



RF MEASUREMENT REPORT

FCC ID: DD4ADTDG57

Applicant: Shure Incorporated

Product: Wireless Dual Transmitter

Model No.: ADTD G57, ADTD DC G57

Trade Mark: 

FCC Classification: Licensed LPAS Device (TLD)

FCC Rule Part(s): Part 74 Subpart H (Section 74.861)

Application Type: Class II Permissive Change

Result: Complies

Received Date: 2025-05-16

Test Date: 2025-05-27 ~ 2025-06-16

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.

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Revision History

Report No.	Version	Description	Issue Date	Note
R25S1019045-U201	V01	Initial Report	2025-06-23	Valid

Note: This product has obtained FCC approval (FCC ID: DD4ADTDG57), original RF report no. is 2406RSU021-U13. Now the product has been modified via software, detail as follows. Therefore, we performed some testing to address these changes.

- Change the frequency range for partial original test mode (Mode 2, 4, 5)
- Add some test modes (Mode 1, 3, 6, 7, 8)

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1. General Information

1.1. Applicant

Shure Incorporated

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

1.2. Manufacturer

Shure Incorporated

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

1.3. Testing Facility

☒	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 FCC: CN1166 VCCI: ☐ R-20025 ☐ G-20034 ☐ C-20020 ☐ T-20020 ☐ R-20141 ☐ G-20134 ☐ C-20103 ☐ T-20104
	CNAS: L10551 ISED: CN0001
☐	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 FCC: CN1284
	CNAS: L10551 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 Dual Transmitter
Model No.	ADTD G57, ADTD DC G57
Serial No.	2DE31788100
Radio Specification	UHF Microphone Transmitter
Antenna Information	Refer to section 1.7
Operating Temperature	-18 ~ 50 °C
Network Interface	10/100/1000 Mbps, Dante Digital Audio
Power Type	AC Power Input (100~240V AC) & DC Power Input (12~48V) AC Power Output (100~240V AC)
Accessory	
8 Port Antenna Combiner	Model: AD8C, AD8C DC AC Ver.: 100-240V~, 50/60Hz, 0.76A max (5.76A max outlet loaded), DC Ver.: 12-48V DC, 4A max
Note 1: The information of the EUT (Equipment Under Test) was provided by the manufacturer. The accuracy, completeness, and validity of the information are solely the responsibility of the manufacturer. Note 2: ADTD G57 and ADTD DC G57 are completely same except power supply difference, ADTD G57 supports AC power supply, while ADTD DC G57 supports both AC and DC power supply. Note 3: AD8C and AD8C DC are completely same except power supply difference, AD8C supports AC power supply, while AD8C DC supports both AC and DC power supply.	

1.5. Radio Specification under Test

Transmission Mode	2-channel Wideband (WMAS) & 4-channel Wideband (WMAS)
Frequency Range	470 ~ 608 MHz
Declared Power Level	Low & Mid & High
Type of Modulation	2-channel Wideband (WMAS)
	4-channel Wideband: OFDM
Declared Occupied Bandwidth	2-channel Wideband (WMAS): 440 kHz
	4-channel Wideband (WMAS): 850 kHz
Channel Spacing	25 kHz
RF Connector Type	BNC

1.6. Working Frequencies

Bottom Channel (MHz)	Middle Channel (MHz)	Top Channel (MHz)
2-channel wideband		
470.200	539.000	607.800
4-channel wideband		
470.400	539.000	607.600

1.7. Antenna Details

Antenna Type	Frequency Band (MHz)	Manufacturer	Peak Gain (dBi)
Dipole	470 ~ 608	Shure	1.10

2. Test Configuration

2.1. Test Mode

Mode 1: Transmit at G57 Band by 4-Channel wideband (Power Level = 126mW)
Mode 2: Transmit at G57 Band by 2-channel wideband, frequency diversity (Power Level = 20mW)
Mode 3: Transmit at G57 Band by 4-Channel wideband, 2 frequencies, combined (Power Level = 20mW)
Mode 4: Transmit at G57 Band by 2-Channel wideband (Power Level = 126mW)
Mode 5: Transmit at G57 Band by 2-Channel wideband, spatial diversity (Power Level = 40mW)
Mode 6: Transmit at G57 Band by 4-channel wideband, spatial diversity
Mode 7: Transmit at G57 Band by 2-channel wideband, 2 frequencies
Mode 8: Transmit at G57 Band by 2-channel wideband, 2 frequencies, combined
Note1: Modes 2, 4, and 5 have been updated based on Modes 12, 6, and 8, respectively, from the original report, with modifications to naming, frequency range, and power declaration. Therefore, the power has been verified, and other items refer to the original report.
Note2: These newly added test modes 6 & 7 & 8 are the same type as modes 7 & 8 & 12 in the original report, respectively. Therefore, no additional testing was conducted.

2.2. Test Software

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

2.3. Applied Standards

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

- FCC Part 74.861
- KDB 206256 D01v03
- ANSI C63.26-2015
- 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	Manufacturer	Model No.	Asset No.	Cali. Interval	Cali. Due Date	Test Site
Thermohygrometer	testo	608-H1	MRTSUE06402	1 year	2026-04-24	WZ-SR5
Shielding Room	HUAMING	WZ-SR5	MRTSUE06442	N/A	N/A	WZ-SR5
Signal Analyzer	Keysight	N9010B	MRTSUE06457	1 year	2026-04-26	WZ-SR5
Signal Analyzer	Keysight	N9010B	MRTSUE06558	1 year	2026-05-17	WZ-SR5
USB Power Sensor	Keysight	U2021XA	MRTSUE06446	1 year	2026-04-26	WZ-SR5
Attenuator	MVE	MVE2213	MRTSUE11075	1 year	2025-06-03	WZ-SR5
				1 year	2026-06-02	WZ-SR5
Attenuator	MVE	MVE2213	MRTSUE11076	1 year	2025-06-03	WZ-SR5
				1 year	2026-06-02	WZ-SR5
Attenuator	MVE	MVE2213	MRTSUE11077	1 year	2025-06-03	WZ-SR5
				1 year	2026-06-02	WZ-SR5
Attenuator	MVE	MVE2213	MRTSUE11078	1 year	2025-06-03	WZ-SR5
				1 year	2026-06-02	WZ-SR5
Cable	UCwave	UCE500	24060015	Note	Note	WZ-SR5
TRILOG Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2026-03-22	WZ-AC2
EMI Test Receiver	Agilent	N9038A	MRTSUE06125	1 year	2026-04-26	WZ-AC2
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06171	1 year	2025-09-23	WZ-AC2
Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2026-03-18	WZ-AC2
Anechoic Chamber	RIKEN	WZ-AC2	MRTSUE06213	1 year	2026-04-17	WZ-AC2
Thermohygrometer	testo	608-H1	MRTSUE11263	1 year	2025-10-16	WZ-AC2

Note: The loss of the RF cable will be measured before testing.

Software	Version	Function
e3	230711	RE & CE
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 $k = 2$.

Radiated Emission Measurement	
The maximum measurement uncertainty is evaluated as:	
Coaxial:	9kHz~30MHz: 2.35dB
Coplanar:	9kHz~30MHz: 2.37dB
Horizontal:	30MHz~200MHz: 3.47dB
	200MHz~1GHz: 4.17dB
	1GHz~40GHz: 4.97dB
Vertical:	30MHz~200MHz: 4.07dB
	200MHz~1GHz: 5.28dB
	1GHz~40GHz: 4.84dB
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% ($U=2U_c(y)$):	
1.5dB	
Occupied Bandwidth	
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$):	
3.2%	

5. Test Result

5.1. Summary

FCC Part Section(s)	Test Description	Test Condition	Test Result
74.861(e)(1)(ii)	RF Output Power	Conducted	Pass
74.861(e)(5)	99% Occupied Bandwidth		Pass
74.861(e)(6)	Out of Band Emission		Pass
74.861(e)(7) (i&ii&iii)	Emission Mask		Pass
74.861(e)(7) (iv)	Radiated Spurious Emission	Radiated	Pass

Note: 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.

5.2. RF Output Power Measurement

5.2.1. Test Limit

470-608 MHz band: 250 mW conducted power

5.2.2. Test Procedure

ANSI C63.26-2015 - Section 5.2.4.2

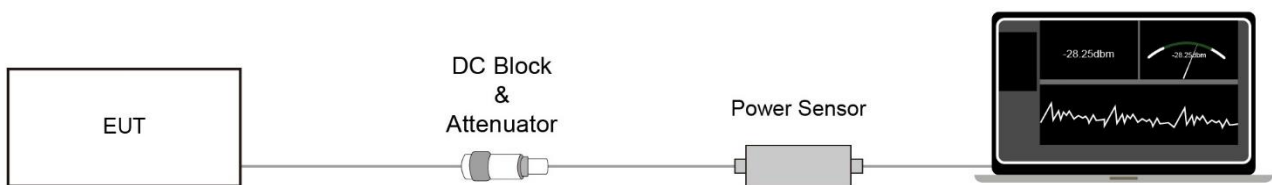
5.2.3. Test Setting

The output of the EUT was connected to an RF average power meter through fixed attenuation.

