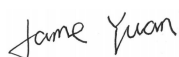




RF MEASUREMENT REPORT

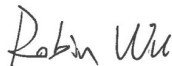
FCC ID: DD4ADTDK54
Applicant: Shure Incorporated
Product: Wireless Dual Transmitter
Model No.: ADTD K54, ADTD DC K54
Brand Name: , **SHURE**[®]
FCC Classification: Licensed LPAS Device (TLD)
FCC Rule Part(s): Part 74 Subpart H (Section 74.861)
Result: Complies
Received Date: 2024-06-13
Test Date: 2024-08-21 ~ 2024-12-05

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
2406RSU021-U16	V01	Initial Report	2024-12-05	Invalid
2406RSU021-U16	V02	Update KDB 206256 Version	2024-12-10	Valid

CONTENTS

Description	Page
1. General Information	5
1.1. Applicant	5
1.2. Manufacturer	5
1.3. Testing Facility	5
1.4. Product Information	6
1.5. Radio Specification under Test	7
1.6. Working Frequencies	7
1.7. Antenna Details	8
2. Test Configuration	9
2.1. Test Mode	9
2.2. Test Software	9
2.3. Applied Standards	9
2.4. Test Environment Condition	9
3. Measuring Instrument	10
4. Decision Rules and Measurement Uncertainty	11
4.1. Decision Rules	11
4.2. Measurement Uncertainty	11
5. Test Result	12
5.1. Summary	12
5.2. RF Output Power Measurement	13
5.2.1. Test Limit	13
5.2.2. Test Procedure	13
5.2.3. Test Setting	13
5.2.4. Test Setup	13
5.2.5. Test Result	13
5.3. Frequency Stability Measurement	14
5.3.1. Test Limit	14
5.3.2. Test Procedure	14
5.3.3. Test Setting	14
5.3.4. Test Setup	15
5.3.5. Test Result	15
5.4. 99% Occupied Bandwidth Measurement	16
5.4.1. Test Limit	16
5.4.2. Test Procedure	16
5.4.3. Test Setting	16

5.4.4.	Test Setup	16
5.4.5.	Test Result	16
5.5.	Modulation Measurement	17
5.5.1.	Test Limit	17
5.5.2.	Test Procedure	17
5.5.3.	Test Setting	17
5.5.4.	Test Setup	17
5.5.5.	Test Result	17
5.6.	Out of Band Emission Measurement	18
5.6.1.	Test Limit	18
5.6.2.	Test Procedure	18
5.6.3.	Test Setting	18
5.6.4.	Test Setup	19
5.6.5.	Test Result	19
5.7.	Emission Mask Measurement.....	20
5.7.1.	Test Limit	20
5.7.2.	Test Procedure	22
5.7.3.	Test Setting	22
5.7.4.	Test Setup	22
5.7.5.	Test Result	22
5.8.	Radiated Spurious Emissions Measurement.....	23
5.8.1.	Test Limit	23
5.8.2.	Test Procedure	24
5.8.3.	Test Setting	24
5.8.4.	Test Setup	25
5.8.5.	Test Result	26
Appendix A	- Test Result.....	27
A.1	RF Output Power Test Result	27
A.2	Frequency Stability Test Result.....	35
A.3	99% Occupied Bandwidth Test Result.....	36
A.4	Modulation Test Result.....	38
A.5	Out of Band Emission Test Result	39
A.6	Emission Mask Test Result	42
A.7	Radiated Spurious Emissions Test Result	45
Appendix B	- Test Setup Photograph	51
Appendix C	- EUT Photograph	52

1.4. Product Information

Product Name	Wireless Dual Transmitter
Model No.	ADTD K54, ADTD DC K54
Serial No.	2DE31787856
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 EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer. Note 2: ADTD K54 and ADTD DC K54 are completely same except power supply difference, ADTD K54 supports AC power supply, while ADTD 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	Analog FM & Narrowband & 4-channel Wideband (WMAS) & PTP
Frequency Range	606 ~ 608 MHz & 653 ~ 657 MHz
Declared Power Level	Low & Mid & High
Type of Modulation	Analog FM: FM
	Narrowband: OFDM
	4-channel Wideband: OFDM
	PTP: 16QAM
Declared Occupied Bandwidth	Analog FM: 200kHz
	Narrowband: 200kHz
	4-channel Wideband (WMAS): 440kHz
	4-channel Wideband (WMAS): 850kHz
	PTP: 200kHz
Channel Spacing	25kHz
RF Connector Type	BNC

1.6. Working Frequencies

Bottom Channel (MHz)	Middle Channel (MHz)	Top Channel (MHz)
Analog FM & Narrowband & PTP		
606 ~ 608 MHz Frequency Band		
606.000	N/A	607.875
653 ~ 657 MHz Frequency Band		
653.125	N/A	652.875
4-channel Wideband		
606 ~ 608 MHz Frequency Band		
606.275	N/A	607.600
653 ~ 657 MHz Frequency Band		
653.400	N/A	656.975

1.7. Antenna Details

Antenna Type	Frequency Band (MHz)	Manufacturer	Peak Gain (dBi)
Dipole	606 ~ 663	Shure	0.3

2. Test Configuration

2.1. Test Mode

Mode 1: Transmit at K54 Band by Analog FM (Power Level = 250mW)
Mode 2: Transmit at K54 Band by Analog FM combined (Power Level = 20mW)
Mode 3: Transmit at K54 Band by Narrowband (Power Level = 250mW)
Mode 4: Transmit at K54 Band by Narrowband combined (Power Level = 20mW)
Mode 5: Transmit at K54 Band by Narrowband spatial diversity (Power Level = 100mW)
Mode 6: Transmit at K54 Band by 4-channel wideband 8 audio mixes (Power Level = 50mW)
Mode 7: Transmit at K54 Band by 4-channel wideband spatial diversity (Power Level = 100mW)
Mode 8: Transmit at K54 Band by Axient Digital Standard (PTP) (Power Level = 250mW)
Mode 9: Transmit at K54 Band by Axient Digital Standard combined (PTP) (Power Level = 20mW)
Mode 10: Transmit at K54 Band by Narrowband, frequency diversity combined (Power Level = 20mW)
Mode 11: Transmit at K54 Band by 4-channel wideband frequency diversity (Power Level = 20mW)

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
Temperature Chamber	BAOYT	BYH-150CL	MRTSUE06051	1 year	2025-09-02	WZ-TR3
Signal Analyzer	Keysight	N9010B	MRTSUE06457	1 year	2025-05-08	WZ-TR3
Thermohygrometer	testo	608-H1	MRTSUE11268	1 year	2024-12-14	WZ-TR3
Signal Analyzer	Agilent	N9020A	MRTSUE06106	1 year	2025-02-03	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	MRTSUE06558	1 year	2025-05-20	WZ-SR5
Audio Analyzer	R&S	UPV	MRTSUE06357	1 year	2025-04-11	WZ-SR5
Multifunction Synthesizer	HP	HP8904A	MRTSUE06097	1 year	2025-07-18	WZ-SR5
Modulation Analyzer	HP	HP8901A	MRTSUE06098	1 year	2025-07-18	WZ-SR5
USB Power Sensor	Keysight	U2021XA	MRTSUE06446	1 year	2025-05-08	WZ-SR5
Attenuator	MVE	MVE2213	MRTSUE11077	1 year	2025-06-05	WZ-SR5
Attenuator	MVE	MVE2213	MRTSUE11078	1 year	2025-06-05	WZ-SR5
Attenuator	MVE	MVE2213	MRTSUE11079	1 year	2025-06-05	WZ-SR5
Attenuator	MVE	MVE2213	MRTSUE11080	1 year	2025-06-05	WZ-SR5
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
Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2024-10-11	WZ-AC2
Anechoic Chamber	RIKEN	WZ-AC2	MRTSUE06213	1 year	2025-05-06	WZ-AC2
Thermohygrometer	testo	608-H1	MRTSUE11263	1 year	2025-04-18	WZ-AC2

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 $k = 2$.

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
74.861(e)(1)(ii)(iii)	RF Output Power	Conducted	Pass
74.861(e)(3)	Modulation		Pass
74.861(e)(4)	Frequency Stability		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

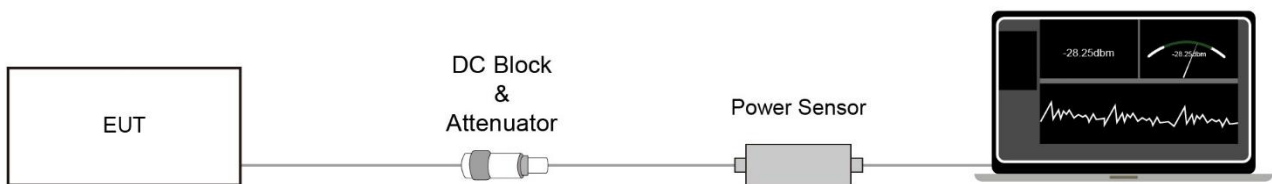
5.2.3. Test Setting

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. Frequency Stability Measurement

5.3.1. Test Limit

The frequency tolerance of the transmitter shall be 0.005 percent.

