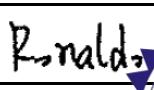


# TEST REPORT

<b>FCC ID.</b> .....	2A5PQ-AS203	
<b>Test Report No.</b> .....	TCT250725E031	
<b>Date of issue</b> .....	Aug. 11, 2025	
<b>Testing laboratory</b> .....	SHENZHEN TONGCE TESTING LAB	
<b>Testing location/ address:</b>	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China	
<b>Applicant's name</b> .....	Beijing Viisan Technology Co., Ltd.	
<b>Address</b> .....	Unit A309 third floor, Information Center, Zhongguancun Software Park, Haidian District, Beijing, 100193 China	
<b>Manufacturer's name</b> .....	Beijing Mysher Technology Co., Ltd.	
<b>Address</b> .....	Room 106, 1st Floor, Building 1, No. 20 Tongji South Road, Beijing Economic-Technological Development Area, Beijing 100176, China	
<b>Standard(s)</b> .....	FCC CFR Title 47 Part 15 Subpart C Section 15.236	
<b>Product Name</b> .....	Wireless Microphone	
<b>Trade Mark</b> .....	Viisan	
<b>Model/Type reference</b> .....	AS203	
<b>Rating(s)</b> .....	Rechargeable Li-ion Battery DC 3.7V	
<b>Date of receipt of test item</b> .....	Jul. 25, 2025	
<b>Date (s) of performance of test</b> .....	Jul. 25, 2025 ~ Aug. 11, 2025	
<b>Tested by (+signature)</b> .....	Ronaldo LUO	
<b>Check by (+signature)</b> .....	Beryl ZHAO	
<b>Approved by (+signature)</b> :	Tomsin	

**General disclaimer:**

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## Table of Contents

<b>1. General Product Information .....</b>	<b>3</b>
1.1. EUT description .....	3
1.2. Model(s) list.....	3
1.3. Operation Frequency .....	3
<b>2. General Information.....</b>	<b>4</b>
2.1. Test environment and mode.....	4
2.2. Description of Support Units.....	4
<b>3. Facilities and Accreditations .....</b>	<b>5</b>
3.1. Facilities .....	5
3.2. Location .....	5
3.3. Measurement Uncertainty.....	5
<b>4. Test Results and Measurement Data .....</b>	<b>6</b>
4.1. Antenna requirement .....	6
4.2. Conducted Emission.....	7
4.3. Maximum Radiated Output Power .....	11
4.4. Occupied Bandwidth.....	13
4.5. Necessary Bandwidth Spurious Emissions .....	16
4.6. Radiated Spurious Emission Measurement.....	19
4.7. Frequency Stability Measurement .....	26

### Appendix A: Photographs of Test Setup

### Appendix B: Photographs of EUT

## 1. General Product Information

### 1.1. EUT description

Product Name.....	Wireless Microphone
Model/Type reference.....	AS203
Sample Number.....	TCT250725E031-0101
Operation Frequency .....	570.0MHz-590.0MHz
Modulation Technology .....	pi/4 DQPSK
Antenna Type.....	Internal Antenna
Antenna Gain .....	-2.2dBi
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

None.

### 1.3. Operation Frequency

570.0MHz-590.0MHz

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	570.0MHz	11	575.0MHz	21	581.5MHz	31	586.5MHz
2	570.5MHz	12	575.5MHz	22	582.0MHz	32	587.0MHz
3	571.0MHz	13	577.5MHz	23	582.5MHz	33	587.5MHz
4	571.5MHz	14	578.0MHz	24	583.0MHz	34	588.0MHz
5	572.0MHz	15	578.5MHz	25	583.5MHz	35	588.5MHz
6	572.5MHz	16	579.0MHz	26	584.0MHz	36	589.0MHz
7	573.0MHz	17	579.5MHz	27	584.5MHz	37	589.5MHz
8	573.5MHz	18	580.0MHz	28	585.0MHz	38	590.0MHz
9	574.0MHz	19	580.5MHz	29	585.5MHz		
10	574.5MHz	20	581.0MHz	30	586.0MHz		

Remark: Channel 1, 18 & 38 have been tested for pi/4 DQPSK modulation mode.

## 2. General Information

### 2.1. Test environment and mode

Operating Environment:		
Condition	Conducted Emission	Radiated Emission
Temperature:	24.7 °C	25.7 °C
Humidity:	52 % RH	51 % 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	
<p>The sample was placed 0.8m &amp; 1.5m for the measurement below &amp; 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 &amp; 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.</p>		