The EUT was set to transmit on the low, middle, and high frequencies in each power level.

Measure the average power of the transmitter.

5.2.4. Test Setup



5.2.5. Test Result

Refer to Appendix A.1.

5.3. 99% Occupied Bandwidth Measurement

5.3.1. Test Limit

The operating bandwidth shall not exceed 200 kilohertz, except that a wireless multichannel audio system must have an operating bandwidth not exceeding 6 megahertz in the TV bands or 4 megahertz in the 653–657 MHz band.

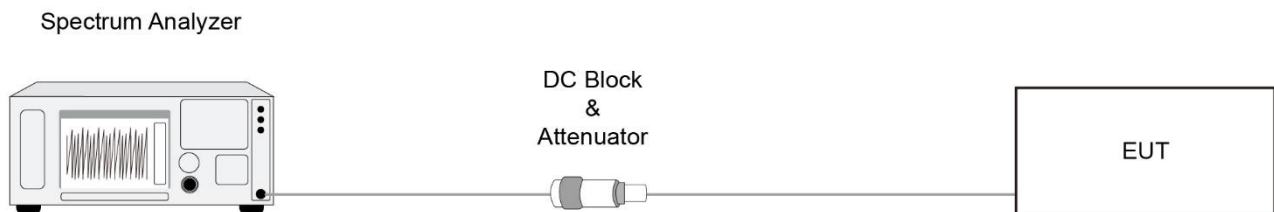
5.3.2. Test Procedure

ANSI C63.26-2015 - Section 5.4.4

5.3.3. Test Setting

1. The signal analyzer's automatic bandwidth measurement capability was used to perform the 99% occupied bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. RBW = 1 - 5% of the expected OBW
3. VBW $\geq 3 \times$ RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. The trace was allowed to stabilize
8. Reported the measured 99% occupied bandwidth

5.3.4. Test Setup



5.3.5. Test Result

Refer to Appendix A.2.

5.4. Out of Band Emission Measurement

5.4.1. Test Limit

The mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the following schedule:

- (i) On any frequency removed from the operating frequency by more than 50 percent up to and including 100 percent of the authorized bandwidth: at least 25 dB;
- (ii) On any frequency removed from the operating frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: at least 35 dB;
- (iii) On any frequency removed from the operating frequency by more than 250 percent of the authorized bandwidth: at least $43 + 10 \log_{10}$ (mean output power in watts) dB.

5.4.2. Test Procedure

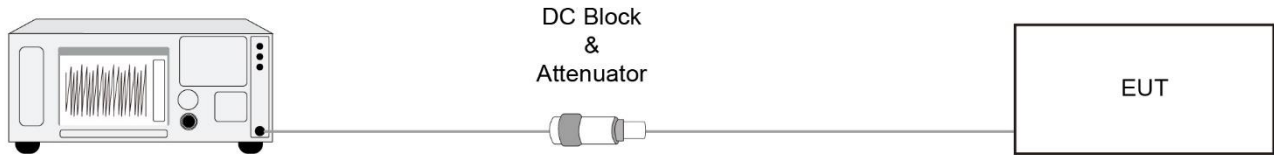
ANSI C63.26 - Section 5.7

5.4.3. Test Setting

- a) The EUT was connected to a spectrum analyzer.
 - b) The EUT was modulated with typical digital modulation.
 - c) Set span to $2 \times$ to $3 \times$ the OBW
 - Set $RBW \geq OBW$;
 - Set $VBW \geq 3 \times RBW$;
 - sweep time set to Auto,
 - Detector = power averaging (rms)
 - Use the peak marker function to determine the maximum amplitude level
 - d) The RMS output power was recorded and used to set the reference level on the spectrum analyzer.
 - e) The spectrum analyzer span was then set to $5 \times$ the OBW;
- RBW set to 1% of the OBW, VBW set to $3 \times RBW$, sweep time to Auto.

5.4.4. Test Setup

Spectrum Analyzer



5.4.5. Test Result

Refer to Appendix A.3.

5.5. Emission Mask Measurement

5.5.1. Test Limit

(i) Analog 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 Out of Band Emission in Figure 1 of section 4.2.4.2.2 of ETSI EN 300 422-1 V2.2.1 (2021-11) (incorporated by reference, see § 74.35).

(ii) 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 Out of Band Emission 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 § 74.35).

(iii) Wireless Multichannel Audio 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 Out of Band Emission in Figure 3 of section 4.2.4.2.2 of ETSI EN 300 422-1 V2.2.1 (2021-11), (incorporated by reference, see § 74.35).

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

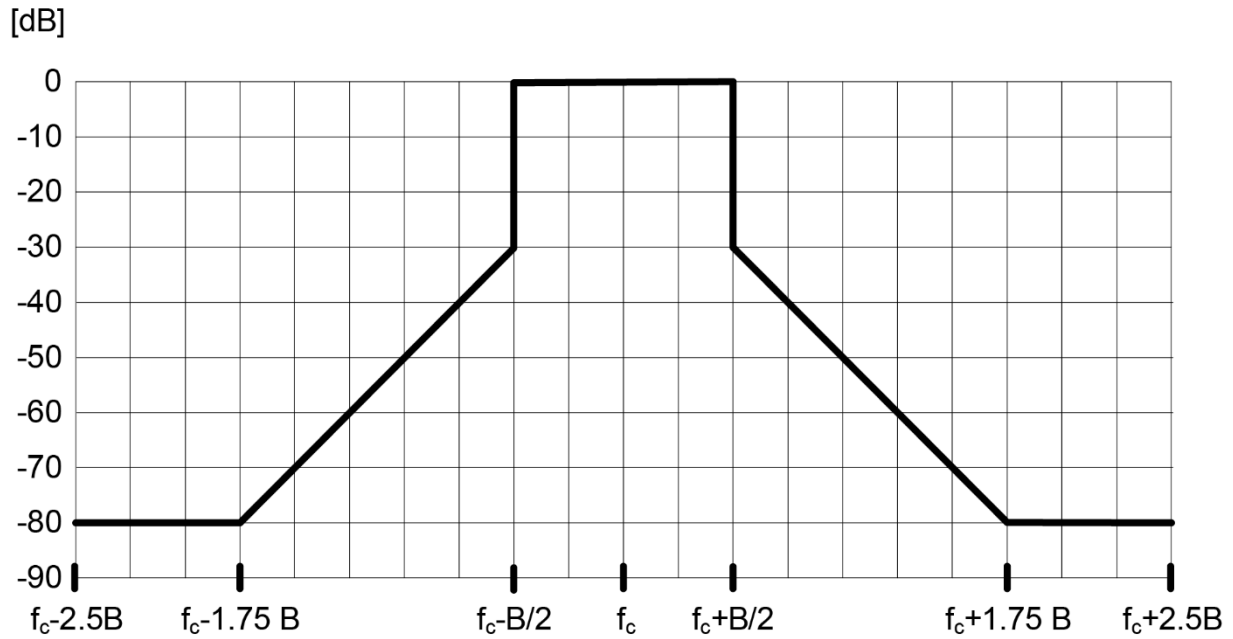


Figure 2: Transmit spectral power mask for equipment employing digital modulation, except WMAS, RBW = 1 kHz

The limits in figure 3 are applicable for WMAS, where B is the Declared Channel Bandwidth.

The mean Power Density, measured with 100 kHz measurement bandwidth and PEAK detector, of the transmitter unwanted emissions shall not exceed the limits of the mask provided in figure 3.



Figure 3: Transmit spectral power mask for WMAS, RBW = 100 kHz

The limits in figure 3 are provided with RBW = 100 kHz. The relevant measurements can also be performed with other RBW for certain ranges of B, accounting that the relevant limit given under RBW = 100 kHz needs to be converted appropriately by adding $c = 10 \times \log_{10} (\text{RBW}/100 \text{ kHz})$ for correction.

