



AW3747-T0-F

Common Name 12 Port, (4P/4P/2P/2P), 24", Omni 360° Low Band, Mid Band, CBRS & LAA, Small Cell

617-894MHz	4	Fixed	2.1	360°
1695-2690MHz	4	Fixed	8.5	360°
3400-3800MHz	2	Fixed	5	360°
5150-5925MHz	2	Fixed	5	360°
Frequency	Ports	Tilt	Gain	Beamwidth

PRODUCT INFORMATION

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

The high port count provides support for multiple operators and high data rates across LTE and 5G NR low band, mid band, 3.5 GHz CBRS (n48), and 5 GHz LAA (n78).

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

APPLICATION

This Alpha Wireless multi-port multi-band small cell provides a solution where 24" height is important. The CL-V-169 Pole Mount Bracket is used to mount this canister on poles.



STANDARD & CERTIFICATIONS

Certification	BS EN ISO 9001:2015
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FEATURES

- High Port count enabling multiple operators.
- High Data rate frequency bands covered LTE and 5G NR low band, mid band, 3.5 GHz CBRS (n48), and 5 GHz LAA (n78).
- Low Band extends down to 617MHz
- Compact design for low visual impact.
- Meets current U-NII-1 requirements for gain and upper side lobe performance.

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

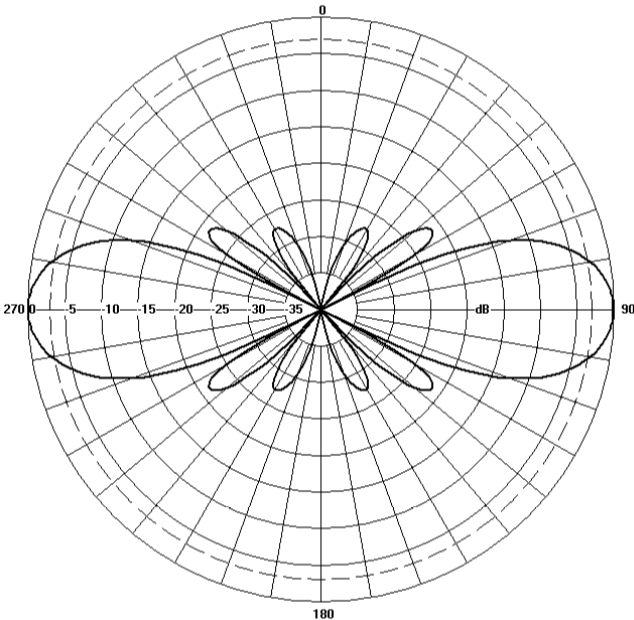
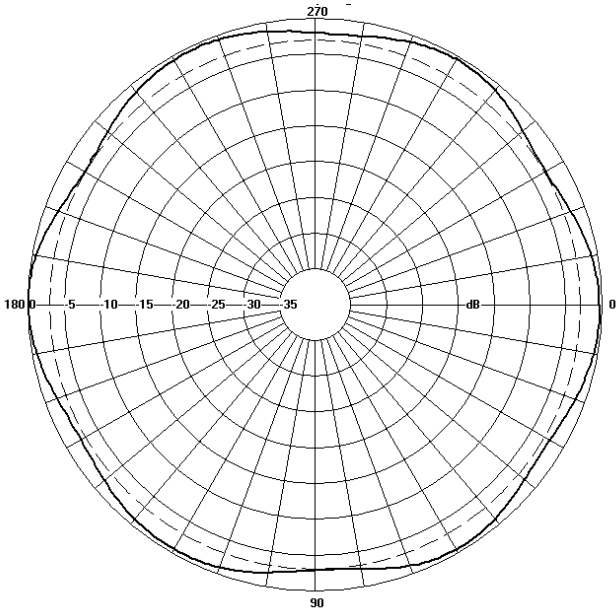


