ALPHA WIRELESS

... Changing the way wireless networks are built

WISP CATALOG

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

Alpha Wireless, an Irish company that designs and manufactures antenna solutions which are affordable, and carrier deployed globally.

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

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.

Mounting Accessories
Mounting accessories for the installation of Panel Antennas supporting pole installations.

Find out more about us at: alphawireless.com

Catalogue Issue 03/2019

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

Antennas and Product Families

Panel

	Frequency	Ports	Tilt	Gain	Beamwidth	
AW3003	2300-2700MHz	2	Fixed	18.0	65°	PG 11 - 14
AW3004	2300-2700MHz	2	Fixed	17.0	90°	PG 15 - 18
AW3007	2300-2700MHz	4	Fixed	18.0	65°	PG 19 - 22
AW3008	2300-2700MHz	4	Fixed	17.0	90°	PG 23 - 26
AW3014	3300-3800MHz	2	Fixed	18.0	65°	PG 27 - 30
AW3015	3300-3800MHz	2	Fixed	17.0	90°	PG 31 - 34
AW3023	3300-3800MHz	4	Fixed	18.0	65°	PG 35 - 38
AW3035	3300-3800MHz	4	Fixed	17.0	90°	PG 39 - 42
AW3056	3300-3800MHz	2	Fixed	19.5	45°	PG 43 - 46
AW3159	3300-3800MHz	2	MET	17.0	65°	PG 47 - 50
AW3160	3300-3800MHz	2	MET	16.0	90°	PG 51 - 54
AW3161	3300-3800MHz	4	MET/ eRET	17.0	65°	PG 55 - 58
AW3162	3300-3800MHz	4	MET	16.0	90°	PG 59 - 62
AW3163	2300-2700MHz	2	MET	17.0	65°	PG 63 - 66

Panel

	Frequency	Ports	Tilt	Gain	Beamwidth	
AW3164	2300-2700MHz	2	MET	16.0	90°	PG 67 - 70
AW3165	2300-2700MHz	4	MET	17.0	65°	PG 71 - 74
AW3166	2300-2700MHz	4	MET	16.0	90°	PG 75 - 78
AW3170	3300-3800MHz	2	Fixed	20.5	33°	PG 79 - 82
AW3193	2496-2690MHz	4	eRET	17.7	65°	PG 83 - 86
AW3206	2300 - 2700MHz // 3300 - 3800MHz	4	MET	17.5	65°	PG 87 - 90
AW3232	3300-3800MHz	2	Fixed	15.5	120°	PG 91 - 94
AW3254	2300-2700MHz // 3300-3800MHz	8	MET	17.0	65°	PG 95 - 98
AW3266	2496-2690MHz	8	RCU external	16.5	90°	PG 99 - 102
AW3286	2496-2690MHz	2	eRET	17.7	65°	PG 103 - 106
AW3295	2496-2690MHz	4	eRET	16.2	90°	PG 107 - 110
AW3296	2496-2690MHz	2	eRET	16.2	90°	PG 111 - 114
AW3375	3300 - 3800MHz	8	eRET	16.0	72°	PG 115 - 118
AW3376	3400-3800MHz	8	eRET	15.5	90°	PG 119 - 122

Panel

	Frequency	Ports	Tilt	Gain	Beamwidth	
AW3378	2496 - 2690MHz	8	eRET	16.5	65°	PG 123 - 126
AW3452	3300-3800MHz	4	eRET	19.2	33°	PG 127 - 130
AW3463	698-960MHz	2	Fixed	12.0	65°	PG 131 - 134
AW3647	3300-3800MHz	4	Fixed	19.5	33°	PG 135 - 138
AW3677	2300-2700MHz / 3300-3800MHz	4	Fixed	16.5/ 17.2	65°	PG 139 - 142
AW3697	3300-3800MHz / 4900-5950MHz	8	Fixed	17.0	65°	PG 143 - 146

Small Cell

	Frequency	Ports	Tilt	Gain	Beamwidth	
AW3088	2300-2700MHz	2	Fixed	11.0	360°	PG 149 - 152
AW3089	3300-3800MHz	2	Fixed	11.0	360°	PG 153 - 156
AW3348	2496–2690MHz	2	Fixed	12.5	65°	PG 157 - 160
AW3372	3300-3800MHz	2	Fixed	12.5	65°	PG 161 - 164
AW3373	3300-3800MHz	2	Fixed	11.0	90°	PG 165 - 168
AW3374	3400-3800MHz	2	Fixed	7.0	360°	PG 169 - 172

Small Cell

	Frequency	Ports	Tilt	Gain	Beamwidth	
AW3387	1710 - 2690MHz	2	Fixed	12.5	65°	PG 173 - 176
AW3388	1710-2690MHz	2	Fixed	6.7	360°	PG 177 - 180
AW3397	1710 - 2690MHz	4	Fixed	12.2/ 12.7	65°	PG 181 - 184
AW3398	1710-2690MHz	4	Fixed	6.6/ 6.9	360°	PG 185 - 188
AW3477-S1-G	2496-2690MHz	2	MET	8.5	360°	PG 189 - 192
AW3499	3400-3800MHz	4	Fixed	6.5	360°	PG 193 - 196
AW3613-S1-G	2496-2690MHz	4	MET	8.5	360°	PG 197 - 200
AW3625	3300-3800MHz	2	MET	8.5	360°	PG 201 - 204
AW3639	1695-2690/3400 -3800/5150-5925MHz	8	eRET	14/ 11/5	65°	PG 205 - 208
AW3672	3400-3800MHz	4	MET	8.5	360°	PG 209 - 212
AW3675	2496-2690Mhz	2	MET	11.5	65°	PG 213 - 217
AW3689	1695-2690/3400-3800 /5150-5925MHz	20	MET	14/ 11/6	65°	PG 216 - 221
AW3724	617-894/1695-2690/ 3400-3800/5150-5925MHz	18	MET	7/14 /11/6	65°	PG 222 - 226
AW3725	617-894/1695-2690/ 3400-3800/5150-5925MHz	24	eRET/ MET	7/14 /11/6	65°	PG 227 - 231

Mounting Accessories

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 11 - 14
AW3004	2300-2700MHz	2	Fixed	17.0	90°	PG 15 - 18
AW3007	2300-2700MHz	4	Fixed	18.0	65°	PG 19 - 22
AW3008	2300-2700MHz	4	Fixed	17.0	90°	PG 23 - 26
AW3014	3300-3800MHz	2	Fixed	18.0	65°	PG 27 - 30
AW3015	3300-3800MHz	2	Fixed	17.0	90°	PG 31 - 34

	Frequency	Ports	Tilt	Gain	Beamwidth	
AW3023	3300-3800MHz	4	Fixed	18.0	65°	PG 35 - 38
AW3035	3300-3800MHz	4	Fixed	17.0	90°	PG 39 - 42
AW3056	3300-3800MHz	2	Fixed	19.5	45°	PG 43 - 46
AW3159	3300-3800MHz	2	MET	17.0	65°	PG 47 - 50
AW3160	3300-3800MHz	2	MET	16.0	90°	PG 51 - 54
AW3161	3300-3800MHz	4	MET/ eRET	17.0	65°	PG 55 - 58
AW3162	3300-3800MHz	4	MET	16.0	90°	PG 59 - 62
AW3163	2300-2700MHz	2	MET	17.0	65°	PG 63 - 66
AW3164	2300-2700MHz	2	MET	16.0	90°	PG 67 - 70
AW3165	2300-2700MHz	4	MET	17.0	65°	PG 71 - 74
AW3166	2300-2700MHz	4	MET	16.0	90°	PG 75 - 78
AW3170	3300-3800MHz	2	Fixed	20.5	33°	PG 79 - 82
AW3193	2496-2690MHz	4	eRET	17.7	65°	PG 83 - 86
AW3206	2300 - 2700MHz // 3300 - 3800MHz	4	MET	17.5	65°	PG 87 - 90

	Frequency	Ports	Tilt	Gain	Beamwidth	
AW3232	3300-3800MHz	2	Fixed	15.5	120°	PG 91 - 94
AW3254	2300-2700MHz // 3300-3800MHz	8	MET	17.0	65°	PG 95 - 98
AW3266	2496-2690MHz	8	RCU external	16.5	90°	PG 99 - 102
AW3286	2496-2690MHz	2	eRET	17.7	65°	PG 103 - 106
AW3295	2496-2690MHz	4	eRET	16.2	90°	PG 107 - 110
AW3296	2496-2690MHz	2	eRET	16.2	90°	PG 111 - 114
AW3375	3300 - 3800MHz	8	eRET	16.0	72°	PG 115 - 118
AW3376	3400-3800MHz	8	eRET	15.5	90°	PG 119 - 122
AW3378	2496 - 2690MHz	8	eRET	16.5	65°	PG 123 - 126
AW3452	3300-3800MHz	4	eRET	19.2	33°	PG 127 - 130
AW3463	698-960MHz	2	Fixed	12.0	65°	PG 131 - 134
AW3647	3300-3800MHz	4	Fixed	19.5	33°	PG 135 - 138
AW3677	2300-2700MHz / 3300-3800MHz	4	Fixed	16.5/ 17.2	65°	PG 139 - 142
AW3697	3300-3800MHz / 4900-5950MHz	8	Fixed	17.0	65°	PG 143 - 146

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

2300-2700MHz	2	Fixed	18.0	65º
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

RoHS COMPLIANT

CE

FEATURES

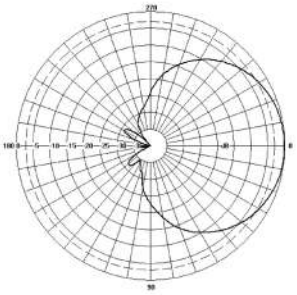
- Wide-band antenna for 3GPP bands 38, 40 & 41
- Dual Cross polarization antenna +/- 45º
- Mounting bracket with variable tilt
- Manufactured in Ireland

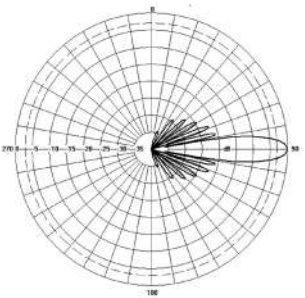
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2300-2700MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain	dBi	18
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>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	150

Radiation Pattern Files





Azimuth	Elevation

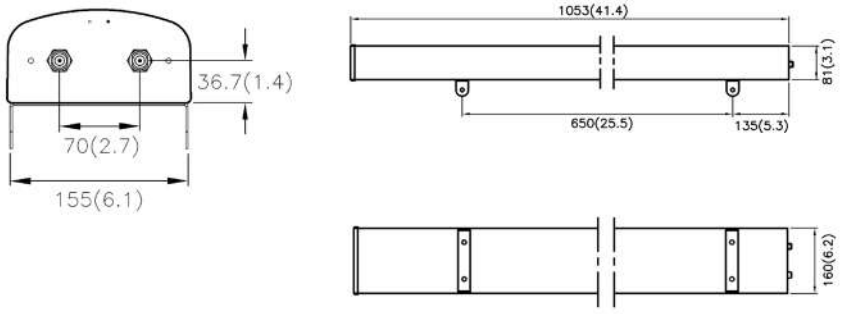
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	1053 (41.4) x 160 (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 (lbf)	210 (48)
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	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

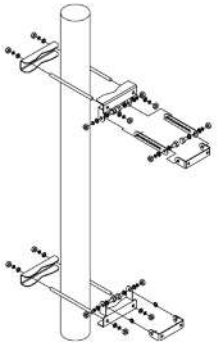
All measurements are in mm (in)

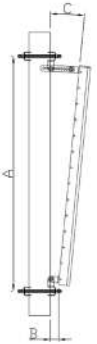


TECHNICAL SPECIFICATION

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

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

RoHS COMPLIANT

CE

FEATURES

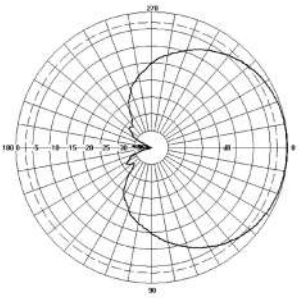
- Wide-band antenna for 3GPP bands 38, 40 & 41
- Dual Cross polarization antenna +/- 45°
- Mounting bracket with variable tilt (included)
- Manufactured in Ireland

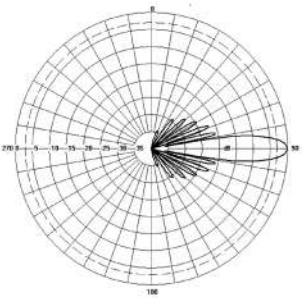
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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 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>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	150

Radiation Pattern Files





Azimuth	Elevation

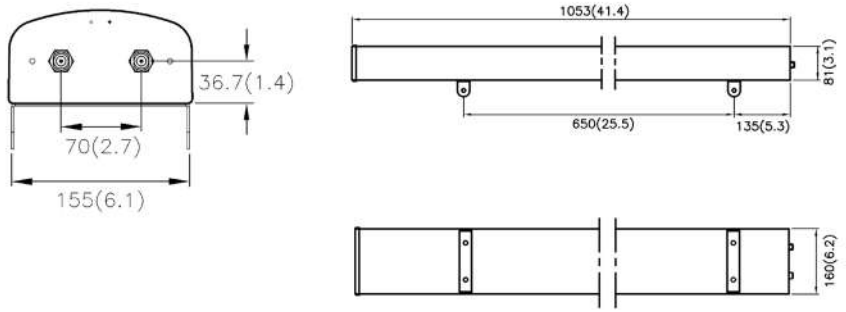
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	1053 (41.4) x 160 (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 (lbf)	210 (48)
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	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

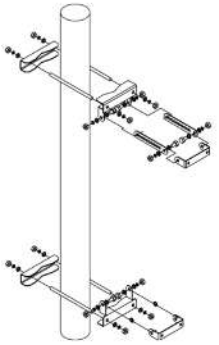
All measurements are in mm (in)

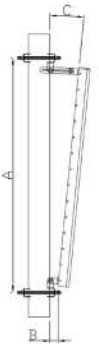


TECHNICAL SPECIFICATION

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 - 65º

2300-2700MHz	4	Fixed	18.0	65º
Frequency	Ports	Tilt	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	BS EN ISO 9001:2015

FEATURES

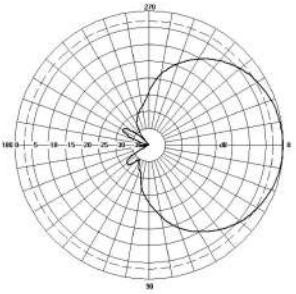
- Wide-band antenna for 3GPP bands 38, 40 & 41
- 4x4 MIMO for maximum throughput
- Mounting bracket with variable tilt (included)
- Manufactured in Ireland

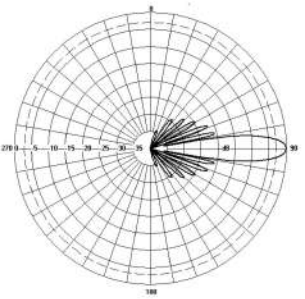
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2300-2700MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	18.0
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>	25
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

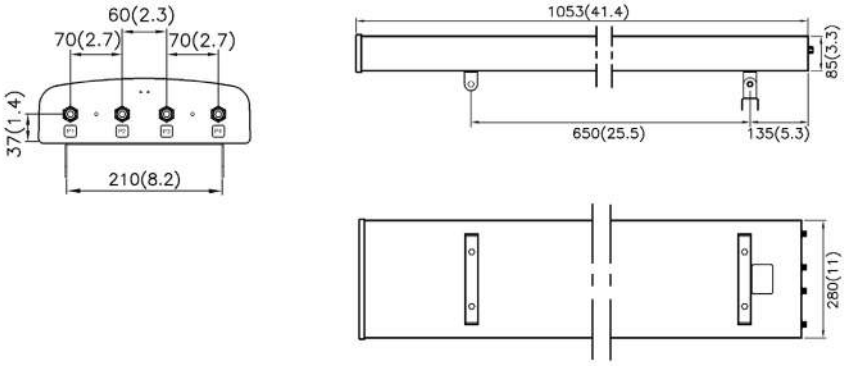
For radiation pattern files, please login at www.alphawireless.com

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 (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
Lightning Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

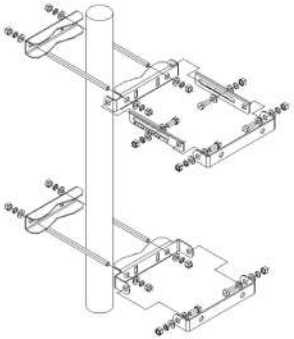
All measurements are in mm (in)



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-T0-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°

2300-2700MHz	4	Fixed	17.0	90°
Frequency	Ports	Tilt	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

RoHS COMPLIANT

CE

FEATURES

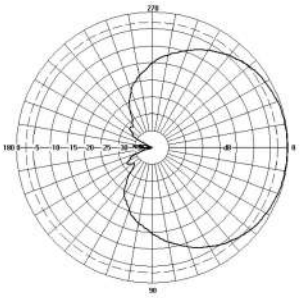
- Wide-band antenna for 3GPP bands 38, 40 & 41
- 4x4 MIMO for maximum throughput
- Mounting bracket with variable tilt (included)
- Manufactured in Ireland

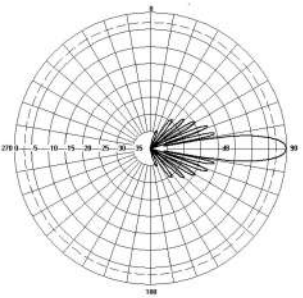
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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 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>	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

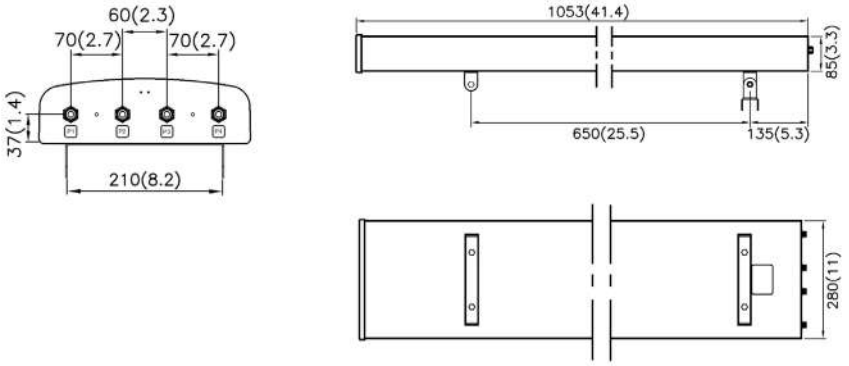
For radiation pattern files, please login at www.alphawireless.com

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 (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
Lightning Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

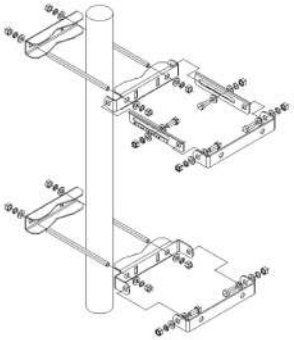
All measurements are in mm (in)



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

AW3008-T0-N	Zero Degrees Fixed Tilt with N Type Connectors
AW3008-T4-N	Four Degrees Fixed Tilt with N Type Connectors

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

3300-3800MHz	2	Fixed	18.0	65º
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

RoHS COMPLIANT CE

FEATURES

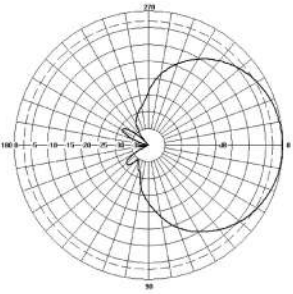
- Wide-band antenna for 3GPP bands 42, 43 & 48.
- Dual Cross polarization antenna +/- 45º
- Mounting bracket with variable tilt (included)
- Manufactured in Ireland

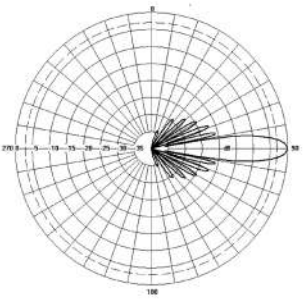
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	3300-3800MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	18.0
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>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	100

Radiation Pattern Files





Azimuth	Elevation

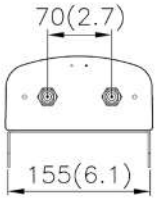
For radiation pattern files, please login at www.alphawireless.com

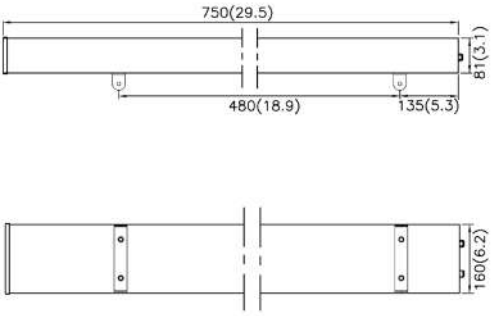
TECHNICAL SPECIFICATION

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(94) 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)
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)

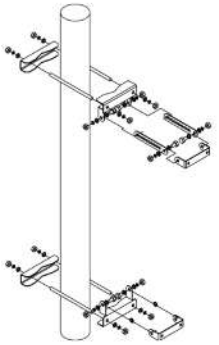


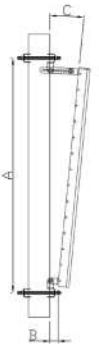


TECHNICAL SPECIFICATION

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

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 - 90º

3300-3800MHz	2	Fixed	17.0	90º
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

RoHS COMPLIANT CE

FEATURES

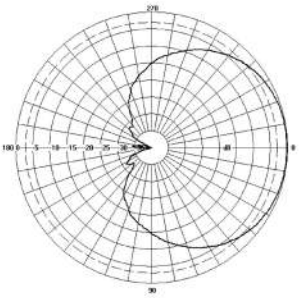
- Wide-band antenna for 3GPP bands 42, 43 & 48.
- Dual Cross polarization antenna +/- 45º
- Mounting bracket with variable tilt (included)
- Manufactured in Ireland

