

## APXVBBLL15B2\_43-C-I20

### Features

- 4 ports / 2 cross pol systems in low band (698-960 MHz)
- 4 ports / 2 cross pol systems in high band (1710-2690 MHz)
- Integrated and field replaceable SRET
- Compliant with AISG v2.0 and 3GPP

<b>PRODUCT OVERVIEW</b>	Frequency Range (MHz)	(2x) 698-960		(2x) 1710-2690	
	Array	■ R1	■ R2	■ Y1	■ Y2
	Connector	1-2	3-4	5-6	7-8
		8 PORTS			
	Polarization	XPOL			
	Azimuth Beamwidth (avg)	65°		65°	
	Electrical Downtilt	2-15°		2-12°	
	Dimensions	1500 x 469 x 205 mm (59.0 x 18.5 x 8.1 in)			

### ORDERING OPTIONS Select from the following ordering options

ANTENNA MODEL NUMBER	CONFIGURATION	MOUNTING HARDWARE	MOUNTING PIPE DIAMETER	SHIPPING WEIGHT	MOUNTING HARDWARE WEIGHT
APXVBBLL15B2_43-C-I20	ACU-I20-B4 Internal RET Included	APM50-B1 Beam Tilt Kit Included	50-110 mm (2.0-4.3 in)	34.7 kg (76.5 lbs)	4.5 kg (9.9 lbs)



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### ELECTRICAL SPECIFICATIONS

■ R1 ■ R2

Frequency Range		MHz	698-960		
		MHz	698-806	790-894	880-960
Polarization		---	±45°		
Gain	Over all Tilts	dBi	14.3 ± 0.4	14.6 ± 0.3	14.8 ± 0.3
	Max Gain	dBi	14.7	14.9	15.1
Azimuth Beamwidth (3 dB)		degrees	66.6° ± 5.7°	65.2° ± 3.8°	64.2° ± 5.0°
Elevation Beamwidth (3 dB)		degrees	15.9° ± 1.6°	14.6° ± 0.7°	13.3° ± 0.7°
Electrical Downtilt		degrees	2-15°		
Impedance		Ohms	50Ω		
VSWR (Return Loss)		---	1.5:1 (-14 dB)		
Passive Intermodulation 3rd Order, 2 x 43dBm		dBc	-153		
Front-to-Back Ratio, Total Power, ± 30°		dB	21.8	22.3	24.3
First Upper Side Lobe Suppression		dB	18.5	18.4	19.4
Cross Polar Discrimination Over Sector		dB	11.5	9.9	9.3
Cross Polar Discrimination at Boresight		dB	23.7	23.0	23.2
Maximum Effective Power Per Port		Watts	300 W		
Cross Polar Isolation		dB	25		
Interband Isolation		dB	25		

Specifications follow BASTA guidelines.

### ELECTRICAL SPECIFICATIONS

■ Y1 ■ Y2

Frequency Range		MHz	1710-2690				
		MHz	1710-1880	1850-1990	1920-2200	2300-2400	2500-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	17.4 ± 0.4	17.4 ± 0.3	17.2 ± 0.4	16.7 ± 0.4	17.4 ± 0.6
	Max Gain	dBi	17.8	17.7	17.6	17.1	18.0
Azimuth Beamwidth (3 dB)		degrees	67.0° ± 5.1°	63.6° ± 4.8°	62.7° ± 5.1°	65.4° ± 6.6°	58.4° ± 7.6°
Elevation Beamwidth (3 dB)		degrees	6.6° ± 0.4°	6.2° ± 0.3°	5.9° ± 0.5°	5.3° ± 0.3°	4.8° ± 0.3°
Electrical Downtilt		degrees	2-12°				
Impedance		Ohms	50Ω				
VSWR (Return Loss)		---	1.5:1 (-14 dB)				
Passive Intermodulation 3rd Order, 2 x 43dBm		dBc	-153				
Front-to-Back Ratio, Total Power, ± 30°		dB	23.3	24.2	23.8	22.8	22.4
First Upper Side Lobe Suppression		dB	15.6	16.3	17.3	23.5	22.2
Cross Polar Discrimination Over Sector		dB	9.8	10.3	6.7	6.2	2.3
Cross Polar Discrimination at Boresight		dB	24.3	23.3	20.8	20.3	22.0
Maximum Effective Power Per Port		Watts	200 W				
Cross Polar Isolation		dB	25				
Interband Isolation		dB	25				

