



RF MEASUREMENT REPORT

FCC ID: DD4AD1G57
Applicant: Shure Incorporated
Product: Wireless Bodypack Transmitter
Model No.: AD1 G57
Brand Name: 
FCC Classification: Part 15 Wireless Microphone (DWM)
FCC Rule Part(s): Part 15 Subpart C (Section 15.236)
Result: Complies
Received Date: 2024-07-23
Test Date: 2024-07-25 ~ 2024-12-30

Reviewed By:

Jame Yuan

Approved By:

Robin Wu



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2412RSU055-U6	V01	Initial Report	2025-01-10	Valid

Note: This report is based on original report (2407RSU045-U1) to update the standard version, and differential tests were evaluated

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1.1. Applicant

5800 West Touhy Avenue, Niles, IL 60714-4608, USA

Shure Incorporated

5800 West Touhy Avenue, Niles, IL 60714-4608, USA

☒	Test Site – MRT Suzhou Laboratory				
	Laboratory Location (Suzhou - Wuzhong)				
	D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China				
	Laboratory Location (Suzhou - SIP)				
	4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China				
	Laboratory Location (Suzhou - Wujiang)				
	Building 1, No.1 Xingdong Road, Wujiang, Suzhou, Jiangsu, People's Republic of China				
☐	Laboratory Accreditations				
	A2LA: 3628.01		CNAS: L10551		
	FCC: CN1166		ISED: CN0001		
	VCCI:	☐ R-20025	☐ G-20034	☐ C-20020	☐ T-20020
		☐ R-20141	☐ G-20134	☐ C-20103	☐ T-20104
☐	Test Site – MRT Shenzhen Laboratory				
	Laboratory Location (Shenzhen)				
	1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China				
	Laboratory Accreditations				
	A2LA: 3628.02		CNAS: L10551		
FCC: CN1284		ISED: CN0105			
☐	Test Site – MRT Taiwan Laboratory				
	Laboratory Location (Taiwan)				
	No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)				
	Laboratory Accreditations				
TAF: 3261					
FCC: 291082, TW3261		ISED: TW3261			

1.4. Product Information

Product Name	Wireless Bodypack Transmitter
Model No.	AD1 G57
Serial No.	2DF10258701
Frequency Range	470 ~ 608 MHz, 614 ~ 616MHz
Power Type	2 * AA alkaline batteries or Rechargeable Li-battery
Operating Temperature	-10 ~ 45°C

Note: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.

1.5. Radio Specification under Test

Frequency Range	470 ~ 608 MHz, 614 ~ 616MHz
Declared Power Level	STD: 2mW & 10mW & 35mW HD: 2mW
Type of Modulation	8PSK
Channel Spacing	25kHz
Antenna Type	Dipole
Antenna Gain	0.40dBi

Note: Power level and transmit frequency can be selected using the front panel controls.

1.6. Working Frequencies

Bottom Channel (MHz)	Middle Channel (MHz)	Top Channel (MHz)
470 ~ 608 MHz Frequency Band		
470.125	539.000	607.875
614 ~ 616MHz Frequency Band		
614.125	N/A	615.875

2. Test Configuration

2.1. Test Mode

Mode 1: Transmit at G57 Band by STD Mode (35/10mW)
Mode 2: Transmit at G57 Band by HD Mode (2mW)

2.2. Test Software

The test utility software used during testing was “teraterm”, and the version was V4.103, all test commands were provided by the manufacturer.

2.3. Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15.236
- KDB 206256 D01v03
- ANSI C63.10-2013
- ETSI EN 300 422 - 1 V 2.2.1

2.4. Test Environment Condition

Ambient Temperature	15 ~ 35°C
Relative Humidity	20 ~ 75%RH

3. Measuring Instrument

Instrument Name	Manufacturer	Model No.	Asset No.	Cali. Interval	Cal. Due Date	Test Site
USB Power Sensor	Keysight	U2021XA	MRTSUE06447	1 year	2025-05-08	WZ-SR5
Thermohygrometer	testo	608-H1	MRTSUE06402	1 year	2025-05-12	WZ-SR5
Shielding Room	HUAMING	WZ-SR5	MRTSUE06442	N/A	N/A	WZ-SR5
Signal Analyzer	Keysight	N9010B	MRTSUE06457	1 year	2025-05-08	WZ-SR5
Attenuator	MVE	MVE2213	MRTSUE11074	1 year	2025-06-05	WZ-SR5
Attenuator	MVE	MVE2213	MRTSUE11075	1 year	2025-06-05	WZ-TR3
Attenuator	MVE	MVE2213	MRTSUE11076	1 year	2025-06-05	WZ-TR3
Signal Analyzer	Keysight	N9010B	MRTSUE06558	1 year	2025-05-20	WZ-TR3
Temperature Chamber	BAOYT	BYH-150CL	MRTSUE06051	1 year	2025-09-02	WZ-TR3
Temperature Chamber	BAOYT	BYH-150CL	MRTSUE06051	1 year	2024-09-27	WZ-TR3
Thermohygrometer	testo	608-H1	MRTSUE11268	1 year	2025-12-10	WZ-TR3
Thermohygrometer	testo	608-H1	MRTSUE11268	1 year	2024-12-14	WZ-TR3
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2025-07-26	WZ-AC1
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2024-08-09	WZ-AC1
Preamplifier	Agilent	83017A	MRTSUE06076	1 year	2025-11-08	WZ-AC1
Preamplifier	Agilent	83017A	MRTSUE06076	1 year	2024-11-09	WZ-AC1
TRILOG Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2025-05-15	WZ-AC1
Anechoic Chamber	TDK	WZ-AC1	MRTSUE06212	1 year	2025-04-19	WZ-AC1
Signal Analyzer	Keysight	N9010B	MRTSUE06607	1 year	2025-10-13	WZ-AC1
Signal Analyzer	Keysight	N9010B	MRTSUE06607	1 year	2024-10-23	WZ-AC1
Thermohygrometer	testo	608-H1	MRTSUE11039	1 year	2025-10-16	WZ-AC1
TRILOG Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2025-04-17	WZ-AC2
EMI Test Receiver	Agilent	N9038A	MRTSUE06125	1 year	2025-05-08	WZ-AC2
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06171	1 year	2025-09-23	WZ-AC2
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06171	1 year	2024-10-11	WZ-AC2
Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2025-05-06	WZ-AC2
Anechoic Chamber	RIKEN	WZ-AC2	MRTSUE06213	1 year	2025-04-18	WZ-AC2
Thermohygrometer	testo	608-H1	MRTSUE11263	1 year	2025-10-16	WZ-AC2
Thermohygrometer	testo	608-H1	MRTSUE11263	1 year	2024-11-07	WZ-AC2

Software	Version	Function
e3	230711	RE & CE
Controller_MF 7802	2.03C	RE Antenna & Turntable
Controller_MF 7802	1.02	RE Antenna & Turntable
BenchVue Power Meter	2018.1	Power

4. Decision Rules and Measurement Uncertainty

4.1. Decision Rules

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4: 2012 Clause 8.2.

