

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：N156MU3-AN168

卓创料号：

物料型号：WIFIMAIN:SLK-ZC-P9409A-R-270IV-B

WIFIAUX:SLK-ZC-P9409A-R-220IV-G

送样日期：2023-12-21

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) : N156MU3-AN168
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-P9409A-R-270IV-B
WIFIAUX:SLK-ZC-P9409A-R-220IV-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	2023-12-21		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 (P9409A)

1. Explanation of Product number :

S L K - Z C - P 9 4 0 9 A - R - 2 7 0 I V - B

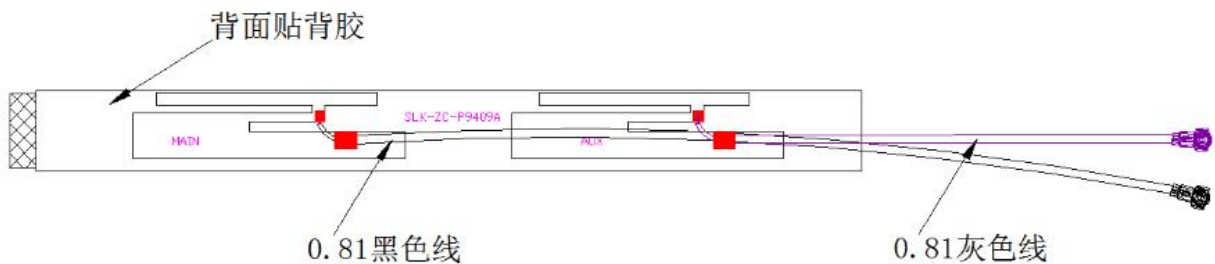
1

2

3

4

5



Product Code:

(1) Customer:

ZC:卓创

(2) Project:

P9409A: SLK-ZC-P9409A (WIFIMAIN antenna)

(3) Welding Position

R: Right

(4) Cable Length:

270: 270IV*0.81MM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	94.5x9.2x 0.12	mm
Center Frequency	2.4-2.5-5.15-5.85	GHz
Bandwidth(under-10dB return loss)	130min	MHz
VSWR	3max	

5-2.

VSWR

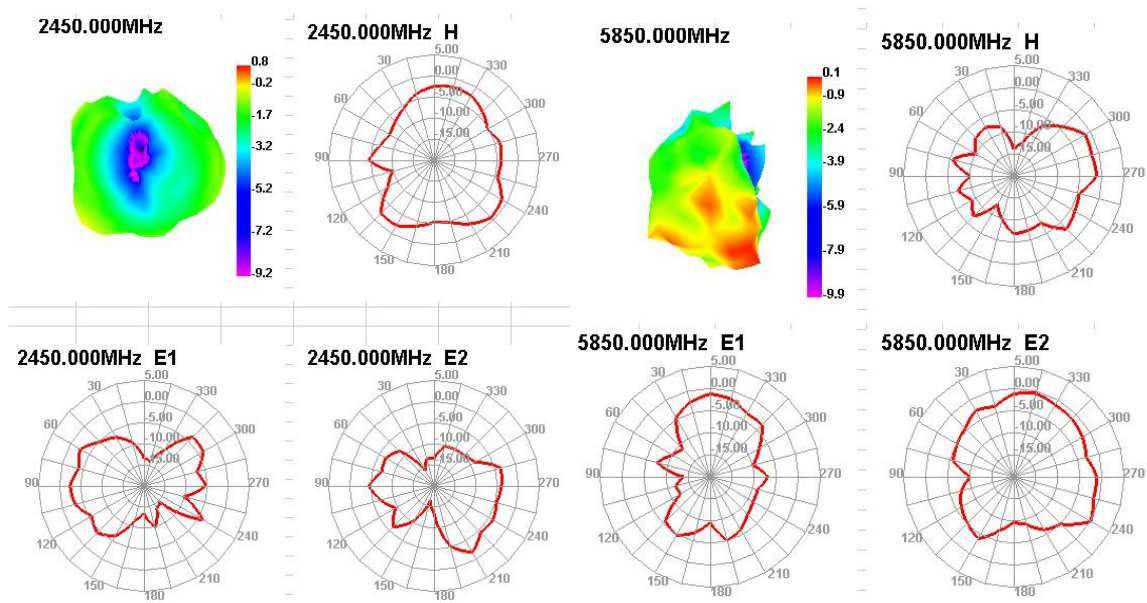


S11



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

Frequency(MHz)	Efficiency (%)	Average Gain(dB)	Peak GAIN (dBi)
2400	30.01	-5.23	0.51
2410	31.99	-4.95	1.04
2420	31.1	-5.07	-0.51
2430	33.54	-4.74	1.09
2440	31.86	-4.97	0.32
2450	33.37	-4.77	0.84
2460	32.63	-4.86	0.84
2470	32.73	-4.85	0.98
2480	33.94	-4.69	1.26
2490	34.54	-4.62	1.17
2500	33.67	-4.73	1.13
5150	37.8	-4.23	0.97
5350	36.82	-4.34	1.93
5550	41.95	-3.77	2.66
5750	35.31	-4.52	1.09
5850	34.77	-4.59	0.09