5.3.2. Test Procedure

ANSI C63.26 - Section 5.6.3

5.3.3. Test Setting

Frequency Stability Under Temperature Variations:

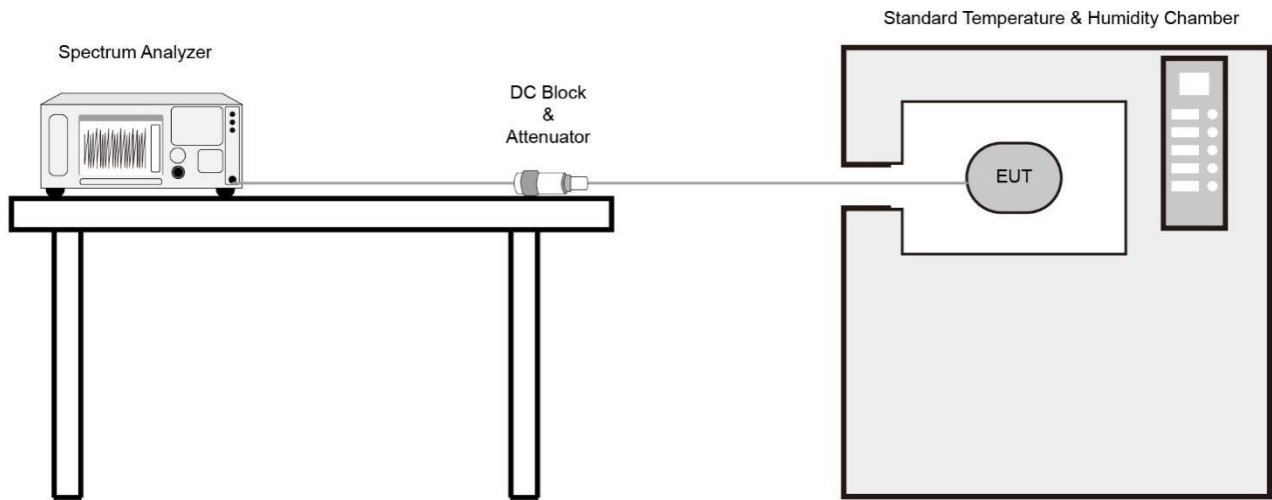
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to highest. After the temperature stabilized for approximately 30 minutes recorded the frequency. 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 AC power supply / 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 (If a product is specified to operate over a range of input voltage then the -15% variation is applied to the lowermost voltage and the $+15\%$ is applied to the uppermost voltage), record the maximum frequency change.

5.3.4. Test Setup



5.3.5. Test Result

Refer to Appendix A.2.

5.4. 99% Occupied Bandwidth Measurement

5.4.1. 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.

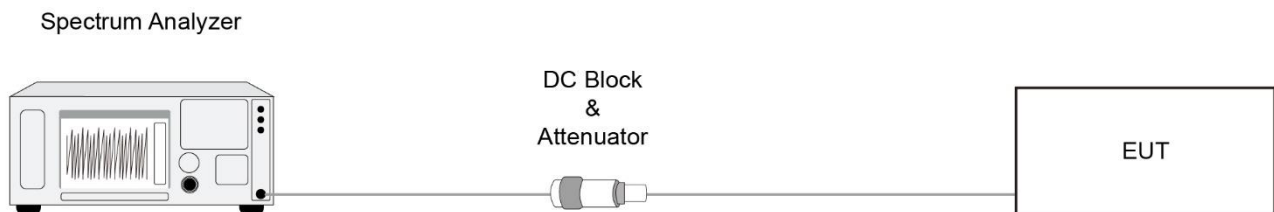
5.4.2. Test Procedure

ANSI C63.26-2015 - Section 5.4.4

5.4.3. 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

5.4.4. Test Setup



5.4.5. Test Result

Refer to Appendix A.3.

5.5. Modulation Measurement

5.5.1. Test Limit

A maximum deviation of ± 75 kHz is permitted when frequency modulation is employed.

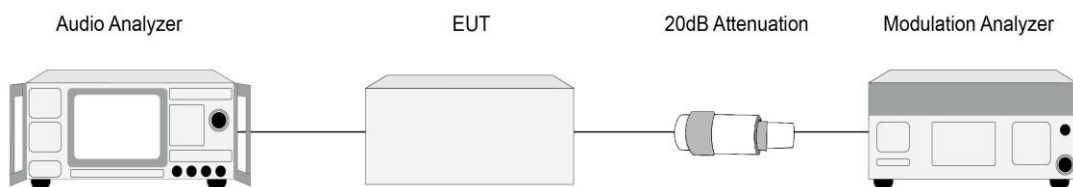
5.5.2. Test Procedure

ANSI C63.26-2013 - Section 5.3.2

5.5.3. Test Setting

1. Connect the equipment following the below figure
2. Apply a 1000 Hz modulating signal to the transmitter from the audio frequency generator, and adjust the level to obtain 60% of full rated system deviation. This is the 0 dB reference level.
3. Increase the level from the audio generator by 20 dB in 5 dB increments recording the deviation as measured from the test receiver in each step. Verify that the audio level used to make the OBW measurement is included in the sweep.
4. Repeat for step 3) at 300 Hz, 2500 Hz and 3000 Hz at a minimum using the 0 dB reference level obtained in step 2).
5. Set the test receiver to measure peak negative deviation and repeat step 2) through step 4).
6. The values recorded in step 4) and step 5) are the modulation limiting

5.5.4. Test Setup



5.5.5. Test Result

Refer to Appendix A.4.

5.6. Out of Band Emission Measurement

5.6.1. 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.

5.6.2. Test Procedure

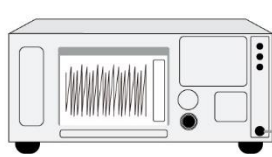
ANSI C63.26 - Section 5.7

5.6.3. 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.

5.6.4. Test Setup

Spectrum Analyzer



DC Block
&
Attenuator



EUT



5.6.5. Test Result

Refer to Appendix A.5.

5.7. Emission Mask Measurement

5.7.1. 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

5.7.2. Test Procedure

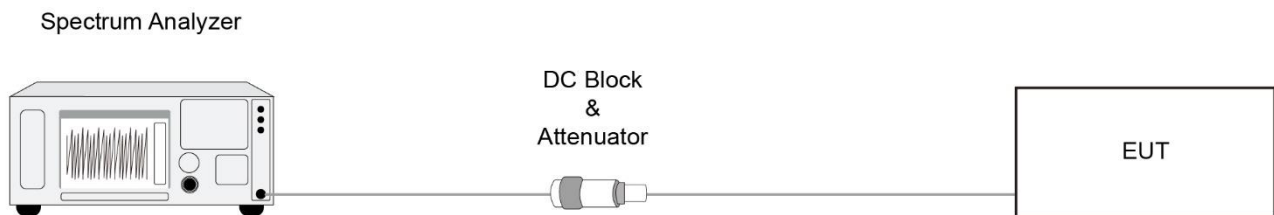
EN 300 422-1 V2.2.1 clause 5.4.3.2.

5.7.3. 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.

5.7.4. Test Setup



5.7.5. Test Result

Refer to Appendix A.6.

5.8. Radiated Spurious Emissions Measurement

5.8.1. 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	$F_c + 2.5B \leq f \leq F_c + 4B$: 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

5.8.2. Test Procedure

ETSI EN 300 422-1 V2.2.1 clause 5.4.4

5.8.3. 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.

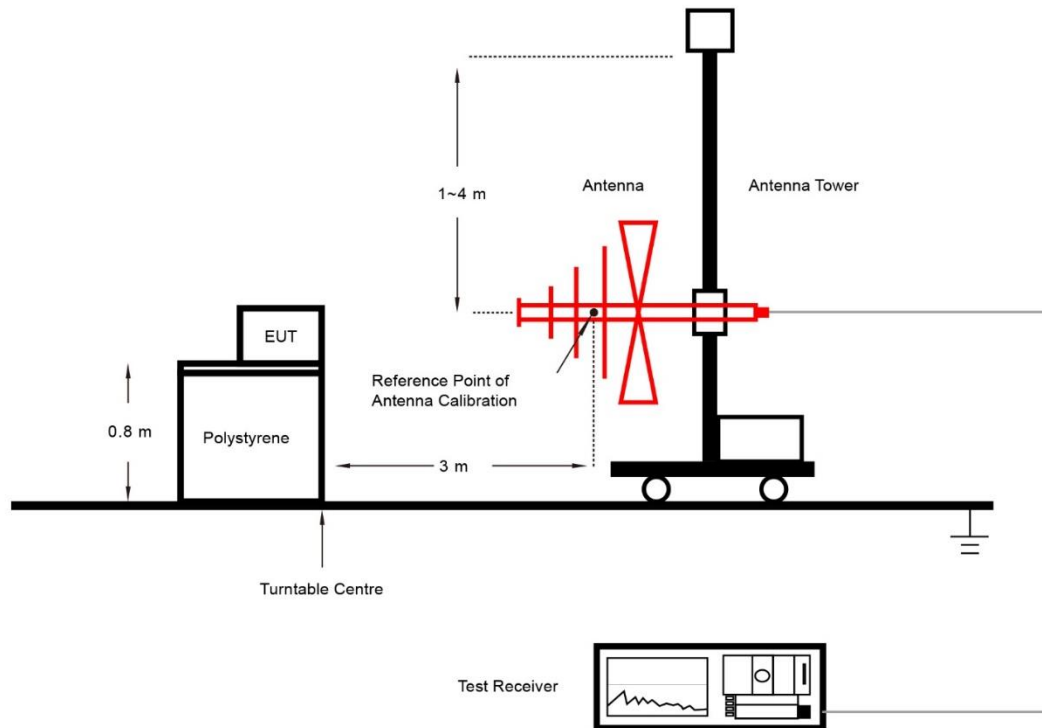
Compliance with the emission limits shall be demonstrated using an RMS Average detector.

