

Parts Acknowledgment

Name of Part: WIFI antenna

Specification of Parts: Accessory, can Antenna, be used MINI5V2, BT
Antenna line 58mm long,
24.2 * 14.6 mm, SF1676A-1L23B-058-A,
Set, coaxial third generation terminal, FPC

Stare at the material numbe: 10883000100

Model of application: mini5-V2 dashcam (RK platform)

Name of Supplier: Shenzhen Suo Ward Communication
Technology Co., Ltd.

Type of Supplier: ☐ Manufacturer、☐ Agent、☐ Trader;

Manufacturer's material number: SF1676A-1L23B-058-A

Recognition number:

Keep an eye on the date of issue:

Supplier approval column

To develop: LTT		audit:	Approved by the:
* The following is the check column of the tag tag			
Material to send sample check column		Material confirmation and approval column	
Procurement Engineer	Purchasing Supervisor	Research and Development Engineer	Research and Development Supervisor

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DDPai vision equipment Co.,LTD

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Supplier Address: 6th Floor, Building B, Hexi Hangcheng Industrial Zone, No. 135, Qianjin Second Road, Bao 'an District, Shenzhen

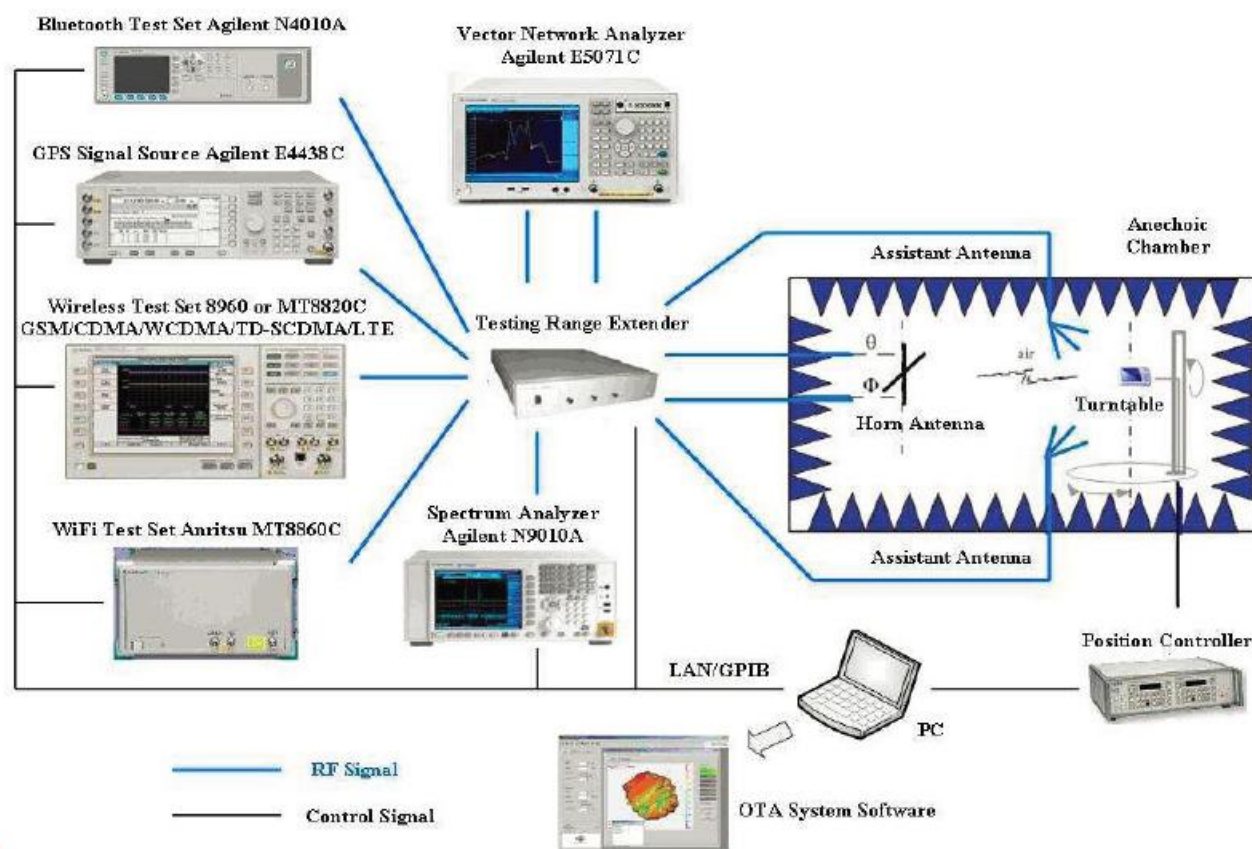
Contact information of supplier: Chen Heng /13717086260

