深圳市亿圣邦科技有限公司

Shenzhen Yishengbang Technology Co., Ltd

深圳市宝安区西乡街道南昌社区深圳前湾硬科技产业园C栋101
101, Building C, Shenzhen Qianwan Hard Technology Industrial Park, Nanchang Community, Xixiang Street, Bao'an District, Shenzhen, China

样 品 承 认 书

SPECIFICATION FOR APPROVAL

公　司　名　称（客户填写）：深圳市昱科电子有限公司

物　料　代　码（客户填写）：

规　格　型　号（客户填写）：M1018-ITE

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　名　称（SLK 填写）：WIFI/GPS:SLK-YK-1616

4GMAIN:SLK-YK-8712A-R-180IV-B　　4GAUX:SLK-YK-1609B

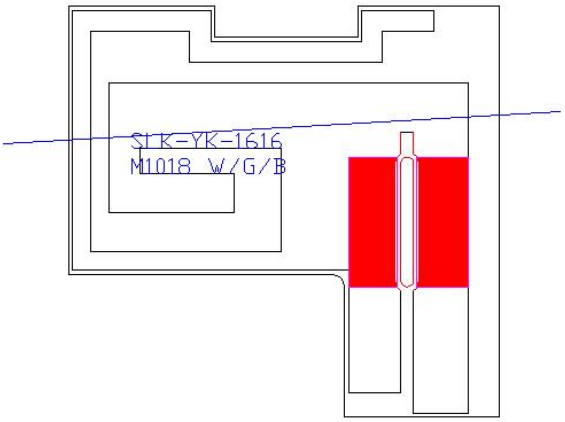
承　认　签　章					
供　应　商　承　认（SLK 填写栏）			深圳市昱科电子有限公司		
工 程 师	审 核	批 准	工 程 师	审 核	批 准
陈仕联	黄 震	林美财			
盖章签署			盖章签署		
日　　期	2024-10-14		日　　期		
批示：　☐接受　☐有条件接受					
备注（客户填写）：					

WIFI/GPS Antenna (1616)

1. Explanation of Product number :

S L K - Y K - 1 6 1 6

1 2



Product Code:
(1) Customer:
YK:昱科
(2) Project:
1616: SLK-YK-8712A (WIFI /BT+GPS antenna)

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) GPS 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.

