# RF MEASUREMENT REPORT

| | |
|---|---|
| **FCC ID:** | DD4ADTQX55 |
| **Applicant:** | Shure Incorporated |
| **Product:** | Wireless Quad Transmitter |
| **Model No.:** | ADTQ X55, ADTQ DC X55 |
| **Brand Name:** | SHURE, 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:** | 2024-08-13 ~ 2024-11-30 |

**Reviewed By:** Jame Yuan

**Approved By:** Robin Wu

ACCREDITED
TESTING LABORATORY
CERTIFICATE #3628.01

## Revision History

| Report No. | Version | Description | Issue Date | Note |
|---|---|---|---|---|
| 2406RSU021-U8 | V01 | Initial Report | 2024-11-30 | Invalid |
| 2406RSU021-U8 | V02 | Update KDB 206256 Version | 2024-12-10 | Valid |
| | | | | |

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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)**<br>D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China<br>**Laboratory Location (Suzhou – SIP)**<br>4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China<br>**Laboratory Location (Suzhou – Wujiang)**<br>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)**<br>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)**<br>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 X55, ADTQ DC X55 |
| Serial No. | 2DA31999948 |
| 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)<br>AC Power Output (100~240V AC) |
| Accessory | |
| 8 Port Antenna Combiner | Model: AD8CX, AD8CX DC<br>AC Ver.: 100-240V~, 50/60Hz, 0.76A max (5.76A max outlet loaded),<br>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.<br>Note 2: ADTQ X55 and ADTQ DC X55 are completely same except power supply difference, ADTQ X55 supports AC power supply, while ADTQ DC X55 supports both AC and DC power supply.<br>Note 3: AD8CX and AD8CX DC are completely same except power supply difference, AD8C supports AC power supply, while AD8CX 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 | 941.625 ~ 951.875MHz & 952.975 ~ 956.125MHz & 956.575 ~ 959.725MHz |
| 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 & Narrow Band & PTP | | |
| 941 ~ 952 MHz Frequency Band | | |
| 941.625 | 946.750 | 951.875 |
| 952.85 ~ 956.25 MHz Frequency Band | | |
| 952.975 | N/A | 956.125 |
| 956.45 ~ 959.85 MHz Frequency Band | | |
| 956.575 | N/A | 959.725 |
| 4-channel wideband | | |
| 941 ~ 952 MHz Frequency Band | | |
| 941.900 | 946.750 | 951.600 |
| 952.85 ~ 956.25 MHz Frequency Band | | |
| 953.250 | N/A | 955.850 |
| 956.45 ~ 959.85 MHz Frequency Band | | |
| 956.850 | N/A | 959.450 |

### 1.7. Antenna Details

| Antenna Type | Frequency Band (MHz) | Manufacturer | Peak Gain (dBi) |
|---|---|---|---|
| Dipole | 941 ~ 960 | Shure | 2.20 |

# 2. Test Configuration

## 2.1. Test Mode

| |
|---|
| Mode 1: Transmit at X55 Band by Analog FM (Power Level = 250mW) |
| Mode 2: Transmit at X55 Band by Analog FM combined (Power Level = 20mW) |
| Mode 3: Transmit at X55 Band by Narrowband (Power Level = 250mW) |
| Mode 4: Transmit at X55 Band by Narrowband combined (Power Level = 20mW) |
| Mode 5: Transmit at X55 Band by Narrowband spatial diversity (Power Level = 100mW) |
| Mode 6: Transmit at X55 Band by Narrowband spatial diversity combined (Power Level =20mW) |
| Mode 7: Transmit at X55 Band by 4-channel wideband (Power Level = 250mW) |
| Mode 8: Transmit at X55 Band by 4-channel wideband 8 audio mixes (Power Level = 40mW) |
| Mode 9: Transmit at X55 Band by 4-channel wideband 16 audio mixes (Power Level = 50mW) |
| Mode 10: Transmit at X55 Band by 4-channel wideband spatial diversity (Power Level = 100mW) |
| Mode 11: Transmit at X55 Band by Axient Digital Standard (PTP) (Power Level = 250mW) |
| Mode 12: Transmit at X55 Band by Axient Digital Standard (PTP) combined (Power Level = 20mW) |
| Mode 13: Transmit at X55 Band by Narrowband frequency diversity combined (Power Level = 20mW) |
| Mode 14: Transmit at X55 Band by Narrowband spatial diversity frequency diversity combined (Power Level = 20mW) |
| Mode 15: Transmit at X55 Band by 4-channel wideband frequency diversity (Power Level = 20mW) |
| Mode 16: Transmit at X55 Band by 4-channel wideband spatial diversity frequency diversity (Power Level = 20mW) |
| Note 1: After evaluation, the full test was done for mode 1 & 3 & 7 & 11 and output power and radiated spurious emission were done for other modes.<br>Note 2: Mode 13 was covered by mode 4, mode 15 was covered by mode 16, mode 14 was covered by mode 6.<br>Note 3: For Mode 1 & 3 & 7 & 11, we verify output power and radiated spurious emission with antenna combiner AD8C. |

## 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 |
| Two-Line V-Network | R&S | ENV216 | MRTSUE06003 | 1 year | 2025-05-08 | SIP-SR2 |
| EMI Test Receiver | R&S | ESR3 | MRTSUE06612 | 1 year | 2025-05-08 | SIP-SR2 |
| Thermohygrometer | testo | 608-H1 | MRTSUE06621 | 1 year | 2025-10-29 | SIP-SR2 |
| Shielding Room | MIX-BEP | SIP-SR2 | MRTSUE06949 | 5 years | 2029-10-13 | SIP-SR2 |
| EMI Test Receiver | R&S | ESR7 | MRTSUE06001 | 1 year | 2024-12-17 | WZ-AC1 |
| Horn Antenna | Schwarzbeck | BBHA 9120D | MRTSUE06023 | 1 year | 2025-07-26 | WZ-AC1 |
| Preamplifier | Agilent | 83017A | MRTSUE06076 | 1 year | 2024-11-09 | WZ-AC1 |
| Preamplifier | Agilent | 83017A | MRTSUE06076 | 1 year | 2025-11-08 | WZ-AC1 |
| TRILOG Antenna | Schwarzbeck | VULB 9168 | MRTSUE06172 | 1 year | 2025-05-15 | WZ-AC1 |
| Anechoic Chamber | TDK | WZ-AC1 | MRTSUE06212 | 1 year | 2025-04-19 | WZ-AC1 |
| Signal Analyzer | Keysight | N9010B | MRTSUE06607 | 1 year | 2025-10-13 | WZ-AC1 |
| Signal Analyzer | Keysight | N9010B | MRTSUE06607 | 1 year | 2024-10-23 | WZ-AC1 |
| Thermohygrometer | testo | 608-H1 | MRTSUE11039 | 1 year | 2025-10-16 | WZ-AC1 |
| Thermohygrometer | testo | 608-H1 | MRTSUE11039 | 1 year | 2024-10-25 | WZ-AC1 |
| TRILOG Antenna | Schwarzbeck | VULB 9162 | MRTSUE06022 | 1 year | 2025-04-17 | WZ-AC2 |
| EMI Test Receiver | Agilent | N9038A | MRTSUE06125 | 1 year | 2025-05-08 | WZ-AC2 |
| Horn Antenna | Schwarzbeck | BBHA 9120D | MRTSUE06171 | 1 year | 2025-09-23 | WZ-AC2 |
| Horn Antenna | Schwarzbeck | BBHA 9120D | MRTSUE06171 | 1 year | 2024-10-11 | WZ-AC2 |
| Preamplifier | Schwarzbeck | BBV 9718 | MRTSUE06176 | 1 year | 2025-05-06 | WZ-AC2 |
| Anechoic Chamber | RIKEN | WZ-AC2 | MRTSUE06213 | 1 year | 2025-04-18 | WZ-AC2 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Thermohygrometer | testo | 608-H1 | MRTSUE11263 | 1 year | 2025-10-16 | WZ-AC2 |
| Thermohygrometer | testo | 608-H1 | MRTSUE11263 | 1 year | 2024-11-07 | WZ-AC2 |

| Software | Version | Function |
|---|---|---|
| e3 | 230711 | RE & CE |
| Controller_MF 7802 | 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:<br>9kHz~150kHz: 3.02dB<br>150kHz~30MHz: 2.56dB |
| Radiated Emission Measurement |
| The maximum measurement uncertainty is evaluated as:<br>Coaxial: 9kHz~30MHz: 2.35dB<br>Coplanar: 9kHz~30MHz: 2.37dB<br>Horizontal: 30MHz~200MHz: 3.46dB<br>200MHz~1GHz: 3.78dB<br>1GHz~40GHz: 4.97dB<br>Vertical: 30MHz~200MHz: 4.07dB<br>200MHz~1GHz: 5.28dB<br>1GHz~40GHz: 4.78dB |
| Spurious Emissions, Conducted |
| Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)):<br>2.5dB |
| Output Power |
| Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)):<br>1.3dB |
| Power Spectrum Density |
| Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)):<br>2.5dB |
| Occupied Bandwidth |
| Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)):<br>2.6% |

# 5. Test Result

## 5.1. Summary

| FCC Part Section(s) | Test Description | Test Condition | Test Result |
|---|---|---|---|
| 74.861(d)(1) | RF Output Power | Conducted | Pass |
| 74.861(d)(4) | 99% Occupied Bandwidth | | Pass |
| 74.861(d)(4) (i&ii&iii) | Emission Mask | | Pass |
| 74.861(d)(4) (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

The conducted power may not exceed 1 W in 941.5-959.85 MHz band.

### 5.2.2. Test Procedure

ANSI C63.26-2015 - Section 5.2.4.2

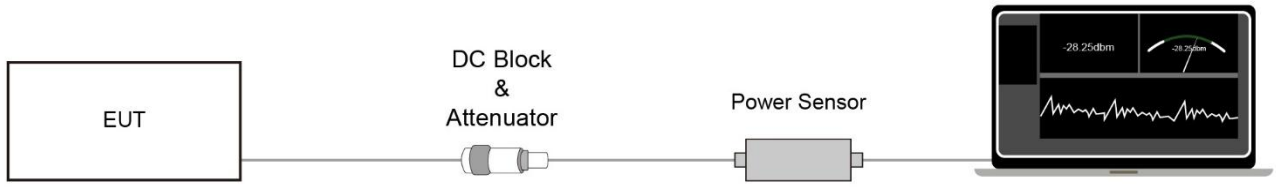
### 5.2.3. Test Setting

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.

A wireless multichannel audio system must have an operating bandwidth B not exceeding 20 megahertz and must have a mode of operation in which it is capable of transmitting at least three audio channels per megahertz.

