# FCC RADIO TEST REPORT

| | | |
|---|---|---|
| **FCC ID** | : | **SLE-WAPN008-1** |
| **Equipment** | : | **Moxa 2.4/4.9/5 GHz** |
| **Brand Name** | : | **MOXA Inc.** |
| **Model No.** | : | **WAPN008-1** |
| **Applicant** | : | **Moxa Inc.**<br>**FL. 4, NO. 135, LANE 235, BAOQIAO RD. XINDIAN DIST., NEW TAIPEI CITY, TAIWAN** |
| **Manufacturer** | : | **Moxa Inc.**<br>**FL. 4, NO. 135, LANE 235, BAOQIAO RD. XINDIAN DIST., NEW TAIPEI CITY, TAIWAN** |
| **FCC Standard** | : | **47 CFR FCC Part 90(Y)** |

**The product was received on Mar. 13, 2019, and testing was started from Jul. 15, 2019 and completed on Aug. 01, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015, ANSI C63.4 and RSS-Gen and shown compliance with the applicable technical standards.**

**The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.**

**The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.**

Approved by: Allen Lin

***SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory***

*No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)*

# Table of Contents

# History of this test report

| Report No. | Version | Description | Issued Date |
|---|---|---|---|
| FL931222 | Rev. 01 | Initial issue of report | Sep. 20, 2019 |
| FL931222 | Rev. 02 | Revise typo | Oct. 07, 2019 |
| FL931222 | Rev. 03 | PSD DG Gain was modified | Oct. 30, 2019 |
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# Summary of Test Result

| Report Clause | Ref. Std. Clause | Test Items | Result (PASS/FAIL) | Remark |
|---|---|---|---|---|
| 3.1 | 2.1049<br>90.209 | Emission Bandwidth | PASS | - |
| 3.2 | 90.1215 | Maximum Conducted Output Power | PASS | - |
| 3.3 | 90.1215 | Power Spectral Density | PASS | - |
| 3.4 | 90.1215 | Peak Excursion | PASS | - |
| 3.5 | 90.210 | Transmit Spectrum Mask | PASS | - |
| 3.6 | 2.1051<br>90.210 | Transmitter Conducted Unwanted Emissions | PASS | - |
| 3.7 | 2.1053<br>90.210 | Transmitter Radiated Unwanted Emissions | PASS | - |
| 3.8 | 2.1055<br>90.213 | Frequency Stability | PASS | - |

| **Declaration of Conformity:** |
|---|
| The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. |
| **Comments and explanations:** |
| None |

**Reviewed by: Jackson Tsai**

**Report Producer: Debby Hung**

# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

| Frequency Range (MHz) | Bandwidth | Ch. Frequency (MHz) | Channel Number |
|---|---|---|---|
| 4940-4990 | 5MHz | 4942.5-4987.5 | 1-18 [10] |
| 4940-4990 | 20MHz | 4950-4980 | 1-18 [7] |

| Band | Mode | BWch (MHz) | Nant |
|---|---|---|---|
| 4940-4990GHz | OFDM | 5 | 2TX |
| 4940-4990GHz | OFDM | 20 | 2TX |

Note:
- BWch is the nominal channel bandwidth.

### 1.1.2 Antenna Information

| Ant. | Brand | Model Name | Antenna Type | Connector | Gain (dBi) | Antenna Qty. |
|---|---|---|---|---|---|---|
| 1 | MOXA | ANT-WDB-ANM-0306 | Dipole | N-type | 6.3 | 2 |
| 2 | MOXA | ANT-WDB-ARM-0202 | Dipole | Reverse SMA | 1.8 | 2 |
| 3 | MOXA | ANT-WDB-ARM-02 | Dipole | Reverse SMA | 0.81 | 2 |
| 4 | MOXA | ANT-WDB-ANM-0502 | Dipole | N-type | 2 | 2 |

(2TX/2RX) MIMO mode is the worst case .

### 1.1.3 Type of EUT

| Operational Condition | | | | | |
|---|---|---|---|---|---|
| **EUT Power Type** | From DC Source | | | | |
| **Power level** | ☐ | High power device | ☒ | Low power device | |
| **Type of EUT** | | | | | |
| ☒ | Stand-alone | | | | |
| ☐ | Combined (EUT where the radio part is fully integrated within another device) | | | | |
| | Combined Equipment - Brand Name / Model No.: | … | | | |
| ☐ | Plug-in radio (EUT intended for a variety of host systems) | | | | |
| | Host System - Brand Name / Model No.: | … | | | |
| ☐ | Other: | | | | |

| Model Name | Test sample S/N number | EP sample S/N number | Remark |
|---|---|---|---|
| WAPN008-1 | TAFHB1071789 | TAGHB1104390 | module |

### 1.1.4 Mode Test Duty Cycle

| Mode | DC | DCF(dB) | T(s) | VBW(Hz) ≥ 1/T |
|---|---|---|---|---|
| OFDM | 0.861 | - | - | - |

## 1.2 Testing Applied Standards

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

- 47 CFR FCC Part 90(Y)
- ANSI C63.26-2015
- KDB 971168 D01 v03r01
- KDB 662911 D01 v02r01

## 1.3 Testing Location Information

| Testing Location | | | |
|---|---|---|---|
| ☒ | HWA YA | ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) | |
| | | TEL : 886-3-327-3456 | FAX : 886-3-327-0973 |
| Test site Designation No. TW1190 with FCC. | | | |
| ☐ | JHUBEI | ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.) | |
| | | TEL : 886-3-656-9065 | FAX : 886-3-656-9085 |
| Test site Designation No. TW0006 with FCC. | | | |

| Test Condition | Test Site No. | Test Engineer | Test Environment | Test Date |
|---|---|---|---|---|
| RF Conducted | TH01-HY | Barry | 23.3~24.2°C / 56.1~59.3% | 15/Jul/2019~01/Aug/2019 |
| Radiated Emission | 03CH02-HY | Patrick | 23.5~24.8°C / 53.5~55.9% | 19/Jul/2019 |

## 1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

| Test Items | Uncertainty | Remark |
|---|---|---|
| Radiated Emission (9kHz ~ 30MHz) | 1.6 dB | Confidence levels of 95% |
| Radiated Emission (30MHz ~ 1,000MHz) | 4.3 dB | Confidence levels of 95% |
| Radiated Emission (1GHz ~ 18GHz) | 3.9 dB | Confidence levels of 95% |
| Radiated Emission (18GHz ~ 40GHz) | 3.5 dB | Confidence levels of 95% |
| Conducted Emission | 1.3 dB | Confidence levels of 95% |
| Temperature | 0.7 ℃ | Confidence levels of 95% |
| Humidity | 4 % | Confidence levels of 95% |

# 2 Test Configuration of EUT

## 2.1 The Worst Case Modulation Configuration

| Condition Item | Abbreviation/Remark | Remark |
|---|---|---|
| UE Conducted | Abbreviation | Remark |
| TnomVnom | Tnom | 20°C |
| - | Vnom | 24V |

## 2.2 The Worst Case Power Setting Parameter

| Test Software | - |
|---|---|

| Mode | Power Setting |
|---|---|
| 4.94-4.99GHz_OFDM_5MHz_Nss2_2TX | - |
| 4942.5MHz | 9 |
| 4967.5MHz | 9 |
| 4987.5MHz | 9 |
| 4.94-4.99GHz_OFDM_20MHz_Nss2_2TX | - |
| 4950MHz | 12 |
| 4965MHz | 12 |
| 4980MHz | 12 |

## 2.3 The Worst Case Measurement Configuration

| The Worst Case Mode for Following Conformance Tests | |
|---|---|
| **Tests Item** | Emission Bandwidth, Maximum Conducted Output Power,<br>Power Spectral Density, Peak Excursion, Transmit Spectrum Mask<br>Transmitter Conducted Unwanted Emissions, Frequency Stability |
| **Test Condition** | Conducted measurement at transmit chains |

| The Worst Case Mode for Following Conformance Tests | | | |
|---|---|---|---|
| **Tests Item** | Emissions in Restricted Frequency Bands | | |
| **Test Condition** | Radiated measurement<br>If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type. | | |
| **Operating Mode < 1GHz** | Normal Link | | |
| 1 | DC Mode | | |
| **Operating Mode > 1GHz** | Normal Link | | |
| **Orthogonal Planes of EUT** | **X Plane** | **Y Plane** | **Z Plane** |
| |  |  |  |
| **Worst Planes of EUT** | | | V |

## 2.4 Support Equipment

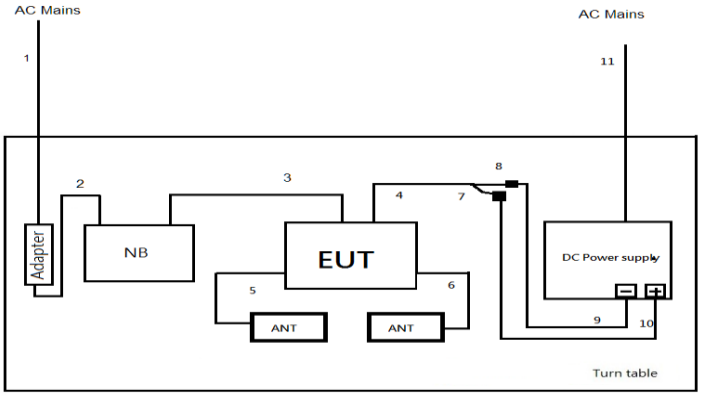
| Support Equipment - RF Conducted | | | | |
|---|---|---|---|---|
| **No.** | **Equipment** | **Brand Name** | **Model Name** | **FCC ID** |
| 1 | Notebook | DELL | E5410 | R33002 / DOC |
| 2 | Adapter for NB | DELL | HA65NM130 | R35737 / DOC |
| 3 | DC Power Supply | GW | GPS-3030DD | - |

| Support Equipment - Radiated Emission | | | | |
|---|---|---|---|---|
| **No.** | **Equipment** | **Brand Name** | **Model Name** | **FCC ID** |
| 1 | DC Power Supply | GW | GPS-3030DD | - |
| 2 | Notebook | DELL | E4300 | - |
| 3 | AC Adapter | DELL | LA90PM111 | - |
| 4 | Client AP | MOXA | AWK-4121A | - |
| 5 | Switching Power Supply | GW | GPS-3030DD | - |

Note.Support equipment No.4 was provided by customer.

