

APXVBB20B_43-C-I20

APXVBB20B_43-A-I20

Features

- 4 ports / 2 cross pol systems in low band (698-960 MHz)
- Supporting 4x4 MIMO
- Integrated and field replaceable SRET
- ACU HW version: 2.02
- Optional with Direct Pipe No Tilt mounting hardware (Model name suffix -A-I20)
- Compliant with AISG v2.0 and 3GPP



PRODUCT OVERVIEW	Frequency Range (MHz)	698-960	
	Array	■ R1	■ R2
	Connector	1-2	3-4
		4 PORTS	
	Polarization	XPOL	
	Azimuth Beamwidth (avg)	65°	
	Electrical Downtilt	2-12°	
	Dimensions	1990 x 499 x 199 mm (78.3 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	MOUNTING HARDWARE WEIGHT
APXVBB20B_43-C-I20	ACU-I20-B2 Internal RET Included	APM50-B1 Beam Tilt Kit Included	50-110 mm (2.0-4.3 in)	38.5 kg (84.9 lbs)	4.5 kg (9.9 lbs)
APXVBB20B_43-A-I20	ACU-I20-B2 Internal RET Included	APM50-B1N Direct Pipe No Tilt Mounting Kit Included	50-110 mm (2.0-4.3 in)	37.4 kg (82.4 lbs)	3.4 kg (7.5 lbs)



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APXVBB20B_43-C-I20

APXVBB20B_43-A-I20

ELECTRICAL SPECIFICATIONS

■ R1

Frequency Range		MHz	698-960		
		MHz	698-806	790-894	880-960
Polarization		---	±45°		
Gain	Over all Tilts	dBi	14.8 ± 0.9	15.4 ± 0.4	15.8 ± 0.4
	Max Gain	dBi	15.7	15.8	16.2
Azimuth Beamwidth (3 dB)		degrees	73.5° ± 5.9°	69.4° ± 2.1°	64.9° ± 1.4°
Elevation Beamwidth (3 dB)		degrees	10.7° ± 1.1°	9.8° ± 0.4°	9.0° ± 0.5°
Electrical Downtilt		degrees	2-12°		
Impedance		Ohms	50Ω		
VSWR (Return Loss)		---	1.5:1 (-14 dB)		
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	-150		
Front-to-Back Ratio, Total Power, ± 30°		dB	21.9	22.7	23.1
First Upper Side Lobe Suppression		dB	17.1	16.3	14.9
Cross Polar Discrimination Over Sector		dB	12.7	9.8	5.6
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	25.7	26.5	27.7
Maximum Effective Power Per Port		Watts	350 W		
Cross Polar Isolation		dB	26		
Interband Isolation		dB	26		

Specifications follow BASTA guidelines.

ELECTRICAL SPECIFICATIONS

■ R2

Frequency Range		MHz	698-960		
		MHz	698-806	790-894	880-960
Polarization		---	±45°		
Gain	Over all Tilts	dBi	14.9 ± 0.8	15.5 ± 0.3	15.8 ± 0.3
	Max Gain	dBi	15.7	15.8	16.1
Azimuth Beamwidth (3 dB)		degrees	74.1° ± 5.8°	69.5° ± 2.5°	64.7° ± 1.3°
Elevation Beamwidth (3 dB)		degrees	10.7° ± 1.0°	9.8° ± 0.4°	9.0° ± 0.4°
Electrical Downtilt		degrees	2-12°		
Impedance		Ohms	50Ω		
VSWR (Return Loss)		---	1.5:1 (-14 dB)		
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	-150		
Front-to-Back Ratio, Total Power, ± 30°		dB	21.3	23.1	22.3
First Upper Side Lobe Suppression		dB	16.9	16.3	15.4
Cross Polar Discrimination Over Sector		dB	11.6	9.1	6.1
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	24.0	24.8	28.7
Maximum Effective Power Per Port		Watts	350 W		
Cross Polar Isolation		dB	26		
Interband Isolation		dB	26		

