

P1-BRRMM15-N0

P1-BRRMM15-S0

Features

- 2 ports / 1 cross pol system in low band (698-960 MHz)
- 2 cross pol systems in high band (1695-2690 MHz), diplexed, resulting in 4 ports 1695-2200 MHz and 4 ports 2490-2690 MHz
- Integrated and field replaceable SRET
- Optional with Site Sharing feature (Model name suffix -S0)
- Compliant with AISG v2.0 and 3GPP



PRODUCT OVERVIEW	Frequency Range (MHz)	(1x) 698-960	(2x) 1695-2200		(2x) 2490-2690	
	Array	■ R1	■ B1	■ B2	■ Y1	■ Y2
	Connector	1-2	3-4	5-6	7-8	9-10
		10 PORTS				
	Polarization	XPOL				
	Azimuth Beamwidth (avg)	65°	65°		65°	
	Electrical Downtilt	2-15°	2-12°		2-12°	
Dimensions	1500 x 350 x 200 mm (59.1 x 13.8 x 7.9 in)					

ORDERING OPTIONS

Select from the following ordering options

ANTENNA MODEL NUMBER	CONFIGURATION	MOUNTING HARDWARE	MOUNTING PIPE DIAMETER	SHIPPING WEIGHT	MOUNTING HARDWARE WEIGHT
P1-BRRMM15-N0	ACU-I20-B5 Internal RET Included	APM50-B1 Beam Tilt Kit Included	50-110 mm (2.0-4.3 in)	31 kg (68.3 lbs)	4.5 kg (9.9 lbs)
P1-BRRMM15-S0	ACU-X20-B5 Internal Site Sharing RET Included	APM50-B1 Beam Tilt Kit Included	50-110 mm (2.0-4.3 in)	31 kg (68.3 lbs)	4.5 kg (9.9 lbs)



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65°

1500 mm

INTEGRATED RET

SITE SHARING OPTIONAL

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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	14 ± 0.4	14.2 ± 0.4	14.6 ± 0.3
	Max Gain	dBi	14.4	14.6	14.9
Azimuth Beamwidth (3 dB)		degrees	67.2° ± 1.5°	66.7° ± 1.2°	67.3° ± 2.4°
Elevation Beamwidth (3 dB)		degrees	18.3° ± 1.5°	16.5° ± 1°	14.9° ± 1°
Electrical Downtilt		degrees	2-15°		
Impedance		Ohms	50Ω		
VSWR (Return Loss)		---	1.5:1 (-14 dB)		
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	-150		
Front-to-Back Ratio, Total Power, ± 30°		dB	22.6	23	23
First Upper Side Lobe Suppression		dB	14.9	15.3	12.8
Cross Polar Discrimination Over Sector		dB	8.9	8.2	8.9
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	27.1	25.7	24.2
Maximum Effective Power Per Port		Watts	350 W		
Cross Polar Isolation		dB	26		
Interband Isolation		dB	26		

Specifications follow BASTA guidelines.

ELECTRICAL SPECIFICATIONS

■ B1 / ■ Y1

Frequency Range		MHz	1695-2200 / 2490-2690			
		MHz	1695-1880	1850-1990	1920-2200	2490-2690
Polarization		---	±45°			
Gain	Over all Tilts	dBi	16.7 ± 0.5	17.3 ± 0.3	17.2 ± 0.4	17.3 ± 1.3
	Max Gain	dBi	17.2	17.6	17.6	18.6
Azimuth Beamwidth (3 dB)		degrees	64.3° ± 4.1°	64.1° ± 3.6°	63.7° ± 4.8°	59.7° ± 4.7°
Elevation Beamwidth (3 dB)		degrees	6.5° ± 0.4°	6° ± 0.3°	5.6° ± 0.5°	4.7° ± 0.3°
Electrical Downtilt		degrees	2-12°			
Impedance		Ohms	50Ω			
VSWR (Return Loss)		---	1.5:1 (-14 dB)			
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	-150			
Front-to-Back Ratio, Total Power, ± 30°		dB	21.3	21.7	22.3	23.4
First Upper Side Lobe Suppression		dB	14.3	14.5	13.5	14.6
Cross Polar Discrimination Over Sector		dB	8.4	7.2	7.3	2.5
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	18.9	19.9	19.2	18.5
Maximum Effective Power Per Port		Watts	250 W			
Cross Polar Isolation		dB	26			
Interband Isolation		dB	26			