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

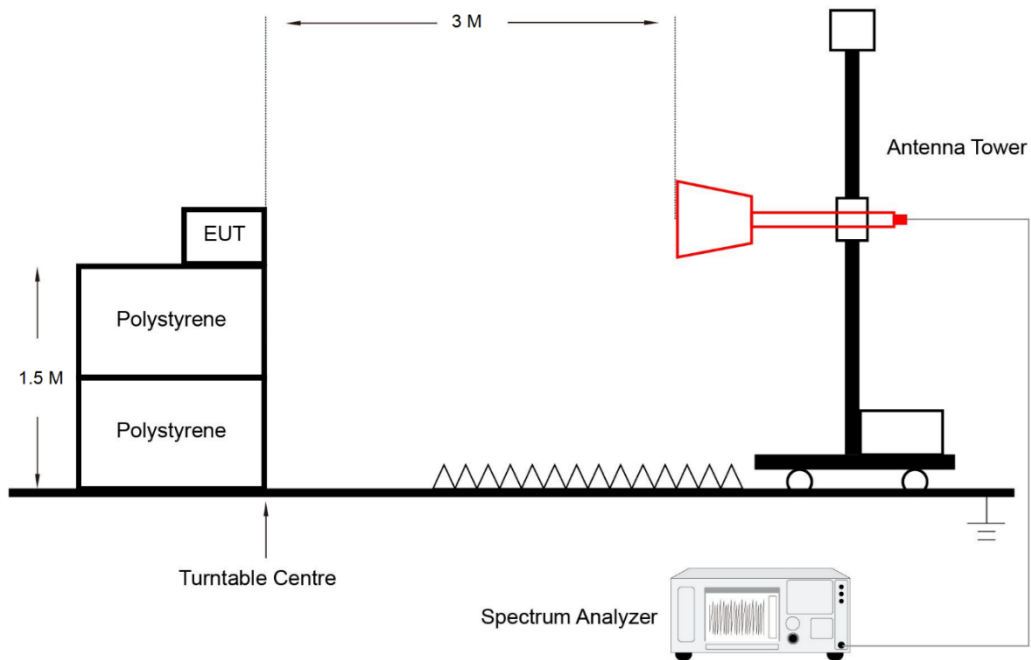
At each frequency at which a component is detected, the sample shall be rotated to obtain maximum response and the effective radiated power of that component determined by a substitution measurement.

5.8.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



5.8.5. Test Result

Refer to Appendix A.7.

Appendix A – Test Result

A.1 RF Output Power Test Result

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-10-14	Test Mode	Mode 1 Single Port

Frequency (MHz)	Conducted Output Power (dBm)		Max. EIRP (dBm)	Limit (dBm)	Test Result
	Port A	Port B			
250/10mW Power Level					
606.000	22.45	21.53	--	≤ 23.98	Pass
607.875	22.13	21.23	--	≤ 23.98	Pass
653.125	8.80	7.54	9.10	≤ 13.01	Pass
662.875	8.47	8.19	8.77	≤ 13.01	Pass

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

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

Note 3: Max. Conducted Output Power (dBm) is Maximum Conducted Output Power from Port A/ Port B.

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

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-10-14	Test Mode	Mode 1 Multi Ports

Frequency (MHz)	Conducted Output Power (dBm)		Total Conducted Output Power (dBm)	EIRP (dBm)	Limit (dBm)	Test Result
	Port A	Port B				
100/10mW Power Level						
606.000	19.87	19.85	22.87	--	≤ 23.98	Pass
607.875	19.81	19.94	22.89	--	≤ 23.98	Pass
653.125	8.80	7.89	11.38	11.68	≤ 13.01	Pass
662.875	8.47	8.19	11.34	11.64	≤ 13.01	Pass

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

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

Note 3: Total Conducted Output Power (dBm) = $10 \cdot \log(10^{(\text{Port A}/10)} + 10^{(\text{Port B}/10)})$ (dBm).

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

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-10-14	Test Mode	Mode 2

Frequency (MHz)		Conducted Output Power (dBm)	EIRP (dBm)	Limit (dBm)	Test Result
F1	F2				
20/10mW Power Level					
606.000	606.350	11.08	--	≤ 23.98	Pass
607.875	607.525	11.09	--	≤ 23.98	Pass
653.125	653.475	8.25	8.55	≤ 13.01	Pass
662.875	662.525	8.90	9.20	≤ 13.01	Pass

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

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

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

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-10-14	Test Mode	Mode 3 Single Port

Frequency (MHz)	Conducted Output Power (dBm)		Max. EIRP (dBm)	Limit (dBm)	Test Result
	Port A	Port B			
250/10mW Power Level					
606.000	22.80	21.15	--	≤ 23.98	Pass
607.875	22.72	21.29	--	≤ 23.98	Pass
653.125	8.81	8.09	9.11	≤ 13.01	Pass
662.875	8.38	9.02	9.32	≤ 13.01	Pass

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

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

Note 3: Max. Conducted Output Power (dBm) is Maximum Conducted Output Power from Port A/ Port B.

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

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-10-14	Test Mode	Mode 3 Multi Ports

Frequency (MHz)	Conducted Output Power (dBm)		Total Conducted Output Power (dBm)	EIRP (dBm)	Limit (dBm)	Test Result
	Port A	Port B				
100/10mW Power Level						
606.000	19.48	18.77	22.15	--	≤ 23.98	Pass
607.875	19.39	19.01	22.21	--	≤ 23.98	Pass
653.125	8.81	8.19	11.52	11.82	≤ 13.01	Pass
662.875	8.38	9.02	11.72	12.02	≤ 13.01	Pass

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

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

Note 3: Total Conducted Output Power (dBm) = $10 \cdot \log(10^{(\text{Port A}/10)} + 10^{(\text{Port B}/10)}) \text{ (dBm)}$.

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

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-10-14	Test Mode	Mode 4

Frequency (MHz)		Conducted Output Power (dBm)	EIRP (dBm)	Limit (dBm)	Test Result
F1	F2				
20/10mW Power Level					
606.000	606.350	11.45	--	≤ 23.98	Pass
607.875	607.525	11.44	--	≤ 23.98	Pass
653.125	653.475	8.53	8.83	≤ 13.01	Pass
662.875	662.525	9.09	9.39	≤ 13.01	Pass

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

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

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

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-10-14	Test Mode	Mode 5

Frequency (MHz)	Conducted Output Power (dBm)		Total Conducted Output Power (dBm)	EIRP (dBm)	Limit (dBm)	Test Result
	Port A	Port B				
100/10mW Power Level						
606.000	19.39	20.56	23.02	--	≤ 23.98	Pass
607.875	19.30	20.78	23.11	--	≤ 23.98	Pass
653.125	8.45	10.05	12.33	12.63	≤ 13.01	Pass
662.875	8.13	10.45	12.45	12.75	≤ 13.01	Pass

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

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

Note 3: Total Conducted Output Power (dBm) = $10 \cdot \log(10^{(\text{Port A}/10)} + 10^{(\text{Port B}/10)}) \text{ (dBm)}$.

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

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-10-14	Test Mode	Mode 6 Single Port

Frequency (MHz)	Conducted Output Power (dBm)		Max. EIRP (dBm)	Limit (dBm)	Test Result
	Port A	Port B			
50/10mW Power Level					
606.275	14.91	14.90	--	≤ 23.98	Pass
607.600	14.95	14.92	--	≤ 23.98	Pass
653.400	8.99	8.43	9.29	≤ 13.01	Pass
656.975	9.76	9.36	10.06	≤ 13.01	Pass

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

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

Note 3: Max. Conducted Output Power (dBm) is Maximum Conducted Output Power from Port A/ Port B.

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

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-11-24 ~ 2024-11-28	Test Mode	Mode 6 Multi Ports

Frequency (MHz)	Conducted Output Power (dBm)		Total Conducted Output Power (dBm)	EIRP (dBm)	Limit (dBm)	Test Result
	Port A	Port B				
40/8mW Power Level						
606.275	12.39	12.31	15.36	--	≤ 23.98	Pass
607.600	12.65	12.81	15.74	--	≤ 23.98	Pass
653.400	7.38	6.68	10.05	10.35	≤ 13.01	Pass
656.975	7.59	6.69	10.17	10.47	≤ 13.01	Pass

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

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

Note 3: Total Conducted Output Power (dBm) = $10 \cdot \log(10^{(\text{Port A}/10)} + 10^{(\text{Port B}/10)})$ (dBm).

