

APXVBB34L20AB_43-C-I20

Features

- Hybrid twin beam antenna
- 4 ports / 2 cross pol systems in low band (698-960 MHz), 65°
- 4 ports + 4 ports, each 33° beam based on 2 cross pol systems (1710-2690 MHz) separated by 60°
- Integrated and field replaceable SRET
- ACU HW Version: 2.02
- Compliant with AISG v2.0 and 3GPP



PRODUCT OVERVIEW	Frequency Range (MHz)	(2x) 698-960		(4x) 1710-2690			
	Array	■ R1	■ R2	■ Y1	■ Y2	■ Y3	■ Y4
	Connector	1-2	3-4	5-6	7-8	9-10	11-12
		12 PORTS					
	Polarization	XPOL					
	Azimuth Beamwidth (avg)	65°		33°			
	Electrical Downtilt	2-12°		2-12°			
	Dimensions	2090 x 499 x 199 mm (82.3 x 19.6 x 7.8 in)					

ORDERING OPTIONS

Select from the following ordering options

ANTENNA MODEL NUMBER	CONFIGURATION	MOUNTING HARDWARE	MOUNTING PIPE DIAMETER	SHIPPING WEIGHT
APXVBB34L20AB_43-C-I20	ACU-I20-B6 Internal RET Included	APM50-B1 Beam Tilt Kit Included	50-110 mm (2.0-4.3 in)	48 kg (105.8 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	15.3 ± 1.0	15.7 ± 0.6	16.2 ± 0.6
	Max Gain	dBi	16.3	16.3	16.8
Azimuth Beamwidth (3 dB)		degrees	66.8° ± 6.5°	62.8° ± 6.8°	55.1° ± 6.7°
Elevation Beamwidth (3 dB)		degrees	11° ± 1.2°	9.8° ± 0.8°	8.9° ± 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	21	22.8	20.8
First Upper Side Lobe Suppression		dB	16	16.7	16.7
Cross Polar Discrimination Over Sector		dB	9.9	9.7	7.9
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	19.8	18.2	20.2
Maximum Effective Power Per Port		Watts	350 W		
Cross Polar Isolation		dB	25		
Interband Isolation		dB	25		

Specifications follow BASTA guidelines.

ELECTRICAL SPECIFICATIONS

■ Y1 ■ Y3

Frequency Range		MHz	1710-2690				
		MHz	1710-1880	1850-1990	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	18 ± 0.6	18.7 ± 0.5	18.8 ± 0.6	17 ± 0.8	18.1 ± 0.6
	Max Gain	dBi	18.6	19.2	19.4	17.8	18.7
Azimuth Beamwidth (3 dB)		degrees	34.8° ± 4.2°	30.2° ± 1.5°	29.1° ± 1.6°	27.7° ± 3.9°	24.2° ± 1.8°
Elevation Beamwidth (3 dB)		degrees	9.9° ± 0.5°	9.2° ± 0.3°	8.9° ± 0.6°	7.7° ± 0.9°	7.6° ± 0.6°
Beam Center		degrees	±30°	±28°	±25°	±24°	±23°
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	23	25.7	24.8	19.7	20.4
First Upper Side Lobe Suppression		dB	19.1	21.4	22.4	22.3	18.5
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	25				
Interband Isolation		dB	25				
Beam Isolation		dB	14				

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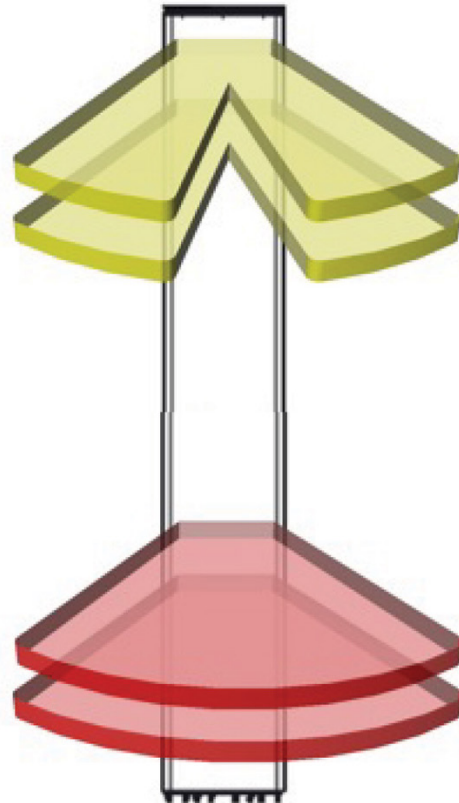
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ELECTRICAL SPECIFICATIONS

