

LL2LPX311.210P-2C

XXXX Pol Panel Hybrid Antenna 1710–2690/1710–2690/1710–2690/1710–2690MHz

65° /65° /32° /32° 18/18/20/20dBi 2° -12° /2° -10° Replaceable RET

Electrical Specifications

Frequency Range (MHz):	1710-2690(Y1,Y4)			1710-2690(Y2,Y3)		
	1710-2170	2300-2490	2490-2690	1710-2170	2300-2490	2490-2690
Gain (dBi):	16.8±0.5	17.4±0.5	17.7±0.5	18.5±0.5	19.5±0.5	19.6±0.5
Return Loss (dB):	>14 (VSWR<1.5)					
Polarization:	±45°					
Horizontal 3dB beamwidth (°):	72	64	61	2×36	2×28	2×25
Horizontal Beam Pointing (°):	/			-29, +29	-25, +25	-20, +20
Vertical 3dB beamwidth (°):	6.8	5.4	5.0	8.0	6.3	6.0
Electrical Downtilt (°):	2-12 Independently Continuously Adjustable			2-10 Independently Continuously Adjustable		
RET Type:	RET Cascade SRET, AISG 2.0, Upgradeable					
1st Upper Sidelobe Suppression (dB):	14	14	14	14	14	14
Front to Back Ratio @180±30°(dB):	24	24	24	25	25	25
CPR at Boresight (dB):	15	15	15	15	15	15
Isolation Between Polarizations (dB):	>25					
Isolation Between beams (dB):	/			>16		
Max. Power Per Port (W):	200			200		
Intermodulation IM3 (dBC):	<-150 (2×43 dBm)					
Impedance (ohm):	50					
Lightning Protection:	DC Grounded					
Connector Type:	8×4.3-10 Female					

BASTA Electrical Specifications

Frequency Range(MHz):	1695-2690(Y1,Y4)			1695-2690(Y2,Y3)		
	1695-2170	2300-2490	2490-2690	1695-2170	2300-2490	2490-2690
Average Gain by Beam Tilts (dBi):	16.6	17.1	17.4	18.2	19.3	19.4
Gain by all Beam Tilts Tolerance(dBi):	±0.9	±0.9	±0.8	±1.3	±0.7	±0.8
Average Gain by Beam Tilts (dBi):	2° 16.6	2° 17.4	2° 17.6	2° 18.2	2° 19.3	2° 19.4
	7° 16.8	7° 17.4	7° 17.7	6° 18.4	6° 19.5	6° 19.7
	12° 16.2	12° 16.4	12° 16.8	10° 18.1	10° 19.0	10° 19.1
Horizontal Beamwidth Tolerance(°):	±5.1	±8.4	±7.1	±5.6	±3.5	±3.0
Vertical Beamwidth Tolerance(°):	±1.0	±0.5	±0.5	±1.1	±0.4	±0.5
Upper Side Lobe Suppression, Peak to 20°(dB):	12.4	12.9	12.6	15.3	15.1	15.0
Front to back Total Power at 180° ± 30°(dB) :	24.0	24.3	24.0	25.0	25.5	25.0
CPR at Boresight(dB):	19.0	18.5	18.5	18.0	19.0	18.5

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Mechanical Data

Antenna Dimensions (mm):	1240×598×169
Packing Dimensions (mm):	1500×680×260
Antenna Net Weight/Bracket (kg):	21.5/5.9
Antenna Gross Weight (kg):	32
Radome Material:	Fiberglass
Pipe OD (mm):	50-115
Mounting Kits (Included):	BA.K.04.00069151, Adjustable Downtilt 0°-20°



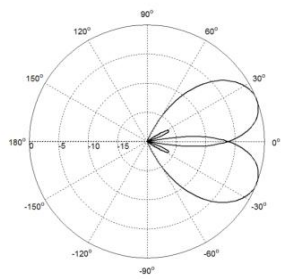
Environmental Ratings

Humidity:	95%RH@+30°C
Temperature (°C):	-40~+70
Wind Load @150 km/h (N):	Frontal/Lateral/Rearside: 712/79/803
Max. Wind velocity(km/h)	200

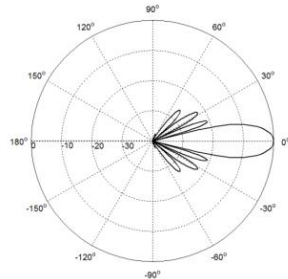
Internal RET Specifications

RET Type:	Replaceable RET
RET protocol:	AISG2.0 /3GPP
Input voltage range(V):	10-30 DC
Power consumption(W):	< 5 (motor activated, single RET) < 1 (stand by, single RET), < 1.5 (stand by, 12V)
Adjustment time (full range) (s):	< 120 (typically, depending on antenna type)
RET connector:	1 pair of AISG 5 pin male & female
Pin assignment according AISG:	8 pin circular connector conforming to IEC 60130-9 - Ed. 3.0
Lightning protection (kA):	5 (8/20 μs Differential mode), 8 (8/20 μs Common mode)

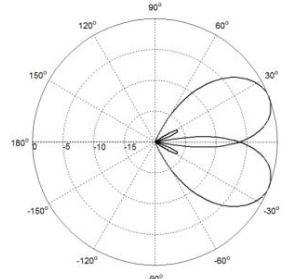
Typical Patterns



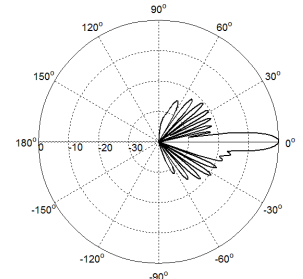
Azimuth(1710-2690MHz)



Elevation(1710-2690MHz)



Azimuth(1710-2690MHz)



Elevation(1710-2690MHz)

Correlation Table

Frequency range	Array	Connector
1710-2690 MHz	Y1	1-2
1710-2690 MHz	Y2	3-4
1710-2690 MHz	Y3	5-6
1710-2690 MHz	Y4	7-8

