

RF TEST REPORT

Report No.: DDT-B21112204-1E01

Applicant	:	Acer Incorporated
Applicant Address	:	8F.,NO.88,Sec. 1, Xintai 5 th Rd., Xizhi, New Taipei City 22181, Taiwan (R.O.C)
Equipment Under Test	:	Tablet Computer
Model No.	:	A8202
Trade Mark	:	
FCC ID	:	HLZA8202
Manufacturer	:	SIM Technology Group Shanghai Simcom Limited
Manufacturer Address	:	Building A,SIM Technology Building NO.633, Jinzhong Road.Changning District ,Shanghai P.R. China

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

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

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REPORT

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Test Report Declare

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Equipment under Test	:	Tablet Computer
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Trade Mark	:	
Manufacturer	:	SIM Technology Group Shanghai Simcom Limited
Address	:	Building A, SIM Technology Building NO.633, Jinzhong Road, Changning District, Shanghai P.R. China

Test Standard Used:

FCC Rules and Regulations: 47 CFR Part2, Part22, Part24, Part27

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-B21112204-1E01		
Date of Receipt:	Nov. 22, 2021	Date of Test:	Nov. 22, 2021 ~ Dec. 8, 2021



Prepared By:

Leon Li

Leon Li/Engineer

Approved By:

Aaron Zhang

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	Dec. 8, 2021	

1. Summary of Test Results

1.1. LTE Band2

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 "pass¹" items data are refer from the original report issued by SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch. (Date of Test: 2019/7/3 ~2019/7/20). The detailed data can refer to Appendix B.1-LTE Band 2.

Note2:
The above "pass²" item is tested by Tianjin Dongdian Testing Service Co., Ltd.

1.2. LTE Band4 / Band66

Summary of Test Results			
Test Item	Standard	Requirements	Result
Effective (Isotropic) Radiated Power	FCC §2.1046, §27.50	EIRP: ≤1W	Pass ¹
Peak-to-Average Ratio	FCC §2.1046, §27.50	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, §27.53	Limit: ≤ P(dBm)- [43 + 10 log(P(w))] dBm/1MHz	Pass ¹
Spurious Emission at Antenna Terminals	FCC §2.1051, §27.53	Limit: ≤ P(dBm)- [43 + 10 log(P(w))] dBm/1MHz	Pass ¹
Field Strength of Spurious Radiation	FCC §2.1053, §27.53	Limit: ≤ P(dBm)- [43 + 10 log(P(w))] dBm/1MHz	Pass ²
Frequency Stability	FCC §2.1055, §27.54	Emission must remain in band	Pass ¹

Note 1:

The above "pass¹" items data are refer from the original report issued by SGS-CSTC Standards Technical Services, Co., Ltd. Shenzhen Branch. (Date of Test: 2019/7/3 ~2019/7/20). The detailed data can refer to Appendix B.2-LTE Band 4 and Appendix B.5-LTE Band 66.

Note2:

The above "pass²" item is tested by Tianjin Dongdian Testing Service Co., Ltd.

1.3. LTE Band5

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	Δ: <±2.5ppm	Pass ¹

Note 1:
The above "pass¹" items data are refer from the original report issued by SGS-CSTC Standards Technical Services, Co., Ltd. Shenzhen Branch. (Date of Test: 2019/7/3 ~2019/7/20). The detailed data can refer to Appendix B.3-LTE Band 5.

Note2:
The above "pass²" item is tested by Tianjin Dongdian Testing Service Co., Ltd.

1.4. LTE Band12

Summary of Test Results			
Test Item	Standard	Requirements	Result
Effective (Isotropic) Radiated Power	FCC §2.1046, §27.50	ERP: ≤3W	Pass ¹
Peak-to-Average Ratio	FCC §2.1046, §27.50	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, §27.53	Limit: ≤ P(dBm)- [43 + 10 log(P (w))] dBm/100KHz	Pass ¹
Spurious Emission at Antenna Terminals	FCC §2.1051, §27.53	Limit: ≤ P(dBm)- [43 + 10 log(P (w))] dBm/100KHz	Pass ¹

Field Strength of Spurious Radiation	FCC §2.1053, §27.53	Limit: $\leq P(\text{dBm}) - [43 + 10 \log(P(w))]$ dBm/100KHz	Pass ²
Frequency Stability	FCC §2.1055, §27.54	Emission must remain in band	Pass ¹
Note 1: The above "pass¹" items data are refer from the original report issued by SGS-CSTC Standards Technical Services, Co., Ltd. Shenzhen Branch. (Date of Test: 2019/7/3 ~2019/7/20). The detailed data can refer to Appendix B.4-LTE Band 12. Note2: The above "pass²" item is tested by Tianjin Dongdian Testing Service Co., Ltd.			

1.5. LTE Band71

Summary of Test Results			
Test Item	Standard.	Requirements	Result
Effective (Isotropic) Radiated Power	FCC §2.1046, §27.50	ERP: $\leq 3\text{W}$	Pass ¹
Peak-to-Average Ratio	FCC §2.1046, §27.50	Limit: $\leq 13\text{dB}$	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, §27.53	Limit: $\leq P(\text{dBm}) - [43 + 10 \log(P(w))]$ dBm/100KHz	Pass ¹
Spurious Emission at Antenna Terminals	FCC §2.1051, §27.53	Limit: $\leq P(\text{dBm}) - [43 + 10 \log(P(w))]$ dBm/100KHz	Pass ¹
Field Strength of Spurious Radiation	FCC §2.1053, §27.53	Limit: $\leq P(\text{dBm}) - [43 + 10 \log(P(w))]$ dBm/100KHz	Pass ²
Frequency Stability	FCC §2.1055, §27.54	Emission must remain in band	Pass ¹
Note 1: The above "pass¹" items data are refer from the original report issued by SGS-CSTC Standards Technical Services, Co., Ltd. Shenzhen Branch. (Date of Test: 2019/7/3 ~2019/7/20). The detailed data can refer to Appendix B.6-LTE Band 71. Note2: The above "pass²" item is tested by Tianjin Dongdian Testing Service Co., Ltd.			

2. General Test Information

2.1. Description of EUT

EUT Description	Tablet Computer										
Model Number	A8202										
Trade Mark											
IMEI	356815100000414										
Serial Number	92435993264										
Hardware Version	1.0										
Software Version	Acer_AV001_A8202_0.010.00_PA_CCI										
Sample Type	Portable Device										
Frequency band	E-UTRA	Duplex Mode	Tx (MHz)	Rx (MHz)	Supported Channel Bandwidth						
					1.4	3	5	10	15	20	
	Band 2	FDD	1850-1910	1930-1990	☑	☑	☑	☑	☑	☑	
	Band 4	FDD	1710-1755	2110-2155	☑	☑	☑	☑	☑	☑	
	Band 5	FDD	824-849	869-894	☑	☑	☑	☑	---	---	
	Band 12	TDD	699-716	729-746	☑	☑	☑	☑	---	---	
	Band 66	TDD	1710-1780	2110-2200	☑	☑	☑	☑	☑	☑	
	Band 71	TDD	663-698	617-652	---	---	☑	☑	☑	☑	
Target Power & Power Class	LTE BAND 2(PC3): 23dBm LTE BAND 4(PC3): 25dBm LTE BAND 5(PC3): 25dBm LTE BAND 12(PC3): 25dBm LTE BAND 66(PC3): 22.5dBm LTE BAND 71(PC3): 25dBm										
Type of modulation	E-UTRA	UL: QPSK&16QAM DL: QPSK&16QAM									
Antenna Type	Fixed Internal Antenna										
Antenna Gain	E-UTRA LTE Band 2: -0.8dBi E-UTRA LTE Band 4: -1.2dBi E-UTRA LTE Band 5: -1.5dBi E-UTRA LTE Band 12: -1.8dBi E-UTRA LTE Band 66: -1.2dBi E-UTRA LTE Band 71: -1.8dBi										
Power Supply	DC by Internal battery DC by 5V AC/DC adapter										

Note: EUT is the abbreviation of equipment under test.

2.2. RF Channel Information

E-UTRA Band	Transmitter/ Receiver	Channel Bandwidth	Frequencies Under Test		
			Lowest range(L)	Middle range(M)	Highest range(H)
Band 2	Transmitter	1.4MHz	Channel 18607 (1850.7MHz)	Channel 18900 (1880MHz)	Channel 19193 (1909.3MHz)
		3MHz	Channel 18615 (1851.5MHz)	Channel 18900 (1880MHz)	Channel 19185 (1908.5MHz)
		5MHz	Channel 18625 (1852.5MHz)	Channel 18900 (1880MHz)	Channel 19175 (1907.5MHz)
		10MHz	Channel 18650 (1855MHz)	Channel 18900 (1880MHz)	Channel 19150 (1905MHz)
		15MHz	Channel 18675 (1857.5MHz)	Channel 18900 (1880MHz)	Channel 19125 (1902.5MHz)
		20MHz	Channel 18700 (1860MHz)	Channel 18900 (1880MHz)	Channel 19100 (1900MHz)
	Receiver	1.4MHz	Channel 607 (1930.7MHz)	Channel 900 (1960MHz)	Channel 1193 (1989.3MHz)
		3MHz	Channel 615 (1931.5MHz)	Channel 900 (1960MHz)	Channel 1185 (1988.5MHz)
		5MHz	Channel 625 (1932.5MHz)	Channel 900 (1960MHz)	Channel 1175 (1987.5MHz)
		10MHz	Channel 650 (1935MHz)	Channel 900 (1960MHz)	Channel 1150 (1985MHz)
		15MHz	Channel 675 (1937.5MHz)	Channel 900 (1960MHz)	Channel 1125 (1982.5MHz)
		20MHz	Channel 700 (1940MHz)	Channel 900 (1960MHz)	Channel 1100 (1980MHz)
Band 4	Transmitter	1.4MHz	Channel 19957 (1710.7MHz)	Channel 20175 (1732.5MHz)	Channel 20393 (1754.3MHz)
		3MHz	Channel 19965 (1711.5MHz)	Channel 20175 (1732.5MHz)	Channel 20385 (1753.5MHz)
		5MHz	Channel 19975 (1712.5MHz)	Channel 20175 (1732.5MHz)	Channel 20375 (1752.5MHz)
		10MHz	Channel 20000 (1715MHz)	Channel 20175 (1732.5MHz)	Channel 20350 (1750MHz)
		15MHz	Channel 20025 (1717.5 MHz)	Channel 20175 (1732.5MHz)	Channel 20325 (1747.5MHz)
		20MHz	Channel 20050 (1720 MHz)	Channel 20175 (1732.5MHz)	Channel 20300 (1745MHz)
	Receiver	1.4MHz	Channel 1957 (2110.7MHz)	Channel 2175 (2132.5MHz)	Channel 2393 (2154.3MHz)
		3MHz	Channel 1965 (2111.5MHz)	Channel 2175 (2132.5MHz)	Channel 2385 (2153.5MHz)
		5MHz	Channel 1975 (2112.5MHz)	Channel 2175 (2132.5MHz)	Channel 2375 (2152.5MHz)
		10MHz	Channel 2000 (2115MHz)	Channel 2175 (2132.5MHz)	Channel 2350 (2150MHz)
		15MHz	Channel 2025 (2117.5MHz)	Channel 2175 (2132.5MHz)	Channel 2325 (2147.5MHz)
		20MHz	Channel 2050 (2120MHz)	Channel 2175 (2132.5MHz)	Channel 2300 (2145MHz)