ID	Interval	Transfer	Bandwidth
[276]	4.0-5.0 sec	12.6 MBytes	108 Mbits/sec
[276]	5.0-6.0 sec	12.0 MBytes	101 Mbits/sec
[276]	6.0-7.0 sec	11.7 MBytes	98.0 Mbits/sec
[276]	7.0-8.0 sec	11.2 MBytes	93.7 Mbits/sec
[276]	8.0-9.0 sec	11.5 MBytes	96.2 Mbits/sec
[276]	9.0-10.0 sec	12.6 MBytes	105 Mbits/sec
[276]	10.0-11.0 sec	12.6 MBytes	105 Mbits/sec
[276]	11.0-12.0 sec	11.6 MBytes	97.5 Mbits/sec
[276]	12.0-13.0 sec	12.4 MBytes	104 Mbits/sec
[276]	13.0-14.0 sec	12.4 MBytes	104 Mbits/sec
[276]	14.0-15.0 sec	13.0 MBytes	109 Mbits/sec
[276]	15.0-16.0 sec	12.8 MBytes	108 Mbits/sec
[276]	16.0-17.0 sec	12.3 MBytes	104 Mbits/sec
[276]	17.0-18.0 sec	13.0 MBytes	109 Mbits/sec
[276]	18.0-19.0 sec	11.2 MBytes	93.9 Mbits/sec
[276]	19.0-20.0 sec	13.0 MBytes	109 Mbits/sec
Interval Transfer Bandwidth			
[276]	20.0-21.0 sec	13.1 MBytes	110 Mbits/sec
[276]	21.0-22.0 sec	13.0 MBytes	109 Mbits/sec
[276]	22.0-23.0 sec	12.7 MBytes	107 Mbits/sec
[276]	23.0-24.0 sec	12.9 MBytes	108 Mbits/sec
[276]	24.0-25.0 sec	12.9 MBytes	108 Mbits/sec
[276]	25.0-26.0 sec	12.9 MBytes	108 Mbits/sec
[276]	26.0-27.0 sec	12.8 MBytes	107 Mbits/sec
[276]	27.0-28.0 sec	12.7 MBytes	106 Mbits/sec
[276]	28.0-29.0 sec	12.7 MBytes	106 Mbits/sec
[276]	29.0-30.0 sec	12.8 MBytes	107 Mbits/sec
[276]	0.0-30.1 sec	372 MBytes	104 Mbits/sec

2.4G 十米下载

ID	Interval	Transfer	Bandwidth
[364]	5.0-6.0 sec	10.3 MBytes	86.2 Mbits/sec
[364]	6.0-7.0 sec	11.3 MBytes	94.8 Mbits/sec
[364]	7.0-8.0 sec	10.5 MBytes	88.4 Mbits/sec
[364]	8.0-9.0 sec	11.3 MBytes	94.4 Mbits/sec
[364]	9.0-10.0 sec	10.8 MBytes	90.6 Mbits/sec
[364]	10.0-11.0 sec	10.2 MBytes	85.4 Mbits/sec
[364]	11.0-12.0 sec	11.0 MBytes	91.9 Mbits/sec
[364]	12.0-13.0 sec	11.0 MBytes	92.5 Mbits/sec
[364]	13.0-14.0 sec	10.5 MBytes	88.2 Mbits/sec
[364]	14.0-15.0 sec	11.4 MBytes	95.2 Mbits/sec
[364]	15.0-16.0 sec	11.4 MBytes	95.9 Mbits/sec
[364]	16.0-17.0 sec	9.99 MBytes	83.8 Mbits/sec
[364]	17.0-18.0 sec	11.3 MBytes	95.2 Mbits/sec
[364]	18.0-19.0 sec	10.9 MBytes	91.6 Mbits/sec
[364]	19.0-20.0 sec	10.8 MBytes	90.6 Mbits/sec
Interval Transfer Bandwidth			
[364]	20.0-21.0 sec	10.8 MBytes	90.8 Mbits/sec
[364]	21.0-22.0 sec	11.1 MBytes	92.8 Mbits/sec
[364]	22.0-23.0 sec	9.74 MBytes	81.7 Mbits/sec
[364]	23.0-24.0 sec	10.0 MBytes	84.0 Mbits/sec
[364]	24.0-25.0 sec	9.41 MBytes	79.0 Mbits/sec
[364]	25.0-26.0 sec	10.6 MBytes	88.5 Mbits/sec
[364]	26.0-27.0 sec	11.0 MBytes	92.5 Mbits/sec
[364]	27.0-28.0 sec	10.6 MBytes	89.1 Mbits/sec
[364]	28.0-29.0 sec	11.0 MBytes	92.6 Mbits/sec
[364]	29.0-30.0 sec	11.2 MBytes	94.1 Mbits/sec
[364]	0.0-30.1 sec	316 MBytes	88.1 Mbits/sec

