

深圳卓创智能科技有限公司

样品承认

供应商名称：深圳市亿圣邦科技有限公司

卓创机型：ANB09

卓创料号：

物料型号：WIFIMAIN:SLK-ZC-2821A-R-110IV-B

WIFIAUX: SLK-ZC-2821B-L-125IV-G

送样日期：2024-4-22

备 注：

卓创确认	单位	结构研发	项目	NPI	审核	
	签章					
卓创意见						
供应商确认	单位	业务	结构研发	电子研发	品质	盖章
	签章					

承认书一式三份签字盖章（封面+骑缝章）

2023 年 02 版

深圳市亿圣邦科技有限公司
样品承认书

SPECIFICATION FOR APPROVAL

公 司 名 称 (客户填写) : 深圳卓创智能科技有限公司
物 料 代 码 (客户填写) :
规 格 型 号 (客户填写) : ANB09
承 认 日 期 (客户填写) :
供 应 商 名 称 (SLK 填写) : 深圳市亿圣邦科技有限公司
供 应 商 规 格 型 号 (SLK 填写) : WIFIMAIN:SLK-ZC-2821A-R-110IV-B
WIFIAUX: SLK-ZC-2821B-L-125IV-G

承 认 签 章					
供 应 商 承 认 (SLK 填写栏)			深圳卓创智能科技有限公司		
工 程 师	审 核	批 准	工 程 师	审 核	批 准
陈仕联	黄震	林美财			
盖章签署			盖章签署		
日 期	2024-4-22		日 期		
批示: ☐ 接受 ☐ 有条件接受					
备注 (客户填写) :					

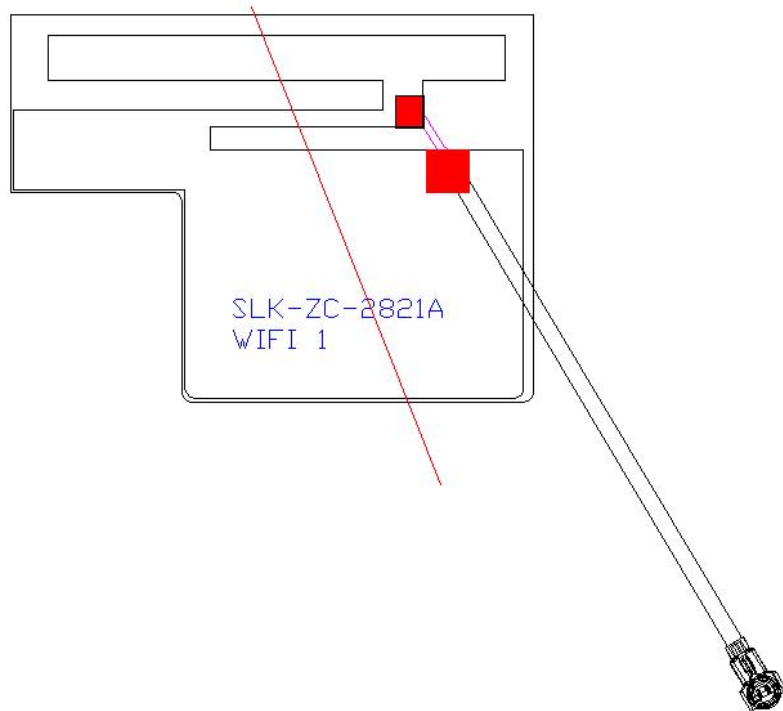
供应商名称: 深圳市亿圣邦科技有限公司
供应商地址: 深圳市宝安区深圳前湾硬科技产业园 C 栋 101
电 话: 18025305599 电 话: 18666299104

WIFI MAIN Antenna (2821A)

1. Explanation of Product number :

S L K - Z C - 2 8 2 1 A - R - 1 1 0 I V - B

1 2 3 4 5



Product Code:

(1) Customer:

ZC:卓创

(2) Project:

2821A: SLK-ZC-2821A (WIFI MAIN antenna)

(3) Welding Position

R: Right

(4) Cable Length:

110: 110IV*1.13MM四代端子

(5)Cable Color

B: Black

2. Features

*Stable and reliable in performances

*Compact size

*RoHS compliance

3. Applications

- * IEEE802.11 (a/b/g/n)
- * Hand-held devices when WIFI (802.11a/b/g/n) functions are needed

4. Description

Holy bond's FPC antenna series are specially designed for WIFI (802.11 a/b/g/n) applications. Based on Holy bond's proprietary design and processes, this FPC antenna has excellent stability and sensitivity to consistently provide high signal reception efficiency.

