



FCC Radio Test Report

FCC ID: RI7ATD551

This report concerns: Class II permissive Change

Project No.	:	2412C414
Equipment	:	LTE Cat-M1 Tracker
Brand Name	:	1. Telit Cinterion 2. DeWALT
Test Model	:	ATD551
Series Model	:	N/A
Applicant	:	Telit Communications S.p.A.
Address	:	Via Stazione di Prosecco 5/b, 34010 Sgonico, Trieste, Italy
Manufacturer	:	Telit Communications S.p.A.
Address	:	Via Stazione di Prosecco 5/b, 34010 Sgonico, Trieste, Italy
Factory	:	Fushan Technology (Vietnam)Limited Liability Company
Address	:	No. 8, Road 6, VSIP Bac Ninh, Phu Chan, Tu Son, Bac Ninh, Vietnam
Date of Receipt	:	Jan. 02, 2025
Date of Test	:	Jan. 06, 2025 ~ Feb. 18, 2025
Issued Date	:	Mar. 13, 2025
Report Version	:	R00
Test Sample	:	Engineering Sample No.: DG20250102159, DG20250102160
Standard(s)	:	47 CFR FCC Part 22 Subpart H 47 CFR FCC Part 2

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** assumes no responsibility for the data provided by the customer, any statements, inferences or generalizations drawn by the customer or others from the reports issued by **BTL**.

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BTL's laboratory quality assurance procedures are in compliance with the ISO/IEC 17025: 2017 requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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REPORT ISSUED HISTORY

Report No.	Version	Description	Issued Date	Note
BTL-FCCP-1-2412C414	R00	This is a supplementary report to the original test report (BTL-FCCP-1-2404C168). The changes are shown in below table so the radiated emissions are retested and recorded in the report, the original test results please refer to original report.	Mar. 13, 2025	Valid

No.	Workstream	Change Description	Updates / Notes
1	Hardware-LTE Antenna	KAVX Solution#3 implementing	Matching change + cutting tuning trace + adding tuning trace
2	Hardware-GNSS Filter	GNSS Filter	Add SAW filter to GNSS, between module pin and passive tuning components
3	Hardware-Modem Supply Filter	ME310G1WW05R060400 supply filtering	Add EMI filter 120 R to modem supply pins
4	Hardware-GND Copper	Thermal relief for SMD pads on copper GND	Modified copper GND for thermal relief when connecting to SMD pads
5	Hardware Version	V0.6 to V0.7	V0.6 to V0.7

1. APPLICABLE STANDARDS

The following reference test guidance is not within the scope of accreditation of A2LA:
ANSI C63.26-2015
FCC KDB 971168 D01 Power Meas License Digital Systems v03r01

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part 22 Subpart H & Part 2			
Standard(s) Section	Test Item	Judgment	Remark
2.1046	Output Power	PASS	Note(1)
22.913(a)(5)	Effective Radiated Power	PASS	Note(1)
2.1049	Occupied Bandwidth	PASS	Note(1)
2.1051 22.917(a)	Conducted Spurious Emissions	PASS	Note(1)
2.1053 22.917(a)	Radiated Spurious Emissions	PASS	-----
22.917(a)	Band Edge Measurements	PASS	Note(1)
22.913(d)	Peak To Average Ratio	PASS	Note(1)
2.1055 22.355	Frequency Stability	PASS	Note(1)

Note:

- The RF module of this LTE Cat-M1 Tracker has been tested and certified. Please refer to the module report as listed in the below table for the test results of the RF module.

RF Module	Module Function	Report Number	Standard	
Model: ME310G1-WW FCC ID: RI7ME310G1WW	GSM	60356613 003	47 CFR FCC Part 22 47 CFR FCC Part 24 47 CFR FCC Part 2	RSS-132 Issue 3 RSS-133 Issue 6 RSS-Gen Issue 5
	LTE	60356613 002	47 CFR FCC Part 22 47 CFR FCC Part 24 47 CFR FCC Part 27 47 CFR FCC Part 90 47 CFR FCC Part 2	RSS-132 Issue 3 RSS-133 Issue 6 RSS-130 Issue 2 RSS-139 Issue 3 RSS-Gen Issue 5
		60356613 001	47 CFR FCC Part 22 47 CFR FCC Part 24 47 CFR FCC Part 27 47 CFR FCC Part 90 47 CFR FCC Part 2	RSS-132 Issue 3 RSS-133 Issue 6 RSS-130 Issue 2 RSS-139 Issue 3 RSS-Gen Issue 5

- The GSM850, band 5 and band 26 antenna gain of LTE Cat-M1 Tracker was smaller than that of module, so output power and ERP refer to module test report. Thus, only the radiated spurious emissions was evaluated and recorded in this report. For the test results of all other test items please refer to above module test report.

2. Based on the RF module the antennas for this LTE Cat-M1 Tracker were updated as below table:

Brand	P/N	Antenna Type	Connector	Gain (dBi)	Note
 ethertronics AN AVIX GROUP COMPANY	1004795/1004796	PCB	N/A	1.6	GSM 850
				1.6	LTE Band 5
				1.6	LTE Band 26

1) The antenna gain is provided by the manufacturer.

2.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of:

1# Room 108-116, 309-310, Building 2, No.1, Yile Road, Songshan Lake Zone, Dongguan City, Guangdong, People's Republic of China.

2# 1-2/F, 4/F, Building A, 1-2/F, Building B, 3/F, Building C, No.3, Jinshagang 1st Road, Dalang Town, Dongguan City, Guangdong People's Republic of China.

BTL's Registration Number for FCC: 747969

BTL's Designation Number for FCC: CN1377

2.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

The BTL measurement uncertainty as below table:

A. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	U_1 (dB)
DG-CB01	CISPR	9kHz ~ 30MHz	2.36

Test Site	Method	Measurement Frequency Range	Ant. H / V	U_1 (dB)
DG-CB03 (3m)	CISPR	30MHz ~ 200MHz	V	4.40
		30MHz ~ 200MHz	H	3.62
		200MHz ~ 1,000MHz	V	4.58
		200MHz ~ 1,000MHz	H	3.98

Test Site	Method	Measurement Frequency Range	U_1 (dB)
DG-CB03 (3m)	CISPR	1GHz ~ 6GHz	4.08
		6GHz ~ 18GHz	4.62

Test Site	Method	Measurement Frequency Range	Ant. H / V	U_1 (dB)
SSL-CB01 (3m)	CISPR	30MHz ~ 200MHz	V	4.70
		30MHz ~ 200MHz	H	3.56
		200MHz ~ 1,000MHz	V	4.92
		200MHz ~ 1,000MHz	H	4.54

Test Site	Method	Measurement Frequency Range	U_1 (dB)
SSL-CB01 (3m)	CISPR	1GHz ~ 6GHz	4.56
		6GHz ~ 18GHz	5.14

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

2.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By	Test Date
Radiated Spurious Emissions (9 kHz to 30 MHz)	26°C	47%	AC 120V/60Hz	Hayden Chen	Jan. 08, 2025
Radiated Spurious Emissions (30 MHz to 1000 MHz)	23°C	42-47%	AC 120V/60Hz	Drew Tan Young Zou	Jan. 24, 2025- Feb. 11, 2025
Radiated Spurious Emissions (Above 1000 MHz)	23°C	42-47%	AC 120V/60Hz	Drew Tan Calvin Wen Allen Tong Young Zou	Jan. 26, 2025- Feb. 11, 2025

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	LTE Cat-M1 Tracker	
Brand Name	1. Telit Cinterion 2. DeWALT	
Test Model	ATD551	
PMN	LTE Cat-M1 Tracker(C1) will use Brand:DeWALT LTE Cat-M1 Tracker(S0) will use Brand:Telit Cinterion LTE Cat-M1 Tracker(S1) will use Brand:Telit Cinterion LTE Cat-M1 Tracker(C2)	
Model Difference(s)	Logo, some mechanical parts color, label, accessories are different.	
Hardware Version	V0.7	
Software Version	V03.05	
Power Source	1# DC Voltage supplied from AC adapter. Model: ADS-10LA-06 05010EPCU 2# Supplied from battery.	
Power Rating	1# I/P: 100-240V ~ 50/60Hz MAX 0.3A O/P: 5V  2.0A 2# DC 3.7V / 3000mAh	
IMEI No.	Radiated	350903789416261, 350903789452092
Modulation Type	GPRS/EGPRS	GMSK
	EGPRS	8PSK
	LTE(eMTC)	UL: QPSK,16QAM
	LTE(NB-IoT)	UL: BPSK, QPSK

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. Channel List:

GSM 850				
Test Frequency ID	UARFCN	Frequency of Uplink (MHz)	UARFCN	Frequency of Downlink (MHz)
Low Range	128	824.2	137	869.2
Mid Range	190	836.6	199	881.6
High Range	251	848.8	260	893.8

LTE Band 5(eMTC)					
Test Frequency ID	Bandwidth (MHz)	N _{UL}	Frequency of Uplink (MHz)	N _{DL}	Frequency of Downlink (MHz)
Low Range	1.4	20407	824.7	2407	869.7
	3	20415	825.5	2415	870.5
	5	20425	826.5	2425	871.5
	10	20450	829	2450	874
Mid Range	1.4/3/5/10	20525	836.5	2525	881.5
High Range	1.4	20643	848.3	2643	893.3
	3	20635	847.5	2635	892.5
	5	20625	846.5	2625	891.5
	10	20600	844	2600	889

LTE Band 5(NB-IoT)					
Test Frequency ID	Bandwidth (kHz)	N _{UL}	Frequency of Uplink (MHz)	N _{DL}	Frequency of Downlink (MHz)
Low Range	200	20401	824.1	2401	869.1
Mid Range	200	20525	836.5	2525	881.5
High Range	200	20649	848.9	2649	893.9

LTE Band 26(eMTC)					
Test Frequency ID	Bandwidth (MHz)	N _{UL}	Frequency of Uplink (MHz)	N _{DL}	Frequency of Downlink (MHz)
Low Range	1.4	26797	824.7	8797	869.7
	3	26805	825.5	8805	870.5
	5	26815	826.5	8815	871.5
	10	26840	829	8840	874
	15	26865	831.5	8865	876.5
Mid Range	1.4/3/5/10/15	26915	836.5	8915	881.5
High Range	1.4	27033	848.3	9033	893.3
	3	27025	847.5	9025	892.5
	5	27015	846.5	9015	891.5
	10	26990	844	8990	889
	15	26965	841.5	8965	886.5

LTE Band 26(NB-IoT)					
Test Frequency ID	Bandwidth (kHz)	N _{UL}	Frequency of Uplink (MHz)	N _{DL}	Frequency of Downlink (MHz)
Low Range	200	26791	824.1	8791	869.1
Mid Range	200	26915	836.5	8915	881.5
High Range	200	27039	848.9	9039	893.9