		20MHz	Channel 2050 (2120MHz)	Channel 2175 (2132.5MHz)	Channel 2300 (2145MHz)
Band5	Transmitter	1.4MHz	Channel 20407 (824.7MHz)	Channel 20525 (836.5MHz)	Channel 20643 (848.3MHz)
		3MHz	Channel 20415 (825.5MHz)	Channel 20525 (836.5MHz)	Channel 20635 (847.5MHz)
		5MHz	Channel 20425 (826.5MHz)	Channel 20525 (836.5MHz)	Channel 20625 (846.5MHz)
		10MHz	Channel 20450 (829 MHz)	Channel 20525 (836.5MHz)	Channel 20600 (844MHz)
	Receiver	1.4MHz	Channel 2407 (869.7MHz)	Channel 2525 (881.5MHz)	Channel 2643 (893.3MHz)
		3MHz	Channel 2415 (870.5MHz)	Channel 2525 (881.5MHz)	Channel 2635 (892.5MHz)
		5MHz	Channel 2425 (871.5MHz)	Channel 2525 (881.5MHz)	Channel 2625 (891.5MHz)
		10MHz	Channel 2450 (874MHz)	Channel 2525 (881.5MHz)	Channel 2600 (889MHz)
Band 12	Transmitter	1.4MHz	Channel 23017 (699.7MHz)	Channel 23095 (707.5MHz)	Channel 23173 (715.3MHz)
		3MHz	Channel 23025 (700.5MHz)	Channel 23095 (707.5MHz)	Channel 23165 (714.5MHz)
		5MHz	Channel 23035 (701.5MHz)	Channel 23095 (707.5MHz)	Channel 23155 (713.5MHz)
		10MHz	Channel 23060 (704MHz)	Channel 23095 (707.5MHz)	Channel 23130 (711MHz)
	Receiver	1.4MHz	Channel 5017 (729.7MHz)	Channel 5095 (737.5MHz)	Channel 5173 (745.3MHz)
		3MHz	Channel 5025 (730.5MHz)	Channel 5095 (737.5MHz)	Channel 5165 (744.5MHz)
		5MHz	Channel 5035 (731.5MHz)	Channel 5095 (737.5MHz)	Channel 5155 (743.5MHz)
		10MHz	Channel 5060 (734MHz)	Channel 5095 (737.5MHz)	Channel 5130 (741MHz)
Band 66	Transmitter	1.4MHz	Channel 131979 (1710.7MHz)	Channel 132322 (1745MHz)	Channel 132665 (1779.3MHz)
		3MHz	Channel 131987 (1711.5MHz)	Channel 132322 (1745MHz)	Channel 132657 (1778.5MHz)
		5MHz	Channel 131997 (1712.5MHz)	Channel 132322 (1745MHz)	Channel 132647 (1777.5MHz)
		10MHz	Channel 132022 (1715MHz)	Channel 132322 (1745MHz)	Channel 132622 (1775MHz)
		15MHz	Channel 132047 (1717.5MHz)	Channel 132322 (1745MHz)	Channel 132597 (1772.5MHz)
		20MHz	Channel 132072 (1720MHz)	Channel 132322 (1745MHz)	Channel 132572 (1770MHz)
	Receiver	1.4MHz	Channel 66443 (2110.7MHz)	Channel 66786 (2145 MHz)	Channel 67129 (2179.3MHz)
		3MHz	Channel 66451 (2111.5MHz)	Channel 66786 (2145 MHz)	Channel 67121 (2178.5MHz)
		5MHz	Channel 66461 (2112.5MHz)	Channel 66786 (2145 MHz)	Channel 67111 (2177.5MHz)

Band 71		10MHz	Channel 66486 (2115MHz)	Channel 66786 (2145 MHz)	Channel 67086 (2175MHz)
		15MHz	Channel 66511 (2117.5MHz)	Channel 66786 (2145 MHz)	Channel 67061 (2172.5MHz)
		20MHz	Channel 66536 (2120MHz)	Channel 66786 (2145 MHz)	Channel 67036 (2170MHz)
	Transmitter	5MHz	Channel 133147 (665.5MHz)	Channel 133297 (680.5MHz)	Channel 133447 (695.5MHz)
		10MHz	Channel 133172 (668MHz)	Channel 133297 (680.5MHz)	Channel 133422 (693MHz)
		15MHz	Channel 133197 (670.5MHz)	Channel 133297 (680.5MHz)	Channel 133397 (690.5MHz)
		20MHz	Channel 133222 (673MHz)	Channel 133322 (683MHz)	Channel 133372 (688MHz)
	Receiver	5MHz	Channel 68611 (619.5MHz)	Channel 68761 (634.5MHz)	Channel 68911 (649.5MHz)
		10MHz	Channel 68636 (622MHz)	Channel 68761 (634.5MHz)	Channel 68886 (647MHz)
		15MHz	Channel 68661 (624.5MHz)	Channel 68761 (634.5MHz)	Channel 68861 (644.5MHz)
		20MHz	Channel 68686 (627MHz)	Channel 68786 (637MHz)	Channel 68836 (642MHz)

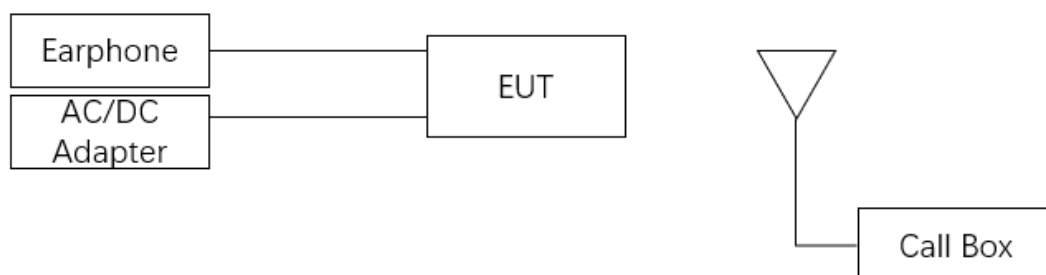
2.3. Accessories of EUT

Description of Accessories	Manufacturer	Model number	Description	Remark
SWITCHING POWER SUPPLY Adapter	Something High Electric (Xiamen) Company Inc.	P12DUSB050200	Input: AC 100-240V~0.3A Output: DC 5.0V~2A	N/A
Earphone	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(°C)	NT: 25°C	N/A
Voltage(V)	NV: 3.8V	LV: 3.5V HV: 4.35V
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 B.W 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	RB
Field Strength of Spurious	Mode1	LTE2	L	QPSK	20MHz	1@0
			M	QPSK	20MHz	1@0
			H	QPSK	20MHz	1@0

Radiation	Mode2	LTE4	L	QPSK	20MHz	1@0
			M	QPSK	20MHz	1@0
			H	QPSK	20MHz	1@0
	Mode3	LTE5	L	QPSK	10MHz	1@0
			M	QPSK	10MHz	1@0
			H	QPSK	10MHz	1@0
	Mode4	LTE12	L	QPSK	10MHz	1@0
			M	QPSK	10MHz	1@0
			H	QPSK	10MHz	1@0
	Mode5	LTE66	L	QPSK	20MHz	1@0
			M	QPSK	20MHz	1@0
			H	QPSK	20MHz	1@0
	Mode6	LTE71	L	QPSK	20MHz	1@0
			M	QPSK	20MHz	1@0
			H	QPSK	20MHz	1@0

2.8. Test laboratory

Tianjin Dongdian Testing Service Co., Ltd.

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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.

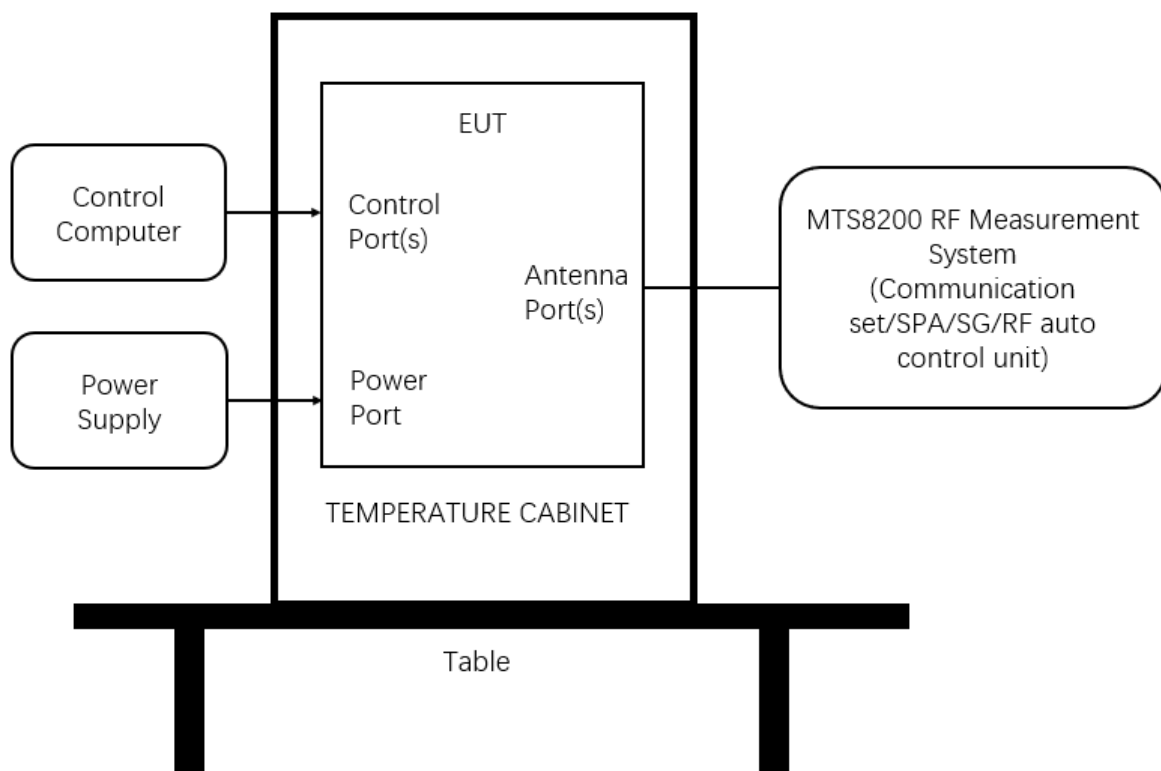
d) EIRP (dBm) = E (dBμV/m) + 20 log D – 104.8; where D is the measurement distance in meters.

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.