### 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.

### 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

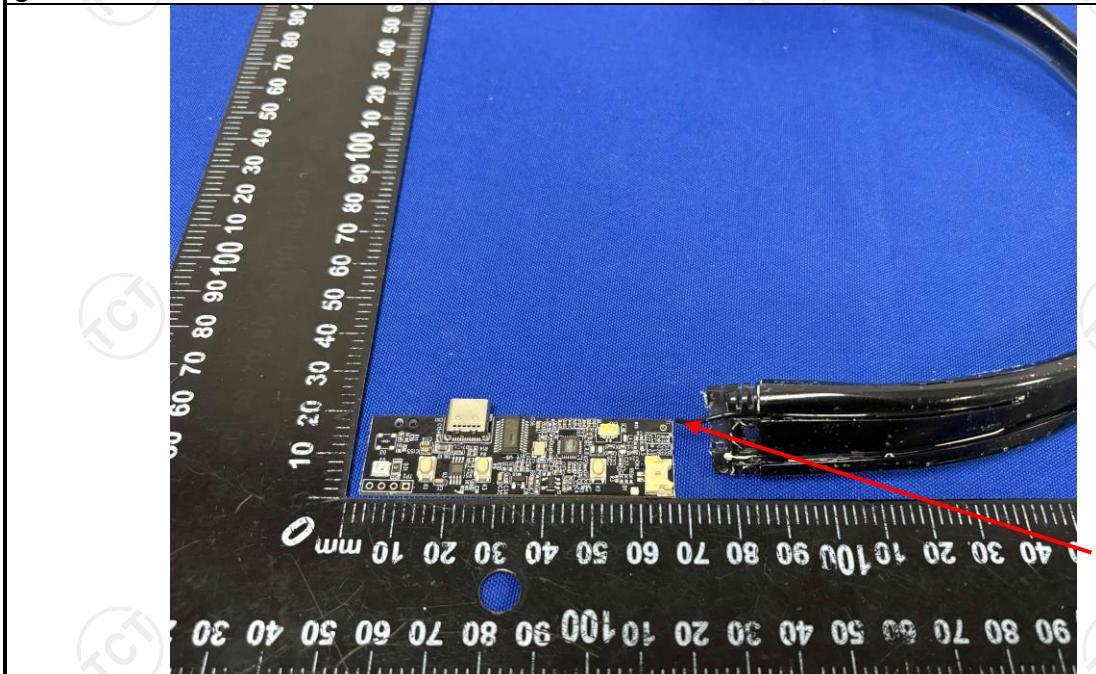
The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95 %.

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

## 4. Test Results and Measurement Data

### 4.1. Antenna requirement

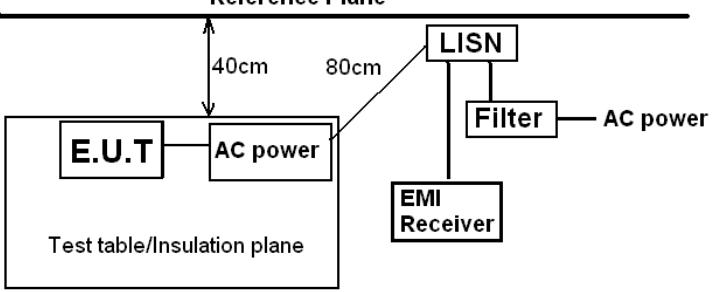
<b>Standard requirement:</b>	FCC Part15 C Section 15.203
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique 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.	
<b>E.U.T Antenna:</b>	
The antenna is an internal antenna which permanently attached, and the best case gain of the antenna is -2.2dBi.	



Antenna

## 4.2. Conducted Emission

### 4.2.1. Test Specification

<b>Test Requirement:</b>	FCC Part15 C Section 15.207														
<b>Test Method:</b>	ANSI C63.10:2020														
<b>Frequency Range:</b>	150 kHz to 30 MHz														
<b>Receiver setup:</b>	RBW=9 kHz, VBW=30 kHz, Sweep time=auto														
<b>Limits:</b>	<table border="1"> <thead> <tr> <th rowspan="2">Frequency range (MHz)</th> <th colspan="2">Limit (dBuV)</th> </tr> <tr> <th>Quasi-peak</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>0.15-0.5</td> <td>66 to 56*</td> <td>56 to 46*</td> </tr> <tr> <td>0.5-5</td> <td>56</td> <td>46</td> </tr> <tr> <td>5-30</td> <td>60</td> <td>50</td> </tr> </tbody> </table>	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
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													
<b>Test Setup:</b>	<p style="text-align: center;"><b>Reference Plane</b></p>  <p><i>Remark:</i> E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m</p>														
<b>Test Mode:</b>	Charging + Transmitting Modulation														
<b>Test Procedure:</b>	<ol style="list-style-type: none"> <li>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.</li> <li>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).</li> <li>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.</li> </ol>														
<b>Test Result:</b>	PASS														

