

WIFI BT Antenna

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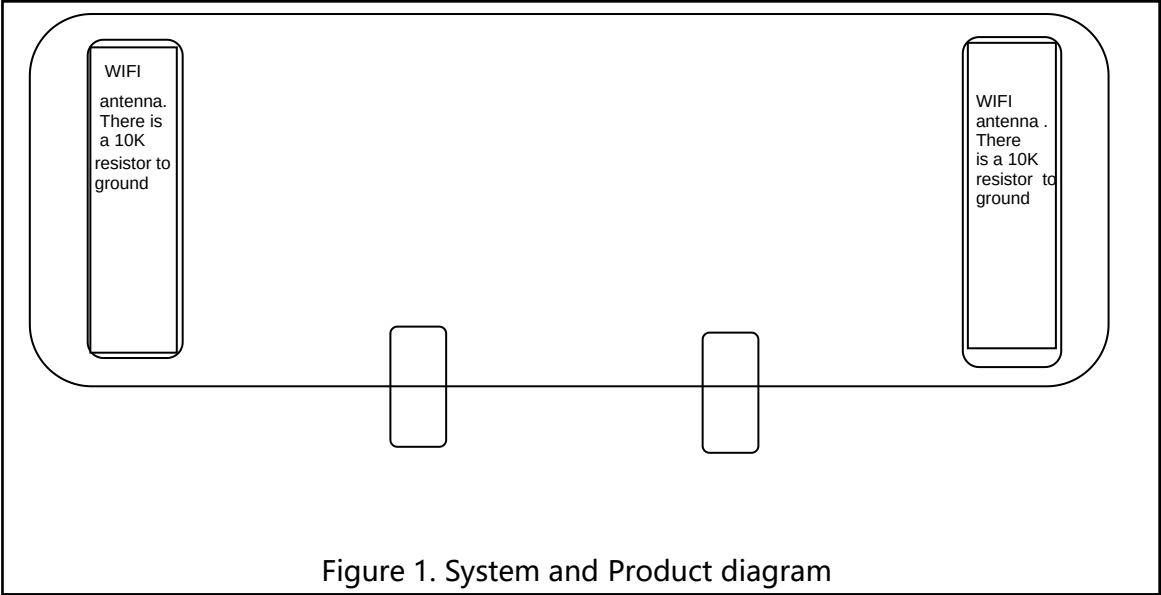
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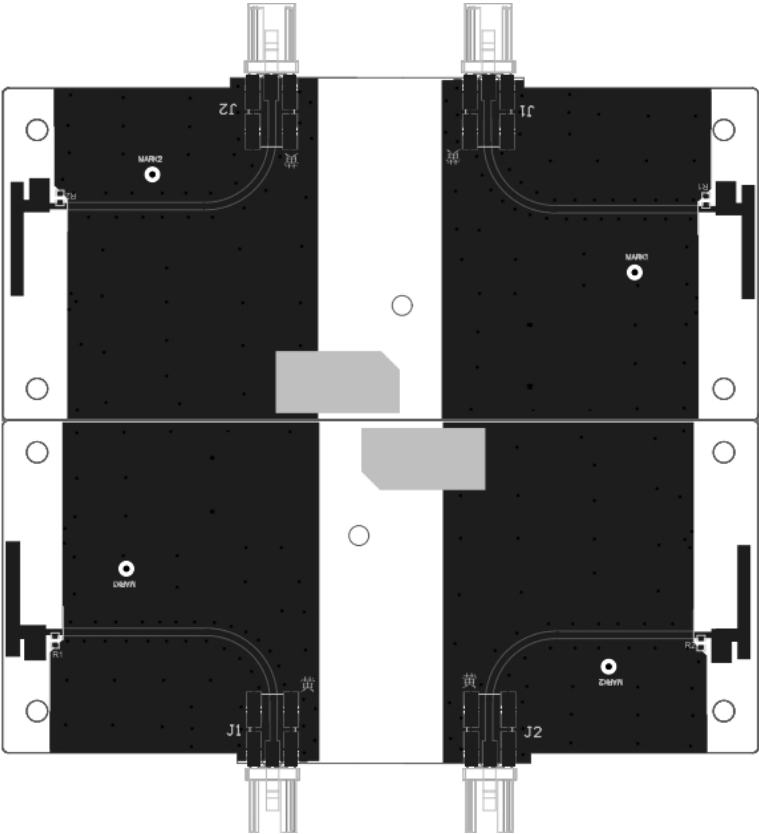
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1 General Description