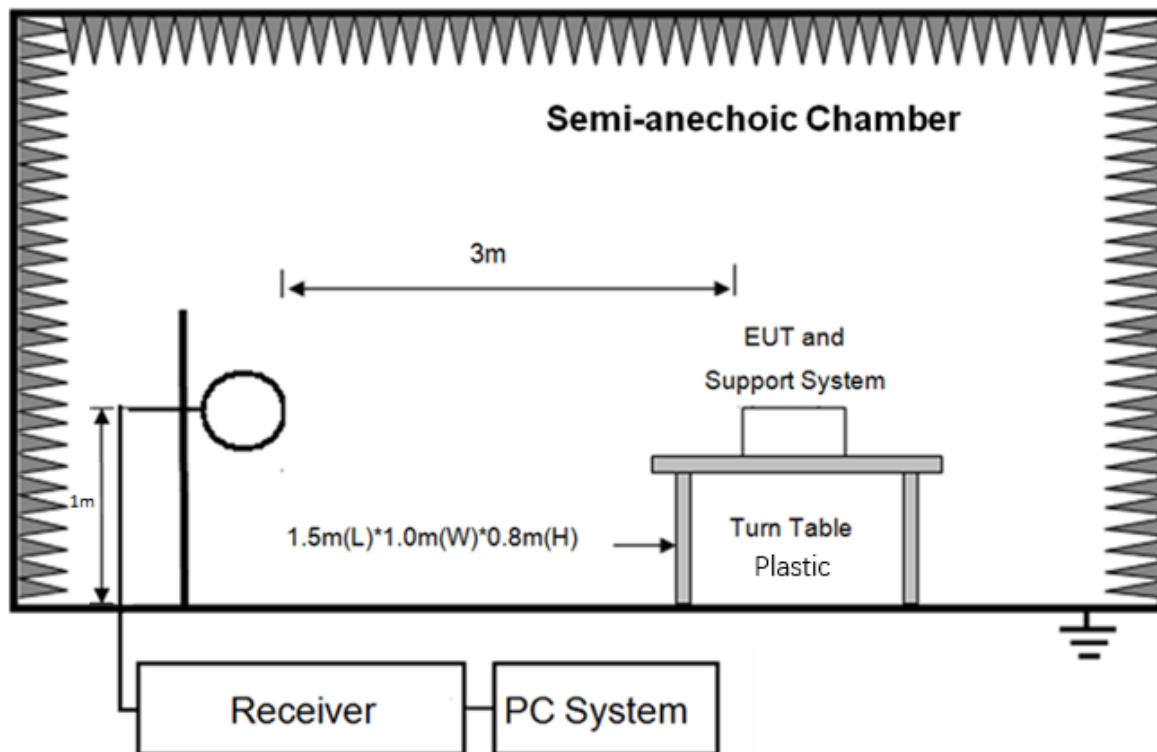
3.3. Test Setups

3.3.1. Test Setup 1

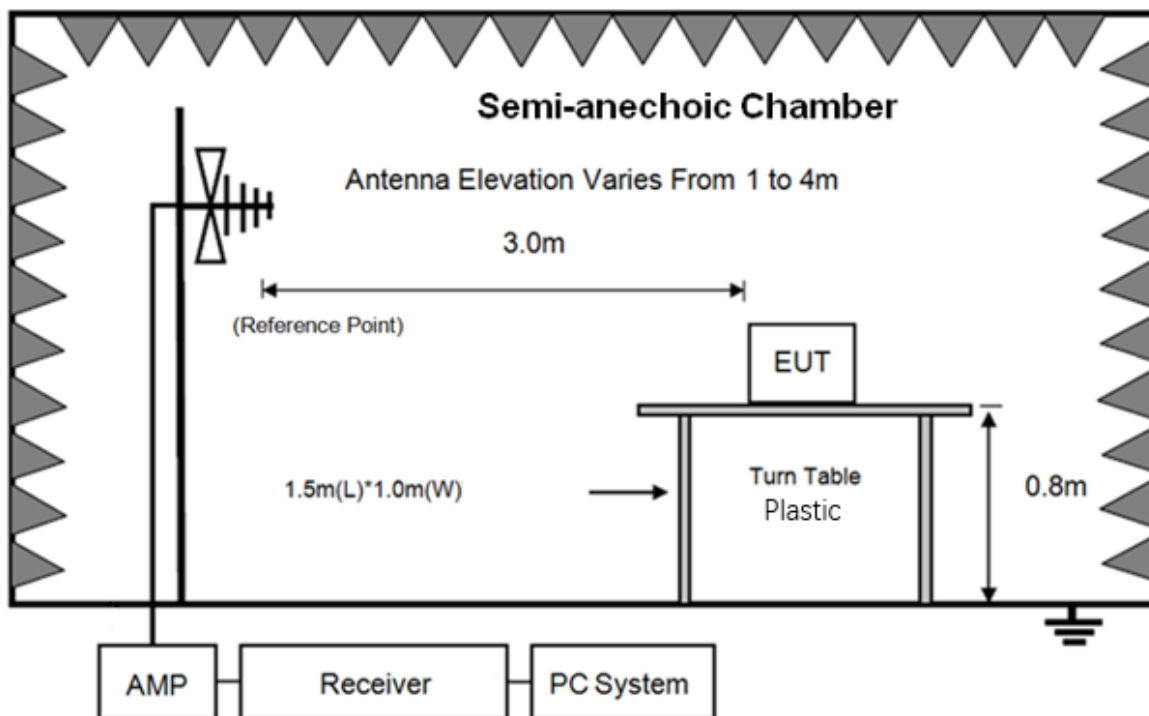


3.3.2. Test Setup 2

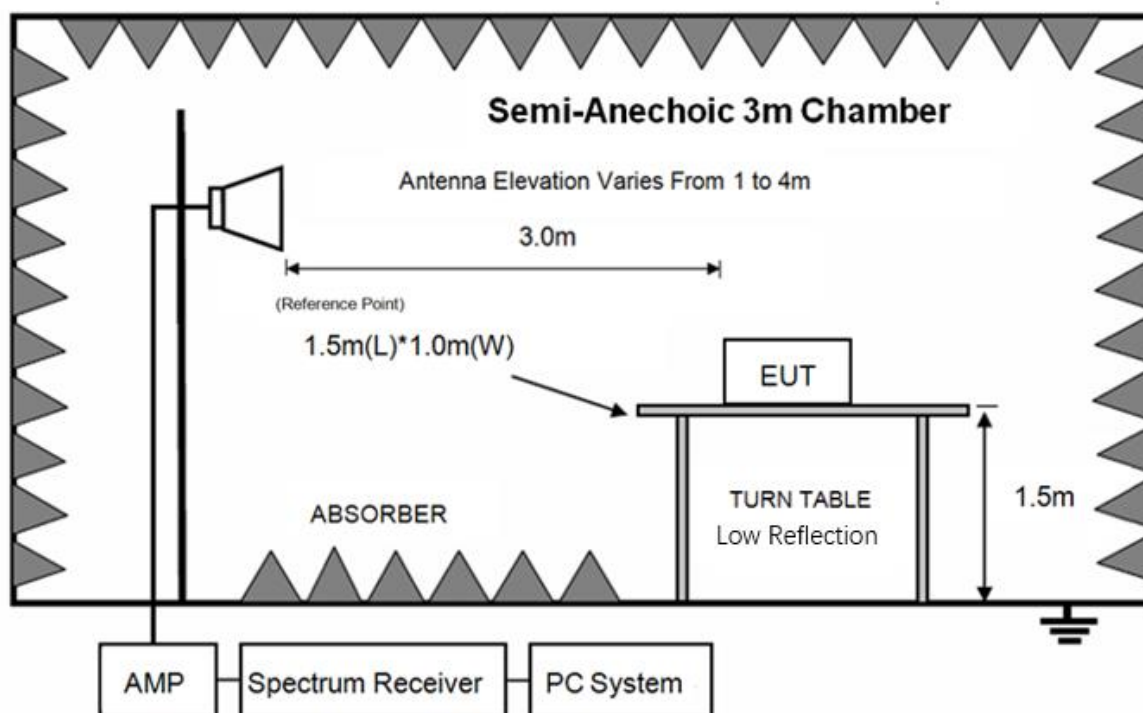
In 3 m Anechoic Chamber, test setup diagram for 9 kHz - 30 MHz:



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	$\pm 0.7\text{dB}$
2	Radiated spurious emissions / Radiated emissions	$\pm 2.72\text{ dB}$ (30MHz-1GHz) $\pm 2.74\text{ dB}$ (1 - 6 GHz) $\pm 2.72\text{ dB}$ (6 GHz - 18 GHz) $\pm 3.54\text{ dB}$ (18 GHz - 26 GHz) $\pm 4.30\text{ dB}$ (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	2021/02/03	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	2021/02/03	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

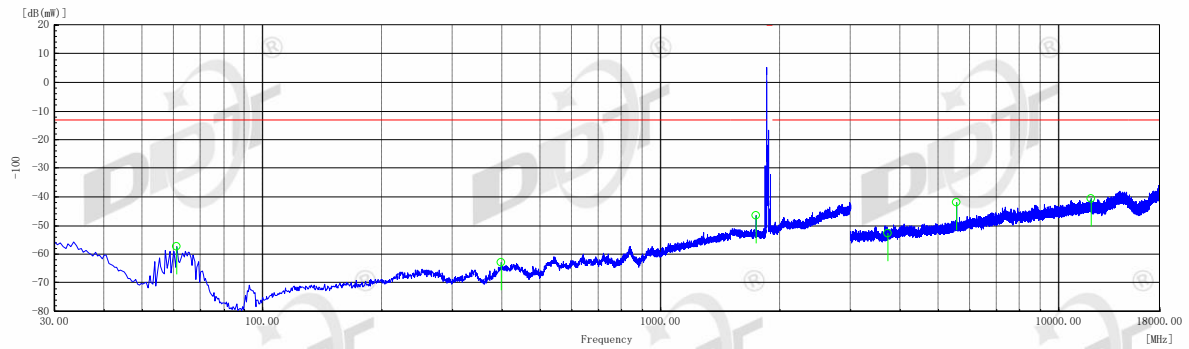
The EUT is operating at the same power level with the original testing of SGS-CSTC Standards Technical Services, Co., Ltd. Shenzhen Branch.

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.

BAND	Bandwidth	Modulation	Channel	RB Configuration	Test Original Reports Level(dBm)	Re-Test Reports Level(dBm)
Band2	20MHz	QPSK	18700	1RB#0	22.28	22.57
Band2	20MHz	QPSK	18900	1RB#0	22.76	22.79
Band2	20MHz	QPSK	19100	1RB#0	22.24	22.32
Band4	20MHz	QPSK	20050	1RB#0	21.89	21.95
Band4	20MHz	QPSK	20175	1RB#0	21.37	21.36
Band4	20MHz	QPSK	20300	1RB#0	22.03	21.99
Band5	10MHz	QPSK	20450	1RB#0	22.97	22.87
Band5	10MHz	QPSK	20525	1RB#0	22.81	22.80
Band5	10MHz	QPSK	20600	1RB#0	22.88	22.91
Band12	10MHz	QPSK	23060	1RB#0	22.86	22.92
Band12	10MHz	QPSK	23095	1RB#0	23.07	23.56
Band12	10MHz	QPSK	23130	1RB#0	23.04	23.43
Band66	20MHz	QPSK	132072	1RB#0	21.89	22.01
Band66	20MHz	QPSK	132322	1RB#0	21.90	21.97
Band66	20MHz	QPSK	132572	1RB#0	21.76	21.89
Band71	20MHz	QPSK	133222	1RB#0	22.75	22.65
Band71	20MHz	QPSK	133322	1RB#0	22.63	22.73
Band71	20MHz	QPSK	133372	1RB#0	22.62	22.59

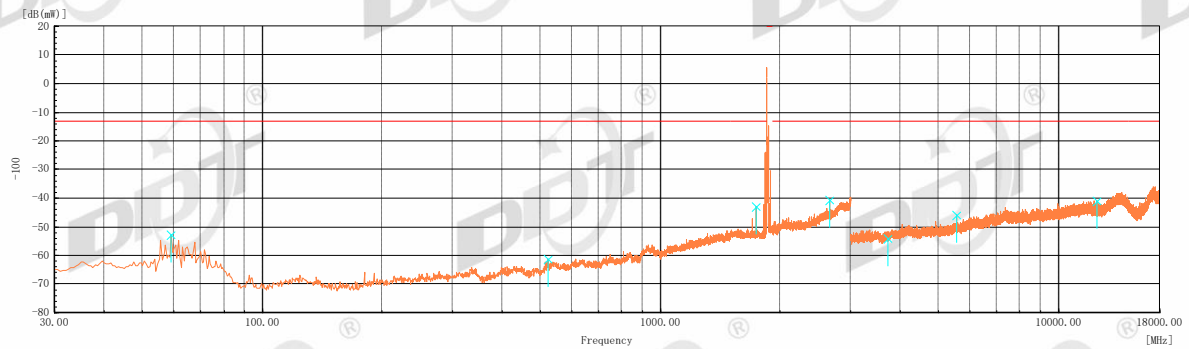
6.1.1. Radiated Spurious Emissions

Test Mode1: LTE2 L channel (horizontal)



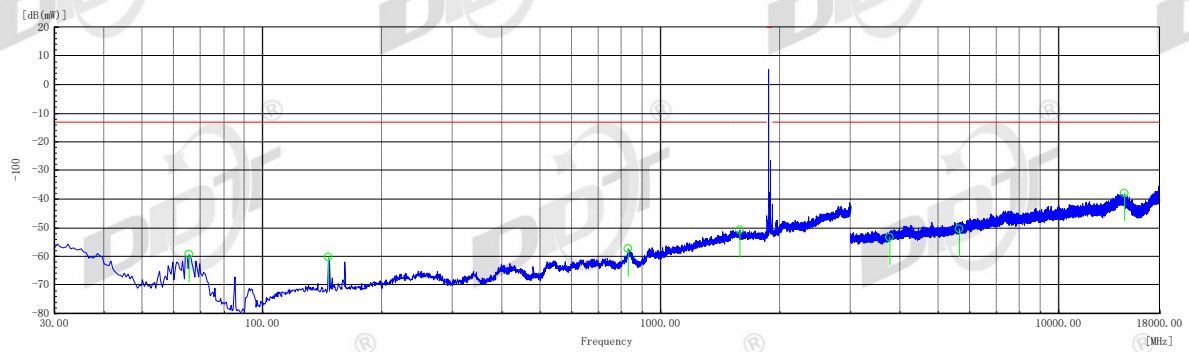
Frequency [MHz]	Pol	Level [dB μ V/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
61	H	38.1	-57.2	-13	44.2	96	180.8
398.5	H	32.4	-62.9	-13	49.9	93	135.4
1741.5	H	48.6	-46.7	-13	33.7	155	225
3720	H	42.6	-52.7	-13	39.7	149	270.7
5553	H	53.3	-42	-13	29	159	135.4
12113	H	54.6	-40.7	-13	27.7	174	315.7

Test Mode1: LTE2 L channel (vertical)



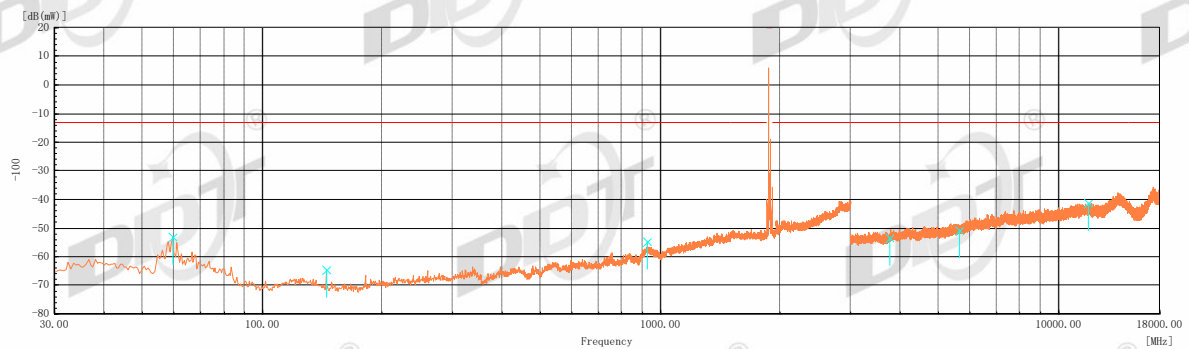
Frequency [MHz]	Pol	Level [dB μ V/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
59	V	42.6	-52.7	-13	39.7	90	269.6
521.5	V	33.9	-61.4	-13	48.4	88	44.6
1741.5	V	52.5	-42.8	-13	29.8	157	225
2667	V	54.6	-40.7	-13	27.7	153	225
3720	V	41.0	-54.3	-13	41.3	160	134.6
5553	V	49.3	-46	-13	33	169	269.6
12470.5	V	54.3	-41	-13	28	171	89.2

Test Mode1: LTE2 M channel (horizontal)