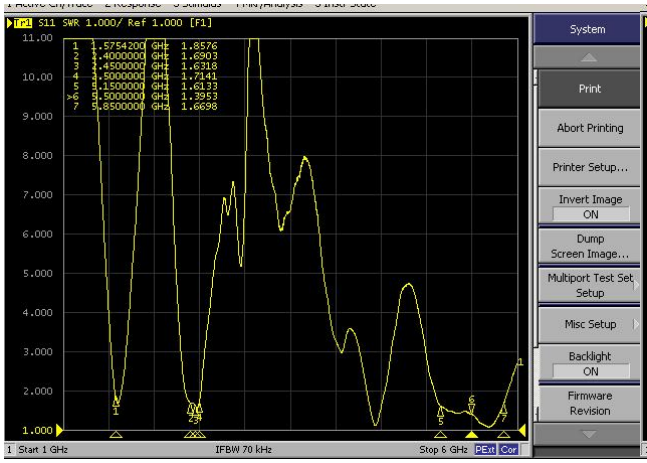
5. Electrical Specifications

5-1

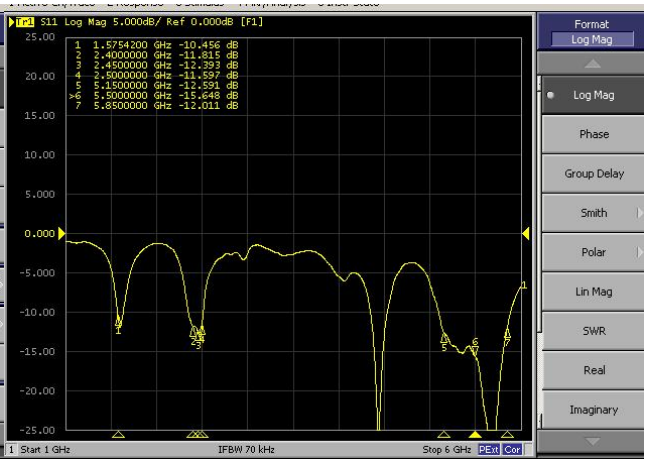
Characteristics	Specifications	Unit
Outline Dimensions	**16.55x 15.8x 0.12**	**mm**
Center Frequency	**1.575-2.4-2.5-5.15-5.85**	**GHz**
Bandwidth(under-10dB return loss)	**130min**	**MHz**
VSWR	**3max**	

5-2

VSWR

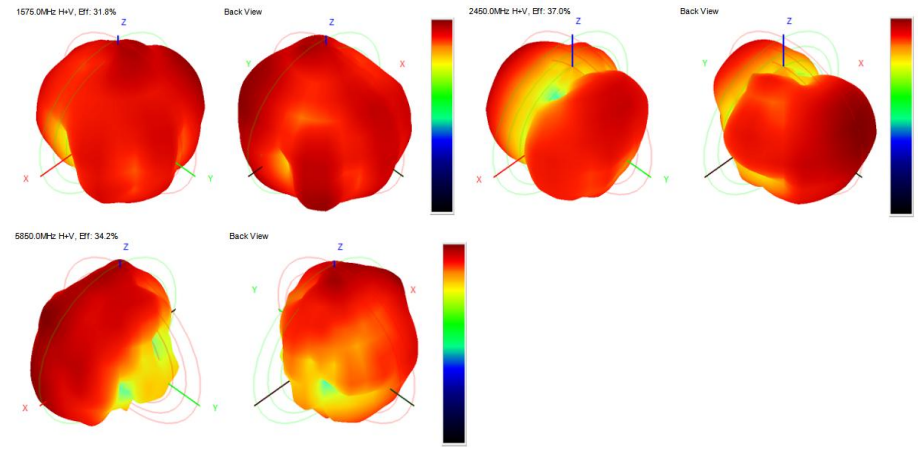


S11



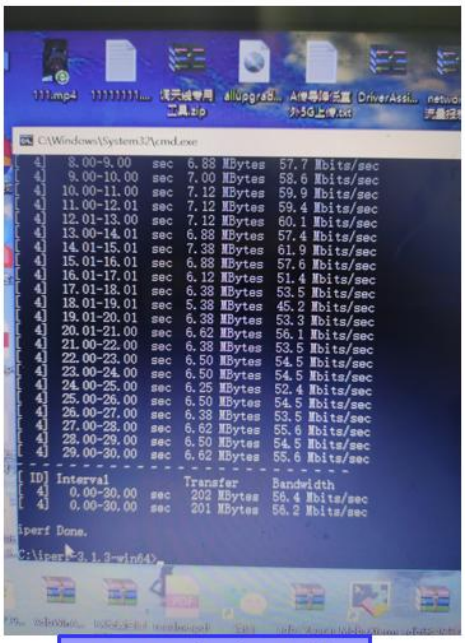
5-3.WIFI/BT+GPSAntenna Gain/Efficiency/Radiation Pattern of 3D

Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)	增益(dbi)
1570.0	-4.88	1.81	32.52	1.85
1575.0	-4.97	1.83	31.84	
1580.0	-5.21	1.85	30.14	
2400.0	-4.60	1.16	34.64	1.63
2410.0	-4.51	1.28	35.38	
2420.0	-4.46	1.18	35.81	
2430.0	-4.38	1.13	36.44	
2440.0	-4.34	1.25	36.82	
2450.0	-4.32	1.52	37.02	
2460.0	-4.47	1.55	35.75	
2470.0	-4.40	1.61	36.28	
2480.0	-4.34	1.52	36.80	
2490.0	-4.34	1.63	36.80	
2500.0	-4.45	1.58	35.88	
5150.0	-5.15	2.33	30.54	2.33
5350.0	-5.07	1.52	31.11	
5550.0	-5.15	2.09	30.57	
5750.0	-4.69	2.11	34.00	
5850.0	-4.66	2.04	34.22	