Serial number	Certification number	Material type	Date of issue	Remarks
1	A2220186128101ER1	Tinned copper wire	2022-05-17	One year
2	CANEC2200386502	halogen	2022-01-12	One year
3	CANEC2200386501	Adhesive	2022-01-12	One year
4	SHAEC2200415801	FEP sheath	2022-01-15	One year
5	SHAEC2127178503	FEP insulation	2021-12-21	One year
6	SZXEC2203054804	Tin wire	2022-09-19	One year
7	SZXEC2203054808	Tin	2022-09-19	One year
8	ETR22300684	Printing ink	2022-03-09	One year
9	EKR22501369	Substrate	2022-06-27	One year
10	CANEC2124348308	EVA foam	2022-01-14	One year
11	SZXEC2202709609	Conductive cloth	2022-08-16	One year
12	CANEC2218227002	Gold plating	2022-08-30	One year

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一: Device Support & Testable Antenna Type



Antenna function	Frequency Range	test instrument	test method	standard test
2G antenna (GSM)	824MHz-960MHz, 1710MHz-1990MHz	5071B、8960 OTA darkroom	Active test, passive test	Soward standards, customer requirements
3G antenna (WCDMA/TDSCDMA/CDMA-EVDO/2000)	824MHz-960MHz, 1710MHz-2170MHz	5071B、8960 OTA darkroom	Active test, passive test	Soward standards, customer requirements
4G antenna (LTE-FDD/LTE-TDD)		5071B、CMW500、 SP8011、OTA darkroom	Active test, passive test	Soward standards, customer requirements
WIFI antenna	2.4GHz-2.48GHz, 5.15GHz-5.35GHz, 5.725GHz-5.825GHz	5071B、CMW500、OTA darkroom、router、 PC	Active test, passive test, APK actual test, throughput test	Soward standards, customer requirements
BT antenna	2.4GHz-2.48GHz,	5071B、OTA darkroom 、Bluetooth Speaker	Passive test, actual test	Soward standards, customer requirements
Positioning antenna (GPS, GLONASS, Beidou, Galileo)	1.575.42MHz±10MHz 1602MHz±0.5625MHz 1561MHz±2.046MHz	5071B、OTA darkroom 、APK	Passive test, actual test	Soward standards, customer requirements
NFC antenna	13.56MHz	5071B、Dedicated test fixture、OTA darkroom、APK	Passive test, actual test	Soward standards, customer requirements
Remote control antenna	433MHz	5071B、OTA darkroom	Passive test, actual test	Soward standards, customer requirements

二:Overview

(1)Antenna performance

- 1.This approval sheet supports for MID project. FPC antennas include in this project. This report is for the performance of BT antenna.
- 2.Antenna shape size: Meet the requirement of MID
- 3.Antenna band: 2400MHz~2500MHz
- 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:

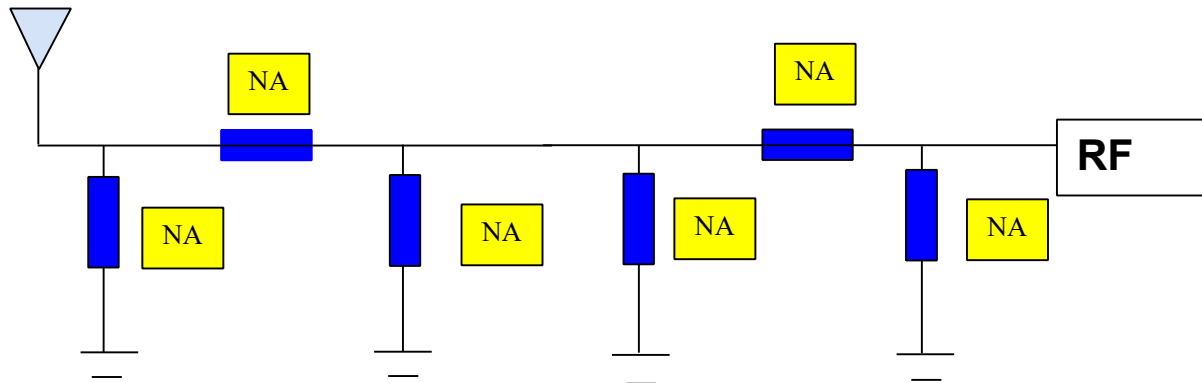
Description	2. 4GHZ~2. 5GHz	Units
VSWR	≤ 2.0	
Average Antenna Gain	≥ -4.5	dB
Antenna Efficiency	≥ 40	%
Feed Impedance	50 ohms	
Operating Temperature	-40 to +85 deg C	
Polarization / Azimuth	Linear / Omni-directional	

(2)Mechanical Information

Mechanical Dimension	
Cable Length	058mm/BLACK
Description	BT antenna
Material	FPC
Coaxial Cable	500hm/0. D. 0. 81mm
Environmental	
Operation Temperature	-40 to +85 deg C
Storage Temperature	-40 to +85 deg C

