

Approval Sheet

Supplier: Shenzhen Yingjiachuang Electronic Technology Co., Ltd

Product Name: 4G (Main Set) White Integrated Antenna 1.13 Gray Line L=275MM

Figure number (P c o d e):

Version: V1.0

Material Code:

Date (D a t e): October 18, 2023

Supplier confirmation

Draft/Date	Review/Date	Approval/Date
Wu Jiaxiong	Fang Wenfeng	Xiao Han

Customer confirmation

Quality/Date	Development/Date	Product Manager/Date

CUSTOMER NAME Customer Name	Mi Rui	
CUSTOMER P/N Customer part number		
Part Name	4G (main set) white integrated antenna 1.13 gray line L=275MM	
P/ N Part number	YJC-6C275-W03	
APPROVAL REV Version	V1.0	
DELIVERY DATE Sample delivery date	October 18, 2023	
Prepared BY Undertaking	 Wu Jiaxiong	
CHECKED BY Auditing	Fang Wenfeng	
Approved BY approval	Xiao Han	
Customer Approved		
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catalogue

1. Cover.....	1
2. Directory.....	2
3. Resume.....	3
4. Antenna Plan.....	4
5. Antenna technical parameters and environmental performance testing.....	5
6. Actual image of antenna.....	6
7. Antenna performance test chart.....	6
8. 2D and 3D test data (4G).....	7-9
9. OTA active test data statistics.....	10-11
10. ROHS Material Control Report.....	12

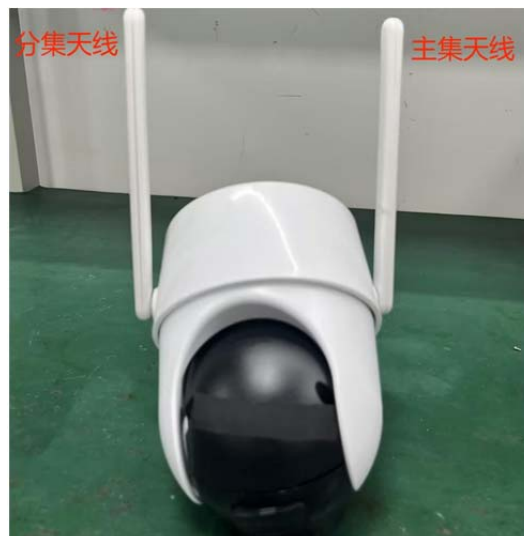
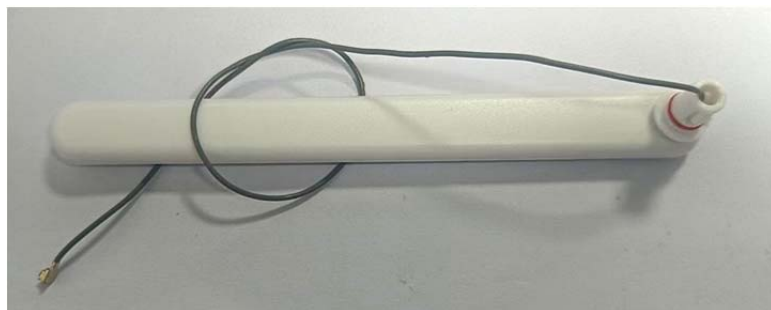
Antenna technical parameters and environmental testing:

Electrical technical parameters			
Electrical performance indicators		Electrical Specifications	
frequency range	600-960/1710-2310MHz	Frequency Range	600-960/1710-2310MHz
Voltage standing wave ratio	< 3.0	VSWR	< 3.0
Input impedance	50 Ω	Input Impedance	50 Ω
direction	omnidirectional	Direction	All
gain	3.0dBi	Gain	3.0dBi
Mechanical indicators		Mechanical Specifications	
Antenna color	white	Antenna Color	White
Interface form	XD	Input connector	XD
Wire length	275mm	Cable length	275mm
working temperature	-20 $^{\circ}\text{C}$ ~+70 $^{\circ}\text{C}$	Working Temperature	-20 $^{\circ}\text{C}$ ~+70 $^{\circ}\text{C}$
Working humidity	20%~80%	Working Humidity	20%~80%