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ELECTRICAL SPECIFICATIONS

■ B2 / ■ Y2

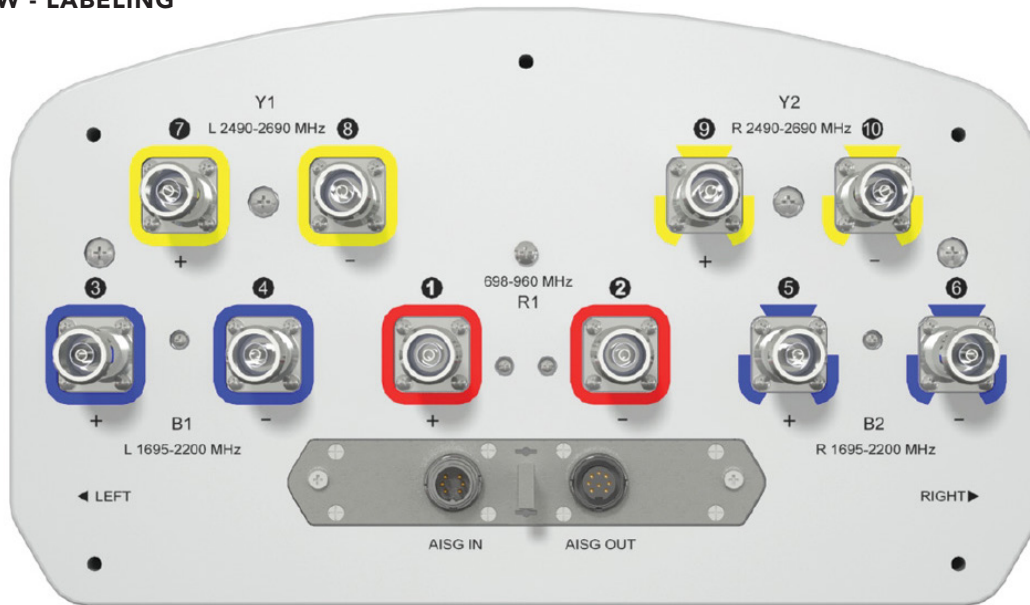
Frequency Range		MHz	1695-2200 / 2490-2690			
		MHz	1695-1880	1850-1990	1920-2200	2490-2690
Polarization		---	±45°			
Gain	Over all Tilts	dBi	16.7 ± 0.5	17.2 ± 0.3	17.2 ± 0.4	17.2 ± 1
	Max Gain	dBi	17.2	17.5	17.6	18.2
Azimuth Beamwidth (3 dB)		degrees	63.9° ± 4.6°	65° ± 3.1°	63.4° ± 5.3°	60.6° ± 5°
Elevation Beamwidth (3 dB)		degrees	6.5° ± 0.4°	6° ± 0.3°	5.6° ± 0.5°	4.7° ± 0.3°
Electrical Downtilt		degrees	2-12°			
Impedance		Ohms	50Ω			
VSWR (Return Loss)		---	1.5:1 (-14 dB)			
Passive Intermodulation 3rd Order for 2x20 W Carriers		dBc	-150			
Front-to-Back Ratio, Total Power, ± 30°		dB	20.7	21.3	22.7	26.4
First Upper Side Lobe Suppression		dB	13.3	13.3	12.3	13
Cross Polar Discrimination Over Sector		dB	7.4	6.7	6.6	1.8
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	18.8	20	20	20
Maximum Effective Power Per Port		Watts	250 W			
Cross Polar Isolation		dB	26			
Interband Isolation		dB	26			

