



FCC TEST REPORT

FCC ID: 2BLPR-B1065

On Behalf of

Shenzhen Guerben Technology Co., Ltd.

TV Speaker

Model No.: B1065, B105001, B105002, B105003, B105004, B105005, B105006, B105007,
B105008, B105009, B105010

Prepared for : Shenzhen Guerben Technology Co., Ltd.
Room 306-1, Building 17, Maker Town, No. 4109, Liuxian Avenue,
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TEST REPORT DECLARATION

Applicant : Shenzhen Guerben Technology Co., Ltd.
Address : Room 306-1, Building 17, Maker Town, No. 4109, Liuxian Avenue, Pingshan Community, Taoyuan Street, Nanshan District, Shenzhen
Manufacturer : Shenzhen HanHong Digital Technology Co., Ltd.
Address : Building A Room #303, Huafeng Internet-Innovation Technology Park, Gonghe Industry Road 107#, Xixiang Street, Baoan, Shenzhen
EUT Description : TV Speaker
(A) Model No. : B1065, B105001, B105002, B105003, B105004, B105005, B105006, B105007, B105008, B105009, B105010
(B) Trademark : N/A

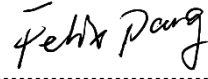
Measurement Standard Used:

FCC CFR47 Part 15 Section 15.249

ANSI C63.10:2013

The device described above is tested by Shenzhen PSI Testing Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The test results are contained in this test report and Shenzhen PSI Testing Co., Ltd. is assumed full responsibility for the accuracy and completeness of test. Also, this report shows that the EUT is technically compliant with the FCC Part 15 requirements.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen PSI Testing Co., Ltd.

Tested by (name + signature).....: Felix Pang
Test Engineer 
Approved by (name + signature).....: Simple Guan
Project Manager 
Date of issue.....: April 7, 2025

Revision History

Revision	Issue Date	Revisions	Revised By
V0	April 7, 2025	Initial released Issue	Felix Pang

1. Summary Of Standards And Results

1.1. Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below:

Test Item	Standards Paragraph	Result
Conducted Emission	15.207	P
Fundamental & Radiated Spurious Emission Measurement	15.249(c)	P
Band Edge Emission	15.205	P
20dB Bandwidth	15.215	P
Antenna Requirement	15.203	P

Note: 1. P is an abbreviation for Pass.

2. F is an abbreviation for Fail.

3. N/A is an abbreviation for Not Applicable.

4. Frequency Stability: The manufacturer stated in the user's manual.

5. Conclusion determination rules of this report: Unless there are clear provisions on measurement uncertainty in the standard or customer requirements, decision by actual test data without considering measurement uncertainty.

2. General Information

2.1. Description of Device (EUT)

Product Name : TV Speaker

Model No. : B1065

Diff : B1065 is tested model, other models are derivative models .
The models are identical in circuit, only different on the model names.
So the test data of B1065 can represent the remaining models.

Power supply : Input: 5 V  1 A

Radio Technology	: Lora
Operation frequency	: 5726MHz~5850MHz
Modulation type	: FSK
Channel No.	: 32 Channels
Antenna Type	: FPC Antenna, Maximum Gain is 4.65dBi.

Software version : N/A

Hardware version/FVIN : N/A

Intend use environment : Residential, commercial and light industrial environment

Note : Antenna information is provided by applicant.
Testing lab is not responsible for the accuracy of the information.

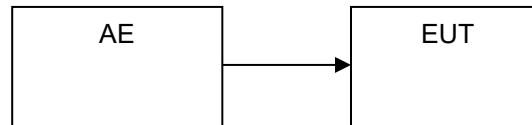
2.2. Accessories of Device (EUT)

Accessories : N/A
 Manufacturer : N/A
 Model : N/A
 Ratings : N/A

2.3. Tested Supporting System Details

No.	Description	Manufacturer	Model	Serial Number
1	Power Supply	Shenzhen Perfect Gallant Tec Co.,Ltd	PGO10-0501000UB	AE
2	/	/	/	/

2.4. Block Diagram of Connection Between EUT and Simulators



Signal Cable Description of the above Support Units

No.	Port Name	Cable	Length	Shielded (Yes or No)	Detachable (Yes or No)

2.5. Test Mode Description

The test software was used to control EUT work in Continuous TX mode, and select test channel, wireless mode

Tested mode, channel, and data rate information		
Mode	Channel	Frequency (MHz)
FSK Tx Mode	CH0	5726
	CH16	5790
	CH31	5850

Channel list:					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
CH0	5726 MHz	CH14	5782 MHz	CH28	5838 MHz
CH1	5730 MHz	CH15	5786 MHz	CH29	5842 MHz
CH2	5734 MHz	CH16	5790 MHz	CH30	5846 MHz
CH3	5738 MHz	CH17	5794 MHz	CH31	5850 MHz
CH4	5742 MHz	CH18	5798 MHz	--	--
CH5	5746 MHz	CH19	5802 MHz	--	--
CH6	5750 MHz	CH20	5806 MHz	--	--
CH7	5754 MHz	CH21	5810 MHz	--	--
CH8	5758 MHz	CH22	5814 MHz	--	--
CH9	5762 MHz	CH23	5818 MHz	--	--
CH10	5766 MHz	CH24	5822 MHz	--	--
CH11	5770 MHz	CH25	5826 MHz	--	--
CH12	5774 MHz	CH26	5830 MHz	--	--
CH13	5778 MHz	CH27	5834 MHz	--	--

2.6. Software test version and power setting information

Software testing version	wn_audio_mptool
Mode	< 0 dBm
Power level setup by client	

2.7. Test Conditions

Items	Required	Actual
Temperature range:	15-35℃	24℃
Humidity range:	25-75%	56%
Pressure range:	86-106kPa	98kPa

2.8. Test Facility

Shenzhen PSI Testing Co., Ltd.

