

## APXVBB3L26H\_43-C-I20

### Features

- 4 ports / 2 cross pol systems 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)	(2x) 690-960		(3x) 1695-2690		
	Array	■ R1	■ R2	■ Y1	■ Y2	■ Y3
	Connector	1-2	3-4	5-6	7-8	9-10
		10 PORTS				
	Polarization	XPOL				
	Azimuth Beamwidth (avg)	65°		65°		
	Electrical Downtilt	2-12°		2-10°		
	Dimensions	2498 x 468 x 168 mm (98.3 x 18.4 x 6.6 in)				

### ORDERING OPTIONS Select from the following ordering options

ANTENNA MODEL NUMBER	CONFIGURATION	MOUNTING HARDWARE	MOUNTING PIPE DIAMETER	SHIPPING WEIGHT
APXVBB3L26H_43-C-I20	ACU-I20-H12I Internal RET Included	APM50-HS Beam Tilt Kit Included	50-125 mm (2.0-4.9 in)	53.7 kg (118.4 lbs)



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## APXVBB3L26H\_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	15.9 ± 1	16.7 ± 0.4	16.7 ± 0.3
	Max Gain	dBi	16.9	17.1	17.0
Azimuth Beamwidth (3 dB)		degrees	70.5° ± 9.1°	64.5° ± 2.5°	63.8° ± 3.6°
Elevation Beamwidth (3 dB)		degrees	9.2° ± 1.1°	8.1° ± 0.5°	7.4° ± 0.5°
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	19.6	22.8	22.9
First Upper Side Lobe Suppression		dB	18.8	19.8	18.2
Cross Polar Discrimination Over Sector		dB	11.7	11.6	11
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	22.9	25.7	26.3
Maximum Effective Power Per Port		Watts	250 W		
Cross Polar Isolation		dB	26		
Interband Isolation		dB	26		

Specifications follow BASTA guidelines.

### ELECTRICAL SPECIFICATIONS

■ R2

Frequency Range		MHz	690-960		
		MHz	690-806	790-894	880-960
Polarization		---	±45°		
Gain	Over all Tilts	dBi	15.7 ± 0.9	16.6 ± 0.3	16.7 ± 0.3
	Max Gain	dBi	16.6	16.9	17
Azimuth Beamwidth (3 dB)		degrees	70.1° ± 8.1°	64.3° ± 2.7°	65.3° ± 2.6°
Elevation Beamwidth (3 dB)		degrees	9.1° ± 0.9°	8° ± 0.4°	7.4° ± 0.5°
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	20	22.3	23.2
First Upper Side Lobe Suppression		dB	17.7	19.6	18.4
Cross Polar Discrimination Over Sector		dB	12.4	11.2	9.9
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	23.9	26.8	28
Maximum Effective Power Per Port		Watts	250 W		
Cross Polar Isolation		dB	26		
Interband Isolation		dB	26		

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### 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	17.6 ± 0.5	17.9 ± 0.4	18.6 ± 1	18.4 ± 0.5	18.4 ± 0.7
	Max Gain	dBi	18.1	18.3	19.6	18.9	19.1
Azimuth Beamwidth (3 dB)		degrees	62.7° ± 6.5°	61.1° ± 7.5°	57.2° ± 4.6°	52.3° ± 3.3°	54.6° ± 5.6°
Elevation Beamwidth (3 dB)		degrees	5.4° ± 0.3°	5° ± 0.2°	4.6° ± 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	26.9	27.2	27.4	26.7	24.8
First Upper Side Lobe Suppression		dB	21.2	22.8	21.8	15	14.2
Cross Polar Discrimination Over Sector		dB	5.6	8.7	3.5	0.6	0.4
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	17.9	19.9	20.3	16.8	20.7
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	28				

Specifications follow BASTA guidelines.

### 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	17.8 ± 0.4	18 ± 0.2	18.8 ± 0.7	19 ± 0.4	19 ± 0.5
	Max Gain	dBi	18.2	18.2	19.5	19.4	19.5
Azimuth Beamwidth (3 dB)		degrees	62.7° ± 6.4°	65.1° ± 3.3°	61.6° ± 8.9°	56.8° ± 4°	64.2° ± 6.7°
Elevation Beamwidth (3 dB)		degrees	5.3° ± 0.5°	4.9° ± 0.2°	4.6° ± 0.3°	4° ± 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	26.8	26	27.7	29.8	28.1
First Upper Side Lobe Suppression		dB	15.4	17.3	15.9	13.6	12.6
Cross Polar Discrimination Over Sector		dB	11.4	10.9	7.5	5.2	2.7
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	24.3	24.6	17.3	18.8	19.9
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	28				

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### 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	17.6 ± 0.5	18 ± 0.3	18.7 ± 0.9	18.4 ± 0.4	18.3 ± 0.8
	Max Gain	dBi	18.1	18.3	19.6	18.8	19.1
Azimuth Beamwidth (3 dB)		degrees	62.4° ± 5.9°	60.1° ± 7.7°	56.8° ± 4.6°	52.5° ± 3.9°	55° ± 4.9°
Elevation Beamwidth (3 dB)		degrees	5.4° ± 0.3°	5° ± 0.2°	4.6° ± 0.4°	4.1° ± 0.2°	4° ± 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	27	28.3	27.9	27.2	25.7
First Upper Side Lobe Suppression		dB	20.7	24	22.1	17.4	14
Cross Polar Discrimination Over Sector		dB	5.2	7.8	3.4	0.7	0.3
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	17.7	20.1	20.6	18	21.4
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26				
Interband Isolation		dB	28				