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

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-10-14	Test Mode	Mode 7

Frequency (MHz)	Conducted Output Power (dBm)		Total Conducted Output Power (dBm)	EIRP (dBm)	Limit (dBm)	Test Result
	Port A	Port B				
100/10mW Power Level						
606.275	21.32	19.72	23.60	--	≤ 23.98	Pass
607.600	21.26	19.67	23.55	--	≤ 23.98	Pass
653.400	9.85	8.79	12.36	12.66	≤ 13.01	Pass
656.975	9.14	9.60	12.39	12.69	≤ 13.01	Pass

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

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

Note 3: Total Conducted Output Power (dBm) = $10 \cdot \log(10^{(\text{Port A}/10)} + 10^{(\text{Port B}/10)}) \text{ (dBm)}$.

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

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-10-14	Test Mode	Mode 8 Single Port

Frequency (MHz)	Conducted Output Power (dBm)		Max. EIRP (dBm)	Limit (dBm)	Test Result
	Port A	Port B			
250/10mW Power Level					
606.000	21.25	21.17	--	≤ 23.98	Pass
607.875	21.65	21.10	--	≤ 23.98	Pass
653.125	7.99	7.65	8.29	≤ 13.01	Pass
662.875	8.51	8.48	8.81	≤ 13.01	Pass

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

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

Note 3: Max. Conducted Output Power (dBm) is Maximum Conducted Output Power from Port A/ Port B.

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

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-11-24 ~ 2024-11-28	Test Mode	Mode 8 Multi Ports

Frequency (MHz)	Conducted Output Power (dBm)		Total Conducted Output Power (dBm)	EIRP (dBm)	Limit (dBm)	Test Result
	Port A	Port B				
100/8mW Power Level						
606.000	17.95	18.06	21.02	--	≤ 23.98	Pass
607.875	18.09	18.16	21.14	--	≤ 23.98	Pass
653.125	6.82	7.06	9.95	10.25	≤ 13.01	Pass
662.875	6.81	7.19	10.01	10.31	≤ 13.01	Pass

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

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

Note 3: Total Conducted Output Power (dBm) = $10 \cdot \log(10^{(\text{Port A}/10)} + 10^{(\text{Port B}/10)})$ (dBm).

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

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-10-14	Test Mode	Mode 9

Frequency (MHz)		Conducted Output Power (dBm)	EIRP (dBm)	Limit (dBm)	Test Result
F1	F2				
20/10mW Power Level					
606.000	606.350	11.98	--	≤ 23.98	Pass
607.875	607.525	11.70	--	≤ 23.98	Pass
653.125	653.475	8.64	8.94	≤ 13.01	Pass
662.875	662.525	9.26	9.56	≤ 13.01	Pass

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

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

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

A.2 Frequency Stability Test Result

Test Site	WZ-TR3	Test Engineer	Lynn Yang
Test Date	2024-10-10 ~ 2024-10-11	Test Frequency	606MHz

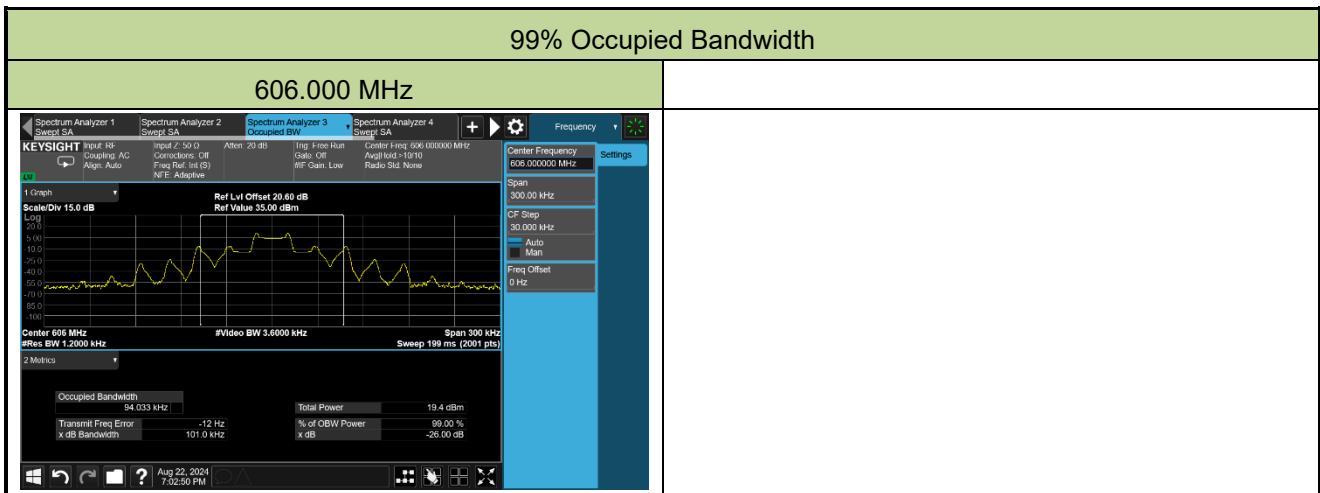
Voltage (%)	Power (AC)	Temp (°C)	Frequency Tolerance (%)			
			0 minutes	2 minutes	5 minutes	10 minutes
100	120	- 20	-0.00001799	-0.00001733	-0.00001683	-0.00001683
		-10	-0.00001815	-0.00001865	-0.00001815	-0.00001749
		0	-0.00000413	-0.00000677	-0.00001601	-0.00001749
		+ 10	-0.00001766	-0.00001815	-0.00001716	-0.00001700
		+ 20	-0.00000644	-0.00001238	-0.00001469	-0.00001485
		+ 30	-0.00001287	0.00000215	0.00000479	-0.00000710
		+ 40	-0.00001188	-0.00001370	-0.00001353	-0.00001320
		+ 50	-0.00001683	-0.00001914	-0.00001898	-0.00001815
115	138	+ 20	-0.00000809	-0.00001287	-0.00001403	-0.00001419
85	102	+ 20	-0.00000908	-0.00001386	-0.00001452	-0.00001518
Limit	0.005%					
Result	Pass					

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

A.3 99% Occupied Bandwidth Test Result

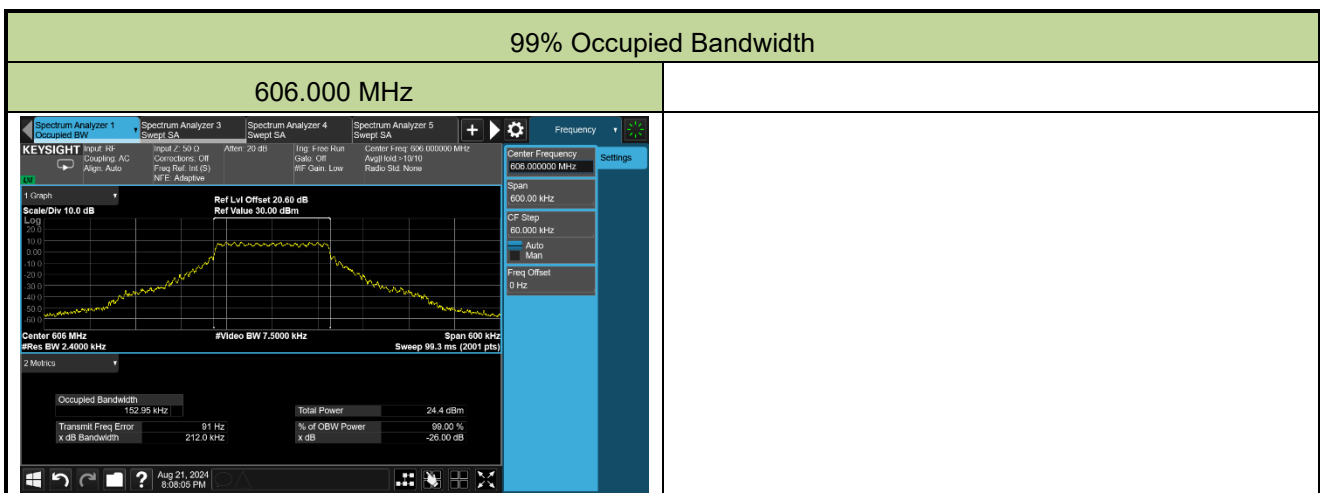
Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-08-22	Test Mode	Mode 1

Frequency (MHz)	99% Occupied Bandwidth (kHz)	Limit (kHz)	Result
606.000	94.033	< 200	Pass



