天 线 规 格 书
Antenna specification for approval

客户名称 Customer name	中柏		
机型 Model	S16-16 寸塑胶壳-卓创 G142K-MB 主板-3165 模块		
天线频段 Antenna frequency	2.4GHZ&5GHz		
天线功能 Antenna function	WIFI&BT&5Gwifi(副) 天线		
天线材质 Antenna material	FPC	FPC 颜色 FPC color	黑色
型号 model	SF2146B-1B2-A		
料号 Material number	SF2146B-1R24G-475-A		
客户料号 Customer Part Number			

索 沃 德 承 认 签 章 Ward accepted the signature		客 户 承 认 签 章 Client acknowledges signature	
结构 structure		采购 Purchase	
文控 Document control		结构 structure	
射频 radio frequency		工程 engineering	
审核 To examine		品质 QC	
承辦人 Responsible	李婷婷	审核 To examine	
日期 date 2023.01.03	盖章区 Seal area	日期 date 2023.01.03	盖章区 Seal area

深圳市宝安区前进二路 135 号河西航城工业区 B 栋 6 楼
电话：0755-29985185　　传真：0755-27487028

二:概述

(1)Antenna performance

1. This approval sheet supports for MID project. FPC antennas include in this project. This report is for the performance of WIFI&BT antenna.
2. Antenna shape size: Meet the requirement of MID
3. Antenna band: 2.4GHz~5GHz
4. Antenna material: Antenna material meet the requirement of MID
5. Adhesive performance: Adhesive performance meet the requirement of MID
6. Antenna performance meet the spec below:

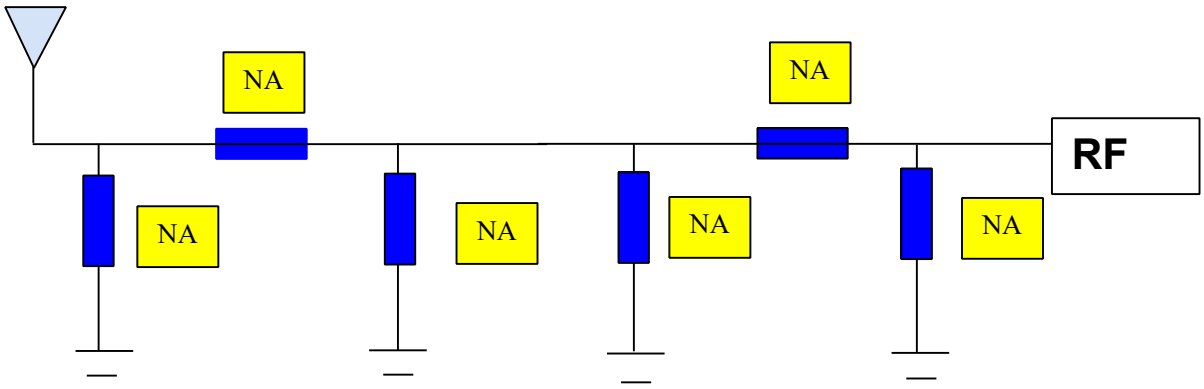
Description	2.4GHz~6GHz	Units
VSWR	≤2.0	
Average Antenna Gain	≥-4.5	dB
Antenna Efficiency	≥40	%
Feed Impedance	50 ohms	
Operating Temperature	-40 to +85 deg C	
Polarization / Azimuth	Linear / Omni-directional	

(2)Mechanical Information

Mechanical Dimension	
Cable Length	475mm/GRAY
Description	WIFI&BT antenna
Material	FPC
Coaxial Cable	50Ω/O.D.0.81mm
Environmental	
Operation Temperature	-40 to +85 deg C
Storage Temperature	-40 to +85 deg C

