

SPECIFICATION

Daxian Communication Technology Limited

**Shenzhen Daxian Technology Co., Ltd.****Unimax Q3205 BT/WIFI/GPS antenna**

Product specification

Guest households	Unimax	frequency band	BT/WIFI/GPS
Project name	Q3205	version	V10
Material No.	3Q-3205X-019	color	Black
R F design	Xitian.Chen	structure design	Yezhi.Bi
Quality Manager	Ziyin.Hu	R & D director	Lei Zhang
Date	2023-05-31		

client confirmation:

Whether the assembly meets your requirements: ☐OK ☐NG**Shenzhen Topant Technology Co., Ltd.**

Shangshuijing Village, No. 513, ihua Road, BujiTown, Longgang District, Shenzhen (opposite to theNational Defense Training Base)reached the 7thfloor of the Industrial Park Complex

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Change resume

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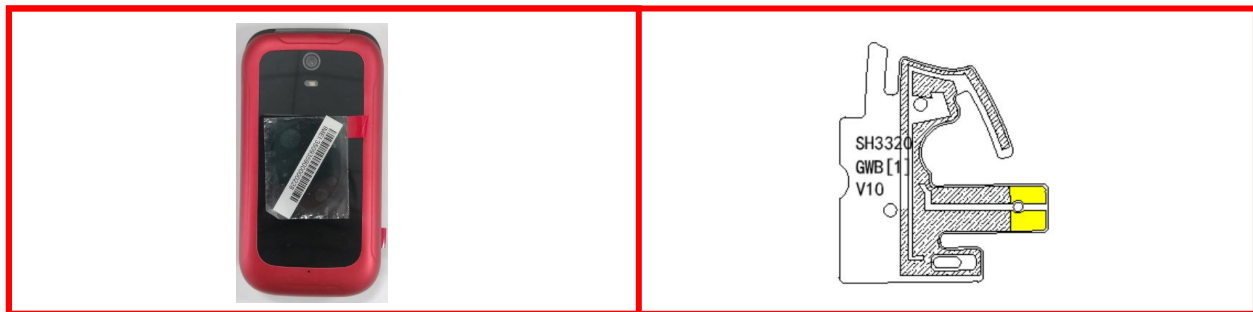
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— Project description

Customer name:	Unimax
Whole machine type:	mobile phone
Antenna band:	BT/WIFI/GPS
Antenna form:	FPC
Feed form:	welding
Number of feed feet:	2 left and right ears
Hardware version:	motherboard:

一、 BT/WIFI/GPS Antenna

This report provides a variety of measurements of the electrical performance of the Q3205 antenna. Figure 1 shows the antenna designed by the display.



Whole machine appearance chart

antenna appearing diagram

Figure 1

1.1 Electrical specification standard

The frequency range of the antenna is 2400MHz~2500MHz,GPS: 1575MHz. The following table indicates the electrical performance specifications of the antenna. The antenna is designed and manufactured by a large display.

Frequency Range	Frequency (MHz)	VSWR
BT	2400 ~ 2500	≤ 2
WIFI	2400 ~ 2500	≤ 2
GPS	1575MHz	≤ 2

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1.2 Antenna composition

The antenna is mainly composed of FPC.

2、 The Equipment of Active Test

Satimo 3D Chamber $6 \times 4 \times 4$ (m)

Agilent 8960 E5515c

Network analyzer-R&S ZVL



Figure 2

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3 test

3.1 The Test of standing Wave (VSWR)

3.1.1 The Test of standing Wave (VSWR): In turn, the connection of the VSWR testing device is as follows: RES ZVL Network Analyzer / testing Line / testing tool

Actual measurement (with diagram)

3.2 Measurement of Efficiency, Power (TRP) and Sensitivity (TIS)

3.2.1 Test site:

Large-scale microwave darkroom. The test frequency range is 400MHz / 6GHz, the static range is 50cm circumferential and the reflectivity is less than-50 dB..

3.2.2 Test instrument:

Rs ZVL Network Analyzer, Agilent8960 E5515C, Standard Horn Antenna, French SATIMO-SG24SYSTEM system, Printer, etc.

3.2.3 test data : In microwave anechoic chambers, the power and sensitivity values measured are shown in the following table:

OTA Passive Efficiency&Gain Test:

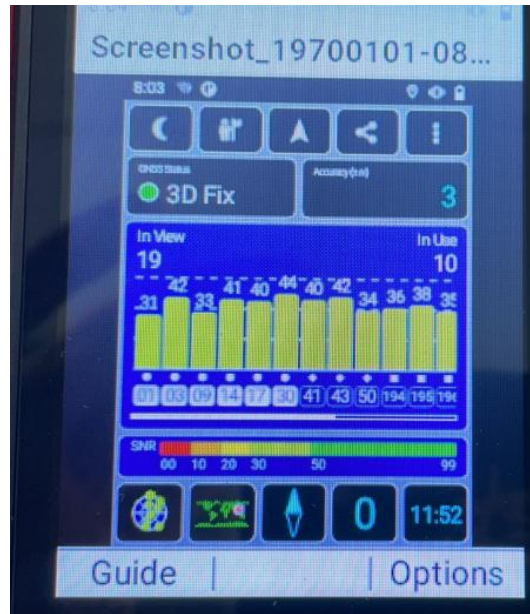
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
1530	38.04	-4.2	0.66	2400	54.69	-2.27	3.84
1540	38.32	-4.17	0.4	2410	55.53	-2.22	3.84
1550	39.34	-4.05	0.35	2420	55.65	-2.21	3.81
1560	39.76	-4.01	0.21	2430	56.23	-2.18	3.78
1570	41.12	-3.86	0.71	2440	57.81	-2.09	3.86
1580	40.71	-3.9	0.89	2450	57.99	-2.08	3.86
1590	39.19	-4.07	0.88	2460	59.46	-2	3.97
1600	36.46	-4.38	0.73	2470	60.49	-1.94	4.13
				2480	60.19	-1.96	4.06
				2490	59.06	-2.02	4.16
				2500	59.73	-1.98	4.18

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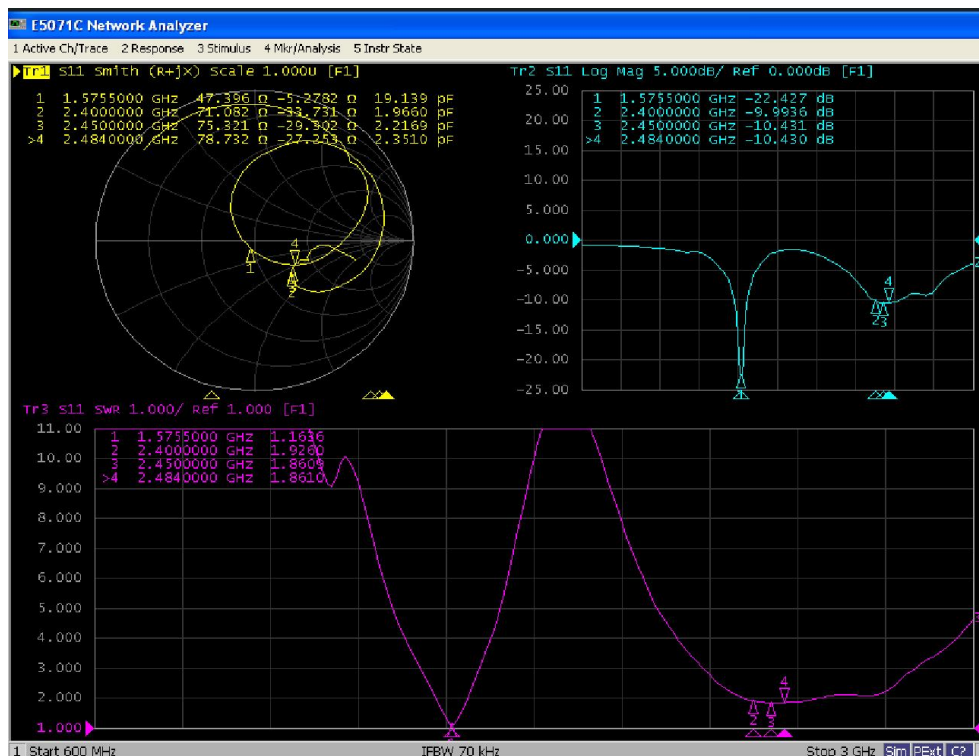
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GPS measurement:



4、 Attachment chart

4.1 VSWR parameter diagram

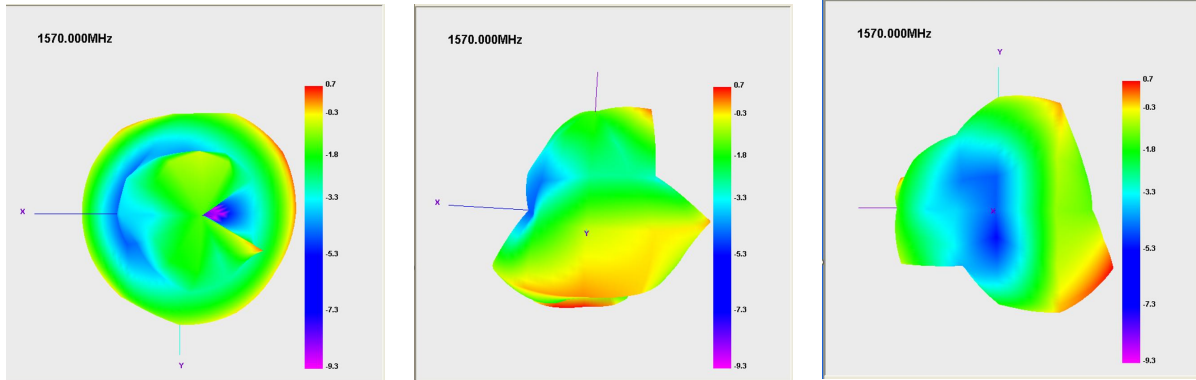


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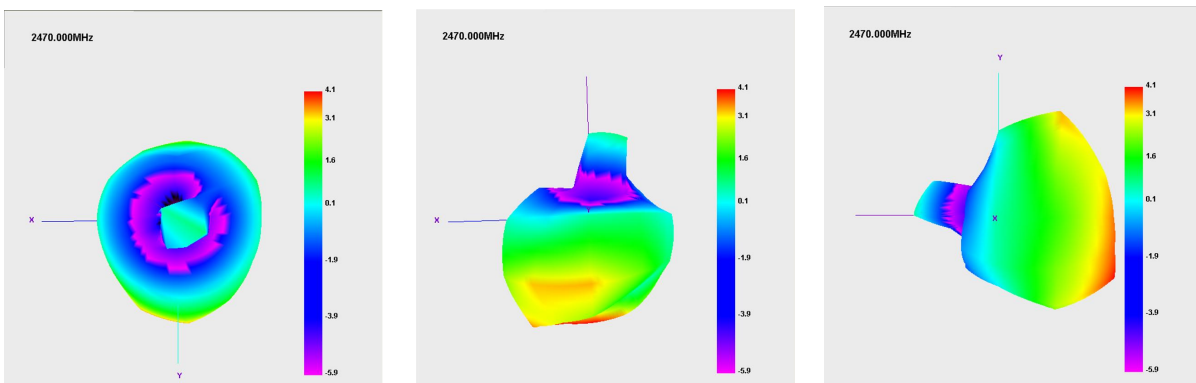
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5、GPS passive field pattern diagram



