6-Port Panel Antenna

(1x) 698-960 | (2x) 1710-2690 MHz

65° | 1950 mm | INTEGRATED RET

APXVBLL20B_43-C-I20

APXVBLL20B_43-A-I20

Features

- 2 ports / 1 cross pol system in low band (698-960 MHz)
- 4 ports / 2 cross pol systems in high band (1710-2690 MHz)
- Supporting 4x4 MIMO in high band
- 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)	(1x) 698-960	(2x) 1710-2690	
	Array	R1	Y1	Y2
	Connector	1-2	3-4	5-6
		6 PORTS		
	Polarization	XPOL		
	Azimuth Beamwidth (avg)	65°	65°	65°
	Electrical Downtilt	2-12°	2-11°	
	Dimensions	1950 x 350 x 200 mm (76.8 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	MOUNTING HARDWARE WEIGHT
APXVBLL20B_43-C-I20	ACU-I20-B3 Internal Field Replaceable RET Included	APM50-B1 Beam Tilt Kit Included	50-110 mm (2.0-4.3 in)	33.5 kg (73.8 lbs)	4.5 kg (9.9 lbs)
APXVBLL20B_43-A-I20	ACU-I20-B3 Internal Field Replaceable RET Included	APM50-B1N Direct Pipe No Tilt Mounting Kit Included	50-110 mm (2.0-4.3 in)	32.4 kg (71.4 lbs)	3.4 kg (7.5 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	15.1 ± 0.5	15.5 ± 0.8	15.8 ± 0.3
	Max Gain	dBi	15.6	16.3	16.1
Azimuth Beamwidth (3 dB)		degrees	66.1° ± 1.8°	64.6° ± 2.5°	63.0° ± 1.0°
Elevation Beamwidth (3 dB)		degrees	12.2° ± 1.1°	10.9° ± 0.7°	9.6° ± 1.0°
Electrical Downtilt		degrees	2-12°		
Impedance		Ohms	50Ω		
VSWR (Return Loss)		---	1.5:1 (-14 dB)		
Passive Intermodulation		dBc	-153 (3rd Order for 2x20 W Carriers)		
Front-to-Back Ratio, Total Power, ± 30°		dB	24.6	24.1	22.7
First Upper Side Lobe Suppression		dB	15.3	13.7	9
Cross Polar Discrimination Over Sector		dB	10.1	10.2	11.1
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	26	24.3	20.9
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	16.1 ± 0.7	16.6 ± 0.3	16.8 ± 0.4	16.2 ± 0.8	16.6 ± 0.5
	Max Gain	dBi	16.8	16.9	17.2	17.0	17.1
Azimuth Beamwidth (3 dB)		degrees	66.2° ± 7.0°	67.0° ± 3.5°	66.0° ± 4.0°	69.0° ± 3.2°	64.8° ± 5.3°
Elevation Beamwidth (3 dB)		degrees	6.6° ± 0.4°	6.2° ± 0.3°	5.8° ± 0.6°	5.1° ± 0.4°	4.7° ± 0.3°
Electrical Downtilt		degrees	2-11°				
Impedance		Ohms	50Ω				
VSWR (Return Loss)		---	1.5:1 (-14 dB)				
Passive Intermodulation		dBc	-153 (3rd Order for 2x20 W Carriers)				
Front-to-Back Ratio, Total Power, ± 30°		dB	19.5	20.4	22.4	23.0	22.3
First Upper Side Lobe Suppression		dB	17.3	17.1	17.8	15.7	15.1
Cross Polar Discrimination Over Sector		dB	7.5	6.1	6.2	8.8	5.8
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	26.3	23.0	22.9	18.6	17.0
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				

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ELECTRICAL SPECIFICATIONS			Y2				
Frequency Range		MHz	1710-2690				
		MHz	1710-1880	1850-1990	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	16.0 ± 0.7	16.6 ± 0.3	16.7 ± 0.4	16.0 ± 1.1	16.7 ± 0.6
	Max Gain	dBi	16.7	16.9	17.1	17.1	17.3
Azimuth Beamwidth (3 dB)		degrees	66.0° ± 6.8°	66.7° ± 3.6°	66.0° ± 4.4°	69.5° ± 3.3°	64.3° ± 4.5°
Elevation Beamwidth (3 dB)		degrees	6.7° ± 0.4°	6.3° ± 0.4°	5.9° ± 0.7°	5.2° ± 0.4°	4.7° ± 0.3°
Electrical Downtilt		degrees	2-11°				
Impedance		Ohms	50Ω				
VSWR (Return Loss)		---	1.5:1 (-14 dB)				
Passive Intermodulation		dBc	-153 (3rd Order for 2x20 W Carriers)				
Front-to-Back Ratio, Total Power, ± 30°		dB	19	21.1	22.1	22.9	21.7
First Upper Side Lobe Suppression		dB	17.8	16.8	19.2	15.1	17.9
Cross Polar Discrimination Over Sector		dB	6.4	6.1	6.7	6.9	5.2
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	20	18.9	19.4	17.2	17.5
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				

Specifications follow BASTA guidelines.