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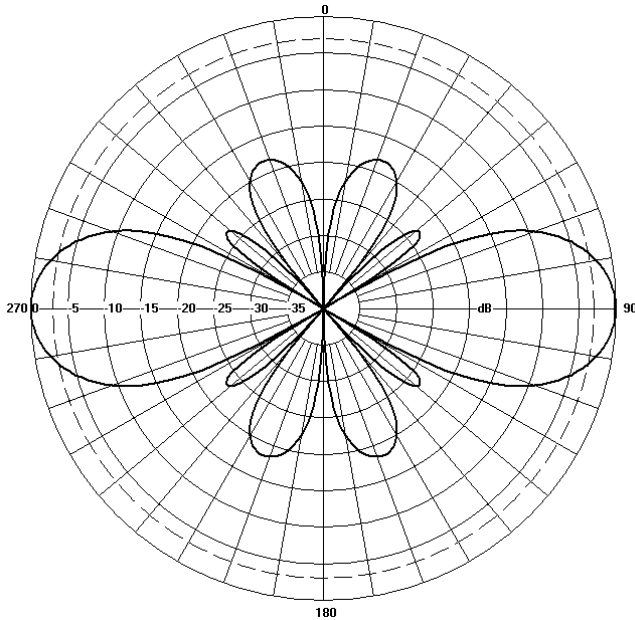
TECHNICAL SPECIFICATION

Electrical Specifications			Low Band				Mid Band				3.5/ 5.5GHz	
Frequency Range		MHz	617-686	686-755	755-824	824-894	1695-1995	1920-2170	2170-2500	2500-2690	3400-3800	5150-5925
Polarisation			+/- 45° Slant Linear									
Gain	Basta	dBi	1.6±0.5	2.0±0.5	1.5.0±0.5	1.6±0.5	7.3±0.5	7.8±0.5	7.5±0.5	8.0±0.5	4.5±0.5	4.5±0.5
	Max	dBi	2.1	2.5	2.0	2.1	7.8	8.3	8.0	8.5	5.0	5.0
Azimuth Beamwidth		Degree	360°	360°	360°	360°	360°	360°	360°	360°	360°	360°
Elevation Beamwidth		Degree	88° ±9°	72° ±8°	66° ±7°	64° ±8°	19° ±2°	17° ±2°	15° ±2°	13° ±2°	33° ±3°	26° ±3°
Electrical Downtilt		Degree	T0°	T0°	T0°	T0°	T0°	T0°	T0°	T0°	T0°	T0°
Electrical Downtilt Deviation		Degree <	5°	5°	5°	5°	1.5	1.5	1.5	1.5	3.0	3.0
Impedance		Ohms	50	50	50	50	50	50	50	50	50	50
VSWR		NA <	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Return Loss		dB >	14	14	14	14	14	14	14	14	14	14
Isolation		dB>	25	25	25	25	27	27	27	27	22	22
Passive Intermodulation		dBc <	-153	-153	-153	-153	-153	-153	-153	-153	N/A	N/A
Cross Polar Discrimination		dB >	16	16	16	16	10	10	10	10	10	10
Maximum Effective Power Per Port		W	100	100	100	100	250	250	250	250	50	1

