

The Holy bond Electronics(Shenzhen) Co., Ltd.

SPECIFICATION FOR APPROVAL

COMPANY Name: The Holy bond Electronics(Shenzhen) Co., Ltd.

Material Code: 114

specifications: _____

Approval Date: _____

Supplier Name: The Holy bond Electronics(Shenzhen) Co., Ltd.

Specification: WIFI+GPS:SLK-WHJ-2720H-R-95-B

4GMAIN:SLK-WHJ-7421-R-155-B 4GAUX:SLK-WHJ-1408-L-100-B

APPROVAL SIGNATURE					
COMPANY Name			The Holy bond Electronics(Shenzhen) Co., Ltd.		
ENGINEER	QUALITY	ME	ENGINEER	CHECK	APPROVAL
Chenshilian	Chenjiexing	Liucailiang			
APPROVAL	MeiChun		SIGNATURE		
DATE	2022-07-22		DATE		
REMARK:					

SUPPLIER NAME: The Holy bond Electronics(Shenzhen) Co., Ltd.

ADDRESS:101,Building C,Shenzhen Qianwan Hard Teconology Industrial Park,Baoan District,Shenzhen

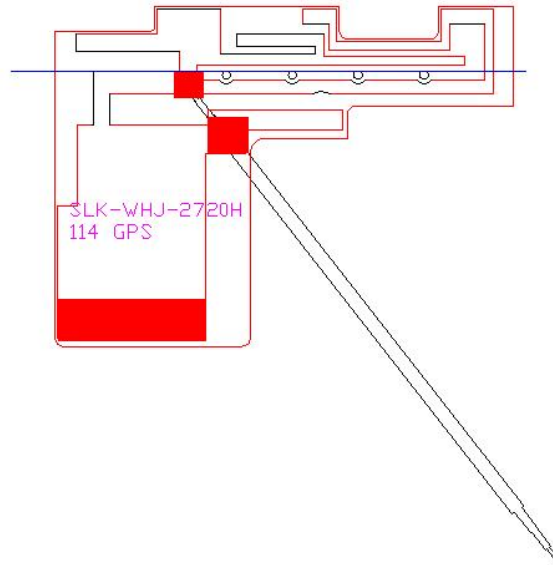
CONTACT: 18025305599/18666299104

WIFI+GPS Antenna (2720H)

1.Explanation of Product number :

S L K - W H J - 2 7 2 0 H - R - 9 5 - B

1 2 3 4 5



Product Code:

(1) Customer:

WHJ:伟合佳

(2) Project:

2720H: SLK-WHJ-2720H(WIFI+GPS antenna)

(3) Welding Position

R: Right

(4) Cable Length:

95: 95*0.81MM

(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)GPS 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

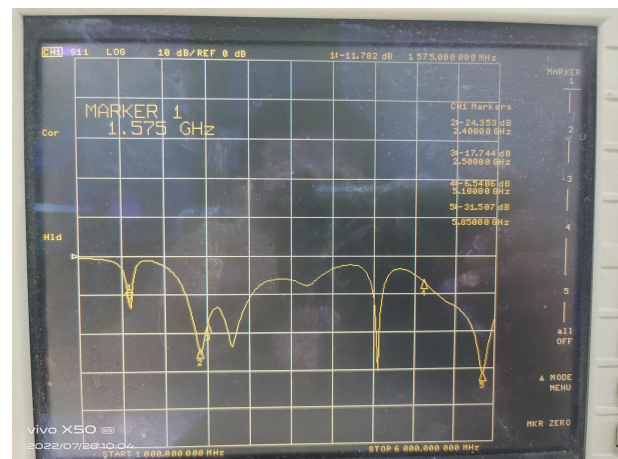
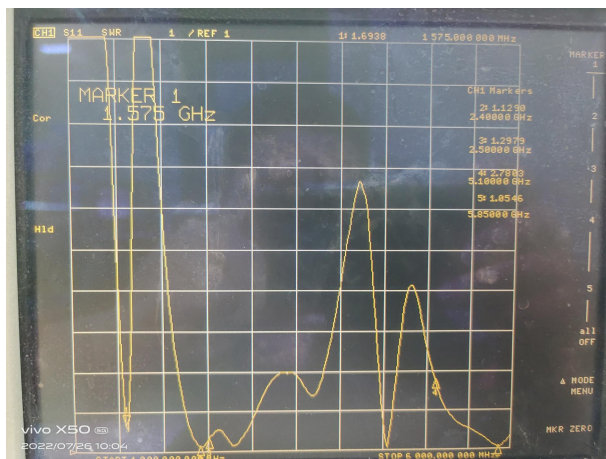
5-1

