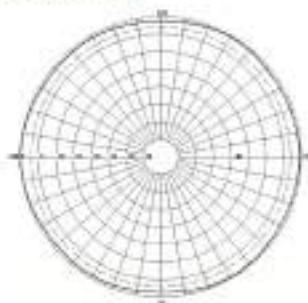
Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications				
Frequency Range	MHz	1730 - 1880	1920 - 2170	2300 - 2690
Polarisation	Degree	+/- 45° Slant Linear		
Gain				
Overall Tilt	dBi	6.5	6.7	6.9
Azimuth Beamwidth	Degree	360°	360°	360°
Elevation Beamwidth	Degree	19°	18°	13°
Electrical Down tilt	Degree	T0° - T8°	T0° - T8°	T0° - T8°
Electrical Down tilt Deviation	Degree±	1°	1°	1°
Impedance	Ohms	50	50	50
VSWR	=	1.43	1.43	1.43
Return Loss	dB>	15	15	15
Isolation	dB>	28	28	28
Passive Intermodulation	dBc<	-150	-150	-150
Upper Side lobe Suppression, Peak to 20°	dB>	17	17	17
Cross-Polar Discrimination	dB>	10	10	10
Maximum Effective Power Per Port	W	200	200	200

Radiation Pattern Files



Azimuth

Elevation

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

Canister

Panel

Small Cell

Concealment

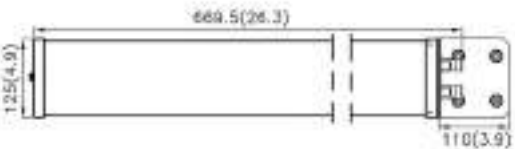
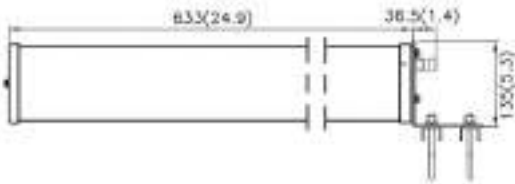
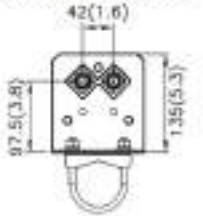
TECHNICAL SPECIFICATION

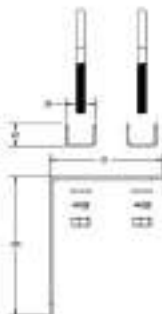
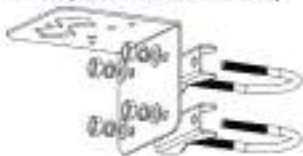
Mechanical Specifications

Dimensions	mm (in)	669.5 (26.3) x 125 (4.9) - 1L x Ø
Packing Size (LxWxD)	mm (in)	800 (31.5) x 200 (7.9) x 200 (7.9)
Net Weight (antenna)	kg (lb)	2 (4.4)
Net Weight (mount)	kg (lb)	0.5 (1.1)
Shipping Weight	kg (lb)	2.5 (5.5)
Connector Type (Female)	-	4.3-10
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	70 (16)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	70 (16)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilized PVC
Radome Colour	RAL	9002
Product Compliance Environmental	-	RoHS
Lightning Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)





Common Name- 4 port - Small Cell - 65° - Diplexed

1710-2690MHz	4	Fixed	12.2/12.7	65°
Frequency	Ports	Type	Gain	Beamwidth

PRODUCT INFORMATION

Developed to address densification programs for both macro and mini macro applications.

APPLICATION

Alpha Wireless small cell provides sector coverage whilst in an ultra-compact radome design. The wide-band antenna is designed to be installed in urban environment where low visual impact is required. There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. The 4 port antenna provides 4x4 MIMO for improved data throughput with options for various fixed tilt settings.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

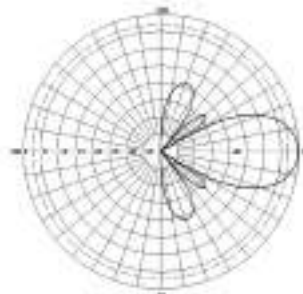
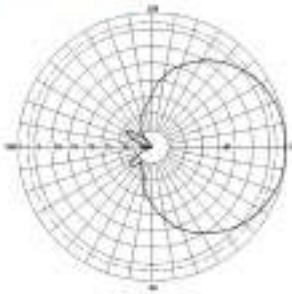
- Ultra-wide high band antenna 1710-2690MHz
- Compact design for Small Cell deployment - Low visual impact
- Mounting bracket with variable tilt
- Low PIM performance to reduce interference

The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 14.

TECHNICAL SPECIFICATION

Electrical Specifications			
Frequency Range	MHz	2 x 1710 - 2170	2 x 2496 - 2690
Polarisation	Degree	+/-45° Slant Linear	
Gain	dBi	12.2	12.7
Azimuth Beamwidth	Degree	65°	
Azimuth Beam Squint	Degree<	2°	
Elevation Beamwidth	Degree	22°	
Electrical Down-tilt	Degree	10°, 16° or 134°	
Electrical Down-tilt Deviation	Degree<	1°	
Impedance	Ohms	50	
VSWR	=	1.43	
Return Loss	dB>	15	
Isolation	dB>	28	
Front to Back Ratio: Total Power +/-30°	dB>	27	
Passive Intermodulation	dBc<	-150	
Upper Side-lobe Suppression, Peak to 20°	dB>	17	
Cross-Polar Discrimination	dB>	16	
Maximum Effective Power Per Port	W	200	

Radiation Pattern Files



Azimuth

Elevation

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

Canister

Panel

Small Cell

Concealment

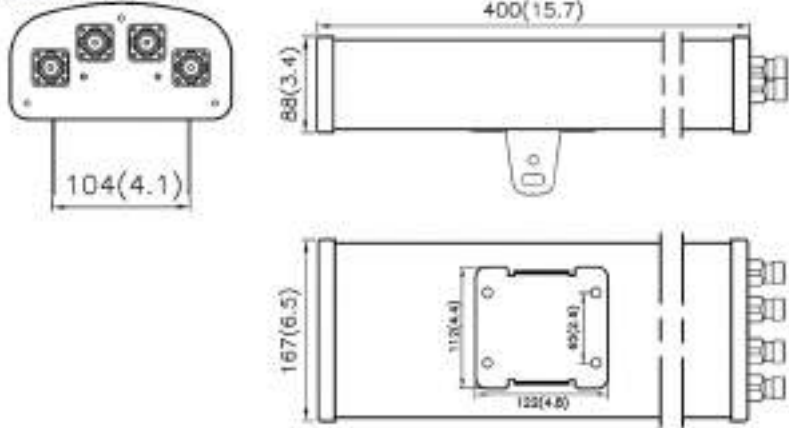
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	400(15.7) x 167(6.5) x 88(3.4) - (LxWxH)
Packing Size (LxWxD)	mm (in)	460(18) x 190(7.5) x 170(6.7)
Net Weight (antenna)	kg (lb)	2 (4.4)
Net Weight (mount)	kg (lb)	0.5 (1.1)
Shipping Weight	kg (lb)	2.5 (5.5)
Connector Type (Female)	-	7/16 DIN or 4-3-10
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb)	70 (16)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb)	40 (9)
Survival Wind Speed	km/h (mph)	200 (125)
Radiome Material	-	UV-Stabilised PVC
Radiome Colour	RAL	7005
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

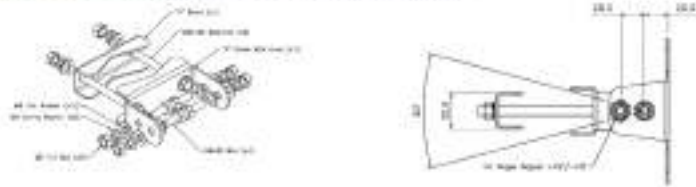
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-103- Single Bracket Mounting Kit (Mount Kit included with antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
+15° to -15°	Stainless Steel	55.2mm-254mm (6" to 10")

ORDERING INFO

AW3397-T0-F	Zero Degrees Fixed Tilt with 4.3/10 Connectors
AW3397-T8-F	Eight Degrees Fixed Tilt with 4.3/10 Connectors
AW3397-T14-F	Fourteen Degrees Fixed Tilt with 4.3/10 Connectors
AW3397-T0-D	Zero Degrees Fixed Tilt with 7/16 DIN Connectors
AW3397-T8-D	Eight Degrees Fixed Tilt with 7/16 DIN Connectors
AW3397-T14-D	Fourteen Degrees Fixed Tilt with 7/16 DIN Connectors

Common Name- 4 Port - Small Cell - Omni - Dipoleoid

1710-2690MHz	4	Fixed	6.6/6.9	360°
Frequency	Ports	Type	Gain	Beamwidth

PRODUCT INFORMATION

Developed to address densification program for both macro and mini macro applications.

APPLICATION

Alpha Wireless small cell provides sector coverage while in an ultra-compact radome design. The wide-band antenna is designed to be installed in urban environment where low visual impact is required. There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. The 4 port antenna provides 4x4 MIMO for improved data throughput with options for various fixed tilt settings.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Ultra-wide high band antenna 1710-2690MHz
- Compact design for Small Cell deployment - Low visual impact.
- Optimized Pseudo-omni with reduced azimuth ripple
- Low PIM Performance to reduce interference.

The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 14.

