TCT 通测检测 TESTING CENTRE TECHNOLOGY

TEST REPORT

FCC ID. ..... :	2APP6ARC2
Test Report No..... :	TCT250625E019
Date of issue..... :	Aug. 13, 2025
Testing laboratory ..... :	SHENZHEN TONGCE TESTING LAB
Testing location/ address:	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China
Applicant's name..... :	Aroma Music Co., Ltd.
Address..... :	Room 901, Building No. 1, Langjun Plaza, No. 28 Tizai Road, Gongle Community, Xixiang Street, Baoan District, Shenzhen City, China
Manufacturer's name ... :	Aroma Technology Co., Limited
Address..... :	Building A, Aroma Park, Guwu Village, Danshui Town, Huiyang District, Huizhou, Guangdong 516200 China
Standard(s) ..... :	FCC CFR Title 47 Part 15 Subpart C Section 15.236
Product Name..... :	WIRELESS SYSTEM
Trade Mark ..... :	N/A
Model/Type reference..... :	ARC2, M4, BRC2, XL-AIR, DBA-20, TGIWT2, VoxMate, WM100, WMS-UHF
Rating(s)..... :	Rechargeable Li-ion Battery DC 3.7V
Date of receipt of test item ..... :	Jun. 25, 2025
Date (s) of performance of test..... :	Jun. 25, 2025 ~ Aug. 13, 2025
Tested by (+signature) ... :	Aaron MO
Check by (+signature).... :	Beryl ZHAO
Approved by (+signature):	Tomsin

General disclaimer:

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1. General Product Information

1.1. EUT description

Product Name.....:	WIRELESS SYSTEM
Model/Type reference.....:	ARC2
Sample Number.....:	TCT250625E019-0101
Operation Frequency.....:	657.0MHz-663.0MHz
Modulation Technology.....:	FM
Antenna Type.....:	Spring Antenna
Antenna Gain.....:	-6.89dBi
Rating(s).....:	Rechargeable Li-ion Battery DC 3.7V

Note: The antenna gain listed in this report is provided by applicant, and the test laboratory is not responsible for this parameter.

1.2. Model(s) list

No.	Model No.	Tested with
1	ARC2	☒
Other models	M4, BRC2, XL-AIR, DBA-20, TGIWT2, VoxMate, WM100, WMS-UHF	☐

Note: ARC2 is tested model, other models are derivative models. The models are identical in circuit and PCB layout, only different on the model names. So the test data of ARC2 can represent the remaining models.

1.3. Operation Frequency

657.0MHz-663.0MHz

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	657.5MHz	3	659.1MHz	5	660.7MHz	7	662.4MHz
2	658.4MHz	4	659.9MHz	6	661.5MHz		
Remark: Channel 1, 4 & 7 have been tested for FSK modulation mode.							

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2. General Information

2.1. Test environment and mode

Operating Environment:		
Condition	Conducted Emission	Radiated Emission
Temperature:	24.4 °C	25.1 °C
Humidity:	50 % RH	53 % RH
Atmospheric Pressure:	1010 mbar	1010 mbar
Test Mode:		
Engineering mode:	Keep the EUT in continuous transmitting by select channel and modulations with Fully-charged battery	
The sample was placed 0.8m & 1.5m for the measurement below & above 1GHz above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case(Z axis) are shown in Test Results of the following pages.		

2.2. 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.

Equipment	Model No.	Serial No.	FCC ID	Trade Name
Adapter	EP-TA200	R37M4PR7QD4SE3	/	SAMSUNG

Note:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.

2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

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3. Facilities and Accreditations

3.1. Facilities

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

- FCC - Registration No.: 645098

  SHENZHEN TONGCE TESTING LAB

  Designation Number: CN1205

  The testing lab has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

- A2LA-No.: 4320.01

  SHENZHEN TONGCE TESTING LAB

  The testing lab has been accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories.

3.2. Location

SHENZHEN TONGCE TESTING LAB

Address: 2101 & 2201, Zhenchang Factory Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China

TEL: +86-755-27673339

3.3. Measurement Uncertainty

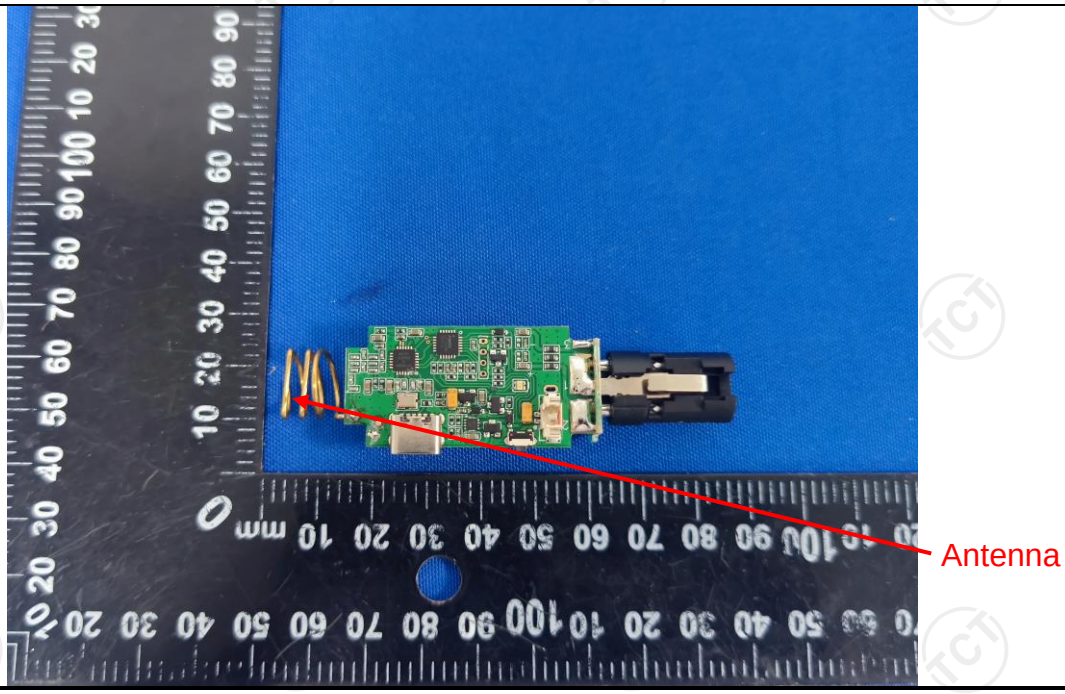
The reported uncertainty of measurement y ± U, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