Correction Factor for different B and applicable RBW

B	RBW, VBW	c = correction factor
$B < 2 \text{ MHz}$	10 kHz	-10dB
$2 \text{ MHz} \leq B < 5 \text{ MHz}$	25 kHz	-7dB
$5 \text{ Hz} \leq B \leq 20 \text{ MHz}$	100 kHz	0dB

5.5.2. Test Procedure

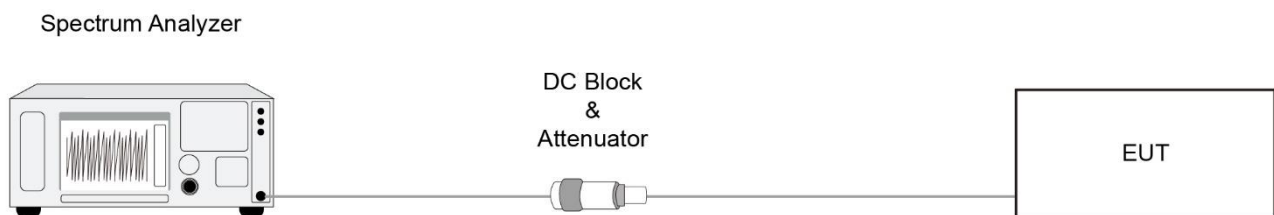
EN 300 422-1 V2.2.1 clause 5.4.3.2.

5.5.3. 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 frequency.

5.5.4. Test Setup



5.5.5. Test Result

Refer to Appendix A.4.

5.6. Radiated Spurious Emissions Measurement

5.6.1. Test Limit

Spurious emission limits. Emissions outside of the Out of Band Emissions listed in paragraphs (e)(7)(i) through (e)(7)(iii) 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 § 74.35).

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	-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
$1\text{GHz} < f \leq F_{\text{upper}}$	-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.

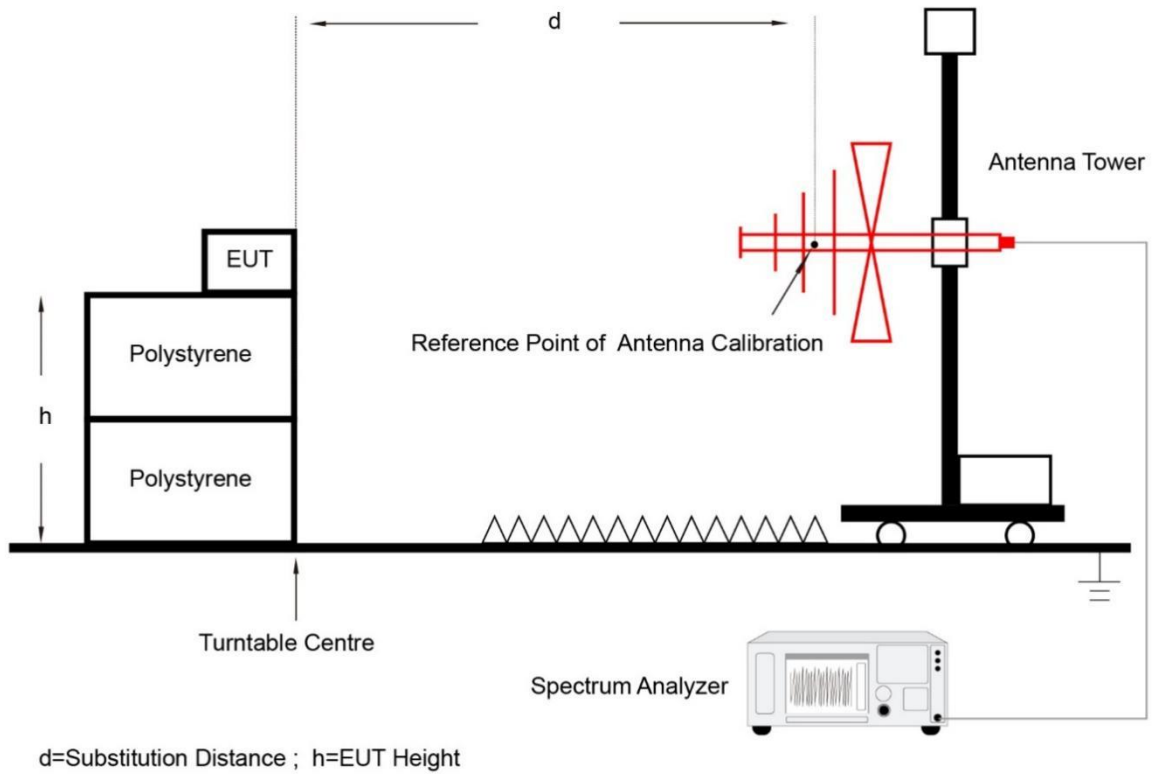
Compliance with the emission limits shall be demonstrated using an RMS Average detector.

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

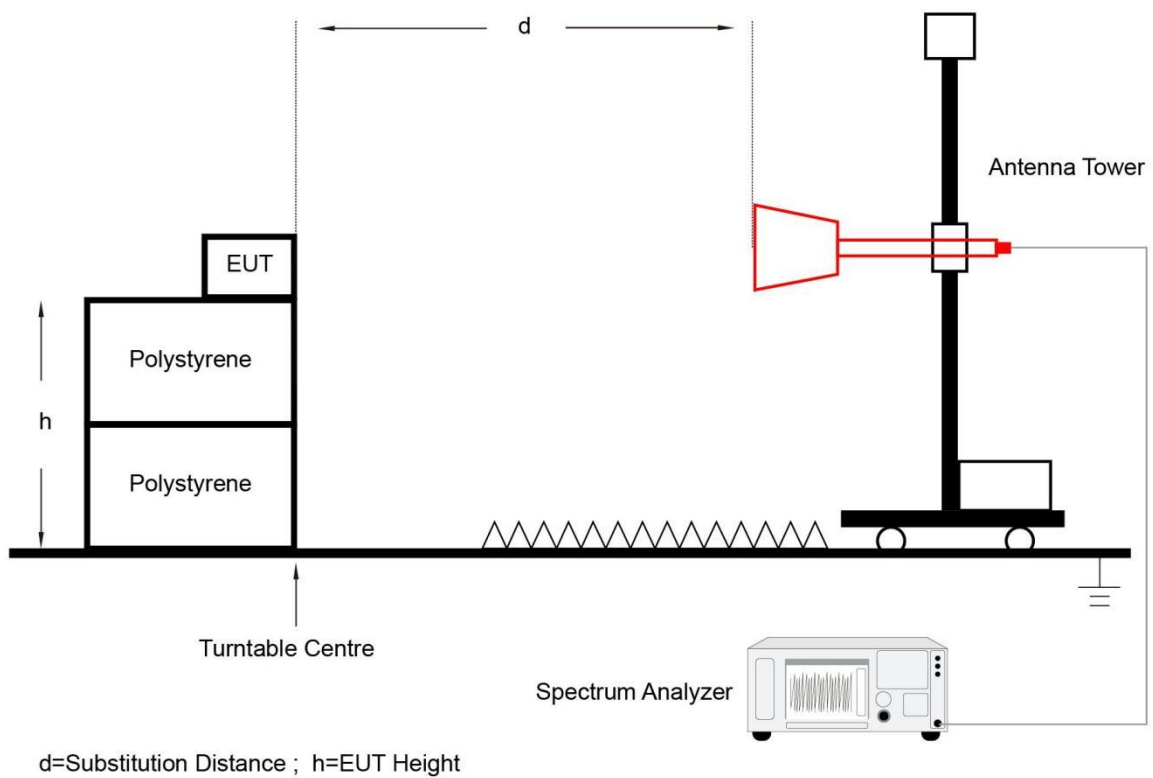
At each frequency at which a component is detected, the sample shall be rotated to obtain maximum response and the effective radiated power of that component determined by a substitution measurement.

5.6.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



5.6.5. Test Result

Refer to Appendix A.5.

Appendix A – Test Result

A.1 RF Output Power Test Result

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-06-09 ~ 2025-06-16	Test Mode	Mode 1

Frequency (MHz)	Conducted Output Power (dBm)	Limit (dBm)	Test Result
	Port A		
126mW Power Level			
470.400	20.98	≤ 23.98	Pass
539.000	17.63	≤ 23.98	Pass
607.600	18.98	≤ 23.98	Pass

Note: Limit = $10 \cdot \log(250\text{mW}) = 23.98$ dBm.

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-06-09 ~ 2025-06-16	Test Mode	Mode 2

Frequency (MHz)		Conducted Output Power (dBm)	Limit (dBm)	Test Result
F1	F2	Port A		
20mW Power Level				
470.200	471.400	17.92	≤ 23.98	Pass
539.000	540.200	16.88	≤ 23.98	Pass
607.600	606.600	16.56	≤ 23.98	Pass

Note: Limit = $10 \cdot \log(250\text{mW}) = 23.98$ dBm.

