RF MEASUREMENT REPORT

FCC ID:	DD4ADTQK54
Applicant:	Shure Incorporated
Product:	Wireless Quad Transmitter
Model No.:	ADTQ K54, ADTQ DC K54
Trade Mark:	SHURE, SHURE
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:	2025-05-25 ~ 2025-06-16

Reviewed By: Jame Yuan

Approved By: Robin Wu

ACCREDITED
TESTING LABORATORY
CERTIFICATE #3628.01

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
R25S1018044-U203	V01	Initial Report	2025-06-23	Valid

Note: This product has obtained FCC approval (FCC ID: DD4ADTQK54), original RF report no. is 2406RSU021-U6. 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 1 and 2).

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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 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 Quad Transmitter
Model No.	ADTQ K54, ADTQ DC K54
Serial No.	2DE08236077
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: ADTQ K54 and ADTQ DC K54 are completely same except power supply difference, ADTQ K54 supports AC power supply, while ADTQ DC K54 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	4-channel Wideband (WMAS)
Frequency Range	606 ~ 608 MHz & 653 ~ 657 MHz
Declared Power Level	Low & Mid & High
Type of Modulation	4-channel Wideband: OFDM
Declared Occupied Bandwidth	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)
4-channel wideband		
606 ~ 608 MHz Frequency Band		
606.000	N/A	607.600
653 ~ 657 MHz Frequency Band		
653.400	N/A	657.000

1.7. Antenna Details

Antenna Type	Frequency Band (MHz)	Manufacturer	Peak Gain (dBi)
Dipole	606 ~ 657	Shure	0.30

2. Test Configuration

2.1. Test Mode

Mode 1: Transmit at K54 Band by 4-Channel wideband (Power Level = 200mW & 20mW)
Mode 2: Transmit at K54 Band by 4-channel wideband, spatial diversity (Power Level = 100mW & 10mW)
Note: Mode 1 and Mode 2 have been updated based on Mode 7 and Mode 9 from the original report (2406RSU021-U6), respectively, including updates to the frequency range and power level.

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=2Uc(y)): 2.5dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 1.5dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 3.2%

5. Test Result

5.1. Summary

FCC Part Section(s)	Test Description	Test Condition	Test Result
74.861(e)(1)(ii)(iii)	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

653-657 MHz band: 20 mW EIRP

5.2.2. Test Procedure

ANSI C63.26-2015 - Section 5.2.4.2

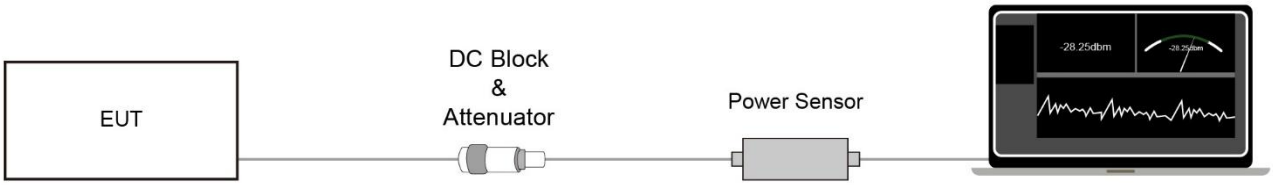
5.2.3. Test Setting

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.

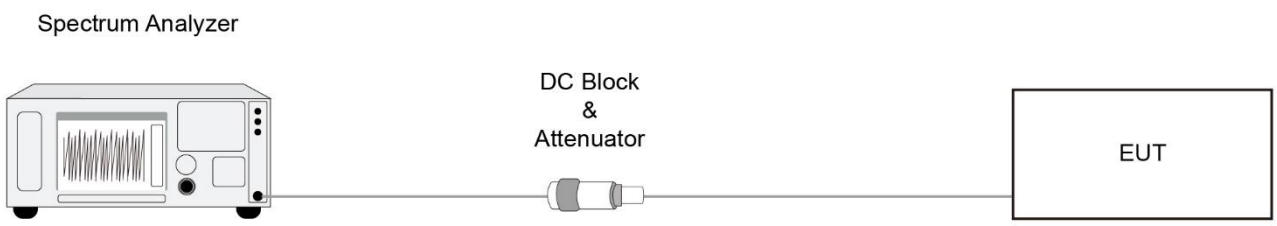
5.3.2. Test Procedure

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 ≥ 3 x 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+10log10 (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 × to 3 × the OBW

Set RBW ≥ OBW;

Set VBW ≥ 3 × RBW;

sweep time set to Auto,

Detector = power averaging (rms)

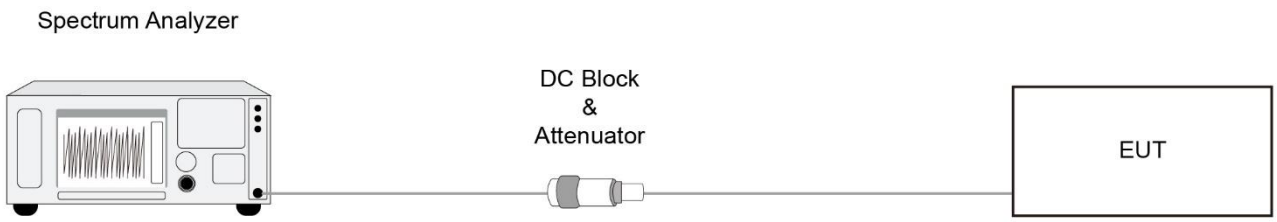
Use the peak marker function to determine the maximum amplitude level

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× the OBW;

RBW set to 1% of the OBW, VBW set to 3 × RBW, sweep time to Auto.

