

WAG-F-S6G2S6G3-00-008 Specification

1. Explanation of part number :

WAG _ F _ S6G2S6G3 _ 00 _ 008
(1) (2) (3) (4) (5)

(1) Product Type : ANT5+ANT6 Antenna

(2) Material: FPC

(3) Frequency : ANT5: 3300-5000MHz; ANT6: 1550-1610MHz;2400-2500MHz;
5150-5850MHz

(4) Coaxial Cable Type : 00

(5) Suffix :008

2. Storage Condition:

Temperature -40 to +70 °C
Humidity 65±20 % RH

3. Operating Condition:

Temperature -40 to +70 °C
Humidity 65±20 % RH

4. Electrical Specification :

Those specifications were specially defined for 龙旗 X708 (ANT 5&6) model, and all characteristics were measured under the model's handset testing. :

4-1. Frequency Band:

Frequency Band	MHz
ANT5	3300-5000;1550-1610
ANT6	2400-2500;5150-5850

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=± X.XX=±
ANGLES=± HOLEDIA=±



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SCALE :

UNIT : mm

DRAWN BY : 靳静

CHECKED BY : 赵付辉

DESIGNED BY : 熊勇

APPROVED BY : 赵付辉

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4-2. Impedance

50 ohm nominal

4-3. Matching circuit

项目阶段		EVB	EVT	DVT 1	DVT 2	
天线编号	位号	名称		名称	名称	封装
ANT5	J5902	弹片	弹片	弹片	弹片	
	J5903	弹片	弹片	弹片	弹片	0201
	C5904	33PF	33PF	33PF	33PF	0201
	FV5900	TVS管	TVS管	TVS管	TVS管	0201
	L5906	100NH	100NH	120NH	100NH	0201
	C5902	33PF	33PF	33PF	33PF	0201
	L5911	82NH	82NH	120NH	82NH	0201
	R5905	0R	0R	0R	0R	0201
	L5912	NC	NC	NC	NC	0201
	C5900	射频口	射频口	射频口	射频口	
ANT6	J5700	弹片	弹片	弹片	弹片	
	J5702	弹片	弹片	弹片	弹片	
	C5706	33PF	33PF	33PF	33PF	0201
	FV5700	TVS管	TVS管	TVS管	TVS管	0201
	L5701	100NH	100NH	120NH	120NH	0201
	C5710	33PF	33PF	33PF	33PF	0201
	L5708	82NH	82NH	120NH	120NH	0201
	C5714	NC	NC	NC	NC	0201
	R5701	0R	0R	0R	0R	0201
	C5715	NC	NC	NC	NC	0201
	R5702	0R	0R	0R	0R	0201
	C5716	NC	NC	NC	NC	0201
	CON5700	射频口	射频口	射频口	射频口	

4-4. VSWR

4-4.1 Measuring Method

- 1.A 50Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR
- 2.Keeping this jig away from metal at least 20cm

