



Shenzhen CTL Testing Technology Co., Ltd.
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TEST REPORT

FCC PART 15.236

Report Reference No. : CTL2606052121-WF

Compiled by:
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Ivan Xie



Product Name : Wireless microphone

Model/Type reference : NW-M55

List Model(s) : N/A

Trade Mark : N/A

FCC ID : 2BWIA-NW-M55

Applicant's name : Guangzhou Nanwei Electronics Co.,Ltd

Address of applicant : 15-2 Chaosheng Road, Xinya Street, Huadu District, Guangzhou, Guangdong, China

Test specification :

Standard : **FCC Part 15.236:** Operation of Wireless microphonerophones in the bands 54-72 MHz, 76-88 MHz, 174-216 MHz, 470-608 MHz and 614-698 MHz

TRF Originator : Shenzhen CTL Testing Technology Co., Ltd.

Master TRF : Dated 2011-01

Date of receipt of test item : Jun. 26, 2026

Date of Test Date : Jul. 01, 2026–Jul. 20, 2026

Data of Issue : Jul. 20, 2026

Result : **Pass**

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TEST REPORT

Test Report No. :	CTL2606052121-WF	Jul. 20, 2026
		Date of issue

Equipment under Test : Wireless microphone

Sample No. CTL260605212001, CTL260605212002

Model /Type : NW-M55

Listed Models : N/A

Applicant : **Guangzhou Nanwei Electronics Co.,Ltd**

Address : 15-2 Chaosheng Road, Xinya Street, Huadu District,
Guangzhou, Guangdong, China

Manufacturer : **Guangzhou Nanwei Electronics Co.,Ltd**

Address : 15-2 Chaosheng Road, Xinya Street, Huadu District,
Guangzhou, Guangdong, China

Test result	Pass *
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* In the configuration tested, the EUT complied with the standards specified page 5.

The test results presented in this report relate only to the object tested.

This report shall not be reproduced, except in full, without the written approval of the issuing testing laboratory.

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1. SUMMARY

1.1. TEST STANDARDS

The tests were performed according to following standards:

[FCC Rules Part 15.236](#): Operation of Wireless microphonerophones in the bands 54-72 MHz, 76-88 MHz, 174-216 MHz, 470-608 MHz and 614-698 MHz

[ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024](#): American National Standard for Testing Unlicensed Wireless Devices

According to KDB 206256 D01 Wireless microphonerophone Certification v02.

1.2. Test Description

Test Specification clause		
FCC Part 15.207	AC Power Conducted Emission	N/A
FCC Part 15.236(d)	RF Power Output	PASS
FCC Part 15.236(f)(2)	Occupied Bandwidth	PASS
FCC Part 15.236(g) EN 300 422-1 V2.2.1	Necessary Bandwidth Spurious emissions	PASS
FCC Part 15.236(f)(3)	Frequency Stability	PASS

1.3. Test Facility

1.3.1 Address of the test laboratory

Company Name:	Shenzhen CTL Testing Technology Co., Ltd.
Address 1:	Zone A.1/F..Warehouse 2.Baisha Technology Park, No.3011,Shahexi Road, Nanshan District,Shenzhen.518055,P.R.C.
Address 2:	Fl.A1, Bldg.A3, No.2533 GuanGuang Road, Fenghuang Community Fenghuang Street, Guangming District, Shenzhen, Guangdong, PR.C

1.3.2 Test location

All tests were performed at:

Company Name:	Shenzhen CTL Testing Technology Co., Ltd.
☐ Main location	Zone A.1/F..Warehouse 2.Baisha Technology Park, No.3011,Shahexi Road, Nanshan District,Shenzhen.518055,P.R.C.
☒ Satellite location	Fl.A1, Bldg.A3, No.2533 GuanGuang Road, Fenghuang Community Fenghuang Street, Guangming District, Shenzhen, Guangdong, PR.C

1.3.3 Laboratory accreditation

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L7497

Shenzhen CTL Testing Technology Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2017 General Requirements) for the Competence of Testing and Calibration Laboratories.

A2LA-Lab Cert. No. 4343.01

Shenzhen CTL Testing Technology Co., Ltd, EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

IC CAB identifier: CN0041

Main Company Number :9618B

Satellite Company Number:35187

The 3m alternate test site of Shenzhen CTL Testing Technology Co., Ltd. EMC Laboratory has been registered by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements with Main Company Number:9618B and Satellite Company Number:35187.

FCC-Registration No.: 399832

Designation No.: CN1216

Shenzhen CTL Testing Technology Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Designation No.: CN1216. Test Firm Registration 399832.

1.4. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the Shenzhen CTL Testing Technology Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for CTL laboratory is reported:

Test	Measurement Uncertainty	Notes
Conducted Emission 0.15~30MHz	$\pm 3.11\text{dB}$	(1)
Magnetic Field Emission 9KHz~30MHz	$\pm 3.24\text{dB}$	(1)
Radiated Emission 30~1000MHz	$\pm 4.5\text{dB}$	(1)
Radiated Emission Above 1GHz	$\pm 5.08\text{dB}$	(1)
DTS Bandwidth	$\pm 1.9\%$	(1)
Maximum Conducted Output Power	$\pm 1.18\text{ dB}$	(1)
Maximum Power Spectral Density Level	$\pm 0.98\text{ dB}$	(1)
Band-edge	$\pm 1.21\text{dB}$	(1)
Unwanted Emissions In Non-restricted Freq Bands	9kHz-7GHz: $\pm 1.09\text{dB}$ 7GHz-26.5GHz: $\pm 3.27\text{dB}$	(1)
Carrier Frequency Separation	$\pm 1.9\%$	(1)
Number of Hopping Channel	$\pm 1.9\%$	(1)
Radiated Spurious Emission	25MHz-1000MHz: $\pm 1.50\text{ dB}$ 1000MHz-20000MHz: $\pm 2.20\text{ dB}$	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2.0$.

(2) Decision rule for Statement of Conformity: The measurement uncertainty is not taken into account but only measured result.

2. GENERAL INFORMATION

2.1. Environmental conditions

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

Normal Temperature:	18-28°C
Relative Humidity:	30-60%
Air Pressure:	965-1030hPa

2.2. General Description of EUT

Product Name:	Wireless microphone
Model/Type reference:	NW-M55
EUT Rated Voltage:	DC 3.0V from battery
Test Voltage:	DC 3.0V from battery
Wireless microphone	
Modulation:	Analogue modulation
Operation frequency:	552.7MHz, 575.1MHz
Channel number:	2
Channel separation:	1MHz
Antenna type:	Spring Antenna
Antenna gain:	0dBi provided by ☒ Applicant ☐ Manufacturer

Note1: For more details, please refer to the user's manual of the EUT.

Note2: Antenna gain and cable loss provided by the applicant.

Note3: The product cannot be configured to operate outside the current frequency band plan through software configuration, Third parties are not allowed to change any software parameter configuration of the product.

2.3. Description of Test Modes and Test Frequency

The system is configured to test under continuous transmission conditions and transmission frequency through the switch button control. And the number of channels provided to EUT is 16, select channel 01/08/16 for testing.

Operation Frequency List :

Channel	Frequency (MHz)
01	552.7
02	575.1

Note: The line display in grey is the channel selected to perform test.

RF Cable List and Details

RF Cable	RF Cable loss	RF Cable loss provided by
RF1.13	0.5dB	☒ Applicant ☐ Manufacturer ☐ Testing Laboratory (CTL)
RG 316	0.8dB	☒ Applicant ☐ Manufacturer ☐ Testing Laboratory (CTL)

2.4. Equipments Used during the Test

Conducted Emission						
Test Equipment	Manufacturer	Model No.	Serial No.	Previous calibration	Last Cal.	Cal.Due
EMI Test Receiver	ROHDE & SCHWARZ	ESCI	1166.5950.03	/	2026/01/05	2027/01/04
LISN	ROHDE & SCHWARZ	ESH2-Z5	860014/010	/	2026/01/05	2027/01/04
Limitator	ROHDE & SCHWARZ	ESH3-Z2	100408	/	2026/01/05	2027/01/04
Software:						
Name of Software:			Version:			
ES-K1			V1.71			

Radiated Emission						
Test Equipment	Manufacturer	Model No.	Serial No.	Previous calibration	Last Cal.	Cal.Due
Active Loop Antenna	Da Ze	ZN30900A	/	/	2026/06/30	2027/06/29
ULTRA-BROADBAND ANTENNA	Sunol Sciences Corp.	JB1 Antenna	A061713	/	2026/06/28	2027/06/27
Horn Antenna	Sunol Sciences Corp.	DRH-118	A062013	/	2026/01/05	2027/01/04
Horn Antenna	Ocean Microwave	OBH100400	26999002	2026/07/01	2026/06/30	2027/06/29
Amplifier	Agilent	8449B	3008A02306	/	2026/01/05	2027/01/04
Amplifier	MRT-AP01M06	MRT	S-001	/	2026/01/05	2027/01/04
Amplifier	Brief&Smart	LNA-4018	2104197	2026/07/02	2026/06/30	2027/06/29
EMI Test Receiver	ROHDE & SCHWARZ	ESCI	1166.5950.03	/	2026/01/05	2027/01/04
Spectrum Analyzer	RS	FSP	1164.4391.38	2026/07/02	2026/06/30	2027/06/29
9kHz-40GHz coaxial line chamber 2	/	Z108-NJ-NJ-9.5M	21121049	2026/07/02	2026/06/30	2027/06/29
Software:						
Name of Software:			Version:			
EZ EMC(Below 1GHz)			V1.1.4.2			
EZ EMC(Above 1GHz)			V1.1.4.2			

RF Conducted						
Test Equipment	Manufacturer	Model No.	Serial No.	Previous calibration	Last Cal.	Cal.Due
Spectrum Analyzer	Keysight	N9020A	MY53420874	2026/07/02	2026/06/30	2027/06/29
Power meter	TSTPASS	TSPS2023R	TSCB220016	2026/07/02	2026/06/30	2027/06/29
Temperature/Humidity Meter	Ji Yu	MC501	/	2026/07/02	2026/06/30	2027/06/29
Software:						
Name of Software:			Version:			
TST-PASS			V2.0.2			

2.5. Related Submittal(s) / Grant(s)

This submittal(s) (test report) is intended to comply with Section 15.236 of the FCC Part 15,

Subpart C Rules.

2.6. Modifications

No modifications were implemented to meet testing criteria.

3. TEST CONDITIONS AND RESULTS

3.1. Conducted Emissions Test

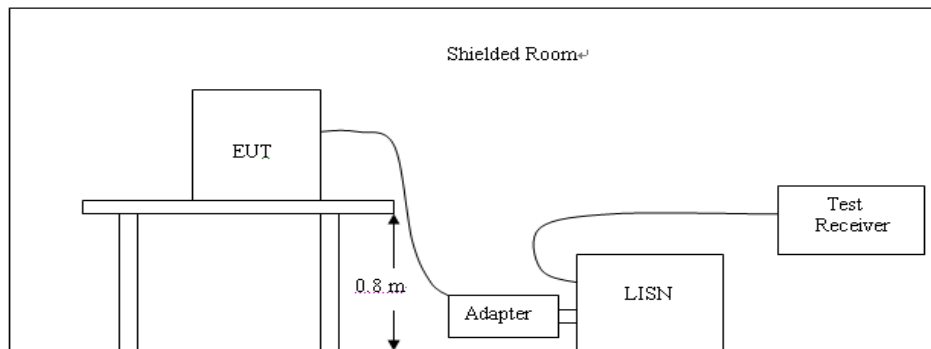
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.207

Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

TEST CONFIGURATION



TEST PROCEDURE

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system; a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024.
2. Support equipment, if needed, was placed as per ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024.
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024.
4. If a EUT received DC power from the USB Port of Notebook PC, the PC's adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
5. All support equipments received AC power from a second LISN, if any.
6. The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7. Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.
8. During the above scans, the emissions were maximized by cable manipulation.