5.1、WiFi passive field pattern diagram

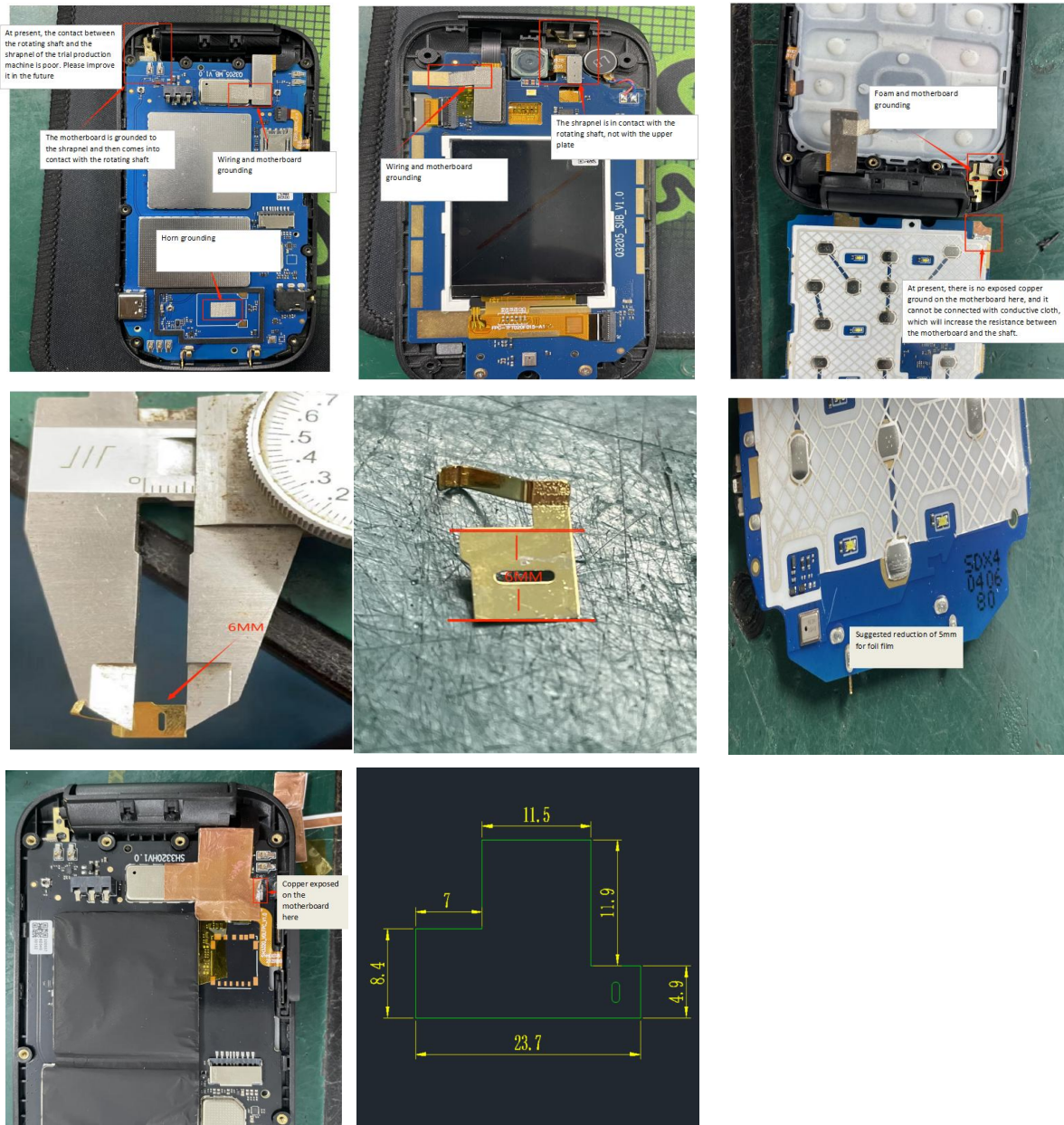


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5、environmental treatment

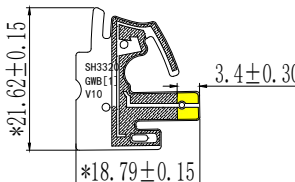
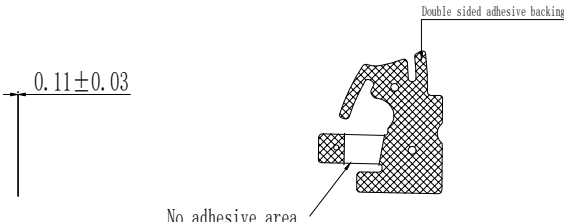


6、conclusion:

This antenna is designed on the basis of the prototype provided by the customer, electrical parameters and structural performance have reached the technical requirements, please confirm!

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D	technical requirement: 1."*"is the key dimension; 2.Please refer to the drawing for unspecified dimensions; 3.Meet RoHS requirements. <table><tr><td colspan="6">Shenzhen Topant Technology Co., Ltd.</td></tr><tr><td>Machine model</td><td>Q3205</td><td colspan="2">Product Color</td><td>black</td><td>date</td><td>2023/05/27</td></tr><tr><td>Project Code</td><td>BQ-3205X-019</td><td colspan="2">Mold surface treatment</td><td>NA</td><td>MD</td><td>BI YE ZHI</td></tr><tr><td>Part Name</td><td>3IN1 antenna</td><td>unit</td><td>mm</td><td>scale</td><td>1:1</td><td>RF</td></tr><tr><td>Part Number</td><td>3Q-3205X-019-1</td><td colspan="2" rowspan="2">Third perspective</td><td rowspan="2"></td><td>check</td><td>ZHOU KANG</td></tr><tr><td>material</td><td>Electrolytic copper PI</td><td>ratify</td><td>ZHANG LEI</td></tr><tr><td>Save Path</td><td colspan="4"></td><td>current version</td><td>A</td></tr></table>												 Shenzhen Topant Technology Co., Ltd.						Machine model	Q3205	Product Color		black	date	2023/05/27	Project Code	BQ-3205X-019	Mold surface treatment		NA	MD	BI YE ZHI	Part Name	3IN1 antenna	unit	mm	scale	1:1	RF	Part Number	3Q-3205X-019-1	Third perspective			check	ZHOU KANG	material	Electrolytic copper PI	ratify	ZHANG LEI	Save Path					current version	A
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SPECIFICATION

Daxian Communication Technology Limited

**Shenzhen Daxian Technology Co., Ltd.**Unimax Q3205 Main

Product specification

Guest households	Unimax	frequency band	LTE B2/4/5/12/66
Project name	Q3205	version	V10
Material No.	1Q-3205X-019	color	Black
R F design	Xitian.Chen	structure design	Yezhi.Bi
Quality Manager	Ziyin.Hu	R & D director	Lei Zhang
Date	2023-05-31		

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— Project description

Customer name:	Unimax
Whole machine type:	Main
Antenna band:	LTE B2/4/5/12/66
Antenna form:	FPC
Feed form:	welding
Number of feed feet:	2 left and right ears
Hardware version:	motherboard:

一、 Main

This report provides a variety of measurements of the electrical performance of the Q3205 antenna. Figure 1 shows the antenna designed by the display.



Whole machine appearance chart

antenna appearing diagram

Figure 1

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1.1 Electrical specification standard

The frequency range of the antenna is

1850MHz~1990MHz,1710MHz~2155MHz,824MHz~894MHz,699MHz~746MHz,1710MHz~2200MHz.

The following table indicates the electrical performance specifications of the antenna. The antenna is designed and manufactured by a large display.