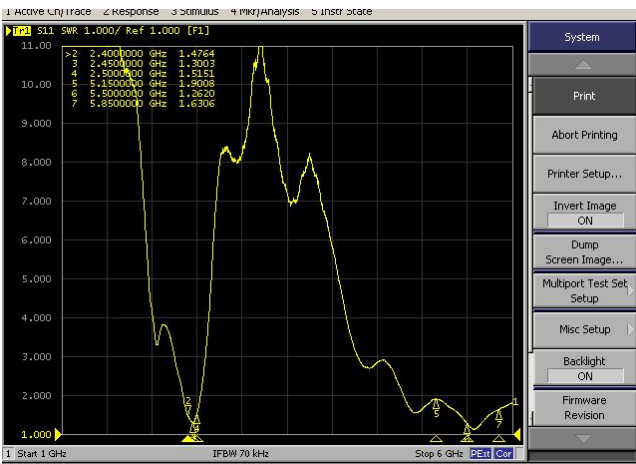
5. Electrical Specifications

5-1

Characteristics	Specifications	Unit
Outline Dimensions	28.4x21.09x 0.6	mm
Center Frequency	2.4-2.5-5.15-5.85	GHz
Bandwidth(under-10dB return loss)	130min	MHz
VSWR	3max	

5-2.

VSWR

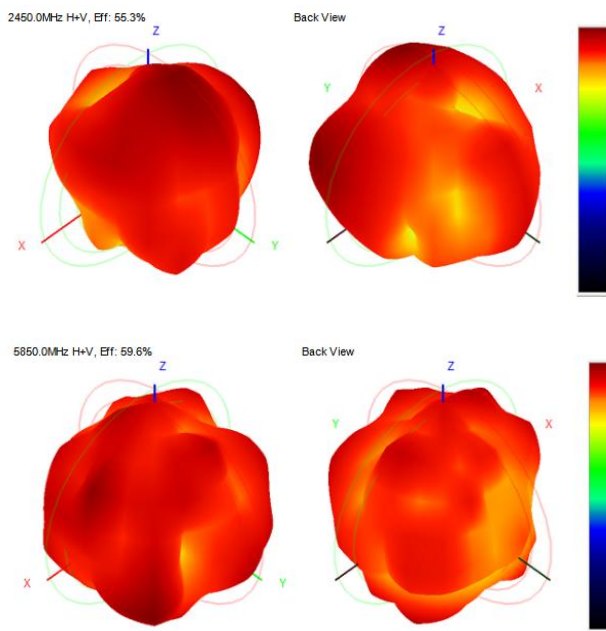


S11



5-3.WIFI +BT Antenna Gain/Efficiency/Radiation Pattern of 3D

Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)
2400	-2.67	2.73	54.09
2410	-2.62	2.98	54.73
2420	-2.15	3.67	60.94
2430	-2.36	3.48	58.13
2440	-2.36	3.56	58.09
2450	-2.57	3.46	55.31
2460	-2.29	3.89	59.08
2470	-2.70	3.56	53.68
2480	-2.84	3.04	52.00
2490	-2.69	2.72	53.84
2500	-2.58	2.54	55.15
5150	-3.02	3.11	49.86
5350	-2.32	2.71	58.62
5550	-2.43	3.24	57.17
5750	-2.25	3.25	59.57
5850	-2.25	3.17	59.55



Interval	Transfer	Bandwidth
26.0-27.0 sec	2.85 Mbytes	22.2 Mbits/sec
27.0-28.0 sec	12.1 Mbytes	102 Mbits/sec
28.0-29.0 sec	2.80 Mbytes	23.5 Mbits/sec
29.0-30.0 sec	2.09 Mbytes	17.6 Mbits/sec
30.0-31.0 sec	2.34 Mbytes	19.6 Mbits/sec
31.0-32.0 sec	2.99 Mbytes	25.1 Mbits/sec
32.0-33.0 sec	2.89 Mbytes	24.2 Mbits/sec
33.0-34.0 sec	13.1 Mbytes	110 Mbits/sec
34.0-35.0 sec	3.29 Mbytes	27.6 Mbits/sec
35.0-36.0 sec	3.02 Mbytes	25.3 Mbits/sec
36.0-37.0 sec	3.34 Mbytes	28.0 Mbits/sec
37.0-38.0 sec	3.01 Mbytes	25.2 Mbits/sec
38.0-39.0 sec	3.02 Mbytes	25.3 Mbits/sec
39.0-40.0 sec	15.7 Mbytes	131 Mbits/sec
40.0-41.0 sec	3.17 Mbytes	26.6 Mbits/sec
41.0-42.0 sec	3.55 Mbytes	29.8 Mbits/sec
42.0-43.0 sec	3.05 Mbytes	25.6 Mbits/sec
43.0-44.0 sec	2.90 Mbytes	24.3 Mbits/sec
44.0-45.0 sec	3.01 Mbytes	25.2 Mbits/sec
45.0-46.0 sec	15.7 Mbytes	132 Mbits/sec
Interval	Transfer	Bandwidth
0.0-30.0 sec	107 Mbytes	29.7 Mbits/sec
27.0-30.0 sec	108 Mbytes	30.0 Mbits/sec
28.0-30.0 sec	105 Mbytes	29.0 Mbits/sec
29.0-30.0 sec	106 Mbytes	29.5 Mbits/sec
30.0-30.0 sec	101 Mbytes	27.9 Mbits/sec
31.0-30.0 sec	827 Mbytes	146 Mbits/sec

