



Shenzhen Shuodian Electronic Technology Co.,Ltd
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SPECIFICATION

for

K32/K33 2.4-5.8G WIFI FPC antenna

Customer No.

Product No.

SD-2-FPC-80MM

Author: XiaofengZeng Review: Liming

Release Date: 2024.11.25

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Shenzhen Shuodian Electronic Technology Co.,Ltd



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1. Bilateral Confirmation page

1.1 Customer signature

Customer:

Seapartment/post	Sign	Date
Hardware Engineer/RD		
Mechanical/MD		
Project Manager/PM		
Commercial/Puchasing		
Checker		

1.2 Signature of ShuoDian Technology company

Seapartment/post	Sign	Date
Antenna Engineer/RD		
Mechanical/MD		
Project Manager/PM		
QA		
Checker		



2. General

2.1 Scope of application

This specification is only applicable to **K32/K33** WiFi antenna

2.2 Operating temperature range

Temperature range of this product: -20 ~ +65 °C

2.3 Storage temperature range:

This product is stored at - 30 ~ + 75 °C

3. General product specifications

NO.	ITEMS	DETAILS
1	Type	K32/K33 WiFi antenna
2	Operating Frequency Band	2400-2500MHZ 5700-5900MHZ
3	VSWR	≤ 2.0
4	Impedance	50Ω
5	Antenna Type	Monopole
6	Gain	$3 \pm 1\text{dBi}$
7	Efficiency	$\geq 50\%$
8	Antenna composition	FPC+Cable
9	Entity Picture	



