Product Data Sheet

UL4PX308.9P-2C

XXXXX Pol Panel Antenna 698-960/2×1710-2690/2×1710-2690MHz 65°/65°/65° 16/17.5/17dBi 2°-12°/2°-12°/2°-12°Replaceable RET

Electrical Specifications

Frequency Range (MHz):	698-960(R1)			1710-2690(Y1,Y3)			1710-2690(Y2,Y4)		
	698-806	806-880	880-960	1710-2170	2300-2490	2490-2690	1710-2170	2300-2490	2490-2690
Gain (dBi):	15.2 ±0.5	15.7 ±0.5	16.0 ±0.5	16.4 ±0.5	16.9 ±0.5	17.2 ±0.5	16.0 ±0.5	16.4 ±0.5	16.7 ±0.5
Return Loss (dB):	>14 (VSWR<1.5)								
Polarization:	±45°								
Horizontal 3dB Beamwidth (°):	70	68	66	68	62	58	68	62	58
Vertical 3dB Beamwidth(°):	11	9.5	8.5	7.5	6.2	5.7	7.5	6.2	5.7
Electrical Downtilt (°):	2-12 Independently Continuously Adjustable								
1st Upper Sidelobe Suppression (dB):	15	15	15	13	13	13	13	13	13
Front to Back Ratio (dB):	22	23	24	25	25	25	25	25	25
Cross Polar Ratio 0°(dB):	15	15	15	15	15	15	15	15	15
Intraband Isolation (dB):	>26								
Interband Isolation (dB):	>28								
Average power tolerance (W):	250			200					
Intermodulation IM3 (dBc):	<-150(2×43 dBm)								
Impedance (ohm):	50								
Lightning Protection:	DC Grounded								
Connector Type:	10×4.3-10 Female								

Electrical Specification

Frequency Range(MHz):		698-960(R1)			1710-2690(Y1)			1710-2690(Y2)		
		698-806	806-862	880-960	1710-2170	2300-2490	2490-2690	1710-2170	2300-2490	2490-2690
Average Gain by all Beam Tilts (dBi):		15.1	15.5	15.8	16.2	16.8	17.1	15.7	16.3	16.6
Gain by all Beam Tilts Tolerance(dB):		±0.4	±0.3	±0.4	±0.5	±0.4	±0.6	±0.4	±0.6	±0.5
Average Gain by Beam Tilt (dBi):	2°	15.1	15.4	15.7	16.2	16.8	17.2	15.6	16.3	16.5
	7°	15.2	15.6	16.0	16.4	16.9	17.3	15.7	16.4	16.6
	12°	15.0	15.5	15.7	16.0	16.7	17.0	15.6	16.2	16.5
Horizontal Beamwidth Tolerance(°):		±6.2	±4.7	±5.2	±8.4	±7.5	±7.7	±7.3	±8.2	±6.5
Vertical Beamwidth Tolerance(°):		±0.6	±0.5	±0.4	±0.5	±0.6	±0.4	±0.4	±0.6	±0.7
USLS to 20° above beampeak(dB):		16.2	15.8	15.7	18.1	19.2	17.4	18.5	17.3	19.4
Front to back Ratio at 180° ± 30°(dB)		23.4	23.2	25.3	25.7	26.2	25.3	25.4	25.5	25.4
CPR at Boresight(dB):		17.9	16.2	18.3	16.5	18.1	17.6	17.2	17.3	19.4

Our products are compliant to the EU Directive RoHS as well as to other environmentally relevant regulations.

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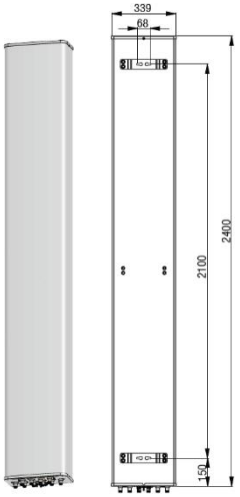
Frequency Range(MHz):		1710-2690(Y3)			1710-2690(Y4)		
		1710-2170	2300-2490	2490-2690	1710-2170	2300-2490	2490-2690
Average Gain by all Beam Tilts (dBi):		16.1	16.8	17.1	15.8	16.3	16.7
Gain by all Beam Tilts Tolerance(dB):		±0.5	±0.5	±0.6	±0.4	±0.5	±0.6
Average Gain by Beam Tilt (dBi):	2°	16.1	16.8	17.1	15.9	16.2	16.6
	7°	16.2	16.9	17.2	16.0	16.5	16.8
	12°	16.0	16.7	17.0	15.8	16.1	16.6
Horizontal Beamwidth Tolerance(°):		±8.1	±7.2	±8.6	±7.9	±6.2	±7.8
Vertical Beamwidth Tolerance(°):		±0.5	±0.6	±0.4	±0.4	±0.6	±0.7
USLS to 20° above beampeak(dB):		18.1	17.6	18.5	16.8	15.9	17.4
Front to back Ratio at 180° ± 30°(dB)		25.9	25.8	26.4	25.6	25.2	26.4
CPR at Boresight(dB):		17.2	16.9	15.8	16.4	16.8	17.2