5.4.4. Test Setup



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 × B below to 2.5 × 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 × B below to 2.5 × 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 × B below to 2.5 × 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.

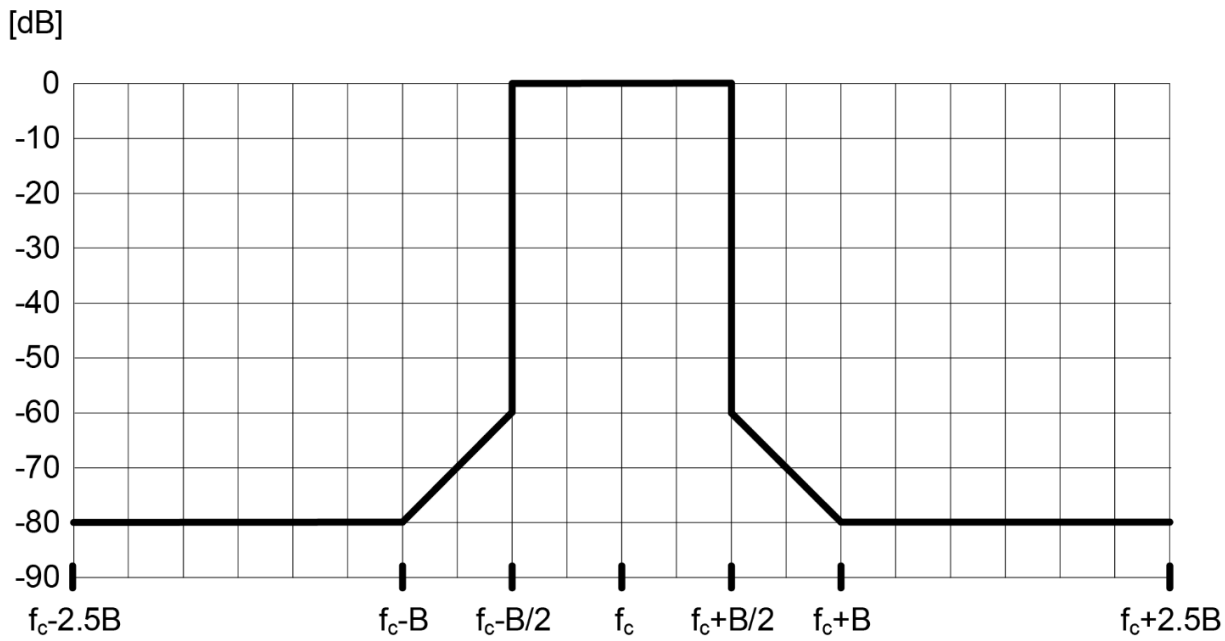


Figure 1: Transmit spectral power mask for equipment employing analogue modulation, RBW = 1 kHz

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 × log10 (RBW/100 kHz) for correction.

Correction Factor for different B and applicable RBW

B	RBW, VBW	c = correction factor
B < 2 MHz	10 kHz	-10dB
2 MHz ≤ B < 5 MHz	25 kHz	-7dB
5 Hz ≤ B ≤ 20MHz	100 kHz	0dB

5.5.2. Test Procedure

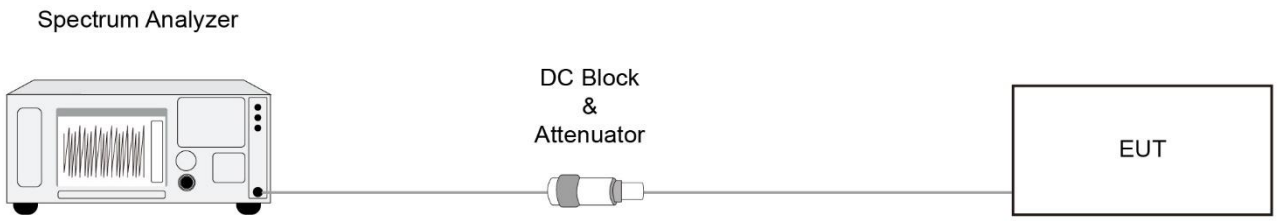
EN 300 422-1 V2.2.1 clause 5.4.3.2.

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).

Emissions shall comply with the limits specified in section 4.2.4.1 of ETSI EN 300 422-1 v2.2.1
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	$F_c + 2.5B \le f \le F_c + 4B$: 1kHz $F_c + 4B < f \le F_c + 10B$: 10kHz $f > F_c + 10B$: 100kHz $f < F_c - 10B$: 100kHz $F_c - 10B \le f < F_c - 4B$: 10kHz $F_c - 4B \le f \le F_c – 2.5B$: 1kHz
Except:		
47MHz to 74MHz 87.5MHz to 118MHz	-54dBm	100kHz
174MHz to 230MHz 470MHz to 862MHz	-36dBm	$F_c + 2.5B \le f \le F_c + 4B$: 1kHz $F_c + 4B < f \le F_c + 10B$: 10kHz $f > F_c + 10B$: 100kHz $f < F_c - 10B$: 100kHz $F_c - 10B \le f < F_c - 4B$: 10kHz $F_c - 4B \le f \le F_c – 2.5B$: 1kHz
1GHz < f≤ F_{upper}	-30dBm	$F_c + 2.5B \le f \le F_c + 10B$: 30kHz $F_c + 10B < f \le F_c + 12B$: 300kHz $f > F_c + 12B$: 1MHz $f < F_c - 12B$: 1MHz $F_c - 12B \le f < F_c - 10B$: 300kHz $F_c - 10B \le f \le F_c – 2.5B$: 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.