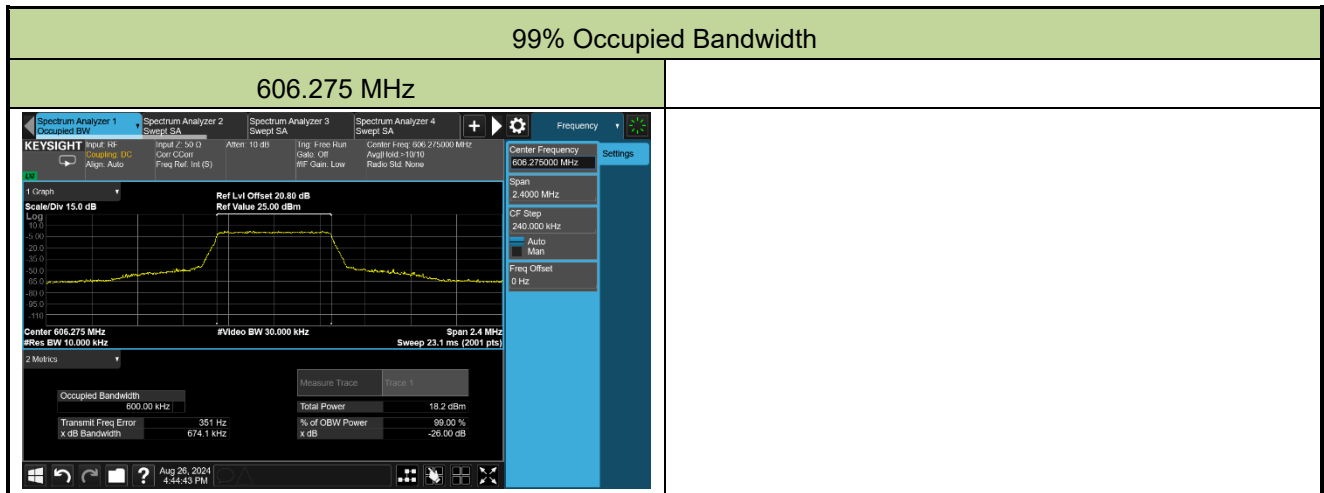
Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-08-21	Test Mode	Mode 3

Frequency (MHz)	99% Occupied Bandwidth (kHz)	Limit (kHz)	Result
606.000	152.950	< 200	Pass



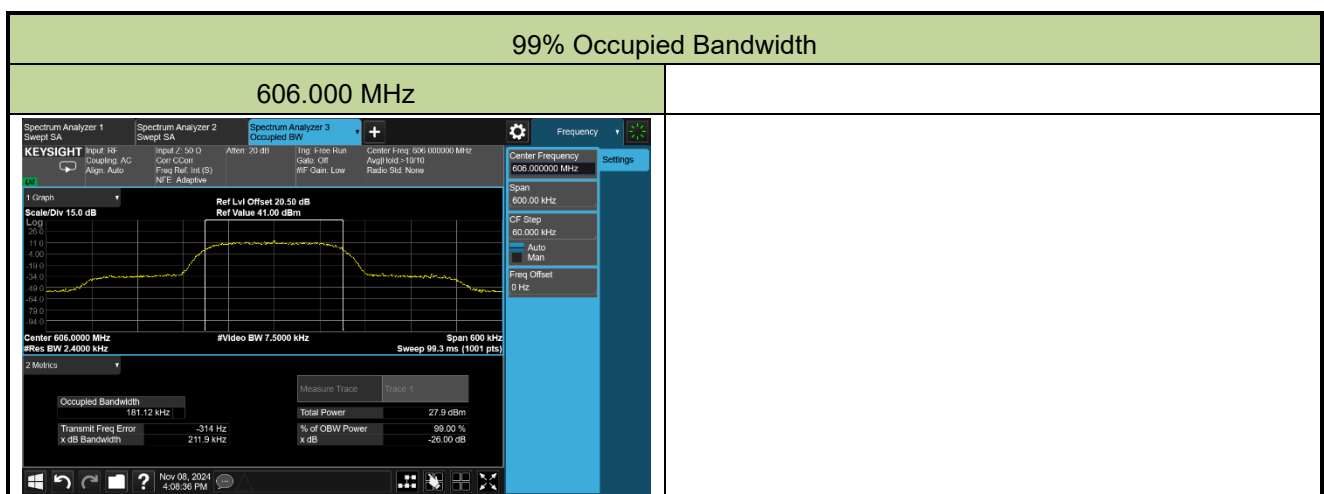
Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-08-26	Test Mode	Mode 6

Frequency (MHz)	99% Occupied Bandwidth (kHz)	Limit (kHz)	Result
606.275	600.000	< 6000	Pass



Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-11-08	Test Mode	Mode 8

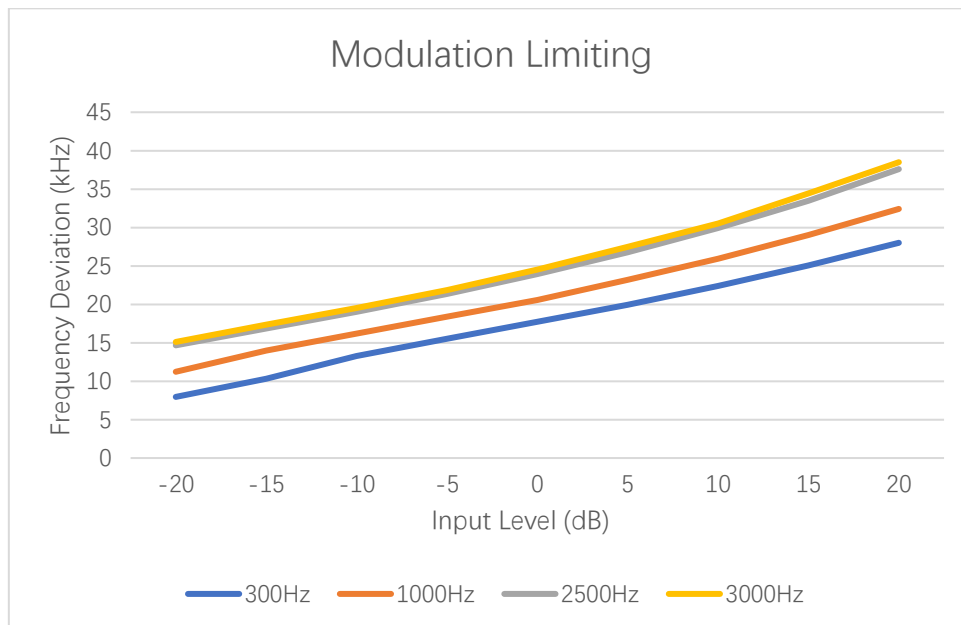
Frequency (MHz)	99% Occupied Bandwidth (kHz)	Limit (kHz)	Result
606.000	181.120	< 200	Pass



A.4 Modulation Test Result

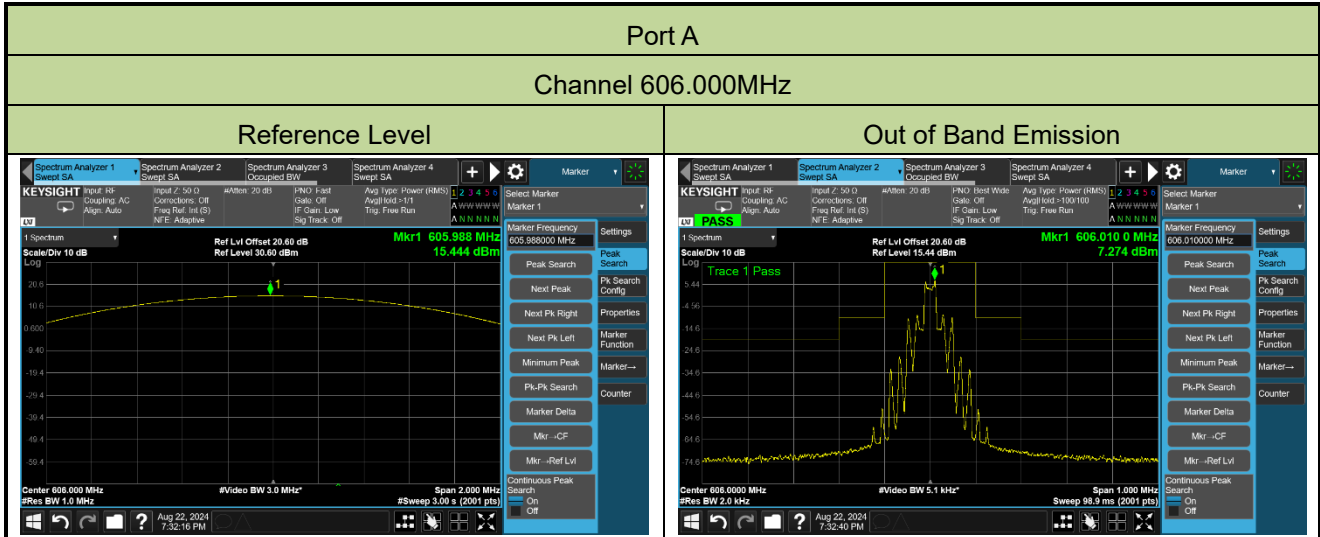
Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-12-04	Test Mode	Mode 1

