

APXVBLL15H_43-C-I20 APXVBLL15H_43-A-I20

Features

- 2 ports / 1 cross pol system in low band (694-960 MHz)
- 4 ports / 2 cross pol systems in high band (1695-2690 MHz)
- Integrated and field replaceable SRET
- ACU HW version -HRLS200608H1.00
- 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) 694-960	(2x) 1695-2690		
	Array	■ R1	■ Y1	■ Y2	
	Connector	1-2	3-4	5-6	
		6 PORTS			
	Polarization	XPOL			
	Azimuth Beamwidth (avg)	65°	65°	65°	
	Electrical Downtilt	2-14°	2-12°		
	Dimensions	1498 x 398 x 158 mm (59 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	MOUNTING HARDWARE WEIGHT
APXVBLL15H_43-C-I20	ACU-I20-H13 Internal Field Replaceable RET Included	APM50-H1 Beam Tilt Kit Included	50-125 mm (2.0-4.9 in)	27.5 kg (60.6 lbs)	4.0 kg (8.8 lbs)
APXVBLL15H_43-A-I20	ACU-I20-H13 Internal Field Replaceable RET Included	APM50-H1N Direct Pipe No Tilt Mounting Kit Included	50-125 mm (2.0-4.9 in)	26.5 kg (58.4 lbs)	3.0 kg (6.6 lbs)



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.

APXVBLL15H_43-C-I20

APXVBLL15H_43-A-I20

ELECTRICAL SPECIFICATIONS

■ R1

Frequency Range	MHz	694-960			
	MHz	694-806	790-894	880-960	
Polarization	---	±45°			
Gain	Over all Tilts	dBi	14.2 ± 0.5	14.8 ± 0.5	15.1 ± 0.5
	Max Gain	dBi	14.7	15.3	15.6
Azimuth Beamwidth (3 dB)	degrees	68.7° ± 2.0°	65.9° ± 2.5°	62.9° ± 1.3°	
Elevation Beamwidth (3 dB)	degrees	15.1° ± 1.0°	13.4° ± 0.5°	12.6° ± 0.5°	
Electrical Downtilt	degrees	2-14°			
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	25	24.3	
First Upper Side Lobe Suppression	dB	17	17	18	
Cross Polar Discrimination Over Sector	dB	8	8	7	
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)	dB	20	21	24	
Maximum Effective Power Per Port	Watts	300 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	16.4 ± 0.5	16.8 ± 0.5	16.9 ± 1.0	17.5 ± 0.5	18.0 ± 0.1
	Max Gain	dBi	16.9	17.3	17.9	18.0	18.1
Azimuth Beamwidth (3 dB)	degrees	69.0° ± 5.5°	67.3° ± 4.0°	67.0° ± 5.0°	63.3° ± 2.5°	59.8° ± 5.1°	
Elevation Beamwidth (3 dB)	degrees	6.3° ± 0.5°	6.0° ± 0.1°	5.5° ± 0.5°	5.0° ± 0.1°	4.7° ± 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	24	28	26	23	20.2	
First Upper Side Lobe Suppression	dB	18	21	21	22.9	19	
Cross Polar Discrimination Over Sector	dB	13	10	10	13	7	
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)	dB	25.4	23	23	26	20.9	
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.

APXVBLL15H_43-C-I20

APXVBLL15H_43-A-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	16.3 ± 0.5	16.7 ± 0.5	16.9 ± 0.5	17.1 ± 0.4	17.8 ± 0.5
	Max Gain	dBi	16.8	17.2	17.4	17.5	18.3
Azimuth Beamwidth (3 dB)		degrees	69.1° ± 4.0°	68.0° ± 4.0°	66.8° ± 5.5°	63.6° ± 2.6°	61.0° ± 4.5°
Elevation Beamwidth (3 dB)		degrees	6.3° ± 0.5°	6.0° ± 0.1°	5.5° ± 0.5°	5.0° ± 0.1°	4.7° ± 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	23	25	24	22	20
First Upper Side Lobe Suppression		dB	17.4	19	20	19.3	19
Cross Polar Discrimination Over Sector		dB	8	9	8.4	9	3
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	21	21.6	24	24	27
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	28				
Interband Isolation		dB	28				

Specifications follow BASTA guidelines.