TEST RESULTS

Battery powered products do not require this test.

3.2.Maximum Output Power

Limit

The maximum radiated power shall not exceed the following values:

(i)Wireless microphones: 50 mW EIRP.

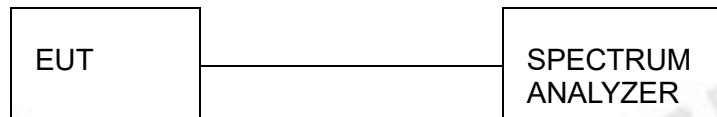
(ii)Wireless multichannel audio systems with a bandwidth up to 1 MHz: 50 mW EIRP

(iii)Wireless multichannel audio systems with a bandwidth greater than 1 MHz: 100 mW EIRP.

Test Procedure

Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the Spectrum Analyzer.

Test Configuration

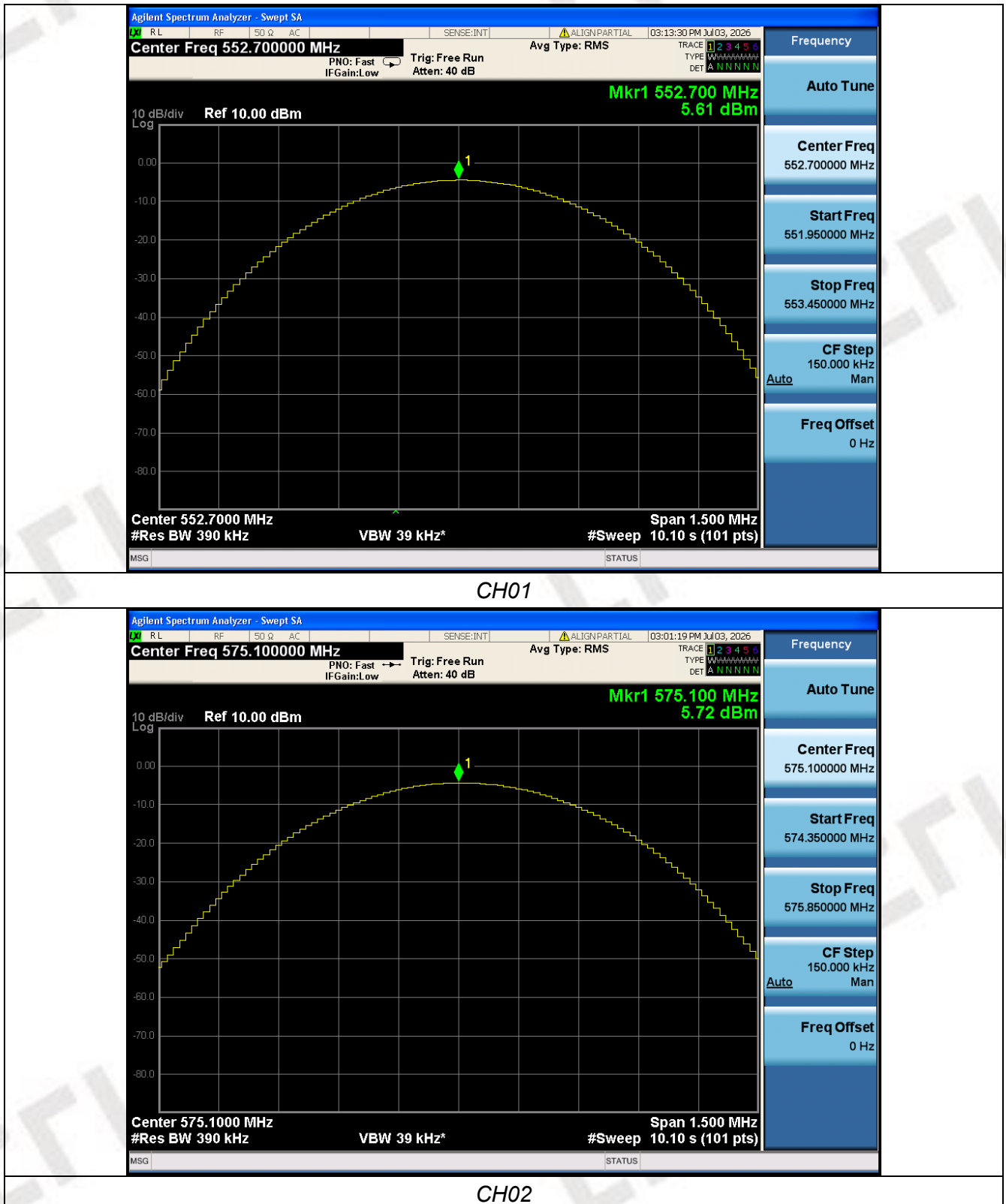


Test Results

Channel	Output power (dBm)	Ant. Gain (dBi)	EIRP (dBm)	Limit (dBm)	Result
CH01	5.61	0	5.61	17	Pass
CH02	5.72	0	5.72	17	Pass

Note: 1.The test results including the cable lose.
2.The RF cable is 50 ohm.

Test plot as follows:

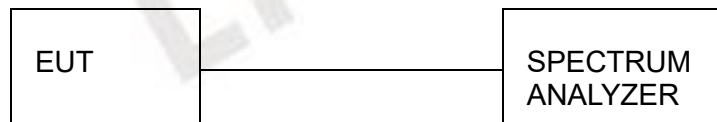


3.2. Occupied Bandwidth Measurement

Limit

One or more adjacent 25 kHz segments within the assignable frequencies may be combined to form a channel whose maximum bandwidth shall not exceed 200 kHz. The operating bandwidth shall not exceed 200 kHz.

Test Configuration



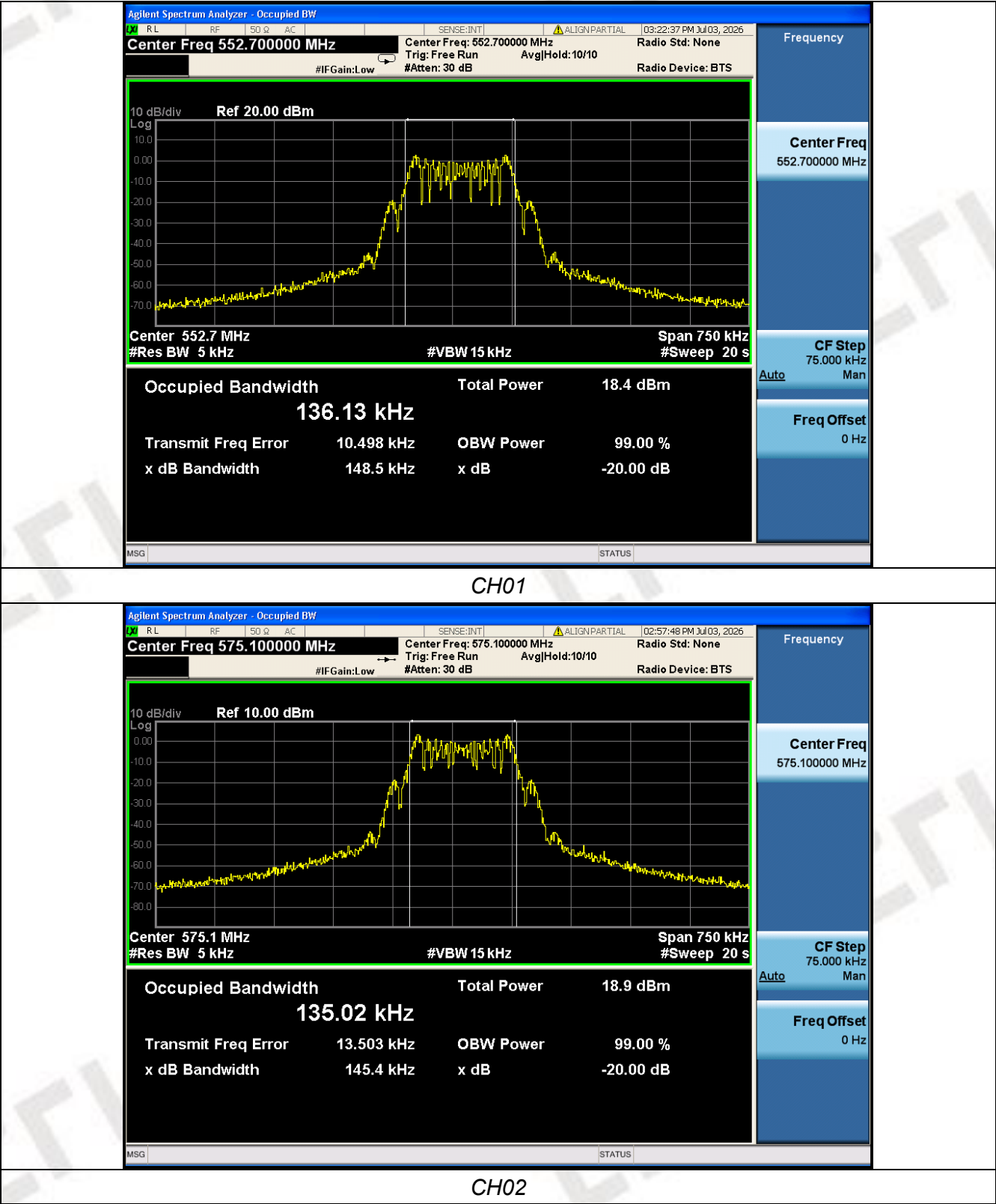
Test Procedure

The test shall be modulated by a 2500 Hz tone at an input level 16 dB greater than that necessary to produce 50 percent modulation.

Test Results

Channel	99% OBW (kHz)	Limit (kHz)	Result
CH01	136.13	200	Pass
CH02	135.02	200	

Test plot as follows:



3.3. Necessary Bandwidth

LIMIT

According to ETSI EN 300 422-1 v2.2.1(2021-11) section 4.2.4.2, The mean Power Density, measured with 1 kHz measurement bandwidth and RMS detector, of the transmitter unwanted emissions shall not exceed the limits of the masks provided in figure 1 for equipment employing analogue modulation and figure 2 for equipment employing digital modulation, but excluding WMAS.

The limits in figures 1 and 2 are relative to the transmitter RF output power according to clauses 4.2.1 and 5.4.1.