## 2.5 Test Setup Diagram

**Test Setup Diagram –Radiated Test**




Client AP

| Item | Connection | Shielded | Length(m) | Remark |
|---|---|---|---|---|
| 1 | AC Power line | No | 1.8 | - |
| 2 | DC Power line | No | 1.5 | - |
| 3 | LAN Cable | No | 2 | - |
| 4 | DC Power line | No | 1.92 | - |
| 5 | Antenna Cable | No | 0.15 | - |
| 6 | Antenna Cable | No | 0.15 | - |
| 7 | DC Power line | No | 0.1 | - |
| 8 | DC Power line | No | 0.1 | - |
| 9 | DC Power line | No | 1 | - |
| 10 | DC Power line | No | 1 | - |
| 11 | AC Power line | No | 1.8 | - |

# 3 Transmitter Test Result

## 3.1 Emission Bandwidth

### 3.1.1 Emission Bandwidth Limit

| Emission Bandwidth Limit |
|---|
| Information only |

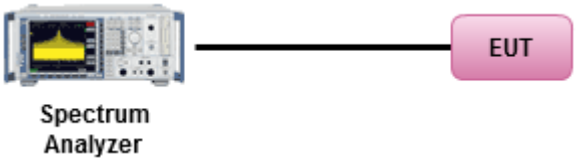
### 3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

### 3.1.3 Test Procedures

| Test Method | |
|---|---|
| ▪ For Occupied Bandwidth | |
| | ☐ Refer as ANSI C63.26 clause 5.4.3 for occupied bandwidth measurement. |
| | ☒ Refer as ANSI C63.26 clause 5.4.4 for occupied bandwidth measurement. |

### 3.1.4 Test Setup

| Emission Bandwidth |
|---|
|   |

### 3.1.5 Test Result of Emission Bandwidth

Refer as Appendix A

# 3.2 Maximum Conducted Output Power

## 3.2.1 Maximum Conducted Output Power Limit

| Maximum Conducted Output Power | | |
|---|---|---|
| **Channel Bandwidth (MHz)** | **Low Power Device (dBm)** | **High Power Device (dBm)** |
| 1 | 7 | 20 |
| 5 | 14 | 27 |
| 10 | 17 | 30 |
| 15 | 18.8 | 31.8 |
| 20 | 20 | 33 |

| Antenna Gain vs Maximum Conducted Output Power | |
|---|---|
| **Low Power Device** | |
| General | If $G_{TX}$ > 9 dBi, then $P_{Out}$ = P – ($G_{TX}$ – 9) dBm |
| **High Power Device** | |
| General | If $G_{TX}$ > 9 dBi, then $P_{Out}$ = P – ($G_{TX}$ – 9) dBm |
| point-to-point or point-to-multipoint | If $G_{TX}$ > 26 dBi, then $P_{Out}$ = P – ($G_{TX}$ – 26) dBm |
| **$P_{Out}$** = reduction maximum conducted output power limit in dBm,<br>**P** = original w/o reduction maximum conducted output power limit in dBm,<br>**$G_{TX}$** = the maximum transmitting antenna directional gain in dBi. | |

## 3.2.2 Measuring Instruments

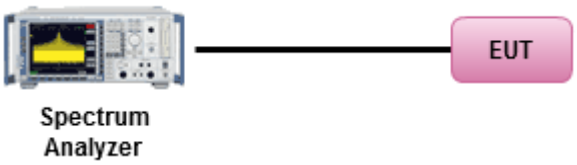
Refer a test equipment and calibration data table in this test report.

## 3.2.3 Test Procedures

| Test Method | |
|---|---|
| ▪ For Power | |
| ☐ | Refer as ANSI C63.26 clause 5.2.4.2 for average power with an average power meter. |
| ☒ | Refer as ANSI C63.26 clause 5.2.4.4 for average power of a broadband signal |

## 3.2.4 Test Setup

**RF Output Power (Spectrum Analyzer)**




## 3.2.5 Test Result of Conducted Output Power

Refer as Appendix B

# 3.3 Power Spectral Density

## 3.3.1 Power Spectral Density Limit

| Power Spectral Density | |
|---|---|
| **Low Power Device (dBm/MHz)** | **High Power Device (dBm/MHz)** |
| 8 | 21 |

| Antenna Gain vs Power Spectral Density | |
|---|---|
| **Low Power Device** | |
| General | If $G_{TX}$ > 9 dBi, then $PSD_{Out}$ = PSD – ($G_{TX}$ – 9) dBm |
| **High Power Device** | |
| General | If $G_{TX}$ > 9 dBi, then $PSD_{Out}$ = PSD – ($G_{TX}$ – 9) dBm |
| point-to-point or point-to-multipoint | If $G_{TX}$ > 26 dBi, then $PSD_{Out}$ = PSD – ($G_{TX}$ – 26) dBm |
| **$PSD_{Out}$** = reduction peak power spectral density limit in dBm,<br>**PSD** = original w/o reduction power spectral density limit in dBm,<br>**$G_{TX}$** = the maximum transmitting antenna directional gain in dBi. | |

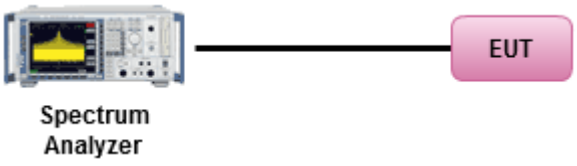
## 3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

## 3.3.3 Test Procedures

| Test Method | |
|---|---|
| ▪ For Power Spectral Density | |
| | ☒ Refer as ANSI C63.26 clause 5.2.4.5 for measuring the average power spectral density. |

## 3.3.4 Test Setup

| Power Spectral Density |
|---|
|  |

## 3.3.5 Test Result of Power Spectral Density

Refer as Appendix C

# 3.4 Peak Excursion

## 3.4.1 Peak Excursion Limit

| Peak Excursion (dB) |
|---|
| 13 |

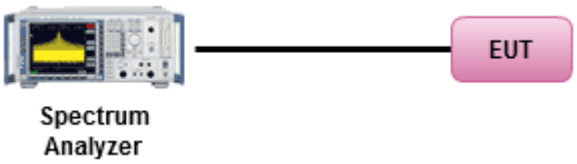
## 3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

## 3.4.3 Test Procedures

| Test Method | |
|---|---|
| ▪ For Peak-to-average power ratio | |
| | ▪ Refer as ANSI C63.26 clause 5.2.3.4 for peak power in a broadband noise-like signal using CCDF. |

## 3.4.4 Test Setup

| Peak Excursion |
|---|
|   |

## 3.4.5 Test Result of Peak Excursion

Refer as Appendix D

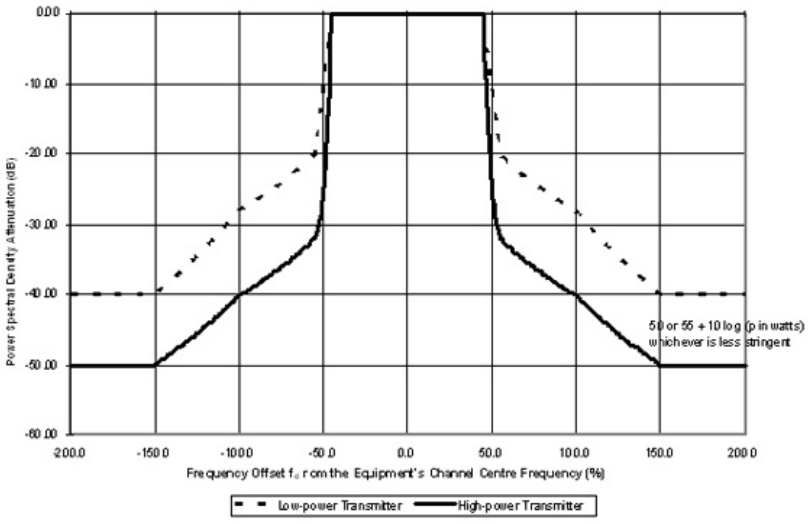
# 3.5 Transmit Spectrum Mask

## 3.5.1 Transmit Spectrum Mask Limit

| Offset Frequency fd (% of the Equipment's Channel Bandwidth) | Minimum Attenuation (dB) | |
|---|---|---|
| | Low Power Transmitter | High Power Transmitter |
| 0 <$f_d$ ≤ 45 | 0 | 0 |
| 45 < $f_d$ ≤ 50 | 219 log ($f_d$/45) | 568 log ($f_d$/45) |
| 50 < $f_d$ ≤ 55 | 10 + 242 log ($f_d$/50) | 26 + 145 log ($f_d$/50) |
| 55 < $f_d$ ≤ 100 | 20 + 31 log ($f_d$/55) | 32 + 31 log ($f_d$/55) |
| 100 < $f_d$ ≤ 150 | 28 + 68 log ($f_d$/100) | 40 + 57 log ($f_d$/100) |
| $f_d$ > 150 | 40 | whichever is less stringent 50 or 55 + 10 log P [-25dBm] |

Where: $f_d$ (%) = ((f-$f_c$)/channel bandwidth) x 100;
P: transmitter's output power (in watts)
The 0 dB reference level in the unwanted emission mask is the maximum in-band power spectral density measured in terms of average power in the equipment's channel bandwidth, using a resolution bandwidth of as close as possible to, without being less than 1% of the occupied bandwidth, and a video bandwidth of 30 kHz. The unwanted power spectral density emissions are also measured using the same resolution and video bandwidths used in measuring the reference in-band power spectral density.

Figure 1: Unwanted Emission Mask for Low- and High-power Transmitters



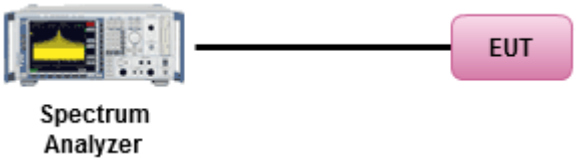

## 3.5.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

### 3.5.3 Test Procedures

| Test Method |
|---|
| ▪ For Conducted Emissions Mask |
| Refer as ANSI C63.26-2015, clause 5.7.3 for conducted measurement. |

### 3.5.4 Test Setup

| Transmit Spectrum Mask |
|---|
|  |



### 3.5.5 Test Result of Transmit Spectrum Mask

Refer as Appendix E

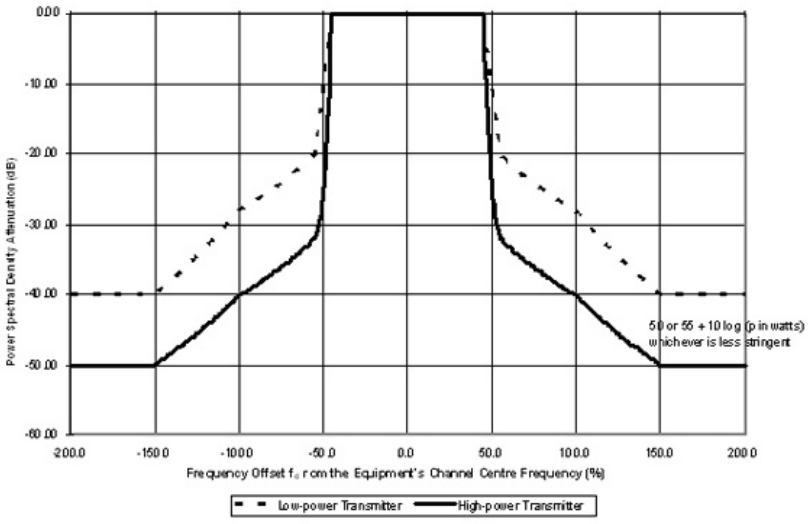
# 3.6 Transmitter Conducted Unwanted Emissions