Characteristics	Specifications	Unit
Outline Dimensions	27.74x20.62x 0.12	mm
Center Frequency	1.575-2.45-5.85	GHz
Bandwidth(under-10dB return loss)	130min	MHz
VSWR	3max	

5.2

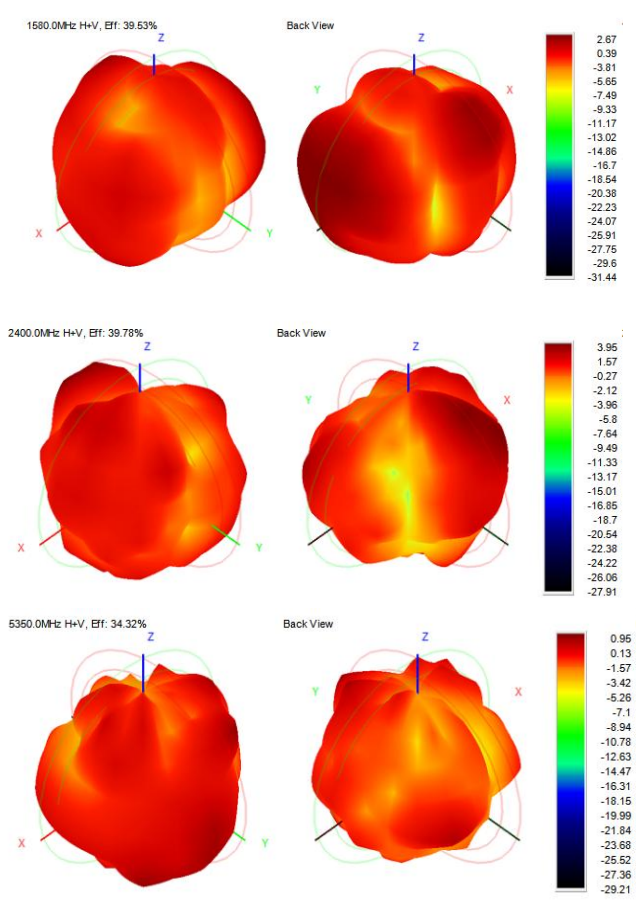
VSWR

S11

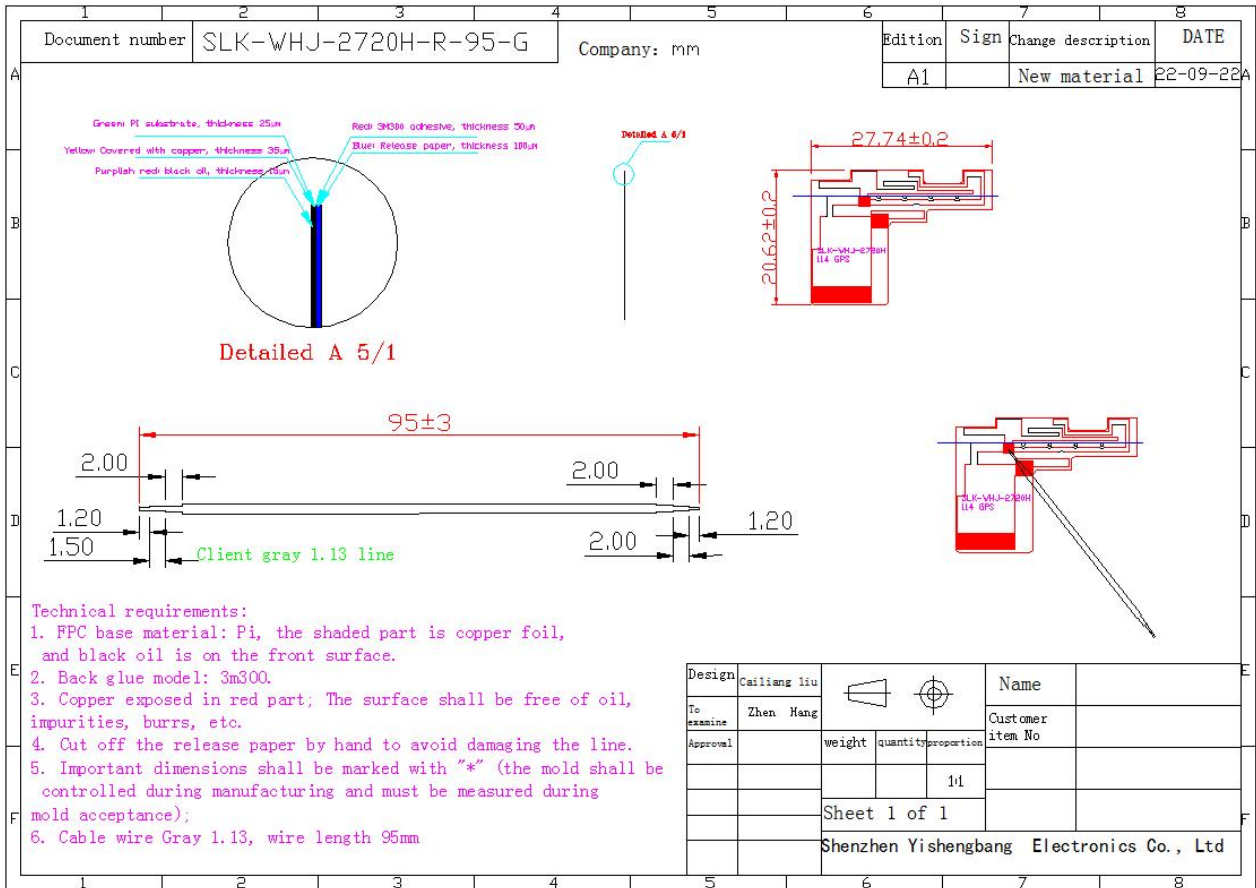


5-3.WIFI Antenna Gain/Efficiency/Radiation Pattern of 3D

Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)
1570.0	-3.90	2.52	40.78
1575.0	-3.96	2.59	40.19
1580.0	-4.03	2.67	39.53
2400.0	-4.00	3.96	39.78
2410.0	-3.96	3.92	40.15
2420.0	-3.92	3.69	40.57
2430.0	-3.87	3.39	40.98
2440.0	-3.83	3.05	41.40
2450.0	-3.83	2.83	41.36
2460.0	-3.85	2.70	41.23
2470.0	-3.80	2.81	41.65
2480.0	-3.77	3.00	41.96
2490.0	-3.65	3.10	43.15
2500.0	-3.51	3.07	44.61
5150.0	-5.21	0.72	30.10
5250.0	-5.06	0.50	31.17
5350.0	-4.64	0.95	34.32
5550.0	-4.33	0.56	36.87
5750.0	-5.08	-0.30	31.04
5850.0	-4.98	0.56	31.79