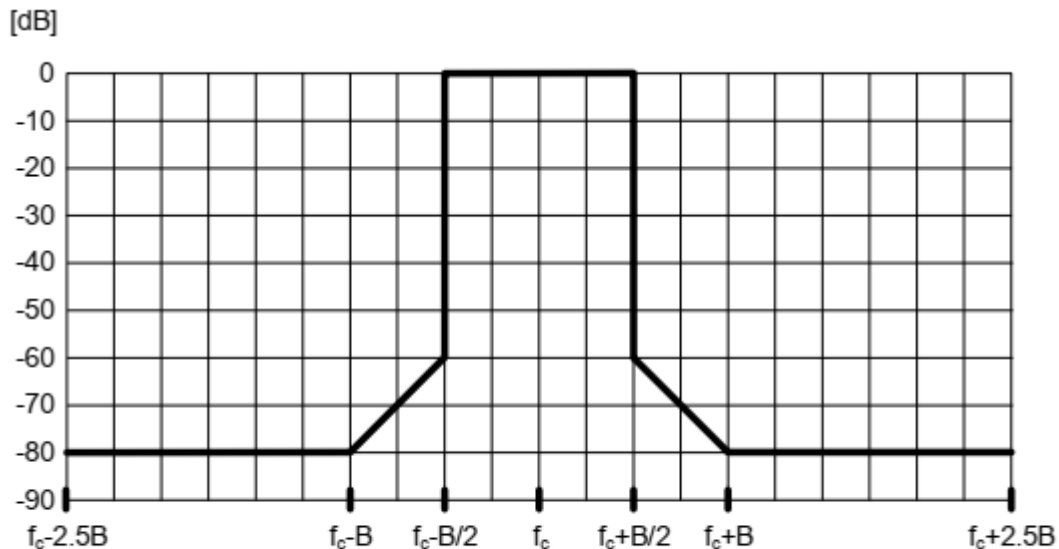


Figure 1: Transmit spectral power mask for equipment employing analogue modulation, RBW = 1 kHz

TEST PROCEDURE

The arrangement of test equipment as shown in figure B.1 shall be used. Note that the noise meter conforms to (quasi) without weighting filter (flat).

With the Low Frequency (LF) audio signal generator set to 500 Hz, the audio input level to the DUT shall be adjusted to 8 dB below the limiting threshold (-8 dB (lim)) as declared by the manufacturer. The corresponding audio output level from the demodulator shall be measured and recorded.

The input impedance of the noise meter shall be sufficiently high to avoid more than 0,1 dB change in input level when the meter is switched between input and output.

The audio input level shall be increased by 20 dB, i.e. to +12 dB (lim), and the corresponding change in output level shall be measured.

It shall be checked that the audio output level has increased by ≤ 10 dB.

If this condition is not met, the initial audio input level shall be increased from -8 dB (lim) in 1 dB steps until the above condition is fulfilled, and the input level recorded in the test report. This level replaces the value derived from the manufacturer's declaration and is defined as -8 dB (lim).

Measure the input level at the transmitter required to give +12 dB (lim).

The LF generator shall be replaced with the weighted noise source to Recommendation ITU-R BS.559-2 [i.3], band-limited to 15 kHz as described in IEC 60244-13 [2], and the level shall be adjusted such that the measured input to the transmitter corresponds to +12 dB (lim).

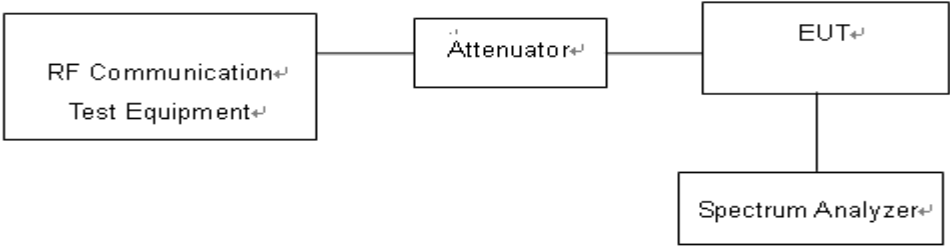
If the transmitter incorporates any ancillary coding or signalling channels (e.g. pilot-tones), these shall be enabled prior to any spectral measurements.

If the transmitter incorporates more than one audio input, e.g. stereo systems, the second and subsequent channels shall be simultaneously driven from the same noise source, attenuated to a level of -6 dB (lim).

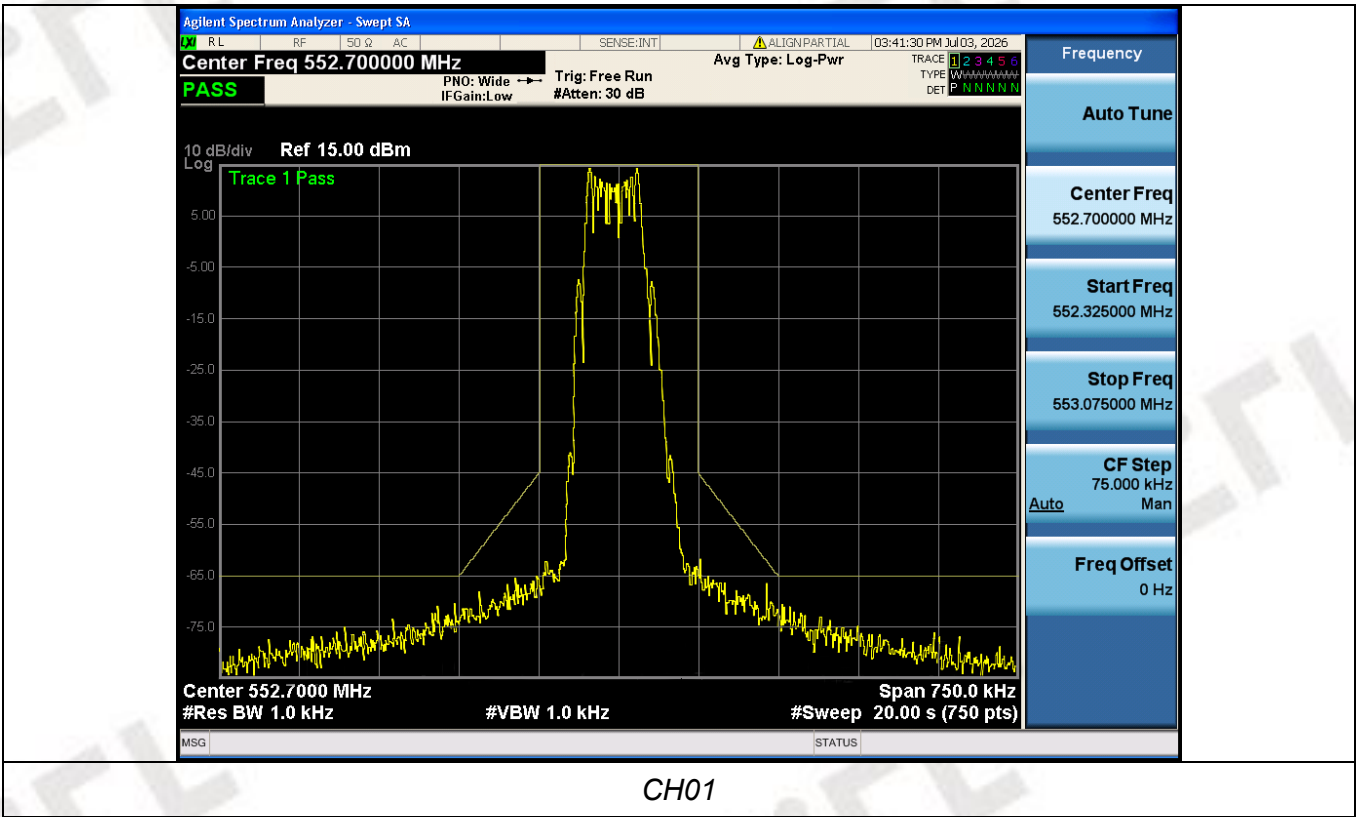
The transmitter RF output spectrum shall be measured, using a spectrum analyser with the following settings:

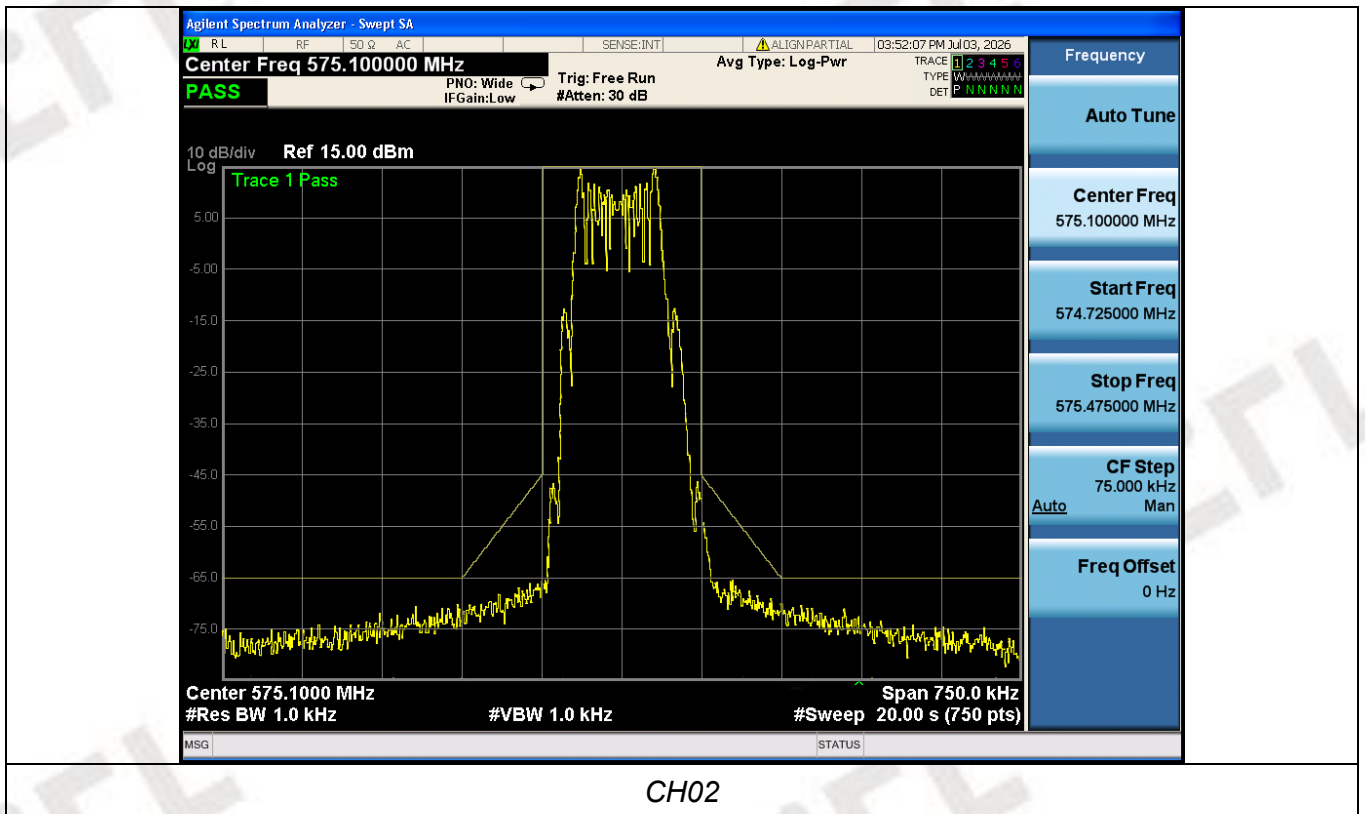
Centre Frequency = fcm (actual centre frequency)Span = 5 × B
RBW = 1 kHz
VBW = 1 kHz
Sweep Points ≥ Span / RBW
Detector = PEAK (Max or Positive)
Trace Mode = Clear Write
Measurement Time ≥ 20 s
Sweep Time = Measurement Time
Sweep Mode = Single sweep