2.4G吞吐量测试-10米下载
平均值146

Interval	Transfer	Bandwidth
26.0-27.0 sec	2.85 Mbytes	22.2 Mbits/sec
27.0-28.0 sec	12.1 Mbytes	102 Mbits/sec
28.0-29.0 sec	2.80 Mbytes	23.5 Mbits/sec
29.0-30.0 sec	2.09 Mbytes	17.6 Mbits/sec
30.0-31.0 sec	2.34 Mbytes	19.6 Mbits/sec
31.0-32.0 sec	2.99 Mbytes	25.1 Mbits/sec
32.0-33.0 sec	2.89 Mbytes	24.2 Mbits/sec
33.0-34.0 sec	13.1 Mbytes	110 Mbits/sec
34.0-35.0 sec	3.29 Mbytes	27.6 Mbits/sec
35.0-36.0 sec	3.02 Mbytes	25.3 Mbits/sec
36.0-37.0 sec	3.34 Mbytes	28.0 Mbits/sec
37.0-38.0 sec	3.01 Mbytes	25.2 Mbits/sec
38.0-39.0 sec	3.02 Mbytes	25.3 Mbits/sec
39.0-40.0 sec	15.7 Mbytes	131 Mbits/sec
40.0-41.0 sec	3.17 Mbytes	26.6 Mbits/sec
41.0-42.0 sec	3.55 Mbytes	29.8 Mbits/sec
42.0-43.0 sec	3.05 Mbytes	25.6 Mbits/sec
43.0-44.0 sec	2.90 Mbytes	24.3 Mbits/sec
44.0-45.0 sec	3.01 Mbytes	25.2 Mbits/sec
45.0-46.0 sec	15.7 Mbytes	132 Mbits/sec
Interval	Transfer	Bandwidth
0.0-30.0 sec	107 Mbytes	29.7 Mbits/sec
27.0-30.0 sec	108 Mbytes	30.0 Mbits/sec
28.0-30.0 sec	105 Mbytes	29.0 Mbits/sec
29.0-30.0 sec	106 Mbytes	29.5 Mbits/sec
30.0-30.0 sec	101 Mbytes	27.9 Mbits/sec
31.0-30.0 sec	827 Mbytes	146 Mbits/sec

2.4G吞吐量测试-10米上传
平均值119

Interval	Transfer	Bandwidth
26.0-27.0 sec	16.5 Mbytes	138 Mbits/sec
27.0-28.0 sec	88.9 Mbytes	746 Mbits/sec
28.0-29.0 sec	17.0 Mbytes	142 Mbits/sec
29.0-30.0 sec	22.1 Mbytes	185 Mbits/sec
30.0-31.0 sec	16.0 Mbytes	135 Mbits/sec
31.0-32.0 sec	21.1 Mbytes	177 Mbits/sec
32.0-33.0 sec	92.2 Mbytes	773 Mbits/sec
33.0-34.0 sec	25.7 Mbytes	216 Mbits/sec
34.0-35.0 sec	23.8 Mbytes	200 Mbits/sec
35.0-36.0 sec	18.2 Mbytes	153 Mbits/sec
36.0-37.0 sec	18.5 Mbytes	155 Mbits/sec
37.0-38.0 sec	18.0 Mbytes	151 Mbits/sec
38.0-39.0 sec	104 Mbytes	875 Mbits/sec
39.0-40.0 sec	18.4 Mbytes	154 Mbits/sec
40.0-41.0 sec	22.8 Mbytes	191 Mbits/sec
41.0-42.0 sec	17.8 Mbytes	150 Mbits/sec
42.0-43.0 sec	18.6 Mbytes	156 Mbits/sec
43.0-44.0 sec	24.3 Mbytes	204 Mbits/sec
44.0-45.0 sec	102 Mbytes	855 Mbits/sec
Interval	Transfer	Bandwidth
0.0-30.0 sec	519 Mbytes	145 Mbits/sec
27.0-30.0 sec	538 Mbytes	150 Mbits/sec
28.0-30.0 sec	717 Mbytes	200 Mbits/sec
29.0-30.0 sec	674 Mbytes	188 Mbits/sec
30.0-30.0 sec	506 Mbytes	141 Mbits/sec
31.0-30.0 sec	2.88 Gbytes	825 Mbits/sec