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-06-09 ~ 2025-06-16	Test Mode	Mode 3

Frequency (MHz)		Conducted Output Power (dBm)	Limit (dBm)	Test Result
F1	F2	Port A		
20mW Power Level				
470.400	471.400	17.61	≤ 23.98	Pass
539.000	540.000	16.51	≤ 23.98	Pass
607.600	606.600	16.16	≤ 23.98	Pass

Note: Limit = $10 \cdot \log(250\text{mW}) = 23.98 \text{ dBm}$.

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-06-09 ~ 2025-06-16	Test Mode	Mode 4

Frequency (MHz)	Conducted Output Power (dBm)	Limit (dBm)	Test Result
	Port A		
126mW Power Level			
470.200	23.02	≤ 23.98	Pass
539.000	19.75	≤ 23.98	Pass
607.800	21.05	≤ 23.98	Pass

Note: Limit = $10 \cdot \log(250\text{mW}) = 23.98 \text{ dBm}$.

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-06-09 ~ 2025-06-16	Test Mode	Mode 5

Frequency (MHz)	Conducted Output Power (dBm)		Total Conducted Output Power (dBm)	Limit (dBm)	Test Result
	Port A	Port B			
40mW Power Level					
470.200	17.44	16.85	20.17	≤ 23.98	Pass
539.000	16.16	16.64	19.42	≤ 23.98	Pass
607.800	15.78	15.98	18.89	≤ 23.98	Pass

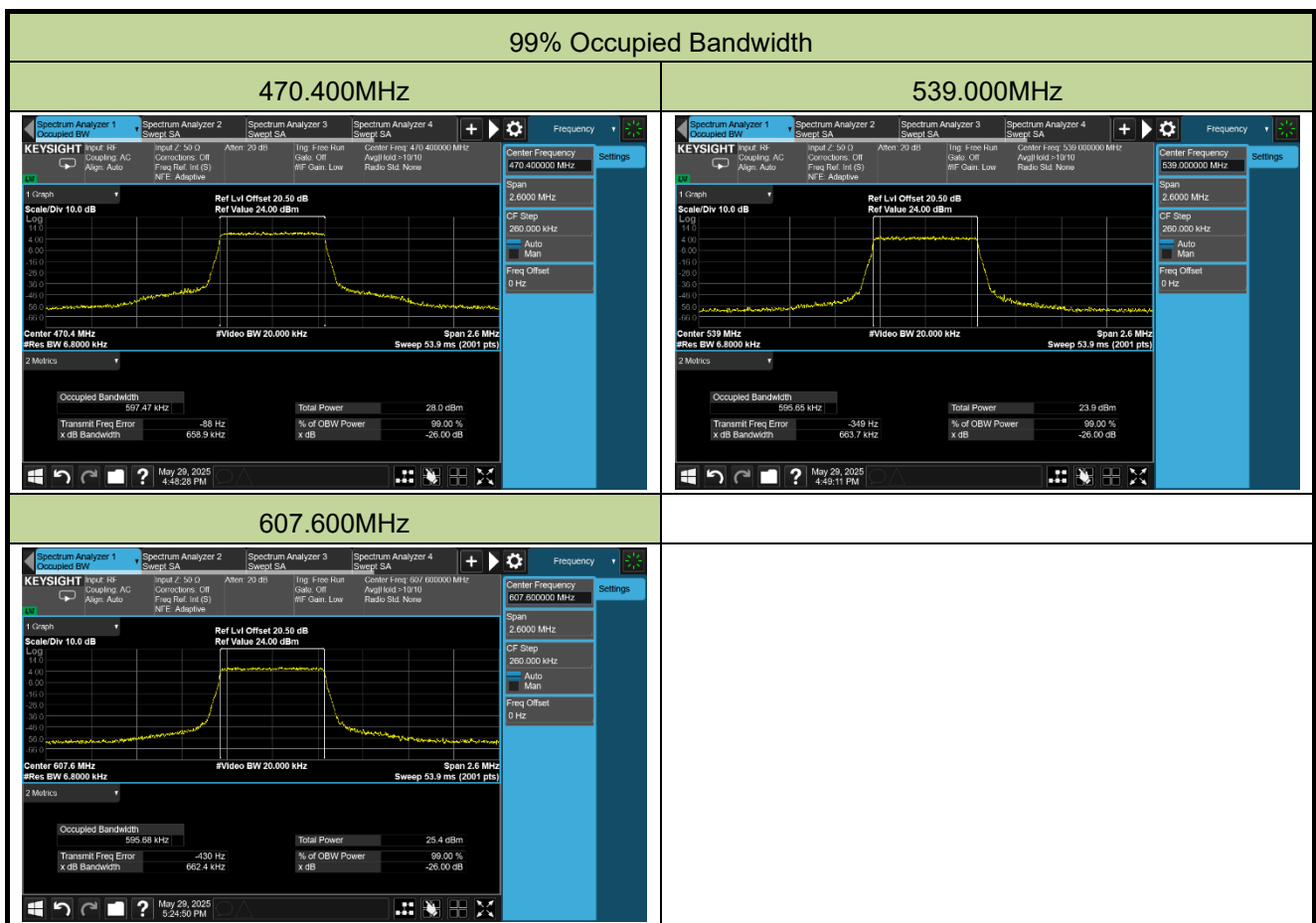
Note 1: Limit = $10 \cdot \log(250\text{mW}) = 23.98 \text{ dBm}$.

Note 2: Total Conducted Output Power (dBm) = $10 \cdot \log[10^{(\text{Port A}/10)} + 10^{(\text{Port B}/10)}]$ (dBm).

A.2 99% Occupied Bandwidth Test Result

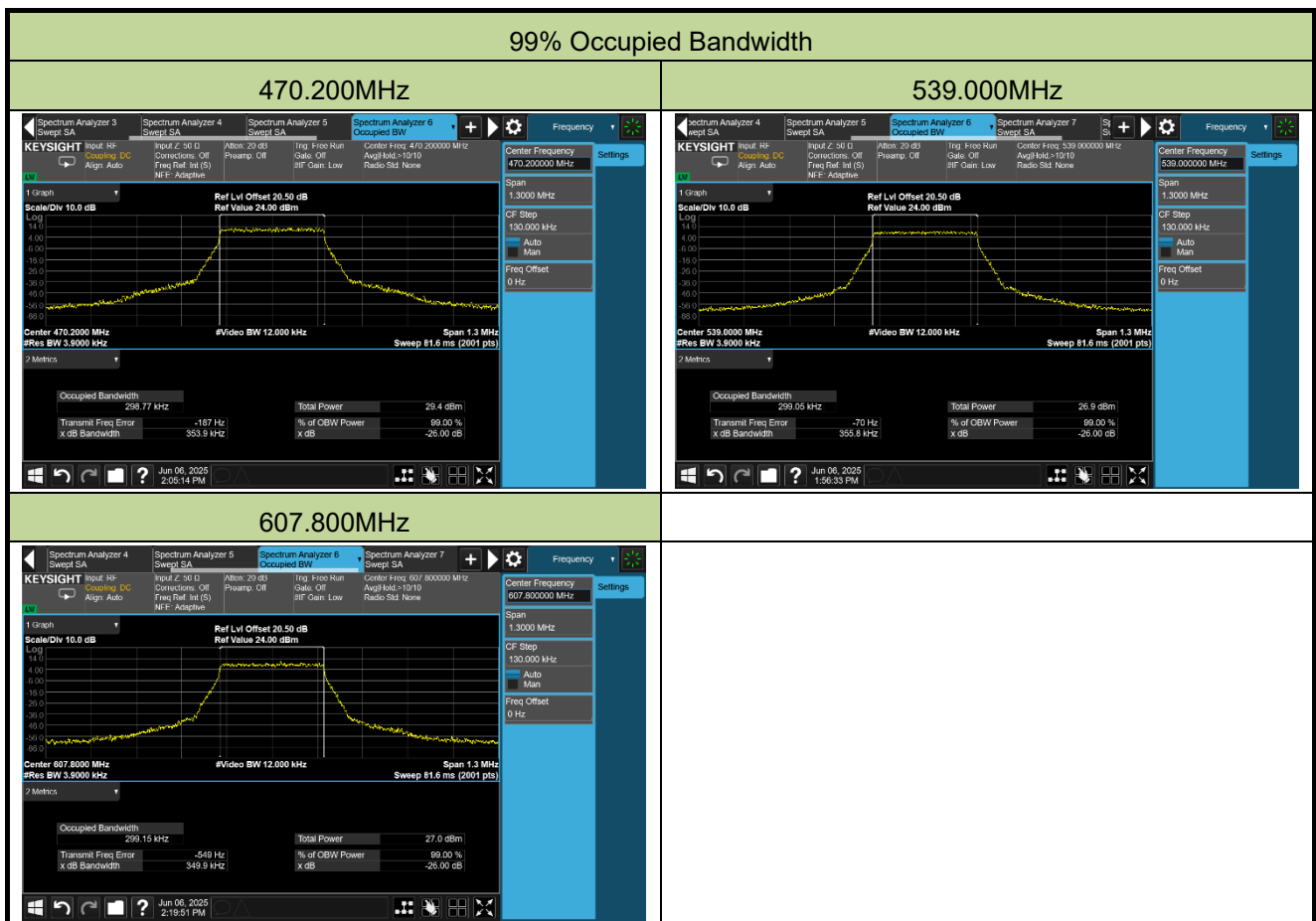
Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-05-29	Test Mode	Mode 1