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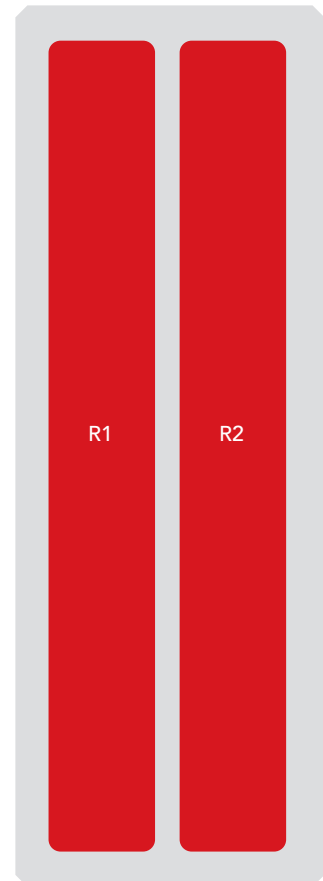
APXVBB20B_43-C-I20
APXVBB20B_43-A-I20

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



The illustration is not shown to scale.

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MECHANICAL SPECIFICATIONS

Length	mm (in)	1990 (78.3)
Width	mm (in)	499 (19.6)
Depth	mm (in)	199 (7.8)
Net Weight - Antenna Only	kg (lbs)	27.9 (61.5)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf) 668 (150)
	Side	N (lbf) 531 (119)
	Rear	N (lbf) 793 (178)
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	---	Direct Ground
Shipping	Packing Size (Length x Width x Depth)	mm (in) 2235 x 595 x 295 (88.0 x 23.4 x 11.6)

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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APXVBB20B_43-A-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>Refer to ordering options</i>	APM50-B1	4.5 kg (9.9 lbs)
Direct Pipe No Tilt Bracket Kit for Pole Diameter 60-110 mm (2.4-4.3 in) <i>Refer to ordering options</i>	APM50-B1N	3.4 kg (7.5 lbs)

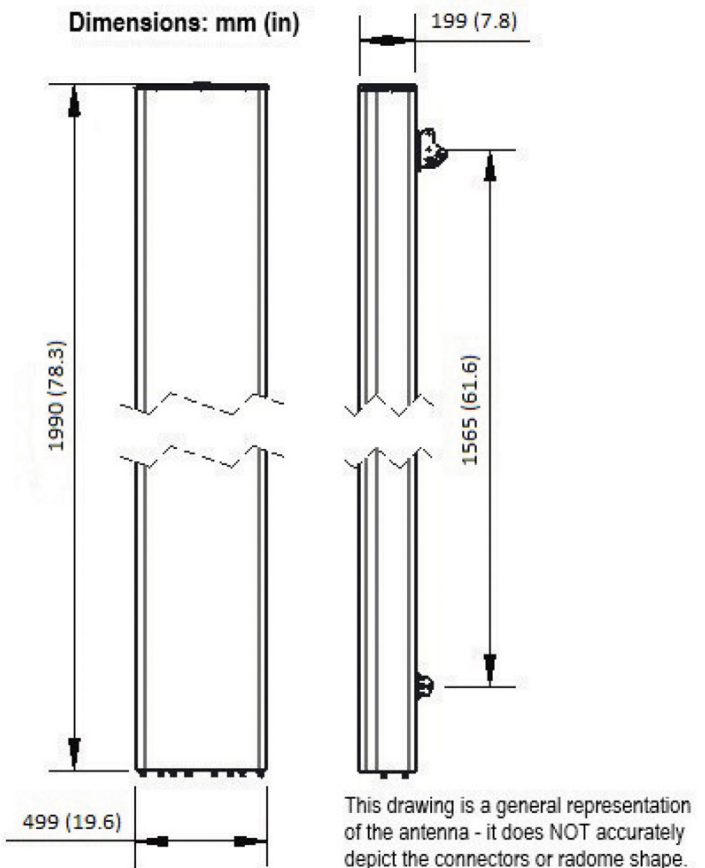
INSTALLATION Please read all installation notes before installing product.



- 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](#)

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