

天线规格书
Antenna specification for approval

客户名称 Customer name	中柏		
机型 Model	V12PRO-11.97漢鎬篋鏞燐嘲閱賤晁澹?		
天线频段 Antenna frequency	2.4GHZ&5GHz		
天线功能 Antenna function	WIFI&BT&5Gwifi		
天线材质 Antenna material	FPC	FPC 颜色 FPC color	黑色
型号 model	V12PRO		
料号 Material number	SWD-FM-RD-002A.0/2020.1		
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	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:

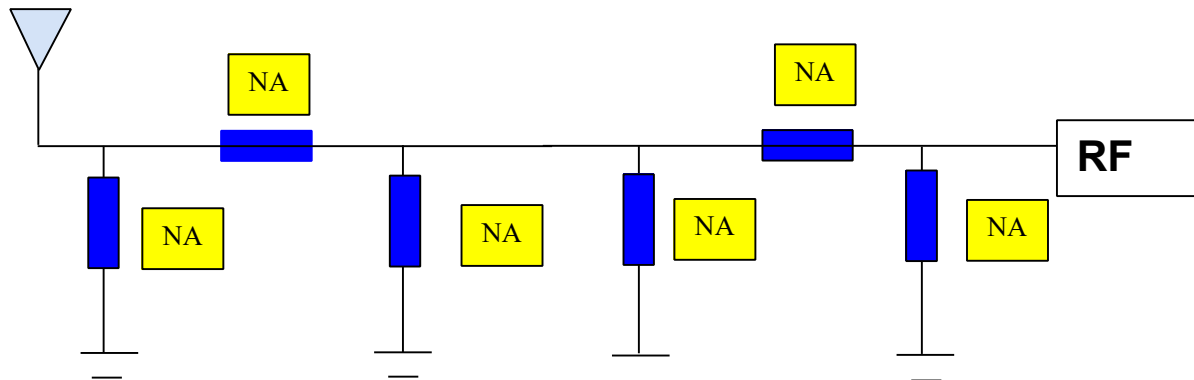
Description	2.4GHz~6GHz	Units
VSWR	≤ 2.0	
Average Antenna Gain	0.22dbi for 2.4G, 1.66dbi for 5G	dB
Antenna Efficiency	≥ 40	%
Feed Impedance	50 ohms	
Operating Temperature	-40 to +85 deg C	
Polarization / Azimuth	Linear / Omni-directional	