6. Antenna Dimensions (unit: mm)

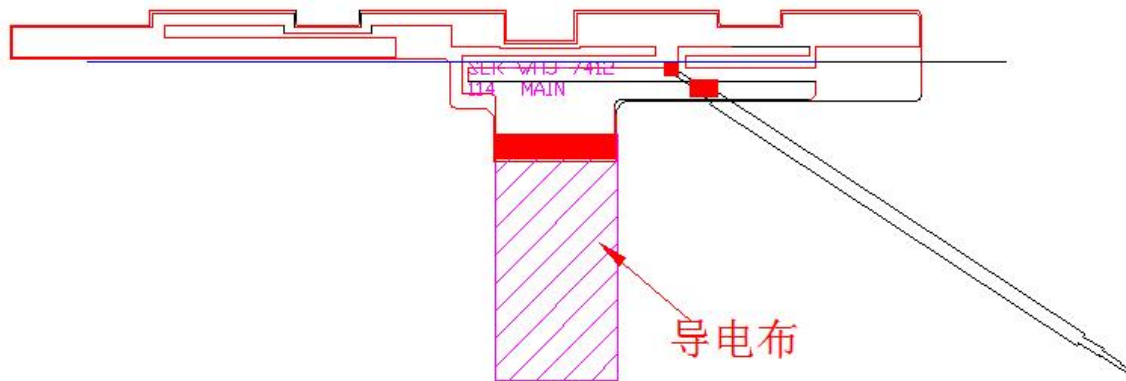


4GMAIN Antenna (7421)

1. Explanation of Product number :

S L K - W H J - 7 4 2 1 - R - 1 5 5 - B

1 2 3 4 5



Product Code:

(1) Customer:

WHJ:伟合佳

(2) Project:

7421: SLK-WHJ-7421(4GMAIN antenna)

(3) Welding Position

R: Right

(4) Cable Length:

155: 155*0.81MM

(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

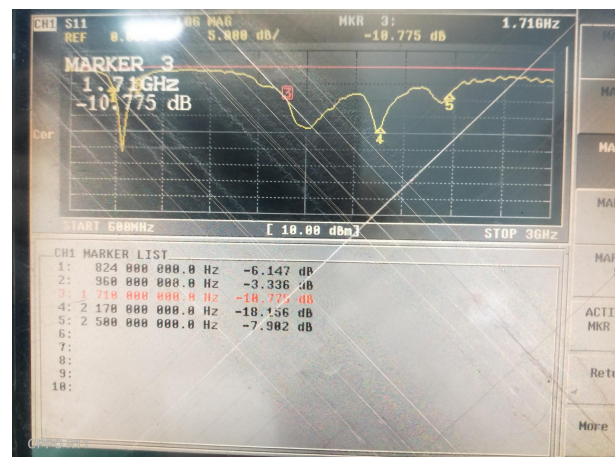
Characteristics	Specifications	Unit
Outline Dimensions	74.2x12.23x 0.12	mm
Bandwidth(under-10dB return loss)	130min	MHz
VSWR	5max	

4.2

VSWR

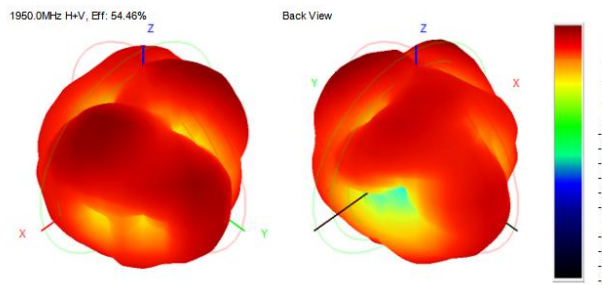
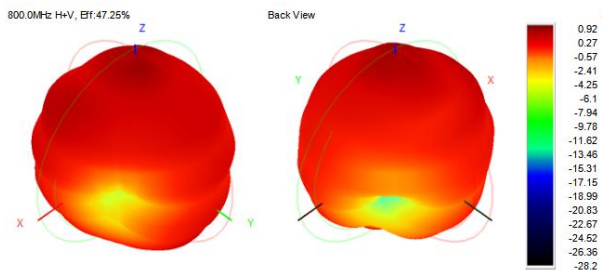