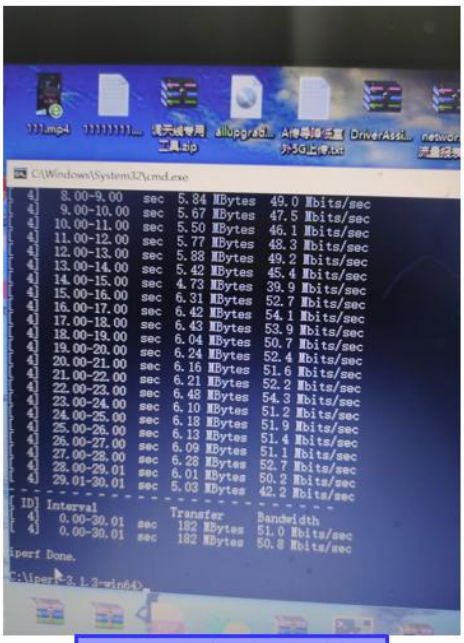


GPS实际测试

2.4 WIFI throughput test

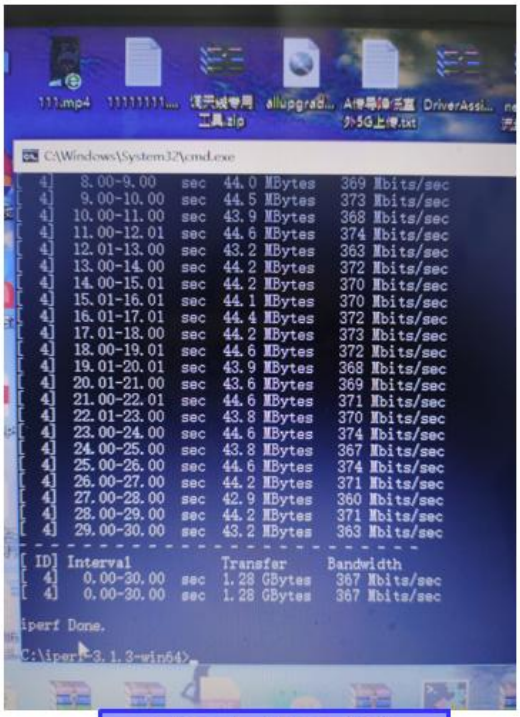


2.4G十米下载

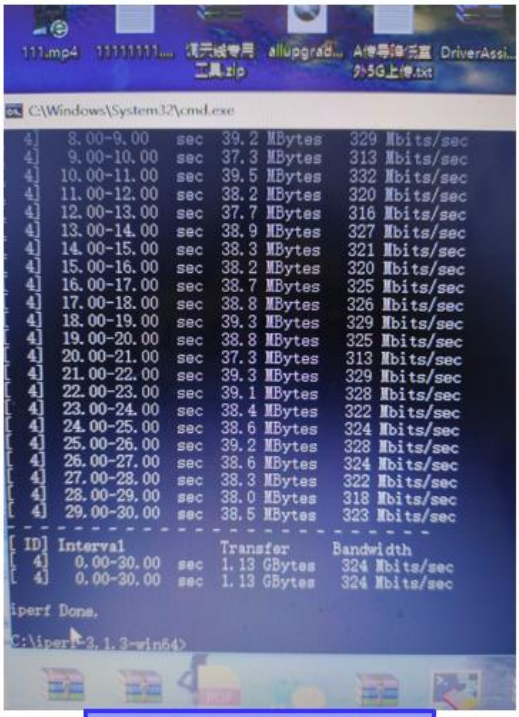


2.4G十米上传

2.4 WIFI throughput test

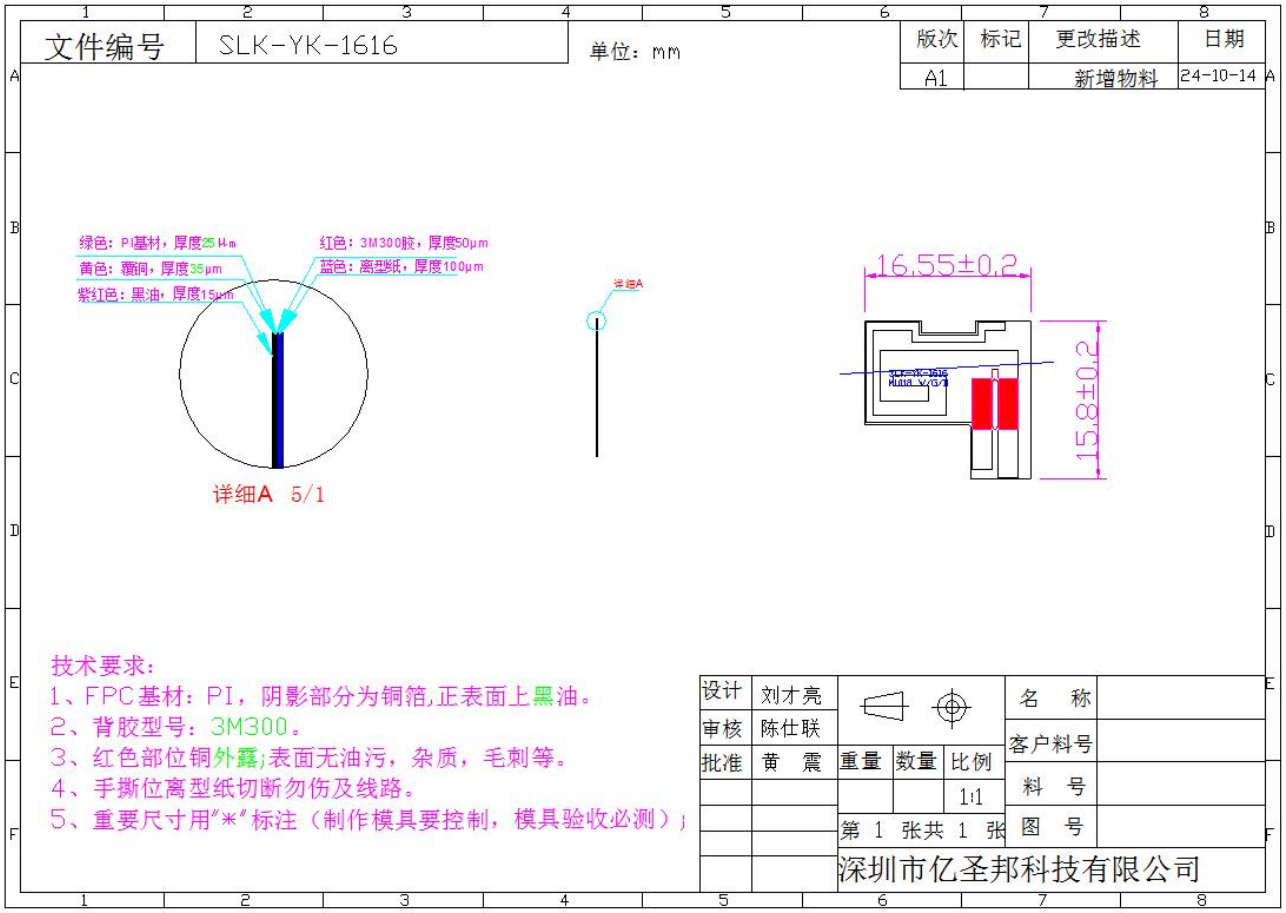


5G十米下载



5G十米上传

6. Antenna Dimensions (unit: mm)

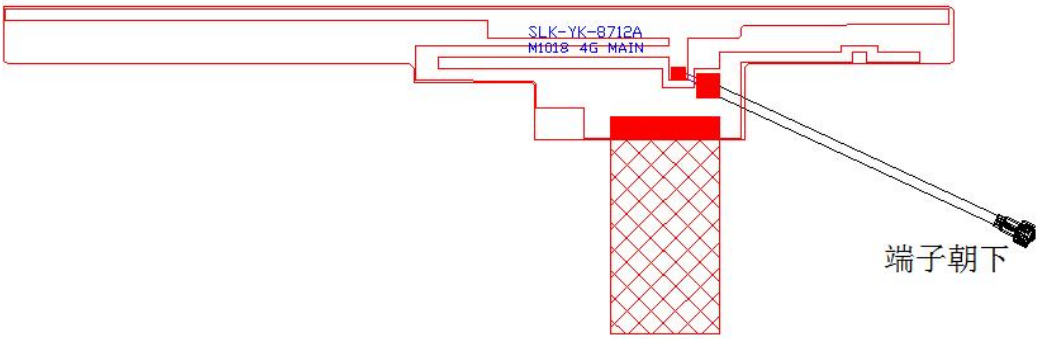


4G **MAIN** Antenna (8712A)