Representative Pattern Files



1695 - 2690MHz



3.5GHz / 5.5GHz

Azimuth

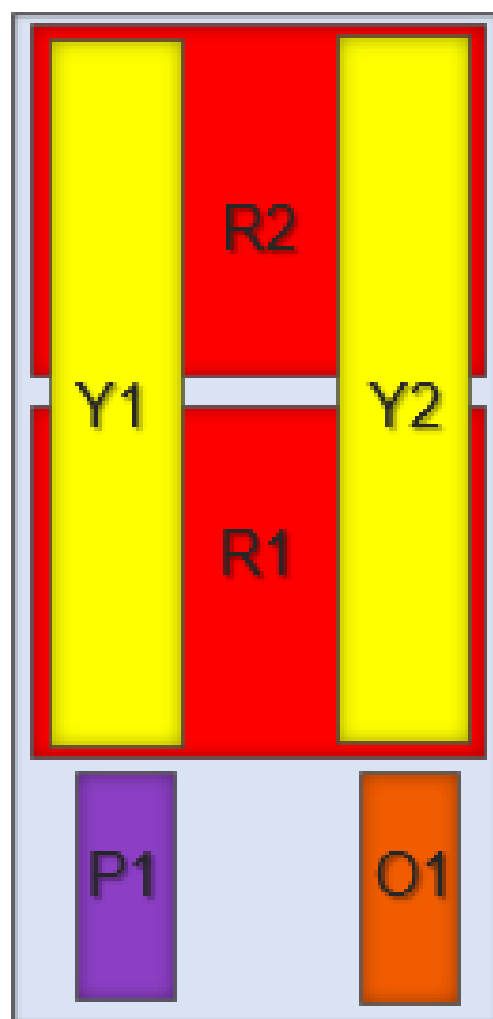
Elevation

TECHNICAL SPECIFICATION

Mechanical Specifications

Dimensions	mm (in)	610 (24) x 365 (14.4) - (L x D)
Packing Size (LxWxD)	mm (in)	765 (30.1) x 455 (17.9) x 495 (19.5)
Net Weight (antenna)	kg (lb)	9.8 (21.6)
Net Weight (mount)	kg (lb)	6.8 (15)
Shipping Weight	kg (lb)	18.1 (40)
Connector Type (Female)	-	4.3-10
Connector Position	-	Bottom
Connector Position Quantity	-	12 (4P Low band, 4P Mid band, 2P High band CBR5 & 2P High Band LAA)
Windload Frontal (at Rated Wind Speed: 150km/h)	N (lbf)	180 (40)
Windload Lateral (at Rated Wind Speed: 150km/h)	N (lbf)	180 (40)
Survival Wind Speed	km/h (mph)	242 (150)
Radome Material	-	ASA Capped ABS
Radome Colour	RAL	7035
Product Compliance Environmental	-	RoHS
Lightning Protection	-	DC Grounded
Cold Temperature Survival	Celsius (Fahrenheit)	-40 (-40)
Hot Temperature Survival	Celsius (Fahrenheit)	70 (158)