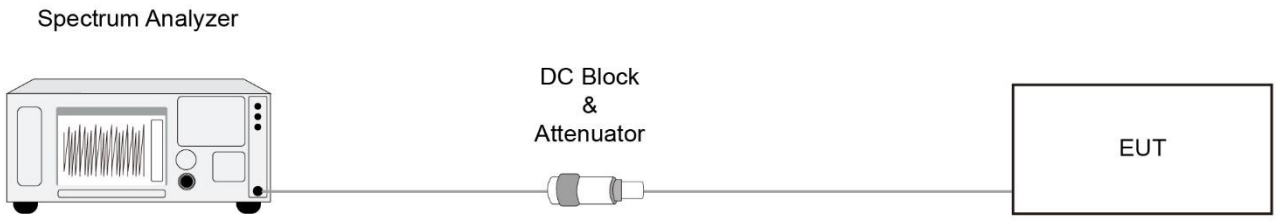
### 5.3.2. Test Procedure

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. Emission Mask Measurement

### 5.4.1. 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 emission mask 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 emission mask in Figure 2 of section 4.2.4.2.2 of ETSI EN 300 422-1 V2.2.1 (2021-11) (incorporated by reference, see § 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 emission mask 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 |

### 5.4.2. Test Procedure

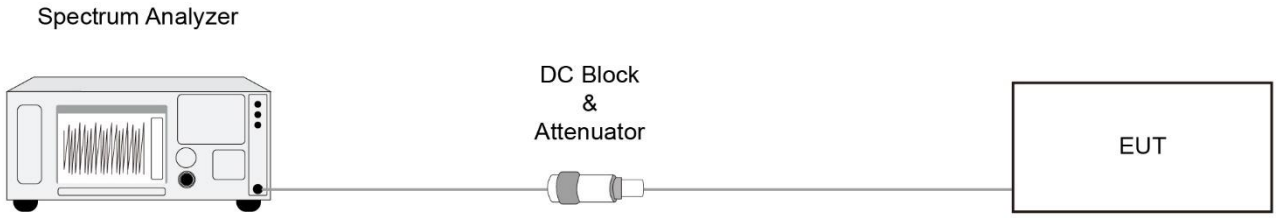
EN 300 422-1 V2.2.1 clause 5.4.3.2.

### 5.4.3. Test Setting

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

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

### 5.4.4. Test Setup




### 5.4.5. Test Result

Refer to Appendix A.3.

## 5.5. Radiated Spurious Emissions Measurement

### 5.5.1. Test Limit

Spurious emission limits. Emissions outside of the emission masks specified in paragraphs (d)(4)(i) through (iii) of this section 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 ≤ f ≤ $F_c$ + 4B: 1kHz<br>$F_c$ + 4B < f ≤ $F_c$ + 10B: 10kHz<br>f > $F_c$ + 10B: 100kHz<br>f < $F_c$ - 10B: 100kHz<br>$F_c$ - 10B ≤ f < $F_c$ - 4B: 10kHz<br>$F_c$ - 4B ≤ f ≤ $F_c$ – 2.5B: 1kHz |
| Except: | | |
| 47MHz to 74MHz<br>87.5MHz to 118MHz | -54dBm | 100kHz |
| 174MHz to 230MHz<br>470MHz to 862MHz | -36dBm | $F_c$ + 2.5B ≤ f ≤ $F_c$ + 4B: 1kHz<br>$F_c$ + 4B < f ≤ $F_c$ + 10B: 10kHz<br>f > $F_c$ + 10B: 100kHz<br>f < $F_c$ - 10B: 100kHz<br>$F_c$ - 10B ≤ f < $F_c$ - 4B: 10kHz<br>$F_c$ - 4B ≤ f ≤ $F_c$ – 2.5B: 1kHz |
| 1GHz < f≤ $F_{upper}$ | -30dBm | $F_c$ + 2.5B ≤ f ≤ $F_c$ + 10B: 30kHz<br>$F_c$ + 10B < f ≤ $F_c$ + 12B: 300kHz<br>f > $F_c$ + 12B: 1MHz<br>f < $F_c$ - 12B: 1MHz<br>$F_c$ - 12B ≤ f < $F_c$ - 10B: 300kHz<br>$F_c$ - 10B ≤ f ≤ $F_c$ – 2.5B: 30kHz |
| With B being the Declared Channel Bandwidth.<br>$F_{upper}$ 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 |

### 5.5.2. Test Procedure

ETSI EN 300 422-1 V2.2.1 clause 5.4.4

### 5.5.3. Test Setting

Table 1 - RBW as a function of frequency

| Frequency | RBW |
|---|---|
| 30 ~ 1000 MHz | 100 kHz |
| 1000 ~ 10000 MHz | 1 MHz |

Emissions shall be investigated up to the 10$^{th}$ harmonic of the fundamental.

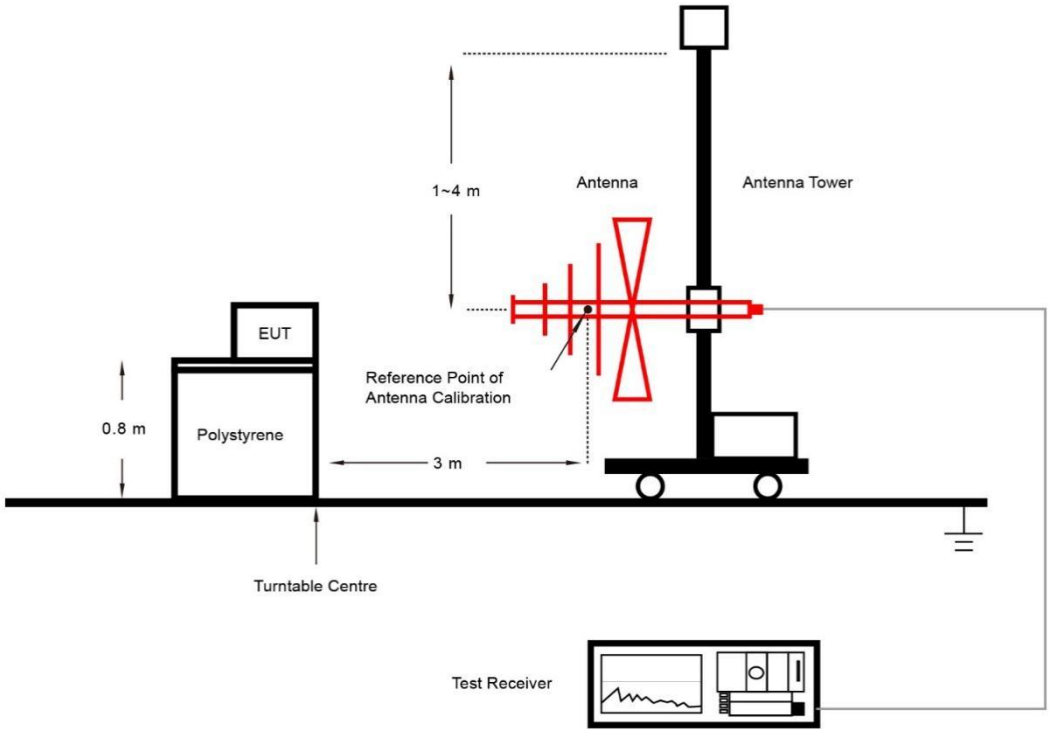
Compliance with the emission limits shall be demonstrated using an RMS Average detector.

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

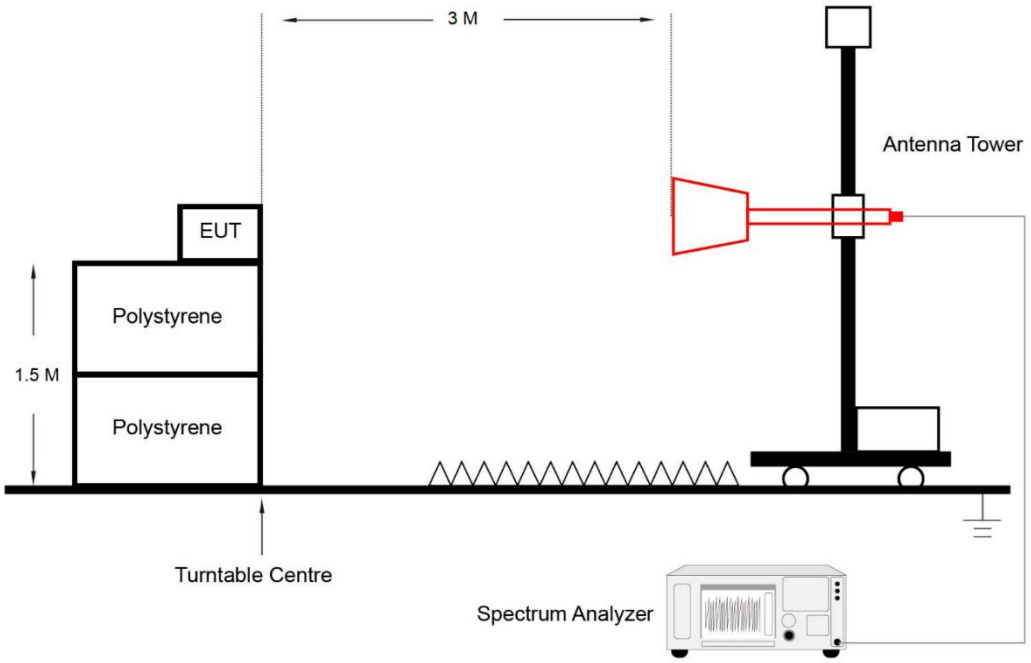
At each frequency at which a component is detected, the sample shall be rotated to obtain maximum response and the effective radiated power of that component determined by a substitution measurement.

### 5.5.4. Test Setup

Below 1GHz Test Setup:




Above 1GHz Test Setup:




### 5.5.5. Test Result

Refer to Appendix A.4.

# 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) | | | | Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|
| | Port A | Port B | Port C | Port D | | |
| 250mW Power Level | | | | | | |
| 941.625 | 21.47 | 21.23 | 21.16 | 22.33 | ≤ 30.00 | Pass |
| 946.750 | 21.36 | 21.08 | 21.01 | 22.26 | ≤ 30.00 | Pass |
| 951.875 | 21.20 | 20.92 | 20.84 | 22.18 | ≤ 30.00 | Pass |
| 952.975 | 21.18 | 20.97 | 20.79 | 22.15 | ≤ 30.00 | Pass |
| 956.125 | 21.08 | 21.84 | 20.68 | 22.08 | ≤ 30.00 | Pass |
| 956.575 | 21.09 | 21.82 | 20.66 | 22.07 | ≤ 30.00 | Pass |
| 959.725 | 21.00 | 21.67 | 20.53 | 21.98 | ≤ 30.00 | Pass |

Note: Limit = 10*Log (1000mW) = 30 dBm.

| 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) | Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | Port A | Port B | Port C | Port D | | | |
| 250mW Power Level | | | | | | | |
| 941.625 | 21.47 | 21.23 | 21.16 | 22.33 | 27.59 | ≤ 30.00 | Pass |
| 946.750 | 21.36 | 21.08 | 21.01 | 22.26 | 27.48 | ≤ 30.00 | Pass |
| 951.875 | 21.20 | 20.92 | 20.84 | 22.18 | 27.34 | ≤ 30.00 | Pass |
| 952.975 | 21.18 | 20.97 | 20.79 | 22.15 | 27.33 | ≤ 30.00 | Pass |
| 956.125 | 21.08 | 21.84 | 20.68 | 22.08 | 27.48 | ≤ 30.00 | Pass |
| 956.575 | 21.09 | 21.82 | 20.66 | 22.07 | 27.47 | ≤ 30.00 | Pass |
| 959.725 | 21.00 | 21.67 | 20.53 | 21.98 | 27.35 | ≤ 30.00 | Pass |

Note 1: Limit = 10*Log (1000mW) = 30 dBm.