TEST CONFIGURATION



TEST RESULTS





3.4. Transmitter spurious emissions

Limit

Spurious emissions are emissions outside the frequency range(s) of the equipment. The power of the spurious emissions shall not exceed the limits of table as below:

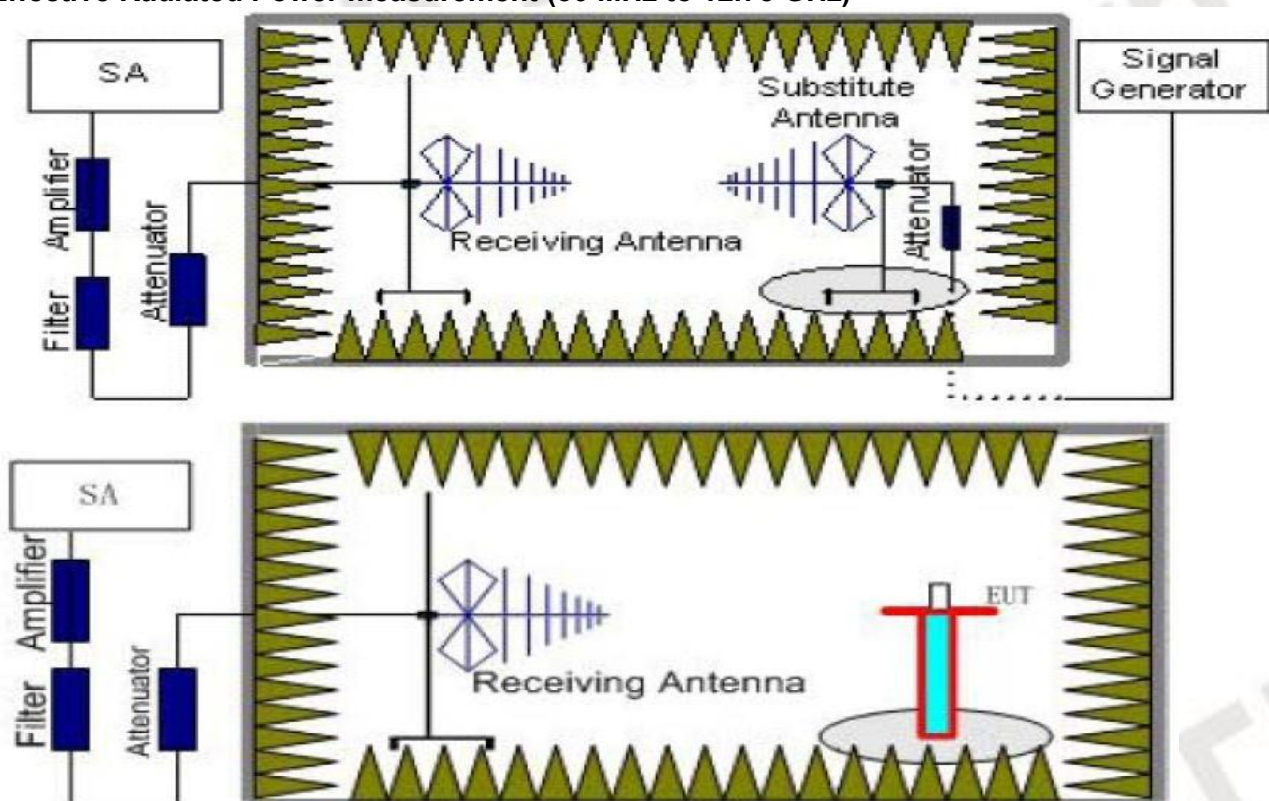
State	Frequency		
	47MHz to 74MHz 87.5MHz to 118MHz 174MHz to 230MHz 470MHz to 862MHz	Other Frequencies Below 1000MHz	Frequencies above 1000MHz
Operation	4nW	250nW	1μW
Standby	2nW	2nW	20nW

Test Procedure

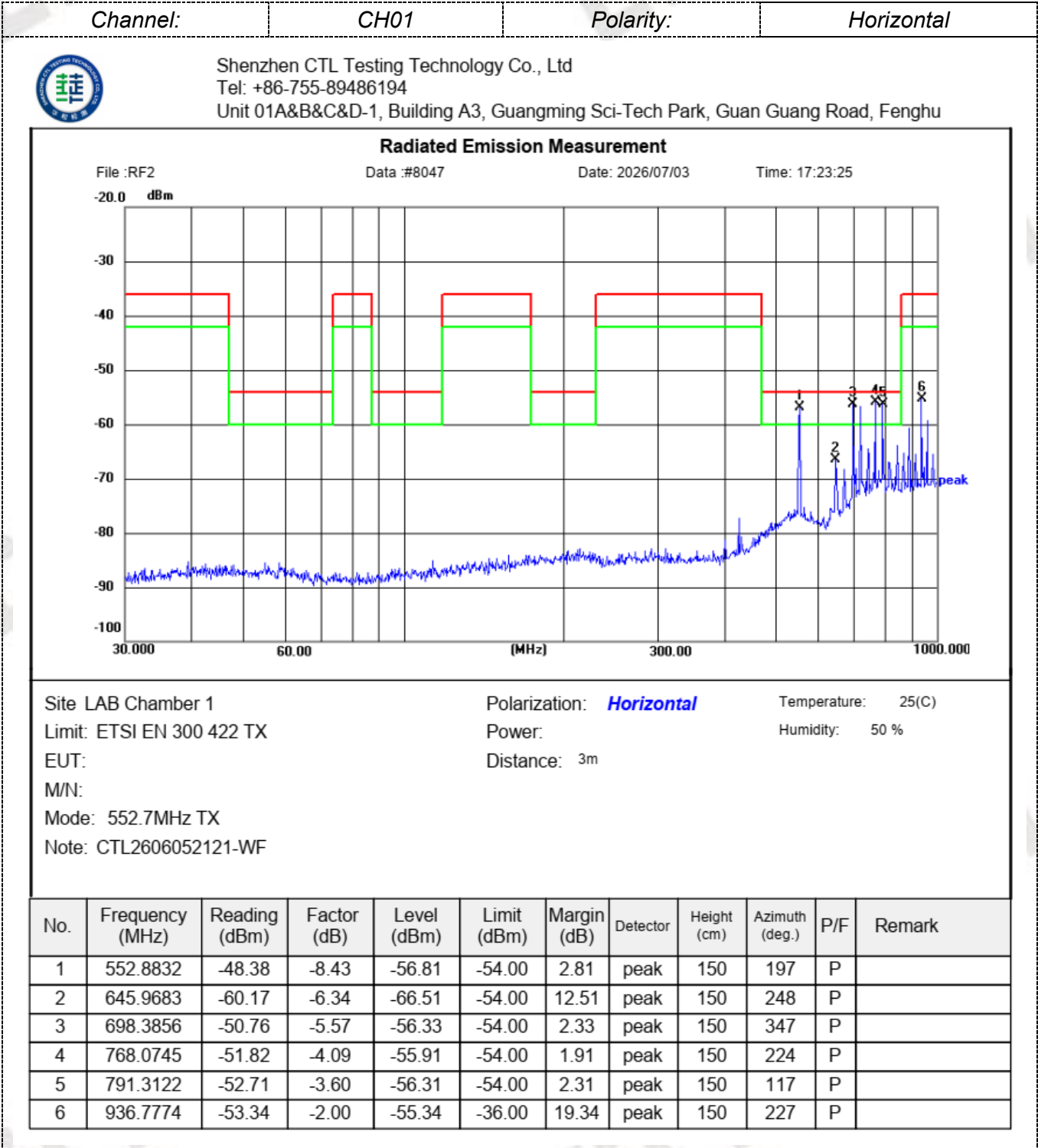
1. EUT shall be placed on a 0.8m high table for frequency below 1GHz
2. EUT shall be placed on a 1.5m high table for frequency above 1GHz, The test distance between the receiving antenna and the EUT is 1m up to 4m, Set EUT in continuous transmitting with maximum output power at test frequency.
3. The table was rotated from 0 to 360 degree to search the highest radiated emission.
4. Repeat step 3 to 4 for each polarization and test channel to find the worst emission level.
5. The results obtained are compared to the limits in order to prove compliance with the requirement.
6. Please refer to ETSI EN 300 422-1 v2.2.1(2021-11) clause 4.2.4.1 for the test conditions.
7. Please refer to ETSI EN 300 422-1 v2.2.1(2021-11) clause 5.4.4 for the measurement method.

Test Configuration

Effective Radiated Power measurement (30 MHz to 12.75 GHz)



Test Results





Shenzhen CTL Testing Technology Co., Ltd

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Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

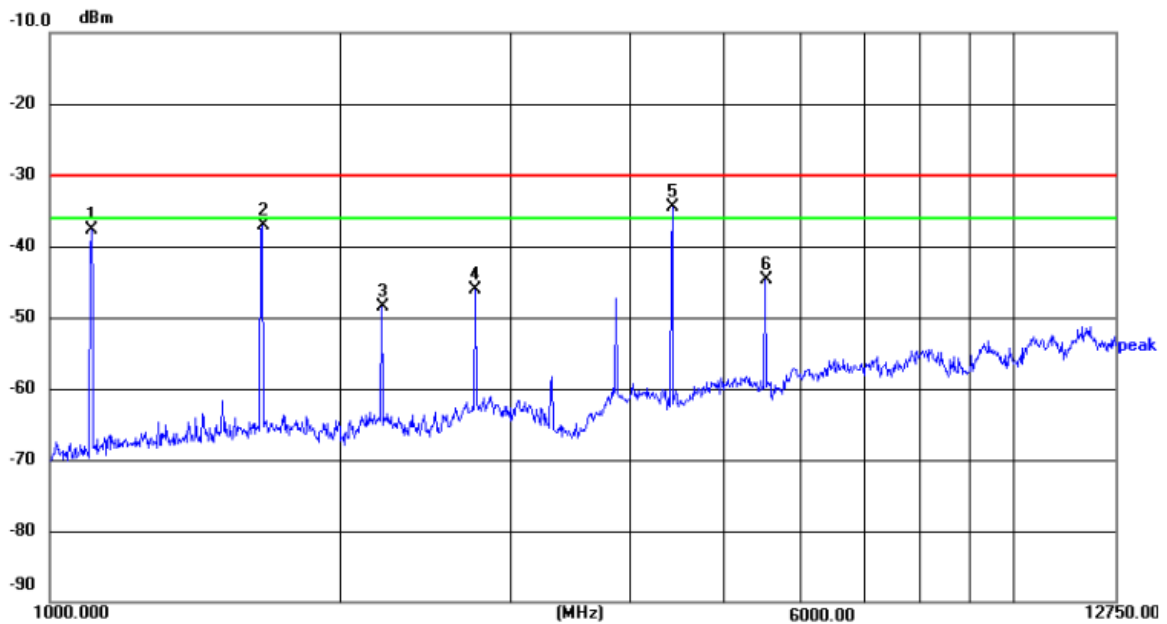
Radiated Emission Measurement

File : RF2

Data : #8454

Date: 2026/07/13

Time: 18:53:05



Site LAB Chamber 1

Limit: ETSI EN 300 422 TX

EUT:

M/N:

Mode: 552.7MHz TX

Note: CTL2606052121-WF

Polarization: **Horizontal**

Power:

Distance: 3m

Temperature: 25(C)

