RF TEST REPORT

Report No.: DDT-B21112203-2E01

Applicant	**:**	Nauto, Inc.
Applicant Address	**:**	220 Portage Avenue, Palo Alto, California 94306
Equipment Under Test	**:**	In-vehicle Camera
Model No.	**:**	Nauto 3
Trade Mark	**:**	Nauto
FCC ID	**:**	2AKJ5-N3
Manufacturer	**:**	Nauto, Inc.
Manufacturer Address	**:**	220 Portage Avenue, Palo Alto, California 94306

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

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Trade Mark	:	Nauto
Manufacturer	:	Nauto, Inc.
Address	:	220 Portage Avenue, Palo Alto, California 94306

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- B21112203-2E01		
Date of Receipt:	Dec. 8, 2021	**Date of Test:**	Dec. 8, 2021 ~ Dec. 15, 2021

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

Leon Li

Aaron Zhang

天津市检测技术服务（天津）有限公司 TIANJIN DONGDIAN TESTING SERVICE CO.,LTD. 检验检测专用章 Inspection & Testing Services

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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	Dec. 11, 2021	

1. Summary of Test Results

1.1. UMTS Band2 / 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 "pass[1]" items data are refer from the original report issued by SGS-CSTC Standards Technical Services,Co.,Ltd.Shenzhen Branch. (Date of Test: 2019/05/10 ~2019/06/02). The detailed data can refer to Appendix B.1-WCDMA BAND II & V and Appendix B.2-LTE Band 2.
Note2:
The above "pass[2]" item is tested by Tianjin Dongdian Testing Service Co., Ltd.

1.2. LTE Band4

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 "pass[1]" items data are refer from the original report issued by SGS-CSTC Standards Technical Services,Co.,Ltd.Shenzhen Branch. (Date of Test: 2019/05/10 ~2019/06/02). The detailed data can refer to Appendix B.3-LTE Band 4.
Note2:
The above "pass[2]" item is tested by Tianjin Dongdian Testing Service Co., Ltd.

1.3. UMTS Band5 / 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	△: <±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: 2019/05/10 ~2019/06/02). The detailed data can refer to Appendix B.1-WCDMA BAND II & V and Appendix B.4-LTE Band 5.
Note2:
The above "pass[2]" 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: ≤ P(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 "pass[1]" items data are refer from the original report issued by SGS-CSTC Standards Technical Services,Co.,Ltd.Shenzhen Branch. (Date of Test: 2019/05/10 ~2019/06/02). The detailed data can refer to Appendix B.5-LTE Band 12.
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	:	In-vehicle Camera
Model Number	:	Nauto 3
Trade Mark	:	Nauto
IMEI	:	351711090329150
Serial Number	:	N/A
Hardware Version	:	ISN-203014-NAA-000
Software Version	:	ZSA191_USERDEBUG_Shipping_D15_201904221052
Sample Type	:	Module

Frequency band :

UMTS	Tx (MHz)	Rx (MHz)	Supported Channel Bandwidth
Band II	1850-1910	1930-1990	5MHz
Band V	824-849	869-894	5MHz

E-UTRA LTE	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	☒	☒	☒	☒	---	---

Target Power & Power Class	:	UMTS Band II(PC3): 25dBm UMTS Band V(PC3): 25dBm LTE Band 2(PC3): 25dBm LTE Band 4(PC3): 25dBm LTE Band 5(PC3): 25dBm LTE Band 12(PC3): 25dBm
Type of modulation	:	UMTS: WCDMA: UL: BPSK, DL: QPSK HSDPA: QPSK, 16QAM
		E-UTRA: LTE: QPSK, 16QAM
Antenna Type	:	Fixed Internal Antenna
Antenna Gain	:	UMTS Band II: -4.0dBi UMTS Band V: -4.0dBi LTE Band 2: -4.0dBi LTE Band 4: -4.0dBi

		LTE Band 5: -4.0dBi LTE Band 12: -4.0dBi
Power Supply	:	DC by 12&24V AC/DC Adapter

Note: EUT is the abbreviation of equipment under test.

2.2. RF Channel Information

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)

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	Channel 20175	Channel 20375

			(1712.5MHz)	(1732.5MHz)	(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)
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)

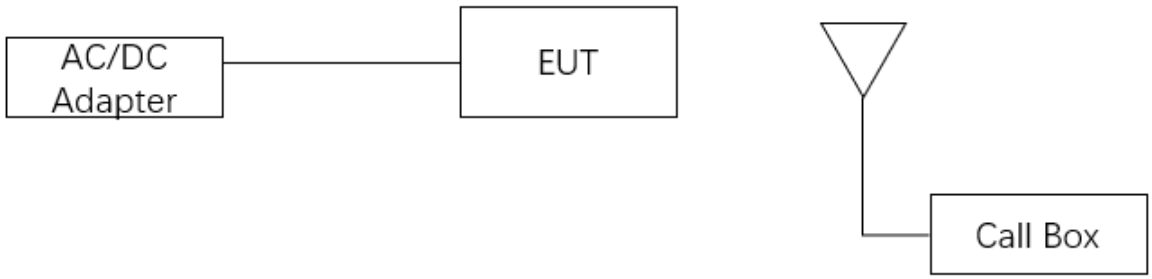
2.3. Accessories of EUT

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: 12&24V	LV: 5V HV: 31V
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	WCDMA Band II	L	QPSK	5MHz	Circuit
			M	QPSK	5MHz	Circuit
			H	QPSK	5MHz	Circuit
	Mode2	WCDMA Band V	L	QPSK	5MHz	Circuit
			M	QPSK	5MHz	Circuit
			H	QPSK	5MHz	Circuit
	Mode3	LTE Band 2	L	QPSK	20MHz	1@0
			M	QPSK	20MHz	1@0
			H	QPSK	20MHz	1@0
	Mode4	LTE Band 4	L	QPSK	20MHz	1@0
			M	QPSK	20MHz	1@0
			H	QPSK	20MHz	1@0
	Mode5	LTE Band 5	L	QPSK	10MHz	1@0
			M	QPSK	10MHz	1@0
			H	QPSK	10MHz	1@0
	Mode6	LTE Band 12	L	QPSK	10MHz	1@0
			M	QPSK	10MHz	1@0
			H	QPSK	10MHz	1@0

2.8. Test laboratory

Tianjin Dongdian Testing Service Co., Ltd.

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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.

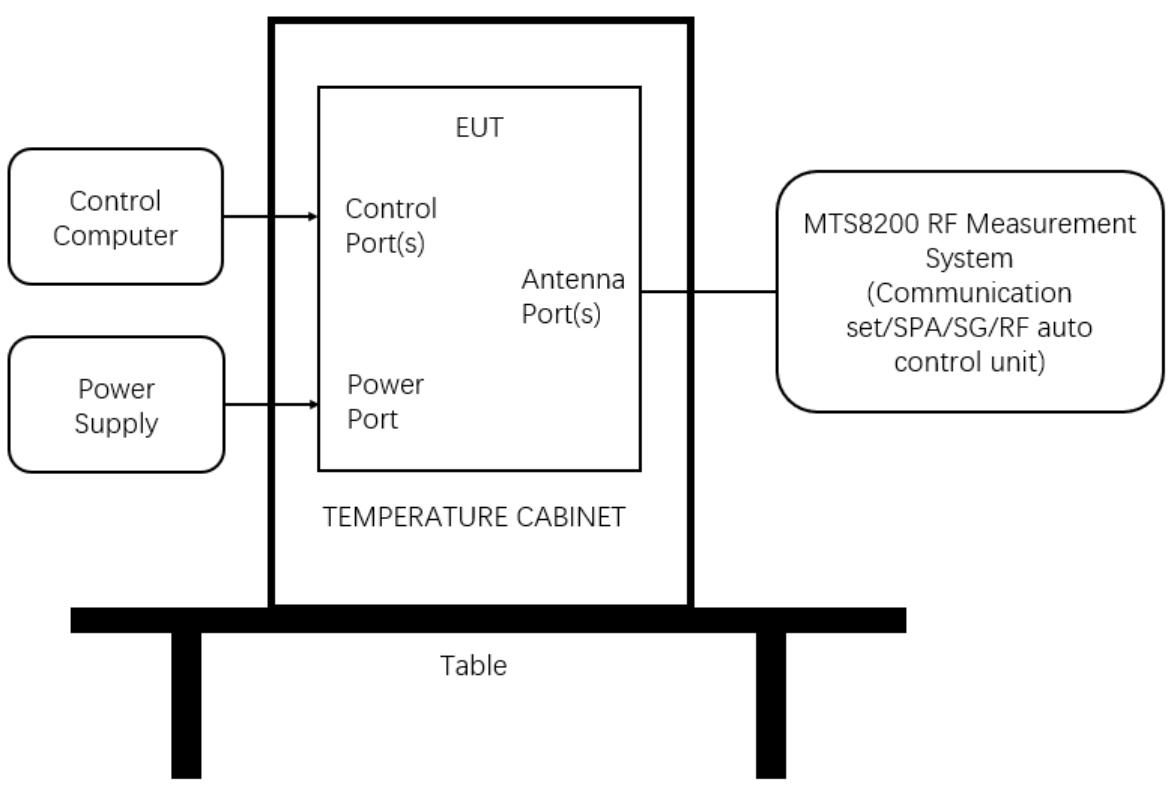
d) EIRP (dBm) = E (dBμV/m) + 20 log D − 104.8; where D is the measurement distance in meters.

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.