4-4.2 Measurement frequency points and Return loss value

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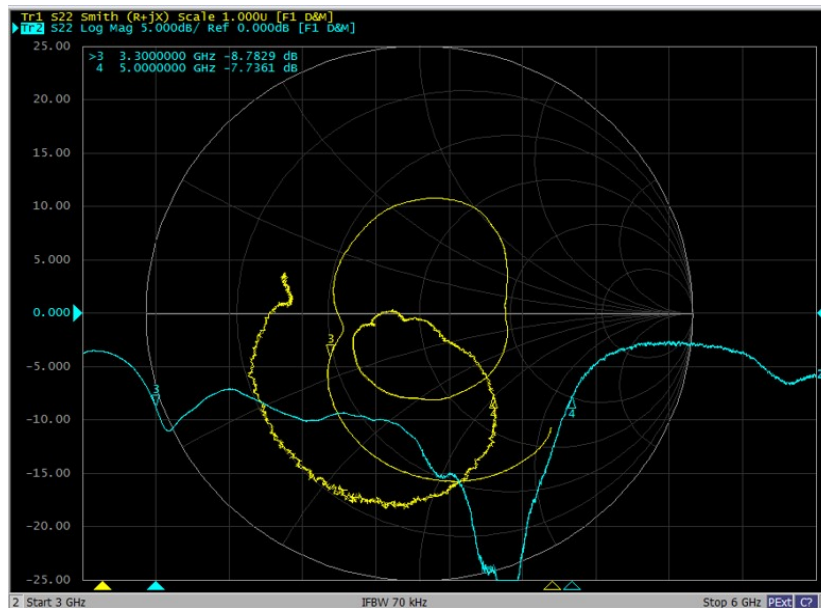
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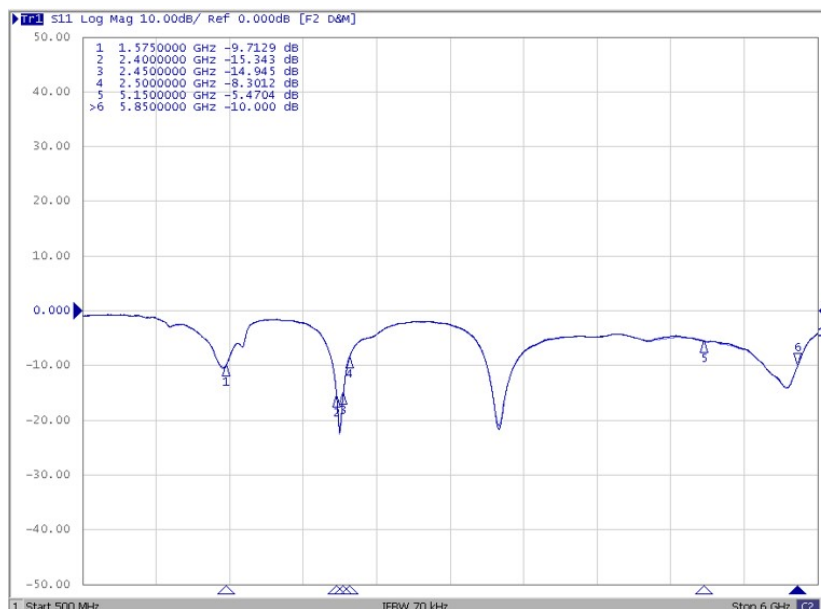
ANT5:

Frequency (Unit MHz)	3300	5000
VSWR	-8.7	-7.7



ANT6:

Frequency (Unit MHz)	1575	2400	2450	2500	5150	5850
VSWR	-9.7	-15.3	-14.3	-8.3	-5.4	-10



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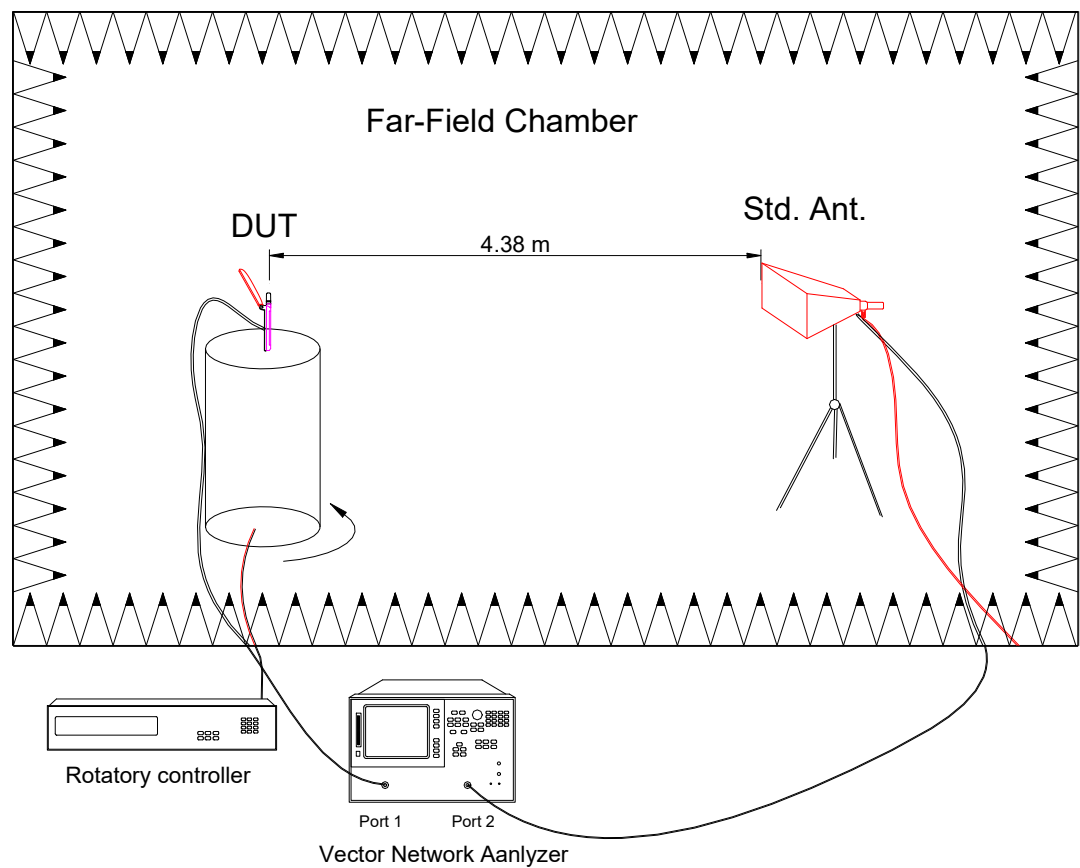
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4-5. Efficiency and Gain