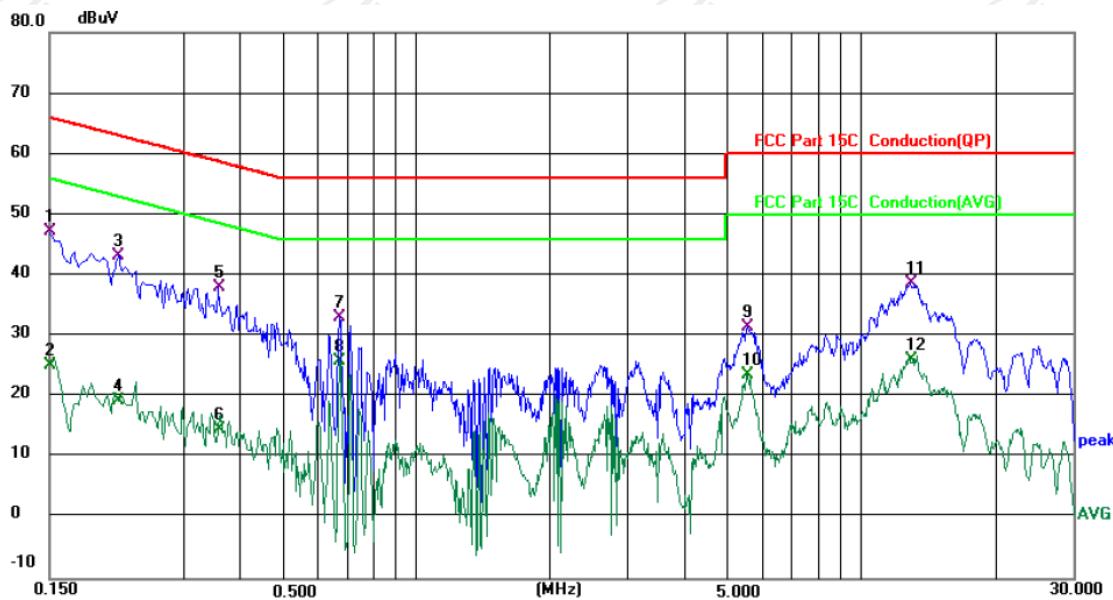
**4.2.2. Test Instruments**

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	/	/

#### 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: 24.7 (°C)		Humidity: 52 %		
Limit: FCC Part 15C Conduction(QP)			Power: DC 5V(Adapter Input AC 120V/60Hz)						
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1500	38.70	8.55	47.25	66.00	-18.75	QP	
2		0.1500	16.56	8.55	25.11	56.00	-30.89	AVG	
3		0.2139	34.71	8.51	43.22	63.05	-19.83	QP	
4		0.2139	10.79	8.51	19.30	53.05	-33.75	AVG	
5		0.3579	29.49	8.53	38.02	58.78	-20.76	QP	
6		0.3579	6.01	8.53	14.54	48.78	-34.24	AVG	
7		0.6740	24.57	8.50	33.07	56.00	-22.93	QP	
8		0.6740	17.32	8.50	25.82	46.00	-20.18	AVG	
9		5.5860	22.85	8.74	31.59	60.00	-28.41	QP	
10		5.5860	14.86	8.74	23.60	50.00	-26.40	AVG	
11		12.9339	29.89	8.92	38.81	60.00	-21.19	QP	
12		12.9339	17.20	8.92	26.12	50.00	-23.88	AVG	

#### Note:

Freq. = Emission frequency in MHz

Reading level (dB $\mu$ V) = Receiver reading

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

Measurement (dB $\mu$ V) = Reading level (dB $\mu$ V) + Corr. Factor (dB)

Limit (dB $\mu$ V) = Limit stated in standard

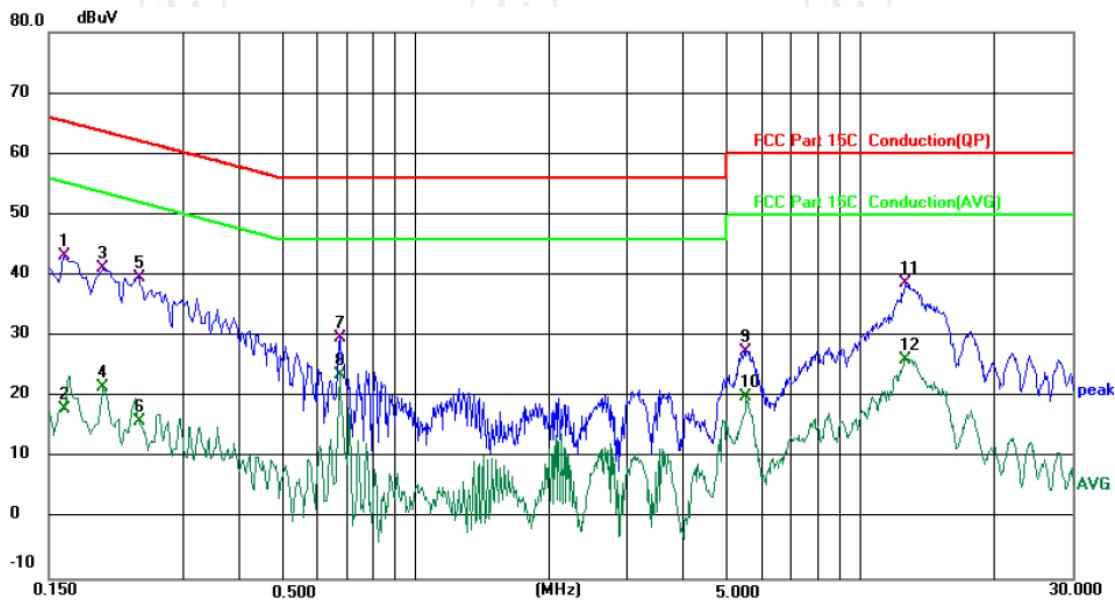
Margin (dB) = Measurement (dB $\mu$ V) – Limits (dB $\mu$ V)