2.4G 十米上传

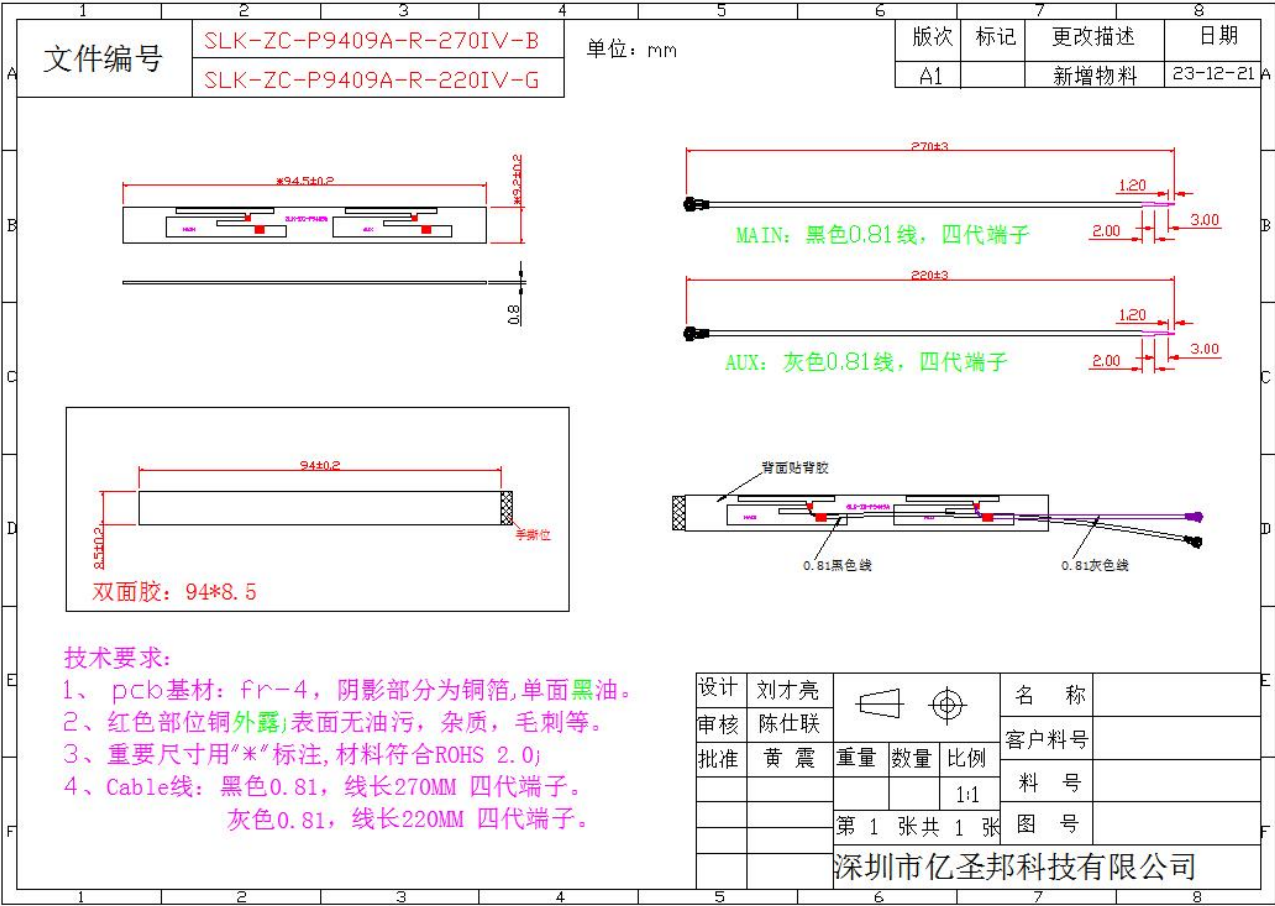
ID	Interval	Transfer	Bandwidth
[276]	4.0-5.0 sec	21.7 MBytes	182 Mbits/sec
[276]	5.0-6.0 sec	22.4 MBytes	187 Mbits/sec
[276]	6.0-7.0 sec	22.7 MBytes	191 Mbits/sec
[276]	7.0-8.0 sec	20.9 MBytes	175 Mbits/sec
[276]	8.0-9.0 sec	21.4 MBytes	180 Mbits/sec
[276]	9.0-10.0 sec	22.6 MBytes	189 Mbits/sec
[276]	10.0-11.0 sec	22.3 MBytes	187 Mbits/sec
[276]	11.0-12.0 sec	22.8 MBytes	191 Mbits/sec
[276]	12.0-13.0 sec	23.1 MBytes	193 Mbits/sec
[276]	13.0-14.0 sec	22.8 MBytes	191 Mbits/sec
[276]	14.0-15.0 sec	23.9 MBytes	201 Mbits/sec
[276]	15.0-16.0 sec	23.8 MBytes	200 Mbits/sec
[276]	16.0-17.0 sec	23.3 MBytes	195 Mbits/sec
[276]	17.0-18.0 sec	22.3 MBytes	187 Mbits/sec
[276]	18.0-19.0 sec	21.7 MBytes	182 Mbits/sec
[276]	19.0-20.0 sec	24.2 MBytes	203 Mbits/sec
Interval Transfer Bandwidth			
[276]	20.0-21.0 sec	22.4 MBytes	188 Mbits/sec
[276]	21.0-22.0 sec	23.4 MBytes	196 Mbits/sec
[276]	22.0-23.0 sec	19.8 MBytes	166 Mbits/sec
[276]	23.0-24.0 sec	24.2 MBytes	203 Mbits/sec
[276]	24.0-25.0 sec	22.5 MBytes	189 Mbits/sec
[276]	25.0-26.0 sec	22.3 MBytes	187 Mbits/sec
[276]	26.0-27.0 sec	20.4 MBytes	171 Mbits/sec
[276]	27.0-28.0 sec	22.7 MBytes	191 Mbits/sec
[276]	28.0-29.0 sec	22.4 MBytes	188 Mbits/sec
[276]	29.0-30.0 sec	21.4 MBytes	180 Mbits/sec
[276]	0.0-30.1 sec	658 MBytes	184 Mbits/sec