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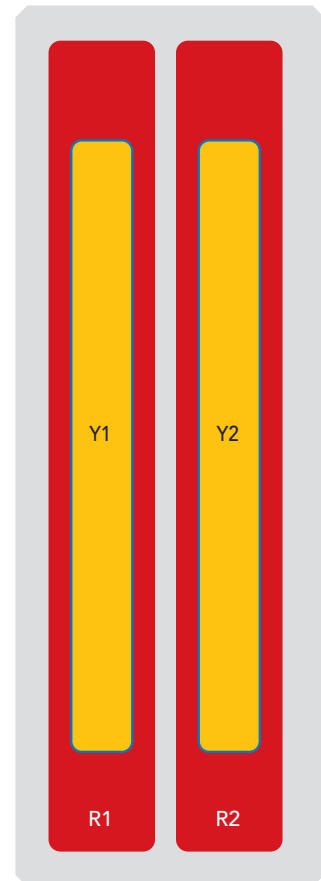
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### BOTTOM VIEW - LABELING



### ARRAY LAYOUT

ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE	RET	AISG RET UID
<span style="color: red;">■</span> R1	698-960 MHz	1-2	(2x) 4.3-10 Female	R1	RFxxxxxxxxxx-R1
<span style="color: red;">■</span> R2	698-960 MHz	3-4	(2x) 4.3-10 Female	R2	RFxxxxxxxxxx-R2
<span style="color: yellow;">■</span> Y1	1710-2690 MHz	5-6	(2x) 4.3-10 Female	Y1	RFxxxxxxxxxx-Y1
<span style="color: yellow;">■</span> Y2	1710-2690 MHz	7-8	(2x) 4.3-10 Female	Y2	RFxxxxxxxxxx-Y2



The illustration is not shown to scale.

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### MECHANICAL SPECIFICATIONS

Length		mm (in)	1500 (59.0)
Width		mm (in)	469 (18.5)
Depth		mm (in)	205 (8.1)
Net Weight - Antenna Only		kg (lbs)	24.3 (53.6)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf)	417 (94)
	Side	N (lbf)	432 (97)
	Rear	N (lbf)	434 (98)
Survival Wind Speed		km/h (mph)	200 (124)
Connector Type		--	(8x) 4.3-10 Female, (2x) AISG Connectors (1 Male, 1 Female) at Bottom
Radome Color		---	Light Grey RAL7035
Radome Material		---	Fiberglass
Lightning Protection		---	Direct Ground
<b>Shipping</b>	Packing Size (Length x Width x Depth)	mm (in)	1775 x 540 x 280 (69.9 x 21.2 x 11.0)

### 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

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### 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>Refer to ordering options</i>	APM50-B1	4.5 kg (9.9 lbs)

### INSTALLATION

Please read all installation notes before installing product.

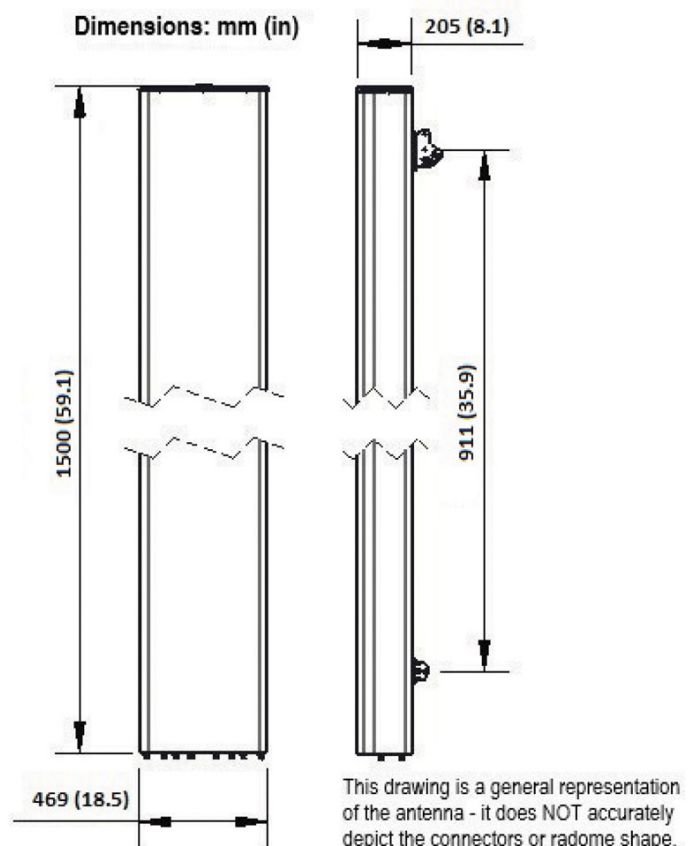


Always attach the antenna using all mounting points.

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](#)