

The Main Antenna Sample Confirmation

Customer	Dongguan Yinqu Technology Co., LTD		
Project Name	SN-B204-R-V06	Date	2025-4-11
Project NO.	SN1219	Notes	FPC antenna + touch
Frequency Range	2400-2500MHz		

Designer: SINAWELL Electronics(Shenzhen) Co., Ltd.

Add: 712-717, Block A Jinfulai Building,49-1 Dabao Road,Xinan 28th area,Baoan District,Shenzhen,China

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1. Specification description

This specification describes the status of the B204-R internal antenna with a frequency band of BT.

2. Antenna appearance



3. Electrical performance

3.1. Antenna band

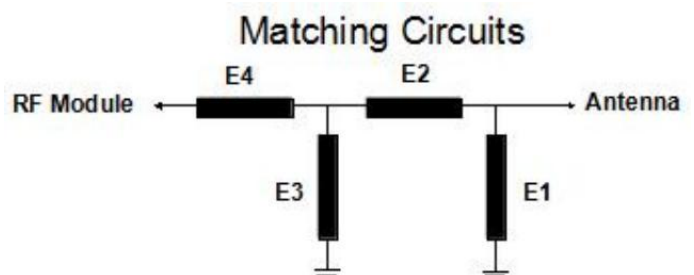
	BT
Transmitting band(MHz)	2400MHz-2500MHz

3.2. Matching Circuit

After the test point is at the antenna connector (RF test port), see the figure below.

1. WiFi antenna matching。

Element	Value
E1(0402)	2.4PF
E2(0402)	0 Ohm
E3(0402)	NC
E4(0402)	NC



3.3. Return Loss



Appendix 1: Structural Drawing

1	2	3	4	5	6	7	8																												
RoHS							<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="4">The third person</th> </tr> <tr> <td>0~10</td> <td>±0.05</td> <td>○</td> <td>0.02</td> </tr> <tr> <td>10~18</td> <td>±0.10</td> <td>⊙</td> <td>0.03</td> </tr> <tr> <td>18~30</td> <td>±0.12</td> <td>⊥</td> <td>0.02</td> </tr> <tr> <td>30~40</td> <td>±0.15</td> <td>▱</td> <td>0.04</td> </tr> <tr> <td>40~</td> <td>±0.20</td> <td>Angle</td> <td>±0.5°</td> </tr> </table>	The third person				0~10	±0.05	○	0.02	10~18	±0.10	⊙	0.03	18~30	±0.12	⊥	0.02	30~40	±0.15	▱	0.04	40~	±0.20	Angle	±0.5°				
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Notes: 1. "*" is the key dimension ; 2. Please refer to the drawing if no dimension is indicated; 3. Meet rohs2.0, reach environmental protection requirements.																																			
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Appendix 2: 3D Test Report

Antenna passive test data

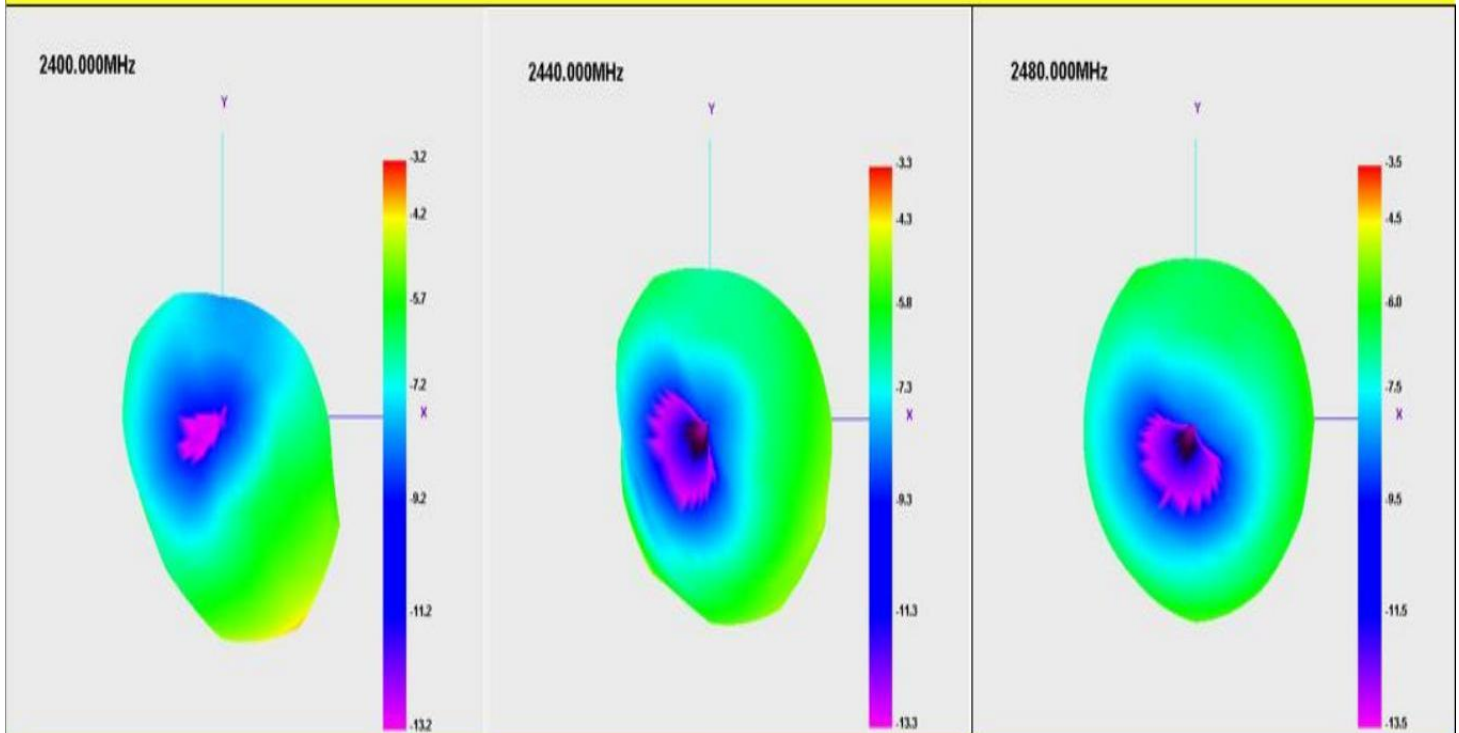
R			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	20.28	-6.93	-3.66
2410	20.8	-6.82	-3.61
2420	21.05	-6.77	-3.7
2430	21.64	-6.65	-3.81
2440	20.31	-6.92	-4.04
2450	17.63	-7.54	-4.73
2460	16.79	-7.75	-5.06
2470	15.99	-7.96	-5.1
2480	15.41	-8.12	-4.89
2490	14.38	-8.42	-4.94
2500	12.74	-8.95	-5.6

Antenna active test data

BAND	CHANNEL	TRP	TIS
BT	0	5.35	-84.29
	39	6.25	-86.32
	78	6.02	-87.08

Field intensity pattern

3D Image



2D Image