2.4G 十米下载

ID	Interval	Transfer	Bandwidth
[364]	5.0-6.0 sec	20.3 MBytes	170 Mbits/sec
[364]	6.0-7.0 sec	21.0 MBytes	176 Mbits/sec
[364]	7.0-8.0 sec	21.1 MBytes	177 Mbits/sec
[364]	8.0-9.0 sec	22.6 MBytes	190 Mbits/sec
[364]	9.0-10.0 sec	22.6 MBytes	190 Mbits/sec
[364]	10.0-11.0 sec	22.4 MBytes	188 Mbits/sec
[364]	11.0-12.0 sec	22.0 MBytes	184 Mbits/sec
[364]	12.0-13.0 sec	21.6 MBytes	182 Mbits/sec
[364]	13.0-14.0 sec	22.4 MBytes	187 Mbits/sec
[364]	14.0-15.0 sec	22.2 MBytes	186 Mbits/sec
[364]	15.0-16.0 sec	21.6 MBytes	182 Mbits/sec
[364]	16.0-17.0 sec	22.6 MBytes	190 Mbits/sec
[364]	17.0-18.0 sec	21.5 MBytes	181 Mbits/sec
[364]	18.0-19.0 sec	21.9 MBytes	184 Mbits/sec
[364]	19.0-20.0 sec	21.9 MBytes	184 Mbits/sec
Interval Transfer Bandwidth			
[364]	20.0-21.0 sec	22.5 MBytes	189 Mbits/sec
[364]	21.0-22.0 sec	21.6 MBytes	181 Mbits/sec
[364]	22.0-23.0 sec	22.4 MBytes	188 Mbits/sec
[364]	23.0-24.0 sec	22.7 MBytes	191 Mbits/sec
[364]	24.0-25.0 sec	22.5 MBytes	189 Mbits/sec
[364]	25.0-26.0 sec	21.4 MBytes	179 Mbits/sec
[364]	26.0-27.0 sec	21.4 MBytes	179 Mbits/sec
[364]	27.0-28.0 sec	21.8 MBytes	183 Mbits/sec
[364]	28.0-29.0 sec	21.6 MBytes	181 Mbits/sec
[364]	29.0-30.0 sec	22.0 MBytes	184 Mbits/sec
[364]	0.0-30.1 sec	648 MBytes	181 Mbits/sec