No.	Item	MU
1	Conducted Emission	± 3.10 dB
2	RF power, conducted	± 0.12 dB
3	Spurious emissions, conducted	± 0.11 dB
4	All emissions, radiated(<1 GHz)	± 4.56 dB
5	All emissions, radiated(1 GHz - 18 GHz)	± 4.22 dB
6	All emissions, radiated(18 GHz- 40 GHz)	± 4.36 dB

4. Test Results and Measurement Data

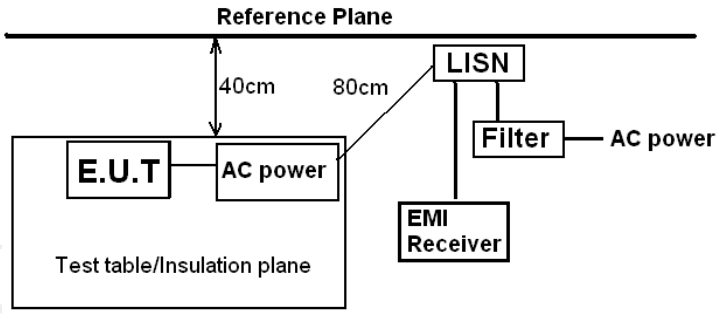
4.1. Antenna requirement

Standard requirement:	FCC Part15 C Section 15.203
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
E.U.T Antenna:	
The antenna is spring antenna which permanently attached, and the best case gain of the antenna is -6.89dBi.	



4.2. Conducted Emission

4.2.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10:2020
Frequency Range:	150 kHz to 30 MHz
Receiver setup:	RBW=9 kHz, VBW=30 kHz, Sweep time=auto
Limits:	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
Test Setup:	 *Remark:* *E.U.T: Equipment Under Test* *LISN: Line Impedence Stabilization Network* *Test table height=0.8m*
Test Mode:	Charging + Transmitting Modulation
Test Procedure:	1. The E.U.T is connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2020 on conducted measurement.
Test Result:	PASS

4.2.2. Test Instruments

Conducted Emission Shielding Room Test Site (843)					
Equipment	**Manufacturer**	**Model**	**Serial Number**	**Date of Cal.**	**Due Date**
EMI Test Receiver	R&S	ESCI3	100898	Jun. 26, 2025	Jun. 25, 2026
LISN	Schwarzbeck	NSLK 8126	8126453	Jan. 21, 2025	Jan. 20, 2026
Attenuator	N/A	10dB	164080	Jun. 26, 2025	Jun. 25, 2026
Line-5	TCT	CE-05	/	Jun. 26, 2025	Jun. 25, 2026
EMI Test Software	EZ_EMC	EMEC-3A1	1.1.4.2	/	/

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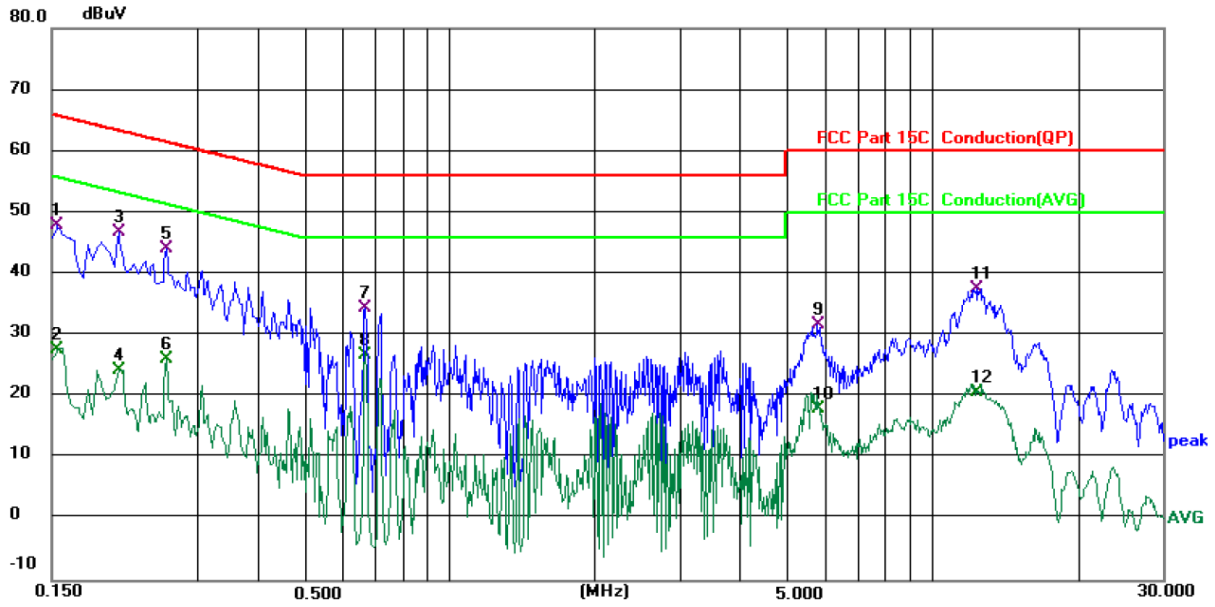
4.2.3. Test data

Please refer to following diagram for individual

Conducted Emission on Line Terminal of the power line (150 kHz to 30MHz)



