

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	
承办人 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

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:

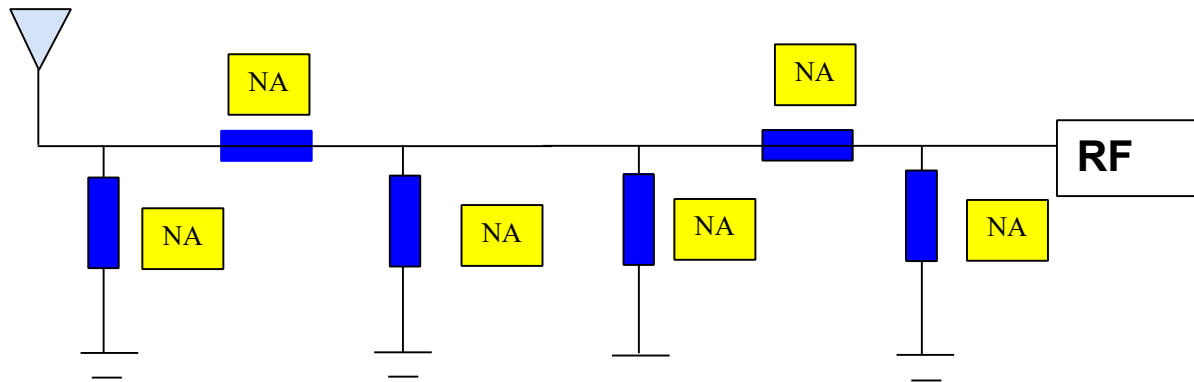
Description	2.4GHz~6GHz	Units
VSWR	≤ 2.0	
Average Antenna Gain	2.0dbi max	dB
Antenna Efficiency	≥ 40	%
Feed Impedance	50 ohms	
Operating Temperature	-40 to +85 deg C	
Polarization / Azimuth	Linear / Omni-directional	

(2)Mechanical Information

Mechanical Dimension	
Cable Length	475mm/GRAY
Description	WIFI&BT antenna
Material	FPC
Coaxial Cable	50 Ω /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