S11



4-3. 4G Antenna Gain/Efficiency/Radiation Pattern of 3D

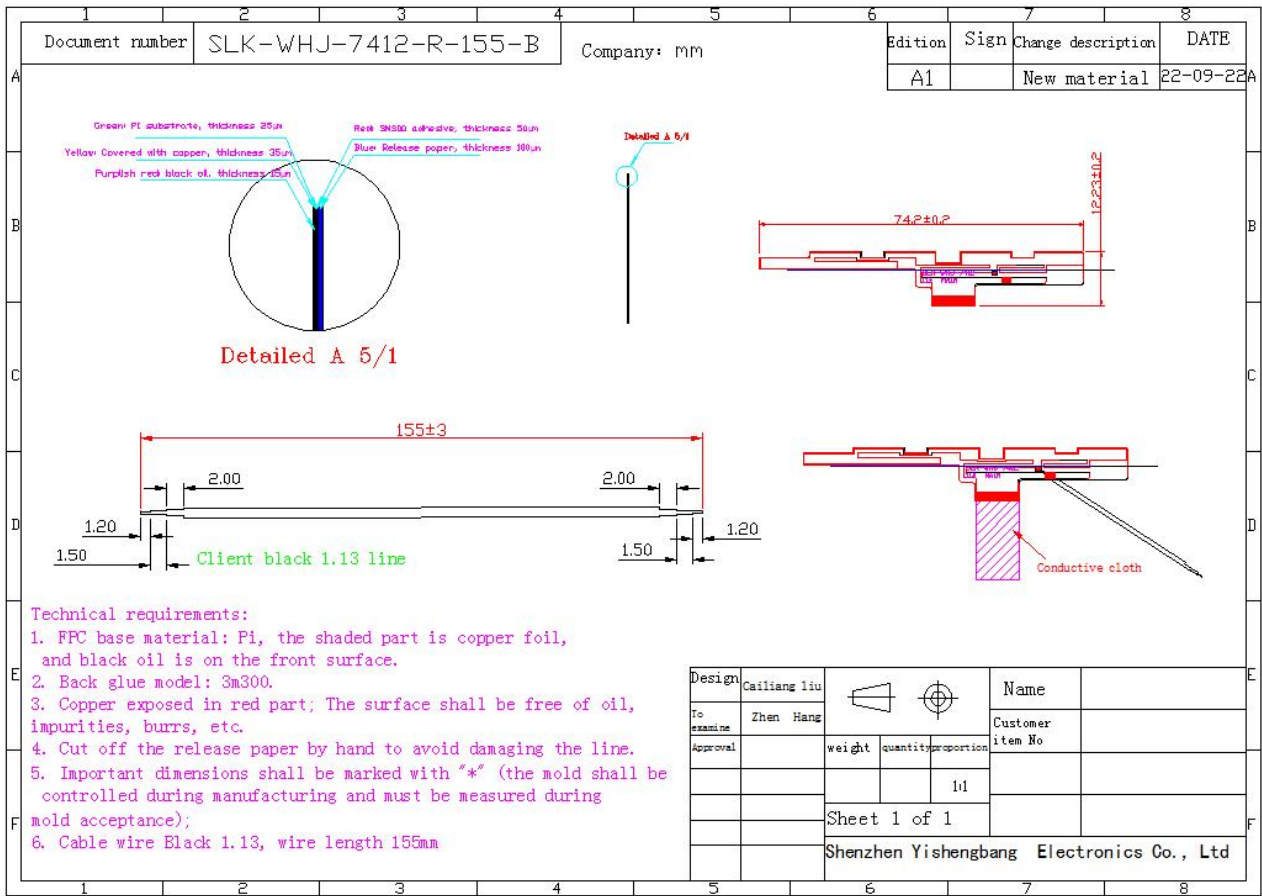
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
800	47.25	-3.26	0.92
824	46.67	-3.31	0.80
850	45.03	-3.46	0.74
906	43.25	-3.64	0.48
960	52.37	-2.81	1.14
1710	41.33	-3.84	1.09
1750	46.52	-3.32	1.2
1800	45.03	-3.46	0.84
1850	48.55	-3.14	1.02
1900	51.41	-2.89	1.10
1950	54.46	-2.64	2.05
2100	50.52	-2.96	1.5
2150	51.33	-2.9	1.46
2200	50.47	-2.97	1.46
2250	48.14	-3.17	1.72
2300	46.85	-3.29	1.32
2350	47.65	-3.22	1.40
2400	46.85	-3.29	1.52
2450	39.02	-4.09	1.6
2500	46.84	-3.28	1.32
2550	47.63	-3.20	1.60
2600	46.82	-3.25	1.52