1.1 System and Product diagram



1.2 PCB layout



1.4 Mechanical Dimensions



Figure 3. Mechanical Dimension

2 Product Specification

2.1、VSWR

Frequency	VSWR
2.4GHz	≤ 2
5GHz	≤ 3

2.2、Isolation

Frequency	Isolation (dB)
2.4GHz	> 25
5GHz	> 40

2.3、WIFI/BT Efficiency

2400~2500MHz

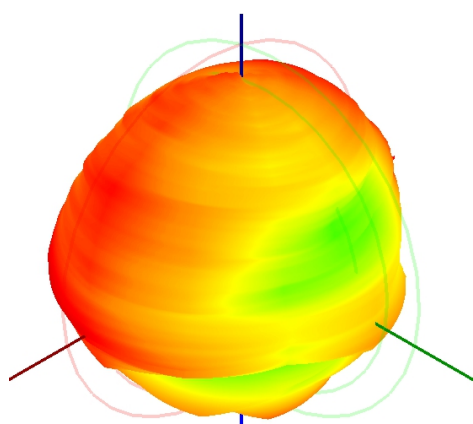
Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Efficiency (dBi)	-2.13	-2.44	-2.18	-2.02	-2.04	-2.23	-1.86	-1.96	-2.11	-2.66	-2.30
Gain (dBi)	1.59	1.95	2.30	3.13	2.91	2.70	3.16	3.01	2.33	1.59	2.32
Efficiency (%)	61.17	56.97	60.52	62.78	62.45	59.79	65.11	63.64	61.49	54.26	58.85

WIFI BT Antenna Product Specification

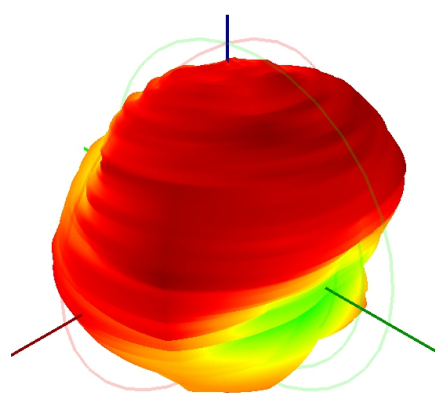
5150~5180MHz

Frequency(MHz)	5150	5185	5220	5255	5290	5325	5360	5395	5430	5465	5500	5535	5570
Efficiency(dBi)	-3.08	-3.34	-4.63	-3.71	-3.63	-3.50	-3.85	-2.63	-2.37	-2.07	-2.40	-3.29	-2.86
Gain (dBi)	1.63	0.88	-0.82	0.78	1.17	0.51	0.10	1.46	2.02	2.42	1.74	0.51	1.18
Efficiency (%)	49.23	46.38	34.47	42.60	43.33	44.72	41.22	54.59	57.96	62.09	57.57	46.87	51.82

Frequency(MHz)	5605	5640	5675	5710	5745	5780	5815	5850	59250	5965.0			
Efficiency(dBi)	-3.20	-2.83	-3.37	-2.18	-2.09	-2.14	-4.58	-3.03	-3.59	-3.77			
Gain (dBi)	0.38	0.84	0.38	1.83	1.88	1.89	-1.43	0.17	-0.21	-0.29			
Efficiency (%)	47.85	52.11	46.05	60.50	61.74	61.04	34.80	49.81	43.72	41.93			



2450.0MHz H+V, Eff: 59.8%



5500MHz H+V, Eff: 57.6%

3 Reliability

Table 9.Reliability Specification		
Items	Specification	Remarks
operation temperature	-40°C ~ 85°C	
storage temperature	-40°C ~ 90°C	
High Temperature operation	85°C 600h	
Low Temperature operation	-40°C 48h(warm storage for 24 hours, start working for 24 hours)	
Constant Thermal and Humidity	85°C, 85%, 280h	

WIFI BT Antenna Product Specification

Thermal Shock	85°C, -40°C, 30min, 170 cycles	
vibration	Acceleration effective value: 27.4m/s ²	
Mechanical Shock	Impact form: half sine, peak acceleration: 25g, pulse time 10ms, impact times: 400 times in each direction of X, Y, Z three axes, 2400 times in total.	
ESD	Contact discharge ±6kV Air discharge ±15kV	

4 Installation recommendation

1.The transfer extension harness with the antenna requires a low-loss 50 ohm coaxial wire,and the push wire model: Laini dacar 302-3.

2.The antenna is installed above the plastic, and metalwork is not allowed above the antenna.If the antenna is installed above the gold display panel. The metal panel under the antenna,it is necessary to hollow out or raise the installation point of the antenna by 15mm to ensure the efficiency of the antenna.