Site 844 Shielding Room | Phase: *L1* | Temperature: 24.4 (℃) | Humidity: 50 %

Limit: FCC Part 15C Conduction(QP) | Power: DC 5 V(Adapter Input AC 120 V/60 Hz)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1539	37.93	9.96	47.89	65.79	-17.90	QP	
2		0.1539	17.72	9.96	27.68	55.79	-28.11	AVG	
3	*	0.2059	36.98	9.92	46.90	63.37	-16.47	QP	
4		0.2059	14.29	9.92	24.21	53.37	-29.16	AVG	
5		0.2580	34.19	9.93	44.12	61.50	-17.38	QP	
6		0.2580	16.13	9.93	26.06	51.50	-25.44	AVG	
7		0.6700	24.62	9.90	34.52	56.00	-21.48	QP	
8		0.6700	16.92	9.90	26.82	46.00	-19.18	AVG	
9		5.8019	21.48	10.17	31.65	60.00	-28.35	QP	
10		5.8019	7.75	10.17	17.92	50.00	-32.08	AVG	
11		12.3339	27.24	10.35	37.59	60.00	-22.41	QP	
12		12.3339	10.27	10.35	20.62	50.00	-29.38	AVG	

Note:

Freq. = Emission frequency in MHz

Reading level (dBμV) = Receiver reading

Corr. Factor (dB) = LISN factor + Cable loss

Measurement (dBμV) = Reading level (dBμV) + Corr. Factor (dB)

Limit (dBμV) = Limit stated in standard

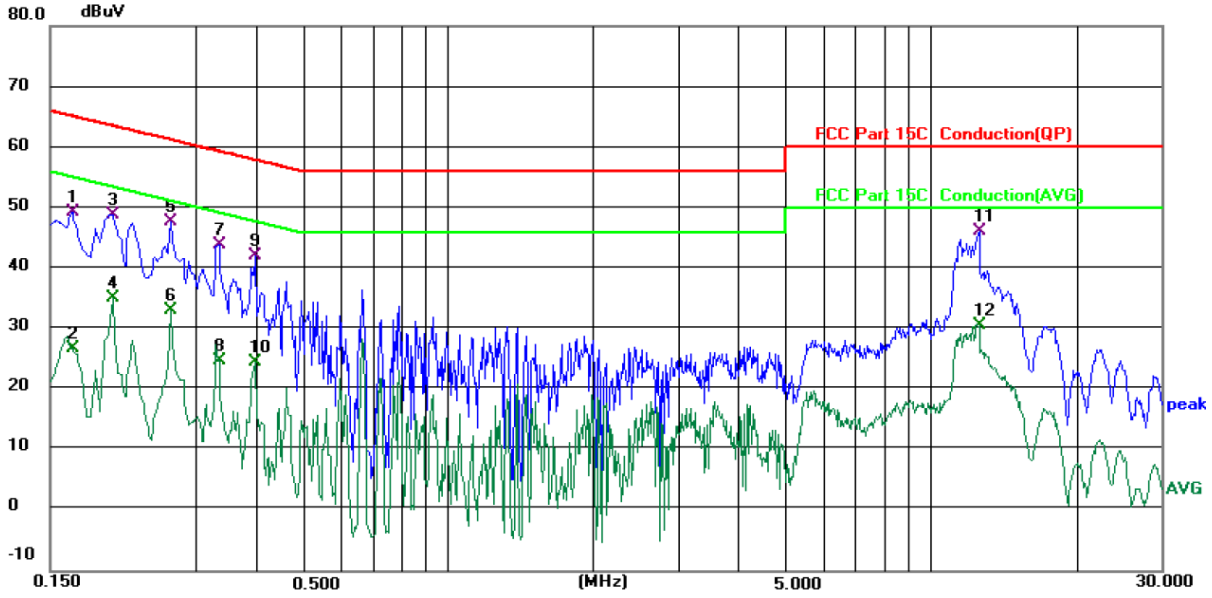
Margin (dB) = Measurement (dBμV) – Limits (dBμV)

Q.P. =Quasi-Peak

AVG =average

** is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.*

Conducted Emission on Neutral Terminal of the power line (150 kHz to 30MHz)



Site 844 Shielding Room Phase: N Temperature: 24.4 (℃) Humidity: 50 %

Limit: FCC Part 15C Conduction(QP) Power: DC 5 V(Adapter Input AC 120 V/60 Hz)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1660	39.32	9.94	49.26	65.16	-15.90	QP	
2		0.1660	16.79	9.94	26.73	55.16	-28.43	AVG	
3		0.2020	38.95	9.93	48.88	63.53	-14.65	QP	
4		0.2020	25.18	9.93	35.11	53.53	-18.42	AVG	
5	*	0.2660	37.84	9.93	47.77	61.24	-13.47	QP	
6		0.2660	23.08	9.93	33.01	51.24	-18.23	AVG	
7		0.3339	33.89	9.93	43.82	59.35	-15.53	QP	
8		0.3339	14.80	9.93	24.73	49.35	-24.62	AVG	
9		0.3980	32.25	9.94	42.19	57.90	-15.71	QP	
10		0.3980	14.63	9.94	24.57	47.90	-23.33	AVG	
11		12.6219	35.69	10.41	46.10	60.00	-13.90	QP	
12		12.6219	20.10	10.41	30.51	50.00	-19.49	AVG	

Note1:

Freq. = Emission frequency in MHz

Reading level (dBμV) = Receiver reading

Corr. Factor (dB) = LISN factor + Cable loss

Measurement (dBμV) = Reading level (dBμV) + Corr. Factor (dB)

Limit (dBμV) = Limit stated in standard

Margin (dB) = Measurement (dBμV) – Limits (dBμV)

Q.P. =Quasi-Peak

AVG =average

** is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.*

Note2: *Measurements were conducted in all three channels (high, middle, low), and the worst case Mode (Middle channel) was submitted only.*

4.3. Maximum Radiated Output Power

4.3.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.236 (d)(2)
Test Method:	ANSI C63.10:2020
Limit:	20 mW EIRP
Test Setup:	
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. The RF output of EUT was connected to the spectrum analyzer by RF cable. The path loss was compensated to the results for each measurement. 2. Set to the maximum power setting and enable the EUT transmit continuously. 3. Measure the conducted output power and record the results in the test report.
Test Result:	PASS