Canister

Panel

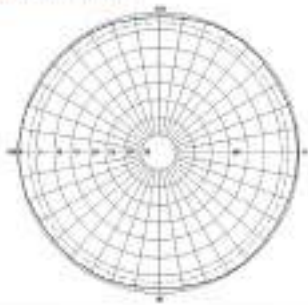
Small Cell

Concealment

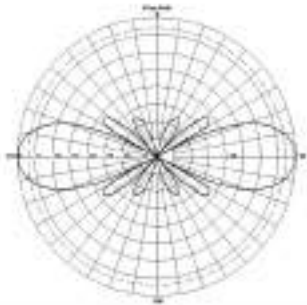
TECHNICAL SPECIFICATION

Electrical Specifications			
Frequency Range	MHz	2 x 1710 - 2170	2 x 2496 - 2690
Polarisation	Degree	+/- 45° Slant Linear	
Gain	dBi	6.6	6.9
Azimuth Beamwidth	Degree	360°	
Elevation Beamwidth	Degree	18°	13°
Electrical Downlink	Degree	TU° or TS°	
Electrical Downlink Deviation	Degree<	1°	
Impedance	Ohms	50	
VSWR	<	1.43	
Return Loss	dB>	15	
Isolation	dB>	28	
Passive Intermodulation	dBc<	-150	
Upper Side-lobe Suppression, Peak to 20°	dB>	17	
Cross-Polar Discrimination	dB>	10	
Maximum Effective Power Per Port	W	100	

Radiation Pattern Files



Azimuth



Elevation

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

Canister

Panel

Small Cell

Concealment

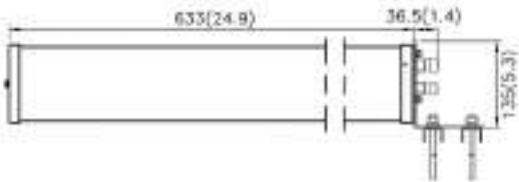
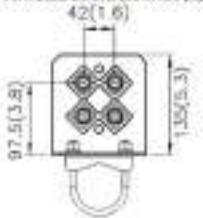
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	669.5 (26.3) x 125 (4.9) - 1L x 80
Packing Size (LxWxD)	mm (in)	800 (31.5) x 200 (7.9) x 200 (7.9)
Net Weight (antenna)	kg (lb)	2 (4.4)
Net Weight (mount)	kg (lb)	0.5 (1.1)
Shipping Weight	kg (lb)	2.5 (5.5)
Connector Type (Female)	-	4-3-10
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb)	70 (16)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb)	70 (16)
Survival Wind Speed	km/h (mph)	200 (125)
Radiome Material	-	UV-Stabilized PVC
Radiome Colour	RAL	9002
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

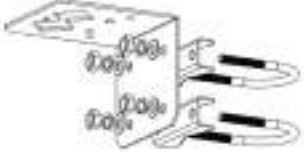
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-113 (Mount Kit included with antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
n/a	Stainless Steel	25mm-60mm (1" to 2.4")

ORDERING INFO

AW3398-T0-F	Zero Degrees Fixed Tilt with 4.3/30 Connectors
AW3398-T8-F	Eight Degrees Fixed Tilt with 4.3/30 Connectors

Common Name- B41 2x2 MIMO Small Cell Omni with MET

2496-2690MHz	2	MET	8.5	360°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

Developed to address Nokia and Altran B41 2 Port Mini Macro small cell densification program.

APPLICATION

Alpha Wireless pseudo omni antenna provides 360° coverage whilst is an ultra-compact rod-pole design. The wide-band antenna is designed to be installed in urban environment where low visual impact is required. There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. The 2 port antenna provides 2X2 MIMO for improved data throughput with electrical variable tilt for maximum optimization.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Optimised for 3GPP band 38 & 41
- Optimized Pseudo omni with reduced azimuth ripple
- Independent tilt control across 3-sectors
- Integrated GPS
- Manufactured in Ireland

The parameters in this specification follow the definitions and recommendations per 3GPP R-P-Band, Release 8.

Canister

Panel

Small Cell

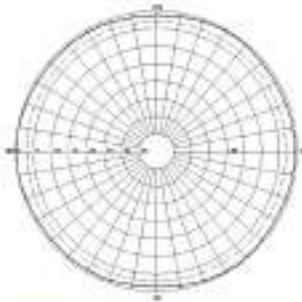
Concealment

TECHNICAL SPECIFICATION

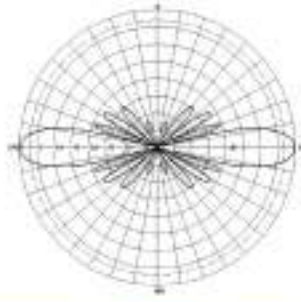
Electrical Specifications

Frequency Range	MHz	2495 - 2690MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	8.5
Azimuth Beamwidth	Degree	360°
Elevation Beamwidth	Degree	12°
Electrical Downtilt	Degree	10° - 11.4°
Electrical Downtilt Deviation	Degree<	1
Impedance	Ohms	50
VSWR	x	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

Radiation Pattern Files



Azimuth



Elevation

For radiation pattern files, please login at www.alpha-wireless.com

Canister

Panel

Small Cell

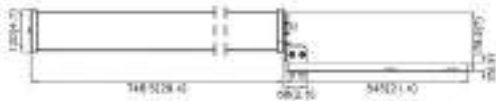
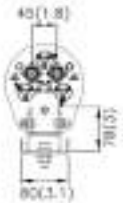
Concealment

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	785 (30.9) x 120 (4.7) - (L x Ø)
Packing Size (LxWxD)	mm (in)	1300 (51.1) x 178 (7.0) x 120 (4.7)
Net Weight (antenna)	kg (lb)	3.2 (7)
Net Weight (mount)	kg (lb)	2 (4.4)
Shipping Weight	kg (lb)	5.2 (11.4)
Connector Type (Female)	-	Mini DIN and N Type (GPS)
Connector Quantity	-	3 (2 x Mini DIN & 1 x N Type-GPS)
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbF)	90 (25)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbF)	90 (25)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilized 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)

Mechanical Illustration

All measurements are in mill (in)



Common Name- 4x4 MIMO - Bands 42, 43 & 48 - Small Cell Omni

3400-3800MHz	4	Fixed	6.5	360°
Frequency	Ports	Type	Gain	Beamwidth

PRODUCT INFORMATION

This was developed to offer a 3.5GHz 4 port Omni solution.

APPLICATION

Alpha Wireless pseudo omni antenna provides 360° coverage whilst is an ultra-compact radome design. The wide-band antenna is designed to be installed in urban environment where low visual impact is required. There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. The 4 port antenna provides 4x4 MIMO for improved data throughput in multi-operator applications.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Wide-band antenna for SCPP bands 42, 43 & 48;
- Optimized Pseudo omni with reduced azimuth ripple
- 4x4 MIMO for maximum throughput
- Slim monopole design to reduce wind loading

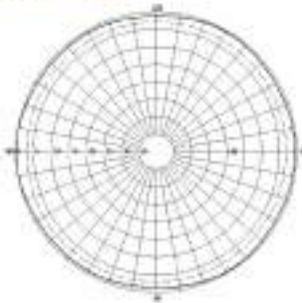
The parameters in this specification follow the definitions and recommendations per 3GPP R16, Release 16.

TECHNICAL SPECIFICATION

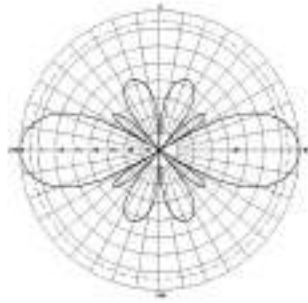
Electrical Specifications

Frequency Range	MHz	3400 - 3800MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain	dBi	6.5
Azimuth Beamwidth	Degree	360°
Elevation Beamwidth	Degree	22°
Electrical Downlink	Degree	10°
Electrical Downlink Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	x	1.5
Return Loss	dB>	14
Isolation	dB>	25
Upper Sidelobe Suppression, Peak to 20°	dB>	15
Cross-Polar Discrimination	dB>	12
Maximum Effective Power Per Port	W	50

Radiation Pattern Files



Azimuth



Elevation

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

Canister

Panel

Small Cell

Concealment

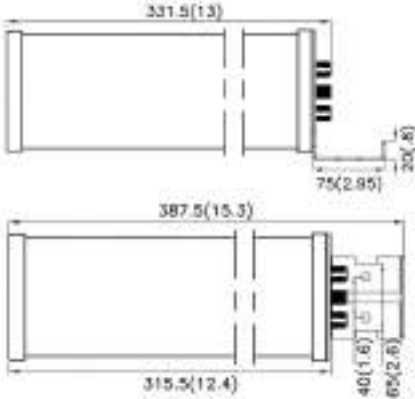
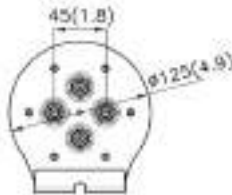
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	331.5(13) x 125(4.9) - (L x Ø)
Packing Size (LxWxD)	mm (in)	400(15.7) x 200(7.8) x 200(7.8)
Net Weight (Antenna)	kg (lb)	4.5 (9.9)
Net Weight (Mount)	kg (lb)	0.5 (1.1)
Shipping Weight	kg (lb)	5 (11)
Connector Type (Female)	-	N Type
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbF)	40 (9)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbF)	40 (9)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilized 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)

Mechanical Illustration

All measurements are in mm (in)



Common Name- B41 4x4 MIMO Small Cell Omni - MET

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

PRODUCT INFORMATION

Developed to address Nokia and Altran B41 4 Port Mini Macro small cell densification program.

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. The AW3613 provides a powerful tool for network RF engineers. It's pseudo-omni pattern eliminates the need for multiple panels to address a coverage gap or capacity augmentation (network densification). 4x4 MIMO ensures the best RF performance and the MET adjustable down tilt fine tunes the coverage for the given location. The AW3613 sets a new standard for small cell power and flexibility.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Optimised for 3GPP band 38 & 41
- 4x4 MIMO for maximum throughput
- Independent tilt control across 6-sectors
- Integrated GPS Antenna

The parameters in this specification follow the definitions and recommendations per 3GPP P-Band, Release 16.