LTE -band B2				
band	band (MHz)	VSWR	band (MHz)	VSWR
	The transmit TX		The receiving end RX	
LTE -B 2	1850~1910	≤ 4	1930~1990	≤ 4
LTE -band B4				
band	band (MHz)	VSWR	band (MHz)	VSWR
	The transmit TX		The receiving end RX	
LTE -B 4	1710~1755	≤ 4	2110~2155	≤ 4
LTE -band B5				
band	band (MHz)	VSWR	band (MHz)	VSWR
	The transmitter TX		The receiving end RX	
LTE -B 5	824~849	≤ 4	869~894	≤ 4
LTE -band B12				
band	band (MHz)	VSWR	band (MHz)	VSWR
	The transmitter TX		The receiving end RX	
LTE -B 12	699~716	≤ 4	729~746	≤ 4
LTE -band B66				
band	band (MHz)	VSWR	band (MHz)	VSWR
	The transmitter TX		The receiving end RX	
LTE -B 66	1710~1780	≤ 4	2110~2200	≤ 4

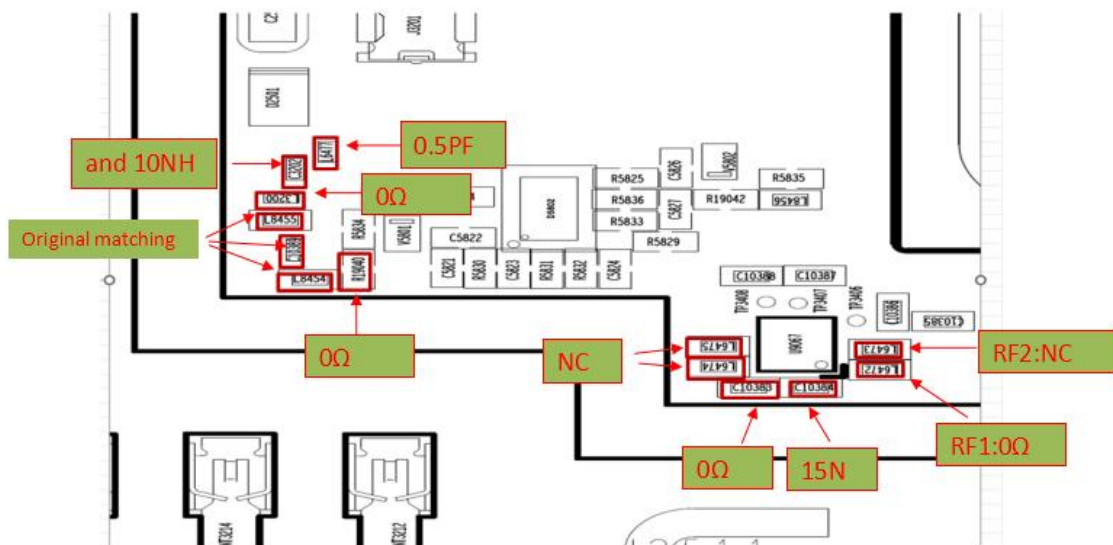
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1.2 antenna matching

Main antenna switch logic			
Element	Number	value	Band
RF1		0Ω	GSM850/1900 LTE B2/4/5/66 WCDMA 2/4/5
RF2		NC	LTE B12
RF3			
RF4			



1.3 Antenna composition

The antenna is mainly composed of FPC.

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2、 The Equipment of Active Test

Satimo 3D Chamber $6 \times 4 \times 4$ (m)

Agilent 8960 E5515c

Network analyzer-R&S ZVL



Figure 2

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3.1 The Test of standing Wave (VSWR)

3.1.1 The Test of standing Wave (VSWR): In turn, the connection of the VSWR testing device is as follows: RES ZVL Network Analyzer / testing Line / testing tool

Actual measurement (with diagram)

3.2 Measurement of Efficiency, Power (TRP) and Sensitivity (TIS)

3.2.1 Test site:

Large-scale microwave darkroom. The test frequency range is 400MHz / 6GHz, the static range is 50cm circumferential and the reflectivity is less than-50 dB..

3.2.2 Test instrument:

Rs ZVL Network Analyzer, Agilent8960 E5515C, Standard Horn Antenna, French SATIMO-SG24SYSTEM system, Printer, etc.

3.2.3 test data : In microwave anechoic chambers, the power and sensitivity values measured are shown in the following table:

OTA Active Test:

FRE-Band	Channel	TRP	TIS
LTE-B2	18650	22.39	
	18900	22.01	
	19150	21.26	-100.15
LTE-B4	20000	19.98	
	20175	21.39	
	20350	21.83	-98.06
LTE-B5	20450	17.78	
	20525	18.33	
	20600	17.52	-94.01
LTE-B12	23035	17.46	
	23095	18.18	
	23155	18.34	-98.04
LTE-B66	132022	21.5	
	132322	22.11	
	132622	21.59	-98.36

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OTA Passive Efficiency&Gain Test--RF1:B5/medium-high frequency:

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
820	12.19	-9.14	-3.42	1910	47.08	-3.27	2.06
830	16.6	-7.8	-2.61	1920	48.02	-3.19	2.18
840	21.01	-6.78	-2.43	1930	45.24	-3.44	1.92
850	25.22	-5.98	-2.39	1940	44.29	-3.54	1.79
860	26.14	-5.83	-2.95	1950	44.32	-3.53	1.75
870	25.02	-6.02	-2.85	1960	42	-3.77	1.62
880	21.04	-6.77	-3.64	1970	41.18	-3.85	1.49
890	18	-7.45	-4.17	1980	40.42	-3.93	1.45
900	15.65	-8.06	-4.37	1990	40.38	-3.94	1.22
1700	42.22	-4.29	0.23	2000	41.01	-3.87	1.13
1710	43.96	-4.09	0.13	2010	41.45	-3.82	1.31
1720	45.25	-3.95	0.43	2020	42.78	-3.69	1.69
1730	45.83	-3.89	0.31	2030	42.71	-3.69	1.75
1740	46.79	-3.79	0.66	2040	42.71	-3.69	1.78
1750	47.49	-3.72	0.9	2050	43.77	-3.59	2.01
1760	47	-3.77	0.98	2060	43.78	-3.59	1.96
1770	44.66	-4.02	0.84	2070	44.02	-3.56	1.96
1780	44.49	-4.04	0.84	2080	44.22	-3.54	1.95
1790	45.77	-3.9	1.07	2090	43.81	-3.58	1.88
1800	45.34	-3.94	0.88	2100	44.04	-3.56	1.88
1810	42.55	-4.25	0.58	2110	43.22	-3.64	1.76
1820	40.66	-4.48	0.18	2120	42.89	-3.68	1.72
1830	40.84	-4.46	0.18	2130	42.87	-3.68	1.63
1840	44.35	-4.64	-0.11	2140	42.54	-3.71	1.55
1850	40.39	-5.17	-0.7	2150	42.38	-3.73	1.4
1860	39.85	-5.25	-0.67	2160	41.65	-3.8	1.23
1870	41.98	-4.95	-0.43	2170	40.35	-3.94	1.06
1880	42.49	-4.88	-0.35	2180	40.78	-3.9	1.01
1890	40.91	-5.1	-0.75	2190	40.37	-3.94	0.88
1900	40.54	-5.15	-0.96	2200	38.88	-4.1	0.56

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OTA Passive Efficiency&Gain Test--RF2:B12:

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
690	14.22	-8.3	-4.8	1910	26.37	-5.79	0.02
700	15.65	-7.78	-4.18	1920	29.06	-5.37	0.32
710	17.62	-7.15	-4.33	1930	29.2	-5.35	0.25
720	16.37	-7.54	-5.19	1940	29.13	-5.36	0.07
730	24.23	-5.53	-3.59	1950	29.61	-5.29	0.11
740	25.46	-5.29	-3.52	1960	29.93	-5.24	0.16
750	25.02	-5.37	-3.73	1970	30.71	-5.13	0.13
760	20.93	-6.26	-4.58	1980	29.8	-5.26	-0.15
1700	5.52	-12.58	-6.47	1990	29.37	-5.32	-0.52
1710	6.36	-11.97	-5.7	2000	31.02	-5.08	-0.57
1720	7.63	-11.17	-5.35	2010	31.72	-4.99	-0.43
1730	9.91	-10.04	-4.23	2020	31.94	-4.96	-0.2
1740	12.82	-8.92	-3.48	2030	31.03	-5.08	-0.24
1750	15.35	-8.14	-2.73	2040	31.09	-5.07	-0.29
1760	17.56	-7.55	-2.15	2050	32.13	-4.93	-0.17
1770	19.78	-7.04	-1.63	2060	30.97	-5.09	-0.44
1780	22.25	-6.53	-1.02	2070	30.39	-5.17	-0.65
1790	24.42	-6.12	-0.72	2080	31.06	-5.08	-0.77
1800	25.22	-5.98	-0.48	2090	31.9	-4.96	-0.89
1810	24.54	-6.1	-0.71	2100	32	-4.95	-1.08
1820	24.47	-6.11	-0.49	2110	31.21	-5.06	-1.22
1830	25.21	-5.99	-0.39	2120	30.79	-5.12	-1.29
1840	24.5	-6.11	-0.31	2130	30.28	-5.19	-1.05
1850	21.56	-6.66	-0.73	2140	28.23	-5.49	-1.02
1860	21.61	-6.65	-0.48	2150	26.37	-5.79	-1.03
1870	23.73	-6.25	-0.03	2160	24.61	-6.09	-1.03
1880	24.12	-6.18	-0.03	2170	22.3	-6.52	-1.26
1890	23.11	-6.36	-0.27	2180	20.55	-6.87	-1.59
1900	23.29	-6.33	-0.44	2190	18.71	-7.28	-2.02
				2200	18.03	-7.44	-2.33

