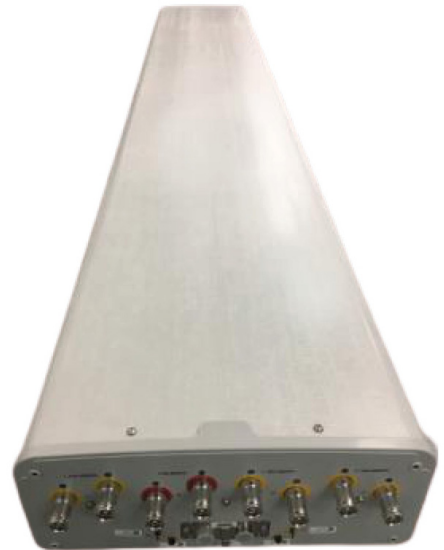


APXVB3L18B2_43-C-I20

Features

- 2 ports / 1 cross pol system in low band (690-960 MHz)
- 6 ports / 3 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	(3x) 1695-2690		
	Array	■ R1	■ Y1	■ Y2	■ Y3
	Connector	1-2	3-4	5-6	7-8
		8 PORTS			
	Polarization	XPOL			
	Azimuth Beamwidth (avg)	65°	65°		
	Electrical Downtilt	2-12°	2-10°		
	Dimensions	1798 x 398 x 158 mm (70.8 x 15.7 x 6.2 in)			

ORDERING OPTIONS Select from the following ordering options

ANTENNA MODEL NUMBER	CONFIGURATION	MOUNTING HARDWARE	MOUNTING PIPE DIAMETER	SHIPPING WEIGHT
APXVB3L18B2_43-C-I20	ACU-I20-H12I Internal RET Included	APM50-H1 Beam Tilt Kit Included	50-125 mm (2.0-4.9 in)	35.2 kg (77.6 lbs)



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ELECTRICAL SPECIFICATIONS

■ R1

Frequency Range		MHz	690-960		
		MHz	690-806	790-894	880-960
Polarization		---	±45°		
Gain	Over all Tilts	dBi	15.6 ± 0.5	15.5 ± 0.5	15.1 ± 0.6
	Max Gain	dBi	16.1	16.0	15.7
Azimuth Beamwidth (3 dB)		degrees	66.1° ± 2.3°	63.3° ± 1.5°	62.5° ± 2.4°
Elevation Beamwidth (3 dB)		degrees	12° ± 1.1°	11° ± 0.8°	10.2° ± 0.8°
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	21.3	21.5	22.3
First Upper Side Lobe Suppression		dB	17.5	17.1	16.8
Cross Polar Discrimination Over Sector		dB	7.5	7.1	5.7
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	21.9	22.7	23.1
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	18.4 ± 0.4	18.7 ± 0.2	19.0 ± 0.5	19.4 ± 0.5	19.3 ± 0.5
	Max Gain	dBi	18.8	18.9	19.5	19.9	19.8
Azimuth Beamwidth (3 dB)		degrees	65.9° ± 2.5°	64.7° ± 1.4°	62.6° ± 3.5°	53.1° ± 2.4°	52.7° ± 2.7°
Elevation Beamwidth (3 dB)		degrees	5.4° ± 0.3°	5° ± 0.2°	4.7° ± 0.4°	4.1° ± 0.1°	3.8° ± 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	26.5	27.9	28.1	26.7	24.6
First Upper Side Lobe Suppression		dB	15.7	17.4	17.2	19.9	17
Cross Polar Discrimination Over Sector		dB	10.3	10.1	10.6	9.4	4.1
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	28.1	23	23	24.8	28.3
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	28				
Interband Isolation		dB	28				

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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	17.4 ± 0.3	17.7 ± 0.3	18.1 ± 0.6	17.9 ± 0.6	17.9 ± 0.6
	Max Gain	dBi	17.7	18.0	18.7	18.5	18.5
Azimuth Beamwidth (3 dB)		degrees	66.9° ± 2.2°	63.8° ± 3.6°	61.8° ± 4.1°	57.5° ± 1.7°	57.7° ± 5.3°
Elevation Beamwidth (3 dB)		degrees	5.3° ± 0.3°	4.9° ± 0.2°	4.6° ± 0.3°	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	25.2	26.2	27.2	26.1	26
First Upper Side Lobe Suppression		dB	19.5	19.8	20.1	17.3	15.4
Cross Polar Discrimination Over Sector		dB	8.9	7.8	7.7	3.7	3.4
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	22.1	21	20.5	19.3	23.6
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	28				
Interband Isolation		dB	28				

Specifications follow BASTA guidelines.