(Measurement uncertainty is not taken into account when stating conformity with a specified requirement.

4.2. Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

AC Conducted Emission Measurement	
The maximum measurement uncertainty is evaluated as:	
9kHz~150kHz: 3.02dB	
150kHz~30MHz: 2.56dB	
Radiated Emission Measurement	
The maximum measurement uncertainty is evaluated as:	
Coaxial:	9kHz~30MHz: 2.35dB
Coplanar:	9kHz~30MHz: 2.37dB
Horizontal:	30MHz~200MHz: 3.46dB
	200MHz~1GHz: 3.78dB
	1GHz~40GHz: 4.97dB
Vertical:	30MHz~200MHz: 4.07dB
	200MHz~1GHz: 5.28dB
	1GHz~40GHz: 4.78dB
Spurious Emissions, Conducted	
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$):	
2.5dB	
Output Power	
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$):	
1.3dB	
Power Spectrum Density	
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$):	
2.5dB	
Occupied Bandwidth	
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$):	
2.6%	

5. Test Result

5.1. Summary

FCC Part Section(s)	Test Description	Test Condition	Test Result
15.236(f)(1)(ii)	99% Occupied Bandwidth	Conducted	Pass
15.236(f)(3)(iii)	Frequency Tolerance		Pass
15.236(g)(2)	Emission Mask		Pass
15.236(d)	RF Output Power		Pass
15.236(g)(4)	Radiated Spurious Emission	Radiated	Pass
15.207	AC Conducted Emissions 150kHz - 30MHz	Line Conducted	N/A

Notes:

- 1) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
- 2) "N/A" means that this item is not applicable, and the detail information refer to relevant section.

5.2. 99% Occupied Bandwidth Measurement

5.2.1. Test 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.

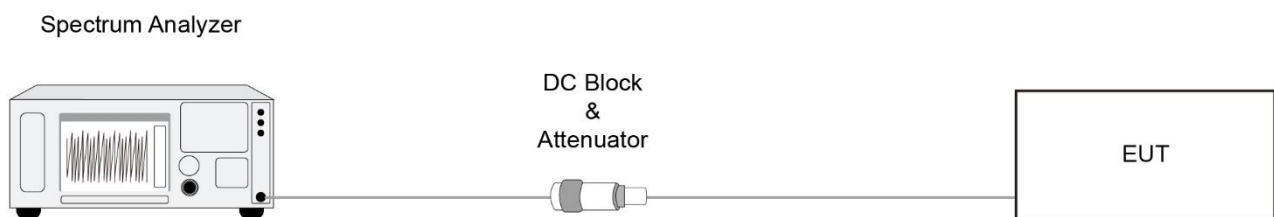
5.2.2. Test Procedure

ANSI C63.10-2013 - Section 6.9.3

5.2.3. Test Setting

1. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
2. Set RBW $\geq$ 1% to 5% of the OBW
3. VBW = Approximately three times RBW
4. Detector = Peak
5. Trace mode = Max hold
6. Sweep = Auto couple
7. Allow the trace to stabilize
8. Use the 99% power bandwidth function of the instrument and report the measured bandwidth.

5.2.4. Test Setup



5.2.5. Test Result

Refer to Appendix A.1.

5.3. Frequency Tolerance Measurement

5.3.1. Test 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.

5.3.2. Test Procedure

ANSI C63.10-2013 - Section 6.8

5.3.3. Test Setting

The EUT was programmed to transmit with an unmodulated carrier.

Frequency Stability Under Temperature Variations:

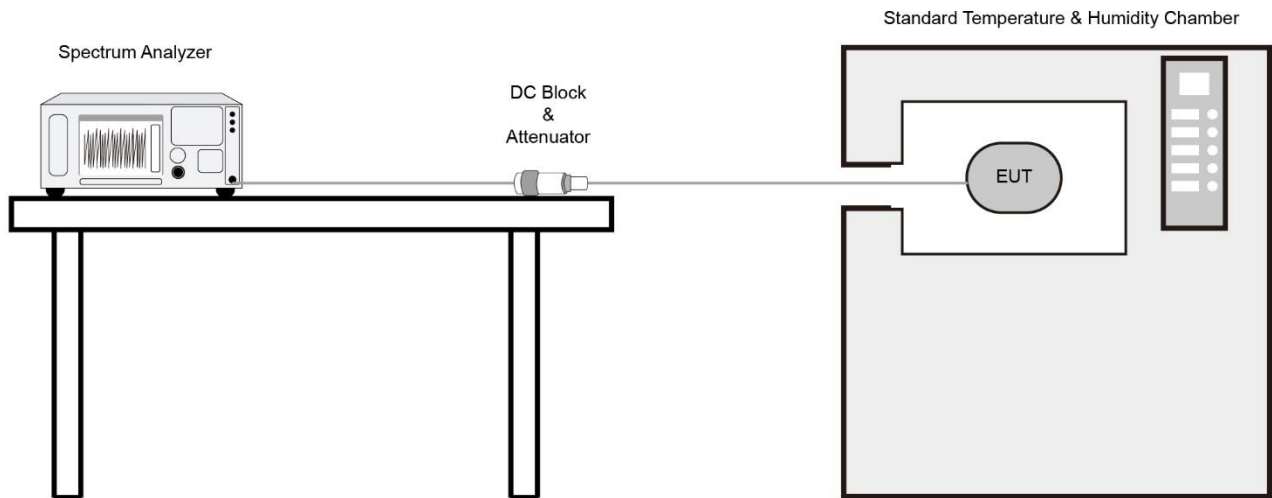
The equipment under test was connected to an external DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. While maintaining a constant temperature inside the environmental chamber, turn the EUT on and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized. Four measurements in total are made. Repeat step measure with 10°C decreased per stage until the lowest temperature reached.

