RF TEST REPORT

Report No.: DDT-B22022508-1E01

Applicant	**:**	TCL Communication Ltd.
Applicant Address	**:**	7/F, Block F4, TCL Communication Technology Building, TCL International E City, Zhong Shan Yuan Road, Nanshan District, Shenzhen, Guangdong, P.R. China 518052
Equipment Under Test	**:**	HSUPA/HSDPA/UMTS quad band /GSM quad band mobile phone
Model No.	**:**	4034T
Trade Mark	**:**	alcatel
FCC ID	**:**	2ACCJH106
Manufacturer	**:**	TCL Communication Ltd.
Manufacturer Address	**:**	7/F, Block F4, TCL Communication Technology Building, TCL International E City, Zhong Shan Yuan Road, Nanshan District, Shenzhen, Guangdong, P.R. China 518052

Issued By: Tianjin Dongdian Testing Service Co., Ltd.

Address: Building D-1, No. 19, Weisi Road, Microelectronics Industrial Park, Development Area, Tianjin, China.

Tel: +86-22-58038033, E-mail: ddt@dgddt.com, http://www.ddttest.com

REPORT

Table of Contents

Test Report Declare

Applicant	:	TCL Communication Ltd.
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Address	:	7/F, Block F4, TCL Communication Technology Building, TCL International E City, Zhong Shan Yuan Road, Nanshan District, Shenzhen, Guangdong, P.R. China 518052

Test Standard Used:
FCC Rules and Regulations: 47 CFR Part2, Part22, Part24
Test Procedure Used:
ANSI C63.26:2015, KDB 971168 D01 v03r01

We Declare:
The equipment described above is tested by Tianjin Dongdian Testing Service Co., Ltd and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Tianjin Dongdian Testing Service Co., Ltd is assumed of full responsibility for the accuracy and completeness of these tests.

After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above FCC standards.

Report No:	DDT-B22022508-1E01		
Date of Receipt:	Feb. 10, 2022	**Date of Test:**	Feb. 10, 2022 ~ Feb. 28, 2022

Prepared By: ***Approved By:***

Leon Li Aaron Zhang

Leon Li/Engineer ***Aaron Zhang/EMC Manager***

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Tianjin Dongdian Testing Service Co., Ltd.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

Revision History

Rev.	Revisions	Issue Date	Revised By
---	Initial issue	Feb. 28, 2022	

1. Summary of Test Results

1.1. GSM1900 / UMTS Band II

Summary of Test Results			
Test Item	**Standard**	**Requirements**	**Result**
Effective (Isotropic) Radiated Power	FCC §2.1046, §24.232	EIRP: ≤2W	Pass[1]
Peak-to-Average Ratio	FCC §2.1046, §24.232	Limit: ≤13dB	Pass[1]
Modulation Characteristics	FCC §2.1047	Digital modulation	Pass[1]
Occupied Bandwidth	§2.1049	No limit	Pass[1]
Band Edges Compliance	FCC §2.1051, §24.238	Limit: ≤ P(dBm)- [43 + 10 log(P (w))] dBm/1Mhz	Pass[1]
Spurious Emission at Antenna Terminals	FCC §2.1051, §24.238	Limit: ≤ P(dBm)- [43 + 10 log(P (w))] dBm/1Mhz	Pass[1]
Field Strength of Spurious Radiation	FCC §2.1053, §24.238	Limit: ≤ P(dBm)- [43 + 10 log(P (w))] dBm/1Mhz	Pass[2]
Frequency Stability	FCC §2.1055, §24.235	Emission must remain in band	Pass[1]

Note 1:
The above "pass[1]" items data are refer from the original report issued by SGS-CSTC Standards Technical Services,Co.,Ltd.Shenzhen Branch. (Date of Test: 2019/05/22 ~2019/06/10). The detailed data can refer to Appendix B.1-GSM850&GSM1900 and Appendix B.2-WCDMA BAND II & V.
Note2:
The above "pass[2]" item is tested by Tianjin Dongdian Testing Service Co., Ltd.

1.2. GSM850 / UMTS Band V

Summary of Test Results			
Test Item	**Standard**	**Requirements**	**Result**
Effective (Isotropic) Radiated Power	FCC §2.1046, §22.913	ERP: ≤ 7W	Pass[1]
Peak-to-Average Ratio	FCC §2.1046	Limit: ≤13dB	Pass[1]
Modulation Characteristics	FCC §2.1047	Digital modulation	Pass[1]
Occupied Bandwidth	FCC §2.1049	No limit	Pass[1]
Band Edges Compliance	FCC §2.1051, §22.917	Limit: 1)≤ P(dBm)- [43 + 10 log(P (w))] dBm/100kHz(Below 1GHz) 2)≤ P(dBm)- [43 + 10 log(P (w))] dBm/1MHz(Above 1GHz)	Pass[1]
Spurious Emission at Antenna Terminals	FCC §2.1051, §22.917	Limit: 1)≤ P(dBm)- [43 + 10 log(P (w))] dBm/100kHz(Below 1GHz) 2)≤ P(dBm)- [43 + 10 log(P (w))] dBm/1MHz(Above 1GHz)	Pass[1]
Field Strength of Spurious Radiation	FCC §2.1053, §22.917	Limit: 1)≤ P(dBm)- [43 + 10 log(P (w))] dBm/100kHz(Below 1GHz) 2)≤ P(dBm)- [43 + 10 log(P (w))] dBm/1MHz(Above 1GHz)	Pass[2]

Frequency Stability	FCC §2.1055, §22.355	△: <±2.5ppm	Pass[1]

Note 1:
The above "pass[1]" items data are refer from the original report issued by SGS-CSTC Standards Technical Services,Co.,Ltd.Shenzhen Branch. (Date of Test: 2019/05/22 ~2019/06/10). The detailed data can refer to Appendix B.1-GSM850&GSM1900 and Appendix B.2-WCDMA BAND II & V.
Note2:
The above "pass[2]" item is tested by Tianjin Dongdian Testing Service Co., Ltd.

2. General Test Information

2.1. Description of EUT

EUT Description	:	HSUPA/HSDPA/UMTS quad band /GSM quad band mobile phone
Model Number	:	4034T
Trade Mark	:	Sony
IMEI	:	357448100001080
Serial Number	:	N/A
Hardware Version	:	PIO
Software Version	:	vAK52
Sample Type	:	Portable device

Frequency band	:	GSM	Tx (MHz)	Rx (MHz)	Supported Channel Bandwidth
		GSM850	824-849	869-894	0.2MHz
		GSM1900	1850-1910	1930-1990	0.2MHz
		UMTS	Tx (MHz)	Rx (MHz)	Supported Channel Bandwidth
		Band II	1850-1910	1930-1990	5MHz
		Band V	824-849	869-894	5MHz

Target Power & Power Class	:	GSM850(PC5): 32.3dBm GSM1900(PC0): 30.3dBm UMTS Band II(PC3): 24.0dBm UMTS Band V(PC3): 24.0dBm

Type of modulation	:		
		GSM	GSM: GMSK GPRS: GMSK
		UMTS	WCDMA: UL: BPSK, DL: QPSK HSPA: QPSK, 16QAM

Antenna Type	:	Internal Antenna
Antenna Gain	:	GSM850: -1.9dBi GSM1900: -1.4dBi UMTS Band II: -1.5dBi UMTS Band V: -2.2dBi
Power Supply	:	DC by Internal battery DC by 5VAC/DC Adapter

Note: EUT is the abbreviation of equipment under test.

2.2. RF Channel Information

GSM Band	Transmitter/ Receiver	Channel Bandwidth	Lowest range(L)	Middle range(M)	Highest range(H)
GSM 850	Transmitter	0.2Mhz	Channel 128 (824.2 MHz)	Channel 190 (836.6 MHz)	Channel 251 (848.8 MHz)
	Receiver		869.2 MHz	881.6MHz	893.8 MHz
GSM 1900	Transmitter	0.2Mhz	Channel 512 (1850.2 MHz)	Channel 661 (1880.0 MHz)	Channel 810 (1909.8 MHz)
	Receiver		1930.2 MHz	1960.0 MHz	1989.8 MHz

UMTS Band	Transmitter / Receiver	Channel Bandwidth	Lowest range(L)	Middle range(M)	Highest range(H)
Band II	Transmitter	5MHz	Channel 9262 (1852.4MHz)	Channel 9400 (1880.0MHz)	Channel 9538 (1907.6MHz)
	Receiver		Channel 9662 (1932.4MHz)	Channel 9800 (1960.0MHz)	Channel 9938 (1987.6MHz)
Band V	Transmitter	5MHz	Channel 4132 (826.4MHz)	Channel 4182 (836.4MHz)	Channel 4233 (846.6MHz)
	Receiver		Channel 4357 (871.4MHz)	Channel 4407 (881.4MHz)	Channel 4458 (891.6MHz)

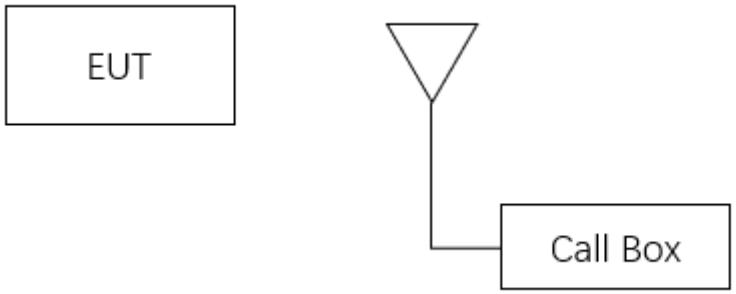
2.3. Accessories of EUT

Description of Accessories	Manufacturer	Model number	Description	Remark
N/A	N/A	N/A	N/A	N/A

2.4. Assistant equipment used for test

Assistant equipment	Manufacturer	Model number	EMC Compliance	SN
N/A	N/A	N/A	N/A	N/A

2.5. Block diagram of EUT configuration for test



2.6. Test environment conditions

During the measurement the environmental conditions were within the listed ranges:

Condition	Normal Condition	Extreme Condition
Pressure range	86-106KPa	N/A
Relative Humidity	30-75%	N/A
Temperature(℃)	NT: 25℃	N/A
Voltage(V)	NV: 3.8V	LV: 3.5V HV: 4.2V
Note: N/A: Not Applicable NV: Normal Voltage LV: Low Extreme Test Voltage HV: High Extreme Test Voltage		NT: Normal Temperature LT: Low Extreme Test Temperature HT: High Extreme Test Temperature

2.7. Worst-case Configuration and Test Mode

2.7.1. Worst-case Radiated test

-The EUT was tested in three orthogonal planes(X, Y, Z) and in all possible test configurations and positioning.