4-4. 4G Antenna TRP/TIS

2G 频段	LTE-L	LTE-M	LTE-R	TIS	天线增益
GSM850	25.12	25.34	25.66	-102.13	0.8
GSM900	26.23	26.48	26.69	-102.44	0.9
GSM1800	24.32	24.46	24.67	-102.35	1
GSM1900	24.29	24.56	24.79	-102.18	1.1
3G 频段	LTE-L	LTE-M	LTE-R	TIS	
WCDMA-B1	17.33	17.45	17.68	-103.29	1.3
WCDMA-B2	17.48	17.66	18.23	-103.34	1.1
WCDMA-B5	16.23	16.47	16.58	-102.83	0.8
WCDMA-B8	16.49	16.23	16.05	-102.28	0.9
4G 频段	LTE-L	LTE-M	LTE-R	TIS	
LTE-3	17.58	18.26	18.42	-92.05	1
LTE-5	16.65	16.44	16.36	-89.28	0.8
LTE-40	17.63	17.85	17.47	-89.46	1.4
LTE-41	16.36	16.23	16.27	-89.07	1.6

5. Antenna Dimensions (unit: mm)

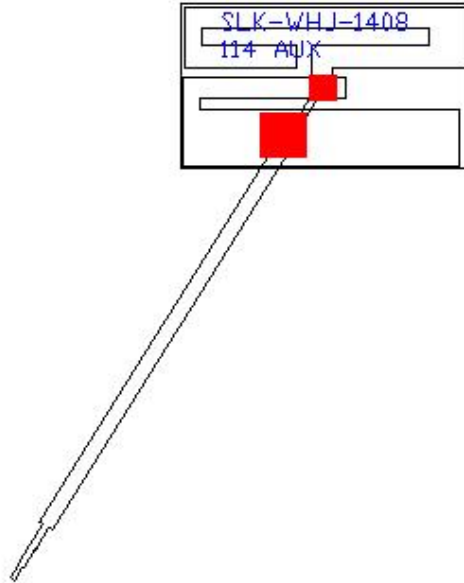


4GAUX Antenna (1408)

1.Explanation of Product number :

S L K - W H J - 1 4 0 8 - L - 1 0 0 - B

1 2 3 4 5



Product Code:

(1) Customer:

WHJ:伟合佳

(2) Project:

1408: SLK-WHJ-1408(4GAUX antenna)

(3) Welding Position

L: Left

(4) Cable Length:

100: 100*0.81MM

(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.