Frequency Stability Under Voltage Variations:

Set chamber temperature to 20°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation ($\pm 15\%$) and endpoint, record the maximum frequency change.

5.3.4. Test Setup



5.3.5. Test Result

Refer to Appendix A.2.

5.4. Emission Mask Measurement

5.4.1. Test Limit

Digital systems. Emissions within the band from $2.5 \times B$ below to $2.5 \times B$ above the carrier frequency, where B is the channel bandwidth, shall comply with the emission mask in Figure 2 of section 4.2.4.2.2 of ETSI EN 300 422-1 V2.2.1 (2021-11) (incorporated by reference, see § 15.38).

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. B is the Declared Channel Bandwidth.

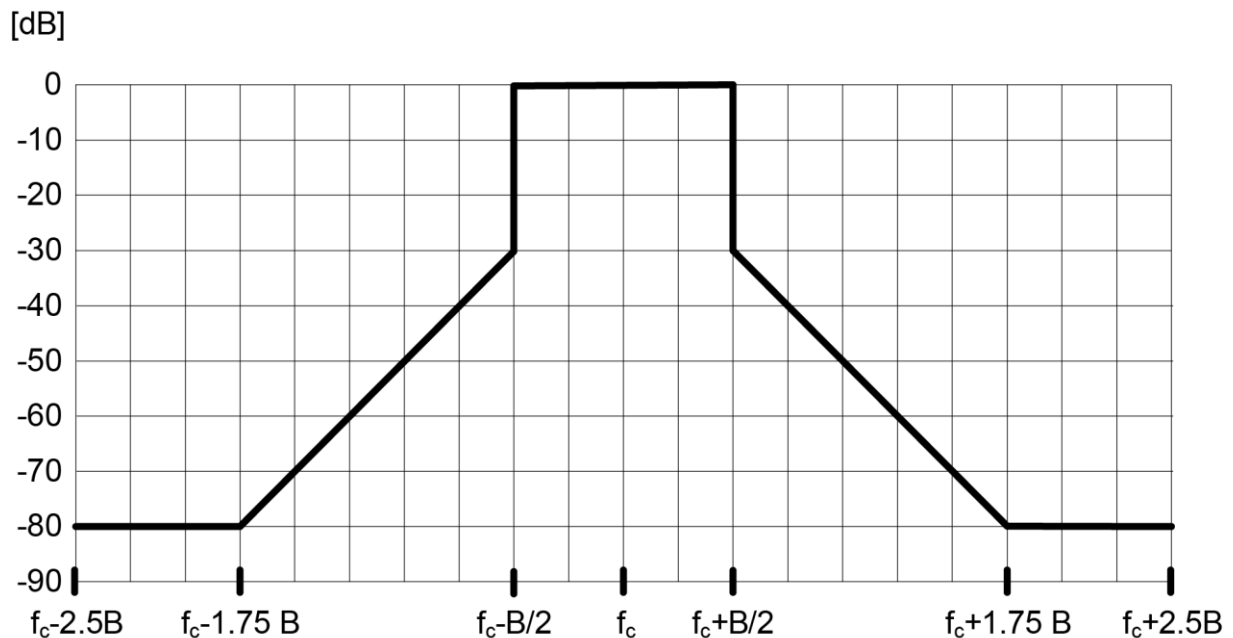


Figure 2: Transmit spectral power mask for equipment employing digital modulation, except WMAS, RBW = 1 kHz

5.4.2. Test Procedure

EN 300 422-1 V2.2.1 clause 5.4.3.2.

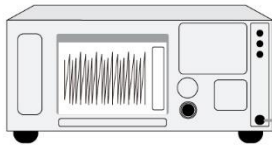
5.4.3. Test Setting

The EUT was powered up and the transmit frequency & power output of the EUT were selected.

The spectrum analyzer center frequency is set to the nominal EUT channel center frequency.

5.4.4. Test Setup

Spectrum Analyzer



DC Block
&
Attenuator



EUT



5.4.5. Test Result

Refer to Appendix A.3.

5.5. Output Power Measurement

5.5.1. Test Limit

(1) In the bands allocated and assigned for broadcast television:

- (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.
- (2) In the 600 MHz guard band and the 600 MHz duplex gap: 20 mW EIRP.

5.5.2. Test Procedure

ANSI C63.10 - 2013 - Section 11.9.2.3.2

5.5.3. Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

5.5.4. Test Setup



5.5.5. Test Result

Refer to Appendix A.4.

5.6. Radiated Spurious Emission Measurement

5.6.1. Test Limit

Spurious emission limits. Emissions outside of the emission masks listed in paragraphs (g)(1) through (g)(3) shall comply with the limits specified in section 4.2.4.1.2 of ETSI EN 300 422-1 V2.2.1 (2021-11), (incorporated by reference, see § 15.38).

The level of transmitter unwanted emissions in the spurious domain shall not exceed the limits given in table. Transmitter unwanted emission limits

Frequency Range	Maximum power	RBW
9kHz – 150kHz	-36dBm	1kHz
150kHz – 30MHz	-36dBm	10kHz
30MHz – 1GHz	-36dBm	$F_c + 2.5B \leq f \leq F_c + 4B$: 1kHz $F_c + 4B < f \leq F_c + 10B$: 10kHz $f > F_c + 10B$: 100kHz $f < F_c - 10B$: 100kHz $F_c - 10B \leq f < F_c - 4B$: 10kHz $F_c - 4B \leq f \leq F_c - 2.5B$: 1kHz
Except:		
47MHz to 74MHz 87.5MHz to 118MHz	-54dBm	100kHz
174MHz to 230MHz 470MHz to 862MHz	-54dBm	$F_c + 2.5B \leq f \leq F_c + 4B$: 1kHz $F_c + 4B < f \leq F_c + 10B$: 10kHz $f > F_c + 10B$: 100kHz $f < F_c - 10B$: 100kHz $F_c - 10B \leq f < F_c - 4B$: 10kHz $F_c - 4B \leq f \leq F_c - 2.5B$: 1kHz
$1\text{GHz} < f \leq F_{\text{upper}}$	-30dBm	$F_c + 2.5B \leq f \leq F_c + 10B$: 30kHz $F_c + 10B < f \leq F_c + 12B$: 300kHz $f > F_c + 12B$: 1MHz $f < F_c - 12B$: 1MHz $F_c - 12B \leq f < F_c - 10B$: 300kHz $F_c - 10B \leq f \leq F_c - 2.5B$: 30kHz
With B being the Declared Channel Bandwidth. F_{upper} is defined in table 5.		