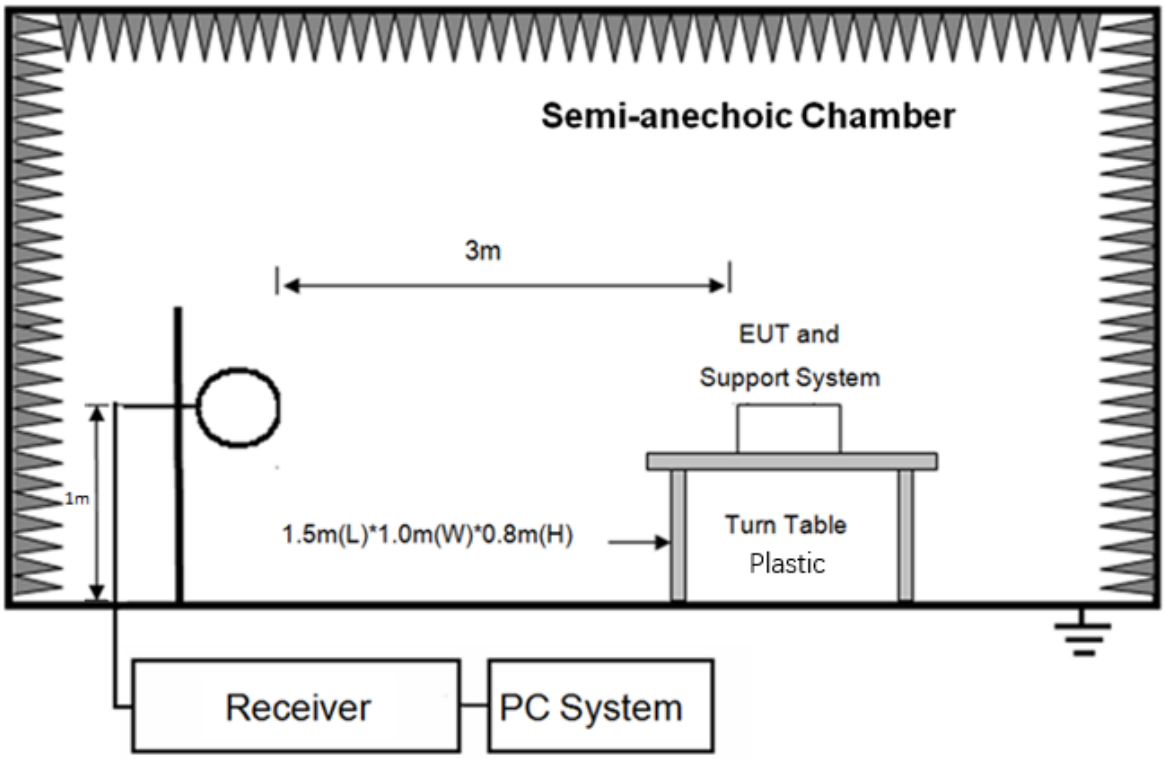
3.3. Test Setups

3.3.1. Test Setup 1

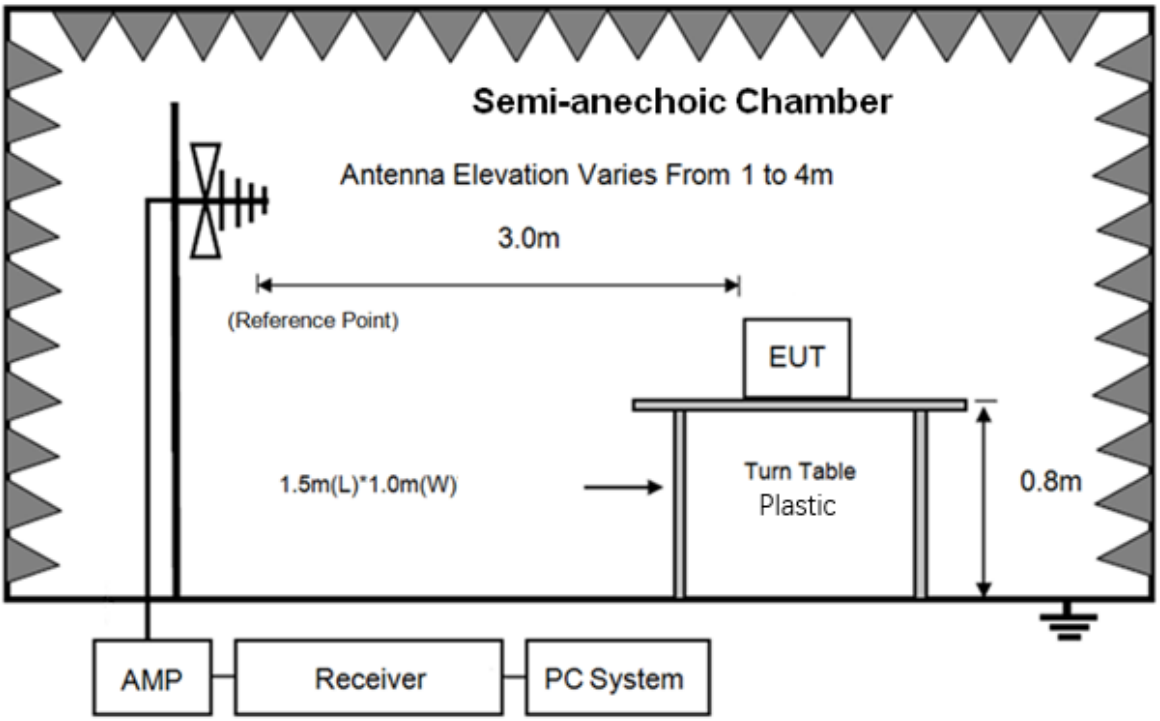


3.3.2. Test Setup 2

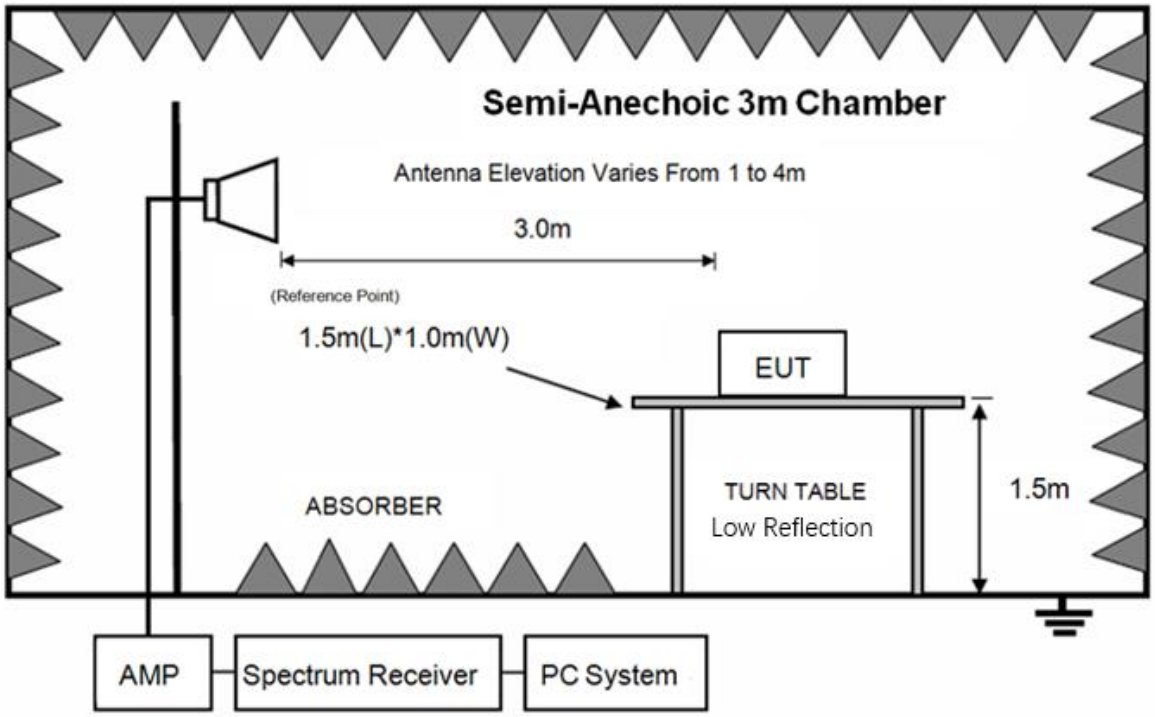
In 3 m Anechoic Chamber, test setup diagram for 9 kHz - 30 MHz:



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	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.

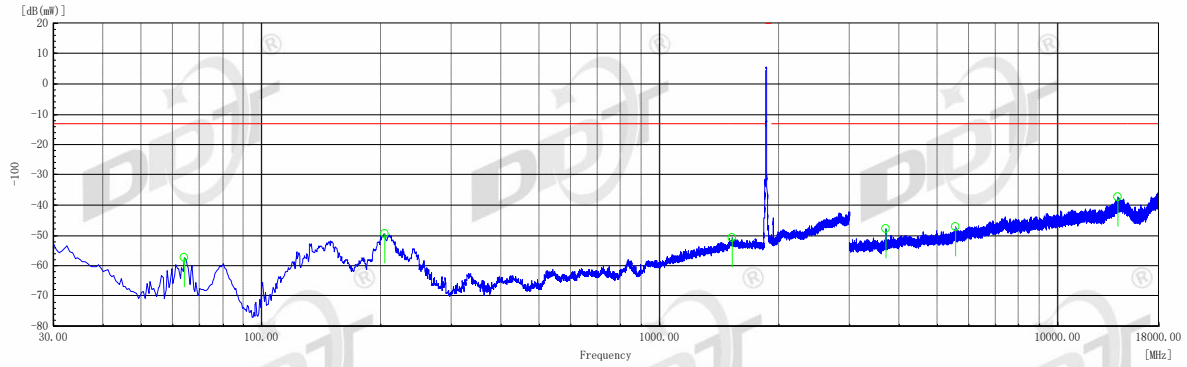
Item	The Original Reports	Re-Test Reports
File name:	test report RF	RF test report
Test location:	SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch	Tianjin Dongdian Testing Service Co., Ltd.

BAND	Modulation	Channel	Test Original Reports Level(dBm)	Re-Test Reports Level(dBm)
WCDMA Band II	QPSK	9262	23.88	23.86
WCDMA Band II	QPSK	9400	23.84	23.85
WCDMA Band II	QPSK	9538	24.09	23,97
WCDMA Band V	QPSK	4132	24.02	23.94
WCDMA Band V	QPSK	4182	24.14	24.03
WCDMA Band V	QPSK	4233	24.05	24.01

BAND	Bandwidth	Modulation	Channel	RB Configuration	Test Original Reports Level(dBm)	Re-Test Reports Level(dBm)
Band2	20MHz	QPSK	18700	1RB#0	22.40	22.43
Band2	20MHz	QPSK	18900	1RB#0	22.24	22.31
Band2	20MHz	QPSK	19100	1RB#0	22.34	22.31
Band4	20MHz	QPSK	20050	1RB#0	22.99	23.16
Band4	20MHz	QPSK	20175	1RB#0	22.69	22.92
Band4	20MHz	QPSK	20300	1RB#0	23.01	22.98
Band5	10MHz	QPSK	20450	1RB#0	23.40	23.35
Band5	10MHz	QPSK	20525	1RB#0	23.27	23.33
Band5	10MHz	QPSK	20600	1RB#0	23.24	23.38
Band12	10MHz	QPSK	23060	1RB#0	23.23	23.30
Band12	10MHz	QPSK	23095	1RB#0	22.99	23.24
Band12	10MHz	QPSK	23130	1RB#0	23.27	23.28

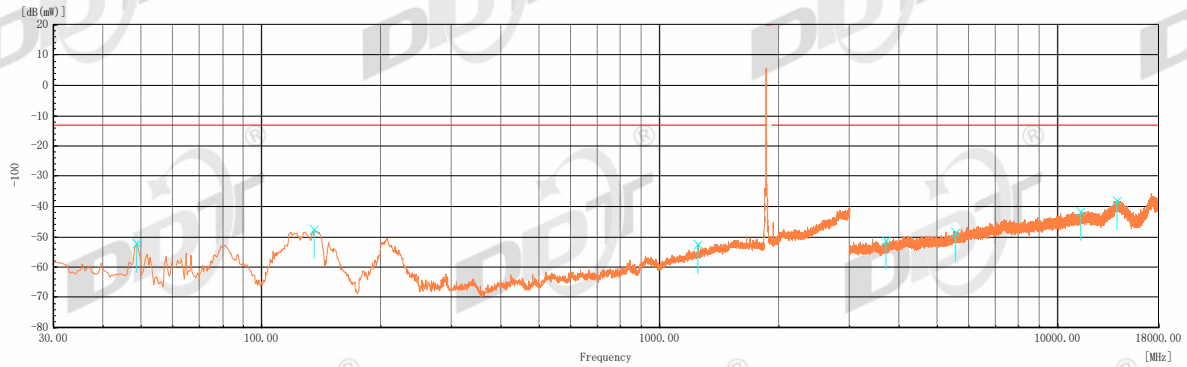
6.2. Radiated Spurious Emissions

Test Mode1：WCDMA Band II L channel (horizontal)