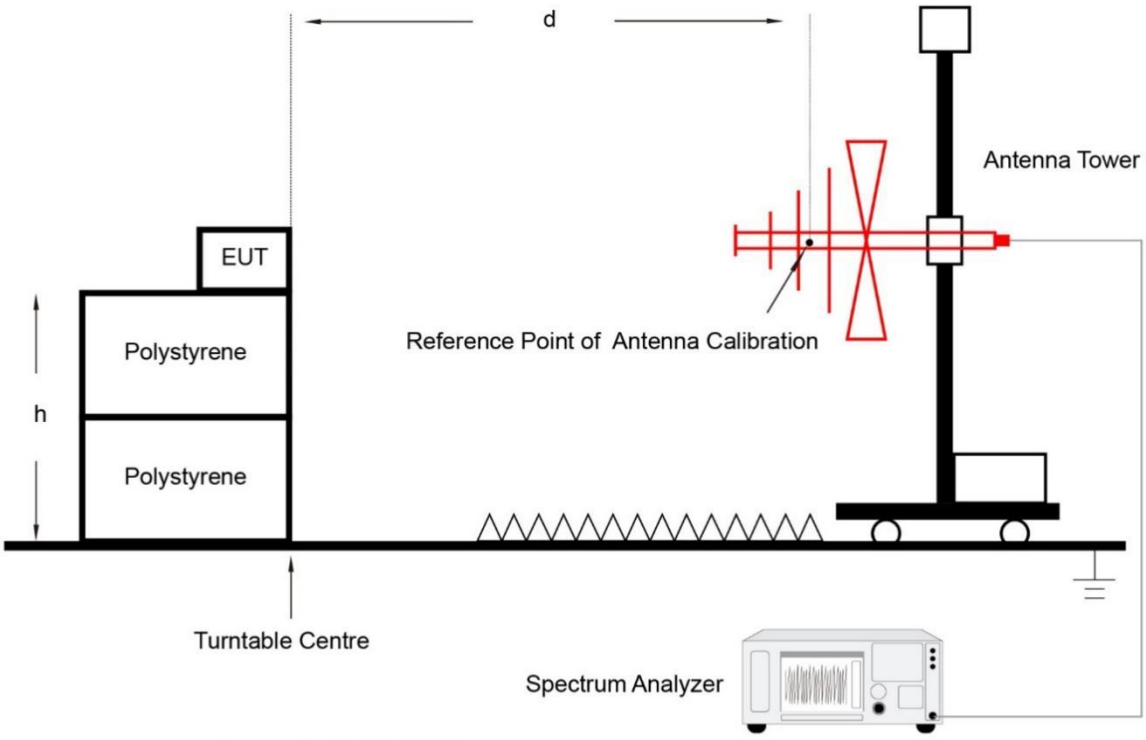
Compliance with the emission limits shall be demonstrated using an RMS Average detector.

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.

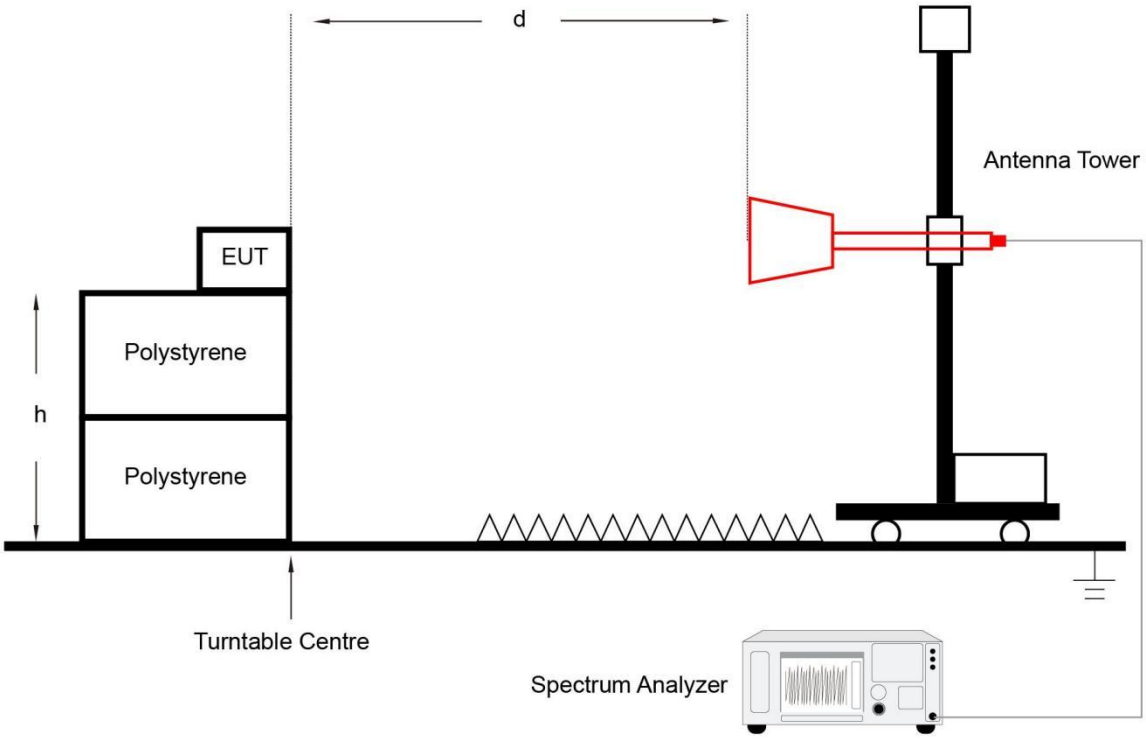
5.6.4. Test Setup

Below 1GHz Test Setup:



d=Substitution Distance ; h=EUT Height

Above 1GHz Test Setup:



d=Substitution Distance ; h=EUT Height

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)	EIRP (dBm)	Limit (dBm)	Test Result
	Port A			
200mW Power Level				
606.000	20.52	--	≤ 23.98	Pass
607.600	20.46	--	≤ 23.98	Pass
20mW Power Level				
653.400	11.13	11.43	≤ 13.01	Pass
657.000	12.23	12.53	≤ 13.01	Pass

Note 1: Limit = 10*Log (250mW) = 23.98 dBm.