2.4G 十米上传

6. Antenna Dimensions (unit: mm)

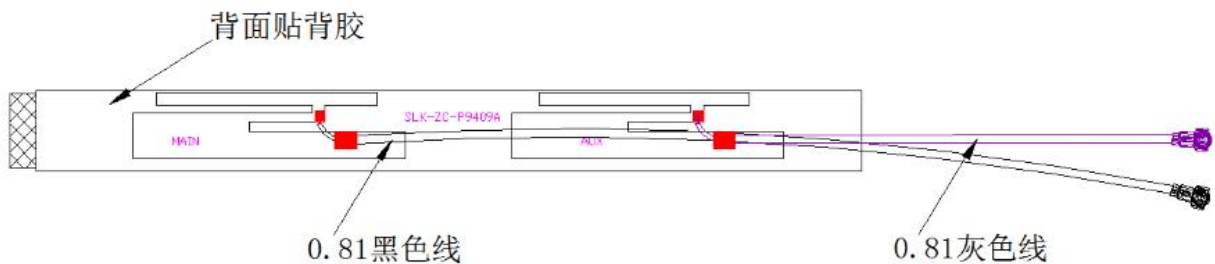


WIFI AUX Antenna (P9409A)

1. Explanation of Product number :

S L K - Z C - P 9 4 0 9 A - R - 2 2 0 I V - G

1 2 3 4 5



Product Code:

(1) Customer:

ZC:卓创

(2) Project:

P9409A: SLK-ZC-P9409A (WIFIAUX antenna)

(3) Welding Position

R: Right

(4) Cable Length:

220: 220IV*0.81MM四代端子

(5)Cable Color

G: Gray

2. Features

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

3. Applications

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

4. Description

Holy bond's FPC antenna series are specially designed for WIFI (802.11 ac/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	94.5x 9.2x 0.12	mm
Center Frequency	2.4-2.5-5.15-5.85	GHz
Bandwidth(under-10dB return loss)	130min	MHz
VSWR	3max	

5-2.

VSWR

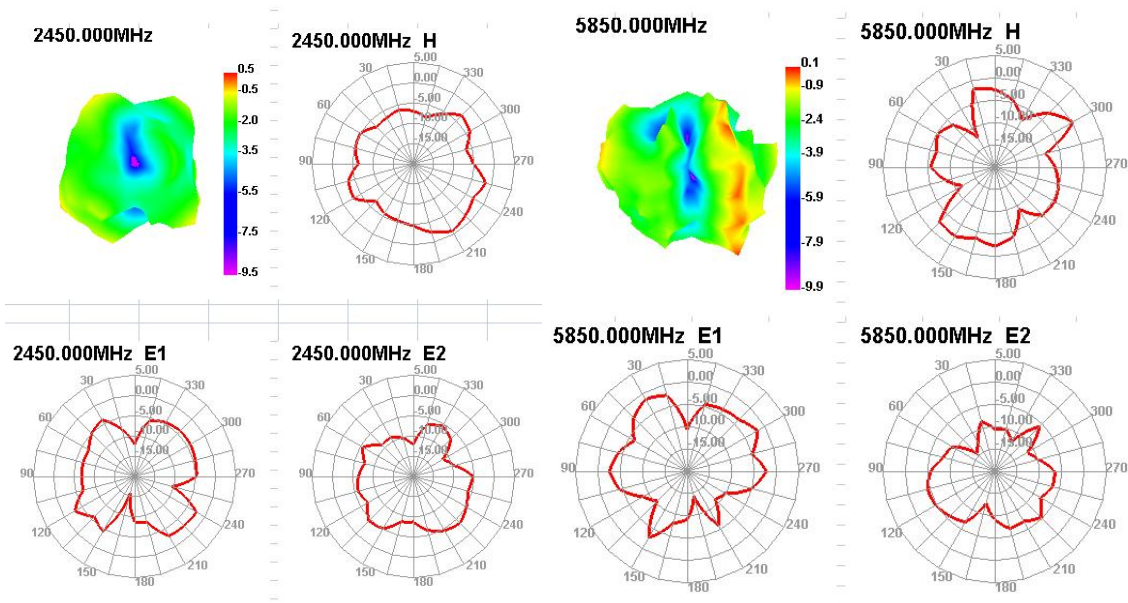


S11



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

Frequency(MHz)	Efficiency (%)	Average Gain(dB)	Peak GAIN (dBi)
2400	34.06	-4.68	-0.64
2410	34.29	-4.65	-0.6
2420	35.23	-4.53	-0.32
2430	36.96	-4.32	0.02
2440	35.21	-4.53	0.01
2450	38.27	-4.17	0.5
2460	32.34	-4.9	-0.21
2470	35.3	-4.52	-0.02
2480	34.23	-4.66	-0.44
2490	36.74	-4.35	-0.49
2500	33	-4.82	-1.09
5150	30.62	-5.14	-0.59
5350	30.32	-5.18	0.49
5550	32.96	-4.82	0.56
5750	31.28	-5.05	-0.05
5850	29.56	-5.29	0.13