Table 5: Frequency range for measurement of unwanted emissions

Applicable fundamental frequency range	Frequency range for measurements	
	Lower frequency	Upper frequency
9 kHz - 100 MHz	9 kHz	1GHz
100 MHz - 300 MHz	9 kHz	10th harmonic of the operating frequency
300 MHz - 600 MHz	30MHz	3GHz
600 MHz - 3 GHz	30MHz	5th harmonic of the operating frequency

5.6.2. Test Procedure

ETSI EN 300 422-1 V2.2.1 clause 5.4.4

5.6.3. Test Setting

Table 1 - RBW as a function of frequency

Frequency	RBW
30 ~ 1000 MHz	100 kHz
1000 ~ 7000 MHz	1 MHz

Emissions shall be investigated up to the 10th harmonic of the fundamental.

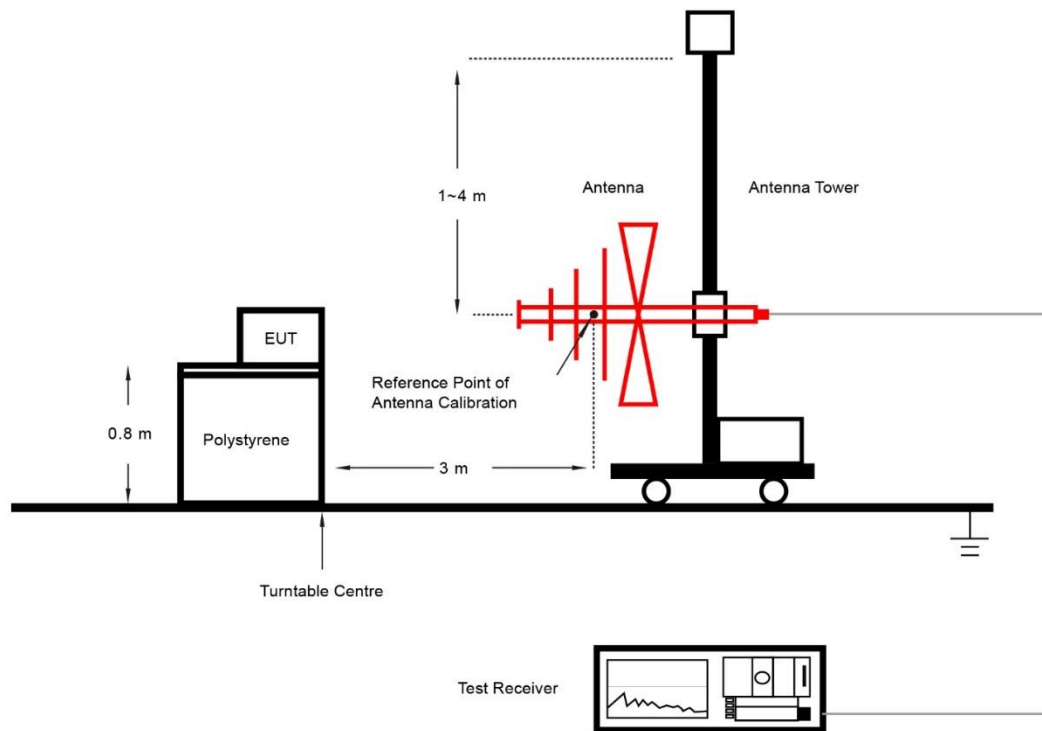
All the emissions shall be demonstrated using a QP detector below 1 GHz and an RMS Average detector above 1 GHz.

All significant broadband and narrowband signals found in the preliminary sweeps were measured using a peak detector at a test distance of 3 meters.

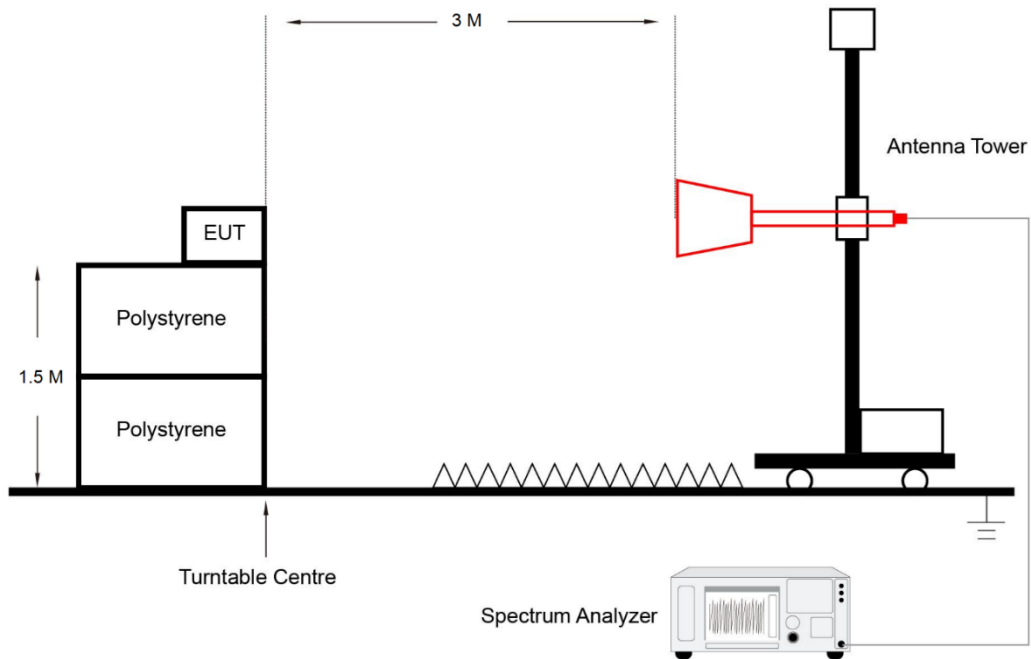
at each frequency at which a component is detected, the sample shall be rotated to obtain maximum response and the effective radiated power of that component determined by a substitution measurement.

5.6.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



5.6.5. Test Result

Refer to Appendix A.5.

