



... Changing the way
wireless networks are built

+

PANEL CATALOGUE

PANEL

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

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

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Panel

Small Cell

Concealment

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

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Panel

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Concealment

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

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Concealment

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

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

PRODUCT INFORMATION

This slimline solution was developed for fixed wireless applications

APPLICATION

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

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

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

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

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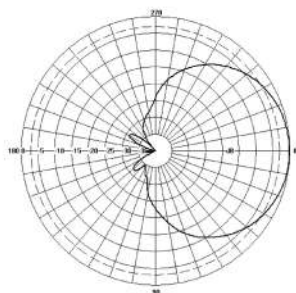
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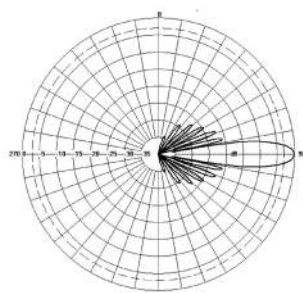
Concealment

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

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Panel

Small Cell

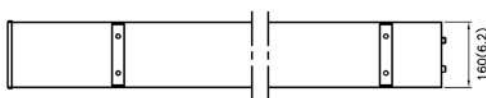
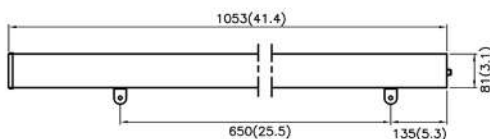
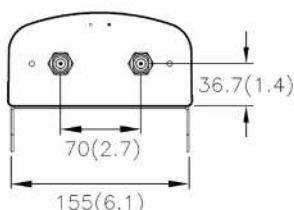
Concealment

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)



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Panel

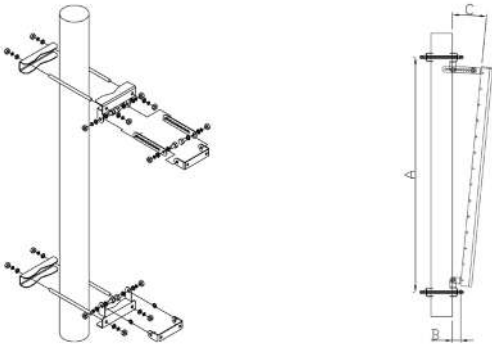
Small Cell

Concealment

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
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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.

Canister

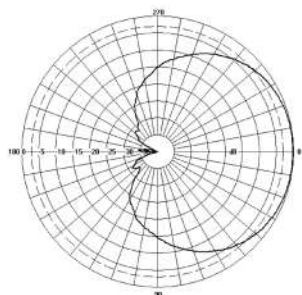
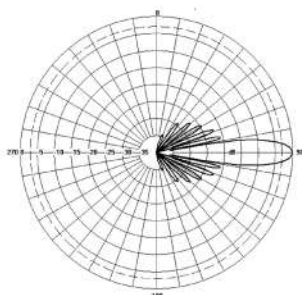
Panel

Small Cell

Concealment

TECHNICAL SPECIFICATION
Electrical Specifications

Frequency Range	MHz	2300-2700MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	17.0
Azimuth Beamwidth	Degree	90°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	7°
Electrical 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

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Panel

Small Cell

Concealment

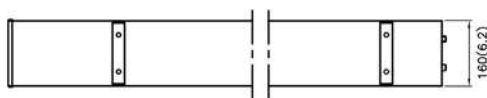
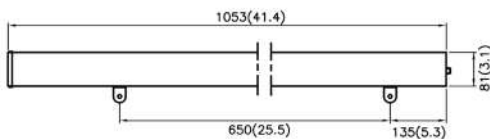
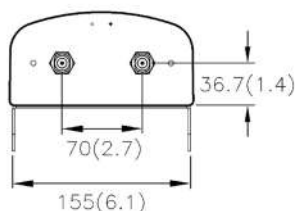
TECHNICAL SPECIFICATION

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)



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Panel

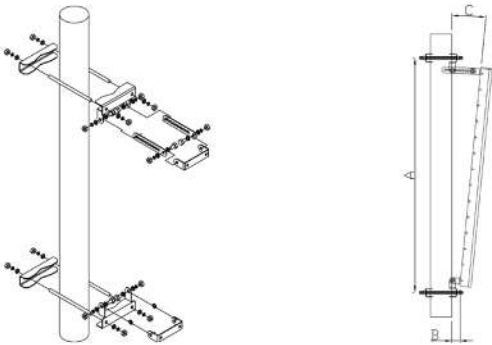
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

- AW3004-T0-N Zero Degrees Fixed Tilt with N Type Connectors
AW3004-T4-N Four Degrees Fixed Tilt with N Type Connectors

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

2300-2700MHz	4	Fixed	18.0	65°
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
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FEATURES

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

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

Canister

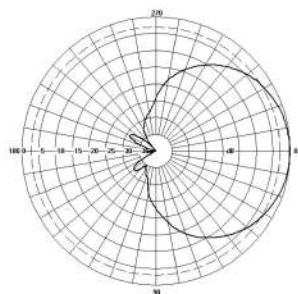
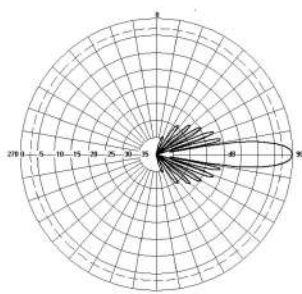
Panel

Small Cell

Concealment

TECHNICAL SPECIFICATION
Electrical Specifications

Frequency Range	MHz	2300-2700MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	18.0
Azimuth Beamwidth	Degree	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

Canister

Panel

Small Cell

Concealment

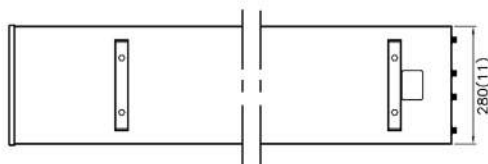
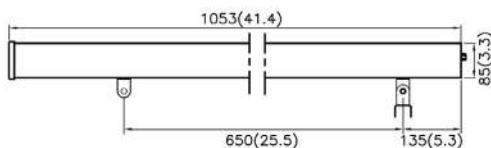
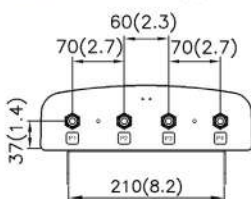
TECHNICAL SPECIFICATION

Mechanical Specifications

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



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Panel

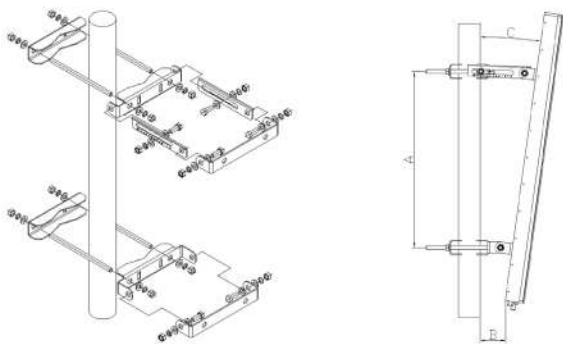
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

- 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
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FEATURES

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

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

Canister

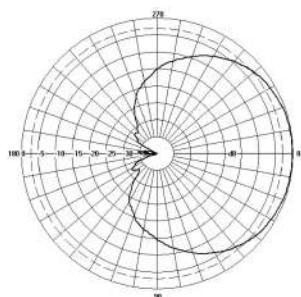
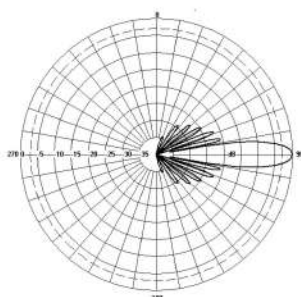
Panel

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Concealment

TECHNICAL SPECIFICATION
Electrical Specifications

Frequency Range	MHz	2300-2700MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	17.0
Azimuth Beamwidth	Degree	90°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	7°
Electrical 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

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Panel

Small Cell

Concealment

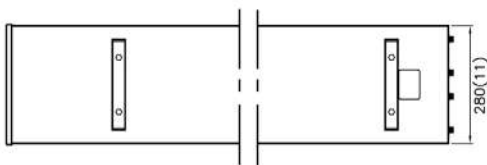
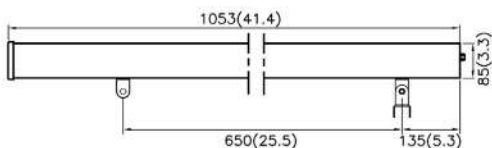
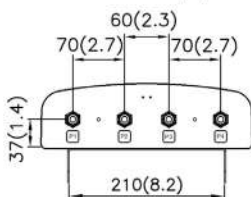
TECHNICAL SPECIFICATION

Mechanical Specifications

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



Canister

Panel

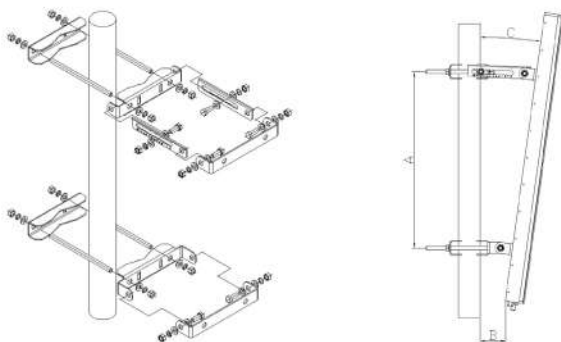
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

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 - 65°

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

PRODUCT INFORMATION

This slimline solution was developed for fixed wireless applications

APPLICATION

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

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

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

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

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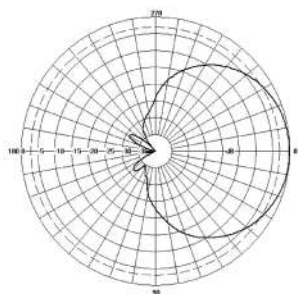
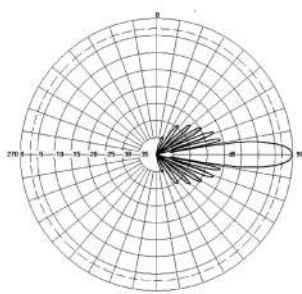
Panel

Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	3300-3800MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	18.0
Azimuth Beamwidth	Degree	65°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	7°
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