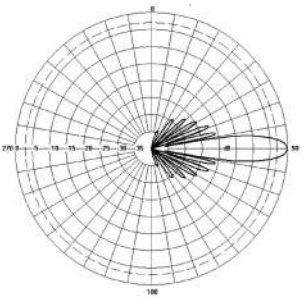
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	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 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>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	100

Radiation Pattern Files





Azimuth	Elevation

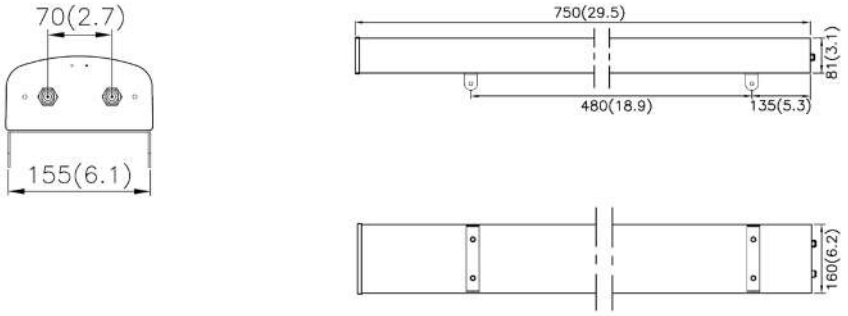
For radiation pattern files, please login at www.alphawireless.com

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)
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

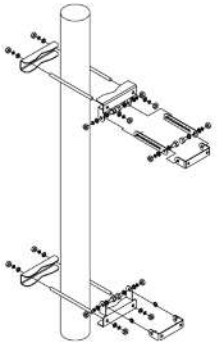
All measurements are in mm (in)

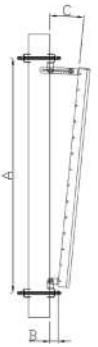


TECHNICAL SPECIFICATION

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

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 - 65º

3300-3800MHz	4	Fixed	18.0	65º
Frequency	Ports	Tilt	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

RoHS COMPLIANT

CE

FEATURES

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

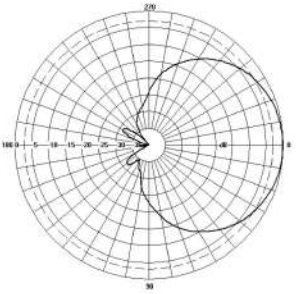
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

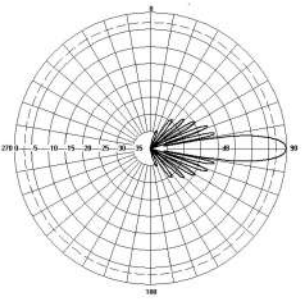
TECHNICAL SPECIFICATION

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°
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>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	100

Radiation Pattern Files





Azimuth	Elevation

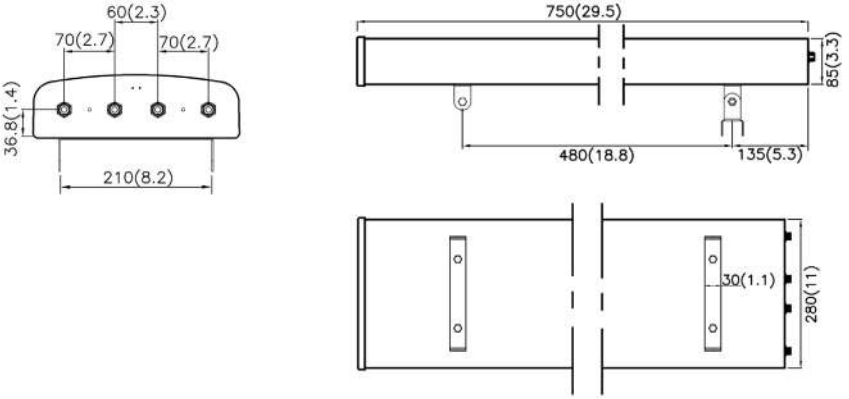
For radiation pattern files, please login at www.alphawireless.com

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)	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 (lbf)	220 (50)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	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

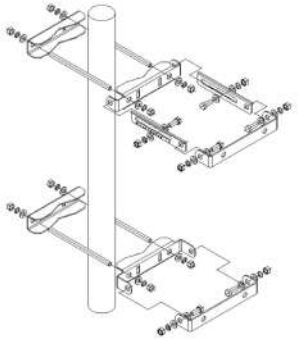
All measurements are in mm (in)

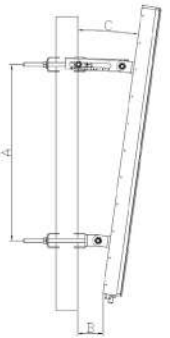


TECHNICAL SPECIFICATION

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

AW3023-T0-N	Zero Degrees Fixed Tilt with N Type Connectors
AW3023-T4-N	Four Degrees Fixed Tilt with N Type Connectors

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

3300-3800MHz	4	Fixed	17.0	90°
Frequency	Ports	Tilt	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

RoHS COMPLIANT

CE

FEATURES

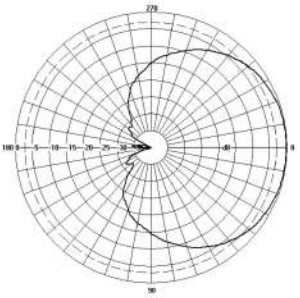
- Wide-band antenna for 3GPP bands 42, 43 & 48.
- 4x4 MIMO for maximum throughput
- Mounting bracket with variable tilt (included)
- Manufactured in Ireland

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

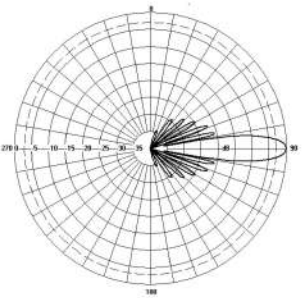
TECHNICAL SPECIFICATION

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 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>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	100

Radiation Pattern Files



Azimuth



Elevation

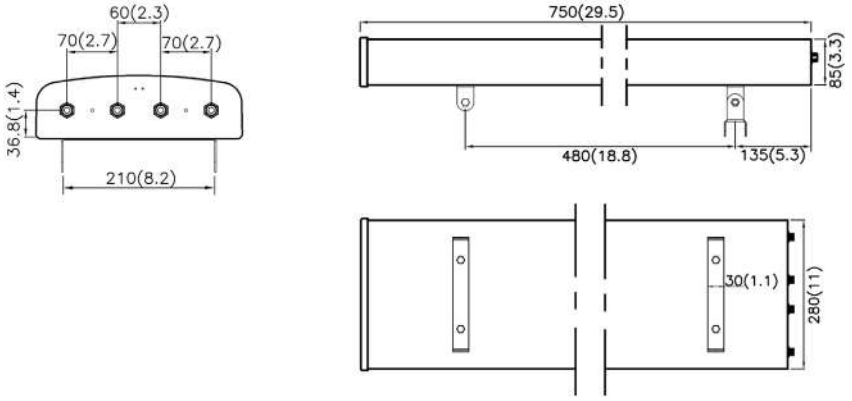
For radiation pattern files, please login at www.alphawireless.com

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)	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 (lbf)	220 (50)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	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

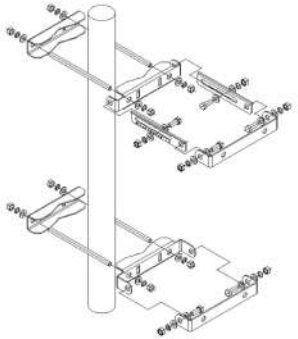
All measurements are in mm (in)



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

AW3035-T0-N	Zero Degrees Fixed Tilt with N Type Connectors
AW3035-T4-N	Four Degrees Fixed Tilt with N Type Connectors

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

3300-3800MHz	2	Fixed	19.5	45º
Frequency	Ports	Tilt	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 patterns 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

RoHS COMPLIANT CE

FEATURES

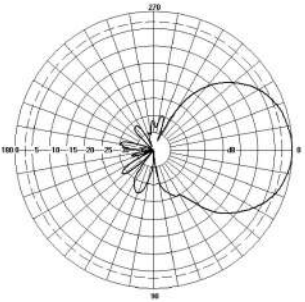
- Wide-band antenna for 3GPP bands 42, 43 & 48.
- Dual Cross polarization antenna +/- 45º
- Narrow Azimuth beam to increase site capacity
- Mounting bracket with variable tilt

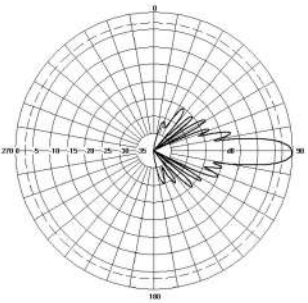
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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 Downtilt	Degree	T0°
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>	30
Upper Sidelobe Suppression, Peak to 20°	dB>	17
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

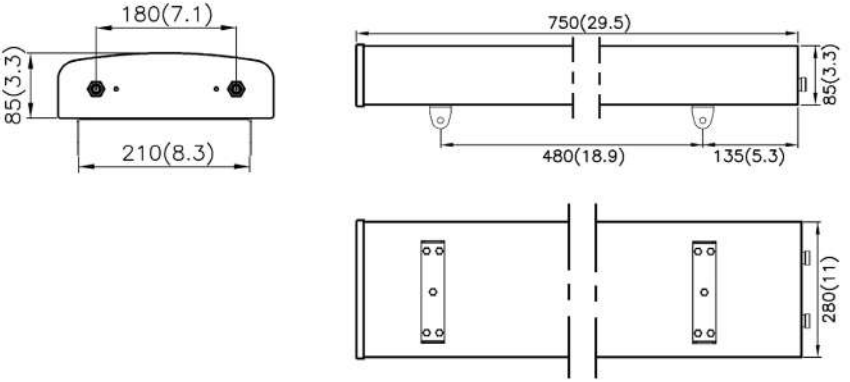
TECHNICAL SPECIFICATION

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)
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

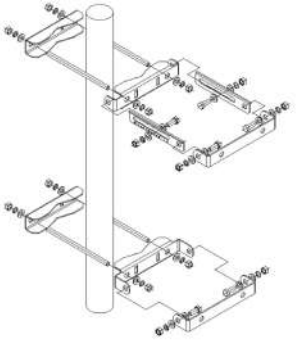
All measurements are in mm (in)

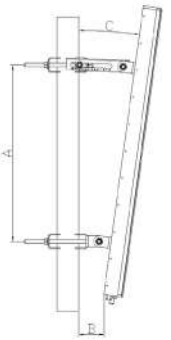


TECHNICAL SPECIFICATION

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

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

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

3300-3800MHz	2	MET	17.0	65º
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

FEATURES

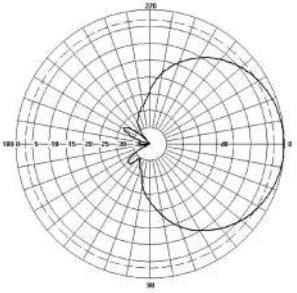
- Wide-band antenna for 3GPP bands 42, 43 & 48.
- Dual Cross polarization antenna +/- 45º
- Enhanced tilt range of 0 to 10 degrees
- Manufactured in Ireland

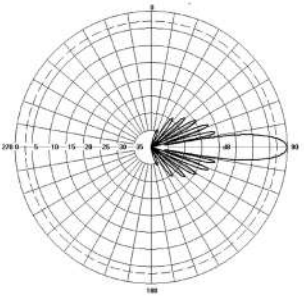
The paramenters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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 (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 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 +/-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

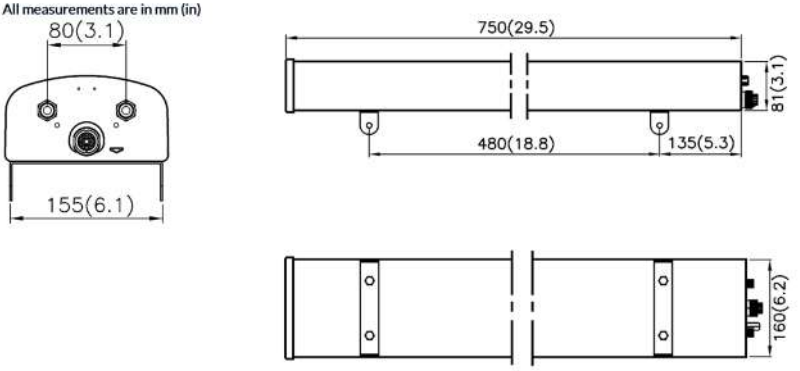
For radiation pattern files, please login at www.alphawireless.com

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)
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

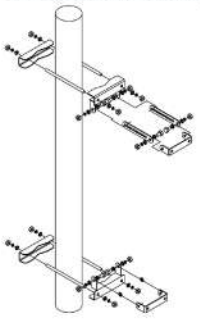
All measurements are in mm (in)



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

AW3159-M-N Manual Electrical Tilt (MET) with N Type Connectors

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

3300-3800MHz	2	MET	16.0	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

RoHS COMPLIANT CE

FEATURES

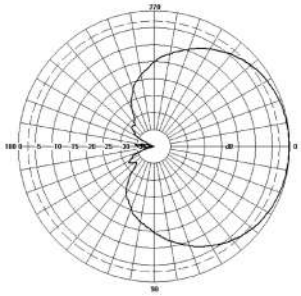
- Wide-band antenna for 3GPP bands 42, 43 & 48.
- Dual Cross polarization antenna +/- 45°
- Enhanced tilt range of 0 to 10 degrees
- Manufactured in Ireland

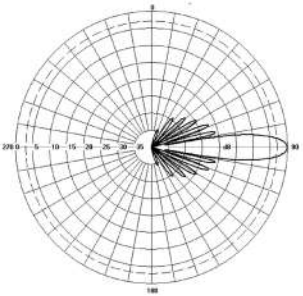
The paramenters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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 Tilts	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	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

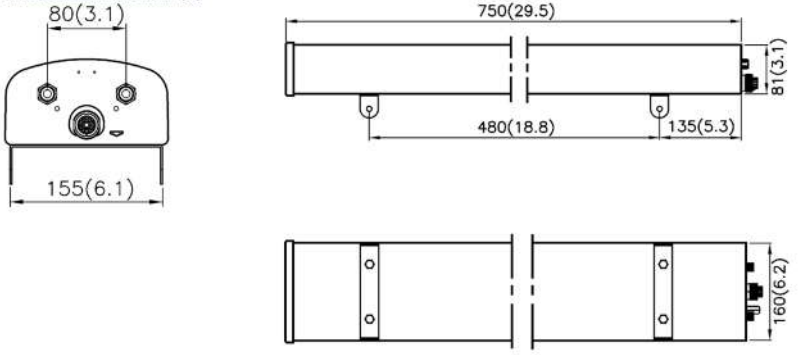
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	750 (29.5) x 160 (6.2) x 81 (3.1) - (LxWxD)
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)
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

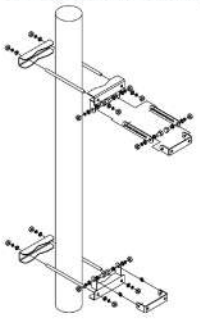
All measurements are in mm (in)



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

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

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

3300-3800MHz	4	MET / eRET	17.0	65º
Frequency	Ports	Tilt	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

FEATURES

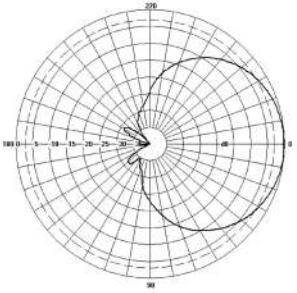
- Wide-band antenna for 3GPP bands 42, 43 & 48.
- 4x4 MIMO for maximum throughput.
- Enhanced tilt range of 0 to 10 degrees.

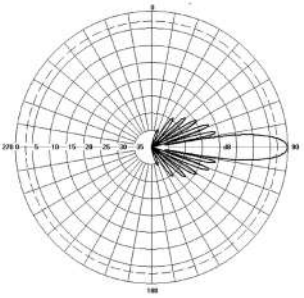
The paramenters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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 (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 Downtilt	Degree	T0° - T10°
Electrical Downtilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	<	1.5
Return Loss	dB>	14
Isolation	dB>	25
Front to Back Ratio: Total Power +/-30°	dB>	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

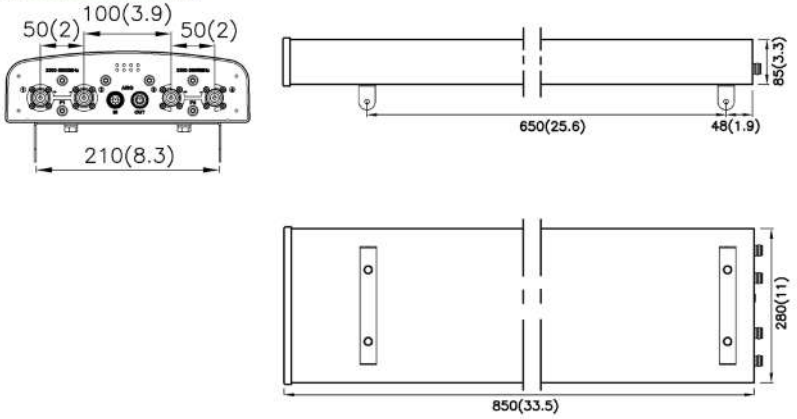
For radiation pattern files, please login at www.alphawireless.com

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
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)	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

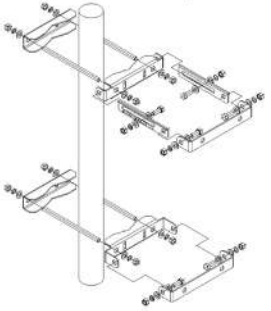
All measurements are in mm (in)



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.

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

3300-3800MHz	4	MET	16.0	90°
Frequency	Ports	Tilt	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

FEATURES

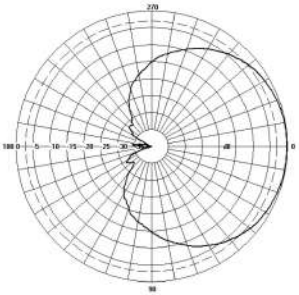
- Wide-band antenna for 3GPP bands 42, 43 & 48.
- 4x4 MIMO for maximum throughput
- Enhanced tilt range of 0 to 10 degrees
- Manufactured in Ireland

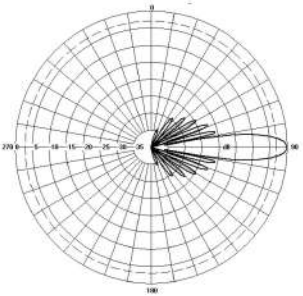
The paramenters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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 Tilts	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	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

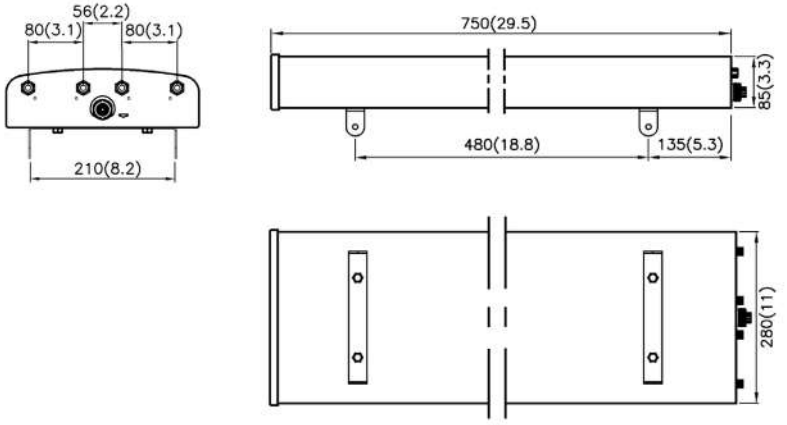
TECHNICAL SPECIFICATION

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)	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

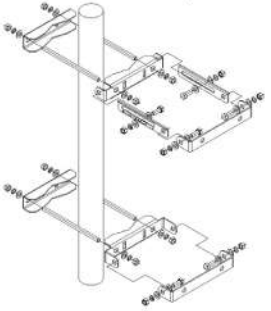
All measurements are in mm (in)



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

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

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

2300-2700MHz	2	MET	17.0	65º
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

FEATURES

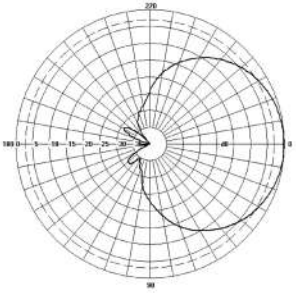
- Wide-band antenna for 3GPP bands 38, 40 & 41
- Dual Cross polarization antenna +/- 45º
- Enhanced tilt range of 0 to 10 degrees
- Manufactured in Ireland

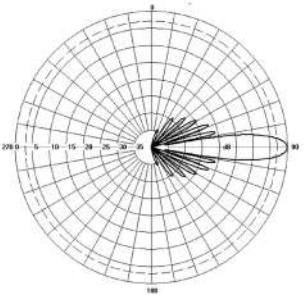
The paramenters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2300 - 2700MHz
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 Tilts	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<	1°
Impedance	Ohms	50
VSWR	<	1.5
Return Loss	dB>	14
Isolation	dB>	27
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

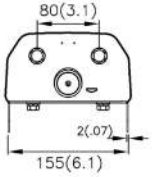
For radiation pattern files, please login at www.alphawireless.com

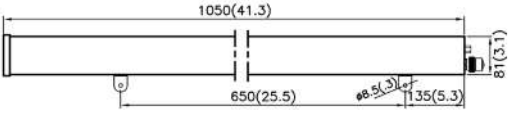
TECHNICAL SPECIFICATION

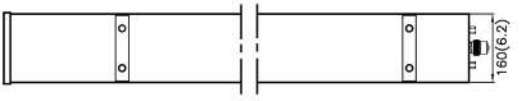
Mechanical Specifications		
Dimensions	mm (in)	1050 (41.3) x 160 (6.2) x 81 (3.1) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1123 (44.4) x 240 (9.4) x 178 (7)
Net Weight (antenna)	kg (lb)	8 (17.6)
Net Weight (mount)	kg (lb)	1.4 (3.1)
Shipping Weight	kg (lb)	9.4 (20.7)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	210 (48)
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	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)