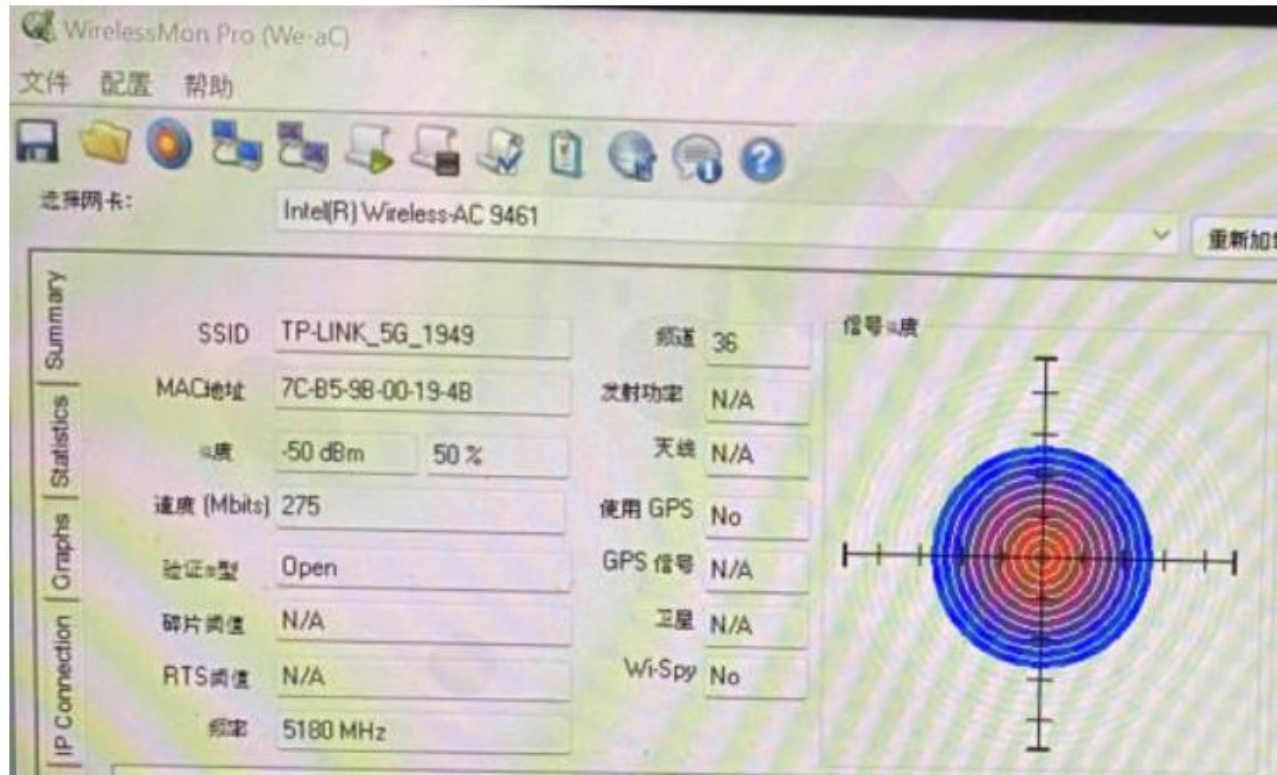
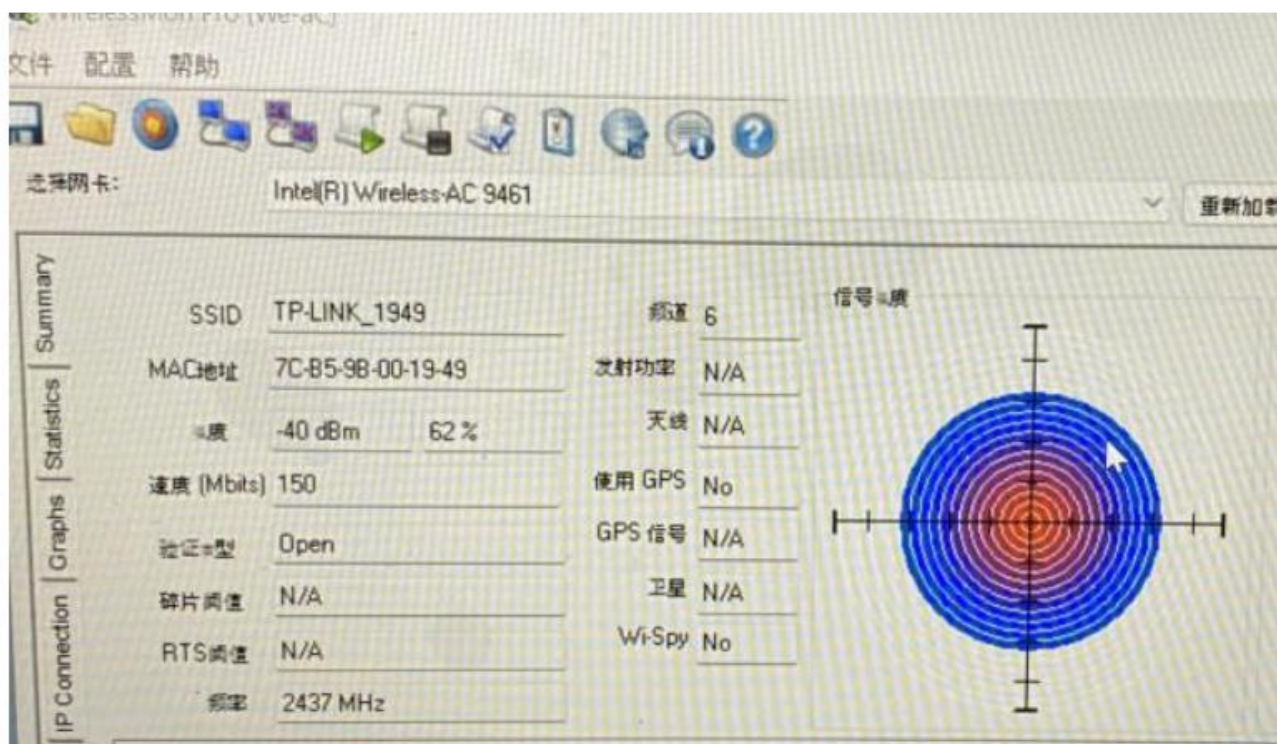