5.7. AC Conducted Emissions Measurement

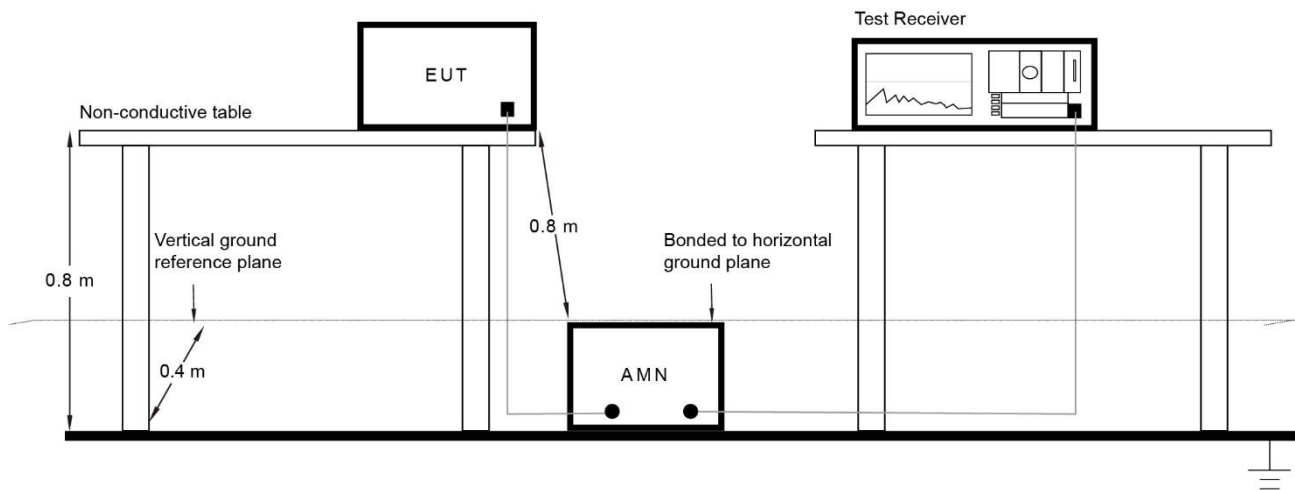
5.7.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.207 Limits		
Frequency (MHz)	QP (dB μ V)	Average (dB μ V)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

5.7.2. Test Setup



5.7.3. Test Result

Refer to Appendix A.6.

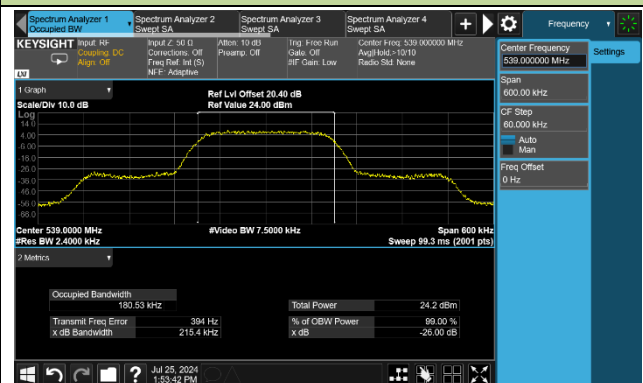
Appendix A – Test Result

A.1 99% Occupied Bandwidth Test Result

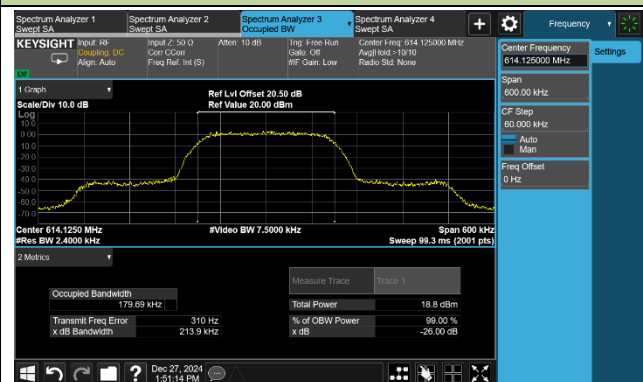
Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-07-25, 2024-08-26, 2024-12-27		

Mode	Frequency (MHz)	99% Bandwidth (kHz)	Limit (kHz)	Result
Mode 1	470.125	181.500	< 200	Pass
	539.000	180.530	< 200	Pass
	607.875	181.380	< 200	Pass
	614.125	179.690	< 200	Pass
	615.875	180.200	< 200	Pass
Mode 2	470.125	97.701	< 200	Pass
	539.000	97.785	< 200	Pass
	607.875	97.828	< 200	Pass
	614.125	97.811	< 200	Pass
	615.875	97.180	< 200	Pass

539.000MHz



614.125MHz



Spectrum Analyzer 1
Band SA

Spectrum Analyzer 2
Sweep SA

Spectrum Analyzer 4
Occupied BW

Spectrum Analyzer 4
Sweep SA

KEYSIGHT Input: HB
Coupling: DC
Attn: Auto

Input 2: 50 Ω
Cen: C01
Freq Ref: Int (S)

Atten: 10 dB

110 Hz Fine Tun
Calib: Off
IMF: Calib. Low

Center Freq: 615.875000 MHz
Avg1: k0d -1010
Radio Std: None

Center Frequency
615.875000 MHz

Span
600.00 kHz

CF Step
60.000 kHz

Auto
Man

Freq Offset
0 Hz

Scale/Div 10.0 dB

Log

Ref Level Off 20.50 dBm
Ref Value 20.00 dBm

Center 615.8750 MHz
#Video BW 7.5000 kHz

Span 600 kHz
#Res BW 2.4000 MHz

Sweep 99.3 ms (2001 pts)