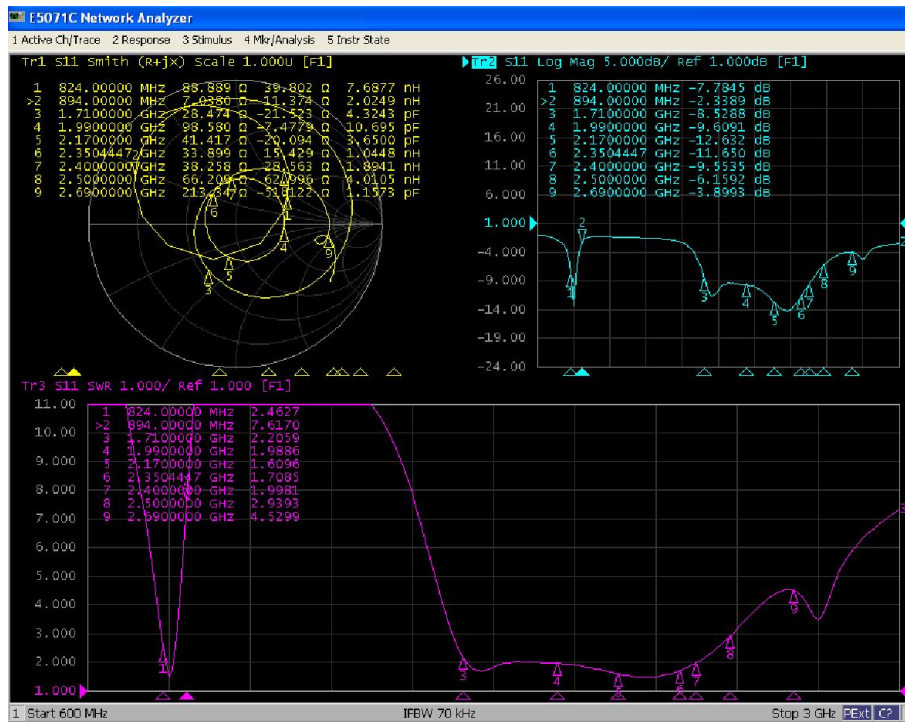
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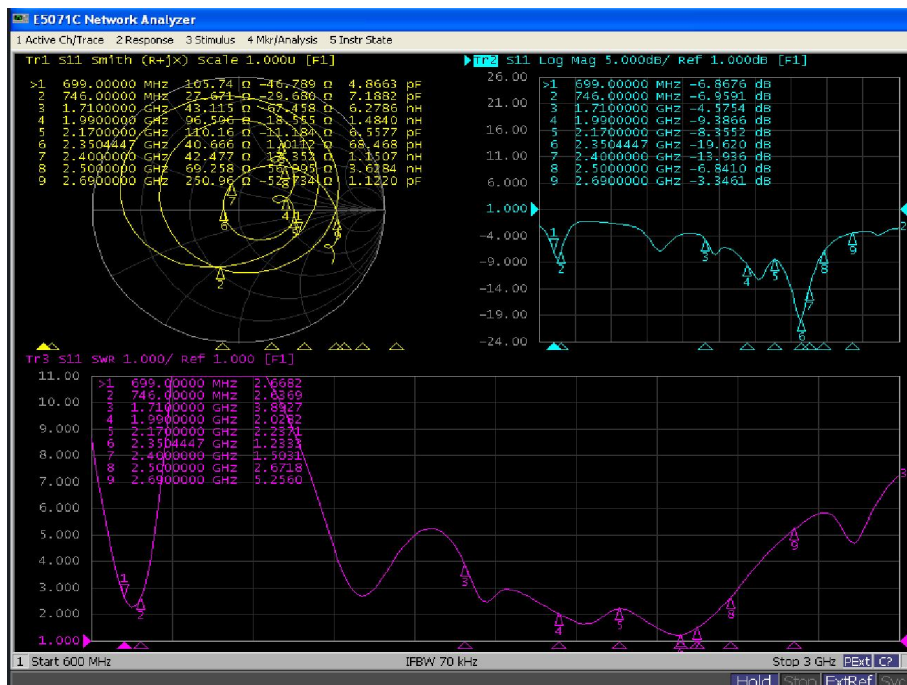
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4、Attachment chart

4.1 VSWR parameter diagram--RF1:B5/medium-high frequency



4.2 VSWR parameter diagram--RF2:B12

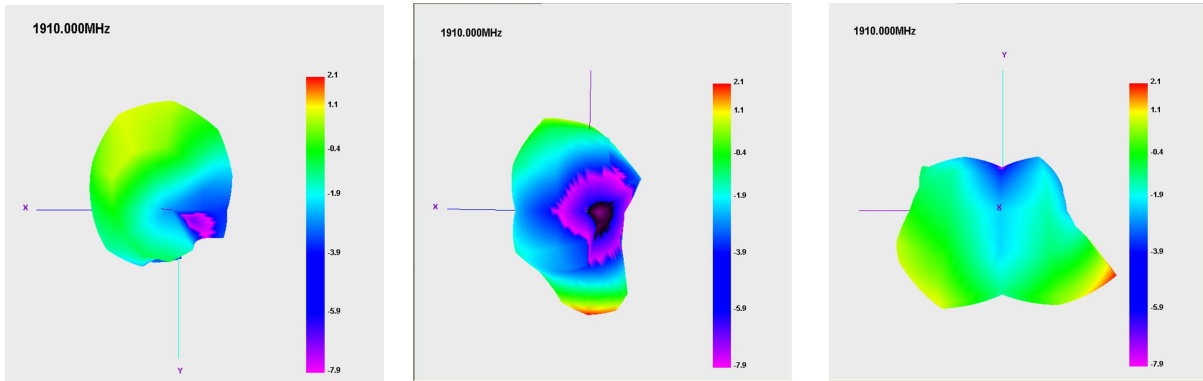


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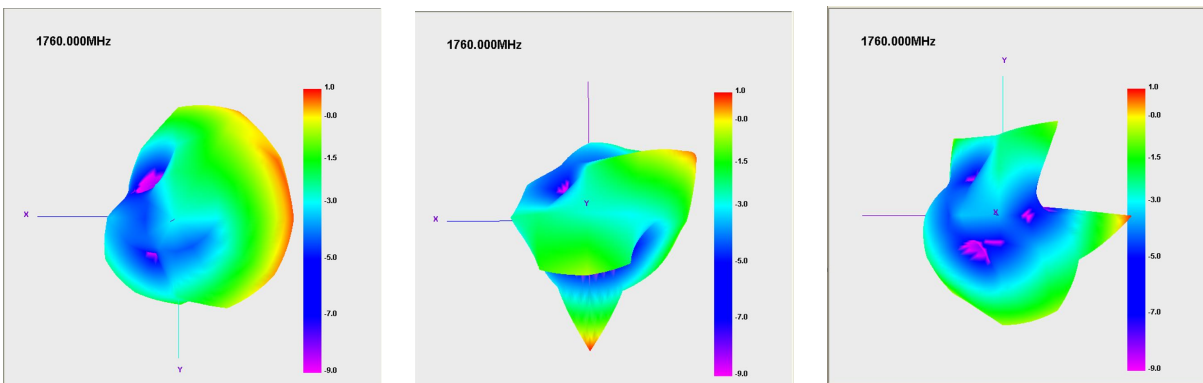
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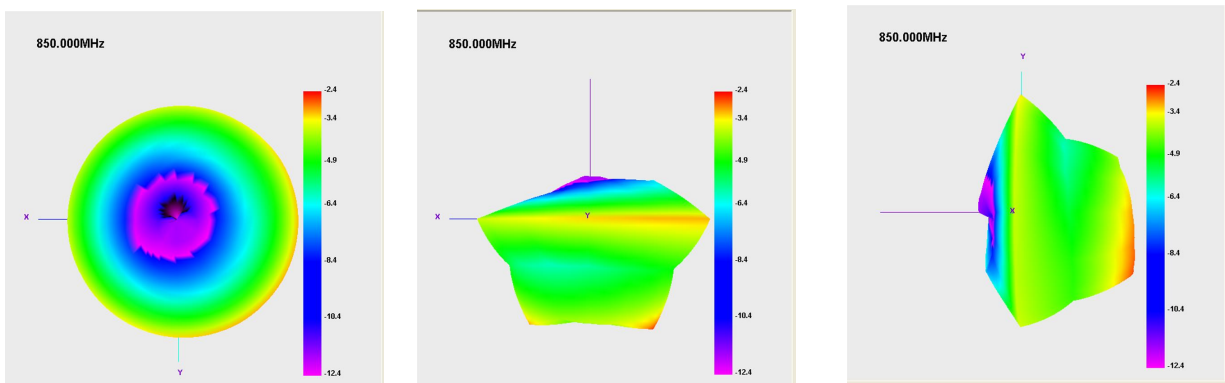
5、Passive field pattern diagram--B2



5.1、Passive field pattern diagram--B4



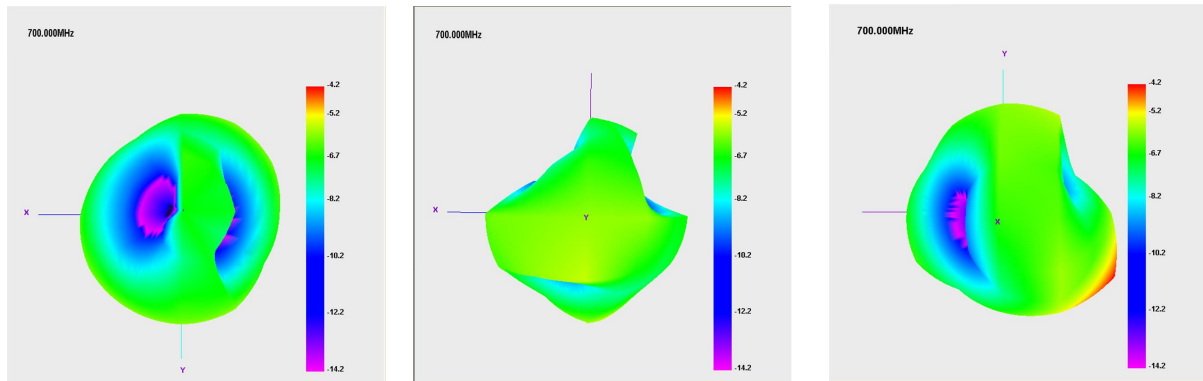
5.2、Passive field pattern diagram--B5



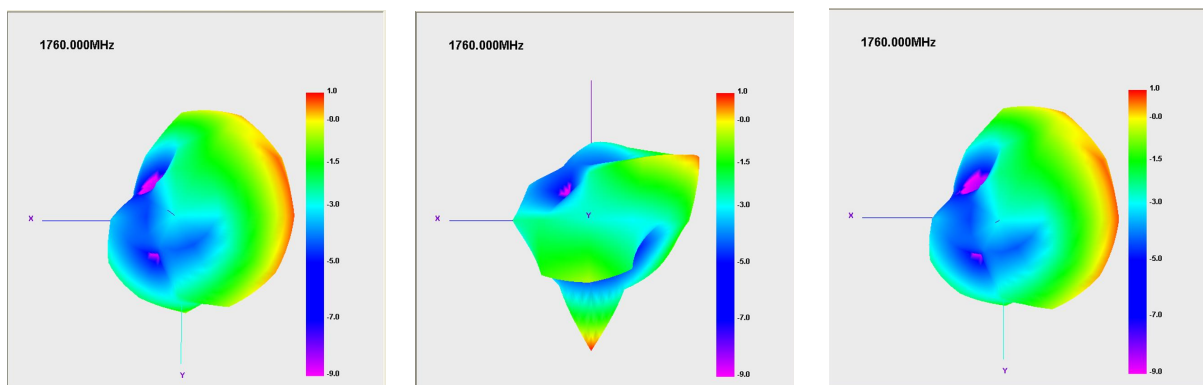
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5.3、Passive field pattern diagram--B12