Array Layout and RET Information

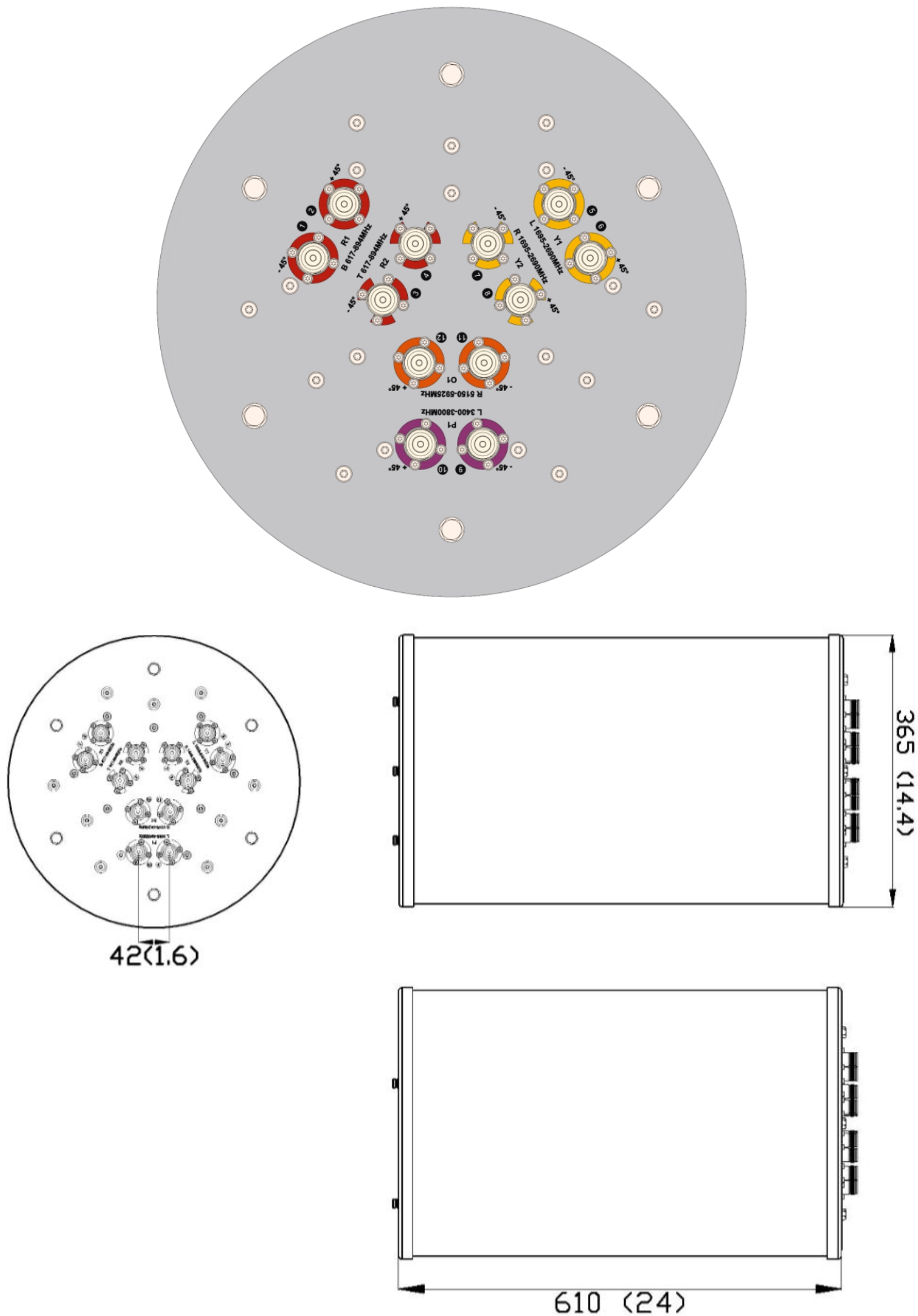


Array	Frequency MHz	Ports
R1	617 - 894	1 - 2
R2	617 - 894	3 - 4
Y1	1695 - 2690	5 - 6
Y2	1695 - 2690	7 - 8
P1	3400 - 3800	9 - 10
O1	5150 - 5925	11 - 12

Note: Colored box sizes do not represent antenna sizes.

TECHNICAL SPECIFICATION

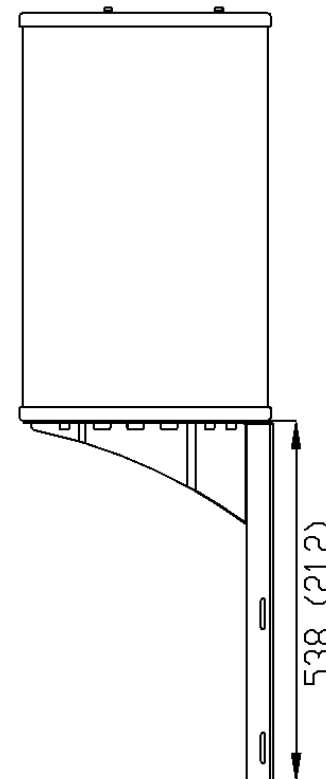
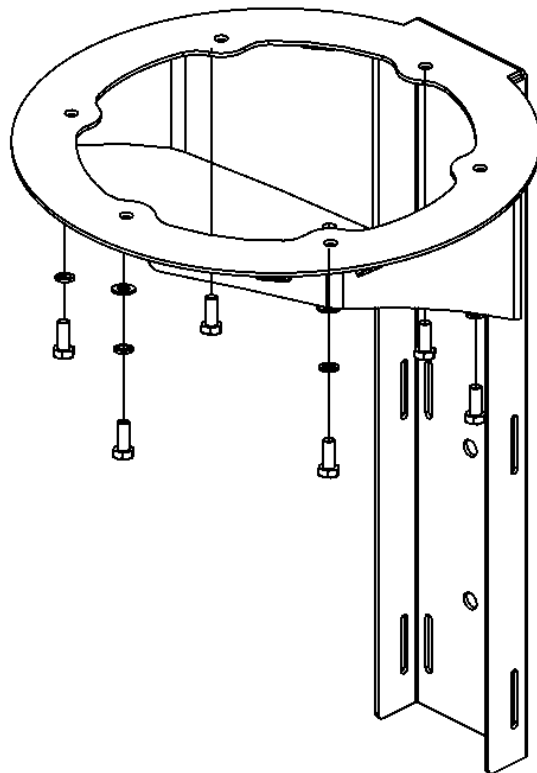
Mechanical Illustration