-All modes of operation were investigated and the worst-case configuration results are reports. In the case of radiated spurious emissions, only result that confirmed the maximum radiated power was reported

-The worst case is reported with the EUT positioning, modulations, and paging service configurations shown in the test data.

-All modes of operation were tested and the worst case results are reported.

-Below table show the worst case details:

Test Item	Test Mode	Band	Channel	Modulation	Bandwidth	Communication
Field Strength of Spurious Radiation	Mode1	GSM850	L	GMSK	0.2MHz	Circuit
			M	GMSK	0.2MHz	Circuit
			H	GMSK	0.2MHz	Circuit
	Mode2	GSM1900	L	GMSK	0.2MHz	Circuit
			M	GMSK	0.2MHz	Circuit
			H	GMSK	0.2MHz	Circuit
	Mode3	WCDMA Band II	L	QPSK	5MHz	Circuit
			M	QPSK	5MHz	Circuit
			H	QPSK	5MHz	Circuit
	Mode4	WCDMA Band V	L	QPSK	5MHz	Circuit
			M	QPSK	5MHz	Circuit
			H	QPSK	5MHz	Circuit

2.8. Test laboratory

Tianjin Dongdian Testing Service Co., Ltd.

Address: Building D-1, No. 19, Weisi Road, Microelectronics Industrial Park Development Area, Tianjin, China., 300385

Tel: +86-22-58038033, http://www.ddttest.com, Email: ddt@dgddt.com

NVLAP (National Voluntary Laboratory Accreditation Program) CODE: 500036-0

CNAS (China National Accreditation Service for Conformity Assessment) CODE: L13402

FCC Designation Number: CN5004; FCC Test Firm Registration Number: 368676

ISED (Innovation, Science and Economic Development Canada) Company Number: 27768

Conformity Assessment Body Identifier: CN0125

VCCI Facility Registration Number: C-20089, T-20093, R-20125, G-20122

3. Description of Tests

3.1. Radiated Power (ERP/EIRP)

Test Procedure: FCC KDB 971168 D01 V03r01.

Note: Refer test setup 1.

Effective Radiated Power (ERP) and Equivalent Isotropic Radiated Power (EIRP) measurements are calculated by adding highest antenna gain to maximum measured conducted output power. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

a) The transmitter antenna port was connected to a Base Station Simulator through the calibrated coaxial cable.

b) Setup the Base Station Simulator to force the transmitter to the maximum power setting.

3) The tests were performed at three channels (low channel, middle channel and high channel) and on the highest power levels, which can be setup on the transmitters.

Calculate power in dBm by the following formula:

ERP (dBm) = Conducted Power (dBm) + antenna gain (dBd)

EIRP (dBm) = Conducted Power (dBm) + antenna gain (dBi)

EIRP=ERP+2.15dB

3.2. Field Strength of Spurious Radiation

Test Procedure: FCC KDB 971168 D01 V03r01.

Note: Refer test setup 2.

a) Place the EUT in the center of the turntable. The EUT shall be configured to transmit into the standard non-radiating load (for measuring radiated spurious emissions), connected with cables of minimal length unless specified otherwise. If the EUT uses an adjustable antenna, the antenna shall be positioned to the length that produces the worst case emission at the fundamental operating frequency.

b) Each emission under consideration shall be evaluated:

1) Raise and lower the measurement antenna, as necessary to enable detection of the maximum emission amplitude relative to measurement antenna height.

2) Rotate the EUT through 360° to determine the maximum emission level relative to the axial position.

3) Return the turntable to the azimuth where the highest emission amplitude level was observed.

4) Vary the measurement antenna height again through 1 m to 4 m again to find the height associated with the maximum emission amplitude.

c) Repeat step b) for each emission frequency with the measurement antenna oriented in both the horizontal and vertical polarizations to determine the orientation that gives the maximum

emissions amplitude.

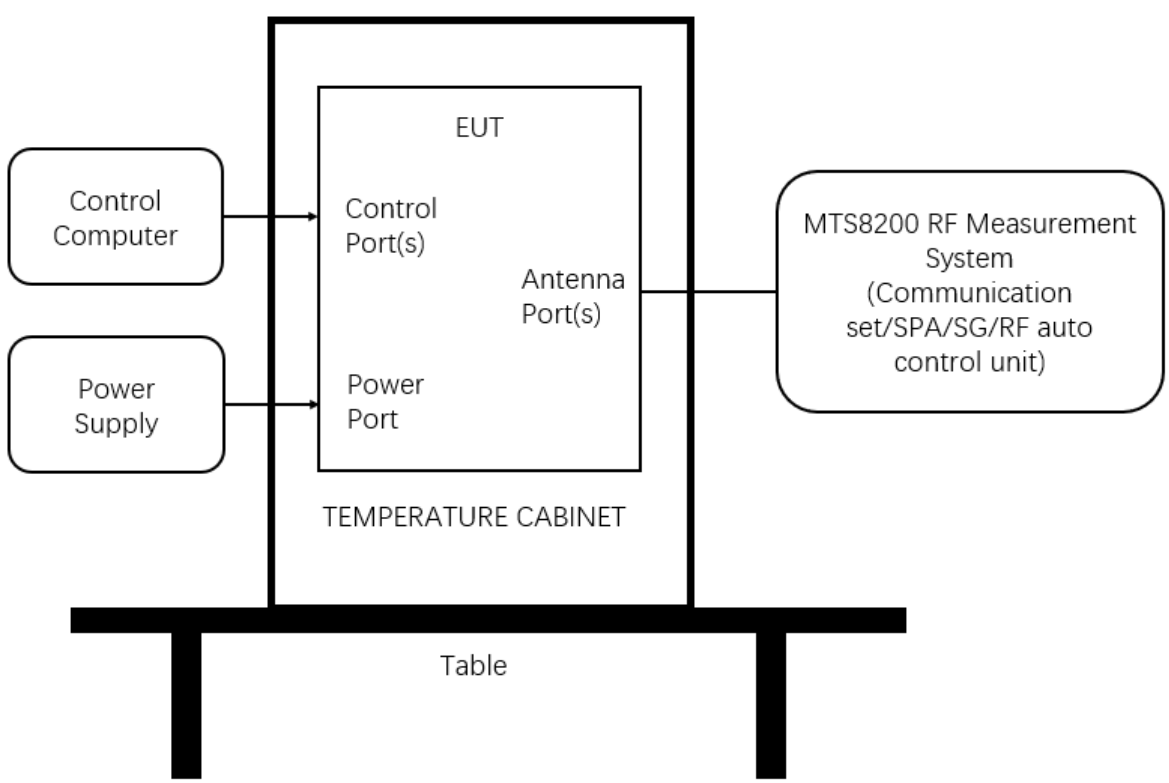
d) EIRP (dBm) = E (dBμV/m) + 20 log D − 104.8; where D is the measurement distance in meters.

e) Test the EUT in the lowest channel, the middle channel the Highest channel

f) The radiation measurements are performed in X, Y, Z axis positioning. Only the test worst case mode is recorded in the report.