5G吞吐量测试-10米下载
平均值825

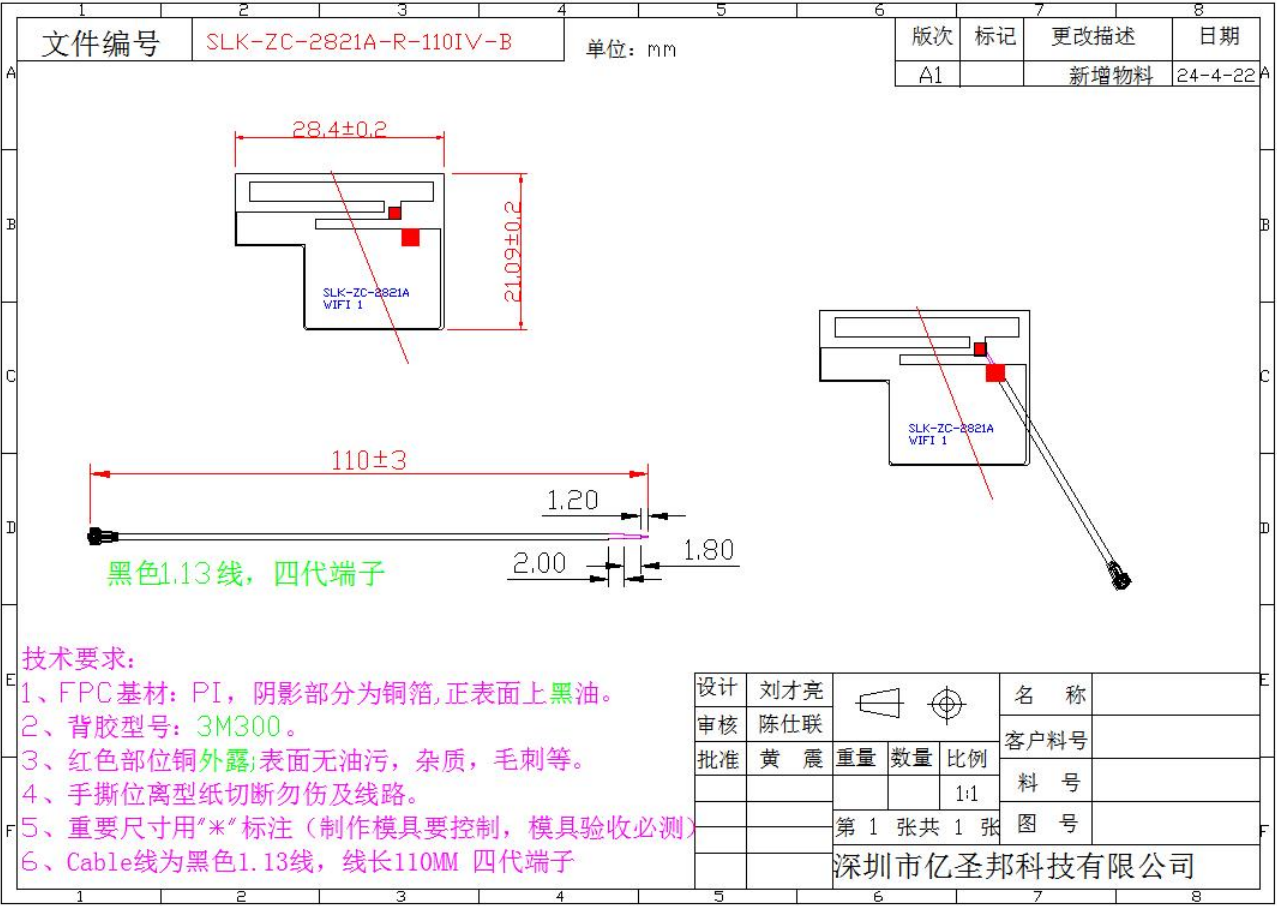
2.4G 十米下载

Interval	Transfer	Bandwidth
26.0-27.0 sec	19.4 Mbytes	162 Mbits/sec
27.0-28.0 sec	91.7 Mbytes	760 Mbits/sec
28.0-29.0 sec	16.4 Mbytes	138 Mbits/sec
29.0-30.0 sec	17.0 Mbytes	142 Mbits/sec
30.0-31.0 sec	16.6 Mbytes	140 Mbits/sec
31.0-32.0 sec	11.7 Mbytes	115 Mbits/sec
32.0-33.0 sec	17.2 Mbytes	144 Mbits/sec
33.0-34.0 sec	80.9 Mbytes	678 Mbits/sec
34.0-35.0 sec	18.4 Mbytes	154 Mbits/sec
35.0-36.0 sec	16.5 Mbytes	139 Mbits/sec
36.0-37.0 sec	16.1 Mbytes	135 Mbits/sec
37.0-38.0 sec	19.4 Mbytes	163 Mbits/sec
38.0-39.0 sec	19.8 Mbytes	166 Mbits/sec
39.0-40.0 sec	92.6 Mbytes	777 Mbits/sec
40.0-41.0 sec	21.6 Mbytes	181 Mbits/sec
41.0-42.0 sec	16.5 Mbytes	140 Mbits/sec
42.0-43.0 sec	21.3 Mbytes	179 Mbits/sec
43.0-44.0 sec	30.4 Mbytes	257 Mbits/sec
44.0-45.0 sec	20.4 Mbytes	171 Mbits/sec
45.0-46.0 sec	20.4 Mbytes	171 Mbits/sec
46.0-47.0 sec	100 Mbytes	841 Mbits/sec
Interval	Transfer	Bandwidth
0.0-30.0 sec	540 Mbytes	153 Mbits/sec
27.0-30.0 sec	544 Mbytes	152 Mbits/sec
28.0-30.0 sec	542 Mbytes	151 Mbits/sec
29.0-30.0 sec	551 Mbytes	154 Mbits/sec
30.0-30.0 sec	440 Mbytes	125 Mbits/sec
31.0-30.0 sec	2.37 Gbytes	736 Mbits/sec