4-5.1 Measure method

- 1. Using a low loss coaxial cable to link a standard handset jig
- 2. Fixed this handset jig on chamber's rotator plane
- 3. Linking jig into network analyzer port and using a probing horn antenna to collect data.
- 4. Using another standard gain horn antenna to calibrated those data

4-5.2 Chamber definition



- 1. An anechoic chamber (7mx4mx3m) which satisfied far-field condition was applied to avoid multi-path effect
- 2. The quiet room region is 40cmx40cmx40cm at the center of rotator
- 3. The distance between DUT and standard antenna is 4.38 m
- 4. Probing antenna (9120D horn antenna) and standard gain horn antenna (BBHA9120 LPF 700MHz ~6GHz)

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4-5.3 Efficiency and Gain

Antenna gain is marked (dBi) and is based on STANDARD HORN antenna. The data shows Peak Gain and Average Gain.

ANT5:

Frequency	Efficiency	Efficiency	MaxGain/dBi	Frequency	Efficiency	Efficiency	MaxGain/dBi
3300	-6.33	23.28	1.09	4200	-5.77	26.49	0.44
3350	-6.46	22.59	1.22	4250	-5.57	27.73	0.69
3400	-6.3	23.44	0.46	4300	-5.05	31.26	1.72
3450	-6.2	23.99	-0.57	4350	-5.16	30.48	1.49
3500	-5.97	25.29	-0.81	4400	-5.26	29.79	1.66
3550	-6.34	23.23	-1.05	4450	-5.06	31.19	2.42
3600	-6.63	21.73	-2.19	4500	-4.56	34.99	2.8
3650	-6.55	22.13	-1.45	4550	-4	39.81	2.8
3700	-6.45	22.65	-0.35	4600	-3.93	40.46	2.63
3750	-6.36	23.12	-0.32	4650	-3.94	40.36	2.22
3800	-6.19	24.04	-0.28	4700	-4.2	38.02	2.29
3850	-6.11	24.49	-0.37	4750	-4.32	36.98	1.98
3900	-5.92	25.59	0.23	4800	-4.51	35.4	1.61
3950	-5.81	26.24	1.11	4850	-4.58	34.83	2.2
4000	-5.6	27.54	1.06	4900	-5.05	31.26	2.01
4050	-5.41	28.77	1	4950	-5.74	26.67	1.28
4100	-5.52	28.05	0.3	5000	-6.81	20.84	-1.09
4150	-5.71	26.85	0.42				

ANT6:

Frequency	Efficiency	Efficiency	MaxGain/dBi	Frequency	Efficiency	Efficiency	MaxGain/dBi
1570	-4.83	32.89	0.94	5150	-7.23	18.92	-0.95
1572	-4.76	33.42	0.69	5200	-7.13	19.36	-1.05
1574	-4.75	33.5	0.66	5250	-7	19.95	-1.85
1576	-4.78	33.27	0.43	5300	-6.94	20.23	-2.27
1578	-4.84	32.81	0.36	5350	-6.32	23.33	-1.34
1580	-4.82	32.96	0.85	5400	-6.1	24.55	-0.86
2400	-4.91	32.28	2.76	5450	-6.16	24.21	-1.27
2410	-4.89	32.43	2.63	5500	-5.93	25.53	-0.58
2420	-4.82	32.96	2.73	5550	-5.77	26.49	-1.01
2430	-4.74	33.57	2.72	5600	-6.01	25.06	-2.15
2440	-4.96	31.92	2.35	5650	-6.02	25	-1.84
2450	-4.8	33.11	2.86	5700	-6.11	24.49	-0.72
2460	-5.38	28.97	2.08	5750	-5.77	26.49	-0.02
2470	-5.21	30.13	2.57	5800	-5.8	26.3	-0.05
2480	-5.72	26.79	1.7	5850	-5.88	25.82	0.38
2490	-5.67	27.1	1.9				
2500	-6.11	24.49	1.18				

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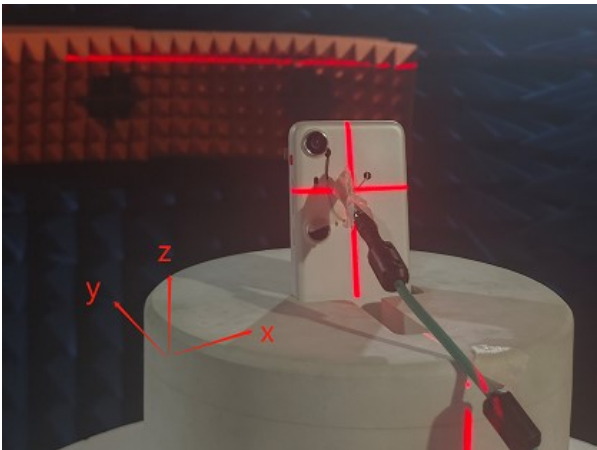


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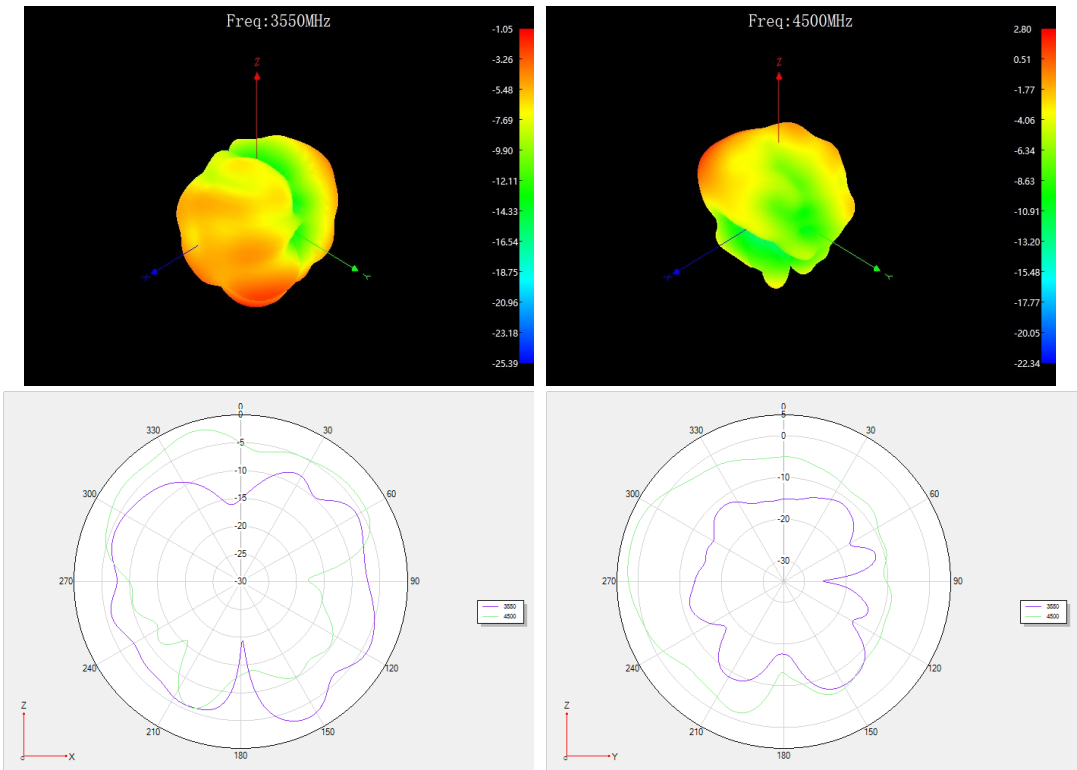
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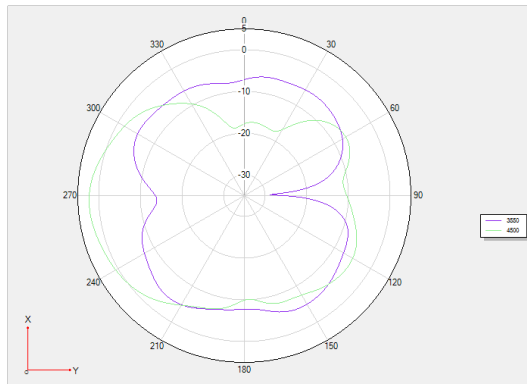
4-5.4 2/3D Radiation Pattern Results