Canister

Panel

Small Cell

Concealment

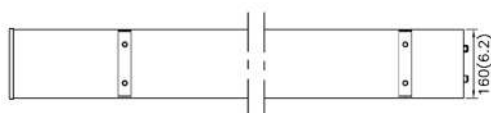
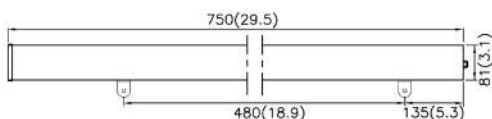
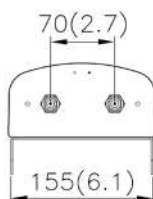
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	750 (29.5) x 160 (6.2) x 81 (3.1) - (L x W x H)
Packing Size (LxWxD)	mm (in)	823(32.4) x 240(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)



Canister

Panel

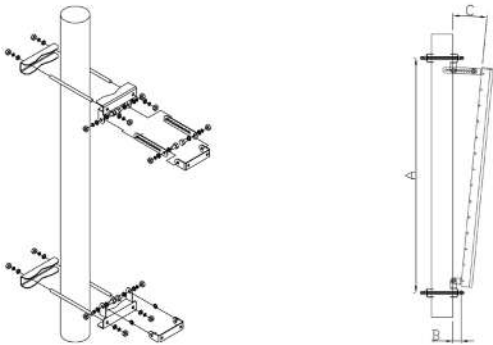
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

- AW3014-T0-N Zero Degrees Fixed Tilt with N Type Connectors
AW3014-T4-N Four Degrees Fixed Tilt with N Type Connectors

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

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

PRODUCT INFORMATION

This slimline solution was developed for fixed wireless applications

APPLICATION

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

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

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

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

Canister

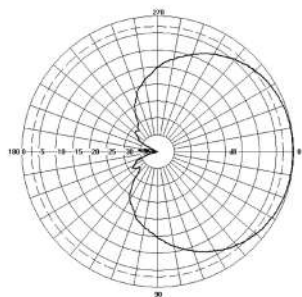
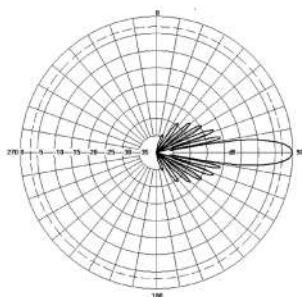
Panel

Small Cell

Concealment

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

Canister

Panel

Small Cell

Concealment

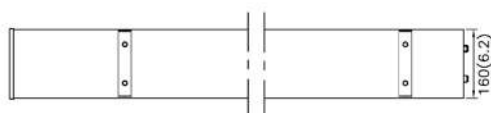
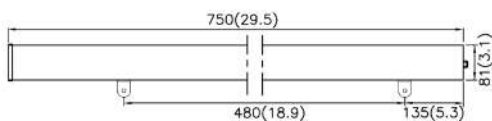
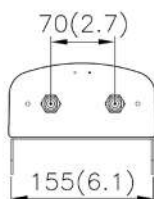
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	750 (29.5) x 160 (6.2) x 81 (3.1) - (L x W x H)
Packing Size (LxWxD)	mm (in)	823(32.4) x 240(9.4) x 178(7)
Net Weight (antenna)	kg (lb)	4.3 (9.4)
Net Weight (mount)	kg (lb)	1.4 (3.1)
Shipping Weight	kg (lb)	5.7 (12.5)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	130 (30)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	80 (18)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilised PVC
Radome Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightning Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

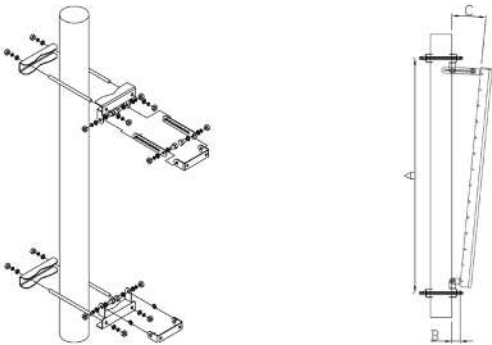
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

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

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

3300-3800MHz	4	Fixed	18.0	65°
Frequency	Ports	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
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FEATURES

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

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

Canister

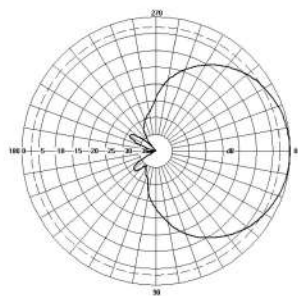
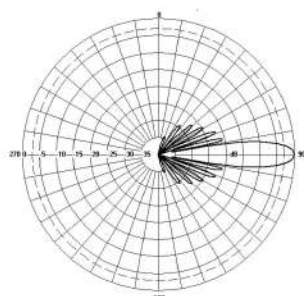
Panel

Small Cell

Concealment

TECHNICAL SPECIFICATION
Electrical Specifications

Frequency Range	MHz	3300-3800MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	18.0
Azimuth Beamwidth	Degree	65°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	7°
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

Canister

Panel

Small Cell

Concealment

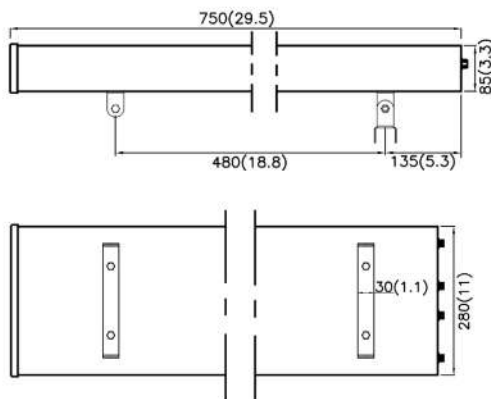
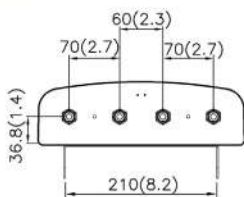
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	750 (29.5) x 280 (11) x 85 (3.3) - (L x W x H)
Packing Size (LxWxD)	mm (in)	823(32.4) x 340(13.3) x 178(7)
Net Weight (antenna)	kg (lb)	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)



Canister

Panel

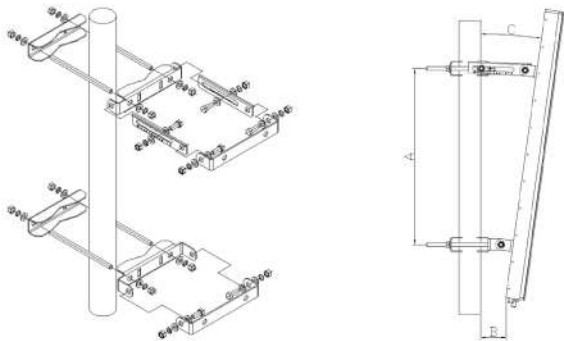
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

- 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
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FEATURES

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

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

Canister

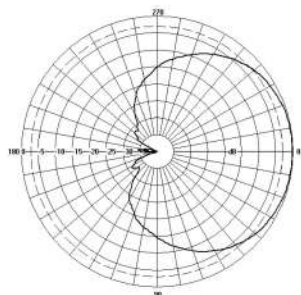
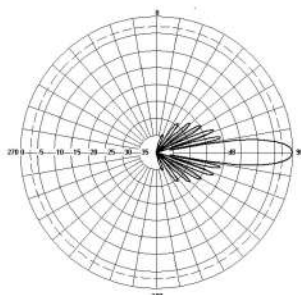
Panel

Small Cell

Concealment

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

Canister

Panel

Small Cell

Concealment

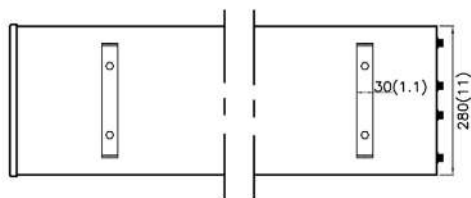
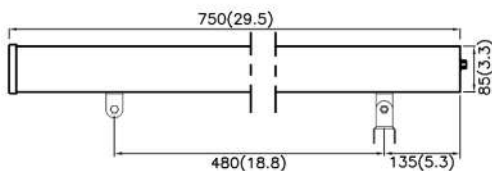
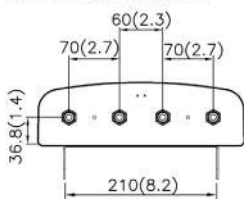
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	750 (29.5) x 280 (11) x 85 (3.3) - (L x W x H)
Packing Size (LxWxD)	mm (in)	823(32.4) x 340(13.3) x 178(7)
Net Weight (antenna)	kg (lb)	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)



Canister

Panel

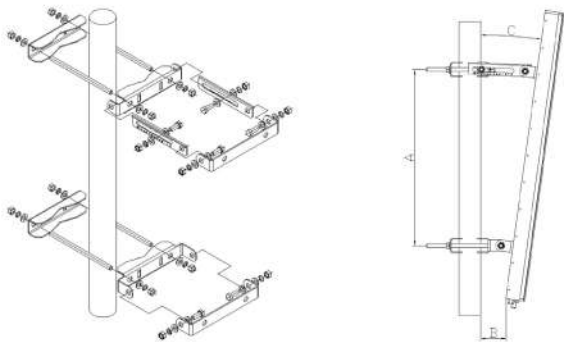
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

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 - 45°

3300-3800MHz	2	Fixed	19.5	45°
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
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FEATURES

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

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

Canister

Panel

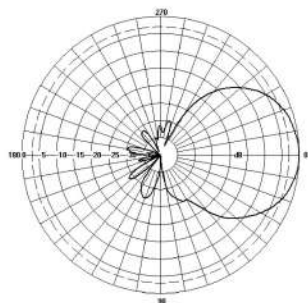
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Concealment

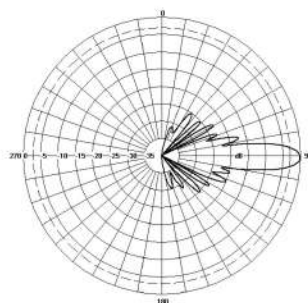
TECHNICAL SPECIFICATION

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

Canister

Panel

Small Cell

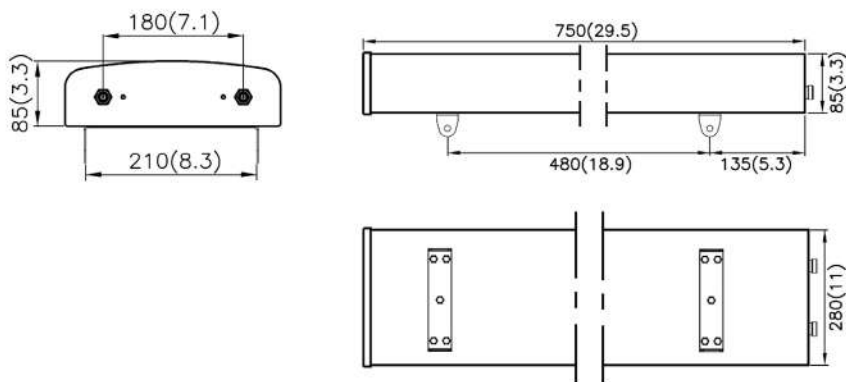
Concealment

TECHNICAL SPECIFICATION
Mechanical Specifications

Dimensions	mm (in)	750 (29.5) x 280 (11) x 85 (3.3) - (L x W x H)
Packing Size (LxWxD)	mm (in)	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)