■ Y2 ■ Y4

Frequency Range		MHz	1710-2690				
		MHz	1710-1880	1850-1990	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	17.3 ± 0.7	18.3 ± 0.6	18.5 ± 0.6	16.9 ± 0.7	17.8 ± 0.7
	Max Gain	dBi	18.0	18.9	19.1	17.6	18.5
Azimuth Beamwidth (3 dB)		degrees	35.1° ± 3.9°	30.6° ± 1.8°	29.4° ± 1.9°	27.1° ± 3.5°	24.5° ± 1.9°
Elevation Beamwidth (3 dB)		degrees	10° ± 0.5°	9.4° ± 0.5°	9.1° ± 0.5°	7.9° ± 1.3°	7.6° ± 0.5°
Beam Center		degrees	±30°	±28°	±25°	±24°	±23°
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	23.3	25.6	26.0	21.8	20.4
First Upper Side Lobe Suppression		dB	16.8	18.3	18.9	21.4	20.0
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	25				
Interband Isolation		dB	25				
Beam Isolation		dB	14				

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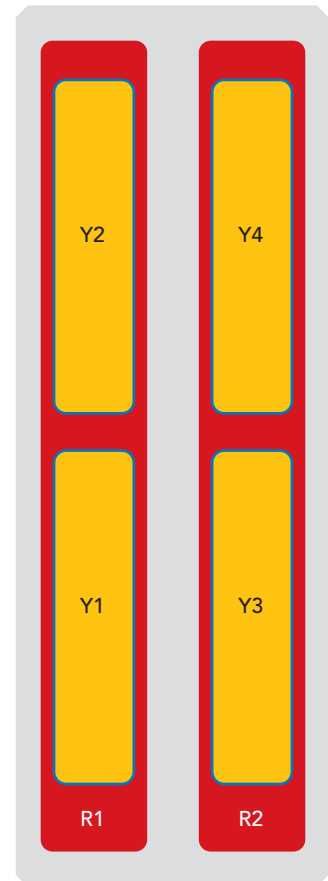
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BOTTOM VIEW - LABELING



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
■ R2	698-960 MHz	3-4	(2x) 4.3-10 Female	R2	RFxxxxxxxxxx-R2
■ Y1	1710-2690 MHz	5-6	(2x) 4.3-10 Female	Y1	RFxxxxxxxxxx-Y1
■ Y2	1710-2690 MHz	7-8	(2x) 4.3-10 Female	Y2	RFxxxxxxxxxx-Y2
■ Y3	1710-2690 MHz	9-10	(2x) 4.3-10 Female	Y3	RFxxxxxxxxxx-Y3
■ Y4	1710-2690 MHz	11-12	(2x) 4.3-10 Female	Y4	RFxxxxxxxxxx-Y4



The illustration is not shown to scale.

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MECHANICAL SPECIFICATIONS

Length	mm (in)	2090 (82.3)
Width	mm (in)	499 (19.6)
Depth	mm (in)	199 (7.8)
Net Weight - Antenna Only	kg (lbs)	36.2 (79.8)
Net Weight - Mounting Hardware Only	kg (lbs)	4.5 (9.9)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf) 692 (156)
	Side	N (lbf) 597 (134)
	Rear	N (lbf) 802 (180)
Survival Wind Speed / Rated Wind Speed	km/h (mph)	200 (150)
Connector Type	--	(12x) 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
Shipping	Packing Size (Length x Width x Depth)	mm (in) 2375 x 570 x 275 (93.5 x 22.4 x 10.8)
	Shipping Weight	kg (lbs) 48 (105.8)

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

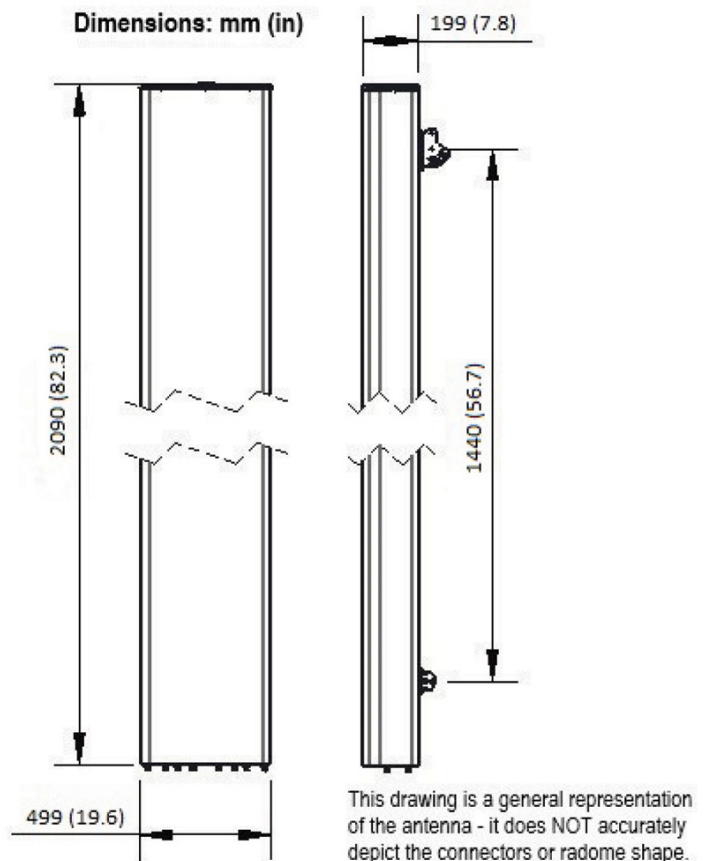
Please read all installation notes before installing product.



- 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](#)