4.3.2. Test Instruments

Equipment	Manufacturer	Model No.	Serial Number	Date of Cal.	Due Date
Spectrum Analyzer	R&S	FSU	200054	Jun. 26, 2025	Jun. 25, 2026

4.3.3. Test Data

Frequency (MHz)	Conducted Output Power (dBm)	Antenna Gain	EIRP (dBm)	EIRP (mw)	EIRP Limit (mw)	Result
657.5	12.42	-6.89	5.53	3.57	20	PASS
659.9	12.44	-6.89	5.55	3.59	20	PASS
662.4	12.39	-6.89	5.50	3.55	20	PASS

Note: EIRP = Conducted Output Power + Antenna Gain

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4.4. Occupied Bandwidth

4.4.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.236 (f)
Test Method:	ANSI C63.10:2020
Limit:	not exceed 200 kHz
Test Setup:	
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. Set to the maximum power setting and enable the EUT transmit continuously. 2. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW. 3. Use the 99% power bandwidth function and record the results in the test report.
Test Result:	PASS

4.4.2. Test Instruments

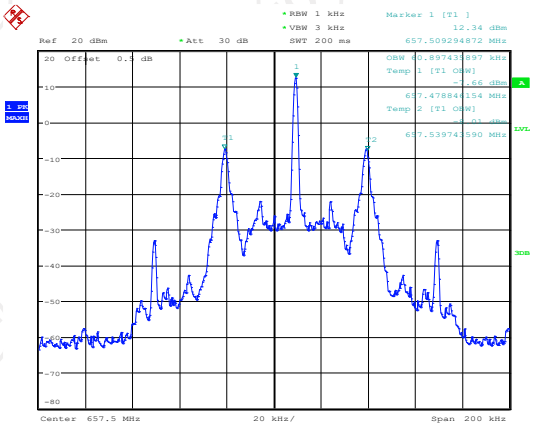
Equipment	Manufacturer	Model No.	Serial Number	Date of Cal.	Due Date
Spectrum Analyzer	R&S	FSU	200054	Jun. 26, 2025	Jun. 25, 2026

4.4.3. Test data

Frequency (MHz)	Occupy Bandwidth (kHz)	Limit (kHz)	Conclusion
657.5	60.90	200	PASS
659.9	60.90	200	PASS
662.4	61.22	200	PASS

Test plots as follows:

657.5MHz



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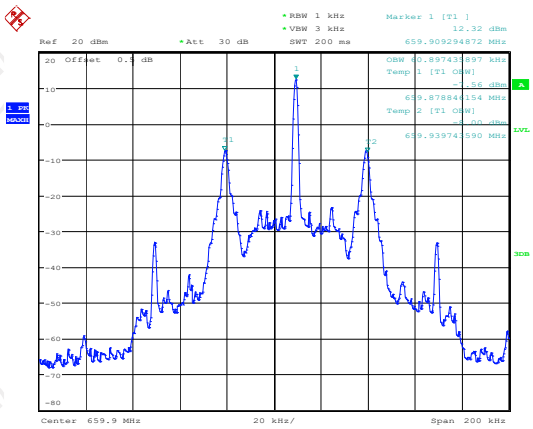
Date: 15.JUL.2025 14:36:45

659.9MHz



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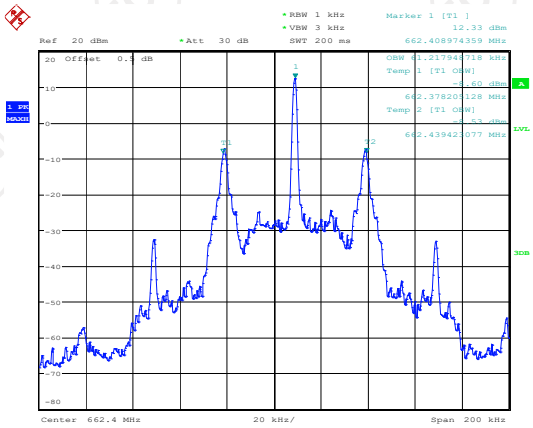
662.4MHz



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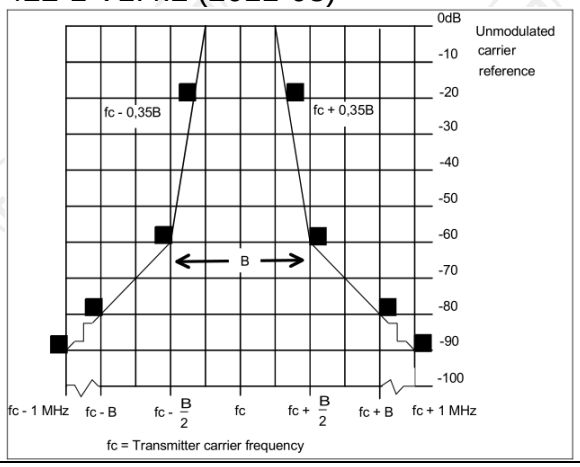
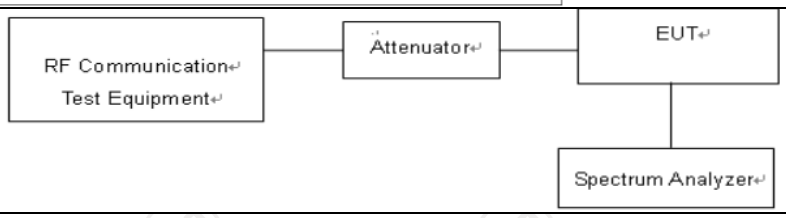
Date: 15.JUL.2025 14:37:58

4.5. Necessary Bandwidth Spurious Emissions

4.5.1. Test Specification

Test Requirement:	FCC Part15 C Section 15.236 (g)
Test Method:	ANSI C63.10:2020
Limit:	Emissions within the band from one megahertz below to one megahertz above the carrier frequency shall comply with the emission mask in §8.3.1.2 of ETSI EN 300 422-1 V1.4.2 (2011-08) 
Test Setup:	
Test Mode:	Transmitting mode with modulation
Test Procedure:	1. With the Low Frequency (LF) audio signal generator set to 500 Hz, the audio input level to the EUT shall be adjusted to 8 dB below the limiting threshold (-8 dB (lim)) as declared by the manufacturer. 2. The corresponding audio output level from the demodulator shall be measured and recorded. 3. 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. 4.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).