Canister

Panel

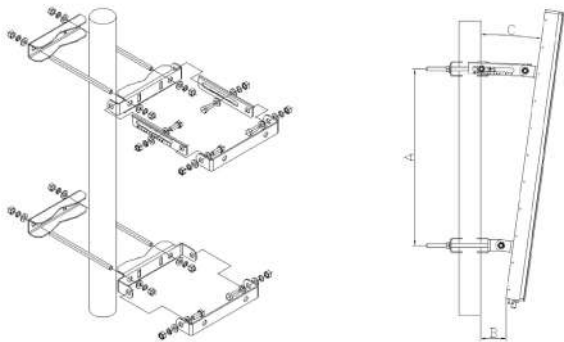
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

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

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

3300-3800MHz	2	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.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

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

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

Canister

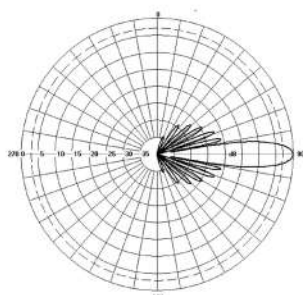
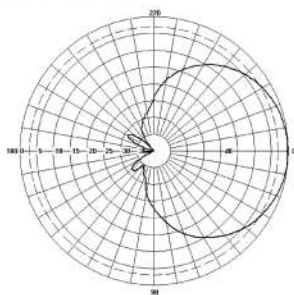
Panel

Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	3300-3800MHz
Polarisation	Degree	+/-45° Slant Linear
Gain		
Min Tilt	dBi	17.3 (T0)
Mid Tilt	dBi	17.0 (T5)
Max Tilt	dBi	16.7 (T10)
Overall 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

Canister

Panel

Small Cell

Concealment

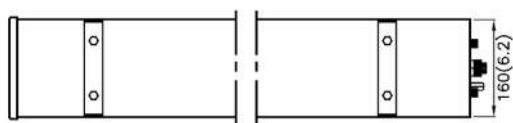
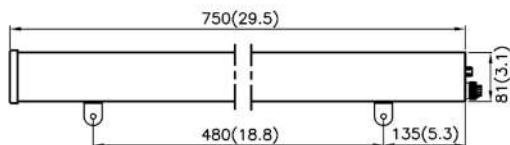
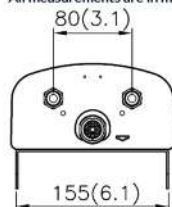
TECHNICAL SPECIFICATION

Mechanical Specifications

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

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

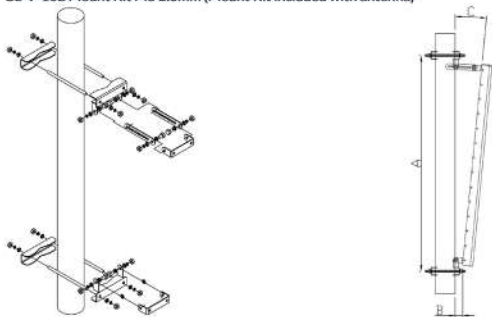
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-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
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FEATURES

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

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

Canister

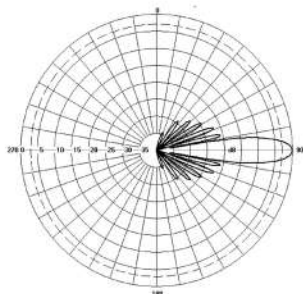
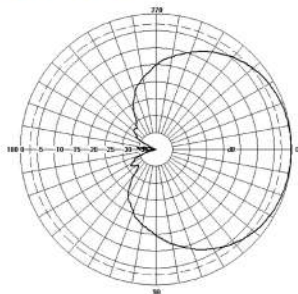
Panel

Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	3300-3800MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
Min Tilt	dBi	16.3 (T0)
Mid Tilt	dBi	16.0 (T5)
Max Tilt	dBi	15.7 (T10)
Overall 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

Canister

Panel

Small Cell

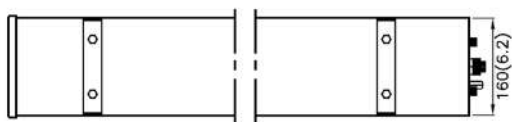
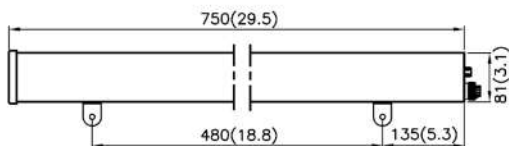
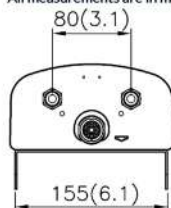
Concealment

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)



Canister

Panel

Small Cell

Concealment

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

3300-3800MHz	4	MET / eRET	17.0	65°
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
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FEATURES

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

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

Canister

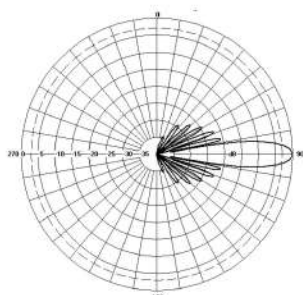
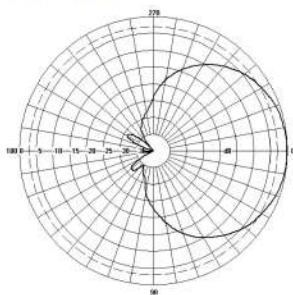
Panel

Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	3300-3800MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
Min Tilt	dBi	17.3 (T0)
Mid Tilt	dBi	17.0 (T5)
Max Tilt	dBi	16.7 (T10)
Overall 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

Canister

Panel

Small Cell

Concealment

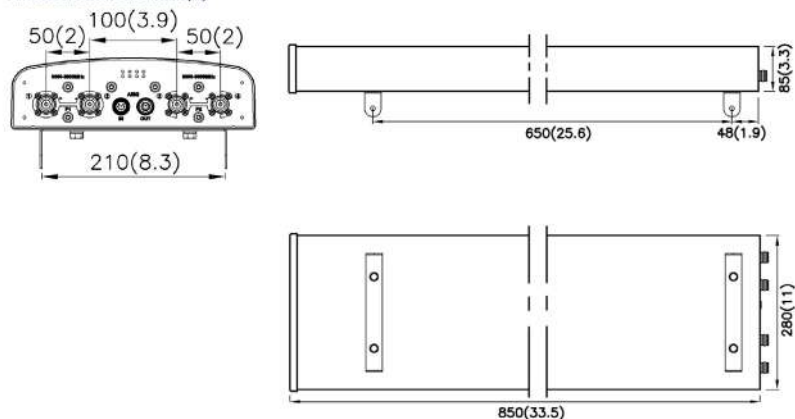
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	850 (33.5) x 280 (11) x 85 (3.3) - (LxWxD)
Packing Size (LxWxD)	mm (in)	970 (38.2) x 335 (13.2) x 175 (6.9)
Net Weight (antenna)	kg (lb)	9 (19.8)
Net Weight (mount)	kg (lb)	1.5 (3.4)
Shipping Weight	kg (lb)	10.5 (23.2)
Connector Type (Female)	-	4.3-10 or N Type
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (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)



Canister

Panel

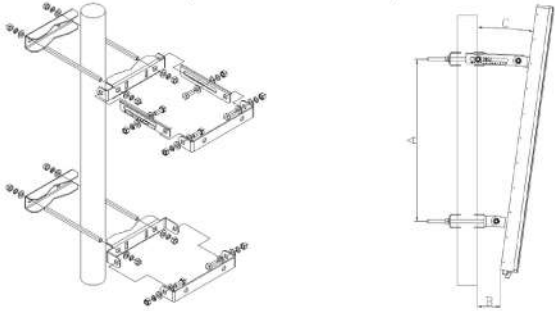
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

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

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

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

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

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

Canister

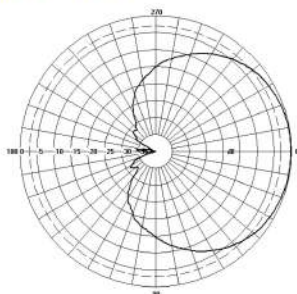
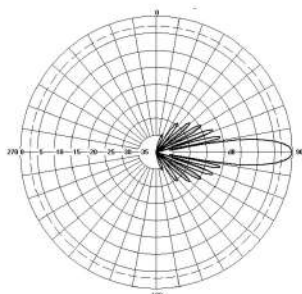
Panel

Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	3300-3800MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
Min Tilt	dBi	16.3 (T0)
Mid Tilt	dBi	16.0 (T5)
Max Tilt	dBi	15.7 (T10)
Overall 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

Canister

Panel

Small Cell

Concealment

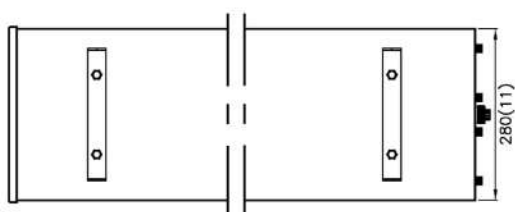
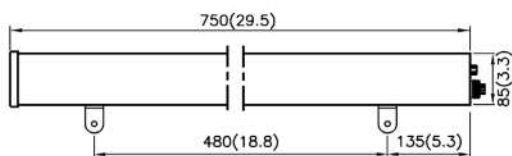
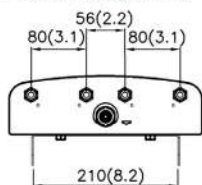
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	750 (29.5) x 280 (11) x 85 (3.3) - (L x W x H)
Packing Size (LxWxD)	mm (in)	823 (32.4) x 340 (13.3) x 178 (7)
Net Weight (antenna)	kg (lb)	9 (19.8)
Net Weight (mount)	kg (lb)	1.5 (3.4)
Shipping Weight	kg (lb)	10.5 (23.2)
Connector Type (Female)	-	N Type
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	220 (50)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	80 (18)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilised PVC
Radome Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

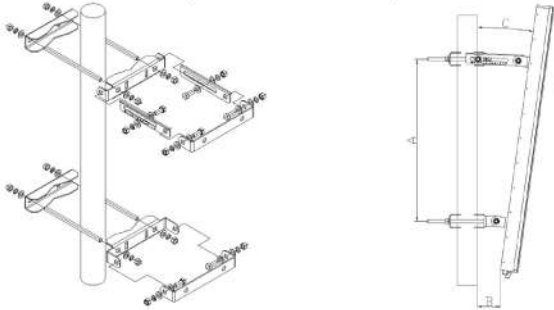
Small Cell

Concealment

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 - 65° - MET

2300-2700MHz	2	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.