## 3.6.1 Transmitter Conducted Unwanted Emissions Limit

| Offset Frequency fd (% of the Equipment's Channel Bandwidth) | Minimum Attenuation (dB) | |
|---|---|---|
| | Low Power Transmitter | High Power Transmitter |
| $0 < f_d \leq 45$ | 0 | 0 |
| $45 < f_d \leq 50$ | 219 log ($f_d$/45) | 568 log ($f_d$/45) |
| $50 < f_d \leq 55$ | 10 + 242 log ($f_d$/50) | 26 + 145 log ($f_d$/50) |
| $55 < f_d \leq 100$ | 20 + 31 log ($f_d$/55) | 32 + 31 log ($f_d$/55) |
| $100 < f_d \leq 150$ | 28 + 68 log ($f_d$/100) | 40 + 57 log ($f_d$/100) |
| $f_d > 150$ | 40 | whichever is less stringent 50 or 55 + 10 log P [-25dBm] |

Where: $f_d$ (%) = ((f-$f_c$)/channel bandwidth) x 100;
p: transmitter's output power (in watts)
The 0 dB reference level in the unwanted emission mask is the maximum in-band power spectral density measured in terms of average power in the equipment's channel bandwidth, using a resolution bandwidth of as close as possible to, without being less than 1% of the occupied bandwidth, and a video bandwidth of 30 kHz. The unwanted power spectral density emissions are also measured using the same resolution and video bandwidths used in measuring the reference in-band power spectral density.

Figure 1: Unwanted Emission Mask for Low- and High-power Transmitters



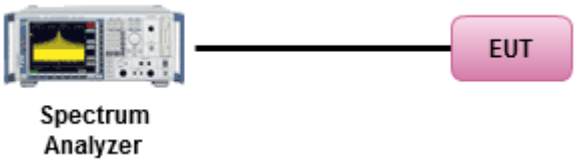
### 3.6.2 Measuring Instruments

Refer test equipment and calibration data list in test report clause 4.

### 3.6.3 Test Procedures

| |
|---|
| ▪ For Conducted Unwanted Emissions |
| Refer as ANSI C63.26-2015, clause 5.7.4 for conducted measurement. |

### 3.6.4 Test Setup

| Transmitter Conducted Unwanted Emissions |
|---|
|   Spectrum Analyzer |

### 3.6.5 Test Result of Transmitter Conducted Unwanted Emissions

Refer as Appendix F

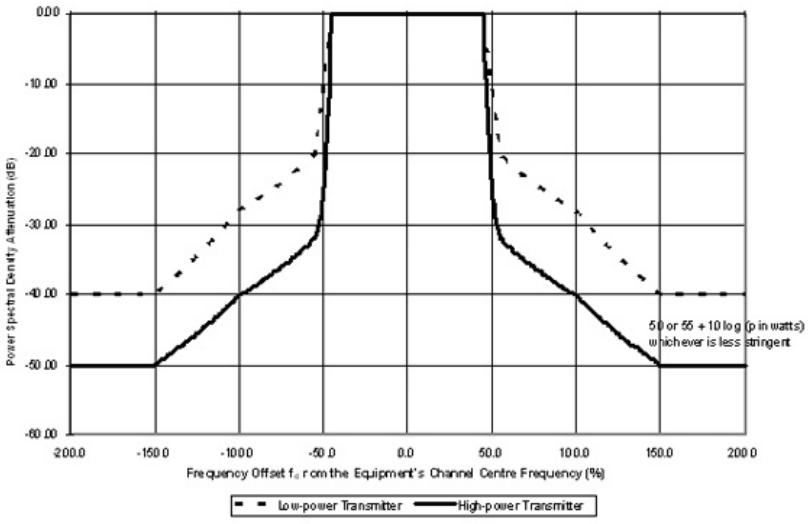
# 3.7 Transmitter Radiated Unwanted Emissions

## 3.7.1 Transmitter Radiated Unwanted Emissions Limit

| Offset Frequency fd (% of the Equipment's Channel Bandwidth) | Minimum Attenuation (dB) | |
|---|---|---|
| | Low Power Transmitter | High Power Transmitter |
| $0 < f_d \leq 45$ | 0 | 0 |
| $45 < f_d \leq 50$ | 219 log ($f_d$/45) | 568 log ($f_d$/45) |
| $50 < f_d \leq 55$ | 10 + 242 log ($f_d$/50) | 26 + 145 log ($f_d$/50) |
| $55 < f_d \leq 100$ | 20 + 31 log ($f_d$/55) | 32 + 31 log ($f_d$/55) |
| $100 < f_d \leq 150$ | 28 + 68 log ($f_d$/100) | 40 + 57 log ($f_d$/100) |
| $f_d > 150$ | 40 | whichever is less stringent 50 or 55 + 10 log P [-25dBm] |

Where: $f_d$ (%) = ((f-$f_c$)/channel bandwidth) x 100;
P: transmitter's output power (in watts)
The 0 dB reference level in the unwanted emission mask is the maximum in-band power spectral density measured in terms of average power in the equipment's channel bandwidth, using a resolution bandwidth of as close as possible to, without being less than 1% of the occupied bandwidth, and a video bandwidth of 30 kHz. The unwanted power spectral density emissions are also measured using the same resolution and video bandwidths used in measuring the reference in-band power spectral density.

Figure 1: Unwanted Emission Mask for Low- and High-power Transmitters



### 3.7.2 Measuring Instruments

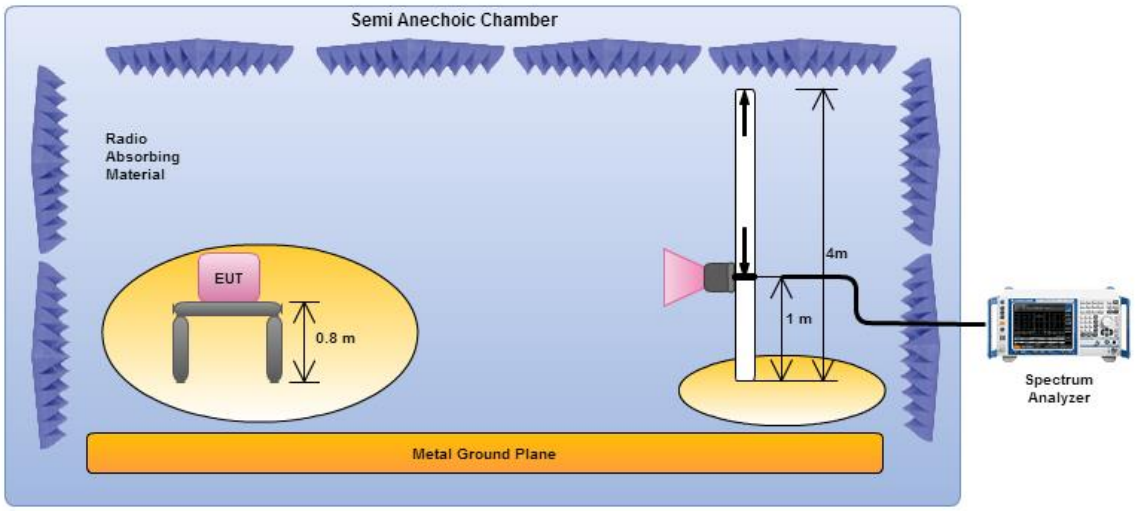
Refer a test equipment and calibration data table in this test report.

### 3.7.3 Test Procedures

| Test Method |
|---|
| ▪ Refer as ANSI C63.26-2015, clause 5.5.3 for radiated measurement. |

### 3.7.4 Test Setup

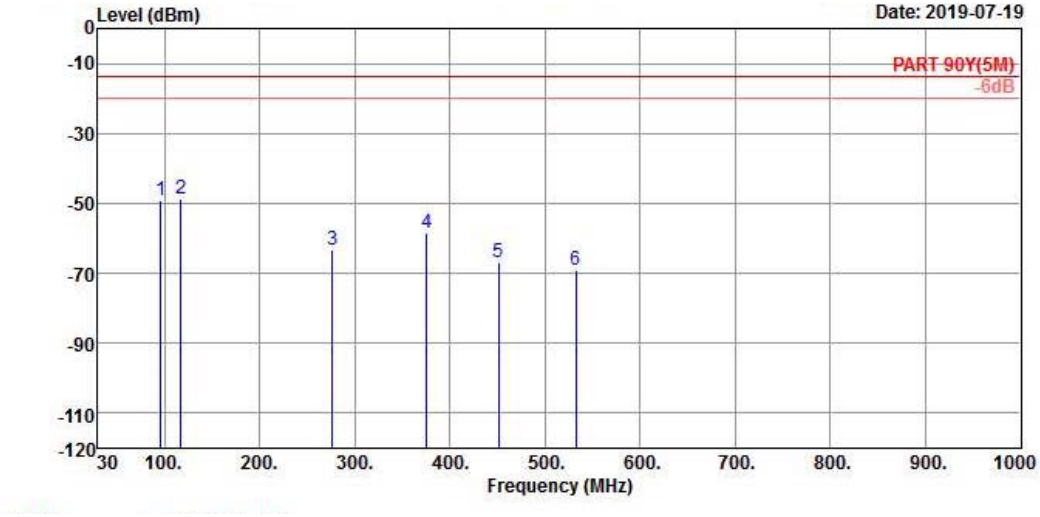
**Transmitter Radiated Unwanted Emissions**




Magnetic field tests shall be performed in the frequency range of 9 kHz to 30 MHz using a calibrated loop antenna. Electric field tests shall be performed in the frequency range of 30 MHz to 1000 MHz using a calibrated bi-log antenna and the frequency range of 1 GHz to 40 GHz using a calibrated horn antenna.