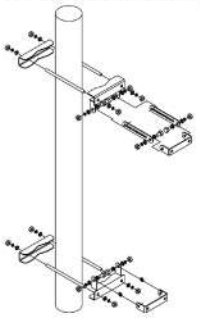




TECHNICAL SPECIFICATION

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

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

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

2300-2700MHz	2	MET	16.0	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

FEATURES

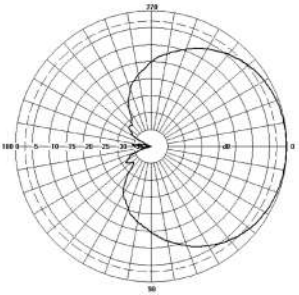
- Wide-band antenna for 3GPP bands 38, 40 & 41
- Dual Cross polarization antenna +/- 45°
- Enhanced tilt range of 0 to 10 degrees
- Manufactured in Ireland

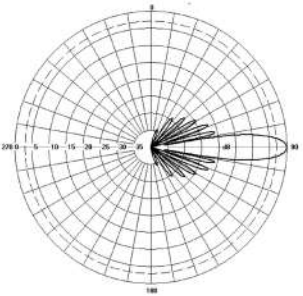
The paramenters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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 (T10)
Overall Tilts	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	dB>	14
Isolation	dB>	25
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

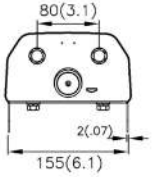
TECHNICAL SPECIFICATION

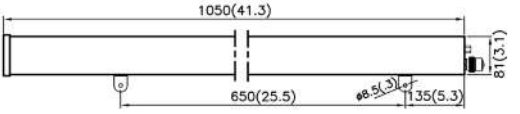
Mechanical Specifications

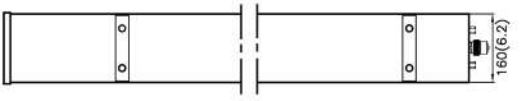
Dimensions	mm (in)	1050 (41.3) x 160 (6.2) x 81 (3.1) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1123 (44.4) x 240 (9.4) x 178 (7)
Net Weight (antenna)	kg (lb)	9 (19.8)
Net Weight (mount)	kg (lb)	1.4 (3.1)
Shipping Weight	kg (lb)	10.4 (22.9)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	210 (48)
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	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)



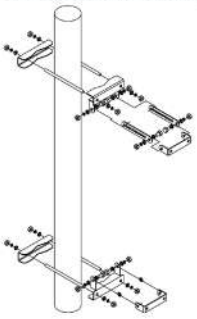


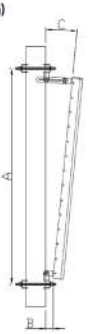


TECHNICAL SPECIFICATION

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

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

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

2300-2700MHz	4	MET	17.0	65°
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. 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

FEATURES

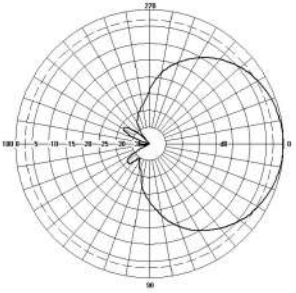
- Wide-band antenna for 3GPP bands 38, 40 & 41
- 4x4 MIMO for maximum throughput
- Enhanced tilt range of 0 to 10 degrees
- Manufactured in Ireland

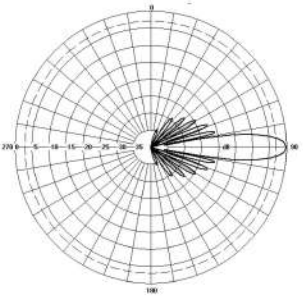
The paramenters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2300 - 2700MHz
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 Tilts	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<	1°
Impedance	Ohms	50
VSWR	<	1.5
Return Loss	dB>	14
Isolation	dB>	27
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

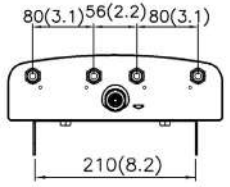
For radiation pattern files, please login at www.alphawireless.com

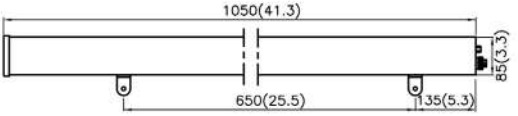
TECHNICAL SPECIFICATION

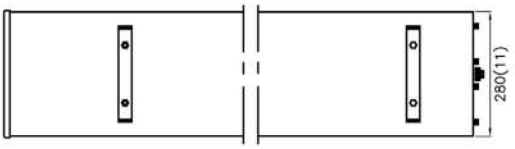
Mechanical Specifications		
Dimensions	mm (in)	1050 (41.3) x 280 (11) x 85 (3.3) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1320 (52) x 240 (9.4) x 178 (7)
Net Weight (antenna)	kg (lb)	9 (19.8)
Net Weight (mount)	kg (lb)	1.5 (3.4)
Shipping Weight	kg (lb)	10.5 (23.21)
Connector Type (Female)	-	N Type
Connector 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)



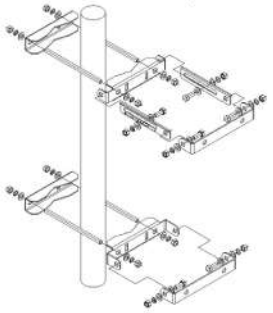




TECHNICAL SPECIFICATION

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

AW3165-M-N Manual Electrical Tilt (MET) with N Type Connectors

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

2300-2700MHz	4	MET	16.0	90°
Frequency	Ports	Tilt	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

FEATURES

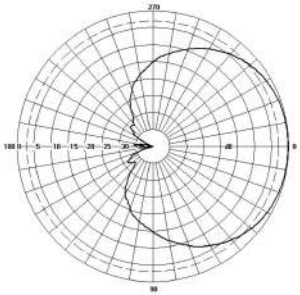
- Wide-band antenna for 3GPP bands 38, 40 & 41
- 4x4 MIMO for maximum throughput
- Enhanced tilt range of 0 to 10 degrees
- Manufactured in Ireland

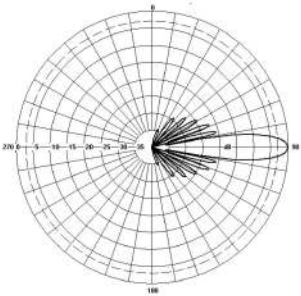
The paramenters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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 (T10)
Overall Tilts	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	dB>	14
Isolation	dB>	25
Front to Back Ratio: Total Power +/-30°	dB>	30
Upper Sidelobe Suppression, Peak to 20°	dB>	16
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	150

Radiation Pattern Files





Azimuth	Elevation

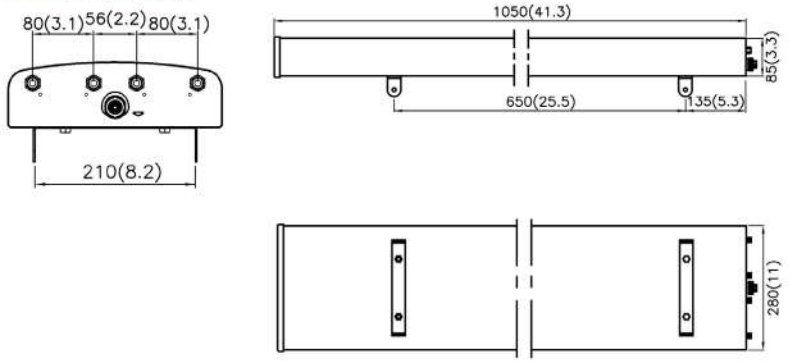
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	1050 (41.3) x 280 (11) x 85 (3.3) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1123 (44.4) x 240 (9.4) x 178 (7)
Net Weight (antenna)	kg (lb)	10 (22)
Net Weight (mount)	kg (lb)	1.5 (3.41)
Shipping Weight	kg (lb)	11.5 (25.41)
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

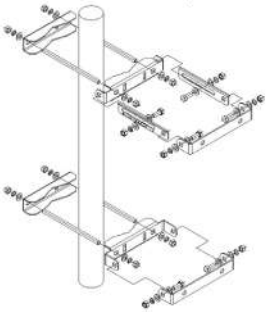
All measurements are in mm (in)



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

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

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

3300-3800MHz	2	Fixed	20.5	33º
Frequency	Ports	Tilt	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	BS EN ISO 9001:2015

RoHS COMPLIANT

CE

FEATURES

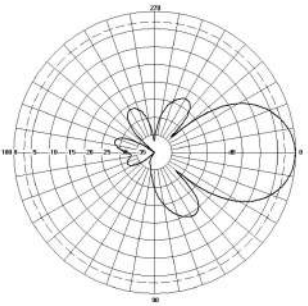
- Wide-band antenna for 3GPP bands 42, 43 & 48
- Dual Cross polarization antenna +/- 45º
- Narrow Azimuth beam to increase site capacity
- Mounting bracket with variable tilt

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

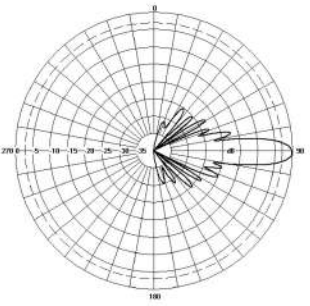
TECHNICAL SPECIFICATION

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 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>	17
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	100

Radiation Pattern Files



Azimuth



Elevation

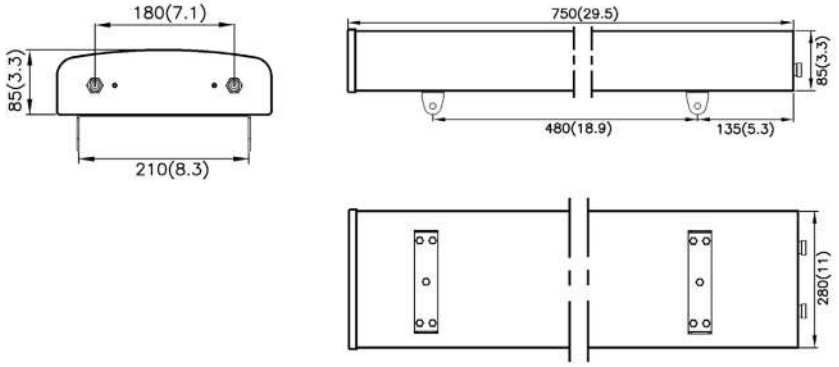
For radiation pattern files, please login at www.alphawireless.com

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)	793 (31.2) x 340 (13.3) x 178 (7)
Net Weight (antenna)	kg (lb)	6 (13.2)
Net Weight (mount)	kg (lb)	1.5 (3.41)
Shipping Weight	kg (lb)	7.5 (16.61)
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)
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

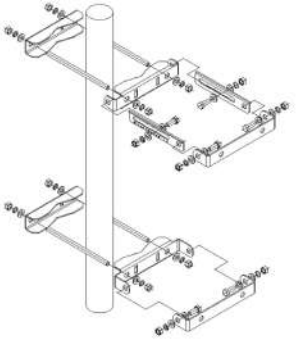
All measurements are in mm (in)



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

AW3170-T0-N	Zero Degrees Fixed Tilt with N Type Connectors
AW3170-T4-N	Four Degrees Fixed Tilt with N Type Connectors

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 optimization to improve coverage and throughput.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015

RoHS COMPLIANT

CE

FEATURES

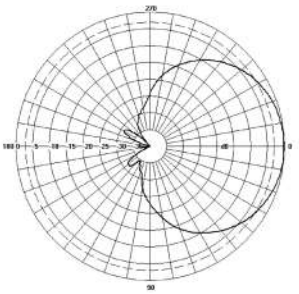
- Optimised for 3GPP band 38 & 41
- 4x4 MIMO for maximum throughput
- Enhanced tilt range of 0 to 6 degrees
- AISG 2.0 compatible

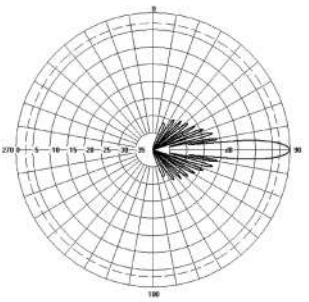
The paramenters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2496 - 2690MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
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 Downtilt	Degree	T0° - T6°
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>	28
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

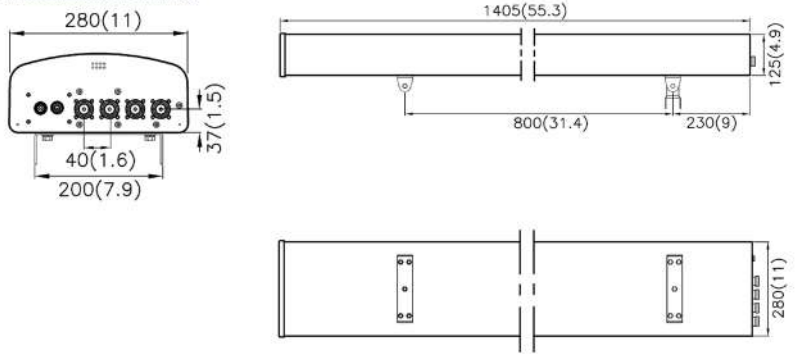
For radiation pattern files, please login at www.alphawireless.com

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)	12.5 (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)	230 (52)
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

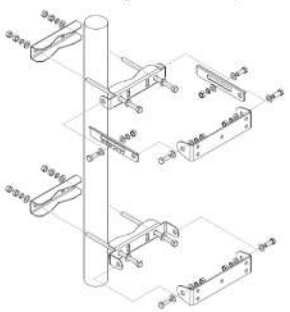
All measurements are in mm (in)

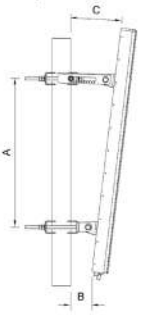


TECHNICAL SPECIFICATION

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
+1° to -7°	Stainless Steel	50mm-115mm (2" to 4.5")

ACCESSORIES

PADC-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

Frequency	Ports	Tilt	Gain	Beamwidth
2300 - 2700MHz // 3300 - 3800MHz	4	MET	17.5	65°

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

FEATURES

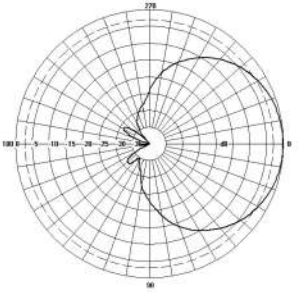
- Multi-band antenna - 2300-2700/3300-3800MHz
- Dual cross polarization antenna +/-45°
- LTE TDD Carrier grade aggregation ready
- Enhanced tilt range of 0 to 10 degrees

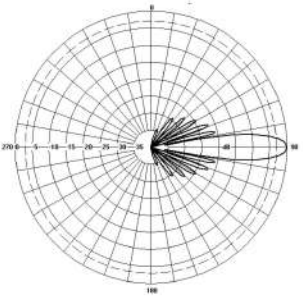
The paramenters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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	17.1 (T6)	17.1 (T6)
Overall Tilt	dBi	17.5	17.5
Azimuth Beamwidth	Degree	65°	
Azimuth Beam Squint	Degree<	3°	
Elevation Beamwidth	Degree	7°	
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

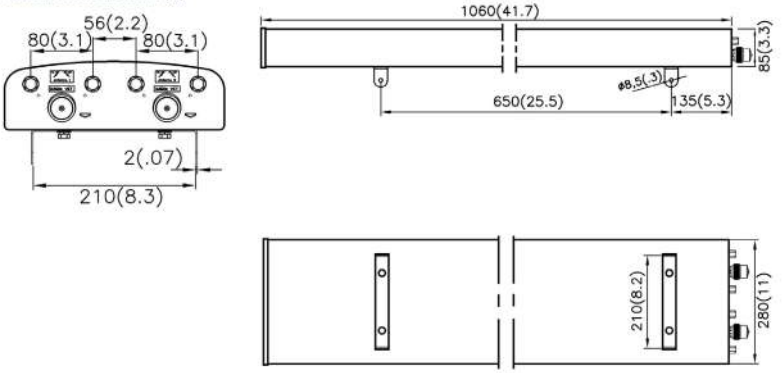
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	1060 (41.7) x 280 (11) x 85 (3.3)- (LxWxH)
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)	10.5 (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 (lbf)	330 (75)
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

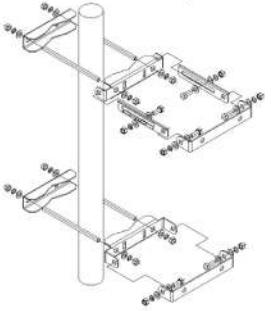
All measurements are in mm (in)



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

AW3206-M-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 fixed 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

RoHS COMPLIANT

CE

FEATURES

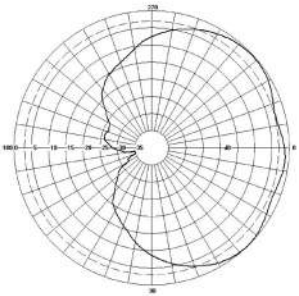
- Wide-band antenna for 3GPP bands 42, 43 & 48.
- Dual Cross polarization antenna +/- 45°
- Mounting bracket with variable tilt
- Manufactured in Ireland

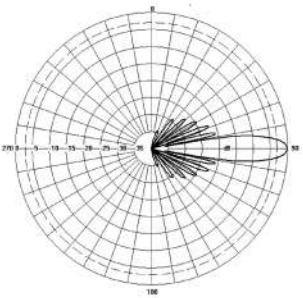
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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	7°
Electrical Downtilt	Degree	T0° or T4°
Electrical Downtilt 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 Sidelobe Suppression, Peak to 20°	dB>	17
Cross-Polar Discrimination	dB>	12
Maximum Effective Power Per Port	W	100

Radiation Pattern Files





Azimuth	Elevation

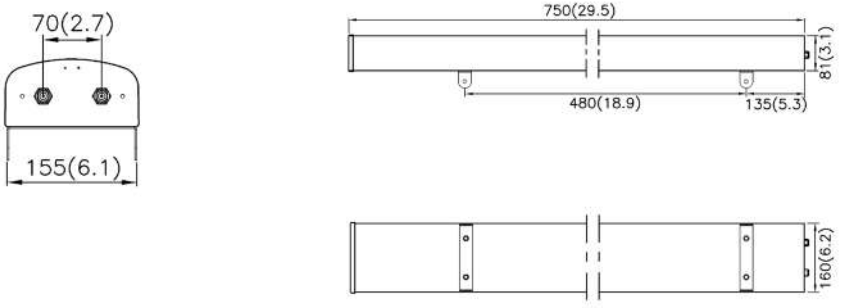
For radiation pattern files, please login at www.alphawireless.com

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)	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

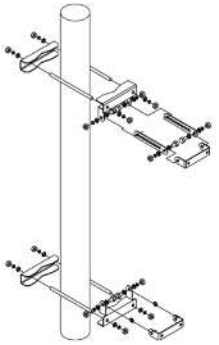
All measurements are in mm (in)

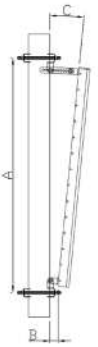


TECHNICAL SPECIFICATION

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 - 65º - MET

2300-2700MHz//3300-3800MHz	8	MET	17.0	65º
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

RoHS COMPLIANT

CE

FEATURES

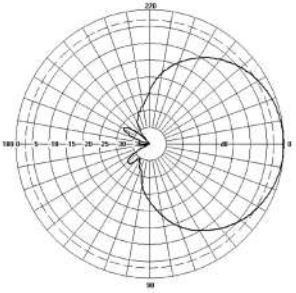
- Multi-band antenna - 2300-2700/3300-3800MHz
- 4x4 MIMO for maximum throughput
- LTE TDD Carrier aggregation ready
- Enhanced tilt range of 0 to 10 degrees

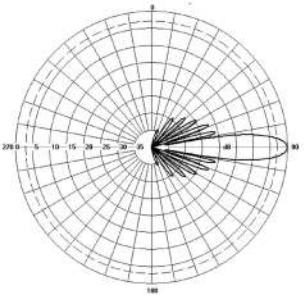
The paramenters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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 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

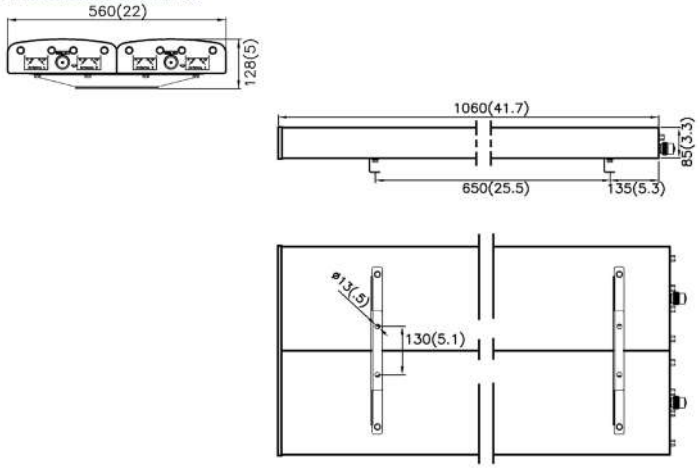
For radiation pattern files, please login at www.alphawireless.com

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 (lbf)	620 (140)
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

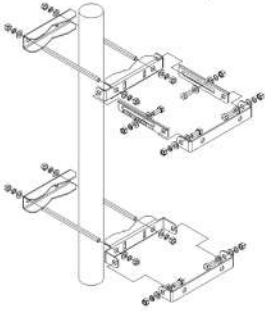
All measurements are in mm (in)



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

Common Name- 8 Port Beamformer - B41 - 90º

Frequency	Ports	Tilt	Gain	Beamwidth
2496-2690MHz	8	RCU-external	16.5	90

PRODUCT INFORMATION

Introduced into Sprints 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 90º 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 port operation with all the radio vendors.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015

FEATURES

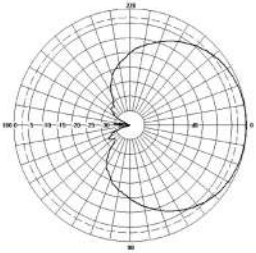
- Optimised for 3GPP band 38 & 41
- Designed to work with any Radio vendor at TM8
- AISG 2.0 compatible
- Manufactured in Ireland