5.4、Passive field pattern diagram--B66

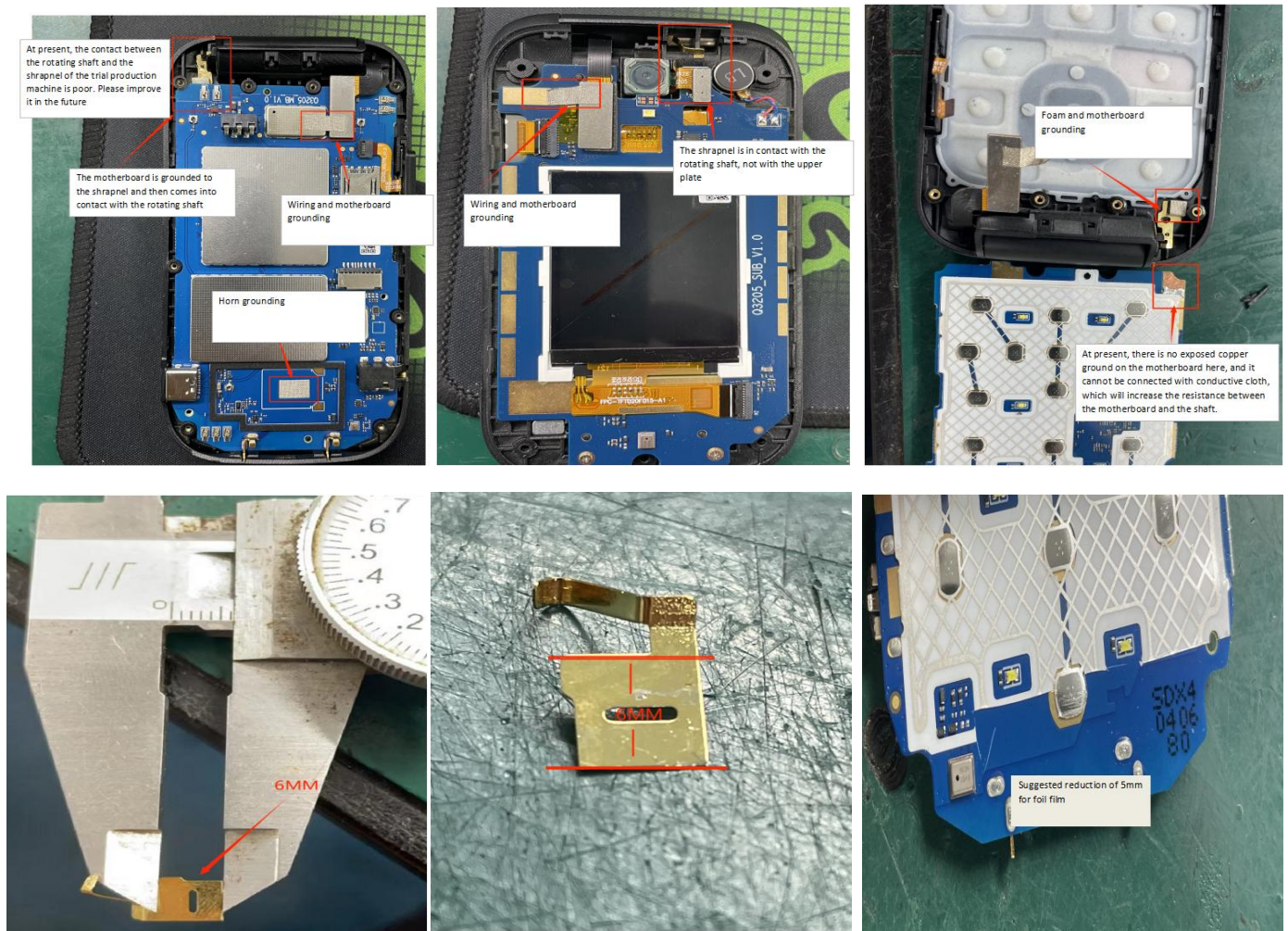


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6、environmental treatment



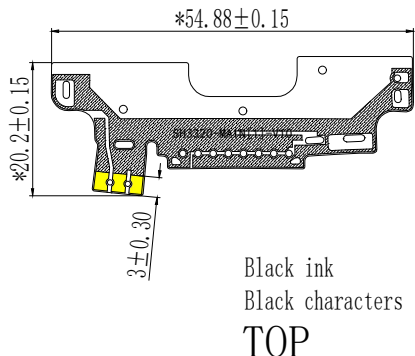
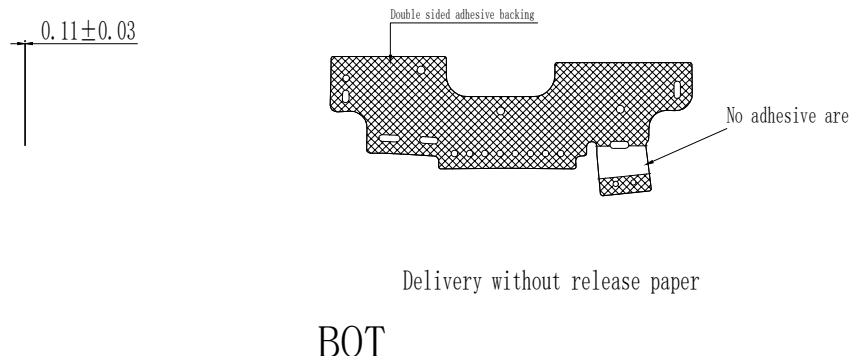
7、conclusion:

This antenna is designed on the basis of the prototype provided by the customer, electrical parameters and structural performance have reached the technical requirements, please confirm!

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1		2		3		4		5		6	
						0~10	10~30	30~50	50~	角度	○
						0.05	0.10	0.15	0.20	1°	◎
										⊥	∕
										0.03	0.05
A											
B											
C											
D											

  0.11±0.03 technical requirement: 1. "＊"is the key dimension; 2.Please refer to the drawing for unspecified dimensions; 3.Meet RoHS requirements.																																																																																					
<table><tr><td></td><td></td><td></td><td></td></tr><tr><td>A</td><td>Initial Issue</td><td>2023.05.27</td><td></td></tr><tr><td>edition</td><td>describe</td><td>date</td><td>Note</td></tr></table> <table><tr><td colspan="2">Machine model</td><td colspan="2">Q3205</td><td colspan="2">Product Color</td><td colspan="2">black</td><td colspan="2">date</td><td colspan="2">2023/05/27</td></tr><tr><td colspan="2">Project Code</td><td colspan="2">BQ-3205X-019</td><td colspan="2">Mold surface treatment</td><td colspan="2">NA</td><td colspan="2">MD</td><td colspan="2">BI YE ZHI</td></tr><tr><td colspan="2">Part Name</td><td colspan="2">MAIN antenna</td><td>unit</td><td>mm</td><td>scale</td><td>1:1</td><td colspan="2">RF</td><td colspan="2">CHEN XI TIAN</td></tr><tr><td colspan="2">Part Number</td><td colspan="2">IQ-3205X-019-1</td><td colspan="2" rowspan="2">Third perspective</td><td colspan="2" rowspan="2"></td><td colspan="2">check</td><td colspan="2">ZHOU KANG</td></tr><tr><td colspan="2">material</td><td colspan="2">Electrolytic copper PI</td><td colspan="2">ratify</td><td colspan="2">ZHANG LEI</td></tr><tr><td colspan="2">Save Path</td><td colspan="6"></td><td colspan="2">current version</td><td colspan="2">A</td></tr></table>										A	Initial Issue	2023.05.27		edition	describe	date	Note	Machine model		Q3205		Product Color		black		date		2023/05/27		Project Code		BQ-3205X-019		Mold surface treatment		NA		MD		BI YE ZHI		Part Name		MAIN antenna		unit	mm	scale	1:1	RF		CHEN XI TIAN		Part Number		IQ-3205X-019-1		Third perspective				check		ZHOU KANG		material		Electrolytic copper PI		ratify		ZHANG LEI		Save Path								current version		A	
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SPECIFICATION

Daxian Communication Technology Limited

**Shenzhen Daxian Technology Co., Ltd.**

Unimax Q3205 Diversity Antenna

Product specification

Guest households	Unimax	frequency band	LTE B2/4/5/12/66
Project name	Q3205	version	V10
Material No.	2Q-3205X-019	color	Black
R F design	Xitian.Chen	structure design	Yezhi.Bi
Quality Manager	Ziyin.Hu	R & D director	Lei Zhang
Date	2023-05-31		

client confirmation:

Whether the assembly meets your requirements: ☐OK ☐NG**Shenzhen Topant Technology Co., Ltd.**

Shangshuijing Village, No. 513, ihua Road, BujiTown, Longgang District, Shenzhen (opposite to theNational Defense Training Base)reached the 7thfloor of the Industrial Park Complex

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TEL:021-61630552

FAX:755-84276383

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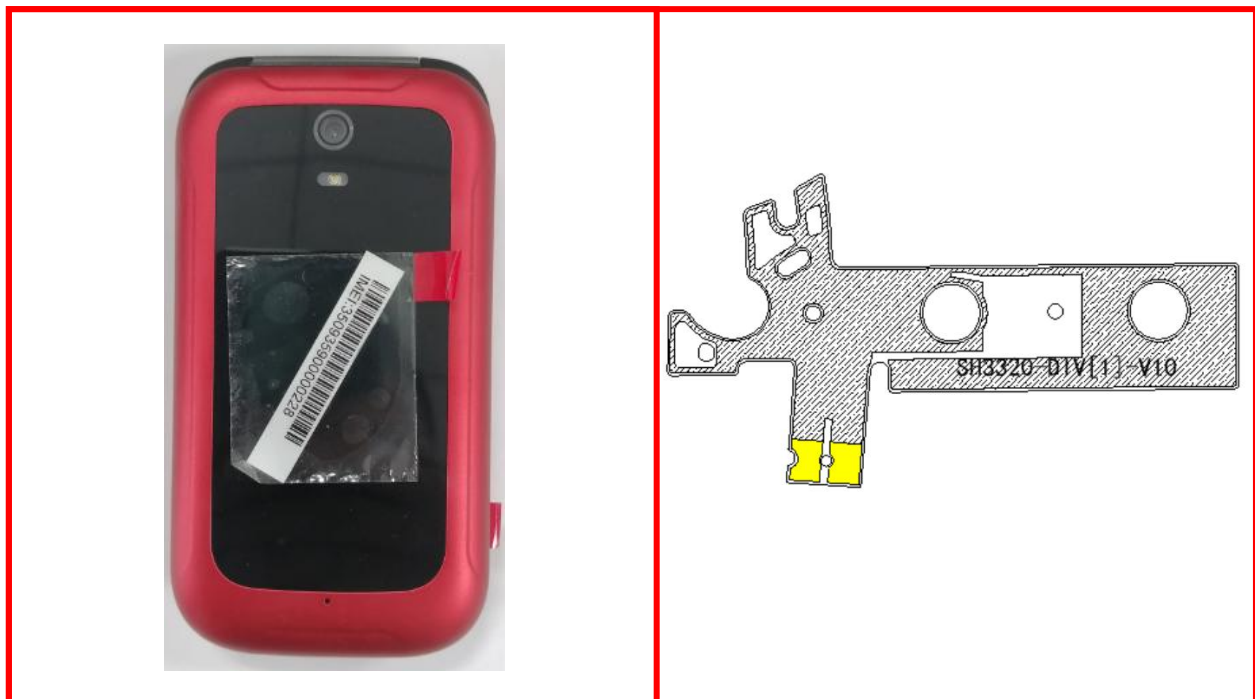
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— Project description