2 Motics

Occupied Bandwidth
160.76 kHz

Transmit Freq Error
x dB

Measure Trace
Trace 1

Total Power
18.2 dBm

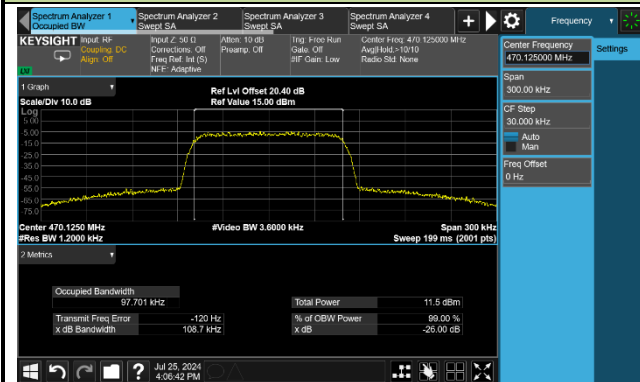
% of OBW Power
x dB

99.00 %
-26.00 dB

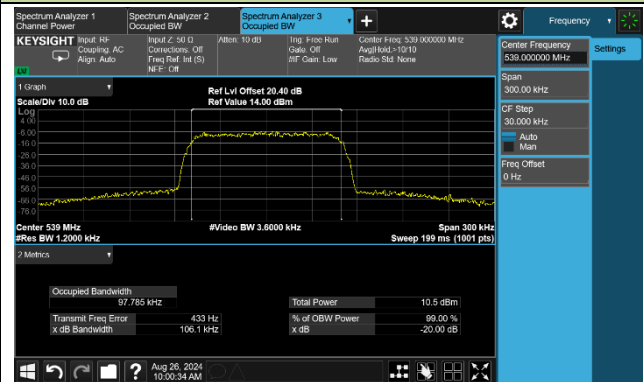
Dec 27, 2024
7:00:07 PM

Occupied Channel Bandwidth - 2mW

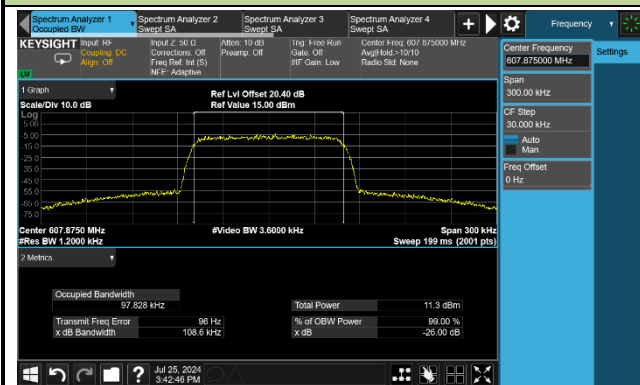
470.125MHz



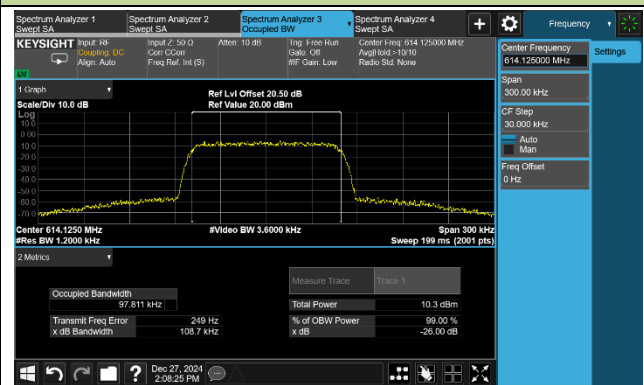
539.000MHz



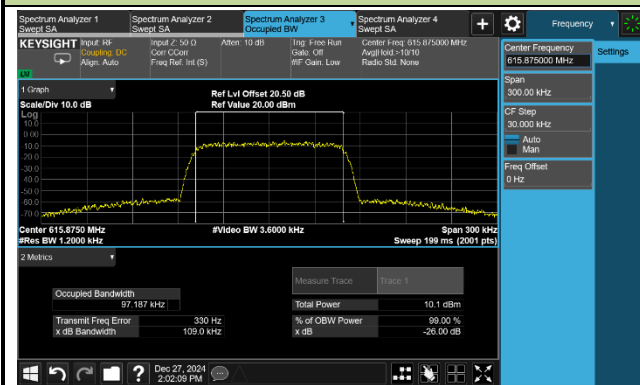
607.875MHz



614.125MHz



615.875MHz



A.2 Frequency Tolerance Test Result

Test Site	WZ-TR3	Test Engineer	Lynn Yang
Test Date	2024-08-15	Test Frequency	470.125MHz

Voltage (%)	Power (DC)	Temp (°C)	Frequency Tolerance (%)			
			0 minutes	2 minutes	5 minutes	10 minutes
100	3.6	- 20	-0.00003	-0.00002	-0.00001	-0.00001
		-10	-0.00003	-0.00002	-0.00002	-0.00002
		0	-0.00003	-0.00003	-0.00003	-0.00003
		+ 10	-0.00002	-0.00003	-0.00003	-0.00003
		+ 20	-0.00002	-0.00002	-0.00002	-0.00002
		+ 30	0.00003	0.00003	0.00002	0.00001
		+ 40	0.00005	0.00005	0.00005	0.00005
		+ 50	0.00005	0.00005	0.00005	0.00005
115	4.14	+ 20	0.00000	0.00000	-0.00001	-0.00001
85	3.06	+ 20	-0.00001	-0.00001	-0.00001	-0.00001
Limit	0.005%					
Result	Pass					

Note: Frequency Tolerance (ppm) = {[Measured Frequency (Hz) - Declared Frequency (Hz)] / Declared Frequency (Hz)} *10².