1.Explanation of Product number :

S L K - Y K - 8 7 1 2 A - R - 1 8 0 I V - B

1 2 3 4 5



Product Code:
(1) Customer:
YK:昱科
(2) Project:
8712A: SLK-YK-8712A (4GMAIN antenna)
(3) Welding Position
R:Right
(4) Cable Length:
180IV:180*0.81MM 四代端子
(5)Cable Color
B: Black

2. Features

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

3. Description

Holy bond's FPC antenna series are specially designed for 4G 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.

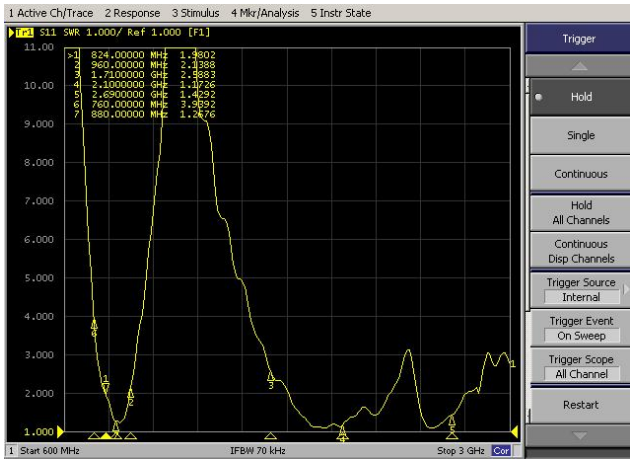
4. Electrical Specifications

4-1.

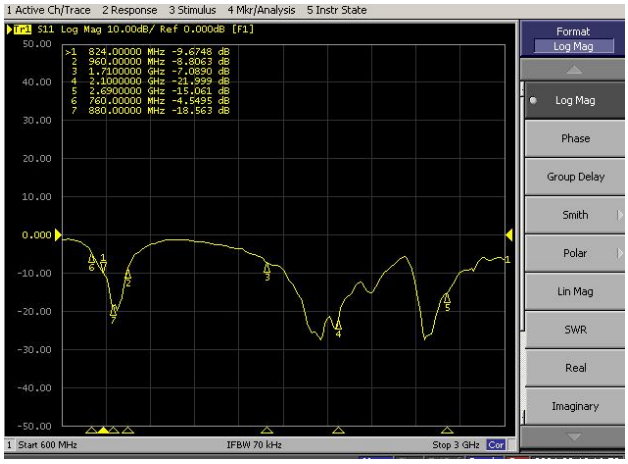
Characteristics	Specifications	Unit
Outline Dimensions	**87.65x5.24 x 0.12**	**mm**
Bandwidth(under-10dB return loss)	**130min**	**MHz**
VSWR	**5max**	

4-2.