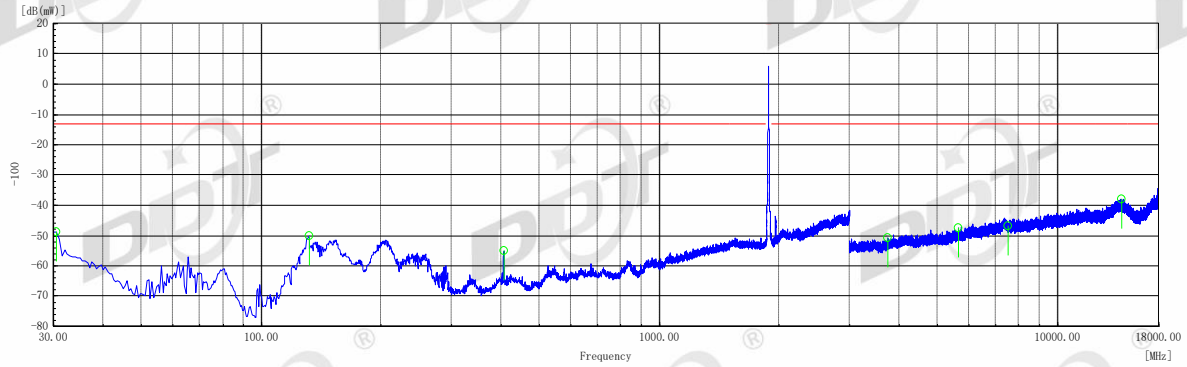
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
64	H	38.0	-57.3	-13	44.3	100	315.1
203.5	H	45.8	-49.5	-13	36.5	164	179.9
1527	H	44.4	-50.9	-13	37.9	146	179.9
3705	H	47.5	-47.8	-13	34.8	101	225.2
5558.5	H	48.2	-47.1	-13	34.1	147	0
14159	H	57.8	-37.5	-13	24.5	106	45.6

Test Mode1：WCDMA Band II L channel (vertical)



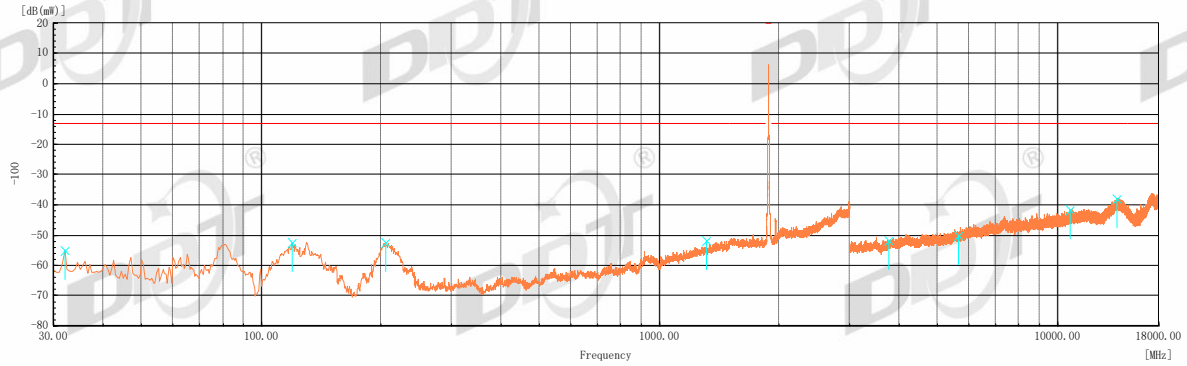
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
48.5	V	43.2	-52.1	-13	39.1	137	269.5
135.5	V	47.6	-47.7	-13	34.7	107	179.2
1252	V	42.7	-52.6	-13	39.6	177	134.6
3705	V	44.0	-51.3	-13	38.3	158	0
5557.5	V	46.8	-48.5	-13	35.5	137	224.5
11446.5	V	53.7	-41.6	-13	28.6	176	179.2
14106	V	57.3	-38	-13	25	176	315.1

Test Mode1：WCDMA Band II M channel (horizontal)



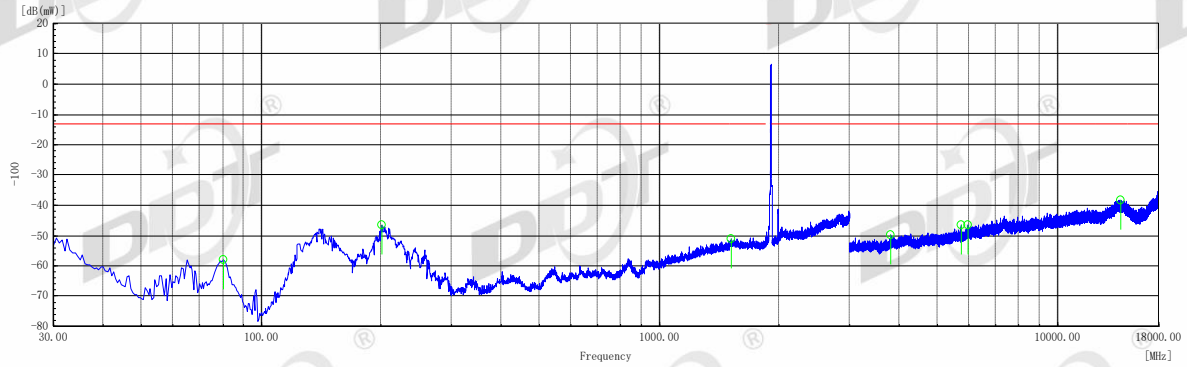
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
30.5	H	46.6	-48.7	-13	35.7	126	45.2
131.5	H	45.0	-50.3	-13	37.3	163	359.9
406	H	40.2	-55.1	-13	42.1	120	45.2
3758.5	H	44.6	-50.7	-13	37.7	171	135.4
5642.5	H	47.7	-47.6	-13	34.6	171	359.9
7520.001	H	48.3	-47	-13	34	107	225.2
14482.5	H	57.2	-38.1	-13	25.1	162	179.9

Test Mode1：WCDMA Band II M channel (vertical)



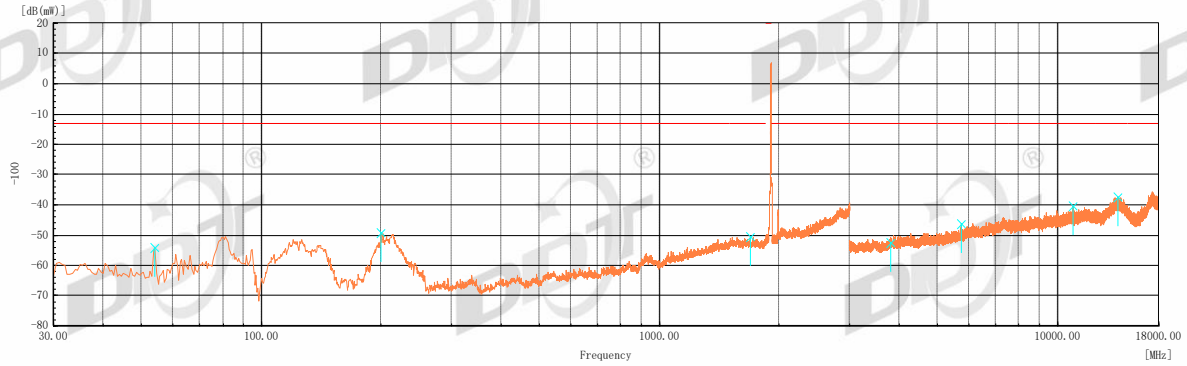
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
32	V	40.1	-55.2	-13	42.2	115	89.8
119.5	V	42.8	-52.5	-13	39.5	110	134.9
205	V	42.7	-52.6	-13	39.6	101	44.9
1314	V	43.4	-51.9	-13	38.9	112	0
3760	V	43.5	-51.8	-13	38.8	122	314.8
5640	V	45.0	-50.3	-13	37.3	121	44.9
10786.5	V	53.6	-41.7	-13	28.7	120	269.4
14144	V	57.4	-37.9	-13	24.9	124	134.9

Test Mode1：WCDMA Band II H channel (horizontal)



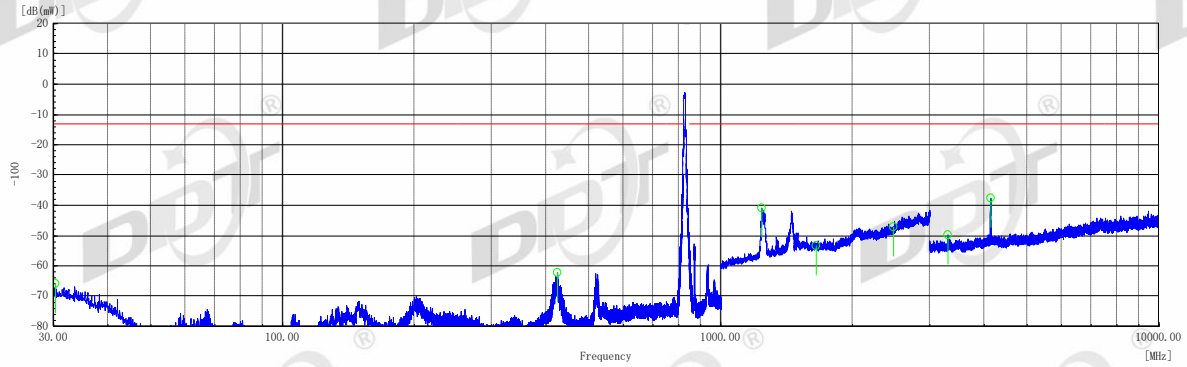
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
80	H	37.3	-58	-13	45	135	135.4
200.5	H	48.8	-46.5	-13	33.5	107	180.3
1512	H	44.1	-51.2	-13	38.2	106	0
3818.5	H	45.5	-49.8	-13	36.8	102	135.4
5722.5	H	48.6	-46.7	-13	33.7	152	225.7
5957.5	H	48.8	-46.5	-13	33.5	103	225.7
14451	H	56.9	-38.4	-13	25.4	122	91.7

Test Mode1：WCDMA Band II H channel (vertical)



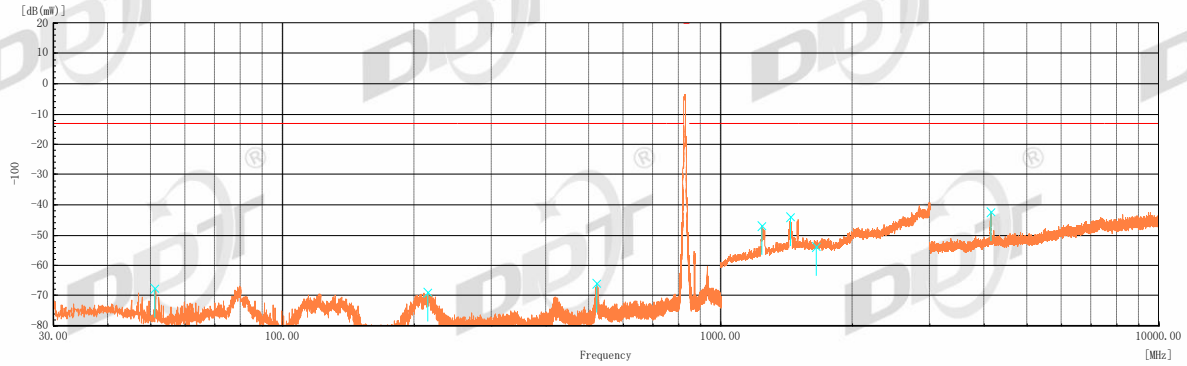
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
54	V	41.3	-54	-13	41	108	89.7
200	V	46.0	-49.3	-13	36.3	113	44.4
1695	V	44.9	-50.4	-13	37.4	175	315.5
3815	V	42.7	-52.6	-13	39.6	140	224.8
5723	V	49.1	-46.2	-13	33.2	120	44.4
10944.5	V	54.9	-40.4	-13	27.4	141	179.5
14203	V	57.9	-37.4	-13	24.4	132	224.8

Test Mode2：WCDMA Band V L channel (horizontal)