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

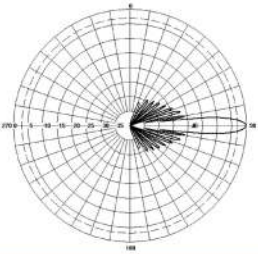
TECHNICAL SPECIFICATION

Electrical Specifications			
Frequency Range		MHz	2496 - 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 Downtilt		Degree	T0° - T6°
Electrical Downtilt Deviation		Degree <	1°
Impedance		Ohms	50
VSWR		<	1.43
Return Loss		dB >	15
Isolation		dB >	23
Front to Back Ratio: Total Power +/-30°		dB >	27
Upper Sidelobe Suppression, Peak to 20°		dB >	18
Cross-Polar Discrimination		dB >	15
Maximum Effective Power Per Port		W	150

Radiation Pattern Files



Azimuth



Elevation

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

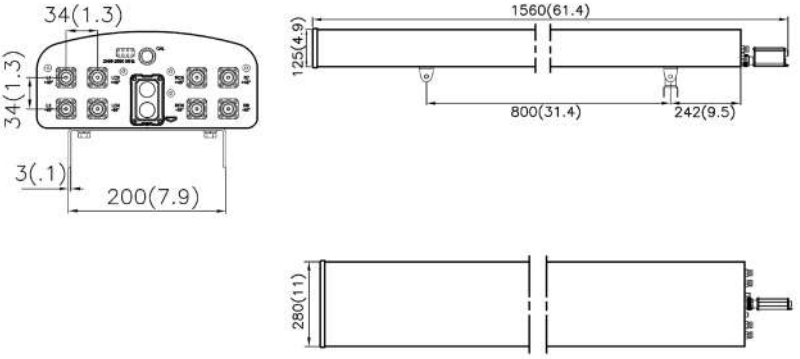
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	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 (lbf)	480 (108)
Windload 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	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

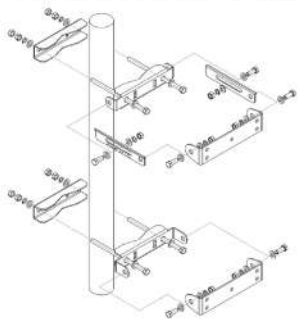
All measurements are in mm (in)

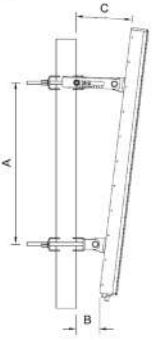


TECHNICAL SPECIFICATION

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	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

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

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 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

FEATURES

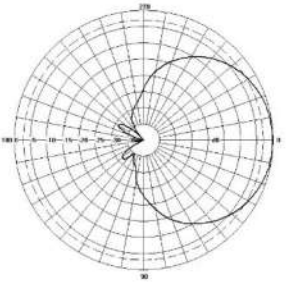
- Optimised for 3GPP band 38 & 41
- Dual Cross polarization antenna +/- 45°
- Enhanced tilt range of 0 to 6 degrees
- AISG 2.0 compatible

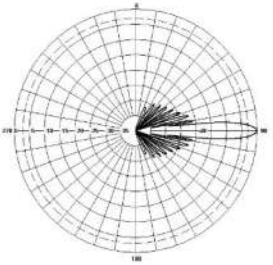
The paramenters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2496 - 2690MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
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 Downtilt	Degree	T0° - T6°
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
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

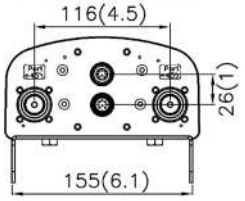
For radiation pattern files, please login at www.alphawireless.com

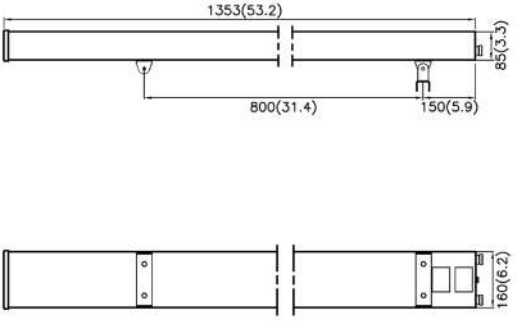
TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	1353 (53.2) x 160 (6.2) 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-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)

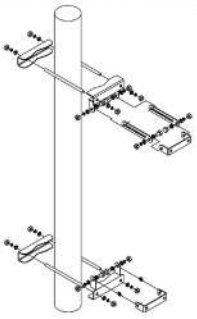


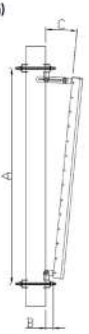


TECHNICAL SPECIFICATION

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")

ACCESSORIES

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

ORDERING INFO

AW3286-E-D Enclosed Remote Electrical Tilt (eRET) with 7/16 DIN Connectors

Common Name- 4 Port B41 - 90°- eRET

2496-2690MHz	4	eRET	16.2	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 optimization to improve coverage and throughput.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015

RoHS COMPLIANT

CE

FEATURES

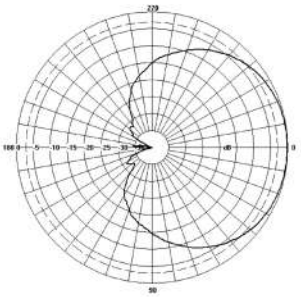
- Optimised for 3GPP band 38 & 41
- 4x4 MIMO for maximum throughput
- Enhanced tilt range of 0 to 6 degrees
- AISG 2.0 compatible

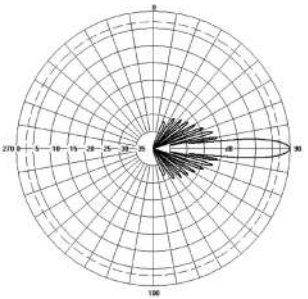
The paramenters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2496 - 2690MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
Min Tilt	dBi	16.5 (T0°)
Mid Tilt	dBi	16.3 (T3°)
Max Tilt	dBi	16.0 (T6°)
Overall Tilts	dBi	16.2
Azimuth Beamwidth	Degree	90°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	5.5°
Electrical Downtilt	Degree	T0° - T6°
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>	28
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

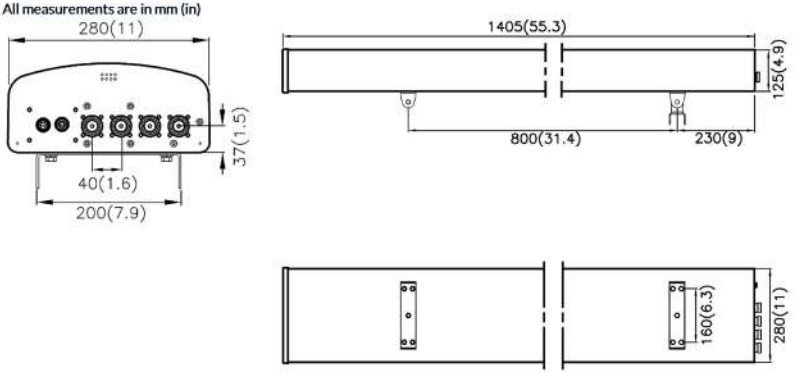
For radiation pattern files, please login at www.alphawireless.com

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 (lbf)	430 (97)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	230 (52)
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

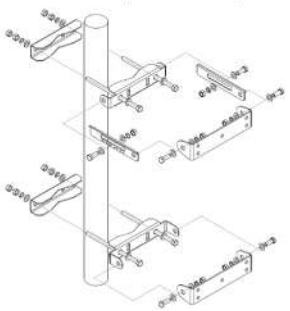
All measurements are in mm (in)

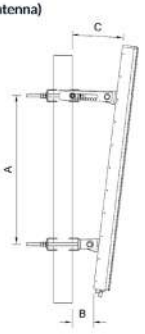


TECHNICAL SPECIFICATION

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
+1° to -7°	Stainless Steel	50mm-115mm (2" to 4.5")

ACCESSORIES

PADC-1000 (for eRET only)
SADC-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	16.2	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

FEATURES

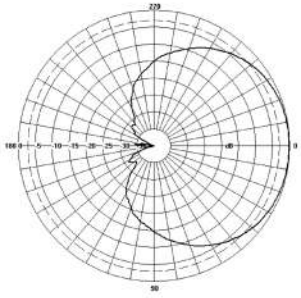
- Optimised for 3GPP band 38 & 41
- Dual Cross polarization antenna +/- 45°
- Enhanced tilt range of 0 to 6 degrees
- AISG 2.0 compatible

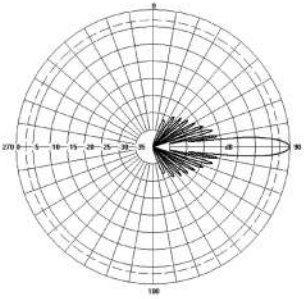
The paramenters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2496 - 2690MHz
Polarisation	Degree	+/- 45º Slant Linear
Gain		
Min Tilt	dBi	16.5 (T0)
Mid Tilt	dBi	16.3 (T3)
Max Tilt	dBi	16.0 (T6)
Overall Tilts	dBi	16.2
Azimuth Beamwidth	Degree	90º
Azimuth Beam Squint	Degree<	3º
Elevation Beamwidth	Degree	5.5º
Electrical Downtilt	Degree	T0º - T6º
Electrical Downtilt Deviation	Degree<	1º
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 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.alphawireless.com

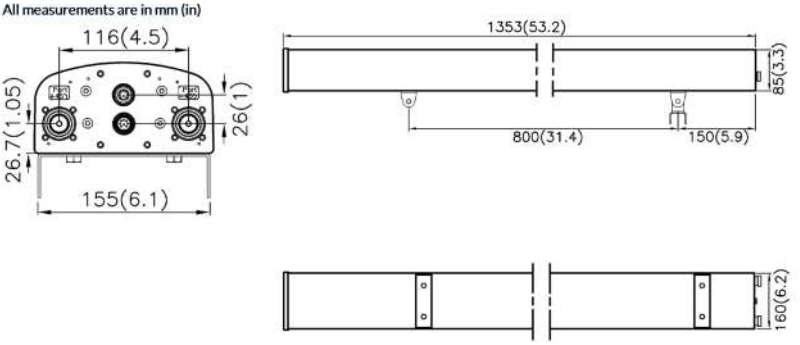
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1353 (53.2) x 160 (6.2) 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-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

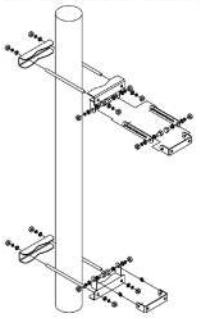
All measurements are in mm (in)



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")

ACCESSORIES

PADC-1000 (for eRET only)
SADC-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	16.0	72°
Frequency	Ports	Tilt	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

FEATURES

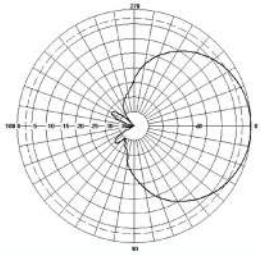
- Wide-band antenna for 3GPP bands 42, 43 & 48.
- Designed to work with any Radio vendor at TM8.
- AISG 2.0 compatible.
- Manufactured in Ireland.

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

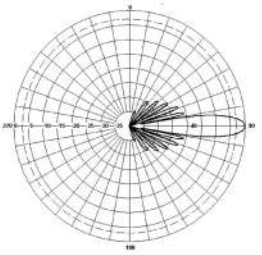
TECHNICAL SPECIFICATION

Electrical Specifications			
Frequency Range per input	MHz	3300 - 3400	3400 - 3800
Polarisation		+/-45° Slant Linear	
Gain			
Single Column	dBi	15 +/- 1	15.5 +/- 1
Broadcast Beam	dBi	16 +/- 1	16.5 +/- 1
Service Beam	dBi	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 +/- 12	70 +/- 16
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 Downtilt	Degree	T0° - T8°	
Electrical Downtilt 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

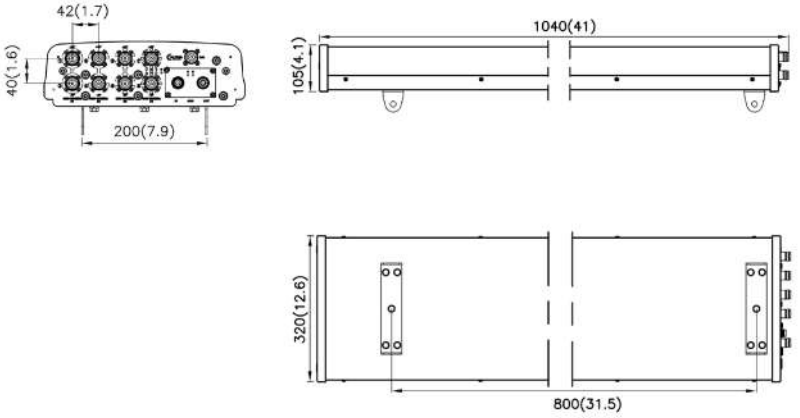
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1040 (41) x 320 (12.6) 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

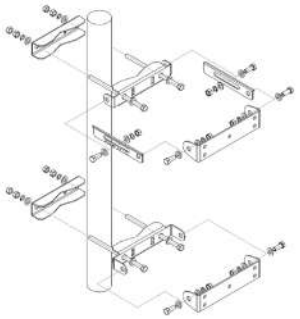
All measurements are in mm (in)

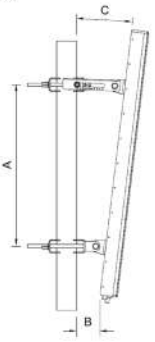


TECHNICAL SPECIFICATION

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

AW3375-E-F	Enclosed Remote Electrical Tilt (eRET) with 4.3-10 Connectors.

Common Name- 8 Port Beamformer - B42, 43 & 48 - 90⁰ - eRET

3400-3800MHz	8	eRET	15.5	90°
Frequency	Ports	Tilt	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 90⁰ 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

RoHS COMPLIANT

CE

FEATURES

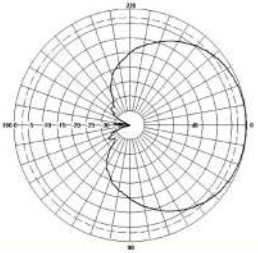
- Wide-band antenna for 3GPP bands 42, 43 & 48
- Designed to work with any Radio vendor at TM8
- 90⁰ antenna designed for soft split applications
- AISG 2.0 compatible

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

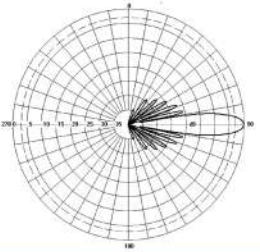
TECHNICAL SPECIFICATION

Electrical Specifications			
Frequency Range		MHz	3400 - 3800MHz
Polarisation		Degree	+/- 45° Slant Linear
Gain			
	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 Downtilt		Degree	T0° - T10°
Electrical Downtilt Deviation		Degree <	1°
Impedance		Ohms	50
VSWR		<	1.5
Return Loss		dB >	14
Isolation		dB >	25
Front to Back Ratio: Total Power +/-30°		dB >	26
Upper Sidelobe Suppression, Peak to 20°		dB >	16
Cross-Polar Discrimination		dB >	15
Maximum Effective Power Per Port		W	150

Radiation Pattern Files



Azimuth



Elevation

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

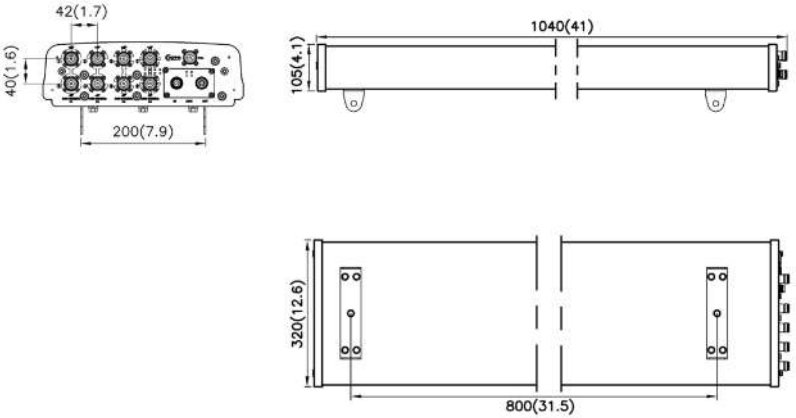
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1040 (41) x 320 (12.6) x 105 (4.1) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1100 (43.3) x 380 (15) x 210 (8.3)
Net Weight (antenna)	kg (lb)	11.1 (25.5)
Net Weight (mount)	kg (lb)	3 (6.6)
Shipping Weight	kg (lb)	15 (33.1)
Connector Type	-	4.3-10
Connector Quantity	-	9 (8 x input ports, 1 x calibration port)
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	350 (79)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	130 (30)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	ASA
Radome Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

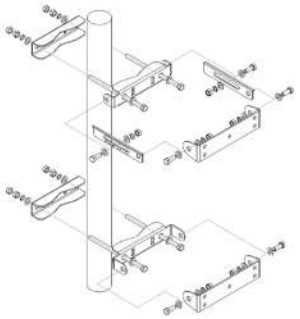
All measurements are in mm (in)

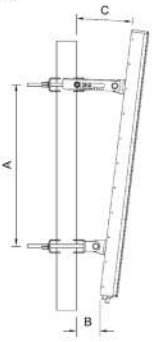


TECHNICAL SPECIFICATION

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

AW3376-E-F	Enclosed Remote Electrical Tilt (eRET) with 4.3-10 Connectors

Common Name- 8 Port Beamformer - B41 - 65º

2496 - 2690MHz	8	eRET	16.5	65º
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

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

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 65º 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

FEATURES

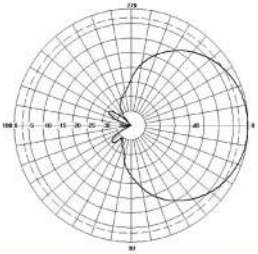
- Optimised for 3GPP band 38 & 41
- Designed to work with any Radio vendor at TM8
- AISG 2.0 compatible
- Manufactured in Ireland

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

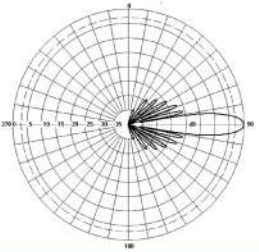
TECHNICAL SPECIFICATION

Electrical Specifications			
Frequency Range		MHz	2496 - 2690
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 Downtilt		Degree	T0° - T6°
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 >	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 login at www.alphawireless.com

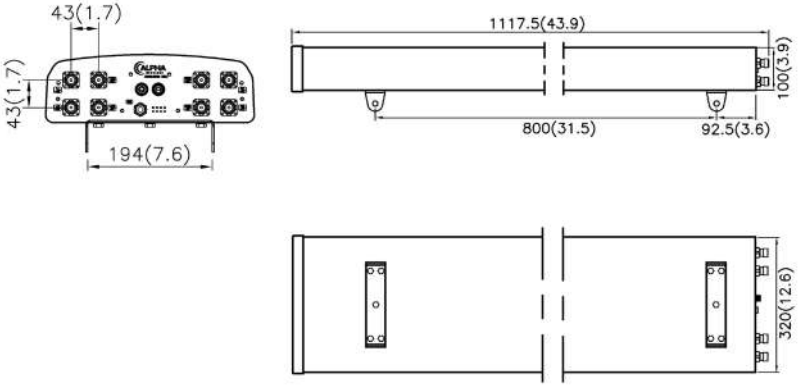
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1117.5 (43.9) x 320 (12.6) x 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)
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

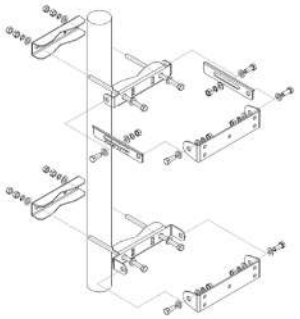
All measurements are in mm (in)

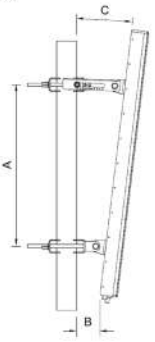


TECHNICAL SPECIFICATION

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

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

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

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

PRODUCT INFORMATION

This product was developed to offer narrow Azimuth beam with four port functionality and common 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 4x4 operation or receive diversity RF functions. Integrated remote electrical tilt antenna allow instant optimization to improve coverage and throughput.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015

RoHS COMPLIANT

CE

FEATURES

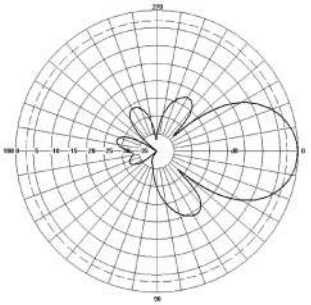
- Wide-band antenna for 3GPP bands 42, 43 & 48.
- 4x4 MIMO for maximum throughput
- Narrow Azimuth beam to increase site capacity
- Enhanced tilt range of 0 to 10 degrees

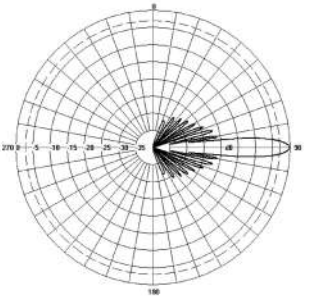
The paramenters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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 Tilts	dBi	19.2
Azimuth Beamwidth	Degree	33°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	7°
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>	16
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	100

