

S2U2C2L2PX10.8.10P2

(32 port) XX Pol Panel TD Antenna 2×2300-3800MHz 90° 16.5dBi 2°-12° Replaceable RET

XXXXXXXXX Pol 2×698-960/2×1427-2690/2×1695-2200/2×2490-2690MHz 65°/65°/65°/65° 15.5/18/17/18dBi 2°-12°/2°-12°/2°-12°/2°-12° Replaceable RET

Electrical Specifications (2300-3800MHz)				
General parameters	Frequency range (MHz):		2300-3800(P1,P2)	
			2300-2690	3300-3800
	Polarization:		±45	
	Electrical downtilt (°):		2-12 ,continuously adjustable	
	Grounding:		DC Grounded	
Calibration and electrical parameters	Connector Type:		2xMQ4 Male+2xMQ5 Male	
	Coupling factor between calibration port and each antenna port (dB) :		-26±2	
	Max Amp/phase Deviation:		<0.7dB/7°	
	VSWR:		<1.5	
	Max. Power Per Port (W):		50	
Radiation parameters	Single Column		Isolation (dB):	
			>22	>26
			Horizontal 3dB Beamwidth (°):	
			90	70
			Vertical 3dB Beamwidth (°):	
			8.5	6.5
			Front to Back Ratio (dB):	
			>23	
			Gain (dBi):	
			15.0	16.5
			Cross polar ratio (dB):	
			>16 (0°)/ >10 (±60°)	
	Broadcast Beam		Horizontal 3dB Beamwidth (°):	
			65±10	
			Gain (dBi):	
			16.2	17.2
			Front to Back Ratio (dB):	
			26	30
			Vertical 3dB Beamwidth (°):	
			8.5	6.5
			Cross polar ratio (dB):	
			>17 (0°)/ >10 (±60°)	
			1 st Upper Sidelobe Suppression (dB):	
			>15	
	Service Beam @ 0deg		Gain (dBi):	
			20.5	22.0
			Horizontal 3dB Beamwidth (°):	
			25	20
	Soft Split multi-beam		Cross polar ratio (0°) (dB):	
			19	
			Front to Back Ratio (dB):	
			30	

5G NR Electrical Specifications (2300-3800MHz)				
Radiation parameters	Frequency range (MHz):		2300-3800(P1,P2)	
			2300-2690	3300-3800
	Single Column beam		Horizontal 3dB Beamwidth (°):	
			90	70
			Vertical 3dB Beamwidth (°):	
			8.5	6.5
			Front to Back Ratio (dB):	
			23	
			Gain (dBi):	
			15.0	16.5
			Cross polar ratio (dB):	
			>15 (0°)/ >6 (±60°)	
			1 st Upper Sidelobe Suppression (dB):	
			>15	
	NR Broadcast Beam		Horizontal 3dB Beamwidth (°):	
			65	
			Gain (dBi):	
			20.5	22.0
			Front to Back Ratio (dB):	
			30	

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		Vertical 3dB Beamwidth (°):	8.5	6.5
		1 st Upper Sidelobe Suppression (dB):	>16	
	NR Service Beam	0° direct beam gain (dBi):	20.5	22.0
		0°direct beam horizontal 3dB Beamwidth (°):	25	20
		0°direct beam horizontal cross polar ratio (0°) (dB):	18	
		0°direct beam horizontal front to back ratio (dB):	30	

Electrical Specifications (698-960/1427-2690 MHz)						
Frequency Range (MHz):	698-960(R1,R2)			1427-2690(Y2,Y3)		
	698-806	806-880	880-960	1427-1518	1710-2170	2300-2690
Gain (dBi):	14.9±0.5	15.2±0.5	15.5±0.5	15.9±0.8	17.3±0.8	18.0±0.8
Return Loss (dB):	>14 (VSWR<1.5)					
Polarization:	±45°					
Horizontal 3dB beamwidth (°):	71	65	60	74	60	59
Vertical 3dB beamwidth (°):	13.1	11.5	10.5	9.3	7.0	5.5
Electrical Downtilt (°):	2-12 Independently Continuously Adjustable			2-12 Independently Continuously Adjustable		
Front to Back Ratio @180±30° (dB):	23	25	25	26	26	26
1 st Upper Sidelobe Suppression (dB):	16	16	16	16	16	16
Cross Polar Ratio 0° (dB):	18	18	18	18	18	18
Cross Polar Isolation (dB):	>28			>28		
Interband Isolation (dB):	>28			>28		
Max. Power Per Port (W):	400			250		
Intermodulation IM3 (dBc):	<-153 (2×43dBm)					
Impedance (ohm):	50					
Lightning Protection:	DC Grounded					
Connector Type:	8x4.3-10 Female					