Canister

Panel

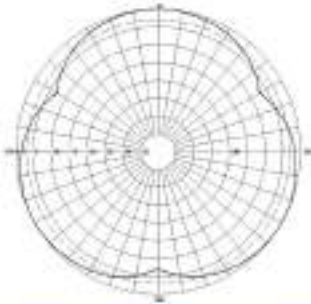
Small Cell

Concealment

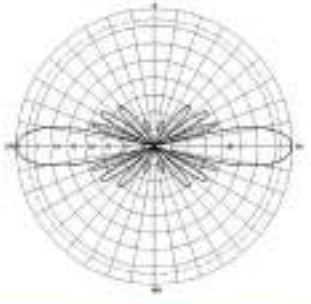
TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2495 - 2690MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	8.5
Azimuth Beamwidth	Degree	360°
Elevation Beamwidth	Degree	12°
Electrical Down tilt	Degree	T0° - T14°
Electrical Down tilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	x	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

Radiation Pattern Files



Azimuth



Elevation

For radiation pattern files, please login at www.alpha-wireless.com

Canister

Panel

Small Cell

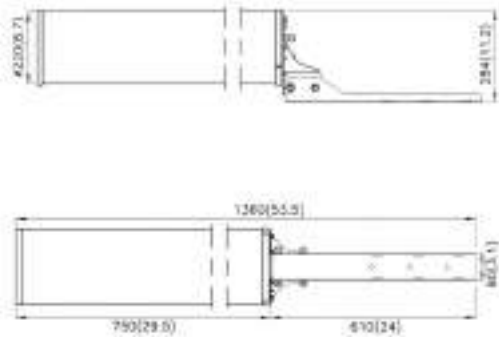
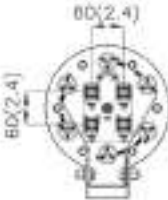
Concealment

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	750 (29.5) x 220 (8.7) - (L x W)
Packing Size (LxWxD)	mm (in)	830 (32.7) x 295 (11.6) x 445 (17.5)
Net Weight (Antenna)	kg (lb)	7.5 (16.5)
Net Weight (mount)	kg (lb)	7.5 (16.5)
Shipping Weight	kg (lb)	15 (33.1)
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 (lb/ft)	130 (30)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb/ft)	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)

Mechanical Illustration

All measurements are in mm (in)



Common Name- 2x2 MIMO - Bands 42, 43 & 48 - Small Cell Omni with MET

3300-3800MHz	2	MET	8.5	360°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

This product was developed to offer a Tri-Sector pseudo omni solution with independent tilt control on each of the three sectors across Bands 42/43 in a small form factor canister.

APPLICATION

Alpha Wireless pseudo omni antenna provides 240° coverage whilst in an ultra-compact radome design. The wide-band antenna is designed to be installed in urban environment where low visual impact is required. There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. The 2 port antenna provides 2x2 MIMO for improved data throughput with electrical variable tilt for maximum optimization.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Wide-band antenna for SCPP bands 42, 43 & 48.
- Optimized Pseudo omni with reduced azimuth ripple.
- Slim monopole design to reduce wind loading.
- Independent RET control for each array (x3)

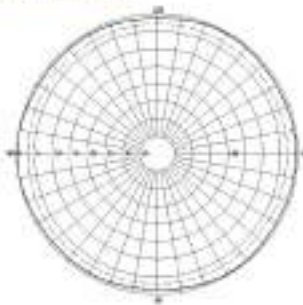
The parameters in this specification follow the definitions and recommendations per 3GPP R10, Release 10.

TECHNICAL SPECIFICATION

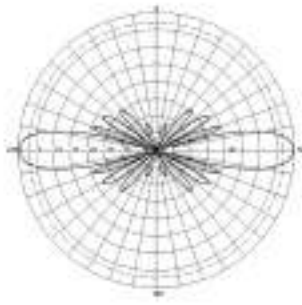
Electrical Specifications

Frequency Range	MHz	3300 - 3800MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain	dBi	8.5
Azimuth Beamwidth	Degree	360°
Elevation Beamwidth	Degree	12°
Electrical Down tilt	Degree	10° - 110°
Electrical Down tilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	x	1.5
Return Loss	dB>	14
Isolation	dB>	25
Upper Side lobe Suppression, Peak to 20°	dB>	16
Cross-Polar Discrimination	dB>	12
Maximum Effective Power Per Port	W	50

Radiation Pattern Files



Azimuth



Elevation

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

Canister

Panel

Small Cell

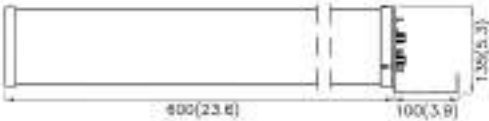
Concealment

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	700 (27.5) x 125 (4.9) - (L x Ø)
Packing Size (LxWxD)	mm (in)	770 (30.3) x 190 (7.4) x 250 (9.8)
Net Weight (antenna)	kg (lb)	3 (6.6)
Net Weight (mount)	kg (lb)	2 (4.4)
Shipping Weight	kg (lb)	6 (13.2)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbF)	80 (18)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbF)	80 (18)
Survival Wind Speed	km/h (mph)	200 (125)
Rackmate Material	-	UV-Stabilized PVC
Rackmate 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)

Mechanical Illustration

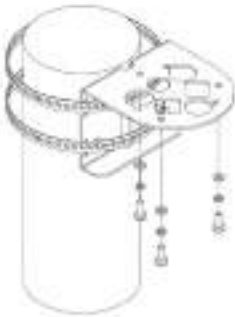
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-127 (Mounting Kit included with Antenna)



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

ORDERING INFO

AW3625-M-N-G Manual Electrical Tilt (MET) with N type Connectors

Common Name: 8 Port - 4P Mid Band - 2P B42, 43 & 48 - 2P B46 - Small Cell

1895-2690/3400-3600/5150-5925MHz

Frequency

8

Ports

eRET

14/11/5

Tilt

65°

Beamwidth

PRODUCT INFORMATION

This product offers Mid band as well as 3.5GHz and 5.5GHz functionality in a 2 foot Mini Macro housing for multi-operator applications.

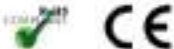
APPLICATION

Alpha Wireless multi-band small cell provides sector coverage whilst in an ultra-compact radome design. This very special antenna provides 2G to 5G ports with LAA for ultimate data throughput. The antenna is designed to be installed in an urban environment where low visual impact is required. There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. Remote electrical tilt in the Mid Band allows instant optimization to improve coverage and throughput.



STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Compact Design - Low visual impact.
- RET Tilt Range of 2 to 10 degrees
- 4G 5G 2G compatible
- Manufactured in Ireland

The parameters in this specification follow the definitions and recommendations per 3GPP R-10, Release 10.

Canister

Panel

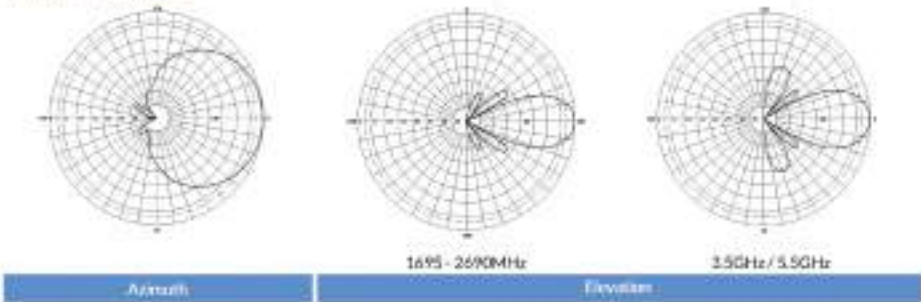
Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications							
Frequency Range	MHz	1695-1995	1920-2170	2170-2500	2500-2690	3420-3800	5100-5825
Port Allocation		Ports 1 - 4				Ports 5 & 6	Ports 7 & 8
Polarisation	Degree	±45° Slant Linear					
Gain							
	Min Tilt	dBi	12.8 (T2)	13.3 (T2)	13.8 (T2)	14.8 (T2)	11 (T0)
	Mid Tilt	dBi	12.8 (T6)	13.3 (T6)	13.7 (T6)	14.6 (T6)	11 (T0)
	Max Tilt	dBi	12.1 (T10)	12.4 (T10)	13 (T10)	14.1 (T10)	11 (T0)
	Overall Tilt	dBi	12.6	13	13.5	14.5	11 (T0)
							5 (T0)
Azimuth Beamwidth	Degree	63°	63°	60°	54°	57°	50°
Azimuth Beam Squint	Degree<	5°					
Elevation Beamwidth	Degree	19°	17°	15°	13°	30°	24°
Electrical Downlink	Degree	T2°-T10°	T2°-T10°	T2°-T10°	T2°-T10°	T0°	T0°
Electrical Downlink Deviation	Degree<	1.5°	1.5°	1.5°	1.5°	3°	3°
Impedance	Ohms	50					
VSWR	<	1.5					
Return Loss	dB>	14					
Isolation	dB>	25	25	25	25	22	30
Front to Back Ratio: Total Power ±1-30°	dB>	27	27	27	27	26	20
Passive Intermodulation	dBc<	-153				N/A	N/A
Cross-Polar Discrimination (CPD)	dB>	20	20	20	20	16	10
Maximum Effective Power Per Port	W	250	250	250	250	50	1