## 3.7.5 Test Result of Transmitter Radiated Unwanted Emissions (Below 1GHz)

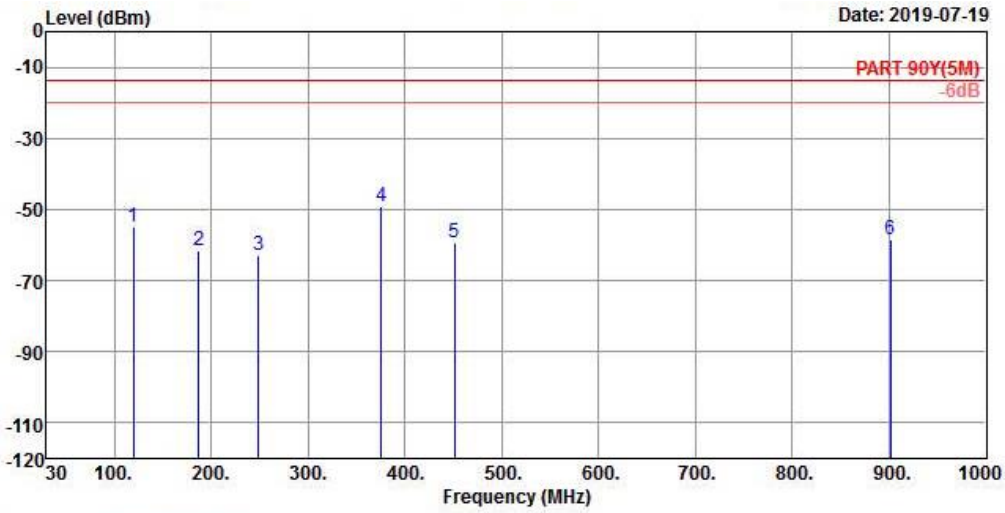
| Transmitter Radiated Unwanted Emissions (Below 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 5M | **Test Freq. (MHz)** | 4942.5 |
| **Operating Function** | Transmit | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 95.960000 | -49.06 | -35.34 | -13.72 | -49.81 | 15.28 | 1.44 | 27.77 | Average |
| 2 | 117.30000 | -48.92 | -35.20 | -13.72 | -51.89 | 17.26 | 1.64 | 27.73 | Average |
| 3 | 276.38000 | -63.18 | -49.46 | -13.72 | -68.76 | 18.10 | 2.85 | 27.17 | Average |
| 4 | 375.32000 | -58.62 | -44.90 | -13.72 | -65.92 | 20.03 | 3.15 | 27.68 | Average |
| 5 | 450.98000 | -67.07 | -53.35 | -13.72 | -75.78 | 21.99 | 3.23 | 28.31 | Average |
| 6 | 532.46000 | -68.92 | -55.20 | -13.72 | -78.83 | 23.18 | 3.49 | 28.56 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

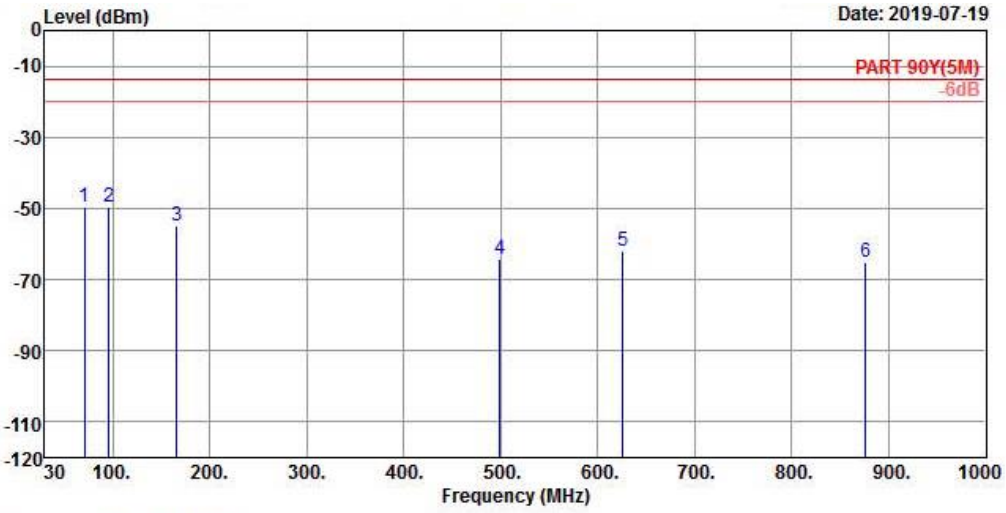
| Transmitter Radiated Unwanted Emissions (Below 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 5M | **Test Freq. (MHz)** | 4942.5 |
| **Operating Function** | Transmit | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 119.24000 | -55.08 | -41.36 | -13.72 | -58.04 | 17.24 | 1.65 | 27.73 | Average |
| 2 | 187.14000 | -61.55 | -47.83 | -13.72 | -62.23 | 14.12 | 2.21 | 27.45 | Average |
| 3 | 249.22000 | -62.78 | -49.06 | -13.72 | -67.60 | 17.47 | 2.73 | 27.18 | Average |
| 4 | 375.32000 | -49.02 | -35.30 | -13.72 | -56.32 | 20.03 | 3.15 | 27.68 | Average |
| 5 | 450.98000 | -59.18 | -45.46 | -13.72 | -67.89 | 21.99 | 3.23 | 28.31 | Average |
| 6 | 901.06000 | -58.64 | -44.92 | -13.72 | -72.71 | 25.61 | 4.35 | 27.69 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

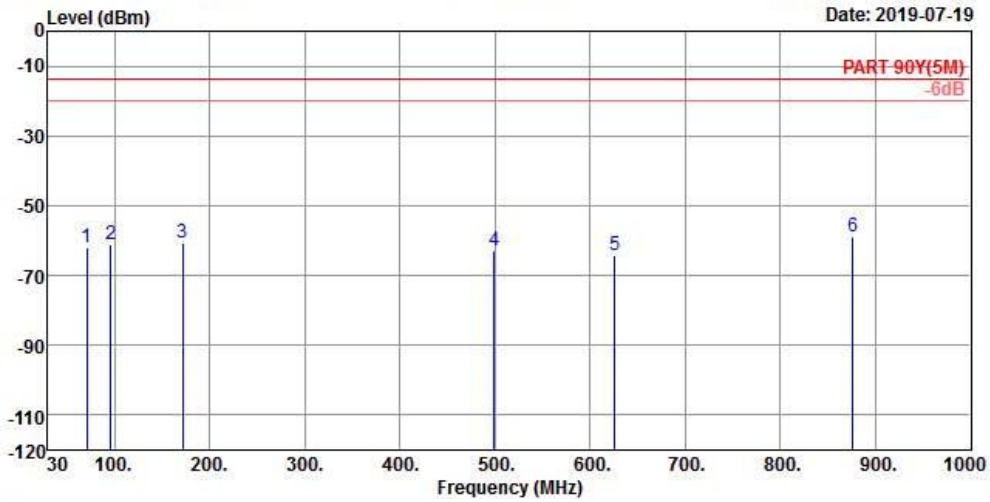
| Transmitter Radiated Unwanted Emissions (Below 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 5M | **Test Freq. (MHz)** | 4967.5 |
| **Operating Function** | Transmit | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 70.740010 | -49.58 | -35.86 | -13.72 | -46.14 | 11.40 | 1.08 | 27.72 | Average |
| 2 | 95.960000 | -49.74 | -36.02 | -13.72 | -50.49 | 15.28 | 1.44 | 27.77 | Average |
| 3 | 165.80000 | -54.83 | -41.11 | -13.72 | -56.03 | 14.95 | 2.00 | 27.55 | Average |
| 4 | 499.48000 | -64.00 | -50.28 | -13.72 | -73.39 | 22.69 | 3.31 | 28.41 | Average |
| 5 | 625.58000 | -61.93 | -48.21 | -13.72 | -73.18 | 24.24 | 3.74 | 28.53 | Average |
| 6 | 875.84000 | -65.22 | -51.50 | -13.72 | -78.98 | 25.53 | 4.30 | 27.87 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

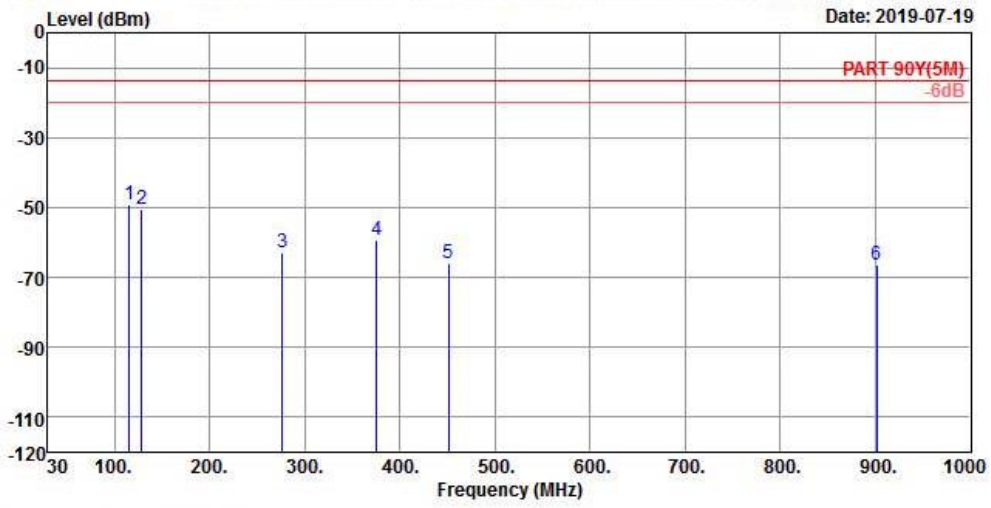
| Transmitter Radiated Unwanted Emissions (Below 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 5M | **Test Freq. (MHz)** | 4967.5 |
| **Operating Function** | Transmit | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 70.740010 | -62.02 | -48.30 | -13.72 | -58.58 | 11.40 | 1.08 | 27.72 | Average |
| 2 | 95.960000 | -60.99 | -47.27 | -13.72 | -61.74 | 15.28 | 1.44 | 27.77 | Average |
| 3 | 171.62000 | -60.51 | -46.79 | -13.72 | -61.48 | 14.65 | 2.04 | 27.52 | Average |
| 4 | 499.48000 | -62.74 | -49.02 | -13.72 | -72.13 | 22.69 | 3.31 | 28.41 | Average |
| 5 | 625.58000 | -64.29 | -50.57 | -13.72 | -75.54 | 24.24 | 3.74 | 28.53 | Average |
| 6 | 875.84000 | -58.81 | -45.09 | -13.72 | -72.57 | 25.53 | 4.30 | 27.87 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