TECHNICAL SPECIFICATION

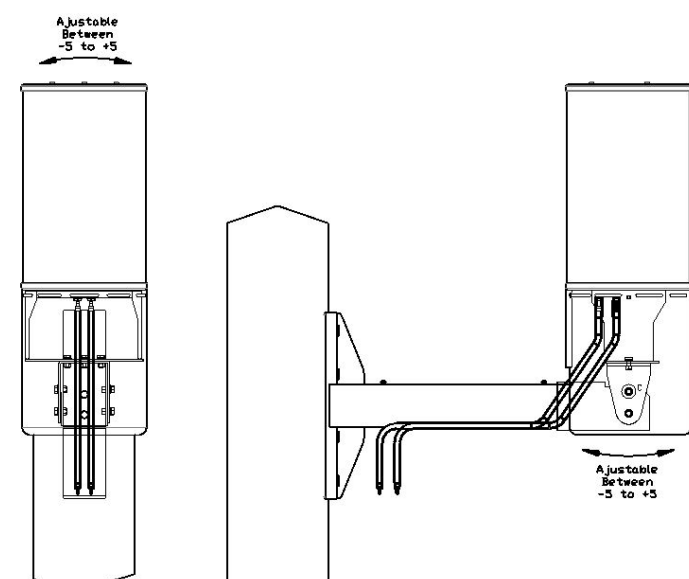
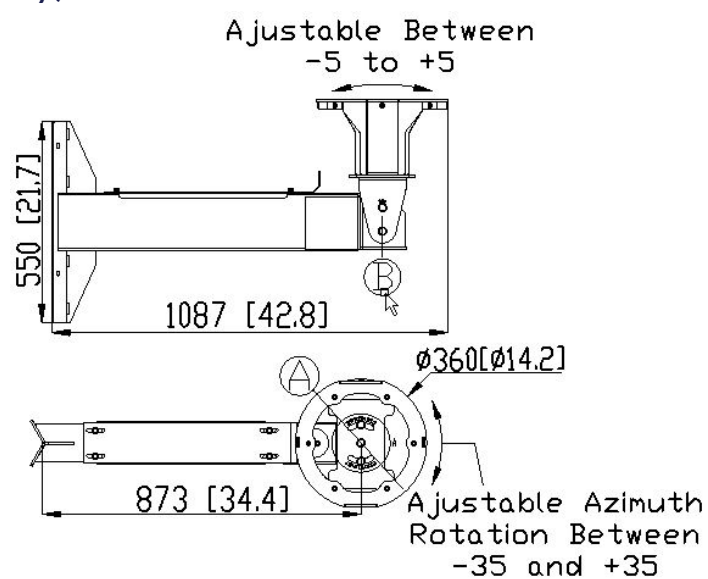
Mounting Bracket Kit

CL-V-159 Mounting kit (This is the default Mounting Bracket unless alternative Mount Kit from accessory list is ordered).



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
0	Stainless Steel	Metal Band (not supplied) is chosen to suit individual pole diameter.

CL-V-161 Adjustable Side Arm Bracket for 14.4" Canisters (Not included with antenna, must be ordered separately)