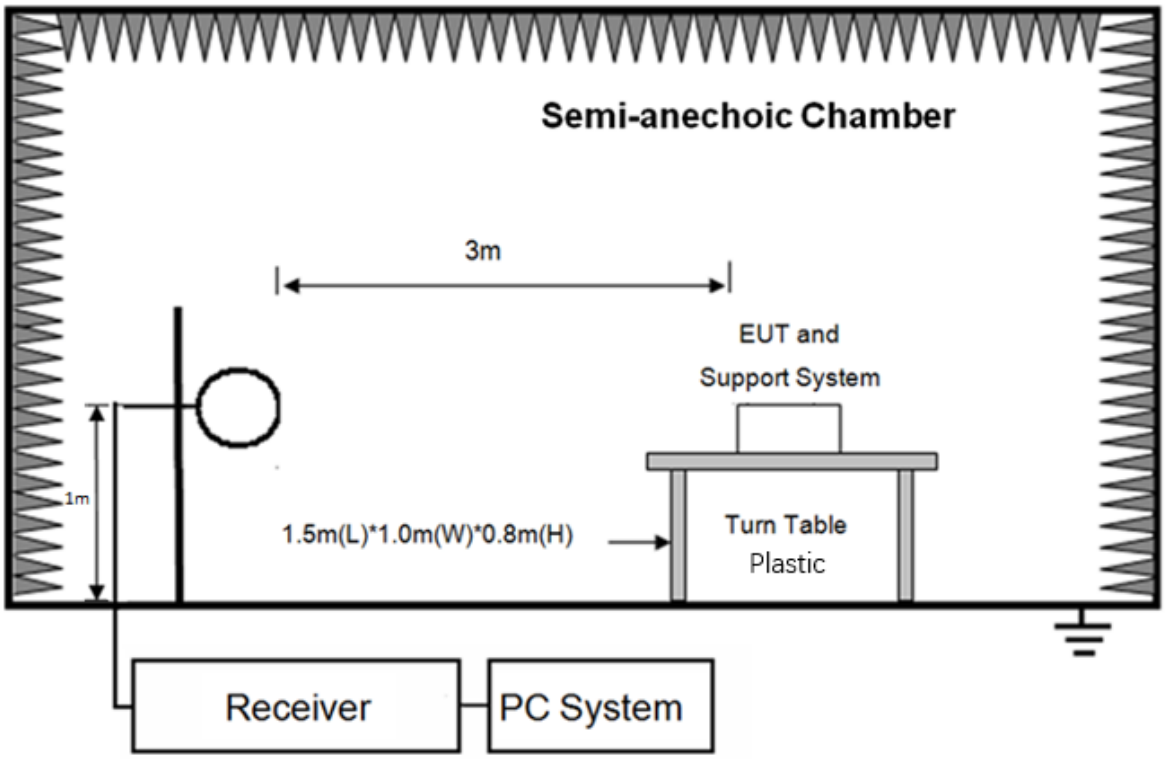
3.3. Test Setups

3.3.1. Test Setup 1

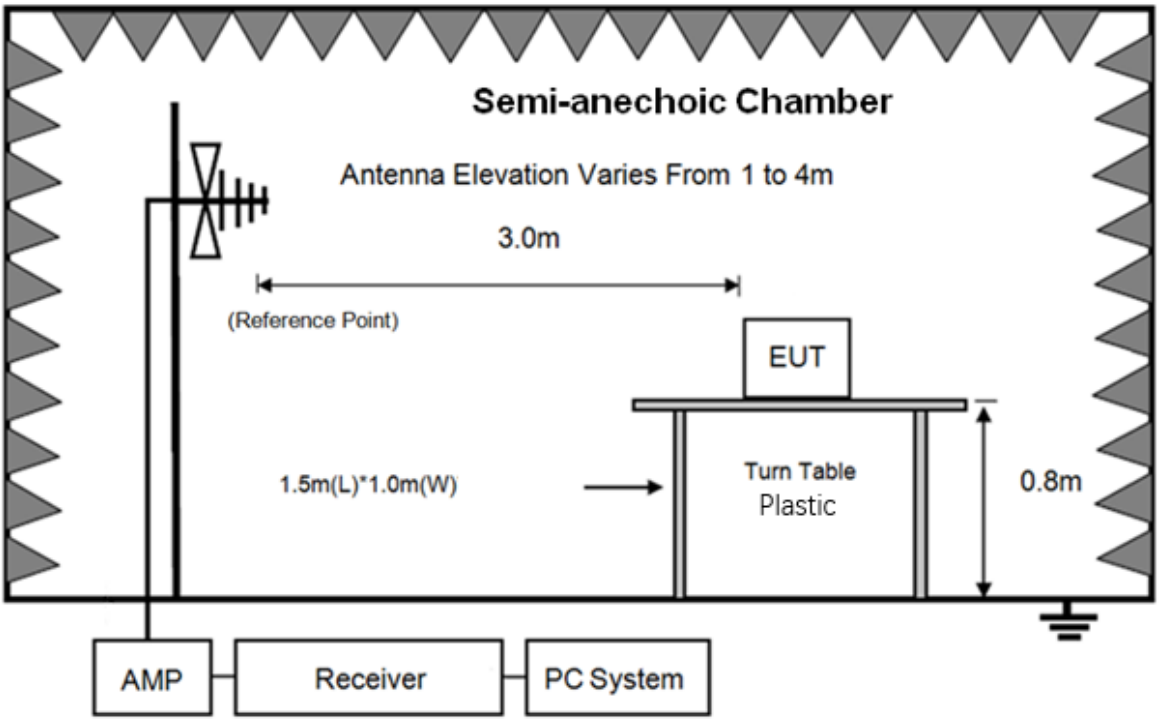


3.3.2. Test Setup 2

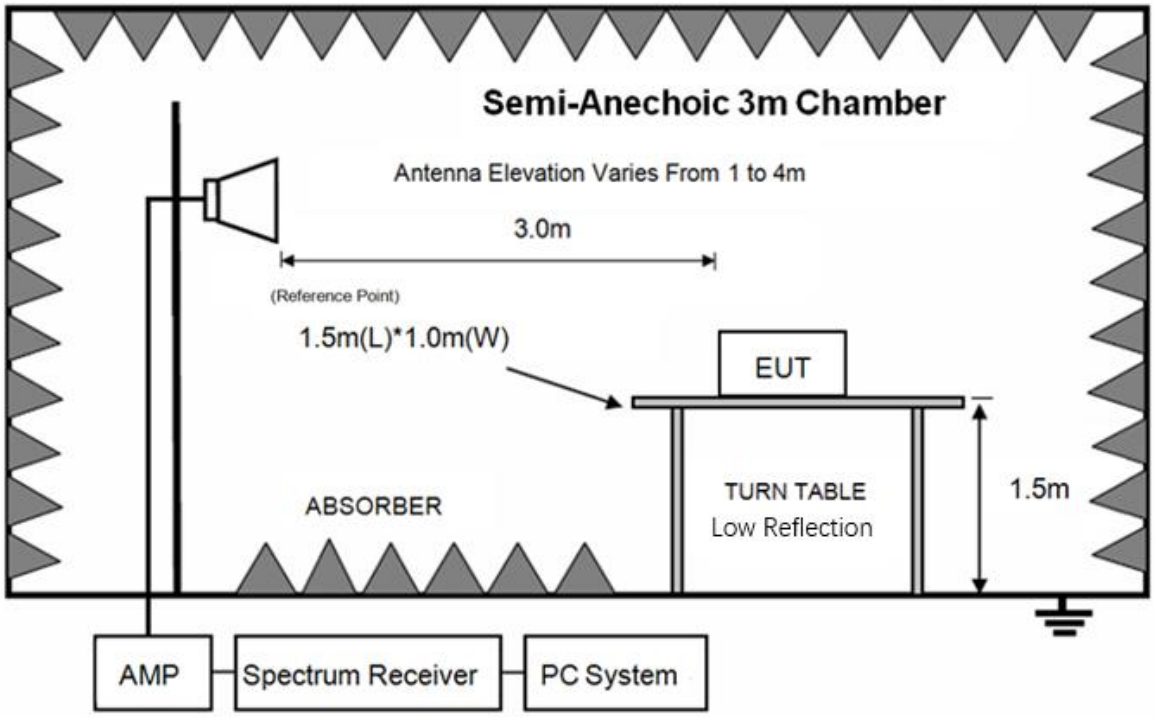
In 3 m Anechoic Chamber, test setup diagram for 9 kHz - 30 MHz:



In 3 m Anechoic Chamber, test setup diagram for 30 MHz – 1 GHz:



In 3 m Anechoic Chamber, test setup diagram for frequency above 1 GHz:



4. Measurement uncertainty

No.	Test Item	Uncertainty
1	Transmitter maximum output power	±0,7dB
2	Radiated spurious emissions / Radiated emissions	±2.72 dB (30MHz-1GHz) ±2.74 dB (1 - 6 GHz) ±2.72 dB (6 GHz - 18 GHz) ±3.54 dB (18 GHz - 26 GHz) ±4.30 dB (26 GHz - 40 GHz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.		

5. Equipment Used During Test

Test System					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
PSA Series Spectrum Analyzer	Agilent(Keysight)	E4440A	MY48251036	2021/03/04	1 Year
EXA Signal Analyzer	Keysight	N9010A	MY53281492	2021/03/31	1 Year
RF SELECTOR	TOYO	NS4900	N/A	N/A	N/A
Band SELECTOR	TOYO	NS5800	N/A	N/A	N/A
BiLog Antenna	TESEQ	CBL 6143A	26683	2021/03/18	1 Year
Broadband Amplifier	SONOMA	317	292953	2021/03/03	1 Year
Low noise amplifier	MITEQ	TPA0118-36	0914	2022/02/16	1 Year
Double-Ridged Guide Horn Antenna	ETS-LINDGREN	3115	00102808	2021/03/16	1 Year
Test software	TOYO	EP5/RSE	Ver 1.9.1	N/A	N/A
Test software	Audix	E3	V 6.11111b	N/A	N/A
Active Loop Antenna	R&S	HFH2-Z2	100269	2021/05/08	1 Year
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	790	2021/05/28	1 Year
Broadband Horn Antenna	TESEQ	BHA 9118	31754	2021/10/12	1 Year
Low noise amplifier	MITEQ	TPA0118-36	0914	2022/02/16	1 Year
EMI Test Receiver	R&S	ESCI	101024	2021/03/03	1 Year
EMI Test Receiver	R&S	ESCI	101030	2021/05/15	1 Year
Bilog Antenna	TESEQ	CBL6112D	29068	2020/10/12	2 Year
Bilog Antenna	TESEQ	CBL6112D	29069	2020/10/12	2 Year
Amplifier	Sonoma	310N	300913	2021/03/03	1 Year
Amplifier	Sonoma	310N	300914	2021/03/03	1 Year
Ant Mast	Innco	MA4000	N/A	N/A	N/A
Ant Mast	Innco	MA4000	N/A	N/A	N/A
Mast Controller	Innco	CO2000	N/A	N/A	N/A
Mast Controller	Innco	CO2000	N/A	N/A	N/A
RF Selector 4CH	TOYO	NS4904N	Selector1	N/A	N/A
RF Selector 4CH	TOYO	NS4904N	Selector2	N/A	N/A
PSG Analog Signal Generator	Agilent(Keysight)	E8257D	MY49060493	2021/03/08	1 Year
Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	158800	2021/05/14	1 Year