Frequency (MHz)	99% Occupied Bandwidth (kHz)	Limit (kHz)	Result
470.400	597.47	< 6000	Pass
539.000	595.65	< 6000	Pass
607.600	595.68	< 6000	Pass



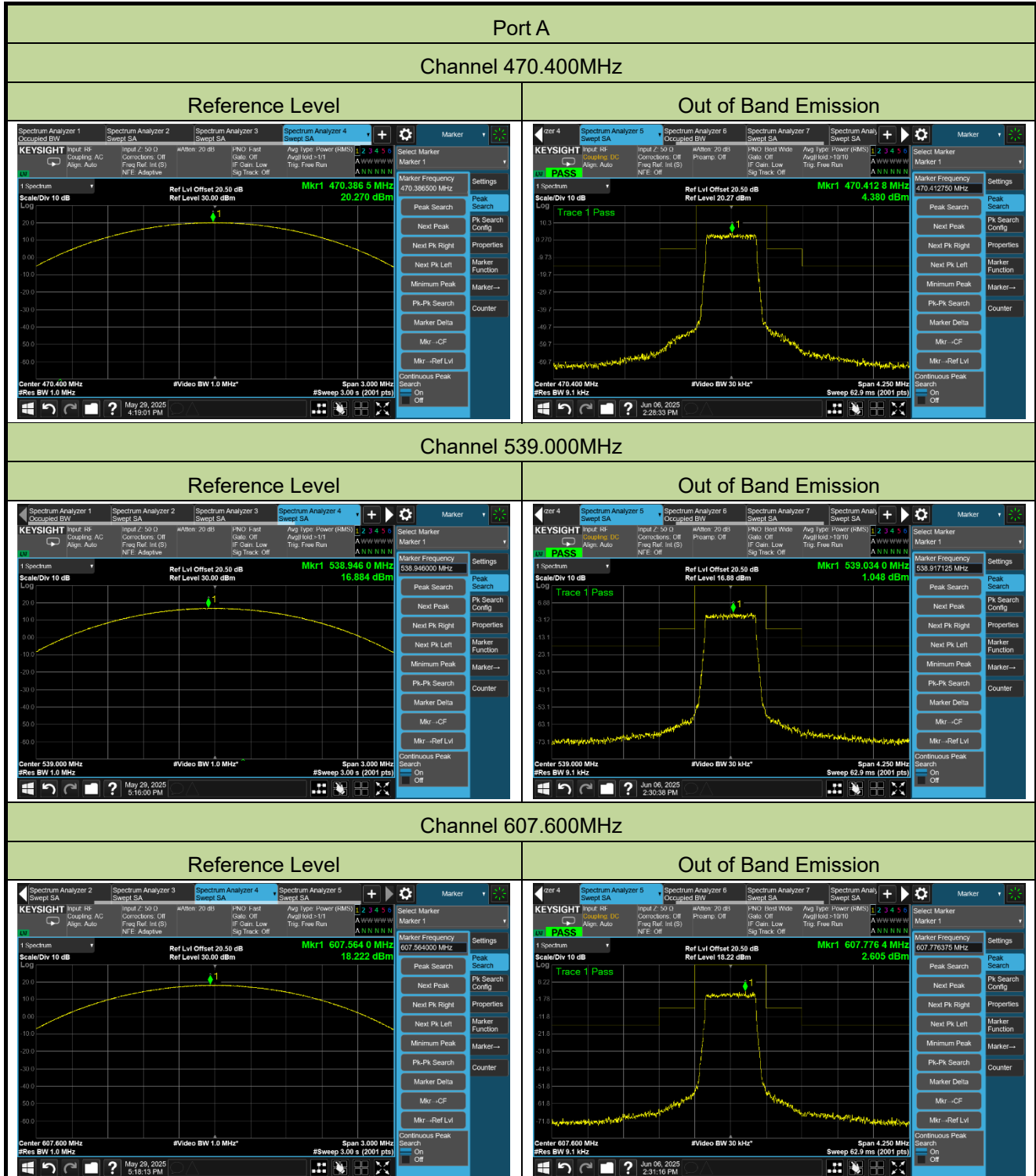
Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-06-06	Test Mode	Mode 4

Frequency (MHz)	99% Occupied Bandwidth (kHz)	Limit (kHz)	Result
470.200	298.77	< 6000	Pass
539.000	299.05	< 6000	Pass
607.800	299.15	< 6000	Pass



A.3 Out of Band Emission Test Result

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-05-29 ~ 2025-06-06	Test Mode	Mode 1