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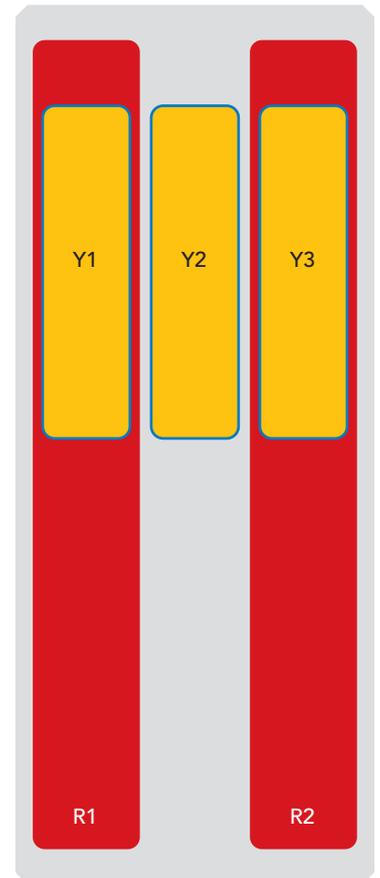
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## BOTTOM VIEW - LABELING



## ARRAY LAYOUT

ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE	RET	AISG RET UID
<span style="color: red;">■</span> R1	690-960 MHz	1-2	(2x) 4.3-10 Female	R1	RFxxxxxxxxxx-R1
<span style="color: red;">■</span> R2	690-960 MHz	3-4	(2x) 4.3-10 Female	R2	RFxxxxxxxxxx-R2
<span style="color: yellow;">■</span> Y1	1695-2690 MHz	5-6	(2x) 4.3-10 Female	Y1	RFxxxxxxxxxx-Y1
<span style="color: yellow;">■</span> Y2	1695-2690 MHz	7-8	(2x) 4.3-10 Female	Y2	RFxxxxxxxxxx-Y2
<span style="color: yellow;">■</span> Y3	1695-2690 MHz	9-10	(2x) 4.3-10 Female	Y3	RFxxxxxxxxxx-Y3



The illustration is not shown to scale.

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### MECHANICAL SPECIFICATIONS

Length	mm (in)	2498 (98.3)
Width	mm (in)	468 (18.4)
Depth	mm (in)	168 (6.6)
Net Weight - Antenna Only	kg (lbs)	38.3 (84.4)
Net Weight - Mounting Hardware Only	kg (lbs)	9 (19.8)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf) 1080 (243)
	Side	N (lbf) 475 (107)
	Rear	N (lbf) 1205 (271)
Survival Wind Speed / Rated Wind Speed	km/h (mph)	200 (150)
Connector Type	--	(10x) 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) 2698 x 544 x 293 (106.2 x 21.4 x 11.5)
	Shipping Weight	kg (lbs) 53.7 (118.4)

### 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

## APXVBB3L26H\_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-HS	9 kg (19.8 lbs)

### INSTALLATION

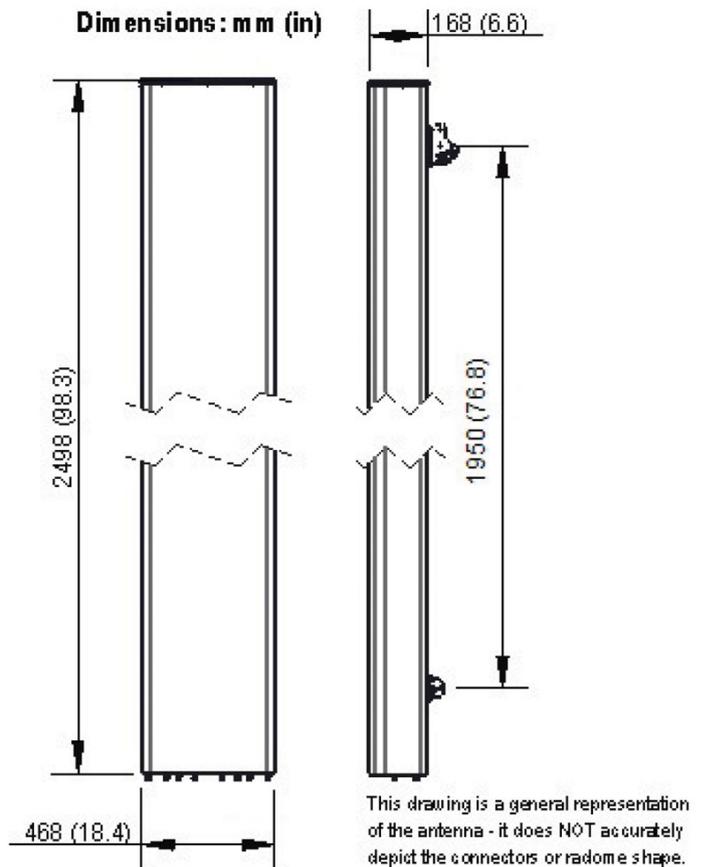
Please read all installation notes before installing product.



- 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](#)