(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

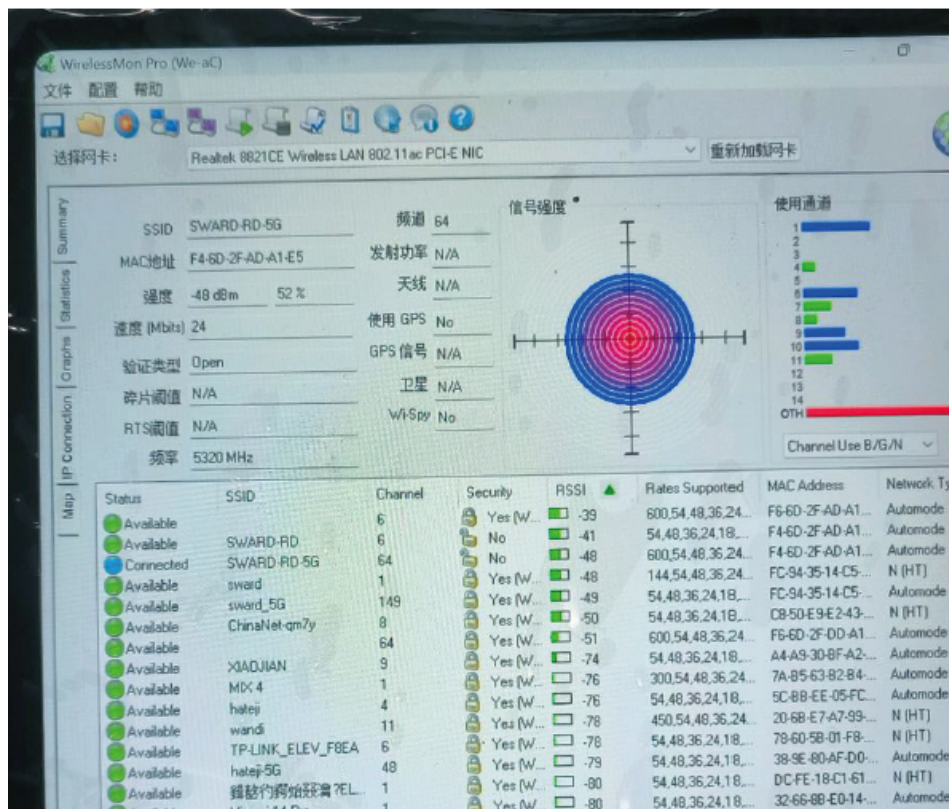
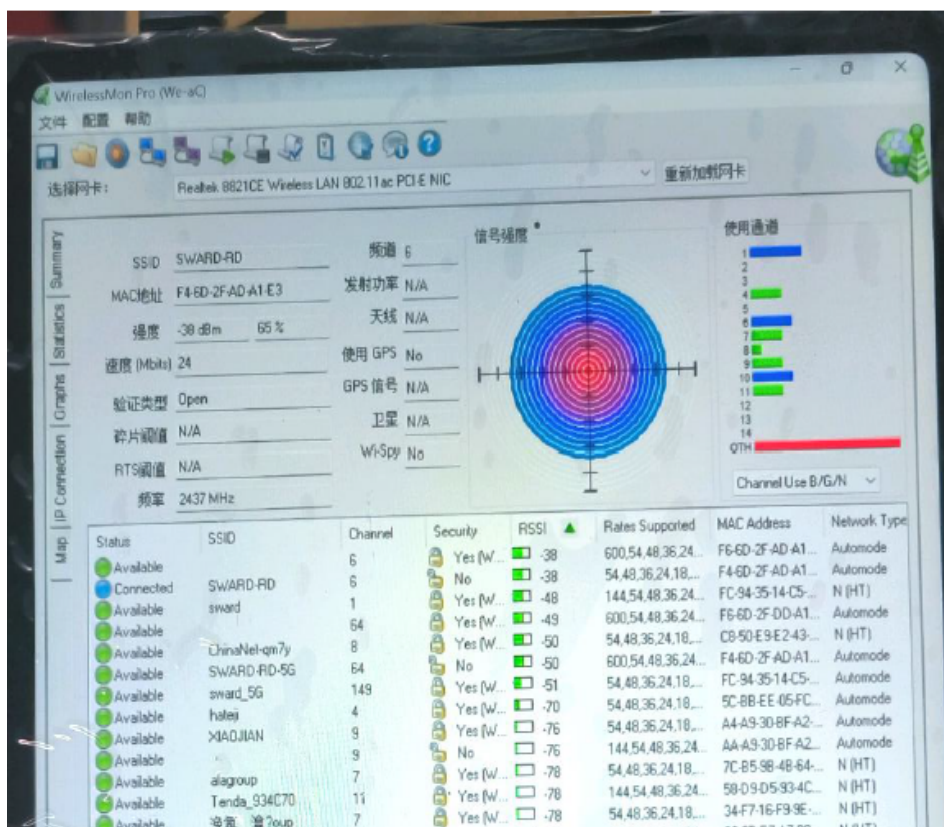