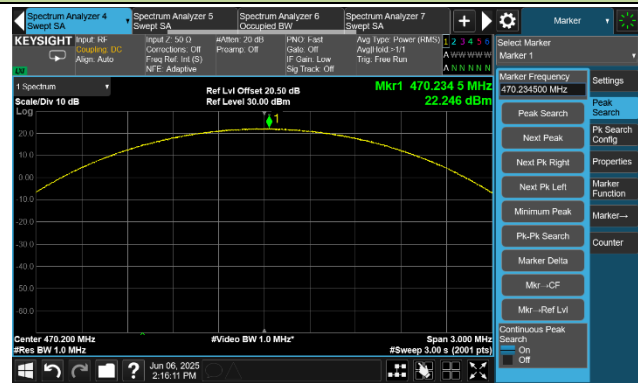


Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-06-06	Test Mode	Mode 4

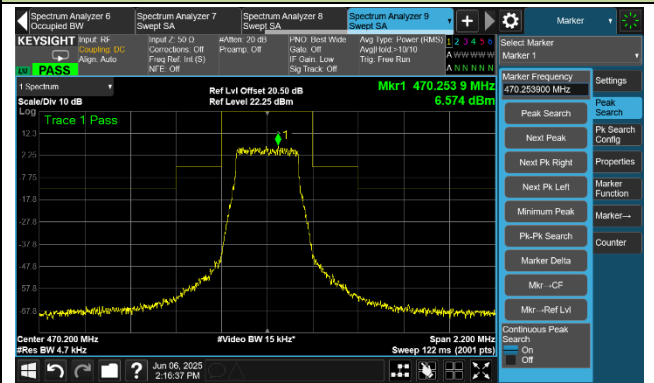
Port A

Channel 470.200MHz

Reference Level

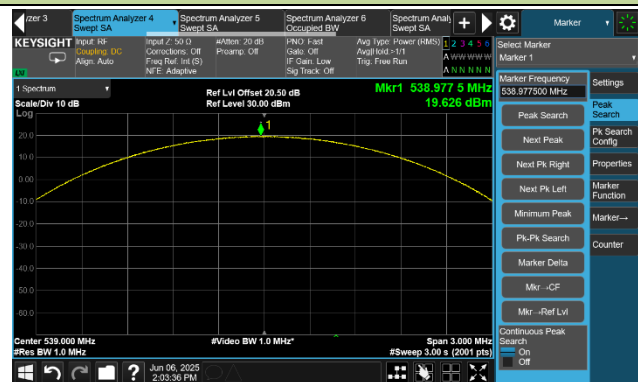


Out of Band Emission

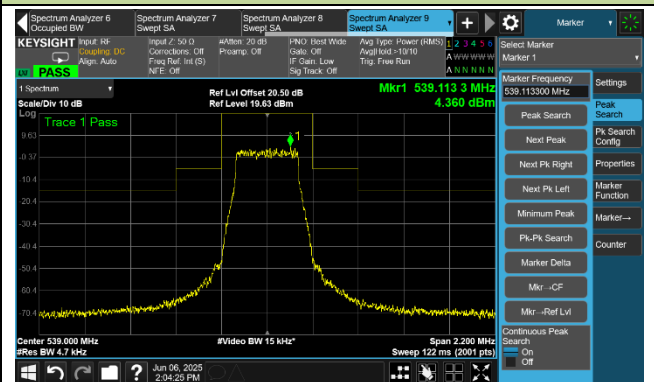


Channel 539.000MHz

Reference Level

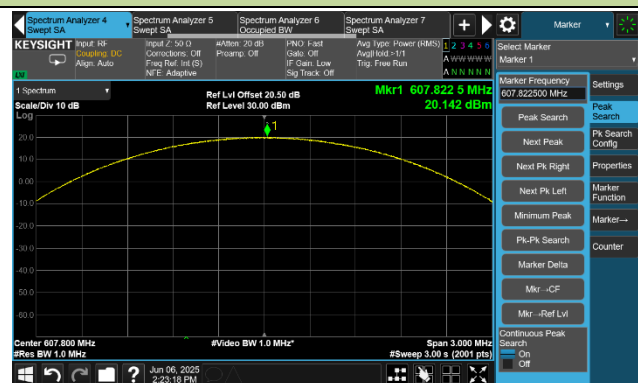


Out of Band Emission

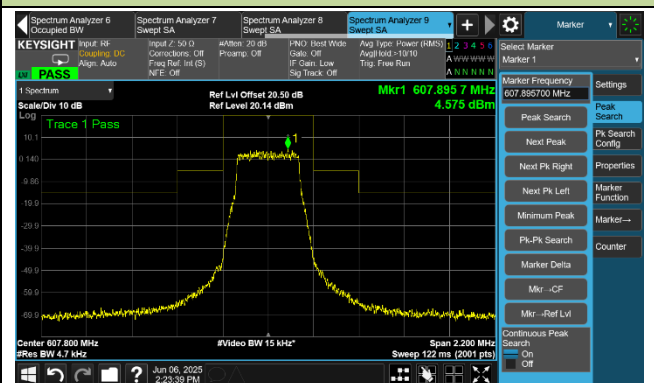


Channel 607.800MHz

Reference Level



Out of Band Emission

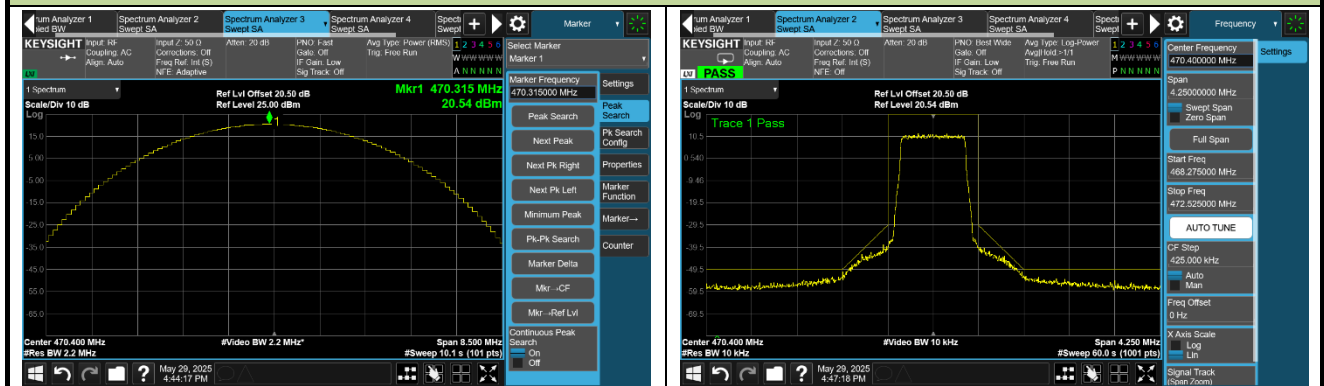


A.4 Emission Mask Test Result

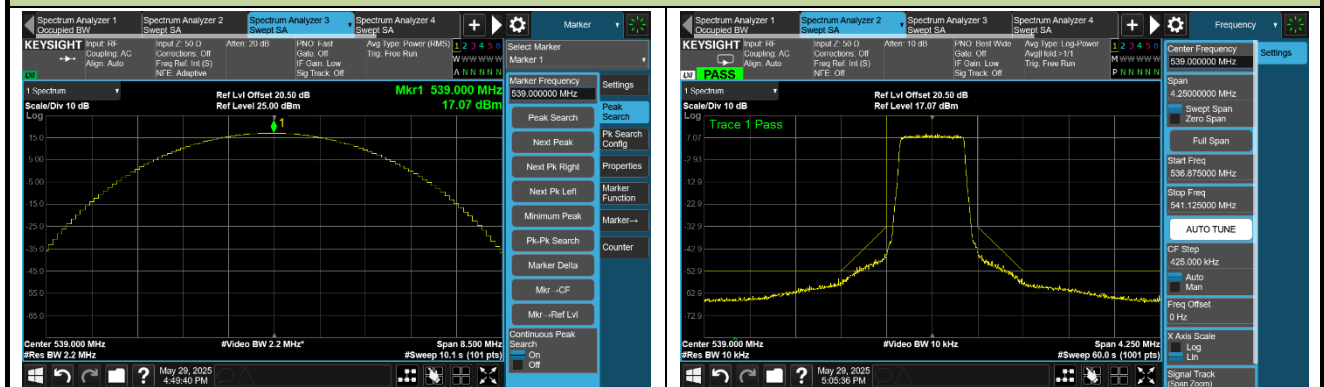
Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-05-29	Test Mode	Mode 1