3.2 DESCRIPTION OF TEST MODES

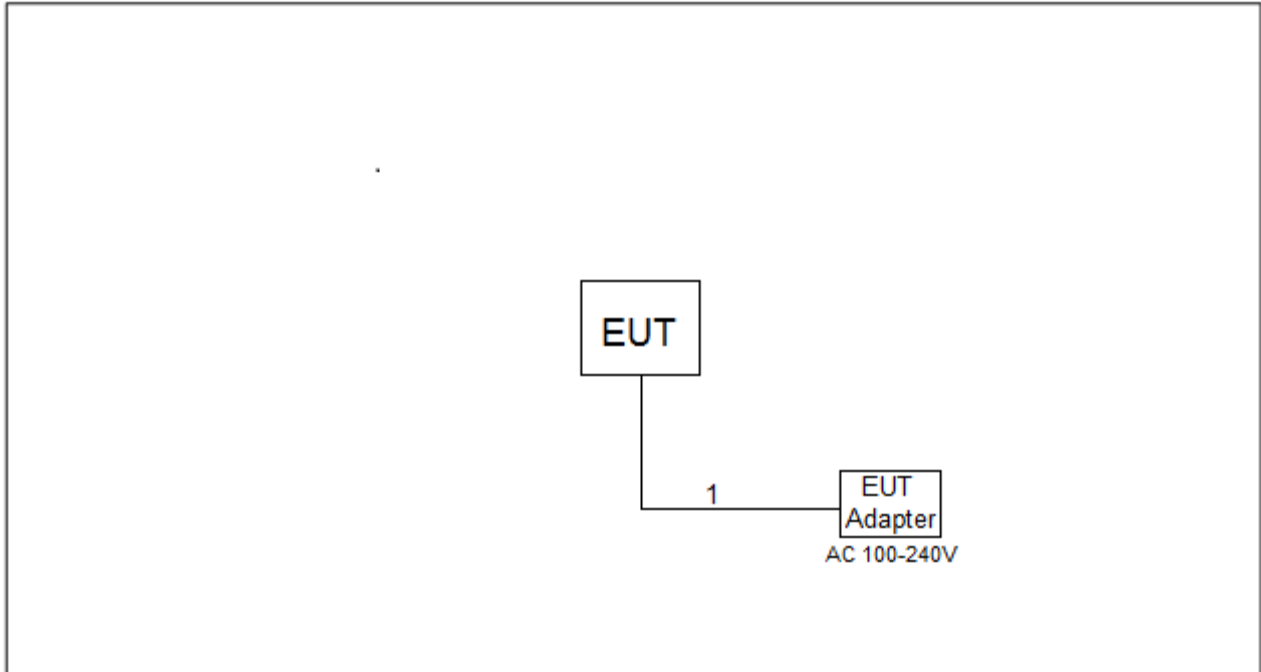
Following mode(s) is (were) found to be the worst case(s) and selected for the final test.

GSM MODE			
Test Item	Available Channel	Tested Channel	Mode
Radiated Spurious Emissions	128 to 251	190	GPRS

LTE BAND 5 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Radiated Spurious Emissions	20407 to 20643	20525	1.4MHz	QPSK	1RB
	20425 to 20625	20525	5MHz	QPSK	1RB
	20450 to 20600	20525	10MHz	QPSK	1RB
Test Item	Available Channel	Tested Channel	Sub-carrier Spacing(kHz)	Modulation	Mode
Radiated Spurious Emissions	20401 to 20649	20525	3.75	QPSK	1RB
	20401 to 20649	20525	15	QPSK	1RB

LTE BAND 26 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Radiated Spurious Emissions	26797 to 27033	26915	1.4MHz	QPSK	1RB
	26815 to 27015	26915	5MHz	QPSK	1RB
	26865 to 26965	26915	15MHz	QPSK	1RB
Test Item	Available Channel	Tested Channel	Sub-carrier Spacing(kHz)	Modulation	Mode
Radiated Spurious Emissions	26791 to 27039	26915	3.75	QPSK	1RB
	26791 to 27039	26915	15	QPSK	1RB

3.3 BLOCK DIGRAM SHOWING THE CONFIGURATIONOFSYSTEMTESTED



3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.
-	-	-	-	-

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	USB Cable	YES	NO	1m

4. TEST RESULT

4.1 RADIATED SPURIOUS EMISSIONS MEASUREMENT

4.1.1 LIMIT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm.

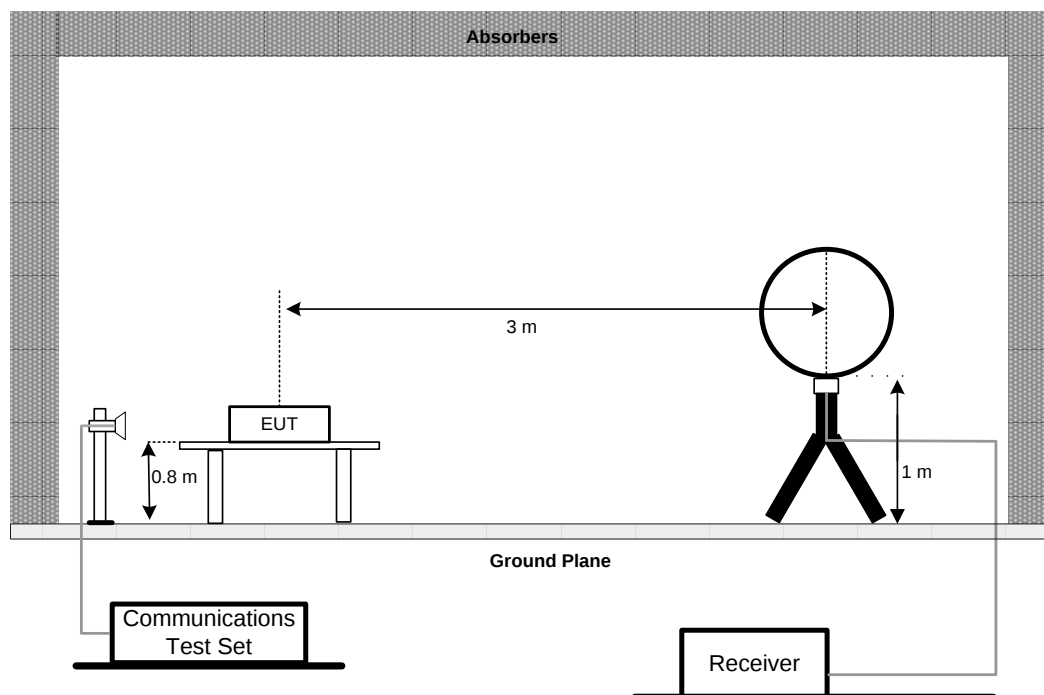
4.1.2 TEST PROCEDURES

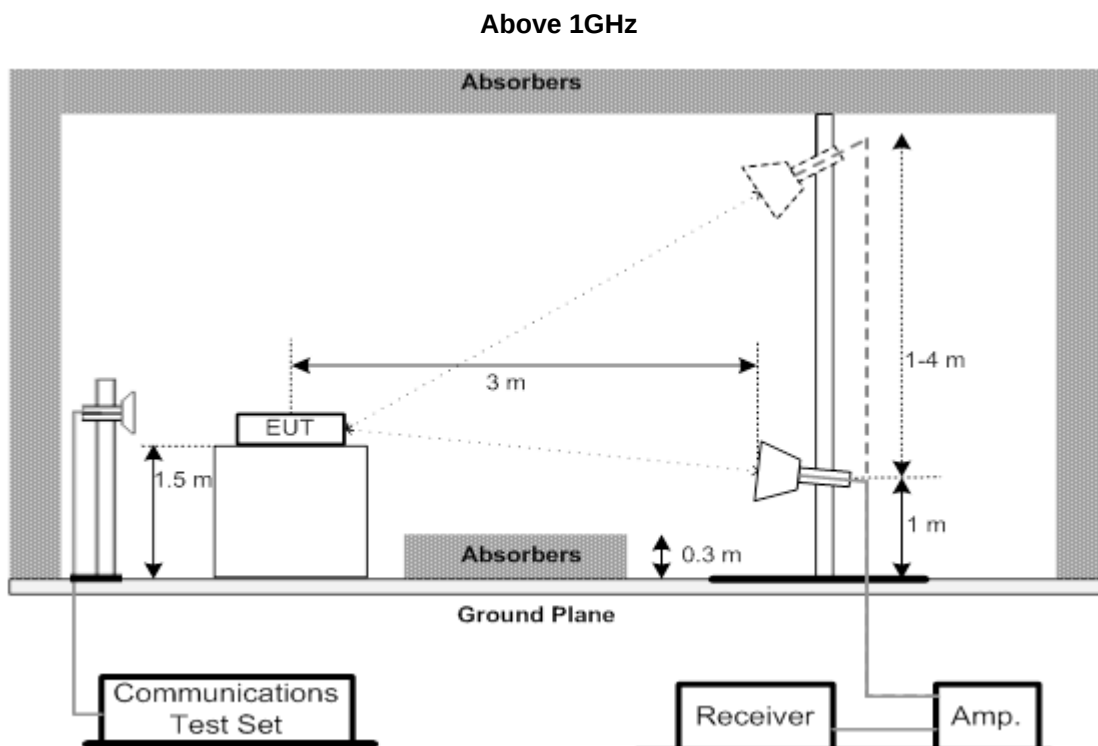
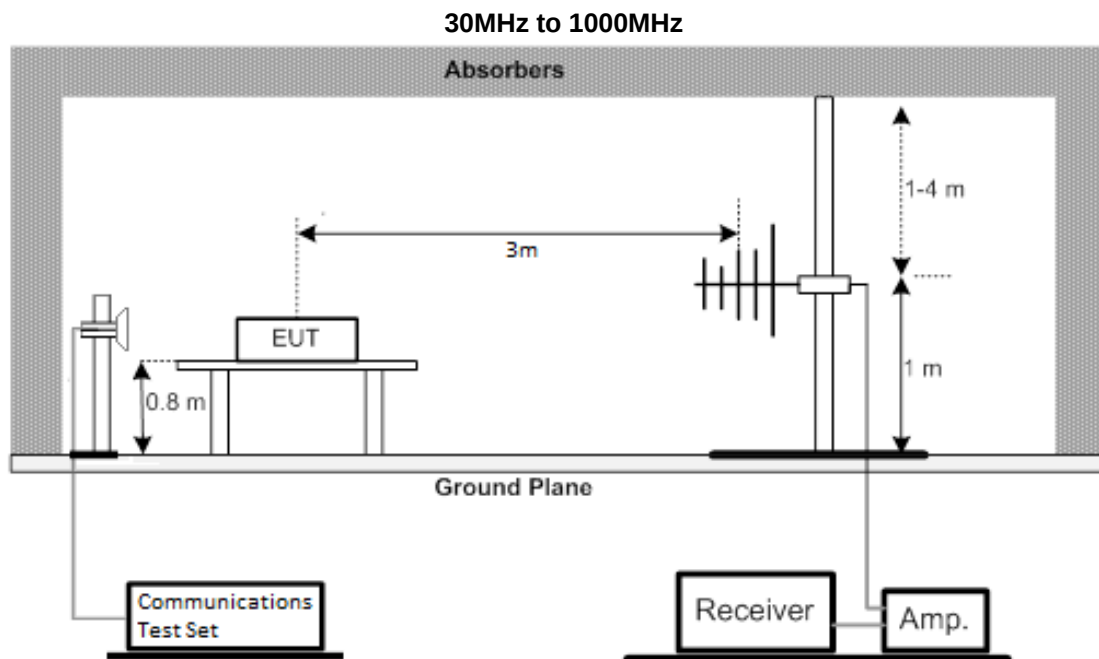
The testing follows FCC KDB 971168 v03r01 Section 6.2 or ANSI C63.26-2015 Section 5.5.

1. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
3. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
4. Start the test, rotate the table 360° to find the worst Angle, maintain the worst Angle, raise the antenna to 1-4m to find the worst height, maintain the worst height, then rotate the table to determine the final worst Angle, grab the spectrum diagram.
5. EUT shall be placed in accordance with X,Y,Z as required by Figure 5 in ANSI C63.26.
Repeat Step 5 above to find the worst placement. Test all bands according to the worst placement.
6. Then EIRP is then converted to field strength as follows in Equation
7. $E \text{ (dBuV/m)} = \text{EIRP (dBm)} - 20\log(D) + 104.8$; where D is the measurement distance (in the far field region) in m. The emission limit equal to 82.26dBuV/m.

4.1.3 TEST SETUP LAYOUT

Below 30MHz





4.1.4 TEST DEVIATION

No deviation

4.1.5 TEST RESULTS (9KHZ TO 30MHZ)

Please refer to the APPENDIX A.

4.1.6 TEST RESULTS (30MHZ TO 1000MHZ)

Please refer to the APPENDIX B.

4.1.7 TEST RESULTS (ABOVE 1000MHZ)

Please refer to the APPENDIX C.

5. LIST OF MEASUREMENT EQUIPMENTS

Radiated Emissions - 9 kHz to 30 MHz					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Active Loop Antenna	Schwarzbeck	FMZB 1513-60B	1513-60 B-034	Mar. 30, 2025
2	MXE EMI Receiver	Keysight	N9038A	MY56400091	Dec. 22, 2024 Dec. 06, 2025
3	Cable	N/A	RW4950-3.8A-N MSM-1.5	N/A	Nov. 12, 2025
4	Cable	N/A	LMR400-NMNM -8M	N/A	Nov. 12, 2025
5	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
6	966 Chamber room	ETS	9*6*6	N/A	May 16, 2025
7	wideband radio communication tester	R&S	CMW500	152372	Dec. 06, 2025

Radiated Emissions - 30 MHz to 1 GHz_CB03					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Trilog-Broadband Antenna	Schwarzbeck	VULB9168	587	May 12, 2025
2	Attenuator	SHX	TS2-6-6-A	240124196	May 12, 2025
3	Preamplifier	EMC INSTRUMENT	EMC001330	980998	May 31, 2025
4	Cable	RegalWay	LMR400-NMNM -12.5m	N/A	Jun. 06, 2025
5	Cable	RegalWay	LMR400-NMNM -3m	N/A	Jun. 06, 2025
6	Cable	RegalWay	LMR400-NMNM -0.5m	N/A	Jun. 06, 2025
7	MXE EMI Receiver	KEYSIGHT	N9038B	MY62210123	Oct. 29, 2025
8	Attenuator	Talent Microwave	TA10A2-S-18	N/A	N/A
9	Positioning Controller	MF	MF-7802	N/A	N/A
10	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
11	966 Chamber room	CM	9*6*6	N/A	May 16, 2025
12	Broadband double ridged horn antenna	Regalway	RW10180-N	1911004	N/A
13	wideband radio communication tester	R&S	CMW500	152372	Dec. 06, 2025

Radiated Emissions - 30 MHz to 1 GHz_SSL-CB01					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Trilog-Broadband Antenna	Schwarzbeck	VULB9168	01269	May 18, 2025
2	Attenuator	EMCI	EMCI-N-6-06	AN-N0697	May 18, 2025
3	MXE EMI Receiver	Keysight	N9038A	MY59050118	Jun. 28, 2025
4	Preamplifier	EMC INSTRUMENT	EMC001330	980825	Jan. 10, 2026
5	Cable	EMC INSTRUMENT	EMCCFD400-N M-NM-2500	N/A	Jun. 06, 2025
6	Cable	EMC INSTRUMENT	EMCCFD400-N M-NM-7000	N/A	Jun. 06, 2025
7	Cable	EMC INSTRUMENT	EMCCFD400-N M-NM-3000	N/A	Jun. 06, 2025
8	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
9	Attenuator	Talent Microwave	ATT-18G2W-10	N/A	N/A
10	966 Chamber room	Tai He	9*6*6 (NSA&VSWR)	N/A	Jun. 06, 2025
11	Wideband Radio Communication Tester	R&S	CWM 500	165578	Jan. 19, 2025 Jan. 10, 2026

Radiated Emissions - Above 1 GHz_CB03					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Receiver	Agilent	N9038A	MY52130039	Jan. 10, 2026
2	Preamplifier	EMC INSTRUMENT	EMC118A45SE	980878	Nov. 25, 2025
3	Double Ridged Guide Antenna	ETS	3115	75789	Jun. 15, 2025
4	Cable	RegalWay	RWLP50-4.0A-SMS M-12.5M	N/A	Jul. 03, 2025
5	Cable	RegalWay	RWLP50-4.0A-NM RASM-2.5M	N/A	Jul. 03, 2025
6	Cable	RegalWay	RWLP50-4.0A-NM RASMRA-0.8M	N/A	Jul. 03, 2025
7	966 Chamber room	CM	9*6*6	N/A	Dec. 28, 2025
8	Positioning Controller	MF	MF-7802	N/A	N/A
9	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
10	Filter	STI	STI15-9912	N/A	May 31, 2025
11	Filter	Wairwright Instruments GmbH	WHK 1.5/15G-10ST	N/A	Dec. 06, 2025
12	Broadband double ridged horn antenna	Regalway	RW10180-N	1911004	N/A
13	MXA Signal Analyzer	KEYSIGHT	N9020B	MY63380204	Oct. 29, 2025
14	Preamplifier	EMC INSTRUMENT	EMC184045SE	980905	Oct. 29, 2025
15	Cable	RegalWay	RWLP50-2.6A-2.92 M2.92M-1.1M	N/A	Jul. 25, 2025
16	Cable	Tonscend	HF160-KMKM-3M	N/A	Jul. 25, 2025
17	Broad-Band Horn Antenna	Schwarzbeck	BBHA9170(3m)	9170-319	Jun.16, 2025
18	wideband radio communication tester	R&S	CMW500	152372	Dec. 06, 2025

Radiated Emissions - Above 1 GHz_SSL-CB01					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	MXE EMI Receiver	Keysight	N9038A	MY59050118	Jun. 28, 2025
2	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
3	Preamplifier	EMC INSTRUMENT	EMC118A45SE	980739	Jan. 11, 2026
4	Cable	EMC INSTRUMENT	EMC104-SM-SM-1 0000	N/A	Dec. 09, 2025
5	Cable	EMC INSTRUMENT	EMC104-SM-SM-3 000	N/A	Dec. 09, 2025
6	Cable	EMC INSTRUMENT	EMC104-SM-SM-1 000	N/A	Dec. 09, 2025
7	Double Ridged Broadband Horn Antenna	RF SPIN	DRH18-E	210106A18E	Jul. 17, 2025
8	Preamplifier	EMC INSTRUMENT	EMC184045SE	980793	Jan. 10, 2026
9	Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	01046	Jul. 22, 2025
10	Cable	RegalWay	RWLP50-3.6A-2.92 M2.92M-6M	20241119-001	Nov. 26, 2025
11	Cable	RegalWay	RWLP50-3.6A-2.92 M2.92M-0.8M	20241119-001	Nov. 26, 2025
12	Band Reject Filter	COM-MW	ZHPF6-C3000-180 00-174	7213126	Jun. 28, 2025
13	Band Reject Filter	COM-MW	ZHPF6-M1000-150 00-533	7213127	Jun. 28, 2025
14	966 Chamber room	Tai He	9*6*6 (NSA&VSWR)	N/A	Jun. 06, 2025
15	Wideband Radio Communication Tester	R&S	CWM 500	165578	Jan. 19, 2025 Jan. 10, 2026

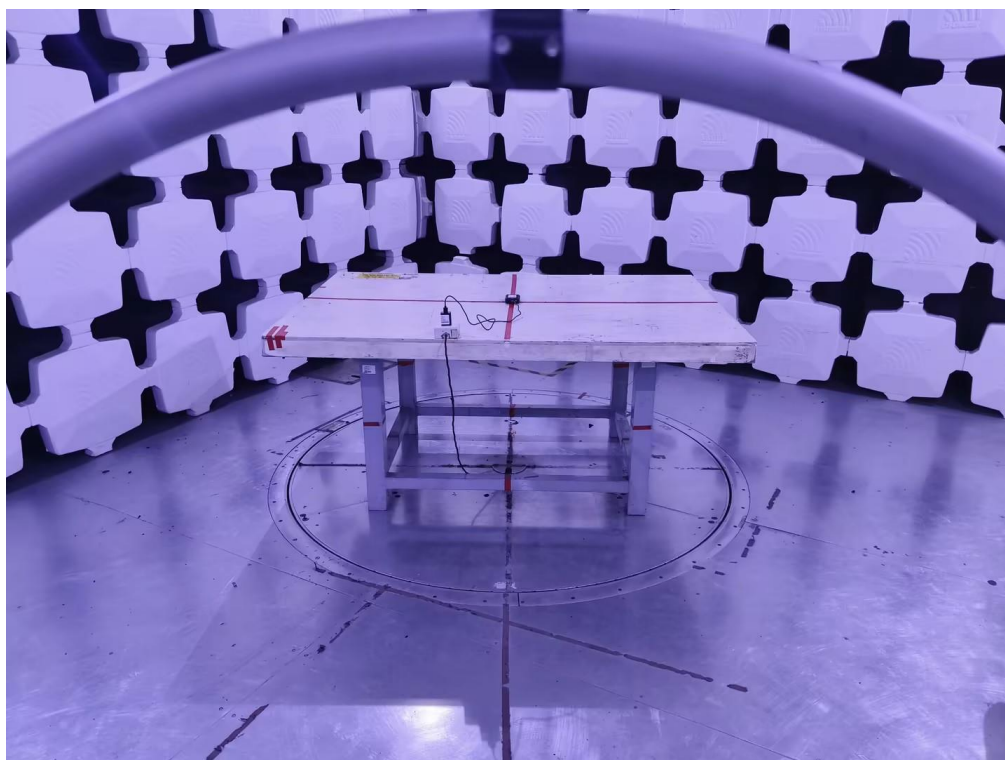
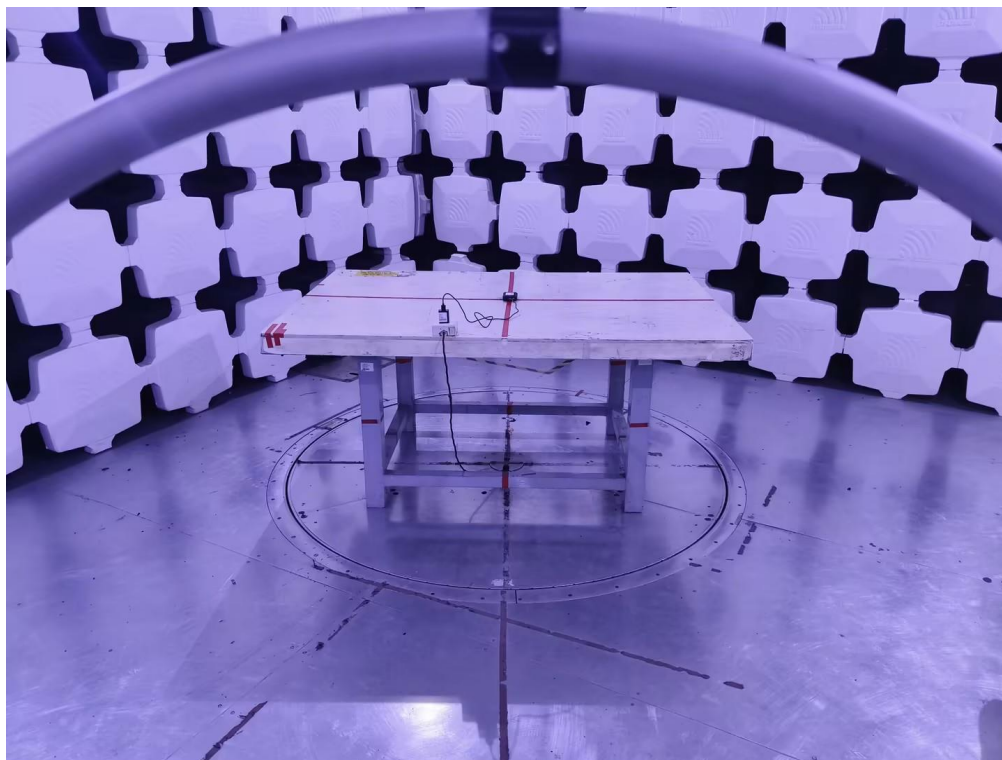
Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of equipment list is one year.

