

APXVBB15B_43-C-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
- 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	2-15°	
	Dimensions	1440 x 499 x 199 mm (56.7 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
APXVBB15B_43-C-I20	ACU-I20-B2 Internal RET Included	APM50-B1 Beam Tilt Kit Included	50-110 mm (2.0-4.3 in)	35 kg (77.2 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.

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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 ± 1.0	14.7 ± 0.5	15.2 ± 0.5
	Max Gain	dBi	15.0	15.2	15.7
Azimuth Beamwidth (3 dB)		degrees	60.4° ± 4.0°	59.2° ± 5.5°	63.5° ± 3.5°
Elevation Beamwidth (3 dB)		degrees	16.7° ± 1.0°	15.5° ± 1.0°	14.3° ± 0.5°
Electrical Downtilt		degrees	2-15°		
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	21	22
First Upper Side Lobe Suppression		dB	14.8	21.9	16.0
Cross Polar Discrimination Over Sector		dB	13	9.7	8.0
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	24	27	23
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	14.2 ± 1.0	15.1 ± 1.0	15.4 ± 0.5
	Max Gain	dBi	15.2	16.1	15.9
Azimuth Beamwidth (3 dB)		degrees	60.7° ± 4.0°	58.6° ± 4.5°	63.7° ± 3.9°
Elevation Beamwidth (3 dB)		degrees	16.8° ± 1.0°	15.4° ± 1.0°	14.2° ± 0.5°
Electrical Downtilt		degrees	2-15°		
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	22	22	23
First Upper Side Lobe Suppression		dB	16	21	15
Cross Polar Discrimination Over Sector		dB	14	8.4	7.0
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	27	28	26
Maximum Effective Power Per Port		Watts	350 W		
Cross Polar Isolation		dB	26		
Interband Isolation		dB	26		

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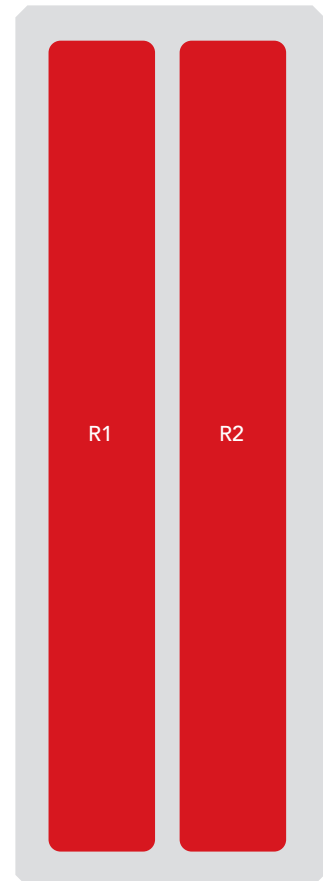
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BOTTOM VIEW - LABELING



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
■ 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)	1440 (56.7)
Width	mm (in)	499 (19.6)
Depth	mm (in)	199 (7.8)
Net Weight - Antenna Only	kg (lbs)	24.5 (54)
Net Weight - Mounting Hardware Only	kg (lbs)	4.5 (9.9)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf) 526 (118)
	Side	N (lbf) 459 (103)
	Rear	N (lbf) 610 (137)
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) 1685 x 595 x 295 (66.3 x 23.4 x 11.6)
	Shipping Weight	kg (lbs) 35 (77.2)

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

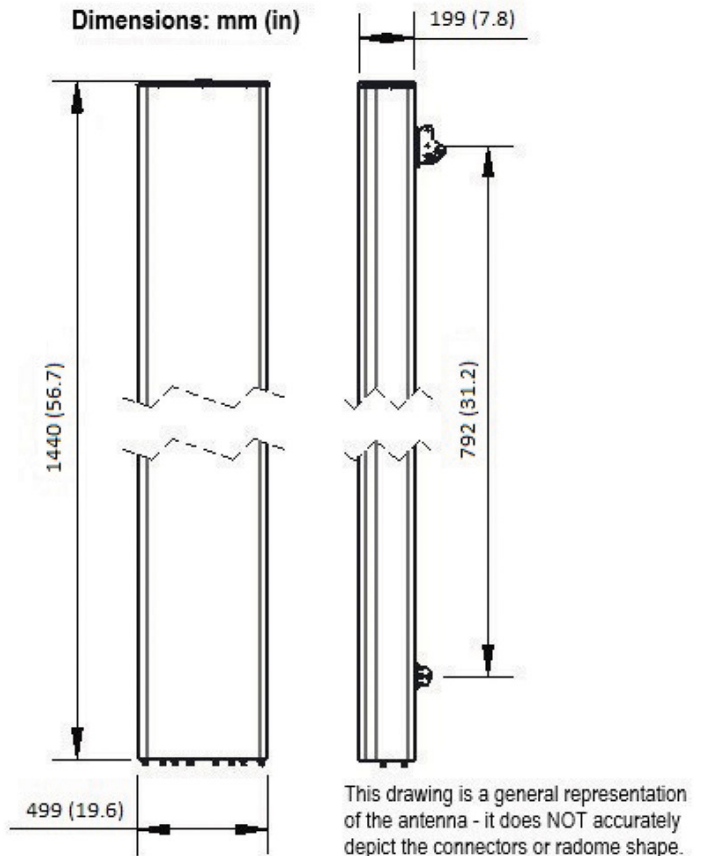
Please read all installation notes before installing product.



- 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](#)