Radiation Pattern Files



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

Canister

Panel

Small Cell

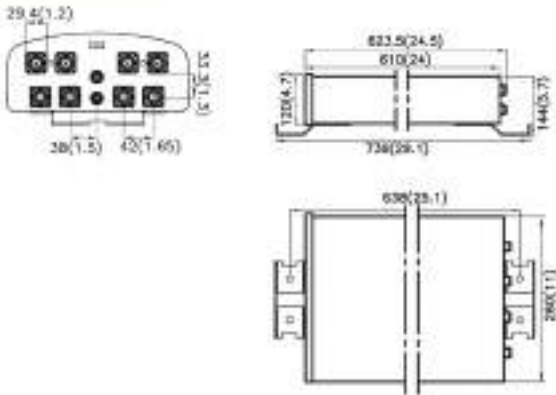
Concealment

TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	610 (24) x 380 (15) x 120 (4.7) - (LxWxH)
Volume	ft ³ (l)	0.72 (20.5)
Packing Size (LxWxD)	mm (in)	800 (31.5) x 330 (13) x 190 (7.5)
Net Weight (Antenna)	kg (lb)	6 (13.2)
Net Weight (Mount)	kg (lb)	1.5 (3.3)
Shipping Weight	kg (lb)	8 (17.6)
Connector Type (Female)	-	4-3-30
Connector Position	+	Bottom
Connector Quantity	+	8 (4P Mid band, 2P High Band CBR5, 2P High Band LAA)
Windload Frontal (at Rated Wind Speed: 150km/h)	N	380 (41)
Windload Lateral (at Rated Wind Speed: 150km/h)	N	80 (18)
Survival Wind Speed	km/h (mph)	200 (125)
Radiome Material	-	UV-Stabilised PVC
Radiome Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightning Protection	+	DC Grounded
Cold Temperature Survival	Celsius (Fahrenheit)	-40 (-40)
Hot Temperature Survival	Celsius (Fahrenheit)	70 (158)

Mechanical Illustration



Canister

Panel

Small Cell

Concealment

Common Name- 4x4 MIMO - Bands 42, 43 & 48 - Small Cell Omni with MET

3400 - 3800MHz	4	MET	8.5	360°
Frequency	Ports	Tilt	Gain	Beamwidth(dB)

PRODUCT INFORMATION

This product was developed to offer a Tri-Sector pseudo omni solution with independent tilt control on each of the six sectors across Bands 42/43 in a small form factor canister.

APPLICATION

Alpha Wireless pseudo omni antenna provides 360° coverage whilst in an ultra-compact radome design. The wide-band antenna is designed to be installed in urban environment where low visual impact is required. There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. The 4 port antenna provides 4x4 MIMO for improved data throughput with electrical variable tilt for maximum optimization.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

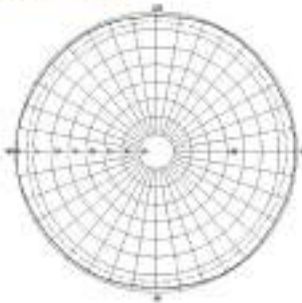
- Wide-band antenna for SCPP bands 42, 43 & 48.
- Optimized Pseudo omni with reduced azimuth ripple.
- Slim monopole design to reduce wind loading.
- Independent RET control for each array (x6)

The parameters in this specification follow the definitions and recommendations per 3GPP P-Band, Release 15.

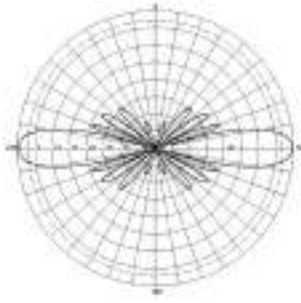
TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	3400 - 3800MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain	dBi	8.5
Azimuth Beamwidth	Degree	360°
Elevation Beamwidth	Degree	11°
Electrical Down tilt	Degree	10° - 110°
Electrical Down tilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	<	1.5
Return Loss	dB>	14
Isolation	dB>	25
Upper Side lobe Suppression, Peak to 20°	dB>	30
Cross-Polar Discrimination	dB>	7
Maximum Effective Power Per Port	W	50

Radiation Pattern Files



Azimuth



Elevation

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

Canister

Panel

Small Cell

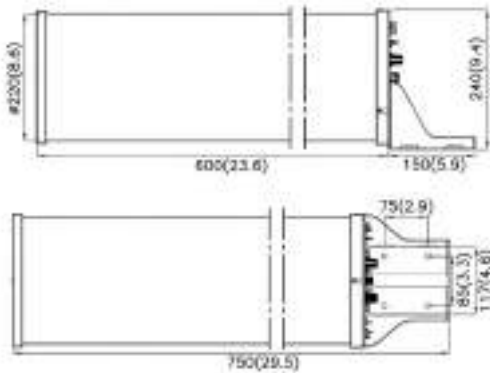
Concealment

TECHNICAL SPECIFICATION

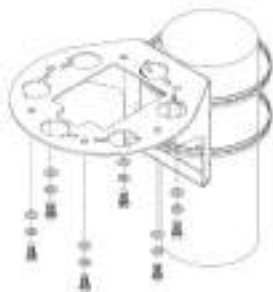
Mechanical Specifications		
Dimensions	mm (in)	600 (23.6) x 220 (8.6) - (L x W)
Packing Size (LxWxD)	mm (in)	680 (26.7) x 295 (11.6) x 445 (17.5)
Net Weight (antenna)	kg (lb)	7.5 (16.5)
Net Weight (mount)	kg (lb)	2.5 (5.5)
Shipping Weight	kg (lb)	30 (72)
Connector Type (Female)	-	N Type
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbF)	110 (25)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbF)	110 (25)
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)

Mechanical Illustration

All measurements are in mm (in)



CL-V-144 (Mounting Kit) included with Antenna



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

AW3572-M-N-G Manual Electrical Tilt (MET) with N type Connectors

Common Name: Back-to-Back - 2 Port Small Cell Omni - MET

2496-2690MHz	2	MET	11.5	65°
FREQUENCY	Ports	TIS	Gain	Beamwidth

PRODUCT INFORMATION

This antenna solution allows the RF planner to direct signals in Back-to-Back directions while enabling the sectors to be adjusted left and right $\pm 30^\circ$. This allows fine tuning of the RF signal paths. Both ports connect to the two Back-to-Back sectors in parallel. The Back-to-Back sectors are each 65° in Azimuth.

APPLICATION

This antenna was designed to provide targeted in-fill signals into areas while reducing the effects of interference or cell overlap that occur with an Omni pattern.

It can avoid having to install two panel antennas where one Back-to-Back antenna will do. This antenna reflects Alpha Wireless' aim to provide solutions that have low visual impact - whether its wall mounted, on a pole top or a lamp post, the Back-to-Back antenna is designed to blend in with its surroundings.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Back-to-Back radiating sectors
- Sectors are 65° Azimuth
- Azimuth Adjust of $\pm 30^\circ$
- Small compact form - low visual impact
- Fitted with GPS receiver and N Type GPS connection
- Multiple mounting options - Pole top / wall / lamp post
- Mounting Bracket included



The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 9.0

Canister

Panel

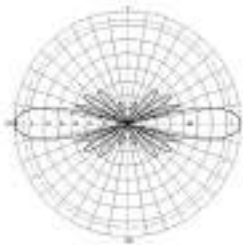
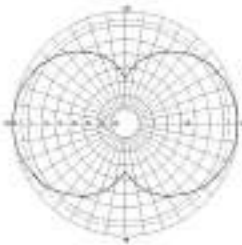
Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2495 - 2690
Polarisation	Degree	+/- 45° Slant Linear
Gain	dBi	11.5
Azimuth Beamwidth	Degree	±5°
Elevation Beamwidth	Degree	12°
Electrical Down tilt	Degree	T0° - T34°
Electrical Down tilt 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

Radiation Pattern Files



Azimuth

Elevation

For radiation pattern files, please login at www.alpha-wireless.com

Canister

Panel

Small Cell

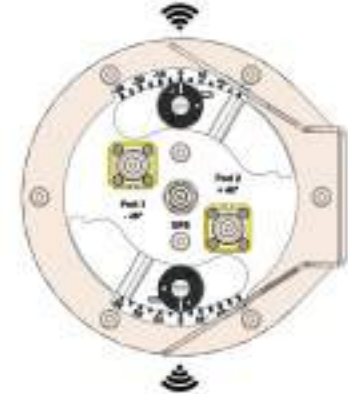
Concealment

TECHNICAL SPECIFICATION

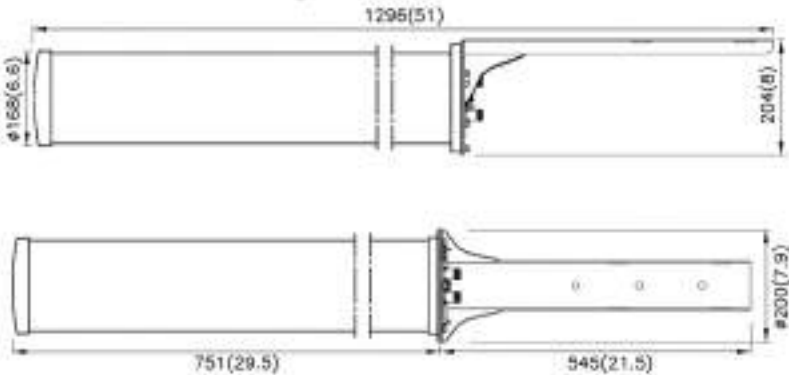
Mechanical Specifications		
Dimensions	mm (in)	751 (29.5) x 144 (5.6) - 11 x 80
Packing Size (LxWxD)	mm (in)	845 (33.3) x 270 (10.6) x 375 (14.8)
Net Weight (Antenna)	kg (lb)	6 (13.2)
Net Weight (Mount)	kg (lb)	2.5 (5.5)
Shipping Weight	kg (lb)	8 (19.8)
Connector Type (Female)	-	Mini DIN and N Type (GPS)
Connector Position	-	Bottom
Connector Quantity	-	3 (2 x Mini DIN & 1 x N Type GPS)
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb)	102 (23)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb)	102 (23)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilized uPVC
Radome Colour	RAL	9010
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	Celsius (Fahrenheit)	-40 (-40)
Hot Temperature Survival	Celsius (Fahrenheit)	70 (158)

TECHNICAL SPECIFICATION

Mechanical Illustration



Please note bracket orientation and where the antenna emits signal.