Note 2: Limit = 10*Log (20mW) = 13.01 dBm.

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

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)		Total Conducted Output Power (dBm)	Total EIRP (dBm)	Limit (dBm)	Test Result
	Port A	Port D				
100mW Power Level						
606.000	18.89	20.15	22.58	--	≤ 23.98	Pass
607.600	18.88	20.09	22.54	--	≤ 23.98	Pass
10mW Power Level						
653.400	9.28	9.43	12.37	12.67	≤ 13.01	Pass
657.000	9.10	9.21	12.17	12.47	≤ 13.01	Pass

Note 1: Limit = 10*Log (250mW) = 23.98 dBm.

Note 2: Limit = 10*Log (20mW) = 13.01 dBm.

Note 3: Total Conducted Output Power (dBm) = 10*log(10^(Port A /10) + 10^(Port D/10)) (dBm).

Note 4: Total EIRP (dBm) = Total Conducted Output Power (dBm) + Antenna Gain (dBi).

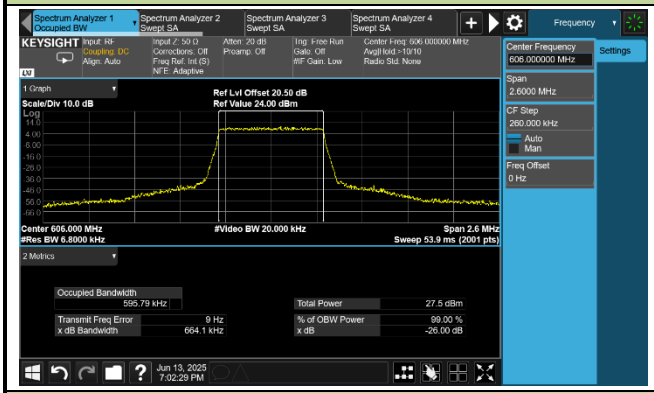
A.2 99% Occupied Bandwidth Test Result

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-06-06 ~ 2025-06-13	Test Mode	Mode 1

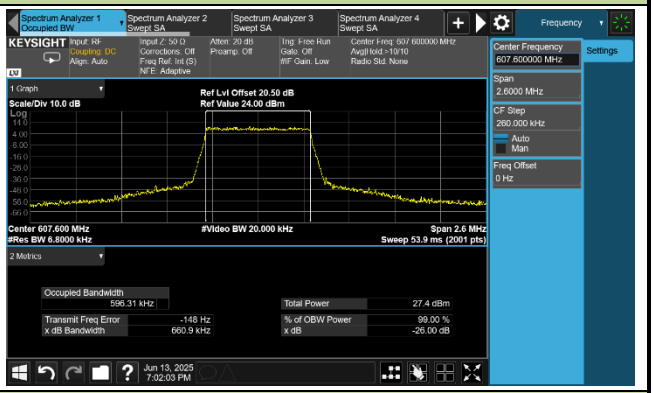
Frequency (MHz)	99% Occupied Bandwidth (kHz)	Limit (kHz)	Result
606.000	595.79	< 6000	Pass
607.600	596.31	< 6000	Pass
653.400	596.48	< 6000	Pass
657.000	596.19	< 6000	Pass