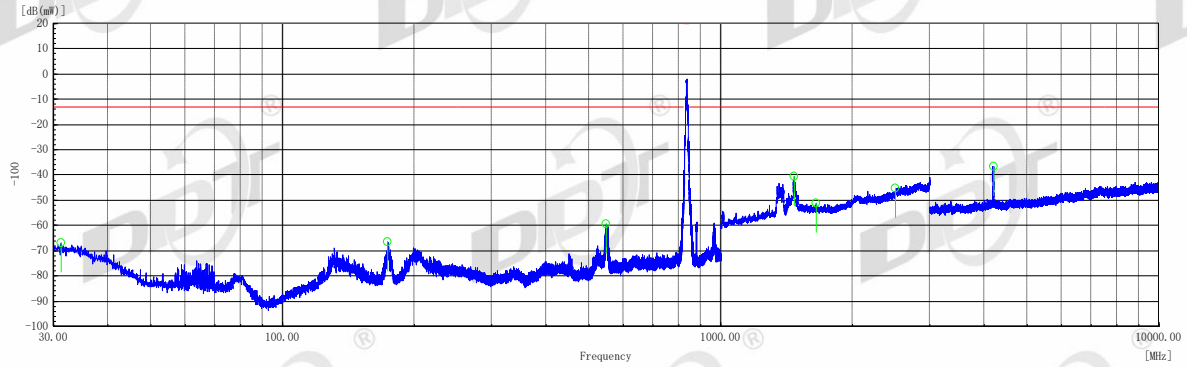
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
30.35	H	29.3	-66	-13	53	148	315.2
423.95	H	33.0	-62.3	-13	49.3	108	225
1240	H	54.4	-40.9	-13	27.9	146	225
1650.5	H	41.7	-53.6	-13	40.6	172	359.9
2478.5	H	48.0	-47.3	-13	34.3	160	91.5
3306	H	45.4	-49.9	-13	36.9	177	270.3
4132.5	H	57.7	-37.6	-13	24.6	125	180

Test Mode2：WCDMA Band V L channel (vertical)



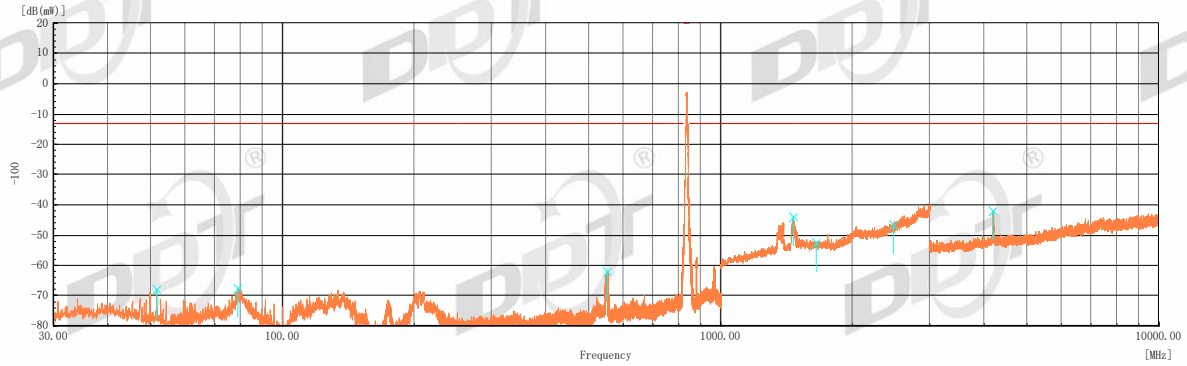
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
51.15	V	27.7	-67.6	-13	54.6	124	0
214.05	V	26.3	-69	-13	56	175	0
519.85	V	29.5	-65.8	-13	52.8	124	180
1243	V	48.5	-46.8	-13	33.8	137	180
1441	V	51.4	-43.9	-13	30.9	174	269.5
1653	V	41.7	-53.6	-13	40.6	140	180
4133	V	52.9	-42.4	-13	29.4	169	0

Test Mode2：WCDMA Band V M channel (horizontal)



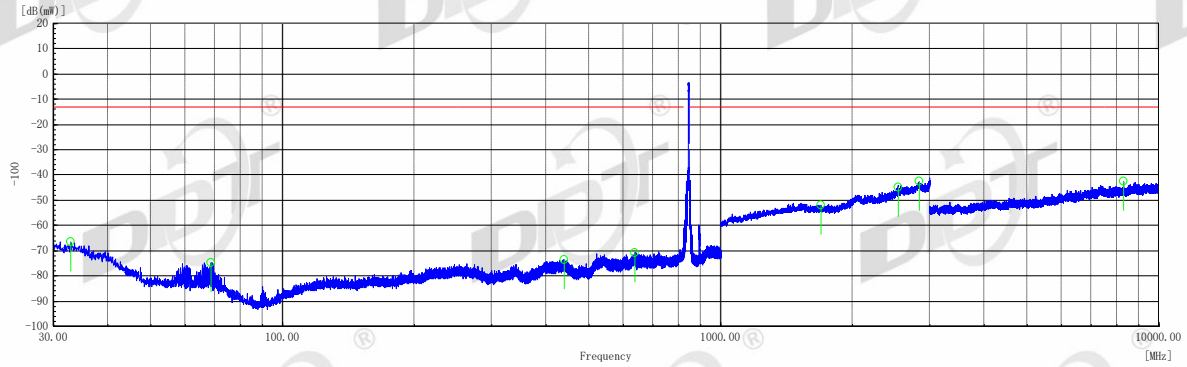
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
31.2	H	28.4	-66.9	-13	53.9	118	91.7
173.55	H	28.6	-66.7	-13	53.7	140	225.2
548.7	H	35.9	-59.4	-13	46.4	117	225.2
1471.5	H	54.6	-40.7	-13	27.7	119	180.7
1654.5	H	44.0	-51.3	-13	38.3	148	135
2507	H	49.9	-45.4	-13	32.4	132	225.2
4188.5	H	58.8	-36.5	-13	23.5	179	180.7

Test Mode2：WCDMA Band V M channel (vertical)



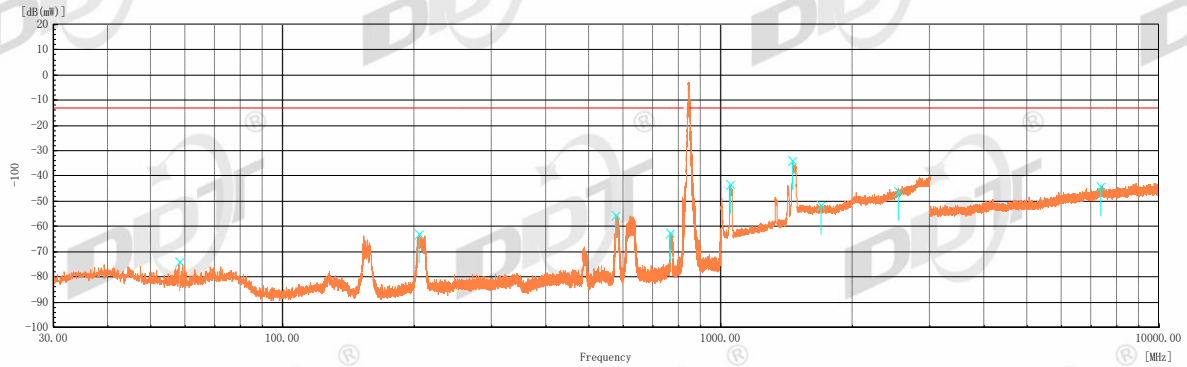
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
51.6	V	27.5	-67.8	-13	54.8	145	315.1
79.15	V	27.9	-67.4	-13	54.4	122	315.1
549.1	V	33.3	-62	-13	49	147	179.5
1462	V	51.4	-43.9	-13	30.9	124	89.7
1652	V	43.0	-52.3	-13	39.3	147	315.1
2480	V	48.9	-46.4	-13	33.4	112	179.5
4183	V	53.2	-42.1	-13	29.1	141	359.9

Test Mode2：WCDMA Band V H channel (horizontal)



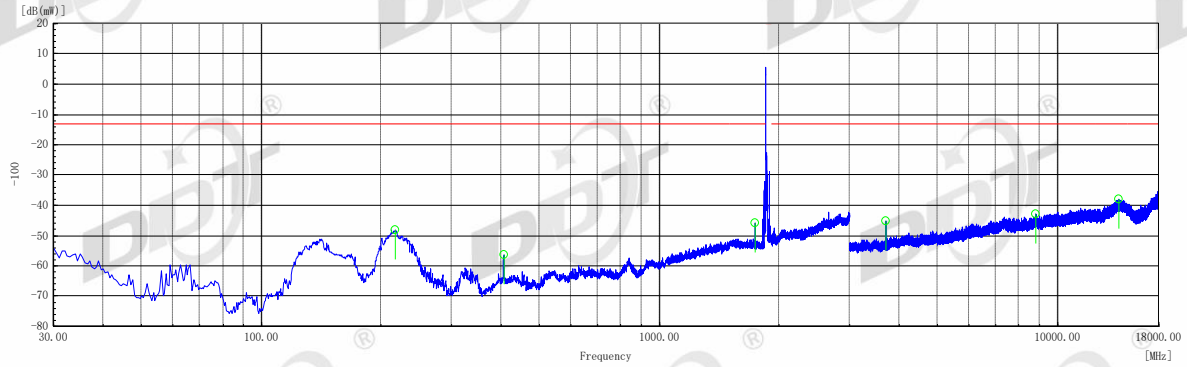
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
32.8	H	28.6	-66.7	-13	53.7	167	225.5
68.7	H	20.6	-74.7	-13	61.7	129	270.5
440	H	21.8	-73.5	-13	60.5	166	315
637.4	H	24.4	-70.9	-13	57.9	175	180.2
1693	H	43.2	-52.1	-13	39.1	131	45.5
2540	H	50.5	-44.8	-13	31.8	132	225.5
2844.5	H	52.7	-42.6	-13	29.6	159	135.2
8301.501	H	52.6	-42.7	-13	29.7	103	180.2

Test Mode2：WCDMA Band V H channel (vertical)



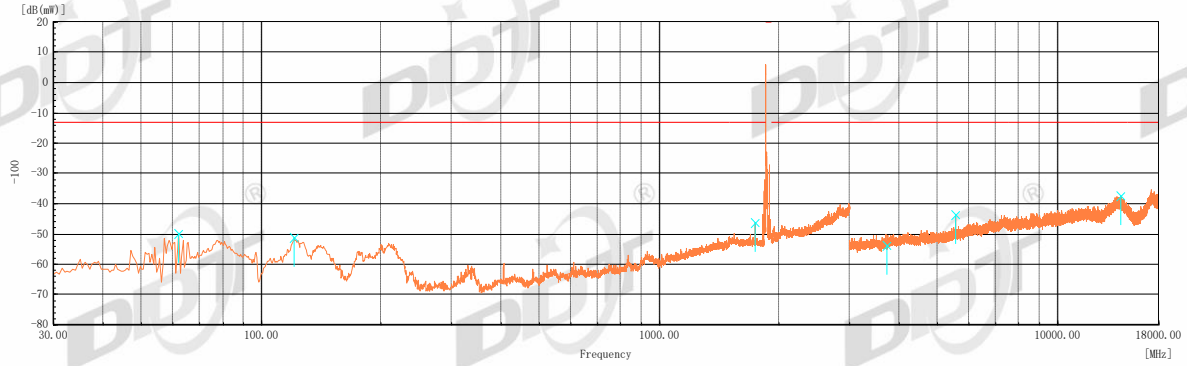
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
58.2	V	21.3	-74	-13	61	157	180.2
205.4	V	32.3	-63	-13	50	153	89.7
576.85	V	39.8	-55.5	-13	42.5	134	269.8
768.3	V	32.5	-62.8	-13	49.8	157	89.7
1049	V	51.8	-43.5	-13	30.5	106	359.8
1458.5	V	61.2	-34.1	-13	21.1	155	89.7
1691.5	V	43.6	-51.7	-13	38.7	126	89.7
2540	V	49.2	-46.1	-13	33.1	110	359.8
7359.001	V	51.1	-44.2	-13	31.2	159	180.2