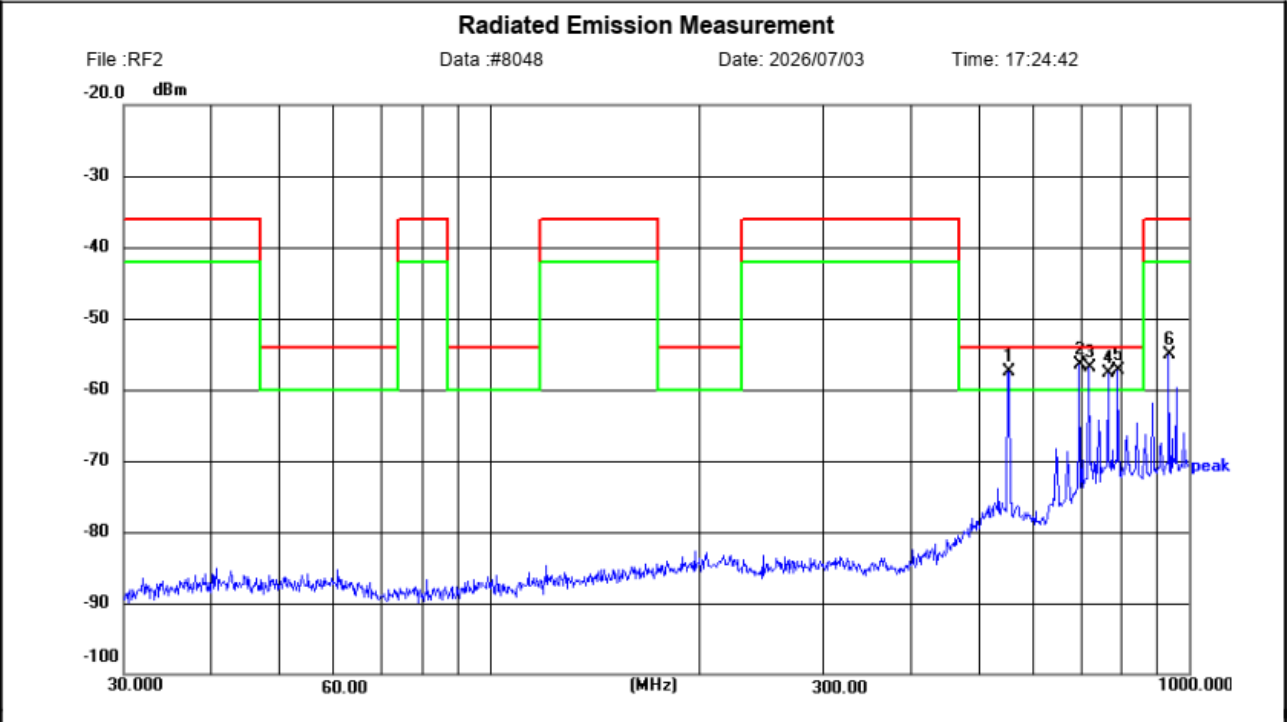
Humidity: 50 %

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	1105.425	-24.98	-12.67	-37.65	-30.00	7.65	peak	150	360	P	
2	1659.574	-27.57	-9.61	-37.18	-30.00	7.18	peak	150	360	P	
3	2210.572	-41.15	-7.40	-48.55	-30.00	18.55	peak	150	360	P	
4	2763.841	-40.99	-5.06	-46.05	-30.00	16.05	peak	150	360	P	
5	4421.992	-34.91	0.35	-34.56	-30.00	4.56	peak	150	360	P	
6	5528.744	-47.08	2.35	-44.73	-30.00	14.73	peak	150	360	P	

Channel: CH01 Polarity: Vertical



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Site LAB Chamber 1 Limit: ETSI EN 300 422 TX EUT: M/N: Mode: 552.7MHz TX Note: CTL2606052121-WF	Polarization: Vertical Power: Distance: 3m Temperature: 25(C) Humidity: 50 %
--	---

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	552.8832	-48.99	-8.43	-57.42	-54.00	3.42	peak	150	119	P	
2	698.0796	-50.94	-5.57	-56.51	-54.00	2.51	peak	150	249	P	
3	721.4096	-51.87	-5.10	-56.97	-54.00	2.97	peak	150	266	P	
4	768.0745	-53.51	-4.09	-57.60	-54.00	3.60	peak	150	347	P	
5	791.3122	-53.68	-3.60	-57.28	-54.00	3.28	peak	150	227	P	
6	936.7774	-53.13	-2.00	-55.13	-36.00	19.13	peak	150	118	P	



Shenzhen CTL Testing Technology Co., Ltd

Tel: +86-755-89486194

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road, Fenghu

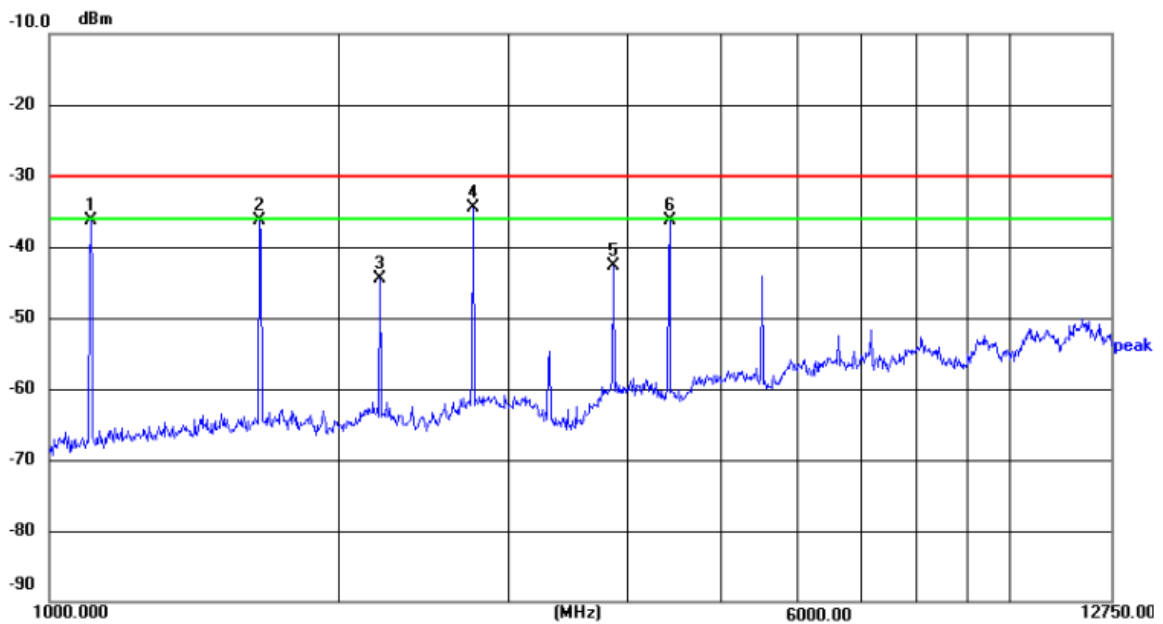
Radiated Emission Measurement

File : RF2

Data : #8453

Date: 2026/07/13

Time: 18:52:29



Site LAB Chamber 1

Limit: ETSI EN 300 422 TX

EUT:

M/N:

Mode: 552.7MHz TX

Note: CTL2606052121-WF

Polarization: **Vertical**

Power:

Distance: 3m

Temperature: 25(C)

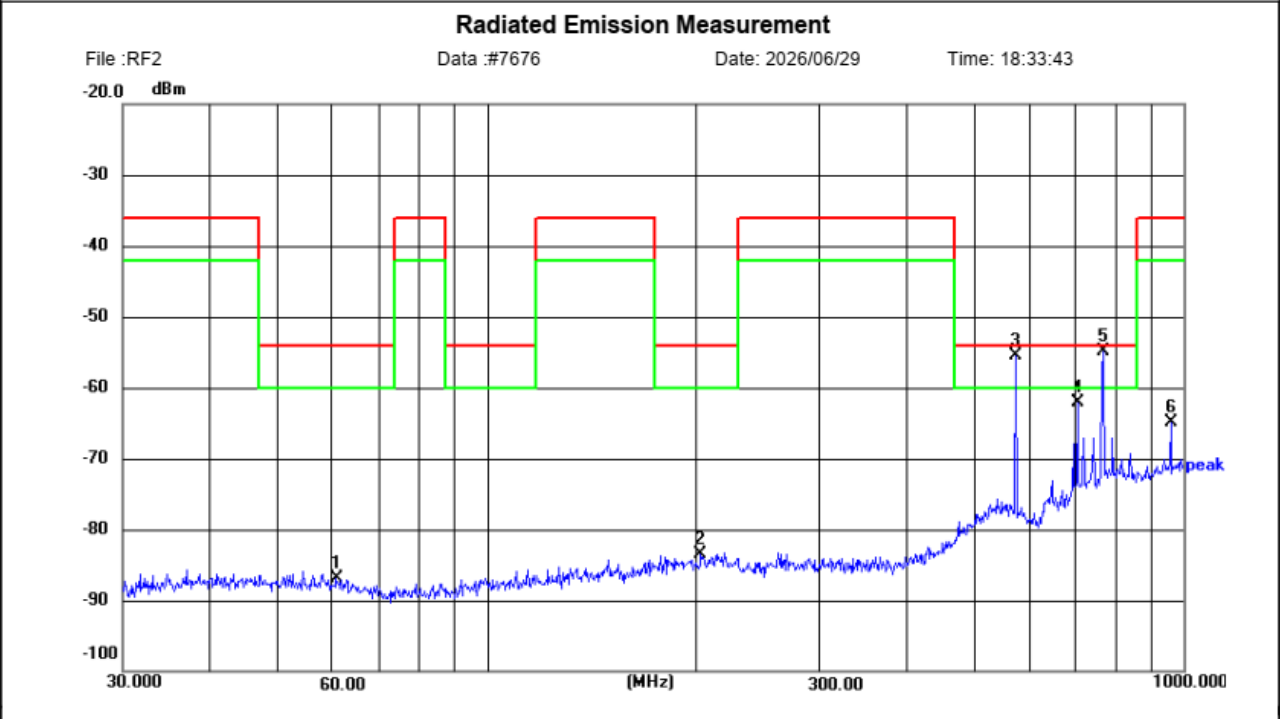
Humidity: 50 %

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	1105.425	-23.55	-12.67	-36.22	-30.00	6.22	peak	150	360	P	
2	1657.990	-26.59	-9.62	-36.21	-30.00	6.21	peak	150	360	P	
3	2211.275	-37.12	-7.40	-44.52	-30.00	14.52	peak	150	360	P	
4	2763.841	-29.53	-5.06	-34.59	-30.00	4.59	peak	150	360	P	
5	3868.821	-41.53	-1.07	-42.60	-30.00	12.60	peak	150	360	P	
6	4421.992	-36.68	0.35	-36.33	-30.00	6.33	peak	150	360	P	