Port A

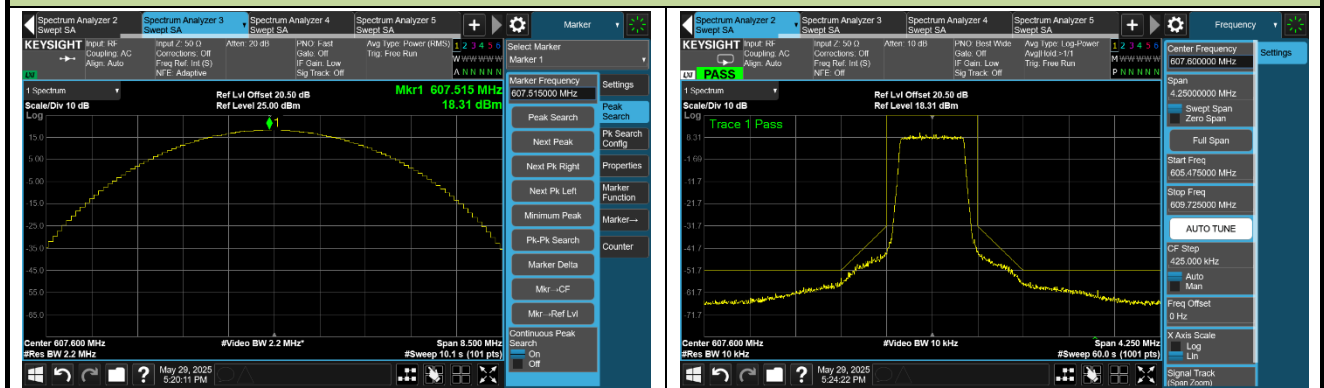
Channel 470.400MHz



Channel 539.000MHz



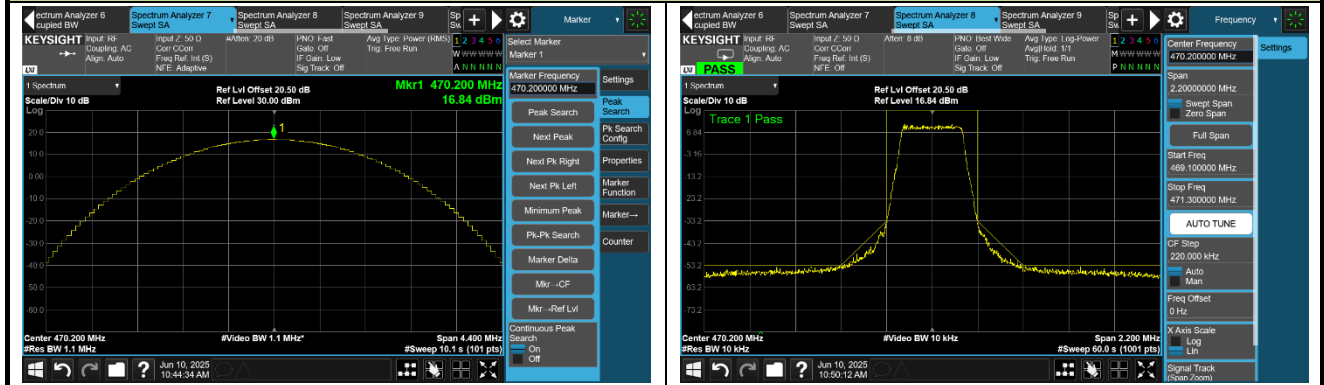
Channel 607.600MHz



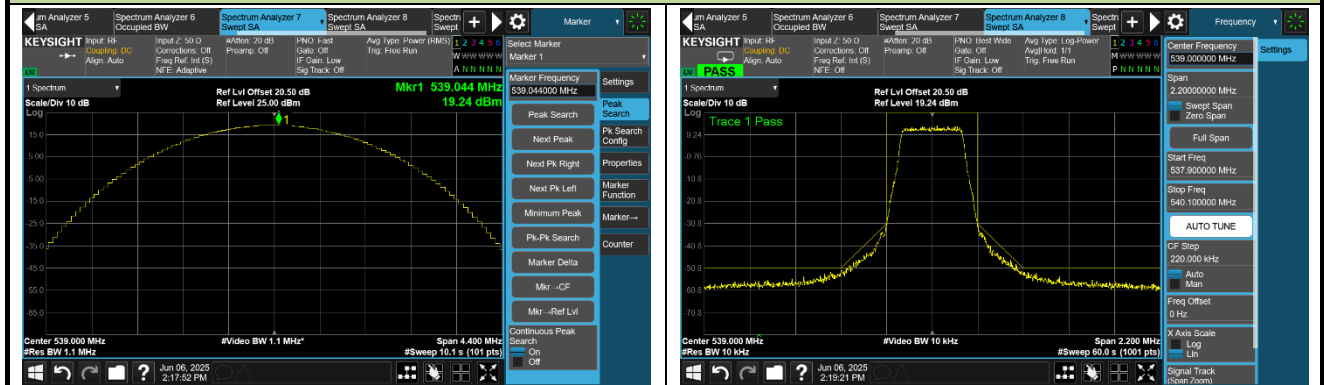
Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-06-06 ~ 2025-06-10	Test Mode	Mode 4

Port A

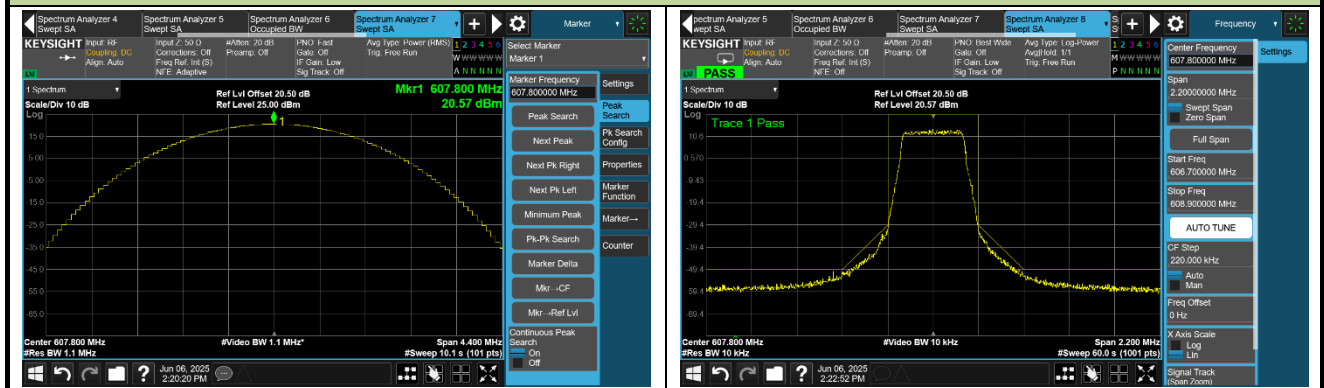
Channel 470.200MHz



Channel 539.000MHz



Channel 607.800MHz



A.5 Radiated Spurious Emissions Test Result

Test Site	WZ-AC2	Test Engineer	Ajin Fan & Dick Shen
Test Date	2025-05-26 ~ 2025-06-13	Test Mode	Mode 1

Test Channel (MHz)	Frequency (MHz)	Reading Level (dBm)	Substitution Factor (dB)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarization
470.400	480.020	-100.9	30.5	-70.4	-54.0	-16.4	Peak	Horizontal
	836.540	-104.7	35.8	-68.9	-54.0	-14.9	Peak	Horizontal
	222.870	-102.6	31.1	-71.5	-54.0	-17.5	Peak	Vertical
	480.020	-94.9	33.3	-61.6	-54.0	-7.6	Peak	Vertical
	1410.400	-55.0	7.9	-47.1	-30.0	-17.1	Peak	Horizontal
	6929.800	-73.8	21.0	-52.8	-30.0	-22.8	Peak	Horizontal
	1411.600	-51.5	7.8	-43.7	-30.0	-13.7	Average	Vertical
	6660.400	-72.0	20.1	-51.9	-30.0	-21.9	Peak	Vertical
539.000	684.030	-103.8	34.1	-69.7	-54.0	-15.7	Peak	Horizontal
	797.300	-103.6	35.1	-68.5	-54.0	-14.5	Peak	Horizontal
	480.020	-94.4	33.3	-61.1	-54.0	-7.1	Peak	Vertical
	589.730	-101.4	34.6	-66.8	-54.0	-12.8	Peak	Vertical
	1078.600	-55.7	6.5	-49.2	-30.0	-19.2	Peak	Horizontal
	1617.400	-56.0	7.0	-49.0	-30.0	-19.0	Peak	Horizontal
	1078.000	-56.3	6.6	-49.7	-30.0	-19.7	Peak	Vertical
	1617.400	-46.6	7.3	-39.3	-30.0	-9.3	Peak	Vertical
607.600	480.020	-101.1	30.5	-70.6	-54.0	-16.6	Peak	Horizontal
	697.590	-103.4	34.1	-69.3	-54.0	-15.3	Peak	Horizontal
	480.020	-98.2	33.3	-64.9	-54.0	-10.9	Average	Vertical
	725.530	-104.1	36.5	-67.6	-54.0	-13.6	Peak	Vertical
	1442.800	-68.1	8.8	-59.3	-30.0	-29.3	Peak	Horizontal
	6724.600	-71.3	20.0	-51.3	-30.0	-21.3	Peak	Horizontal
	1822.600	-55.9	6.8	-49.1	-30.0	-19.1	Peak	Vertical
	6644.200	-72.1	19.9	-52.2	-30.0	-22.2	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: RMS measurement was not performed when peak measure level was lower than the RMS limit.

Test Site	WZ-AC2	Test Engineer	Dick Shen
Test Date	2025-06-13	Test Mode	Mode 2

Test Channel (MHz)	Frequency (MHz)	Reading Level (dBm)	Substitution Factor (dB)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarization
470.200 + 471.400	52.210	-103.7	28.3	-75.4	-54.0	-21.4	Peak	Horizontal
	808.720	-102.7	35.4	-67.3	-54.0	-13.3	Peak	Horizontal
	99.260	-102.0	31.9	-70.1	-54.0	-16.1	Peak	Vertical
	493.180	-95.7	33.6	-62.1	-54.0	-8.1	Peak	Vertical
	2209.600	-68.8	10.4	-58.4	-30.0	-28.4	Peak	Horizontal
	6568.600	-72.0	19.9	-52.1	-30.0	-22.1	Peak	Horizontal
	1415.200	-54.0	8.0	-46.0	-30.0	-16.0	Peak	Vertical
	2457.400	-60.7	9.1	-51.6	-30.0	-21.6	Peak	Vertical
539.000 + 540.200	53.180	-105.9	28.0	-77.9	-54.0	-23.9	Peak	Horizontal
	792.610	-102.6	35.0	-67.6	-54.0	-13.6	Peak	Horizontal
	479.980	-94.9	33.3	-61.6	-54.0	-7.6	Peak	Vertical
	583.480	-97.5	34.4	-63.1	-54.0	-9.1	Peak	Vertical
	2262.400	-68.9	10.8	-58.1	-30.0	-28.1	Peak	Horizontal
	6569.200	-72.5	19.9	-52.6	-30.0	-22.6	Peak	Horizontal
	2226.400	-68.8	10.1	-58.7	-30.0	-28.7	Peak	Vertical
	6650.800	-72.8	20.0	-52.8	-30.0	-22.8	Peak	Vertical
607.600 + 606.600	51.440	-104.3	28.6	-75.7	-54.0	-21.7	Peak	Horizontal
	692.120	-103.1	34.0	-69.1	-54.0	-15.1	Peak	Horizontal
	199.460	-100.1	29.6	-70.5	-54.0	-16.5	Peak	Vertical
	479.980	-94.6	33.3	-61.3	-54.0	-7.3	Peak	Vertical
	2209.600	-68.2	10.4	-57.8	-30.0	-27.8	Peak	Horizontal
	6501.400	-72.5	19.0	-53.5	-30.0	-23.5	Peak	Horizontal
	2203.600	-69.2	10.0	-59.2	-30.0	-29.2	Peak	Vertical
	6889.600	-73.0	20.3	-52.7	-30.0	-22.7	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: RMS measurement was not performed when peak measure level was lower than the RMS limit.