6. EUT TEST PHOTO

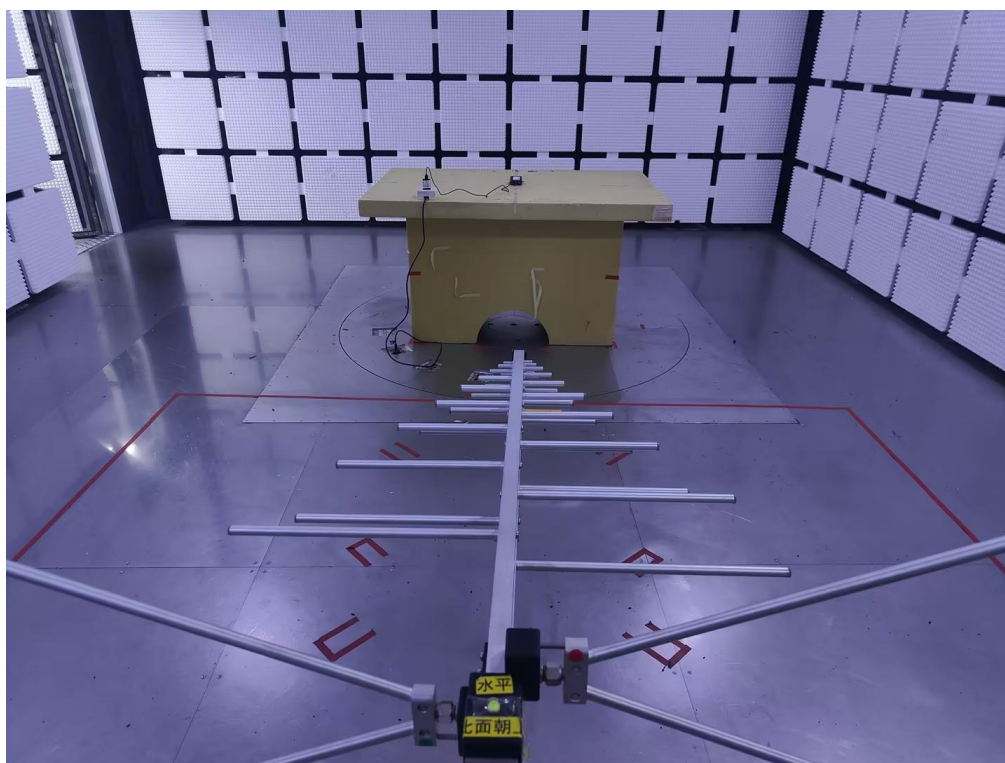
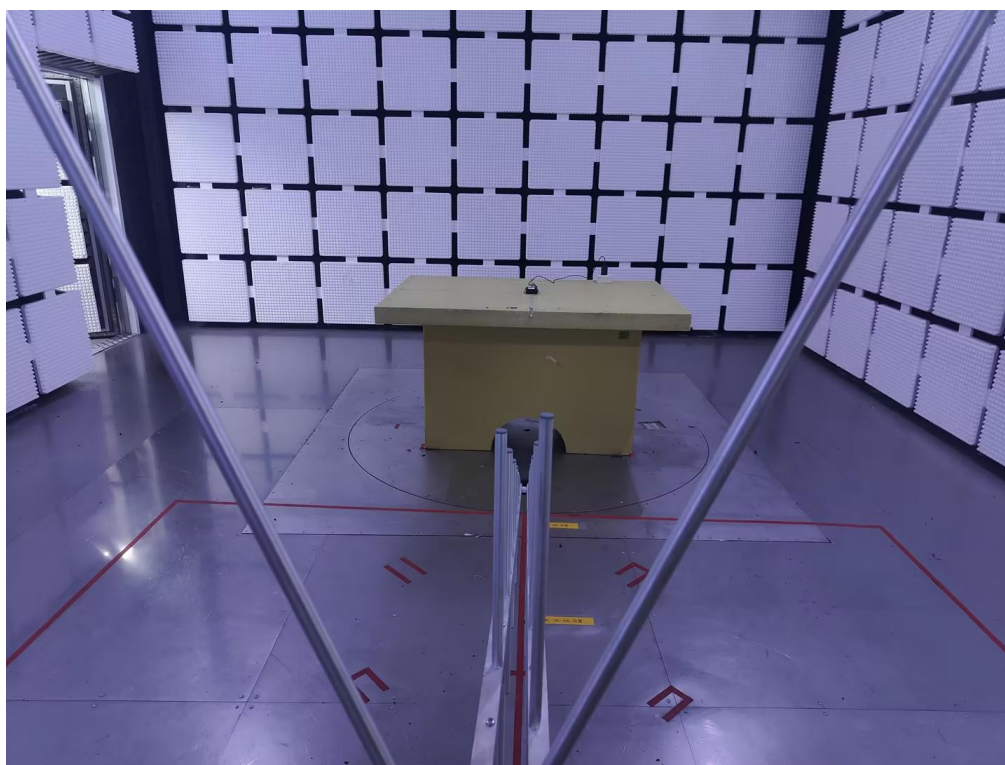
Radiated Emissions Test Photos

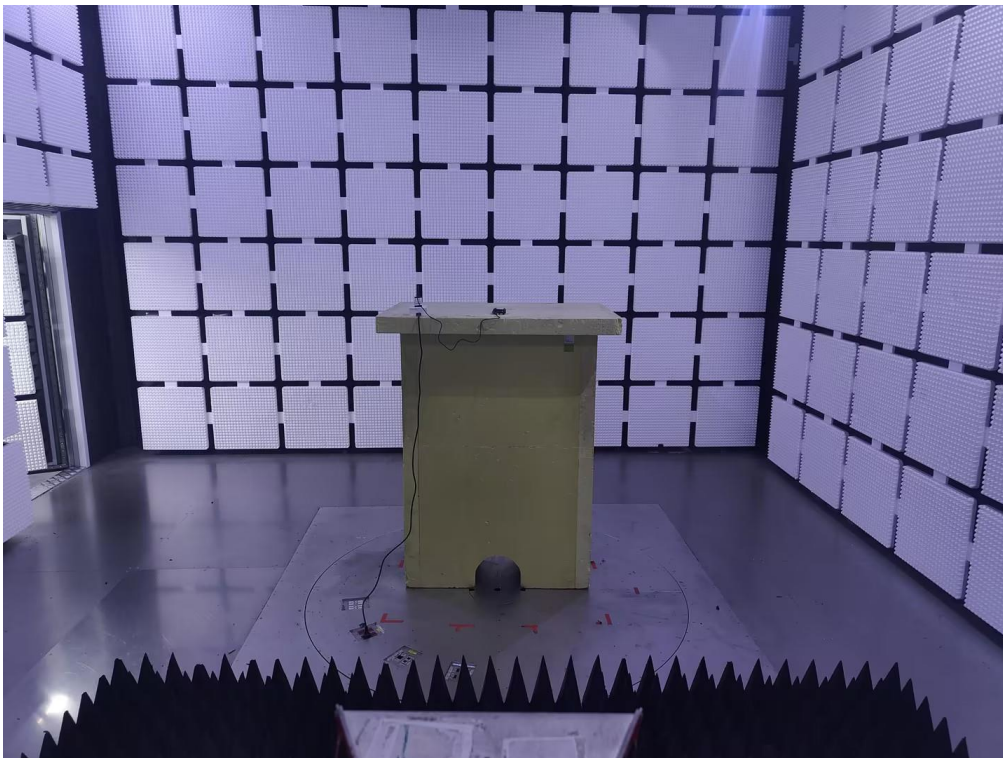
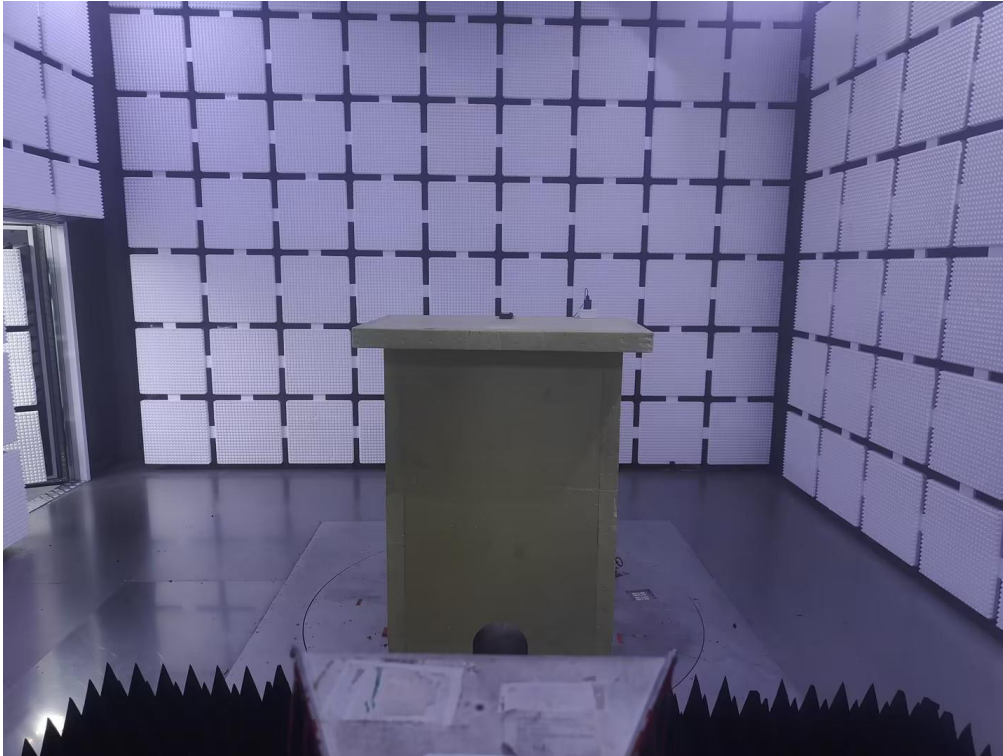
9 kHz to 30 MHz