Test Mode3：LTE Band 2 L channel (horizontal)



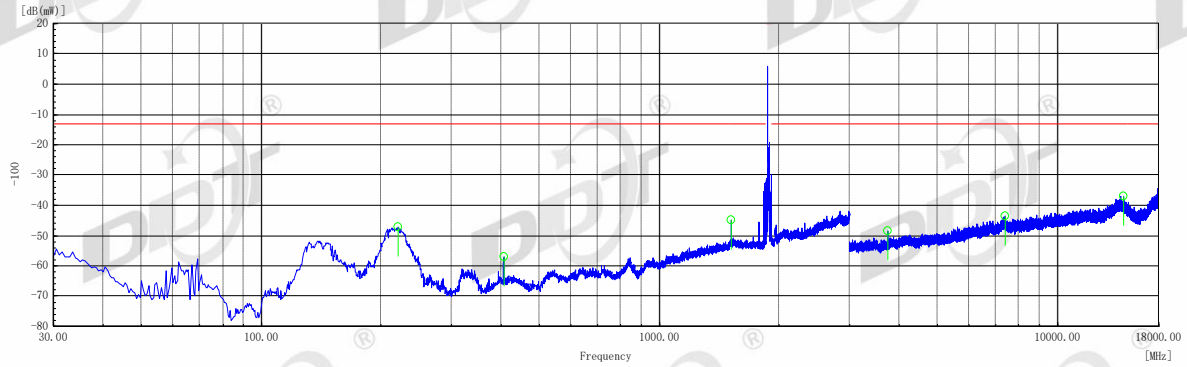
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
217	H	47.1	-48.2	-13	35.2	112	180.6
406	H	38.9	-56.4	-13	43.4	108	270.1
1741.5	H	49.4	-45.9	-13	32.9	165	225.5
3702	H	50.1	-45.2	-13	32.2	101	225.5
8816.5	H	52.5	-42.8	-13	29.8	137	0.1
14255.5	H	57.2	-38.1	-13	25.1	140	135.2

Test Mode3：LTE Band 2 L channel (vertical)



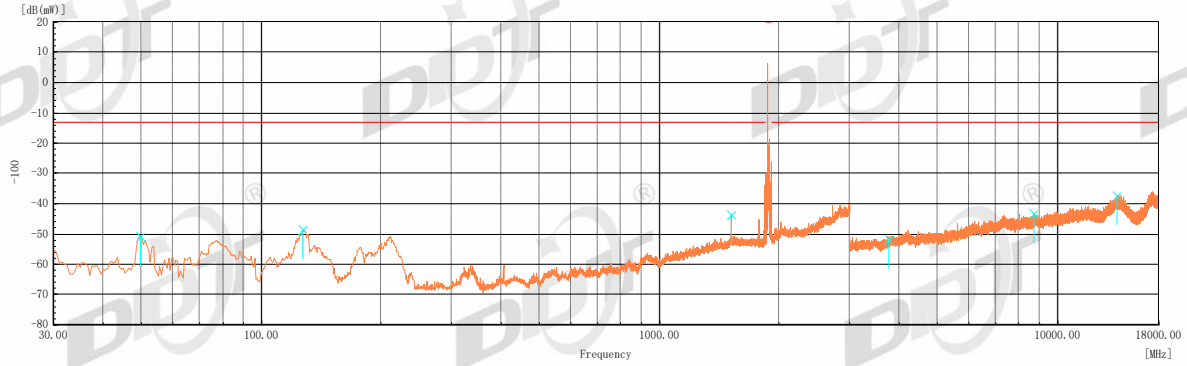
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
62	V	45.3	-50	-13	37	120	134.9
121	V	44.1	-51.2	-13	38.2	161	269.7
1741.5	V	49.0	-46.3	-13	33.3	109	315.4
3720	V	41.6	-53.7	-13	40.7	143	179.4
5553	V	51.8	-43.5	-13	30.5	135	224.7
14397.5	V	57.8	-37.5	-13	24.5	170	179.4

Test Mode3：LTE Band 2 M channel (horizontal)



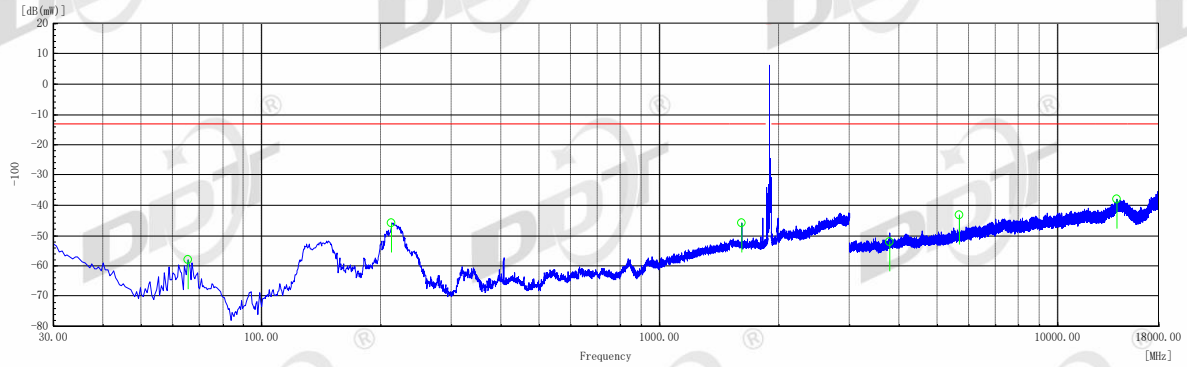
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
220	H	48.1	-47.2	-13	34.2	168	225.8
406	H	38.1	-57.2	-13	44.2	173	270
1513	H	50.5	-44.8	-13	31.8	168	225.8
3742.5	H	46.7	-48.6	-13	35.6	108	180.1
7377.001	H	51.6	-43.7	-13	30.7	114	315.8
14659.5	H	58.1	-37.2	-13	24.2	147	270

Test Mode3：LTE Band 2 M channel (vertical)



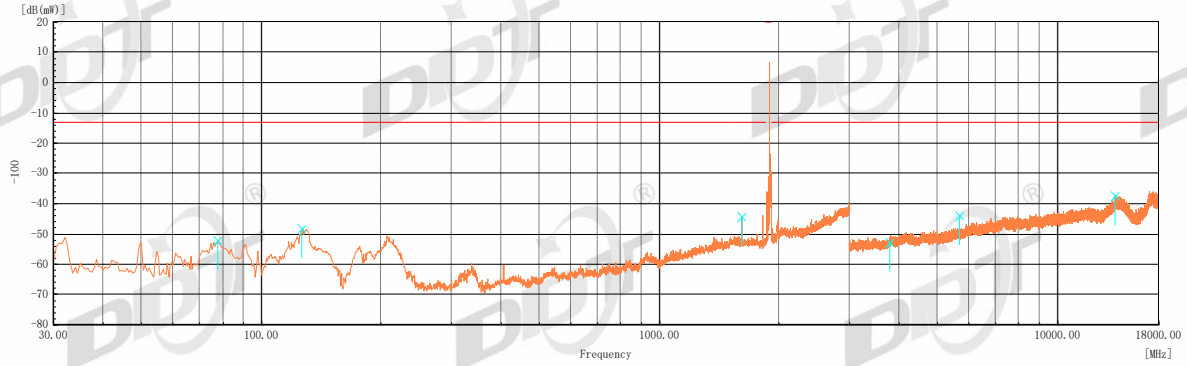
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
49.5	V	44.5	-50.8	-13	37.8	169	179.4
126.5	V	46.7	-48.6	-13	35.6	168	0.2
1512.5	V	51.6	-43.7	-13	30.7	122	315.8
3761	V	43.5	-51.8	-13	38.8	112	315.8
8735.5	V	52.0	-43.3	-13	30.3	159	269.3
14137.5	V	58.0	-37.3	-13	24.3	164	179.4

Test Mode3：LTE Band 2 H channel (horizontal)



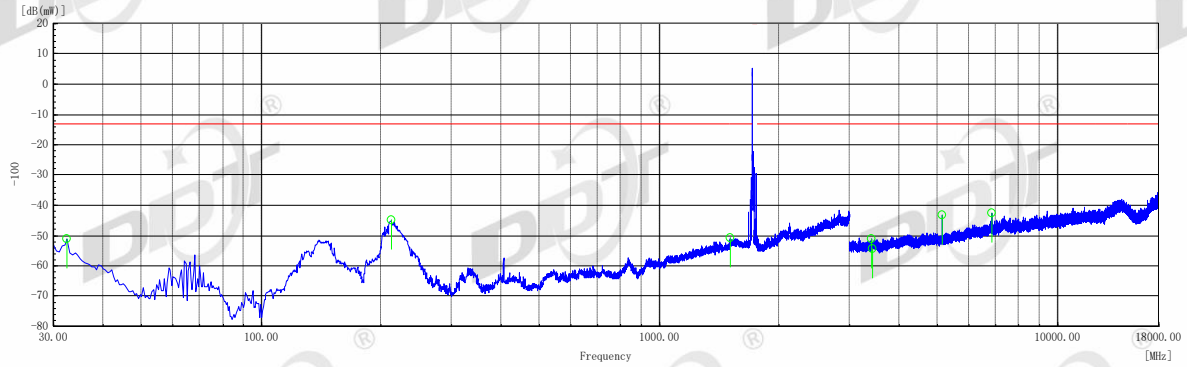
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
65.5	H	37.4	-57.9	-13	44.9	109	0.2
212	H	49.5	-45.8	-13	32.8	145	225.3
1612.5	H	49.3	-46	-13	33	169	270.2
3800	H	43.1	-52.2	-13	39.2	127	0.2
5673.5	H	52.2	-43.1	-13	30.1	122	225.3
14131	H	57.1	-38.2	-13	25.2	116	270.2

Test Mode3：LTE Band 2 H channel (vertical)



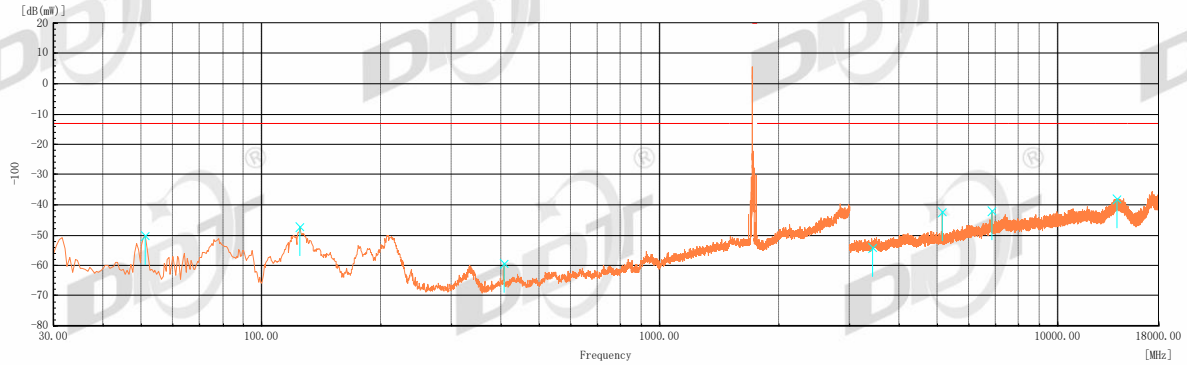
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
77.5	V	43.1	-52.2	-13	39.2	145	89.5
126	V	47.1	-48.2	-13	35.2	120	224.5
1613	V	51.1	-44.2	-13	31.2	136	315.6
3800	V	42.5	-52.8	-13	39.8	139	134.3
5673.5	V	51.3	-44	-13	31	107	44.9
13992	V	57.8	-37.5	-13	24.5	136	89.5