A.3 Emission Mask Test Result

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-12-27	Test Mode	Mode 1

Emission Mask - 35mW, 470.125MHz



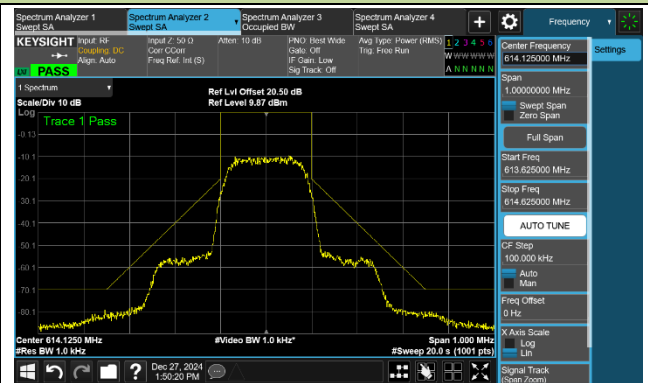
Emission Mask - 35mW, 539.000MHz



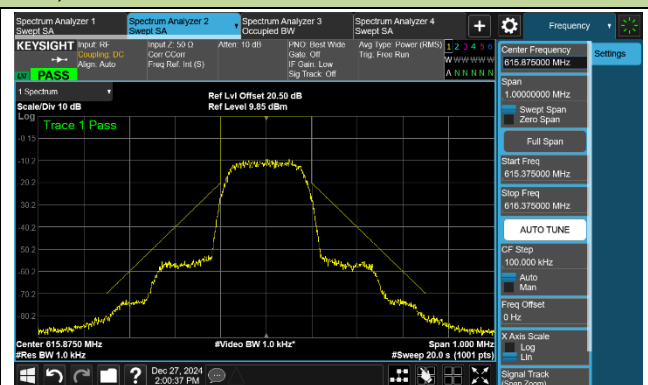
Emission Mask - 35mW, 607.875MHz



Emission Mask - 10mW, 614.125MHz

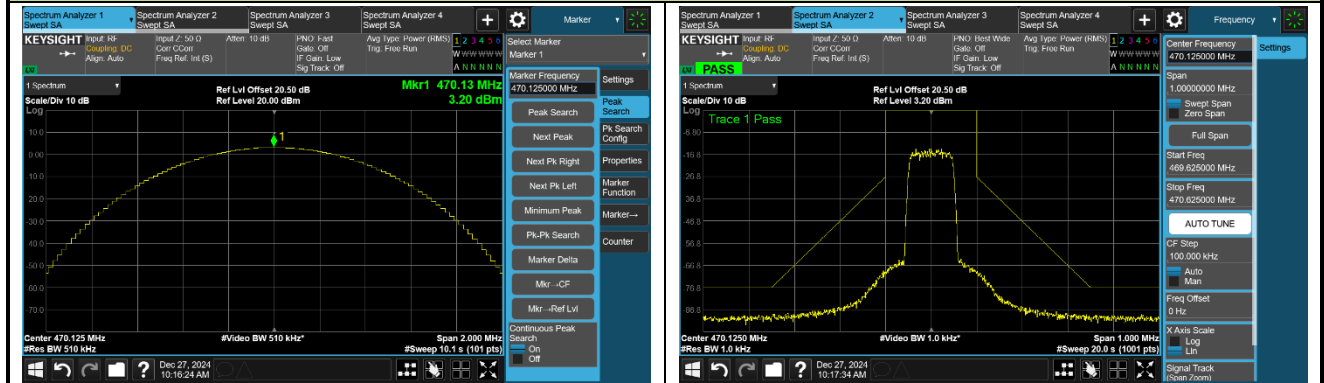


Emission Mask - 10mW, 615.875MHz

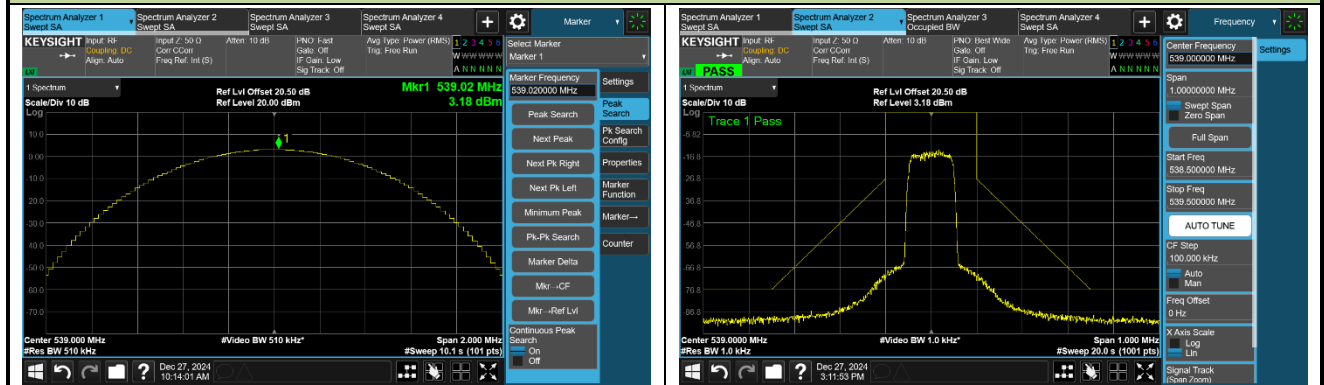


Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-12-27	Test Mode	Mode 2

Emission Mask - 2mW, 470.125MHz



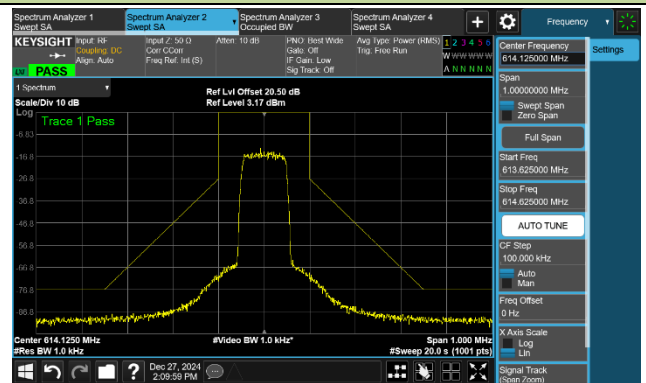
Emission Mask - 2mW, 539.000MHz



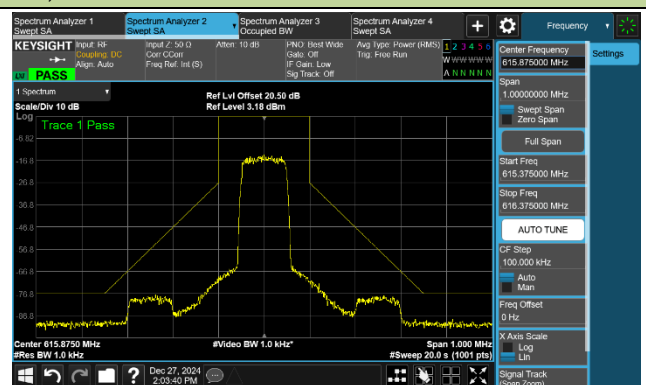
Emission Mask - 2mW, 607.875MHz



Emission Mask - 2mW, 614.125MHz



Emission Mask - 2mW, 615.875MHz



A.4 Output Power Test Result

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-08-08, 2024-12-27		

Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Test Result
P=35/10mW					
470.125	15.04	0.40	15.44	16.99	Pass
539.000	15.16	0.40	15.56	16.99	Pass
607.875	15.14	0.40	15.54	16.99	Pass
614.125	10.04	0.40	10.44	13.01	Pass
615.875	9.85	0.40	10.25	13.01	Pass
P=2mW					
470.125	3.43	0.40	3.83	16.99	Pass
539.000	3.39	0.40	3.79	16.99	Pass
607.875	3.27	0.40	3.67	16.99	Pass
614.125	3.05	0.40	3.45	13.01	Pass
615.875	2.91	0.40	3.31	13.01	Pass

Note 1: Limit = $10 \cdot \log(50\text{mW}) = 16.99 \text{ dBm}$.