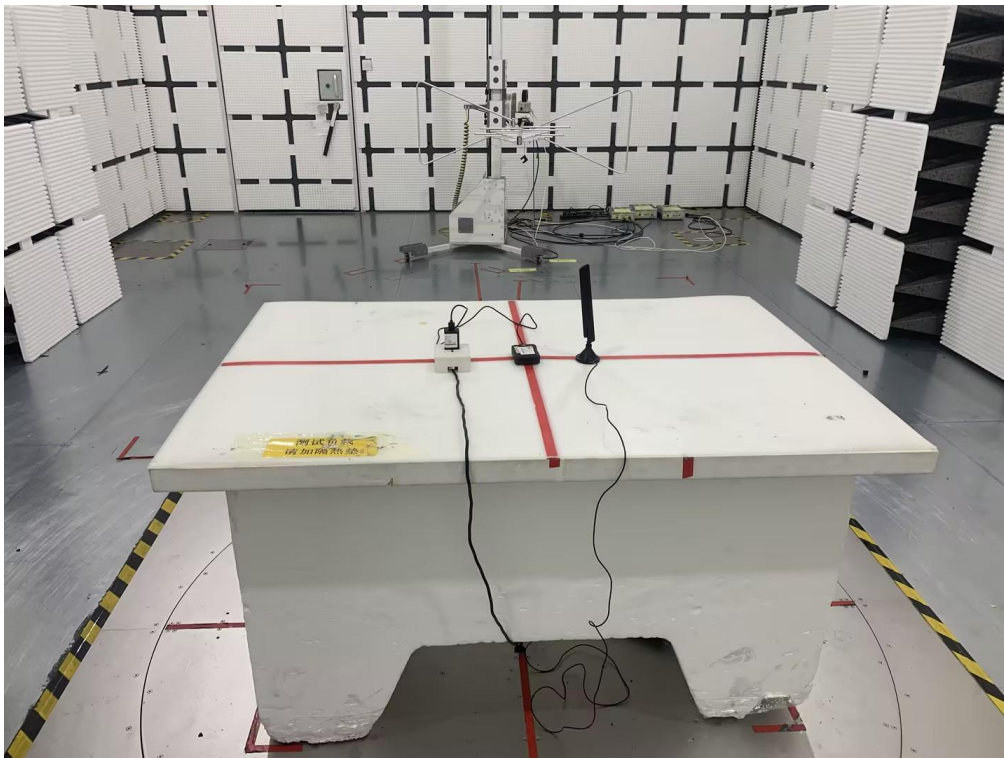
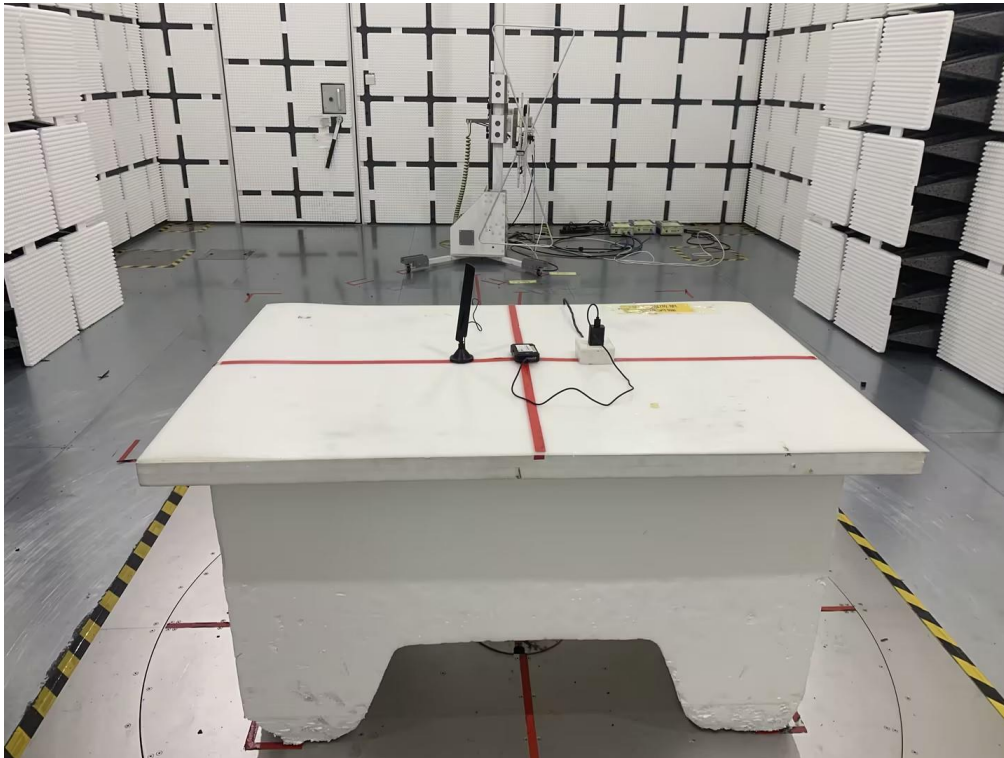


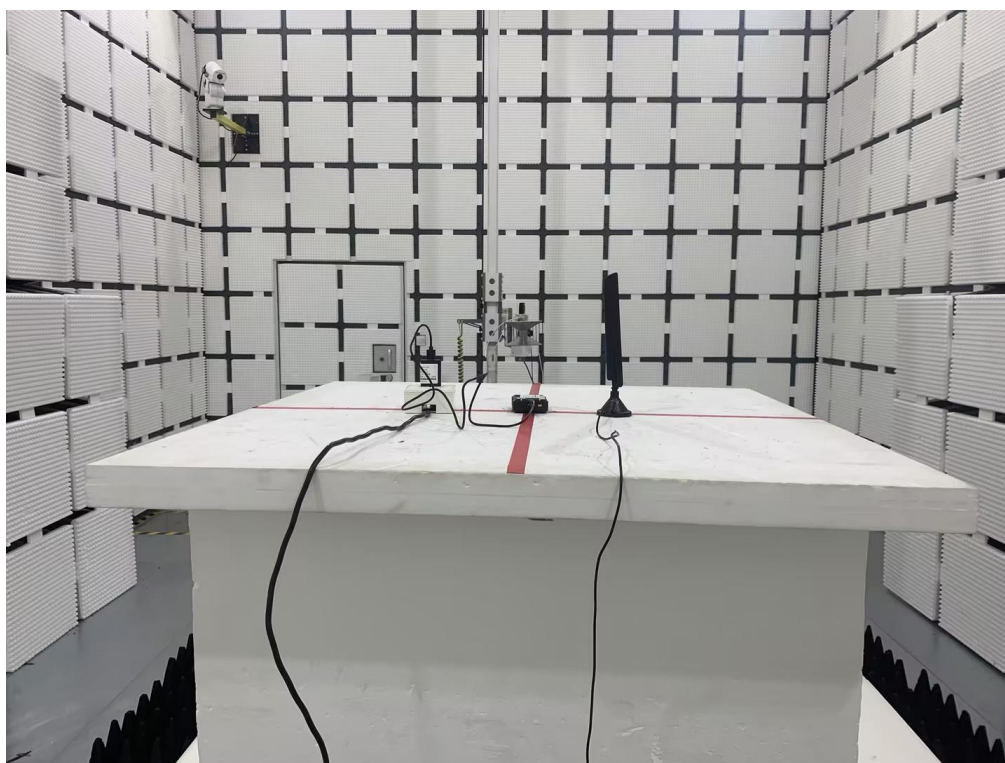
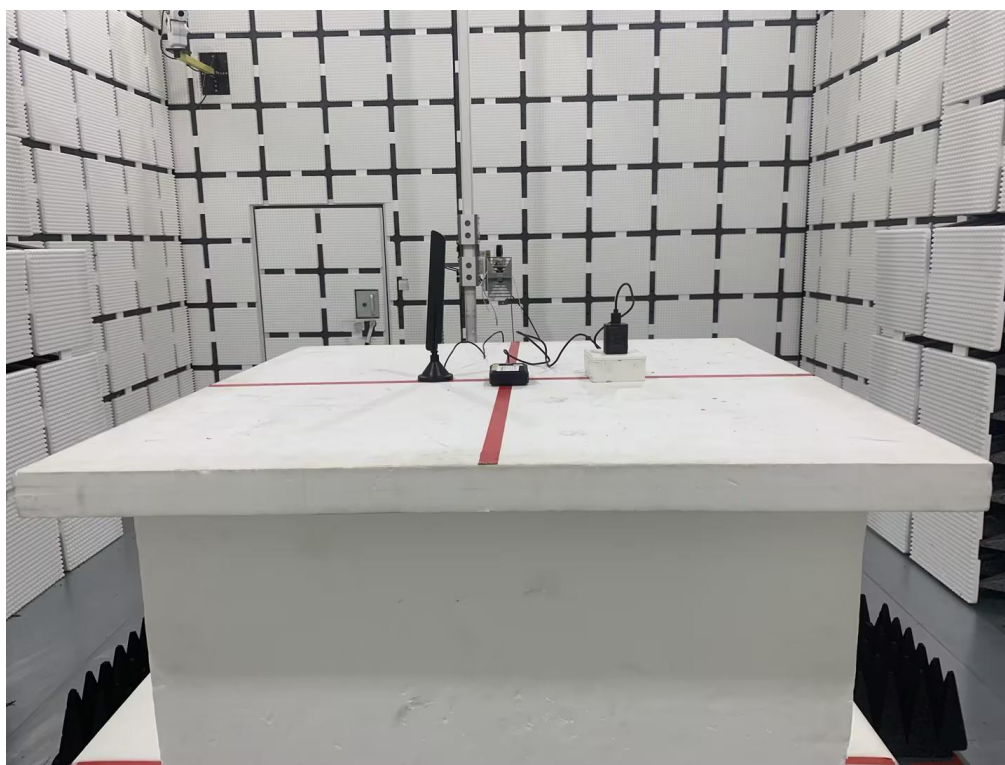
Radiated Emissions Test Photos

30 MHz to 1 GHz-CB03



Radiated Emissions Test Photos**1 GHz – 18 GHz-CB03**

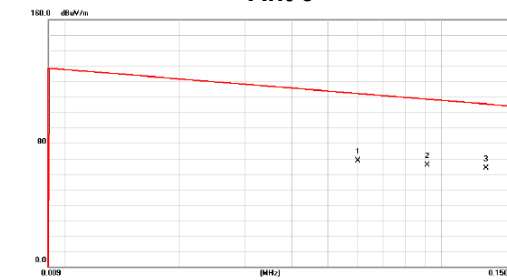
Radiated Emissions Test Photos**30 MHz to 1 GHz-SSL CB01**

Radiated Emissions Test Photos**1 GHz – 18 GHz-SSL CB01**

APPENDIX A - RADIATED SPURIOUS EMISSIONS (9KHZ TO 30MHZ)

Test Mode : TX Mode

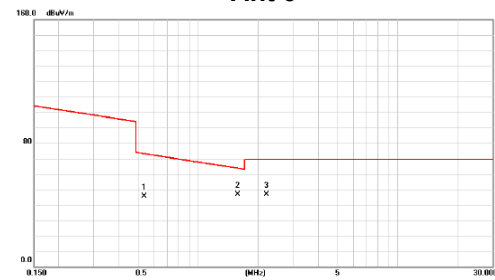
Ant 0°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
1		0.060	47.21	21.27	68.48	112.04	-43.56	AVG	
2		0.092	44.32	21.34	65.66	108.37	-42.71	QP	
3	*	0.131	42.56	21.29	63.85	105.24	-41.39	AVG	

Test Mode : TX Mode

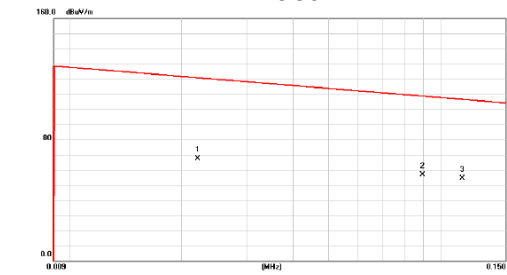
Ant 0°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
1		0.538	24.38	21.07	45.45	72.99	-27.54	QP	
2	*	1.583	25.65	21.15	46.80	63.62	-16.82	QP	
3		2.210	25.47	21.11	46.58	69.54	-22.96	QP	