4. Specification Detials

4.1 Mechanical Properties

4.11 Product Composition:

No.	Material	Size (MM)
1	FPC	40. 25*7. 38 Black
2	CABLE	IPEX-1 ϕ 1.13 L=80 black

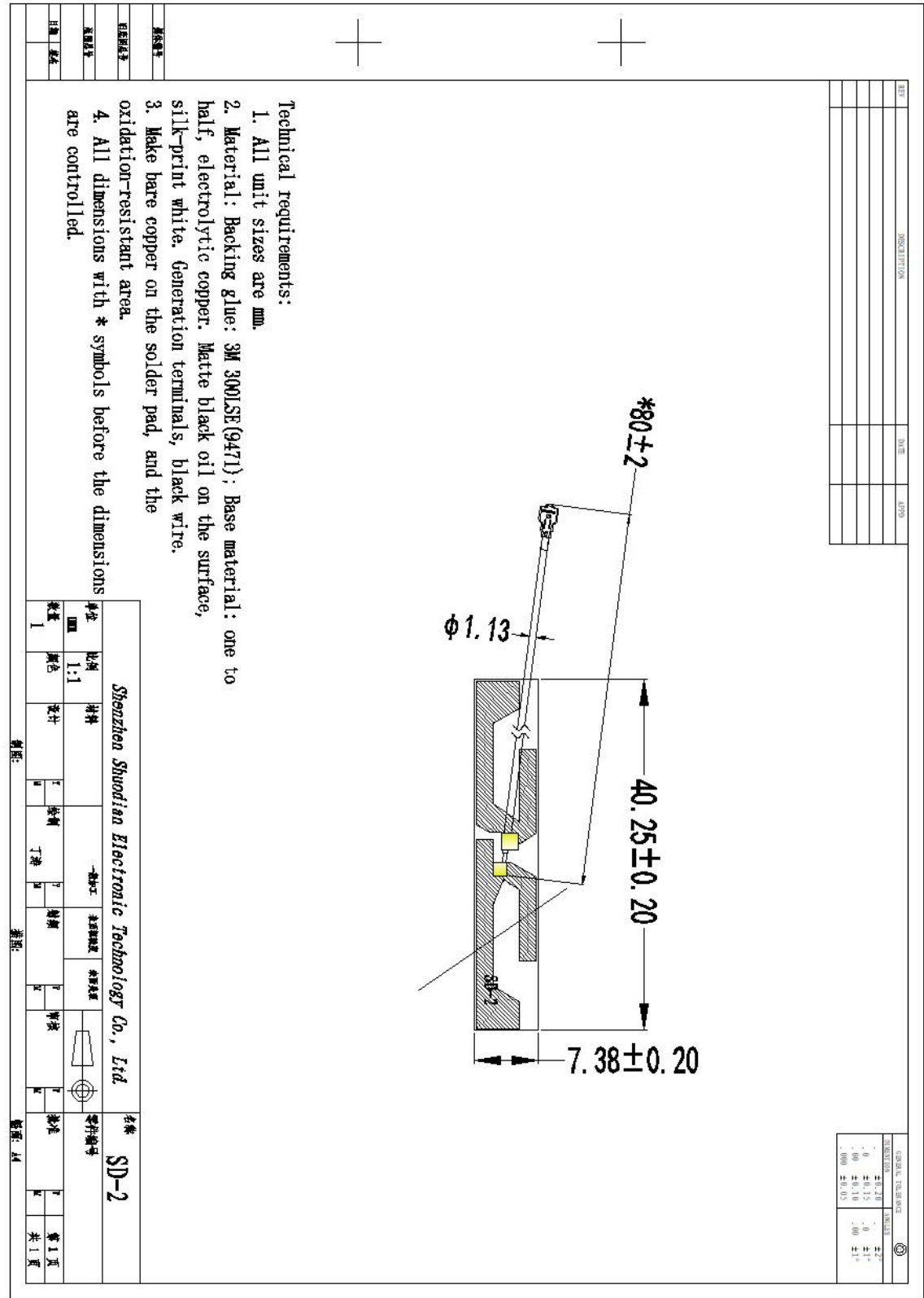
4.12 Apperance

Good appearance without scars 、 dirts、 protuberances, etc.

4.13 Antenna Picture and Structure Dimension

Productdrawings:

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4.2 Electric Performance

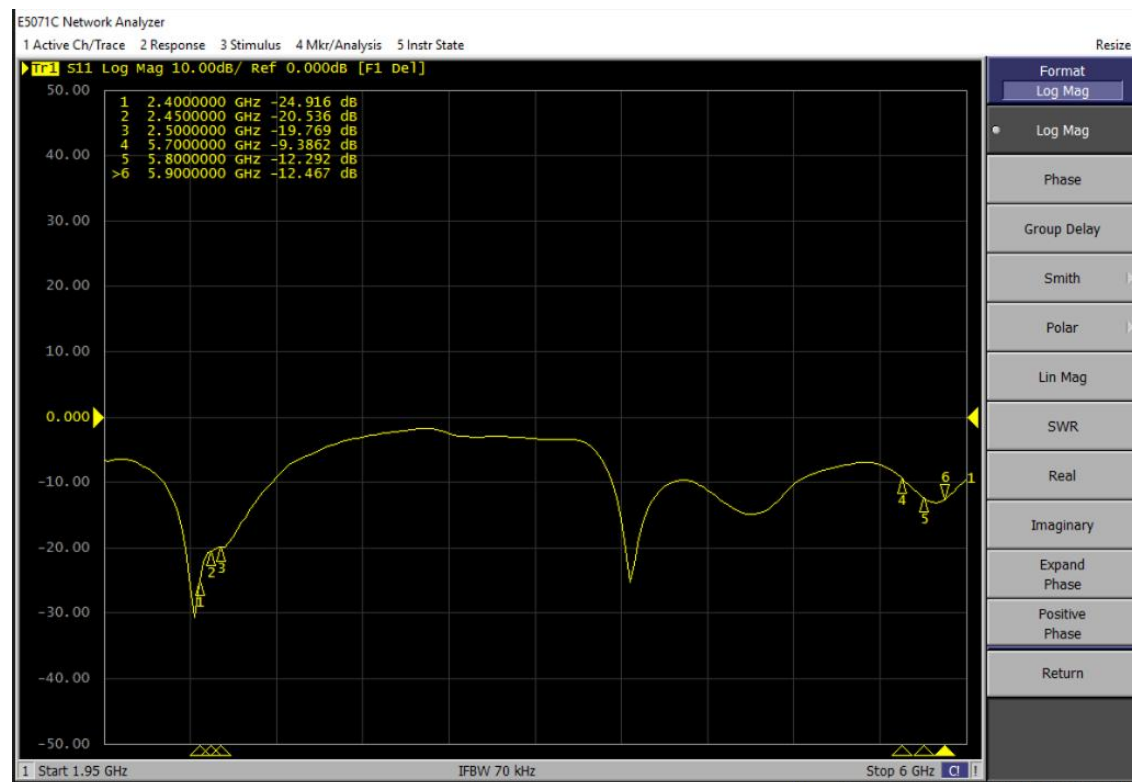
4.21 Test condition

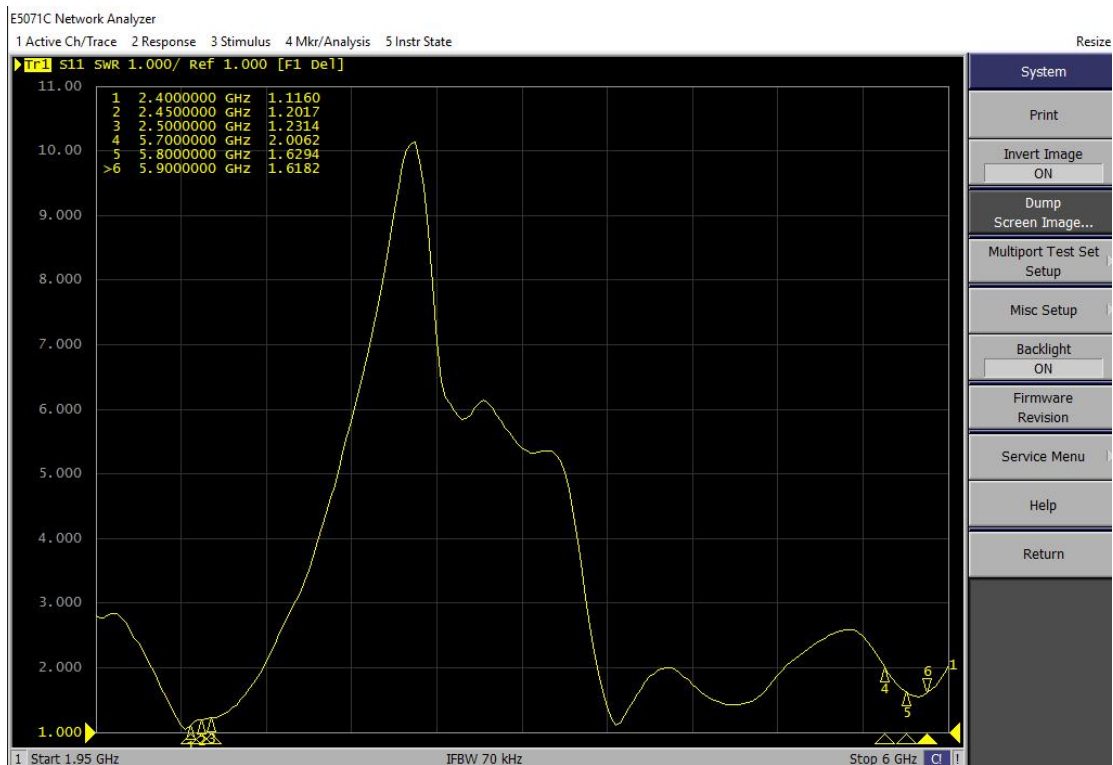
Environment:	Equipment:
Temperature: 10℃——+30℃	Network Analyzer: KEYSIGHT E5071C
Humidity: ≤80% (+40℃)	Multi-probe microwave anechoic
Atmospher: 750mmkg±30mmkg	chamber

4.22 Test Data for Electrical Performance:

4.22.1 S11 of the Antenna:

Marker (MHZ)	2400	2450	2500	5700	5800	5900
Returnloss	-24.91	-20.53	-19.76	-9.38	-12.29	-12.46
VSWR	1.11	1.20	1.23	2.00	1.62	1.61