Mechanical Data

Antenna Dimensions (mm):	2400×339×169
Packing Dimensions (mm):	2660×420×255
Antenna Net Weight/bracket (kg):	26.5/ 5.9
Antenna Gross Weight (kg):	36.5
Radome Material:	Fiberglass
Pipe OD (mm):	50-115
Mounting Kits (Included):	BA.K.04.00069091, Adjustable Downtilt 0-10°



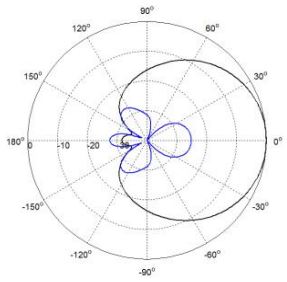
Environmental Ratings

Humidity:	95%RH@+30℃
Temperature (℃):	-40～+70
Wind Load @150 km/h (N):	Frontal/Lateral/Rearside:1055/365/1285
Max. Wind velocity(km/h):	200

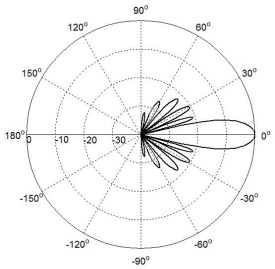
Internal RET Specifications

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)

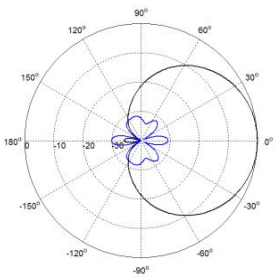
Typical Patterns



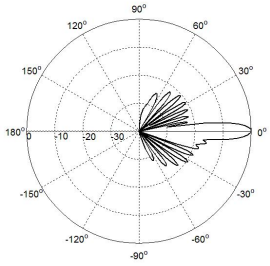
Azimuth(Low Band)



Elevation(Low Band)



Azimuth(High Band)



Elevation(High Band)

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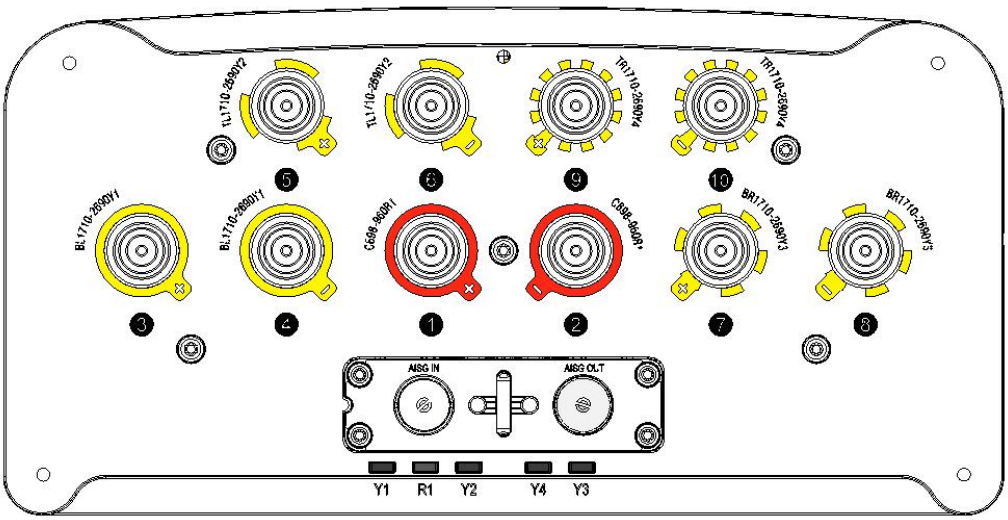
Bottom View



Correlation Table

Frequency range	Array	Connector	RET S/N
698– 960 MHz	R1	1-2	BRxxx.....1R1
1710–2690 MHz	Y1	3-4	BRxxx.....2Y1
1710–2690 MHz	Y2	5-6	BRxxx.....3Y2
1710–2690 MHz	Y3	7-8	BRxxx.....4Y3
1710–2690 MHz	Y4	9-10	BRxxx.....5Y4