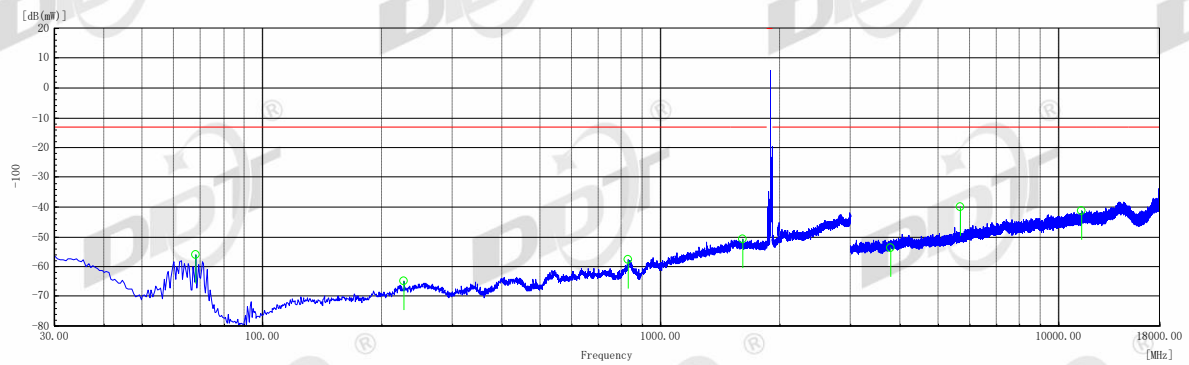
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
65.5	H	36.1	-59.2	-13	46.2	90	180.1
146.5	H	35.1	-60.2	-13	47.2	88	91.5
832	H	37.8	-57.5	-13	44.5	91	315.9
1579.5	H	44.4	-50.9	-13	37.9	149	0
3760	H	41.9	-53.4	-13	40.4	159	91.5
5640	H	45.0	-50.3	-13	37.3	157	225.1
14652	H	57.4	-37.9	-13	24.9	168	134.8

Test Mode1: LTE2 M channel (vertical)



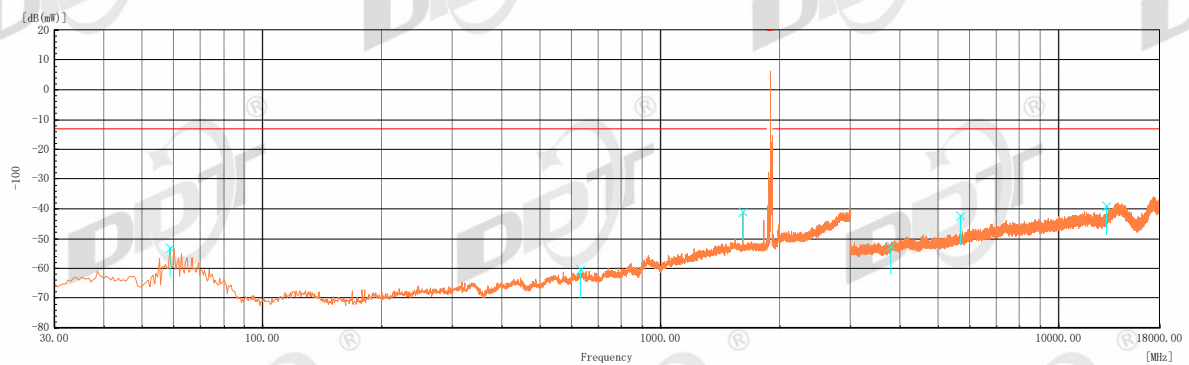
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
59.5	V	42.1	-53.2	-13	40.2	80	269.3
144.5	V	30.9	-64.4	-13	51.4	92	0.1
927	V	40.4	-54.9	-13	41.9	91	179.8
3760	V	42.0	-53.3	-13	40.3	155	0.1
5640	V	44.5	-50.8	-13	37.8	153	269.3
11879	V	53.9	-41.4	-13	28.4	180	134.9

Test Mode1: LTE2 H channel (horizontal)



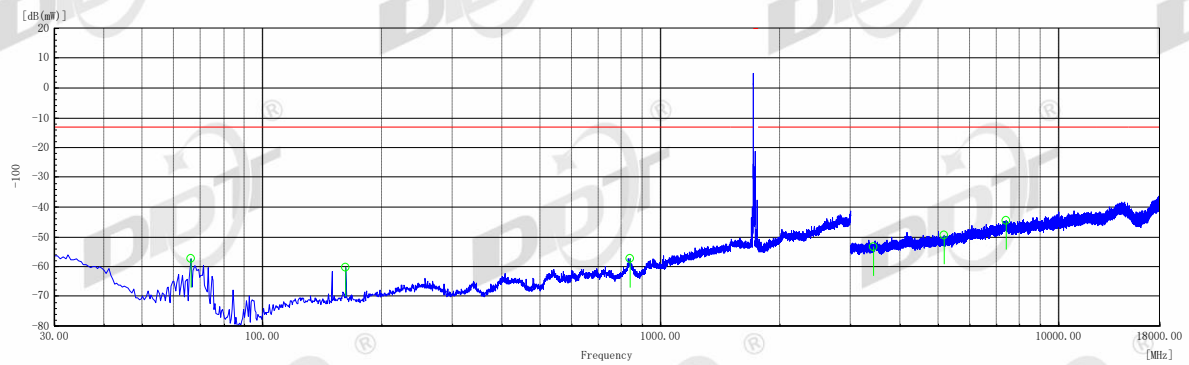
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
68	H	39.4	-55.9	-13	42.9	82	135.3
227	H	30.5	-64.8	-13	51.8	94	135.3
831.5	H	37.6	-57.7	-13	44.7	93	135.3
1612.5	H	44.4	-50.9	-13	37.9	153	135.3
3800	H	41.6	-53.7	-13	40.7	157	45.3
5673.5	H	55.3	-40	-13	27	150	91.5
11471	H	54.0	-41.3	-13	28.3	177	135.3

Test Mode1: LTE2 H channel (vertical)



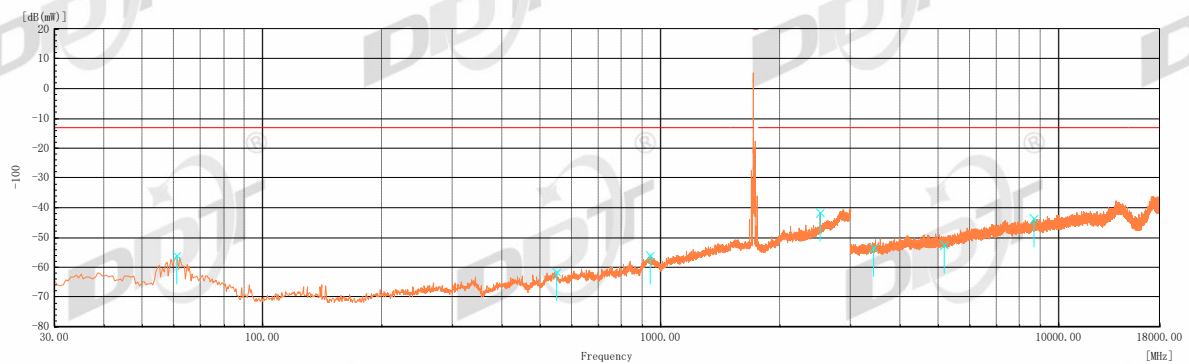
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
58.5	V	42.2	-53.1	-13	40.1	80	269.8
629	V	35.0	-60.3	-13	47.3	93	269.8
1613	V	54.3	-41	-13	28	156	224.8
3800	V	42.8	-52.5	-13	39.5	158	179.4
5673.5	V	53.0	-42.3	-13	29.3	157	134.4
13238	V	56.2	-39.1	-13	26.1	182	44.5

Test Mode2: LTE4 L channel (horizontal)



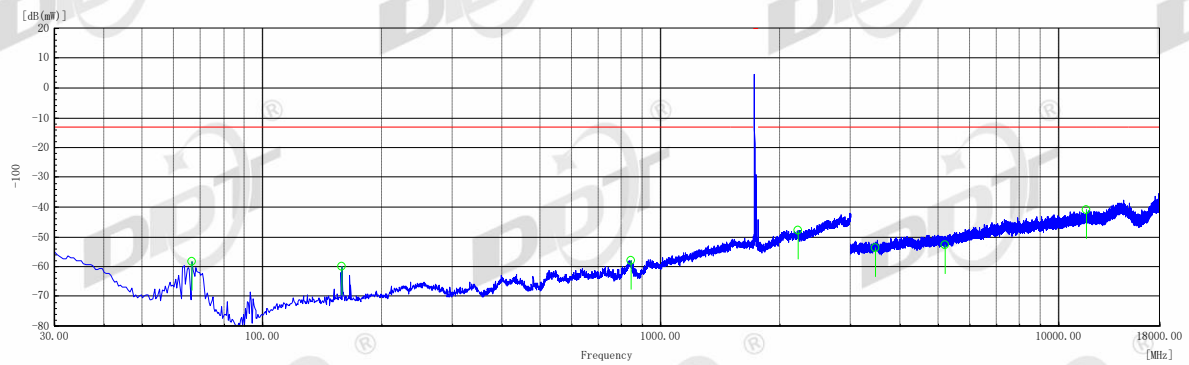
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
66	H	38.0	-57.3	-13	44.3	93	180.6
162	H	34.8	-60.5	-13	47.5	87	91.5
837.5	H	37.8	-57.5	-13	44.5	91	45.5
3440	H	41.8	-53.5	-13	40.5	152	45.5
5164.5	H	45.7	-49.6	-13	36.6	168	225.1
7381.001	H	50.7	-44.6	-13	31.6	168	180.6

Test Mode2: LTE4 L channel (vertical)



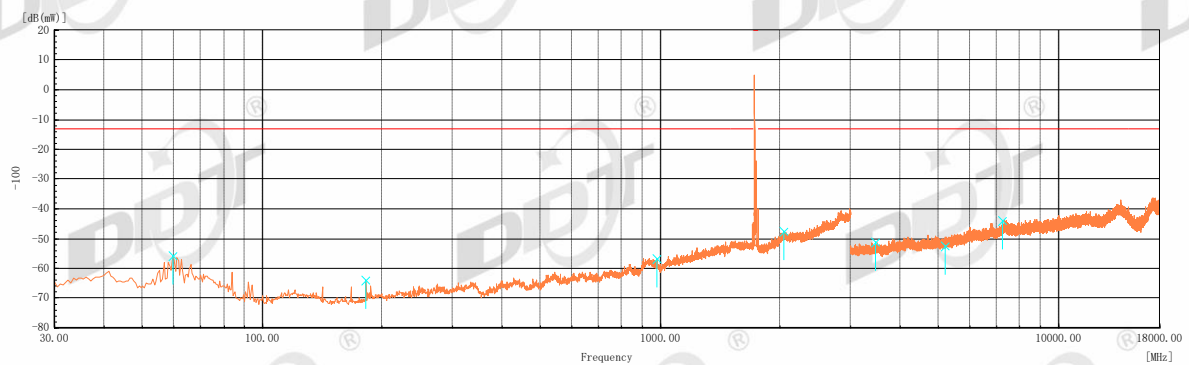
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
61	V	39.4	-55.9	-13	42.9	82	134.9
548.5	V	33.6	-61.7	-13	48.7	91	179.8
942.5	V	39.2	-56.1	-13	43.1	93	359.9
2519	V	53.7	-41.6	-13	28.6	156	225.1
3440	V	42.0	-53.3	-13	40.3	159	179.8
5160	V	42.9	-52.4	-13	39.4	172	134.9
8682	V	51.8	-43.5	-13	30.5	177	269.7

Test Mode2: LTE4 M channel (horizontal)



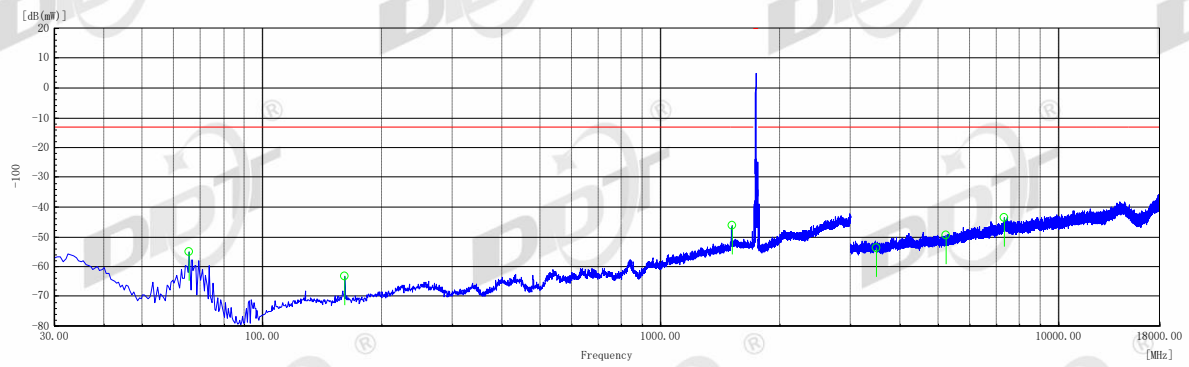
Frequency [MHz]	Pol	Level [dB μ V/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
66.5	H	36.9	-58.4	-13	45.4	82	225.4
158.5	H	35.3	-60	-13	47	88	135.5
844.5	H	37.3	-58	-13	45	91	180.4
2219	H	47.5	-47.8	-13	34.8	153	269.9
3465	H	41.7	-53.6	-13	40.6	151	91.8
5197.5	H	42.5	-52.8	-13	39.8	159	225.4
11774	H	54.2	-41.1	-13	28.1	172	135.5