Test Mode4：LTE Band 4 L channel (horizontal)



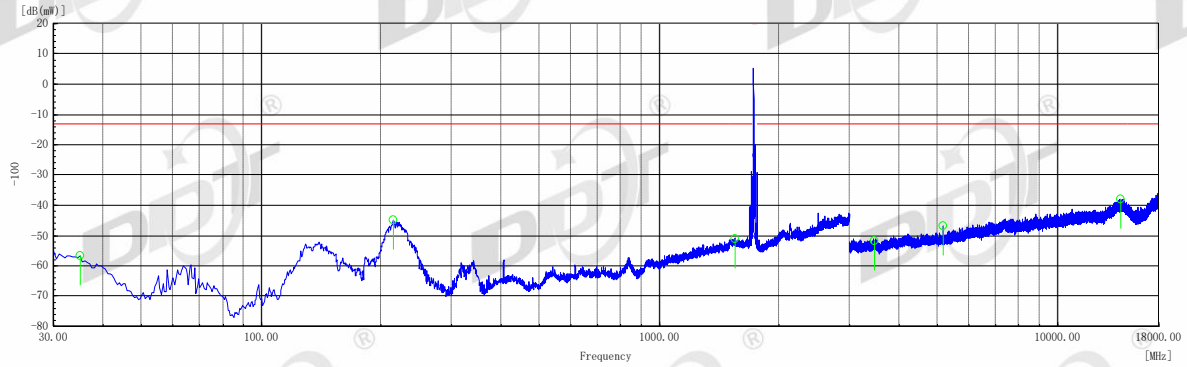
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
32.5	H	44.1	-51.2	-13	38.2	115	0.1
212	H	50.3	-45	-13	32	117	225
1507.5	H	44.5	-50.8	-13	37.8	173	135.1
3422	H	44.2	-51.1	-13	38.1	150	0.1
3440	H	40.9	-54.4	-13	41.4	140	0.1
5133.5	H	52.1	-43.2	-13	30.2	154	0.1
6844.001	H	52.7	-42.6	-13	29.6	120	180.4

Test Mode4：LTE Band 4 L channel (vertical)



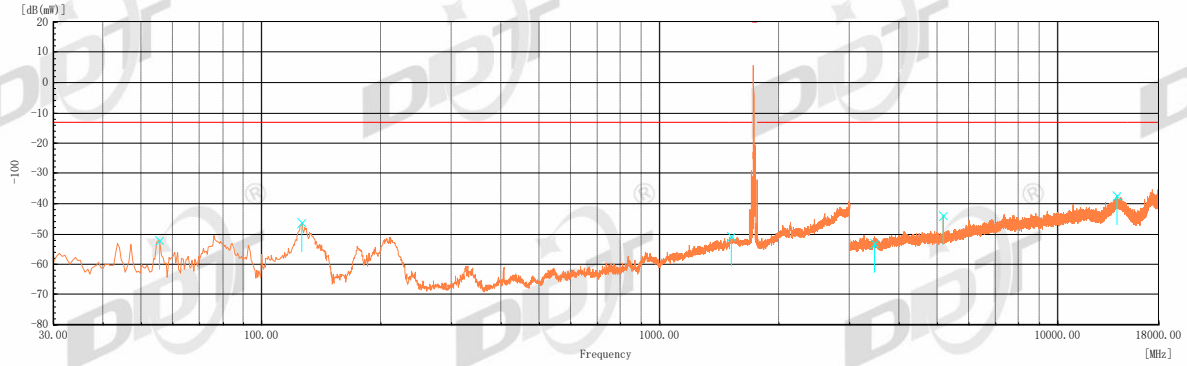
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
51	V	45.2	-50.1	-13	37.1	164	179.6
125	V	47.9	-47.4	-13	34.4	140	269.9
406.5	V	35.8	-59.5	-13	46.5	143	45
3440	V	41.1	-54.2	-13	41.2	155	0.1
5133.5	V	53.1	-42.2	-13	29.2	128	45
6844.501	V	53.3	-42	-13	29	112	269.9
14149.5	V	57.4	-37.9	-13	24.9	126	179.6

Test Mode4：LTE Band 4 M channel (horizontal)



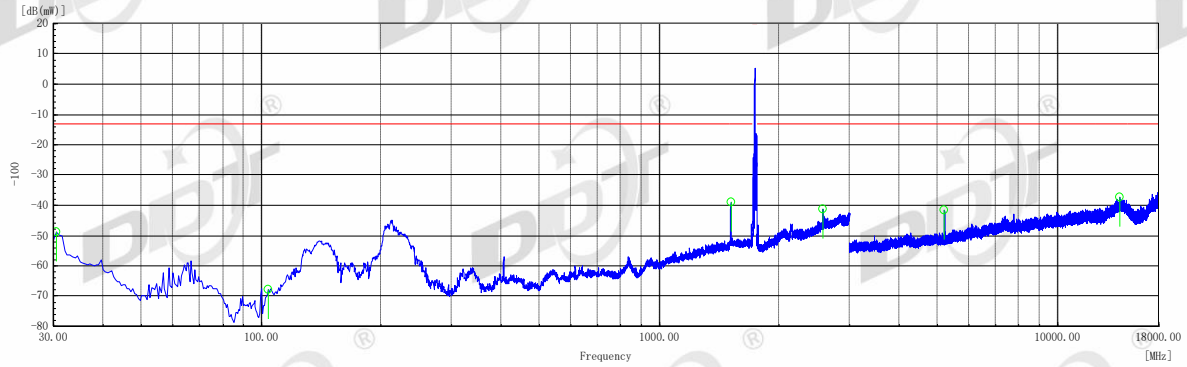
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
35	H	38.7	-56.6	-13	43.6	110	45.9
214.5	H	50.3	-45	-13	32	174	270
1547	H	44.1	-51.2	-13	38.2	173	225.5
3466	H	43.7	-51.6	-13	38.6	154	45.9
5171	H	48.5	-46.8	-13	33.8	179	45.9
14429.5	H	57.2	-38.1	-13	25.1	177	315.8

Test Mode4：LTE Band 4 M channel (vertical)



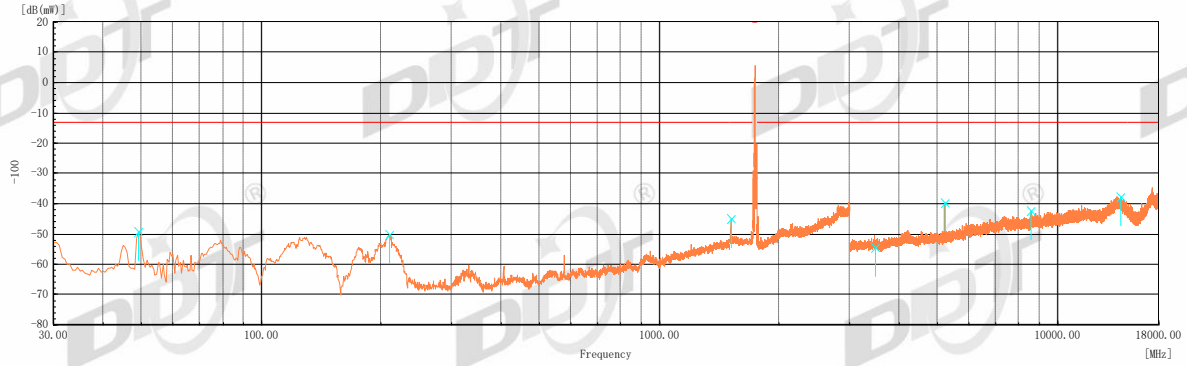
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
55.5	V	43.2	-52.1	-13	39.1	126	44.7
126	V	49.0	-46.3	-13	33.3	168	269.6
1515.5	V	44.3	-51	-13	38	151	44.7
3466	V	42.1	-53.2	-13	40.2	144	224.3
5171	V	51.4	-43.9	-13	30.9	118	0.1
14142.5	V	58.0	-37.3	-13	24.3	115	0.1

Test Mode4：LTE Band 4 H channel (horizontal)



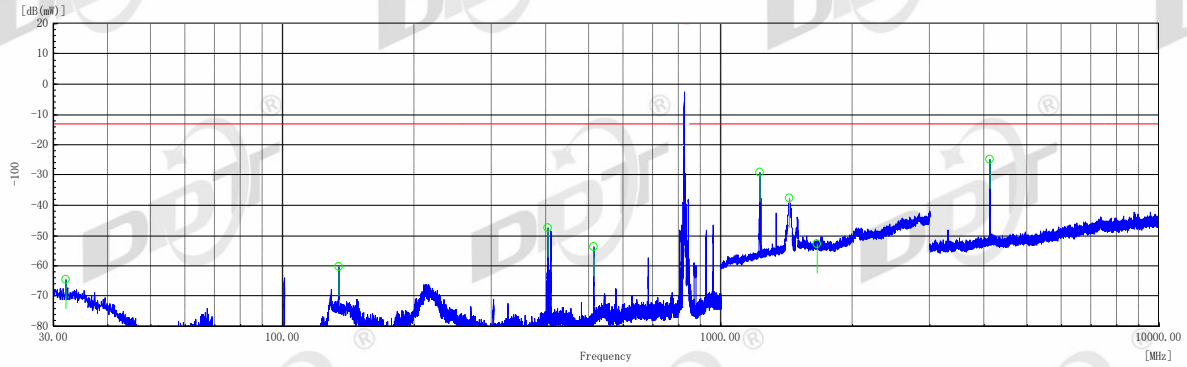
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
30.5	H	46.3	-49	-13	36	144	315
104	H	27.3	-68	-13	55	138	315
1511.5	H	56.2	-39.1	-13	26.1	166	270.4
2574	H	54.0	-41.3	-13	28.3	150	270.4
5208	H	53.5	-41.8	-13	28.8	142	0.1
14323.5	H	57.8	-37.5	-13	24.5	116	91.1

Test Mode4：LTE Band 4 H channel (vertical)



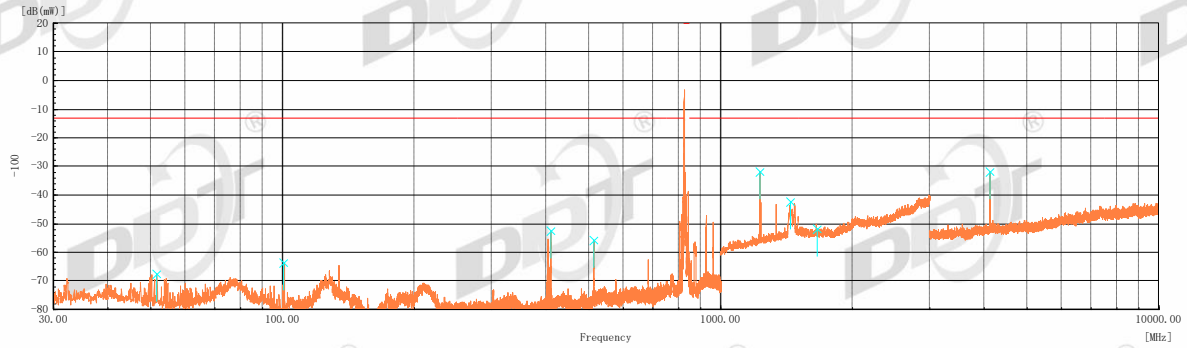
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
49	V	46.2	-49.1	-13	36.1	177	134.8
210	V	45.1	-50.2	-13	37.2	168	179.7
1511.5	V	50.5	-44.8	-13	31.8	165	315
5208.5	V	55.7	-39.6	-13	26.6	145	359.8
3490	V	40.8	-54.5	-13	41.5	123	134.8
8595.5	V	53.0	-42.3	-13	29.3	104	179.7
14409.5	V	57.6	-37.7	-13	24.7	136	179.7