8960 Series 10 Wireless Communications Test Set	Agilent(Keysight)	E5515C	MY48280272	2021/05/25	1 Year
Radio Communication Test Station	Anritsu	MT8000A	6262302490	2021/03/26	1 Year
Radio Communication Analyzer	Anritsu	MT8821C	6262257930	2021/03/22	1 Year
Coupler-Antenna	European Antenna	PSA-7501R/170	406310-0001	N/A	N/A
tunable notch-filter 820/860Mhz	Wainwright	WRCT 820/860-0.4/40-5SSK	SN8	N/A	N/A
tunable notch-filter 840/920Mhz	Wainwright	WRCT 840/920-0.4/40-5SSK	SN9	N/A	N/A
tunable notch-filter 1700/1800Mhz	Wainwright	WRCD 1700/1800-0.2/40-5SSK	SN41	N/A	N/A
tunable notch-filter 1800/2000Mhz	Wainwright	WRCD 1800/2000-0.2/40-5SSK	SN31	N/A	N/A
band reject filter 1870/1890Mhz	Wainwright	WRCG 1877/1883-1870/1890-40/6EE	SN20	N/A	N/A
band reject filter 1940/1960Mhz	Wainwright	WRCG 1947/1953-1940/1960-40/6SS	SN28	N/A	N/A
band reject filter 2400/2483.5Mhz	Wainwright	WRCTF 2402/2480-2400/2483.5-35/12+9SS	SN42	N/A	N/A
Low pass filter 1.5Ghz	Wainwright	WLK1.5/18G-10SS	SN5	N/A	N/A
High pass filter 1.5G	Wainwright	WHKX1.5/15G-10SS	SN50	N/A	N/A
High pass filter 2.5G	Wainwright	WHKX 2.5/18G-12SS	SN5	N/A	N/A
High pass filter 3G	Kangmaiwei	ZHPF6-M3000-18000-996	03210746	N/A	N/A
High pass filter 6.5G	Kangmaiwei	ZHPF6-M6500-18000-547	03210747	N/A	N/A
High pass filter 1.0G	Kangmaiwei	ZHPF6-C1000-3000-548	11210354	N/A	N/A

6. Details Test Result

6.1. Re-Test statement

The EUT is operating at the same power level with the original testing of SGS-CSTC Standards Technical Services, Co., Ltd. Shenzhen Branch.

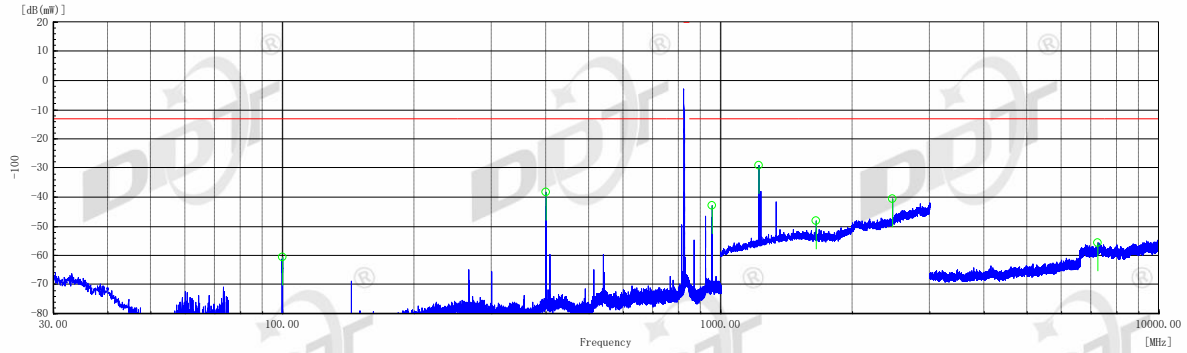
Item	The Original Reports	Re-Test Reports
File name:	test report RF	RF test report
Test location:	SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch	Tianjin Dongdian Testing Service Co., Ltd.

GSM BAND	Channel	Test Original Reports Level(dBm)	Re-Test Reports Level(dBm)
GSM850	128	32.71	32.75
GSM850	190	32.83	32.79
GSM850	251	32.77	32.81
GSM1900	512	29.95	30.03
GSM1900	661	30.22	30.04
GSM1900	810	30.11	30.09

WCDMA BAND	Modulation	Channel	Test Original Reports Level(dBm)	Re-Test Reports Level(dBm)
WCDMA Band II	QPSK	9262	23.66	23.72
WCDMA Band II	QPSK	9400	23.47	23.65
WCDMA Band II	QPSK	9538	23.41	23.53
WCDMA Band V	QPSK	4132	23.10	23.59
WCDMA Band V	QPSK	4182	23.84	23.87
WCDMA Band V	QPSK	4233	23.84	23.86

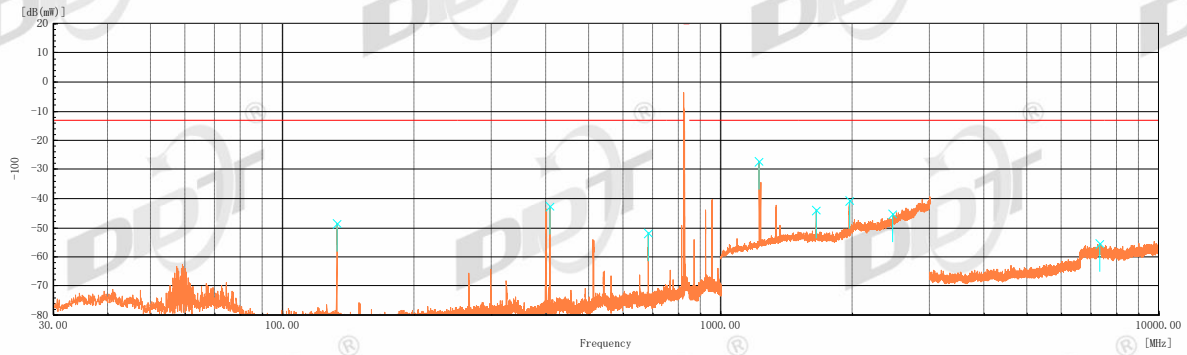
6.2. Radiated Spurious Emissions

Test Mode1：GSM850 L channel (horizontal)



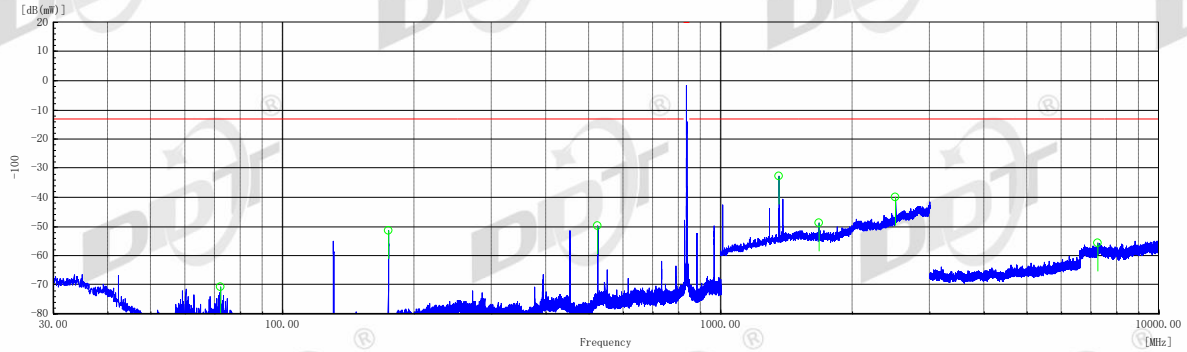
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
100	H	34.7	-60.6	-13	47.6	167	270.1
399.85	H	57.1	-38.2	-13	25.2	146	270.1
957	H	52.4	-42.9	-13	29.9	100	270.1
1224.5	H	66.1	-29.2	-13	16.2	117	270.1
1648.5	H	47.1	-48.2	-13	35.2	174	45.5
2472	H	54.7	-40.6	-13	27.6	103	135.2
7246.501	H	39.7	-55.6	-13	42.6	159	45.5

Test Mode1：GSM850 L channel (vertical)



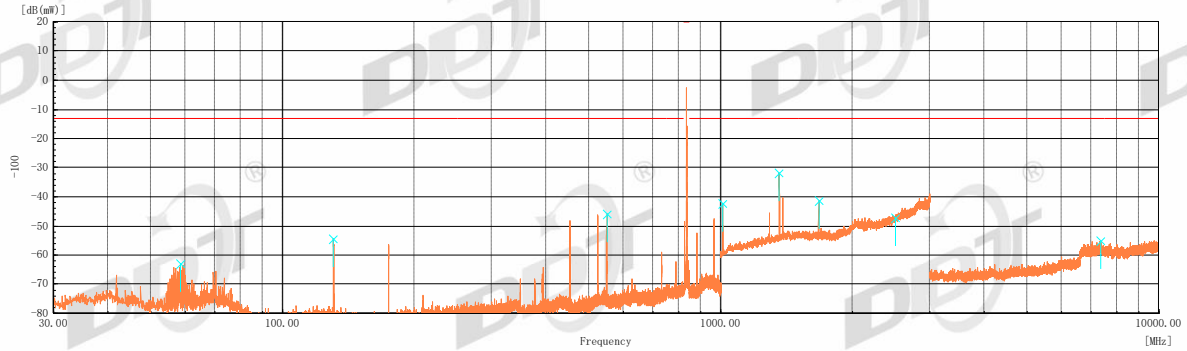
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
132.85	V	46.6	-48.7	-13	35.7	110	179.4
407.55	V	52.6	-42.7	-13	29.7	128	134.4
682.8	V	43.6	-51.7	-13	38.7	149	0.1
1223.5	V	68.2	-27.1	-13	14.1	106	315
1648.5	V	51.5	-43.8	-13	30.8	105	134.4
1964	V	54.5	-40.8	-13	27.8	138	179.4
2473	V	50.2	-45.1	-13	32.1	109	90
7328.501	V	40.0	-55.3	-13	42.3	132	315

Test Mode1：GSM850 M channel (horizontal)