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	5. Measure the input level at the transmitter required to give +12 dB (lim). 6. The transmitter RF output spectrum shall be measured, using a spectrum analyser with the following settings: - centre frequency: fc: Transmitter (Tx) nominal frequency; - dispersion (Span): fc - 1 MHz to fc + 1 MHz; - Resolution BandWidth (RBW): 1 kHz; - Video BandWidth (VBW): 1 kHz; - detector: Peak hold.
Test Result:	PASS

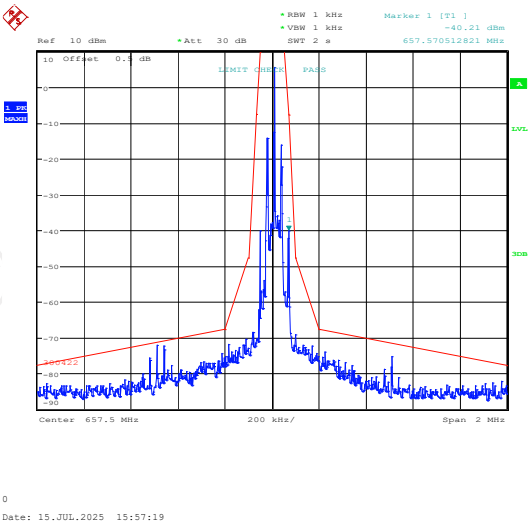
4.5.2. Test Instruments

Equipment	Manufacturer	Model No.	Serial Number	Date of Cal.	Due Date
Spectrum Analyzer	R&S	FSU	200054	Jun. 26, 2025	Jun. 25, 2026
Signal Generator	Agilent	N5182A	MY47420221	Jun. 26, 2025	Jun. 25, 2026

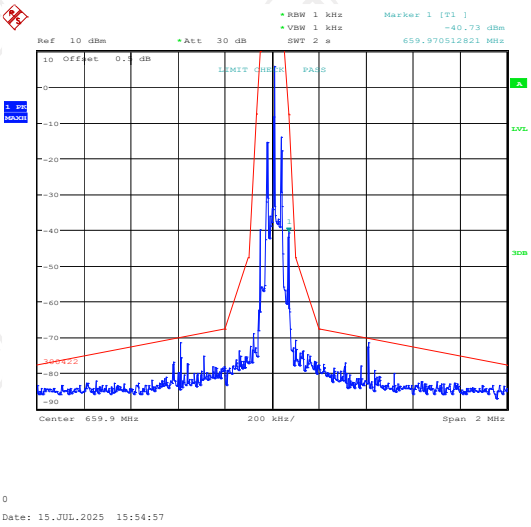
4.5.3. Test data

Test plots as follows:

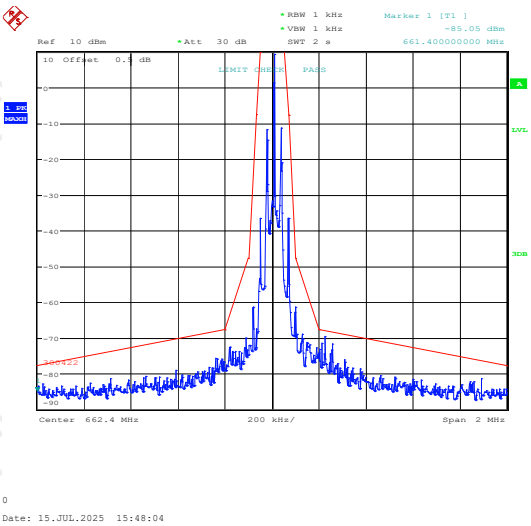
657.5MHz



659.9MHz



662.4MHz



4.6. Radiated Spurious Emission Measurement

4.6.1. Test Specification

<table>
<tr><td>Test Requirement:</td><td>FCC Part15 C Section 15.236 (g)</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.10:2020</td></tr>
<tr><td>Frequency Range:</td><td>9 kHz to 7 GHz</td></tr>
<tr><td>Measurement Distance:</td><td>3 m</td></tr>
<tr><td>Antenna Polarization:</td><td>Horizontal & Vertical</td></tr>
<tr><td>Operation mode:</td><td>Transmitting mode with modulation</td></tr>
<tr><td>Receiver Setup:</td><td>
<table>
<tr><td>Frequency</td><td>Detector</td><td>RBW</td><td>VBW</td><td>Remark</td></tr>
<tr><td>9kHz- 150kHz</td><td>Quasi-peak</td><td>200Hz</td><td>1kHz</td><td>Quasi-peak Value</td></tr>
<tr><td>150kHz-30MHz</td><td>Quasi-peak</td><td>9kHz</td><td>30kHz</td><td>Quasi-peak Value</td></tr>
<tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>120KHz</td><td>300KHz</td><td>Quasi-peak Value</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr>
<tr><td>Peak</td><td>1MHz</td><td>10Hz</td><td>Average Value</td></tr>
</table>
</td></tr>
<tr><td>Limit:</td><td>
<table>
<tr><td rowspan="2">State</td><td colspan="3">Frequency</td></tr>
<tr><td>47 MHz to 74 MHz
87,5 MHz to 137 MHz
174 MHz to 230 MHz
470 MHz to 862 MHz</td><td>Other Frequencies below 1 000 MHz</td><td>Frequencies above 1 000 MHz</td></tr>
<tr><td>Operation</td><td>4 nW</td><td>250 nW</td><td>1 µW</td></tr>
<tr><td>Standby</td><td>2 nW</td><td>2 nW</td><td>20 nW</td></tr>
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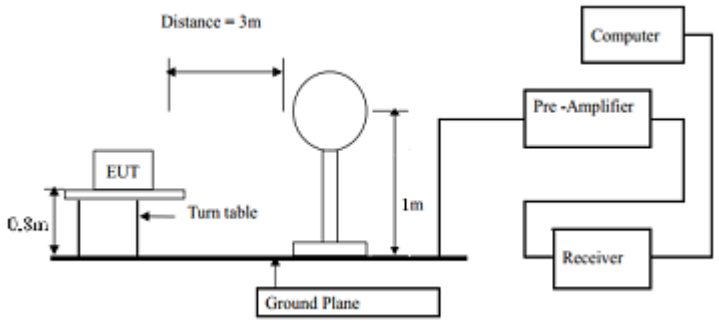
<tr><td>Test setup:</td><td>For radiated emissions below 30MHz
 