Note 2: Total Conducted Output Power (dBm) = 10*log(10^(Port A /10)+ 10^(Port B/10) + 10^(Port C/10) +10^(Port D/10)) (dBm).

| Test Site | WZ-SR5 | Test Engineer | Lynn Yang |
|---|---|---|---|
| Test Date | 2024-11-13 | Test Mode | Mode 1 with AD8C |

| Frequency (MHz) | Conducted Output Power (dBm) | Limit (dBm) | Test Result |
|---|---|---|---|
| | Port A | | |
| 250mW Power Level | | | |
| 941.625 | 20.41 | ≤ 30.00 | Pass |
| 946.750 | 19.52 | ≤ 30.00 | Pass |
| 951.875 | 19.28 | ≤ 30.00 | Pass |
| 952.975 | 19.21 | ≤ 30.00 | Pass |
| 956.125 | 18.16 | ≤ 30.00 | Pass |
| 956.575 | 18.14 | ≤ 30.00 | Pass |
| 959.725 | 17.96 | ≤ 30.00 | Pass |

Note: Limit = 10*Log (1000mW) = 30 dBm.

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

| Frequency (MHz) | | | | Conducted Output Power (dBm) | Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|
| F1 | F2 | F3 | F4 | | | |
| 20mW Power Level | | | | | | |
| 941.625 | 941.975 | 942.325 | 942.675 | 16.31 | ≤ 30.00 | Pass |
| 946.750 | 947.100 | 947.450 | 947.800 | 16.52 | ≤ 30.00 | Pass |
| 951.875 | 951.525 | 951.175 | 950.825 | 16.46 | ≤ 30.00 | Pass |
| 952.975 | 953.325 | 953.675 | 954.025 | 16.43 | ≤ 30.00 | Pass |
| 956.125 | 955.775 | 955.425 | 955.075 | 16.61 | ≤ 30.00 | Pass |
| 956.575 | 956.925 | 957.275 | 957.625 | 16.58 | ≤ 30.00 | Pass |
| 959.725 | 959.375 | 959.025 | 958.675 | 16.54 | ≤ 30.00 | Pass |

Note: Limit = 10*Log (1000mW) = 30 dBm.

| 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) | | | | Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|
| | Port A | Port B | Port C | Port D | | |
| 250mW Power Level | | | | | | |
| 941.625 | 20.36 | 20.82 | 20.57 | 20.96 | ≤ 30.00 | Pass |
| 946.750 | 21.30 | 20.76 | 20.49 | 21.02 | ≤ 30.00 | Pass |
| 951.875 | 20.91 | 20.54 | 20.29 | 21.11 | ≤ 30.00 | Pass |
| 952.975 | 20.82 | 20.47 | 20.18 | 21.22 | ≤ 30.00 | Pass |
| 956.125 | 20.78 | 21.54 | 20.24 | 20.92 | ≤ 30.00 | Pass |
| 956.575 | 20.80 | 21.42 | 20.25 | 20.96 | ≤ 30.00 | Pass |
| 959.725 | 20.87 | 21.31 | 19.94 | 21.12 | ≤ 30.00 | Pass |

Note: Limit = 10*Log (1000mW) = 30 dBm.

| 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) | Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | Port A | Port B | Port C | Port D | | | |
| 250mW Power Level | | | | | | | |
| 941.625 | 20.36 | 20.82 | 20.57 | 20.96 | 26.70 | ≤ 30.00 | Pass |
| 946.750 | 21.30 | 20.76 | 20.49 | 21.02 | 26.92 | ≤ 30.00 | Pass |
| 951.875 | 20.91 | 20.54 | 20.29 | 21.11 | 26.74 | ≤ 30.00 | Pass |
| 952.975 | 20.82 | 20.47 | 20.18 | 21.22 | 26.71 | ≤ 30.00 | Pass |
| 956.125 | 20.78 | 21.54 | 20.24 | 20.92 | 26.92 | ≤ 30.00 | Pass |
| 956.575 | 20.80 | 21.42 | 20.25 | 20.96 | 26.90 | ≤ 30.00 | Pass |
| 959.725 | 20.87 | 21.31 | 19.94 | 21.12 | 26.86 | ≤ 30.00 | Pass |

Note 1: Limit = 10*Log (1000mW) = 30 dBm.

Note 2: Total Conducted Output Power (dBm) = 10*log(10^(Port A /10)+ 10^(Port B/10) + 10^(Port C/10) +10^(Port D/10)) (dBm).

| Test Site | WZ-SR5 | Test Engineer | Lynn Yang |
|---|---|---|---|
| Test Date | 2024-11-13 | Test Mode | Mode 3 with AD8C |

| Frequency (MHz) | Conducted Output Power (dBm) | Limit (dBm) | Test Result |
|---|---|---|---|
| | Port A | | |
| 250mW Power Level | | | |
| 941.625 | 17.07 | ≤ 30.00 | Pass |
| 946.750 | 17.01 | ≤ 30.00 | Pass |
| 951.875 | 16.87 | ≤ 30.00 | Pass |
| 952.975 | 16.83 | ≤ 30.00 | Pass |
| 956.125 | 15.77 | ≤ 30.00 | Pass |
| 956.575 | 15.75 | ≤ 30.00 | Pass |
| 959.725 | 15.59 | ≤ 30.00 | Pass |

Note: Limit = 10*Log (1000mW) = 30 dBm.

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

| Frequency (MHz) | | | | Conducted Output Power (dBm) | Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|
| F1 | F2 | F3 | F4 | | | |
| 20mW Power Level | | | | | | |
| 941.625 | 941.975 | 942.325 | 942.675 | 17.22 | ≤ 30.00 | Pass |
| 946.750 | 947.100 | 947.450 | 947.800 | 17.43 | ≤ 30.00 | Pass |
| 951.875 | 951.525 | 951.175 | 950.825 | 17.28 | ≤ 30.00 | Pass |
| 952.975 | 953.325 | 953.675 | 954.025 | 17.33 | ≤ 30.00 | Pass |
| 956.125 | 955.775 | 955.425 | 955.075 | 17.39 | ≤ 30.00 | Pass |
| 956.575 | 956.925 | 957.275 | 957.625 | 17.12 | ≤ 30.00 | Pass |
| 959.725 | 959.375 | 959.025 | 958.675 | 17.20 | ≤ 30.00 | Pass |

Note: Limit = 10*Log (1000mW) = 30 dBm.

| 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) | Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | Port A | Port B | Port C | Port D | | | |
| 100mW Power Level | | | | | | | |
| 941.625 | 19.13 | 19.53 | 20.23 | 20.38 | 25.87 | ≤ 30.00 | Pass |
| 946.750 | 20.07 | 19.66 | 20.16 | 20.26 | 26.06 | ≤ 30.00 | Pass |
| 951.875 | 20.15 | 19.74 | 19.97 | 20.13 | 26.02 | ≤ 30.00 | Pass |
| 952.975 | 19.85 | 20.23 | 19.82 | 20.67 | 26.18 | ≤ 30.00 | Pass |
| 956.125 | 19.63 | 20.32 | 19.67 | 20.11 | 25.96 | ≤ 30.00 | Pass |
| 956.575 | 19.42 | 20.36 | 19.42 | 20.02 | 25.84 | ≤ 30.00 | Pass |
| 959.725 | 19.93 | 20.24 | 19.56 | 20.23 | 26.02 | ≤ 30.00 | Pass |

Note 1: Limit = 10*Log (1000mW) = 30 dBm.

Note 2: Total Conducted Output Power (dBm) = 10*log(10^(Port A /10)+ 10^(Port B/10) + 10^(Port C/10) +10^(Port D/10)) (dBm).

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

| Frequency (MHz) | | Conducted Output Power (dBm) | | Total Conducted Output Power (dBm) | Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|
| F1 | F2 | Port A | Port D | | | |
| 20mW Power Level | | | | | | |
| 941.625 | 941.975 | 15.04 | 15.37 | 18.22 | ≤ 30.00 | Pass |
| 946.750 | 947.100 | 15.72 | 15.17 | 18.46 | ≤ 30.00 | Pass |
| 951.875 | 951.525 | 15.66 | 15.24 | 18.47 | ≤ 30.00 | Pass |
| 952.975 | 953.325 | 15.58 | 15.08 | 18.35 | ≤ 30.00 | Pass |
| 956.125 | 955.775 | 16.02 | 15.22 | 18.65 | ≤ 30.00 | Pass |
| 956.575 | 956.925 | 15.94 | 15.07 | 18.54 | ≤ 30.00 | Pass |
| 959.725 | 959.375 | 15.82 | 15.47 | 18.66 | ≤ 30.00 | Pass |

Note 1: Limit = 10*Log (1000mW) = 30 dBm.

Note 2: Total Conducted Output Power (dBm) = 10*log(10^(Port A/10) +10^(Port D/10)) (dBm).

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

| Frequency (MHz) | Conducted Output Power (dBm) | Limit (dBm) | Test Result |
|---|---|---|---|
| 250mW Power Level | | | |
| 941.900 | 21.63 | ≤ 30.00 | Pass |
| 946.750 | 21.60 | ≤ 30.00 | Pass |
| 951.600 | 21.54 | ≤ 30.00 | Pass |
| 953.250 | 21.52 | ≤ 30.00 | Pass |
| 955.850 | 21.49 | ≤ 30.00 | Pass |
| 956.850 | 21.48 | ≤ 30.00 | Pass |
| 959.450 | 21.42 | ≤ 30.00 | Pass |

Note: Limit = 10*Log (1000mW) = 30 dBm.

| Test Site | WZ-SR5 | Test Engineer | Lynn Yang |
|---|---|---|---|
| Test Date | 2024-11-13 | Test Mode | Mode 7 with AD8C |

| Frequency (MHz) | Conducted Output Power (dBm) | Limit (dBm) | Test Result |
|---|---|---|---|
| | Port A | | |
| 250mW Power Level | | | |
| 941.900 | 14.59 | ≤ 30.00 | Pass |
| 946.750 | 14.51 | ≤ 30.00 | Pass |
| 951.600 | 14.43 | ≤ 30.00 | Pass |
| 953.250 | 14.45 | ≤ 30.00 | Pass |
| 955.850 | 14.38 | ≤ 30.00 | Pass |
| 956.850 | 14.32 | ≤ 30.00 | Pass |
| 959.450 | 14.29 | ≤ 30.00 | Pass |

Note: Limit = 10*Log (1000mW) = 30 dBm.

| 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) | | | | Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|
| | Port A | Port B | Port C | Port D | | |
| 40mW Power Level | | | | | | |
| 941.900 | 14.16 | 15.02 | 13.79 | 14.64 | ≤ 30.00 | Pass |
| 946.750 | 14.12 | 14.94 | 14.68 | 14.48 | ≤ 30.00 | Pass |
| 951.600 | 13.85 | 14.96 | 14.57 | 14.51 | ≤ 30.00 | Pass |
| 953.250 | 14.19 | 14.88 | 14.58 | 14.44 | ≤ 30.00 | Pass |
| 955.850 | 14.09 | 14.92 | 14.51 | 14.42 | ≤ 30.00 | Pass |
| 956.850 | 13.97 | 14.86 | 14.50 | 14.47 | ≤ 30.00 | Pass |
| 959.450 | 14.25 | 14.81 | 14.36 | 14.42 | ≤ 30.00 | Pass |

Note: Limit = 10*Log (1000mW) = 30 dBm.

| Test Site | WZ-SR5 | Test Engineer | Lynn Yang |
|---|---|---|---|
| Test Date | 2024-10-14 | Test Mode | Mode 8 Multi Ports |

| Frequency (MHz) | Conducted Output Power (dBm) | | | | Total Conducted Output Power (dBm) | Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | Port A | Port B | Port C | Port D | | | |
| 40mW Power Level | | | | | | | |
| 941.900 | 14.16 | 15.02 | 13.79 | 14.64 | 20.45 | ≤ 30.00 | Pass |
| 946.750 | 14.12 | 14.94 | 14.68 | 14.48 | 20.59 | ≤ 30.00 | Pass |
| 951.600 | 13.85 | 14.96 | 14.57 | 14.51 | 20.51 | ≤ 30.00 | Pass |
| 953.250 | 14.19 | 14.88 | 14.58 | 14.44 | 20.55 | ≤ 30.00 | Pass |
| 955.850 | 14.09 | 14.92 | 14.51 | 14.42 | 20.52 | ≤ 30.00 | Pass |
| 956.850 | 13.97 | 14.86 | 14.50 | 14.47 | 20.48 | ≤ 30.00 | Pass |
| 959.450 | 14.25 | 14.81 | 14.36 | 14.42 | 20.49 | ≤ 30.00 | Pass |

Note 1: Limit = 10*Log (1000mW) = 30 dBm.