Canister

Panel

Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-345 (Mounting Kit included with Antenna)



Mounting Kit Tie Range	Mounting Kit Material	Mounting Kit Pole Diameter
N/A	Stainless Steel	N/A

ORDERING INFO

AW3675-S1-G Back-to-Back (MET) with Mini DIN connectors, Integrated GPS

Common Name: 20 Port - 8P Mid Band - 8P B42, 43 & 48 - 4P B46 - Small Cell

3695-2690/3400-3800/5150-5925MHz	20	MET	14/11/6	65°
Frequency	Ports	TIS	Gain	Beamwidth

PRODUCT INFORMATION

This Product design is intended to offer four dual ports on Mid Band, four dual ports on CBRS and two dual ports on LAA. The product is contained within a two foot high housing.

APPLICATION

This Alpha Wireless multi-band small cell provides sector coverage in an ultra compact radome design. This very special antenna provides 2G to 5G ports with LAA for ultimate data throughput. The antenna is designed to be installed in an urban environment where high port count and low visual impact is required. There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

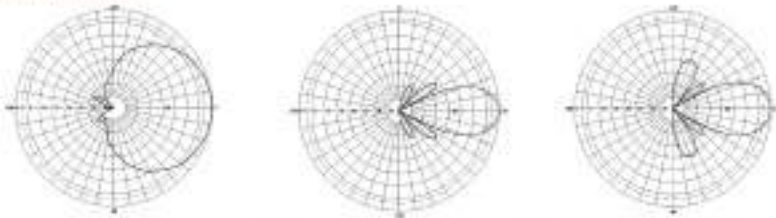
- High port enabling multiple operators.
- High Data rate frequency bands covered including Mid-Band, CBRS and LAA.
- Compact design for low visual impact.
- Mechanical/electrical tilt of 2 to 10 degrees.
- Manufactured in Ireland.

The parameters in this specification follow the definitions and recommendations per 3GPP R-15, Release 15.6.

TECHNICAL SPECIFICATION

Electrical Specifications							
Frequency Range	MHz	1695-1995	1920-2170	2170-2500	2600-2690	3400-3600	5150-5925
Polarisation	Degree	+/- 49° Slant Linear					
Gain							
	Min Tilt	dBi	13.4 (T2)	13.0 (T2)	14.0 (T2)	14.2 (T2)	11.0 (T0)
	Mid Tilt	dBi	13.2 (T6)	13.6 (T6)	13.8 (T6)	14.0 (T6)	11.0 (T0)
	Max Tilt	dBi	12.9 (T10)	13.3 (T10)	13.5 (T10)	13.7 (T10)	11.0 (T0)
	Overall	dBi	13.2	13.6	13.8	14.0	11.0 (T0)
Azimuth Beamwidth	Degree		71°	67°	63°	58°	60°
Azimuth Beam Squint	Degree<		5°				
Elevation Beamwidth	Degree		19°	17°	15°	13°	30°
Electrical Down tilt	Degree		T2° - T10°	T2° - T10°	T2° - T10°	T2° - T10°	T0°
Electrical Down tilt Deviation	Degree±		1.5	1.5	1.5	1.5	3.0
Impedance	Ohms		50				
VSWR	<		1.5				
Return Loss	dB±		14				
Isolation	dB±		25	25	25	25	22
Front to Back Ratio: Total Power +/-30°	dB±		27	27	27	27	25
Passive Intermodulation	dBc<		-153				N/A
Cross-Polar Discrimination	dB±		16	16	16	16	16
Maximum Effective Power Per Port	W		250	250	250	250	1

Radiation Pattern Files



1695 - 2690MHz

3.5GHz / 5.5GHz

Azimuth

Elevation

For radiation pattern files, please login at www.alpha-wireless.com

Canister

Panel

Small Cell

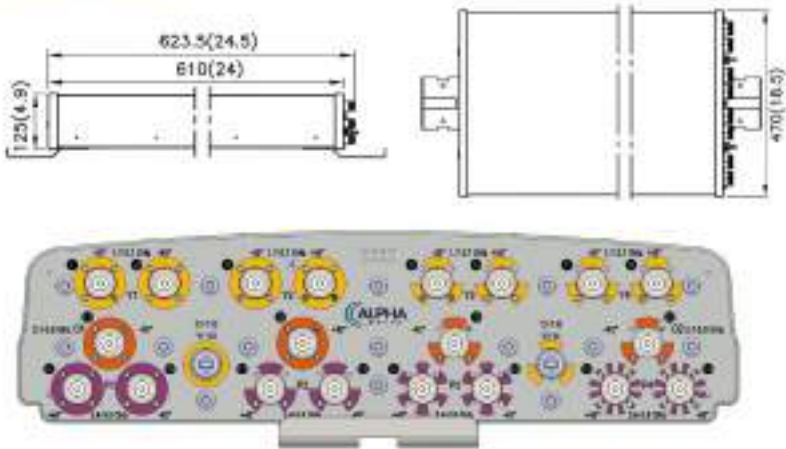
Concealment

TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	610 (24) x 470 (18.5) x 125 (4.9) (LxWxH)
Volume	ft ³ (l)	3.3 (38.8)
Packing Size (LxWxD)	mm (in)	800 (31.5) x 510 (20.1) x 190 (7.5)
Net Weight (antennas)	kg (lb)	10 (22)
Net Weight (mount)	kg (lb)	1.5 (3.3)
Shipping Weight	kg (lb)	11.5 (25.4)
Connector Type (Female)	-	A-3-10
Connector Position	-	Bottom
Connector Quantity	-	20 (8P Mid band, 8P High Band CBR5, 4P High Band LAA)
Windload Frontal (at Rated Wind Speed: 150km/h)	N	260 (59)
Windload Lateral (at Rated Wind Speed: 150km/h)	N	90 (20)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	ASA
Radome Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	Celsius (Fahrenheit)	-40 (-40)
Hot Temperature Survival	Celsius (Fahrenheit)	70 (158)

Mechanical Illustration



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-N-119 (Mounting Kit Included with Antenna)



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

ORDERING INFO

AW3689-M-F Manual Electrical Tilt with 4-3-35 connectors

Common Name: 18 Port Small Cell 65"- Low Band, Mid Band, CBRS & LAA

617-894 / 1695-2690 / 3400-3800 / 3150-5925MHz

Frequency	Ports	Tilt	MET	7/14/11	65"
				W	
				Class	Roaming (dB)

PRODUCT INFORMATION

This product design is intended to offer multiple ports across multiple bands. There are four Low Band ports, eight Mid Band Ports, four CBRS ports and two LAA ports. The Low Band extends down to the 617MHz band using wideband technology.

On Midband there is Mechanical Electrical Tilt adjustment. The eight Midband ports are split into two groups of four and tilt is controlled as per table below.

MET	Control
Tilt Screw 1	Ports 1 - 4
Tilt Screw 2	Ports 5 - 8

Low band, CBRS and LAA are Fixed Tilt.

Unit meets FCC Part 15.407 (a) (1) (i) for U-NI Band requirements.

APPLICATION

This Alpha Wireless multi-port multi-band small cell provides a solution where 24" height is important. This antenna has been designed for use in both Venue and Right of Way type deployments.

There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. A bracket that straps the antenna vertical to a pole comes as standard. This can be upgraded to a mount bracket that enables mechanical tilt if required.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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The parameters in this specification follow the definitions and recommendations per 3GPP R-16, Release 16.



FEATURES

- High Port count enabling multiple operators
- High Data rate frequency bands covered including Mid Band, CBRS and LAA.
- Low Band extends down to 617MHz
- Compact design for low visual impact.
- Variable Tilt on Midband only
- Meets current U-NI-1 requirements for gain and upper side lobe performance.
- Manufactured in Ireland.

Canister

Panel

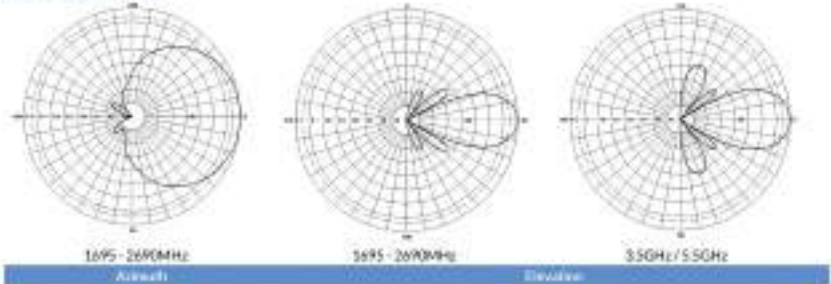
Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specification		Low Band				MM Band				3.5/5.5GHz	
Frequency Range per Type	MHz	617-636	684-713	713-824	824-834	1495-1595	1920-2170	2170-2320	2650-2690	3400-3600	5150-5825
Polarization		V - 45° Slant Upward									
Gain	dBi										
Min.Tilt	dBi	7.2(TB)	7.6(TB)	7.9(TB)	8.2(TB)	13.6(TB)	13.6(TB)	14.1(TB)	14.5(TB)	11(TB)	6(TB)
Max.Tilt	dBi	7.2(TB)	7.6(TB)	7.9(TB)	8.2(TB)	12.8(TB)	12.8(TB)	13.3(TB)	13.7(TB)	11(TB)	6(TB)
Max.Tilt	dBi	7.2(TB)	7.6(TB)	7.9(TB)	8.2(TB)	12.5(TB)	13.1(TB)	13.6(TB)	14.0(TB)	11(TB)	6(TB)
Overall Tilt	dBi	2.2	3.6	7.9	8.2	12.8	12.3	13.8	14.2	11	6
Aperture Beamwidth	Degree	75° ± 3°	72° ± 3°	70° ± 3°	66° ± 3°	66° ± 3°	66° ± 3°	62° ± 3°	58° ± 3°	50° ± 3°	17° ± 3°
Aperture Beam Skirt	Degree	5°	5°	5°	5°	5°	5°	5°	5°	5°	5°
Elevation Beamwidth	Degree	80° ± 3°	72° ± 3°	66° ± 3°	64° ± 3°	19° ± 3°	17° ± 3°	19° ± 3°	13° ± 3°	10° ± 3°	14° ± 3°
Electrical Down tilt	Degree	10°	10°	10°	10°	12°-110°	12°-110°	12°-110°	12°-110°	10°	10°
Electrical Down tilt	Degree	9°	9°	9°	9°	1.8	1.8	1.8	1.8	20	20
Deviation											
Impedance	Ohm	50	50	50	50	50	50	50	50	50	50
Insertion	dB	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Return Loss	dB	14	14	14	14	14	14	14	14	14	14
Isolation	dB	25	25	25	25	27	27	27	27	25	25
Passive Intermodulation	dBc	-155	-155	-155	-155	-155	-155	-155	-155	N/A	N/A
Cross Polar	dB	16	16	16	16	16	18	18	16	18	16
Distortion											
Maximum Effective Power Per Port	W	100	100	100	100	250	258	258	250	50	1