5G吞吐量测试-10米上传
平均值736

2.4G 十米上传

6. Antenna Dimensions (unit: mm)

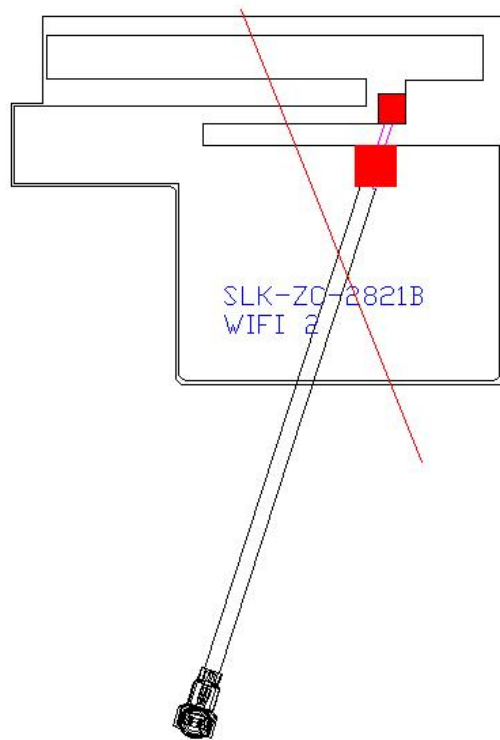


WIFI AUX Antenna (2821B)

1. Explanation of Product number :

S L K - Z C - 2 8 2 1 B - L - 1 2 5 I V - G

1 2 3 4 5



Product Code:

(1) Customer:

ZC:卓创

(2) Project:

2821B: SLK-ZC-2821B (WIFI AUX antenna)

(3) Welding Position

L: Left

(4) Cable Length:

125: 125IV*1.13MM四代端子

(5)Cable Color

G: Gray

2. Features

- *Stable and reliable in performances
- *Compact size
- *RoHS compliance

3. Applications

- * IEEE802.11 (a/b/g/n)
- * Hand-held devices when WIFI (802.11a/b/g/n) functions are needed

4. Description

Holy bond’s FPC antenna series are specially designed for WIFI (802.11 a/b/g/n) applications. Based on Holy bond’s proprietary design and processes, this FPC antenna has excellent stability and sensitivity to consistently provide high signal reception efficiency.

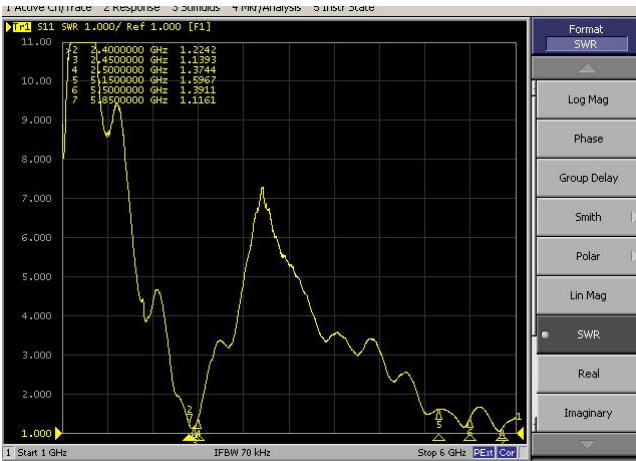
5. Electrical Specifications

5-1

Characteristics	Specifications	Unit
Outline Dimensions	28.5x21.09x 0.6	mm
Center Frequency	2.4-2.5-5.15-5.85	GHz
Bandwidth(under-10dB return loss)	130min	MHz
VSWR	3max	

5-2.