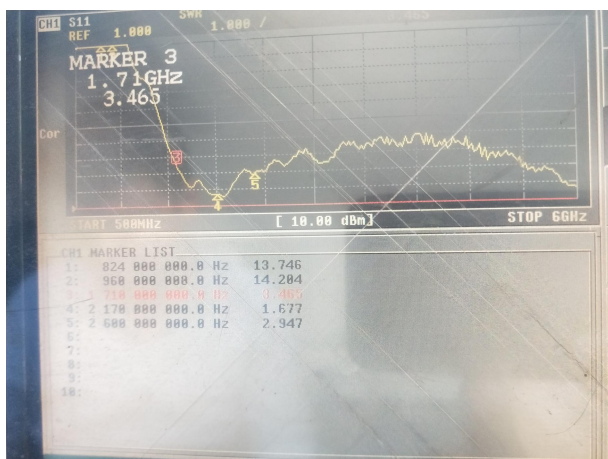
4. Electrical Specifications

4-1

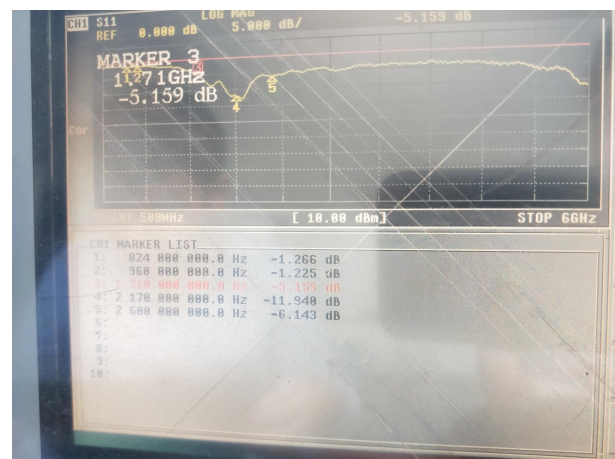
Characteristics	Specifications	Unit
Outline Dimensions	14.45x8.2x 0.12	mm
Bandwidth(under-10dB return loss)	130min	MHz
VSWR	5max	