三:匹配电路图&机器图片&天线图片

(1)Matching circuit

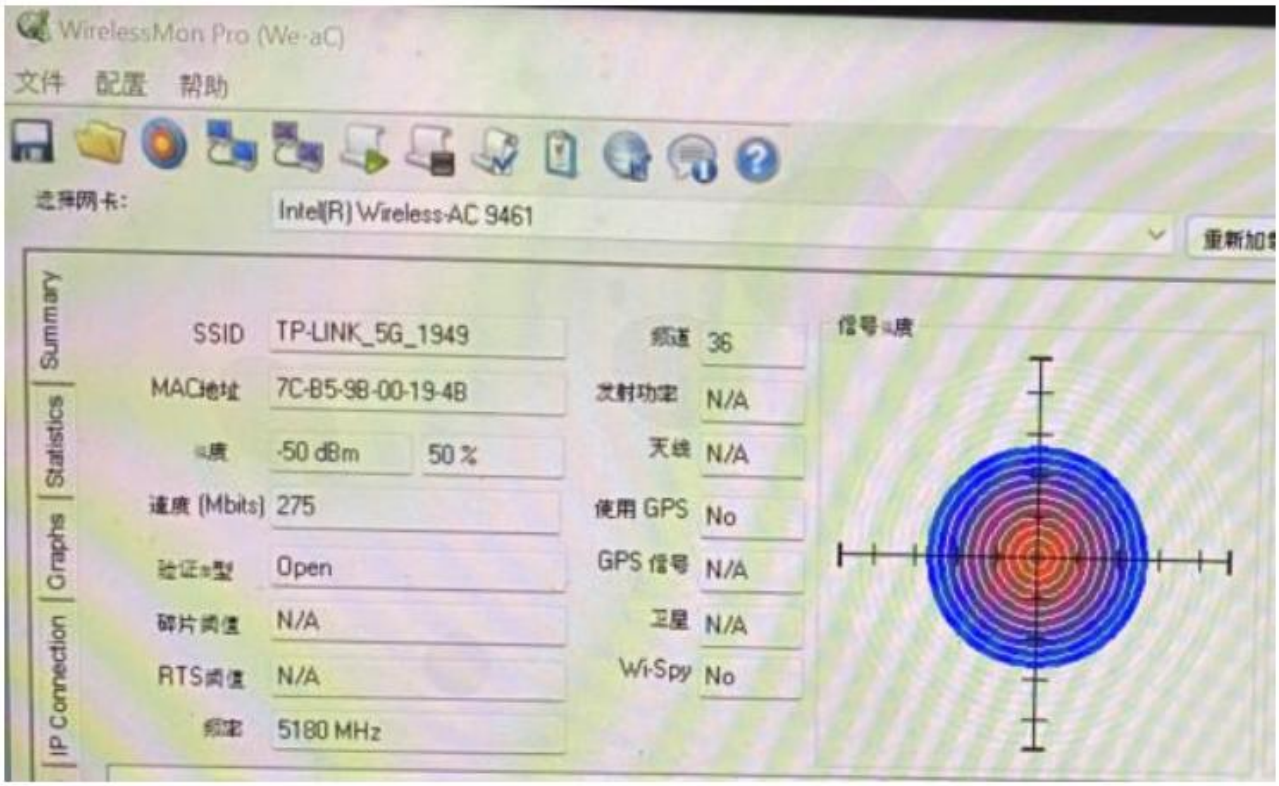


四:Standing wave ratio and Gain

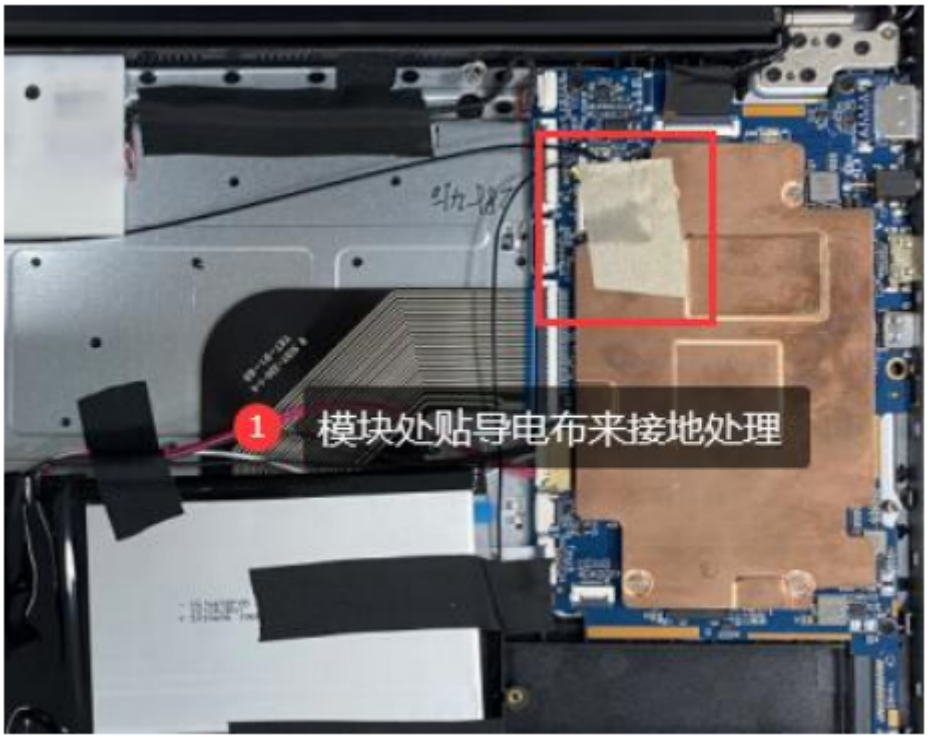
Passive Test For 2.4G			
Freq	Effi	Effi	Gain
(MHz)	(%)	(dB)	(dBi)
2400	38.52	-4.14	1.87
2410	35.95	-4.44	1.85
2420	39.55	-4.03	2.21
2430	40.9	-3.88	2.41
2440	44.76	-3.49	2.67
2450	46.29	-3.35	2.84
2460	41.85	-3.78	2.23
2470	36.71	-4.35	1.52
2480	34.99	-4.56	1.01
2490	34.45	-4.63	1.2
2500	32.54	-4.88	1.29

