

## APXVBLL18B2\_43-C-I20

### Features

- 2 ports / 1 cross pol system in low band (690-960 MHz)
- 4 ports / 2 cross pol systems in high band (1695-2690 MHz)
- Integrated and field replaceable SRET
- ACU HW version: HRLS200608H1.00
- Compliant with AISG v2.0 and 3GPP



PRODUCT OVERVIEW	Frequency Range (MHz)	(1x) 690-960		(2x) 1695-2690	
	Array	<div><div></div> R1</div>		<div><div></div> Y1</div>	<div><div></div> Y2</div>
	Connector	1-2		3-4	5-6
		6 PORTS			
	Polarization	XPOL			
	Azimuth Beamwidth (avg)	65°		65°	
	Electrical Downtilt	2-12°		2-10°	
	Dimensions	1798 x 378 x 158 mm (70.8 x 14.9 x 6.2 in)			

### ORDERING OPTIONS

Select from the following ordering options

ANTENNA MODEL NUMBER	CONFIGURATION	MOUNTING HARDWARE	MOUNTING PIPE DIAMETER	SHIPPING WEIGHT
APXVBLL18B2_43-C-I20	ACU-I20-H12I Internal RET Included	APM50-H1 Beam Tilt Kit Included	50-125 mm (2.0-4.9 in)	32.2 kg (71 lbs)

## APXVBLL18B2\_43-C-I20

### ELECTRICAL SPECIFICATIONS

■ R1

Frequency Range		MHz	690-960		
		MHz	690-806	790-894	880-960
Polarization		---	±45°		
Gain	Over all Tilts	dBi	15.7 ± 0.5	16.0 ± 0.2	16.1 ± 0.3
	Max Gain	dBi	16.2	16.2	16.4
Azimuth Beamwidth (3 dB)		degrees	67.7° ± 2.1°	64.9° ± 1.9°	62.1° ± 1.5°
Elevation Beamwidth (3 dB)		degrees	12.0° ± 1.1°	10.7° ± 0.6°	10.0° ± 0.7°
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	24.9	25.1	24.6
First Upper Side Lobe Suppression		dB	18.3	19.4	17.6
Cross Polar Discrimination Over Sector		dB	10.2	8.9	7.3
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	26.8	30.4	25.3
Maximum Effective Power Per Port		Watts	250 W		
Cross Polar Isolation		dB	28		
Interband Isolation		dB	28		

Specifications follow BASTA guidelines.

### ELECTRICAL SPECIFICATIONS

■ Y1

Frequency Range		MHz	1695-2690				
		MHz	1695-1880	1850-1990	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	18.3 ± 0.3	18.8 ± 0.3	19.0 ± 0.3	18.7 ± 0.4	19.0 ± 0.5
	Max Gain	dBi	18.6	19.1	19.3	19.1	19.5
Azimuth Beamwidth (3 dB)		degrees	68.8° ± 7.4°	61.5° ± 6.0°	63.5° ± 5.6°	66.6° ± 2.1°	64.7° ± 2.9°
Elevation Beamwidth (3 dB)		degrees	5.3° ± 0.3°	5.0° ± 0.3°	4.7° ± 0.4°	4.1° ± 0.2°	3.9° ± 0.2°
Electrical Downtilt		degrees	2-10°				
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	21.9	28.0	27.0	23.2	20.9
First Upper Side Lobe Suppression		dB	20.2	19.7	19.9	18.3	17.6
Cross Polar Discrimination Over Sector		dB	9.8	8.8	8.8	9.3	1.9
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	25.4	24.8	24.2	27.5	28.9
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	28				
Interband Isolation		dB	28				

Specifications follow BASTA guidelines.

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.

## APXVBLL18B2\_43-C-I20

### ELECTRICAL SPECIFICATIONS

■ Y2

Frequency Range		MHz	1695-2690				
		MHz	1695-1880	1850-1990	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	18.2 ± 0.4	18.7 ± 0.5	18.9 ± 0.4	18.6 ± 0.5	18.7 ± 0.5
	Max Gain	dBi	18.6	19.2	19.3	19.1	19.2
Azimuth Beamwidth (3 dB)		degrees	68.8° ± 7.0°	60.9° ± 5.7°	62.9° ± 5.5°	66.1° ± 2.1°	64.7° ± 2.6°
Elevation Beamwidth (3 dB)		degrees	5.3° ± 0.3°	5.0° ± 0.3°	4.7° ± 0.4°	4.2° ± 0.2°	3.9° ± 0.2°
Electrical Downtilt		degrees	2-10°				
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	21.5	26.4	26.5	23.1	20.5
First Upper Side Lobe Suppression		dB	20.8	19.1	19.2	15.8	15.7
Cross Polar Discrimination Over Sector		dB	8.8	7.3	8.1	8.7	2.0
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	26.4	26.9	26.5	26.3	26.4
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	28				
Interband Isolation		dB	28				

Specifications follow BASTA guidelines.

