



深圳市索沃德通讯技术有限公司

Shenzhen Suo Ward Communication Technology Co., Ltd.

天线规格书
Antenna specification for approval

客户名称 Customer name	LIGHTCOMM		
机型 Model	DL1050 (MID1058-AD)		
天线频段 Antenna frequency	2. 4GHZ&5GHz		
天线功能 Antenna function	WIFI&BT&5Gwifi Antenna		
天线材质 Antenna material	FPC	FPC color	BLACK
型号 model	SF2355A-1B2-A		
Material number	SF2355A-1R23B-195-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 2024. 06. 03	盖章区 Seal area	日期 date 2024. 06. 03	盖章区 Seal area



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NO.	Certification NO.	Material type	ISSUE DATE	备注
1	A2240182175102001E	Tin plated copper wire	2024-04-12	One year
2	CANEC2227657305	halogen	2023-05-30	One year
3	CANEC2227657306	Adhesive backing	2023-05-30	One year
4	SHAEC23021984701	FEP sheath	2024-01-04	One year
5	SHAEC23020095573	FEP insulation	2023-12-12	One year
6	SZXEC23001647204	Tin wire	2023-07-28	One year
7	SZXEC23001647208	Tin strip	2023-07-28	One year
8	ETR23701480	Printing ink	2023-07-13	One year
9	A2240123200102001E	base material	2024-03-20	One year
10	CANEC23017402018	EVA foam	2024-01-03	One year
11	A2230383826101003	Conductive cloth	2023-08-04	One year
12	CANEC23007797302	Gold coating	2023-08-17	One year

一: Summary

(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:

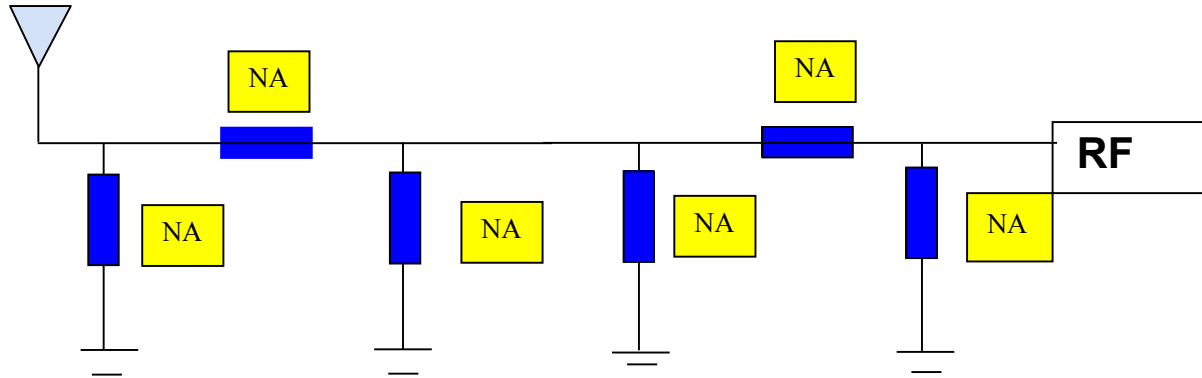
Description	2.4GHz~5GHz	Units
VSWR	≤ 2.0	
Average Antenna Gain	≥ -4.5	dB
Feed Impedance	50 ohms	
Operating Temperature	-40 to +85 deg C	
Polarization / Azimuth	Linear / Omni-directional	

(2)Mechanical Information

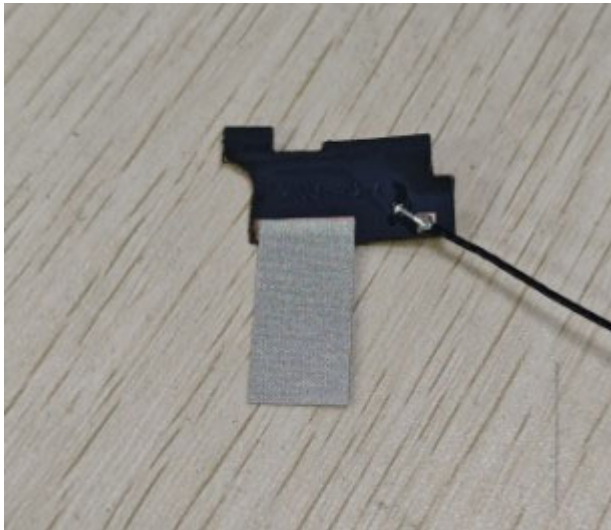
Mechanical Dimension	
Cable Length	195mm/BLACK
Description	WIFI&BT antenna
Material	FPC
Coaxial Cable	50Ω/0. D. 0. 81mm
Environmental	
Operation Temperature	-40 to +85 deg C
Storage Temperature	-40 to +85 deg C

二: Matching circuit diagram & antenna image

(1) Matching circuit diagram



(2) antenna image



三：Antenna standing wave ratio&antenna efficiency (VSWR)



Passive Test For 2.4G			
Freq	Effi	Effi	Gain
(MHz)	(%)	(dB)	(dBi)
2400	29.04	-5.37	-0.71
2410	28.71	-5.42	-0.66
2420	33.4	-4.76	0.07
2430	35	-4.56	0.21
2440	36.67	-4.36	0.23
2450	30.76	-5.12	-0.79
2460	30.52	-5.15	-0.96
2470	27.2	-5.65	-1.34
2480	29.14	-5.35	-0.83
2490	30.73	-5.12	-0.46
2500	33.52	-4.75	0.21

Passive Test For 5G-WIFI			
Freq	Effi	Effi	Gain
(MHz)	(%)	(dB)	(dBi)
5000	33.61	-4.73	1.12
5100	39.45	-4.04	1.79
5200	29.47	-5.31	0.95
5300	31.69	-4.99	1.79
5400	30.89	-5.1	0.16
5500	33.25	-4.78	0.12
5600	29.26	-5.34	-0.11
5700	28.7	-5.42	-0.52
5800	31.82	-4.97	0.17
5900	31.47	-5.02	-0.45
6000	36.4	-4.39	0.48

四:3D pattern