Test Mode5：LTE Band 5 L channel (horizontal)



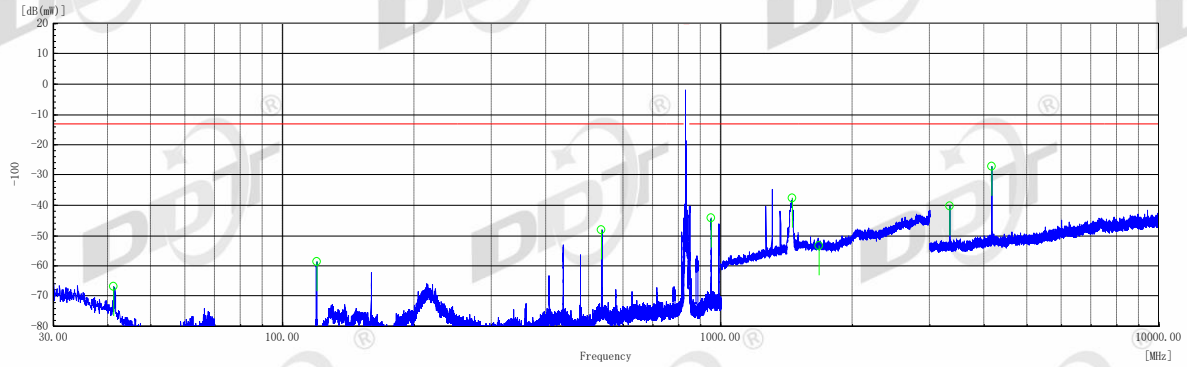
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
32	H	30.7	-64.6	-13	51.6	126	135.2
134.4	H	35.1	-60.2	-13	47.2	156	180.6
403.15	H	47.6	-47.7	-13	34.7	178	270.1
513.1	H	41.5	-53.8	-13	40.8	173	225.9
1227.5	H	66.2	-29.1	-13	16.1	156	180.6
1436	H	57.6	-37.7	-13	24.7	131	225.9
1658	H	42.5	-52.8	-13	39.8	180	180.6
4123	H	70.5	-24.8	-13	11.8	125	180.6

Test Mode5：LTE Band 5 L channel (vertical)



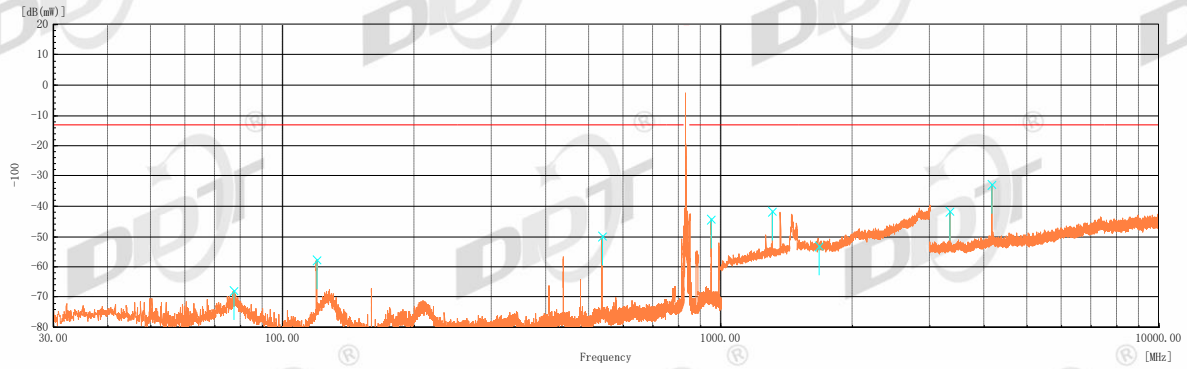
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
51.7	V	27.8	-67.5	-13	54.5	174	45.2
100.75	V	31.8	-63.5	-13	50.5	111	180.2
409.25	V	42.7	-52.6	-13	39.6	161	270.1
513.1	V	39.6	-55.7	-13	42.7	171	270.1
1228	V	63.4	-31.9	-13	18.9	110	180.2
1442.5	V	52.9	-42.4	-13	29.4	133	180.2
1658	V	43.6	-51.7	-13	38.7	112	134.9
4123	V	63.4	-31.9	-13	18.9	142	0.1

Test Mode5：LTE Band 5 M channel (horizontal)



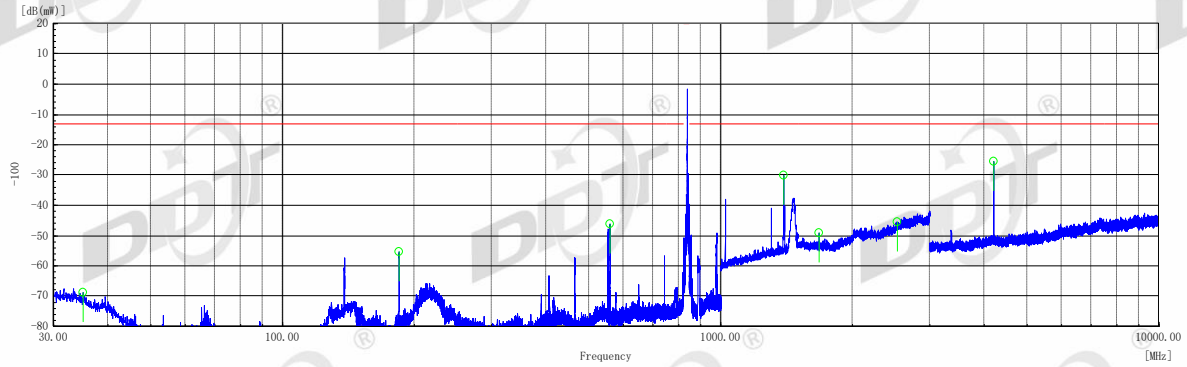
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
41.15	H	28.4	-66.9	-13	53.9	108	179.8
119.55	H	36.6	-58.7	-13	45.7	161	179.8
535.45	H	47.0	-48.3	-13	35.3	115	179.8
951.65	H	50.9	-44.4	-13	31.4	106	179.8
1455.5	H	57.7	-37.6	-13	24.6	101	225.5
1673	H	41.9	-53.4	-13	40.4	116	179.8
3328.5	H	54.9	-40.4	-13	27.4	131	225.5
4160.5	H	68.2	-27.1	-13	14.1	168	179.8

Test Mode5：LTE Band 5 M channel (vertical)



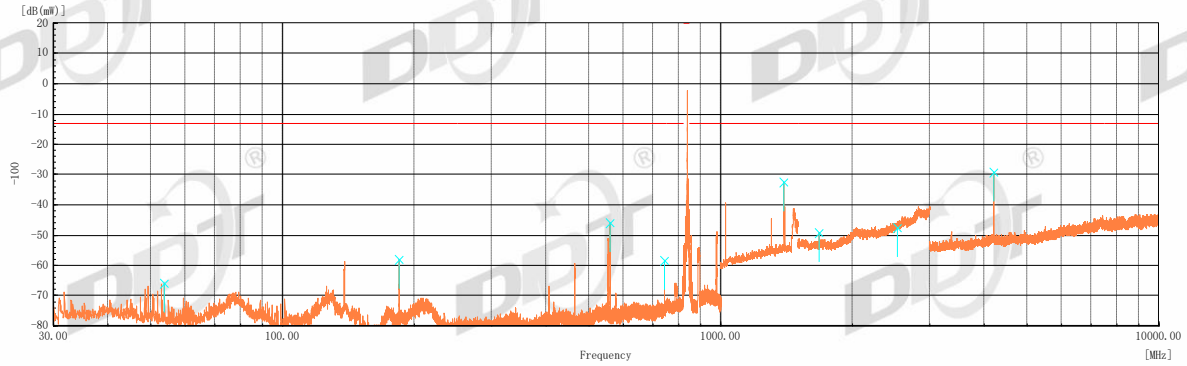
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
77.35	V	27.3	-68	-13	55	157	0
119.55	V	37.7	-57.6	-13	44.6	121	179.3
535.6	V	45.5	-49.8	-13	36.8	118	179.3
951.65	V	50.9	-44.4	-13	31.4	127	179.3
1310.5	V	53.6	-41.7	-13	28.7	117	179.3
1673	V	42.1	-53.2	-13	40.2	104	225.1
3328.5	V	53.5	-41.8	-13	28.8	132	270.1
4160.5	V	62.4	-32.9	-13	19.9	127	0

Test Mode5：LTE Band 5 H channel (horizontal)



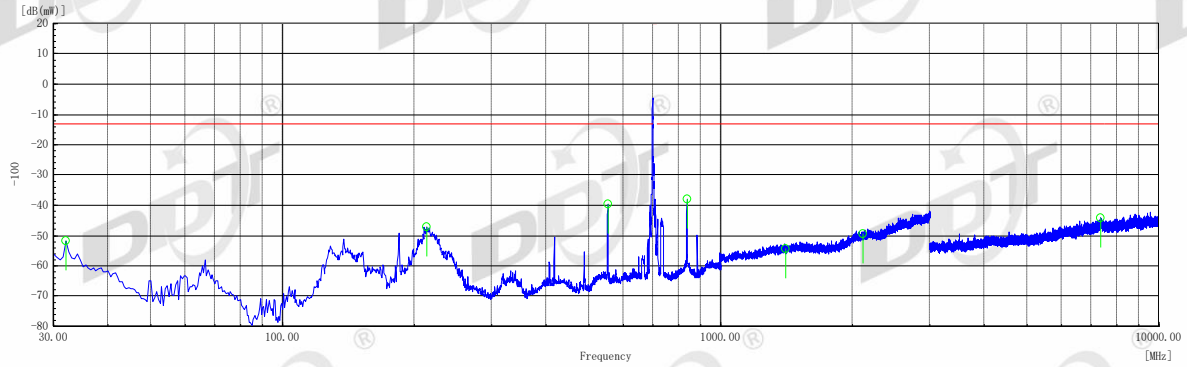
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
35.05	H	26.3	-69	-13	56	152	135.1
184.4	H	40.0	-55.3	-13	42.3	130	180.4
558.1	H	49.0	-46.3	-13	33.3	169	180.4
1393	H	65.1	-30.2	-13	17.2	120	180.4
1679.5	H	46.1	-49.2	-13	36.2	151	45.3
2534	H	49.8	-45.5	-13	32.5	165	314.9
4198	H	69.8	-25.5	-13	12.5	172	180.4

Test Mode5：LTE Band 5 H channel (vertical)