Passive Test For 5G			
Freq	Effi	Effi	Gain
(MHz)	(%)	(dB)	(dBi)
5000	44.25	-3.54	1.24
5100	43.74	-3.59	2.24
5200	41.61	-3.81	1.86
5300	49.36	-3.07	2.65
5400	42.45	-3.72	2.41
5500	43.07	-3.66	3.05
5600	46.43	-3.33	2.63
5700	48.49	-3.14	2.13
5800	49.83	-3.02	2.14
5900	48.64	-3.13	2.04
6000	46.55	-3.32	2.68

文件 配置 帮助
选择网卡:
Intel(R) Wireless-AC 9461
Summary
Statistics
Graphs
IP Connection
SSID TP-LINK_1949
MAC地址 7C-B5-9B-00-19-49
-40 dBm 62 %
速度 (Mbits) 150
Open
碎片阈值 N/A
RTS阈值 N/A
频率 2437 MHz
频道 6
发射功率 N/A
天线 N/A
使用 GPS No
GPS 信号 N/A
卫星 N/A
Wi-Spy No
信号强度

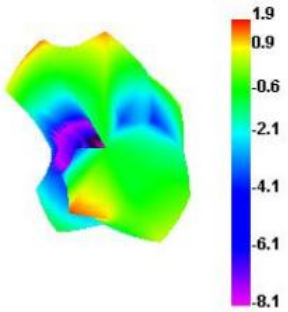

WirelessMon Pro (We-aC)
文件 配置 帮助
选择网卡:
Intel(R) Wireless-AC 9461
Summary
Statistics
Graphs
IP Connection
SSID TP-LINK_5G_1949
MAC地址 7C-B5-9B-00-19-4B
-50 dBm 50 %
速度 (Mbits) 275
Open
碎片阈值 N/A
RTS阈值 N/A
频率 5180 MHz
频道 36
发射功率 N/A
天线 N/A
使用 GPS No
GPS 信号 N/A
卫星 N/A
Wi-Spy No
信号强度

六:Environmental treatment

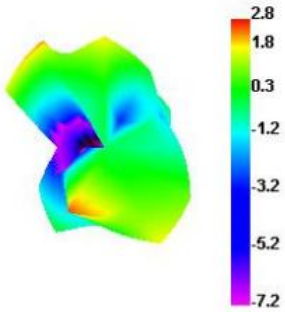


七:3D pattern

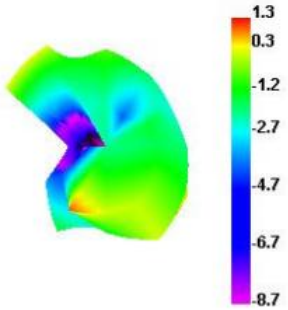
2400.000MHz



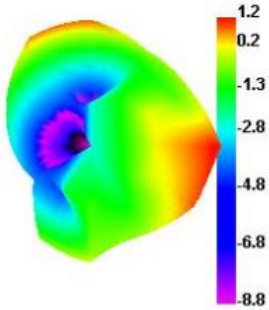
2450.000MHz



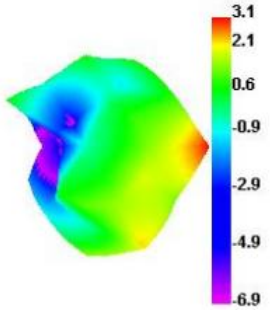
2500.000MHz



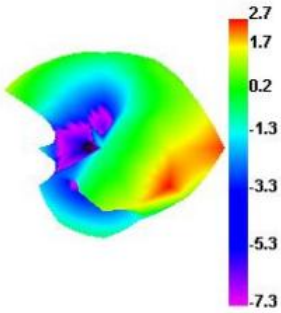
5000.000MHz



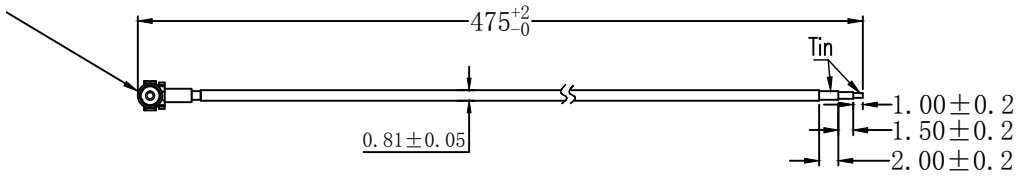
5500.000MHz

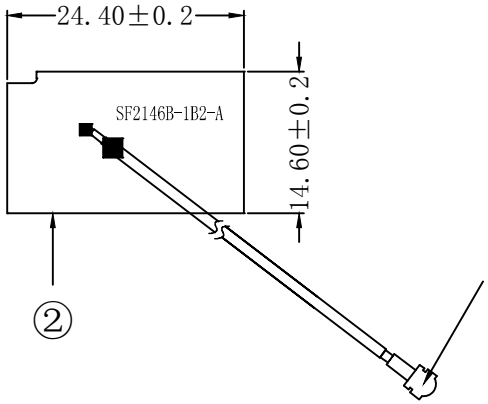


6000.000MHz



八:Antenna drawing


475+2 -0
Tin
0.81±0.05
1.00±0.2
1.50±0.2
2.00±0.2


24.40±0.2
SF2146B-1B2-A
14.60±0.2
②