30MHz to 1GHz</td></tr>
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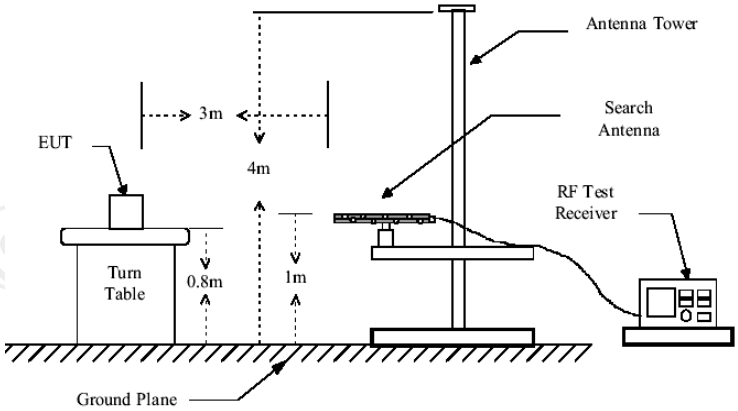
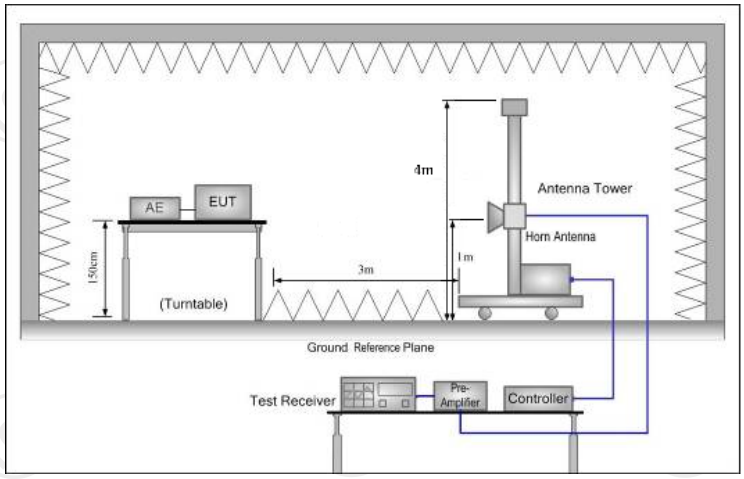


Above 1GHz



Test Procedure:

1. For the radiated emission test below 1GHz:
The EUT was placed on a turntable with 0.8 meter above ground. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high PASS filter are used for the test in order to get better signal level.
For the radiated emission test above 1GHz:
Place the measurement antenna on a turntable with 1.5 meter above ground, which is away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final

	measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane. 3. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level 4. For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported. 5. Use the following spectrum analyzer settings: (1) Span shall wide enough to fully capture the emission being measured; (2) Set RBW=120 kHz for f < 1 GHz; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold; (3) Set RBW = 1 MHz, VBW= 3MHz for f >1 GHz for peak measurement. For average measurement: VBW = 10 Hz, when duty cycle is no less than 98 percent. VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
Test results:	PASS

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4.6.2. Test Instruments

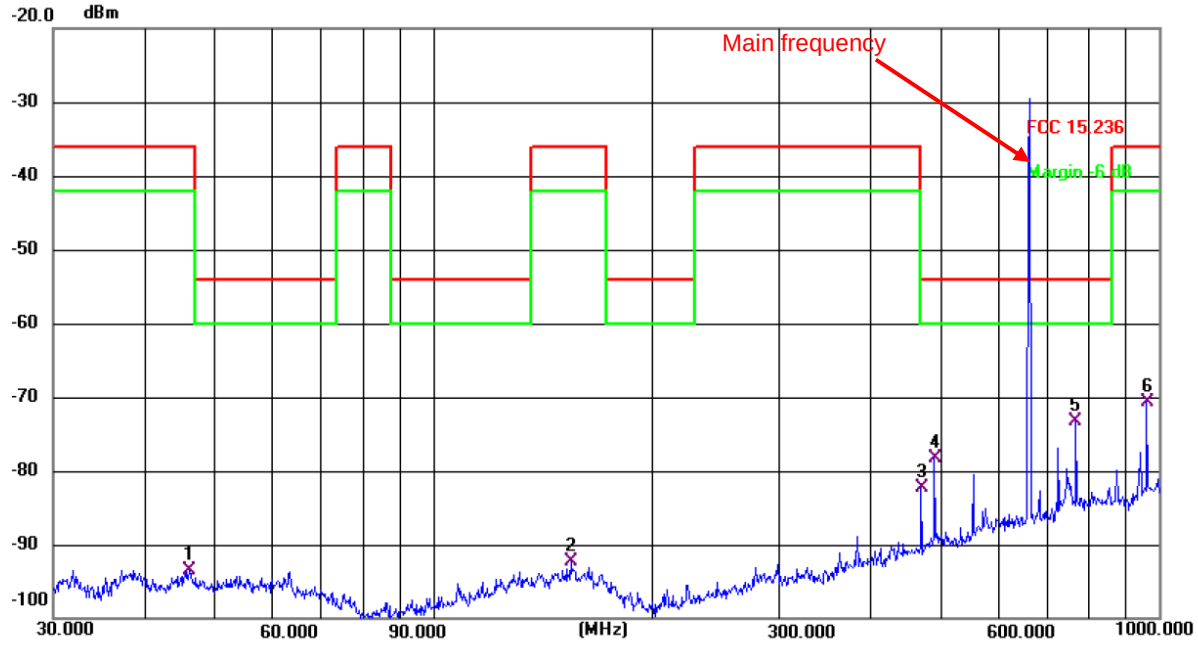
Radiated Emission Test Site (966)					
Equipment	**Manufacturer**	**Model**	**Serial Number**	**Date of Cal.**	**Due Date**
EMI Test Receiver	R&S	ESCI7	100529	Jan. 21, 2025	Jan. 20, 2026
Spectrum Analyzer	R&S	FSQ40	200061	Jun. 26, 2025	Jun. 25, 2026
Pre-amplifier	SKET	LNPA_0118G-45	SK2021012102	Jan. 21, 2025	Jan. 20, 2026
Pre-amplifier	SKET	LNPA_1840G-50	SK202109203500	Apr. 11, 2025	Apr. 10, 2026
Pre-amplifier	HP	8447D	2727A05017	Jun. 26, 2025	Jun. 25, 2026
Loop antenna	Schwarzbeck	FMZB1519B	00191	Jun. 30, 2025	Jun. 29, 2026
Broadband Antenna	Schwarzbeck	VULB9163	340	Jun. 29, 2025	Jun. 28, 2026
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Jun. 29, 2025	Jun. 28, 2026
Horn Antenna	Schwarzbeck	BBHA 9170	00956	Jan. 24, 2025	Jan. 23, 2026
Antenna Mast	Keleto	RE-AM	/	/	/
Coaxial cable	SKET	RE-03-D	/	Jun. 27, 2025	Jun. 26, 2026
Coaxial cable	SKET	RE-03-M	/	Jun. 27, 2025	Jun. 26, 2026
Coaxial cable	SKET	RE-03-L	/	Jun. 27, 2025	Jun. 26, 2026
Coaxial cable	SKET	RE-04-D	/	Jun. 27, 2025	Jun. 26, 2026
Coaxial cable	SKET	RE-04-M	/	Jun. 27, 2025	Jun. 26, 2026
Coaxial cable	SKET	RE-04-L	/	Jun. 27, 2025	Jun. 26, 2026
EMI Test Software	EZ_EMC	FA-03A2 RE+	1.1.4.2	/	/