99% Occupied Bandwidth

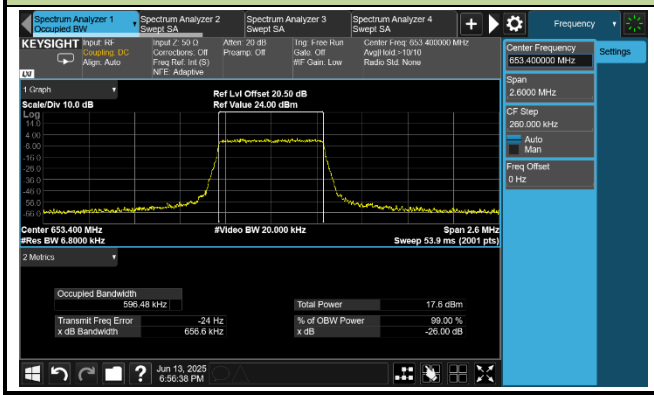
606.000MHz



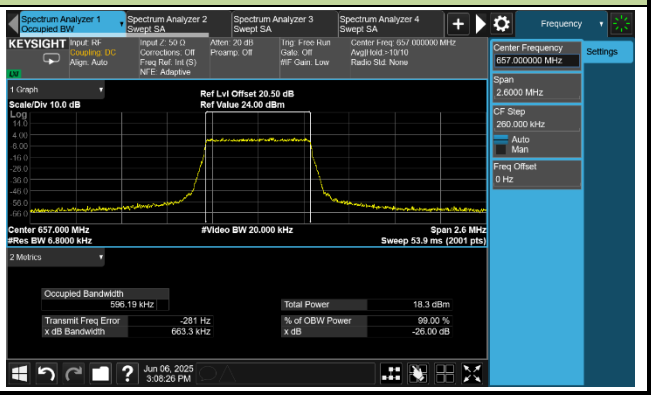
607.600MHz



653.400MHz

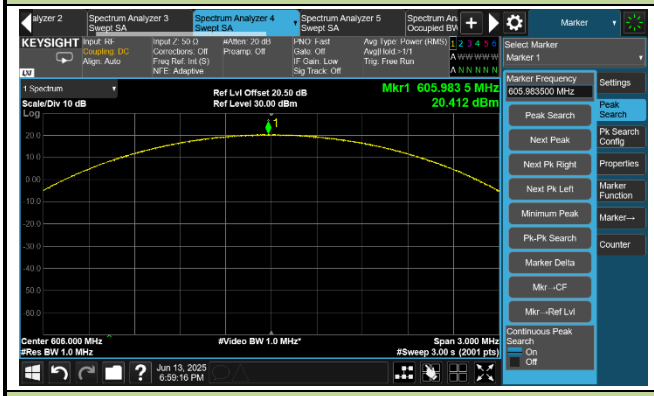
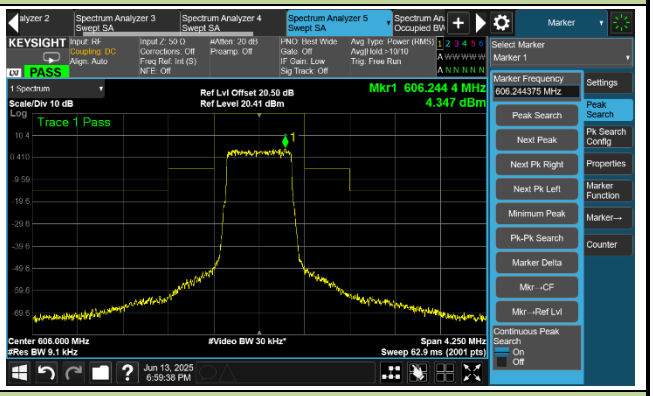
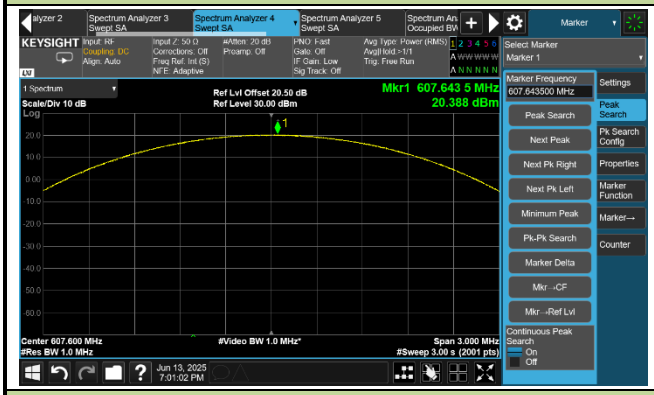
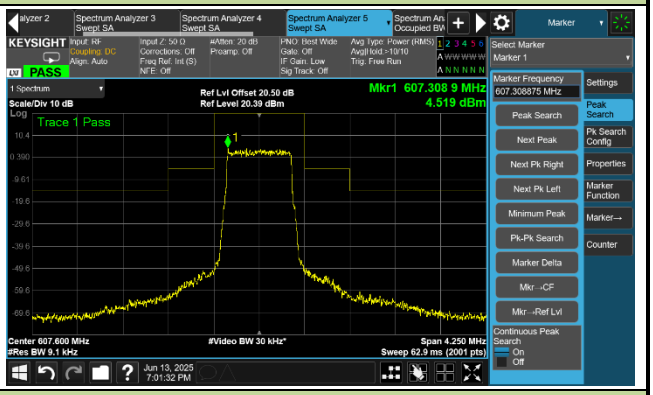
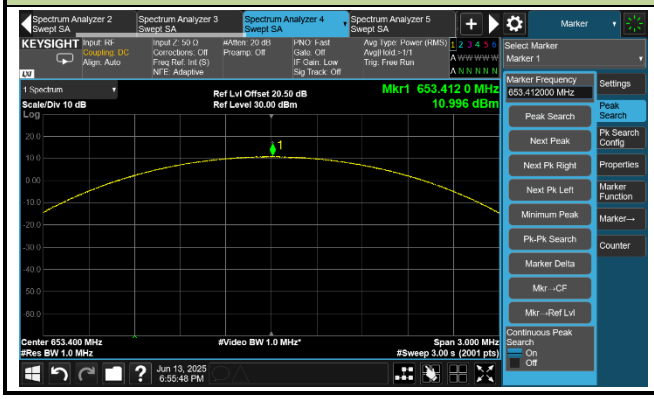
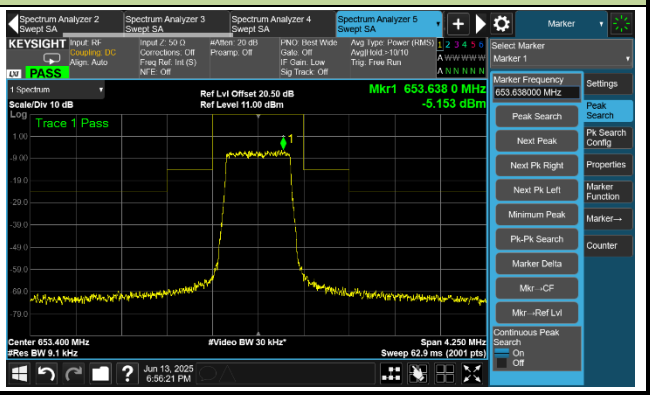