1-2F, Building 5, Yudafu Industrial Park, No. 10, Xingye West Road, Shajing Street, Bao'an District, Shenzhen, Guangdong, China 518104

September 21, 2023 File on Federal Communication Commission
Registration Number: 916281

September 21, 2023 Certificated by IC
Registration Number: 31123
CAB identifier: CN0158

2.9. Measurement Uncertainty

(95% confidence levels, k=2)

Item	Uncertainty
Uncertainty for Power point Conducted Emissions Test	2.17dB
Uncertainty for Radiation Emission test in 3m chamber (below 30MHz)	3.5dB
Uncertainty for Radiation Emission test in 3m chamber (30MHz to 1GHz)	2.74dB(Polarize: V)
	2.76dB(Polarize: H)
Uncertainty for Radiation Emission test in 3m chamber (1GHz to 18GHz)	4.29dB(Polarize: V)
	4.82dB(Polarize: H)
Uncertainty for Radiation Emission test in 3m chamber (18GHz to 40GHz)	4.31dB(Polarize: V)
	4.30dB(Polarize: H)
Uncertainty for radio frequency	48.24KHz
Uncertainty for conducted RF Power	0.41dB
Uncertainty for Power Spectral Density	0.39 dB
Uncertainty for OBW	928Hz

2.10.Test Equipment List

Item	Equipment	Manufacturer	Model No.	Serial No.	Firmware Version	Last Cal.	Cal. Interval
1.	9*6*6 anechoic chamber	SKET	9*6*6	N/A	/	2022.12.20	3 Year
2.	Test Receiver	Rohde&Schwarz	ESCI 7	101032/003	4.42 SP3	2024.12.18	1 Year
3.	L.I.S.N.#1	Rohde&Schwarz	ENV216	102282	/	2024.12.18	1 Year
4.	L.I.S.N.#2	RFT	NNB111	13835240	/	2024.12.18	1 Year
5.	Loop Antenna	Schwarz beck	FMZB 1519B	00128	/	2025.01.02	2 Year
6.	Bilog Antenna	Schwarz beck	VULB 9168	01448	/	2025.01.02	2 Year
7.	Spectrum Analyzer	Rohde&Schwarz	FSV-40N	101648	3.70	2024.12.18	1 Year
8.	Horn Antenna	Schwarz beck	BBHA 9120 D	02706	/	2025.01.02	2 Year
9.	Amplifier	SKET	LAPA_01G1 8G-45dB	SK20220329 01	/	2024.12.18	1 Year
10.	Horn Antenna	Schwarz beck	BBHA 9170	00946	/	2024.12.31	2 Year
11.	Amplifier	SKET	LNPA_0118 G-45	SK20200108 01	/	2024.12.18	1 Year
12.	RF Power Probe	Rohde&Schwarz	NRP-Z11	1138.3004.0 2-1111533-Fz	/	2024.12.18	1 Year
13.	RF Sensor Unit	Tachoy	TR1029-2	20220428P0 08	/	2024.12.18	1 Year
14.	Spectrum Analyzer	Agilent	N9020A	MY51281067	A.14.03	2024.12.18	1 Year
15.	Temp. & Humid Chamber	Auchno	9606	/	/	2024.12.18	1 Year
16.	Regulated DC Power Supply	Xinouhua	ADC120V10 A	20221125163 8		2024.12.18	1 Year
17.	Cable	SKET	Cable-RE-1	#02/#03	/	2024.12.18	1 Year
18.	Cable	SKET	Cable-RE-2	#01	/	2024.12.18	1 Year
19.	Cable	SKET	Cable-RE-3	#04	/	2024.12.18	1 Year
20.	Cable	SKET	Cable-CE-1	A-E-24	/	2024.12.18	1 Year
21.	6dB Attenuator	Schwarzbeck	DGA 9552N 6dB	CK4186	/	2024.12.18	1 Year
For Test Software Information							
Item	Software Name	Manufacturer			Version		
RE	EZ EMC	Farad			PSI-3A1		
CE	EZ EMC	Farad			PSI-3A1		
RF	RTS	TACHOY			V1.0.0		

3. CONDUCTED EMISSION

Test Requirement	: FCC CFR 47 Part 15 Section 15.207
Test Method	: ANSI C63.10:2013
Test Result	: PASS
Frequency Range	: 150kHz to 30MHz
Class/Severity	: Class B

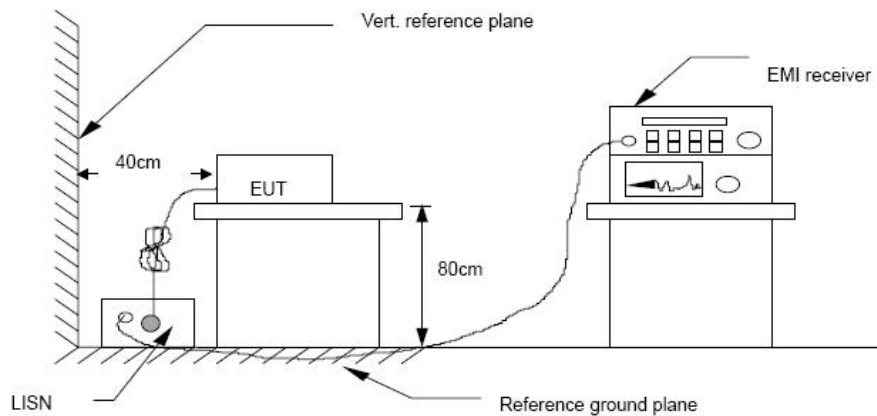
3.1.E.U.T. Operation

Operating Environment :

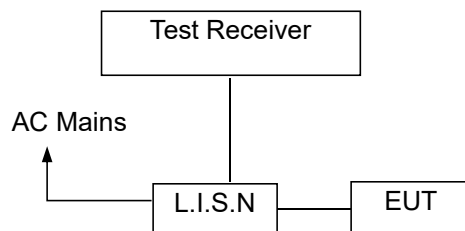
Temperature	: 25.5 °C
Humidity	: 51 % RH
Atmospheric Pressure	: 101.2kPa

3.2.EUT Setup

The conducted emission tests were performed using the setup accordance with the ANSI C63.10:2013.