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

Canister

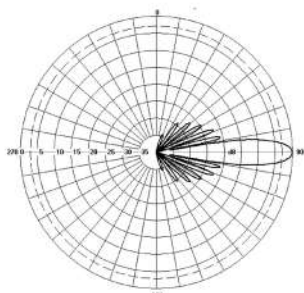
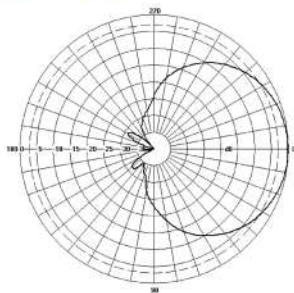
Panel

Small Cell

Concealment

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

Canister

Panel

Small Cell

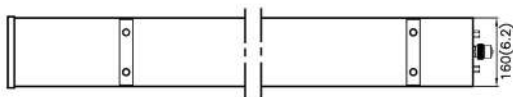
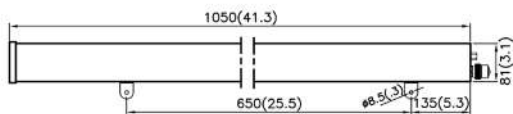
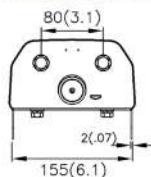
Concealment

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)



Canister

Panel

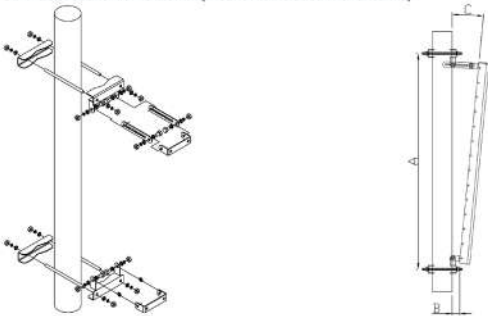
Small Cell

Concealment

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

Canister

Panel

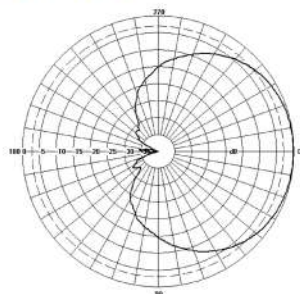
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Concealment

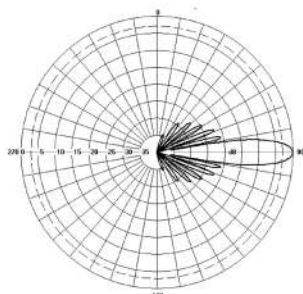
TECHNICAL SPECIFICATION

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

Canister

Panel

Small Cell

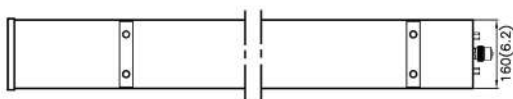
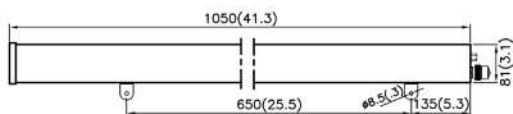
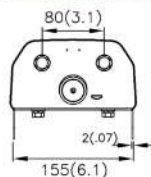
Concealment

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)



Canister

Panel

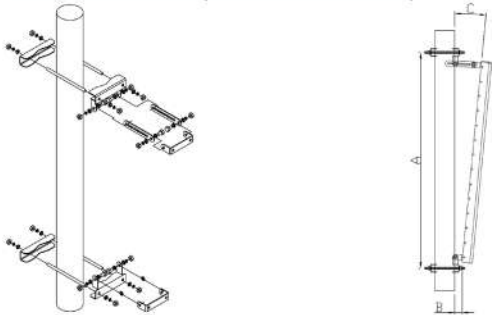
Small Cell

Concealment

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
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FEATURES

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

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

Canister

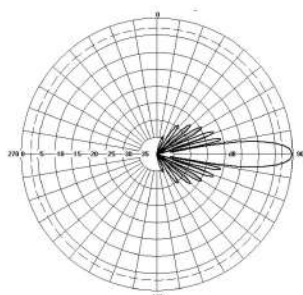
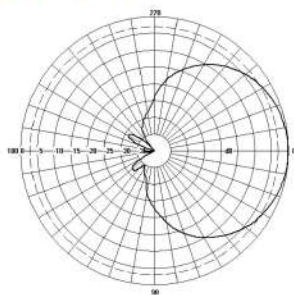
Panel

Small Cell

Concealment

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

Canister

Panel

Small Cell

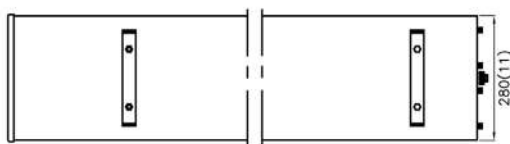
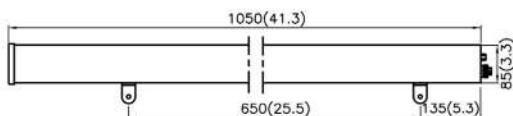
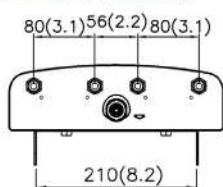
Concealment

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)



Canister

Panel

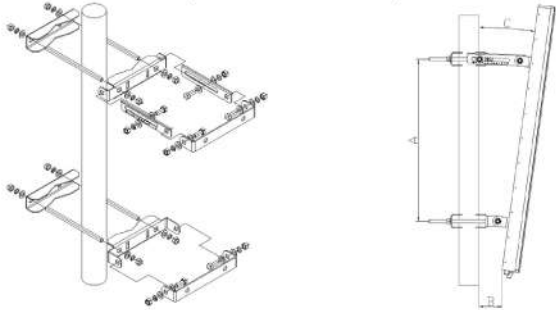
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

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
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FEATURES

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

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

Canister

Panel

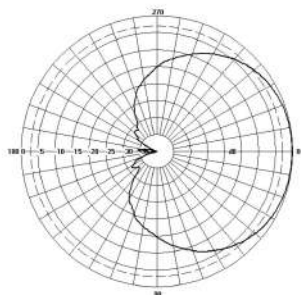
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Concealment

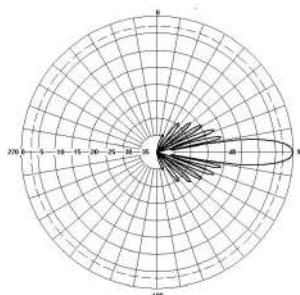
TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2300 - 2700MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
	Min Tilt	dBi
	Mid Tilt	dBi
	Max Tilt	dBi
	Overall Tilts	dBi
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

Canister

Panel

Small Cell

Concealment

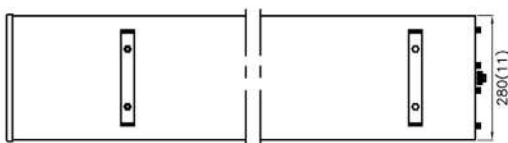
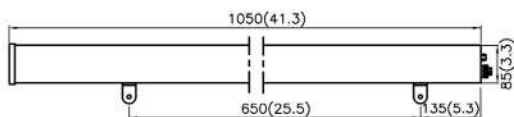
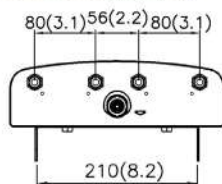
TECHNICAL SPECIFICATION

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)



Canister

Panel

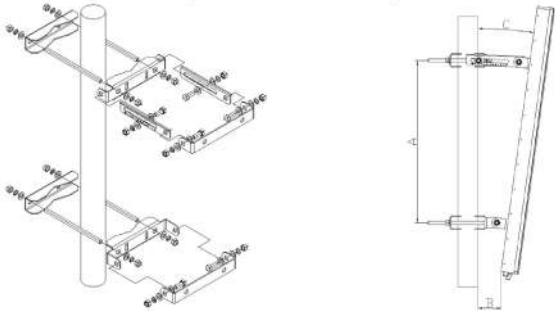
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

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

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

3300-3800MHz	2	Fixed	20.5	33°
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
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FEATURES

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

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

Canister

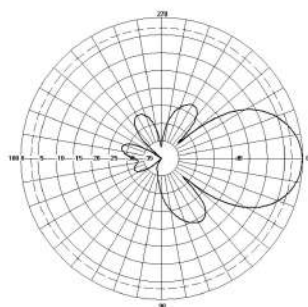
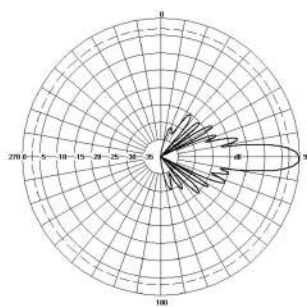
Panel

Small Cell

Concealment

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

Canister

Panel

Small Cell

Concealment

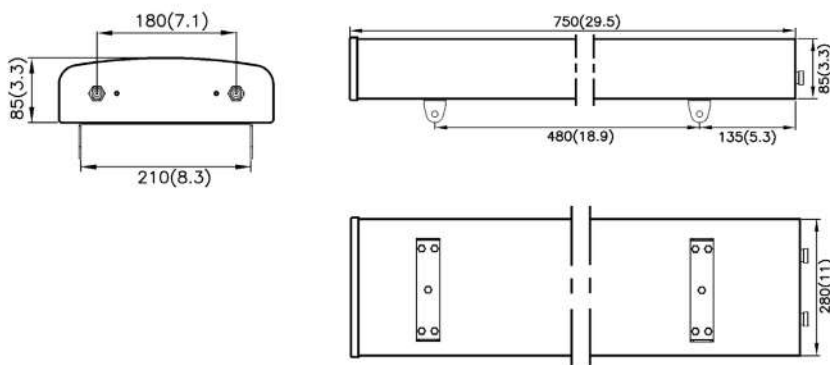
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	750 (29.5) x 280 (11) x 85 (3.3) - (L x W x H)
Packing Size (LxWxD)	mm (in)	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)