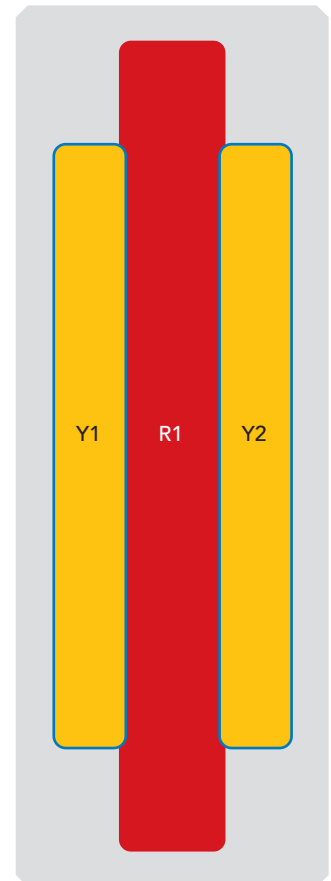
APXVBLL15H_43-C-I20 APXVBLL15H_43-A-I20

BOTTOM VIEW - LABELING



ARRAY LAYOUT

ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE	RET	AISG RET UID
■ R1	694-960 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



The illustration is not shown to scale.

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.

APXVBLL15H_43-C-I20

APXVBLL15H_43-A-I20

MECHANICAL SPECIFICATIONS

Length	mm (in)	1498 (59)
Width	mm (in)	398 (15.7)
Depth	mm (in)	158 (6.2)
Net Weight - Antenna Only	kg (lbs)	20.2 (44.5)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf) 381 (86)
	Side	N (lbf) 317 (71)
	Rear	N (lbf) 452 (102)
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) 1698 x 493 x 278 (66.8 x 19.4 x 10.9)

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

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.

APXVBLL15H_43-C-I20

APXVBLL15H_43-A-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>Refer to ordering options</i>	APM50-H1	4.0 kg (8.8 lbs)
Direct Pipe No Tilt Bracket Kit for Pole Diameter 50-125 mm (2.0-4.9 in) <i>Refer to ordering options</i>	APM50-H1N	3.0 kg (6.6 lbs)

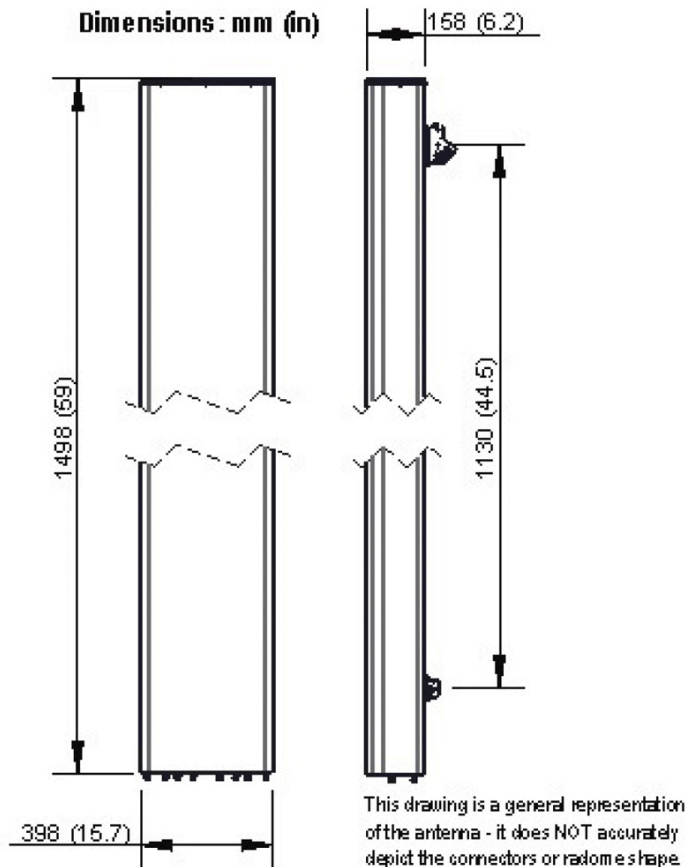
INSTALLATION Please read all installation notes before installing product.



- 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](#)

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.