VSWR

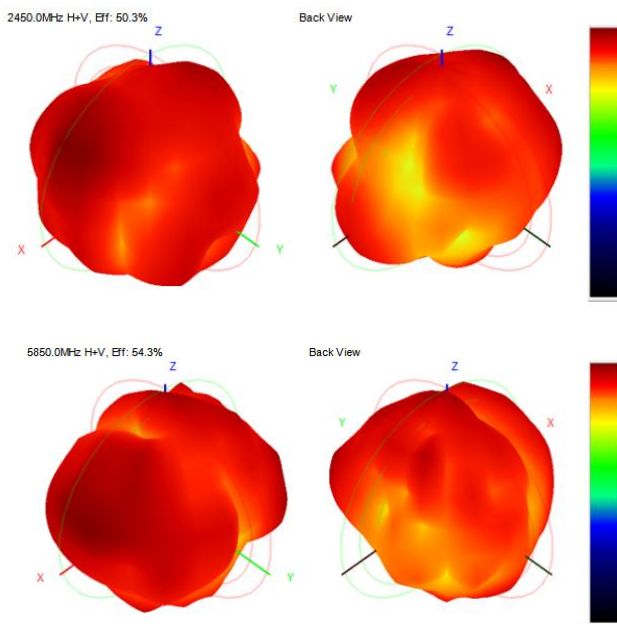


S11



5-3.WIFI +BT Antenna Gain/Efficiency/Radiation Pattern of 3D

Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)
2400	-3.20	2.29	47.91
2410	-3.41	2.25	45.59
2420	-3.19	2.42	48.02
2430	-3.09	2.19	49.05
2440	-2.89	2.30	51.42
2450	-2.99	2.25	50.27
2460	-2.77	2.30	52.81
2470	-2.83	2.19	52.08
2480	-2.81	1.99	52.34
2490	-2.62	1.95	54.67
2500	-2.70	1.96	53.70
5150	-4.11	2.17	38.79
5350	-3.80	1.45	41.69
5550	-3.53	1.68	44.34
5750	-2.93	2.34	50.90
5850	-2.65	2.45	54.29



Interval	Transfer	Bandwidth
26.0-27.0 sec	2.85 Mbytes	22.2 Mbits/sec
27.0-28.0 sec	12.1 Mbytes	102 Mbits/sec
28.0-29.0 sec	2.80 Mbytes	23.5 Mbits/sec
29.0-30.0 sec	2.09 Mbytes	17.6 Mbits/sec
30.0-31.0 sec	2.34 Mbytes	19.6 Mbits/sec
31.0-32.0 sec	2.99 Mbytes	25.1 Mbits/sec
32.0-33.0 sec	2.89 Mbytes	24.2 Mbits/sec
33.0-34.0 sec	13.1 Mbytes	110 Mbits/sec
34.0-35.0 sec	3.29 Mbytes	27.6 Mbits/sec
35.0-36.0 sec	3.02 Mbytes	25.3 Mbits/sec
36.0-37.0 sec	3.34 Mbytes	28.0 Mbits/sec
37.0-38.0 sec	3.01 Mbytes	25.2 Mbits/sec
38.0-39.0 sec	3.02 Mbytes	25.3 Mbits/sec
39.0-40.0 sec	15.7 Mbytes	131 Mbits/sec
40.0-41.0 sec	3.17 Mbytes	26.6 Mbits/sec
41.0-42.0 sec	3.55 Mbytes	29.8 Mbits/sec
42.0-43.0 sec	3.05 Mbytes	25.6 Mbits/sec
43.0-44.0 sec	2.90 Mbytes	24.3 Mbits/sec
44.0-45.0 sec	3.01 Mbytes	25.2 Mbits/sec
45.0-46.0 sec	15.7 Mbytes	132 Mbits/sec
Interval	Transfer	Bandwidth
0.0-30.0 sec	107 Mbytes	23.7 Mbits/sec
27.0-30.0 sec	108 Mbytes	30.0 Mbits/sec
28.0-30.0 sec	105 Mbytes	29.0 Mbits/sec
29.0-30.0 sec	106 Mbytes	29.5 Mbits/sec
30.0-30.0 sec	101 Mbytes	27.9 Mbits/sec
31.0-30.0 sec	827 Mbytes	146 Mbits/sec

2.4G吞吐量测试-10米下载
平均值146

Interval	Transfer	Bandwidth
26.0-27.0 sec	2.85 Mbytes	22.2 Mbits/sec
27.0-28.0 sec	12.1 Mbytes	102 Mbits/sec
28.0-29.0 sec	2.80 Mbytes	23.5 Mbits/sec
29.0-30.0 sec	2.09 Mbytes	17.6 Mbits/sec
30.0-31.0 sec	2.34 Mbytes	19.6 Mbits/sec
31.0-32.0 sec	2.99 Mbytes	25.1 Mbits/sec
32.0-33.0 sec	2.89 Mbytes	24.2 Mbits/sec
33.0-34.0 sec	13.1 Mbytes	110 Mbits/sec
34.0-35.0 sec	3.29 Mbytes	27.6 Mbits/sec
35.0-36.0 sec	3.02 Mbytes	25.3 Mbits/sec
36.0-37.0 sec	3.34 Mbytes	28.0 Mbits/sec
37.0-38.0 sec	3.01 Mbytes	25.2 Mbits/sec
38.0-39.0 sec	3.02 Mbytes	25.3 Mbits/sec
39.0-40.0 sec	15.7 Mbytes	131 Mbits/sec
40.0-41.0 sec	3.17 Mbytes	26.6 Mbits/sec
41.0-42.0 sec	3.55 Mbytes	29.8 Mbits/sec
42.0-43.0 sec	3.05 Mbytes	25.6 Mbits/sec
43.0-44.0 sec	2.90 Mbytes	24.3 Mbits/sec
44.0-45.0 sec	3.01 Mbytes	25.2 Mbits/sec
45.0-46.0 sec	15.7 Mbytes	132 Mbits/sec
Interval	Transfer	Bandwidth
0.0-30.0 sec	107 Mbytes	23.7 Mbits/sec
27.0-30.0 sec	108 Mbytes	30.0 Mbits/sec
28.0-30.0 sec	105 Mbytes	29.0 Mbits/sec
29.0-30.0 sec	106 Mbytes	29.5 Mbits/sec
30.0-30.0 sec	101 Mbytes	27.9 Mbits/sec
31.0-30.0 sec	827 Mbytes	146 Mbits/sec