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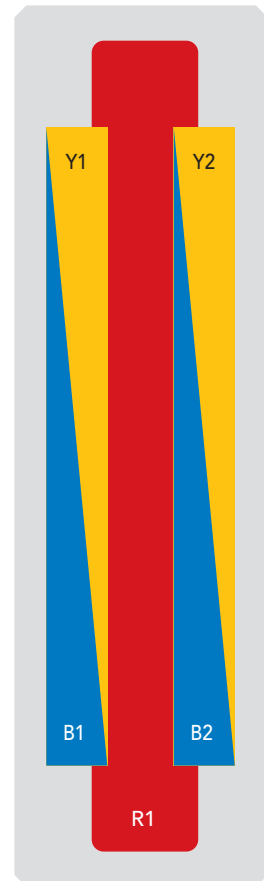
P1-BRRMM15-S0

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
■ B1	1695-2200 MHz	3-4	(2x) 4.3-10 Female	B1	RFxxxxxxxxxx-B1
■ B2	1695-2200 MHz	5-6	(2x) 4.3-10 Female	B2	RFxxxxxxxxxx-B2
■ Y1	2490-2690 MHz	7-8	(2x) 4.3-10 Female	Y1	RFxxxxxxxxxx-Y1
■ Y2	2490-2690 MHz	9-10	(2x) 4.3-10 Female	Y2	RFxxxxxxxxxx-Y2



The illustration is not shown to scale.

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65°

1500 mm

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MECHANICAL SPECIFICATIONS

Length	mm (in)	1500 (59.1)
Width	mm (in)	350 (13.8)
Depth	mm (in)	200 (7.9)
Net Weight - Antenna Only	kg (lbs)	21 (46.3)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf) 659 (148)
	Side	N (lbf) 342 (77)
	Rear	N (lbf) 373 (84)
Survival Wind Speed	km/h (mph)	200 (124)
Connector Type	--	(10x) 4.3-10 Female, (2x) AISG Connectors (1 Male, 1 Female) at Bottom Site Sharing: (4x) AISG Connectors (2 Male, 2 Female) at Bottom
Radome Color	---	Light Grey RAL7035
Radome Material	---	Fiberglass
Lightning Protection	---	Direct Ground
Shipping	Packing Size (Length x Width x Depth)	mm (in) 1750 x 445 x 295 (68.9 x 17.5 x 11.6)

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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65°

1500 mm

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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>Shipped with Antenna</i>	APM50-B1	4.5 kg (9.9 lbs)

INSTALLATION

Please read all installation notes before installing product.

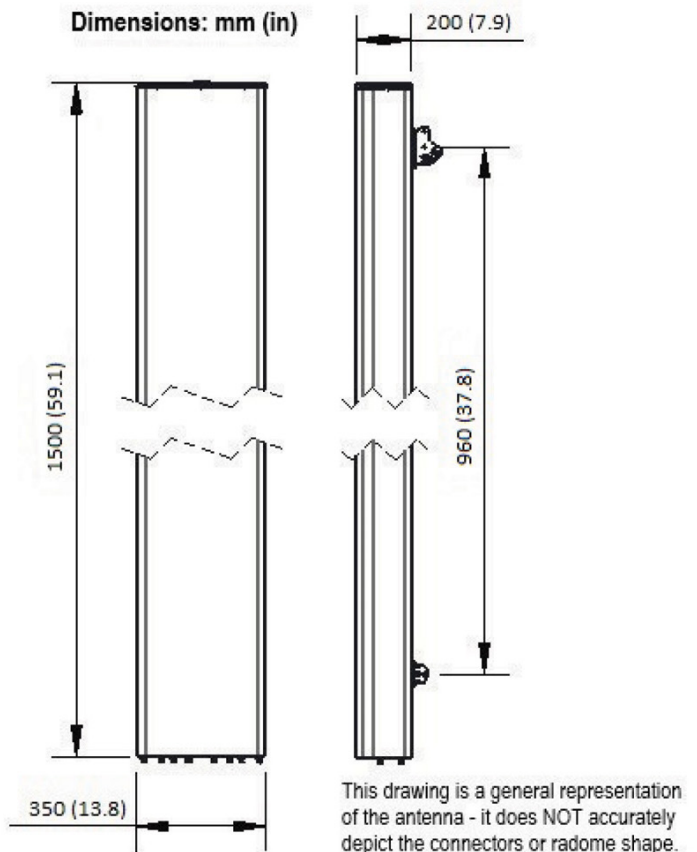


Always attach the antenna using all mounting points.

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](#)