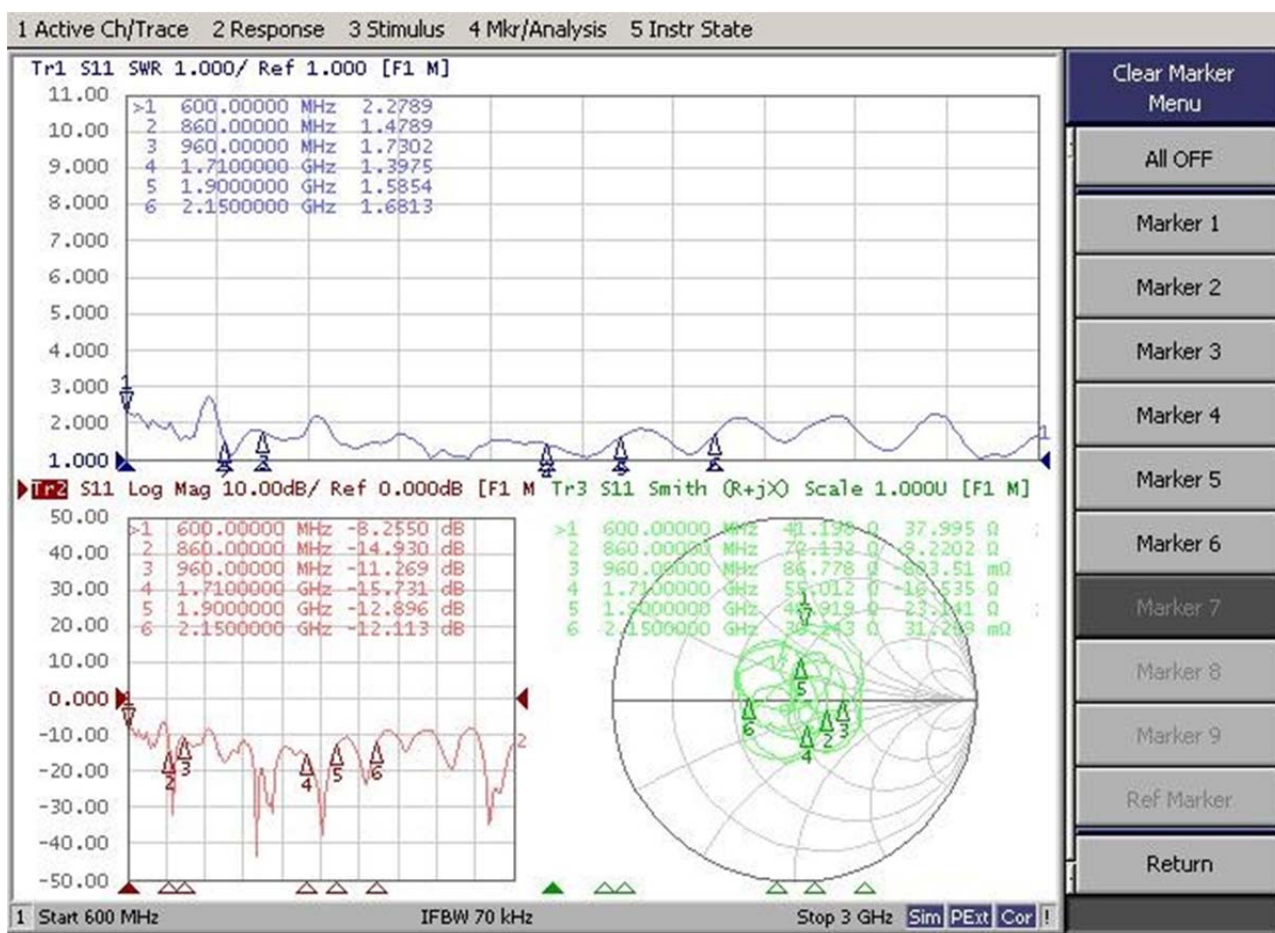
Environmental performance testing:

project	Test conditions	specifications
Storage environment	Test the temperature, humidity, and air pressure without specifying them as follows: 1、 Temperature range from -30 $^{\circ}\text{C}$ to+80 $^{\circ}\text{C}$ 2、 Relative humidity is 45% -85%. 3. Air pressure is between 86kpa and 106kpa	Normal electrical and mechanical performance
High and low temperature test	Perform 5 cycles between 70 $^{\circ}\text{C}$ and -20 $^{\circ}\text{C}$, and then inspect the appearance quality under normal conditions for 1-2 hours.	The size should meet the specifications and meet the mechanical and electrical performance requirements
Constant humidity and heat resistance test	Relative humidity of $95 \pm 3\%$, test temperature: 40 $^{\circ}\text{C}$. After continuous action for 2 hours, the electrical performance of the test piece shall be measured within 5 minutes after removal. The test piece shall be inspected for appearance quality under normal conditions for 1-2 hours	The size should meet the specifications and meet the mechanical and electrical performance requirements
vibration test	Vibration frequency range 10-55Hz, displacement amplitude: 0.35MM, acceleration amplitude: 50.0M/s, frequency sweep cycles: 30 times	Normal electrical and mechanical performance
Drop test	Free fall three times from a height of 1M in the direction of mutually perpendicular axes	Normal electrical and mechanical performance

Antenna physical image:



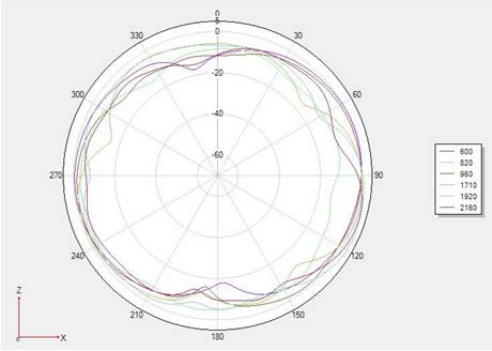
Antenna performance test chart:



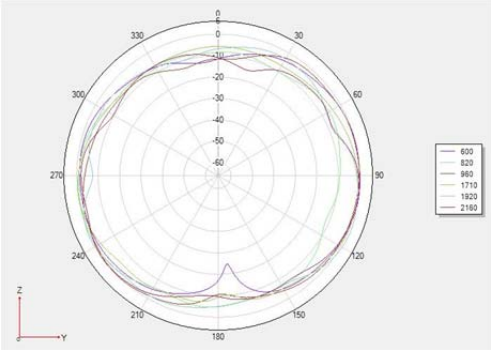
2D, 3D (4G) test data:

Frequency	Efficiency (%)	Gain (dBi)
600MHz	33.38	0.3
620MHz	35.82	0.4
640MHz	35.23	0.38
660MHz	31.84	0.2
680MHz	40.53	0.95
700MHz	39.48	0.78
720MHz	38.88	0.79
740MHz	37.15	0.76
760MHz	36.49	0.73
780MHz	34.27	0.37
800MHz	34.19	0.36
820MHz	34.38	0.35
840MHz	37.43	0.24
860MHz	42.26	1.05
880MHz	37.87	0.76
900MHz	39.24	0.8
920MHz	38.92	0.78
940MHz	40.42	0.95
960MHz	40.4	0.92
1710MHz	50.47	1.25
1740MHz	52.36	2.86
1770MHz	57.68	3.54
1800MHz	59.43	3.84
1830MHz	57.02	3.36
1860MHz	54.83	3.11
1890MHz	51.64	3.21
1920MHz	49.2	2.84
1950MHz	53.46	2.74
1980MHz	55.46	2.4
2010MHz	57.54	2.01
2040MHz	54.58	1.42
2070MHz	49.77	1.38
2100MHz	46.24	1.86
2130MHz	49.09	2.87
2160MHz	52.72	1.98
2190MHz	54.58	3.13
2220MHz	53.58	2.88
2250MHz	49.77	3.26
2280MHz	43.65	1.62
2310MHz	44.06	1.55

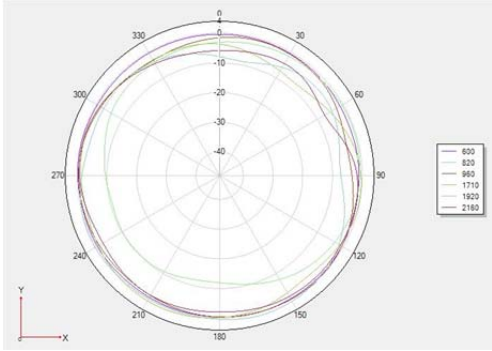
Phi 0 2D image:



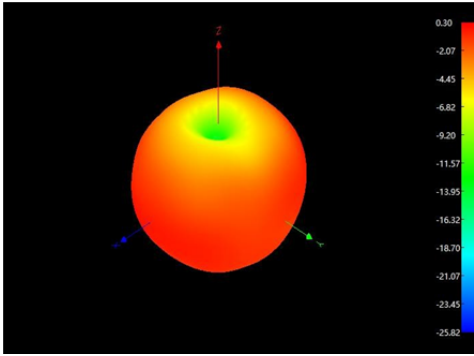
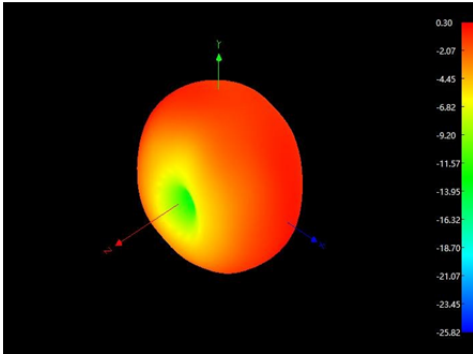
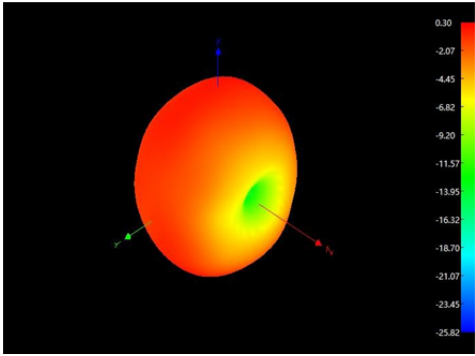
Phi 90 2D image



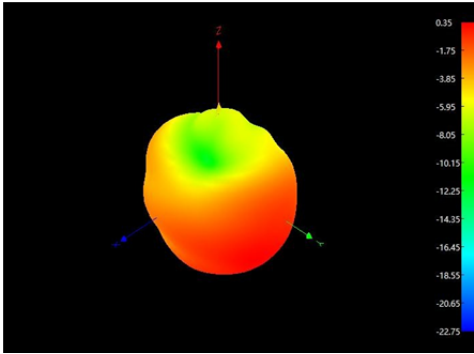
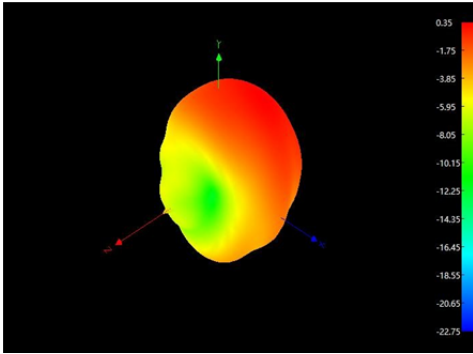
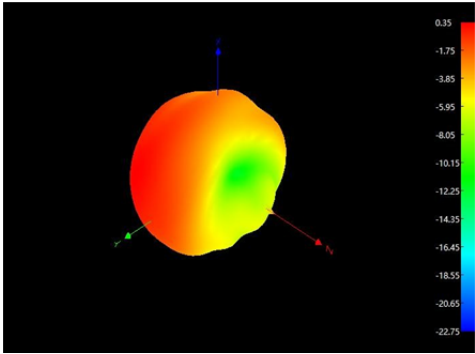
Theta 90 2D image



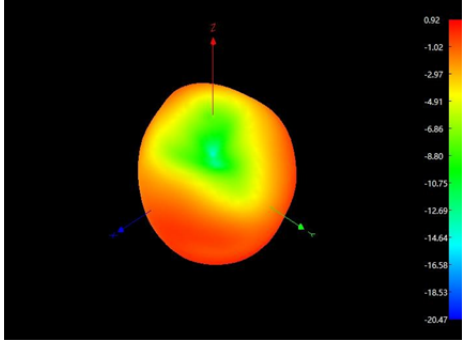
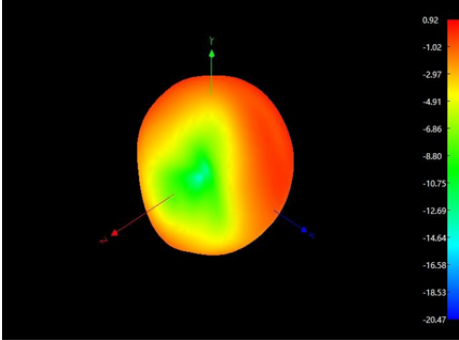
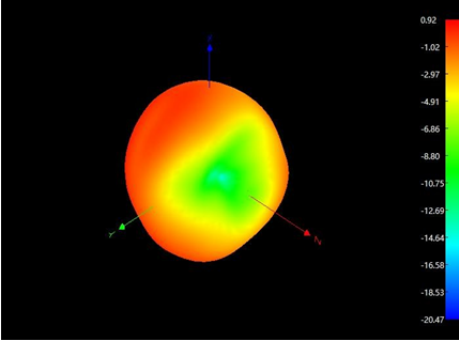
3D 600