Canister

Panel

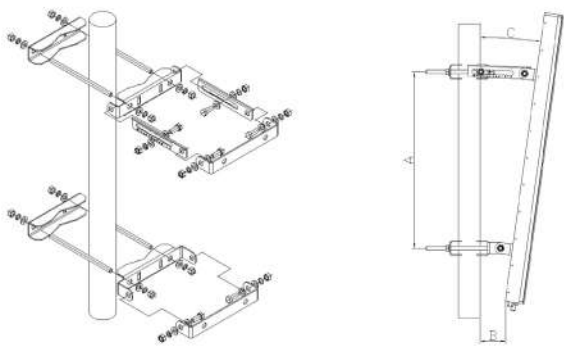
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

- 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	BSEN ISO 9001:2015
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FEATURES

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

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

Canister

Panel

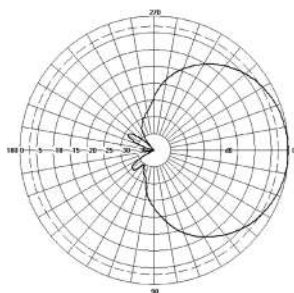
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Concealment

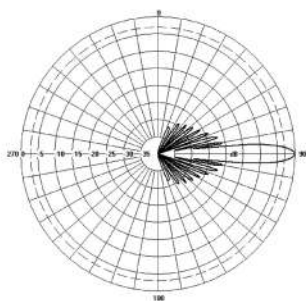
TECHNICAL SPECIFICATION

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

Canister

Panel

Small Cell

Concealment

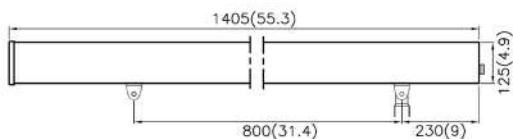
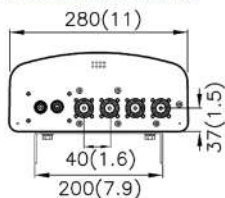
TECHNICAL SPECIFICATION

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)



Canister

Panel

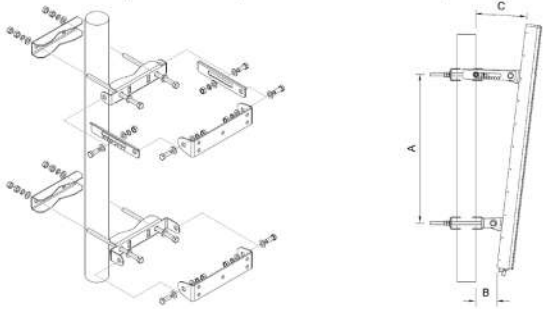
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
+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

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

PRODUCT INFORMATION

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

APPLICATION

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

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

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

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

Canister

Panel

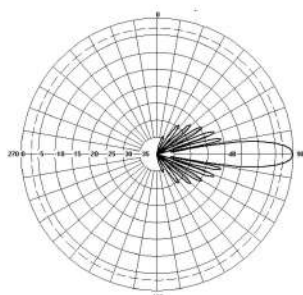
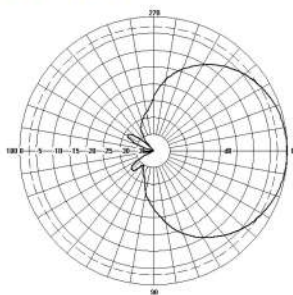
Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications			
Frequency Range	MHz	2300 - 2700	3300 - 3800
Polarisation	Degree	+/- 45° Slant Linear	
Gain			
Min Tilt	dBi	17.7 (T0)	17.7 (T0)
Mid Tilt	dBi	17.5 (T3)	17.5 (T3)
Max Tilt	dBi	17.1 (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

Canister

Panel

Small Cell

Concealment

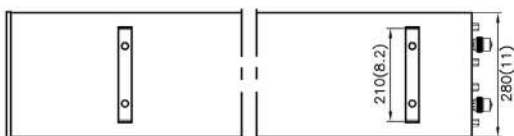
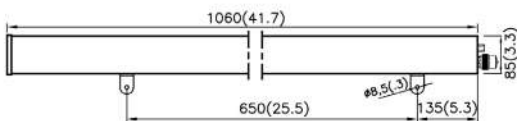
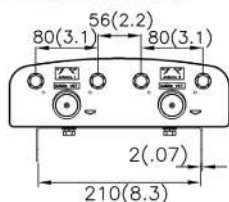
TECHNICAL SPECIFICATION

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)



Canister

Panel

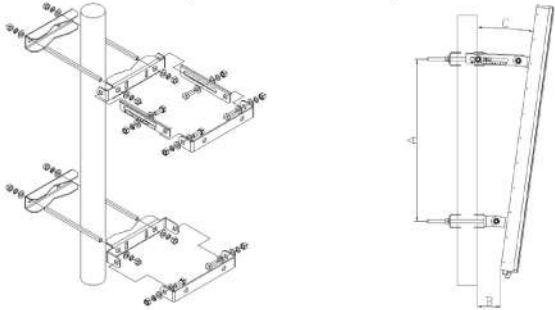
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

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
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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.

Canister

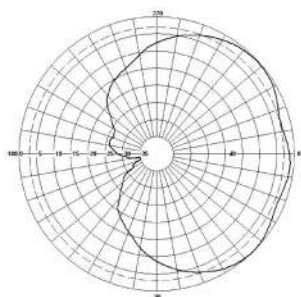
Panel

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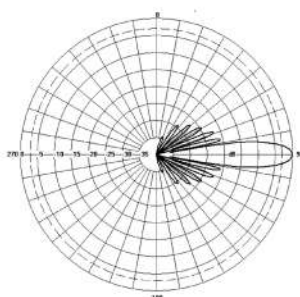
Concealment

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

Canister

Panel

Small Cell

Concealment

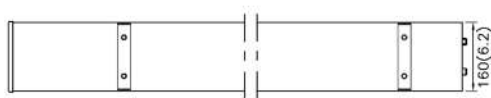
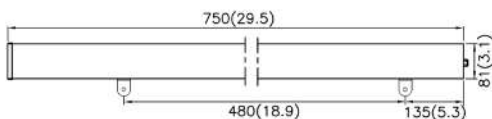
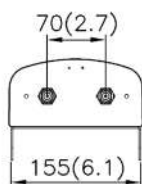
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	750 (29.5) x 160 (6.2) x 81 (3.1) - (L x W x H)
Packing Size (LxWxD)	mm (in)	823 (32.4) x 240 (9.4) x 178 (7)
Net Weight (antenna)	kg (lb)	3 (6.6)
Net Weight (mount)	kg (lb)	1.4 (3.1)
Shipping Weight	kg (lb)	4.4 (9.7)
Connector Type (Female)	-	N Type
Connector Quantity	-	2
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	130 (30)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	80 (18)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilised PVC
Radome Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightning Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

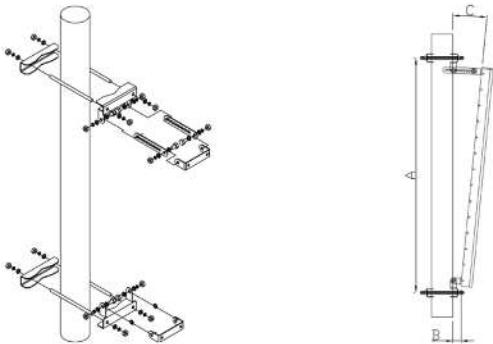
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

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

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

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

PRODUCT INFORMATION

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

APPLICATION

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

STANDARD & CERTIFICATIONS

Certification	BSEN ISO 9001:2015
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FEATURES

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

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

Canister

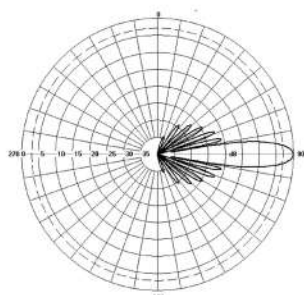
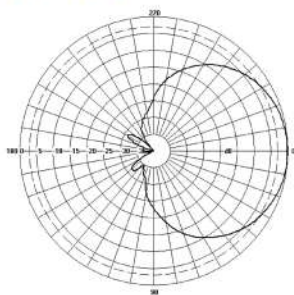
Panel

Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications				
Frequency Range	MHz	2300 - 2700MHz	3300 - 3800MHz	
Polarisation	Degree	+/- 45° Slant Linear		
Gain				
	Min Tilt	dBi	17.3 (T0)	17.3 (T0)
	Mid Tilt	dBi	17.0 (T5)	17.0 (T5)
	Max Tilt	dBi	16.7 (T10)	16.7 (T10)
	Overall Tilt	dBi	17.0	17.0
Azimuth Beamwidth	Degree	65°		
Azimuth Beam Squint	Degree<	3°		
Elevation Beamwidth	Degree	7°		
Electrical Downtilt	Degree	T0° - T10°		
Electrical Downtilt Deviation	Degree<	1°		
Impedance	Ohms	50		
VSWR	<	1.43		
Return Loss	dB>	15		
Isolation	dB>	28		
Front to Back Ratio: Total Power +/-30°	dB>	30		
Upper Sidelobe Suppression, Peak to 20°	dB>	17		
Cross-Polar Discrimination	dB>	16		
Maximum Effective Power Per Port	W	150		

Radiation Pattern Files

Azimuth
Elevation

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

Canister

Panel

Small Cell

Concealment

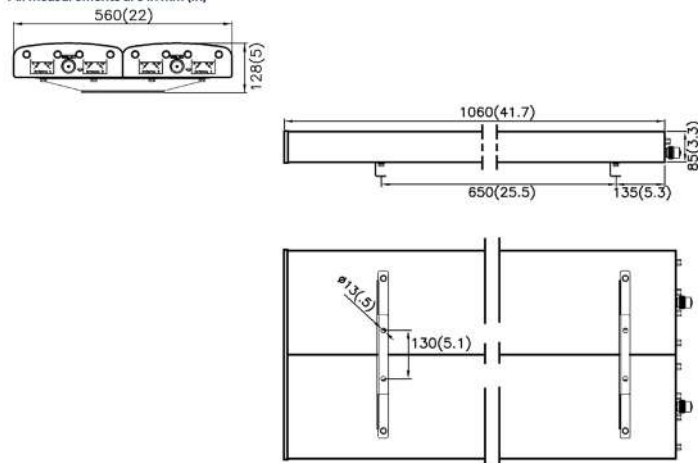
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1060 (41.7) x 560 (22) x 85 (3.3) - (LxWxD)
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)



Canister

Panel

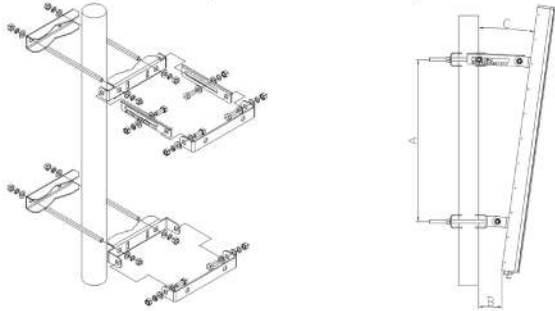
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-104 Mount Kit M12 2.5mm (Mount Kit included with antenna)



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

ORDERING INFO

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

Common Name- 8 Port Beamformer - B41 - 90°

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

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 90° with 0.5 lambda spacing provides the best option for soft split and extended coverage at the cell edge. Alpha Wireless antenna has been tested for seamless calibration port operation with all the radio vendors.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Optimised for 3GPP band 38 & 41
- Designed to work with any Radio vendor at 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.

