

Data Sheet

Product : WI-FI Antenna

Date: June 10, 2022

Customer Applied model			
Customer			
Customer Part No.			
Product Description	Dualband WI-FI Antenna		
Supplier	saixun		
Supplier Part No.	SX-001-2208		
Customer	By designed	By Checked	By Approval

Catalogue

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Revision History

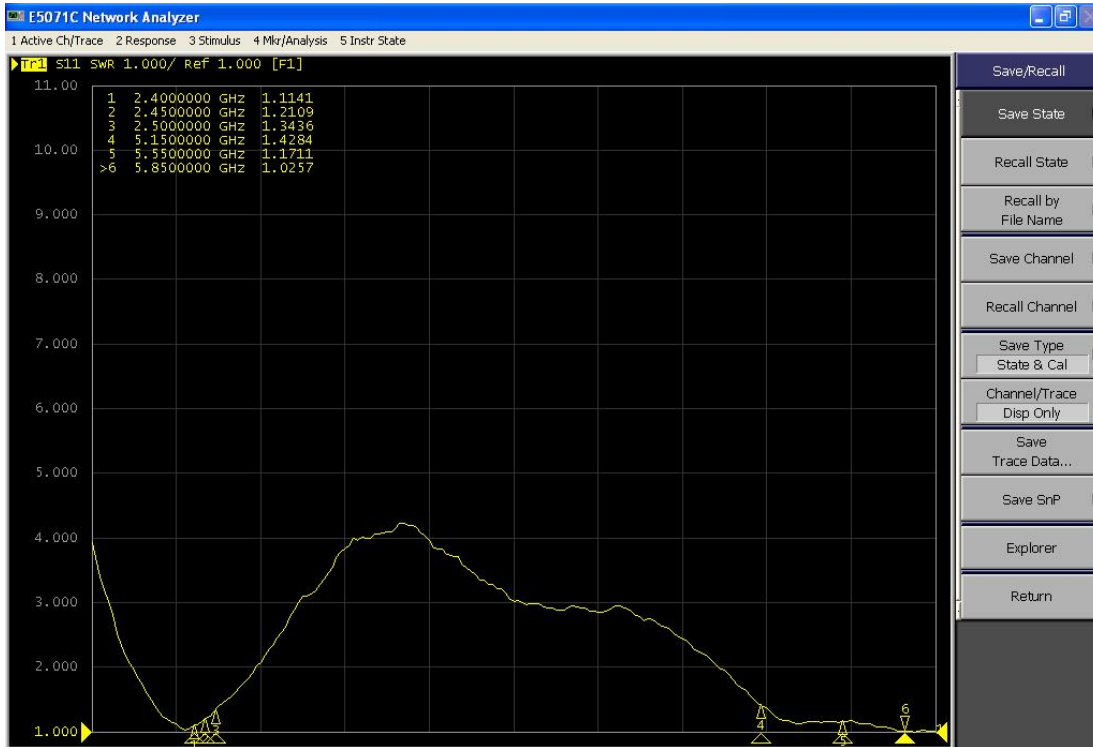
Revision No.	Originator	Description of changes	Date of changes
1	Changmin Wu	First document	June 10, 2022
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

1 General

Electrical Properties	
Frequency Band	2.4/5.8GHz
Impedance	50 ohm
VSWR	$\cong 2.0$
Gain	$\leq 5\text{dBi} / \leq 3\text{dBi}$
Radiation Pattern	Omni-Directional
Polarization	V/H
Antenna Type	Dipole
Mechanical Properties	
Antenna Dimension	94mm
Connector Type	RP-SMA
Connector pull	3 kg min
Connector Torque force	150-450 gf-cm
Cable Type	RG-178
Installation site	Machine outside
Environment Properties	
Operational Temperature	-40°C ~ +85°C
Storage temperature	-30°C ~ +60°C