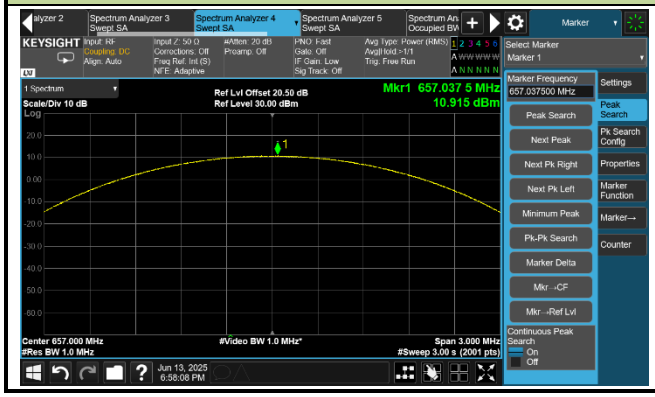
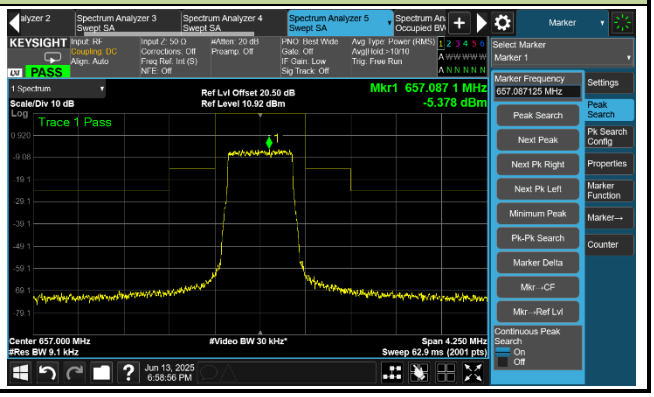
657.000MHz



A.3 Out of Band Emission Test Result

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-06-13	Test Mode	Mode 1

Port A	
Channel 606.000MHz	
Reference Level	Out of Band Emission
	
Channel 607.600MHz	
Reference Level	Out of Band Emission
	
Channel 653.400MHz	
Reference Level	Out of Band Emission
	

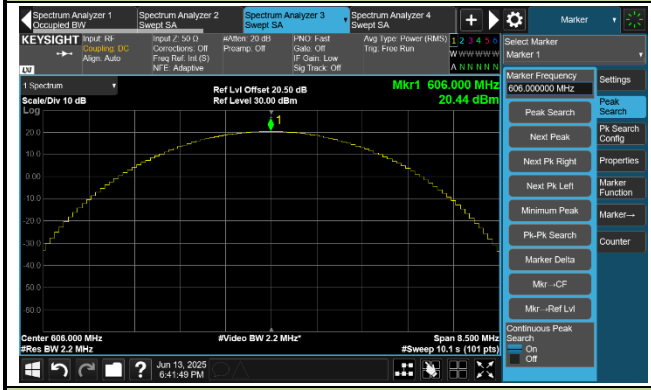
Port A	
Channel 657.000MHz	
Reference Level	Out of Band Emission
	

