

## APXVLL09B\_43-C-I20

### Features

- 4 ports / 2 cross pol systems in high band (1710-2690 MHz)
- Supporting 4x4 MIMO
- Integrated and field replaceable SRET
- ACU HW Version: 2.02
- Compliant with AISG v2.0 and 3GPP



PRODUCT OVERVIEW	Frequency Range (MHz)	(2x) 1710-2690	
	Array	■ Y1	■ Y2
	Connector	1-2	3-4
		4 PORTS	
	Polarization	XPOL	
	Azimuth Beamwidth (avg)	65°	
	Electrical Downtilt	2-12°	
	Dimensions	845 x 320 x 123 mm (33.3 x 12.6 x 4.8 in)	

### ORDERING OPTIONS

Select from the following ordering options

ANTENNA MODEL NUMBER	CONFIGURATION	MOUNTING HARDWARE	MOUNTING PIPE DIAMETER	SHIPPING WEIGHT
APXVLL09B_43-C-I20	ACU-I20-B2 Internal RET Included	APM50-B1 Beam Tilt Kit Included	50-110 mm (2.0-4.3 in)	19.1 kg (42.1 lbs)



Quoted performance parameters are provided to offer typical, peak or range values only and may vary as a result of normal testing, manufacturing and operational conditions. Extreme operational conditions and/or stress on structural supports is beyond our control. Such conditions may result in damage to this product. Improvements to products may be made without notice.

## APXVLL09B\_43-C-I20

### ELECTRICAL SPECIFICATIONS

Y1

Frequency Range		MHz	1710-2690				
		MHz	1710-1880	1850-1990	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	15 ± 0.1	15 ± 0.1	15 ± 0.1	15 ± 0.1	15.6 ± 0.5
	Max Gain	dBi	15.1	15.1	15.1	15.1	16.1
Azimuth Beamwidth (3 dB)		degrees	66.8° ± 2.5°	68.2° ± 3°	69.4° ± 2.5°	67° ± 2.5°	60° ± 4°
Elevation Beamwidth (3 dB)		degrees	13.2° ± 0.5°	12.5° ± 0.5°	11.7° ± 1°	10.1° ± 0.5°	9.3° ± 0.5°
Electrical Downtilt		degrees	2-12°				
Impedance		Ohms	50Ω				
VSWR (Return Loss)		---	1.5:1 (-14 dB)				
Passive Intermodulation		dBc	-150 (3rd Order for 2x20 W Carriers)				
Front-to-Back Ratio, Total Power, ± 30°		dB	24	24	23	23	23
First Upper Side Lobe Suppression		dB	19	19	18	16.5	15
Cross-Pol Over Sector		dB	14	14	13	12	12.4
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	14	16	17	21	23
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				

Specifications follow BASTA guidelines.

### ELECTRICAL SPECIFICATIONS

Y2

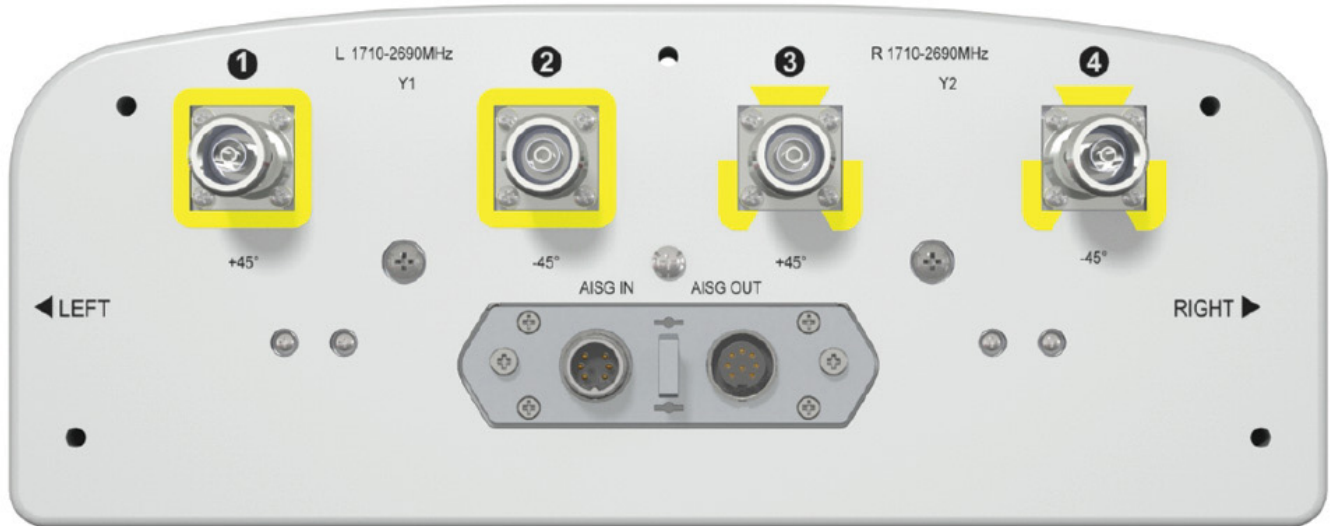
Frequency Range		MHz	1710-2690				
		MHz	1710-1880	1850-1990	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	15 ± 0.1	15 ± 0.1	15 ± 0.1	15.3 ± 0.5	15.6 ± 0.5
	Max Gain	dBi	15.1	15.1	15.1	15.8	16.1
Azimuth Beamwidth (3 dB)		degrees	67° ± 3.5°	69.1° ± 3.6°	70.1° ± 2°	67.1° ± 2.4°	60.9° ± 4°
Elevation Beamwidth (3 dB)		degrees	13.2° ± 0.5°	12.4° ± 0.5°	11.6° ± 1°	10.1° ± 0.5°	9.3° ± 0.5°
Electrical Downtilt		degrees	2-12°				
Impedance		Ohms	50Ω				
VSWR (Return Loss)		---	1.5:1 (-14 dB)				
Passive Intermodulation		dBc	-150 (3rd Order for 2x20 W Carriers)				
Front-to-Back Ratio, Total Power, ± 30°		dB	24	24.9	24	23.2	22
First Upper Side Lobe Suppression		dB	16	16.9	16	15	13
Cross-Pol Over Sector		dB	14	12.3	12	11.6	12
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	15	17	18	22.2	23.8
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				