2 Test Data

2.1 Network Data (Return loss)

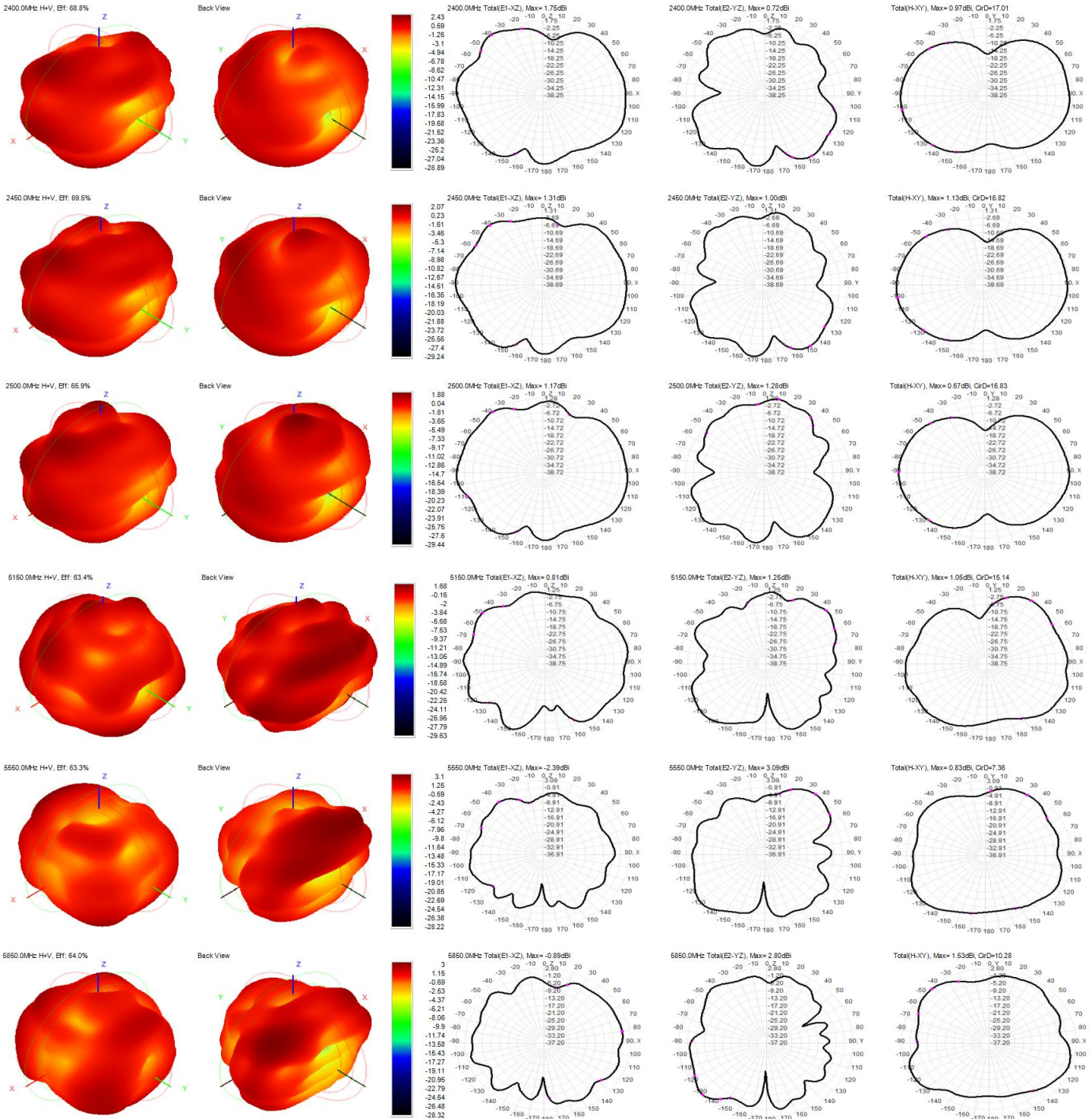


2.2 Radiation pattern

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-1.00	-1.02	-1.14	-1.22	-1.21	-1.16	-1.22	-1.27	-1.30	-1.30	-1.25
Gain (dBi)	4.75	4.63	4.36	4.07	3.83	3.68	3.52	3.40	3.35	3.31	3.26
Efficiency (%)	79.51	79.02	76.94	75.52	75.71	76.62	75.53	74.67	74.15	74.13	74.92