VSWR



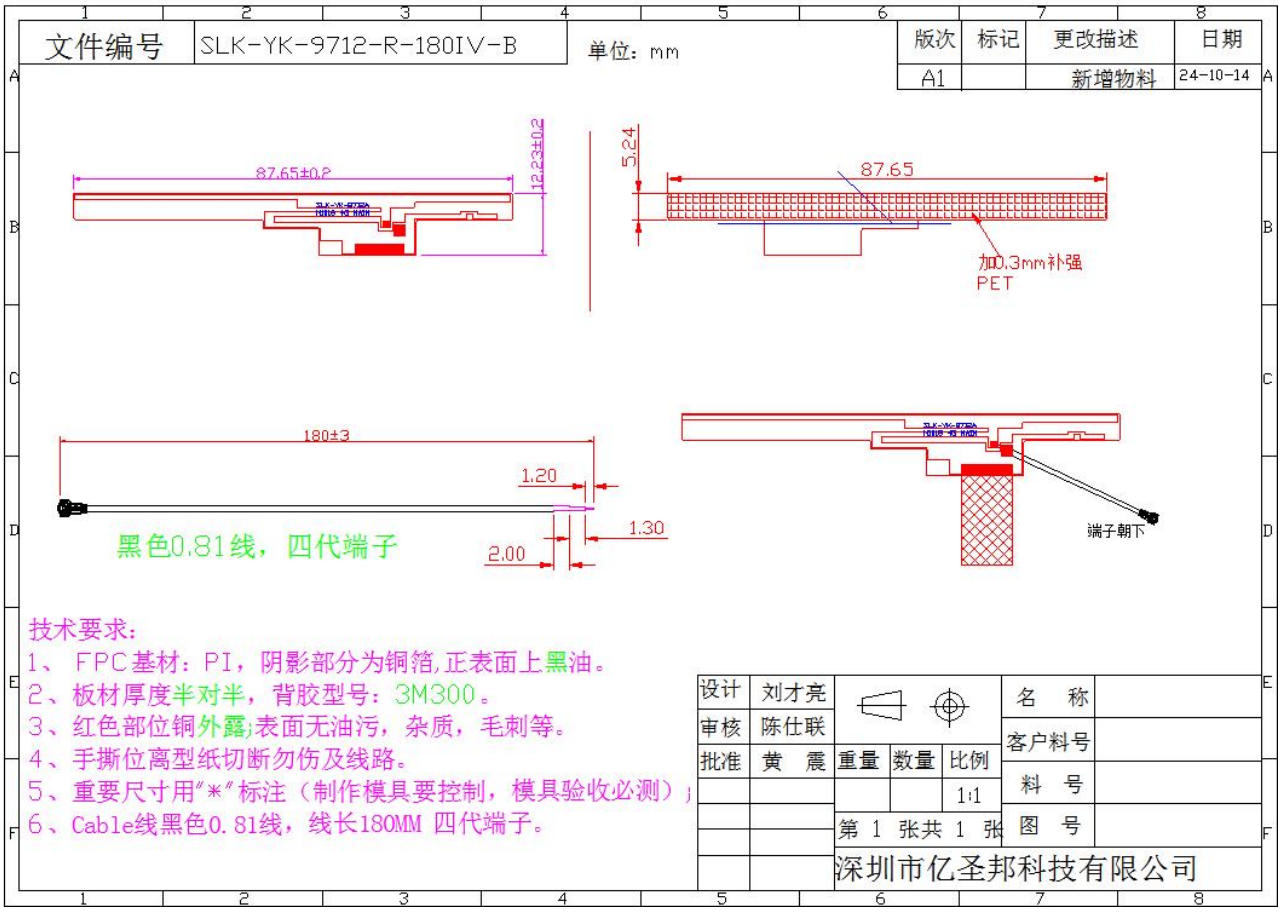
S11



4-3. 4G Antenna TRP/TIS

2G 频段	LTE-L	LTE-M	LTE-R	TIS	增益（dbi）
GSM850	26.47	26.08	25.94	-102.11	0.8
GSM900	26.22	26.11	25.82	-102.23	0.9
GSM1800	24.19	24.32	24.52	-102.44	1.1
GSM1900	24.32	24.55	24.67	-102.57	1.3
3G 频段	LTE-L	LTE-M	LTE-R	TIS	增益（dbi）
WCDMA-B1	19.6	19.66	19.88	-103.49	1.3
WCDMA-B2	19.27	19.36	19.57	-103.24	1.2
WCDMA-B4	17.69	17.87	18.29	-103.28	1
WCDMA-B5	16.33	16.69	16.54	-103.17	0.8
WCDMA-B8	16.92	17.17	17.35	-103.31	0.9
4G 频段	LTE-L	LTE-M	LTE-R	TIS	增益（dbi）
LTE-1	19.69	19.75	19.84	-91.31	1.3
LTE-2	19.59	19.62	19.73	-92.6	1.2
LTE-3	17.59	17.62	17.75	-92.82	1
LTE-4	17.88	18.19	18.29	-91.74	1
LTE-5	16.39	16.15	16.02	-88.17	0.8
LTE-7	17.16	17.52	18.16	-89.25	1.6
LTE-8	17.06	17.42	17.23	-90.57	0.9
LTE-12	13.22	13.42	13.52	-87.07	0.7
LTE-17	13.59	13.46	13.16	-86.71	0.7