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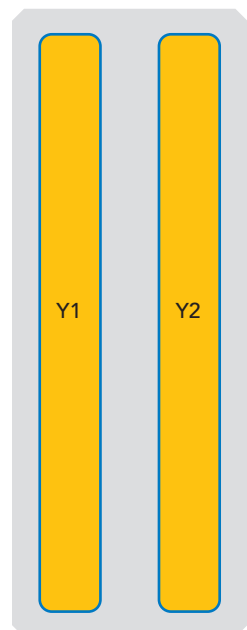
## APXVLL09B\_43-C-I20

### BOTTOM VIEW - LABELING



### ARRAY LAYOUT

ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE	RET	AISG RET UID
■ Y1	1710-2690 MHz	1-2	(2x) 4.3-10 Female	Y1	RFxxxxxxxxxx-Y1
■ Y2	1710-2690 MHz	3-4	(2x) 4.3-10 Female		



The illustration is not shown to scale.

## APXVLL09B\_43-C-I20

### MECHANICAL SPECIFICATIONS

Length		mm (in)	845 (33.3)
Width		mm (in)	320 (12.6)
Depth		mm (in)	123 (4.8)
Net Weight - Antenna Only		kg (lbs)	10 (22)
Net Weight - Mounting Hardware Only		kg (lbs)	4.5 (9.9)
Wind Load  Rated at 150 km/h (93 mph)	Front	N (lbf)	224 (50)
	Side	N (lbf)	144 (32)
	Rear	N (lbf)	260 (58)
Survival Wind Speed / Rated Wind Speed		km/h (mph)	200 (150)
Connector Type		--	(4x) 4.3-10 Female, (2x) AISG Connectors (1 Male, 1 Female) at Bottom
Radome Color		---	Light Grey
Radome Material		---	Fiberglass
Lightning Protection		---	DC Ground
<b>Shipping</b>	Packing Size (Length x Width x Depth)	mm (in)	1120 x 415 x 215 (44.1 x 16.3 x 8.5)
	Shipping Weight	kg (lbs)	19.1 (42.1)

### ENVIRONMENTAL SPECIFICATIONS

Environmental Standard	---	ETS 300 019
Operating Temperature	degrees	-40° to +60° C (-40° to +140° F)
Product Environmental Compliance	---	Product is RoHS Compliant

## APXVLL09B\_43-C-I20


### ACCESSORIES

Accessories may be ordered separately unless otherwise indicated.

ITEM	MODEL NUMBER	WEIGHT
Beam Tilt Mounting Bracket Kit for Pole Diameter 50-110 mm (2.0-4.3 in) <i>Shipped with antenna</i>	APM50-B1	4.5 kg (9.9 lbs)

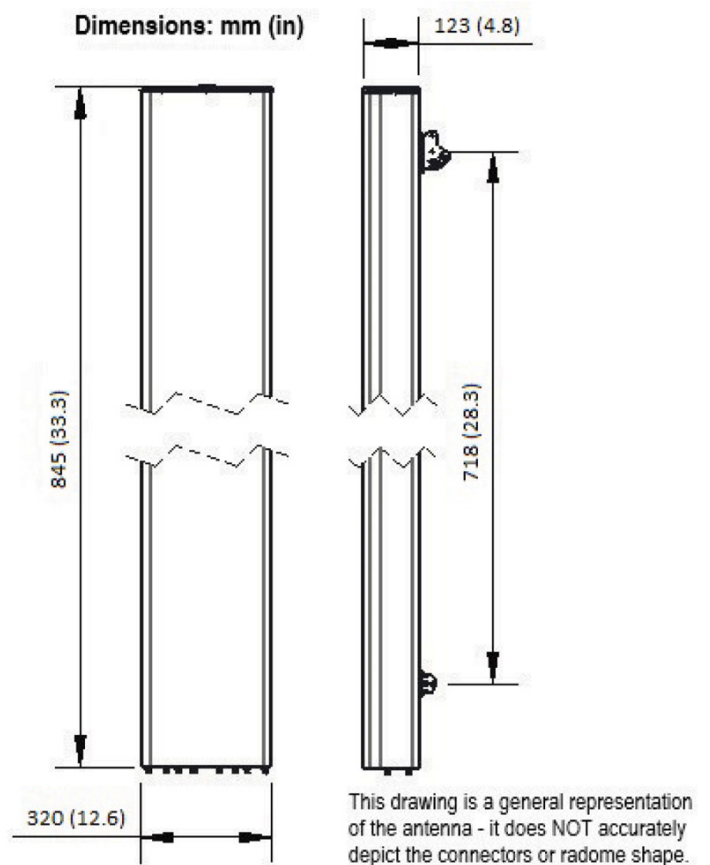
### INSTALLATION

Please read all installation notes before installing product.

	Always attach the antenna using all mounting points.
	Do not install antenna with the connectors facing upwards.

### EXTERNAL DOCUMENT LINKS

[APM50 Mounting Kit Series Installation Instructions](#)



### NOTES

Specifications follow BASTA guidelines.

For additional mounting information, please check **External Document Links**.

For Radiating Patterns: [Request pattern files](#)