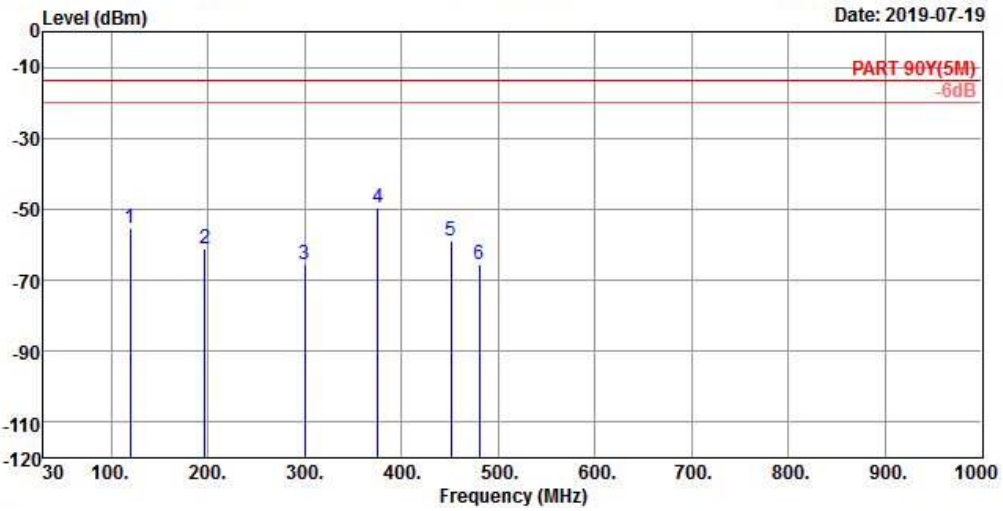
| Transmitter Radiated Unwanted Emissions (Below 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 5M | **Test Freq. (MHz)** | 4987.5 |
| **Operating Function** | Transmit | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 115.36000 | -49.09 | -35.37 | -13.72 | -52.06 | 17.28 | 1.63 | 27.74 | Average |
| 2 | 128.94000 | -50.60 | -36.88 | -13.72 | -53.37 | 16.97 | 1.70 | 27.70 | Average |
| 3 | 276.38000 | -62.85 | -49.13 | -13.72 | -68.43 | 18.10 | 2.85 | 27.17 | Average |
| 4 | 375.32000 | -59.14 | -45.42 | -13.72 | -66.44 | 20.03 | 3.15 | 27.68 | Average |
| 5 | 450.98000 | -65.83 | -52.11 | -13.72 | -74.54 | 21.99 | 3.23 | 28.31 | Average |
| 6 | 901.06000 | -66.45 | -52.73 | -13.72 | -80.52 | 25.61 | 4.35 | 27.69 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

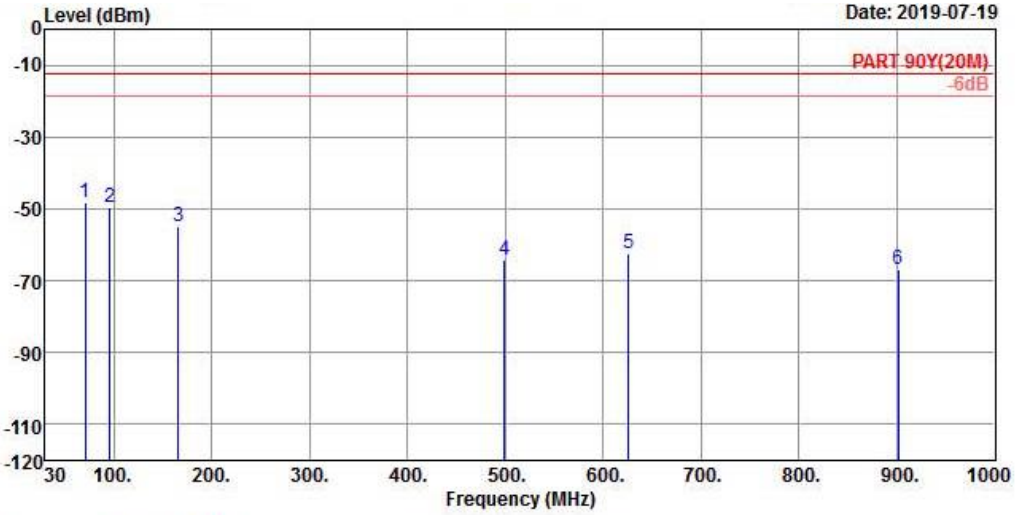
| Transmitter Radiated Unwanted Emissions (Below 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 5M | **Test Freq. (MHz)** | 4987.5 |
| **Operating Function** | Transmit | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 119.24000 | -55.24 | -41.52 | -13.72 | -58.20 | 17.24 | 1.65 | 27.73 | Average |
| 2 | 196.84000 | -60.96 | -47.24 | -13.72 | -61.97 | 14.32 | 2.29 | 27.40 | Average |
| 3 | 299.66000 | -65.36 | -51.64 | -13.72 | -71.25 | 18.26 | 3.00 | 27.17 | Average |
| 4 | 375.32000 | -49.55 | -35.83 | -13.72 | -56.85 | 20.03 | 3.15 | 27.68 | Average |
| 5 | 450.98000 | -58.82 | -45.10 | -13.72 | -67.53 | 21.99 | 3.23 | 28.31 | Average |
| 6 | 480.08000 | -65.49 | -51.77 | -13.72 | -74.85 | 22.65 | 3.28 | 28.37 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

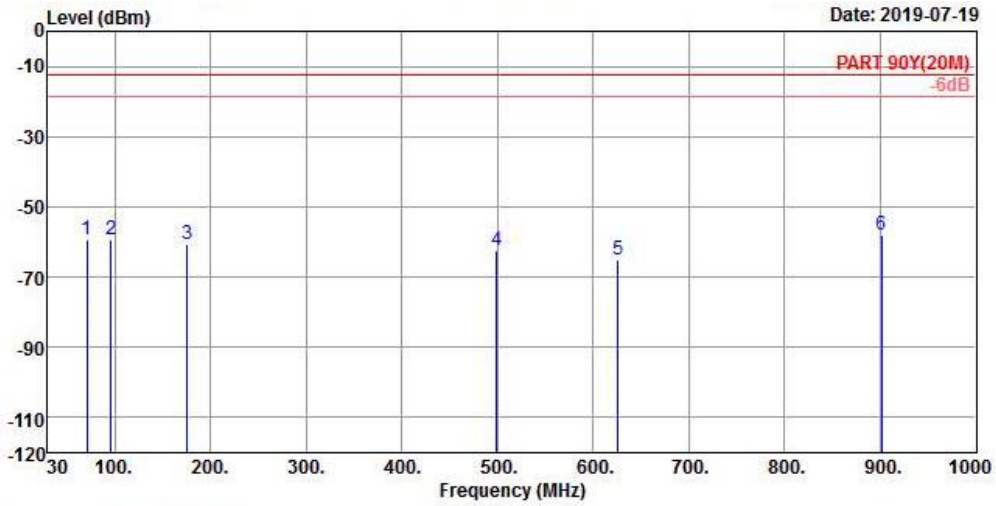
| Transmitter Radiated Unwanted Emissions (Below 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 20M | **Test Freq. (MHz)** | 4950 |
| **Operating Function** | Transmit | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 70.740010 | -48.11 | -35.59 | -12.52 | -44.67 | 11.40 | 1.08 | 27.72 | Average |
| 2 | 95.960000 | -49.65 | -37.13 | -12.52 | -50.40 | 15.28 | 1.44 | 27.77 | Average |
| 3 | 165.80000 | -54.96 | -42.44 | -12.52 | -56.16 | 14.95 | 2.00 | 27.55 | Average |
| 4 | 499.48000 | -64.24 | -51.72 | -12.52 | -73.63 | 22.69 | 3.31 | 28.41 | Average |
| 5 | 625.58000 | -62.37 | -49.85 | -12.52 | -73.62 | 24.24 | 3.74 | 28.53 | Average |
| 6 | 901.06000 | -66.84 | -54.32 | -12.52 | -80.91 | 25.61 | 4.35 | 27.69 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

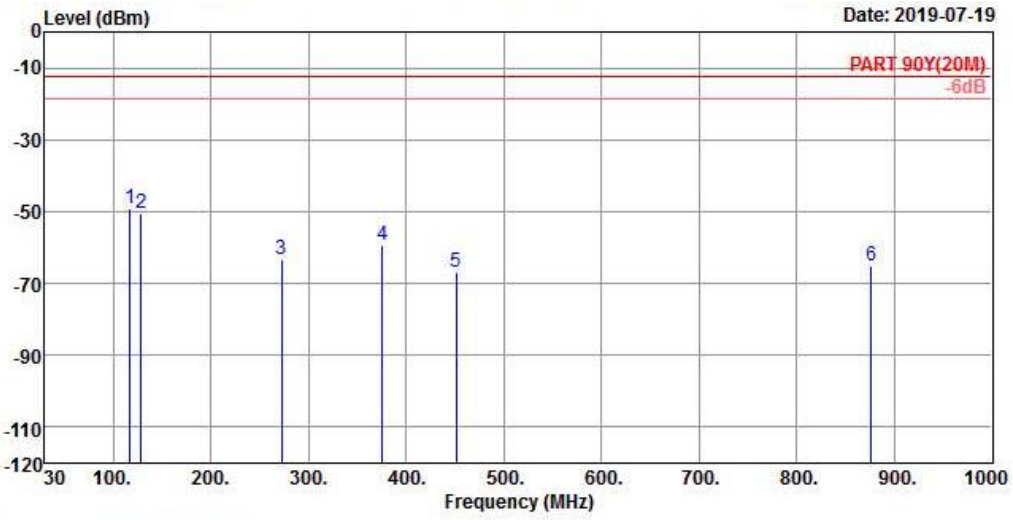
| Transmitter Radiated Unwanted Emissions (Below 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 20M | **Test Freq. (MHz)** | 4950 |
| **Operating Function** | Transmit | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 70.740010 | -59.22 | -46.70 | -12.52 | -55.78 | 11.40 | 1.08 | 27.72 | Average |
| 2 | 95.960000 | -59.36 | -46.84 | -12.52 | -60.11 | 15.28 | 1.44 | 27.77 | Average |
| 3 | 175.50000 | -60.72 | -48.20 | -12.52 | -61.61 | 14.52 | 2.07 | 27.50 | Average |
| 4 | 499.48000 | -62.45 | -49.93 | -12.52 | -71.84 | 22.69 | 3.31 | 28.41 | Average |
| 5 | 625.58000 | -65.27 | -52.75 | -12.52 | -76.52 | 24.24 | 3.74 | 28.53 | Average |
| 6 | 901.06000 | -58.22 | -45.70 | -12.52 | -72.29 | 25.61 | 4.35 | 27.69 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