Test Mode : TX Mode

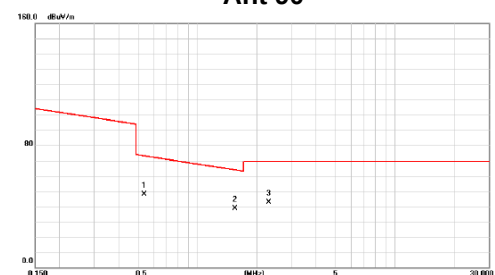
Ant 90°



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
1		0.022	46.59	20.90	67.49	120.72	-53.23	AVG	
2	*	0.090	35.45	21.34	56.79	108.56	-51.77	AVG	
3		0.115	32.74	21.32	54.06	106.39	-52.33	AVG	

Test Mode : TX Mode

Ant 90°



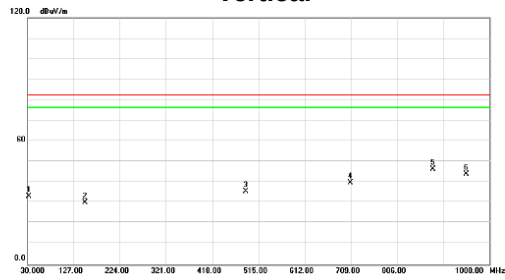
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	Detector	Comment
1	*	0.538	26.84	21.07	47.91	72.99	-25.08	QP	
2		1.553	17.47	21.15	38.62	63.78	-25.16	QP	
3		2.299	21.66	21.11	42.77	69.54	-26.77	QP	

APPENDIX B - RADIATED SPURIOUS EMISSIONS (30MHZ TO 1000MHZ)

Test Mode : GPRS850_TX CH190_GSM

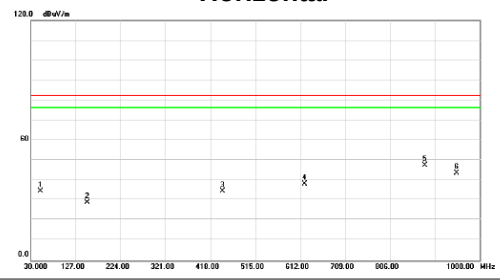
Test Mode : GPRS850_TX CH190_GSM

Vertical



No. Mk.	Freq. MHz	Reading Level dBμV	Correct Factor dB	Measurement dBμV/m	Limit dBμV/m	Margin dB	Detector	Comment
1	33.395	36.19	-3.02	33.17	82.30	-49.13	peak	
2	150.280	31.39	-1.28	30.11	82.30	-52.19	peak	
3	488.325	31.37	4.24	35.61	82.30	-46.69	peak	
4	708.515	30.86	8.63	39.69	82.30	-42.61	peak	
5 *	881.660	35.21	11.02	46.23	82.30	-36.07	peak	
6	951.985	31.73	12.18	43.91	82.30	-38.39	peak	

Horizontal



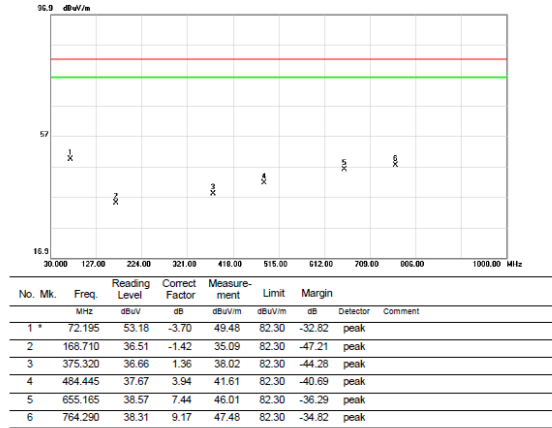
No. Mk.	Freq. MHz	Reading Level dBμV	Correct Factor dB	Measurement dBμV/m	Limit dBμV/m	Margin dB	Detector	Comment
1	51.340	36.25	-1.58	34.67	82.30	-47.63	peak	
2	151.735	30.23	-1.26	28.97	82.30	-53.33	peak	
3	444.190	31.24	3.37	34.61	82.30	-47.69	peak	
4	621.215	30.85	7.46	38.31	82.30	-43.99	peak	
5 *	881.660	36.55	11.02	47.57	82.30	-34.73	peak	
6	950.530	31.52	12.17	43.69	82.30	-38.61	peak	

For eMTC:

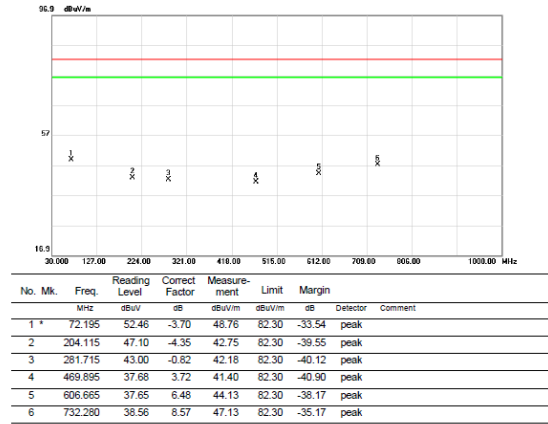
Test Mode : LTE Band 5_TX CH20525_1.4MHz

Test Mode : LTE Band 5_TX CH20525_1.4MHz

Vertical



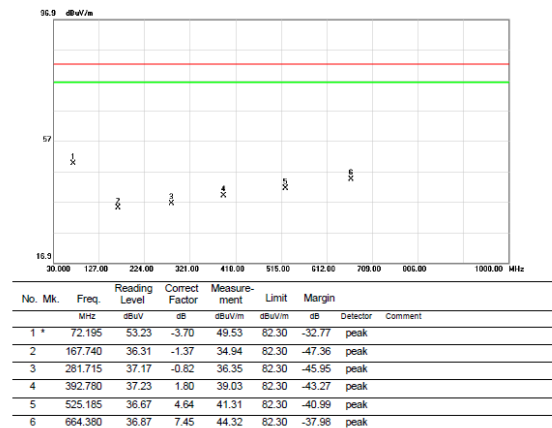
Horizontal



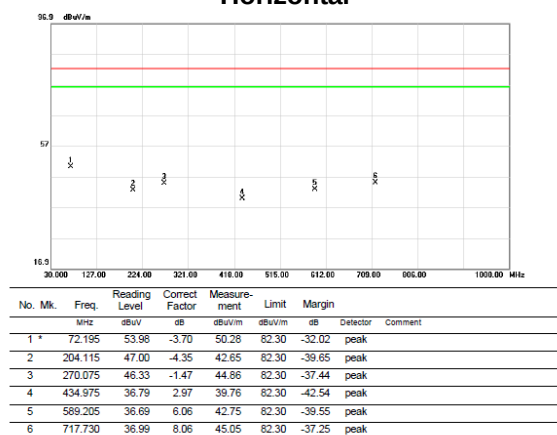
Test Mode : LTE Band 5_TX CH20525_5MHz

Test Mode : LTE Band 5_TX CH20525_5MHz

Vertical

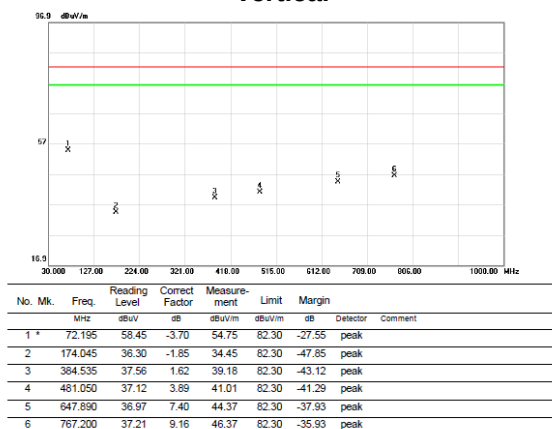


Horizontal



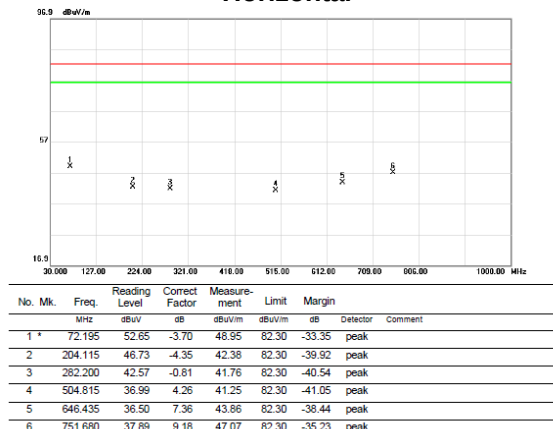
Test Mode : LTE Band 5_TX CH20525_10MHz

Vertical



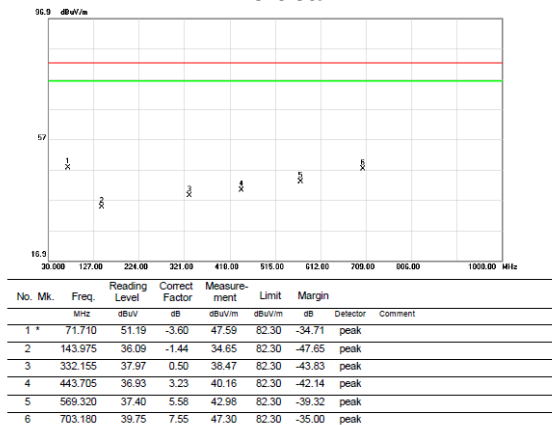
Test Mode : LTE Band 5_TX CH20525_10MHz

Horizontal



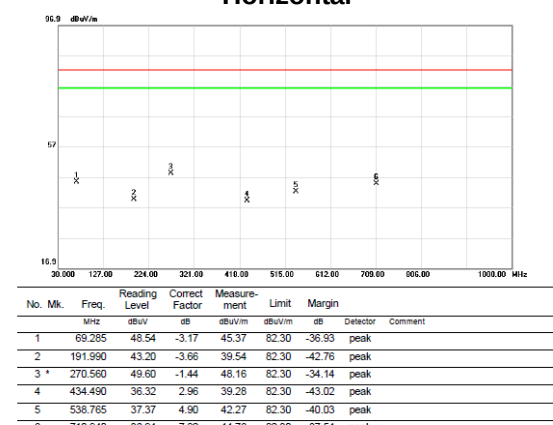
Test Mode : LTE Band 26_TX CH26915_1.4MHz

Vertical



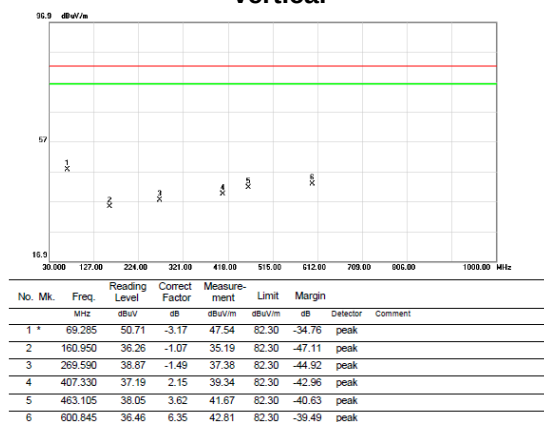
Test Mode : LTE Band 26_TX CH26915_1.4MHz