ELECTRICAL SPECIFICATIONS

■ Y3

Frequency Range		MHz	1695-2690				
		MHz	1695-1880	1850-1990	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	18.4 ± 0.4	18.7 ± 0.2	19 ± 0.5	19.4 ± 0.4	19.3 ± 0.5
	Max Gain	dBi	18.8	18.9	19.5	19.8	19.8
Azimuth Beamwidth (3 dB)		degrees	66.2° ± 2.3°	64° ± 1.7°	62.5° ± 2.7°	53.2° ± 3.1°	53.7° ± 3°
Elevation Beamwidth (3 dB)		degrees	5.4° ± 0.3°	5° ± 0.2°	4.7° ± 0.4°	4.1° ± 0.1°	3.8° ± 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	24.4	28.1	28.1	25.8	23.3
First Upper Side Lobe Suppression		dB	15.8	17.3	17.8	21.7	15.9
Cross Polar Discrimination Over Sector		dB	9.3	8.3	9.2	10.2	6.1
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	27	25.3	24.9	24.9	26.1
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	28				
Interband Isolation		dB	28				

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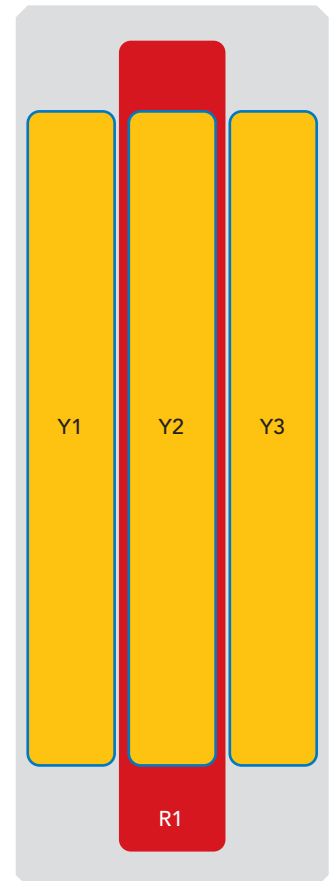
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BOTTOM VIEW - LABELING



ARRAY LAYOUT

ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE	RET	AISG RET UID
■ R1	690-960 MHz	1-2	(2x) 4.3-10 Female	R1	RFxxxxxxxxxx-R1
■ Y1	1695-2690 MHz	3-4	(2x) 4.3-10 Female	Y1	RFxxxxxxxxxx-Y1
■ Y2	1695-2690 MHz	5-6	(2x) 4.3-10 Female	Y2	RFxxxxxxxxxx-Y2
■ Y3	1695-2690 MHz	7-8	(2x) 4.3-10 Female	Y3	RFxxxxxxxxxx-Y3



The illustration is not shown to scale.

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MECHANICAL SPECIFICATIONS

Length	mm (in)	1798 (70.8)
Width	mm (in)	398 (15.7)
Depth	mm (in)	158 (6.2)
Net Weight - Antenna Only	kg (lbs)	26.5 (58.4)
Net Weight - Mounting Hardware Only	kg (lbs)	4 (8.8)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf) 660 (148)
	Side	N (lbf) 320 (72)
	Rear	N (lbf) 735 (165)
Survival Wind Speed / Rated Wind Speed	km/h (mph)	200 (150)
Connector Type	--	(8x) 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) 1978 x 493 x 278 (77.9 x 19.4 x 10.9)
	Shipping Weight	kg (lbs) 35.2 (77.6)

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 50-125 mm (2.0-4.9 in) <i>Shipped with antenna</i>	APM50-H1	4 kg (8.8 lbs)

INSTALLATION

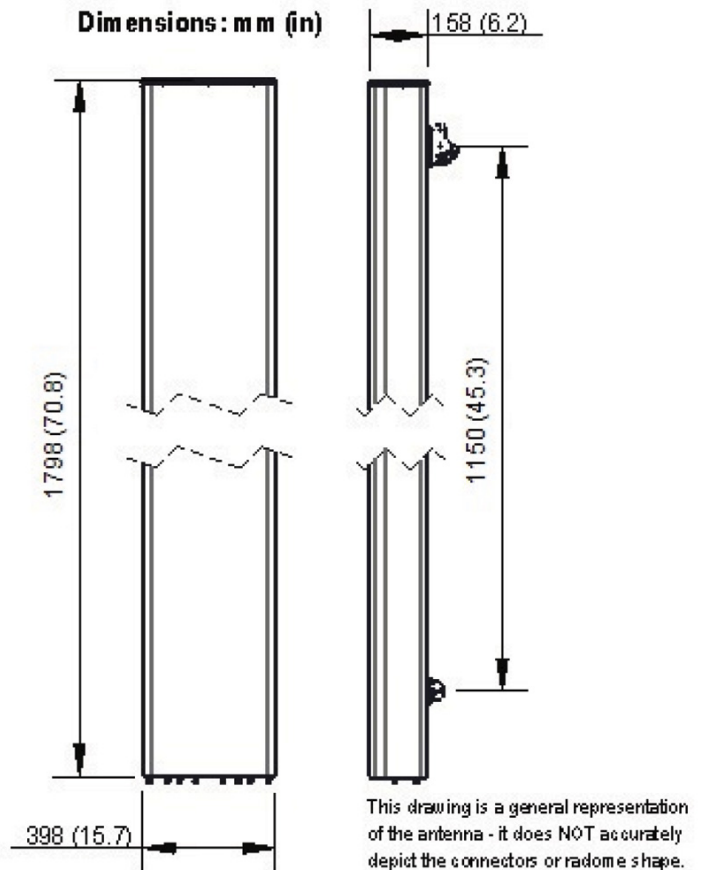
Please read all installation notes before installing product.



- 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](#)