Note 2: Total Conducted Output Power (dBm) = 10*log(10^(Port A /10)+ 10^(Port B/10) + 10^(Port C/10) +10^(Port D/10)) (dBm).

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

| Frequency (MHz) | Conducted Output Power (dBm) | | | | Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|
| | Port A | Port B | Port C | Port D | | |
| 50mW Power Level | | | | | | |
| | | | | | | |
| 941.900 | 15.31 | 15.95 | 14.95 | 15.26 | ≤ 30.00 | Pass |
| 946.750 | 16.19 | 14.60 | 14.85 | 15.22 | ≤ 30.00 | Pass |
| 951.600 | 15.81 | 14.48 | 15.90 | 15.17 | ≤ 30.00 | Pass |
| 953.250 | 15.35 | 14.41 | 14.95 | 15.23 | ≤ 30.00 | Pass |
| 955.850 | 15.59 | 15.33 | 15.35 | 15.10 | ≤ 30.00 | Pass |
| 956.850 | 15.99 | 15.32 | 15.54 | 15.13 | ≤ 30.00 | Pass |
| 959.450 | 15.85 | 15.21 | 14.58 | 15.09 | ≤ 30.00 | Pass |

Note: Limit = 10*Log (1000mW) = 30 dBm.

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

| Frequency (MHz) | Conducted Output Power (dBm) | | | | Total Conducted Output Power (dBm) | Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | Port A | Port B | Port C | Port D | | | |
| 50mW Power Level | | | | | | | |
| | 15.31 | 15.95 | 14.95 | 15.26 | 21.40 | ≤ 30.00 | Pass |
| 946.750 | 16.19 | 14.60 | 14.85 | 15.22 | 21.28 | ≤ 30.00 | Pass |
| 951.600 | 15.81 | 14.48 | 15.90 | 15.17 | 21.40 | ≤ 30.00 | Pass |
| 953.250 | 15.35 | 14.41 | 14.95 | 15.23 | 21.02 | ≤ 30.00 | Pass |
| 955.850 | 15.59 | 15.33 | 15.35 | 15.10 | 21.37 | ≤ 30.00 | Pass |
| 956.850 | 15.99 | 15.32 | 15.54 | 15.13 | 21.53 | ≤ 30.00 | Pass |
| 959.450 | 15.85 | 15.21 | 14.58 | 15.09 | 21.40 | ≤ 30.00 | Pass |

Note 1: Limit = 10*Log (1000mW) = 30 dBm.

Note 2: Total Conducted Output Power (dBm) = 10*log(10^(Port A /10)+ 10^(Port B/10) + 10^(Port C/10) +10^(Port D/10)) (dBm).

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

| Frequency (MHz) | Conducted Output Power (dBm) | | Total Conducted Output Power (dBm) | Limit (dBm) | Test Result |
|---|---|---|---|---|---|
| | Port A | Port D | | | |
| 100mW Power Level | | | | | |
| 941.900 | 20.47 | 19.32 | 22.94 | ≤ 30.00 | Pass |
| 946.750 | 21.22 | 19.52 | 23.46 | ≤ 30.00 | Pass |
| 951.600 | 21.16 | 19.55 | 23.44 | ≤ 30.00 | Pass |
| 953.250 | 21.23 | 19.61 | 23.51 | ≤ 30.00 | Pass |
| 955.850 | 20.73 | 19.64 | 23.23 | ≤ 30.00 | Pass |
| 956.850 | 20.75 | 19.62 | 23.23 | ≤ 30.00 | Pass |
| 959.450 | 20.42 | 19.57 | 23.03 | ≤ 30.00 | Pass |

Note 1: Limit = 10*Log (1000mW) = 30 dBm.

Note 2: Total Conducted Output Power (dBm) = 10*log(10^(Port A /10)+ 10^(Port D/10)) (dBm).

| Test Site | WZ-SR5 | Test Engineer | Lynn Yang |
|---|---|---|---|
| Test Date | 2024-10-14 | Test Mode | Mode 11 Single Port |

| Frequency (MHz) | Conducted Output Power (dBm) | | | | Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|
| | Port A | Port B | Port C | Port D | | |
| 250mW Power Level | | | | | | |
| 941.625 | 18.89 | 18.15 | 18.40 | 18.10 | ≤ 30.00 | Pass |
| 946.750 | 18.66 | 18.98 | 18.64 | 18.51 | ≤ 30.00 | Pass |
| 951.875 | 18.43 | 18.85 | 18.54 | 18.45 | ≤ 30.00 | Pass |
| 952.975 | 18.38 | 18.97 | 18.51 | 18.48 | ≤ 30.00 | Pass |
| 956.125 | 18.24 | 18.86 | 18.43 | 18.40 | ≤ 30.00 | Pass |
| 956.575 | 18.21 | 18.85 | 18.45 | 18.42 | ≤ 30.00 | Pass |
| 959.725 | 18.06 | 18.78 | 18.35 | 18.36 | ≤ 30.00 | Pass |

Note: Limit = 10*Log (1000mW) = 30 dBm.

| Test Site | WZ-SR5 | Test Engineer | Lynn Yang |
|---|---|---|---|
| Test Date | 2024-11-13 | Test Mode | Mode 11 with AD8C |

| Frequency (MHz) | Conducted Output Power (dBm) | Limit (dBm) | Test Result |
|---|---|---|---|
| | Port A | | |
| 250mW Power Level | | | |
| 941.625 | 17.50 | ≤ 30.00 | Pass |
| 946.750 | 17.25 | ≤ 30.00 | Pass |
| 951.875 | 17.22 | ≤ 30.00 | Pass |
| 952.975 | 17.25 | ≤ 30.00 | Pass |
| 956.125 | 17.1 | ≤ 30.00 | Pass |
| 956.575 | 17.13 | ≤ 30.00 | Pass |
| 959.725 | 16.93 | ≤ 30.00 | Pass |

Note: Limit = 10*Log (1000mW) = 30 dBm.

| Test Site | WZ-SR5 | Test Engineer | Lynn Yang |
|---|---|---|---|
| Test Date | 2024-10-14 | Test Mode | Mode 11 Multi Ports |

| Frequency (MHz) | Conducted Output Power (dBm) | | | | Total Conducted Output Power (dBm) | Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|---|
| | Port A | Port B | Port C | Port D | | | |
| 250mW Power Level | | | | | | | |
| 941.625 | 18.89 | 18.15 | 18.40 | 18.10 | 24.42 | ≤ 30.00 | Pass |
| 946.750 | 18.66 | 18.98 | 18.64 | 18.51 | 24.72 | ≤ 30.00 | Pass |
| 951.875 | 18.43 | 18.85 | 18.54 | 18.45 | 24.59 | ≤ 30.00 | Pass |
| 952.975 | 18.38 | 18.97 | 18.51 | 18.48 | 24.61 | ≤ 30.00 | Pass |
| 956.125 | 18.24 | 18.86 | 18.43 | 18.40 | 24.51 | ≤ 30.00 | Pass |
| 956.575 | 18.21 | 18.85 | 18.45 | 18.42 | 24.51 | ≤ 30.00 | Pass |
| 959.725 | 18.06 | 18.78 | 18.35 | 18.36 | 24.42 | ≤ 30.00 | Pass |

Note 1: Limit = 10*Log (1000mW) = 30 dBm.

Note 2: Total Conducted Output Power (dBm) = 10*log(10^(Port A /10)+ 10^(Port B/10) + 10^(Port C/10) +10^(Port D/10)) (dBm).

| Test Site | WZ-SR5 | Test Engineer | Lynn Yang |
|---|---|---|---|
| Test Date | 2024-10-14 | Test Mode | Mode 12 |

| Frequency (MHz) | | | | Conducted Output Power (dBm) | Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|
| F1 | F2 | F3 | F4 | | | |
| 20mW Power Level | | | | | | |
| 941.625 | 941.975 | 942.325 | 942.675 | 15.21 | ≤ 30.00 | Pass |
| 946.750 | 947.100 | 947.450 | 947.800 | 15.39 | ≤ 30.00 | Pass |
| 951.875 | 951.525 | 951.175 | 950.825 | 15.34 | ≤ 30.00 | Pass |
| 952.975 | 953.325 | 953.675 | 954.025 | 15.32 | ≤ 30.00 | Pass |
| 956.125 | 955.775 | 955.425 | 955.075 | 15.27 | ≤ 30.00 | Pass |
| 956.575 | 956.925 | 957.275 | 957.625 | 15.29 | ≤ 30.00 | Pass |
| 959.725 | 959.375 | 959.025 | 958.675 | 15.23 | ≤ 30.00 | Pass |

Note: Limit = 10*Log (1000mW) = 30 dBm.

| Test Site | WZ-SR5 | Test Engineer | Lynn Yang |
|---|---|---|---|
| Test Date | 2024-11-14 | Test Mode | Mode 16 |

| Frequency (MHz) | | Conducted Output Power (dBm) | | Total Conducted Output Power (dBm) | Limit (dBm) | Test Result |
|---|---|---|---|---|---|---|
| F1 | F2 | Port A | Port D | | | |
| 20mW Power Level | | | | | | |
| 941.900 | 942.950 | 16.44 | 15.92 | 19.20 | ≤ 30.00 | Pass |
| 946.750 | 947.825 | 16.42 | 16.03 | 19.24 | ≤ 30.00 | Pass |
| 951.600 | 950.400 | 17.12 | 16.48 | 19.82 | ≤ 30.00 | Pass |
| 953.250 | 954.350 | 16.22 | 16.03 | 19.14 | ≤ 30.00 | Pass |
| 955.850 | 954.350 | 16.36 | 16.21 | 19.30 | ≤ 30.00 | Pass |
| 956.850 | 955.500 | 16.20 | 15.85 | 19.04 | ≤ 30.00 | Pass |
| 959.450 | 957.950 | 16.40 | 16.05 | 19.24 | ≤ 30.00 | Pass |

Note 1: Limit = 10*Log (1000mW) = 30 dBm.