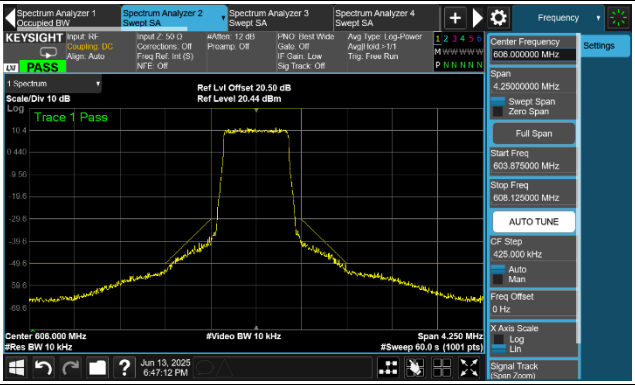
A.4 Emission Mask Test Result

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-06-13	Test Mode	Mode 1

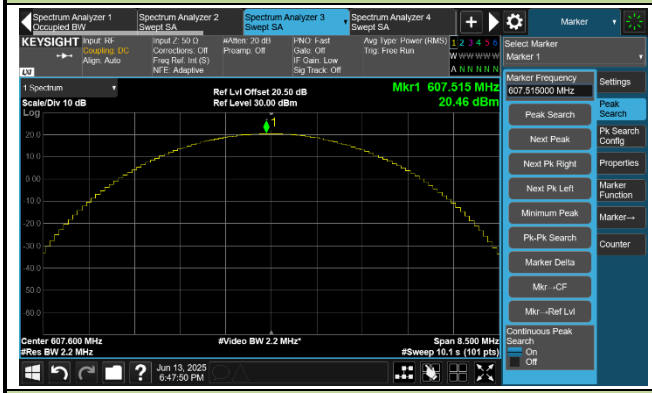
Port A

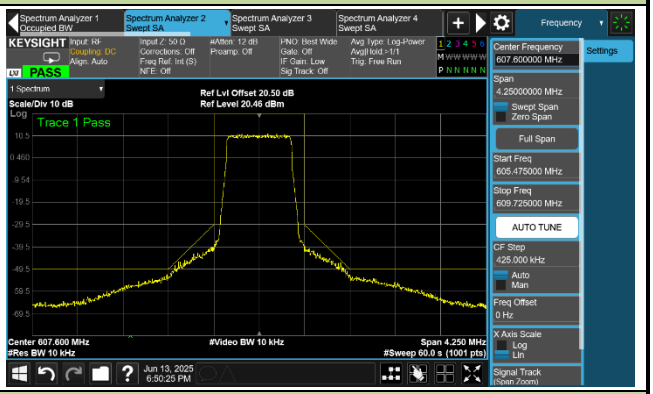
Channel 606.000MHz



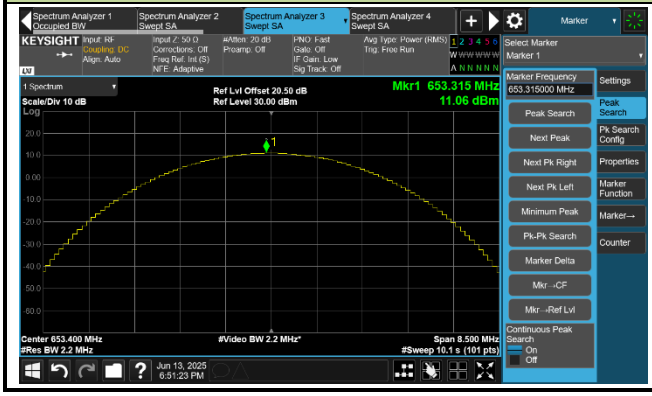


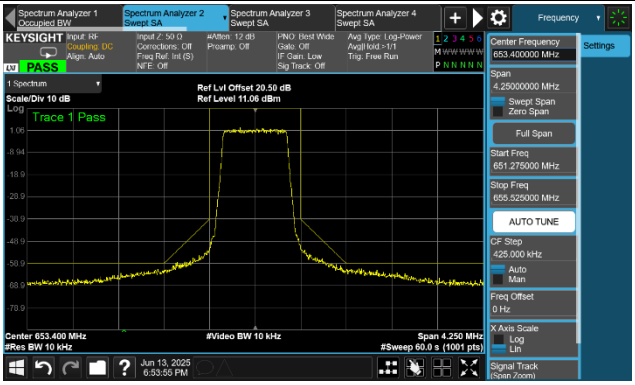
Channel 607.600MHz



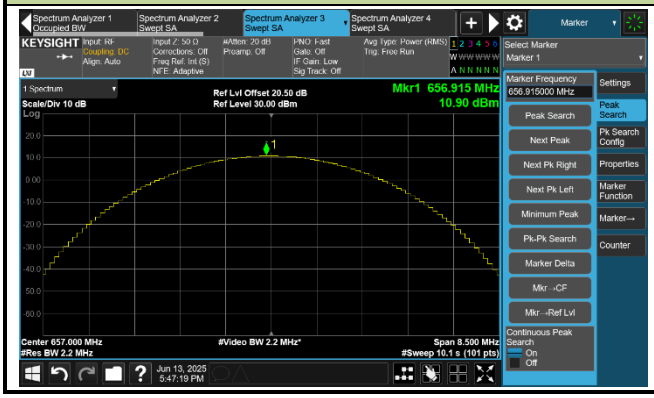


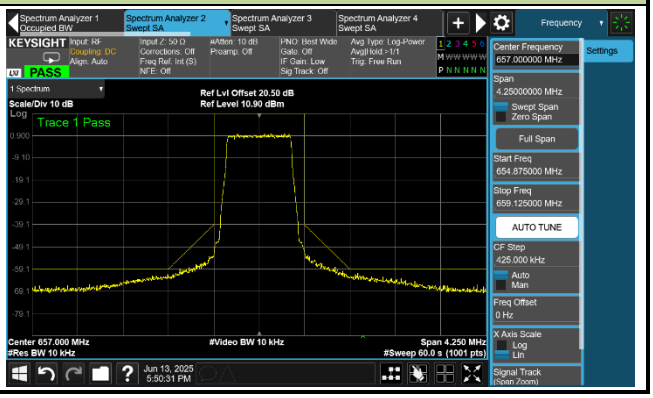
Channel 653.400MHz





Port A
Channel 657.000MHz





A.5 Radiated Spurious Emissions Test Result

Test Site	WZ-AC2	Test Engineer	Ajin Fan
Test Date	2025-05-25	Test Mode	Mode 1

Test Channel (MHz)	Frequency (MHz)	Reading Level (dBm)	Substitution Factor (dB)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarization
606.000	193.830	-101.5	25.0	-76.5	-54.0	-22.5	Peak	Horizontal
	729.180	-100.8	33.9	-66.9	-54.0	-12.9	Peak	Horizontal
	198.000	-101.1	29.7	-71.4	-54.0	-17.4	Peak	Vertical
	675.920	-99.6	35.4	-64.2	-54.0	-10.2	Peak	Vertical
	1212.400	-51.4	5.9	-45.5	-30.0	-15.5	Peak	Horizontal
	1818.400	-53.6	7.5	-46.1	-30.0	-16.1	Peak	Horizontal
	1212.400	-60.6	5.2	-55.4	-30.0	-25.4	Peak	Vertical
	1818.400	-51.1	6.7	-44.4	-30.0	-14.4	Peak	Vertical
607.600	197.810	-103.8	25.6	-78.2	-54.0	-24.2	Peak	Horizontal
	693.190	-101.4	34.1	-67.3	-54.0	-13.3	Peak	Horizontal
	198.000	-101.2	29.7	-71.5	-54.0	-17.5	Peak	Vertical
	683.490	-98.3	35.8	-62.5	-54.0	-8.5	Peak	Vertical
	1216.000	-53.6	5.8	-47.8	-30.0	-17.8	Peak	Horizontal
	1822.600	-57.3	7.6	-49.7	-30.0	-19.7	Peak	Horizontal
	1215.400	-57.9	5.2	-52.7	-30.0	-22.7	Peak	Vertical
	1822.600	-49.5	6.8	-42.7	-30.0	-12.7	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 Channel (MHz)	Frequency (MHz)	Reading Level (dBm)	Substitution Factor (dB)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarization
653.400	223.810	-103.0	26.8	-76.2	-54.0	-22.2	Peak	Horizontal
	728.300	-101.1	33.9	-67.2	-54.0	-13.2	Peak	Horizontal
	198.000	-100.1	29.7	-70.4	-54.0	-16.4	Peak	Vertical
	485.900	-95.2	33.4	-61.8	-54.0	-7.8	Peak	Vertical
	2203.000	-68.4	10.4	-58.0	-30.0	-28.0	Peak	Horizontal
	6954.400	-72.7	21.1	-51.6	-30.0	-21.6	Peak	Horizontal
	2192.200	-68.6	10.3	-58.3	-30.0	-28.3	Peak	Vertical
	6667.600	-71.5	19.7	-51.8	-30.0	-21.8	Peak	Vertical
657.000	223.810	-103.7	26.8	-76.9	-54.0	-22.9	Peak	Horizontal
	693.970	-101.7	34.1	-67.6	-54.0	-13.6	Peak	Horizontal
	192.960	-100.7	29.6	-71.1	-54.0	-17.1	Peak	Vertical
	522.570	-94.9	33.4	-61.5	-54.0	-7.5	Peak	Vertical
