

Antenna specification for approval

Customer name: 中山天启

Model : ROC-RK3328-PC

Antenna type : 2.4G antenna

Antenna frequency band: 2.4G

Material : FPC

Color : Black

Material Number: F1224A-1R11B-100-A

Production date: 2023-11-28

Version: **A**

Admit that signature			
Confirmation Signature		Customer Approved	
Responsible		Responsible	
QC		Engineer	
Approve		Approve	
Date		Date	

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This approval sheet supports for MID project. FPC antennas include in this project. This report is for the performance of 2.4G antenna.

- Antenna shape size: Meet the requirement of MID project
- Antenna band: 2400MHz~2500MHz
- Antenna material: Antenna material meet the requirement of MID
- Adhesive performance: Adhesive performance meet the requirement of MID

Antenna performance SPEC overview

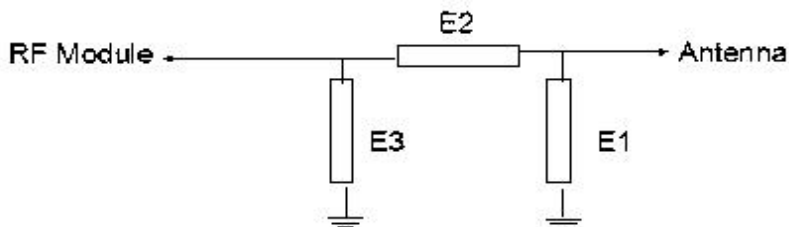
Description	2.4GHz~2.5GHz	Units
VSWR	≤2.0	
Average Antenna Gain	≥-4.5	dB
Antenna Efficiency	≥40	%
Feed Impedance	50 ohms	
Operating Temperature	-40 to +85 deg C	
Polarization / Azimuth	Linear / Omni-directional	

● Mechanical Information

Mechanical Dimension	
Cable Length	100mm/Black
Description	2.4G antenna
Material	FPC
Coaxial Cable	50Ohm/O.D.1.13mm
Environmental	
Operation Temperature	-40 to +85 deg C
Storage Temperature	-40 to +85 deg C

2:Match the circuit diagram, antenna images

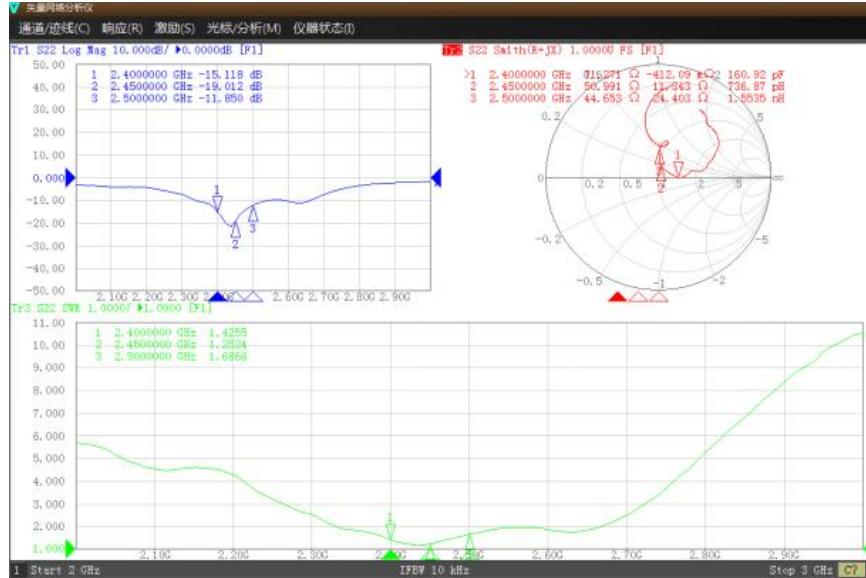
2.1 Match the circuit diagram



Our company did not modify the antenna matching

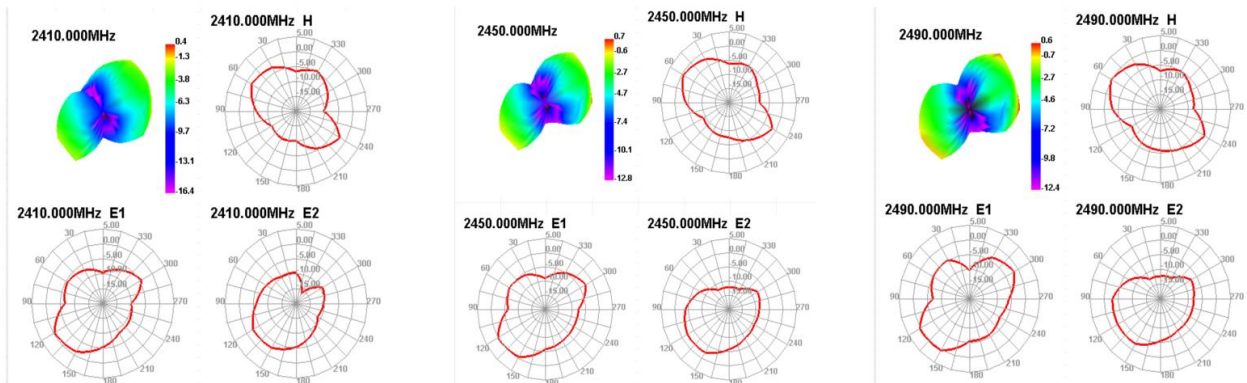
3: VSWR、Efficiency

3.1 VSWR



3.2 Efficiency

Passive Test For WIFI2.4										
Freq (MHz)	Effi (%)	Effi (dBi)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)	Attenu Hor	Attenu Ver
2400	39.92	-5.24	0.3	-1.85	12.061	17.861	0.3	-17.64	47.79	47.89
2410	41.04	-5.08	0.41	-1.74	12.593	18.449	0.41	-16.44	47.82	47.98
2420	39.39	-4.51	0.92	-1.23	14.681	20.707	0.92	-15.66	47.98	48.5
2430	39.4	-4.51	0.79	-1.36	14.857	20.546	0.79	-14.75	47.99	48.32
2440	38.49	-4.38	0.72	-1.43	15.522	20.968	0.72	-13.74	48.18	48.34
2450	37.37	-4.28	0.71	-1.44	16.002	21.366	0.71	-12.78	48.44	48.53
2460	37.95	-4.21	0.64	-1.51	16.375	21.576	0.64	-12.54	48.39	48.66
2470	37.69	-4.24	0.5	-1.65	16.259	21.432	0.5	-12.6	48.46	48.64
2480	39.14	-4.07	0.55	-1.6	16.925	22.211	0.55	-12.6	48.45	48.45
2490	40.69	-3.91	0.58	-1.57	17.708	22.978	0.58	-12.39	48.47	48.36
2500	40.2	-3.96	0.36	-1.79	17.78	22.419	0.36	-12.36	48.29	48.19



4:Structural drawings