Note 2: Total Conducted Output Power (dBm) = 10*log(10^(Port A/10) +10^(Port D/10)) (dBm).

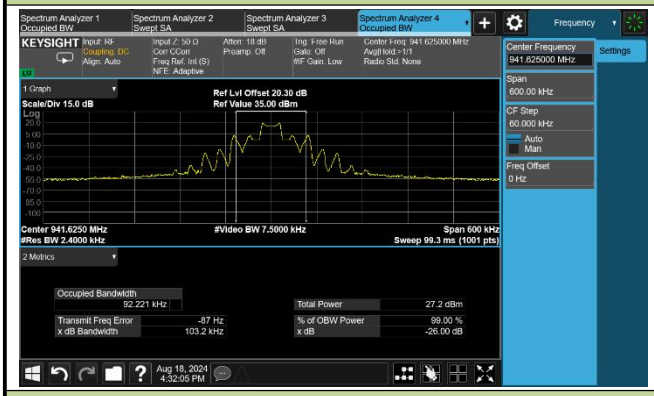
## A.2 99% Occupied Bandwidth Test Result

| Test Site | WZ-SR5 | Test Engineer | Lynn Yang |
|---|---|---|---|
| Test Date | 2024-08-18 | Test Mode | Mode 1 |

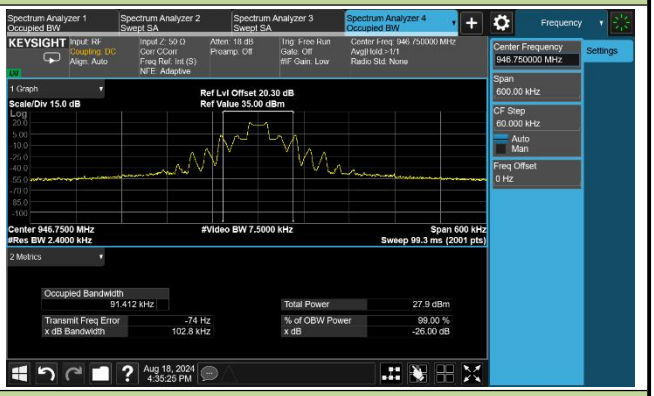
| Frequency (MHz) | 99% Occupied Bandwidth (kHz) | Limit (kHz) | Result |
|---|---|---|---|
| 941.625 | 92.221 | < 200 | Pass |
| 946.750 | 91.412 | < 200 | Pass |
| 951.875 | 91.449 | < 200 | Pass |
| 952.975 | 91.335 | < 200 | Pass |
| 956.125 | 62.964 | < 200 | Pass |
| 956.575 | 91.340 | < 200 | Pass |
| 959.725 | 91.553 | < 200 | Pass |

99% Occupied Bandwidth

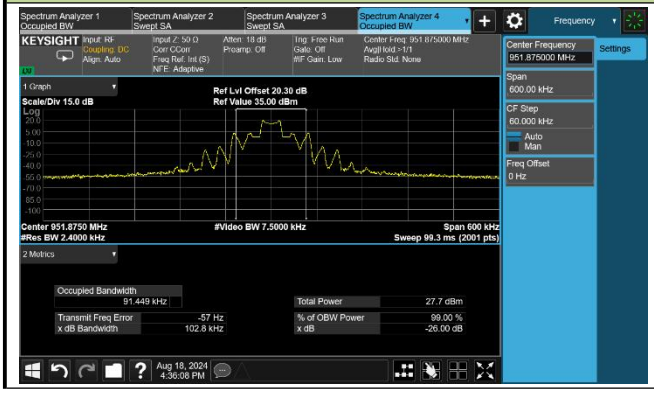
941.625MHz



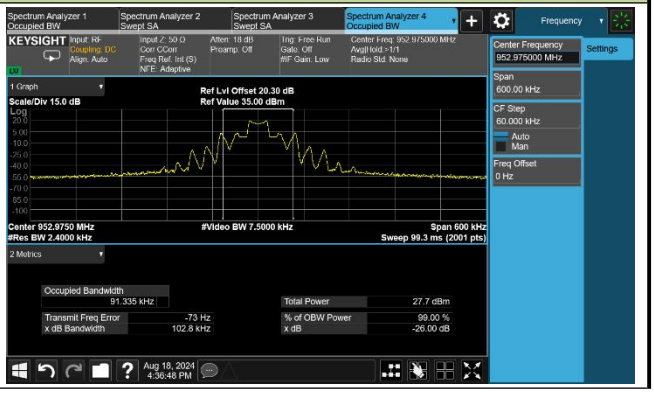

946.750MHz

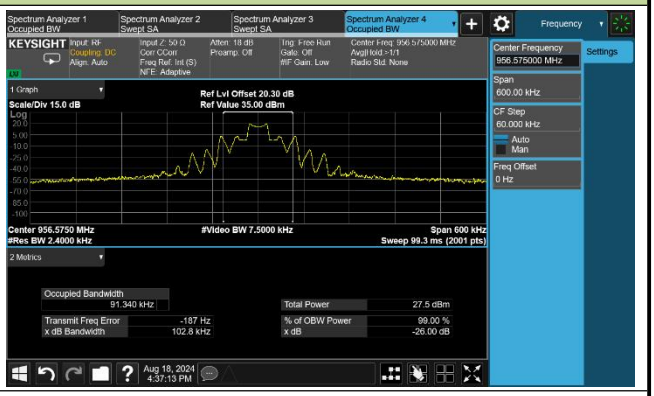
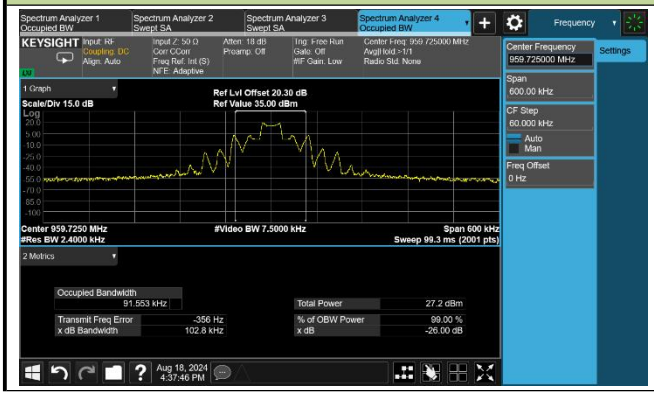



951.875MHz




952.975MHz



| 99% Occupied Bandwidth | |
|---|---|
| 956.125MHz | 956.575MHz |
|  |  |
| 959.725MHz | |
|  | |

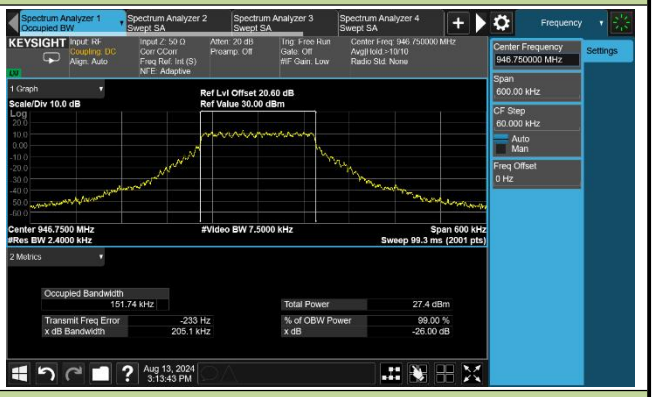
| Test Site | WZ-SR5 | Test Engineer | Lynn Yang |
|---|---|---|---|
| Test Date | 2024-08-13 | Test Mode | Mode 3 |

| Frequency (MHz) | 99% Occupied Bandwidth (kHz) | Limit (kHz) | Result |
|---|---|---|---|
| 941.625 | 151.90 | < 200 | Pass |
| 946.750 | 151.74 | < 200 | Pass |
| 951.875 | 152.17 | < 200 | Pass |
| 952.975 | 152.06 | < 200 | Pass |
| 956.125 | 152.25 | < 200 | Pass |
| 956.575 | 151.78 | < 200 | Pass |
| 959.725 | 152.25 | < 200 | Pass |

99% Occupied Bandwidth

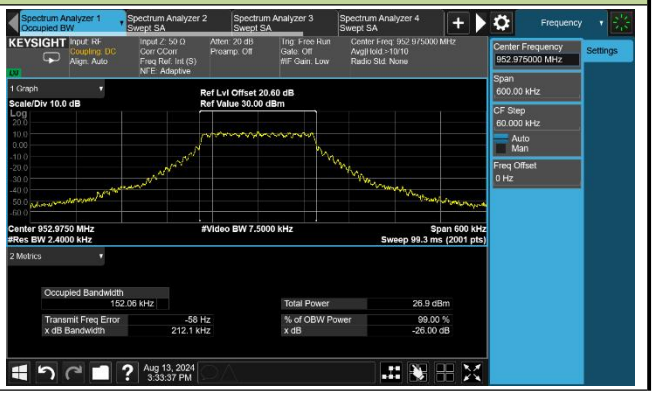
941.625MHz

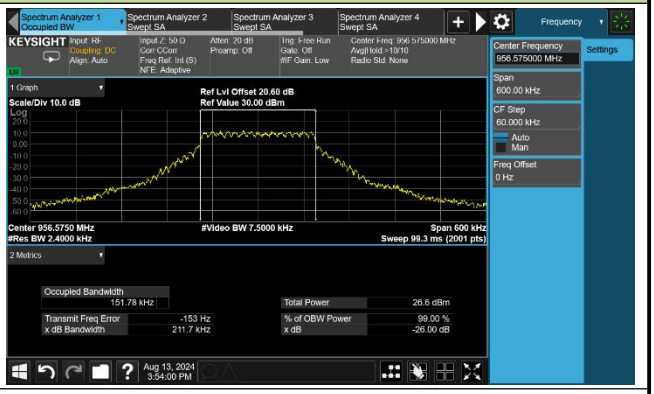
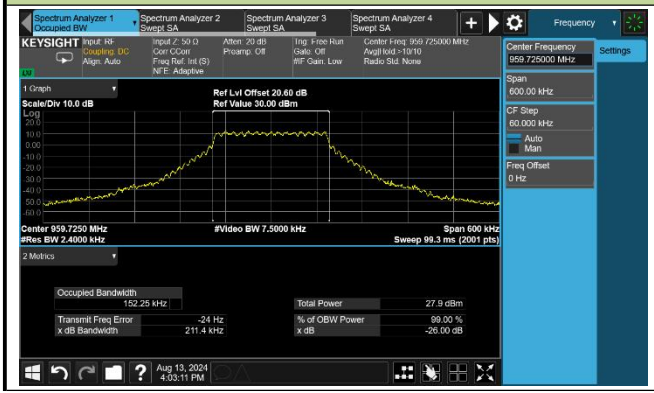

