

APXVBL18B2_43-C-I20

Features

- 2 ports / 1 cross pol system in low band (698-960 MHz)
- 2 ports / 1 cross pol system in high band (1710-2690 MHz)
- Integrated and field replaceable SRET
- ACU HW version -2.02
- Compliant with AISG v2.0 and 3GPP



PRODUCT OVERVIEW	Frequency Range (MHz)	698-960	1710-2690
	Array	■ R1	■ Y1
	Connector	1-2	3-4
		4 PORTS	
	Polarization	XPOL	
	Azimuth Beamwidth (avg)	65°	65°
	Electrical Downtilt	2-15°	2-12°
	Dimensions	1800 x 350 x 200 mm (70.9 x 13.8 x 7.9 in)	

ORDERING OPTIONS

Select from the following ordering options

ANTENNA MODEL NUMBER	CONFIGURATION	MOUNTING HARDWARE	MOUNTING PIPE DIAMETER	SHIPPING WEIGHT
APXVBL18B2_43-C-I20	ACU-I20-B2 Internal RET Included	APM50-B1 Beam Tilt Kit Included	50-110 mm (2.0-4.3 in)	28.7 kg (63.3 lbs)



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ELECTRICAL SPECIFICATIONS

■ R1

Frequency Range		MHz	698-960		
		MHz	698-806	790-894	880-960
Polarization		---	±45°		
Gain	Over all Tilts	dBi	14.0 ± 0.3	14.3 ± 0.2	14.6 ± 0.3
	Max Gain	dBi	14.3	14.5	14.9
Azimuth Beamwidth (3 dB)		degrees	69.3° ± 1.5°	68.3° ± 1.2°	68.1° ± 1.7°
Elevation Beamwidth (3 dB)		degrees	18.1° ± 1.5°	16.3° ± 0.9°	14.9° ± 0.5°
Electrical Downtilt		degrees	2-15°		
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	23.9	23.9	24.2
First Upper Side Lobe Suppression		dB	17	16.5	13.8
Cross Polar Discrimination Over Sector		dB	11.6	9.8	10.8
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	22.3	23.2	22.1
Maximum Effective Power Per Port		Watts	350 W		
Cross Polar Isolation		dB	26		
Interband Isolation		dB	26		

Specifications follow BASTA guidelines.

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	16.7 ± 0.6	17.4 ± 0.4	17.6 ± 0.4	16.8 ± 0.9	16.4 ± 0.9
	Max Gain	dBi	17.3	17.8	18.0	17.7	17.3
Azimuth Beamwidth (3 dB)		degrees	61.8° ± 6.1°	66.4° ± 3.9°	66.3° ± 4.9°	68.7° ± 5.1°	60.0° ± 4.1°
Elevation Beamwidth (3 dB)		degrees	6.2° ± 0.6°	5.6° ± 0.4°	5.2° ± 0.5°	4.8° ± 0.4°	5.0° ± 0.7°
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	21.2	22.1	23.0	21.3	20.8
First Upper Side Lobe Suppression		dB	18	18.8	18.9	20.7	12
Cross Polar Discrimination Over Sector		dB	6.7	7.2	7.0	8.1	1.6
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	17.7	17.1	17.4	24.5	19.7
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				

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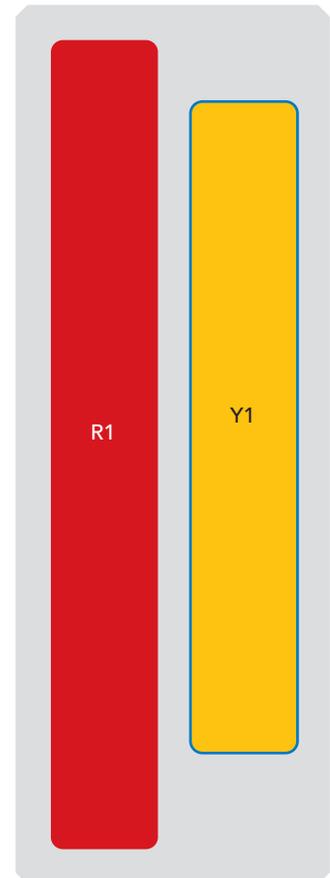
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BOTTOM VIEW - LABELING



ARRAY LAYOUT

ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE	RET	AISG RET UID
■ R1	698-960 MHz	1-2	(2x) 4.3-10 Female	R1	RFxxxxxxxxxx-R1
■ Y1	1710-2690 MHz	3-4	(2x) 4.3-10 Female	Y1	RFxxxxxxxxxx-Y1



The illustration is not shown to scale.

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MECHANICAL SPECIFICATIONS

Length		mm (in)	1800 (70.9)
Width		mm (in)	350 (13.8)
Depth		mm (in)	200 (7.9)
Net Weight - Antenna Only		kg (lbs)	18.2 (40.1)
Net Weight - Mounting Hardware Only		kg (lbs)	4.5 (9.9)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf)	820 (184)
	Side	N (lbf)	397 (89)
	Rear	N (lbf)	947 (213)
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 RAL7035
Radome Material		---	Fiberglass
Lightning Protection		---	DC Ground
Shipping	Packing Size (Length x Width x Depth)	mm (in)	2050 x 445 x 295 (80.7 x 17.5 x 11.6)
	Shipping Weight	kg (lbs)	28.7 (63.3)

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>Shipped with antenna</i>	APM50-B1	4.5 kg (9.9 lbs)

INSTALLATION

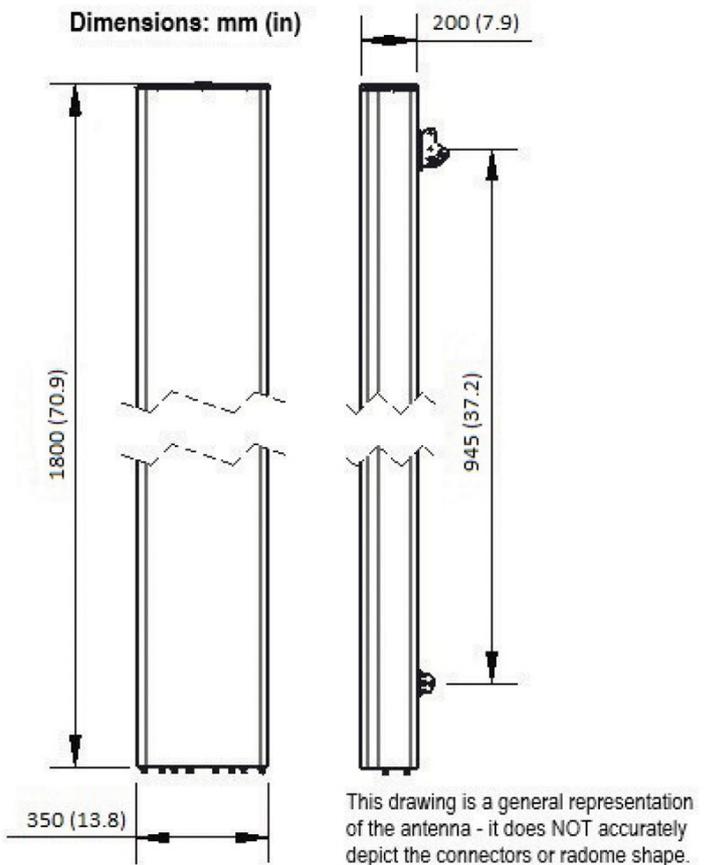
Please read all installation notes before installing product.



- 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](#)