LTE-20	17.85	17.92	18.21	-90.49	0.9
LTE-28A	13.22	13.41	13.81	-86.74	0.7
LTE-28B	13.51	13.44	13.64	-86.59	0.7
LTE-66	17.46	17.83	18.25	-91.43	1.2

5. Antenna Dimensions (unit: mm)

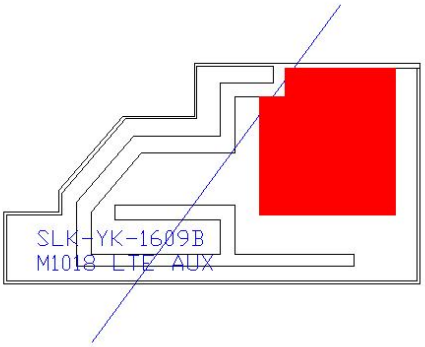


4G AUX Antenna (1609B)

1. Explanation of Product number :

S L K - Y K - 1 6 0 9 B

1 2



Product Code:
(1) Customer:
YK:昱科
(2) Project:
1609B: SLK-YK-1609B (4G AUX antenna)

2. Features

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

3. Description

Holy bond's FPC antenna series are specially designed for 4G 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.

4. Electrical Specifications

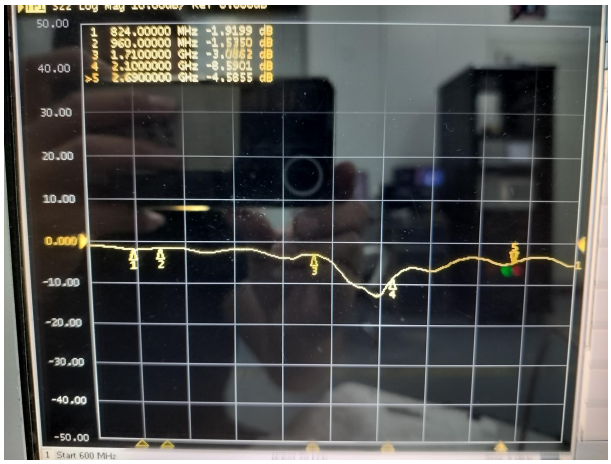
4-1

Characteristics	Specifications	Unit
Outline Dimensions	16.89x 8.95x 0.12	mm
Bandwidth(under-10dB return loss)	130min	MHz
VSWR	5max	