三: Matching Circuit Diagram & Machine Picture & Antenna Picture

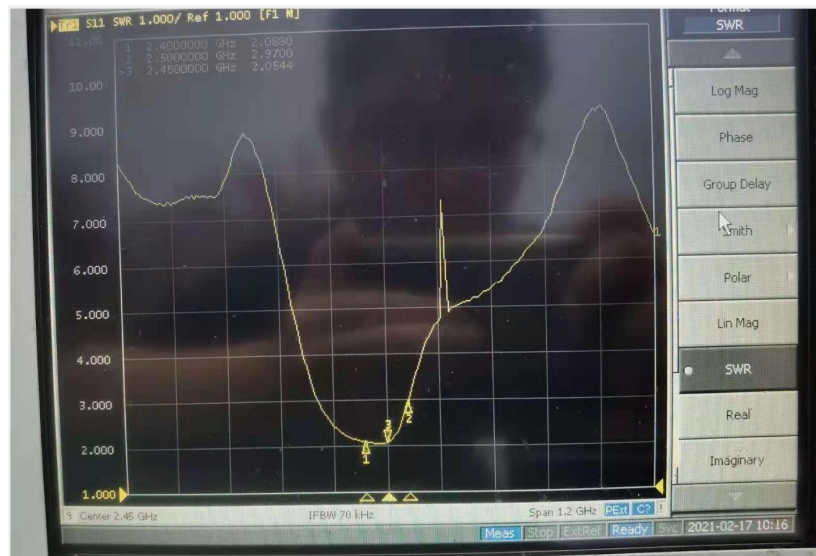
(1) Matching circuit



(2) Machine picture & antenna picture

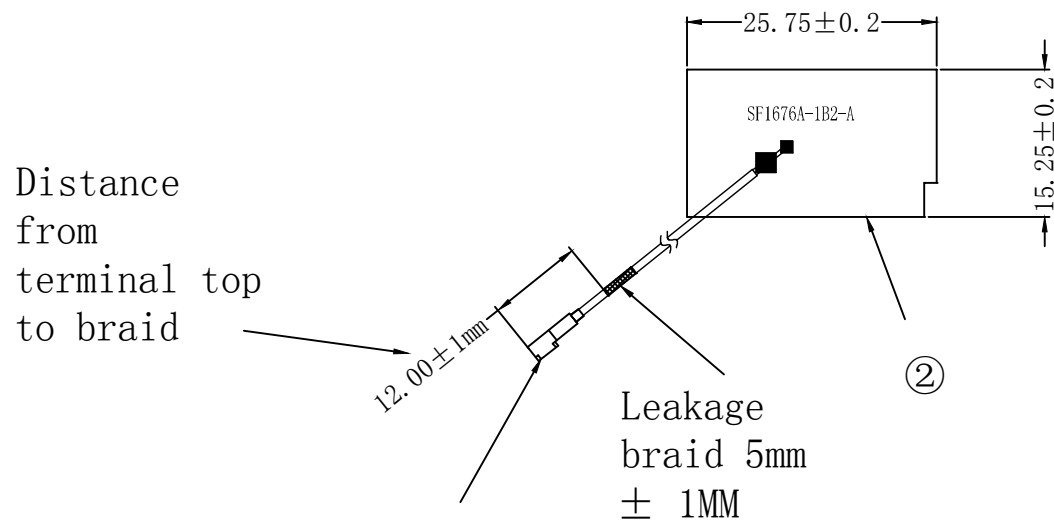
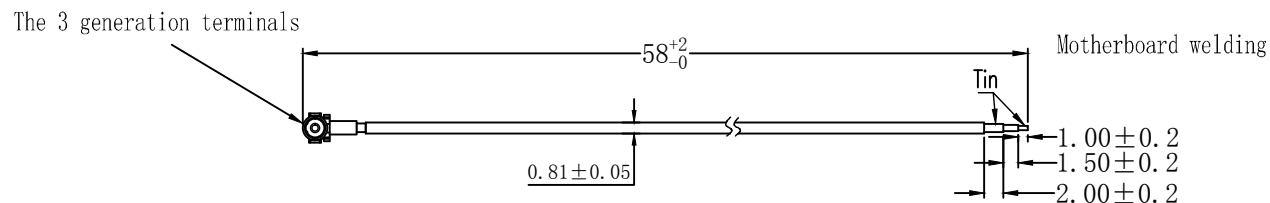


四:Antenna Standing Wave Ratio & Antenna Efficiency (VSWR)



Passive Test For 2.4G										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2400	14.22	-8.47	-3.61	-5.76	6.764	7.453	-3.61	-15.7	49.49	49.42
2410	15.38	-8.13	-3.64	-5.79	7.262	8.119	-3.64	-15.47	49.46	49.52
2420	17.02	-7.69	-3.12	-5.27	7.996	9.028	-3.12	-15.55	49.42	49.42
2430	18.4	-7.35	-2.57	-4.72	8.562	9.841	-2.57	-14.98	49.35	49.35
2440	18.66	-7.29	-2.32	-4.47	8.558	10.104	-2.32	-14.38	49.38	49.35
2450	20.83	-6.81	-1.55	-3.7	9.36	11.469	-1.55	-14.28	49.66	49.63
2460	21.89	-6.6	-1.2	-3.35	9.73	12.164	-1.2	-15.37	49.51	49.46
2470	22.08	-6.56	-1.14	-3.29	9.794	12.282	-1.14	-16.62	49.45	49.31
2480	22.87	-6.41	-1.09	-3.24	10.206	12.662	-1.09	-16.95	50.08	49.88
2490	24.96	-6.03	-0.76	-2.91	11.112	13.848	-0.76	-17.02	49.81	49.77
2500	24.8	-6.05	-0.85	-3	11.094	13.709	-0.85	-17.08	50.25	50.18

五:Structural drawing



technical requirements:

- 1.* for critical dimensions;
- 2.Size conform to the requirements of the drawings;
- 3.No virtual welding welding point, false welding. Require full welding points.
- 4.Network test pass.
- 5.No marked tolerance according toSJ/T 10628 1995 6classes;

①The terminal faces down



5										
4										
3										
2	FPC	black	1	SF1676A-1B2-A	RD	YWD	2022. 12. 12	Q C		
1	coaxial line	black	1	φ=0.81MM	RF					
	name	color	quantity	specifications	audits			approval		

SWARD

ShenZhen SWARD Communication Technology Co.Ltd

SF1676A-1L23B-058-A

time markup

percentage

1 1 A 1 : 1

ROHS