Radiation Pattern Files





Azimuth	Elevation

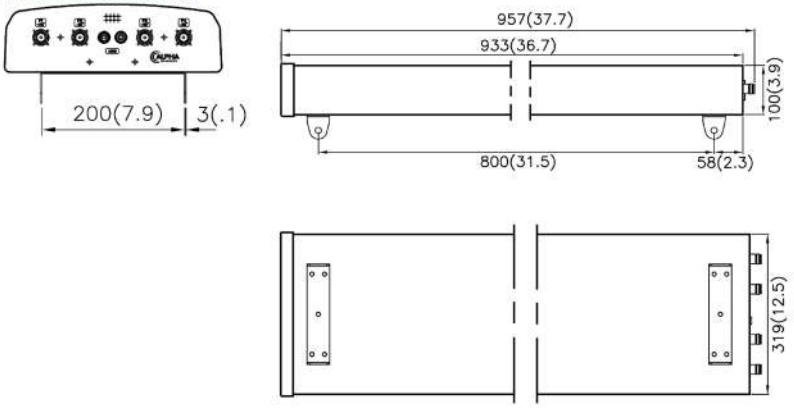
For radiation pattern files, please login at www.alphawireless.com

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

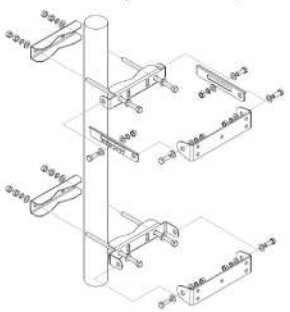
All measurements are in mm (in)

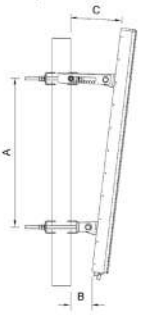


TECHNICAL SPECIFICATION

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
+1° to -7°	Stainless Steel	50mm-115mm (2" to 4.5")

ACCESSORIES

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

ORDERING INFO

AW3452-E-F	Enclosed Remote Electrical Tilt (eRET) with 4.3/10 Connectors
AW3452-E-N	Enclosed Remote Electrical Tilt (eRET) with N Type Connectors

Common Name- 2 Port UWB LB - Small Cell - 65º

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

PRODUCT INFORMATION

This product was developed to offer a small form factor solution for the 800Mhz 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

RoHS COMPLIANT

CE

FEATURES

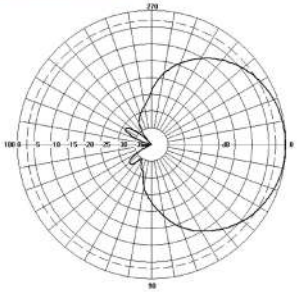
- Ultra-wide low band antenna 698-960MHz
- Compact design for Small Cell deployment - Low visual impact
- Mounting bracket with variable tilt
- Manufactured in Ireland

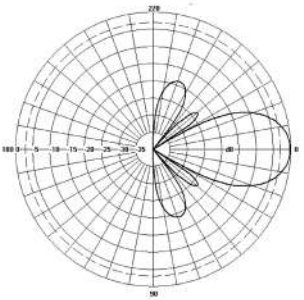
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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 Downtilt	Degree	T0° / T4°
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>	28
Passive Intermodulation	dBc<	-150
Upper Sidelobe Suppression, Peak to 20°	dB>	16
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	200

Radiation Pattern Files





Azimuth	Elevation

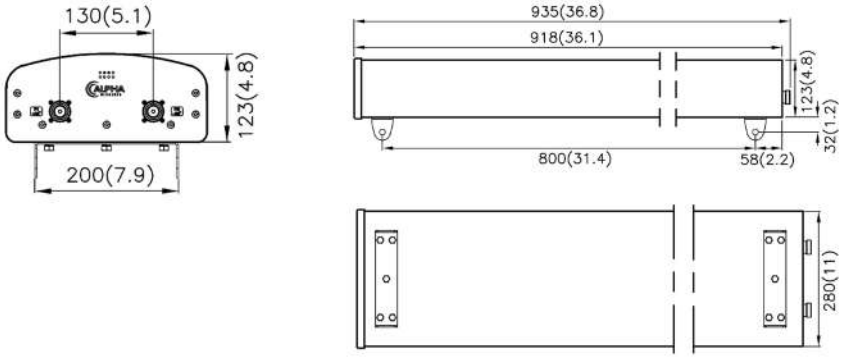
For radiation pattern files, please login at www.alphawireless.com

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 330 (13) 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 (lbf)	270 (61)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	140 (32)
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

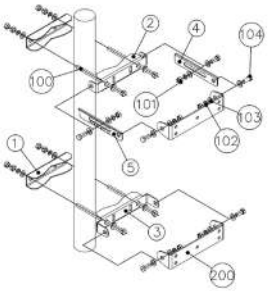
All measurements are in mm (in)

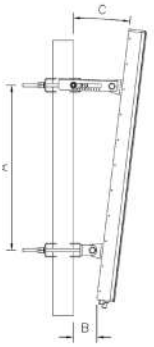


TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-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 - 33º

3300-3800MHz	4	Fixed	19.5	33º
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 4x4 operation or receive diversity RF functions. With additional options for fixed tilt settings enables improved optimization.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015

RoHS COMPLIANT

CE

FEATURES

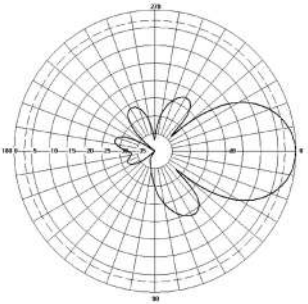
- Wide-band antenna for 3GPP bands 42, 43 & 48
- 4x4 MIMO for maximum throughput
- Narrow Azimuth beam to increase site capacity
- Mounting bracket with variable tilt

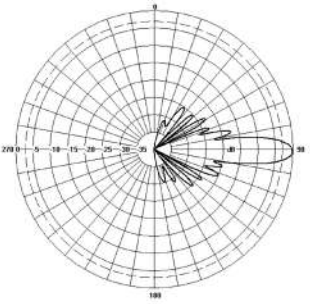
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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

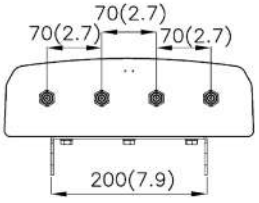
For radiation pattern files, please login at www.alphawireless.com

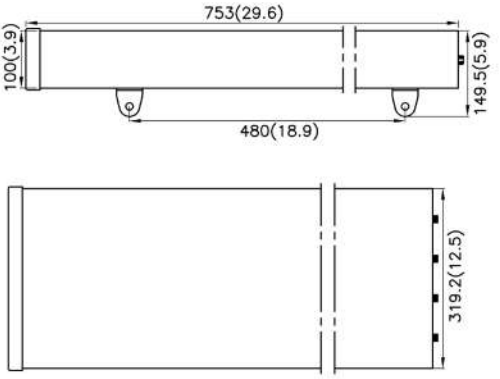
TECHNICAL SPECIFICATION

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 (antenna)	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)
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)

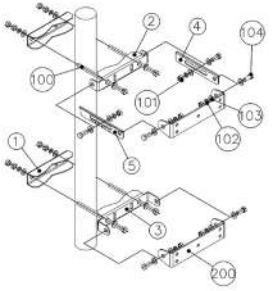


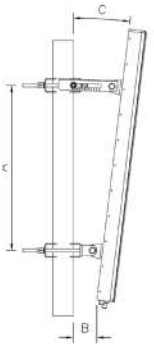


TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-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-N	Zero Degrees Fixed Tilt with N Type Connectors
AW3647-T4-N	Four Degrees Fixed Tilt with N Type Connectors

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

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

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

RoHS COMPLIANT

CE

FEATURES

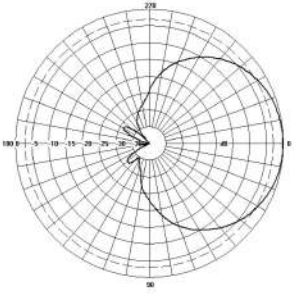
- Wide Band antenna.
- Each port can cover 2.3 - 3.8GHz.
- 2x2 or 4x4 MIMO configuration possible.
- Mounting bracket with variable tilt (included)
- Manufactured in Ireland.

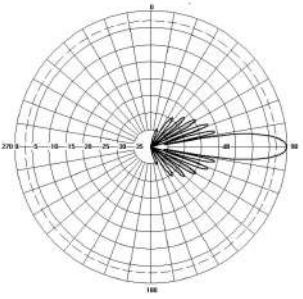
The paramenters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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	65°	
Azimuth Beam Squint	Degree<	3°	
Elevation Beamwidth	Degree	9° |	6°
Electrical Downtilt	Degree	T0° 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 Sidelobe Suppression, Peak to 20°	dB>	18	
Cross-Polar Discrimination	dB>	16	
Maximum Effective Power Per Port	W	100	

Radiation Pattern Files





Azimuth	Elevation

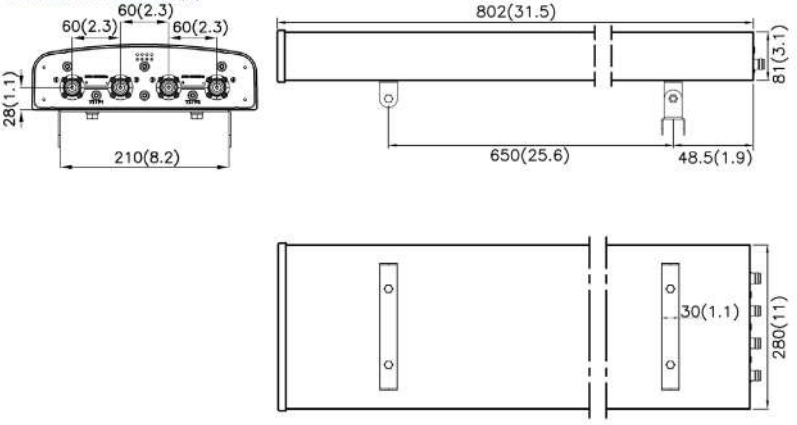
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	802 (31.5) x 280 (11) x 81 (3.1) - (LxWxH)
Packing Size (LxWxD)	mm (in)	950 (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 (lbf)	220 (50)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	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

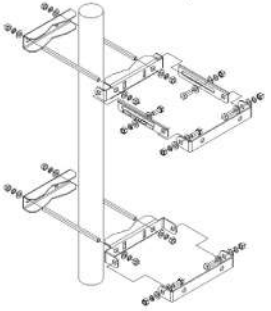
All measurements are in mm (in)



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

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	Tilt	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

RoHS COMPLIANT

CE

FEATURES

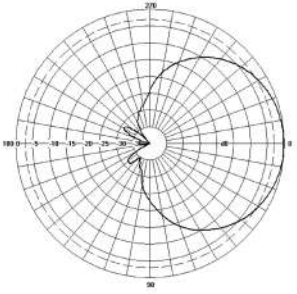
- Multi-band antenna - 3300-3800/4900-5950MHz.
- Dual cross polarisation +/- 45°
- Mounting Bracket with variable tilt.
- Manufactured in Ireland.

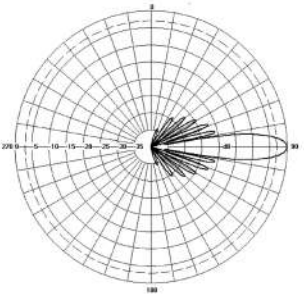
The paramenters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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 Downtilt	Degree	T4°	T0°
Electrical Downtilt 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

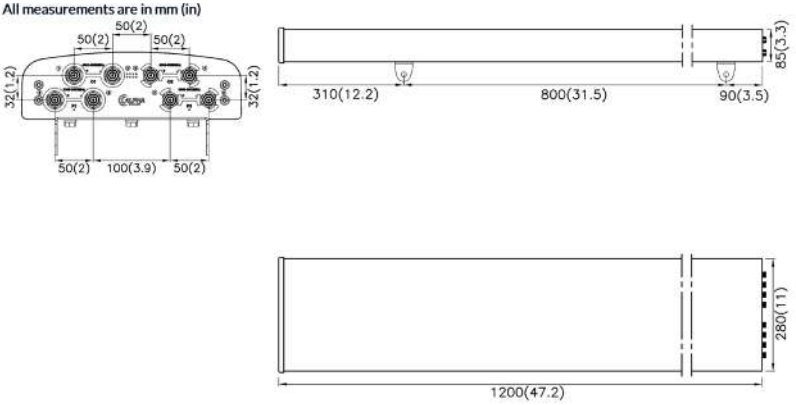
For radiation pattern files, please login at www.alphawireless.com

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)	10.5 (23.1)
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 (lbf)	364 (82)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	129 (29)
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

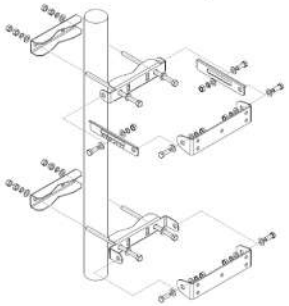
All measurements are in mm (in)

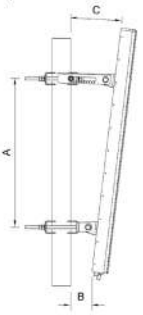


TECHNICAL SPECIFICATION

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 149 - 152
AW3089	3300-3800MHz	2	Fixed	11.0	360°	PG 153 - 156
AW3348	2496–2690MHz	2	Fixed	12.5	65°	PG 157 - 160
AW3372	3300-3800MHz	2	Fixed	12.5	65°	PG 161 - 164
AW3373	3300-3800MHz	2	Fixed	11.0	90°	PG 165 - 168
AW3374	3400-3800MHz	2	Fixed	7.0	360°	PG 169 - 172

	Frequency	Ports	Tilt	Gain	Beamwidth	
AW3387	1710 - 2690MHz	2	Fixed	12.5	65°	PG 173 - 176
AW3388	1710-2690MHz	2	Fixed	6.7	360°	PG 177 - 180
AW3397	1710 - 2690MHz	4	Fixed	12.2/ 12.7	65°	PG 181 - 184
AW3398	1710-2690MHz	4	Fixed	6.6/ 6.9	360°	PG 185 - 188
AW3477-S1-G	2496-2690MHz	2	MET	8.5	360°	PG 189 - 192
AW3499	3400-3800MHz	4	Fixed	6.5	360°	PG 193 - 196
AW3613-S1-G	2496-2690MHz	4	MET	8.5	360°	PG 197 - 200
AW3625	3300-3800MHz	2	MET	8.5	360°	PG 201 - 204
AW3639	1695-2690/3400 -3800/5150-5925MHz	8	eRET	14/ 11/5	65°	PG 205 - 208
AW3672	3400-3800MHz	4	MET	8.5	360°	PG 209 - 212
AW3675	2496-2690Mhz	2	MET	11.5	65°	PG 213 - 217
AW3689	1695-2690/3400-3800 /5150-5925MHz	20	MET	14/ 11/6	65°	PG 216 - 221
AW3724	617-894/1695-2690/ 3400-3800/5150-5925MHz	18	MET	7/14 /11/6	65°	PG 222 - 226
AW3725	617-894/1695-2690/ 3400-3800/5150-5925MHz	24	eRET/ MET	7/14 /11/6	65°	PG 227 - 231

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

RoHS COMPLIANT CE

FEATURES

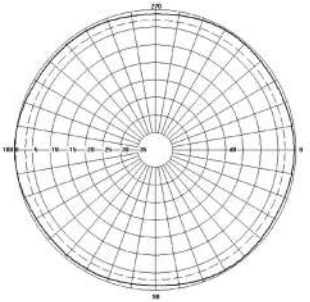
- Wide-band antenna for 3GPP bands 38, 40 & 41
- Optimized Pseudo omni with reduced azimuth ripple
- Slim monopole design to reduce wind loading
- Manufactured in Ireland

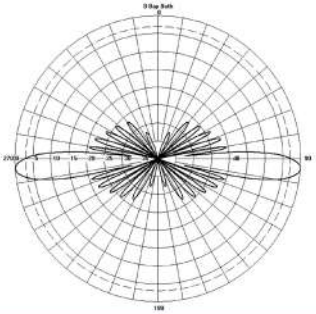
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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	T4°
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>	10
Maximum Effective Power Per Port	W	200

Radiation Pattern Files





Azimuth	Elevation

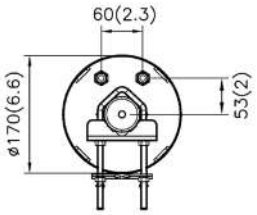
For radiation pattern files, please login at www.alphawireless.com

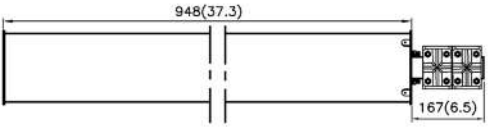
TECHNICAL SPECIFICATION

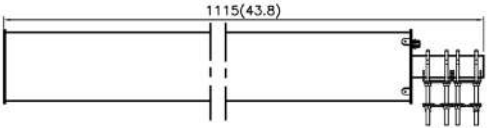
Mechanical Specifications		
Dimensions	mm (in)	948 (37.3) x 170 (6.6) - (L x Ø)
Packing Size (LxWxD)	mm (in)	1150 (45.2) x 200 (7.8) x 200 (7.8)
Net Weight (antenna)	kg (lb)	5.5 (12.1)
Net Weight (mount)	kg (lb)	1.0 (2.2)
Shipping Weight	kg (lb)	6.5 (14.3)
Connector Type (Female)	-	N Type
Connector Quantity	-	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)
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)



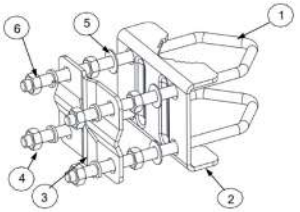


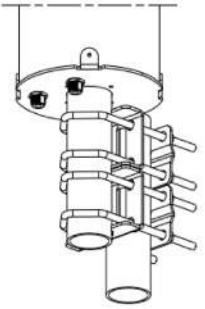


TECHNICAL SPECIFICATION

Mounting Bracket Kit

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





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

ORDERING INFO

AW3088-T4-N Four Degrees Fixed Tilt with N Type Connectors

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

RoHS COMPLIANT CE

FEATURES

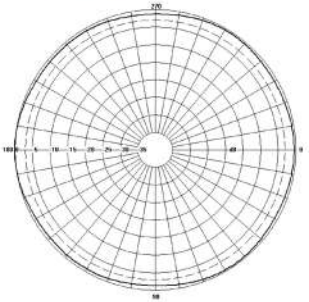
- Wide-band antenna for 3GPP bands 42, 43 & 48.
- Optimized Pseudo omni with reduced azimuth ripple
- Slim monopole design to reduce wind loading
- Manufactured in Ireland

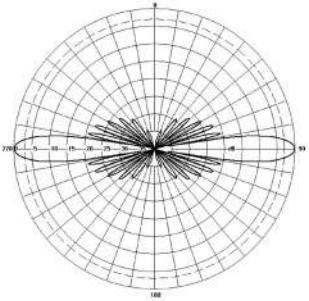
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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 Downtilt	Degree	T0° or T4°
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>	10
Maximum Effective Power Per Port	W	50

Radiation Pattern Files





Azimuth	Elevation

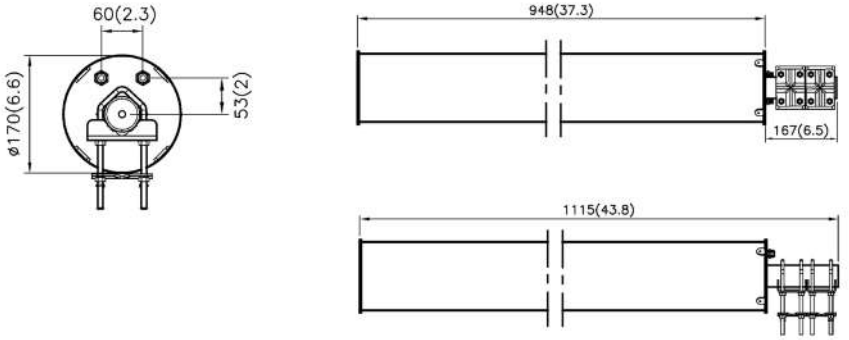
For radiation pattern files, please login at www.alphawireless.com

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 (lbf)	140 (32)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	140 (32)
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

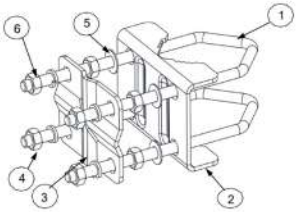
All measurements are in mm (in)

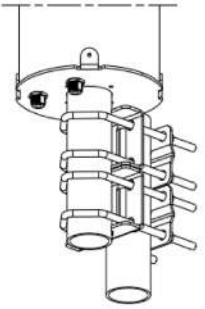


TECHNICAL SPECIFICATION

Mounting Bracket Kit

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





Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
N/A	Galvanised 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

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

RoHS COMPLIANT

CE

FEATURES

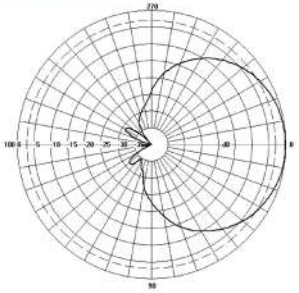
- Optimised for 3GPP band 38 & 41
- Compact design for Small Cell deployment - Low visual impact
- Mounting bracket with variable tilt (included)
- Manufactured in Ireland

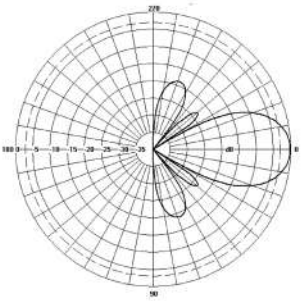
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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 Downtilt	Degree	T0°
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>	28
Passive Intermodulation	dBc<	-150
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

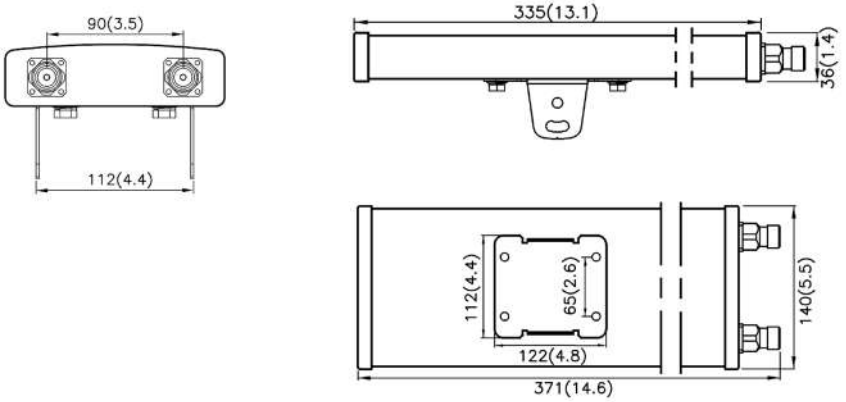
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	335 (13.1) x 140 (5.5) x 36 (1.4) - (L x W x D)
Packing Size (LxWxD)	mm (in)	420 (16.5) x 156 (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 (lbf)	50 (12)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	20 (5)
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