Canister

Panel

Small Cell

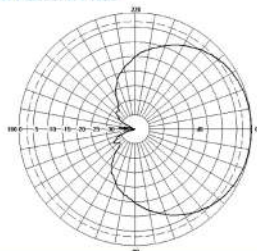
Concealment

TECHNICAL SPECIFICATION

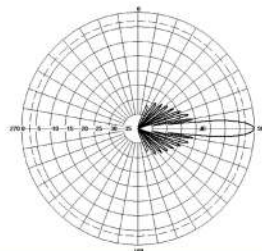
Electrical Specifications

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

Canister

Panel

Small Cell

Concealment

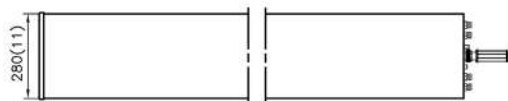
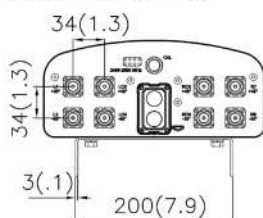
TECHNICAL SPECIFICATION

Mechanical Specifications

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



Canister

Panel

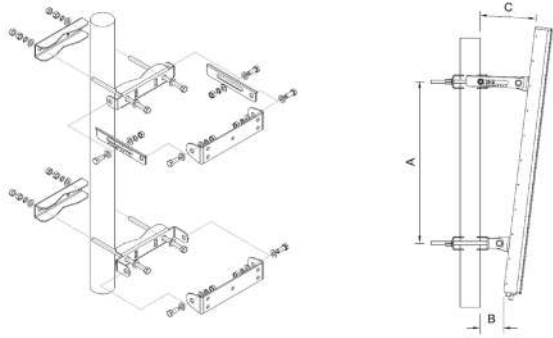
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

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

Common Name- 2 Port B41 - 65° - eRET

2496-2690MHz	2	eRET	17.7	65°
Frequency	Ports	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
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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 parameters in this specification follow the definitions and recommendations per NGMN P-Basta, Release 9.6.

Canister

Panel

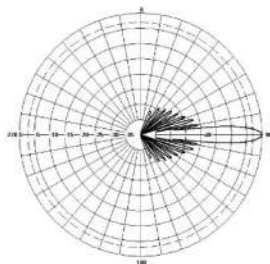
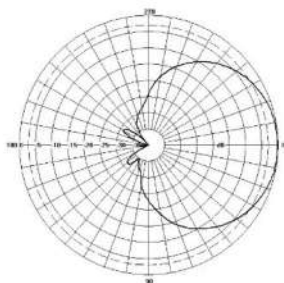
Small Cell

Concealment

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

Canister

Panel

Small Cell

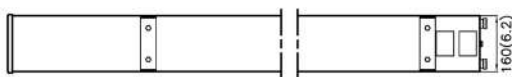
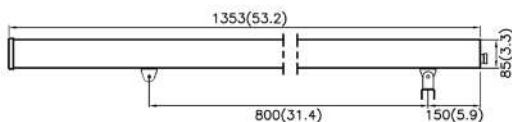
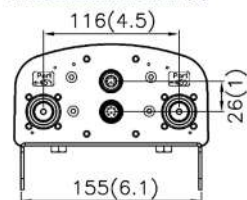
Concealment

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)



Canister

Panel

Small Cell

Concealment

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

Canister

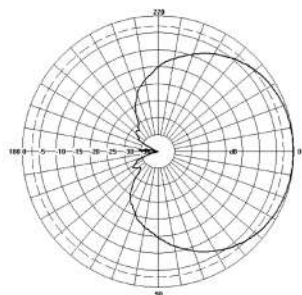
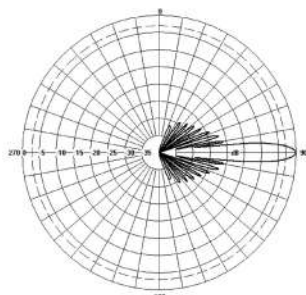
Panel

Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2496 - 2690MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
	Min Tilt	dBi
	Mid Tilt	dBi
	Max Tilt	dBi
	Overall Tilts	dBi
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

Canister

Panel

Small Cell

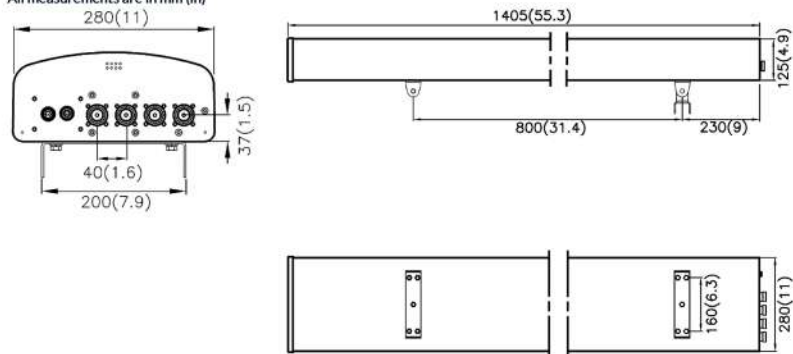
Concealment

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)



Canister

Panel

Small Cell

Concealment

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

Canister

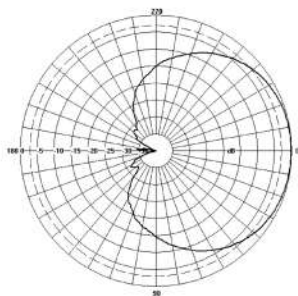
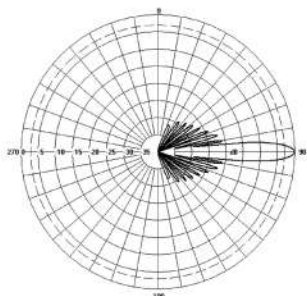
Panel

Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	2496 - 2690MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain		
Min Tilt	dBi	16.5 (T0)
Mid Tilt	dBi	16.3 (T3)
Max Tilt	dBi	16.0 (T6)
Overall 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

Canister

Panel

Small Cell

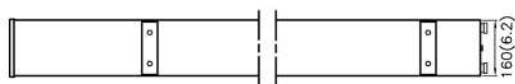
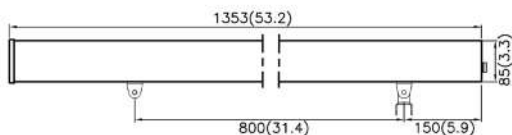
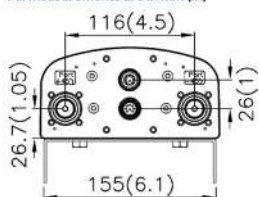
Concealment

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)



Canister

Panel

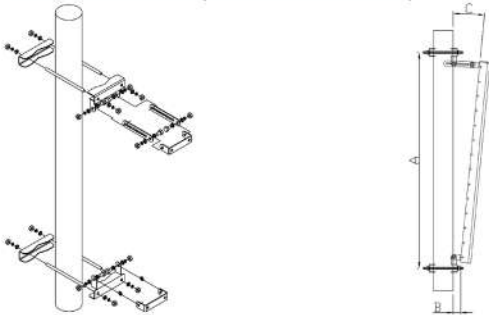
Small Cell

Concealment

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

Canister

Panel

Small Cell

Concealment

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
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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.

Canister

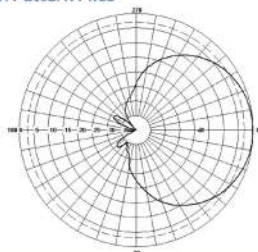
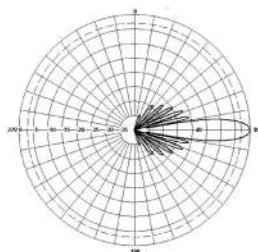
Panel

Small Cell

Concealment

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

Canister

Panel

Small Cell

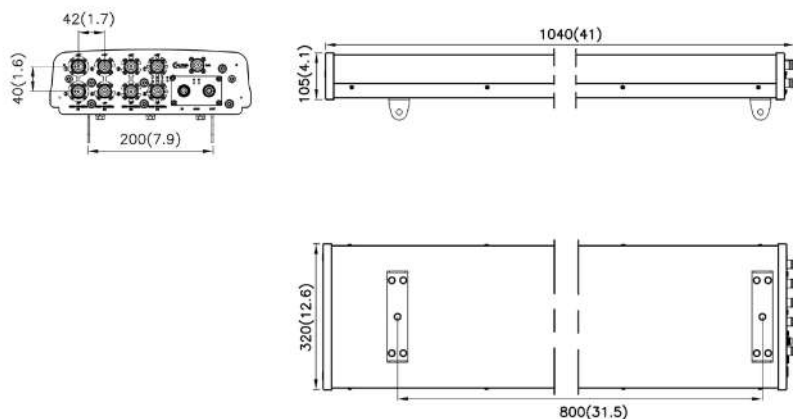
Concealment

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)



Canister

Panel

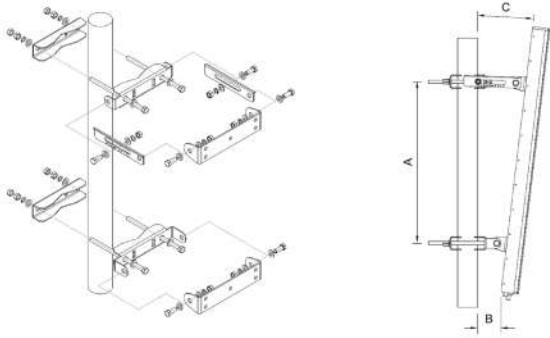
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

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

Common Name- 8 Port Beamformer - B42, 43 & 48 - 90° - 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 90° with 0.5 lambda spacing provides the best option for soft split and extended coverage at the cell edge.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Wide-band antenna for 3GPP bands 42, 43 & 48
- Designed to work with any Radio vendor at TM8
- 90° 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.