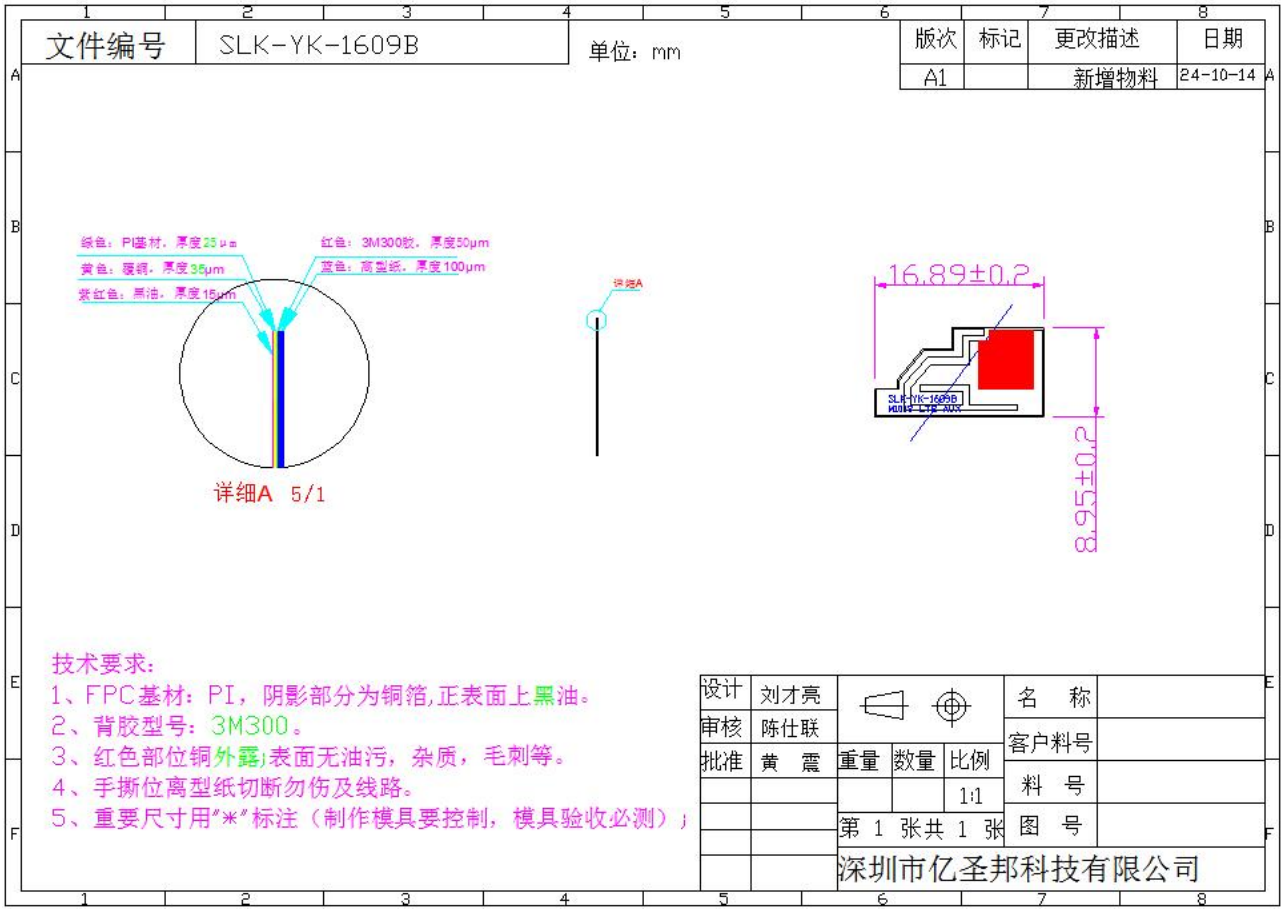
4-2

VSWR

S11



5. Antenna Dimensions (unit: mm)



6. Antenna Picture

如图所示：

1.屏排线拉一块导电布包起来屏蔽干扰处理

2.主板屏蔽分别拉 2 块导电布连接起来，再与屏接地处理

3.主板底部环境处理：在主板底部漏铜区贴 9 块导电海绵与屏接地处理

4G 主天线

4G 分集天线

WIFI/GPS 天线