Channel: CH02 Polarity: Horizontal



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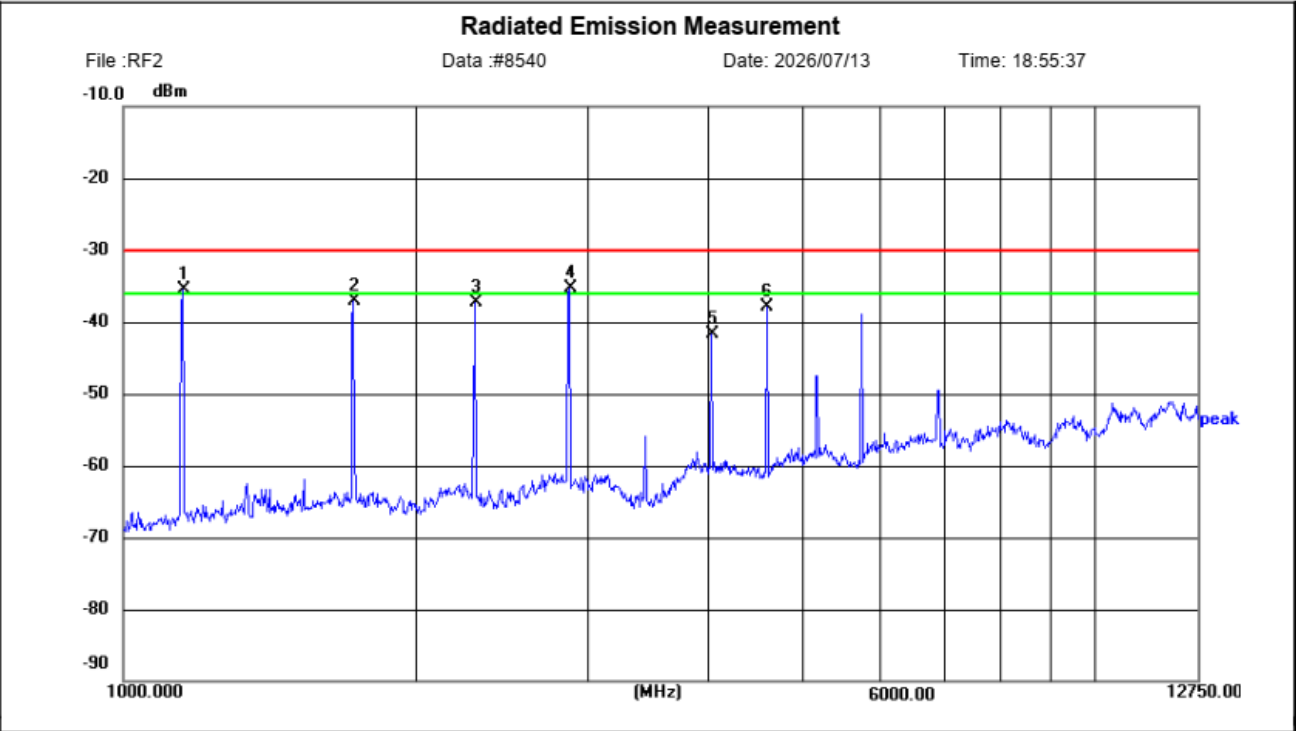


Site LAB Chamber 1	Polarization: Horizontal	Temperature: 25(C)
Limit: ETSI EN 300 422 TX	Power:	Humidity: 50 %
EUT:	Distance: 3m	
M/N:		
Mode: 575.1MHz TX		
Note: CTL2606052121-WF		

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	60.8109	-72.69	-14.20	-86.89	-54.00	32.89	peak	150	319	P	
2	202.9882	-67.39	-16.09	-83.48	-54.00	29.48	peak	150	294	P	
3	575.1298	-47.69	-7.75	-55.44	-54.00	1.44	peak	150	227	P	
4	704.8437	-56.57	-5.45	-62.02	-54.00	8.02	peak	150	53	P	
5	768.0745	-50.83	-4.09	-54.92	-54.00	0.92	peak	150	153	P	
6	959.2147	-63.20	-1.69	-64.89	-36.00	28.89	peak	150	274	P	



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Site LAB Chamber 1 Limit: ETSI EN 300 422 TX EUT: M/N: Mode: 575.1MHz TX Note: CTL2606052121-WF	Polarization: Horizontal Power: Distance: 3m Temperature: 25(C) Humidity: 50 %
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No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	1150.645	-23.02	-12.41	-35.43	-30.00	5.43	peak	150	0	P	
2	1725.264	-27.69	-9.36	-37.05	-30.00	7.05	peak	150	0	P	
3	2300.267	-30.31	-7.00	-37.31	-30.00	7.31	peak	150	0	P	
4	2875.986	-30.61	-4.62	-35.23	-30.00	5.23	peak	150	0	P	
5	4025.801	-41.18	-0.53	-41.71	-30.00	11.71	peak	150	0	P	
6	4601.416	-38.58	0.71	-37.87	-30.00	7.87	peak	150	0	P	

Channel:

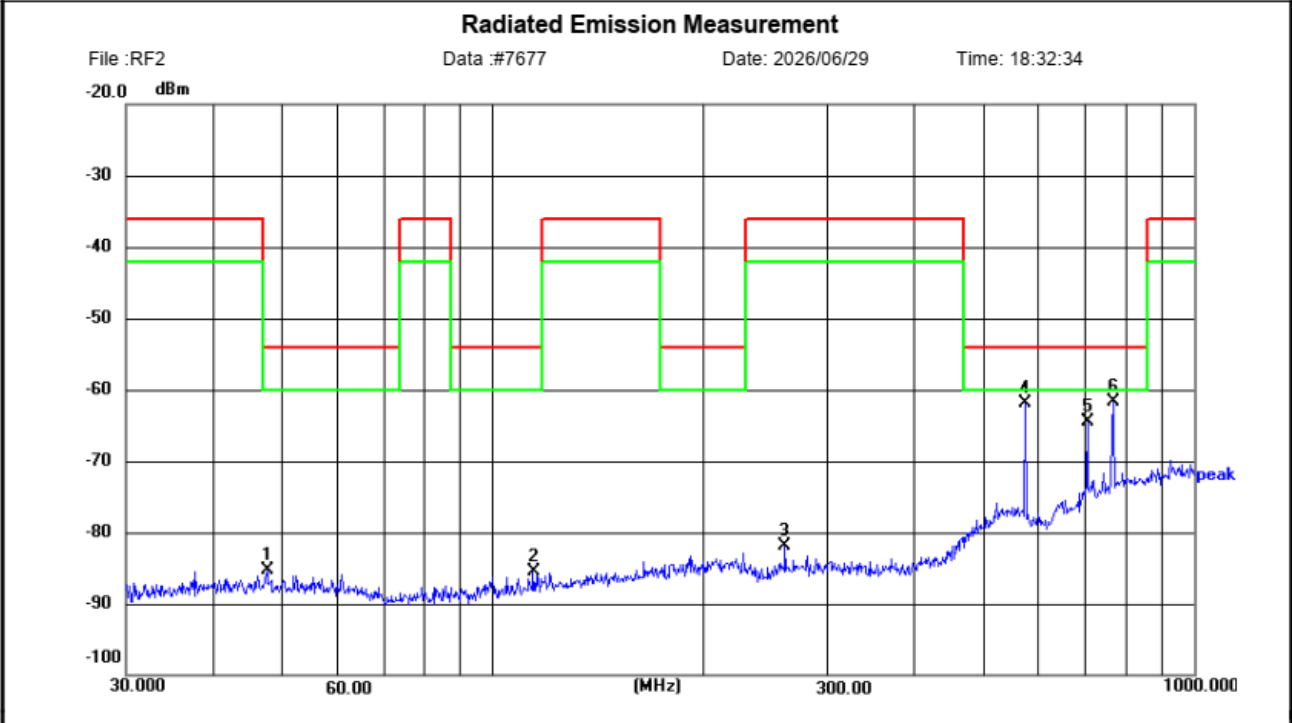
CH02

Polarity:

Vertical



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Site LAB Chamber 1
Limit: ETSI EN 300 422 TX
EUT:
M/N:
Mode: 575.1MHz TX
Note: CTL2606052121-WF

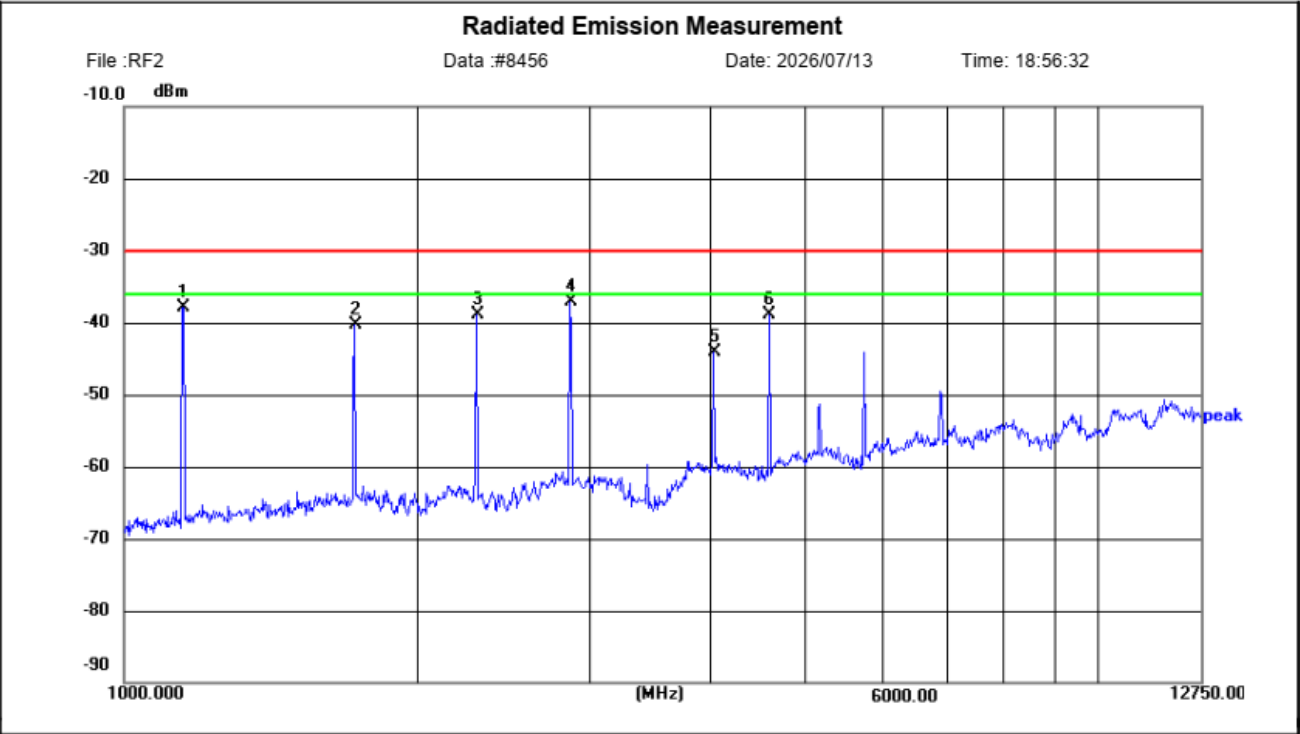
Polarization: **Vertical**
Power:
Distance: 3m

Temperature: 25(C)
Humidity: 50 %

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	47.7213	-72.49	-12.77	-85.26	-54.00	31.26	peak	150	234	P	
2	114.3140	-69.32	-16.23	-85.55	-54.00	31.55	peak	150	348	P	
3	261.8604	-65.86	-16.01	-81.87	-36.00	45.87	peak	150	297	P	
4	575.1298	-54.17	-7.75	-61.92	-54.00	7.92	peak	150	223	P	
5	705.1528	-59.05	-5.44	-64.49	-54.00	10.49	peak	150	317	P	
6	768.0745	-57.51	-4.09	-61.60	-54.00	7.60	peak	150	338	P	



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Site LAB Chamber 1 Limit: ETSI EN 300 422 TX EUT: M/N: Mode: 575.1MHz TX Note: CTL2606052121-WF	Polarization: Vertical Power: Distance: 3m Temperature: 25(C) Humidity: 50 %
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No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	1150.279	-25.50	-12.41	-37.91	-30.00	7.91	peak	150	360	P	
2	1725.264	-30.99	-9.36	-40.35	-30.00	10.35	peak	150	360	P	
3	2300.267	-31.93	-7.00	-38.93	-30.00	8.93	peak	150	360	P	
4	2875.071	-32.51	-4.62	-37.13	-30.00	7.13	peak	150	360	P	
5	4025.801	-43.60	-0.53	-44.13	-30.00	14.13	peak	150	360	P	
6	4601.416	-39.58	0.71	-38.87	-30.00	8.87	peak	150	360	P	

3.5. Frequency Stability

Limit

The frequency tolerance of the carrier signal shall be maintained within $\pm 0.005\%$ of the operating frequency over a temperature variation of -20 degrees to $+50$ degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. Battery operated equipment shall be tested using a new battery.