Canister

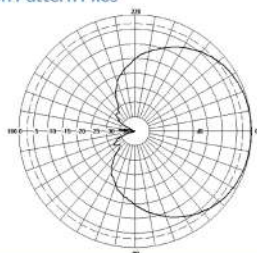
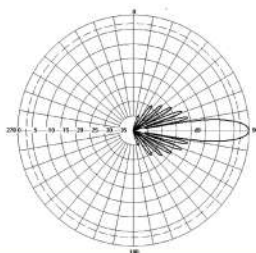
Panel

Small Cell

Concealment

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
	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

Canister

Panel

Small Cell

Concealment

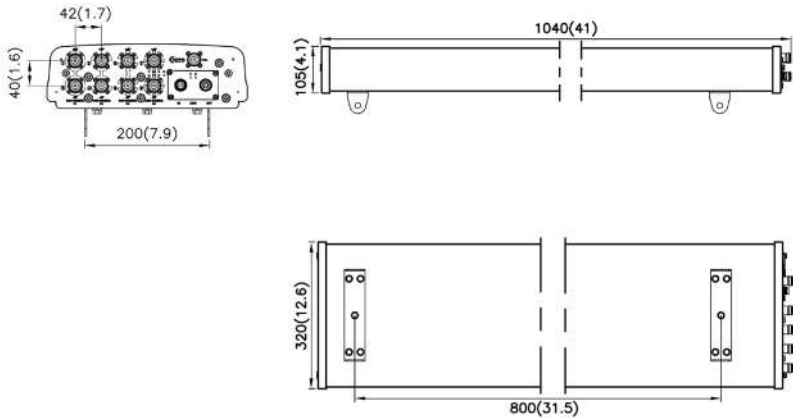
TECHNICAL SPECIFICATION

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)



Canister

Panel

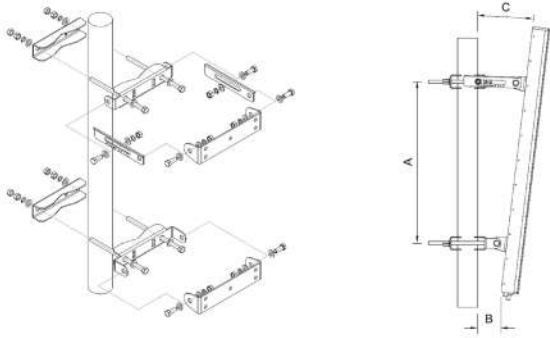
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

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

Canister

Panel

Small Cell

Concealment

Common Name- 8 Port Beamformer - B41 - 65°

2496 - 2690MHz	8	eRET	16.5	65°
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 65° with 0.65 lambda spacing provides the best option for coverage with high performance in the complete sector.

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- Optimised for 3GPP band 38 & 41
- Designed to work with any Radio vendor at 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.

Canister

Panel

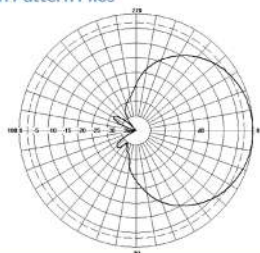
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Concealment

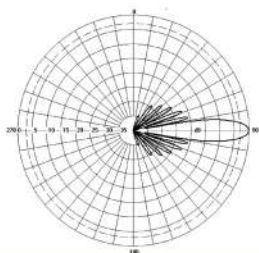
TECHNICAL SPECIFICATION

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

Canister

Panel

Small Cell

Concealment

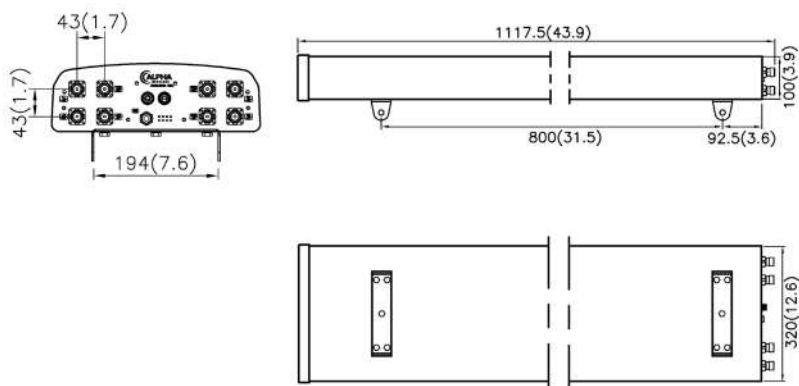
TECHNICAL SPECIFICATION

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)



Canister

Panel

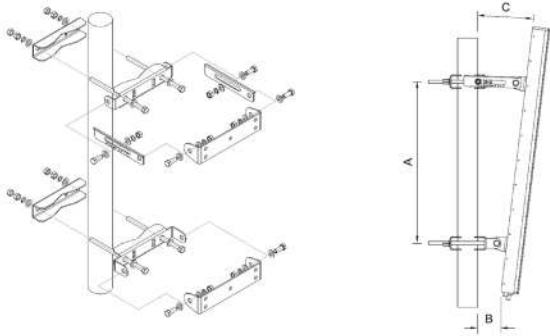
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

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

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

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

PRODUCT INFORMATION

This product was developed to offer narrow Azimuth beam with four port functionality and 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
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FEATURES

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

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

Canister

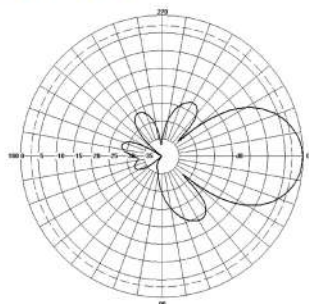
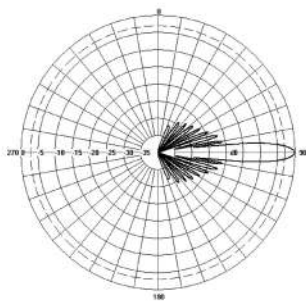
Panel

Small Cell

Concealment

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

Canister

Panel

Small Cell

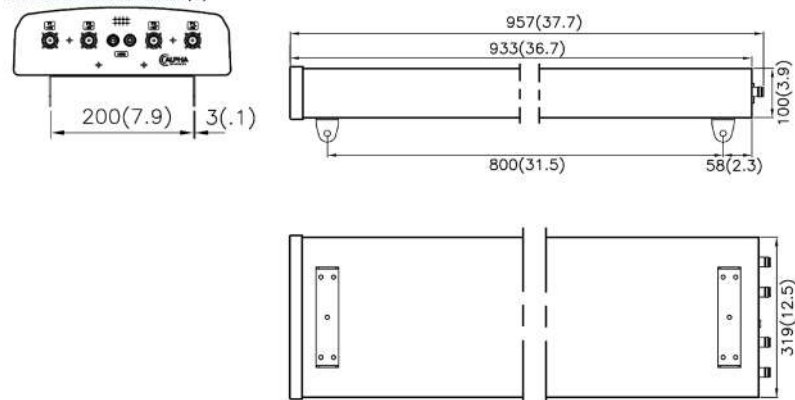
Concealment

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	957 (37.7) x 319 (12.5) x 100 (3.9) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1100 (43.3) x 460 (18.1) x 178 (7)
Net Weight (antenna)	kg (lb)	15 (33)
Net Weight (mount)	kg (lb)	3 (6.6)
Shipping Weight	kg (lb)	18 (39.6)
Connector Type (Female)	-	4.3-10 or N Type
Connector Quantity	-	4
Connector Position	-	Bottom
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	320 (72)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	120 (27)
Survival Wind Speed	km/h (mph)	200 (125)
Radome Material	-	UV-Stabilised PVC
Radome Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightening Protection	-	DC Grounded
Cold Temperature Survival	°C (°F)	-40 (-40)
Hot Temperature Survival	°C (°F)	70 (158)

Mechanical Illustration

All measurements are in mm (in)



Canister

Panel

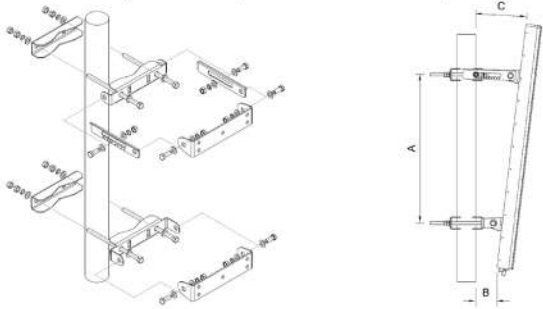
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-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

Canister

Panel

Small Cell

Concealment

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

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

PRODUCT INFORMATION

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

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

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

Canister

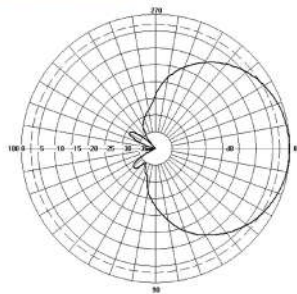
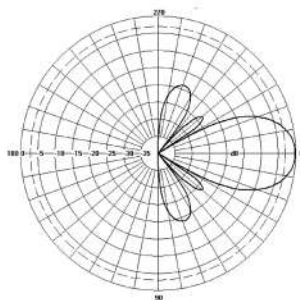
Panel

Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	698 - 960MHz
Polarisation	Degree	+/-45° Slant Linear
Gain	dBi	12
Azimuth Beamwidth	Degree	65°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	22°
Electrical 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

Canister

Panel

Small Cell

Concealment

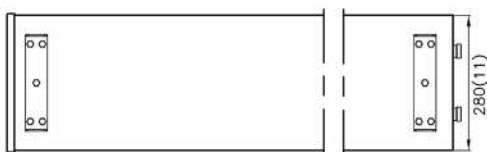
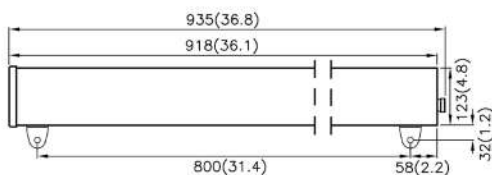
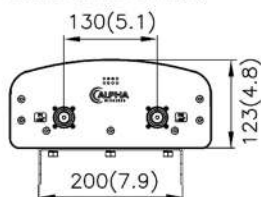
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	935 (36.8) x 280 (11) x 123 (4.8) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1100 (43) x 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)