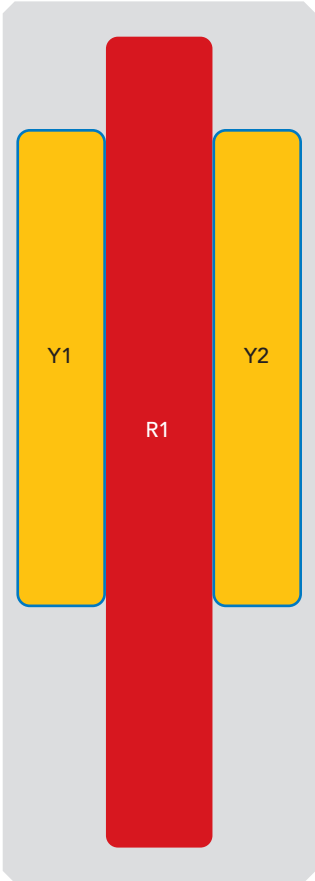
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## BOTTOM VIEW - LABELING



## ARRAY LAYOUT

ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE	RET	AISG RET UID
<span style="color: red;">■</span> R1	690-960 MHz	1-2	(2x) 4.3-10 Female	R1	RFxxxxxxxxxx-R1
<span style="color: yellow;">■</span> Y1	1695-2690 MHz	3-4	(2x) 4.3-10 Female	Y1	RFxxxxxxxxxx-Y1
<span style="color: yellow;">■</span> Y2	1695-2690 MHz	5-6	(2x) 4.3-10 Female	Y2	RFxxxxxxxxxx-Y2



The illustration is not shown to scale.

## APXVBLL18B2\_43-C-I20

### MECHANICAL SPECIFICATIONS

Length		mm (in)	1798 (70.8)
Width		mm (in)	378 (14.9)
Depth		mm (in)	158 (6.2)
Net Weight - Antenna Only		kg (lbs)	23.5 (51.8)
Net Weight - Mounting Hardware Only		kg (lbs)	4 (8.8)
Wind Load  Rated at 150 km/h (93 mph)	Front	N (lbf)	625 (141)
	Side	N (lbf)	320 (72)
	Rear	N (lbf)	700 (157)
Survival Wind Speed / Rated Wind Speed		km/h (mph)	200 (150)
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
<b>Shipping</b>	Packing Size (Length x Width x Depth)	mm (in)	1978 x 473 x 278 (77.9 x 18.6 x 10.9)
	Shipping Weight	kg (lbs)	32.2 (71)

### 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

## APXVBLL18B2\_43-C-I20


### ACCESSORIES

Accessories may be ordered separately unless otherwise indicated.

ITEM	MODEL NUMBER	WEIGHT
Beam Tilt Mounting Bracket Kit for Pole Diameter 50-125 mm (2.0-4.9 in) <i>Shipped with antenna</i>	APM50-H1	4.0 kg (8.8 lbs)

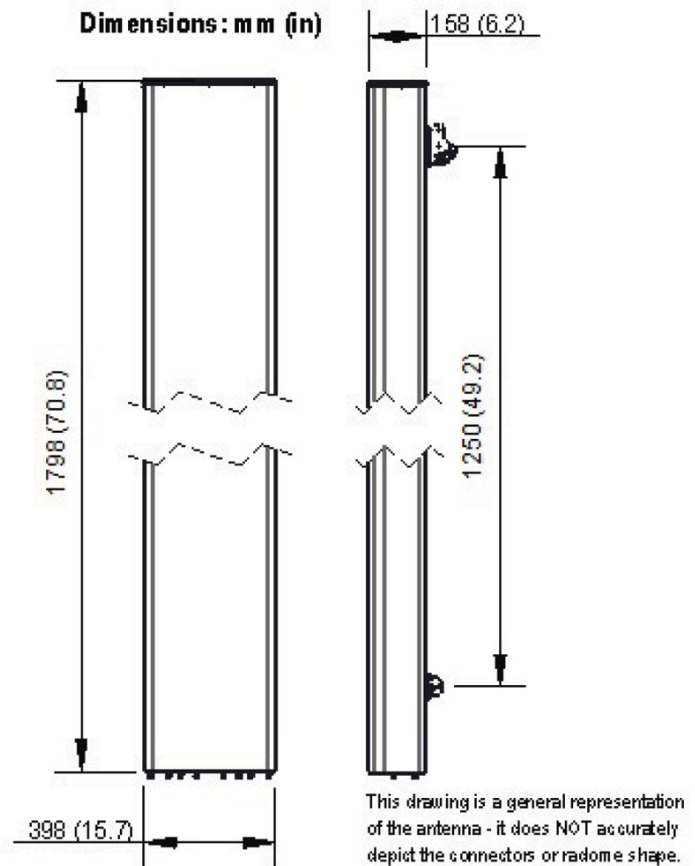
### INSTALLATION

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](#)