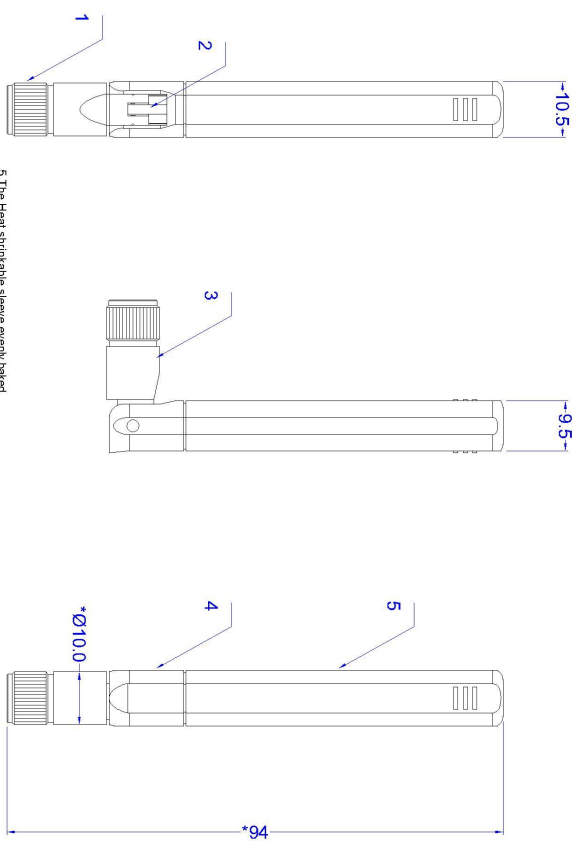
Frequency ID	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Frequency (MHz)	515.0	520.0	525.0	530.0	535.0	540.0	545.0	550.0	555.0	560.0	565.0	570.0	575.0	580.0	585.0
Efficiency (dBi)	-1.98	-2.00	-2.09	-2.03	-2.18	-2.24	-2.19	-2.05	-1.99	-1.94	-1.93	-1.90	-1.87	-1.92	-1.94
Gain	1.68	1.72	1.94	2.26	2.22	2.26	2.48	2.91	3.00	2.85	2.98	2.80	2.85	2.90	3.00

(dBi)																
Efficiency (%)	63.44	63.06	61.85	62.61	60.47	59.65	60.44	62.30	63.30	64.04	64.14	64.62	65.02	64.21	64.02	



3 Mechanical Drawings


				Engineering Design Change Record			
		DATE	REV	ECR	Change Content and Description		
		June 10, 2022	A		NEW Issuance		



NOTE:
 1. Mark Size as Key Size. Unmarked dimensions, measured in 2D.
 2. Impedance : 50Ω
 Frequency Range : 2.4-2.5G, IS-5.86 GHz
 Return Loss : 20 Max
 Gain : 3.0 dBi Max
 3. All materials and processes conform to RoHS.
 4. All products are 100% qualified factory test.

5. The Heat shrinkable Sleeve evenly baked.
 6. Keep product appearance clean.

NO.	DESCRIPTION	P/N	REMARK	GENERAL TOLERANCE TABLE				UNIT	MM	SCALE	PART NAME
				LINEAR	TOLERANCE	ANGULAR	TOLERANCE				
5	Antenna Cap,black,ABS	SLJ069-B002	-----						1:1	VEDNER P.N.O.	Dual band WiFi Antenna
4	Antenna Upper Base,black,PC+PBT	SLJ023-B002	-----	0-10	±0.06	0-45°	±0.5°			WEDNER P.N.O.	
3	Antenna Bottom Base,black,PC+PBT	SLJ024-B002	-----	10-80	±0.1	5-20°	±1°			SAXUN P.N.O.	SX-001-2208
2	COAXIAL CABLE, RG-178, Brown	NA	-----	50-80	±0.15	20-90°	±1.5°				
1	SMA PLUG, Standard, Black	SC-001-1400	-----	>80	±0.2						



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THIRD ANGLE PROJECTION

APPROVED