946.750MHz




951.875MHz


952.975MHz



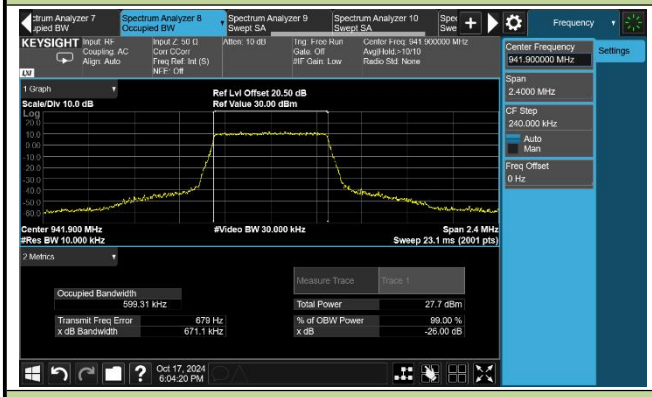
| 99% Occupied Bandwidth | |
|---|---|
| 956.125MHz | 956.575MHz |
|  |  |
| 959.725MHz | |
|  | |

| Test Site | WZ-SR5 | Test Engineer | Lynn Yang |
|---|---|---|---|
| Test Date | 2024-10-17 | Test Mode | Mode 7 |

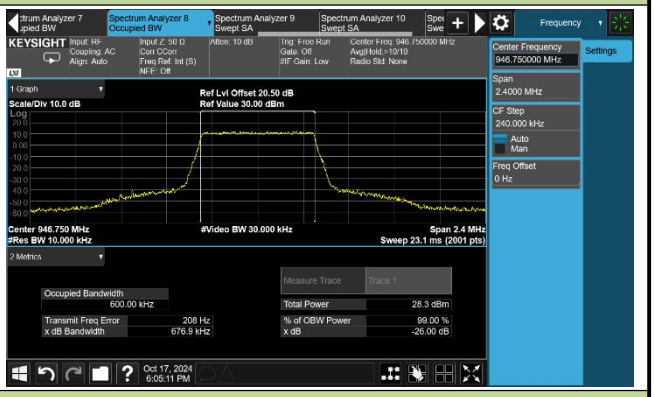
| Frequency (MHz) | 99% Occupied Bandwidth (kHz) | Limit (kHz) | Result |
|---|---|---|---|
| 941.900 | 599.31 | < 6000 | Pass |
| 946.750 | 600.00 | < 6000 | Pass |
| 951.600 | 599.14 | < 6000 | Pass |
| 953.250 | 599.55 | < 6000 | Pass |
| 955.850 | 599.85 | < 6000 | Pass |
| 956.850 | 599.56 | < 6000 | Pass |
| 959.450 | 599.98 | < 6000 | Pass |

99% Occupied Bandwidth

941.900MHz

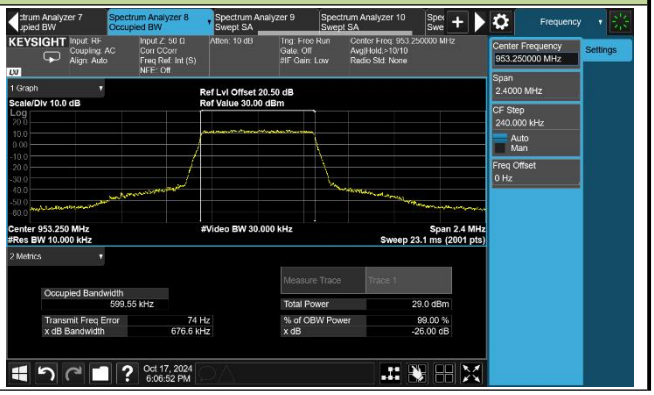


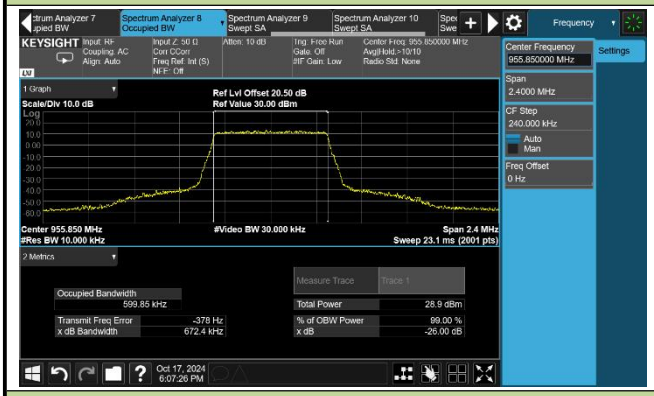
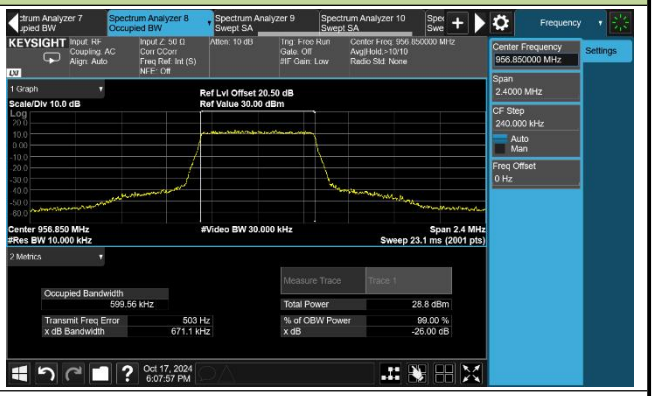
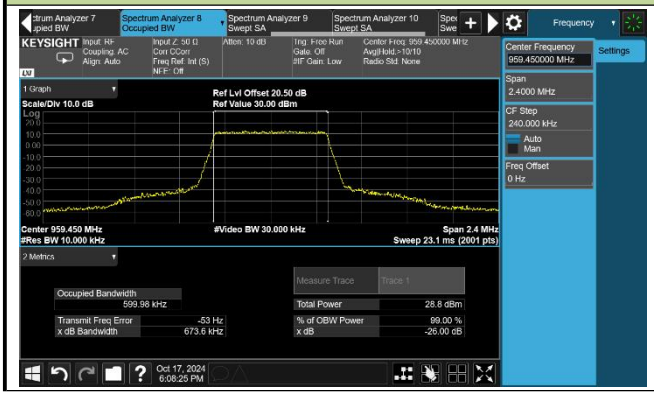

946.750MHz




951.600MHz


953.250MHz



| 99% Occupied Bandwidth | |
|---|---|
| 955.850MHz | 956.850MHz |
|  |  |
| 959.450MHz | |
|  | |

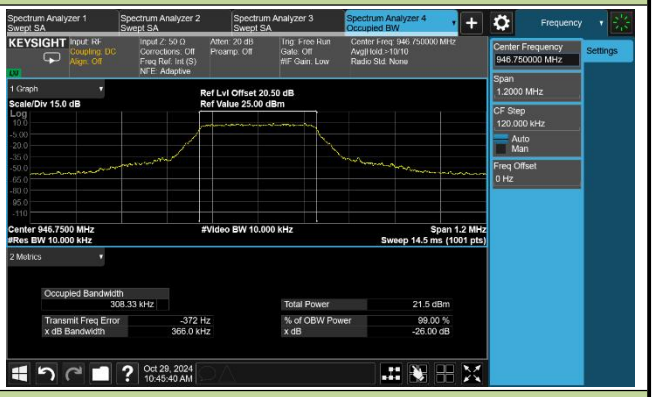
| Test Site | WZ-SR5 | Test Engineer | Lynn Yang |
|---|---|---|---|
| Test Date | 2024-10-29 | Test Mode | Mode 8 |

| Frequency (MHz) | 99% Occupied Bandwidth (kHz) | Limit (kHz) | Result |
|---|---|---|---|
| 941.900 | 308.25 | < 6000 | Pass |
| 946.750 | 308.33 | < 6000 | Pass |
| 951.600 | 308.99 | < 6000 | Pass |
| 953.250 | 308.06 | < 6000 | Pass |
| 955.850 | 308.10 | < 6000 | Pass |
| 956.850 | 308.40 | < 6000 | Pass |
| 959.450 | 308.26 | < 6000 | Pass |

99% Occupied Bandwidth

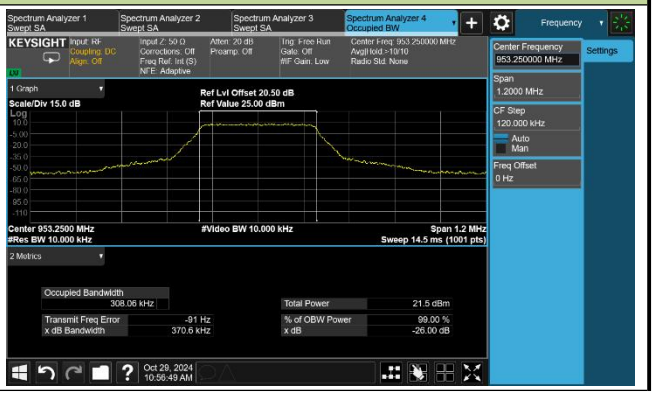
941.900MHz

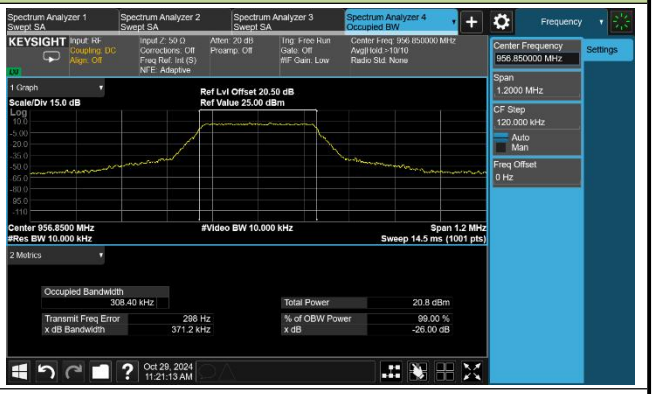
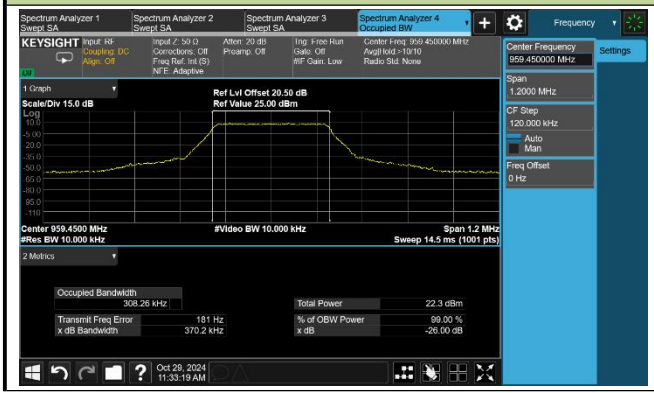

946.750MHz




951.600MHz


953.250MHz



| 99% Occupied Bandwidth | |
|---|---|
| 955.850MHz | 956.850MHz |
|  |  |
| 959.450MHz | |
|  | |