2.4G吞吐量测试-10米上传
平均值119

Interval	Transfer	Bandwidth
26.0-27.0 sec	16.5 Mbytes	138 Mbits/sec
27.0-28.0 sec	88.9 Mbytes	746 Mbits/sec
28.0-29.0 sec	17.0 Mbytes	142 Mbits/sec
29.0-30.0 sec	22.1 Mbytes	185 Mbits/sec
30.0-31.0 sec	16.0 Mbytes	135 Mbits/sec
31.0-32.0 sec	21.1 Mbytes	177 Mbits/sec
32.0-33.0 sec	92.2 Mbytes	773 Mbits/sec
33.0-34.0 sec	25.7 Mbytes	216 Mbits/sec
34.0-35.0 sec	23.8 Mbytes	200 Mbits/sec
35.0-36.0 sec	18.2 Mbytes	153 Mbits/sec
36.0-37.0 sec	18.5 Mbytes	155 Mbits/sec
37.0-38.0 sec	18.0 Mbytes	151 Mbits/sec
38.0-39.0 sec	104 Mbytes	875 Mbits/sec
39.0-40.0 sec	18.4 Mbytes	154 Mbits/sec
40.0-41.0 sec	22.8 Mbytes	191 Mbits/sec
41.0-42.0 sec	17.8 Mbytes	150 Mbits/sec
42.0-43.0 sec	18.6 Mbytes	156 Mbits/sec
43.0-44.0 sec	24.3 Mbytes	204 Mbits/sec
44.0-45.0 sec	102 Mbytes	855 Mbits/sec
Interval	Transfer	Bandwidth
0.0-30.0 sec	519 Mbytes	145 Mbits/sec
27.0-30.0 sec	538 Mbytes	150 Mbits/sec
28.0-30.0 sec	717 Mbytes	200 Mbits/sec
29.0-30.0 sec	674 Mbytes	188 Mbits/sec
30.0-30.0 sec	506 Mbytes	141 Mbits/sec
31.0-30.0 sec	2.88 Gbytes	825 Mbits/sec