Horizontal



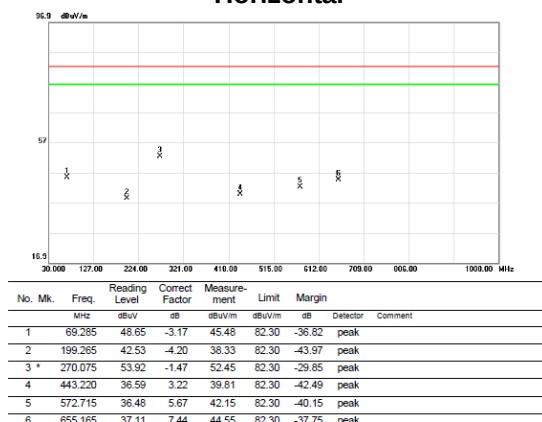
Test Mode : LTE Band 26_TX CH26915_5MHz

Vertical



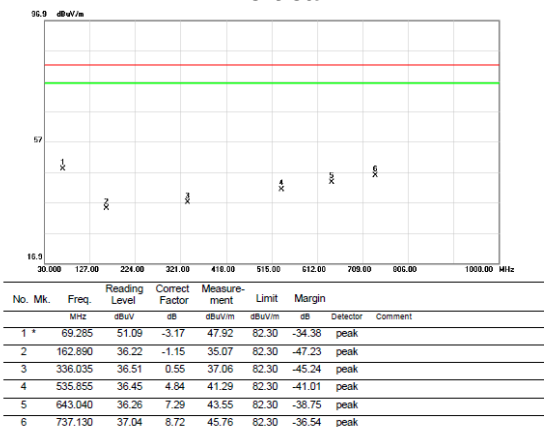
Test Mode : LTE Band 26_TX CH26915_5MHz

Horizontal



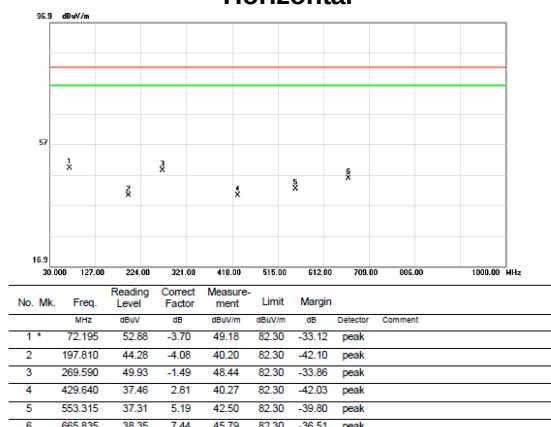
Test Mode : LTE Band 26_TX CH26915_15MHz

Vertical



Test Mode : LTE Band 26_TX CH26915_15MHz

Horizontal



For NB-IoT:

Test Mode : LTE Band 5_TX CH20525_ 3.75kHz

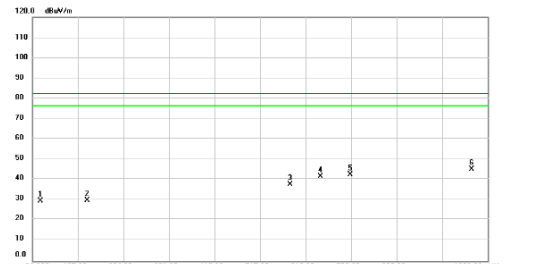
Vertical



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	56.6750	33.43	-1.83	31.60	82.30	-50.70	peak	
2	157.5550	31.47	-1.21	30.26	82.30	-52.04	peak	
3	433.5200	31.61	3.03	34.64	82.30	-47.66	peak	
4	643.5250	31.52	7.86	39.38	82.30	-42.92	peak	
5	732.2800	30.74	9.36	40.12	82.30	-42.16	peak	
6 *	960.6000	30.93	12.25	43.18	82.30	-39.12	peak	

Test Mode : LTE Band 5_TX CH20525_ 3.75kHz

Horizontal



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	47.9450	31.22	-1.59	29.63	82.30	-52.67	peak	
2	147.3700	31.46	-1.47	29.99	82.30	-52.31	peak	
3	579.5050	31.13	6.43	37.56	82.30	-44.74	peak	
4	643.5250	33.60	7.86	41.46	82.30	-40.84	peak	
5	707.5450	33.50	8.81	42.31	82.30	-39.99	peak	
6 *	965.0800	33.06	12.21	45.27	82.30	-37.03	peak	

Test Mode : LTE Band 5_TX CH20525_ 15kHz

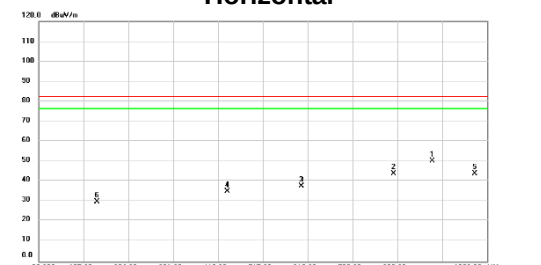
Vertical



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	56.1900	35.11	-1.79	33.32	82.30	-48.98	peak	
2	168.2250	31.45	-1.49	29.96	82.30	-52.34	peak	
3	683.7800	31.06	8.42	39.48	82.30	-42.82	peak	
4 *	881.6600	39.79	11.02	50.81	82.30	-31.49	peak	
5	959.7450	31.34	12.19	43.53	82.30	-38.77	peak	
6	995.1500	32.04	12.28	44.32	82.30	-37.98	peak	

Test Mode : LTE Band 5_TX CH20525_ 15kHz

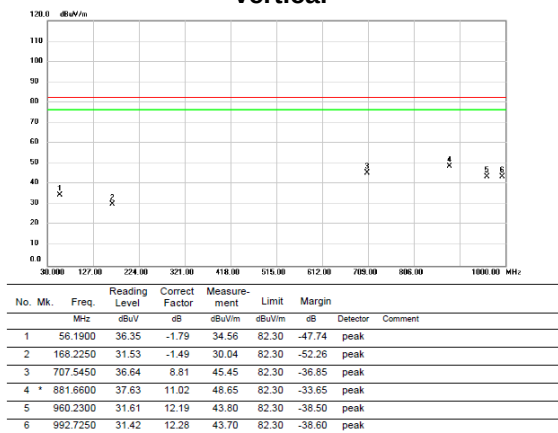
Horizontal



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1 *	881.6600	39.33	11.02	50.35	82.30	-31.95	peak	
2	797.7550	33.38	10.49	43.87	82.30	-38.43	peak	
3	596.4200	30.69	7.02	37.71	82.30	-44.59	peak	
4	437.4000	31.75	3.15	34.90	82.30	-47.40	peak	
5	973.8100	31.66	12.22	43.88	82.30	-38.42	peak	
6	155.6150	31.02	-1.23	29.79	82.30	-52.51	peak	

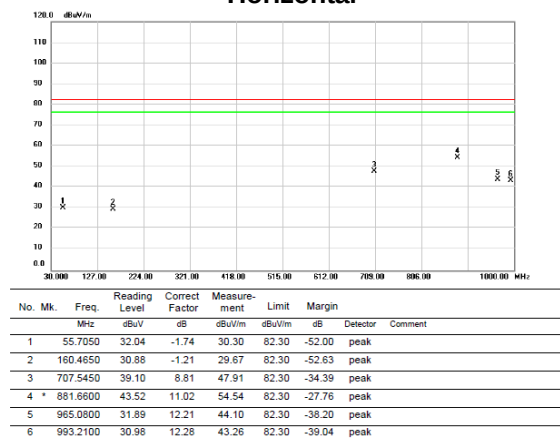
Test Mode : LTE Band 26_TX CH26915_ 3.75kHz

Vertical



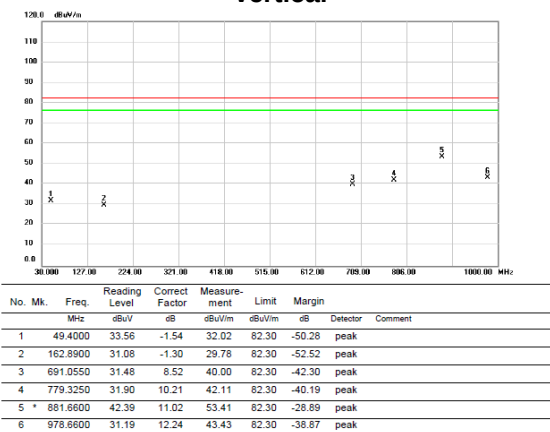
Test Mode : LTE Band 26_TX CH26915_ 3.75kHz

Horizontal



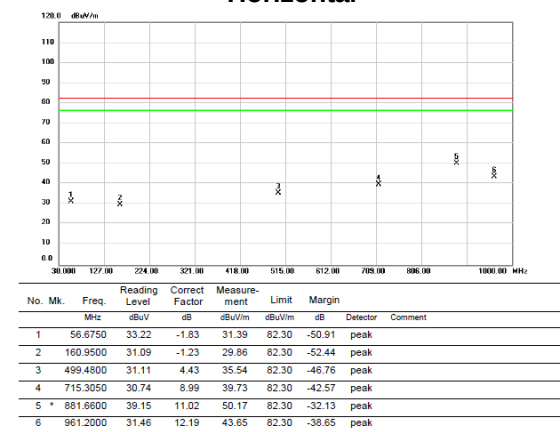
Test Mode : LTE Band 26_TX CH26915_ 15kHz

Vertical



Test Mode : LTE Band 26_TX CH26915_ 15kHz

Horizontal

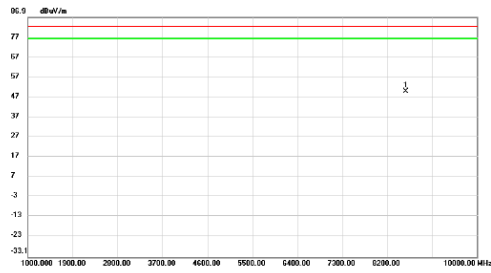


APPENDIX C - RADIATED SPURIOUS EMISSIONS (ABOVE 1000MHZ)

Test Mode : GPRS850_TX CH190_GSM

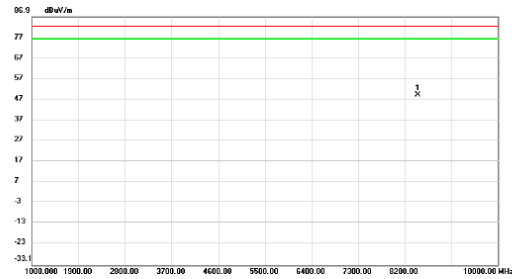
Test Mode : GPRS850_TX CH190_GSM

Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	
		MHz	dBm		dBm/m	dBm/m	dB	Detector Comment
1	*	8578.000	37.36	12.37	49.73	82.30	-32.57	peak

Horizontal



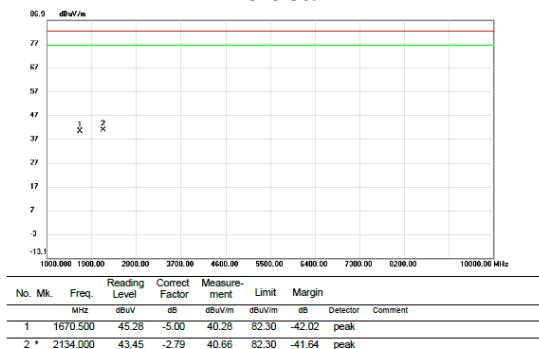
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin	
		MHz	dBm		dBm/m	dBm/m	dB	Detector Comment
1	*	8456.500	36.92	12.40	49.32	82.30	-32.98	peak