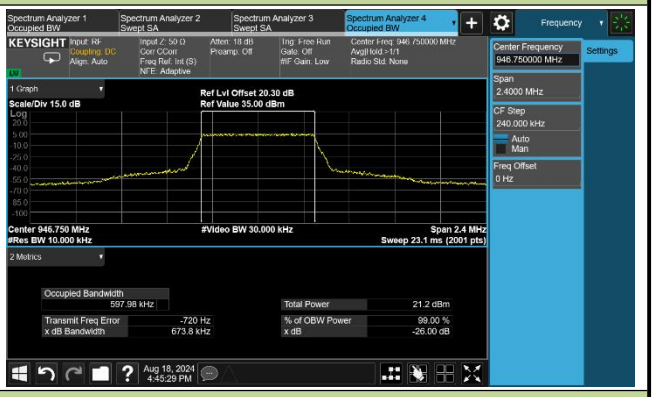
| Test Site | WZ-SR5 | Test Engineer | Lynn Yang |
|---|---|---|---|
| Test Date | 2024-08-18 | Test Mode | Mode 9 |

| Frequency (MHz) | 99% Occupied Bandwidth (kHz) | Limit (kHz) | Result |
|---|---|---|---|
| 941.900 | 599.90 | < 6000 | Pass |
| 946.750 | 597.98 | < 6000 | Pass |
| 951.600 | 598.21 | < 6000 | Pass |
| 953.250 | 597.84 | < 6000 | Pass |
| 955.850 | 598.24 | < 6000 | Pass |
| 956.850 | 598.07 | < 6000 | Pass |
| 959.450 | 596.00 | < 6000 | Pass |

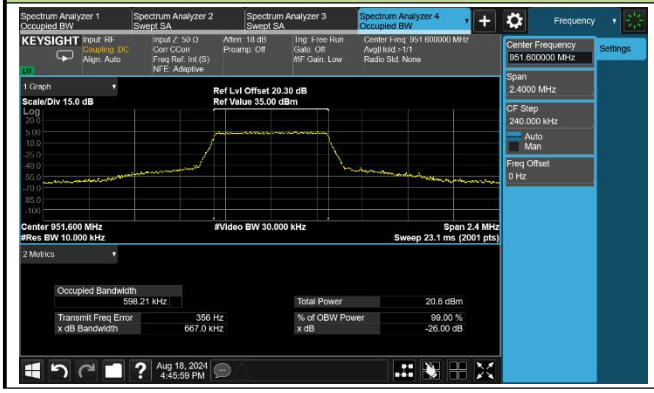
99% Occupied Bandwidth

941.900MHz

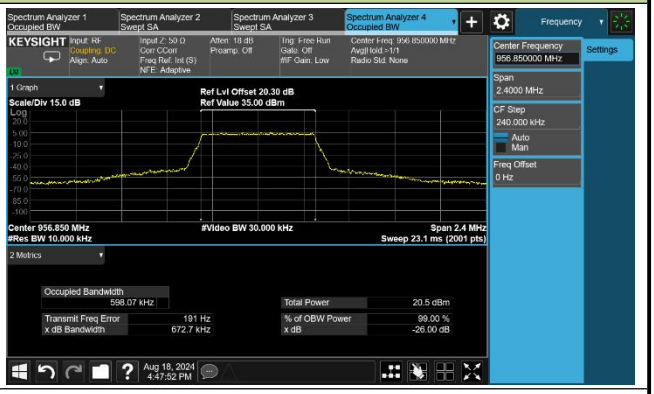
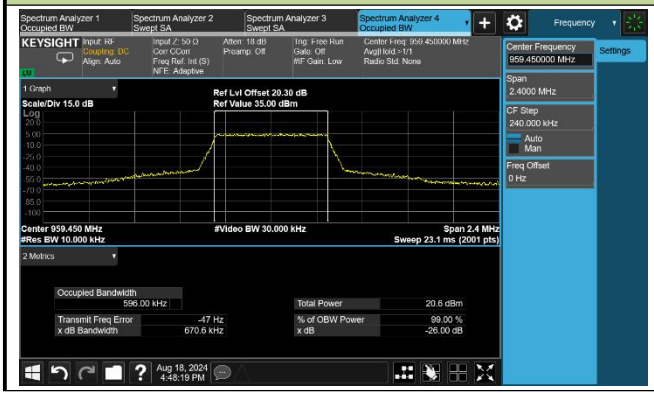

946.750MHz




951.600MHz




953.250MHz

| 99% Occupied Bandwidth | |
|---|---|
| 955.850MHz | 956.850MHz |
|  |  |
| 959.450MHz | |
|  | |

| Test Site | WZ-SR5 | Test Engineer | Lynn Yang |
|---|---|---|---|
| Test Date | 2024-09-13 | Test Mode | Mode 11 |

| Frequency (MHz) | 99% Occupied Bandwidth (kHz) | Limit (kHz) | Result |
|---|---|---|---|
| 941.625 | 180.14 | < 200 | Pass |
| 946.750 | 180.16 | < 200 | Pass |
| 951.875 | 181.06 | < 200 | Pass |
| 952.975 | 181.18 | < 200 | Pass |
| 956.125 | 181.62 | < 200 | Pass |
| 956.575 | 180.65 | < 200 | Pass |
| 959.725 | 181.91 | < 200 | Pass |

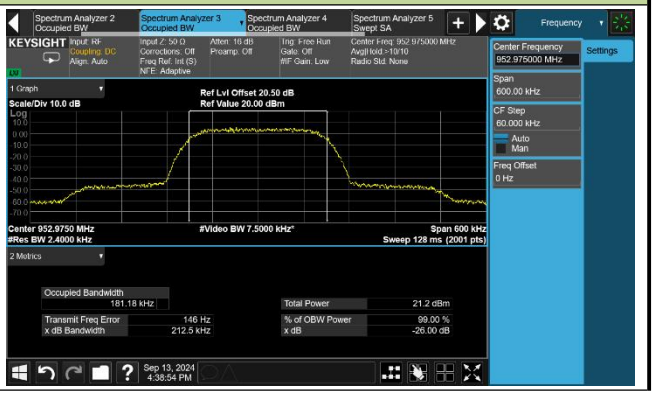
99% Occupied Bandwidth

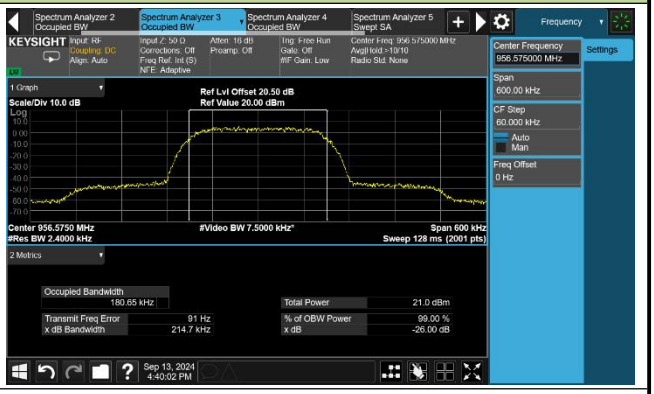
941.625MHz


946.750MHz


951.875MHz

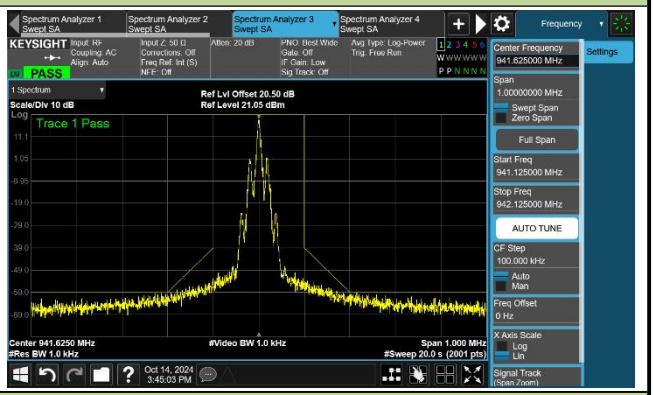
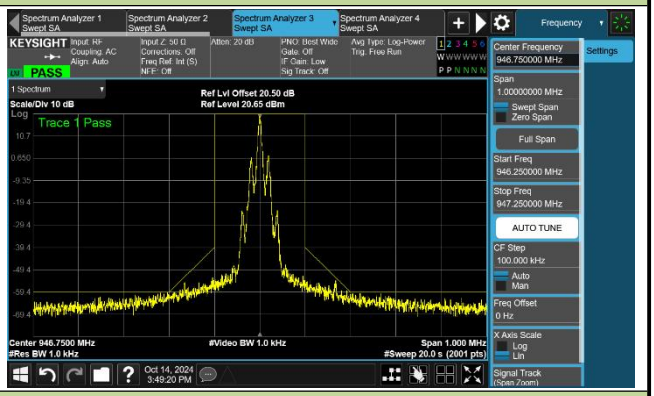
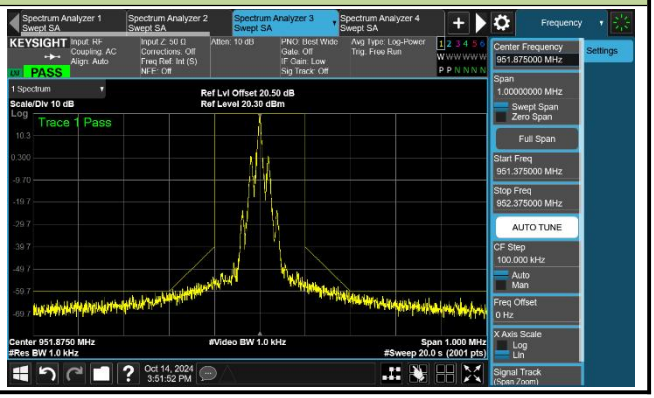

952.975MHz



| 99% Occupied Bandwidth | |
|---|---|
| 956.125MHz | 956.575MHz |
|  |  |
| 959.725MHz | |
|  | |

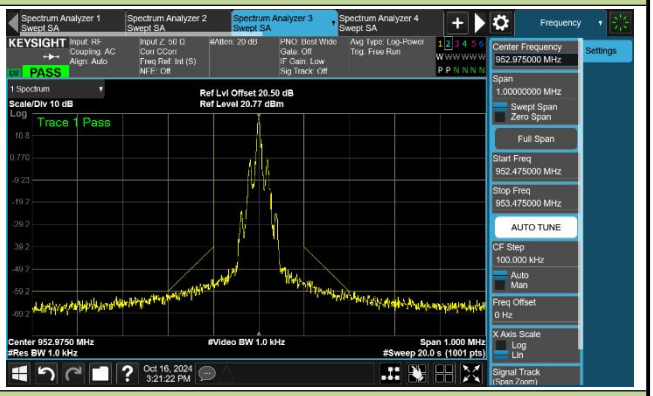
## A.3 Emission Mask Test Result

| Test Site | WZ-SR5 | Test Engineer | Lynn Yang |
|---|---|---|---|
| Test Date | 2024-10-14 ~ 2024-10-16 | Test Mode | Mode 1 |

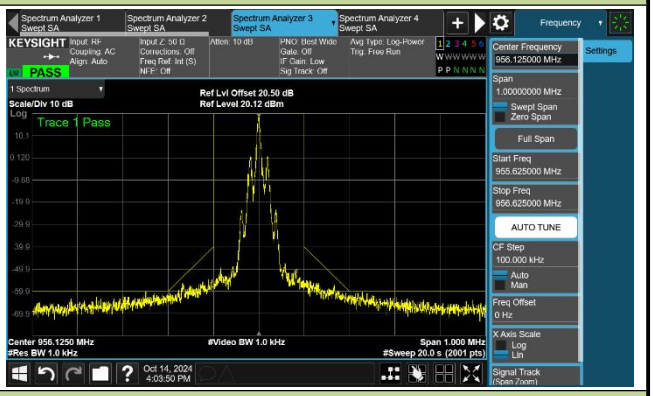
| Port A |
|---|
| Channel 941.625MHz |
|   |
| Channel 946.750 MHz |
|   |
| Channel 951.875 MHz |
|   |

