Product Data Sheet

S-SU2L4PX10.8.10P-2Q

BROADRADIO

X Pol Panel TD Antenna 2300-3800MHz 90° 15dBi 2°-12° Replaceable RET

XXXXXX Pol 2×698-960/4×1710-2690MHz 65°/65° 15/17dBi 2°-12°/2°-12° Replaceable RET

Electrical Specifications (2300-3800MHz)				
General parameters	Frequency range (MHz):		2300-3800(P1)	
			2300-2690	3300-3800
	Polarization:		±45	
	Electrical downtilt (°):		2-12, continuously adjustable	
	Grounding:		DC Grounded	
	Connector Type:		1×MQ4, 1×MQ5	
Calibration and electrical parameters	Coupling factor between calibration port and each antenna port (dB) :		-26±2	
	Max Amp/phase Deviation:		<1.2dB/ 12°	
	VSWR:		<1.5	
	Max. Power Per Port (W):		50	
	Isolation (dB):		>20	
Radiation parameters	Single Column	Horizontal 3dB Beamwidth (°):	100	65
		Vertical 3dB Beamwidth (°):	8.4	6.2
		Front to Back Ratio (dB):	>23	>25
		Gain (dBi):	14.5	15.5
		Cross polar ratio (dB):	>13 (0°)/ >6 (±60°)	
	Broadcast Beam	Horizontal 3dB Beamwidth (°):	65	
		Gain (dBi):	16.0	15.5
		Front to Back Ratio (dB):	25	
		Vertical 3dB Beamwidth (°):	8.4	6.2
		Cross polar ratio (dB):	>15 (0°)/ >8(±60°)	
		1st Upper Sidelobe Suppression (dB):	>14	
	Service Beam @ 0deg	Gain (dBi):	20.0	21.0
		Horizontal 3dB Beamwidth (°):	26	18
		Horizontal Sidelobe Level (dB):	<-12	
		Cross polar ratio (0°) (dB):	18	
		Front to Back Ratio (dB):	25	

5G NR Electrical Specifications (2300-3800MHz)				
Radiation parameters	Frequency range (MHz):		2300-3800(P1)	
			2300-2690	3300-3800
	Single Column beam	Horizontal 3dB Beamwidth (°):	100	70
		Vertical 3dB Beamwidth (°):	8.4	6.2
		Front to Back Ratio (dB):	22	
		Gain (dBi):	14.5±0.5	15.5±0.5
		Cross polar ratio (dB):	>13 (0°)/ >6 (±60°)	
		1st Upper Sidelobe Suppression (dB):	>14	
	NR Broadcast Beam	Horizontal 3dB Beamwidth (°):	65	
		Gain (dBi):	19.8	21.8
		Front to Back Ratio (dB):	25	
		Vertical 3dB Beamwidth (°):	8.4	6.2
		1st Upper Sidelobe Suppression (dB):	>15	
	NR Service Beam	0° direct beam gain (dBi):	20.0	21.0
		0°direct beam horizontal 3dB Beamwidth (°):	26	18

		0°direct beam horizontal cross polar ratio (0°) (dB):	18
		0°direct beam horizontal front to back ratio (dB):	25

Electrical Specifications (698-960/1710-2690 MHz)									
Frequency Range (MHz):	698-960(R1,R2)			1710-2690(Y2,Y3)			1710-2690(Y1,Y4)		
	698-806	806-880	880-960	1710 -2170	2300 -2490	2490 -2690	1710 -2170	2300 -2490	2490 -2690
Gain (dBi):	14.0 ±0.5	14.4 ±0.7	14.6 ±0.7	16.2 ±0.6	16.7 ±0.6	17.2 ±0.8	16.3 ±0.6	16.8 ±0.6	17.3 ±0.8
Return Loss (dB):	>14 (VSWR<1.5)								
Polarization:	±45°								
Horizontal 3dB beamwidth (°):	65	60	58	70	69	63	67	66	60
Vertical 3dB beamwidth (°):	10.3	9.0	8.3	7.5	6.1	5.1	7.5	6.1	5.1
Electrical Downtilt (°):	2-12 Independently Continuously Adjustable			2-12 Independently Continuously Adjustable					
Front to Back Ratio @180±30° (dB):	21	22	22	22	23	25	22	23	25
1st Upper Sidelobe Suppression (dB):	14	15	15	13	15	15	13	15	15
Cross Polar Ratio 0° (dB):	15	15	15	15	15	15	15	15	15
Intraband Isolation (dB):	>25								
Interband Isolation (dB):	>25								
Max. Power Per Port (W):	250			200					
Intermodulation IM3 (dBc):	<-153 (2×43dBm)								
Impedance (ohm):	50								
Lightning Protection:	DC Grounded								
Connector Type:	12×4.3-10 Female								