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: <i>N</i>		Temperature: 24.7 (°C)		Humidity: 52 %			
Limit: FCC Part 15C Conduction(QP)				Power: DC 5V(Adapter Input AC 120V/60Hz)							
No.	Mk.	Reading Level	Correct Factor	Measure- ment	Limit	Over					
		MHz	dBuV	dB	dBuV	dB	Detector	Comment			
1	0.1620	34.63	8.53	43.16	65.36	-22.20	QP				
2	0.1620	9.40	8.53	17.93	55.36	-37.43	AVG				
3	0.1980	32.63	8.52	41.15	63.69	-22.54	QP				
4	0.1980	13.09	8.52	21.61	53.69	-32.08	AVG				
5	0.2380	31.18	8.52	39.70	62.17	-22.47	QP				
6	0.2380	7.56	8.52	16.08	52.17	-36.09	AVG				
7	0.6780	21.28	8.54	29.82	56.00	-26.18	QP				
8	0.6780	15.18	8.54	23.72	46.00	-22.28	AVG				
9	5.5540	18.82	8.74	27.56	60.00	-32.44	QP				
10	5.5540	11.29	8.74	20.03	50.00	-29.97	AVG				
11 *	12.6660	29.64	8.97	38.61	60.00	-21.39	QP				
12	12.6660	17.13	8.97	26.10	50.00	-23.90	AVG				

**Note1:**

Freq. = Emission frequency in MHz

Reading level (dB $\mu$ V) = Receiver reading

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

Measurement (dB $\mu$ V) = Reading level (dB $\mu$ V) + Corr. Factor (dB)

Limit (dB $\mu$ V) = Limit stated in standard

Margin (dB) = Measurement (dB $\mu$ V) – Limits (dB $\mu$ V)

Q.P. =Quasi-Peak

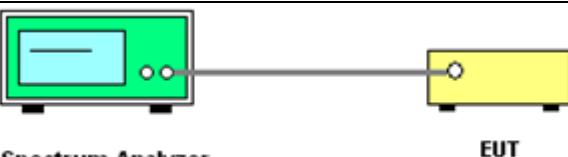
AVG =average

\* 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 (Highest channel) was submitted only.

### 4.3. Maximum Radiated Output Power

### 4.3.1. Test Specification

<b>Test Requirement:</b>	FCC Part15 C Section 15.236 (d)
<b>Test Method:</b>	ANSI C63.10:2020
<b>Limit:</b>	20 mW EIRP
<b>Test Setup:</b>	 <p>The diagram illustrates the test setup. A green rectangular box labeled "Spectrum Analyzer" is connected to a yellow rectangular box labeled "EUT" (Equipment Under Test) by a horizontal grey line representing an RF cable. The spectrum analyzer has two small circular ports on its front panel, and the EUT has a single circular port on its front panel.</p>
<b>Test Mode:</b>	Transmitting mode with modulation
<b>Test Procedure:</b>	<ol style="list-style-type: none"><li>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.</li><li>2. Set to the maximum power setting and enable the EUT transmit continuously.</li><li>3. Measure the conducted output power and record the results in the test report.</li></ol>
<b>Test Result:</b>	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
570.0	11.69	-2.2	9.49	8.89	20	PASS
580.0	12.20	-2.2	10.00	10.00	20	PASS
590.0	12.73	-2.2	10.53	11.30	20	PASS

**Note: EIRP = Conducted Output Power + Antenna Gain**

## 4.4. Occupied Bandwidth

#### 4.4.1. Test Specification

<b>Test Requirement:</b>	FCC Part15 C Section 15.236 (f)
<b>Test Method:</b>	ANSI C63.10:2020
<b>Limit:</b>	not exceed 200 kHz
<b>Test Setup:</b>	 <p>The diagram illustrates the test setup. A green rectangular box labeled "Spectrum Analyzer" is connected to a yellow rectangular box labeled "EUT" (Equipment Under Test) by a horizontal line representing a cable. The connection point is marked with a circular connector icon.</p>
<b>Test Mode:</b>	Transmitting mode with modulation
<b>Test Procedure:</b>	<ol style="list-style-type: none"><li>1. Set to the maximum power setting and enable the EUT transmit continuously.</li><li>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.</li><li>3. Use the 99% power bandwidth function and record the results in the test report.</li></ol>
<b>Test Result:</b>	PASS

#### 4.4.2. Test Instruments

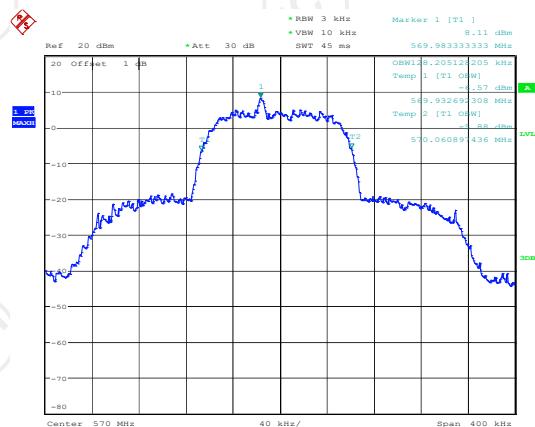
Equipment	Manufacturer	Model No.	Serial Number	Date of Cal.	Due Date
Spectrum Analyzer	R&S	FSU	200054	Jun. 26, 2025	Jun. 25, 2026

**4.4.3. Test data**

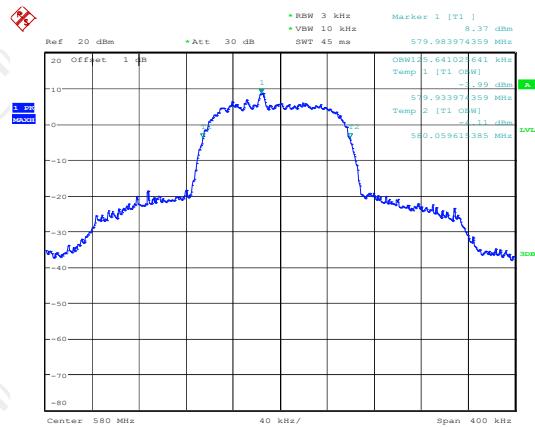
Frequency (MHz)	Occupy Bandwidth (kHz)	Limit (kHz)	Conclusion
570.0	128.21	200	PASS
580.0	125.64	200	PASS
590.0	126.92	200	PASS