Test Mode2: LTE4 M channel (vertical)



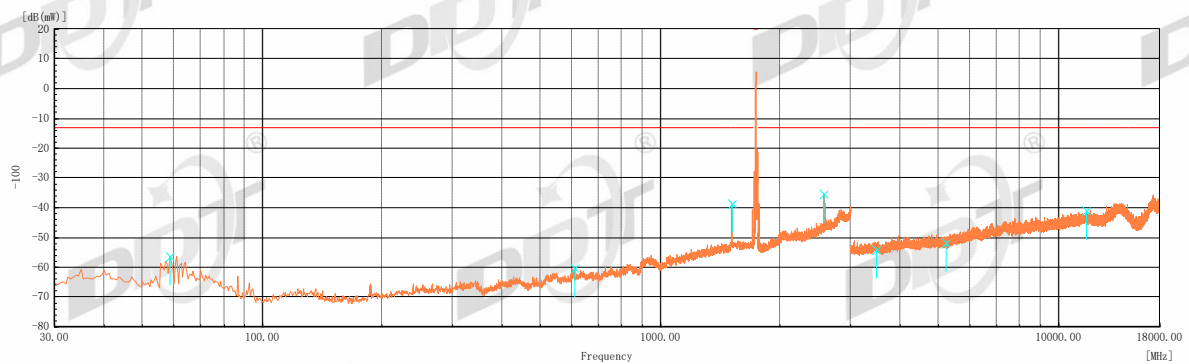
Frequency [MHz]	Pol	Level [dB μ V/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
59.5	V	39.6	-55.7	-13	42.7	80	270
182	V	31.2	-64.1	-13	51.1	95	44.4
982	V	38.7	-56.6	-13	43.6	93	225
2040.5	V	47.6	-47.7	-13	34.7	152	134.8
3464	V	44.2	-51.1	-13	38.1	160	44.4
5197.5	V	42.9	-52.4	-13	39.4	176	270
7254.001	V	51.4	-43.9	-13	30.9	179	89.7

Test Mode2: LTE4 H channel (horizontal)



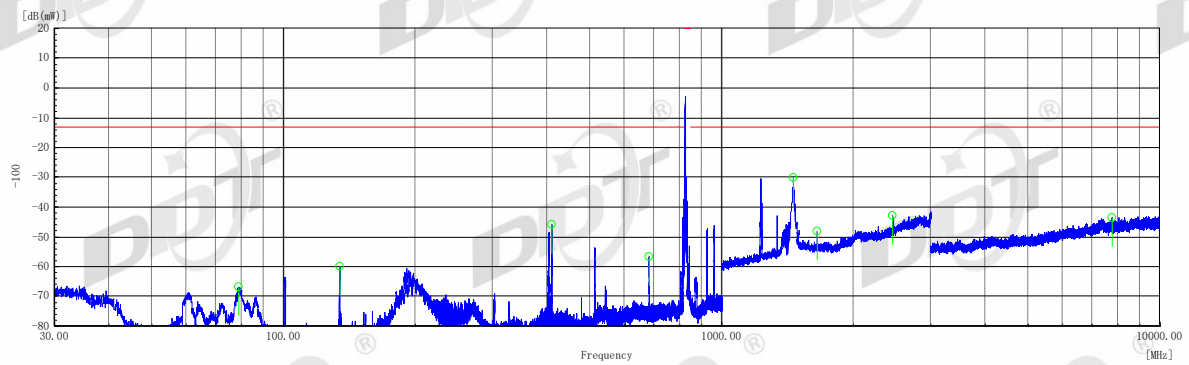
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
65.5	H	40.2	-55.1	-13	42.1	79	180.3
161	H	31.9	-63.4	-13	50.4	83	315.3
1511.5	H	49.0	-46.3	-13	33.3	162	224.9
3490	H	41.5	-53.8	-13	40.8	157	45.3
5236	H	45.8	-49.5	-13	36.5	158	270.3
7326.001	H	51.6	-43.7	-13	30.7	177	270.3

Test Mode2: LTE4 H channel (vertical)



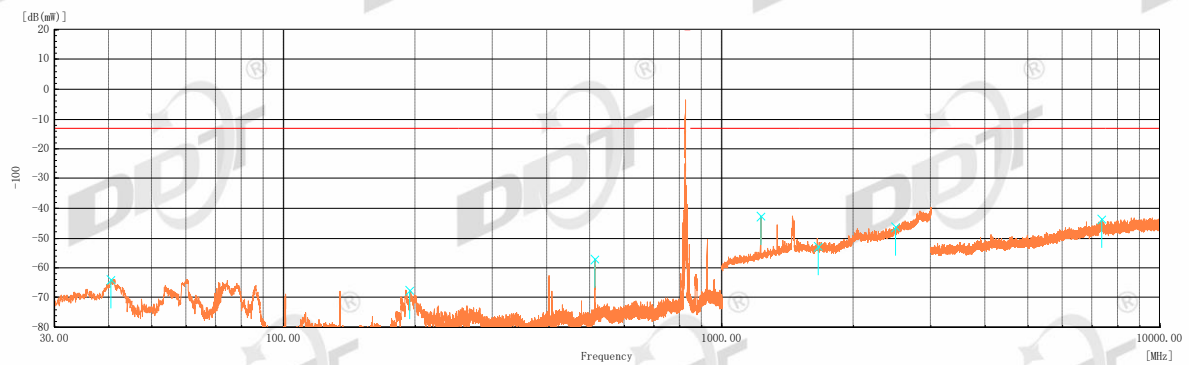
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
58.5	V	38.8	-56.5	-13	43.5	84	269.9
608	V	34.9	-60.4	-13	47.4	87	315.3
1511.5	V	56.5	-38.8	-13	25.8	155	224.6
2574	V	60.0	-35.3	-13	22.3	165	224.6
3490	V	41.3	-54	-13	41	159	0.1
5235	V	43.4	-51.9	-13	38.9	173	44.2
11780.5	V	54.2	-41.1	-13	28.1	164	179.6

Test Mode3: LTE5 L channel (horizontal)



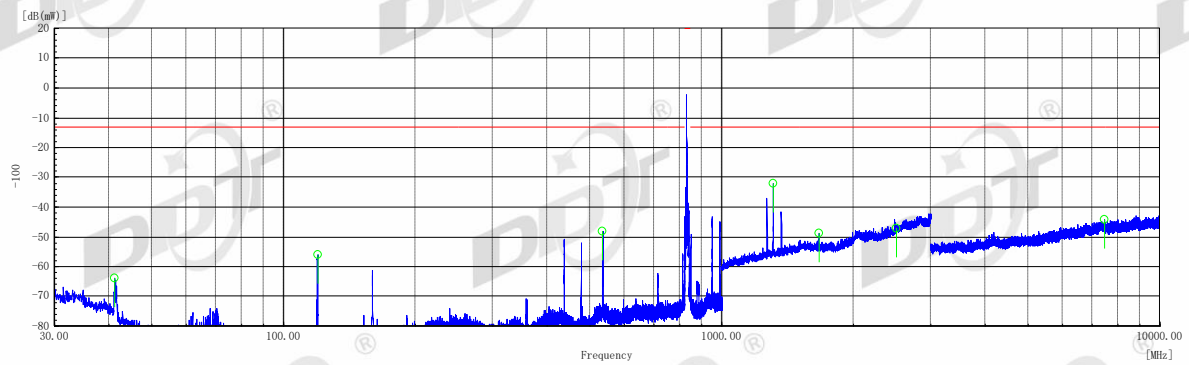
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
79.05	H	28.4	-66.9	-13	53.9	85	0
134.4	H	35.3	-60	-13	47	86	180.3
409.25	H	49.3	-46	-13	33	86	180.3
684.15	H	38.7	-56.6	-13	43.6	89	180.3
1459	H	65.0	-30.3	-13	17.3	152	91.7
1649.5	H	47.0	-48.3	-13	35.3	151	45.6
2459.5	H	52.3	-43	-13	30	160	135.4
7783.001	H	51.7	-43.6	-13	30.6	169	135.4

Test Mode3: LTE5 L channel (vertical)



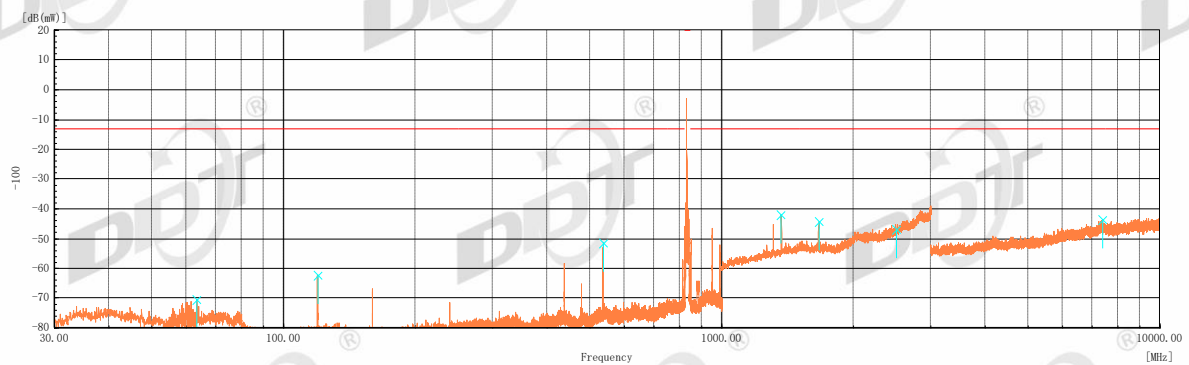
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
40.3	V	31.4	-63.9	-13	50.9	80	45.3
194.35	V	27.8	-67.5	-13	54.5	82	224.8
513.2	V	38.2	-57.1	-13	44.1	85	0
1228	V	52.8	-42.5	-13	29.5	154	0
1657.5	V	42.4	-52.9	-13	39.9	153	45.3
2486	V	49.2	-46.1	-13	33.1	160	45.3
7370.001	V	51.5	-43.8	-13	30.8	168	90.2

Test Mode3: LTE5 M channel (horizontal)



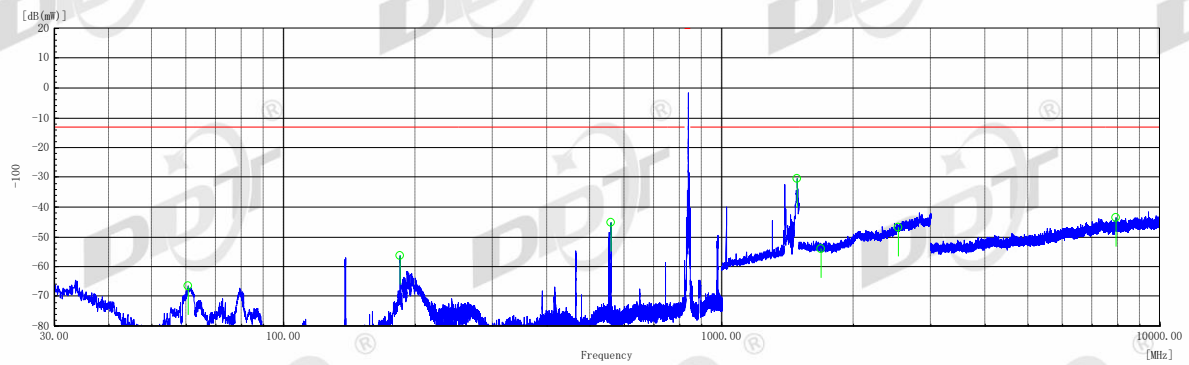
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
41.15	H	31.4	-63.9	-13	50.9	82	180
119.55	H	39.3	-56	-13	43	89	180
535.4	H	47.1	-48.2	-13	35.2	87	315.3
1310	H	63.3	-32	-13	19	160	180
1664.5	H	46.5	-48.8	-13	35.8	153	180
2509.5	H	48.0	-47.3	-13	34.3	154	45.3
7475.501	H	51.0	-44.3	-13	31.3	169	45.3

Test Mode3: LTE5 M channel (vertical)