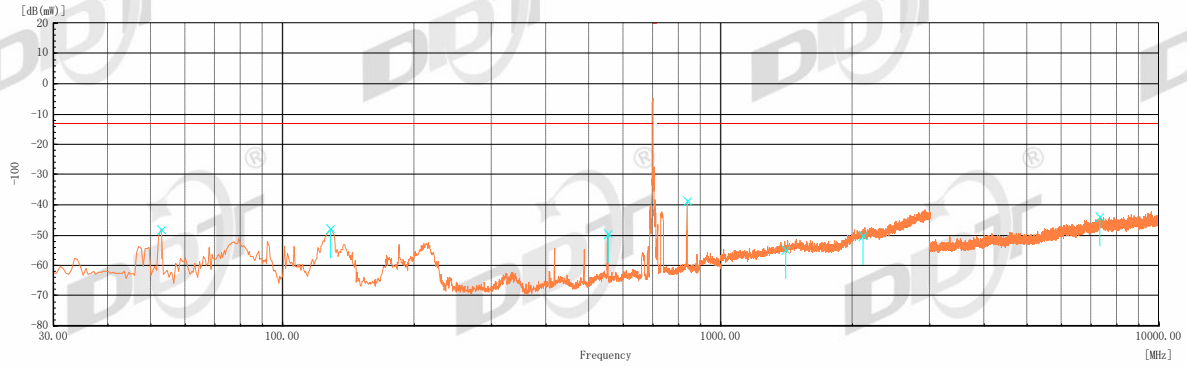
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
53.75	V	29.3	-66	-13	53	135	89.1
184.25	V	37.3	-58	-13	45	142	179.2
558.05	V	49.2	-46.1	-13	33.1	116	179.2
744.1	V	36.8	-58.5	-13	45.5	147	179.2
1392.5	V	62.9	-32.4	-13	19.4	103	179.2
1679	V	46.1	-49.2	-13	36.2	134	224.6
2532	V	47.8	-47.5	-13	34.5	156	270
4198	V	66.0	-29.3	-13	16.3	107	0

Test Mode6：LTE Band 12 L channel (horizontal)



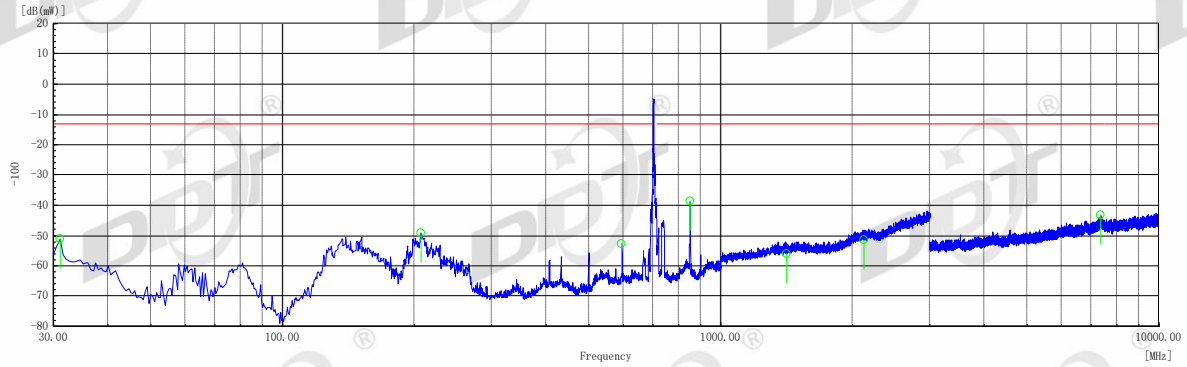
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
32	H	43.5	-51.8	-13	38.8	117	45.3
213	H	48.1	-47.2	-13	34.2	111	180
552.5	H	55.7	-39.6	-13	26.6	137	225.3
837.5	H	57.4	-37.9	-13	24.9	172	315.6
1408	H	40.8	-54.5	-13	41.5	165	270.7
2112	H	45.7	-49.6	-13	36.6	173	180
7378.001	H	51.0	-44.3	-13	31.3	136	45.3

Test Mode6：LTE Band 12 L channel (vertical)



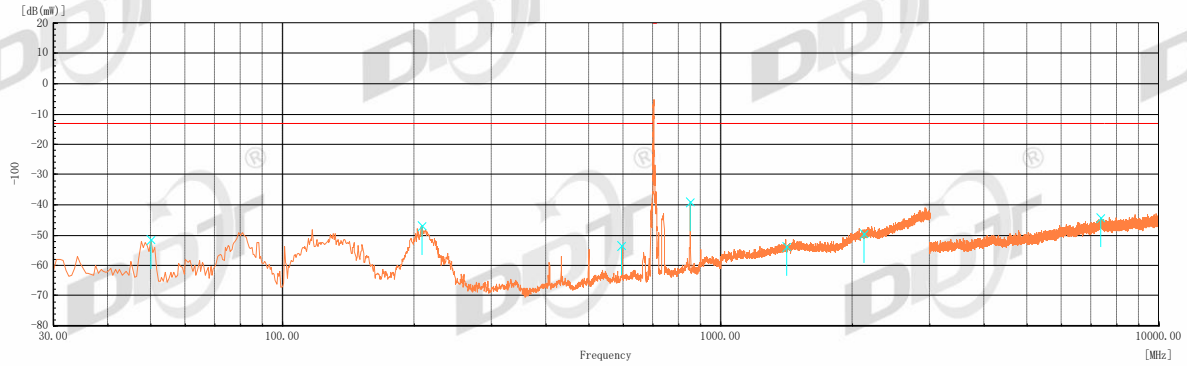
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
53	V	46.9	-48.4	-13	35.4	171	359.9
128.5	V	47.4	-47.9	-13	34.9	171	315.6
552	V	45.8	-49.5	-13	36.5	180	134.6
837.5	V	56.6	-38.7	-13	25.7	155	269.6
1408	V	40.4	-54.9	-13	41.9	102	224.5
2112	V	45.0	-50.3	-13	37.3	102	315.6
7338.001	V	51.3	-44	-13	31	112	134.6

Test Mode6：LTE Band 12 M channel (horizontal)



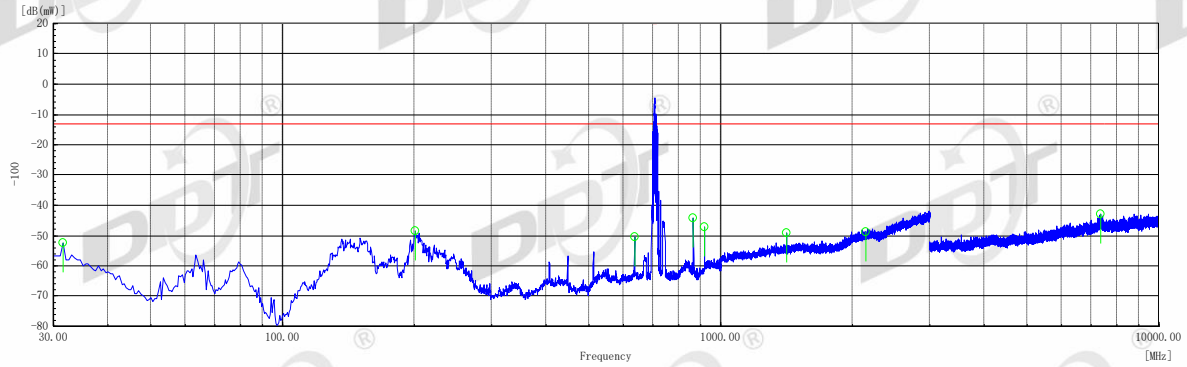
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
31	H	44.1	-51.2	-13	38.2	166	270.5
206.5	H	46.0	-49.3	-13	36.3	131	180.2
594.5	H	42.6	-52.7	-13	39.7	176	225.2
851.5	H	56.6	-38.7	-13	25.7	104	315
1415	H	39.3	-56	-13	43	179	44.5
2122.5	H	43.9	-51.4	-13	38.4	148	315
7361.501	H	52.0	-43.3	-13	30.3	121	135.2

Test Mode6：LTE Band 12 M channel (vertical)



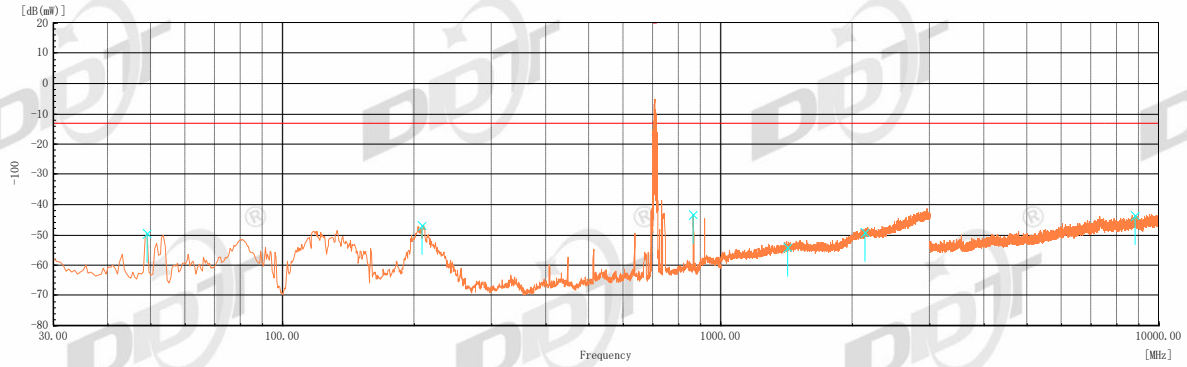
Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
50	V	43.7	-51.6	-13	38.6	172	179.8
208	V	48.4	-46.9	-13	33.9	132	89.6
594.5	V	41.9	-53.4	-13	40.4	155	89.6
851.5	V	56.3	-39	-13	26	173	224.8
1415	V	41.6	-53.7	-13	40.7	161	134.9
2122.5	V	45.9	-49.4	-13	36.4	107	315
7355.001	V	51.1	-44.2	-13	31.2	146	179.8

Test Mode6：LTE Band 12 H channel (horizontal)



Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
31.5	H	42.7	-52.6	-13	39.6	162	91.1
201	H	46.7	-48.6	-13	35.6	146	179.8
636	H	44.7	-50.6	-13	37.6	168	179.8
865.5	H	51.0	-44.3	-13	31.3	148	315.5
918.5	H	48.2	-47.1	-13	34.1	176	225.2
1413	H	46.3	-49	-13	36	147	91.1
2144.5	H	46.5	-48.8	-13	35.8	131	270.9
7370.001	H	52.3	-43	-13	30	101	270.9

Test Mode6：LTE Band 12 H channel (vertical)



Frequency [MHz]	Pol	Level [dBμV/m]	Level [dB(mW)]	Limit [dB(mW)]	Margin [dB]	Height [cm]	Azimuth [°]
49	V	45.8	-49.5	-13	36.5	106	44.7
208.5	V	48.5	-46.8	-13	33.8	107	89.6
865.5	V	52.0	-43.3	-13	30.3	106	134.6
1422	V	41.2	-54.1	-13	41.1	148	0.1
2133	V	46.2	-49.1	-13	36.1	105	89.6
8832	V	51.8	-43.5	-13	30.5	144	269.3

Note:

1) The disturbance above 18GHz and below 30MHz was very low at band WCDMA Band II and LTE Band2/4, and the above harmonics are the highest points could be found when testing, so only the worst case data had been displayed.

2) WCDMA Band V and LTE Band5/12 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.

3) 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: 2019/05/10 ~2019/06/02).
All appendixes were cited in this report.

Appendix	Item
Appendix B.1	WCDMA BAND II & V
Appendix B.2	LTE Band 2
Appendix B.3	LTE Band 4
Appendix B.4	LTE Band 5
Appendix B.5	LTE Band 12