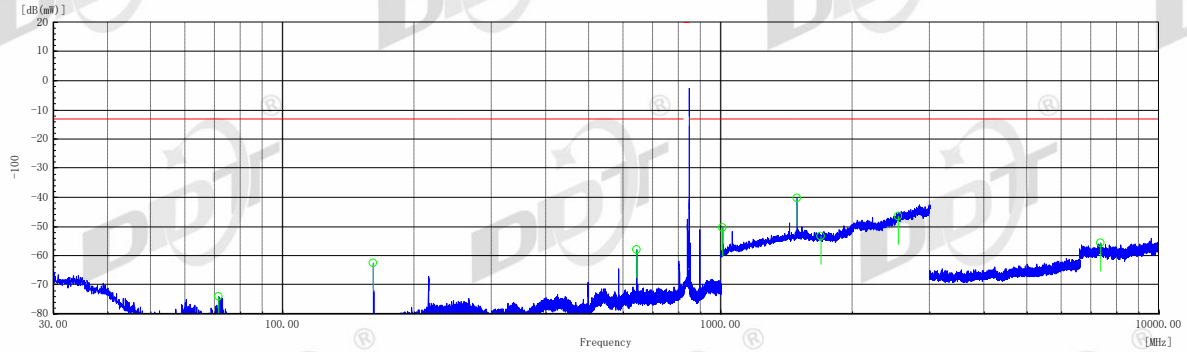
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
72.05	H	24.4	-70.9	-13	57.9	122	45.5
174.15	H	43.8	-51.5	-13	38.5	158	315.9
523.05	H	45.4	-49.9	-13	36.9	106	225.5
1360	H	62.5	-32.8	-13	19.8	175	270.4
1673.5	H	46.4	-48.9	-13	35.9	146	180.9
2510.5	H	55.4	-39.9	-13	26.9	163	136
7266.501	H	39.7	-55.6	-13	42.6	156	315.9

Test Mode1：GSM850 M channel (vertical)



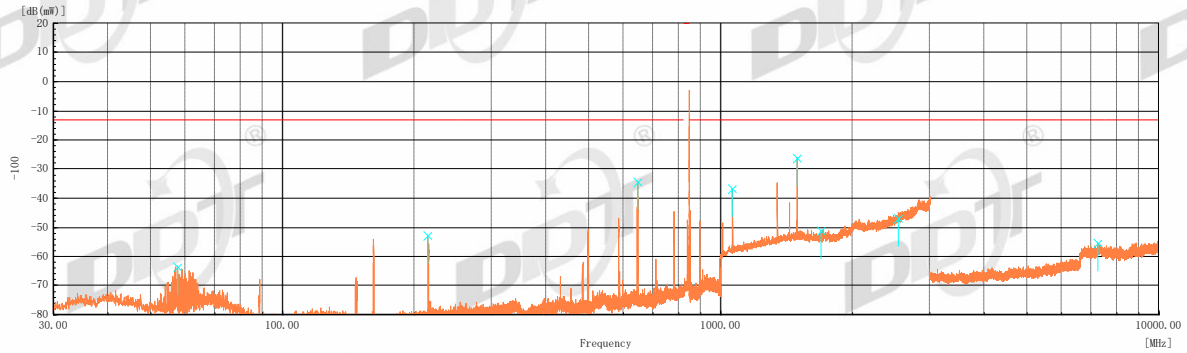
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
58.35	V	32.3	-63	-13	50	120	269.3
130.65	V	41.0	-54.3	-13	41.3	140	0.1
549.3	V	49.3	-46	-13	33	101	0.1
1010.5	V	52.9	-42.4	-13	29.4	118	0.1
1360	V	63.5	-31.8	-13	18.8	174	179.8
1673	V	54.0	-41.3	-13	28.3	162	224.4
2509	V	48.0	-47.3	-13	34.3	108	315.9
7368.501	V	40.1	-55.2	-13	42.2	146	45.1

Test Mode1：GSM850 H channel (horizontal)



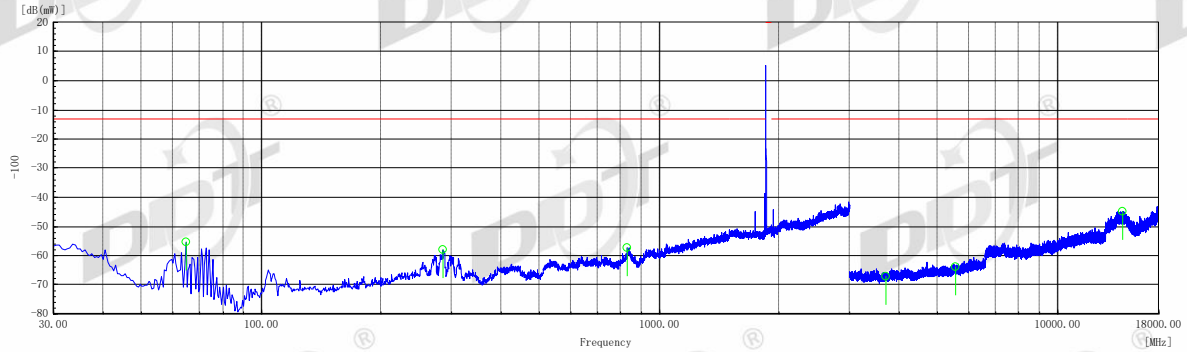
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
71.4	H	21.2	-74.1	-13	61.1	170	45.4
161.15	H	32.6	-62.7	-13	49.7	135	90
644.5	H	37.3	-58	-13	45	167	90
1010.5	H	44.9	-50.4	-13	37.4	103	135.4
1493	H	55.1	-40.2	-13	27.2	160	90
1697.5	H	41.8	-53.5	-13	40.5	143	225.3
2546.5	H	48.7	-46.6	-13	33.6	104	0.1
7371.001	H	39.6	-55.7	-13	42.7	131	135.4

Test Mode1：GSM850 H channel (vertical)



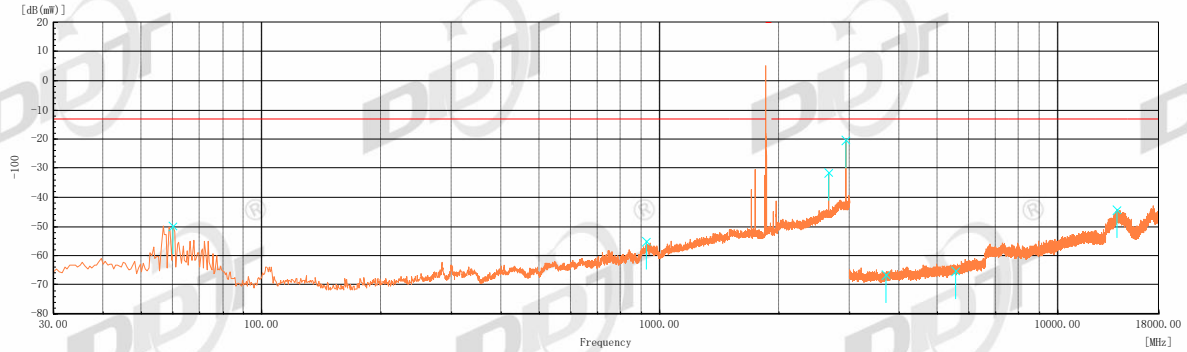
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
57.5	V	31.8	-63.5	-13	50.5	144	224.5
214.85	V	42.7	-52.6	-13	39.6	123	315.6
645.85	V	61.0	-34.3	-13	21.3	130	0.2
1064	V	58.5	-36.8	-13	23.8	136	224.5
1493.5	V	69.2	-26.1	-13	13.1	154	224.5
1697.5	V	44.3	-51	-13	38	147	270.2
2546.5	V	48.3	-47	-13	34	145	179.9
7250.501	V	39.8	-55.5	-13	42.5	112	224.5

Test Mode2：GSM1900 L channel (horizontal)



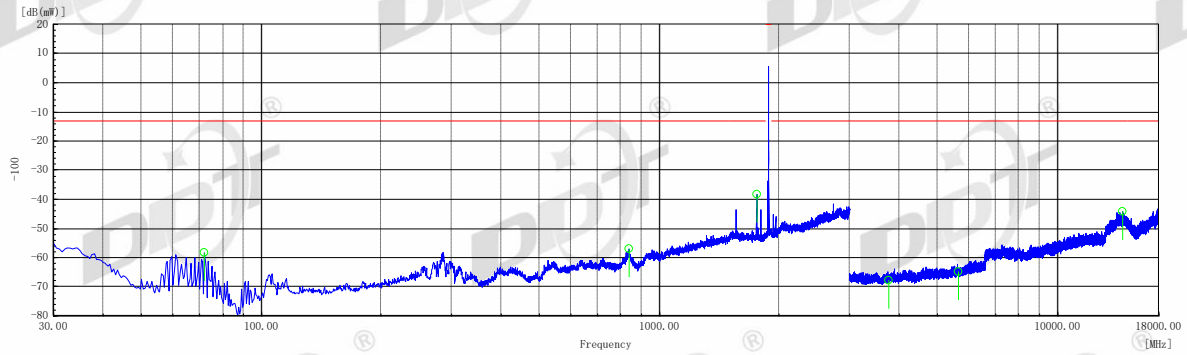
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
64.5	H	40.0	-55.3	-13	42.3	152	134.6
285	H	37.4	-57.9	-13	44.9	170	180.8
829	H	38.1	-57.2	-13	44.2	164	90
3700.5	H	28.2	-67.1	-13	54.1	125	315.6
5550.5	H	31.4	-63.9	-13	50.9	136	0.1
14627	H	50.5	-44.8	-13	31.8	120	180.8

Test Mode2：GSM1900 L channel (vertical)