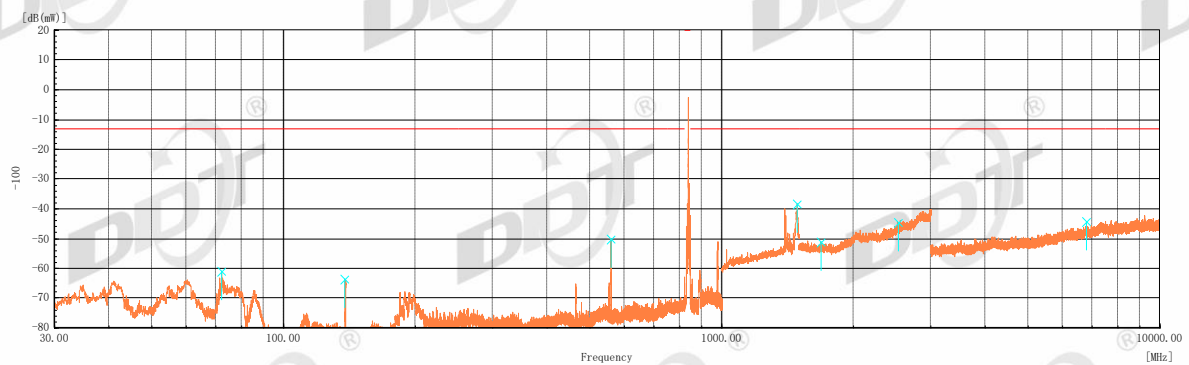
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
63.5	V	24.8	-70.5	-13	57.5	78	134.3
119.5	V	32.9	-62.4	-13	49.4	84	0
535.6	V	43.7	-51.6	-13	38.6	84	0
1367.5	V	53.4	-41.9	-13	28.9	160	269.6
1664.5	V	50.9	-44.4	-13	31.4	157	224.7
2509.5	V	48.5	-46.8	-13	33.8	160	89.5
7395.001	V	51.5	-43.8	-13	30.8	167	224.7

Test Mode3: LTE5 H channel (horizontal)



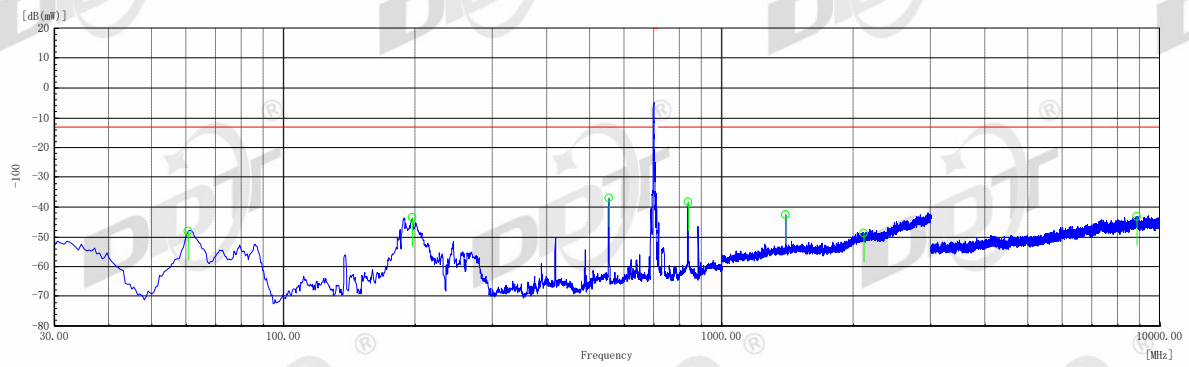
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
60.65	H	28.8	-66.5	-13	53.5	90	45.3
184.45	H	39.1	-56.2	-13	43.2	87	179.9
558.1	H	50.0	-45.3	-13	32.3	91	315.1
1488.5	H	64.8	-30.5	-13	17.5	150	91.2
1688	H	41.1	-54.2	-13	41.2	153	315.1
2532.5	H	48.5	-46.8	-13	33.8	158	270.1
7957.001	H	51.8	-43.5	-13	30.5	166	179.9

Test Mode3: LTE5 H channel (vertical)



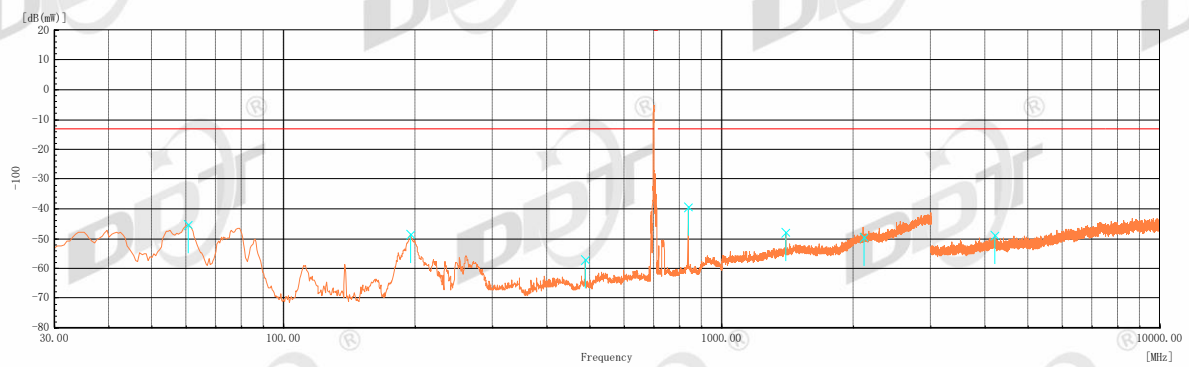
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
72.25	V	34.5	-60.8	-13	47.8	89	44.8
138.2	V	31.8	-63.5	-13	50.5	85	0
557.95	V	45.1	-50.2	-13	37.2	85	0
1485.5	V	56.9	-38.4	-13	25.4	157	269.4
1686.5	V	44.2	-51.1	-13	38.1	159	134.9
2535	V	50.9	-44.4	-13	31.4	163	0
6797.501	V	50.9	-44.4	-13	31.4	171	44.8

Test Mode4: LTE12 L channel (horizontal)



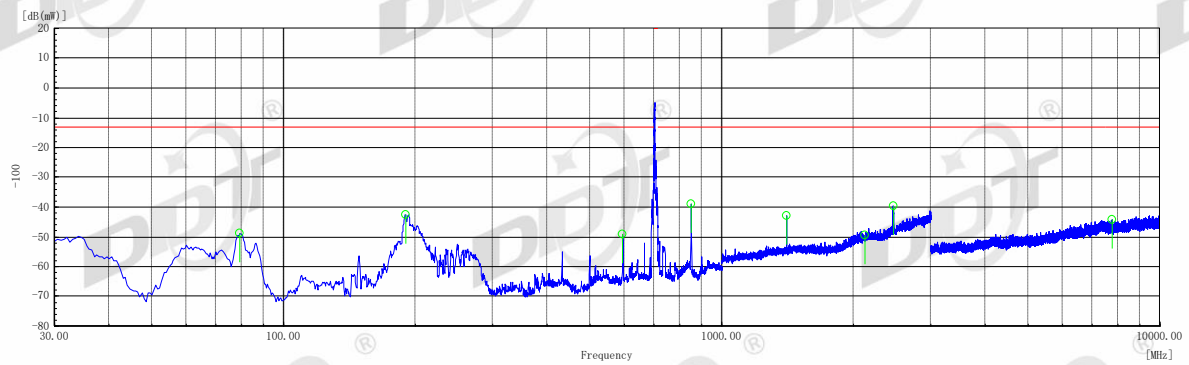
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
60.5	H	47.2	-48.1	-13	35.1	83	45.7
197	H	51.8	-43.5	-13	30.5	84	91.4
552.5	H	58.2	-37.1	-13	24.1	80	180
837.5	H	57.1	-38.2	-13	25.2	84	91.4
1399	H	52.8	-42.5	-13	29.5	156	135.4
2114	H	46.4	-48.9	-13	35.9	162	135.4
8864.5	H	52.0	-43.3	-13	30.3	169	91.4

Test Mode4: LTE12 L channel (vertical)



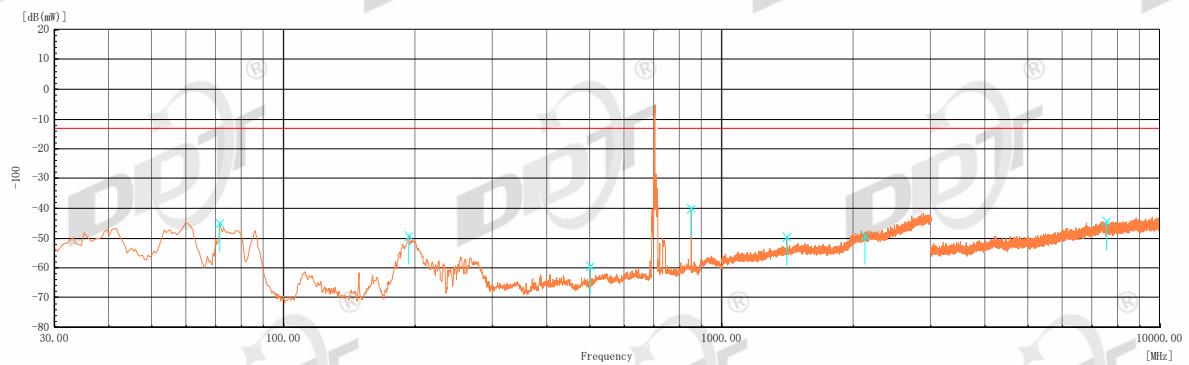
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
60.5	V	49.9	-45.4	-13	32.4	89	315.5
194.5	V	46.6	-48.7	-13	35.7	92	269.8
488	V	38.4	-56.9	-13	43.9	84	0
837.5	V	56.0	-39.3	-13	26.3	87	0
1399	V	47.3	-48	-13	35	158	44.5
2112.5	V	45.9	-49.4	-13	36.4	152	315.5
4197	V	46.5	-48.8	-13	35.8	166	0

Test Mode4: LTE12 M channel (horizontal)



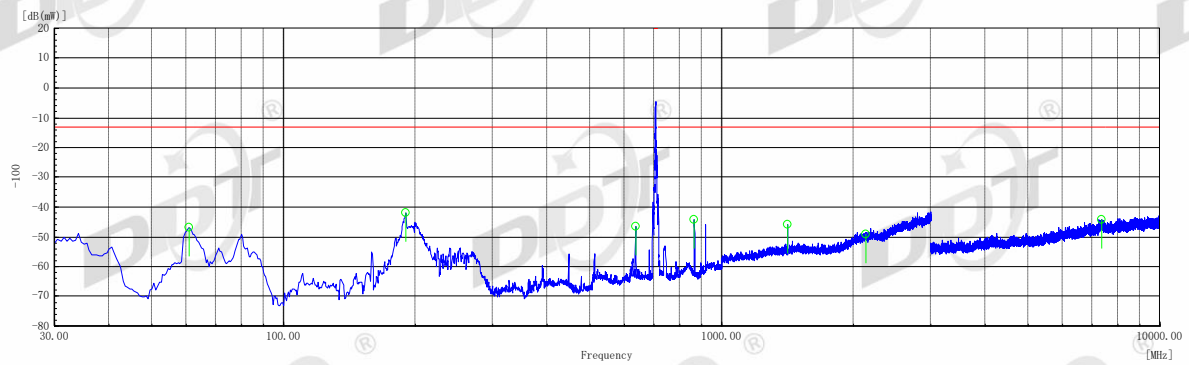
Frequency [MHz]	Pol	Level [dB μ V/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
79.5	H	46.6	-48.7	-13	35.7	79	0
190	H	52.8	-42.5	-13	29.5	80	135.4
594	H	46.3	-49	-13	36	83	180.7
851.5	H	56.2	-39.1	-13	26.1	88	315.1
1406	H	52.2	-43.1	-13	30.1	155	44.8
2122	H	45.6	-49.7	-13	36.7	167	44.8
2461	H	55.8	-39.5	-13	26.5	159	225.2
7785.501	H	51.2	-44.1	-13	31.1	158	0

Test Mode4: LTE12 M channel (vertical)



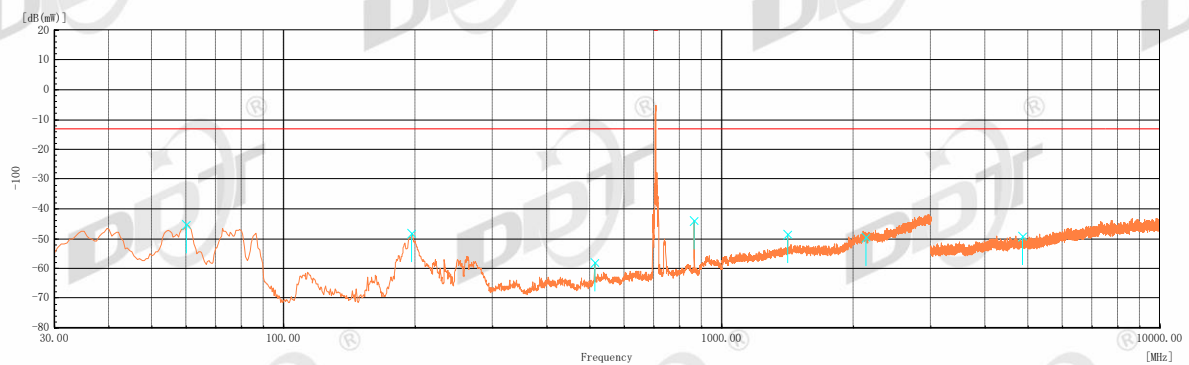
Frequency [MHz]	Pol	Level [dB μ V/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
71.5	V	50.5	-44.8	-13	31.8	82	45.3
193	V	46.0	-49.3	-13	36.3	85	224.9
500.5	V	35.8	-59.5	-13	46.5	84	0.1
851.5	V	55.3	-40	-13	27	84	0.1
1406	V	45.6	-49.7	-13	36.7	156	0.1
2122	V	46.2	-49.1	-13	36.1	151	45.3
7537.001	V	51.2	-44.1	-13	31.1	163	269.4