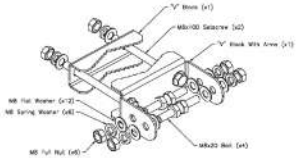
All measurements are in mm (in)

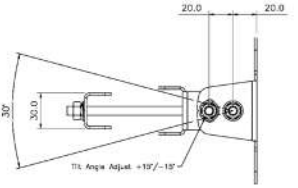


TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-103 (Mounting Kit included with Antenna)





Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
+15° to -15°	Stainless Steel	25mm-60mm (1" to 2.4")

ORDERING INFO

AW3348-T0-A Zero Degrees Fixed Tilt with Mini DIN Connectors

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

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

PRODUCT INFORMATION

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

APPLICATION

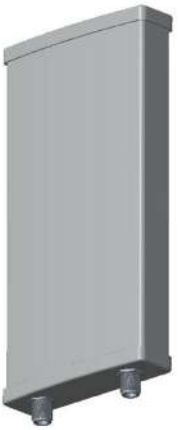
Alpha Wireless small cell provides sector coverage whilst in an ultra-compact radome design. The wide-band antenna is designed to be installed in urban environment where low visual impact is required. There are a number of mounting options available making deployments on lamp posts, utility poles, walls 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

RoHS COMPLIANT

CE



FEATURES

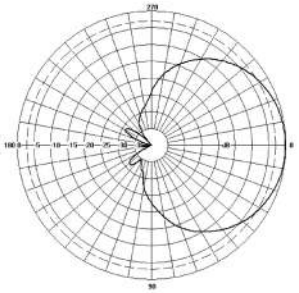
- Wide-band antenna for 3GPP bands 42, 43 & 48.
- Compact design for Small Cell deployment - Low visual impact
- Dual Cross polarization antenna +/- 45°
- Manufactured in Ireland

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

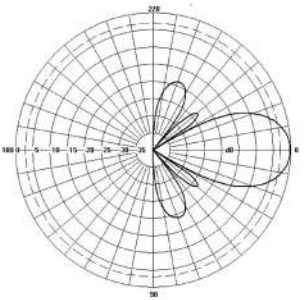
TECHNICAL SPECIFICATION

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	T0°
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 Sidelobe Suppression, Peak to 20°	dB>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	50

Radiation Pattern Files



Azimuth



Elevation

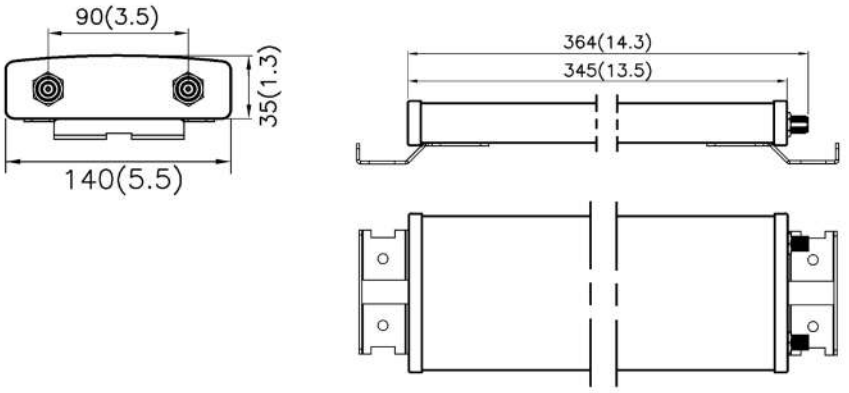
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	364 (14.3) x 140 (5.5) x 35 (1.3) - (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-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

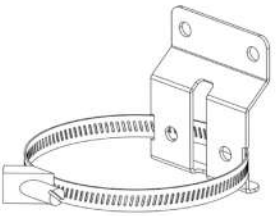
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-139 51mm-127mm Pipe Strap (Included with Antenna)



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

ORDERING INFO

AW3372-T0-N Zero Degrees Fixed Tilt with N Type Connectors

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

3300-3800MHz	2	Fixed	11.0	90º
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

Developed to offer an ultra compact form factor solution for B42 and B43 in advance of CBRS 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

RoHS COMPLIANT

CE

FEATURES

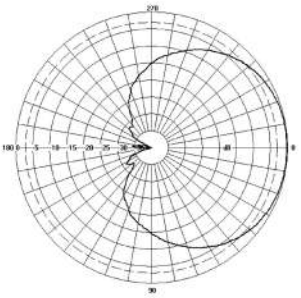
- Wide-band antenna for 3GPP bands 42, 43 & 48
- Compact design for Small Cell deployment - Low visual impact
- Mounting bracket with variable tilt
- Manufactured in Ireland

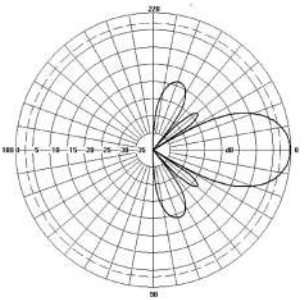
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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	T0°
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 Sidelobe Suppression, Peak to 20°	dB>	18
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	50

Radiation Pattern Files





Azimuth	Elevation

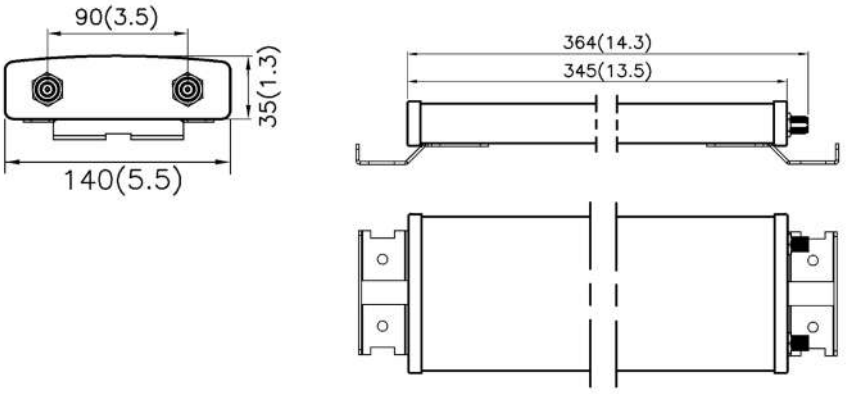
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	364 (14.3) x 140 (5.5) x 35 (1.3) - (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-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

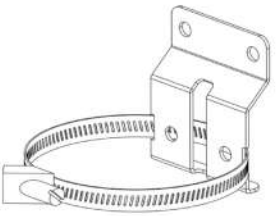
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-139 51mm-127mm Pipe Strap (Included with Antenna)



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

ORDERING INFO

AW3373-T0-N Zero Degrees Fixed Tilt with N Type Connectors

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

3400-3800MHz	2	Fixed	7.0	360°
Frequency	Ports	Tilt	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 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

RoHS COMPLIANT

CE

FEATURES

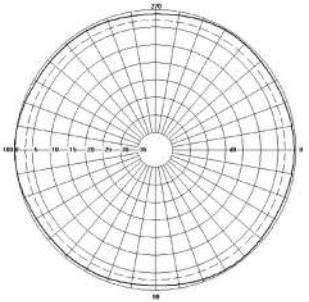
- Wide-band antenna for 3GPP bands 42, 43 & 48
- Optimized Pseudo omni with reduced azimuth ripple
- Slim monopole design to reduce wind loading
- Manufactured in Ireland

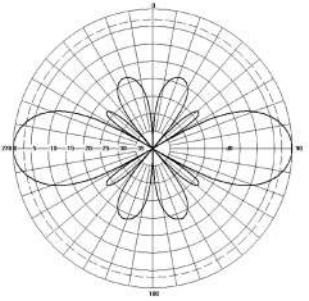
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	3400 - 3800MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	7.0
Azimuth Beamwidth	Degree	360°
Elevation Beamwidth	Degree	22°
Electrical Downtilt	Degree	T0°
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>	10
Maximum Effective Power Per Port	W	50

Radiation Pattern Files





Azimuth	Elevation

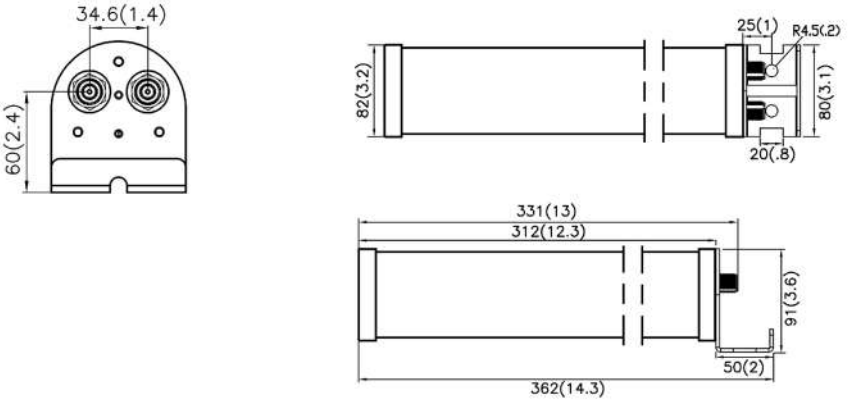
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	312 (12.3) x 80 (3.1) - (L 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)
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

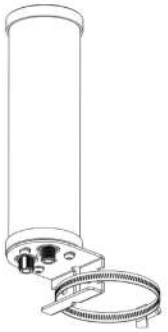
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-140 51mm-127mm Pipe Strap (Included with Antenna)



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

ORDERING INFO

AW3374-T0-N Zero Degrees Fixed Tilt with N Type Connectors

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

FEATURES

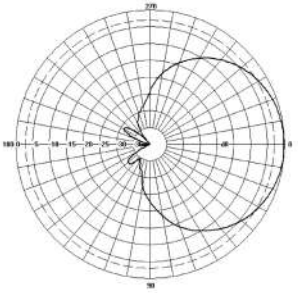
- Ultra-wide high band antenna 1710 - 2690Mhz.
- Compact design for Small Cell deployment - Low Visual Impact.
- Mounting Bracket with Variable tilt (included).
- Low PIM performance to reduce interference.

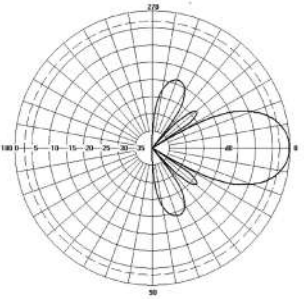
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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	12.7
Azimuth Beamwidth	Degree	68°	65°	60°
Azimuth Beam Squint	Degree<	2°	2°	2.5°
Elevation Beamwidth	Degree	23°	20°	18°
Electrical Downtilt	Degree	T0°, T8°, T14°	T0°, T8°, T14°	T0°, T8°, T14°
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

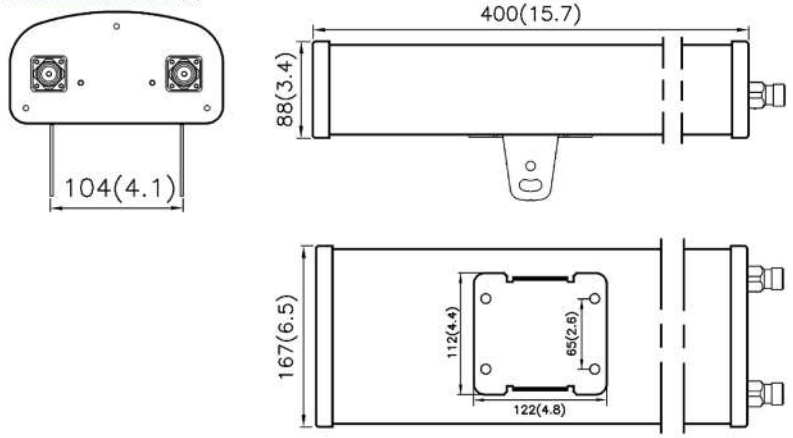
For radiation pattern files, please login at www.alphawireless.com

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)
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

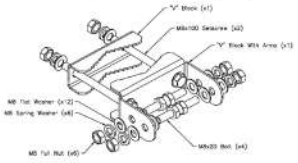
All measurements are in mm (in)

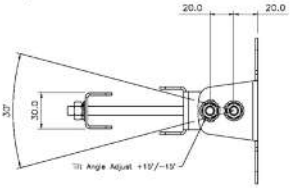


TECHNICAL SPECIFICATION

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	25mm-60mm (1" to 2.4")

ORDERING INFO

AW3387-T0-F	Zero Degrees Fixed Tilt with 4.3-10 Connectors.
AW3387-T8-F	Eight Degrees Fixed Tilt with 4.3-10 Connectors.
AW3387-T14-F	Fourteen Degrees Fixed Tilt with 4.3-10 Connectors.
AW3387-T0-D	Zero Degrees Fixed Tilt with 7/16 DIN Connectors.
AW3387-T8-D	Eight Degrees Fixed tilt with 7/16 DIN Connectors.
AW3387-T14-D	Fourteen Degrees Fixed Tilt with 7/16 DIN Connectors.

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

RoHS COMPLIANT

CE

FEATURES

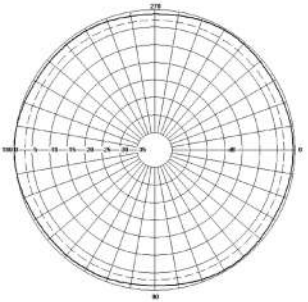
- Ultra-wide high band antenna 1710 - 2690MHz.
- Optimized Pseudo omni with reduced azimuth ripple.
- Slim monopole design to reduce wind loading.
- Low PIM performance to reduce interference.

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

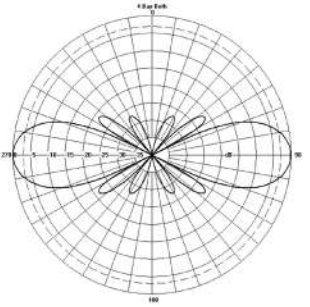
TECHNICAL SPECIFICATION

Electrical Specifications				
Frequency Range	MHz	1710 - 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 Downtilt	Degree	T0° - T8°	T0° - T8°	T0° - T8°
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
Passive Intermodulation	dBc<	-150	-150	-150
Upper Sidelobe 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

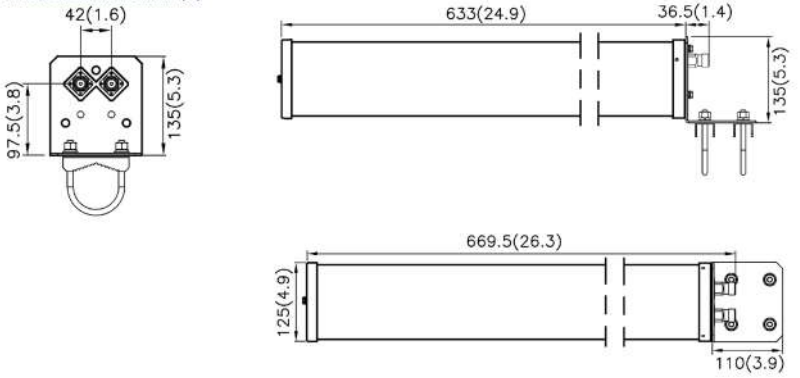
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	669.5 (26.3) x 125 (4.9) - (L 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-Stabilised PVC
Radome 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

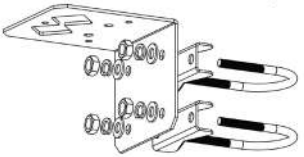
All measurements are in mm (in)

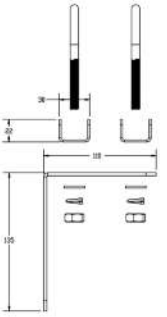


TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-118 (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

AW3388-T0-F	Zero Degrees Fixed Tilt with 4.3-10 Connectors.
AW3388-T8-F	Eight Degrees Fixed Tilt with 4.3-10 Connectors.

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

1710 - 2690MHz	4	Fixed	12.2/12.7	65°
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 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

FEATURES

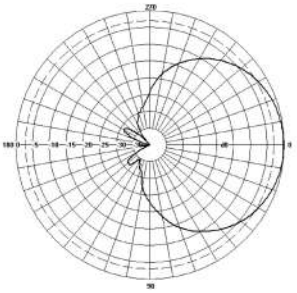
- Ultra-wide high band antenna 1710-2690MHz
- Compact design for Small Cell deployment - Low visual impact
- Mounting bracket with variable tilt
- Low PIM performance to reduce interference

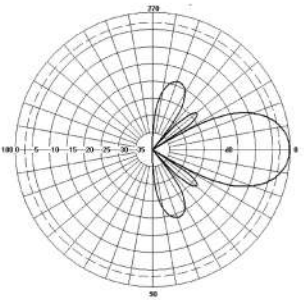
The paramenters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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 Downtilt	Degree	T0°, T8° or T14°	
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>	27	
Passive Intermodulation	dBc<	-150	
Upper Sidelobe Suppression, Peak to 20°	dB>	17	
Cross-Polar Discrimination	dB>	16	
Maximum Effective Power Per Port	W	200	

Radiation Pattern Files





Azimuth	Elevation

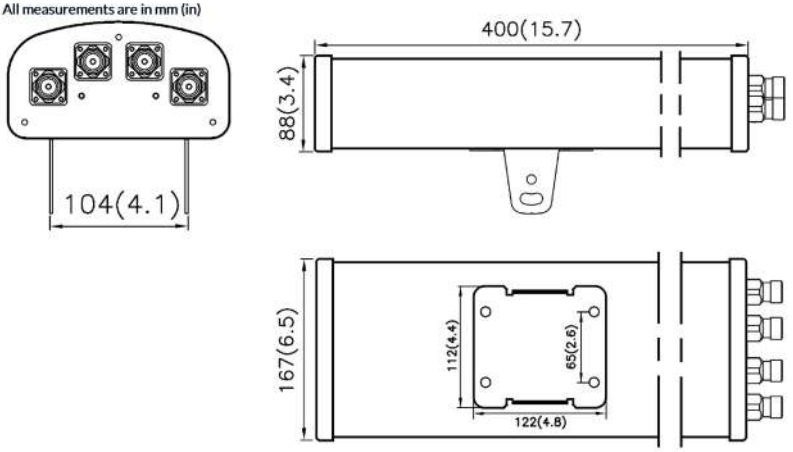
For radiation pattern files, please login at www.alphawireless.com

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 (lbf)	70 (16)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	40 (9)
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

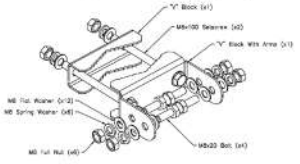
All measurements are in mm (in)

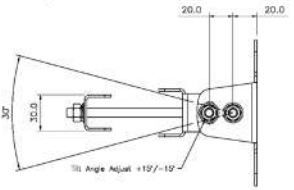


TECHNICAL SPECIFICATION

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	152mm-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 - Diplexed

1710-2690MHz	4	Fixed	6.6/6.9	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 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

FEATURES

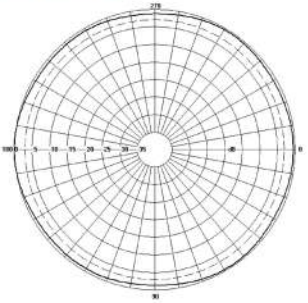
- Ultra-wide high band antenna 1710-2690MHz
- Compact design for Small Cell deployment - Low visual impact
- Optimized Pseudo omni with reduced azimuth ripple
- Low PIM Performance to reduce interference.

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

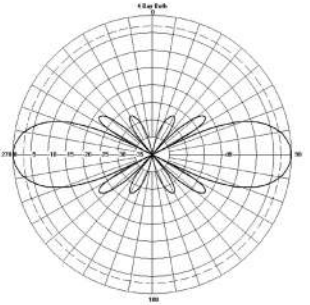
TECHNICAL SPECIFICATION

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 Downtilt	Degree	T0° or T8°	
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>	17	
Cross-Polar Discrimination	dB>	10	
Maximum Effective Power Per Port	W	100	

Radiation Pattern Files



Azimuth



Elevation

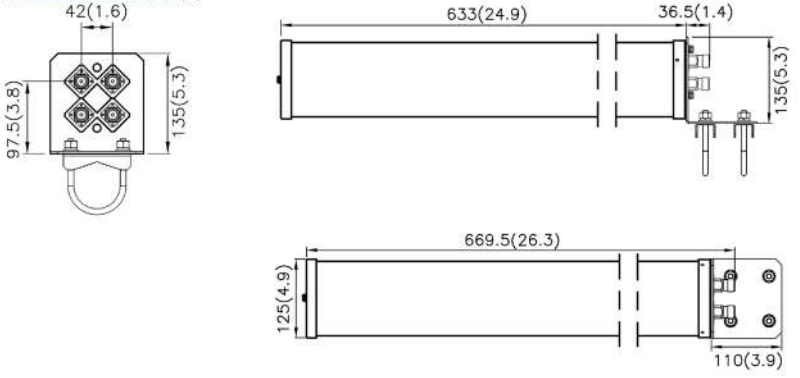
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	669.5 (26.3) x 125 (4.9) - (L 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	-	4
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-Stabilised PVC
Radome 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

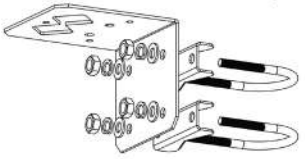
All measurements are in mm (in)



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-118 (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 4.3/10 Connectors
AW3398-T8-F	Eight Degrees Fixed Tilt with 4.3/10 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 Airspan B41 2 Port Mini Macro small cell densification program.