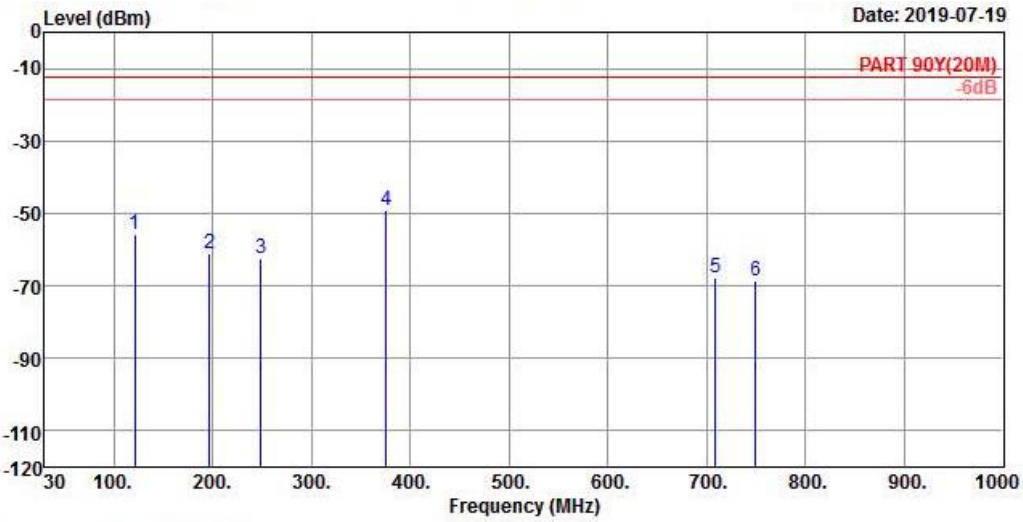
| Transmitter Radiated Unwanted Emissions (Below 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 20M | **Test Freq. (MHz)** | 4965 |
| **Operating Function** | Transmit | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 117.30000 | -49.11 | -36.59 | -12.52 | -52.08 | 17.26 | 1.64 | 27.73 | Average |
| 2 | 128.94000 | -50.68 | -38.16 | -12.52 | -53.45 | 16.97 | 1.70 | 27.70 | Average |
| 3 | 272.50000 | -63.51 | -50.99 | -12.52 | -69.19 | 18.24 | 2.82 | 27.18 | Average |
| 4 | 375.32000 | -59.47 | -46.95 | -12.52 | -66.77 | 20.03 | 3.15 | 27.68 | Average |
| 5 | 450.98000 | -66.74 | -54.22 | -12.52 | -75.45 | 21.99 | 3.23 | 28.31 | Average |
| 6 | 875.84000 | -65.21 | -52.69 | -12.52 | -78.97 | 25.53 | 4.30 | 27.87 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

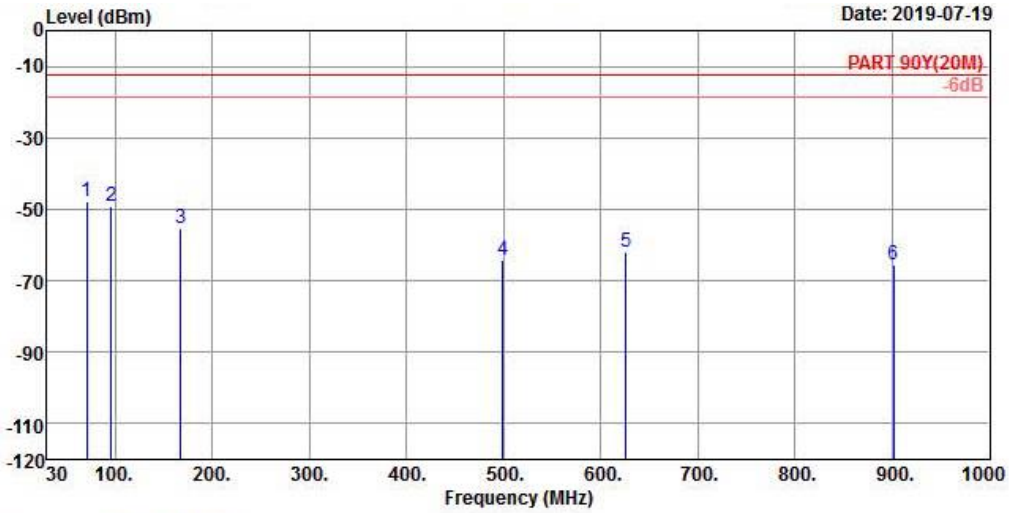
| Transmitter Radiated Unwanted Emissions (Below 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 20M | **Test Freq. (MHz)** | 4965 |
| **Operating Function** | Transmit | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 121.18000 | -55.62 | -43.10 | -12.52 | -58.55 | 17.20 | 1.66 | 27.73 | Average |
| 2 | 196.84000 | -61.14 | -48.62 | -12.52 | -62.15 | 14.32 | 2.29 | 27.40 | Average |
| 3 | 249.22000 | -62.24 | -49.72 | -12.52 | -67.06 | 17.47 | 2.73 | 27.18 | Average |
| 4 | 375.32000 | -49.20 | -36.68 | -12.52 | -56.50 | 20.03 | 3.15 | 27.68 | Average |
| 5 | 709.00000 | -67.86 | -55.34 | -12.52 | -79.54 | 24.19 | 4.06 | 28.37 | Average |
| 6 | 749.74010 | -68.79 | -56.27 | -12.52 | -81.28 | 24.91 | 4.12 | 28.34 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

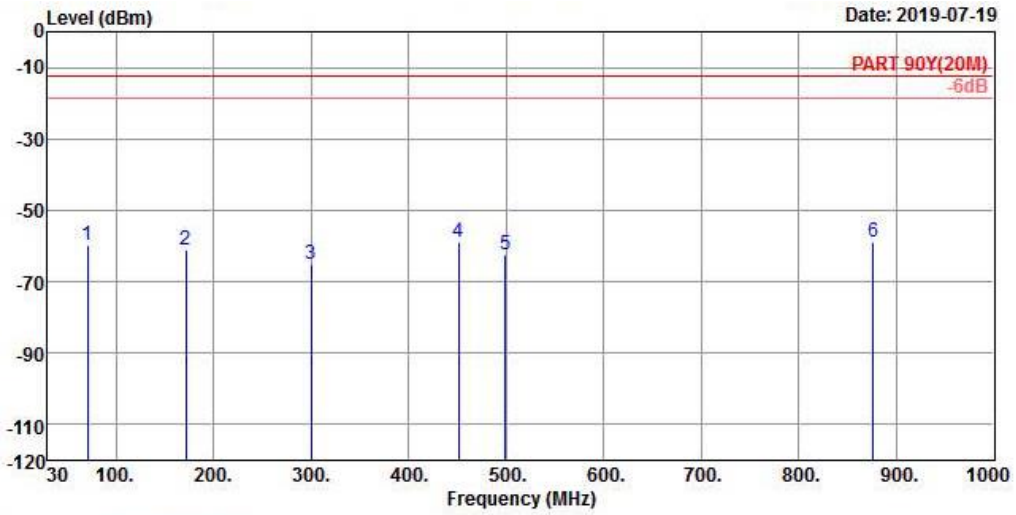
| Transmitter Radiated Unwanted Emissions (Below 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 20M | **Test Freq. (MHz)** | 4980 |
| **Operating Function** | Transmit | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 70.740010 | -47.79 | -35.27 | -12.52 | -44.35 | 11.40 | 1.08 | 27.72 | Average |
| 2 | 95.960000 | -49.16 | -36.64 | -12.52 | -49.91 | 15.28 | 1.44 | 27.77 | Average |
| 3 | 167.74000 | -55.13 | -42.61 | -12.52 | -56.24 | 14.84 | 2.01 | 27.54 | Average |
| 4 | 499.48000 | -64.35 | -51.83 | -12.52 | -73.74 | 22.69 | 3.31 | 28.41 | Average |
| 5 | 625.58000 | -61.88 | -49.36 | -12.52 | -73.13 | 24.24 | 3.74 | 28.53 | Average |
| 6 | 901.06000 | -65.46 | -52.94 | -12.52 | -79.53 | 25.61 | 4.35 | 27.69 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

| Transmitter Radiated Unwanted Emissions (Below 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 20M | **Test Freq. (MHz)** | 4980 |
| **Operating Function** | Transmit | **Polarization** | H |

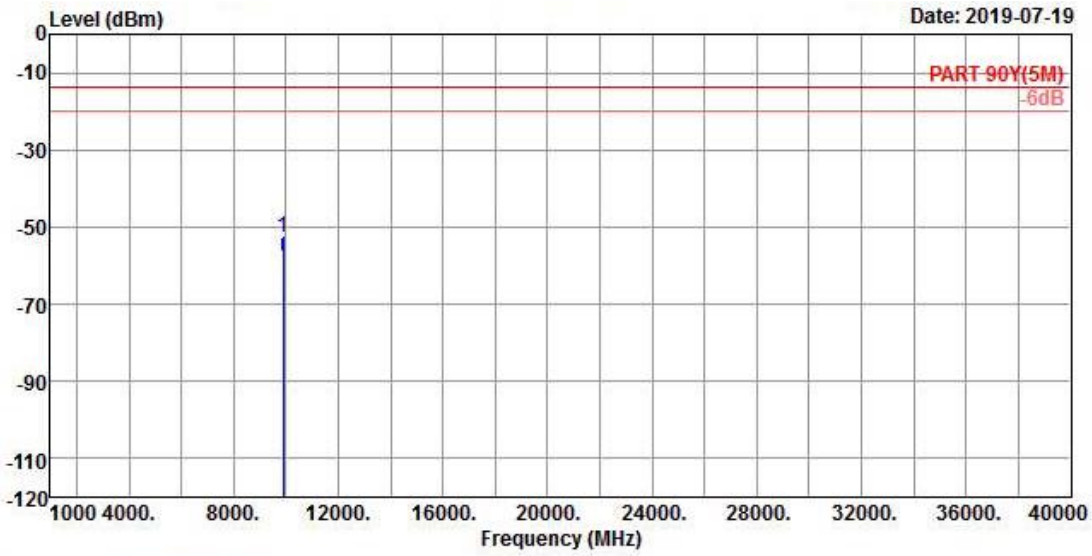



| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 70.740010 | -59.67 | -47.15 | -12.52 | -56.23 | 11.40 | 1.08 | 27.72 | Average |
| 2 | 171.62000 | -61.00 | -48.48 | -12.52 | -61.97 | 14.65 | 2.04 | 27.52 | Average |
| 3 | 299.66000 | -65.22 | -52.70 | -12.52 | -71.11 | 18.26 | 3.00 | 27.17 | Average |
| 4 | 450.98000 | -58.91 | -46.39 | -12.52 | -67.62 | 21.99 | 3.23 | 28.31 | Average |
| 5 | 499.48000 | -62.23 | -49.71 | -12.52 | -71.62 | 22.69 | 3.31 | 28.41 | Average |
| 6 | 875.84000 | -58.98 | -46.46 | -12.52 | -72.74 | 25.53 | 4.30 | 27.87 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