2.4G吞吐量测试

ID	Interval	Transfer	Bandwidth
276	4.0-5.0 sec	14.0 MBytes	117 Mbits/sec
276	5.0-6.0 sec	13.7 MBytes	115 Mbits/sec
276	6.0-7.0 sec	13.4 MBytes	113 Mbits/sec
276	7.0-8.0 sec	13.4 MBytes	112 Mbits/sec
276	8.0-9.0 sec	13.4 MBytes	112 Mbits/sec
276	9.0-10.0 sec	13.9 MBytes	117 Mbits/sec
276	10.0-11.0 sec	13.5 MBytes	113 Mbits/sec
276	11.0-12.0 sec	13.2 MBytes	111 Mbits/sec
276	12.0-13.0 sec	13.7 MBytes	115 Mbits/sec
276	13.0-14.0 sec	13.4 MBytes	112 Mbits/sec
276	14.0-15.0 sec	13.8 MBytes	115 Mbits/sec
276	15.0-16.0 sec	13.3 MBytes	112 Mbits/sec
276	16.0-17.0 sec	13.5 MBytes	113 Mbits/sec
276	17.0-18.0 sec	13.9 MBytes	116 Mbits/sec
276	18.0-19.0 sec	13.9 MBytes	117 Mbits/sec
276	19.0-20.0 sec	13.4 MBytes	112 Mbits/sec
276	20.0-21.0 sec	13.6 MBytes	116 Mbits/sec
276	21.0-22.0 sec	13.9 MBytes	116 Mbits/sec
276	22.0-23.0 sec	12.3 MBytes	103 Mbits/sec
276	23.0-24.0 sec	14.2 MBytes	119 Mbits/sec
276	24.0-25.0 sec	13.9 MBytes	116 Mbits/sec
276	25.0-26.0 sec	13.2 MBytes	111 Mbits/sec
276	26.0-27.0 sec	13.5 MBytes	114 Mbits/sec
276	27.0-28.0 sec	13.8 MBytes	116 Mbits/sec
276	28.0-29.0 sec	14.1 MBytes	119 Mbits/sec
276	29.0-30.0 sec	12.6 MBytes	106 Mbits/sec
276	0.0-30.1 sec	399 MBytes	111 Mbits/sec

ID	Interval	Transfer	Bandwidth
376	4.0-5.0 sec	10.3 MBytes	86.7 Mbits/sec
376	5.0-6.0 sec	9.35 MBytes	78.4 Mbits/sec
376	6.0-7.0 sec	10.1 MBytes	84.8 Mbits/sec
376	7.0-8.0 sec	9.70 MBytes	81.3 Mbits/sec
376	8.0-9.0 sec	8.80 MBytes	73.9 Mbits/sec
376	9.0-10.0 sec	8.75 MBytes	73.4 Mbits/sec
376	10.0-11.0 sec	9.14 MBytes	76.7 Mbits/sec
376	11.0-12.0 sec	9.67 MBytes	81.1 Mbits/sec
376	12.0-13.0 sec	8.88 MBytes	74.4 Mbits/sec
376	13.0-14.0 sec	8.84 MBytes	74.2 Mbits/sec
376	14.0-15.0 sec	9.90 MBytes	83.0 Mbits/sec
376	15.0-16.0 sec	9.51 MBytes	79.8 Mbits/sec
376	16.0-17.0 sec	9.67 MBytes	81.1 Mbits/sec
376	17.0-18.0 sec	9.46 MBytes	79.4 Mbits/sec
376	18.0-19.0 sec	10.0 MBytes	84.0 Mbits/sec
376	19.0-20.0 sec	9.20 MBytes	77.1 Mbits/sec
376	20.0-21.0 sec	9.80 MBytes	82.2 Mbits/sec
376	21.0-22.0 sec	8.84 MBytes	74.2 Mbits/sec
376	22.0-23.0 sec	9.55 MBytes	80.1 Mbits/sec
376	23.0-24.0 sec	9.52 MBytes	79.8 Mbits/sec
376	24.0-25.0 sec	9.21 MBytes	77.3 Mbits/sec
376	25.0-26.0 sec	10.3 MBytes	86.0 Mbits/sec
376	26.0-27.0 sec	9.06 MBytes	76.0 Mbits/sec
376	27.0-28.0 sec	8.78 MBytes	73.7 Mbits/sec
376	28.0-29.0 sec	9.20 MBytes	77.2 Mbits/sec
376	29.0-30.0 sec	7.98 MBytes	67.0 Mbits/sec
376	0.0-30.1 sec	284 MBytes	79.2 Mbits/sec