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 electrical variable tilt for maximum optimization.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015

RoHS COMPLIANT

CE

FEATURES

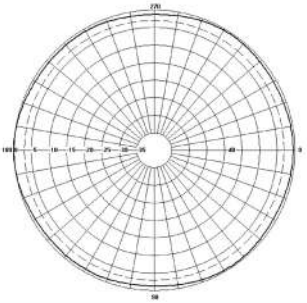
- Optimised for 3GPP band 38 & 41
- Optimized Pseudo omni with reduced azimuth ripple
- Independent tilt control across 3-sectors
- Integrated GPS
- Manufactured in Ireland

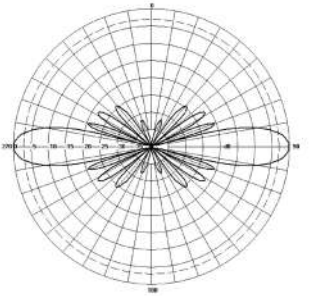
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

TECHNICAL SPECIFICATION

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

Radiation Pattern Files





Azimuth	Elevation

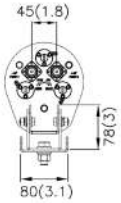
For radiation pattern files, please login at www.alphawireless.com

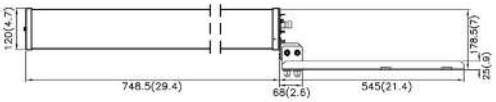
TECHNICAL SPECIFICATION

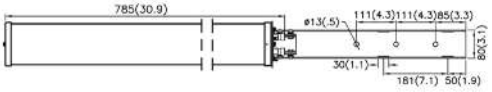
Mechanical Specifications		
Dimensions	mm (in)	785 (30.9) x 120 (4.7) - (L x Ø)
Packing Size (LxWxD)	mm (in)	1300 (51.1) x 178 (7.0) x 120 (4.7)
Net Weight (antenna)	kg (lb)	3.2 (7)
Net Weight (mount)	kg (lb)	2 (4.4)
Shipping Weight	kg (lb)	5.2 (11.4)
Connector Type (Female)	-	Mini DIN and N Type (GPS)
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 (21)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	90 (21)
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)



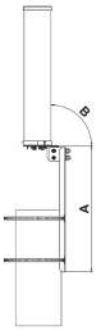


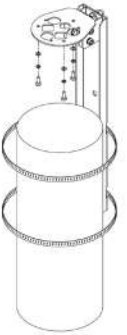


TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-125 (Mounting Kit included with Antenna)





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

ORDERING INFO

AW3477-S1-G Manual Electrical Tilt (MET) with Mini DIN Connectors, Integrated GPS

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

3400-3800MHz	4	Fixed	6.5	360°
Frequency	Ports	Tilt	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 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 or multi-operator applications.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015

RoHS COMPLIANT

CE

FEATURES

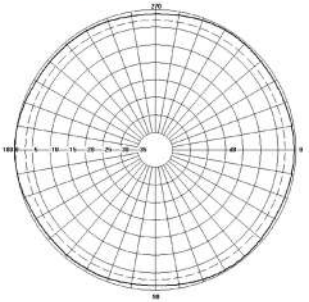
- Wide-band antenna for 3GPP bands 42, 43 & 48.
- Optimized Pseudo omni with reduced azimuth ripple
- 4x4 MIMO for maximum throughput
- Slim monopole design to reduce wind loading

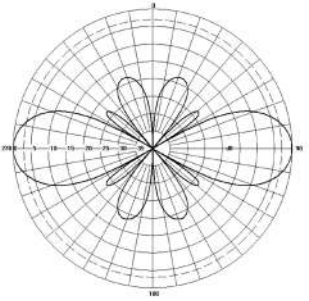
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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 Downtilt	Degree	T0°
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>	12
Maximum Effective Power Per Port	W	50

Radiation Pattern Files





Azimuth	Elevation

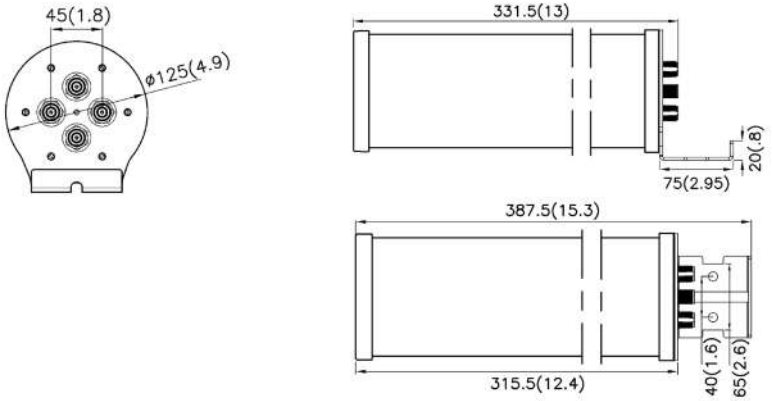
For radiation pattern files, please login at www.alphawireless.com

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-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

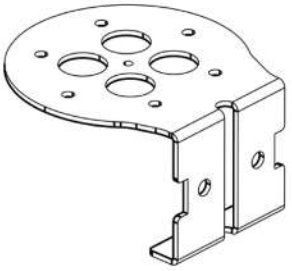
All measurements are in mm (in)

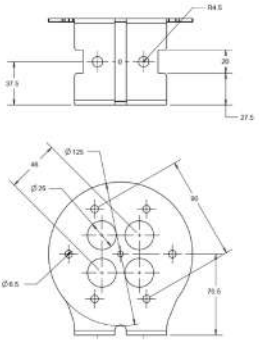


TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-152 (Mounting Kit Included with antenna)





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

ORDERING INFO

AW3499-T0-N Zero Degrees Fixed Tilt with N Type Connectors

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 Airspan 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 set a new standard for small cell power and flexibility.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015

RoHS COMPLIANT

CE

FEATURES

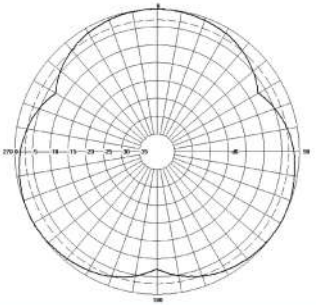
- Optimised for 3GPP band 38 & 41
- 4x4 MIMO for maximum throughput
- Independent tilt control across 6-sectors
- Integrated GPS Antenna

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

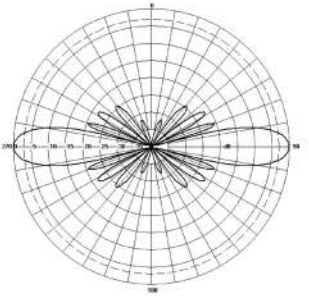
TECHNICAL SPECIFICATION

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

Radiation Pattern Files



Azimuth



Elevation

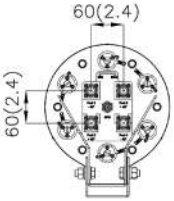
For radiation pattern files, please login at www.alphawireless.com

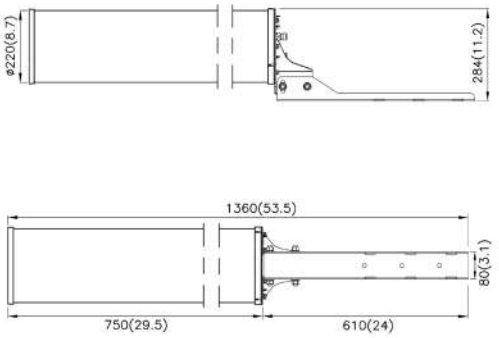
TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	750 (29.5) x 220 (8.7) - (L x Ø)
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 (lbf)	130 (30)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	130 (30)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilised PVC
Radome Colour	RAL	9010
Product Compliance Environmental	-	RoHS
Lightning Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)

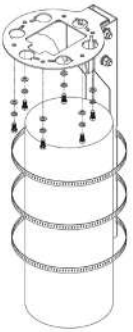




TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-137 (Mounting Kit included with Antenna)



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

ORDERING INFO

AW3613-S1-G Manual Electrical Tilt (MET) with Four 4.3/10 Connectors, Integrated GPS.

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 psudo 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 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 electrical variable tilt for maximum optimization.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015

RoHS COMPLIANT CE

FEATURES

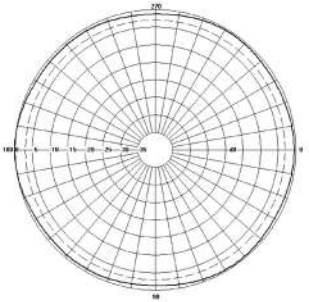
- Wide-band antenna for 3GPP bands 42, 43 & 48.
- Optimized Pseudo omni with reduced azimuth ripple
- Slim monopole design to reduce wind loading
- Independent RET control for each array (x3)

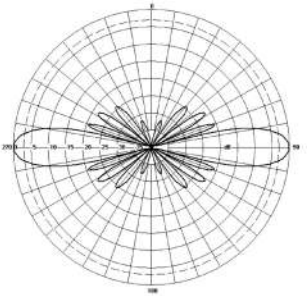
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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 Downtilt	Degree	T0° - 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>	16
Cross-Polar Discrimination	dB>	12
Maximum Effective Power Per Port	W	50

Radiation Pattern Files





Azimuth	Elevation

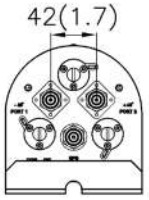
For radiation pattern files, please login at www.alphawireless.com

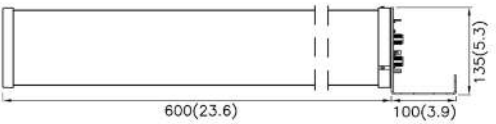
TECHNICAL SPECIFICATION

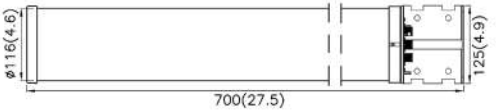
Mechanical Specifications		
Dimensions	mm (in)	700 (27.5) x 125 (4.9) - (L x Ø)
Packing Size (LxWxD)	mm (in)	770 (30.3) x 190 (7.4) x 250 (9.8)
Net Weight (antenna)	kg (lb)	3 (6.6)
Net Weight (mount)	kg (lb)	2 (4.4)
Shipping Weight	kg (lb)	6 (13.2)
Connector Type (Female)	-	N Type
Connector Quantity	-	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)
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)



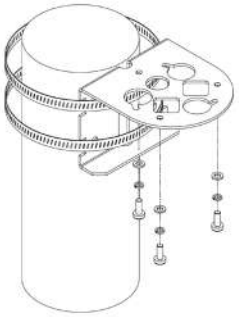


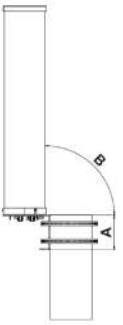


TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-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

1695-2690/3400-3800/5150-5925MHz	8	eRET	14/11/5	65°
Frequency	Ports	Tilt	Gain	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

RoHS COMPLIANT CE

FEATURES

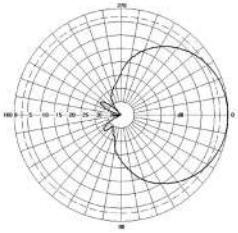
- Compact Design - Low visual impact.
- RET Tilt Range of 2 to 10 degrees
- AISG 2.0 compatible
- Manufactured in Ireland

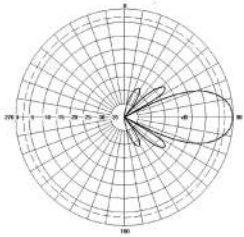
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

TECHNICAL SPECIFICATION

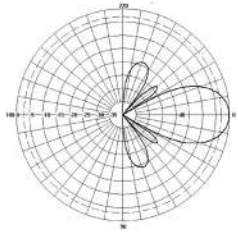
Electrical Specifications							
Frequency Range	MHz	1695-1995	1920-2170	2170-2500	2500-2690	3400-3800	5150-5925
Port Allocation		Ports 1 - 4				Ports 5 & 6	Ports 7 & 8
Polarisation	Degree	+/- 45° Slant Linear					
Gain							
Min Tilt	dBi	12.8 (T2)	13.3 (T2)	13.8 (T2)	14.8 (T2)	11 (T0)	5 (T0)
Mid Tilt	dBi	12.8 (T6)	13.3 (T6)	13.7 (T6)	14.6 (T6)	11 (T0)	5 (T0)
Max Tilt	dBi	12.1 (T10)	12.4 (T10)	13 (T10)	14.1 (T10)	11 (T0)	5 (T0)
Overall Tilts	dBi	12.6	13	13.5	14.5	11 (T0)	5 (T0)
Azimuth Beamwidth	Degree	63°	63°	60°	54°	57°	53°
Azimuth Beam Squint	Degree<	5°					
Elevation Beamwidth	Degree	19°	17°	15°	13°	30°	24°
Electrical Downtilt	Degree	T2°-T10°	T2°-T10°	T2°-T10°	T2°-T10°	T0°	T0°
Electrical Downtilt 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 +/-30°	dB>	27	27	27	27	28	20
Passive Intermodulation	dBc<	-153				N/A	N/A
Cross-Polar Discrimination (0°)	dB>	20	20	20	20	16	10
Maximum Effective Power Per Port	W	250	250	250	250	50	1

Radiation Pattern Files





1695 - 2690MHz



3.5GHz / 5.5GHz

Azimuth	Elevation

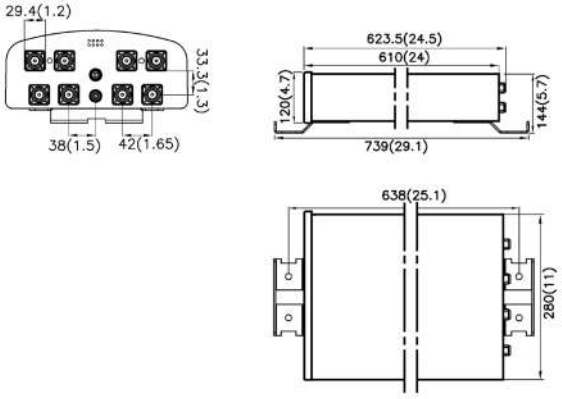
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	610 (24) x 280 (11) 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)	-	4.3-10
Connector Position	-	Bottom
Connector Quantity	-	8 (4P Mid band, 2P High Band CBRS, 2P High Band LAA)
Windload Frontal (at Rated Wind Speed: 150km/h)	N	180 (41)
Windload Lateral (at Rated Wind Speed: 150km/h)	N	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	Celsius (Fahrenheit)	-40 (-40)
Hot Temperature Survival	Celsius (Fahrenheit)	70 (158)

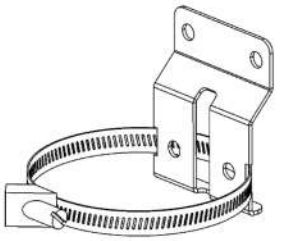
Mechanical Illustration



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

ACCESSORIES

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

ORDERING INFO

AW3639-E-F Enclosed Remote Electrical Tilt (eRET) with 4.3/10 Conectors

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

PRODUCT INFORMATION

This product was developed to offer a Tri-Sector psudo 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

RoHS COMPLIANT

CE

FEATURES

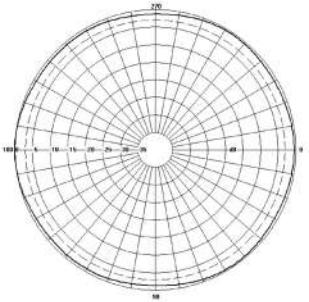
- Wide-band antenna for 3GPP bands 42, 43 & 48.
- Optimized Pseudo omni with reduced azimuth ripple
- Slim monopole design to reduce wind loading
- Independent RET control for each array (x6)

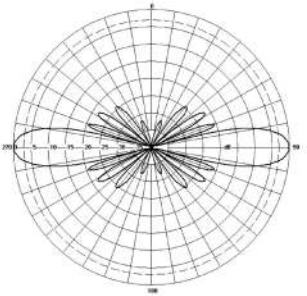
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

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 Downtilt	Degree	T0° - 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>	10
Cross-Polar Discrimination	dB>	7
Maximum Effective Power Per Port	W	50

Radiation Pattern Files





Azimuth	Elevation

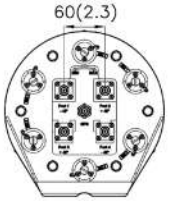
For radiation pattern files, please login at www.alphawireless.com

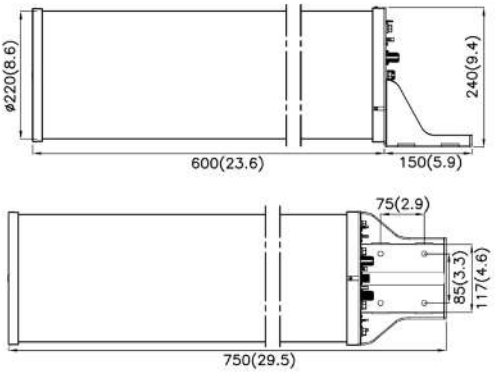
TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	600 (23.6) x 220 (8.6) - (L x Ø)
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)	10 (22)
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)

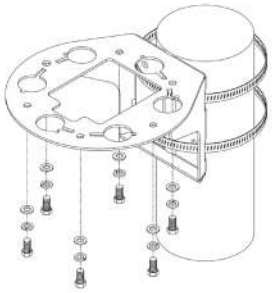


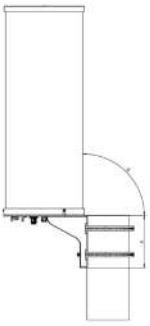


TECHNICAL SPECIFICATION

Mounting Bracket Kit

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





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

ORDERING INFO

AW3672-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	Tilt	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 +/- 30°. 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 infill 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

RoHS COMPLIANT CE

FEATURES

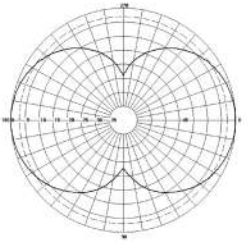
- Back-to-Back radiating sectors.
- Sectors are 65° Azimuth.
- Azimuth Adjust of +/- 30°.
- Small compact form - low visual impact.
- Fitted with GPS receiver and N Type GPS connection.
- Multiple mounting options - Pole top / wall / lamp post.
- Mounting Bracket included.

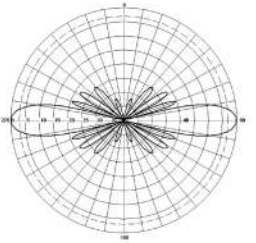
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2496 - 2690
Polarisation	Degree	+/- 45° Slant Linear
Gain	dBi	11.5
Azimuth Beamwidth	Degree	65°
Elevation Beamwidth	Degree	12°
Electrical Downtilt	Degree	T0° - T14°
Electrical Downtilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	<	1.43
Return Loss	dB>	15
Isolation	dB>	28
Passive Intermodulation	dBc<	-150
Upper Sidelobe Suppression, Peak to 20°	dB>	18
Cross-Polar Discrimination	dB>	12
Maximum Effective Power Per Port	W	50

Radiation Pattern Files





Azimuth | Elevation

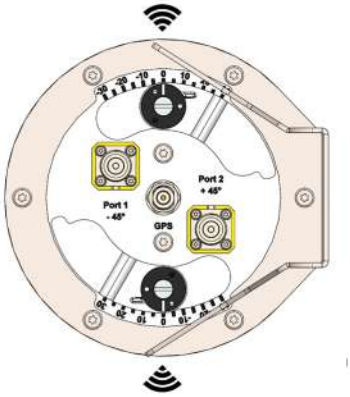
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

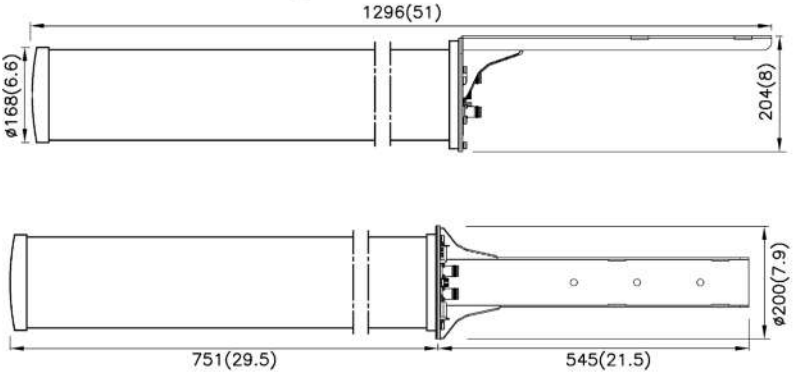
Mechanical Specifications		
Dimensions	mm (in)	751 (29.5) x 168 (6.6) - (L x Ø)
Packing Size (LxWxD)	mm (in)	845 (33.3) x 270 (10.6) x 375 (14.8)
Net Weight (antenna)	kg (lb)	6 (13.2)
Net Weight (mount)	kg (lb)	2.5 (5.5)
Shipping Weight	kg (lb)	9 (19.8)
Connector Type (Female)	-	Mini DIN and N Type (GPS)
Connector Position	-	Bottom
Connector Quantity	-	3 (2 x Mini DIN & 1 x N Type GPS)
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	102 (23)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	102 (23)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilised 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.



TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-145 (Mounting Kit included with Antenna)

Mounting Kit Tilt 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

Frequency	Ports		Tilt	Gain	Beamwidth
1695-2690/3400-3800/5150-5925MHz	20	MET	14/ 11 /6		65º

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

RoHS COMPLIANT CE

FEATURES

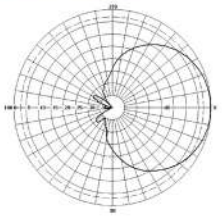
- High port enabling multiple operators.
- High Data rate frequency bands covered including Mid-Band, CBRS and LAA.
- Compact design for low visual impact.
- Mechanical electrical tilt of 2 to 10 degrees.
- Manufactured in Ireland.