Radiation Pattern Files



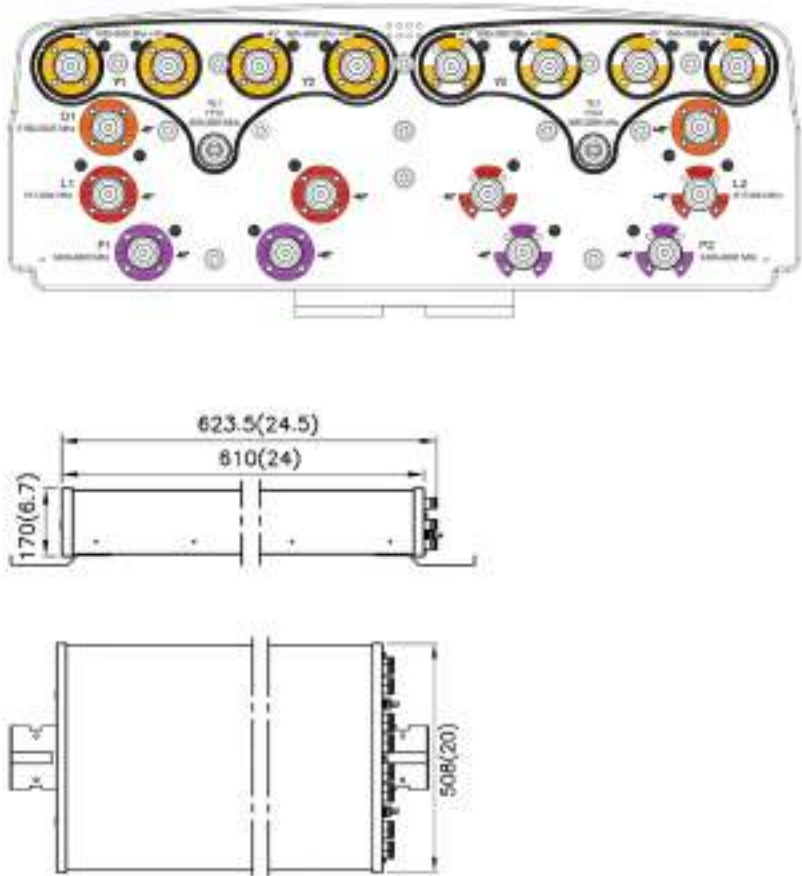
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	610 (24) x 508 (20) x 170 (6.7) - (LxWxH)
Packing Size (LxWxD)	mm (in)	800 (31.5) x 510 (20.1) x 200 (7.9)
Net Weight (antenna)	kg (lb)	12.5 (27.6)
Net Weight (mount)	kg (lb)	1.5 (3.3)
Shipping Weight	kg (lb)	1.4 (30.9)
Connector Type (Female)	-	4-3-10
Connector Position	-	Bottom
Connector Position Quantity	-	18 (4P Low band, 8P Mid band, 4P High band CBRS & 2P High Band LAA)
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	320 (190)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	110 (70)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	ASA Capped ABS
Radome Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightning Protection	-	DC Grounded
Cold Temperature Survival	Celsius (Fahrenheit)	-40 (-40)
Hot Temperature Survival	Celsius (Fahrenheit)	70 (158)

TECHNICAL SPECIFICATION

Mechanical Illustration



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-119 (Mounting Kit Included with Antenna)



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

ORDERING INFO

AW3724-M-E Mechanical Electrical TIR with 4.3-10 Connectors

Common Name: 24 Port Small Cell 65° - Low Band, Mid Band, CBRS & LAA

617-894 / 1695-2670 / 3400-3800 / 5150-5925MHz

24

eRET / 11/34/11

65°

Frequency Ports Tilt Gain Beamwidth

PRODUCT INFORMATION

This product design is intended to offer multiple ports across multiple bands. There are four Low Band ports, eight Mid Band Ports, eight CBRS ports and four LAA ports. The Low Band extends down to the 617MHz band using wideband technology.

On Midband there is Mechanical Electrical Tilt (MET) or Enclosed Remote Electrical Tilt (eRET) options. The eight Midband ports are split into two groups of four and tilt is controlled as per table below.

MET	eRET	Control
Tilt Screw 1	ASG Motor 1	Ports 1-4
Tilt Screw 2	ASG Motor 2	Ports 5-8

Low band, CBRS and LAA are Fixed Tilt.

Unit meets FCC Part 15.407 (a) (1) (i) for U-NII Band requirements.



APPLICATION

This Alpha Wireless multi-port multi-band small cell provides a solution where 48" height is important. This antenna has been designed for use in both Veeus and Right of Way type deployments.

There are a number of mounting options available making deployments on lamp posts, utility poles, walls and other vertical structures possible. A bracket that straps the antenna vertical to a pole comes as standard. This can be upgraded to a mount/bracket that enables mechanical tilt if required.

FEATURES

- High Port count enabling multiple operators
- High Data rate frequency bands covered including Mid Band, CBRS and LAA.
- Low Band extends down to 617MHz
- Compact design for low visual impact.
- Meets current U-NII-1 requirements for gain and upper side lobe performance.
- Variable tilt on Midband only
- MET or eRET options.
- Manufactured in Ireland.

STANDARD & CERTIFICATIONS

Certification BS EN ISO 9001:2015



The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 9.0.

Canister

Panel

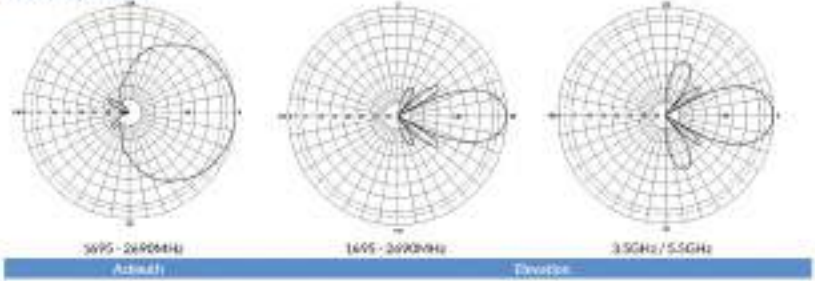
Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications		Low Band				Mid Band				5.5/5.5GHz	
Frequency Range (up)	MHz	657-685	685-755	755-834	834-894	1595-1995	1995-2170	2170-2500	2500-2670	3400-3800	5150-5925
Polarization		R-L 45° Band Linear									
Gain	dBi										
Min Tilt	dBi	10.5 (70)	10.7 (70)	11.0 (70)	11.7 (70)	13.0 (72)	13.6 (72)	14.1 (72)	14.5 (72)	11 (70)	6 (70)
Med Tilt	dBi	10.5 (70)	10.7 (70)	11.0 (70)	11.7 (70)	12.9 (71)	13.3 (71)	13.8 (71)	14.2 (71)	11 (70)	6 (70)
Max Tilt	dBi	10.5 (70)	10.7 (70)	11.3 (70)	11.7 (70)	12.6 (71)	13.1 (71)	13.4 (71)	14.0 (71)	11 (70)	6 (70)
Overall Tilt	dBi	18.2	30.7	11.3	11.7	32.8	33.3	33.8	34.2	15	8
Azimuth Beamwidth	Degree	18° ±0°	75° ±0°	60° ±7°	64° ±3°	60° ±7°	60° ±7°	62° ±7°	58° ±0°	60° ±0°	57° ±0°
Azimuth Beam Spd	Degree	3°	3°	3°	3°	3°	3°	3°	3°	3°	3°
Elevation Beamwidth	Degree	42° ±0°	37° ±0°	34° ±0°	32° ±0°	39° ±2°	37° ±0°	37° ±0°	37° ±0°	30° ±0°	26° ±0°
Electrical Downhill	Degree	39°	10°	13°	10°	12°-130°	12°-130°	12°-110°	12°-130°	19°	10°
Electrical Downhill	Degree	0°	3°	0°	3°	1.5	1.5	1.5	1.5	3.0	3.0
Distortion											
Impedance	dBm	90	90	90	90	90	90	90	90	90	90
SWR	dB	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Return Loss	dB	14	14	14	14	14	14	14	14	14	14
Isolation	dB	25	25	25	25	25	27	27	27	25	25
Harmonic Rejection	dB	-132	-132	-133	-133	-133	-133	-133	-133	-133	-133
Cross Polar	dB	35	14	18	36	18	18	35	18	15	18
Distortion											
Maximum Effective Power Per Port	W	200	180	300	180	250	250	250	250	90	1