Mechanical Data

Antenna Dimensions (mm):	2095×498×197
Packing Dimensions (mm):	2355×580×285
Antenna Net Weight/Bracket (kg):	41/5.9
Antenna Gross Weight (kg):	53
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: 1356/241/1375
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)

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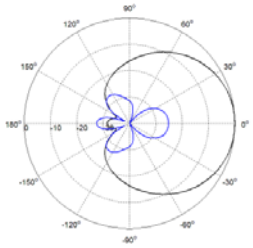
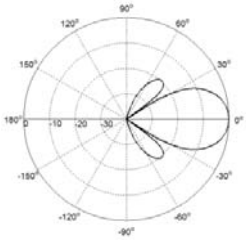
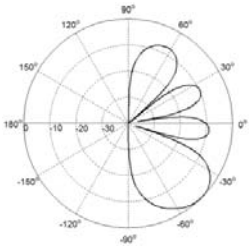
Typical Patterns



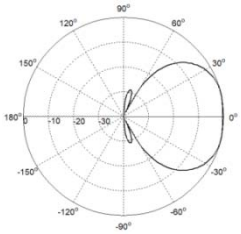
Single Column



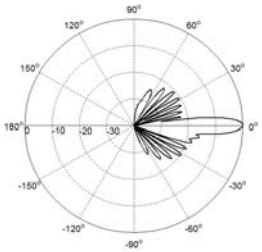
Service Beam @0deg



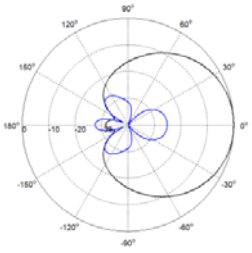
Service Beam @60deg



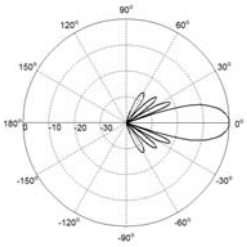
Broadcast Beam



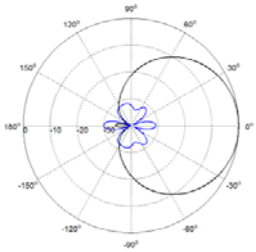
Elevation



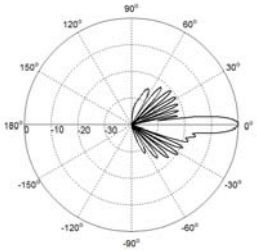
Azimuth(698–960MHz)



Elevation(698–960MHz)



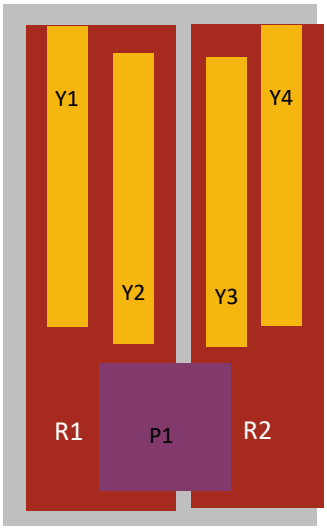
Azimuth(1710–2690MHz)



Elevation(1710–2690MHz)

Correlation Table

Frequency Range	Array	Connector
698–960 MHz	R1	1-2
698–960 MHz	R2	3-4
1710–2690 MHz	Y1	5-6
1710–2690 MHz	Y2	7-8
1710–2690 MHz	Y3	9-10
1710–2690 MHz	Y4	11-12
2300–3800 MHz	P1	1×MQ4, 1×MQ5



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