四: Standing wave ratio and Gain

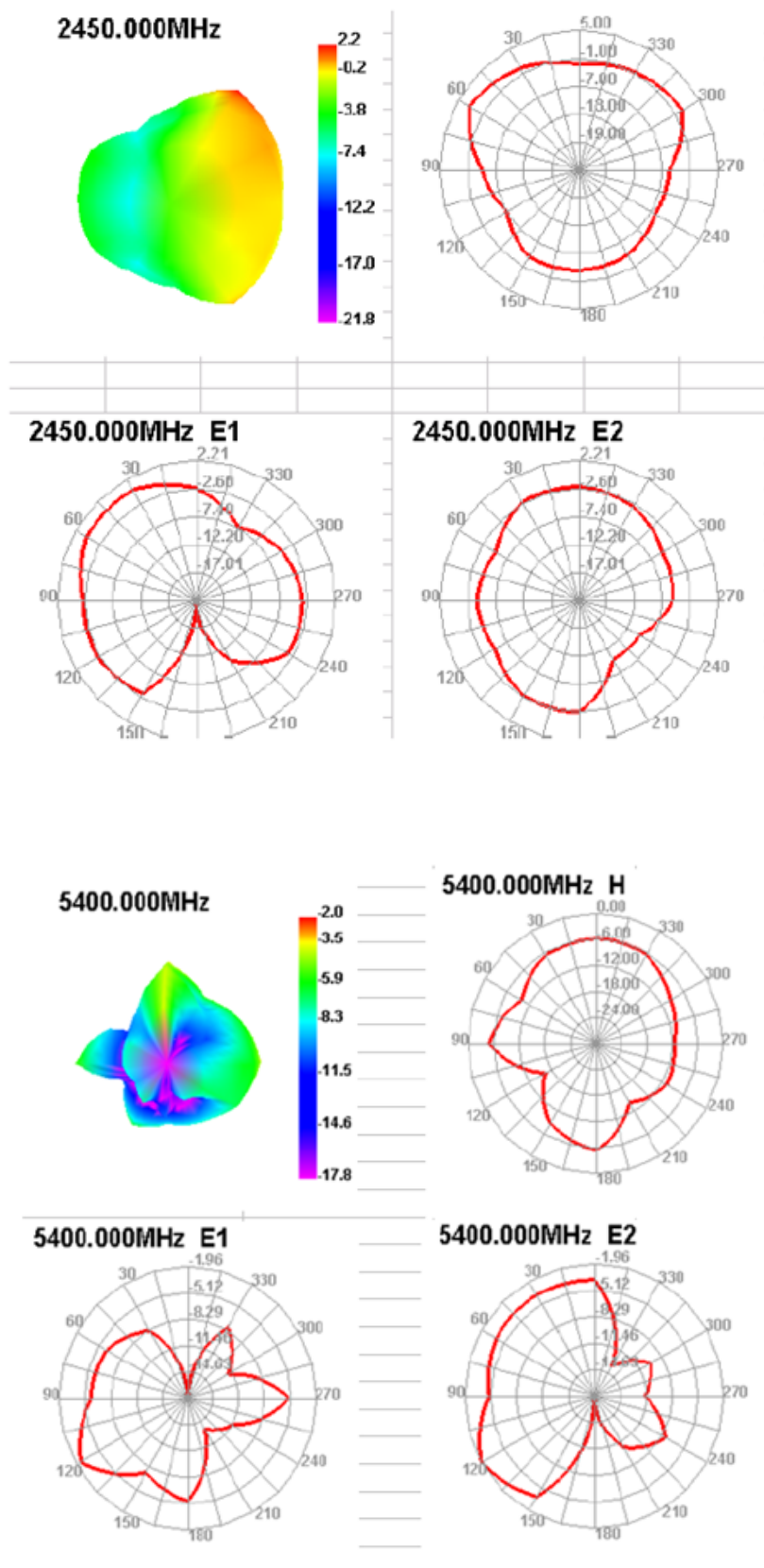


Passive Test For 2.4Gwifi								
Freq	Effi	Effi	Gain	Gain	UHS	DHS	Max	Min
(MHz)	(%)	(dB)	(dBi)	(dBd)	(%)	(%)	(dB)	(dB)
2400	14.54	-8.37	-0.99	-3.14	5.756	5.318	-3.99	-22
2410	15.06	-8.22	-0.82	-2.97	5.708	5.583	-3.82	-22.33
2420	16.67	-7.78	-0.67	-2.82	6.101	6.258	-3.67	-21.52
2430	16.99	-7.7	-0.93	-3.08	6.673	6.817	-3.93	-23.38
2440	16.64	-7.79	-0.51	-2.66	7.201	7.155	-3.51	-27.36
2450	17.33	-7.61	-0.68	-2.83	6.889	6.671	-3.68	-24.07
2460	16.91	-7.72	-0.42	-2.57	7.429	7.113	-3.42	-21.53
2470	17.64	-7.53	0.22	-1.92	7.725	7.34	-3.37	-20.24
2480	17.84	-7.49	-1.9	-3.05	8.675	7.993	-2.9	-18.42
2490	18.6	-7.31	-1.53	-3.67	8.918	8.074	-2.53	-17.38
2500	16.81	-7.74	-1.46	-3.60	8.691	7.945	-2.46	-18.42

Passive Test For 5Gwifi								
Freq	Effi	Effi	Gain	Gain	UHS	DHS	Max	Min
(MHz)	(%)	(dB)	(dBi)	(dBd)	(%)	(%)	(dB)	(dB)
5000	14.9	-8.27	-1.72	-3.87	6.479	8.424	-1.72	-22.14
5100	12.51	-9.03	-4.03	-6.18	5.734	6.774	-4.03	-19.42
5200	12.81	-8.93	-3.36	-5.51	6.529	6.277	-3.36	-24.41
5300	18.38	-7.36	-0.26	-2.41	9.736	8.643	-0.26	-23.23
5400	22.33	-6.51	1.66	-0.48	11.267	11.065	1.2	-17.83
5500	19.23	-7.16	-1.23	-3.38	9.434	9.792	-1.23	-28.04
5600	18.32	-7.37	-1.58	-3.73	10.586	7.73	-1.58	-22.63
5700	21.28	-6.72	-0.7	-2.85	12.402	8.874	-0.7	-19.41
5800	20.66	-6.85	-1.46	-3.61	12.26	8.395	-1.46	-21.72
5900	13.37	-8.74	-3.69	-5.84	7.348	6.025	-3.69	-18.32
6000	14.38	-8.42	-1	-3.15	5.608	8.775	-1	-18.02



五:3D pattern



六:Antenna drawing