3.3.Test SET-UP (Block Diagram of Configuration)



3.4. Measurement Procedure

1. The EUT was placed on a table, which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured was complete.

3.5. Conducted Emission Limit

Conducted Emission

Frequency(MHz)	Quasi-peak	Average
0.15-0.5	66-56	56-46
0.5-5.0	56	46
5.0-30.0	60	50

Note:

1. The lower limit shall apply at the transition frequencies
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

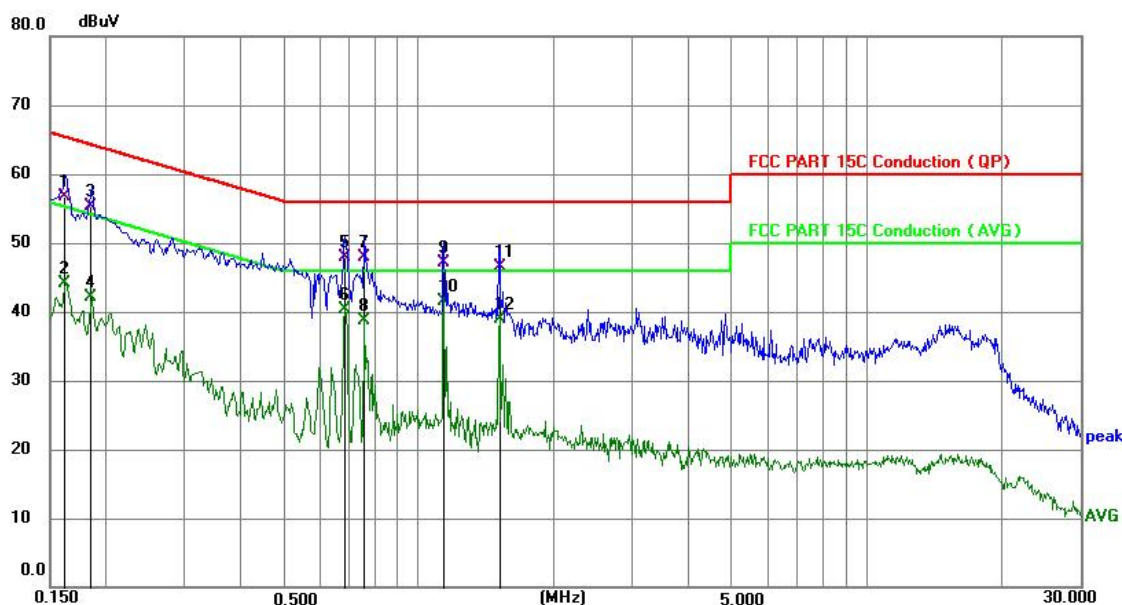
3.6. Measurement Description

The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.

3.7. Conducted Emission Test Result

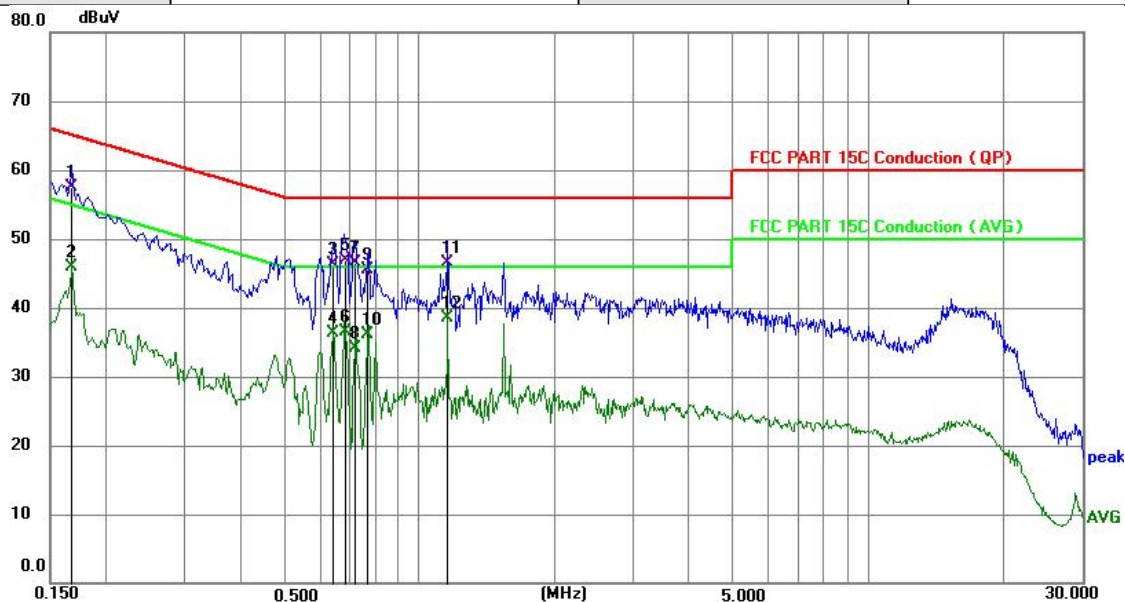
Test Date	: 2025.3.17	Temperature	: 24℃
Test Engineer	: Felix Pang	Humidity	: 56%
Test Mode	: FSK mode		
Test Results	: PASS		
Note:	1. The test results are listed in next pages. 2. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector and quasi-peak detector need not be carried out. 3. If the limits for the measurement with the average detector are met when using a receiver with a quasi-peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out. 4. Conducted emission at both 120V & 240V is assessed, and emission at 120V represents the worst case. All the modulation modes were tested the data of the worst mode (CH0: 5726MHz) are recorded in the following pages and the others modulation methods do not exceed the limits.		

Channel:	Middle	Phase :	L
----------	--------	---------	---



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1621	46.75	9.89	56.64	65.36	-8.72	QP
2	0.1621	34.27	9.89	44.16	55.36	-11.20	AVG
3	0.1853	45.34	9.90	55.24	64.24	-9.00	QP
4	0.1853	32.18	9.90	42.08	54.24	-12.16	AVG
5	0.6824	37.93	10.03	47.96	56.00	-8.04	QP
6	0.6824	30.24	10.03	40.27	46.00	-5.73	AVG
7	0.7572	37.87	10.04	47.91	56.00	-8.09	QP
8	0.7572	28.72	10.04	38.76	46.00	-7.24	AVG
9	1.1352	36.98	10.06	47.04	56.00	-8.96	QP
10 *	1.1352	31.42	10.06	41.48	46.00	-4.52	AVG
11	1.5135	36.38	10.06	46.44	56.00	-9.56	QP
12	1.5135	28.76	10.06	38.82	46.00	-7.18	AVG