For eMTC:

Test Mode : LTE Band 5_TX CH20525_1.4MHz

Test Mode : LTE Band 5_TX CH20525_1.4MHz

Vertical



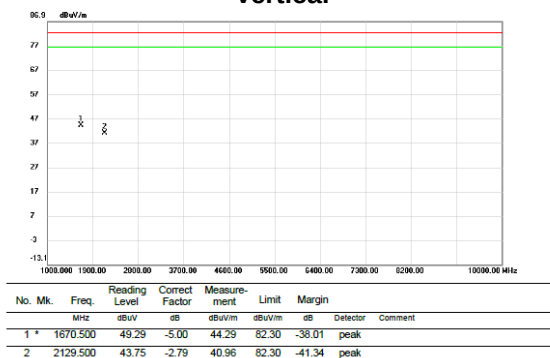
Horizontal



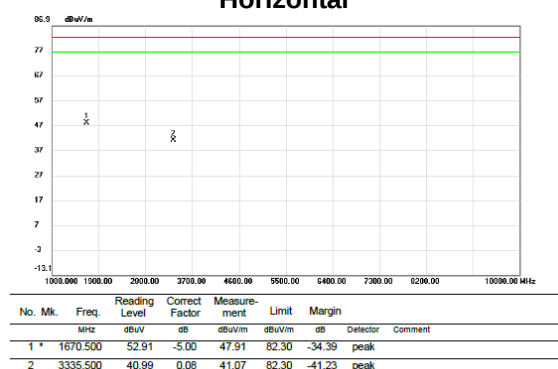
Test Mode : LTE Band 5_TX CH20525_5MHz

Test Mode : LTE Band 5_TX CH20525_5MHz

Vertical

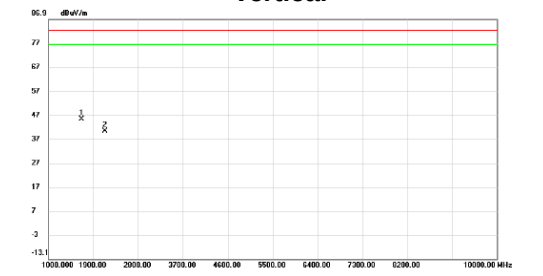


Horizontal



Test Mode : LTE Band 5_TX CH20525_10MHz

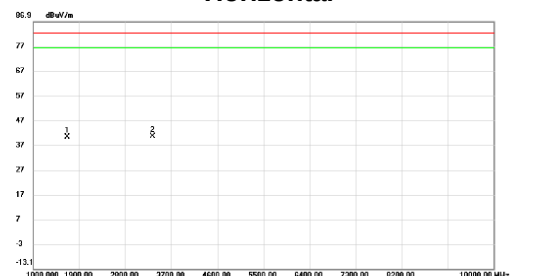
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBμV	dB	dBμV/m	dBμV/m	dB	Detector	Comment
1	*	1666.000	50.43	-5.03	45.40	82.30	-36.90	peak	
2		2129.500	43.13	-2.79	40.34	82.30	-41.96	peak	

Test Mode : LTE Band 5_TX CH20525_10MHz

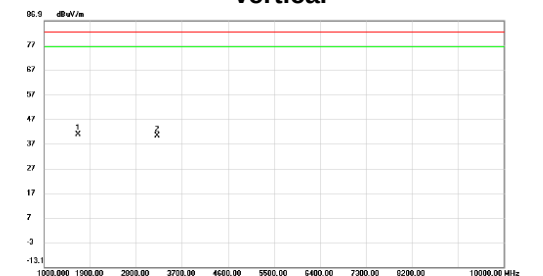
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBμV	dB	dBμV/m	dBμV/m	dB	Detector	Comment
1		1666.000	45.37	-5.03	40.34	82.30	-41.96	peak	
2	*	3331.000	40.56	0.06	40.62	82.30	-41.68	peak	

Test Mode : LTE Band 26_TX CH26915_1.4MHz

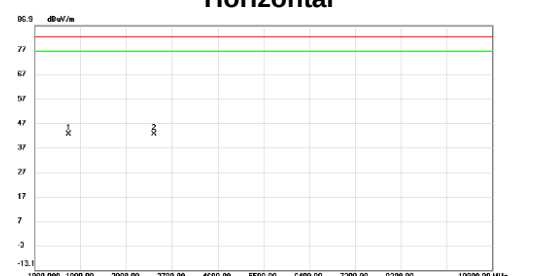
Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBμV	dB	dBμV/m	dBμV/m	dB	Detector	Comment
1	*	1670.500	45.71	-5.00	40.71	82.30	-41.59	peak	
2		3214.000	40.45	-0.23	40.22	82.30	-42.08	peak	

Test Mode : LTE Band 26_TX CH26915_1.4MHz

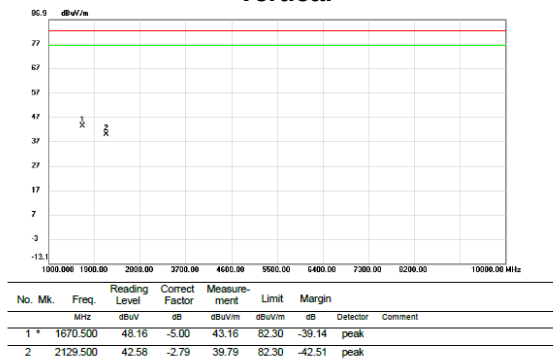
Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Margin		
		MHz	dBμV	dB	dBμV/m	dBμV/m	dB	Detector	Comment
1	*	1670.500	47.61	-5.00	42.61	82.30	-39.69	peak	
2		3344.500	42.49	0.10	42.59	82.30	-39.71	peak	

Test Mode : LTE Band 26_TX CH26915_5MHz

Vertical



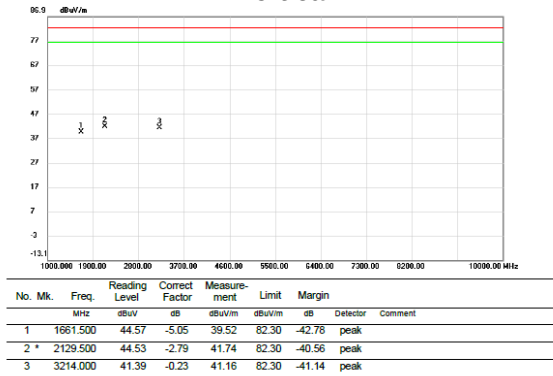
Test Mode : LTE Band 26_TX CH26915_5MHz

Horizontal



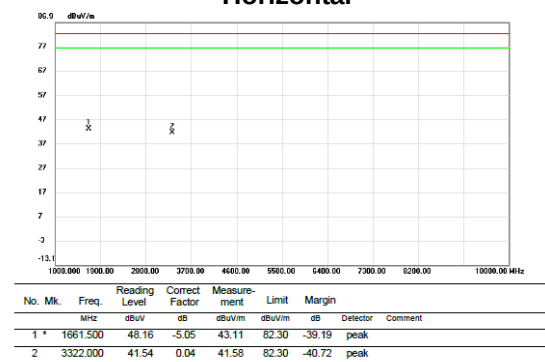
Test Mode : LTE Band 26_TX CH26915_15MHz

Vertical



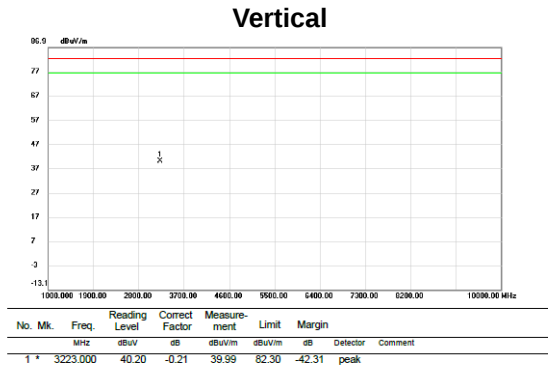
Test Mode : LTE Band 26_TX CH26915_15MHz

Horizontal

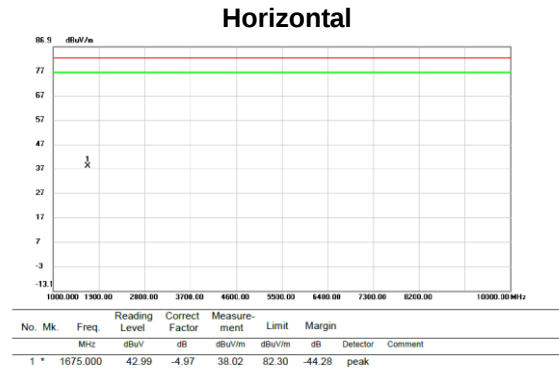


For NB-IoT:

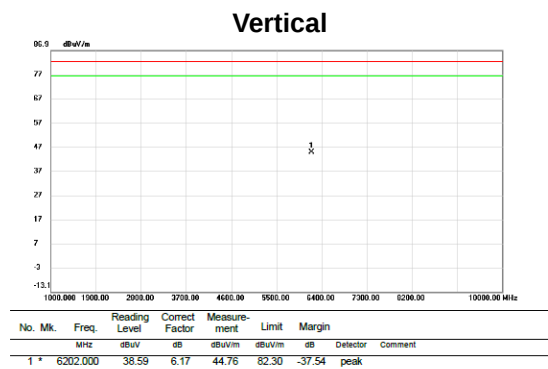
Test Mode : LTE Band 5_TX CH20525_ 3.75kHz



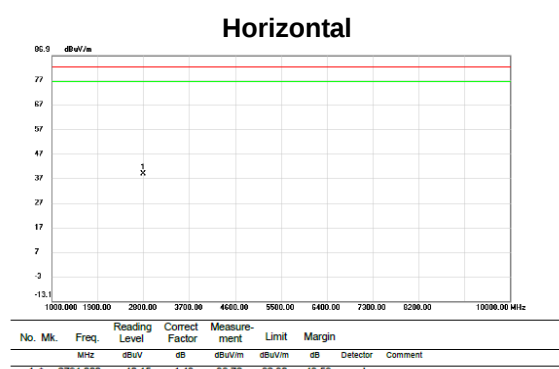
Test Mode : LTE Band 5_TX CH20525_ 3.75kHz



Test Mode : LTE Band 5_TX CH20525_ 15kHz



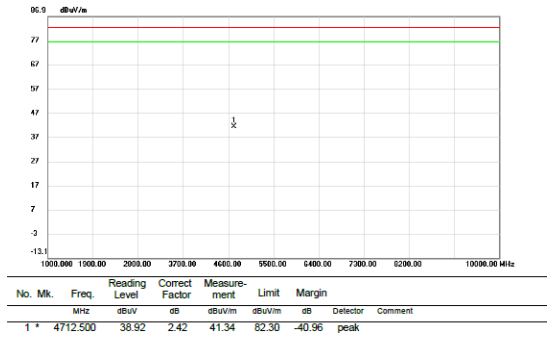
Test Mode : LTE Band 5_TX CH20525_ 15kHz



Test Mode : LTE Band 26_TX CH26915_ 3.75kHz

Test Mode : LTE Band 26_TX CH26915_ 3.75kHz

Vertical



Horizontal



Test Mode : LTE Band 26_TX CH26915_ 15kHz

Test Mode : LTE Band 26_TX CH26915_ 15kHz

Vertical



Horizontal



End of Test Report