

## PH-LLYY15-N0

### Features

- 4 ports / 2 cross pol systems in high band (1710-2690 MHz)
- 4 ports / 2 cross pol systems in high band (3300-3800 MHz)
- Integrated and field replaceable SRET
- ACU HW version: 2.02
- Compliant with AISG v2.0 and 3GPP



PRODUCT OVERVIEW	Frequency Range (MHz)	(2x) 1710-2690		(2x) 3300-3800	
	Array	■ Y1	■ Y2	■ P1	■ P2
	Connector	1-2	3-4	5-6	7-8
		4 PORTS		4 PORTS	
	Polarization	XPOL		XPOL	
	Azimuth Beamwidth (avg)	65°		65°	
	Electrical Downtilt	2-12°		2-12°	
Dimensions	1495 x 448 x 188 mm (58.9 x 17.6 x 7.4 in)				

### ORDERING OPTIONS

Select from the following ordering options

ANTENNA MODEL NUMBER	CONFIGURATION	MOUNTING HARDWARE	MOUNTING PIPE DIAMETER	SHIPPING WEIGHT
PH-LLYY15-N0	ACU-I20-B4 Internal RET Included	APM50-B1 Beam Tilt Kit Included	50-110 mm (2.0-4.3 in)	29.3 kg (65 lbs)



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## PH-LLYY15-N0

### ELECTRICAL SPECIFICATIONS

■ Y1

Frequency Range		MHz	1710-2690				
		MHz	1710-1880	1850-1990	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	16.9 ± 0.4	17.4 ± 0.3	17.6 ± 0.4	18.3 ± 0.3	18.2 ± 0.6
	Max Gain	dBi	17.3	17.7	18.0	18.6	18.8
Azimuth Beamwidth (3 dB)		degrees	76.8° ± 5.3°	74.9° ± 7.1°	71.7° ± 8.3°	67.8° ± 2.9°	61.1° ± 5.7°
Elevation Beamwidth (3 dB)		degrees	6.4° ± 0.5°	5.9° ± 0.3°	5.5° ± 0.5°	4.9° ± 0.2°	4.5° ± 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	23.2	24.1	24.5	25.7	20.6
First Upper Side Lobe		dB	17.7	17.7	18.4	20.0	16.1
Cross-Pol Over Sector		dB	11.2	11.7	12.0	11.2	9.8
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	15.1	17.5	19.2	22.2	19.6
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26	26	26	26	26
Interband Isolation		dB	26	26	26	26	26

### ELECTRICAL SPECIFICATIONS

■ Y2

Frequency Range		MHz	1710-2690				
		MHz	1710-1880	1850-1990	1920-2170	2300-2400	2490-2690
Polarization		---	±45°				
Gain	Over all Tilts	dBi	17.1 ± 0.4	17.5 ± 0.3	17.7 ± 0.4	18.4 ± 0.3	18.2 ± 0.5
	Max Gain	dBi	17.5	17.8	18.1	18.7	18.7
Azimuth Beamwidth (3 dB)		degrees	75.2° ± 5.6°	75.2° ± 6.1°	73.4° ± 7.6°	69.0° ± 3.2°	61.5° ± 6.4°
Elevation Beamwidth (3 dB)		degrees	6.6° ± 0.4°	6.0° ± 0.2°	5.7° ± 0.5°	5.0° ± 0.2°	4.6° ± 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	23.6	25.0	25.5	25.6	20.4
First Upper Side Lobe		dB	19.1	19.5	21.0	20.1	17.0
Cross-Pol Over Sector		dB	11.3	11.3	11.4	11.4	9.2
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	15.3	18.4	19.1	20.9	18.4
Maximum Effective Power Per Port		Watts	250 W				
Cross Polar Isolation		dB	26	26	26	26	26
Interband Isolation		dB	26	26	26	26	26

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## PH-LLYY15-N0

### ELECTRICAL SPECIFICATIONS

#### ■ P1

Frequency Range		MHz	3300-3800	
		MHz	3300-3500	3500-3800
Polarization		---	±45°	
Gain	Over all Tilts	dBi	17.0 ± 0.3	17.3 ± 0.5
	Max Gain	dBi	17.3	17.8
Azimuth Beamwidth (3 dB)		degrees	66° ± 5.2°	61.9° ± 4.2°
Elevation Beamwidth (3 dB)		degrees	5.6° ± 0.3°	5.3° ± 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	18.5	20.2
First Upper Side Lobe		dB	18.4	19.1
Cross-Pol Over Sector		dB	10.1	10.3
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	19.2	17.6
Maximum Effective Power Per Port		Watts	200 W	
Cross Polar Isolation		dB	26	26
Interband Isolation		dB	26	26