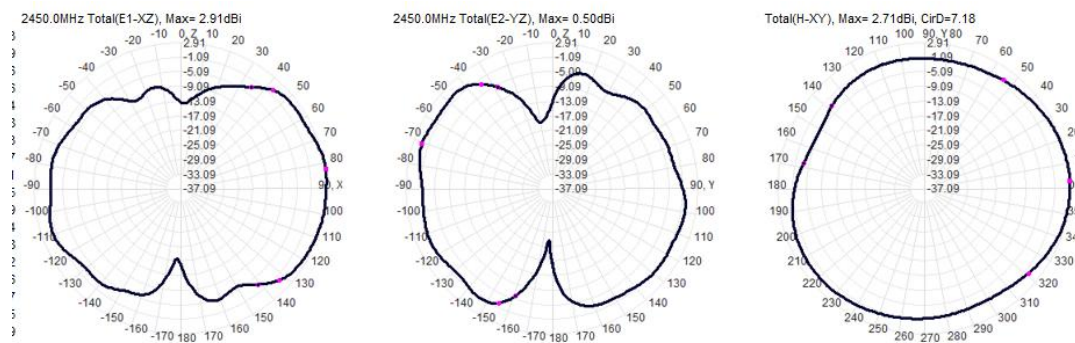
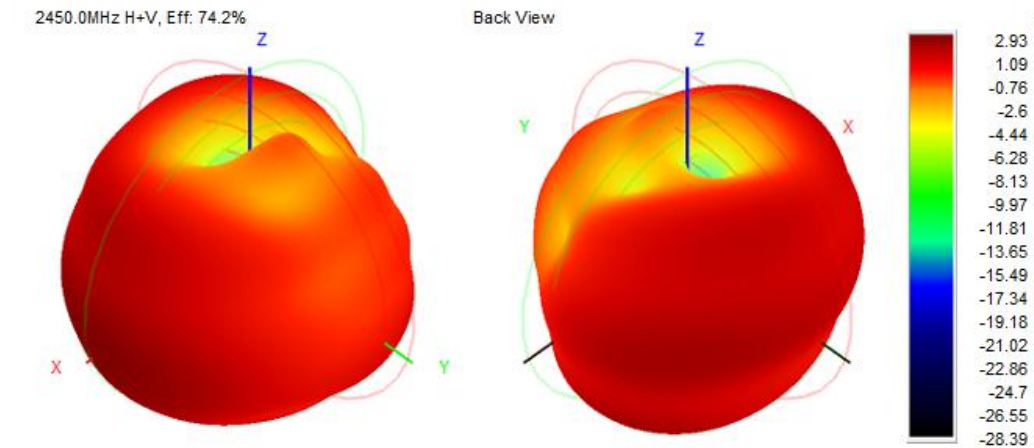
4. 22. 2 Passive gain、 efficiency :

Marker (MHz)	2400	2450	2500	5700	5750	5800	5850
Gain (dBi)	3.10	2.93	3.06	3.48	3.70	3.59	3.24
Efficiency (%)	65.5	74.1	65.1	64.1	63.2	61.9	60.8