Note 2: Limit = $10 \cdot \log(20\text{mW}) = 13.01 \text{ dBm}$.

Note 3: EIRP (dBm) = Conducted Power (dBm) + Antenna Gain (dBi).

A.5 Radiated Spurious Emission Test Result

Test Site	WZ-AC1	Test Engineer	Lucas Wang
Test Date	2024-07-31 ~ 2024-08-05		

Test Channel (MHz)	Frequency (MHz)	Reading Level (dBm)	Substitution Factor (dB)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarization
470.125	522.663	-93.6	34.9	-58.7	-54.0	-4.7	Peak	Horizontal
	940.248	-90.2	38.8	-51.4	-36.0	-15.4	Peak	Horizontal
	96.057	-103.7	39.3	-64.4	-54.0	-10.4	Peak	Vertical
	940.248	-100.5	39.1	-61.4	-36.0	-25.4	Peak	Vertical
	1410.400	-52.4	4.3	-48.1	-30.0	-18.1	Peak	Horizontal
	3290.800	-57.8	12.1	-45.7	-30.0	-15.7	Peak	Horizontal
	1410.400	-59.4	4.9	-54.5	-30.0	-24.5	Peak	Vertical
	3290.800	-55.8	11.9	-43.9	-30.0	-13.9	Peak	Vertical
539.000	484.639	-95.6	33.8	-61.8	-54.0	-7.8	Peak	Horizontal
	624.901	-95.1	34.5	-60.6	-54.0	-6.6	Peak	Horizontal
	97.997	-104.0	39.3	-64.7	-54.0	-10.7	Peak	Vertical
	825.982	-102.9	38.7	-64.2	-54.0	-10.2	Peak	Vertical
	1617.400	-60.7	4.0	-56.7	-30.0	-26.7	Peak	Horizontal
	2695.000	-63.4	8.8	-54.6	-30.0	-24.6	Peak	Horizontal
	1617.400	-58.2	5.0	-53.2	-30.0	-23.2	Peak	Vertical
	2694.400	-63.0	9.9	-53.1	-30.0	-23.1	Peak	Vertical

Note 1: Measure Level (dBm) = Reading Level (dBm) + Substitution Factor (dB)

Note 2: Substitution Factor (dB) = Cable Loss (dB) + Space Attenuation (dB) - Antenna Gain (dBi) - 2.15 (dB)

Note 3: QP measurement was not performed when peak measure level was lower than the QP limit.

RMS measurement was not performed when peak measure level was lower than the RMS limit.

Test Channel (MHz)	Frequency (MHz)	Reading Level (dBm)	Substitution Factor (dB)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarization
607.875	504.33	-93.7	34.6	-59.1	-54.0	-5.1	Peak	Horizontal
	663.798	-95.6	36.1	-59.5	-54.0	-5.5	Peak	Horizontal
	98.579	-103.2	39.1	-64.1	-54.0	-10.1	Peak	Vertical
	842.472	-102.8	39.1	-63.7	-54.0	-9.7	Peak	Vertical
	1824.400	-51.3	4.6	-46.7	-30.0	-16.7	Peak	Horizontal
	3039.400	-51.2	10.1	-41.1	-30.0	-11.1	Peak	Horizontal
	1823.200	-51.0	5.3	-45.7	-30.0	-15.7	Peak	Vertical
	3039.400	-47.5	10.5	-37.0	-30.0	-7.0	Peak	Vertical

Note 1: Measure Level (dBm) = Reading Level (dBm) + Substitution Factor (dB)

Note 2: Substitution Factor (dB) = Cable Loss (dB) + Space Attenuation (dB) - Antenna Gain (dBi) - 2.15 (dB)

Note 3: QP measurement was not performed when peak measure level was lower than the QP limit.

RMS measurement was not performed when peak measure level was lower than the RMS limit.

Test Site	WZ-AC2	Test Engineer	Ajin Fan
Test Date	2024-12-30		

Test Channel (MHz)	Frequency (MHz)	Reading Level (dBm)	Substitution Factor (dB)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarization
614.125	217.016	-105.0	31.6	-73.4	-54.0	-19.4	Peak	Horizontal
	761.186	-99.9	36.7	-63.2	-54.0	-9.2	Peak	Horizontal
	96.057	-104.4	39.2	-65.2	-54.0	-11.2	Peak	Vertical
	726.169	-98.2	36.4	-61.8	-54.0	-7.8	Peak	Vertical
	1843.000	-55.9	5.3	-50.6	-30.0	-20.6	Peak	Horizontal
	3070.600	-53.9	9.2	-44.7	-30.0	-14.7	Peak	Horizontal
	1842.400	-58.0	5.9	-52.1	-30.0	-22.1	Peak	Vertical
	3070.600	-59.0	8.1	-50.9	-30.0	-20.9	Peak	Vertical
615.875	216.628	-103.9	31.6	-72.3	-54.0	-18.3	Peak	Horizontal
	515.776	-99.8	34.6	-65.2	-54.0	-11.2	Peak	Horizontal
	96.639	-105.9	39.1	-66.8	-54.0	-12.8	Peak	Vertical
	763.708	-103.8	37.7	-66.1	-54.0	-12.1	Peak	Vertical
	1847.800	-52.5	5.2	-47.3	-30.0	-17.3	Peak	Horizontal
	3080.200	-58.7	9.4	-49.3	-30.0	-19.3	Peak	Horizontal
	1847.800	-61.3	5.9	-55.4	-30.0	-25.4	Peak	Vertical
	3079.600	-65.6	8.3	-57.3	-30.0	-27.3	Peak	Vertical

Note 1: Measure Level (dBm) = Reading Level (dBm) + Substitution Factor (dB)

Note 2: Substitution Factor (dB) = Cable Loss (dB) + Space Attenuation (dB) - Antenna Gain (dBi) - 2.15 (dB)

Note 3: QP measurement was not performed when peak measure level was lower than the QP limit.

RMS measurement was not performed when peak measure level was lower than the RMS limit.

A.6 AC Conducted Emissions Test Result

The EUT is powered by battery, so this item is not applicable.

Appendix B - Test Setup Photograph

Refer to “2412RSU055-UT” file.

Appendix C - EUT Photograph

Refer to “2412RSU055-UE” file.