Customer name:	Unimax
Whole machine type:	Diversity Antenna
Antenna band:	LTE B2/4/5/12/66
Antenna form:	FPC
Feed form:	welding
Number of feed feet:	2 left and right ears
Hardware version:	motherboard:

一、 Diversity Antenna

This report provides a variety of measurements of the electrical performance of the Q3205 antenna. Figure 1 shows the antenna designed by the display.



Whole machine appearance chart

antenna appearing diagram

Figure 1

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1.1 Electrical specification standard

The frequency range of the antenna is

1850MHz~1990MHz,1710MHz~2155MHz,824MHz~894MHz,699MHz~746MHz,1710MHz~2200MHz.

The following table indicates the electrical performance specifications of the antenna. The antenna is designed and manufactured by a large display.

LTE -band B2				
band	band (MHz)	VSWR	band (MHz)	VSWR
	The transmit TX		The receiving end RX	
LTE -B 2	1850~1910	≤ 4	1930~1990	≤ 4
LTE -band B4				
band	band (MHz)	VSWR	band (MHz)	VSWR
	The transmit TX		The receiving end RX	
LTE -B 4	1710~1755	≤ 4	2110~2155	≤ 4
LTE -band B5				
band	band (MHz)	VSWR	band (MHz)	VSWR
	The transmitter TX		The receiving end RX	
LTE -B 5	824~849	≤ 4	869~894	≤ 4
LTE -band B12				
band	band (MHz)	VSWR	band (MHz)	VSWR
	The transmitter TX		The receiving end RX	
LTE -B 12	699~716	≤ 4	729~746	≤ 4
LTE -band B66				
band	band (MHz)	VSWR	band (MHz)	VSWR
	The transmitter TX		The receiving end RX	
LTE -B 66	1710~1780	≤ 4	2110~2200	≤ 4

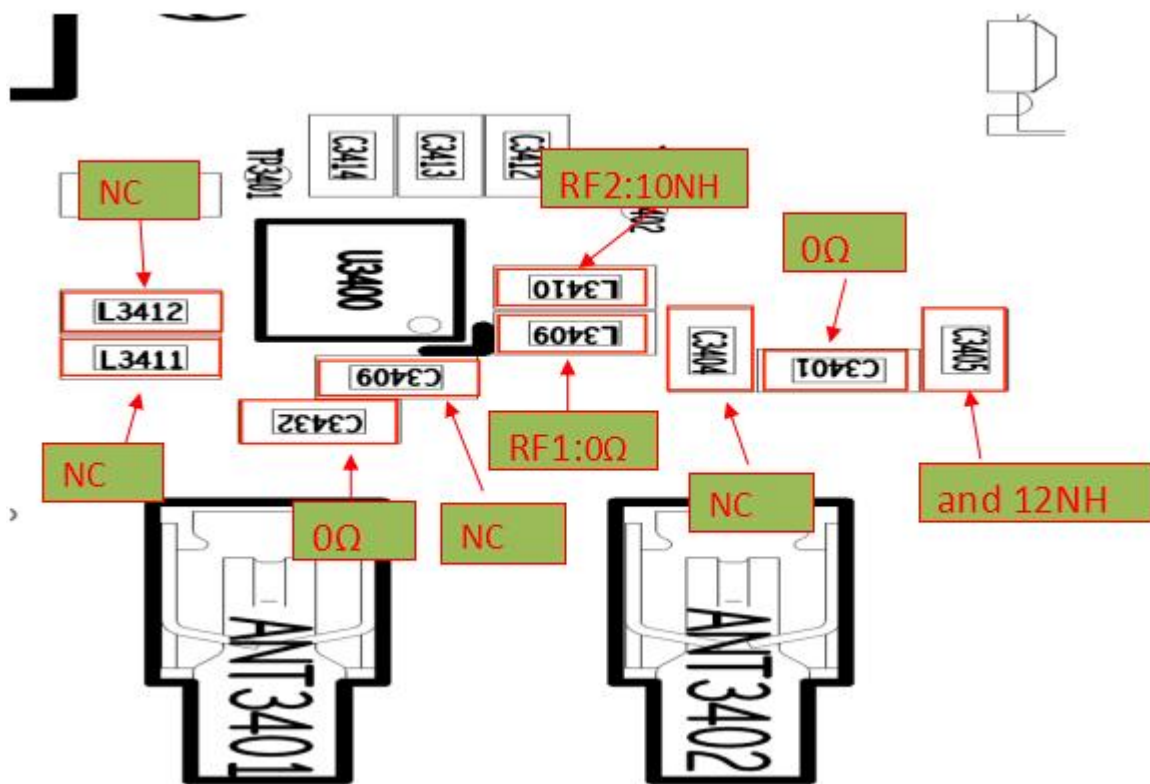
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1.2 antenna matching

Diversity antenna switch logic			
Element	Number	value	Band
RF1		0Ω	GSM2/3/5/8 LTE B2/4/5/66 WCDMA 2/5
RF2		10NH	LTE B12
RF3			
RF4			



1.3 Antenna composition

The antenna is mainly composed of FPC.

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2、 The Equipment of Active Test

Satimo 3D Chamber $6 \times 4 \times 4$ (m)

Agilent 8960 E5515c

Network analyzer-R&S ZVL



Figure 2

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3 test

3.1 The Test of standing Wave (VSWR)

3.1.1 The Test of standing Wave (VSWR): In turn, the connection of the VSWR testing device is as follows: RES ZVL Network Analyzer / testing Line / testing tool

Actual measurement (with diagram)

3.2 Measurement of Efficiency, Power (TRP) and Sensitivity (TIS)

3.2.1 Test site:

Large-scale microwave darkroom. The test frequency range is 400MHz / 6GHz, the static range is 50cm circumferential and the reflectivity is less than-50 dB..

3.2.2 Test instrument:

Rs ZVL Network Analyzer, Agilent8960 E5515C, Standard Horn Antenna, French SATIMO-SG24SYSTEM system, Printer, etc.

3.2.3 test data : In microwave anechoic chambers, the power and sensitivity values measured are shown in the following table:

OTA Active Test:

FRE-Band	Channel	TRP	TIS
LTE-B2	18650	22.39	
	18900	22.01	
	19150	21.26	-100.15
LTE-B4	20000	19.98	
	20175	21.39	
	20350	21.83	-98.06
LTE-B5	20450	17.78	
	20525	18.33	
	20600	17.52	-94.01
LTE-B12	23035	17.46	
	23095	18.18	
	23155	18.34	-98.04
LTE-B66	132022	21.5	
	132322	22.11	
	132622	21.59	-98.36

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OTA Passive Efficiency&Gain Test--RF1:B5/medium-high frequency:

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
820	13.65	-8.65	-5.46
830	18.65	-7.29	-4.04
840	21.04	-6.77	-3.45
850	24.4	-6.13	-2.95
860	25.75	-5.89	-2.86
870	25.94	-5.86	-3.16
880	23.96	-6.2	-3.79
890	23.01	-6.38	-4.08
900	21.5	-6.67	-4.44
1930	43.72	-4	2.49
1940	46.87	-3.75	2.46
1950	48.56	-3.62	2.33
1960	49.28	-3.57	2.46
1970	51.09	-3.44	2.41
1980	51.33	-3.42	2.42
1990	50.85	-3.46	2.1
2000	52.8	-3.32	2.05
2010	53.1	-3.3	2.11
2020	53.9	-3.24	2.13
2030	55.06	-3.17	2.18
2040	55.69	-3.13	2.01
2050	59.84	-2.86	2.33
2060	60.08	-2.84	2.15

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2070	61.06	-2.78	2.17
2080	61.99	-2.73	1.99
2090	63.12	-2.66	1.96
2100	64.82	-2.56	1.96
2110	64.7	-2.57	1.87
2120	65.7	-2.51	2.04
2130	67.05	-2.43	2.08
2140	67.02	-2.43	2.27
2150	66.05	-2.49	2.2
2160	64.26	-2.59	2.33
2170	61.37	-2.77	2.31
2180	62.32	-2.71	2.49
2190	61.91	-2.73	2.68
2200	61.36	-2.77	2.64

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OTA Passive Efficiency&Gain Test--RF2:B12:

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
700	23.29	-6.33	-2.93
710	27.44	-5.62	-2.44
720	34	-4.69	-1.63
730	38.14	-4.19	-0.88
740	35.98	-4.44	-1.18
750	32.11	-4.93	-1.67
760	30.49	-5.16	-2.12
770	27.1	-5.67	-2.65
1930	6.25	-12.04	-4.63
1940	6.79	-11.68	-4.64
1950	7.21	-11.42	-4.75
1960	7.83	-11.06	-4.55
1970	9.32	-10.31	-4.17
1980	11.46	-9.41	-3.66
1990	13.57	-8.67	-3.52
2000	16.25	-7.89	-3.27
2010	18.78	-7.26	-2.64
2020	22.06	-6.56	-1.97
2030	25.22	-5.98	-1.58
2040	27.41	-5.62	-1.55