Input Level	Audio Frequency			
	300Hz	1000Hz	2500Hz	3000Hz
(dB)	Frequency Deviation (kHz)			
-20	7.84	11.09	14.55	15.09
-15	10.19	13.82	16.73	17.29
-10	13.09	16.06	18.93	19.44
-5	15.44	18.31	21.26	21.73
0	17.58	20.55	23.8	24.31
5	19.82	22.92	26.63	27.34
10	22.25	25.81	29.76	30.39
15	24.89	28.84	33.3	34.13
20	27.83	32.3	37.4	38.3
Limit	$\leq \pm 75\text{kHz}$			
Test Result	Pass			

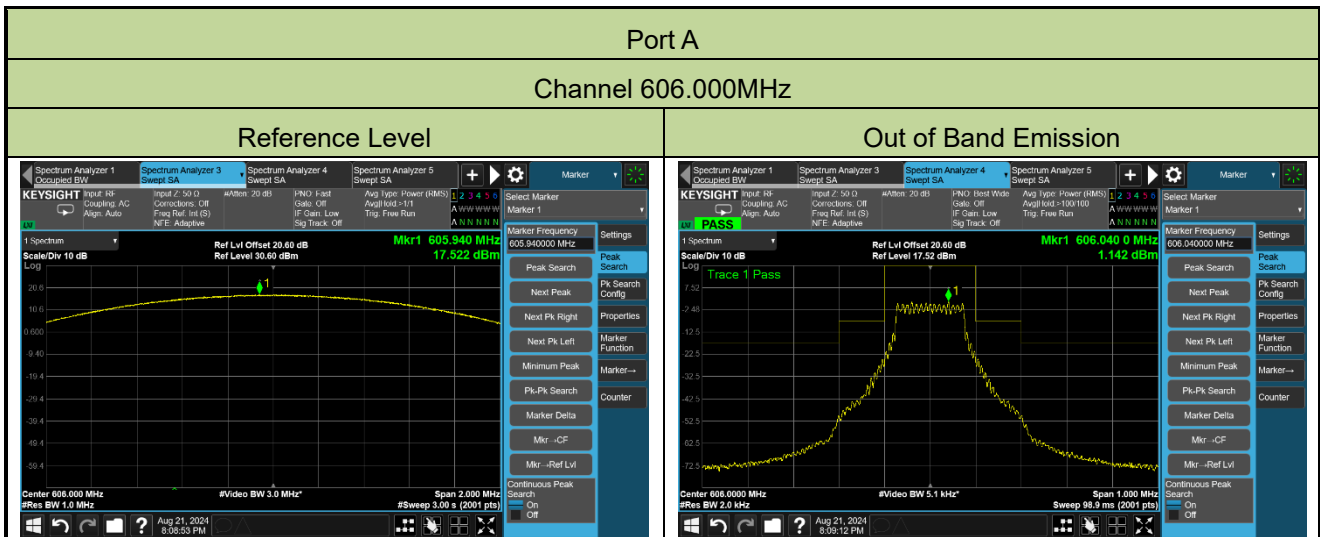


A.5 Out of Band Emission Test Result

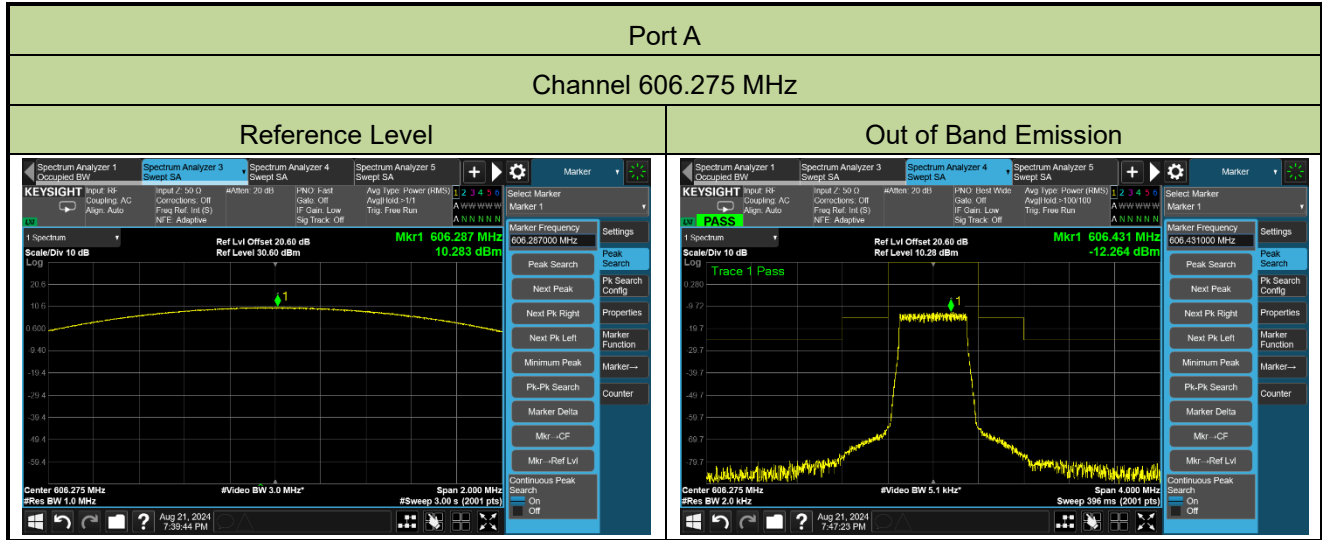
Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-08-22	Test Mode	Mode 1



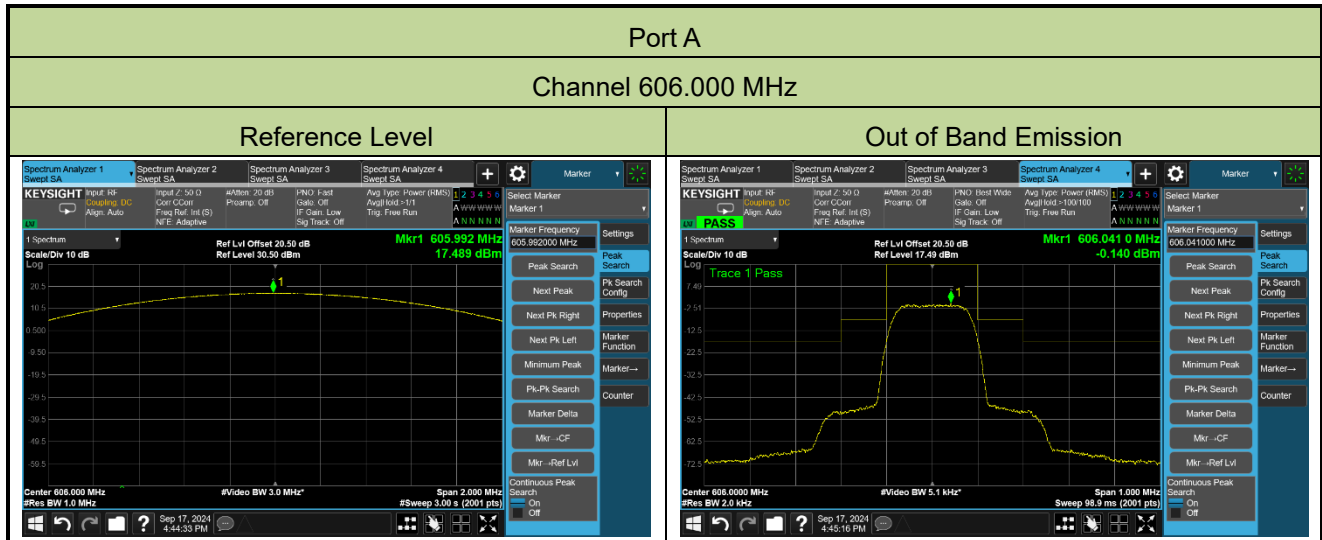
Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-08-21	Test Mode	Mode 3



Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-08-21 ~ 2024-08-26	Test Mode	Mode 6

