

## APXV3BLL20B\_43-C-I20

### APXV3BLL20B\_43-A-I20

#### Features

- 33° half power beamwidth at all ports
- 2 ports / 1 cross pol system in low band (698-960 MHz)
- 4 ports / 2 cross pol systems in high band (1710-2690 MHz)
- 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



<b>PRODUCT OVERVIEW</b>	Frequency Range (MHz)	(1x) 698-960	(2x) 1710-2690	
	Array	■ R1	■ Y1	■ Y2
	Connector	1-2	3-4	5-6
		2 PORTS	4 PORTS	
	Polarization	XPOL	XPOL	
	Azimuth Beamwidth (avg)	33°	33°	
	Electrical Downtilt	2-12°	2-12°	
Dimensions	2080 x 565 x 145 mm (81.9 x 22.2 x 5.7 in)			

#### ORDERING OPTIONS

Select from the following ordering options

ANTENNA MODEL NUMBER	CONFIGURATION	MOUNTING HARDWARE	MOUNTING PIPE DIAMETER	SHIPPING WEIGHT	MOUNTING HARDWARE WEIGHT
APXV3BLL20B_43-C-I20	ACU-I20-B3 Internal RET Included	APM50-B1 Beam Tilt Kit Included	50-110 mm (2.0-4.3)	51.0 kg (112.4 lbs)	4.5 kg (9.9 lbs)
APXV3BLL20B_43-A-I20	ACU-I20-B3 Internal RET Included	APM50-B1N Direct Pipe No Tilt Mounting Kit Included	50-110 mm (2.0-4.3)	49.9 kg (110.0 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	17.2 ± 0.5	18.3 ± 1.0	18.9 ± 0.5
	Max Gain	dBi	17.7	19.3	19.4
Azimuth Beamwidth (3 dB)		degrees	39.5° ± 3.0°	34.0° ± 2.0°	30.9° ± 1.0°
Elevation Beamwidth (3 dB)		degrees	12.2° ± 1.0°	10.9° ± 1.0°	9.7° ± 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	22	23	23
First Upper Side Lobe		dB	17	18	17
Cross-Pol Over Sector		dB	2	14	16
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	29	29	28
Maximum Effective Power Per Port		Watts	350 W		
Cross Polar Isolation		dB	26		
Interband Isolation		dB	26		

### 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	17.0 ± 1.0	17.2 ± 0.5	17.4 ± 0.5	17.6 ± 0.5	17.7 ± 1.0
	Max Gain	dBi	18.0	17.7	17.9	18.1	18.7
Azimuth Beamwidth (3 dB)		degrees	40.9° ± 3.6°	36.2° ± 3.6°	34.6° ± 2.5°	31.7° ± 2.9°	32.1° ± 4.5°
Elevation Beamwidth (3 dB)		degrees	9.7° ± 0.5°	9.0° ± 1.0°	8.8° ± 0.5°	8.0° ± 0.1°	7.5° ± 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	21.8	22	22	21	19
First Upper Side Lobe		dB	16	14	16	20	19
Cross-Pol Over Sector		dB	2	1	2	1	2
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	22	21	17	16	20
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	17.1 ± 0.5	17.4 ± 0.5	17.7 ± 0.5	17.7 ± 0.5	17.8 ± 0.6
	Max Gain	dBi	17.6	17.9	18.2	18.2	18.4
Azimuth Beamwidth (3 dB)		degrees	39.9° ± 3.7°	35.8° ± 3.0°	35.1° ± 2.1°	33.1° ± 2.7°	32.5° ± 3.8°
Elevation Beamwidth (3 dB)		degrees	9.7° ± 0.7°	9.1° ± 0.5°	8.9° ± 0.6°	8.0° ± 1.0°	7.5° ± 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	23	22	21	21	19
First Upper Side Lobe		dB	14	13	15.6	15.4	16
Cross-Pol Over Sector		dB	2	1	1	1.3	2
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	21	21	15	17	18
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	26				

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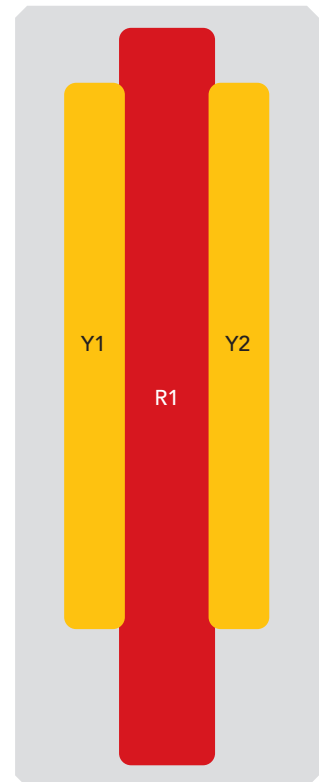
### APXV3BLL20B\_43-A-I20

#### 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
■ Y1	1710-2690 MHz	3-4	(2x) 4.3-10 Female	Y1	RFxxxxxxxxxx-Y1
■ Y2	1710-2690 MHz	5-6	(2x) 4.3-10 Female		



The illustration is not shown to scale.

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#### MECHANICAL SPECIFICATIONS

Length	mm (in)	2080 (81.9)
Width	mm (in)	565 (22.2)
Depth	mm (in)	145 (5.7)
Net Weight - Antenna Only	kg (lbs)	39 (86)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf) 1388 (312)
	Side	N (lbf) 556 (125)
	Rear	N (lbf) 930 (209)
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	---	Direct Ground
<b>Shipping</b>	Packing Size (Length x Width x Depth)	mm (in) 2355 x 655 x 245 (92.7 x 25.8 x 9.6)

#### 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) <i>Refer to ordering options</i>	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) <i>Refer to ordering options</i>	APM50-B1N	3.4 kg (7.5 lbs)

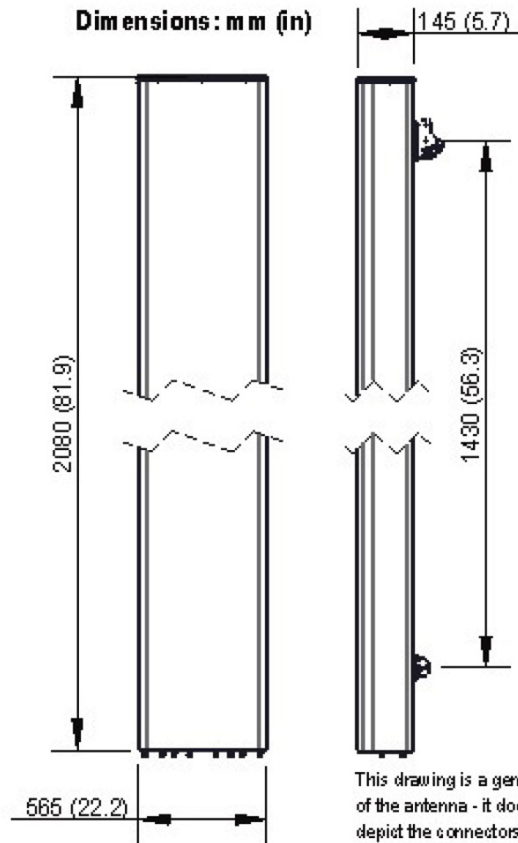
**INSTALLATION** Please read all installation notes before installing product.



- 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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