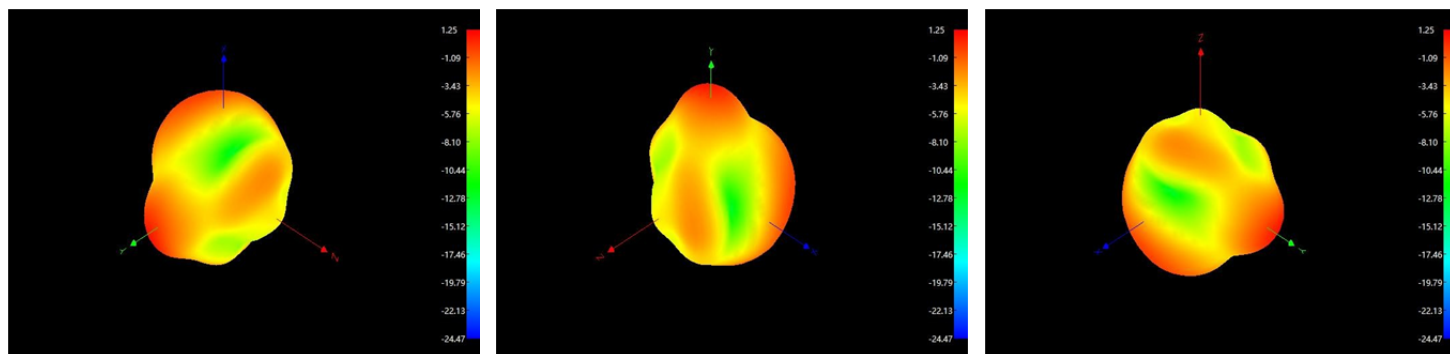
3D 820



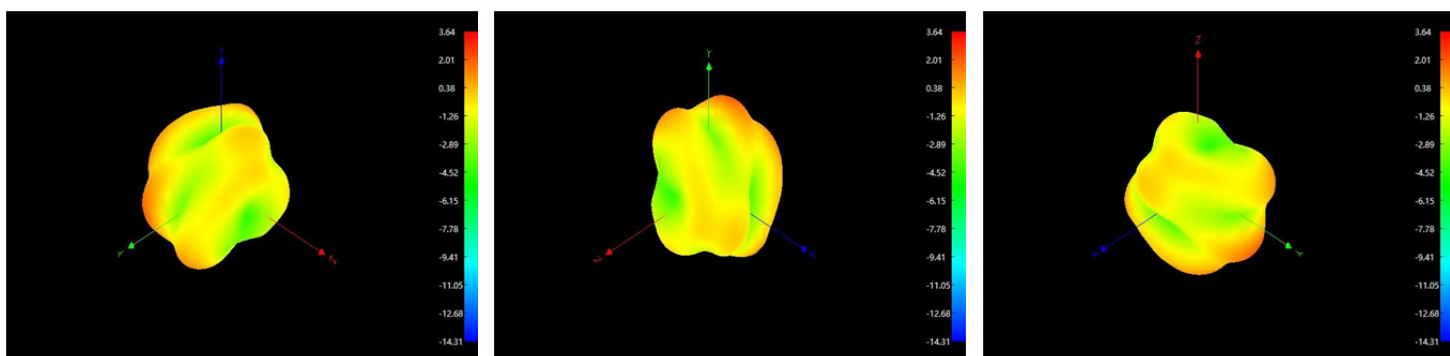
3D 960



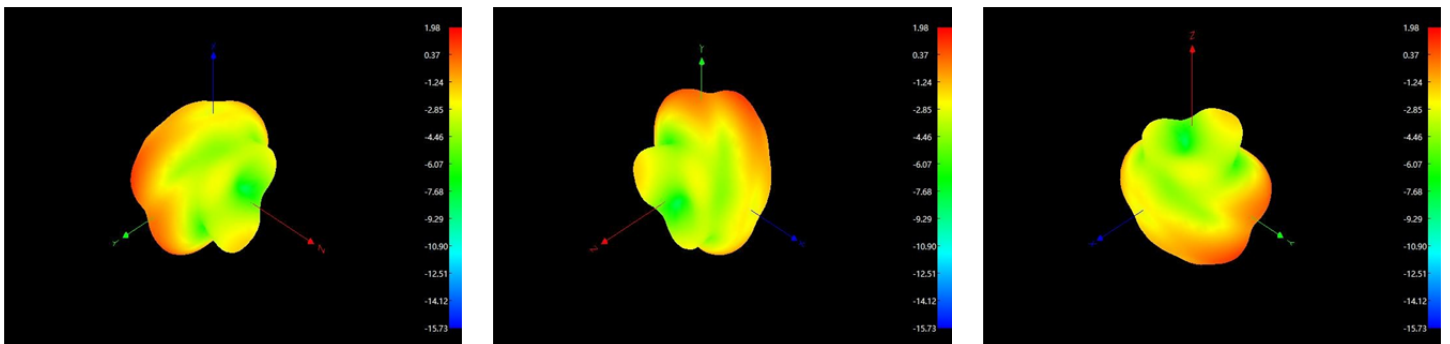
3D 1710



3D 1920



3D 2160



OTA active testing data statistics:

Item	Measurement	Band	Channel	Frequency	Total
1	TRP	FDD_ B2 (10MHz)	18650	1855	20. 15
2	TRP	FDD_ B2 (10MHz)	18900	1880	19. 95
3	TRP	FDD_ B2 (10MHz)	19150	1905	19. 78
4	TIS (RSSI)	FDD_ B2 (10MHz)	650	1935	-94. 97
5	TIS (RSSI)	FDD_ B2 (10MHz)	900	1960	-96. 2
6	TIS (RSSI)	FDD_ B2 (10MHz)	1150	1985	-96
7	TRP	FDD_ B4 (10MHz)	20000	1715	20. 17
8	TRP	FDD_ B4 (10MHz)	20175	1732. 5	20. 34

9	TRP	FDD_ B4 (10MHz)	20350	1750	20. 21
10	TIS (RSSI)	FDD_ B4 (10MHz)	2000	2115	-95. 4
11	TIS (RSSI)	FDD_ B4 (10MHz)	2175	2132. 5	-96. 29