2.4G吞吐量测试-10米下载

2.4G吞吐量测试-10米上传

5G吞吐量测试

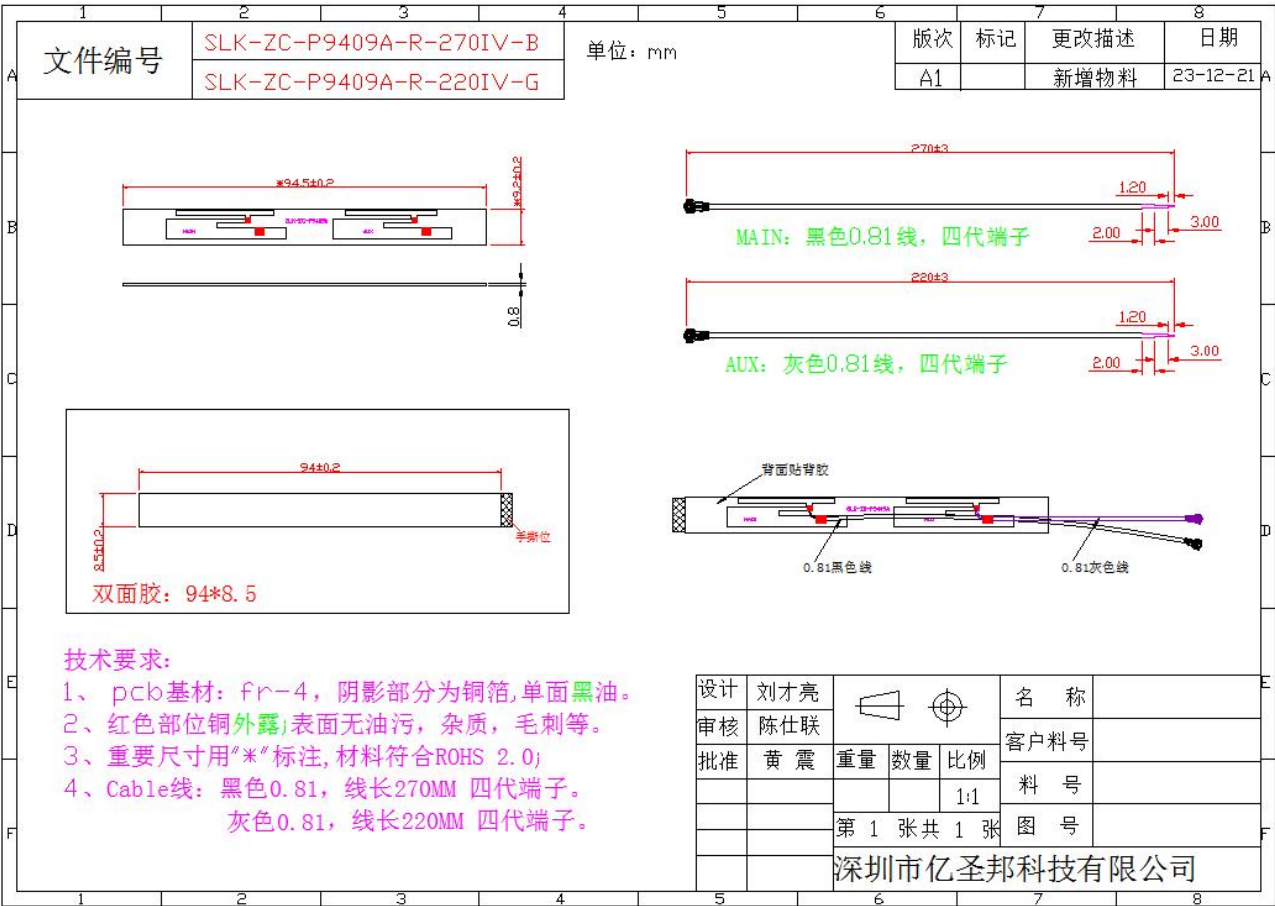
ID	Interval	Transfer	Bandwidth
276	4.0-5.0 sec	39.9 MBytes	336 Mbits/sec
276	5.0-6.0 sec	40.9 MBytes	343 Mbits/sec
276	6.0-7.0 sec	40.6 MBytes	341 Mbits/sec
276	7.0-8.0 sec	41.1 MBytes	345 Mbits/sec
276	8.0-9.0 sec	40.5 MBytes	340 Mbits/sec
276	9.0-10.0 sec	41.2 MBytes	346 Mbits/sec
276	10.0-11.0 sec	40.4 MBytes	339 Mbits/sec
276	11.0-12.0 sec	40.5 MBytes	339 Mbits/sec
276	12.0-13.0 sec	41.0 MBytes	344 Mbits/sec
276	13.0-14.0 sec	40.6 MBytes	341 Mbits/sec
276	14.0-15.0 sec	41.1 MBytes	345 Mbits/sec
276	15.0-16.0 sec	40.6 MBytes	340 Mbits/sec
276	16.0-17.0 sec	41.0 MBytes	344 Mbits/sec
276	17.0-18.0 sec	39.9 MBytes	335 Mbits/sec
276	18.0-19.0 sec	40.5 MBytes	340 Mbits/sec
276	19.0-20.0 sec	41.1 MBytes	345 Mbits/sec
276	20.0-21.0 sec	40.3 MBytes	339 Mbits/sec
276	21.0-22.0 sec	40.8 MBytes	342 Mbits/sec
276	22.0-23.0 sec	41.0 MBytes	344 Mbits/sec
276	23.0-24.0 sec	40.7 MBytes	341 Mbits/sec
276	24.0-25.0 sec	39.6 MBytes	332 Mbits/sec
276	25.0-26.0 sec	40.6 MBytes	340 Mbits/sec
276	26.0-27.0 sec	41.1 MBytes	345 Mbits/sec
276	27.0-28.0 sec	40.6 MBytes	341 Mbits/sec
276	28.0-29.0 sec	39.9 MBytes	335 Mbits/sec
276	29.0-30.0 sec	41.5 MBytes	348 Mbits/sec
276	0.0-30.1 sec	1.19 GBytes	339 Mbits/sec