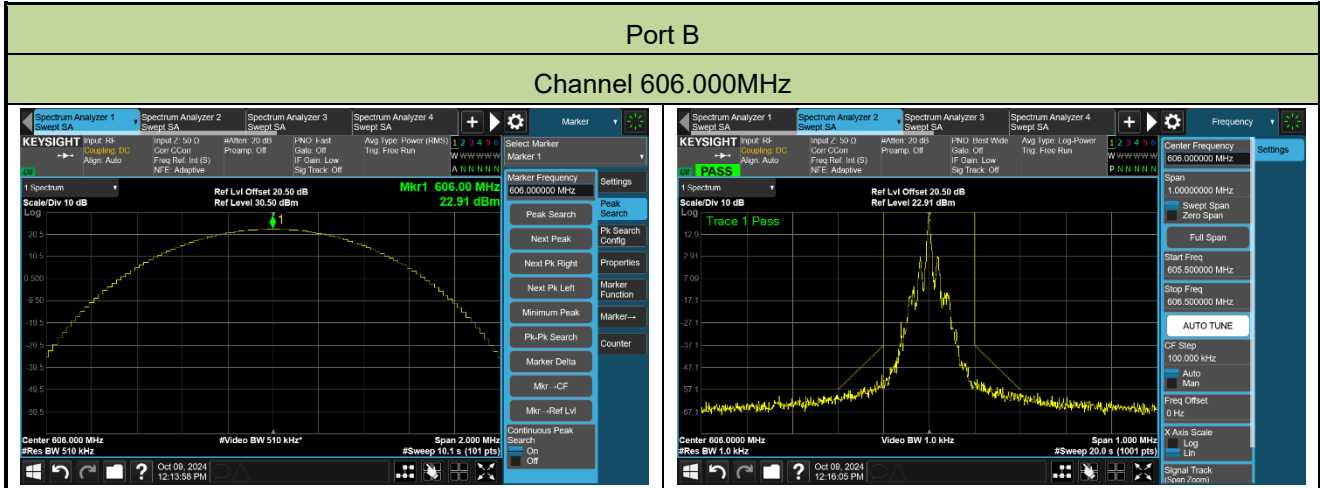


Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-09-17	Test Mode	Mode 8

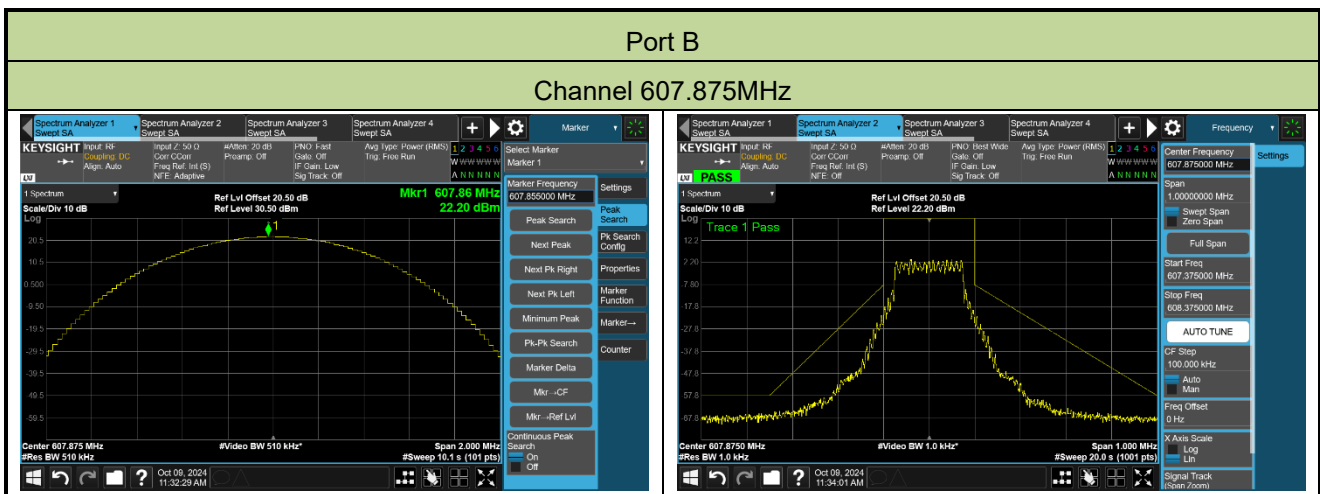


A.6 Emission Mask Test Result

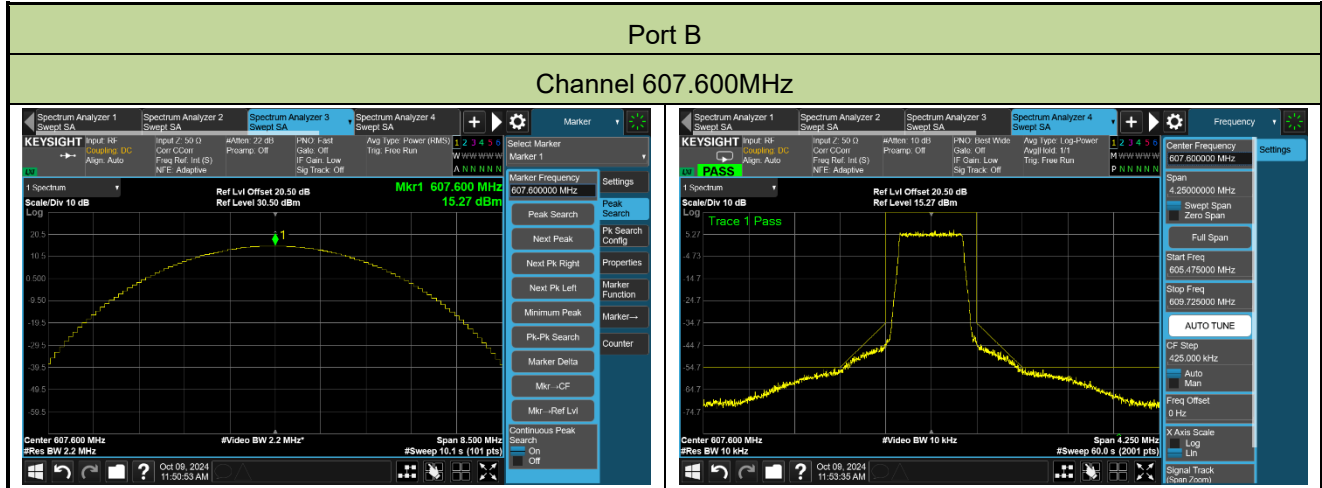
Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-10-09	Test Mode	Mode 1



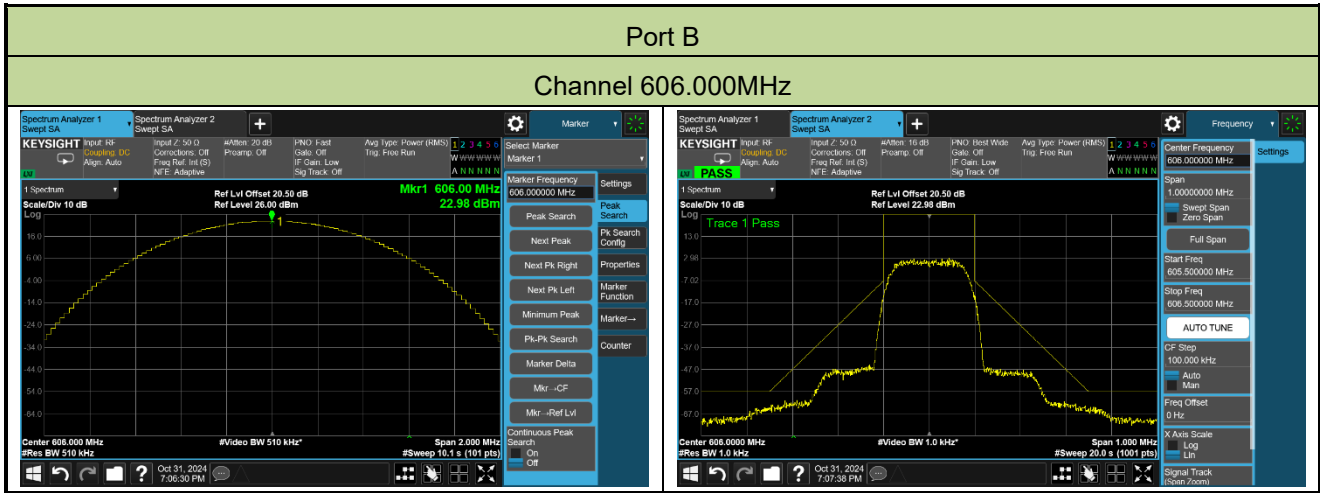
Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-10-09	Test Mode	Mode 3



Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-10-09	Test Mode	Mode 6



Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-10-31	Test Mode	Mode 8



A.7 Radiated Spurious Emissions Test Result

Test Site	WZ-AC2	Test Engineer	Bob Zhang
Test Date	2024-09-13 ~ 2024-09-14	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 + 606.350	211.875	-103.7	31.1	-72.6	-54.0	-18.6	Peak	Horizontal
	722.289	-103.0	37.6	-65.4	-54.0	-11.4	Peak	Horizontal
	97.803	-105.4	39.2	-66.2	-54.0	-12.2	Peak	Vertical
	575.819	-100.0	35.4	-64.6	-54.0	-10.6	Peak	Vertical
	1192.600	-65.7	7.0	-58.7	-30.0	-28.7	Peak	Horizontal
	2411.800	-65.7	10.2	-55.5	-30.0	-25.5	Peak	Horizontal
	1419.400	-67.4	8.7	-58.7	-30.0	-28.7	Peak	Vertical
	2430.400	-65.4	9.7	-55.7	-30.0	-25.7	Peak	Vertical
607.875 + 607.525	215.561	-104.8	31.6	-73.2	-54.0	-19.2	Peak	Horizontal
	738.391	-102.2	37.6	-64.6	-54.0	-10.6	Peak	Horizontal
	93.729	-105.5	38.9	-66.6	-54.0	-12.6	Peak	Vertical
	584.937	-98.7	35.4	-63.3	-54.0	-9.3	Peak	Vertical
	2189.200	-68.8	10.7	-58.1	-30.0	-28.1	Peak	Horizontal
	6099.400	-72.6	18.1	-54.5	-30.0	-24.5	Peak	Horizontal
	1430.800	-67.2	8.7	-58.5	-30.0	-28.5	Peak	Vertical
	2812.000	-67.3	10.2	-57.1	-30.0	-27.1	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
653.125 + 653.475	212.263	-104.2	31.1	-73.1	-54.0	-19.1	Peak	Horizontal
	714.044	-102.7	37.5	-65.2	-54.0	-11.2	Peak	Horizontal
	99.355	-104.1	38.5	-65.6	-54.0	-11.6	Peak	Vertical
	572.327	-98.2	35.2	-63.0	-54.0	-9.0	Peak	Vertical
	1349.800	-65.8	8.4	-57.4	-30.0	-27.4	Peak	Horizontal
	4698.400	-71.0	15.7	-55.3	-30.0	-25.3	Peak	Horizontal
	1425.400	-68.3	9.0	-59.3	-30.0	-29.3	Peak	Vertical
	2405.200	-67.2	10.0	-57.2	-30.0	-27.2	Peak	Vertical
662.875 + 662.525	215.270	-104.7	31.6	-73.1	-54.0	-19.1	Peak	Horizontal
	736.936	-102.6	37.8	-64.8	-54.0	-10.8	Peak	Horizontal
	98.579	-104.1	39.1	-65.0	-54.0	-11.0	Peak	Vertical
	608.314	-99.9	35.6	-64.3	-54.0	-10.3	Peak	Vertical
	1427.200	-67.7	9.3	-58.4	-30.0	-28.4	Peak	Horizontal
	4129.600	-69.0	13.2	-55.8	-30.0	-25.8	Peak	Horizontal
	1432.600	-67.2	8.7	-58.5	-30.0	-28.5	Peak	Vertical
	5085.400	-70.2	15.6	-54.6	-30.0	-24.6	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: 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	Bob Zhang
Test Date	2024-09-13 ~ 2024-09-14	Test Mode	Mode 4

Test Channel (MHz)	Frequency (MHz)	Reading Level (dBm)	Substitution Factor (dB)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarization
606.000 + 606.350	213.718	-103.7	31.5	-72.2	-54.0	-18.2	Peak	Horizontal
	723.841	-103.2	37.9	-65.3	-54.0	-11.3	Peak	Horizontal
	98.579	-104.5	39.1	-65.4	-54.0	-11.4	Peak	Vertical
	520.626	-98.3	33.7	-64.6	-54.0	-10.6	Peak	Vertical
	1418.800	-66.6	8.8	-57.8	-30.0	-27.8	Peak	Horizontal
	4811.800	-70.1	15.7	-54.4	-30.0	-24.4	Peak	Horizontal
	1668.400	-67.2	8.8	-58.4	-30.0	-28.4	Peak	Vertical
	4817.200	-70.9	15.3	-55.6	-30.0	-25.6	Peak	Vertical
607.875 + 607.525	202.369	-102.7	29.9	-72.8	-54.0	-18.8	Peak	Horizontal
	689.600	-101.5	36.7	-64.8	-54.0	-10.8	Peak	Horizontal
	97.900	-105.5	39.2	-66.3	-54.0	-12.3	Peak	Vertical
	518.201	-98.8	33.8	-65.0	-54.0	-11.0	Peak	Vertical
	1357.600	-67.5	8.6	-58.9	-30.0	-28.9	Peak	Horizontal
	5163.400	-70.5	15.9	-54.6	-30.0	-24.6	Peak	Horizontal
	1426.000	-68.2	9.0	-59.2	-30.0	-29.2	Peak	Vertical
	2407.000	-65.2	9.9	-55.3	-30.0	-25.3	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.

Test Channel (MHz)	Frequency (MHz)	Reading Level (dBm)	Substitution Factor (dB)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarization
653.125 + 653.475	207.122	-103.6	30.4	-73.2	-54.0	-19.2	Peak	Horizontal
	712.783	-103.8	37.5	-66.3	-54.0	-12.3	Peak	Horizontal
	97.900	-104.4	39.2	-65.2	-54.0	-11.2	Peak	Vertical
	576.110	-99.5	35.3	-64.2	-54.0	-10.2	Peak	Vertical
	1357.600	-66.3	8.6	-57.7	-30.0	-27.7	Peak	Horizontal
	4141.000	-69.5	13.0	-56.5	-30.0	-26.5	Peak	Horizontal
	1187.800	-66.1	7.6	-58.5	-30.0	-28.5	Peak	Vertical
	2406.400	-65.5	9.9	-55.6	-30.0	-25.6	Peak	Vertical
662.875 + 662.525	211.584	-102.2	31.0	-71.2	-54.0	-17.2	Peak	Horizontal
	730.049	-103.1	37.8	-65.3	-54.0	-11.3	Peak	Horizontal
	96.348	-105.5	39.4	-66.1	-54.0	-12.1	Peak	Vertical
	524.021	-97.7	33.9	-63.8	-54.0	-9.8	Peak	Vertical
	2406.400	-65.7	10.2	-55.5	-30.0	-25.5	Peak	Horizontal
	6088.600	-71.7	18.1	-53.6	-30.0	-23.6	Peak	Horizontal
	1416.400	-66.7	8.5	-58.2	-30.0	-28.2	Peak	Vertical
	4060.600	-69.4	12.5	-56.9	-30.0	-26.9	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	Bob Zhang
Test Date	2024-09-13 ~ 2024-09-14	Test Mode	Mode 9

Test Channel (MHz)	Frequency (MHz)	Reading Level (dBm)	Substitution Factor (dB)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarization
606.000 + 606.350	217.307	-103.7	31.6	-72.1	-54.0	-18.1	Peak	Horizontal
	735.578	-102.7	37.3	-65.4	-54.0	-11.4	Peak	Horizontal
	96.154	-104.3	39.3	-65.0	-54.0	-11.0	Peak	Vertical
	594.055	-98.7	35.0	-63.7	-54.0	-9.7	Peak	Vertical
	1425.400	-66.7	9.3	-57.4	-30.0	-27.4	Peak	Horizontal
	2416.000	-61.2	10.2	-51.0	-30.0	-21.0	Peak	Horizontal
	1440.400	-65.8	8.3	-57.5	-30.0	-27.5	Peak	Vertical
	2160.400	-67.0	9.9	-57.1	-30.0	-27.1	Peak	Vertical
607.875 + 607.525	221.866	-103.2	31.2	-72.0	-54.0	-18.0	Peak	Horizontal
	684.362	-101.3	36.3	-65.0	-54.0	-11.0	Peak	Horizontal
	97.221	-103.4	39.0	-64.4	-54.0	-10.4	Peak	Vertical
	501.614	-97.5	33.9	-63.6	-54.0	-9.6	Peak	Vertical
	1355.800	-65.5	8.6	-56.9	-30.0	-26.9	Peak	Horizontal
	2420.800	-58.6	10.2	-48.4	-30.0	-18.4	Peak	Horizontal
	1423.600	-67.0	9.0	-58.0	-30.0	-28.0	Peak	Vertical
	2189.800	-68.2	11.0	-57.2	-30.0	-27.2	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: 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
653.125 + 653.475	104.496	-98.6	24.5	-74.1	-54.0	-20.1	Peak	Horizontal
	707.836	-102.0	36.9	-65.1	-54.0	-11.1	Peak	Horizontal
	96.154	-103.3	39.3	-64.0	-54.0	-10.0	Peak	Vertical
	594.055	-98.7	35.0	-63.7	-54.0	-9.7	Peak	Vertical
	1516.600	-66.7	9.2	-57.5	-30.0	-27.5	Peak	Horizontal
	2422.000	-59.5	10.2	-49.3	-30.0	-19.3	Peak	Horizontal
	1431.400	-66.4	8.7	-57.7	-30.0	-27.7	Peak	Vertical
	2443.000	-63.4	9.5	-53.9	-30.0	-23.9	Peak	Vertical
662.875 + 662.525	198.004	-101.6	28.9	-72.7	-54.0	-18.7	Peak	Horizontal
	730.243	-102.0	37.4	-64.6	-54.0	-10.6	Peak	Horizontal
	99.064	-104.5	38.7	-65.8	-54.0	-11.8	Peak	Vertical
	479.983	-95.6	33.0	-62.6	-54.0	-8.6	Peak	Vertical
	1518.400	-66.7	9.2	-57.5	-30.0	-27.5	Peak	Horizontal
	2435.200	-63.1	10.1	-53.0	-30.0	-23.0	Peak	Horizontal
	1435.000	-66.5	8.5	-58.0	-30.0	-28.0	Peak	Vertical
	2406.400	-64.1	9.9	-54.2	-30.0	-24.2	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: 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.								

Appendix B – Test Setup Photograph

Refer to “2406RSU021-UT” file.

Appendix C – EUT Photograph

Refer to “2406RSU021-UE” file.

The End