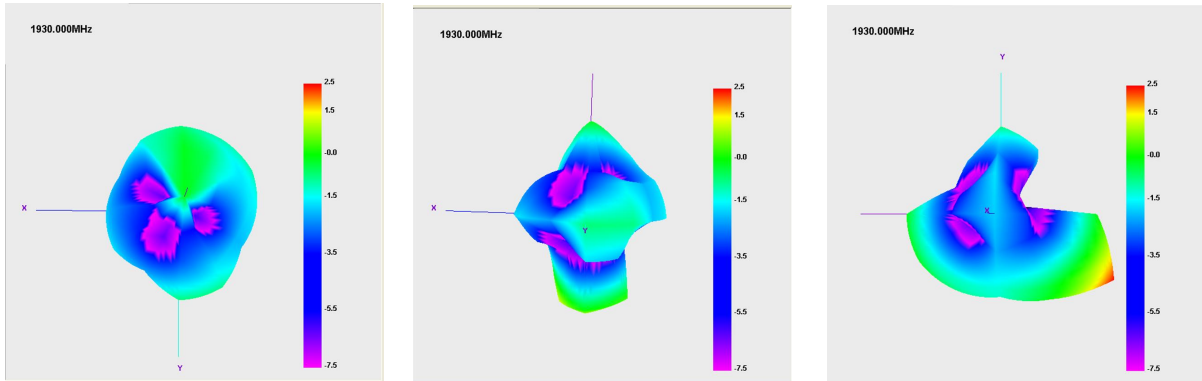
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2050	30.96	-5.09	-0.96
2060	33.2	-4.79	-0.78
2070	35.43	-4.51	-0.39
2080	36.54	-4.37	-0.39
2090	37.4	-4.27	-0.25
2100	38.87	-4.1	-0.18
2110	39.45	-4.04	-0.27
2120	39.89	-3.99	-0.23
2130	40.24	-3.95	-0.35
2140	40.18	-3.96	-0.12
2150	39.79	-4	-0.03
2160	38.5	-4.15	0.13
2170	35.97	-4.44	0.21
2180	35.9	-4.45	0.36
2190	35.73	-4.47	0.6
2200	35.64	-4.48	0.56

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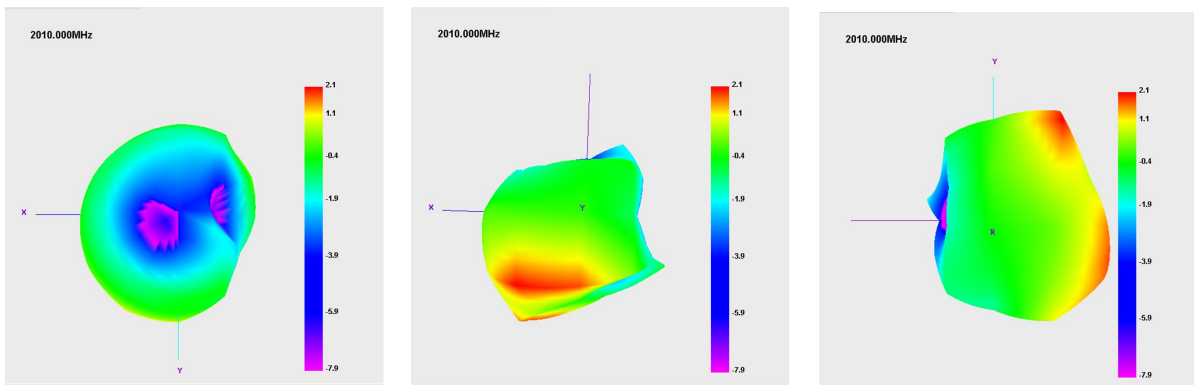
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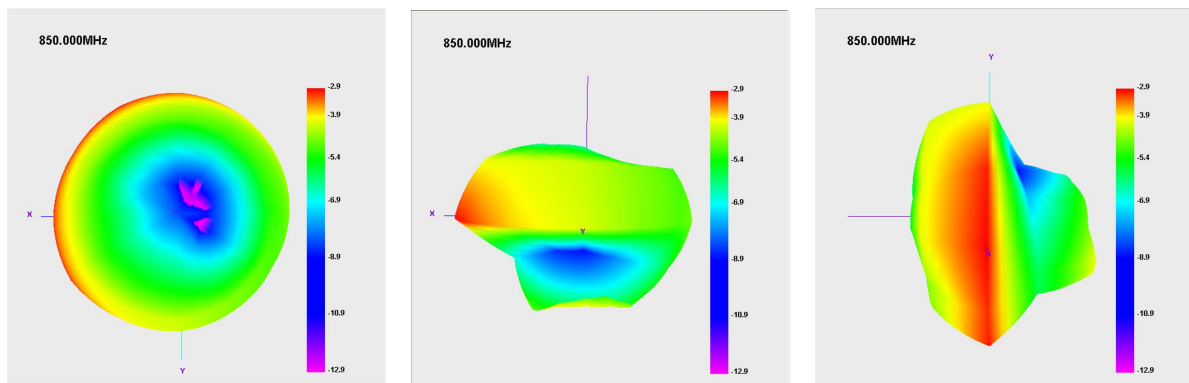
5、Passive field pattern diagram--B2



5.1、Passive field pattern diagram--B4



5.2、Passive field pattern diagram--B5

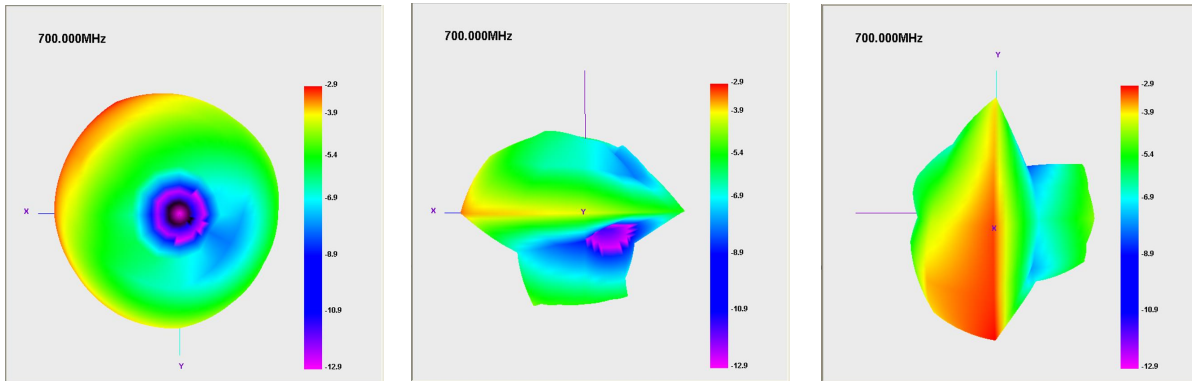


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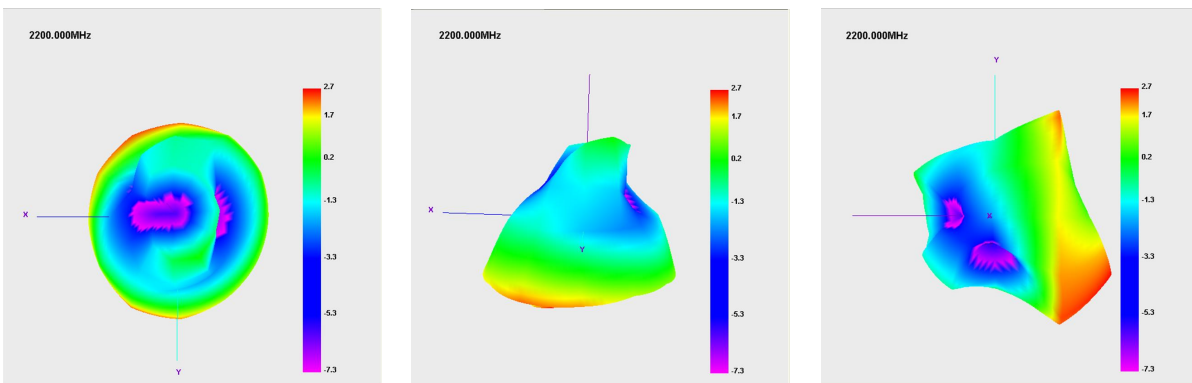
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5.3、Passive field pattern diagram--B12