4.6.3. Test Data

Please refer to following diagram for individual

Below 1GHz

Horizontal:

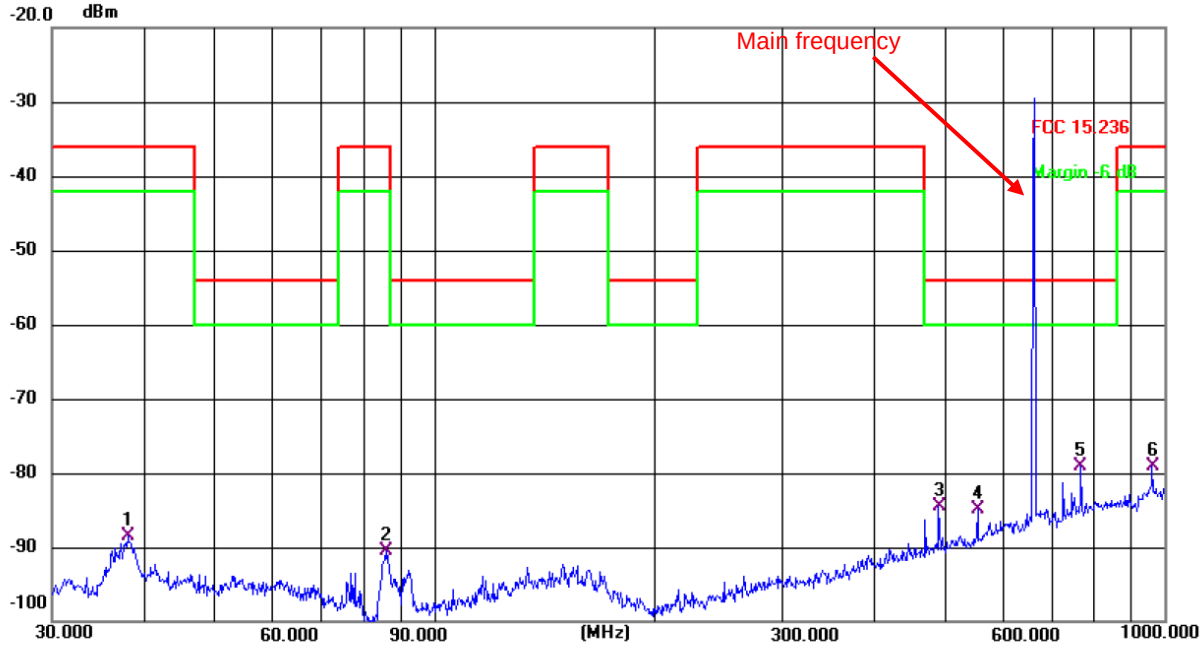


Site 3m Anechoic Chamber2 Polarization: ***Horizontal*** Temperature: 25.1(C) Humidity: 53 %

Limit: FCC 15.236 Power: Supply power by internal battery

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	P/F	Remark
1	46.1779	-74.76	-18.73	-93.49	-36.00	-57.49	QP	P	
2	154.8204	-75.34	-17.01	-92.35	-36.00	-56.35	QP	P	
3	470.5232	-68.86	-13.46	-82.32	-54.00	-28.32	QP	P	
4	490.7447	-65.33	-12.92	-78.25	-54.00	-24.25	QP	P	
5 *	768.7481	-65.34	-7.95	-73.29	-54.00	-19.29	QP	P	
6	962.1623	-65.30	-5.44	-70.74	-36.00	-34.74	QP	P	

Vertical:



Site 3m Anechoic Chamber2 Polarization: *Vertical* Temperature: 25.1(C) Humidity: 53 %