Radiation Pattern Files



TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1219 (48) x 508 (20) x 170 (6.7) – (LxWxH)
Packing Size (LxWxD)	mm (in)	1270 (50) x 510 (20.1) x 200 (7.9)
Net Weight (Antenna)	kg (lb)	12.5 (27.6)
Net Weight (mount)	kg (lb)	1.5 (3.3)
Shipping Weight	kg (lb)	14 (30.9)
Connector Type (Female)	-	4-3-10
Connector Position	-	Bottom
Connector Position-Quantity	-	24 (4P Low band, 8P Mid band, 8P High band CBRS & 4P High Band LAA)
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb)	591 (133)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb)	183 (30.9)
Survival Wind Speed	km/h (mph)	300 (125)
Radome Material	-	ASA Capped ABS
Radome Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	Celsius (Fahrenheit)	-40 (-40)
Hot Temperature Survival	Celsius (Fahrenheit)	70 (158)

Canister

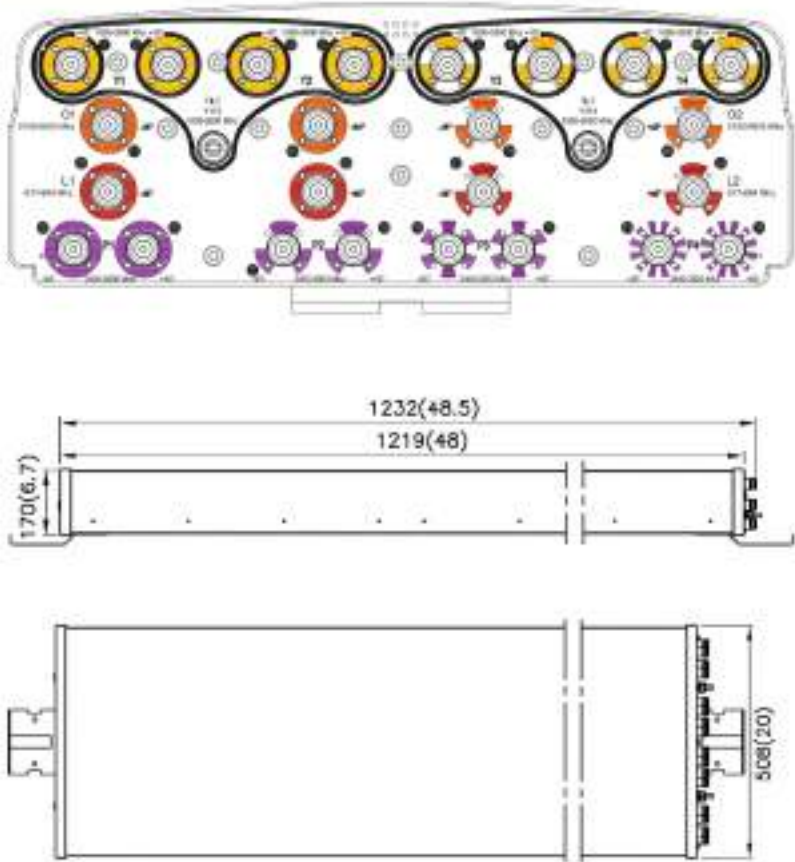
Panel

Small Cell

Concealment

TECHNICAL SPECIFICATION

Mechanical Illustration



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-119 (Mounting Kit included with Antenna)



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

ORDERING INFO

- AW3725-M-F

Mechanical Electrical Tilt with 4.3-10 Connectors
- AW3725-E-F

Encoiled Remote Electrical Tilt with 4.3-10 Connectors

CONCEALMENT

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. The capacity and the ability to contour coverage with Band 41 makes it ideal for network densification. Network access points will be closer to where subscribers live, work and play. The CONCEALMENT set of solutions are designed to fit discreetly into its surroundings having a low visual impact on the community. These solutions will enable mobile network operators to reduce site planning and approval times, increase access to sites not accessible via the traditional approach, allow faster deployments therefore reducing costs.

		Frequency	Ports	Tilt	Gain	Beamwidth	
+	AW3610-S1-G	2496-2690MHz	4	MET	10.0	360°	PG 2 - 5
+	AW3611-S1-G	2496-2690MHz	2	MET	10.0	360°	PG 6 - 9
+	AW3612-S1-G	2496 - 2690MHz	4	eRET	10.0	360°	PG 10 - 13
+	AW3658-S-G	2496 - 2690MHz	4	Fixed	8.2	360°	PG 14 - 18

Canister

Panel

Small Cell

Concealment

Common Name- 4 Port B41 - CAN - MET

2496-2690MHz	4	MET	10.0	360°
Frequency	Ports	Tx	Gain	Beamwidth

PRODUCT INFORMATION

Solution was created to address many deployment related issues within the mini macro deployment program. Key objective was to provide an integrated solution that would easily meet zoning and deployment requirements. This solution meets those criteria and reduces both CAPEX and deployment time by more than 50%.

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.



STANDARD & CERTIFICATIONS

Certification BS EN ISO 9001:2015



FEATURES

- Optimised for 3GPP band 38 & 41
- 4x4 MIMO for maximum throughput
- Independent tilt control across 6-Sectors
- Integrated GPS Antenna

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

Canister

Panel

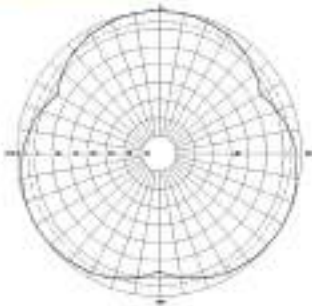
Small Cell

Concealment

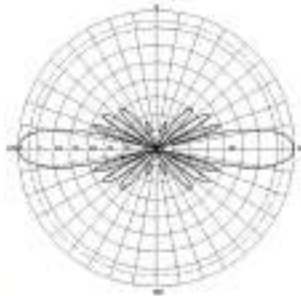
TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2495 - 2690MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
Overall Tilts	dBi	10°
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>	26
Passive Intermodulation	dBc<	-150
Upper SideLobe Suppression, Peak to 20°	dB>	38
Cross-Polar Discrimination	dB>	12
Maximum Effective Power Per Port	W	50

Radiation Pattern Files



Azimuth



Elevation

For radiation pattern files, please login at www.alpha-wireless.com

Canister

Panel

Small Cell

Concealment

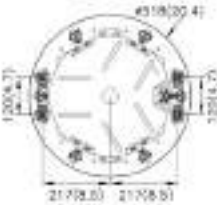
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions (LxW)	mm (in)	1600 (62.9) x 520 (20.5)
Volume	lit (ft)	10.9 (304)
Packing Size (LxWxD)	mm (in)	1350 (53.1) x 590 (23.2) x 590 (23.2)
Net Weight (Antenna)	kg (lb)	52 (115)
Shipping Weight	kg (lb)	55 (121)
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)	650 (147)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	650 (147)
Survival Wind Speed	km/h (mph)	200 (125)
Radiance Material	-	UV-Stabilised ABS
Radiance 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)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

Small Cell

Concealment

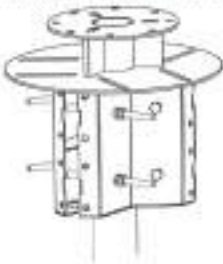
TECHNICAL SPECIFICATION

Electrical Power Specification

Power Requirement	VAC/Amp	110 - 120V 20
Main Breaker	Amp	20
Fan Breaker	Amp	1
Mini Macro Radio	Amp	7
Microwave Radio	Amp	5
Surge Protection	VAC/Amp	150V / 40KA

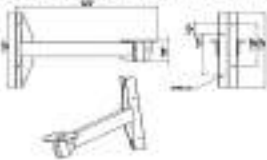
Mounting Bracket Kit

CL-V-128 (Mounting Kit included with Antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
0°	Stainless Steel	3" - 12"

CL-V-134 - CAN Standoff Mounting Bracket (Optional)



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

ORDERING INFO

AW3610-S1-G	Manual Electrical Tilt (MET), Four 4.3/10 Connectors, Integrated GPS
CL-V-134	CAN Standoff Mounting Bracket - Optional

Canister

Panel

Small Cell

Concealment

Common Name: 2 Port B41 - CAN - MET

2496-2690MHz	2	MET	10.0	360°
FREQUENCY	Ports	T1E	Gain	Beamwidth

PRODUCT INFORMATION

Solution was created to address many deployment related issues within the mini macro deployment program. Key objective was to provide an integrated solution that would easily meet zoning and deployment requirements. This solution meets those criteria and reduces both CAPEX and deployment time by more than 50%.

APPLICATION

Traditional mobile networks were designed for voice call continuity and principally relied on macro sites. The seemingly insatiable demand for data requires call 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.



STANDARD & CERTIFICATIONS

Certification: BSEN ISO 9001:2015



FEATURES

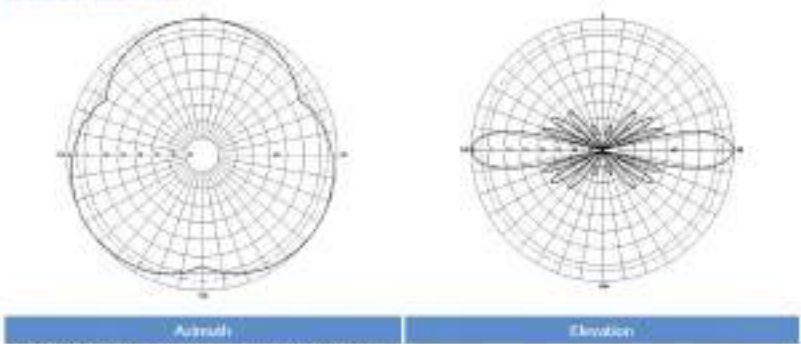
- Optimized for 3GPP band 38 & 41
- Dual Cross polarization antenna +/- 45°
- Independent tilt control across 3-sectors
- Integrated GPS Antenna

The parameters in this specification follow the definitions and recommendations per 3GPP R-15, Release 15.