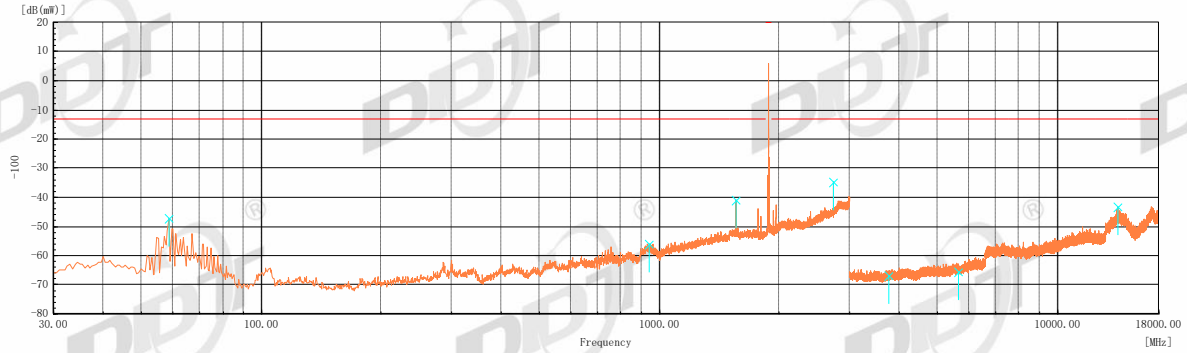
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
60	V	45.5	-49.8	-13	36.8	116	269.9
926	V	40.2	-55.1	-13	42.1	154	134.6
2664.5	V	63.7	-31.6	-13	18.6	143	0
2936	V	75.1	-20.2	-13	7.2	156	315.6
3700	V	28.7	-66.6	-13	53.6	131	269.9
5550.5	V	30.1	-65.2	-13	52.2	171	134.6
14102	V	51.0	-44.3	-13	31.3	132	179.5

Test Mode2：GSM1900 M channel (horizontal)



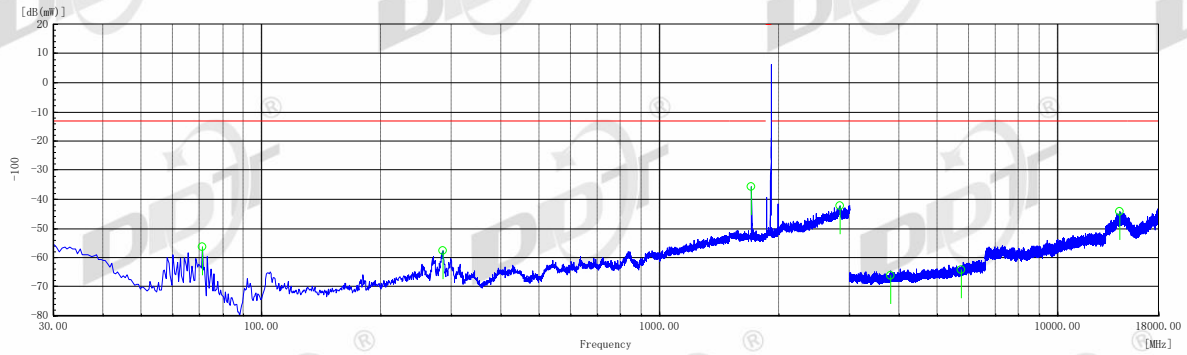
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
72	H	37.1	-58.2	-13	45.2	164	45.3
837	H	38.3	-57	-13	44	145	270.5
1755	H	56.8	-38.5	-13	25.5	171	135.4
3760	H	27.4	-67.9	-13	54.9	132	180.3
5640	H	30.2	-65.1	-13	52.1	172	0
14627.5	H	50.9	-44.4	-13	31.4	163	135.4

Test Mode2：GSM1900 M channel (vertical)



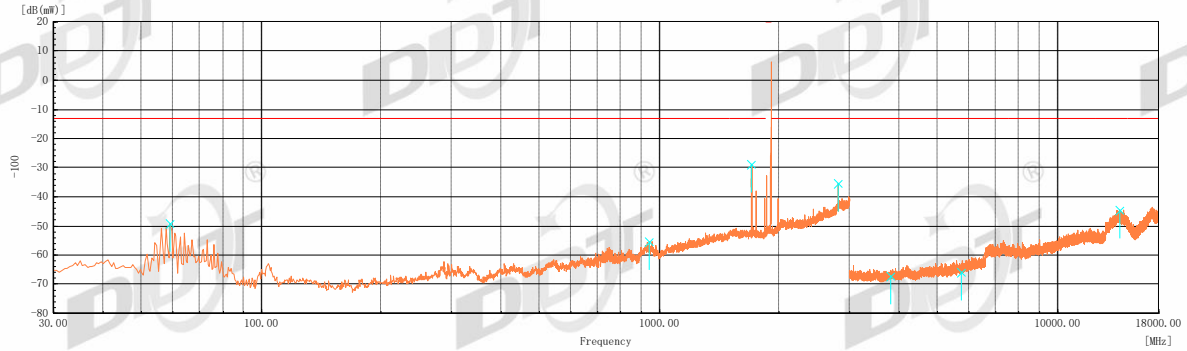
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
58.5	V	47.9	-47.4	-13	34.4	102	224.4
942.5	V	39.2	-56.1	-13	43.1	153	134.5
1558	V	54.5	-40.8	-13	27.8	125	315.5
2739	V	60.6	-34.7	-13	21.7	125	315.5
3760	V	28.5	-66.8	-13	53.8	143	224.4
5640	V	29.9	-65.4	-13	52.4	168	89.8
14156	V	52.0	-43.3	-13	30.3	169	224.4

Test Mode2：GSM1900 H channel (horizontal)



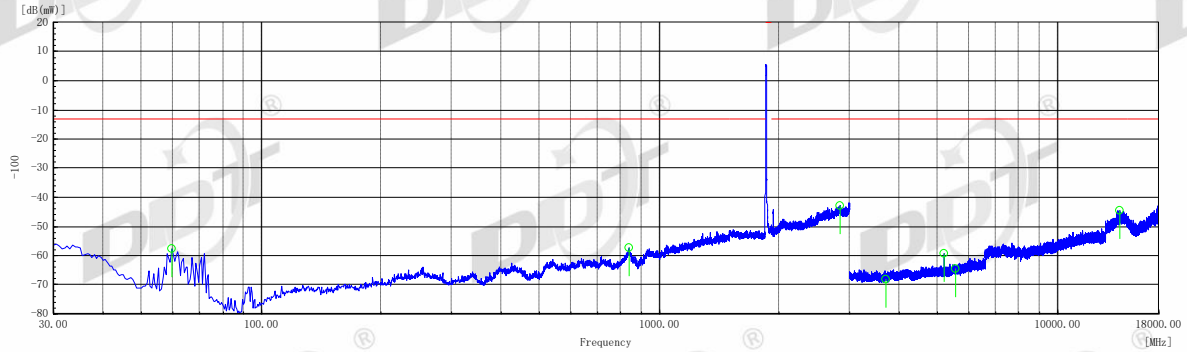
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
71	H	38.9	-56.4	-13	43.4	146	45.6
286	H	37.7	-57.6	-13	44.6	129	180.6
1705.5	H	59.4	-35.9	-13	22.9	145	225.2
2840.5	H	53.0	-42.3	-13	29.3	100	359.9
3819.5	H	29.2	-66.1	-13	53.1	116	45.6
5729.5	H	30.9	-64.4	-13	51.4	127	270.5
14359	H	50.9	-44.4	-13	31.4	131	225.2

Test Mode2：GSM1900 H channel (vertical)



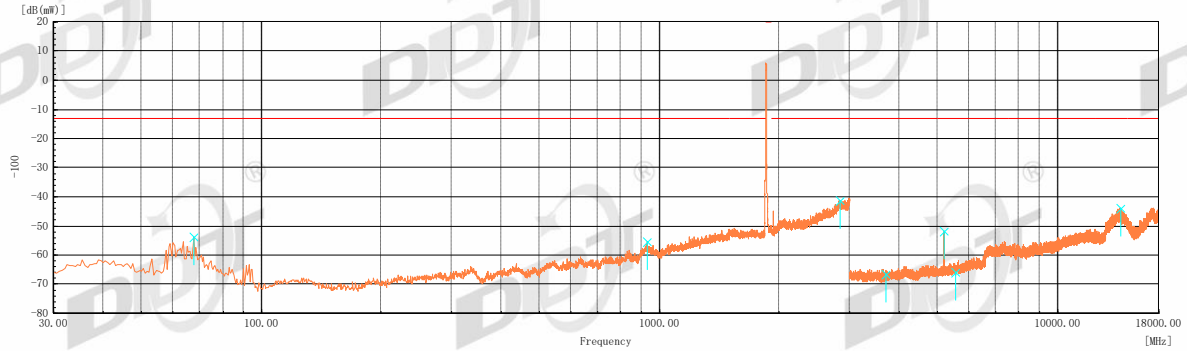
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
59	V	46.0	-49.3	-13	36.3	132	269.7
942.5	V	39.9	-55.4	-13	42.4	124	134.4
1706	V	66.3	-29	-13	16	161	0.1
2814	V	59.9	-35.4	-13	22.4	156	269.7
3819.5	V	28.2	-67.1	-13	54.1	123	269.7
5729.5	V	29.6	-65.7	-13	52.7	133	44.4
14361	V	50.8	-44.5	-13	31.5	114	315

Test Mode3：WCDMA Band II L channel (horizontal)