## Port A

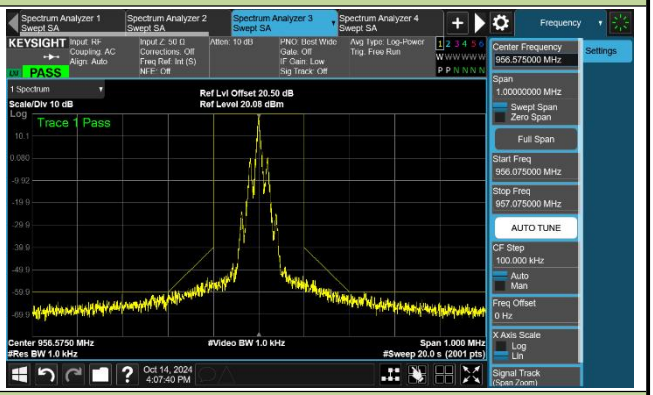
### Channel 952.975MHz

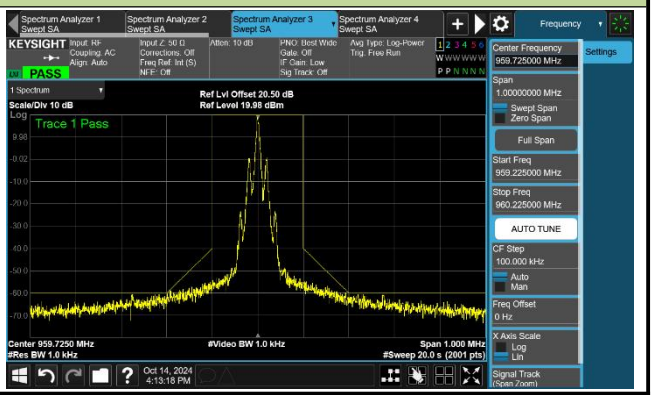

### Channel 956.125MHz


### Channel 956.575MHz

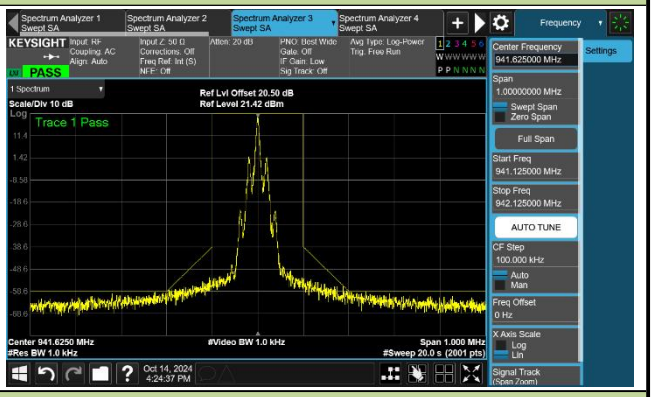




### Channel 959.725MHz

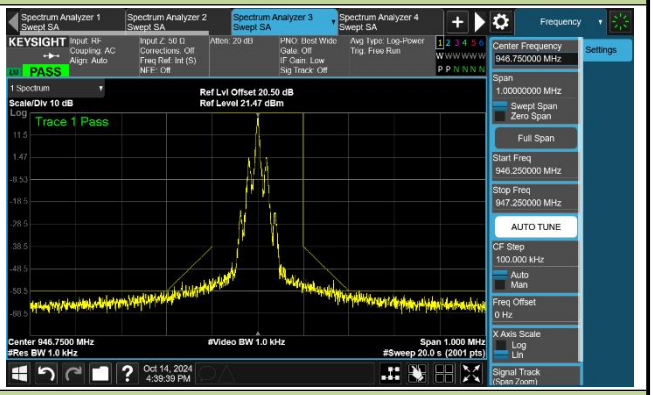



Port B

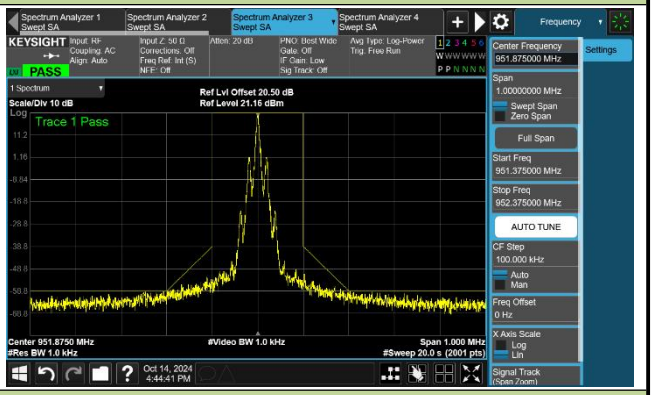
Channel 941.625MHz

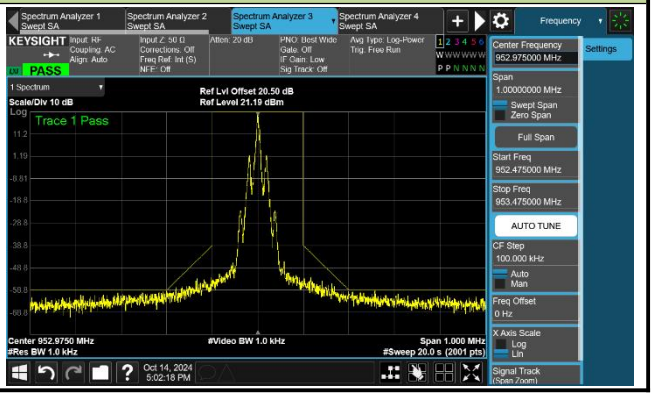

Channel 946.750 MHz

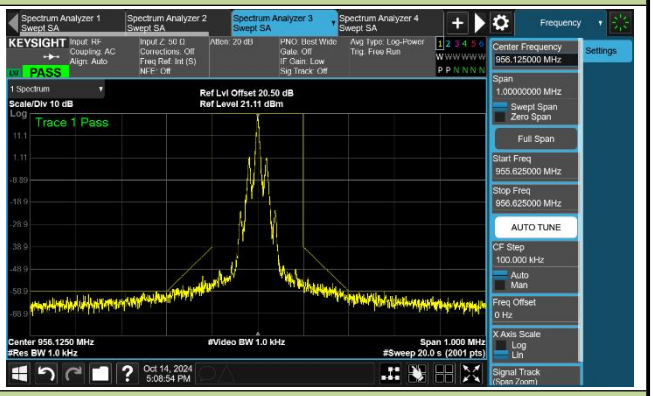
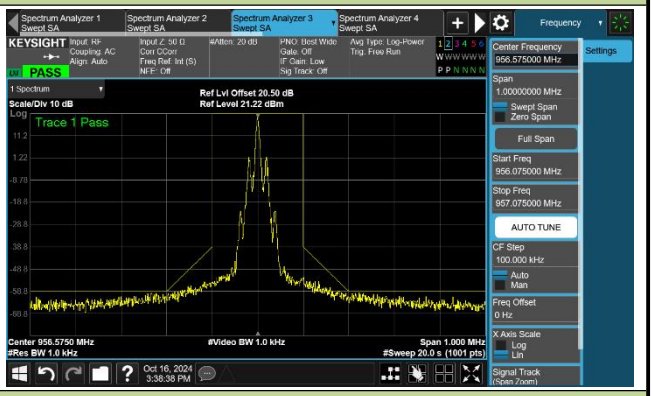
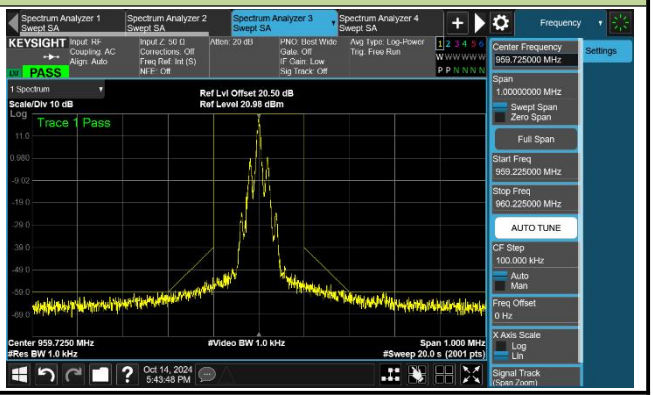




Channel 951.875 MHz

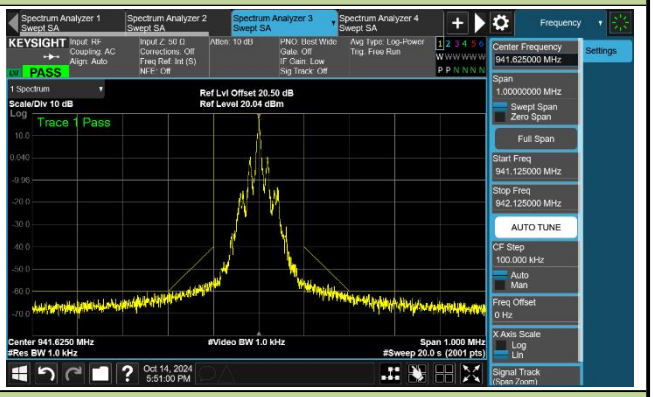

Channel 952.975MHz

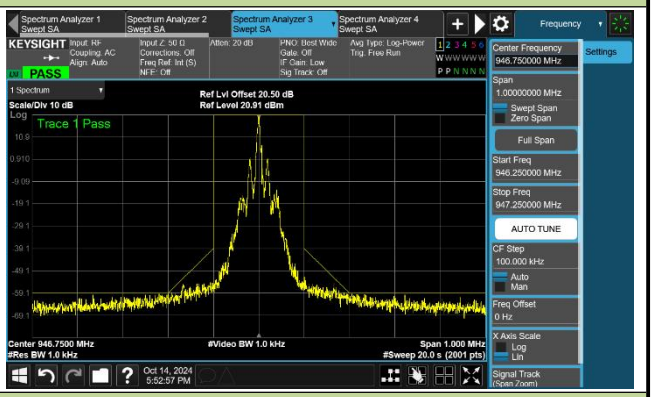
| Port B |
| --- |
| Channel 956.125MHz |
|   |
| Channel 956.575MHz |
|   |
| Channel 959.725MHz |
|   |

## Port C

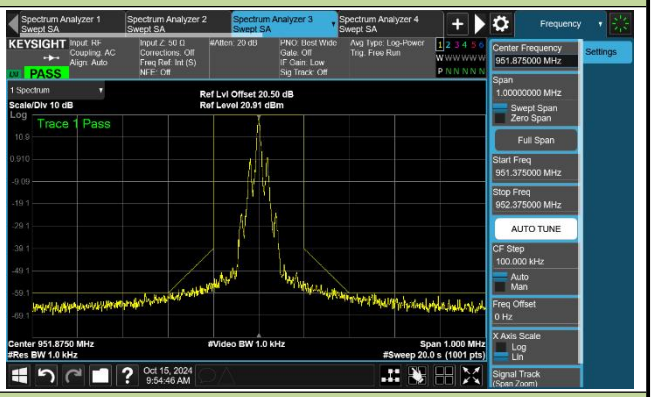
### Channel 941.625MHz


### Channel 946.750 MHz


### Channel 951.875 MHz


### Channel 952.975MHz