	3079.000	-67.0	10.2	-56.8	-30.0	-26.8	Peak	Horizontal
	6901.000	-72.9	21.0	-51.9	-30.0	-21.9	Peak	Horizontal
	2821.600	-66.6	10.3	-56.3	-30.0	-26.3	Peak	Vertical
	6957.400	-72.1	20.3	-51.8	-30.0	-21.8	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
Test Date	2025-05-25 ~ 2025-05-26	Test Mode	Mode 2

Test Channel (MHz)	Frequency (MHz)	Reading Level (dBm)	Substitution Factor (dB)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarization
606.000	483.570	-103.7	30.5	-73.2	-54.0	-19.2	Average	Horizontal
	709.430	-94.9	33.9	-61.0	-54.0	-7.0	Peak	Horizontal
	477.670	-95.6	33.2	-62.4	-54.0	-8.4	Peak	Vertical
	690.290	-97.9	35.7	-62.2	-54.0	-8.2	Peak	Vertical
	1213.000	-53.0	5.9	-47.1	-30.0	-17.1	Peak	Horizontal
	1817.800	-54.8	7.5	-47.3	-30.0	-17.3	Peak	Horizontal
	1211.800	-61.2	5.2	-56.0	-30.0	-26.0	Peak	Vertical
	1818.400	-51.6	6.7	-44.9	-30.0	-14.9	Peak	Vertical
607.600	512.910	-104.4	31.0	-73.4	-54.0	-19.4	Average	Horizontal
	635.910	-94.9	32.7	-62.2	-54.0	-8.2	Peak	Horizontal
	486.970	-97.3	33.5	-63.8	-54.0	-9.8	Peak	Vertical
	706.950	-100.9	36.4	-64.5	-54.0	-10.5	Peak	Vertical
	1214.800	-53.6	5.9	-47.7	-30.0	-17.7	Peak	Horizontal
	1823.200	-50.9	7.6	-43.3	-30.0	-13.3	Peak	Horizontal
	1215.400	-57.6	5.2	-52.4	-30.0	-22.4	Peak	Vertical
	1822.600	-51.6	6.8	-44.8	-30.0	-14.8	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 Channel (MHz)	Frequency (MHz)	Reading Level (dBm)	Substitution Factor (dB)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarization
653.400	624.200	-104.0	32.4	-71.6	-54.0	-17.6	Average	Horizontal
	698.320	-96.2	34.1	-62.1	-54.0	-8.1	Peak	Horizontal
	613.570	-97.3	34.7	-62.6	-54.0	-8.6	Peak	Vertical
	680.440	-97.9	35.6	-62.3	-54.0	-8.3	Peak	Vertical
	2196.400	-70.2	10.2	-60.0	-30.0	-30.0	Peak	Horizontal
	6412.000	-72.0	18.3	-53.7	-30.0	-23.7	Peak	Horizontal
	2203.000	-69.0	10.0	-59.0	-30.0	-29.0	Peak	Vertical
	5083.000	-70.7	14.7	-56.0	-30.0	-26.0	Peak	Vertical
657.000	501.180	-92.9	31.1	-61.8	-54.0	-7.8	Peak	Horizontal
	694.420	-95.7	34.1	-61.6	-54.0	-7.6	Peak	Horizontal
	576.850	-96.1	34.4	-61.7	-54.0	-7.7	Peak	Vertical
	689.320	-99.3	35.7	-63.6	-54.0	-9.6	Peak	Vertical
	3062.200	-68.6	9.7	-58.9	-30.0	-28.9	Peak	Horizontal
	4808.200	-70.4	15.4	-55.0	-30.0	-25.0	Peak	Horizontal
	2184.400	-69.0	10.2	-58.8	-30.0	-28.8	Peak	Vertical
	4806.400	-71.7	14.9	-56.8	-30.0	-26.8	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 “R25S1018044-UT” file.

Appendix C – EUT Photograph

Refer to “R25S1018044-UE” file.

The End