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2496 ~ 2690MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
Over all Tilt	dB	10
Azimuth Beamwidth	Degree	360°
Elevation Beamwidth	Degree	12°
Electrical Down tilt	Degree	T0° ~ T14°
Electrical Down tilt Deviation	Degree	1°
Impedance	Ohms	50
VSWR	*	1.43
Return Loss	dB	15
Isolation	dB	28
Passive Intermodulation	dBc	-150
Upper Side lobe Suppression, Peak to 20°	dB	18
Cross-Polar Discrimination	dB	12
Maximum Effective Power Per Port	W	50

Radiation Pattern Files



For radiation pattern files, please login at www.alpha-wireless.com

Canister

Panel

Small Cell

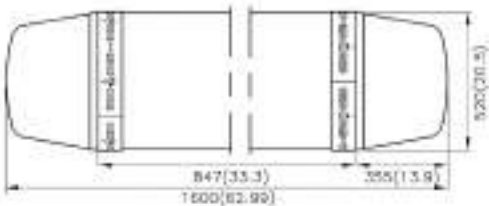
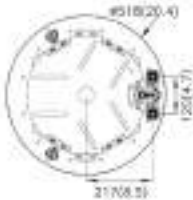
Concealment

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions (LxW)	mm (in)	1600 (62.9) x 520 (20.5)
Volume	lit (l)	10.9 (304)
Packing Size (LxWxD)	mm (in)	1350 (53.1) x 550 (21.6) x 550 (21.6)
Net Weight (antenna)	kg (lb)	45.5 (100)
Shipping Weight	kg (lb)	53 (117)
Connector Type (Female)	-	Mini DIN and N Type GPS
Connector Quantity	-	3 (2 x Mini DIN & 1 x N Type GPS)
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lb)	650 (147)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb)	650 (147)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilized ABS
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)

Mechanical Illustration

All measurements are in mm (in)



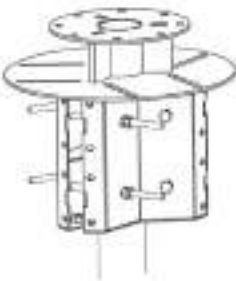
TECHNICAL SPECIFICATION

Electrical Power Specification

Power Requirement	VAC/Amp	110-120 / 20
Main Breaker	Amp	20
Fan Breaker	Amp	1
Mini Macro Radio	Amp	7
Microwave Radio	Amp	5
Surge Protection	VAC/Amp	150V / 40KA

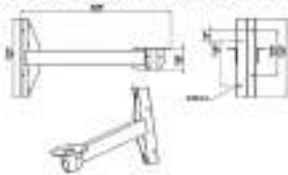
Mounting Bracket Kit

CL-V-129 (Mounting Kit included with Antenna)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
0°	Stainless Steel	3" - 12"

CL-V-134 - CAN Standoff Mounting Bracket (Optional)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
0°	Stainless Steel	3" - 12"

ORDERING INFO

AW3611-S1-G	Manual Electrical Tilt (MET) with Two Mini DIN Connectors, Integrated GPS.
CL-V-134	CAN Standoff Mounting Bracket - Optional

Canister

Panel

Small Cell

Concealment

Common Name- 4 Port B41 - CAN - eRET

2495 - 2690MHz	4	eRET	100	360°
Receiving	Ports	Tx	Gain	Beamwidth

PRODUCT INFORMATION

Solution was created to address many deployment related issues within the mini macro deployment program. Key objective was to provide an integrated solution that would easily meet zoning and deployment requirements. This solution meets those criteria and reduces both CAPEX and deployment time by more than 50%.

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 minimise 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.

STANDARD & CERTIFICATIONS

Certification	BS EN/ISO 9001:2015
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FEATURES

- Optimised for SCPP band 36 & 41
- 4x4 MIMO for maximum throughput
- Independent tilt control across 6-sectors
- Integrated GPS Antenna
- AISG 2.0 compatible

The parameters in this specification follow the definitions and recommendations per 3GPP TS 36.101, Release 9.0.

Canister

Panel

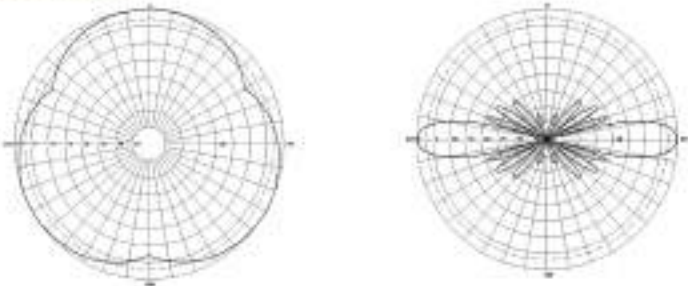
Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2496 - 2690MHz
Polarization	Degree	+/- 45° Slant Linear
Gain		
Overall Tilt	dB	10
Azimuth Beamwidth	Degree	360°
Elevation Beamwidth	Degree	12°
Electrical Down tilt	Degree	T0° - T14°
Electrical Down tilt Deviation	Degree	1°
Impedance	Ohm	50
VSWR	=	1.43
Return Loss	dB	15
Isolation	dB	28
Passive Intermodulation	dBc	-130
Upper Side lobe Suppression, Peak to 20°	dB	18
Cross-Polar Discrimination	dB	12
Maximum Effective Power Per Port	W	50

Radiation Pattern Files



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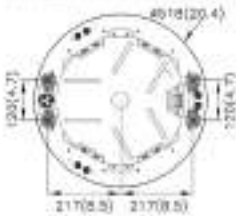
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions (LxØ)	mm (in)	1600(62.9) x 520 (20.5)
Volume	ft ³ (l)	50.9 (204)
Packing Size (LxWxD)	mm (in)	1350 (53.1) x 550 (21.6) x 550 (21.6)
Net Weight (antenna)	kg (lb)	52 (115)
Shipping Weight	kg (lb)	55 (121)
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 (lb/f)	650 (147)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb/f)	650 (147)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilized ABS
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)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

Small Cell

Concealment

Common Name- 4 Port B41 - rCAN

2496-2690MHz	4	Fixed	8.2	360°
Frequency	Ports	F.R.	Gain	Rotation(dB)

PRODUCT INFORMATION

Solution was created to comply with FCC OTARD requirements to accelerate mini macro deployments on rooftop locations. Key objective was to provide an integrated solution one metre or less which would be easily and quickly deployable. This solution meets those criteria as well as reduces both CAPEX and deployment time by more than 50%.

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.



STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Optimised for 3GPP band 30 & 41
- Compact design for low visual impact
- Rooftop deployment option
- Integrated GPS Antenna

The parameters in this specification follow the definitions and recommendations per 3GPP P-Serial, Release 9.0.

Canister

Panel

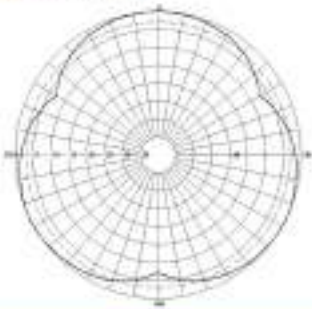
Small Cell

Concealment

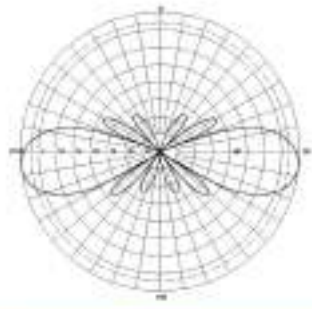
TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2495 - 2690MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
	Over all Tilts	dBi
		8.2
Azimuth Beamwidth	Degree	360°
Elevation Beamwidth	Degree	14°
Electrical Down tilt	Degree	16°
Electrical Down tilt 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

Radiation Pattern Files



Azimuth



Elevation

For radiation pattern files, please log on to www.alpha-wireless.com

Canister

Panel

Small Cell

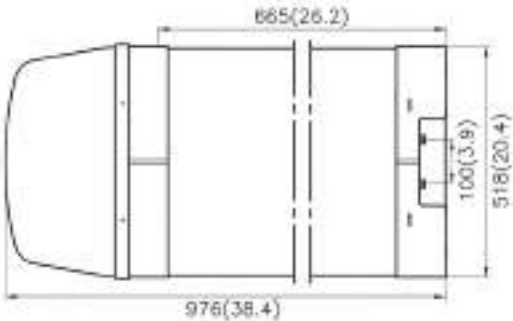
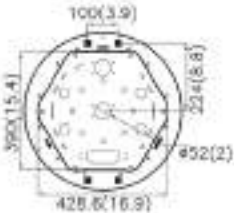
Concealment

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions (LxW)	mm (in)	976 (38.4) x 518 (20.4)
Volume	ft ³ (l)	7.1 (201)
Packing Size (LxWxD)	mm (in)	1030 (40.5) x 525 (20.7) x 525 (20.7)
Net Weight (antenna)	kg (lb)	41 (90)
Shipping Weight	kg (lb)	42 (92)
Connector Type (Female)	-	Mini DIN 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 (lb/ft)	395 (90)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lb/ft)	395 (90)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilized ABS
Radome Colour	RAL	7003
Product Compliance Environmental	-	RoHS
Lightning Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

Small Cell

Concealment

CL-V-135 - rCAN reduced size SKID (Optional)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
0°	Stainless Steel	50mm-115mm (2" to 4.5")

ORDERING INFO

AW3658-S-G	Six Degrees Fixed Tilt with 4 Mini Din Connectors, Integrated GPS
CL-V-133	rCAN full size skid - Optional
CL-V-135	rCAN Standoff Mounting Bracket - Optional
CL-V-135	rCAN reduced size skid - Optional



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