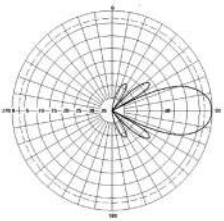
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

TECHNICAL SPECIFICATION

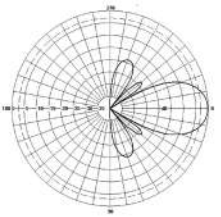
Electrical Specifications							
Frequency Range	MHz	1695-1995	1920-2170	2170-2500	2500-2690	3400-3800	5150-5925
Polarisation	Degree	+/- 45° Slant Linear					
Gain							
Min Tilt	dBi	13.4 (T2)	13.8 (T2)	14.0 (T2)	14.2 (T2)	11.0 (T0)	6 (T0)
Mid Tilt	dBi	13.2 (T6)	13.6 (T6)	13.8 (T6)	14.0 (T6)	11.0 (T0)	6 (T0)
Max Tilt	dBi	12.9 (T10)	13.3 (T10)	13.5 (T10)	13.7 (T10)	11.0 (T0)	6 (T0)
Overall	dBi	13.2	13.6	13.8	14.0	11.0 (T0)	6 (T0)
Azimuth Beamwidth	Degree	71°	67°	63°	58°	60°	60°
Azimuth Beam Squint	Degree<	5°					
Elevation Beamwidth	Degree	19°	17°	15°	13°	30°	25°
Electrical Downtilt	Degree	T2° - T10°	T2° - T10°	T2° - T10°	T2° - T10°	T0°	T0°
Electrical Downtilt Deviation	Degree<	1.5	1.5	1.5	1.5	3.0	3.0
Impedance	Ohms	50					
VSWR	<	1.5					
Return Loss	dB>	14					
Isolation	dB>	25	25	25	25	22	22
Front to Back Ratio: Total Power +/-30°	dB>	27	27	27	27	25	25
Passive Intermodulation	dBc<	-153				N/A	N/A
Cross-Polar Discrimination	dB>	16	16	16	16	16	16
Maximum Effective Power Per Port	W	250	250	250	250	50	1

Radiation Pattern Files





1695 - 2690MHz



3.5GHz / 5.5GHz

Azimuth	Elevation

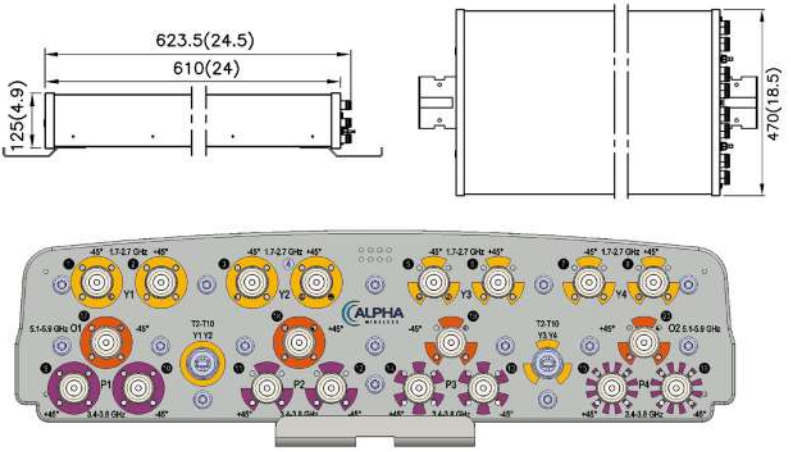
For radiation pattern files, please login at www.alphawireless.com

TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	610 (24) x 470 (18.5) x 125 (4.9)-(LxWxH)
Volume	ft^3 (l)	1.3 (36.8)
Packing Size (LxWxD)	mm (in)	800 (31.5) x 510 (20.1) x 190 (7.5)
Net Weight (antenna)	kg (lb)	10 (22)
Net Weight (mount)	kg (lb)	1.5 (3.3)
Shipping Weight	kg (lb)	11.5 (25.4)
Connector Type (Female)	-	4.3-10
Connector Position	-	Bottom
Connector Quantity	-	20 (8P Mid band, 8P High Band CBRS, 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)

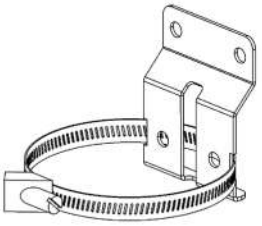
Mechanical Illustration

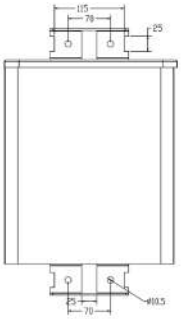


TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-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

AW3689-M-F Manual Electrical Tilt with 4.3-10 connectors

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

Frequency	Ports	Tilt	Gain	Beamwidth
617-894 / 1695-2690 / 3400-3800 / 5150-5925MHz	18	MET	7/14/11/6	65°

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-NII 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.

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-NII-1 requirements for gain and upper side lobe performance.
- Manufactured in Ireland.

STANDARD & CERTIFICATIONS

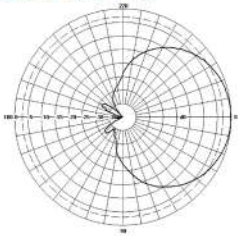
Certification	BS EN ISO 9001:2015

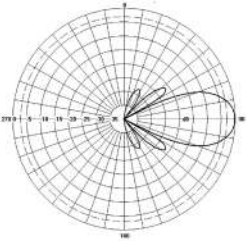
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

TECHNICAL SPECIFICATION

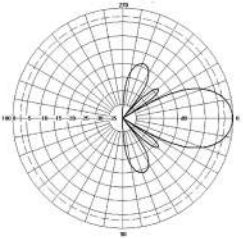
Electrical Specifications		Low Band				Mid Band				3.5/ 5.5GHz	
Frequency Range per Input	MHz	617-686	686-755	755-824	824-894	1695-1995	1920-2170	2170-2500	2500-2690	3400-3800	5150-5925
Polarisation		+/- 45° Slant Linear									
Gain	dBi										
Min Tilt	dBi	7.2 (T0)	7.6 (T0)	7.9 (T0)	8.2 (T0)	13.0 (T2)	13.6 (T2)	14.1 (T2)	14.5 (T2)	11 (T0)	6 (T0)
Mid Tilt	dBi	7.2 (T0)	7.6 (T0)	7.9 (T0)	8.2 (T0)	12.8 (T6)	13.3 (T6)	13.8 (T6)	14.2 (T6)	11 (T0)	6 (T0)
Max Tilt	dBi	7.2 (T0)	7.6 (T0)	7.9 (T0)	8.2 (T0)	12.6 (T10)	13.1 (T10)	13.6 (T10)	14.0 (T10)	11 (T0)	6 (T0)
Overall Tilts	dBi	7.2	7.6	7.9	8.2	12.8	13.3	13.8	14.2	11	6
Azimuth Beamwidth	Degree	75° ±8°	72° ±8°	70° ±7°	66° ±7°	68° ±7°	66° ±7°	62° ±7°	58° ±6°	60° ±6°	57° ±6°
Azimuth Beam Squint	Degree <	5°	5°	5°	5°	5°	5°	5°	5°	5°	5°
Elevation Beamwidth	Degree	88° ±9°	72° ±8°	66° ±7°	64° ±8°	19° ±2°	17° ±2°	15° ±2°	13° ±2°	33° ±3°	26° ±3°
Electrical Downtilt	Degree	T0°	T0°	T0°	T0°	T2°-T10°	T2°-T10°	T2°-T10°	T2°-T10°	T0°	T0°
Electrical Downtilt Deviation	Degree <	5°	5°	5°	5°	1.5	1.5	1.5	1.5	3.0	3.0
Impedance	Ohms	50	50	50	50	50	50	50	50	50	50
VSWR	NA <	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 <	-153	-153	-153	-153	-153	-153	-153	-153	N/A	N/A
Cross Polar Discrimination	dB >	16	16	16	16	16	16	16	16	16	16
Maximum Effective Power Per Port	W	100	100	100	100	250	250	250	250	50	1

Radiation Pattern Files





1695 - 2690MHz



3.5GHz / 5.5GHz

Azimuth | Elevation

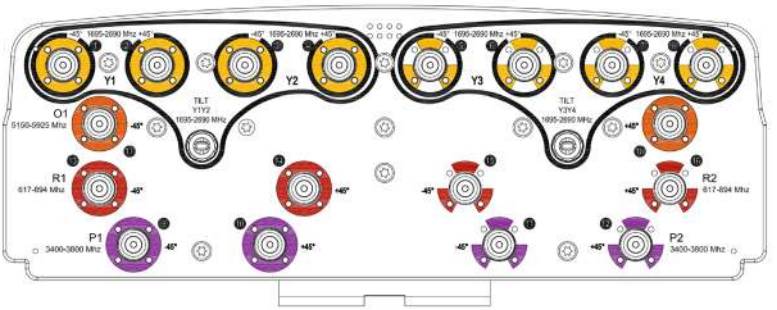
TECHNICAL SPECIFICATION

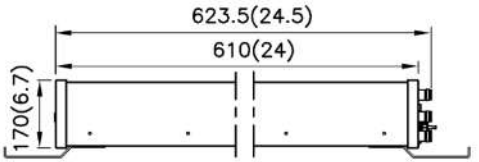
Mechanical Specifications

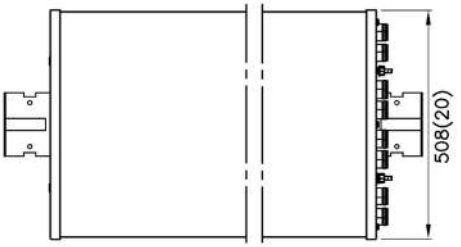
Dimensions	mm (in)	610 (24) x 508 (20) x 170 (6.7) - (LxWxH)
Packing Size (LxWxD)	mm (in)	800 (31.5) x 510 (20.1) x 200 (7.9)
Net Weight (antenna)	kg (lb)	10 (22)
Net Weight (mount)	kg (lb)	1.5 (3.3)
Shipping Weight	kg (lb)	11.5 (24)
Connector Type (Female)	-	4.3-10
Connector Position	-	Bottom
Connector 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
Lightening Protection	-	DC Grounded
Cold Temperature Survival	Celsius (Fahrenheit)	-40 (-40)
Hot Temperature Survival	Celsius (Fahrenheit)	70 (158)

TECHNICAL SPECIFICATION

Mechanical Illustration



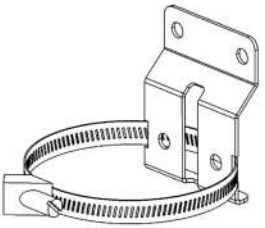


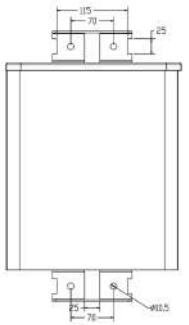


TECHNICAL SPECIFICATION

Mounting Bracket Kit

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-F Mechanical Electrical Tilt with 4.3-10 Connectors.

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

Frequency	Ports	Tilt	Gain	Beamwidth
617-894 / 1695-2690 / 3400-3800 / 5150-5925MHz	24	eRET / MET	11/14/11 /6	65°

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	AISG Motor 1	Ports 1-4
Tilt Screw 2	AISG 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 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.

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

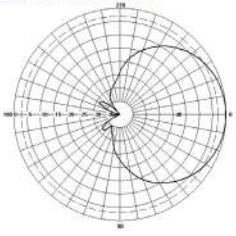
RoHS COMPLIANT CE

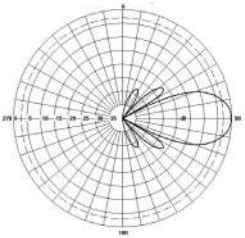
The parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

TECHNICAL SPECIFICATION

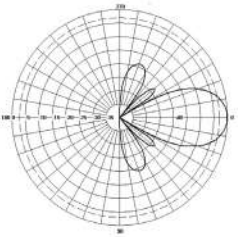
Electrical Specifications		Low Band				Mid Band				3.5/ 5.5GHz	
Frequency Range per Input	MHz	617-686	686-755	755-824	824-894	1695-1995	1920-2170	2170-2500	2500-2690	3400-3800	5150-5925
Polarisation		+/- 45° Slant Linear									
Gain	dBi										
Min Tilt	dBi	10.2 (T0)	10.7 (T0)	11.3 (T0)	11.7 (T0)	13.0 (T2)	13.6 (T2)	14.1 (T2)	14.5 (T2)	11 (T0)	6 (T0)
Mid Tilt	dBi	10.2 (T0)	10.7 (T0)	11.3 (T0)	11.7 (T0)	12.8 (T6)	13.3 (T6)	13.8 (T6)	14.2 (T6)	11 (T0)	6 (T0)
Max Tilt	dBi	10.2 (T0)	10.7 (T0)	11.3 (T0)	11.7 (T0)	12.6 (T10)	13.1 (T10)	13.6 (T10)	14.0 (T10)	11 (T0)	6 (T0)
Overall Tilts	dBi	10.2	10.7	11.3	11.7	12.8	13.3	13.8	14.2	11	6
Azimuth Beamwidth	Degree	78° ±8°	75° ±8°	69° ±7°	64° ±7°	68° ±7°	66° ±7°	62° ±7°	58° ±6°	60° ±6°	57° ±6°
Azimuth Beam Squint	Degree <	5°	5°	5°	5°	5°	5°	5°	5°	5°	5°
Elevation Beamwidth	Degree	40° ±4°	37° ±4°	34° ±4°	32° ±4°	19° ±2°	17° ±2°	15° ±2°	13° ±2°	33° ±4°	26° ±3°
Electrical Downtilt	Degree	T0°	T0°	T0°	T0°	T2°-T10°	T2°-T10°	T2°-T10°	T2°-T10°	T0°	T0°
Electrical Downtilt Deviation	Degree <	3°	3°	3°	3°	1.5	1.5	1.5	1.5	3.0	3.0
Impedance	Ohms	50	50	50	50	50	50	50	50	50	50
VSWR	NA <	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 <	-153	-153	-153	-153	-153	-153	-153	-153	N/A	N/A
Cross Polar Discrimination	dB >	16	16	16	16	16	16	16	16	16	16
Maximum Effective Power Per Port	W	100	100	100	100	250	250	250	250	50	1

Radiation Pattern Files





1695 - 2690MHz



3.5GHz / 5.5GHz

Azimuth	Elevation

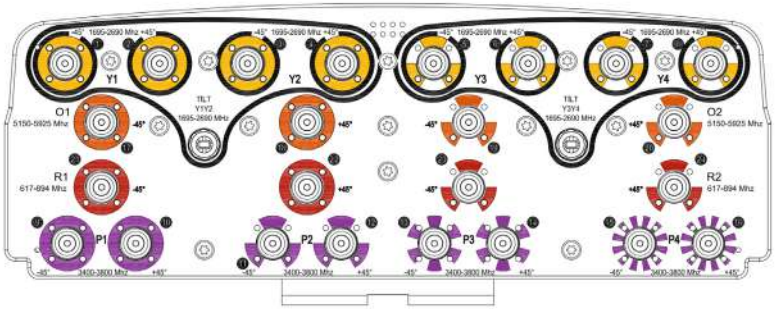
TECHNICAL SPECIFICATION

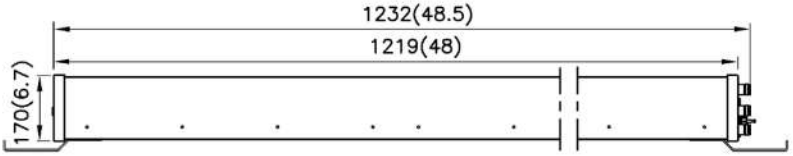
Mechanical Specifications

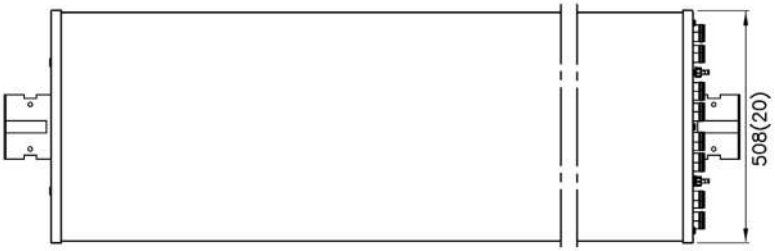
Dimensions	mm (in)	1219 (48) x 412 (16.2) x 136 (5.4) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1270 (50) x 510 (20.1) x 200 (7.9)
Net Weight (antenna)	kg (lb)	14 (31)
Net Weight (mount)	kg (lb)	1.5 (3.3)
Shipping Weight	kg (lb)	15.5 (34.3)
Connector Type (Female)	-	4.3-10
Connector Position	-	Bottom
Connector 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 (lbf)	591 (133)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	183 (30.9)
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



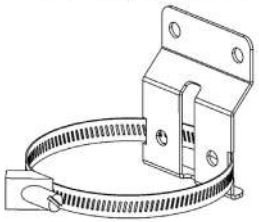


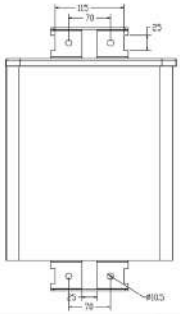


TECHNICAL SPECIFICATION

Mounting Bracket Kit

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

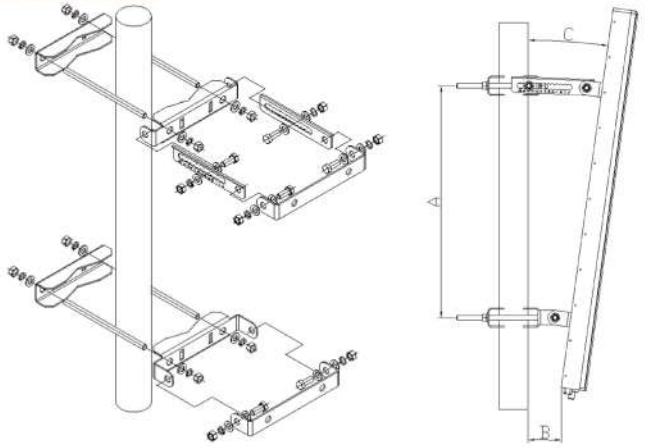
AW3725-M-F	Mechanical Electrical Tilt with 4.3-10 Connectors.
AW3725-E-F	Enclosed Remote Electrical Tilt with 4.3-10 Connectors.

MOUNTING ACCESSORIES

Mounting accessories for the installation of Panel Antennas supporting pole installations.

M8 2mm Standard Mount Kit

Mechanical Illustration



Item:	Description	Quantity
1	V-Block (S/S)	2
2	V-Block with Reversed Arms (S/S)	1
3	V-Block with Long Arms (S/S)	1
4	Tilt Arm - RH (S/S)	1
5	Tilt Arm - RH (S/S)	1
6	Setscrew M8 x 180mm (S/S)	4
7	Nut M8 (S/S)	14
8	Spring Washer M8 (S/S)	10
9	Flat Washer M8 (S/S)	20
10	Bolt M8 x 20mm	6
11	Setscrew Grease Sachet (apply to item 6, Setscrew M8 x 180mm)	1
12	Antenna C-Bracket (S/S) - Supplied with Antenna. Not Part of this Kit.	2

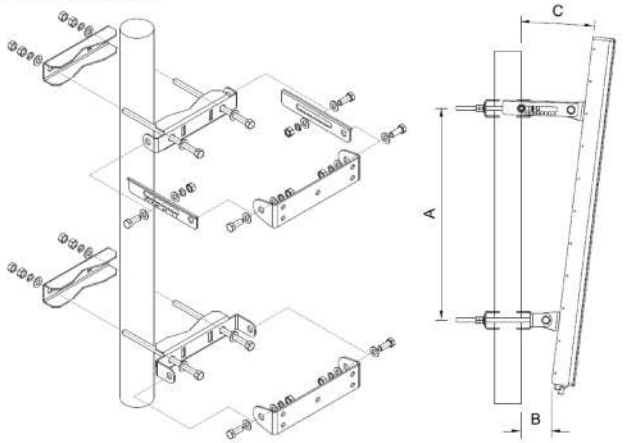
Tools Required:

13mm Spanners for M8 Nuts and Bolts. Apply Grease to M8 adjustable bolts and Setscrews (where the nut tightens).
Tighten the M8 Bolts and Setscrews to 14NM (10 ft-lbs). Do Not over-tighten.
Excessive torque loading can distort the V-Block components.

Mechanical Specifications	
Dimension 'A'	480mm
Dimension 'B'	85mm @ 0°
Dimension 'C'	+2° to -10° (+10° to -2°)
Pole Diameter:	50 - 115mm
Material:	Stainless Steel.

M12 3mm Mount Kit

Mechanical Illustration



Item:	Description	Quantity
1	V-Block (S/S)	2
2	V-Block with Reversed Arms (S/S)	1
3	V-Block with Long Arms (S/S)	1
4	Tilt Arm - RH (S/S)	1
5	Tilt Arm - LH (S/S)	1
6	Setscrew M12 x 180mm (S/S)	4
7	Nut M12 (S/S)	14
8	Spring Washer M12 (S/S)	10
9	Flat Washer M12 (S/S)	20
10	Bolt M12 x 30mm (S/S)	6
11	Setscrew Grease Sachet (apply to item 6, Setscrew M12 x 180mm)	1
12	Antenna C-Bracket (S/S)	2

Tools Required:

19mm Spanners for M12 Nuts and Bolts. Apply Grease to M12 adjustable Bolts and to the Setscrews (where nut tightens). Tighten M12 x 30 Bolts to 50NM (37 ft-lbs). Tighten the M12 Bolts and Setscrews to 32NM (23 ft-lbs).
Do not over-tighten. Excessive torque loading can distort the V-Block components.

Mechanical Specifications	
Dimension 'A'	800mm
Dimension 'B'	85mm @ 0°
Dimension 'C'	+1° to -7° (+7° to -1°)
Pole Diameter:	50-115mm
Material:	Stainless Steel

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CONTACT US

Europe – H.Q.
Ashgrove Business Centre, Ballybrittas, Portlaoise, Co. Laois, R32 DT0A, Ireland.
E sales@alphawireless.com | **T** +353 57 863 3847

United States
KC Offices
11322 W 79th St, Lenexa, KS 66214, USA
E sales@alphawireless.com | **T** +1 913 279 0008

Find out more at alphawireless.com