Test Site	WZ-AC2	Test Engineer	Dick Shen
Test Date	2025-06-13	Test Mode	Mode 3

Test Channel (MHz)	Frequency (MHz)	Reading Level (dBm)	Substitution Factor (dB)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarization
470.400 + 471.400	110.030	-91.8	23.6	-68.2	-54.0	-14.2	Peak	Horizontal
	834.130	-100.8	35.8	-65.0	-54.0	-11.0	Peak	Horizontal
	198.000	-97.8	29.7	-68.1	-54.0	-14.1	Peak	Vertical
	574.360	-97.6	34.3	-63.3	-54.0	-9.3	Peak	Vertical
	110.030	-91.8	23.6	-68.2	-54.0	-14.2	Peak	Horizontal
	834.130	-100.8	35.8	-65.0	-54.0	-11.0	Peak	Horizontal
	198.000	-97.8	29.7	-68.1	-54.0	-14.1	Peak	Vertical
	574.360	-97.6	34.3	-63.3	-54.0	-9.3	Peak	Vertical
539.000 + 540.000	49.300	-104.5	29.2	-75.3	-54.0	-21.3	Peak	Horizontal
	693.480	-103.4	34.1	-69.3	-54.0	-15.3	Peak	Horizontal
	100.230	-104.3	31.8	-72.5	-54.0	-18.5	Peak	Vertical
	492.210	-94.7	33.6	-61.1	-54.0	-7.1	Peak	Vertical
	2453.800	-63.0	9.2	-53.8	-30.0	-23.8	Peak	Horizontal
	6646.600	-72.4	19.6	-52.8	-30.0	-22.8	Peak	Horizontal
	1618.600	-64.5	7.4	-57.1	-30.0	-27.1	Peak	Vertical
	6552.400	-71.5	19.0	-52.5	-30.0	-22.5	Peak	Vertical
607.600 + 606.600	52.990	-104.6	28.1	-76.5	-54.0	-22.5	Peak	Horizontal
	755.370	-102.4	34.0	-68.4	-54.0	-14.4	Peak	Horizontal
	97.800	-104.1	31.9	-72.2	-54.0	-18.2	Peak	Vertical
	579.120	-97.3	34.5	-62.8	-54.0	-8.8	Peak	Vertical
	2201.200	-69.6	10.3	-59.3	-30.0	-29.3	Peak	Horizontal
	6881.800	-72.2	19.6	-52.6	-30.0	-22.6	Peak	Horizontal
	2833.000	-68.5	9.7	-58.8	-30.0	-28.8	Peak	Vertical
	6658.600	-72.3	20.0	-52.3	-30.0	-22.3	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: RMS measurement was not performed when peak measure level was lower than the RMS limit.

Test Site	WZ-AC2	Test Engineer	Ajin Fan & Dick Shen
Test Date	2025-05-27 ~ 2025-06-13	Test Mode	Mode 4

Test Channel (MHz)	Frequency (MHz)	Reading Level (dBm)	Substitution Factor (dB)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarization
470.200	198.030	-102.5	25.6	-76.9	-54.0	-22.9	Peak	Horizontal
	698.320	-103.7	34.1	-69.6	-54.0	-15.6	Peak	Horizontal
	222.870	-100.4	31.1	-69.3	-54.0	-15.3	Peak	Vertical
	480.020	-98.8	33.3	-65.5	-54.0	-11.5	Average	Vertical
	1411.000	-49.5	7.9	-41.6	-30.0	-11.6	Peak	Horizontal
	6640.600	-71.6	19.5	-52.1	-30.0	-22.1	Peak	Horizontal
	1411.000	-54.7	7.8	-46.9	-30.0	-16.9	Average	Vertical
	1904.200	-53.7	6.9	-46.8	-30.0	-16.8	Peak	Vertical
539.000	50.370	-104.0	28.9	-75.1	-54.0	-21.1	Peak	Horizontal
	791.640	-102.8	34.9	-67.9	-54.0	-13.9	Peak	Horizontal
	110.030	-100.8	29.0	-71.8	-54.0	-17.8	Peak	Vertical
	1617.400	-64.0	7.0	-57.0	-30.0	-27.0	Peak	Horizontal
	6805.000	-72.8	19.6	-53.2	-30.0	-23.2	Peak	Horizontal
	1616.800	-45.5	7.3	-38.2	-30.0	-8.2	Peak	Vertical
	1886.200	-48.7	6.7	-42.0	-30.0	-12.0	Peak	Vertical
607.800	50.470	-104.6	28.9	-75.7	-54.0	-21.7	Peak	Horizontal
	782.430	-103.0	34.5	-68.5	-54.0	-14.5	Peak	Horizontal
	109.930	-100.8	29.1	-71.7	-54.0	-17.7	Peak	Vertical
	479.980	-89.5	33.3	-56.2	-54.0	-2.2	Average	Vertical
	1823.200	-62.5	7.6	-54.9	-30.0	-24.9	Peak	Horizontal
	6346.000	-71.1	17.7	-53.4	-30.0	-23.4	Peak	Horizontal
	1823.200	-58.4	6.8	-51.6	-30.0	-21.6	Peak	Vertical
	6558.400	-71.8	19.2	-52.6	-30.0	-22.6	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: RMS measurement was not performed when peak measure level was lower than the RMS limit.

Test Site	WZ-AC2	Test Engineer	Dick Shen
Test Date	2025-06-13	Test Mode	Mode 5

Test Channel (MHz)	Frequency (MHz)	Reading Level (dBm)	Substitution Factor (dB)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarization
470.200	50.370	-104.2	28.9	-75.3	-54.0	-21.3	Peak	Horizontal
	808.810	-103.2	35.4	-67.8	-54.0	-13.8	Peak	Horizontal
	95.570	-104.1	32.0	-72.1	-54.0	-18.1	Peak	Vertical
	532.460	-94.5	33.5	-61.0	-54.0	-7.0	Peak	Vertical
	2209.600	-68.9	10.4	-58.5	-30.0	-28.5	Peak	Horizontal
	6904.000	-72.9	20.9	-52.0	-30.0	-22.0	Peak	Horizontal
	2190.400	-68.9	10.4	-58.5	-30.0	-28.5	Peak	Vertical
	6650.800	-72.6	20.0	-52.6	-30.0	-22.6	Peak	Vertical
539.000	50.47	-105.09	28.9	-76.2	-22.2	-54.0	Peak	Horizontal
	699.4	-102.27	34.1	-68.2	-14.17	-54.0	Peak	Horizontal
	99.06	-103.93	31.89	-72.0	-18.04	-54.0	Peak	Vertical
	528.39	-93.98	33.48	-60.5	-6.5	-54.0	Peak	Vertical
	1078.000	-61.7	6.5	-55.2	-30.0	-25.2	Peak	Horizontal
	5691.400	-72.4	16.5	-55.9	-30.0	-25.9	Peak	Horizontal
	1647.400	-67.6	8.7	-58.9	-30.0	-28.9	Peak	Vertical
	6395.200	-71.6	18.2	-53.4	-30.0	-23.4	Peak	Vertical
607.800	51.05	-103.4	28.7	-74.7	-20.69	-54.0	Peak	Horizontal
	704.05	-93.95	33.93	-60.0	-6.02	-54.0	Peak	Horizontal
	97.32	-104.14	31.91	-72.2	-18.23	-54.0	Peak	Vertical
	480.08	-93.04	33.32	-59.7	-5.72	-54.0	Peak	Vertical
	2275.000	-68.1	10.3	-57.8	-30.0	-27.8	Peak	Horizontal
	6950.800	-72.9	21.1	-51.8	-30.0	-21.8	Peak	Horizontal
	1438.000	-67.7	7.9	-59.8	-30.0	-29.8	Peak	Vertical
	6226.600	-71.7	17.3	-54.4	-30.0	-24.4	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: RMS measurement was not performed when peak measure level was lower than the RMS limit.

Appendix B – Test Setup Photograph

Refer to “R25S1019045-UT” file.

Appendix C – EUT Photograph

Refer to “R25S1019045-UE” file.

_____ The End _____