12	TIS (RSSI)	FDD_ B4 (10MHz)	2350	2150	-95. 55
13	TRP	FDD_ B5 (10MHz)	20450	829	18. 73
14	TRP	FDD_ B5 (10MHz)	20525	836. 5	18. 59
15	TRP	FDD_ B5 (10MHz)	20600	844	17. 61
16	TIS (RSSI)	FDD_ B5 (10MHz)	2450	874	-94. 31
17	TIS (RSSI)	FDD_ B5 (10MHz)	2525	881. 5	-94. 18
18	TIS (RSSI)	FDD_ B5 (10MHz)	2600	889	-95. 28
19	TRP	FDD_ B12 (10MHz)	23060	704	17. 1
20	TRP	FDD_ B12 (10MHz)	23095	707. 5	16. 96
21	TRP	FDD_ B12 (10MHz)	23130	711	17. 13
22	TIS (RSSI)	FDD_ B12 (10MHz)	5060	734	-87. 45
23	TIS (RSSI)	FDD_ B12 (10MHz)	5095	737. 5	-86. 74
24	TIS (RSSI)	FDD_ B12 (10MHz)	5130	741	-84. 97
25	TRP	FDD_ B13 (10MHz)	23230	782	15. 98
26	TIS (RSSI)	FDD_ B13 (10MHz)	5230	751	-85. 3
27	TRP	FDD_ B14 (10MHz)	23330	793	15. 83
28	TIS (RSSI)	FDD_ B14 (10MHz)	5330	763	-86. 95