Channel:	Middle	Phase :	N
----------	--------	---------	---



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1675	47.53	9.90	57.43	65.08	-7.65	QP
2	0.1675	36.04	9.90	45.94	55.08	-9.14	AVG
3	0.6402	36.22	10.03	46.25	56.00	-9.75	QP
4	0.6402	26.21	10.03	36.24	46.00	-9.76	AVG
5	0.6824	36.92	10.03	46.95	56.00	-9.05	QP
6	0.6824	26.53	10.03	36.56	46.00	-9.44	AVG
7	0.7170	36.55	10.04	46.59	56.00	-9.41	QP
8	0.7170	24.04	10.04	34.08	46.00	-11.92	AVG
9	0.7669	35.41	10.04	45.45	56.00	-10.55	QP
10	0.7669	26.12	10.04	36.16	46.00	-9.84	AVG
11	1.1532	36.41	10.06	46.47	56.00	-9.53	QP
12 *	1.1532	28.42	10.06	38.48	46.00	-7.52	AVG

Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Measurement Level = Reading level + Correct Factor

4. Radiated Spurious Emissions

Test Requirement : FCC CFR47 Part 15 Section 15.209
 Test Method : ANSI C63.10:2013
 Test Result : PASS
 Measurement Distance : 3m
 Limit : See the follow table

Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Dist	
	uV/m	Distance (m)	uV/m	dBuV/m
0.009 ~ 0.490	$2400/F(\text{kHz})$	300	$10000 * 2400/F(\text{kHz})$	$20\log^{(2400/F(\text{kHz}))} + 80$
0.490 ~ 1.705	$24000/F(\text{kHz})$	30	$100 * 24000/F(\text{kHz})$	$20\log^{(24000/F(\text{kHz}))} + 40$
1.705 ~ 30	30	30	$100 * 30$	$20\log^{(30)} + 40$
30 ~ 88	100	3	100	$20\log^{(100)}$
88 ~ 216	150	3	150	$20\log^{(150)}$
216 ~ 960	200	3	200	$20\log^{(200)}$
Above 960	500	3	500	$20\log^{(500)}$

15.249(a): Except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902-928 MHz	50	500
2400-2483.5 MHz	50	500
5725-5875 MHz	50	500
24.0-24.25 GHz	250	2500

4.1. EUT Operation

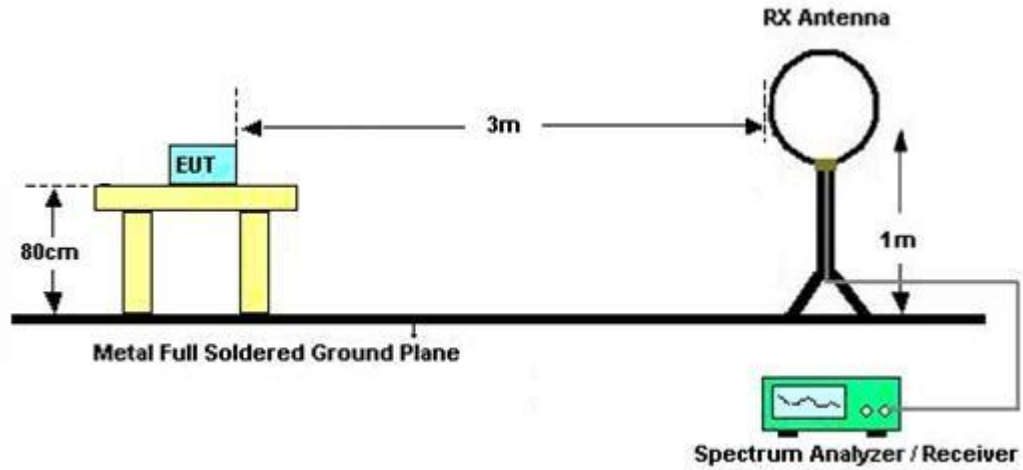
Operating Environment :

Temperature : 23.5 °C
 Humidity : 51.1 % RH
 Atmospheric Pressure : 101.2kPa

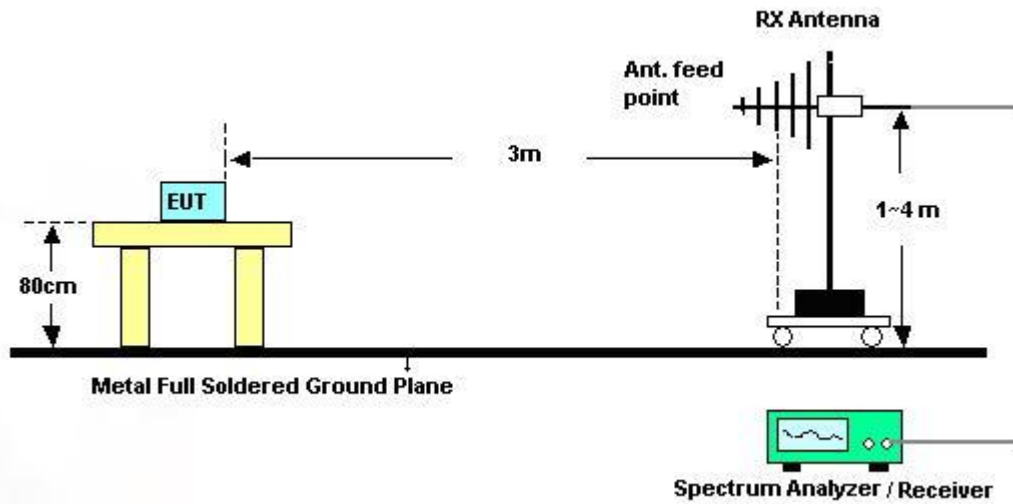
4.2. Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site