Test plots as follows:

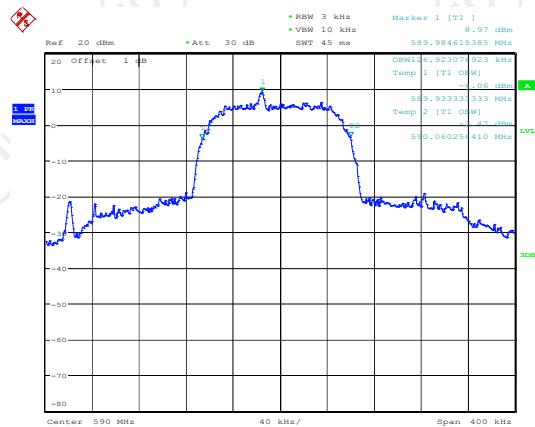
570.0MHz



580.0MHz



590.0MHz



## 4.5. Necessary Bandwidth Spurious Emissions

### 4.5.1. Test Specification

<b>Test Requirement:</b>	FCC Part15 C Section 15.236 (g)
<b>Test Method:</b>	ANSI C63.10:2020
<b>Limit:</b>	<p>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)</p> <p>fc = Transmitter carrier frequency</p>
<b>Test Setup:</b>	
<b>Test Mode:</b>	Transmitting mode with modulation
<b>Test Procedure:</b>	<ol style="list-style-type: none"> <li>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.</li> <li>The corresponding audio output level from the demodulator shall be measured and recorded.</li> <li>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.</li> <li>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 <math>\leq 10</math> 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).</li> </ol>

	<p>5. Measure the input level at the transmitter required to give +12 dB (lim).</p> <p>6. The transmitter RF output spectrum shall be measured, using a spectrum analyser with the following settings:</p> <ul style="list-style-type: none"> <li>- centre frequency: fc: Transmitter (Tx) nominal frequency;</li> <li>- dispersion (Span): fc - 1 MHz to fc + 1 MHz;</li> <li>- Resolution BandWidth (RBW): 1 kHz;</li> <li>- Video BandWidth (VBW): 1 kHz;</li> <li>- detector: Peak hold.</li> </ul>
<b>Test Result:</b>	PASS

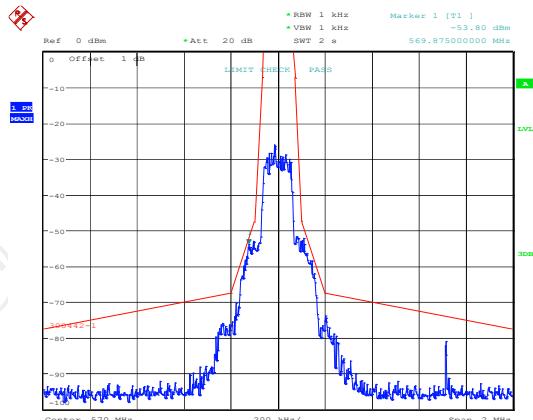
#### 4.5.2. Test Instruments

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

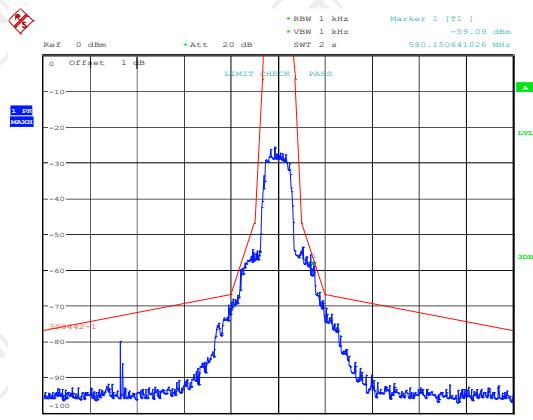
Test plots as follows:

570.0MHz



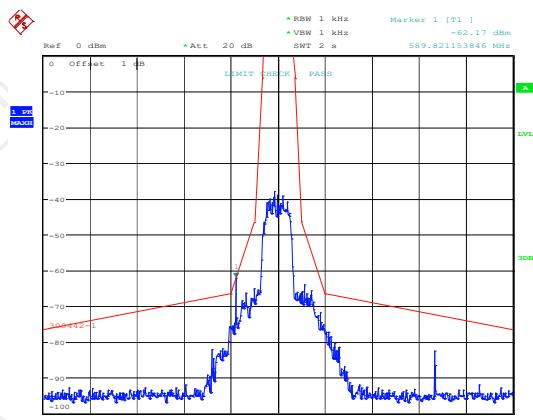
0  
Date: 11.AUG.2025 10:50:24

580.0MHz



0  
Date: 11.AUG.2025 11:06:28

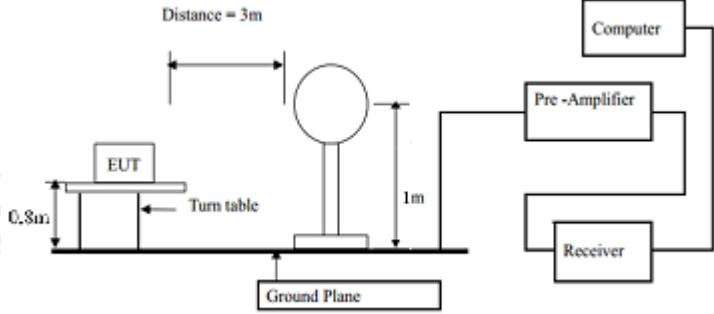
590.0MHz

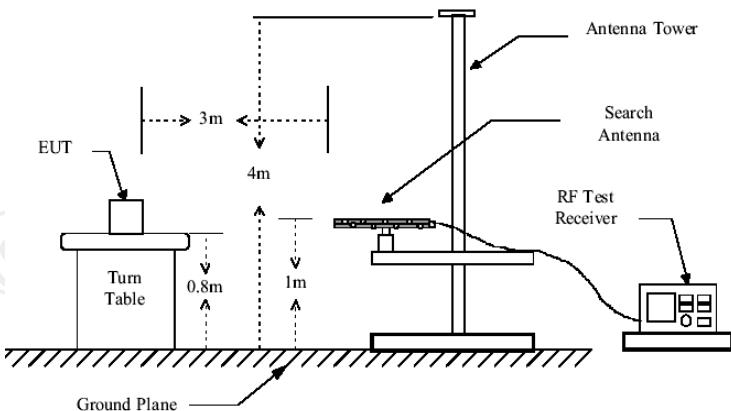


0  
Date: 11.AUG.2025 10:40:32

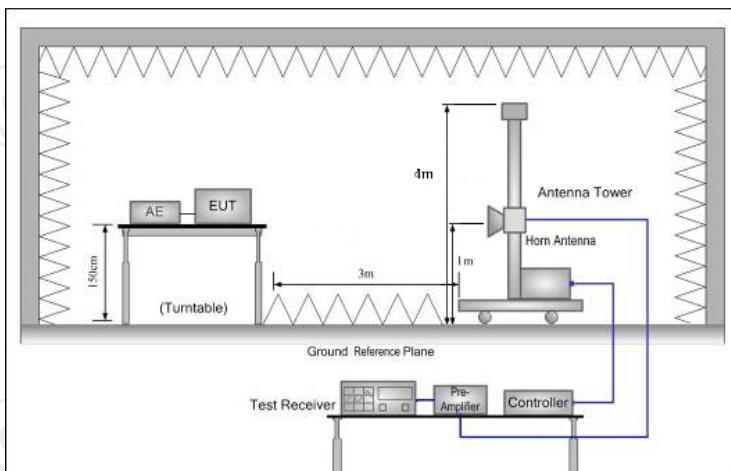
## 4.6. Radiated Spurious Emission Measurement

### 4.6.1. Test Specification

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



Above 1GHz



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

#### Test Procedure:

	<p>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.</p> <p>3. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level</p> <p>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.</p> <p>5. Use the following spectrum analyzer settings:</p> <ul style="list-style-type: none"><li>(1) Span shall wide enough to fully capture the emission being measured;</li><li>(2) Set RBW=120 kHz for <math>f &lt; 1</math> GHz; VBW <math>\geq</math> RBW; Sweep = auto; Detector function = peak; Trace = max hold;</li><li>(3) Set RBW = 1 MHz, VBW= 3MHz for <math>f &gt; 1</math> GHz for peak measurement.</li></ul> <p>For average measurement: VBW = 10 Hz, when duty cycle is no less than 98 percent. VBW <math>\geq 1/T</math>, 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.</p>
<b>Test results:</b>	PASS

#### 4.6.2. Test Instruments

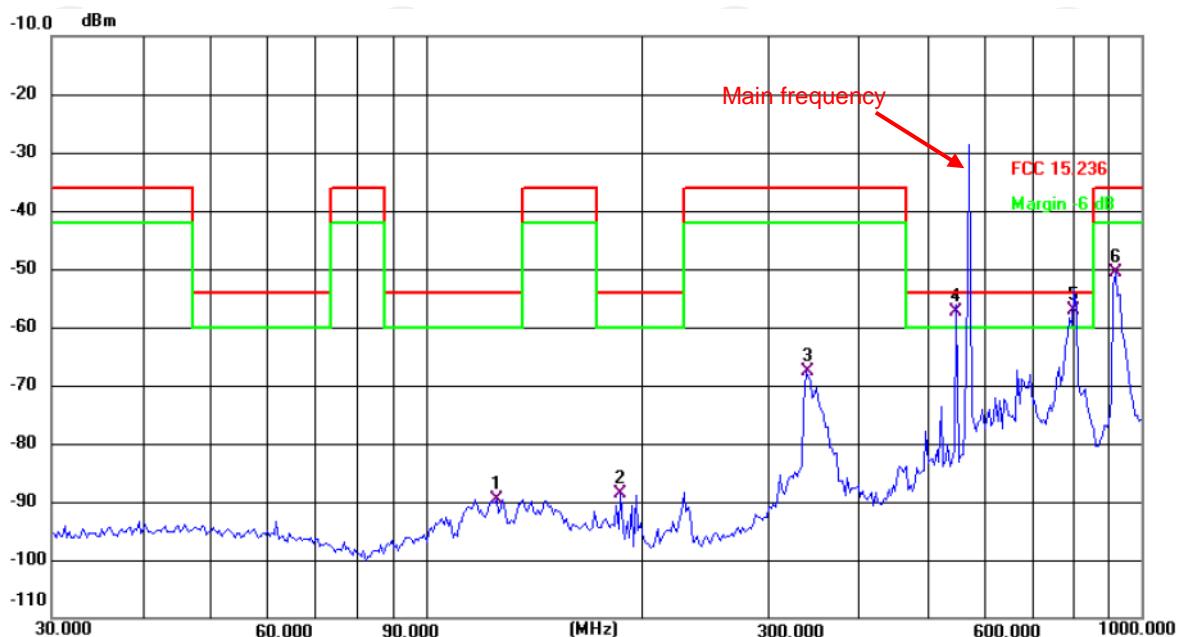
Radiated Emission Test Site (966)					
Equipment	Manufacturer	Model	Serial Number	Date of Cal.	Due Date
EMI Test Receiver	R&S	ESCI7	100529	Jan. 21, 2025	Jan. 20, 2026
Spectrum Analyzer	R&S	FSQ40	200061	Jun. 26, 2025	Jun. 25, 2026
Pre-amplifier	SKET	LNPA_0118G-45	SK2021012102	Jan. 21, 2025	Jan. 20, 2026
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_EMCA	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 Chamber1