5G吞吐量测试-10米下载
平均值825

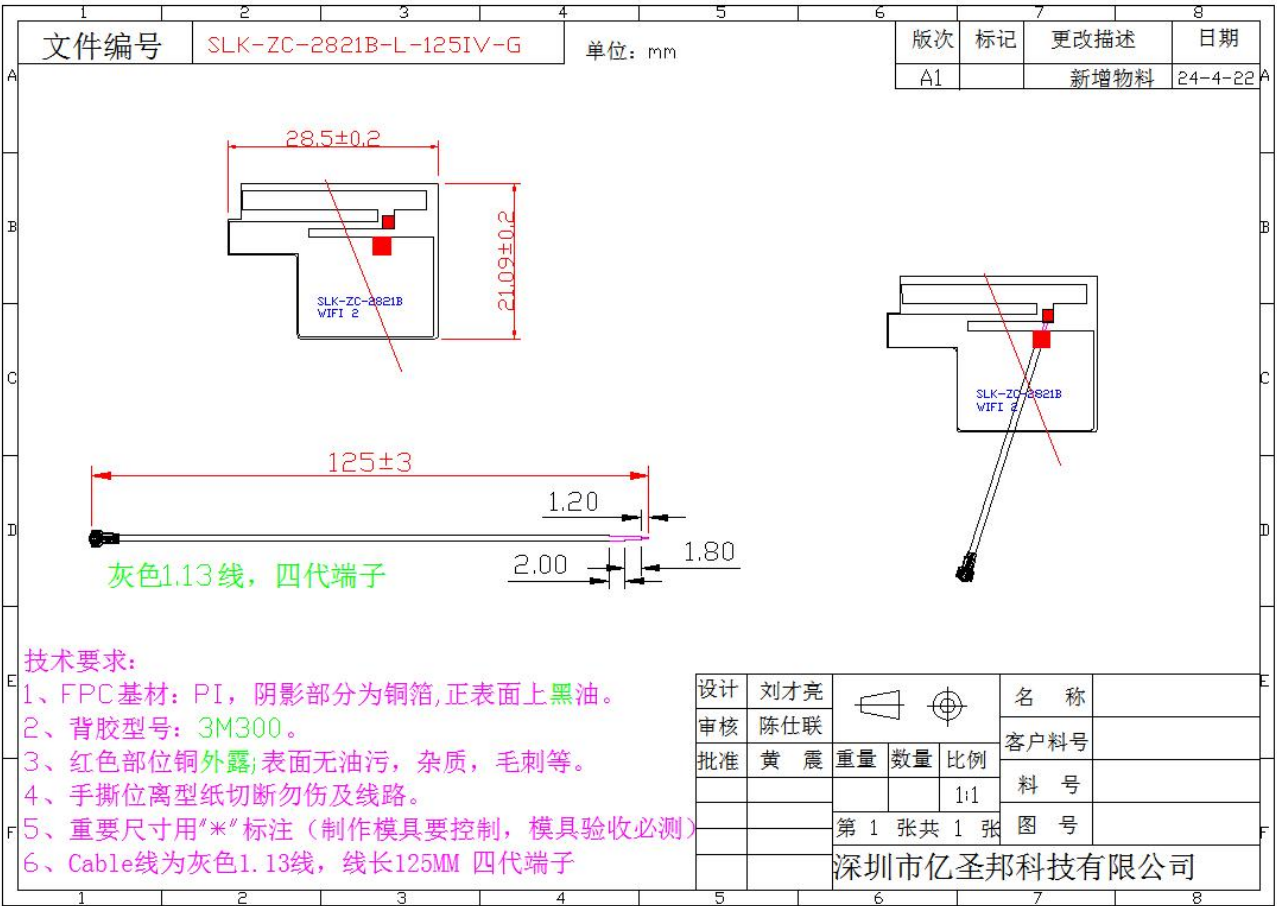
2.4G 十米下载

Interval	Transfer	Bandwidth
26.0-27.0 sec	16.5 Mbytes	138 Mbits/sec
27.0-28.0 sec	88.9 Mbytes	746 Mbits/sec
28.0-29.0 sec	17.0 Mbytes	142 Mbits/sec
29.0-30.0 sec	22.1 Mbytes	185 Mbits/sec
30.0-31.0 sec	16.0 Mbytes	135 Mbits/sec
31.0-32.0 sec	21.1 Mbytes	177 Mbits/sec
32.0-33.0 sec	92.2 Mbytes	773 Mbits/sec
33.0-34.0 sec	25.7 Mbytes	216 Mbits/sec
34.0-35.0 sec	23.8 Mbytes	200 Mbits/sec
35.0-36.0 sec	18.2 Mbytes	153 Mbits/sec
36.0-37.0 sec	18.5 Mbytes	155 Mbits/sec
37.0-38.0 sec	18.0 Mbytes	151 Mbits/sec
38.0-39.0 sec	104 Mbytes	875 Mbits/sec
39.0-40.0 sec	18.4 Mbytes	154 Mbits/sec
40.0-41.0 sec	22.8 Mbytes	191 Mbits/sec
41.0-42.0 sec	17.8 Mbytes	150 Mbits/sec
42.0-43.0 sec	18.6 Mbytes	156 Mbits/sec
43.0-44.0 sec	24.3 Mbytes	204 Mbits/sec
44.0-45.0 sec	102 Mbytes	855 Mbits/sec
Interval	Transfer	Bandwidth
0.0-30.0 sec	519 Mbytes	145 Mbits/sec
27.0-30.0 sec	538 Mbytes	150 Mbits/sec
28.0-30.0 sec	717 Mbytes	200 Mbits/sec
29.0-30.0 sec	674 Mbytes	188 Mbits/sec
30.0-30.0 sec	506 Mbytes	141 Mbits/sec
31.0-30.0 sec	2.88 Gbytes	825 Mbits/sec

5G吞吐量测试-10米上传
平均值736

2.4G 十米上传

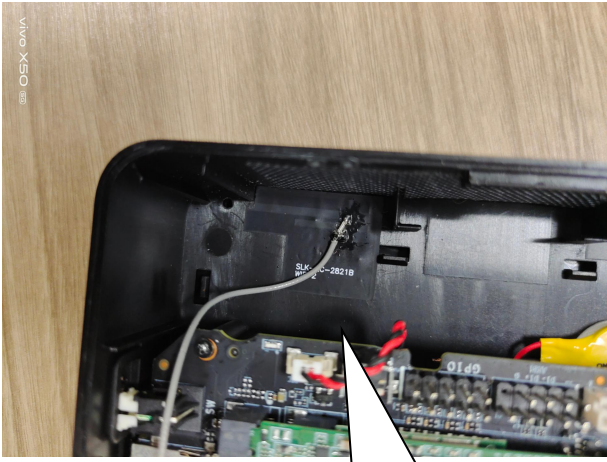
6. Antenna Dimensions (unit: mm)



7. Antenna Picture



WIFI 主天线



WIFI 分集天线