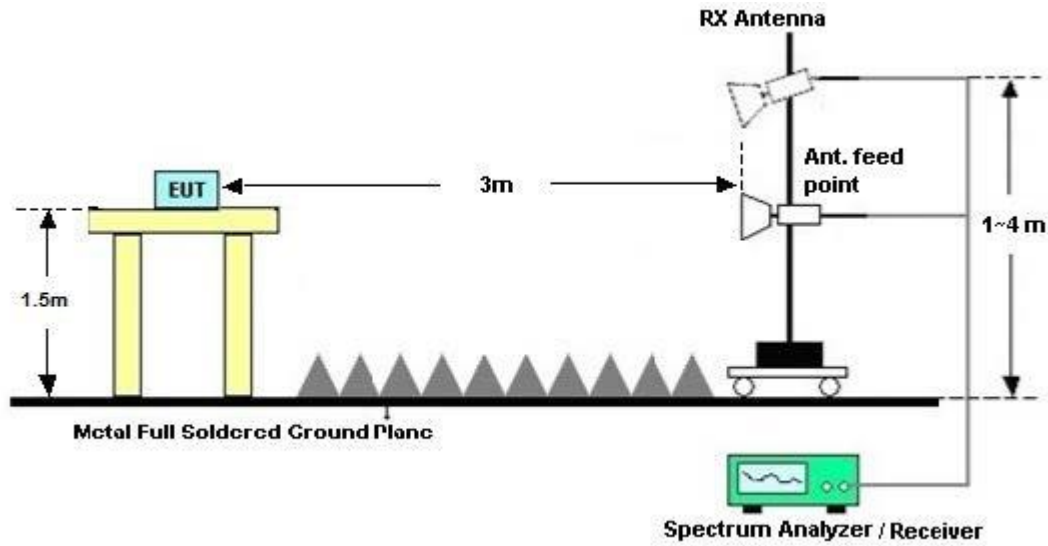
The test setup for emission measurement below 30MHz



The test setup for emission measurement from 30 MHz to 1 GHz.



The test setup for emission measurement above 1 GHz



4.3. Spectrum Analyzer Setup

Receiver Setup	Frequency	Detector	RBW	VBW	Remark
	Below 30MHz	--	10kHz	10kHz	--
	30MHz ~ 1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		RMS	1MHz	3MHz	Average Value

4.4. Test Procedure

1. The testing follows the guidelines in Spurious Radiated Emissions of ANSI C63.10-2013.
2. Below 1000MHz, The EUT was placed on a turn table which is 0.8m above ground plane. And above 1000MHz, The EUT was placed on a styrofoam table which is 1.5m above ground plane.
3. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
4. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (From 1m to 4m) and turntable (from 0 degree to 360 degree) 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 to comply with the guidelines.
5. Set to the maximum power setting and enable the EUT transmit continuously.
6. Final measurement (Above 1GHz): The frequency range will be divided into different sub ranges depending of the frequency range of the used horn antenna. The EMI Receiver set to peak and average mode and a resolution bandwidth of 1MHz. The measurement will be performed in horizontal and vertical polarization of the measuring antenna and while rotating the EUT in its vertical axis in the range of 0 degree to 360 degree in order to have the antenna inside the cone of radiation.
7. Test Procedure of measurement (For Above 1GHz):
 - 1) Monitor the frequency range at horizontal polarization and move the antenna over all sides of the EUT(if necessary move the EUT to another orthogonal axis).
 - 2) Change the antenna polarization and repeat 1) with vertical polarization.
 - 3) Make a hardcopy of the spectrum.
 - 4) Measure the frequency of the detected emissions with a lower span and resolution bandwidth to increase the accuracy and note the frequency value.
 - 5) Change the analyser mode to Clear/ Write and found the cone of emission.
 - 6) Rotate and move the EUT, so that the measuring distance can be enlarged to 3m and the antenna will be still inside the cone of emission.
 - 7) Measure the level of the detected frequency with the correct resolution bandwidth, with the antenna polarization and azimuth and the peak and average detector, which causes the maximum emission.
 - 8) Repeat steps 1) to 7) for the next antenna spot if the EUT is larger than the antenna beamwidth.
8. The radiation measurements are tested under 3-axes(X,Y,Z) position(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand), After pre-test, It was found that the worse radiation emission was get at the X position. So the data shown was the X position only.

For Average Measurement:

VBW=10Hz, when duty cycle is no less than 98 percent.

VBW $\geq$ 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.

4.5. Summary of Test Results

Test Frequency: 9KHz-30MHz

Freq. (MHz)	Ant.Pol. H/V	Emission Level (dBuV/m)	Limit 3m (dBuV/m)	Over (dB)
--	--	--	--	>20

Note:

The amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

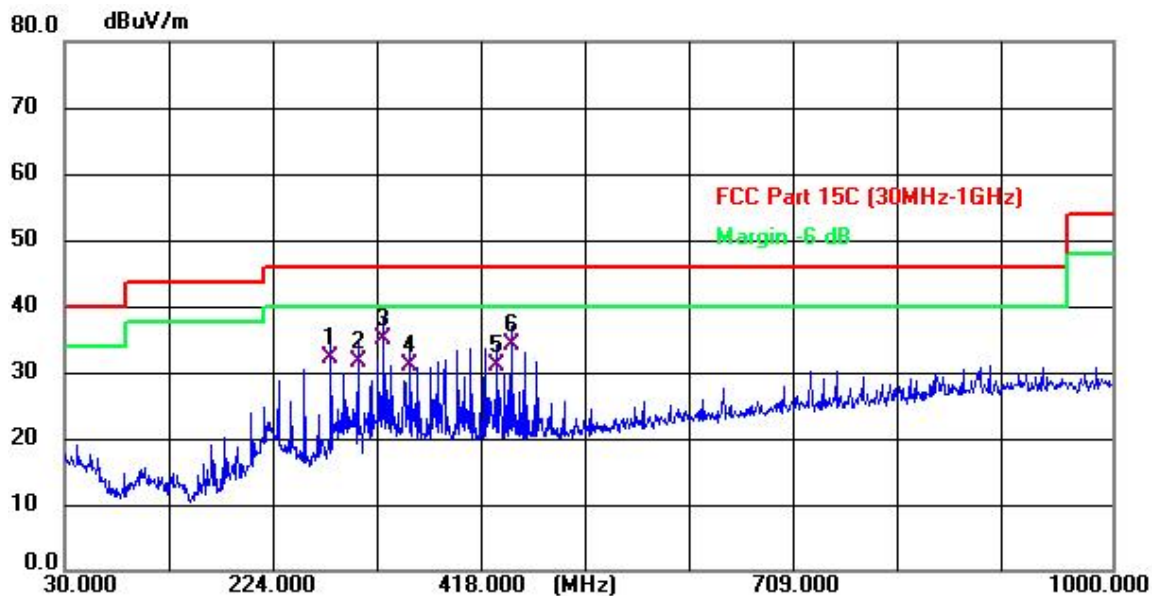
Distance extrapolation factor = $40\log(\text{Specific distance} / \text{test distance})$ (dB);

Limit line = Specific limits (dBuV) + distance extrapolation factor.