Polarization: **Horizontal**

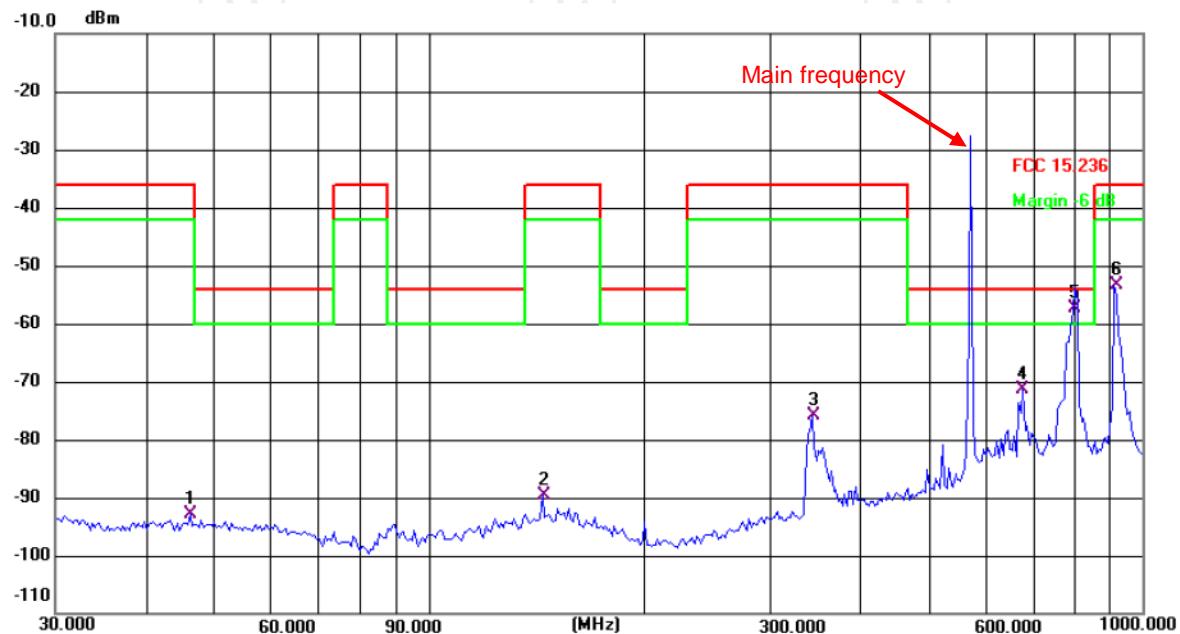
Temperature: 25.7(C) Humidity: 51 %

Limit: FCC 15.236

Power: DC 3.7V

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	P/F	Remark
1	125.4457	-76.48	-13.02	-89.50	-54.00	-35.50	QP	P	
2	187.0957	-74.64	-14.02	-88.66	-54.00	-34.66	QP	P	
3	339.5888	-57.34	-10.29	-67.63	-36.00	-31.63	QP	P	
4 !	550.9480	-50.53	-6.73	-57.26	-54.00	-3.26	QP	P	
5 *	804.6027	-54.53	-2.56	-57.09	-54.00	-3.09	QP	P	
6	919.2865	-49.61	-1.09	-50.70	-36.00	-14.70	QP	P	

Vertical:



Site: 3m Anechoic Chamber1

Polarization: **Vertical**

Temperature: 25.7(C) Humidity: 51 %

Limit: FCC 15.236

Power: DC 3.7V

No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Detector	P/F	Remark
1	46.3402	-80.56	-12.36	-92.92	-36.00	-56.92	QP	P	
2	144.3347	-77.74	-11.92	-89.66	-36.00	-53.66	QP	P	
3	344.3855	-65.61	-10.21	-75.82	-36.00	-39.82	QP	P	
4	679.9600	-66.82	-4.55	-71.37	-54.00	-17.37	QP	P	
5 *	804.6027	-54.71	-2.56	-57.27	-54.00	-3.27	QP	P	
6	912.8620	-52.10	-1.24	-53.34	-36.00	-17.34	QP	P	