### ELECTRICAL SPECIFICATIONS

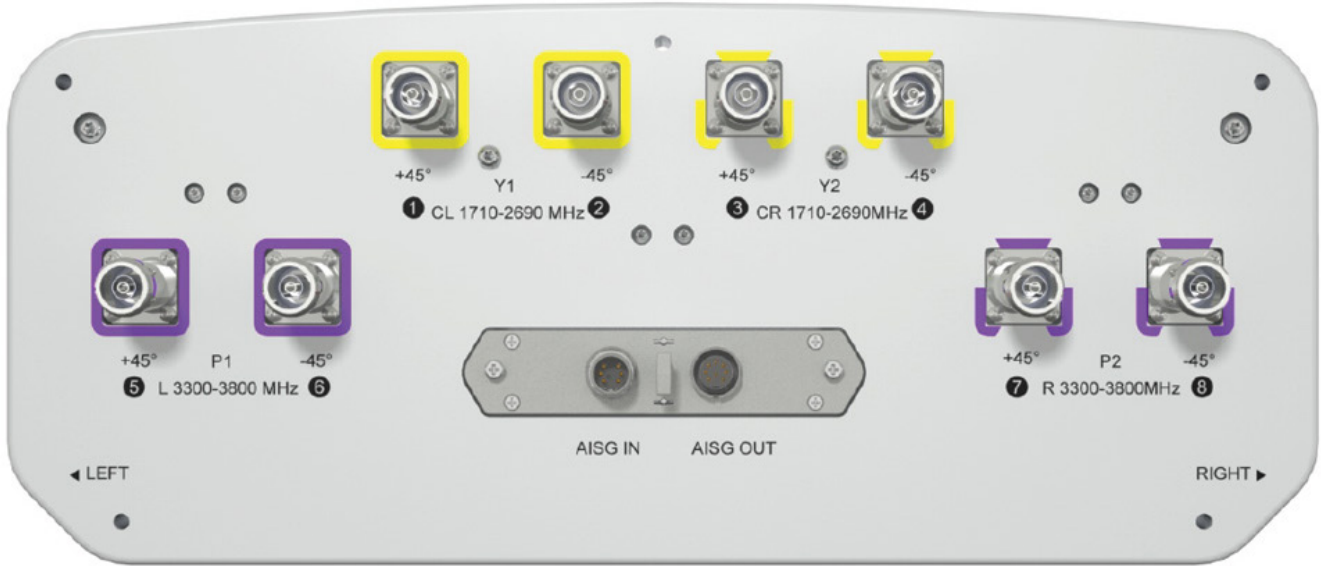
#### ■ P2

Frequency Range		MHz	3300-3800	
		MHz	3300-3500	3500-3800
Polarization		---	±45°	
Gain	Over all Tilts	dBi	16.8 ± 0.4	17.2 ± 0.5
	Max Gain	dBi	17.2	17.7
Azimuth Beamwidth (3 dB)		degrees	68.9° ± 5.4°	63.1° ± 4.9°
Elevation Beamwidth (3 dB)		degrees	5.6° ± 0.3°	5.3° ± 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	17.7	19.9
First Upper Side Lobe		dB	17.7	16.9
Cross-Pol Over Sector		dB	14.2	8.9
Cross Polar Discrimination (XPD) at Mechanical Boresight (0°)		dB	20.1	16.2
Maximum Effective Power Per Port		Watts	200 W	
Cross Polar Isolation		dB	26	26
Interband Isolation		dB	26	26