4.6. Test Results

From 30MHz ~ 1GHz:	
Test Date : 2025.3.17	Temperature : 26℃
Test Engineer : Felix Pang	Humidity : 54%
Test Mode : FSK mode	
Test Results : PASS	
Note:	1. The test results are listed in next pages. 2. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector and quasi-peak detector need not be carried out. 3. If the limits for the measurement with the average detector are met when using a receiver with a quasi-peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.

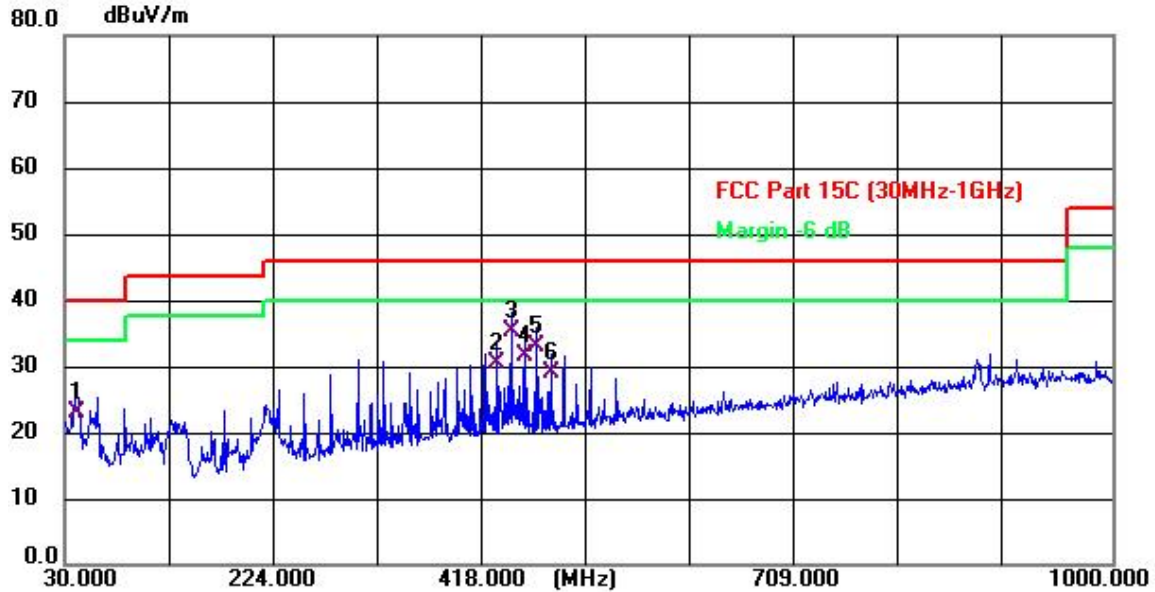
Temperature:	26°C	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Horizontal
Test Voltage:	AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	276.380	40.75	-8.73	32.02	46.00	-13.98	QP
2	301.600	39.81	-8.22	31.59	46.00	-14.41	QP
3 *	325.850	42.79	-7.66	35.13	46.00	-10.87	QP
4	350.100	38.00	-7.10	30.90	46.00	-15.10	QP
5	430.610	36.47	-5.40	31.07	46.00	-14.93	QP
6	443.220	39.21	-5.17	34.04	46.00	-11.96	QP

Remark: Emission Level = Reading + Cable Loss + ANT Factor - AMP Factor

Temperature:	26℃	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Vertical
Test Voltage:	AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	41.640	31.54	-8.67	22.87	40.00	-17.13	QP
2	430.610	35.78	-5.40	30.38	46.00	-15.62	QP
3 *	443.220	40.42	-5.17	35.25	46.00	-10.75	QP
4	455.830	36.65	-4.95	31.70	46.00	-14.30	QP
5	467.470	37.72	-4.74	32.98	46.00	-13.02	QP
6	480.080	33.41	-4.51	28.90	46.00	-17.10	QP

Remark: Emission Level = Reading + Cable Loss + ANT Factor - AMP Factor

From 1GHz to 40GHz:	
Test Date : 2025.3.17	Temperature : 26℃
Test Engineer : Felix Pang	Humidity : 54%
Test Mode : FSK mode	
Test Results : PASS	
Note:	1. The test results are listed in next pages. 2. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector and quasi-peak detector need not be carried out. 3. If the limits for the measurement with the average detector are met when using a receiver with a quasi-peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out. 4. Please refer to the following test plots for the worst test mode (FSK mode (CH0: 5726MHz).