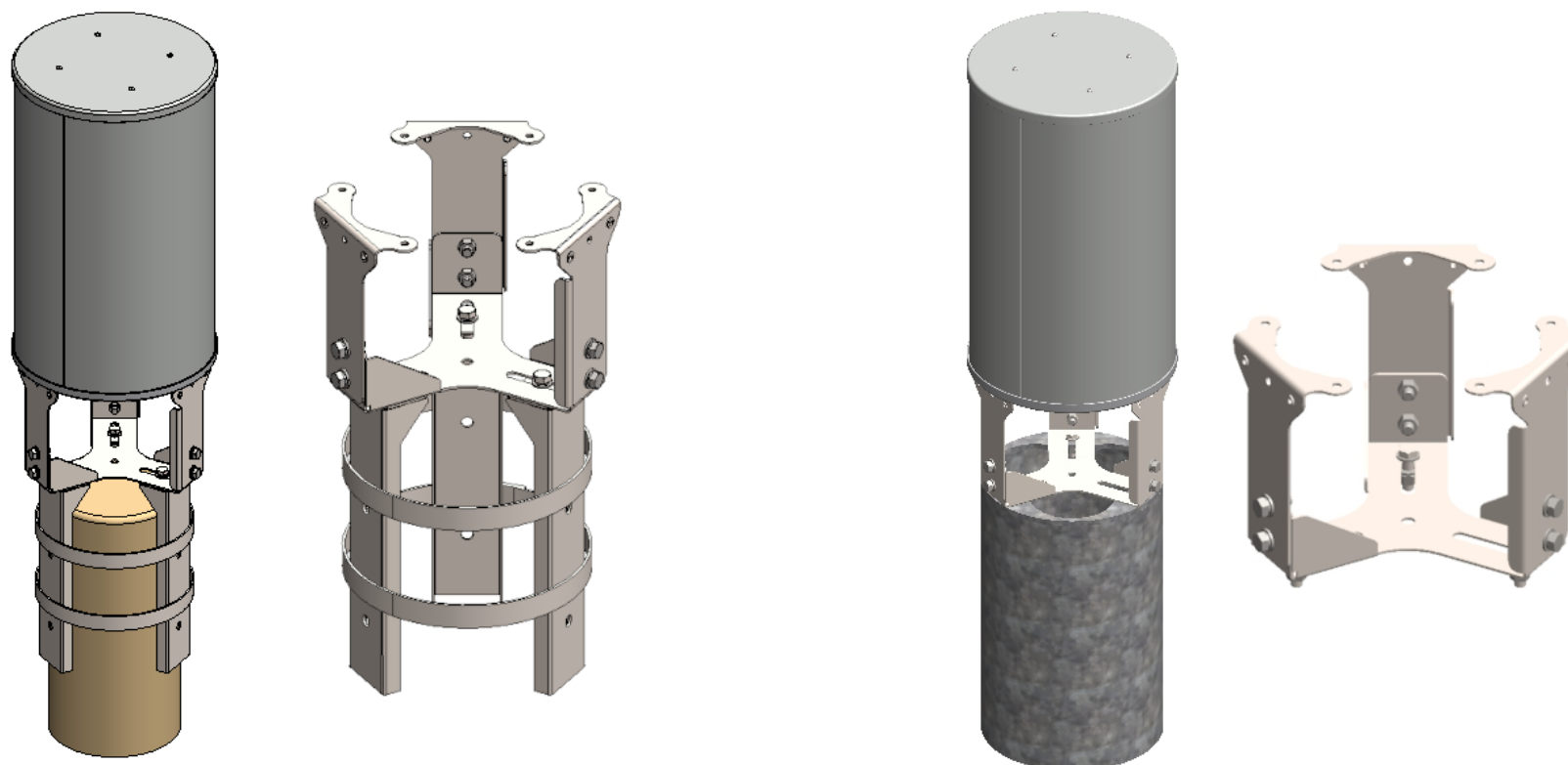


Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Material
-5° to +5° / -35° to +35° / -5° to +5°	Stainless Steel	50mm(2") to 241mm(9.5")

TECHNICAL SPECIFICATION

Mounting Bracket Kit

CL-V-169 Tri-Leg Mount Kit Bracket for 14.4" Canister (Not included with Antenna, must be ordered separately)



Mounting Kit Tilt Range	Mounting Kit Material	Mounting Kit Pole Diameter
N/A (No Mechanical tilt with Omni's)	Galvanised Steel	89mm (3.5") to 330mm (13")

Ordering Info

Order Code - Antenna

AW3747-T0-F

Description

Zero degrees Fixed Tilt with 4.3-10 Connectors.

Order Code - Accessories

CL-V-161

Description

Adjustable Side Arm Bracket for 14.4" Canisters

CL-V-169

Tri-Leg Pole Top Mounting Bracket for 14.4" Canisters

AW1012-2-FM-FM

RF Jumper Cable, connector types 4.3-10 (m) / 4.3-10 (m), length 2 metres (6'6")

AW1012-2-FM-NM

RF Jumper Cable, connector types 4.3-10 (m) / N-Type (m), length 2 metres (6'6")

AW1014-2-FM-TM

RF Jumper Cable, connector types 4.3-10 (m) / Nex10 (m), length 2 metres (6'6")

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