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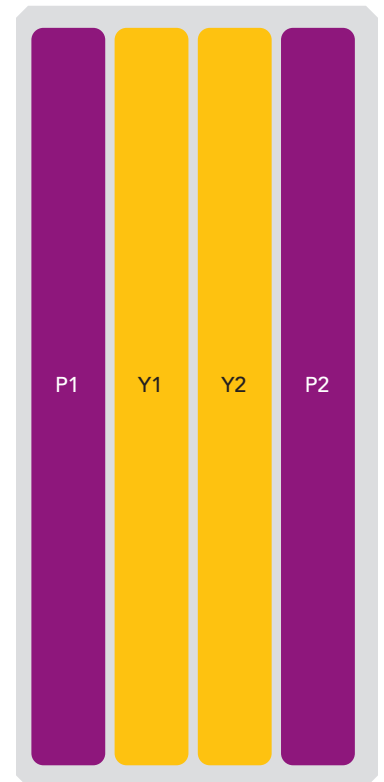
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## BOTTOM VIEW - LABELING



### ARRAY LAYOUT

ARRAY	FREQUENCY	CONNECTOR	CONNECTOR TYPE	RET	AISG RET UID
■ Y1	1710-2690 MHz	1-2	(2x) 4.3-10 Female	Y1	RFxxxxxxxxxx-2Y1
■ Y2	1710-2690 MHz	3-4	(2x) 4.3-10 Female		
■ P1	3300-3800 MHz	5-6	(2x) 4.3-10 Female	P1	RFxxxxxxxxxx-2P1
■ P2	3300-3800 MHz	7-8	(2x) 4.3-10 Female		



The illustration is not shown to scale.

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### MECHANICAL SPECIFICATIONS

Length	mm (in)	1495 (58.9)
Width	mm (in)	448 (17.6)
Depth	mm (in)	188 (7.4)
Net Weight - Antenna Only	kg (lbs)	20 (44.1)
Net Weight - Mounting Hardware Only	kg (lbs)	4.5 (9.9)
Wind Load Rated at 150 km/h (93 mph)	Front	N (lbf) 824 (185)
	Side	N (lbf) 296 (67)
	Rear	N (lbf) 836 (188)
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
<b>Shipping</b>	Packing Size (Length x Width x Depth)	mm (in) 1775 x 575 x 305 (69.9 x 22.6 x 12.0)
	Shipping Weight	kg (lbs) 29.3 (64.6)

### 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 50-110 mm (2.0-4.3 in) <i>Shipped with antenna</i>	APM50-B1	4.5 kg (9.9 lbs)

### INSTALLATION

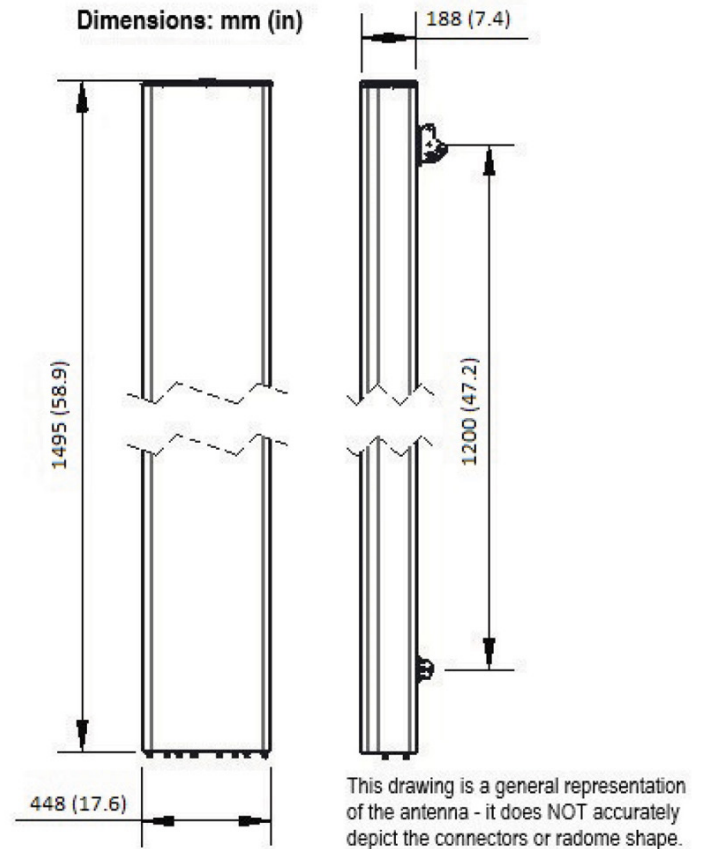
Please read all installation notes before installing product.



- 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](#)