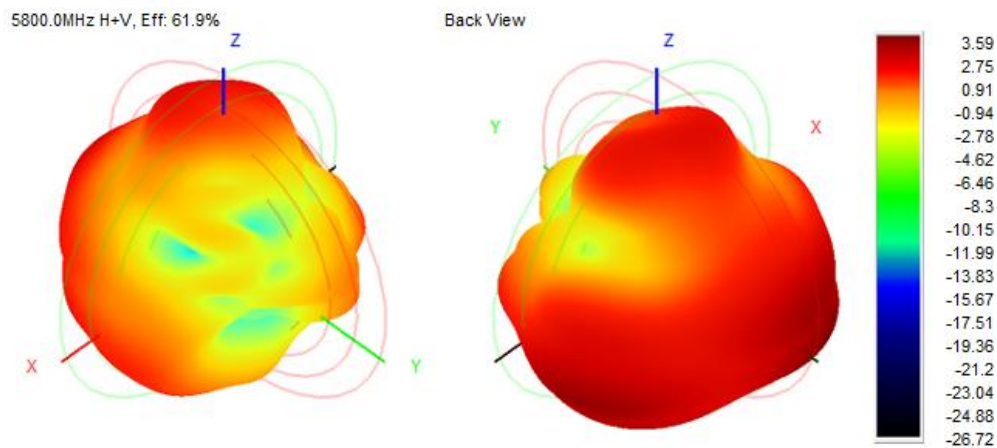


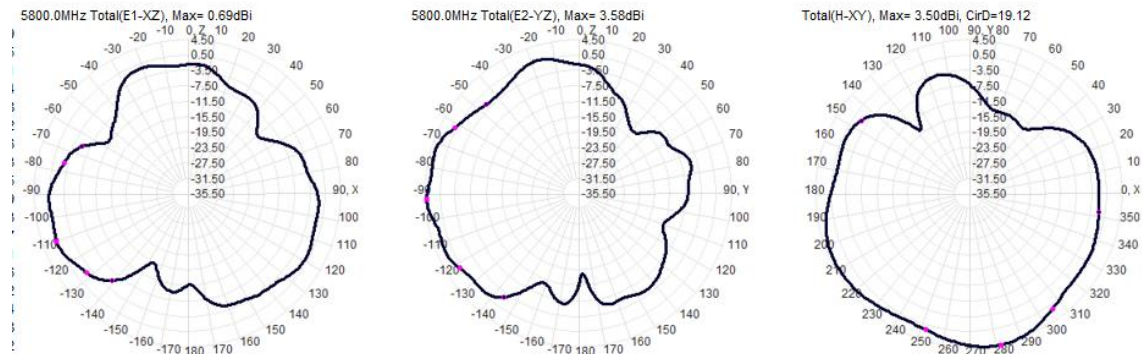
4. 22. 3 Radiation Pattern

@2450MHz



5800 MHz:





4. 22. 4 Antenna Active Data Table:

Protocol Mode	Bandwidth Rate	Channel	TRP	TIS	Remark
802.11b 2.4G	11M	1	19.37	-82.73	
		6	18.92	-84.12	
		11	18.41	-84.72	
802.11g 2.4G	54M	1	15.82	-67.64	
		6	15.97	-69.86	
		11	15.85	-70.27	
802.11n 2.4G	MSC7	1	16.39	-65.37	
		6	16.17	-66.22	
		11	15.90	-67.10	
802.11a 5.8G	54M	149	15.06	-72.94	
		157	15.71	-72.37	
		165	14.31	-71.52	

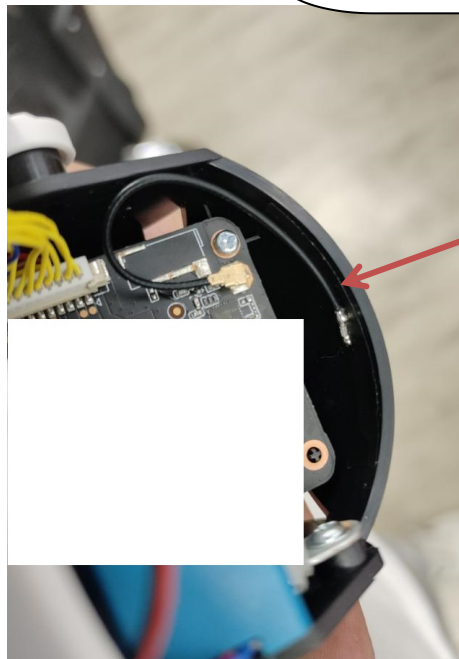


4.22.5 Antenna sticking position

K33 Antenna stickers



In the figure, the left edge of the antenna is aligned with the edge of the shell. The upper edge of the antenna is just opposite to the upper left corner.



**K32 Antenna stickers
here**



5. Product Packaging

Manner of packing:

Packed in self sealed bags, 200 pcs each.

6. Document Resume

Document No.	
Release Date	2024/11/25
Author	XiofengZeng
Review	LiMing

Revised History

Date	Version	Revised Record
2024/11/25	1.00	New Project