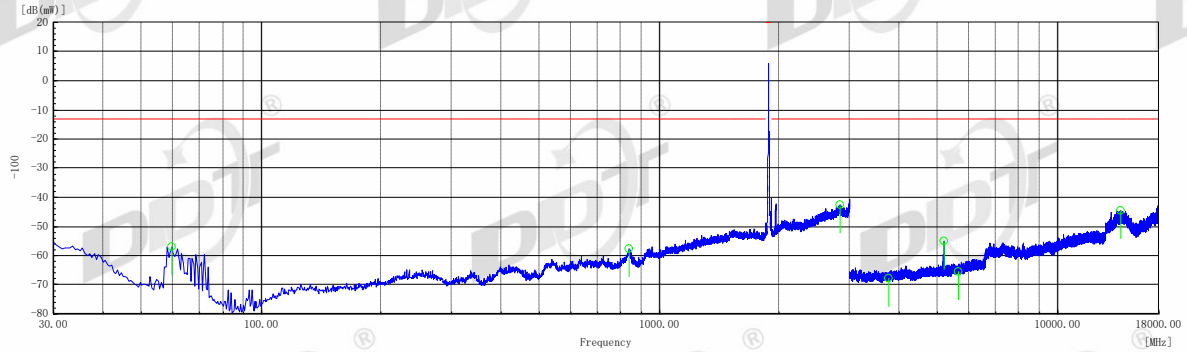
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
59.5	H	37.5	-57.8	-13	44.8	109	270
837.5	H	38.0	-57.3	-13	44.3	130	44.3
2846.5	H	52.3	-43	-13	30	176	44.3
3705	H	27.2	-68.1	-13	55.1	114	180.6
5186	H	35.9	-59.4	-13	46.4	127	44.3
5557.5	H	30.5	-64.8	-13	51.8	114	44.3
14348.5	H	50.7	-44.6	-13	31.6	176	315.3

Test Mode3：WCDMA Band II L channel (vertical)



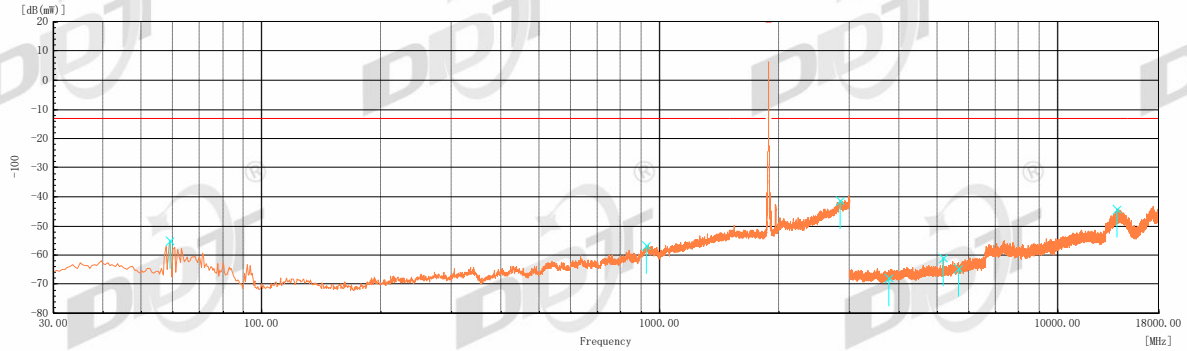
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
67.5	V	41.4	-53.9	-13	40.9	124	44.8
931	V	39.8	-55.5	-13	42.5	132	224.7
2837.5	V	54.0	-41.3	-13	28.3	160	89.7
3705	V	28.6	-66.7	-13	53.7	123	359.9
5201	V	43.6	-51.7	-13	38.7	120	134.9
5557	V	29.5	-65.8	-13	52.8	152	89.7
14413.5	V	51.3	-44	-13	31	145	44.8

Test Mode3：WCDMA Band II M channel (horizontal)



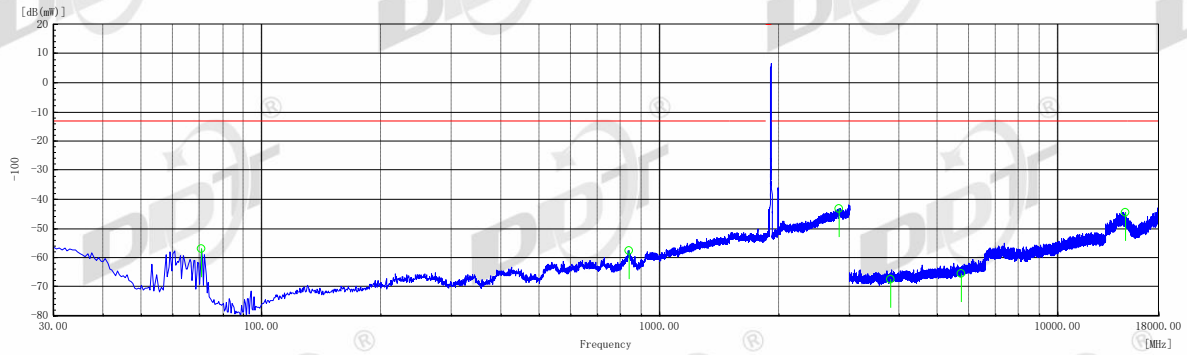
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
59.5	H	38.2	-57.1	-13	44.1	118	270.1
837.5	H	37.4	-57.9	-13	44.9	106	315.5
2845.5	H	52.6	-42.7	-13	29.7	136	225.2
3760	H	27.3	-68	-13	55	151	45.6
5186	H	40.4	-54.9	-13	41.9	156	90.3
5640	H	29.8	-65.5	-13	52.5	107	180.6
14456.5	H	50.7	-44.6	-13	31.6	107	225.2

Test Mode3：WCDMA Band II M channel (vertical)



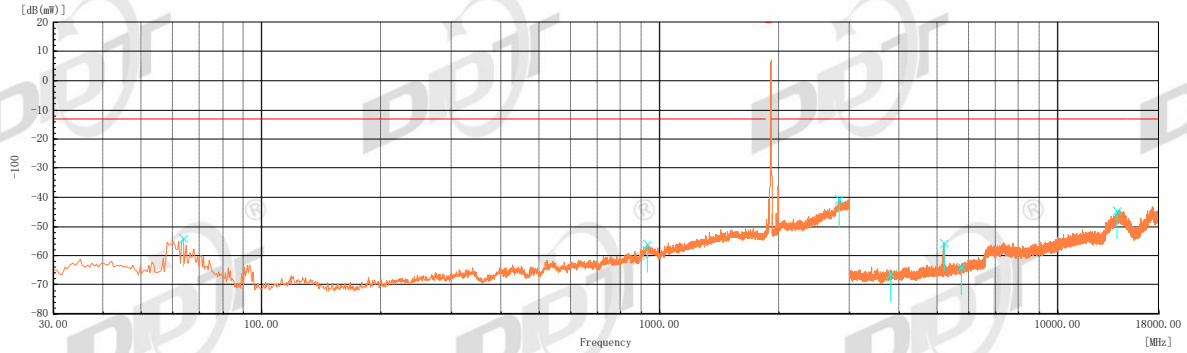
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
59	V	40.3	-55	-13	42	121	269.8
925.5	V	38.6	-56.7	-13	43.7	102	0.1
2844	V	53.9	-41.4	-13	28.4	157	0.1
3760	V	27.4	-67.9	-13	54.9	141	89.4
5177	V	34.4	-60.9	-13	47.9	145	44.9
5640	V	30.8	-64.5	-13	51.5	131	44.9
14125.5	V	51.1	-44.2	-13	31.2	150	89.4

Test Mode3：WCDMA Band II H channel (horizontal)



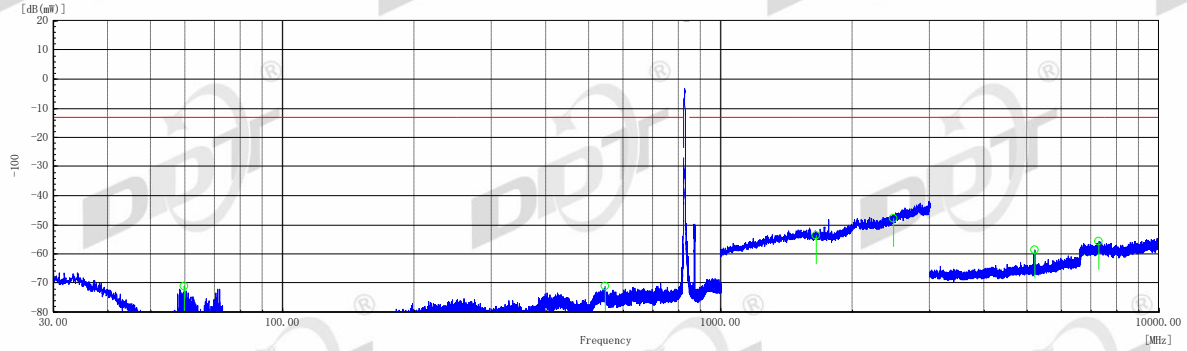
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
70.5	H	38.3	-57	-13	44	180	90.2
838.5	H	37.6	-57.7	-13	44.7	174	135.5
2835.5	H	52.0	-43.3	-13	30.3	140	180.9
3815	H	27.8	-67.5	-13	54.5	145	45.7
5723	H	29.6	-65.7	-13	52.7	140	135.5
14803.5	H	50.7	-44.6	-13	31.6	130	90.2

Test Mode3：WCDMA Band II H channel (vertical)



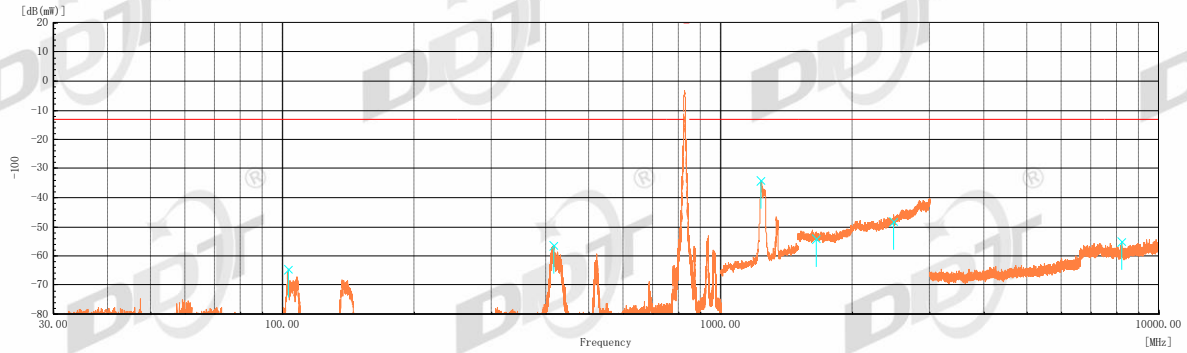
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
63.5	V	41.2	-54.1	-13	41.1	160	179.6
931.5	V	39.4	-55.9	-13	42.9	162	0
2828	V	54.5	-40.8	-13	27.8	168	89.8
3815	V	29.0	-66.3	-13	53.3	162	89.8
5193	V	39.6	-55.7	-13	42.7	101	89.8
5723	V	31.3	-64	-13	51	121	269.9
14147	V	50.7	-44.6	-13	31.6	155	134.6