Limit: FCC 15.236 Power: Supply power by internal battery

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	P/F	Remark
1	38.0782	-69.66	-18.82	-88.48	-36.00	-52.48	QP	P	
2	85.8983	-67.96	-22.53	-90.49	-36.00	-54.49	QP	P	
3	490.7446	-71.62	-12.92	-84.54	-54.00	-30.54	QP	P	
4	554.8254	-73.00	-11.84	-84.84	-54.00	-30.84	QP	P	
5 *	768.7481	-71.24	-7.95	-79.19	-54.00	-25.19	QP	P	
6	962.1622	-73.62	-5.44	-79.06	-36.00	-43.06	QP	P	

Note1: *Measurements were conducted in all three channels (high, middle, low), and the worst case Mode (Middle channel) was submitted only.*

Above 1GHz

Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
2630.00	V	-49.99	-30.00	PASS
2649.60	V	-45.04		
--	--	--		
2630.00	H	-48.11		
2649.60	H	-45.86		
--	--	--		

Note:

1. *The emission levels of other frequencies are very lower than the limit and not show in test report.*
2. *Measurements were conducted at the frequency range 25 MHz to 7 GHz for equipment operating on frequencies below 1 GHz.*
3. *Data of measurement shown "---"in the above table mean that the reading of emissions is attenuated more than 20 dB below the limits or the field strength is too small to be measured.*
4. *Measurements were conducted in all three channels (high, middle, low), and the worst case Mode (Middle channel) was submitted only.*

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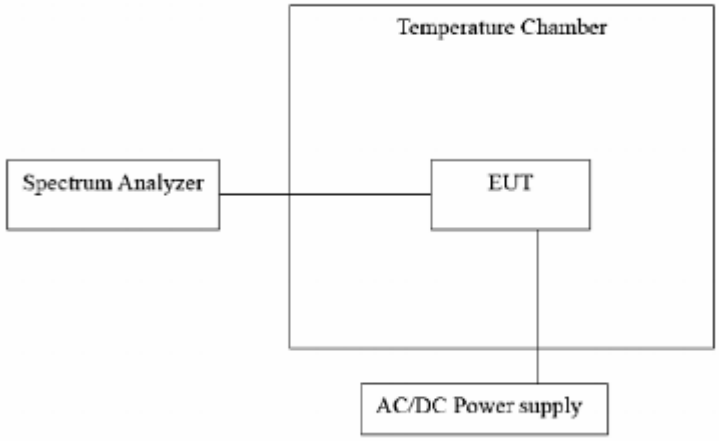
4.7. Frequency Stability Measurement

4.7.1. Test Specification

Test Requirement:	FCC Part15 Section 15.236 (f)(3)
Test Method:	ANSI C63.10:2020
Limit:	The frequency tolerance of the carrier signal shall be maintained within ±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% to115% of the rated supply voltage at a temperature of 20 degrees C.
Test Setup:	
Test Procedure:	The EUT was placed inside the environmental test chamber and powered by nominal AC/DC voltage. b. Turn the EUT on and couple its output to a spectrum analyzer. c. Turn the EUT off and set the chamber to the highest temperature specified. d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize. e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature. f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.
Test Result:	PASS

4.7.2. Test Instruments

Equipment	Manufacturer	Model No.	Serial Number	Date of Cal.	Due Date
Spectrum Analyzer	ROHDE&SCHWARZ	FSQ40	200061	Jun. 26, 2025	Jun. 25, 2026
Programable tempratuce and humidity chamber	JQ	JQ-2000	510101234	Jun. 26, 2025	Jun. 25, 2026
DC power supply	Kingrang	KR3005K	/	Jun. 26, 2025	Jun. 25, 2026

4.7.3. Test data

Test plots as follows:

657.5MHz

Temperature (°C)	Voltage (V_{DC})	Measurement Frequency (MHz)	Delta Frequency (Hz)	Limit (Hz)	Result
50	3.7V	657.5088	8800	32875	PASS
40		657.5090	9000	32875	PASS
30		657.5086	8600	32875	PASS
20		657.5080	8000	32875	PASS
10		657.5091	9100	32875	PASS
0		657.5084	8400	32875	PASS
-10		657.5083	8300	32875	PASS
-20		657.5080	8000	32875	PASS
20	3.15	657.5087	8700	32875	PASS
	3.7	657.5093	9300	32875	PASS
	4.26	657.5092	9200	32875	PASS

Note: Limit(Hz)= 0.00005*Frequency(Hz)=0.00005*657.5*10^{6}=32875(Hz)

659.9MHz

Temperature (°C)	Voltage (V_{DC})	Measurement Frequency (MHz)	Delta Frequency (Hz)	Limit (Hz)	Result
50	3.7V	659.9087	8700	32995	PASS
40		659.9083	8300	32995	PASS
30		659.9084	8400	32995	PASS
20		659.9089	8900	32995	PASS
10		659.9085	8500	32995	PASS
0		659.9092	9200	32995	PASS
-10		659.9081	8100	32995	PASS
-20		659.9088	8800	32995	PASS
20	3.15	659.9091	9100	32995	PASS
	3.7	659.9093	9300	32995	PASS
	4.26	659.9090	9000	32995	PASS

Note: Limit(Hz)= 0.00005*Frequency(Hz)=0.00005*659.9*10^{6}=32995(Hz)

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662.4MHz

Temperature (°C)	Voltage (V_{DC})	Measurement Frequency (MHz)	Delta Frequency (Hz)	Limit (Hz)	Result
50	3.7V	662.4082	8200	33120	PASS
40		662.4084	8400	33120	PASS
30		662.4089	8900	33120	PASS
20		662.4083	8300	33120	PASS
10		662.4086	8600	33120	PASS
0		662.4081	8100	33120	PASS
-10		662.4089	8900	33120	PASS
-20		662.4080	8000	33120	PASS
20	3.15	662.4082	8200	33120	PASS
	3.7	662.4090	9000	33120	PASS
	4.26	662.4077	7700	33120	PASS

Note: Limit(Hz)= 0.00005*Frequency(Hz)=0.00005*662.4*$10^{6=}$33120(Hz)

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Appendix A: Photographs of Test Setup

Please refer to document Appendix No.: TCT250625E019-A

Appendix B: Photographs of EUT

Please refer to document Appendix No.: TCT250625E019-B & TCT250625E019-C

*****END OF REPORT*****