## 3.7.6 Transmitter Radiated Unwanted Emissions (Above 1GHz)

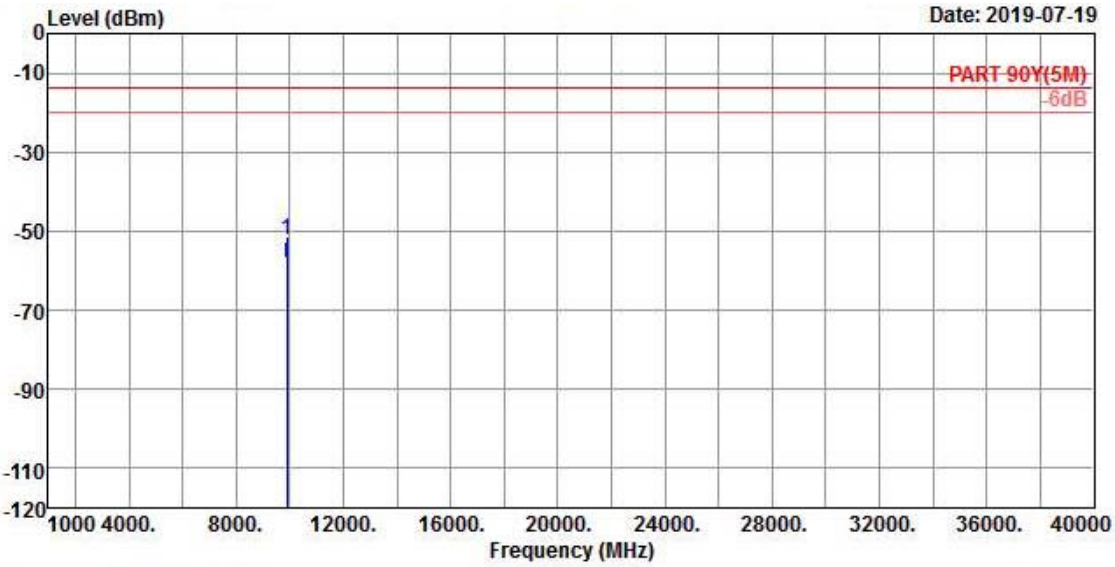
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 5M | **Test Freq. (MHz)** | 4942.5 |
| **Operating Function** | Transmit | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 9886.5200 | -52.60 | -38.88 | -13.72 | -78.22 | 38.83 | 10.18 | 35.19 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

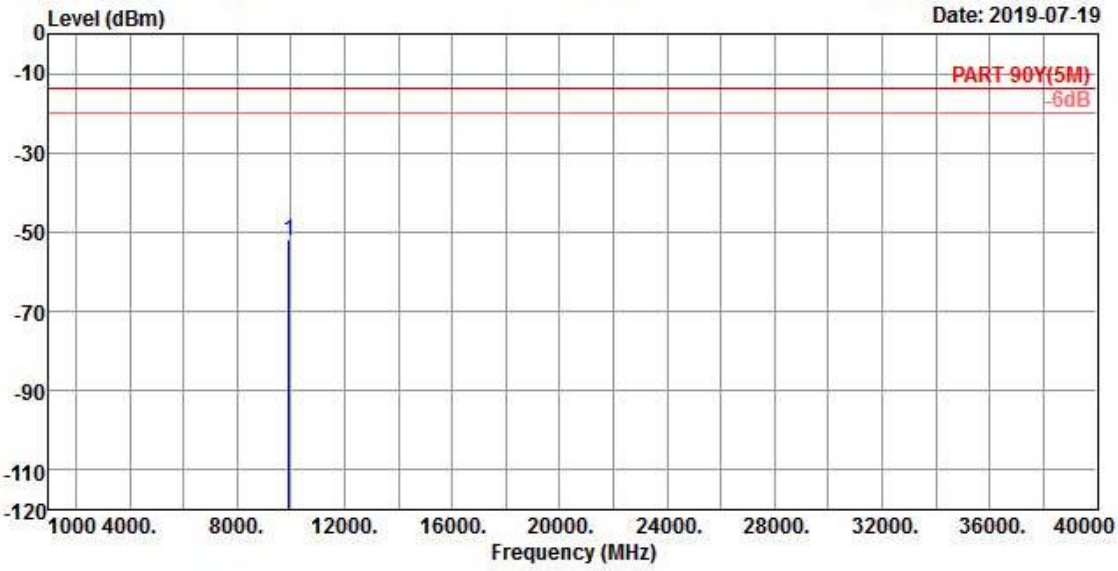
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 5M | **Test Freq. (MHz)** | 4942.5 |
| **Operating Function** | Transmit | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 9884.7200 | -52.03 | -38.31 | -13.72 | -77.65 | 38.83 | 10.18 | 35.19 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

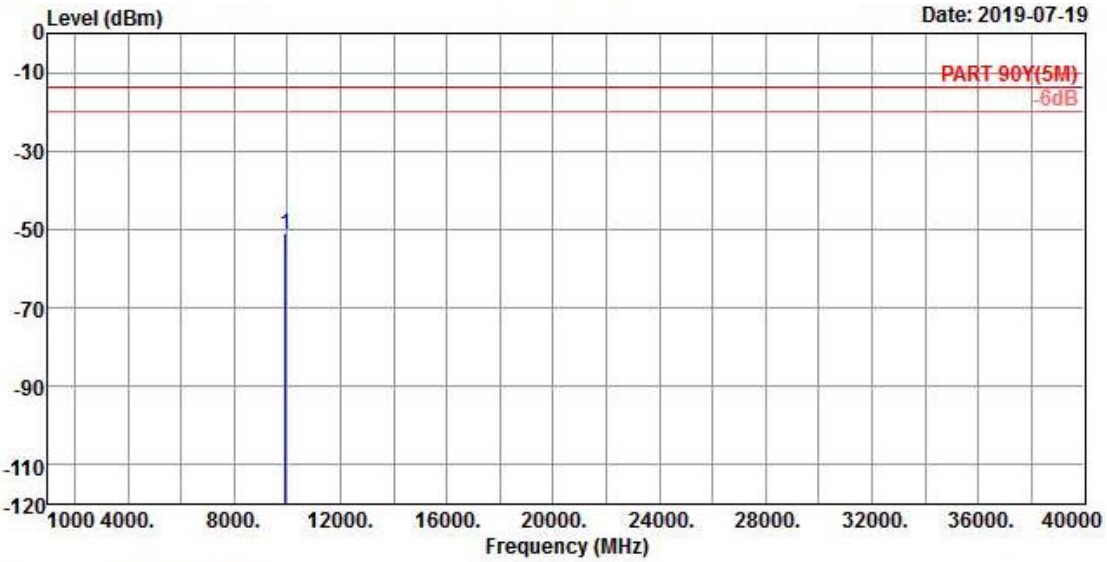
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 5M | **Test Freq. (MHz)** | 4967.5 |
| **Operating Function** | Transmit | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 9931.2600 | -52.26 | -38.54 | -13.72 | -77.95 | 38.86 | 10.22 | 35.19 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

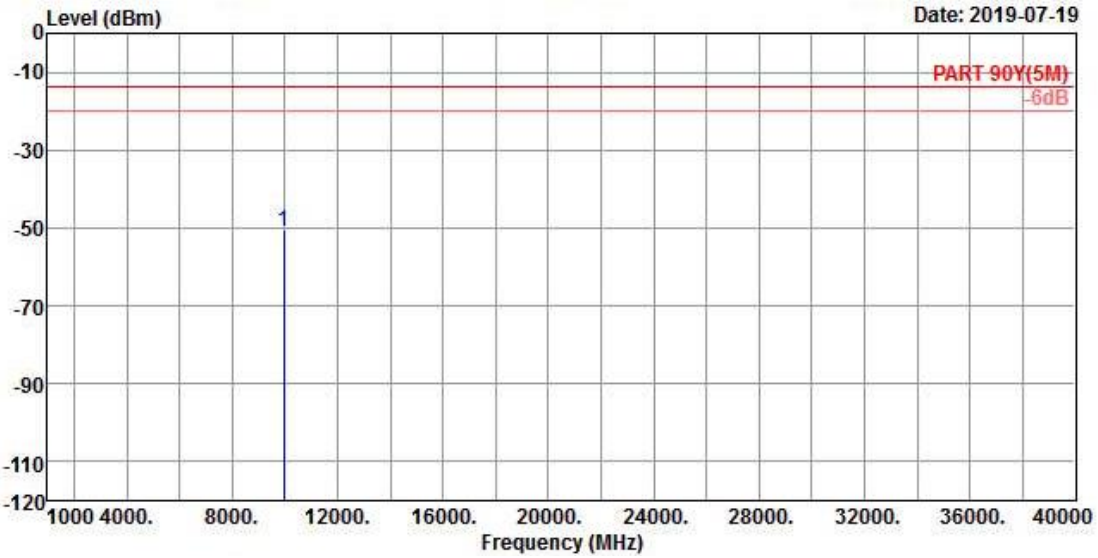
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 5M | **Test Freq. (MHz)** | 4967.5 |
| **Operating Function** | Transmit | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 9930.9600 | -51.45 | -37.73 | -13.72 | -77.14 | 38.86 | 10.22 | 35.19 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

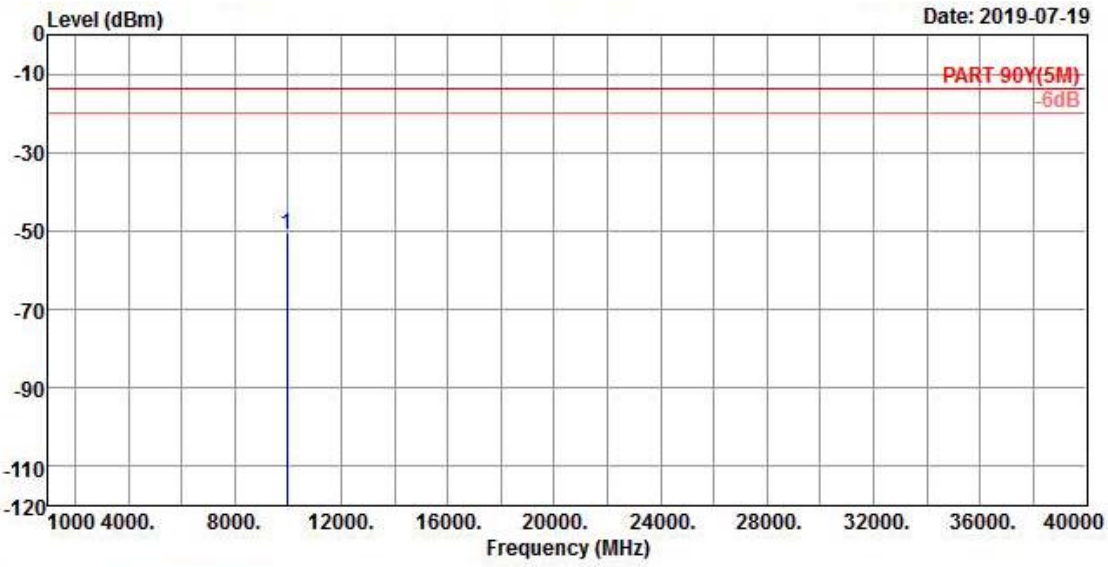
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 5M | **Test Freq. (MHz)** | 4987.5 |
| **Operating Function** | Transmit | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 9971.1400 | -50.87 | -37.15 | -13.72 | -76.59 | 38.88 | 10.24 | 35.20 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