Fundamental Test

Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
V	5726	99.58	30.22	4.85	23.98	98.19	114.00	-15.81	Pk
V	5726	83.44	30.22	4.85	23.98	82.05	94.00	-11.95	AV
V	5726	98.69	30.22	4.85	23.98	97.3	114.00	-16.7	Pk
V	5726	82.87	30.22	4.85	23.98	81.48	94.00	-12.52	AV
V	5790	95.47	30.22	4.85	23.98	94.08	114.00	-19.92	Pk
V	5790	82.47	30.22	4.85	23.98	81.08	94.00	-12.92	AV
H	5790	96.39	30.22	4.85	23.98	95	114.00	-19	Pk
H	5790	84.47	30.22	4.85	23.98	83.08	94.00	-10.92	AV
H	5850	93.45	30.22	4.85	23.98	92.06	114.00	-21.94	Pk
H	5850	82.14	30.22	4.85	23.98	80.75	94.00	-13.25	AV
H	5850	92.47	30.22	4.85	23.98	91.08	114.00	-22.92	Pk
H	5850	80.14	30.22	4.85	23.98	78.75	94.00	-15.25	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel:5726MHz									
V	11452.00	59.83	30.55	5.77	24.66	59.71	74	-14.29	Pk
V	11452.00	43.35	30.55	5.77	24.66	43.23	54	-10.77	AV
V	17178.00	56.91	30.33	6.32	24.55	57.45	74	-16.55	Pk
V	17178.00	42.29	30.33	6.32	24.55	42.83	54	-11.17	AV
V	22904.00	59.76	30.55	5.77	24.66	59.64	74	-14.36	Pk
V	22904.00	41.65	30.55	5.77	24.66	41.53	54	-12.47	AV
V	28630.00	59.01	30.33	6.32	24.55	59.55	74	-14.45	Pk
V	28630.00	44.5	30.33	6.32	24.55	45.04	54	-8.96	AV
H	11452.00	57.01	30.55	5.77	24.66	56.89	74	-17.11	Pk
H	11452.00	41.47	30.55	5.77	24.66	41.35	54	-12.65	AV
H	17178.00	57.92	30.33	6.32	24.55	58.46	74	-15.54	Pk
H	17178.00	44.82	30.33	6.32	24.55	45.36	54	-8.64	AV
H	22904.00	56.23	30.55	5.77	24.66	56.11	74	-17.89	Pk
H	22904.00	41.54	30.55	5.77	24.66	41.42	54	-12.58	AV
H	28630.00	57.13	30.33	6.32	24.55	57.67	74	-16.33	Pk
H	28630.00	41.85	30.33	6.32	24.55	42.39	54	-11.61	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Middle Channel:5790MHz									
V	11580.00	58.61	30.55	5.77	24.66	58.49	74	-15.51	Pk
V	11580.00	41.61	30.55	5.77	24.66	41.49	54	-12.51	AV
V	17370.00	55.6	30.33	6.32	24.55	56.14	74	-17.86	Pk
V	17370.00	43.25	30.33	6.32	24.55	43.79	54	-10.21	AV
V	23160.00	57.27	30.55	5.77	24.66	57.15	74	-16.85	Pk
V	23160.00	42.98	30.55	5.77	24.66	42.86	54	-11.14	AV
V	28950.00	58.96	30.33	6.32	24.55	59.5	74	-14.5	Pk
V	28950.00	44.59	30.33	6.32	24.55	45.13	54	-8.87	AV
H	11580.00	56.16	30.55	5.77	24.66	56.04	74	-17.96	Pk
H	11580.00	41.63	30.55	5.77	24.66	41.51	54	-12.49	AV
H	17370.00	57.54	30.33	6.32	24.55	58.08	74	-15.92	Pk
H	17370.00	43.78	30.33	6.32	24.55	44.32	54	-9.68	AV
H	23160.00	57.5	30.55	5.77	24.66	57.38	74	-16.62	Pk
H	23160.00	41.48	30.55	5.77	24.66	41.36	54	-12.64	AV
H	28950.00	59.29	30.33	6.32	24.55	59.83	74	-14.17	Pk
H	28950.00	41.2	30.33	6.32	24.55	41.74	54	-12.26	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
High Channel:5850MHz									
V	11700.00	59.76	30.55	5.77	24.66	59.64	74	-14.36	Pk
V	11700.00	41.85	30.55	5.77	24.66	41.73	54	-12.27	AV
V	17550.00	59.14	30.33	6.32	24.55	59.68	74	-14.32	Pk
V	17550.00	43.72	30.33	6.32	24.55	44.26	54	-9.74	AV
V	23400.00	55.07	30.55	5.77	24.66	54.95	74	-19.05	Pk
V	23400.00	44.29	30.55	5.77	24.66	44.17	54	-9.83	AV
V	29250.00	59.5	30.33	6.32	24.55	60.04	74	-13.96	Pk
V	29250.00	44.62	30.33	6.32	24.55	45.16	54	-8.84	AV
H	11700.00	59.32	30.55	5.77	24.66	59.2	74	-14.8	Pk
H	11700.00	41.16	30.55	5.77	24.66	41.04	54	-12.96	AV
H	17550.00	55.95	30.33	6.32	24.55	56.49	74	-17.51	Pk
H	17550.00	44.6	30.33	6.32	24.55	45.14	54	-8.86	AV
H	23400.00	57.4	30.55	5.77	24.66	57.28	74	-16.72	Pk
H	23400.00	41.2	30.55	5.77	24.66	41.08	54	-12.92	AV
H	29250.00	57.9	30.33	6.32	24.55	58.44	74	-15.56	Pk
H	29250.00	43.84	30.33	6.32	24.55	44.38	54	-9.62	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