四: Standing wave ratio and Gain



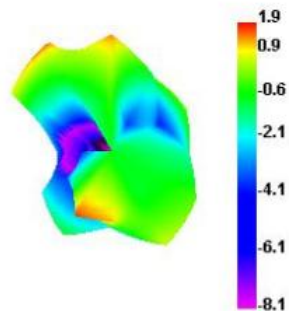
2.4G										
Fred (MHz)	Effi (%)	Effi (%)	Gain (dBi)	Gain (dBd)	UHis (%)	DHis (%)	Max (dB)	Min (dB)	Attenut (Hor)	Attenut (Ver)
2400	44.38	-2.79	1.93	-0.21	40.28	13.32	2.29	-23.79	48.26	49.33
2410	44.63	-2.46	1.99	-0.15	42.42	13.54	2.46	-21.29	48.66	49.58
2420	44.94	-2.12	2.00	-0.14	40.96	14.77	2.68	-20.97	48.71	49.88
2430	44.27	-2.70	1.98	-0.16	43.24	15.23	2.29	-22.77	48.21	49.35
2450	44.82	-1.83	1.87	-0.27	41.19	16.18	3.15	-21.98	49.11	49.99
2460	44.28	-2.63	1.94	-0.20	42.39	18.25	2.31	-25.62	48.37	49.22
2470	44.49	-2.34	1.87	-0.27	41.78	18.80	2.50	-24.31	48.50	49.54
2480	45.08	-2.23	1.95	-0.19	40.89	19.05	3.14	-23.23	48.98	49.99
2490	44.21	-2.68	1.89	-0.25	43.21	19.23	2.35	-21.77	48.24	49.20
2500	44.46	-2.32	1.96	-0.18	40.44	19.62	2.48	-20.30	48.48	49.61

5G WLAN										
Fred (MHz)	Effi (%)	Effi (%)	Gain (dBi)	Gain (dBd)	UHis (%)	DHis (%)	Max (dB)	Min (dB)	Attenut (Hor)	Attenut (Ver)
4900	60.30	-0.78	1.23	-0.91	49.26	35.28	3.29	-19.67	63.32	61.32
5000	60.53	-0.44	1.59	-0.55	51.69	37.77	4.68	-22.38	65.59	62.75
5100	60.61	-0.25	1.99	-0.15	52.92	34.93	3.92	-21.31	64.12	64.84
5200	60.27	-0.69	1.34	-0.80	48.24	39.31	3.29	-19.74	63.35	62.37
5300	60.49	-0.35	1.48	-0.66	46.80	30.79	2.76	-18.23	64.73	63.76
5400	60.96	-0.35	1.08	-1.06	50.15	30.89	3.81	-25.32	64.01	60.93
5500	60.30	-0.75	1.31	-0.83	51.34	29.28	4.22	-23.61	66.30	62.24
5600	60.73	-0.58	1.53	-0.61	49.59	26.70	3.76	-16.47	63.78	61.77
5700	60.76	0.16	1.78	-0.36	53.11	26.16	4.78	-17.26	64.16	61.86
5800	60.21	-0.63	1.36	-0.78	45.22	34.40	3.21	-15.65	62.26	63.31
5900	60.47	-0.28	1.41	-0.73	49.45	35.48	3.56	-18.42	63.54	62.65

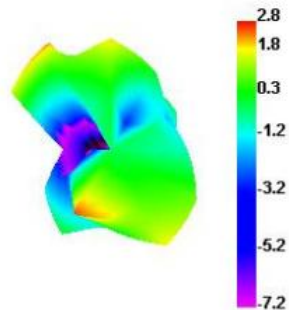


五:3D pattern

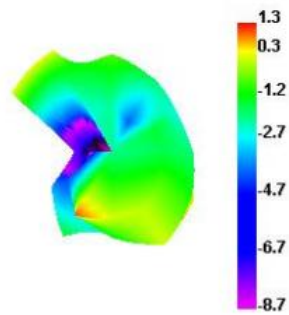
2400.000MHz



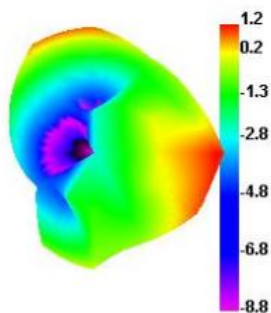
2450.000MHz



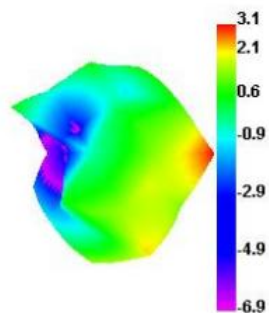
2500.000MHz



5000.000MHz



5500.000MHz



6000.000MHz