Test Mode4: LTE12 H channel (horizontal)



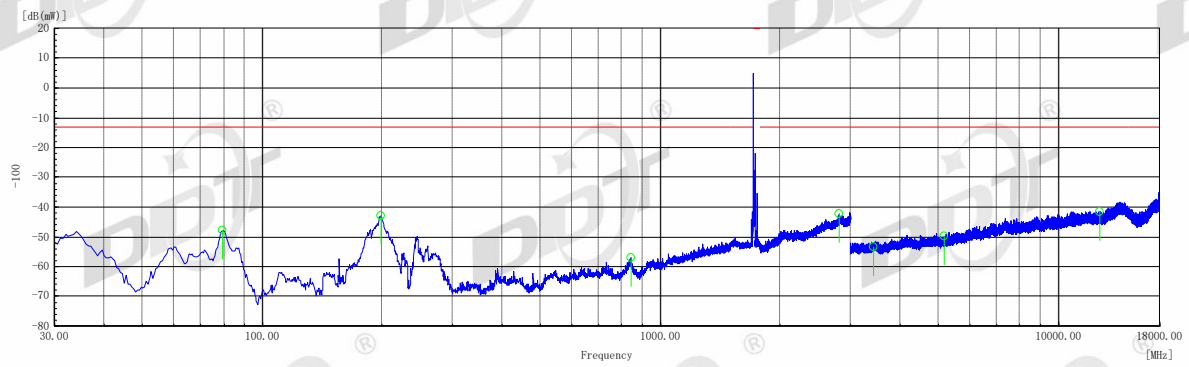
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
61	H	48.3	-47	-13	34	80	45.2
190.5	H	53.4	-41.9	-13	28.9	82	135.3
636.5	H	48.6	-46.7	-13	33.7	81	180.3
866	H	50.9	-44.4	-13	31.4	85	225.2
1413	H	49.4	-45.9	-13	32.9	153	135.3
2133.5	H	46.2	-49.1	-13	36.1	159	45.2
7362.501	H	51.1	-44.2	-13	31.2	160	180.3

Test Mode4: LTE12 H channel (vertical)



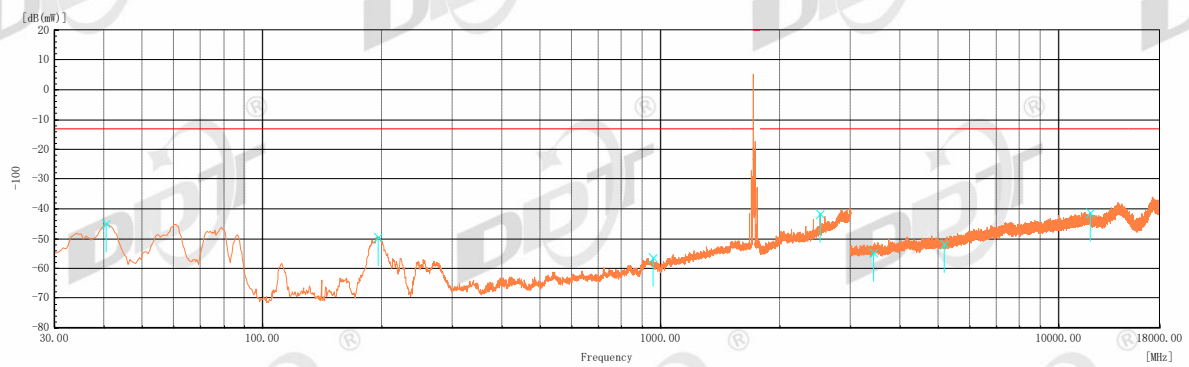
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
60	V	49.9	-45.4	-13	32.4	81	315.1
196	V	47.0	-48.3	-13	35.3	87	269.8
512.5	V	37.2	-58.1	-13	45.1	83	0
865.5	V	51.5	-43.8	-13	30.8	84	0
1413.5	V	46.7	-48.6	-13	35.6	155	179.5
2133	V	45.7	-49.6	-13	36.6	160	134.5
4853.5	V	46.2	-49.1	-13	36.1	159	44.5

Test Mode5: LTE66 L channel (horizontal)



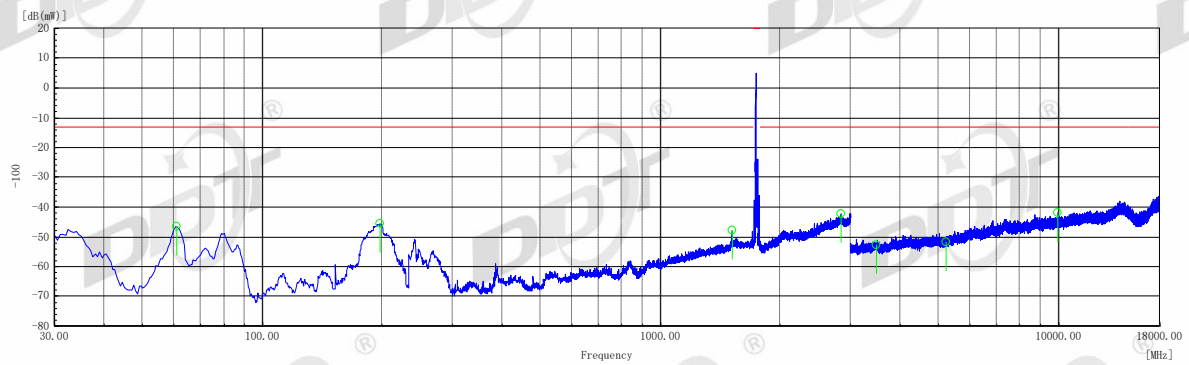
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
79.5	H	47.3	-48	-13	35	85	180.6
198	H	52.3	-43	-13	30	86	135.6
843.5	H	38.4	-56.9	-13	43.9	80	270.1
2820.675	H	53.1	-42.2	-13	29.2	154	135.6
3440	H	41.9	-53.4	-13	40.4	157	315.9
5154	H	45.4	-49.9	-13	36.9	163	315.9
12731.5	H	53.8	-41.5	-13	28.5	169	45.5

Test Mode5: LTE66 L channel (vertical)



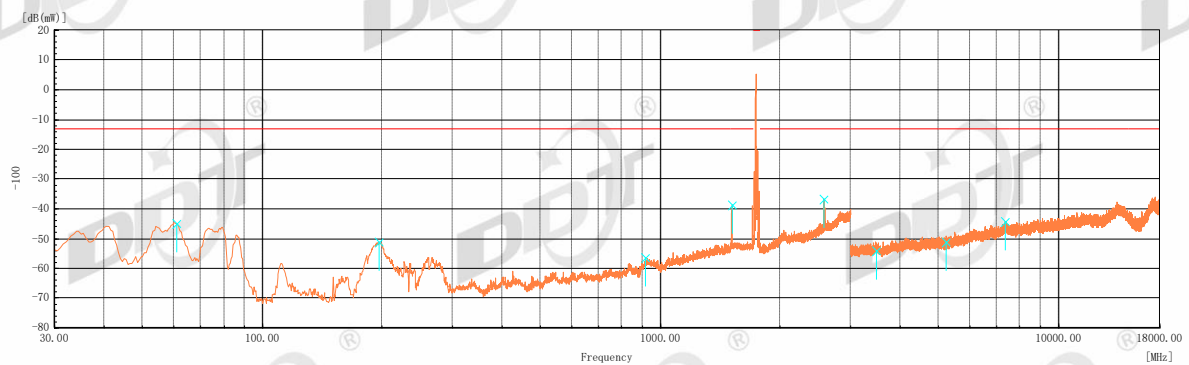
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
40.5	V	50.2	-45.1	-13	32.1	81	90
195	V	45.9	-49.4	-13	36.4	86	224.7
959	V	38.9	-56.4	-13	43.4	86	224.7
2518.86	V	53.6	-41.7	-13	28.7	153	224.7
3440	V	40.5	-54.8	-13	41.8	160	134.9
5160	V	43.5	-51.8	-13	38.8	155	90
12022	V	53.9	-41.4	-13	28.4	158	90

Test Mode5: LTE66 M channel (horizontal)



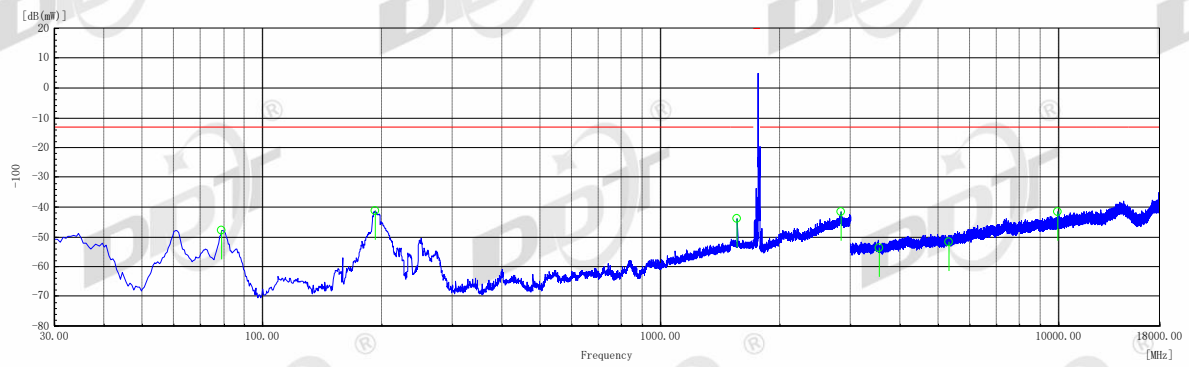
Frequency [MHz]	Pol	Level [dB μ V/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
61	H	48.8	-46.5	-13	33.5	81	45.2
197.5	H	49.6	-45.7	-13	32.7	85	135.7
1511.5	H	47.3	-48	-13	35	155	225.2
2850.562	H	52.9	-42.4	-13	29.4	153	225.2
3490	H	42.5	-52.8	-13	39.8	162	270.1
5235	H	43.4	-51.9	-13	38.9	173	0
9973	H	53.4	-41.9	-13	28.9	169	91.2

Test Mode5: LTE66 M channel (vertical)



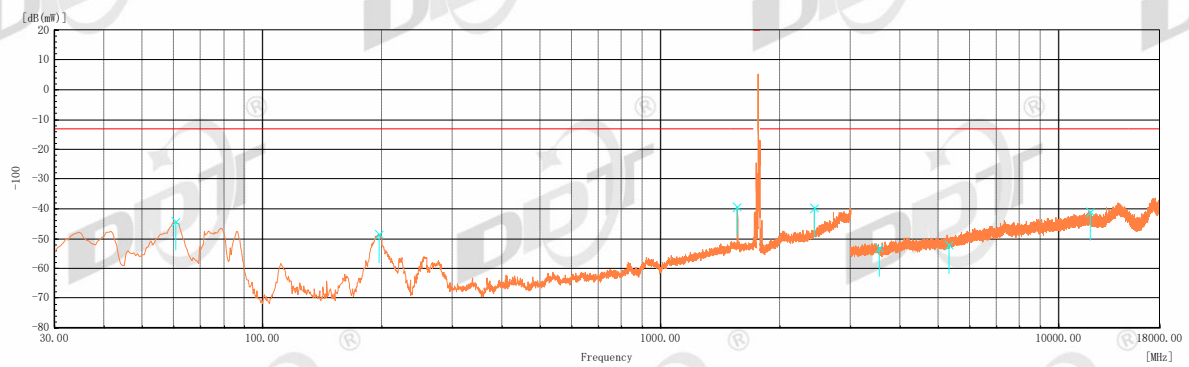
Frequency [MHz]	Pol	Level [dB μ V/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
61	V	50.3	-45	-13	32	82	315.5
196.5	V	44.1	-51.2	-13	38.2	86	270.1
917.5	V	39.0	-56.3	-13	43.3	86	270.1
1511.5	V	56.5	-38.8	-13	25.8	157	224.3
2573.735	V	58.5	-36.8	-13	23.8	156	224.3
3490	V	41.3	-54	-13	41	161	315.5
5235	V	44.2	-51.1	-13	38.1	158	89.3
7340.501	V	51.2	-44.1	-13	31.1	154	179.8

Test Mode5: LTE66 H channel (horizontal)