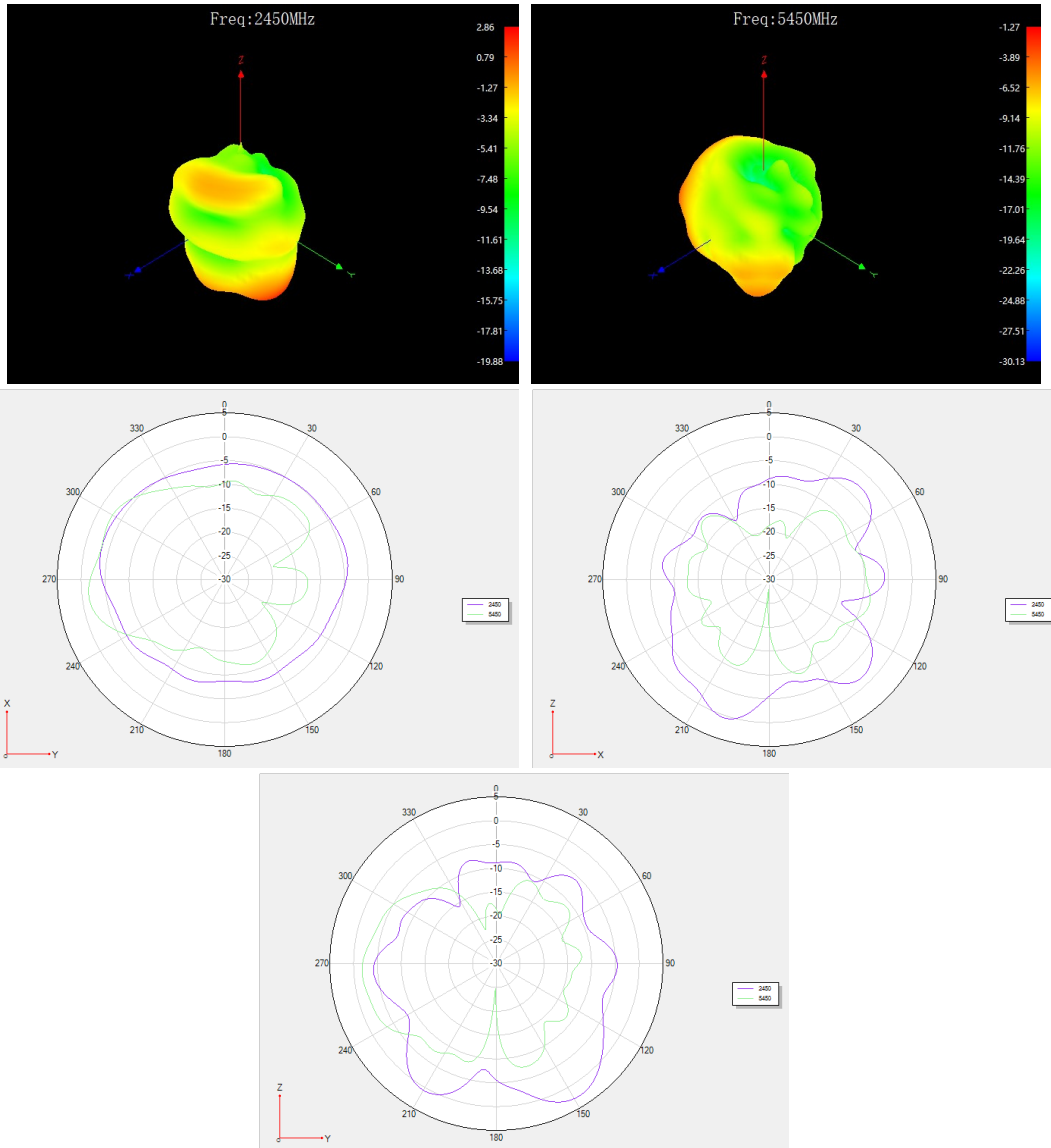
ANT5:



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ANT6:



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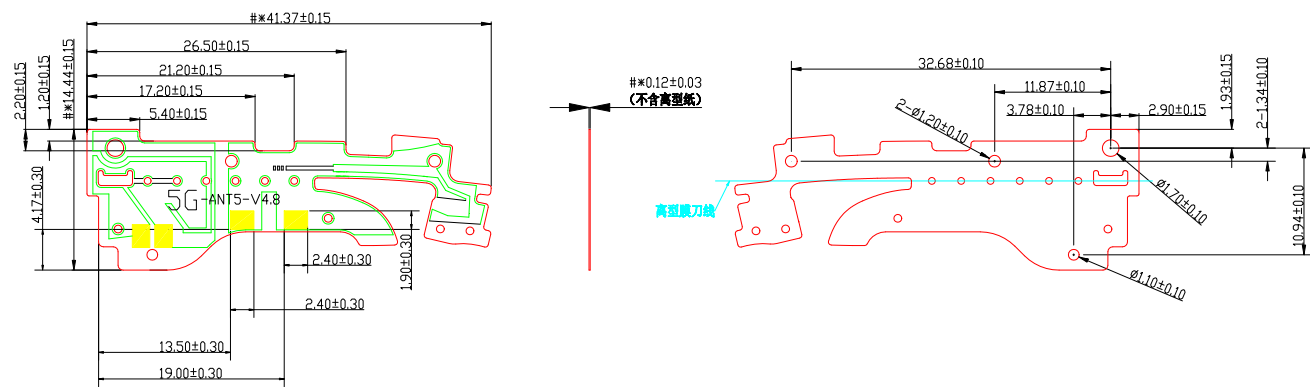
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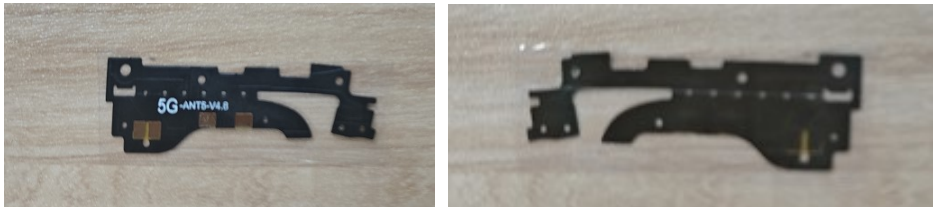
5. Mechanical Specification:

5-1. Mechanical Configuration (Unit: mm)

The appearance of the antenna is according to drawing Figure 5-1-1



6. Physical illustration



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