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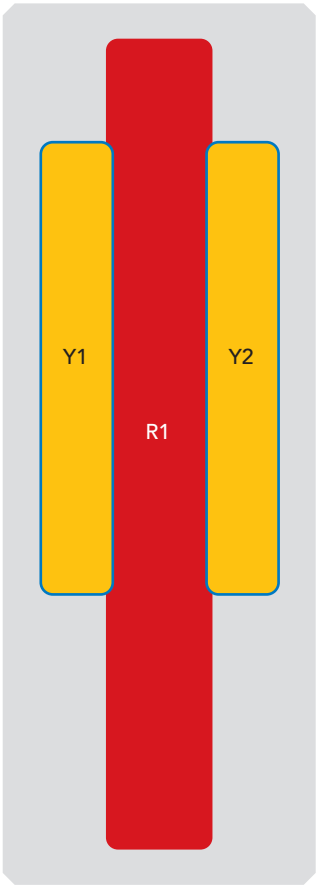
BOTTOM VIEW - LABELING

ARRAY LAYOUT

ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE	RET	AISG RET UID
R1	698-960 MHz	1-2	(2x) 4.3-10 Female	R1	RFxxxxxxxxxxx-R1
Y1	1710-2690 MHz	3-4	(2x) 4.3-10 Female	Y1	RFxxxxxxxxxxx-Y1
Y2	1710-2690 MHz	5-6	(2x) 4.3-10 Female	Y2	RFxxxxxxxxxxx-Y2



The illustration is not shown to scale.

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MECHANICAL SPECIFICATIONS

Length		mm (in)	1950 (76.8)
Width		mm (in)	350 (13.8)
Depth		mm (in)	200 (7.9)
Net Weight - Antenna Only		kg (lbs)	24.5 (54)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf)	880 (198)
	Side	N (lbf)	432 (97)
	Rear	N (lbf)	504 (113)
Survival Wind Speed		km/h (mph)	200 (124)
Connector Type		--	(6x) 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)	2200 x 445 x 295 (86.6 x 17.5 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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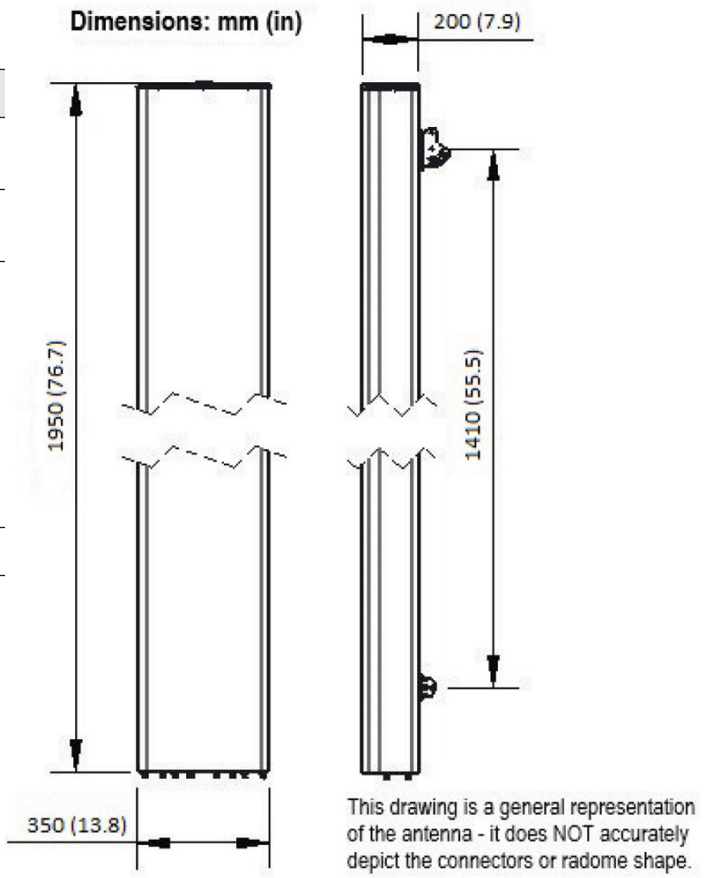
ACCESSORIES Accessories may be ordered separately unless otherwise indicated.

ITEM	MODEL NUMBER	WEIGHT
Beam Tilt Mounting Bracket Kit for Pole Diameter 50-110 mm (2.0-4.3 in) *Refer to ordering options*	APM50-B1	4.5 kg (9.9 lbs)
Direct Pipe No Tilt Bracket Kit for Pole Diameter 50-110 mm (2.0-4.3 in) *Refer to ordering options*	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