Canister

Panel

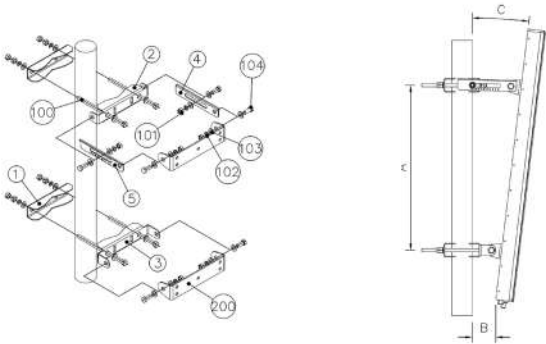
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

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

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

3300-3800MHz	4	Fixed	19.5	33°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

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

APPLICATION

Alpha Wireless sector antennas are the most commonly used solution for designing high quality wireless networks. The 33 degree azimuth patterns allows to increase capacity to 6 sectors without increasing the number of sites. The horizontally spaced array allows optimum MIMO performance with full 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
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FEATURES

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

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

Canister

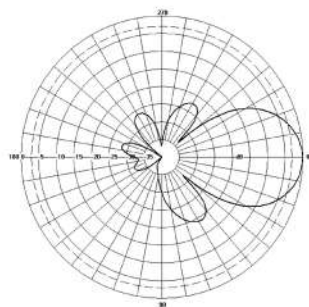
Panel

Small Cell

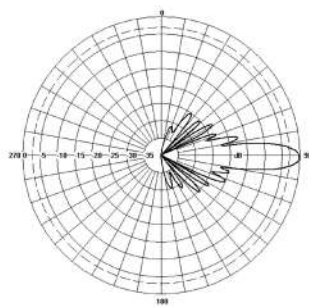
Concealment

TECHNICAL SPECIFICATION

Electrical Specifications		
Frequency Range	MHz	3300 - 3800MHz
Polarisation	Degree	+/- 45° Slant Linear
Gain	dBi	19.5
Azimuth Beamwidth	Degree	33°
Azimuth Beam Squint	Degree<	3°
Elevation Beamwidth	Degree	7°
Electrical Downtilt	Degree	T0° or T4°
Electrical Downtilt Deviation	Degree<	1°
Impedance	Ohms	50
VSWR	<	1.5
Return Loss	dB>	14
Isolation	dB>	25
Front to Back Ratio: Total Power +/-30°	dB>	27
Upper Sidelobe Suppression, Peak to 20°	dB>	15
Cross-Polar Discrimination	dB>	16
Maximum Effective Power Per Port	W	100

Radiation Pattern Files


Azimuth



Elevation

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

Canister

Panel

Small Cell

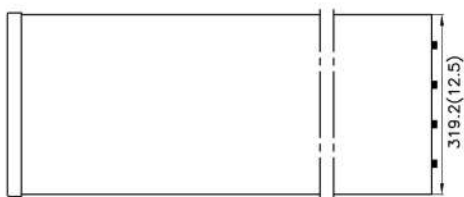
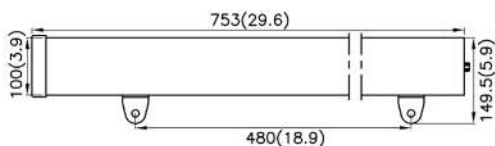
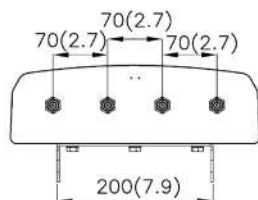
Concealment

TECHNICAL SPECIFICATION

Mechanical Specifications		
Dimensions	mm (in)	753 (29.9) x 319 (12.5) x 100 (3.9) - (LxWxH)
Packing Size (LxWxD)	mm (in)	855 (33.7) x 480 (18.9) x 210 (8.3)
Net Weight (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)



Canister

Panel

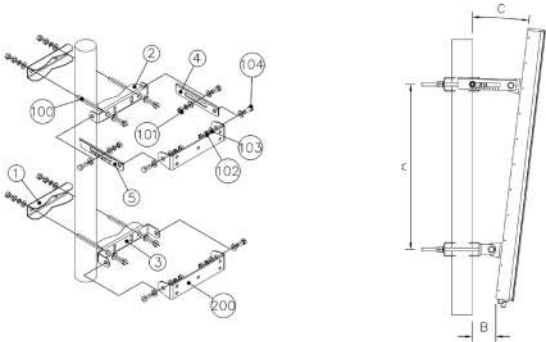
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

- 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°

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

PRODUCT INFORMATION

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

APPLICATION

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

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

STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

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

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

Canister

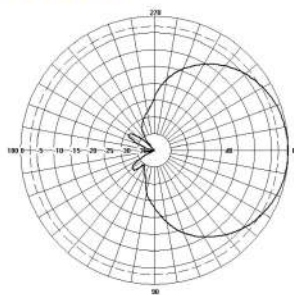
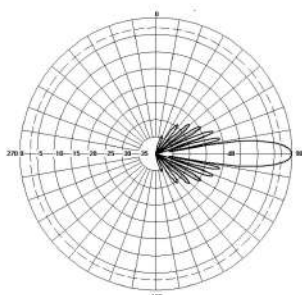
Panel

Small Cell

Concealment

TECHNICAL SPECIFICATION

Electrical Specifications			
Frequency Range	MHz	2300 - 2700	3300 - 3800
Polarisation	Degree	+/- 45° Slant Linear	
Gain	dBi	16.5	17.2
Azimuth Beamwidth	Degree	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

Canister

Panel

Small Cell

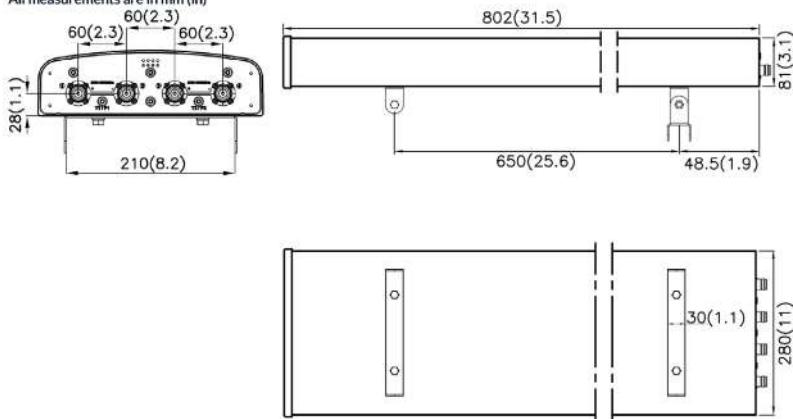
Concealment

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)



Canister

Panel

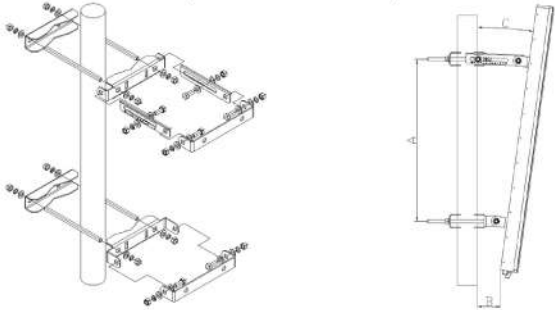
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

- 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
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FEATURES

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

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

Canister

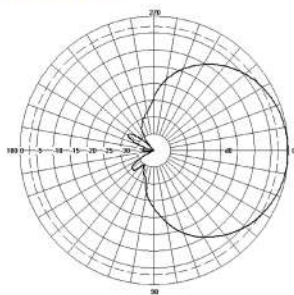
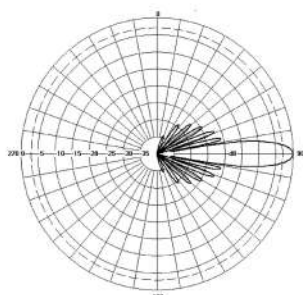
Panel

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Concealment

TECHNICAL SPECIFICATION

Electrical Specifications			
Frequency Range	MHz	3300 - 3800	4900 - 5950
Polarisation	Degree	+/- 45° Slant Linear	
Gain	dBi	17.5	17.0
Azimuth Beamwidth	Degree	60°	58°
Azimuth Beam Squint	Degree<	5°	
Elevation Beamwidth	Degree	6.5°	7°
Electrical 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

Canister

Panel

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Concealment

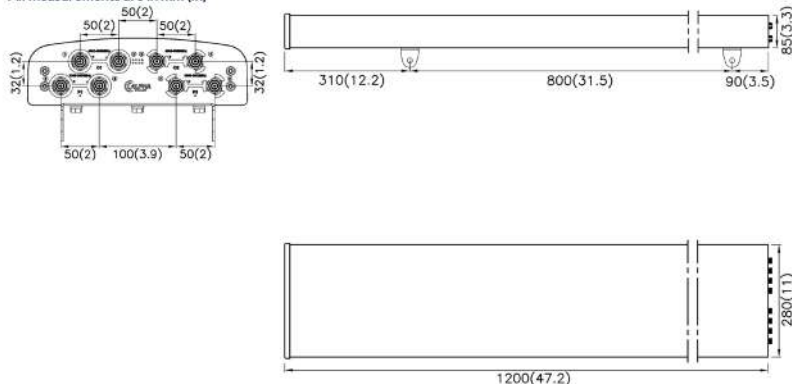
TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	1200 (47.2) x 280 (11) x 85 (3.3) - (LxWxH)
Packing Size (LxWxD)	mm (in)	1300 (51.2) x 340 (13.3) x 178 (7)
Net Weight (antenna)	kg (lb)	9 (19.8)
Net Weight (mount)	kg (lb)	1.57 (3.4)
Shipping Weight	kg (lb)	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)



Canister

Panel

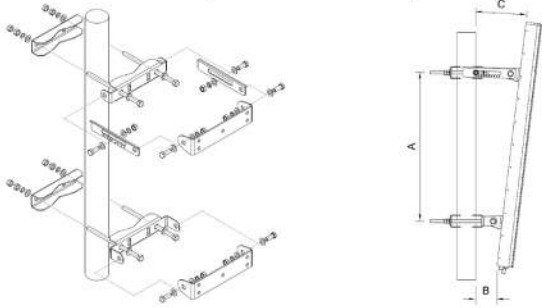
Small Cell

Concealment

TECHNICAL SPECIFICATION

Mounting Bracket Kit

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



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

ORDERING INFO

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

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wireless networks are built

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

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