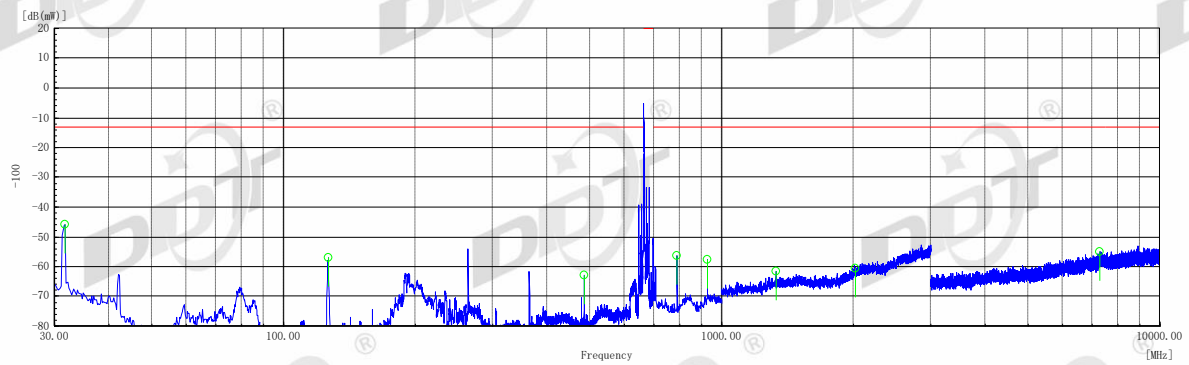
Frequency [MHz]	Pol	Level [dB μ V/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
79	H	47.6	-47.7	-13	34.7	80	180.9
191.5	H	54.1	-41.2	-13	28.2	82	91.1
1561.5	H	51.3	-44	-13	31	150	225.1
2842.723	H	53.8	-41.5	-13	28.5	161	180.9
3540	H	41.4	-53.9	-13	40.9	165	225.1
5310	H	43.4	-51.9	-13	38.9	169	91.1
9981	H	53.6	-41.7	-13	28.7	166	359.9

Test Mode5: LTE66 H channel (vertical)



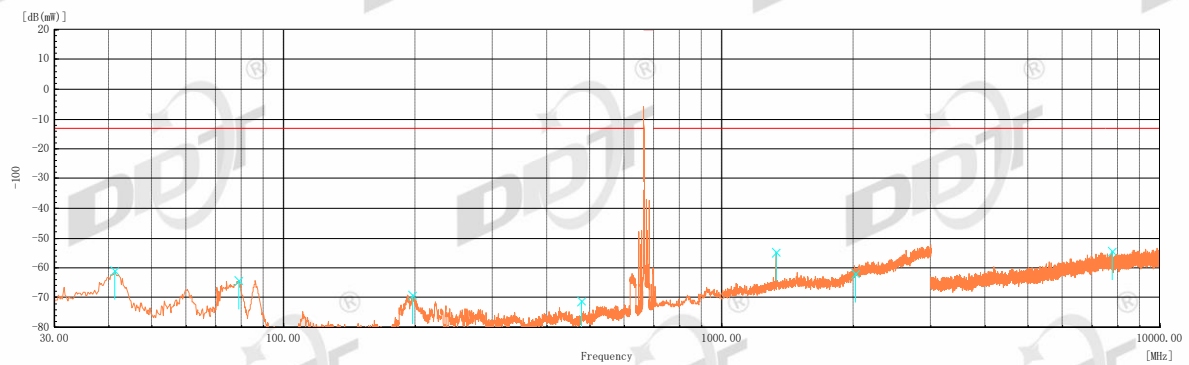
Frequency [MHz]	Pol	Level [dB μ V/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
60.5	V	50.9	-44.4	-13	31.4	85	269.7
196	V	46.8	-48.5	-13	35.5	86	269.7
1561.5	V	55.9	-39.4	-13	26.4	166	224.3
2441.936	V	55.5	-39.8	-13	26.8	175	224.3
3540	V	42.3	-53	-13	40	159	44.8
5310	V	43.2	-52.1	-13	39.1	155	0.3
12020.5	V	54.4	-40.9	-13	27.9	158	44.8

Test Mode6: LTE71 L channel (horizontal)



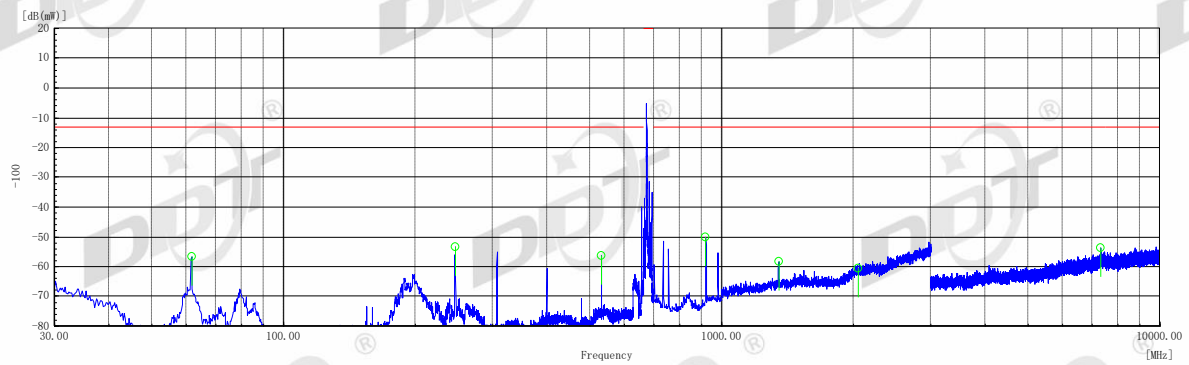
Frequency [MHz]	Pol	Level [dB μ V/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
31.722	H	49.3	-46	-13	33	85	225.4
126.457	H	38.1	-57.2	-13	44.2	86	225.4
484.942	H	32.4	-62.9	-13	49.9	85	225.4
790.11	H	39.0	-56.3	-13	43.3	84	225.4
927.52	H	37.6	-57.7	-13	44.7	87	225.4
1328.514	H	33.6	-61.7	-13	48.7	151	270.8
2019.277	H	34.8	-60.5	-13	47.5	163	270.8
7283.501	H	40.3	-55	-13	42	150	270.8

Test Mode6: LTE71 L channel (vertical)



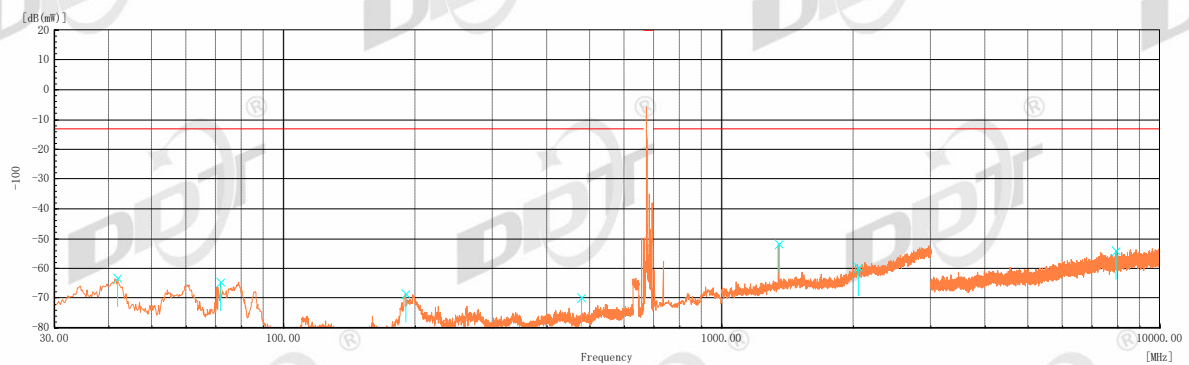
Frequency [MHz]	Pol	Level [dB μ V/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
41.196	V	34.3	-61	-13	48	85	90
78.874	V	30.9	-64.4	-13	51.4	83	315.6
197.078	V	26.2	-69.1	-13	56.1	86	224.6
478.267	V	24.3	-71	-13	58	89	134.4
1328.514	V	40.5	-54.8	-13	41.8	152	179.7
2019.277	V	33.4	-61.9	-13	48.9	157	224.6
7762.501	V	41.0	-54.3	-13	41.3	156	44.7

Test Mode6: LTE71 M channel (horizontal)



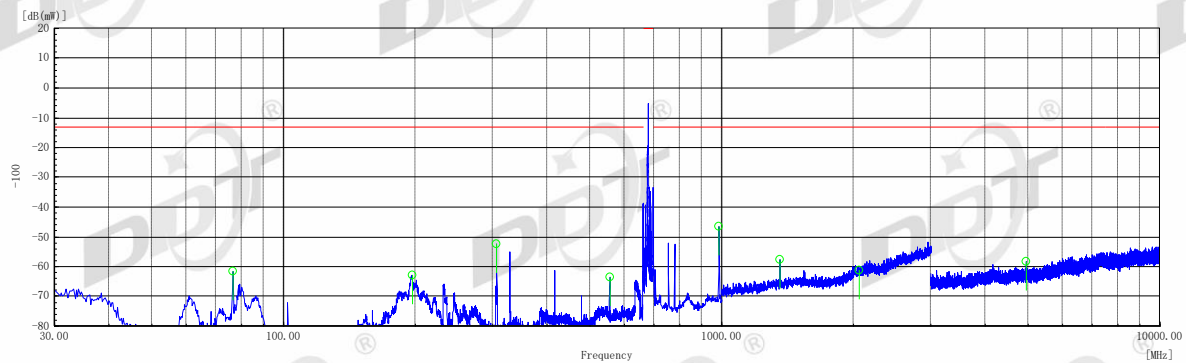
Frequency [MHz]	Pol	Level [dB μ V/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
61.65	H	38.5	-56.8	-13	43.8	82	180.7
246.383	H	41.9	-53.4	-13	40.4	83	224.9
531.448	H	38.9	-56.4	-13	43.4	80	180.7
919.97	H	45.2	-50.1	-13	37.1	80	180.7
1348.594	H	37.1	-58.2	-13	45.2	147	0.1
2048.996	H	34.6	-60.7	-13	47.7	158	180.7
7330.501	H	41.6	-53.7	-13	40.7	152	269.9

Test Mode6: LTE71 M channel (vertical)



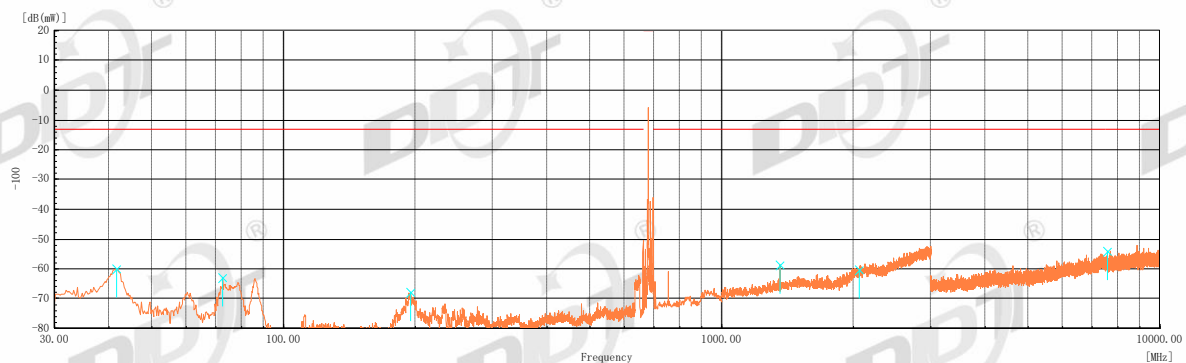
Frequency [MHz]	Pol	Level [dB μ V/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
41.842	V	31.9	-63.4	-13	50.4	81	89.1
71.769	V	30.8	-64.5	-13	51.5	82	0.1
189.757	V	26.9	-68.4	-13	55.4	85	224.5
478.267	V	25.6	-69.7	-13	56.7	80	89.1
1348.594	V	43.4	-51.9	-13	38.9	149	89.1
2049.799	V	35.5	-59.8	-13	46.8	150	89.1
7930.001	V	41.1	-54.2	-13	41.2	156	224.5

Test Mode6: LTE71 H channel (horizontal)



Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
76.721	H	33.5	-61.8	-13	48.8	81	180
196.647	H	32.5	-62.8	-13	49.8	79	135.1
306.453	H	43.0	-52.3	-13	39.3	80	180
554.916	H	31.6	-63.7	-13	50.7	80	180
986.41	H	48.7	-46.6	-13	33.6	81	180
1358.233	H	37.5	-57.8	-13	44.8	161	91.8
2064.257	H	33.9	-61.4	-13	48.4	158	180
4964.5	H	36.9	-58.4	-13	45.4	166	269.9

Test Mode6: LTE71 H channel (vertical)



Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
41.627	V	35.4	-59.9	-13	46.9	82	89.8
72.631	V	32.3	-63	-13	50	81	0
195.355	V	27.3	-68	-13	55	86	269.9
1358.233	V	36.6	-58.7	-13	45.7	151	315.3
2061.847	V	34.8	-60.5	-13	47.5	153	89.8
7573.001	V	41.3	-54	-13	41	148	89.8

Note:

- 1) The disturbance above 18GHz and below 30MHz was very low at band E-UTRA Band 2/4/66, and the above harmonics are the highest points could be found when testing, so only the worst case data had been displayed.
- 2) E-UTRA Band 5/12/71 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: 2019/7/3 ~ 2019/7/20).

All appendixes were cited in this report.

Appendix	Item
Appendix B.1	E-UTRA Band 2
Appendix B.2	E-UTRA Band 4
Appendix B.3	E-UTRA Band 5
Appendix B.4	E-UTRA Band 12
Appendix B.5	E-UTRA Band 66
Appendix B.6	E-UTRA Band 71