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

**Above 1GHz**

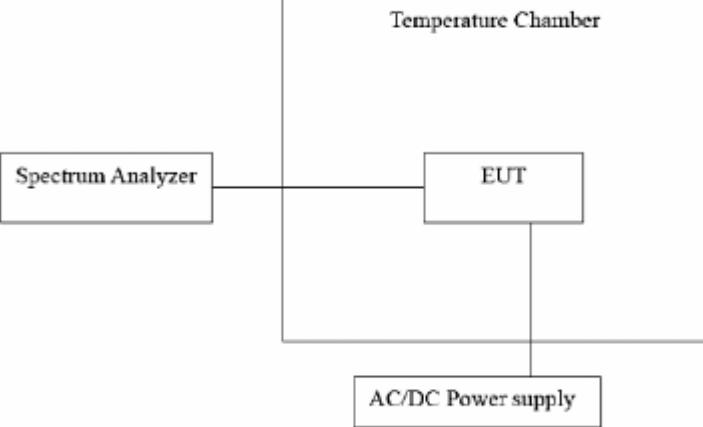
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
2280.790	V	-49.15	-30.00	PASS
2360.004	V	-45.82		
--	--	--		
2280.794	H	-48.07		
2360.006	H	-45.13		
--	--	--		

**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 4 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 (Highest channel) was submitted only.

## 4.7. Frequency Stability Measurement

### 4.7.1. Test Specification

<b>Test Requirement:</b>	FCC Part15 Section 15.236 (f)(3)
<b>Test Method:</b>	ANSI C63.10:2020
<b>Limit:</b>	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.
<b>Test Setup:</b>	 <pre> graph LR     SA[Spectrum Analyzer] --- EUT[EUT]     EUT --- AC[AC/DC Power supply]     EUT --- TC[Temperature Chamber]   </pre>
<b>Test Procedure:</b>	<p>The EUT was placed inside the environmental test chamber and powered by nominal AC/DC voltage.</p> <ol style="list-style-type: none"> <li>Turn the EUT on and couple its output to a spectrum analyzer.</li> <li>Turn the EUT off and set the chamber to the highest temperature specified.</li> <li>Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize.</li> <li>Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.</li> <li>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.</li> </ol>
<b>Test Result:</b>	PASS

#### 4.7.2. Test Instruments

Equipment	Manufacturer	Model No.	Serial Number	Date of Cal.	Due Date
Spectrum Analyzer	ROHDE&SC HWARZ	FSQ40	200061	Jun. 26, 2025	Jun. 25, 2026
Programable temprature 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:

570.0MHz

Temperature (°C)	Voltage (VDC)	Measurement Frequency (MHz)	Delta Frequency (Hz)	Limit (Hz)	Result
50	3.7V	569.9838	-16200	28500	PASS
40		569.9832	-16800	28500	PASS
30		569.9845	-15500	28500	PASS
20		569.9841	-15900	28500	PASS
10		569.9831	-16900	28500	PASS
0		569.9829	-17100	28500	PASS
-10		569.9842	-15800	28500	PASS
-20		569.9837	-16300	28500	PASS
	3.15	569.9835	-16500	28500	PASS
20	3.7	569.9844	-15600	28500	PASS
	4.26	569.9849	-15100	28500	PASS

Note: Limit(Hz)= 0.00005\*Frequency(Hz)=0.00005\*570.0\*10<sup>6</sup>=28500(Hz)

580.0MHz

Temperature (°C)	Voltage (VDC)	Measurement Frequency (MHz)	Delta Frequency (Hz)	Limit (Hz)	Result
50	3.7V	579.9841	-15900	29000	PASS
40		579.9838	-16200	29000	PASS
30		579.9828	-17200	29000	PASS
20		579.9845	-15500	29000	PASS
10		579.9840	-16000	29000	PASS
0		579.9842	-15800	29000	PASS
-10		579.9851	-14900	29000	PASS
-20		579.9847	-15300	29000	PASS
	3.15	579.9848	-15200	29000	PASS
20	3.7	579.9846	-15400	29000	PASS
	4.26	579.9833	-16700	29000	PASS

Note: Limit(Hz)= 0.00005\*Frequency(Hz)=0.00005\*580.0\*10<sup>6</sup>=29000(Hz)

590.0MHz

Temperature (°C)	Voltage (VDC)	Measurement Frequency (MHz)	Delta Frequency (Hz)	Limit (Hz)	Result
50	3.7V	589.9837	-16300	29500	PASS
40		589.9848	-15200	29500	PASS
30		589.9849	-15100	29500	PASS
20		589.9844	-15600	29500	PASS
10		589.9831	-16900	29500	PASS
0		589.9835	-16500	29500	PASS
-10		589.9842	-15800	29500	PASS
-20		589.9839	-16100	29500	PASS
	3.15	589.9843	-15700	29500	PASS
20	3.7	589.9846	-15400	29500	PASS
	4.26	589.9841	-15900	29500	PASS

Note: Limit(Hz)= 0.00005\*Frequency(Hz)=0.00005\*590.0\*10<sup>6</sup>=29500(Hz)

**Appendix A: Photographs of Test Setup**

Please refer to document Appendix No.: TCT250725E031-A

**Appendix B: Photographs of EUT**

Please refer to document Appendix No.: TCT250725E031-B & TCT250725E031-C

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