4.2

VSWR



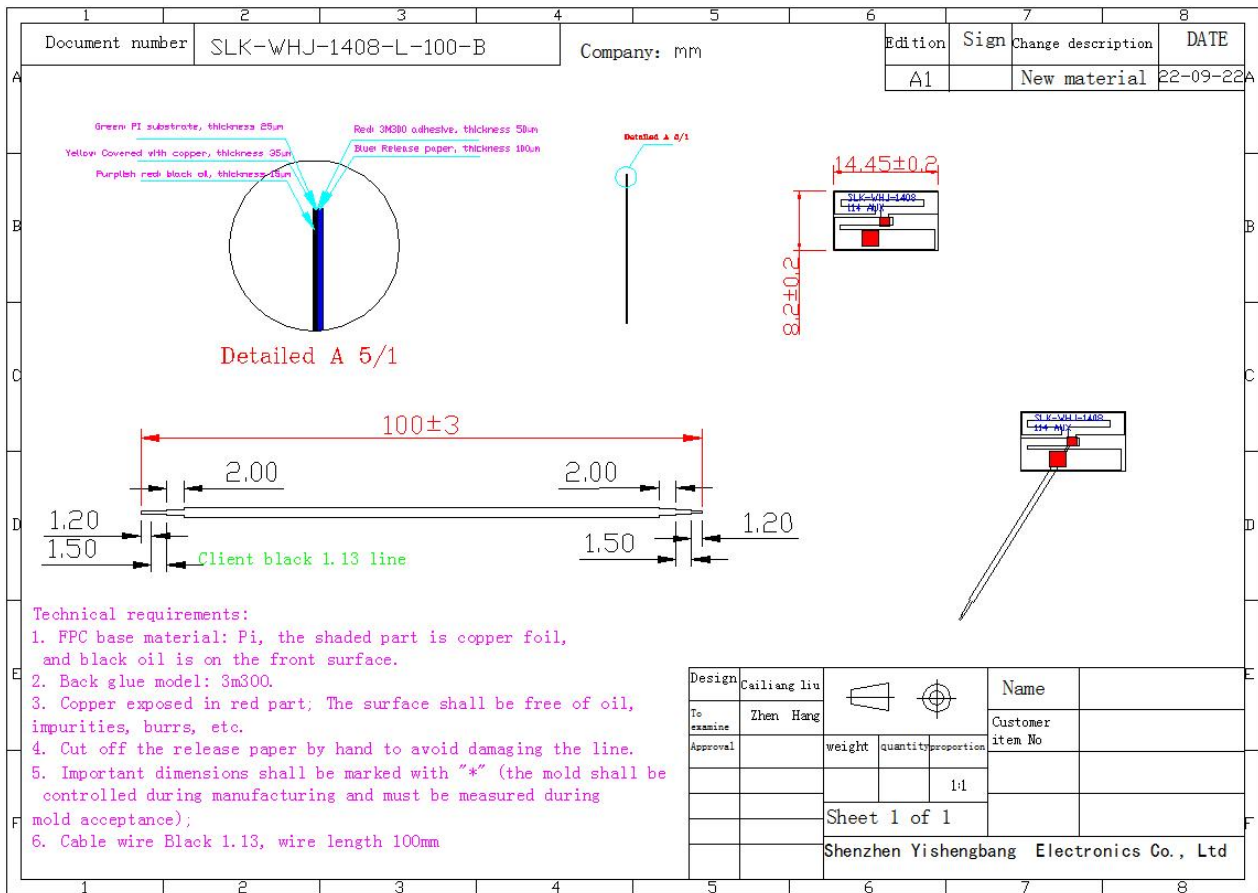
S11



4-3. 4G Antenna TRP/TIS

2G 频段	LTE-L	LTE-M	LTE-R	TIS	天线增益
GSM850	25.12	25.34	25.66	-102.13	0.8
GSM900	26.23	26.48	26.69	-102.44	0.9
GSM1800	24.32	24.46	24.67	-102.35	1
GSM1900	24.29	24.56	24.79	-102.18	1.1
3G 频段	LTE-L	LTE-M	LTE-R	TIS	
WCDMA-B1	17.33	17.45	17.68	-103.29	1.3
WCDMA-B2	17.48	17.66	18.23	-103.34	1.1
WCDMA-B5	16.23	16.47	16.58	-102.83	0.8
WCDMA-B8	16.49	16.23	16.05	-102.28	0.9
4G 频段	LTE-L	LTE-M	LTE-R	TIS	
LTE-3	17.58	18.26	18.42	-92.05	1
LTE-5	16.65	16.44	16.36	-89.28	0.8
LTE-40	17.63	17.85	17.47	-89.46	1.4
LTE-41	16.36	16.23	16.27	-89.07	1.6

5. Antenna Dimensions (unit: mm)



6. Antenna Picture



As shown in the picture:

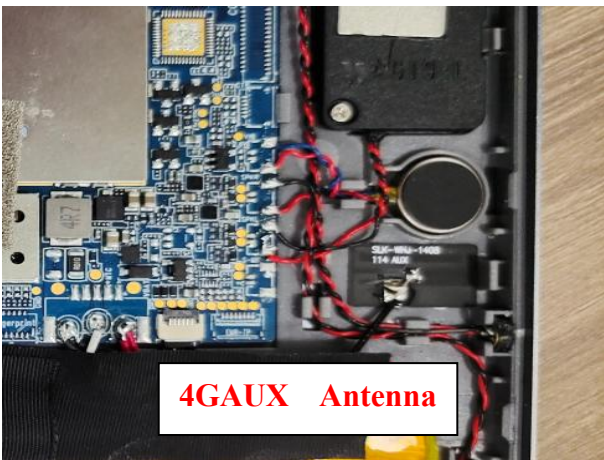
1. Pull a piece of conductive cloth at the screen cable to wrap it for shielding treatment, and then paste two pieces of conductive foam on the bottom shell to overlap with the metal part of the screen;
2. Paste a piece of conductive foam on the shielding cover of the motherboard and overlap the metal part of the screen;
3. Stick a piece of conductive foam on the WIFI module shielding cover and overlap the metal part of the screen;
4. Paste a piece of conductive cloth at the camera cable for shielding;
5. Paste conductive foam at the copper exposed part at the bottom of the main board and overlap the metal part of the bottom shell;



4GMAIN Antenna



WIFI+GPS Antenna



4GAUX Antenna