Item	Measurement	Band	Channel	Frequency	Total
29	TRP	FDD_ B66 (10MHz)	132022	1715	19. 2
30	TRP	FDD_ B66 (10MHz)	132322	1745	18. 9
31	TRP	FDD_ B66 (10MHz)	132622	1775	17. 14
32	TIS (RSSI)	FDD_ B66 (10MHz)	66536	2120	-96. 45
33	TIS (RSSI)	FDD_ B66 (10MHz)	66786	2145	-94. 77
34	TIS (RSSI)	FDD_ B66 (10MHz)	67036	2170	-95. 42
35	TRP	FDD_ B71 (10MHz)	133172	668	17. 6
36	TRP	FDD_ B71 (10MHz)	133297	680. 5	17. 86
37	TRP	FDD_ B71 (10MHz)	133422	693	18. 09
38	TIS (RSSI)	FDD_ B71 (10MHz)	68686	627	-85. 58
39	TIS (RSSI)	FDD_ B71 (10MHz)	68761	634. 5	-84. 86
40	TIS (RSSI)	FDD_ B71 (10MHz)	68836	642	-85. 68
41	TRP	WCDMA_ B2	9262	1852. 4	20. 3
42	TRP	WCDMA_ B2	9400	1880	20. 22
43	TRP	WCDMA_ B2	9538	1907. 6	19. 69
44	TIS (RSSI)	WCDMA_ B2	9662	1932. 4	-107. 38
45	TIS (RSSI)	WCDMA_ B2	9800	1960	-108. 48
46	TIS (RSSI)	WCDMA_ B2	9938	1987. 6	-107. 1
47	TRP	WCDMA_ B4	1312	1712. 4	20
48	TRP	WCDMA_ B4	1413	1732. 6	20. 1
49	TRP	WCDMA_ B4	1513	1752. 6	20. 09
50	TIS (RSSI)	WCDMA_ B4	1537	2112. 4	-107. 86
51	TIS (RSSI)	WCDMA_ B4	1638	2132. 6	-107. 69
52	TIS (RSSI)	WCDMA_ B4	1738	2152. 6	-106. 8
53	TRP	WCDMA_ B5	4132	826. 4	16. 91
54	TRP	WCDMA_ B5	4183	836. 6	17. 03
55	TRP	WCDMA_ B5	4233	846. 6	16. 52
56	TIS (RSSI)	WCDMA_ B5	4357	871. 4	-102. 79
57	TIS (RSSI)	WCDMA_ B5	4408	881. 6	-103. 46
58	TIS (RSSI)	WCDMA_ B5	4458	891. 6	-103. 76

ROHS Material Control Report											
This is to certify that the raw materials used in the delivery of components, auxiliary materials, and additives in production engineering to your company comply with the environmental requirements of the RoHS Restriction on the Use of Hazardous Substances Directive (RoHS Directive)2011/65/EC											
The report on the composition of raw materials, packaging materials, and additives used in the production process for components and auxiliary materials is as follows:											
Component material name /Part Name	Material Composition	ICP report number ICP report#	Testing organization Test Org	Test time Test Date	Harmful substance content (ppm)						Is it qualified? PASS?
					Cd	Pb	Hg	Cr ₆₊	PBB	PBDE	PASS
Plastic parts+anti fire	ABS	CANPC23001081808	SGS	23/03/24	ND	ND	ND	ND	ND	ND	PASS
PCB	PCB	SHAEC2215949206	SGS	22/11/17	ND	nine	ND	ND	ND	ND	PASS
Environmentally friendly tin wire	Environmentally friendly tin wire	SHAEC23006357502	SGS	23/05/23	ND	forty-three	ND	ND	ND	ND	PASS
wire rod	Teflon coaxial line cable	CANEC2301851703	SGS	23/02/23	ND	ND	ND	ND	ND	ND	PASS
terminal	Phosphor bronze	CANEC2301145810	SGS	23/02/08	ND	five	ND	ND	ND	ND	PASS
	Gold coating	A2230400553101001E	CTI	23/08/12	ND	ND	ND	ND	ND	ND	PASS
	Rubber core	A2230035037101002E	SGS	23/02/06	ND	ND	ND	ND	ND	ND	PASS
Silicone ring	HTV	CANEC2227525408	CTI	23/01/13	ND	ND	ND	ND	ND	ND	PASS