5.4、Passive field pattern diagram--B66

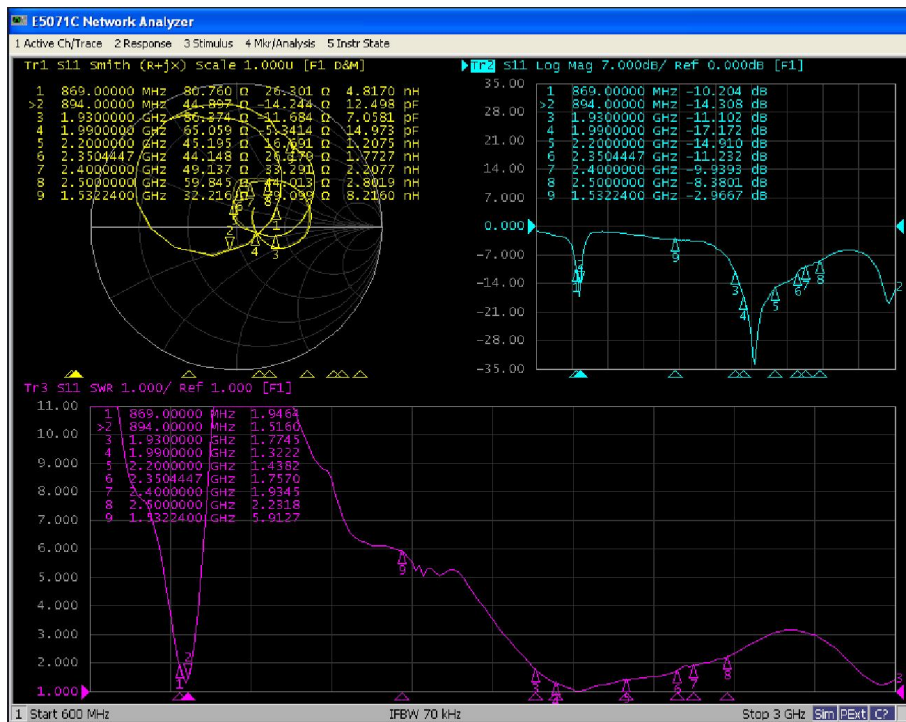


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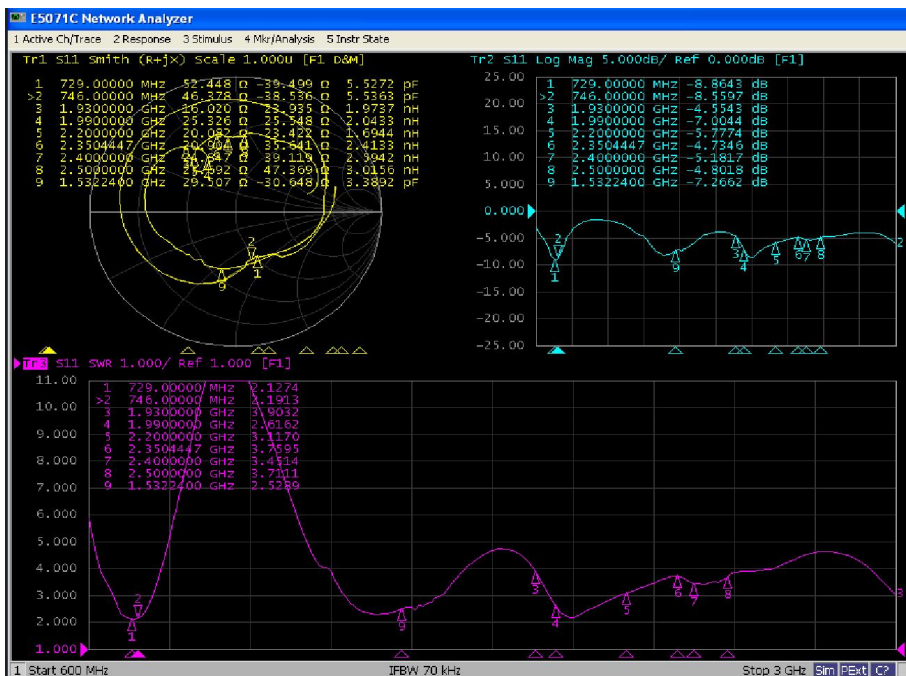
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4、Attachment chart

4.1 VSWR parameter diagram--RF1:B5/medium-high frequency



4.2 VSWR parameter diagram--RF2:B12

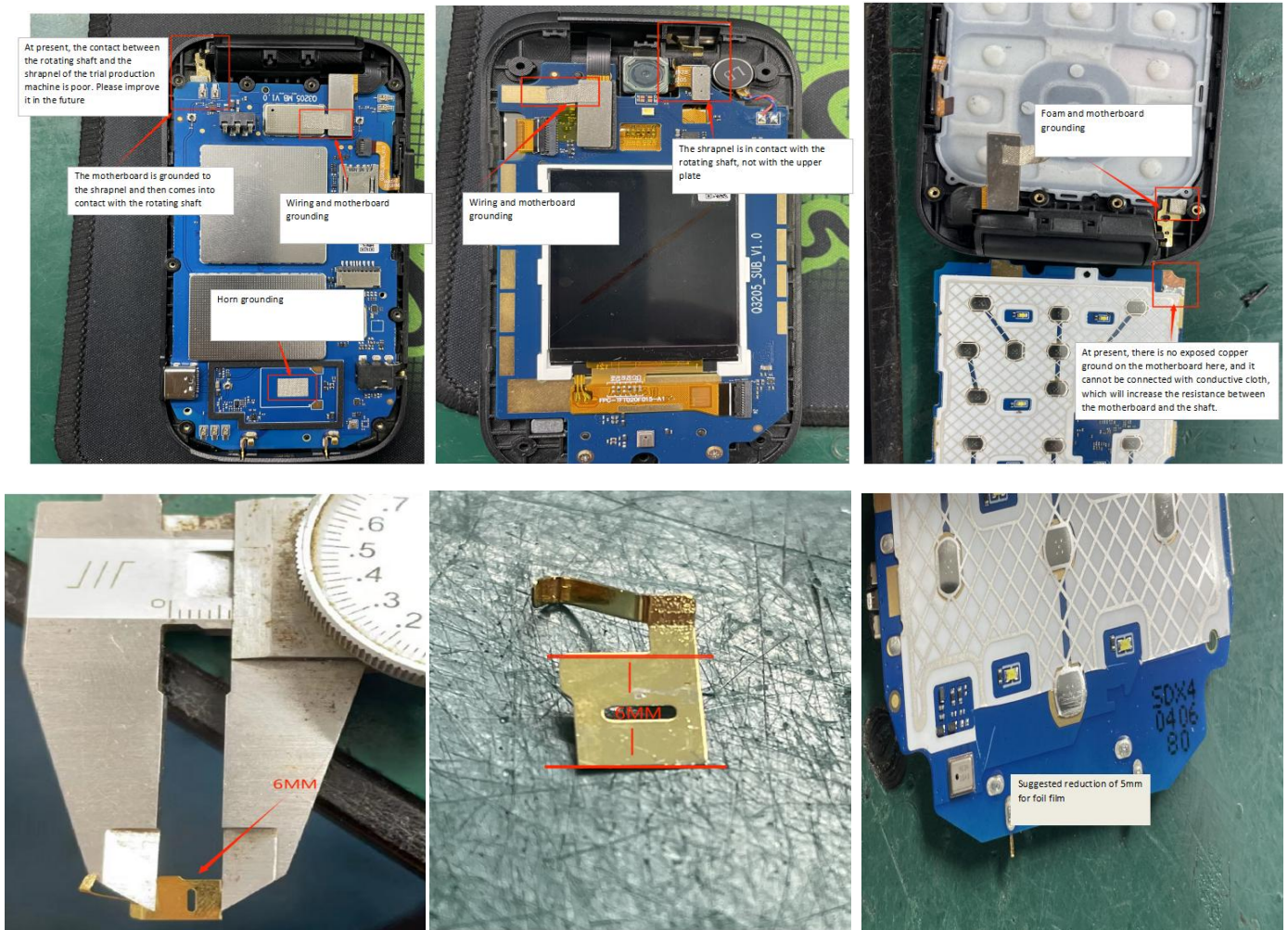


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5、 environmental treatment

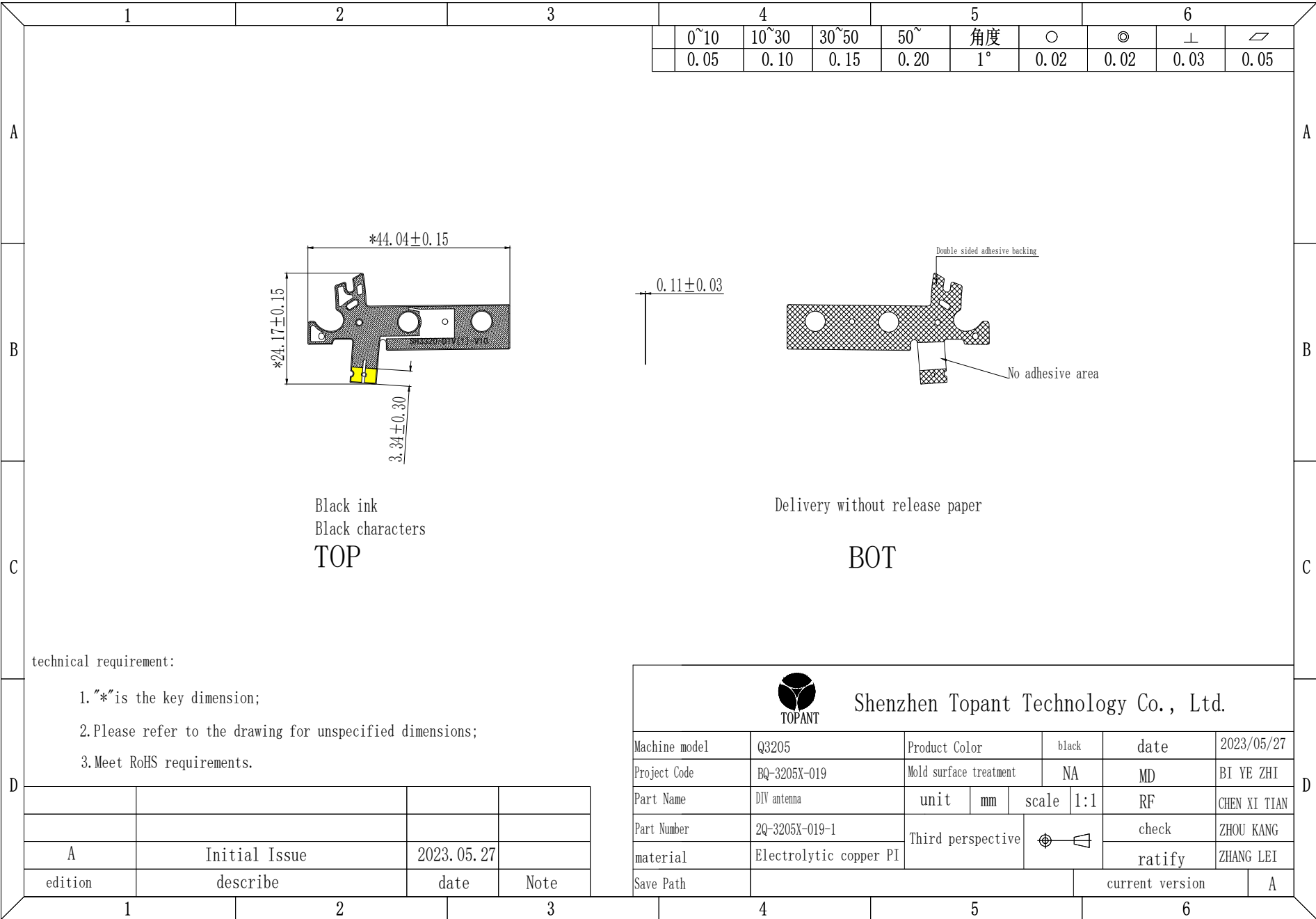


6、 conclusion:

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