5. Bandwidth Measurement

Test Requirement : FCC Part15 (15.249) , Subpart C

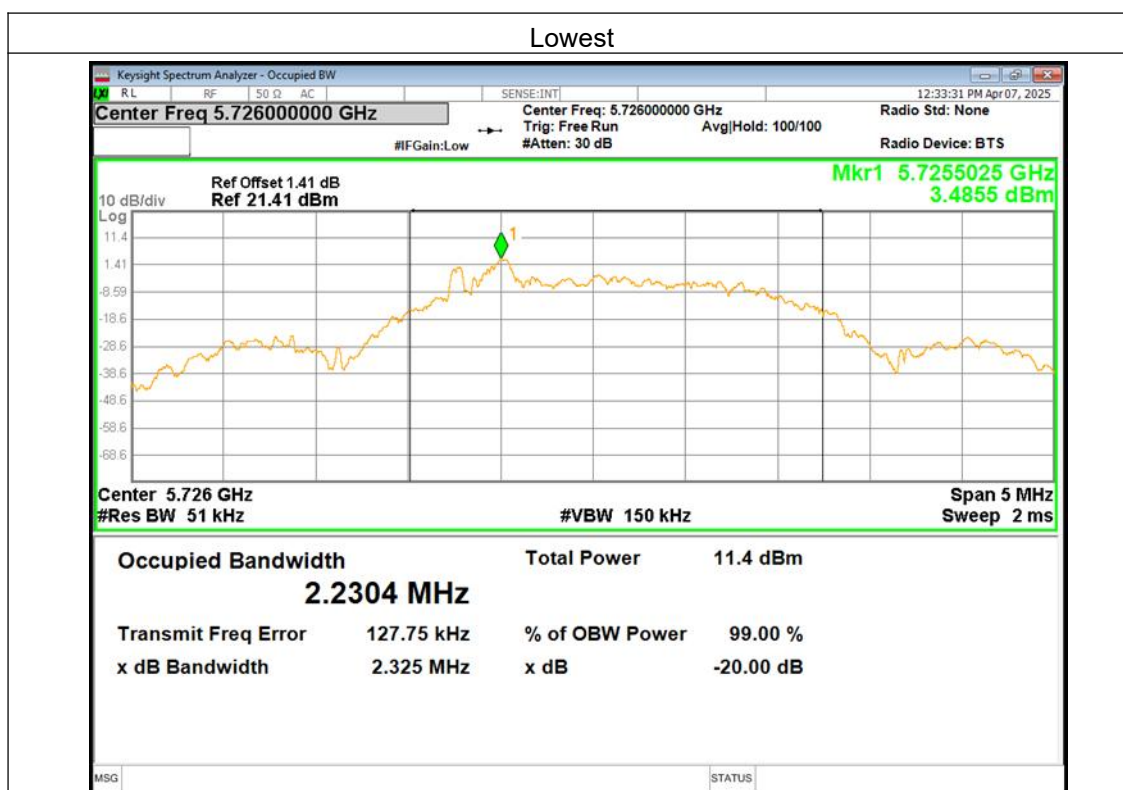
Test Method : ANSI C63.10:2013

5.1. Test Procedure

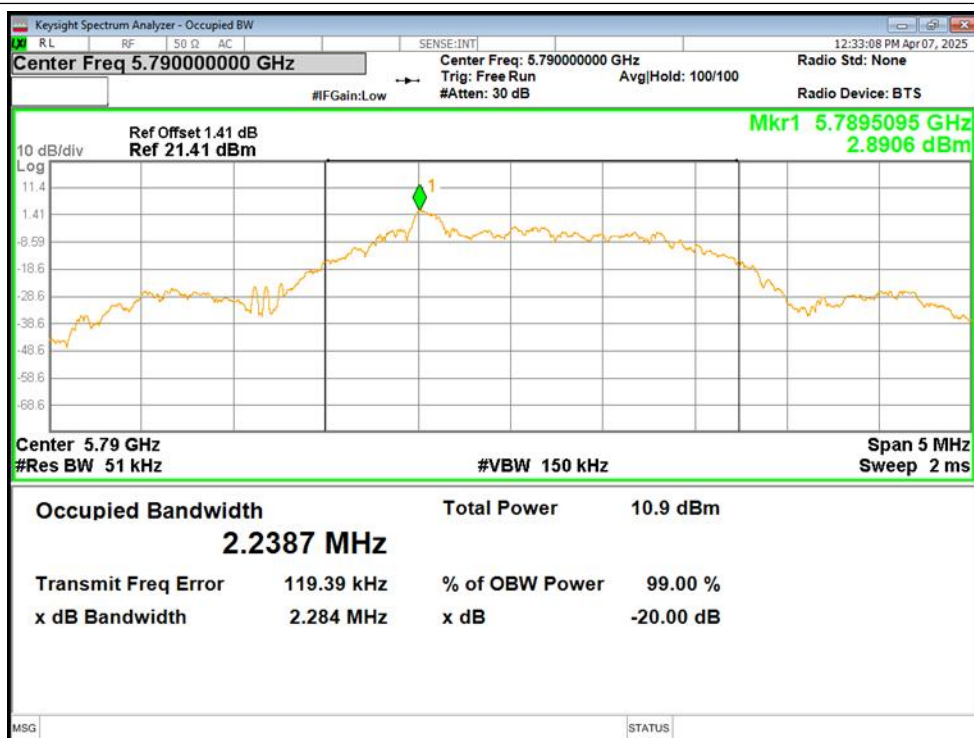
1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
2. Set the spectrum analyzer: RBW = 3kHz, VBW = 10kHz

5.2. Test Result

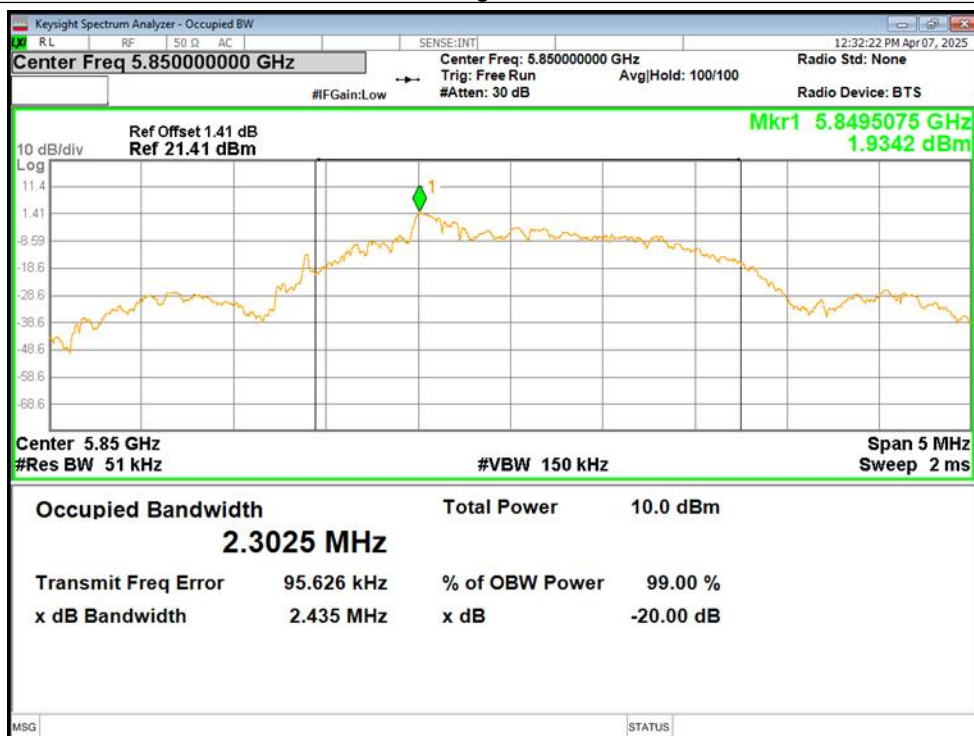
Test channel	20dB Bandwidth (kHz)	Result
Lowest	2.325	Pass
Middle	2.284	Pass
Highest	2.435	Pass



Middle



Highest



6. Antenna Application

6.1. Antenna Requirement

For intentional device, according to FCC 47 CFR Section 15.203 and RSS-GEN, 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. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

6.2. Result

The EUT antenna is FPC antenna. It complies with the standard requirement.

7. Photos of test setup

Reference to the **appendix I Test Setup Photo** for details.

8. Photos of EUT

Reference to the **appendix II external photos** and **appendix III internal photos** for details.

----- END OF REPORT-----