Test Mode4：WCDMA Band V L channel (horizontal)



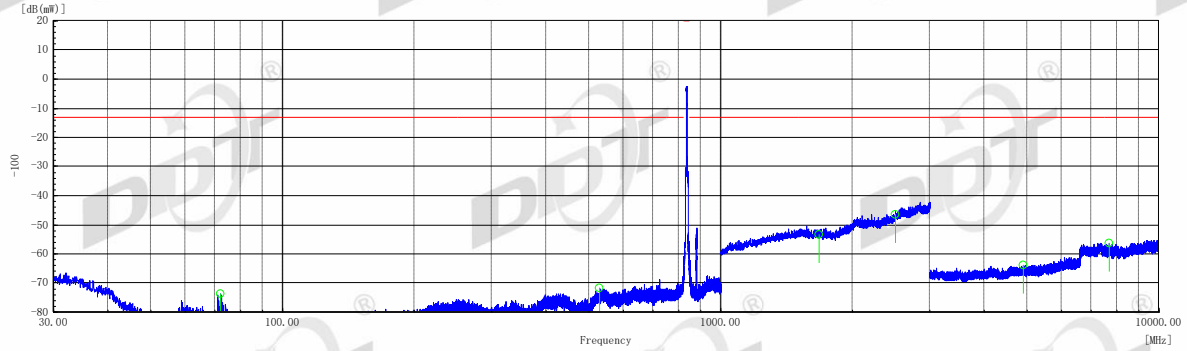
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
59.75	H	24.0	-71.3	-13	58.3	117	270.3
544.5	H	24.2	-71.1	-13	58.1	127	314.8
1653	H	41.5	-53.8	-13	40.8	152	270.3
2479	H	47.4	-47.9	-13	34.9	105	180.4
5206.5	H	36.5	-58.8	-13	45.8	177	135.1
7298.001	H	39.7	-55.6	-13	42.6	116	225.8

Test Mode4：WCDMA Band V L channel (vertical)



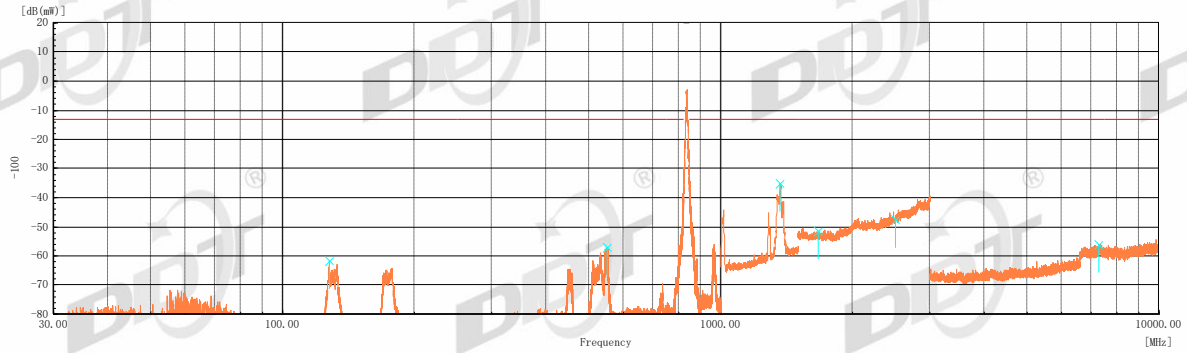
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
102.9	V	30.7	-64.6	-13	51.6	137	89.4
414.7	V	39.0	-56.3	-13	43.3	140	314.8
1237	V	61.3	-34	-13	21	146	89.4
1653	V	41.3	-54	-13	41	126	269.1
2479	V	46.9	-48.4	-13	35.4	122	180
8212.001	V	40.2	-55.1	-13	42.1	134	359.9

Test Mode4：WCDMA Band V M channel (horizontal)



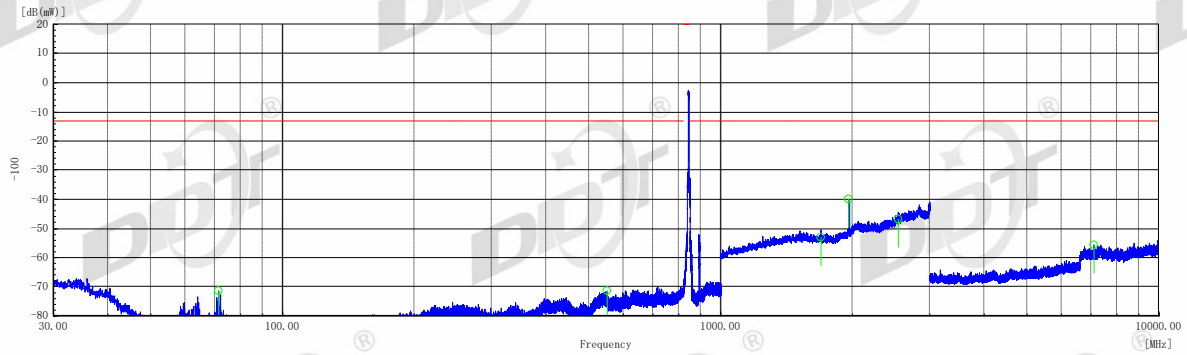
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
72.15	H	21.5	-73.8	-13	60.8	161	45.6
528.7	H	23.6	-71.7	-13	58.7	127	179.7
1672.5	H	42.0	-53.3	-13	40.3	161	359.9
2509	H	48.8	-46.5	-13	33.5	105	359.9
4903	H	31.5	-63.8	-13	50.8	119	89.7
7715.001	H	39.0	-56.3	-13	43.3	147	45.6

Test Mode4：WCDMA Band V M channel (vertical)



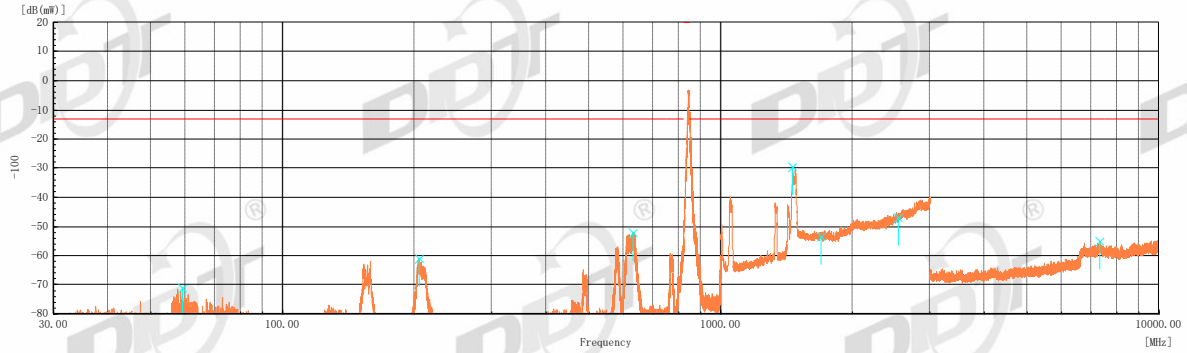
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
127.95	V	33.8	-61.5	-13	48.5	150	270
551.5	V	38.2	-57.1	-13	44.1	175	270
1368	V	60.2	-35.1	-13	22.1	169	224.7
1672	V	43.7	-51.6	-13	38.6	179	270
2509	V	47.8	-47.5	-13	34.5	147	89.8
7308.001	V	39.2	-56.1	-13	43.1	150	0.3

Test Mode4：WCDMA Band V H channel (horizontal)



Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
71.55	H	23.8	-71.5	-13	58.5	173	45.2
549.1	H	23.8	-71.5	-13	58.5	172	45.2
1693	H	42.1	-53.2	-13	40.2	177	180.8
1961.5	H	55.3	-40	-13	27	104	180.8
2540	H	48.4	-46.9	-13	33.9	125	135.4
7096.001	H	39.6	-55.7	-13	42.7	103	270.7

Test Mode4：WCDMA Band V H channel (vertical)



Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
58.95	V	24.1	-71.2	-13	58.2	102	269.1
204.5	V	34.4	-60.9	-13	47.9	128	315.2
629.25	V	43.2	-52.1	-13	39.1	121	315.2
1459	V	65.8	-29.5	-13	16.5	168	269.1
1693	V	41.8	-53.5	-13	40.5	130	44.7
2540	V	48.3	-47	-13	34	137	44.7
7343.501	V	40.2	-55.1	-13	42.1	123	89.2

Note:
1) The disturbance above 18GHz and below 30MHz was very low at GSM1900 and WCDMA Band II, and the above harmonics are the highest points could be found when testing, so only the worst case data had been displayed.
2) GSM850 and WCDMA Band V working frequency lower than 1GHz, only test the tenth harmonic of the highest fundamental frequency. And the disturbance below 30MHz was very low, and the above harmonics are the highest points could be found when testing, so only the worst case data had been displayed.
2) We have tested all modulation and Bandwidth, but only the worst case data presented in this report.

7. Appendixes

The below appendixes were details results tested and supported by SGS-CSTC Standards Technical Services,Co.,Ltd.Shenzhen Branch(Date of Test: 2019/05/22 ~2019/06/10).
All appendixes were cited in this report.

Appendix	Item
Appendix B.1	GSM850 & GSM1900
Appendix B.2	WCDMA BAND II & V