ID	Interval	Transfer	Bandwidth
376	4.0-5.0 sec	30.3 MBytes	254 Mbits/sec
376	5.0-6.0 sec	29.3 MBytes	246 Mbits/sec
376	6.0-7.0 sec	29.2 MBytes	245 Mbits/sec
376	7.0-8.0 sec	29.8 MBytes	250 Mbits/sec
376	8.0-9.0 sec	28.6 MBytes	240 Mbits/sec
376	9.0-10.0 sec	29.4 MBytes	247 Mbits/sec
376	10.0-11.0 sec	29.7 MBytes	249 Mbits/sec
376	11.0-12.0 sec	29.0 MBytes	243 Mbits/sec
376	12.0-13.0 sec	30.5 MBytes	256 Mbits/sec
376	13.0-14.0 sec	29.8 MBytes	250 Mbits/sec
376	14.0-15.0 sec	30.2 MBytes	253 Mbits/sec
376	15.0-16.0 sec	30.1 MBytes	252 Mbits/sec
376	16.0-17.0 sec	28.6 MBytes	240 Mbits/sec
376	17.0-18.0 sec	30.5 MBytes	256 Mbits/sec
376	18.0-19.0 sec	26.8 MBytes	225 Mbits/sec
376	19.0-20.0 sec	28.4 MBytes	239 Mbits/sec
376	20.0-21.0 sec	29.5 MBytes	247 Mbits/sec
376	21.0-22.0 sec	31.0 MBytes	260 Mbits/sec
376	22.0-23.0 sec	29.9 MBytes	251 Mbits/sec
376	23.0-24.0 sec	30.1 MBytes	252 Mbits/sec
376	24.0-25.0 sec	29.3 MBytes	246 Mbits/sec
376	25.0-26.0 sec	30.3 MBytes	254 Mbits/sec
376	26.0-27.0 sec	24.9 MBytes	208 Mbits/sec
376	27.0-28.0 sec	22.2 MBytes	188 Mbits/sec
376	28.0-29.0 sec	14.6 MBytes	120 Mbits/sec
376	29.0-30.0 sec	27.9 MBytes	234 Mbits/sec
376	0.0-30.1 sec	863 MBytes	241 Mbits/sec

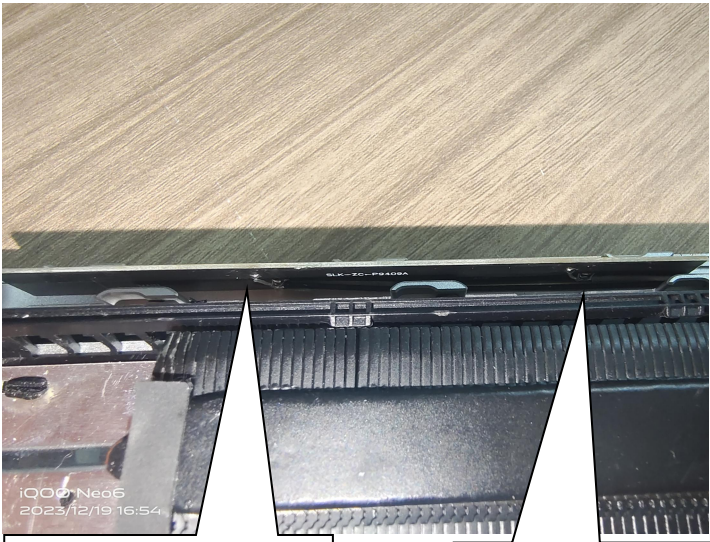
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6. Antenna Dimensions (unit: mm)



7. Antenna Picture



WIFI 主天线

WIFI 分集天线