Electrical Specifications (1695-2200/2490-2690 MHz)				
Frequency Range (MHz):	2x1695-2200(B1,B2)			2x2490-2690(Y1,Y4)
	1695-1880	1880-2025	2025-2200	2490-2690
Gain (dBi):	16.7±0.8	16.8±0.8	16.9±0.8	17.7±0.8
Return Loss (dB):	>14 (VSWR<1.5)			
Polarization:	±45°			
Horizontal 3dB beamwidth (°):	72	65	58	68
Vertical 3dB beamwidth (°):	7.5	7.0	6.5	5.5
Electrical Downtilt (°):	2-12 Independently Continuously Adjustable			
Front to Back Ratio @180±30° (dB):	27	27	27	27
1 st Upper Sidelobe Suppression (dB):	16	16	16	17
Cross Polar Ratio 0° (dB):	18	18	18	18
Cross Polar Isolation (dB):	>28			
Interband Isolation (dB):	>28			
Max. Power Per Port (W):	250			
Intermodulation IM3 (dBc):	<-153 (2×43dBm)			
Impedance (ohm):	50			
Lightning Protection:	DC Grounded			
Connector Type:	8x4.3-10 Female			

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Mechanical Data

Antenna Dimensions (mm):	2095×498×197
Packing Dimensions (mm):	2360×580×285
Antenna Net Weight/Bracket (kg):	48/5.9
Antenna Gross Weight (kg):	60
Radome Material:	Fiberglass
Pipe OD (mm):	50-115
Mounting Kits (Included):	BA.K.04.00069341, Adjustable Downtilt 0-14°

Environmental Ratings

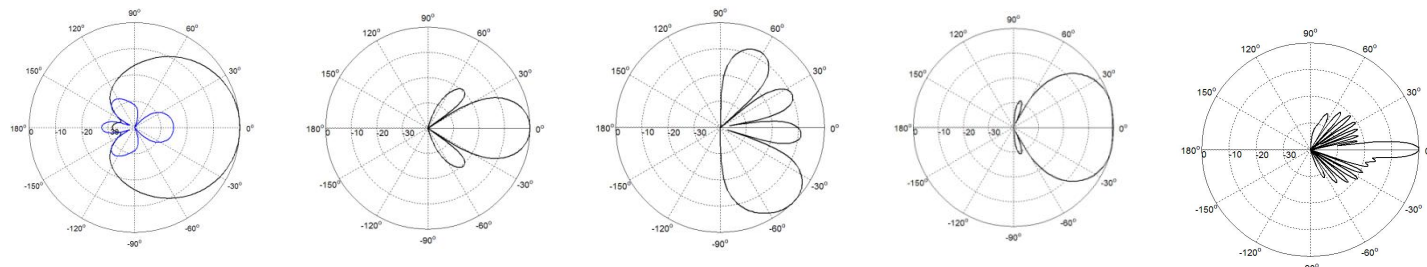
Humidity:	95%RH@+30℃
Temperature (℃):	-40~+70
Wind Load @150 km/h (N):	Frontal/Lateral/Rearside: 556/241/775
Max. Wind velocity (km/h) :	200



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:	2 pair of AISG 5 pin male & female
Pin assignment according AISG:	4×8 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



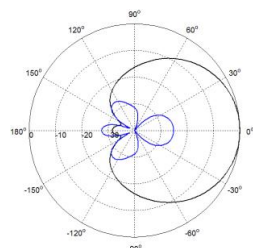
Single Column

Service Beam @0deg

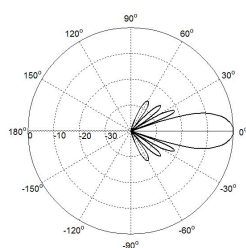
Service Beam @60deg

Broadcast Beam

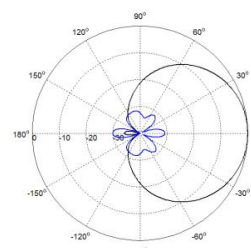
Elevation



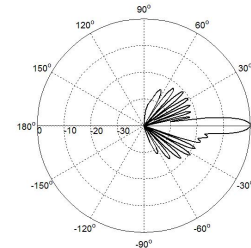
Azimuth(698-960MHz)



Elevation(698-960MHz)



Azimuth(1427-2690MHz)



Elevation(1427-2690MHz)

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Correlation Table

Frequency Range	Array	Connector
698–960 MHz	R1	1-2
698–960 MHz	R2	3-4
1695–2200 MHz	B1	5-6
1695–2200 MHz	B2	7-8
2490–2690 MHz	Y1	9-10
1427–2690 MHz	Y2	11-12
1427–2690 MHz	Y3	13-14
2490–2690 MHz	Y4	15-16
2300–3800 MHz	P1	1xMQ5,1xMQ4
2300–3800 MHz	P2	1xMQ5,1xMQ4