Test Procedure

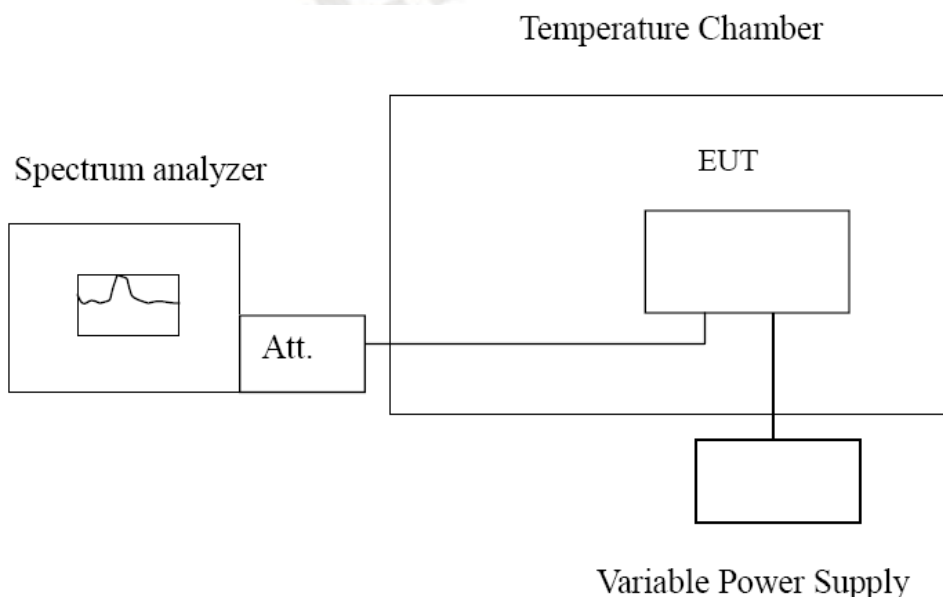
a) Frequency stability versus environmental temperature

1. Setup as Test Configuration for frequencies measured at ambient temperature if it is within 15°C to 25°C . Otherwise, an environmental chamber set for a temperature of 20°C shall be used.
2. Turn on EUT and set SA center frequency to the right frequency needs to be measured. Then set SA RBW to 3 kHz, VBW to 10 kHz and frequency span to 500 kHz. Record this frequency to be a reference.
3. Set the temperature of chamber to 50°C . Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize. While maintaining a constant temperature inside the chamber, turn the EUT on and measure the EUT operating frequency.
4. Repeat step 2 with a 10°C decreased per stage until the lowest temperature -20°C is measured, record all measurement frequencies.

b) Frequency stability versus input voltage

1. Setup as Test Configuration for frequencies measured at ambient temperature if it is within 15°C to 25°C . Otherwise, an environmental chamber set for a temperature of 20°C shall be used. Install new batteries in the EUT.
2. Set SA center frequency to the right frequency needs to be measured. Then set SA RBW to 3 kHz, VBW to 10 kHz and frequency span to 500 kHz. Record this frequency to be a reference.
3. For non hand carried, battery operated device, supply the EUT primary voltage with 85 and 115 percent of the nominal value and record the frequency.

Test Configuration

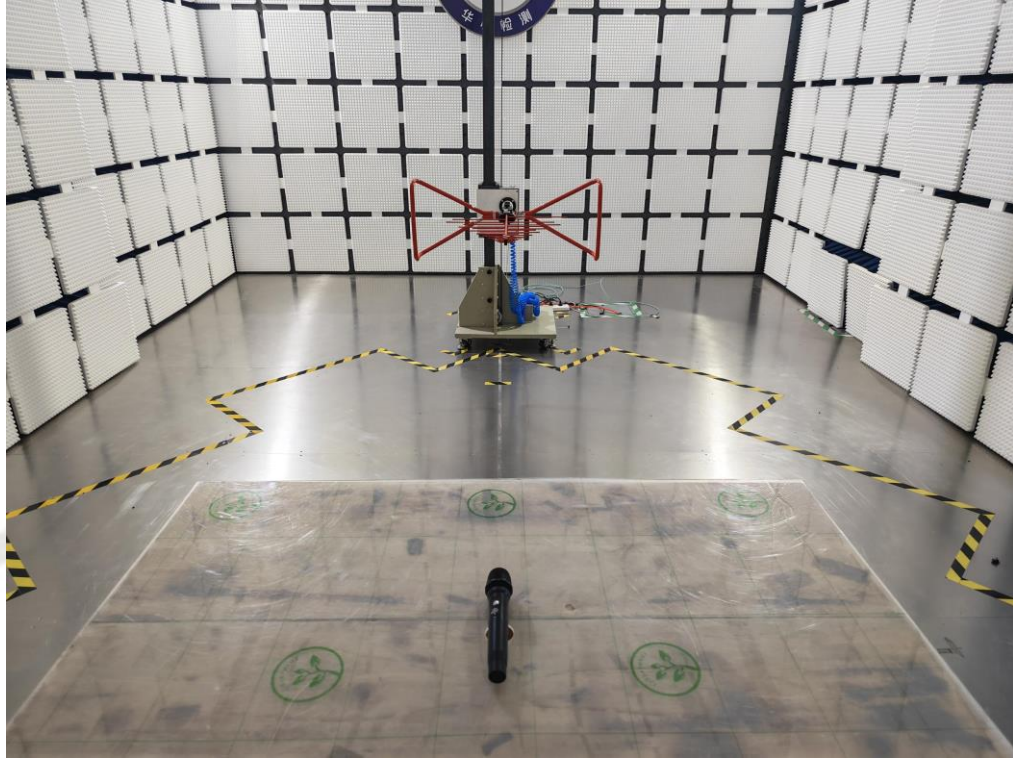


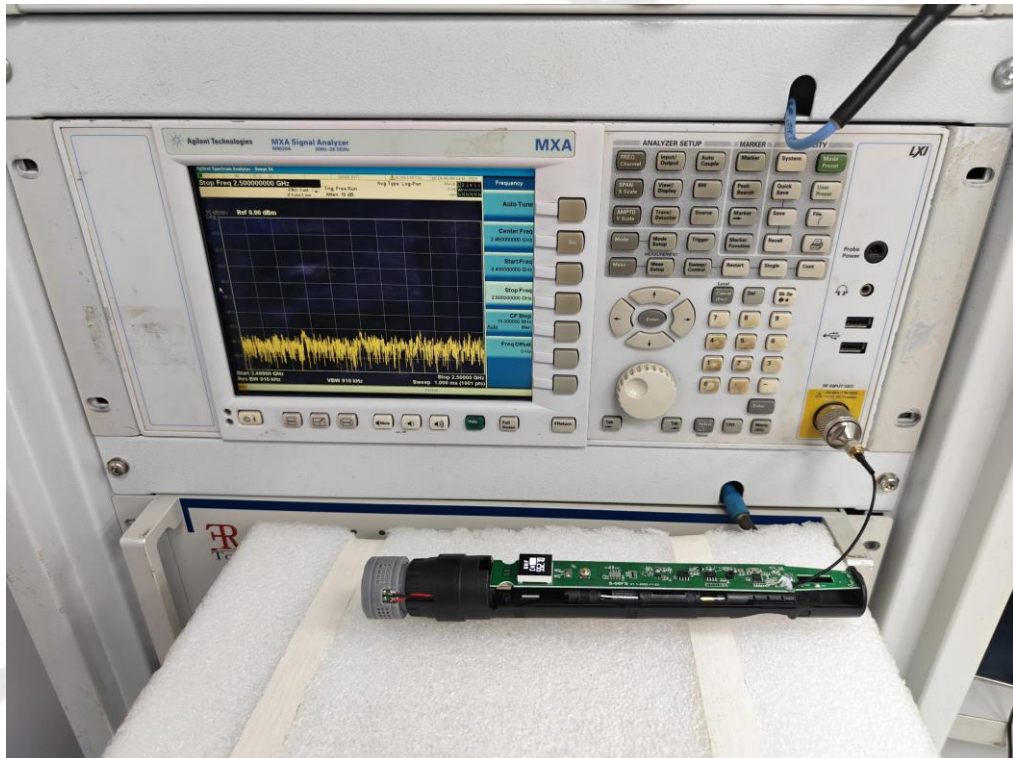
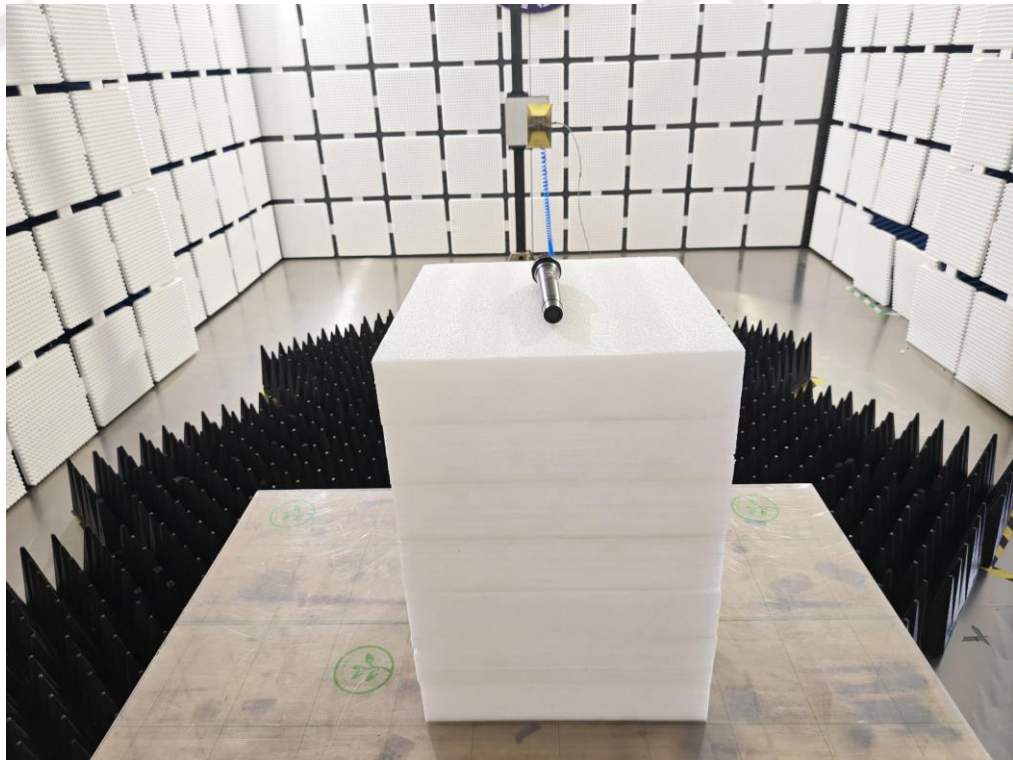
Test Results

Reference Frequency: CH01: 552.7MHz					
Voltage (V)	Temperature (°C)	Frequency error (MHz)	Frequency Tolerance (%)	Limit (%)	Result
3.0	-20	0.01819	0.00329	±0.005	PASS
	-10	0.01814	0.00328		
	0	0.01735	0.00314		
	10	0.01741	0.00315		
	20	0.01849	0.00335		
	30	0.01741	0.00315		
	40	0.01769	0.00320		
	50	0.01874	0.00339		
3.3	25	0.01947	0.00352	±0.005	PASS
2.7	25	0.01969	0.00356		

Note: The report tests all channel data, but this report only records the worst channel data.

4. Test Setup Photos of the EUT





5. External and Internal Photos of the EUT

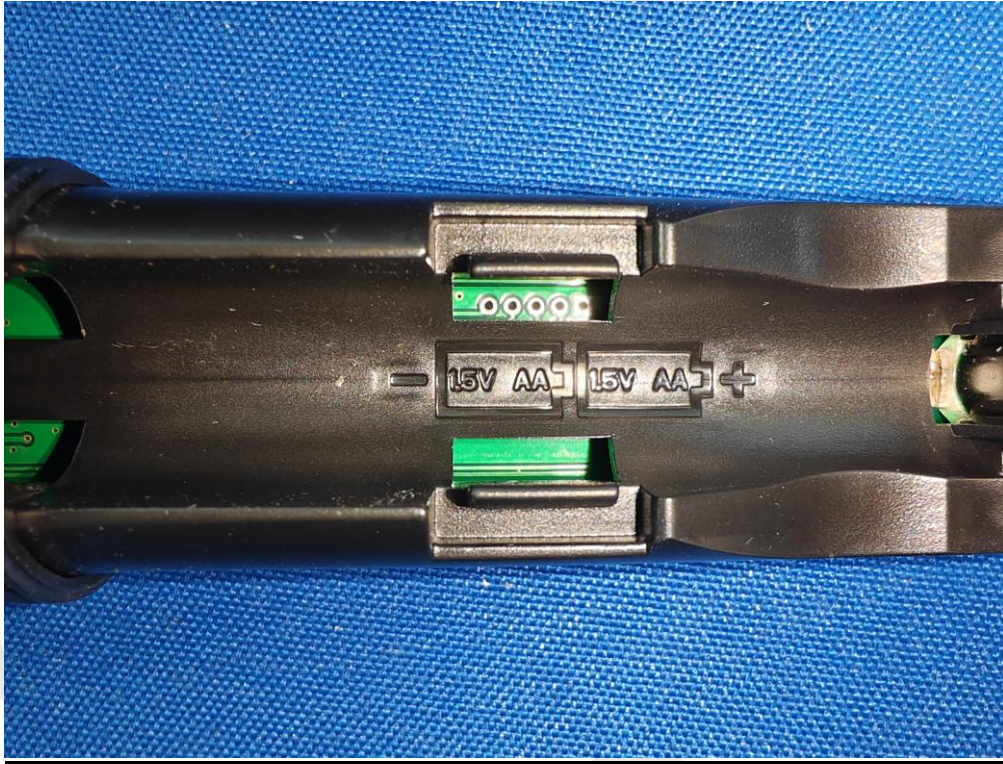
External Photos of EUT

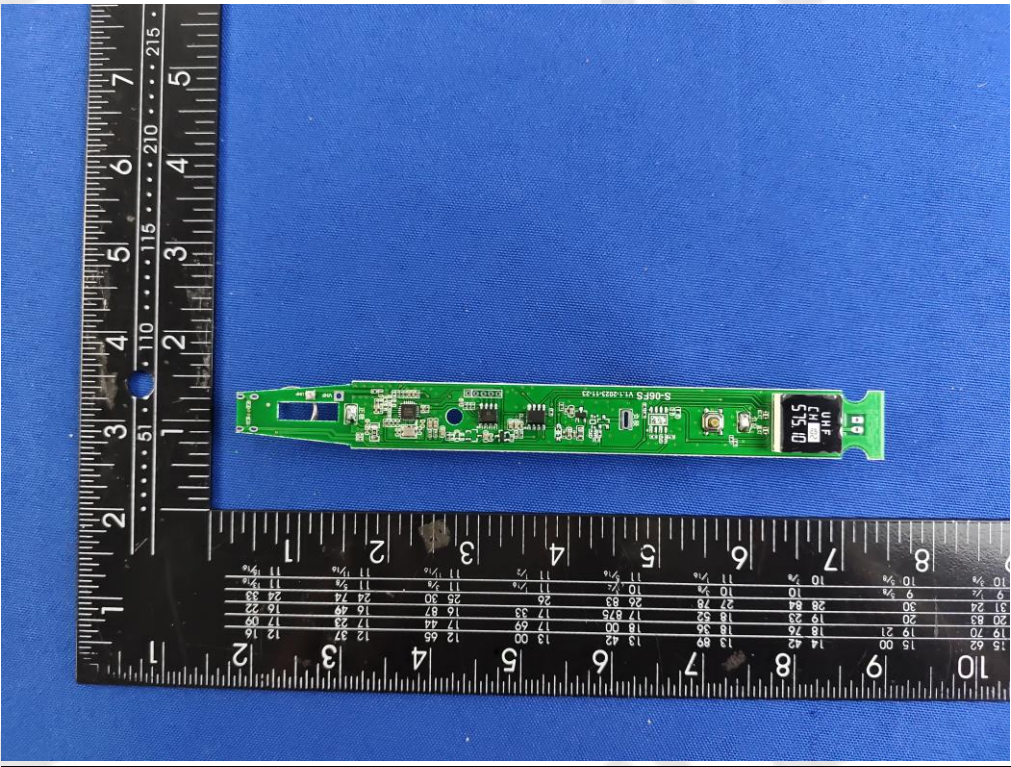
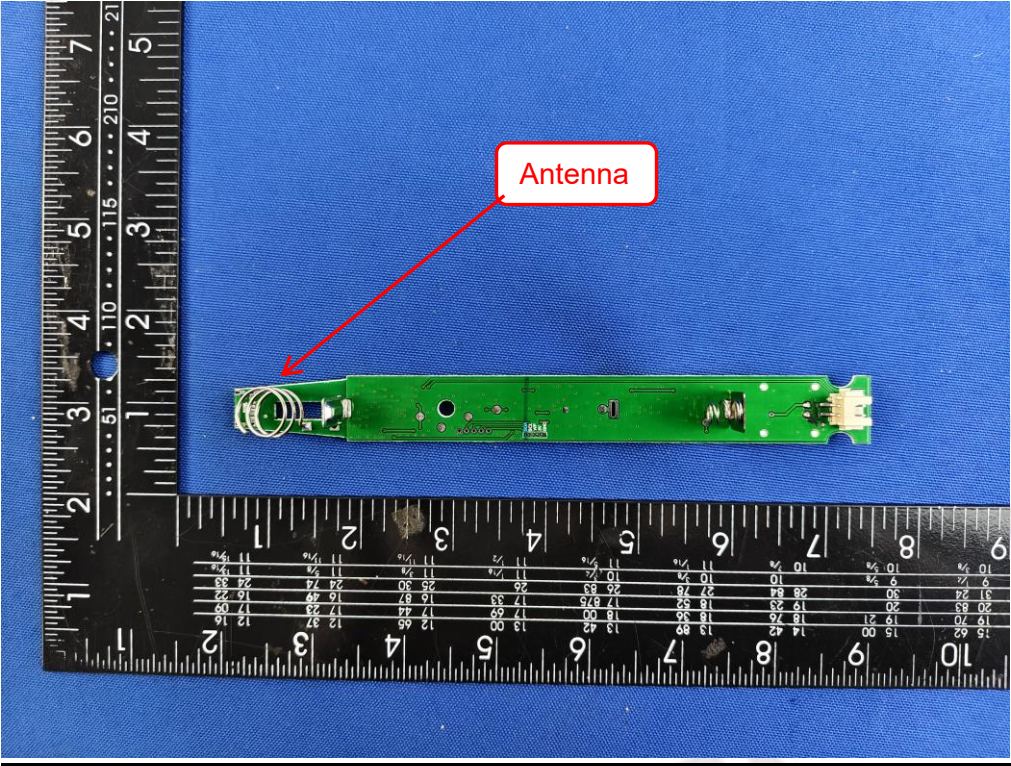


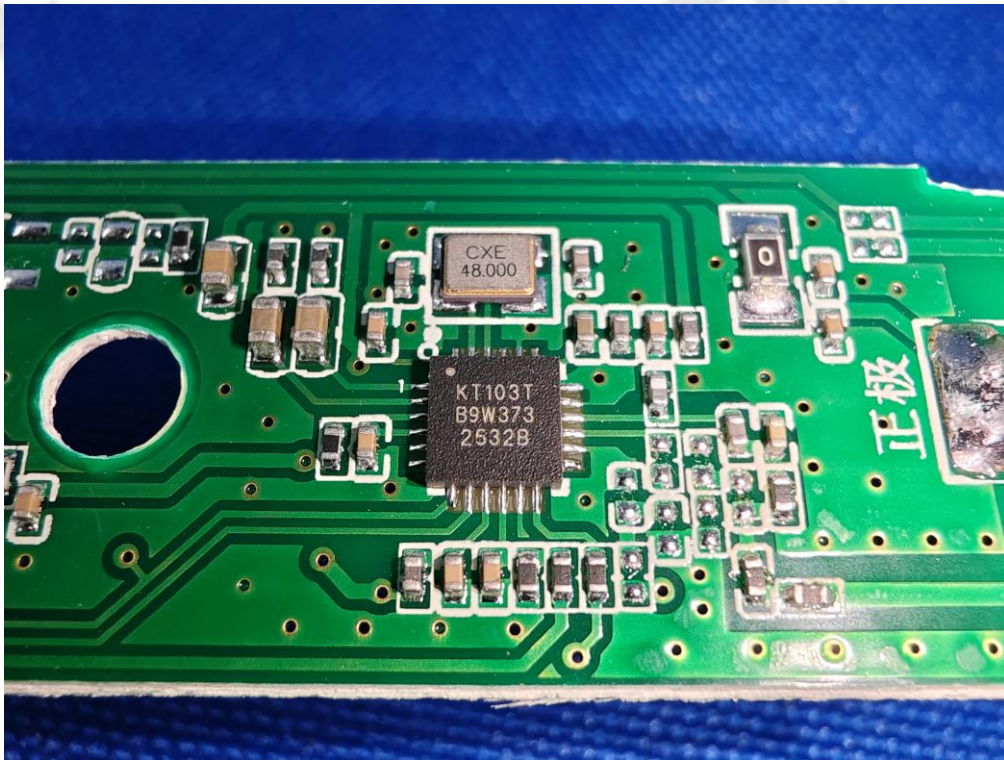




Internal Photos of EUT







*****End of Report*****