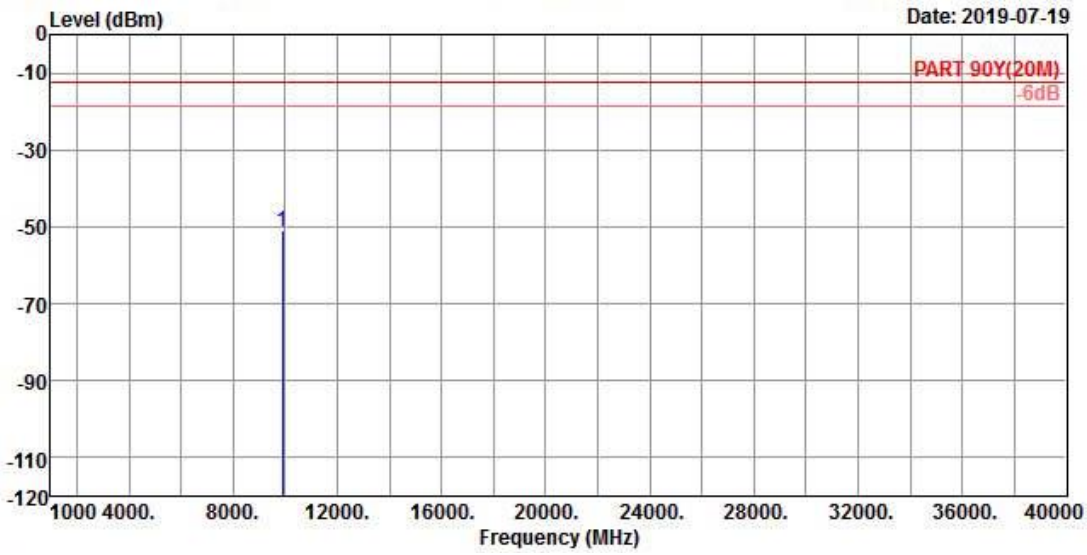
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 5M | **Test Freq. (MHz)** | 4987.5 |
| **Operating Function** | Transmit | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 9971.1400 | -50.89 | -37.17 | -13.72 | -76.61 | 38.88 | 10.24 | 35.20 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

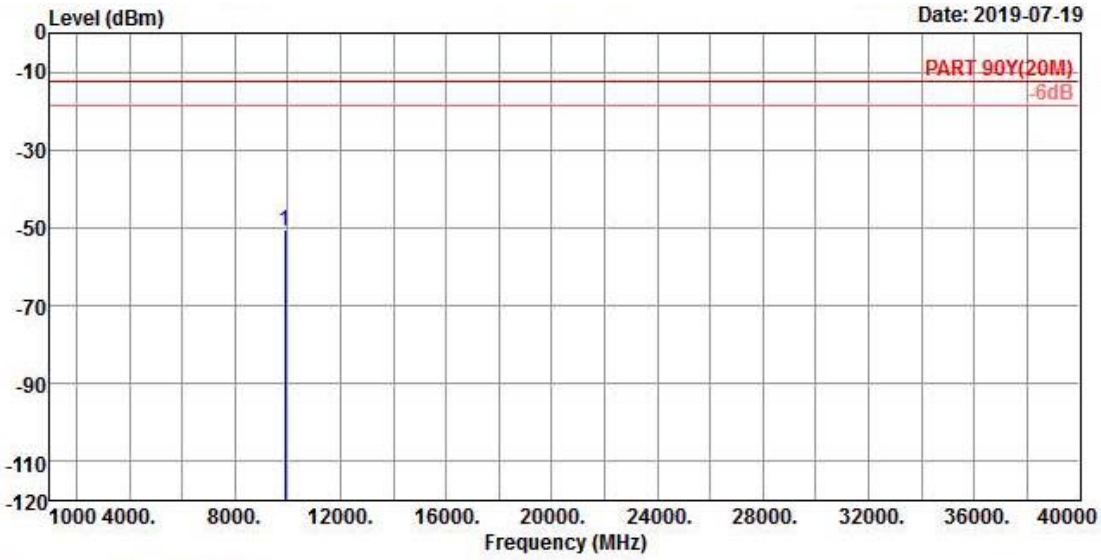
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 20M | **Test Freq. (MHz)** | 4950 |
| **Operating Function** | Transmit | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 9897.2800 | -51.56 | -39.04 | -12.52 | -77.20 | 38.84 | 10.19 | 35.19 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

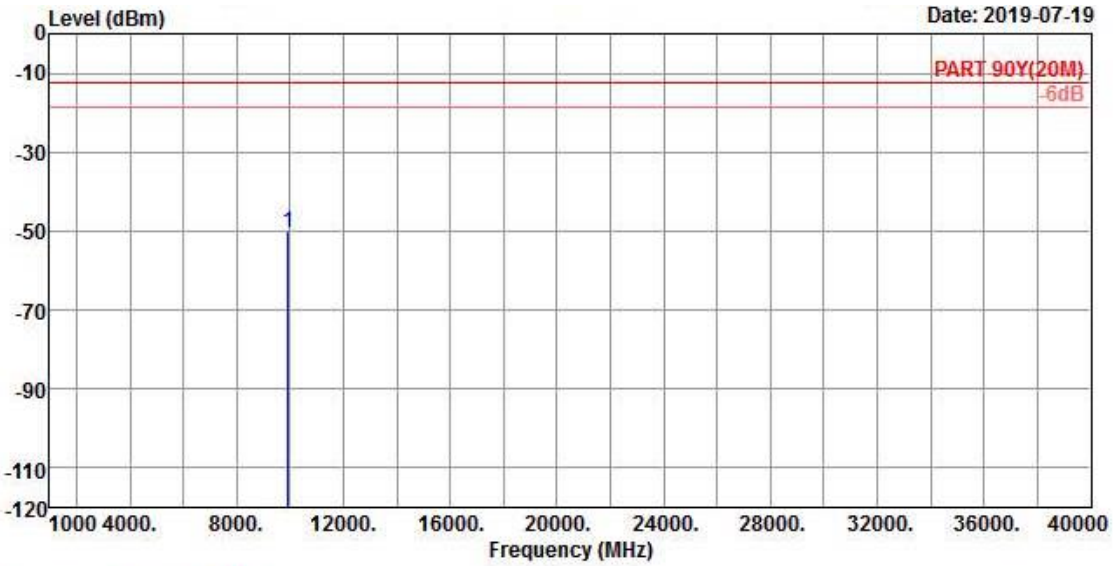
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 20M | **Test Freq. (MHz)** | 4950 |
| **Operating Function** | Transmit | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 9899.3800 | -50.91 | -38.39 | -12.52 | -76.55 | 38.84 | 10.19 | 35.19 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

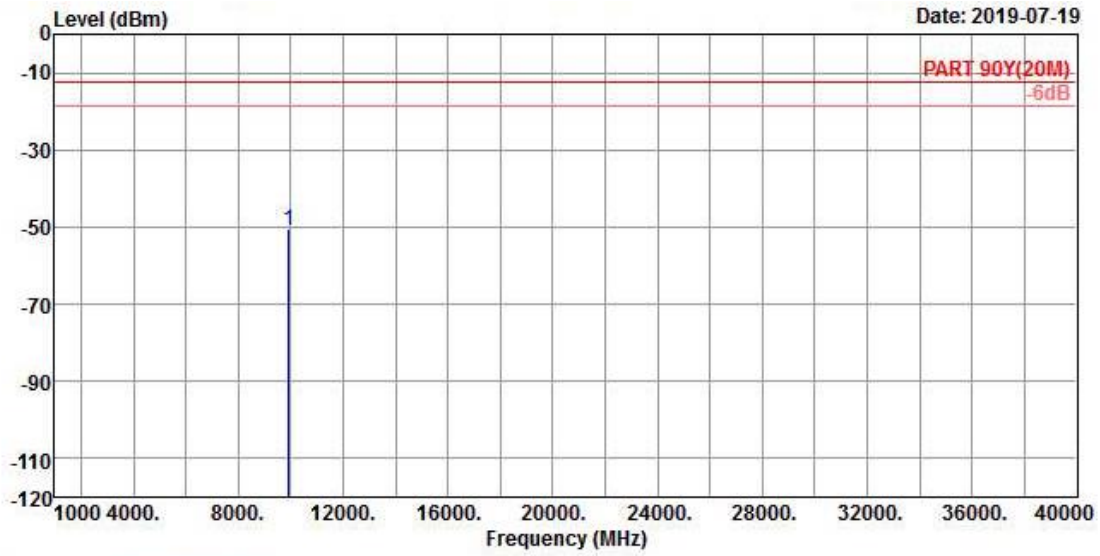
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 20M | **Test Freq. (MHz)** | 4965 |
| **Operating Function** | Transmit | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 9928.2000 | -50.57 | -38.05 | -12.52 | -76.25 | 38.86 | 10.21 | 35.19 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

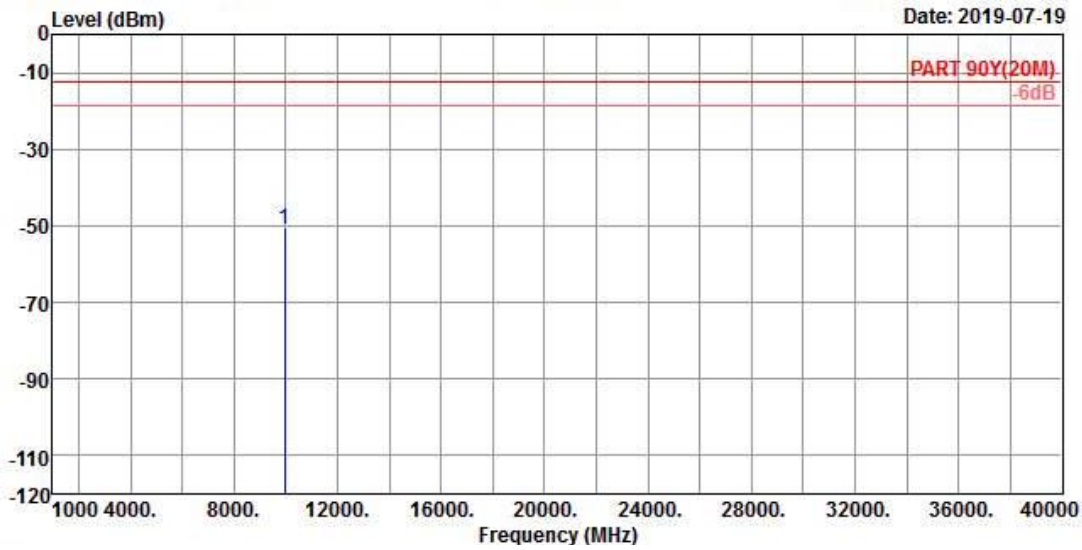
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 20M | **Test Freq. (MHz)** | 4965 |
| **Operating Function** | Transmit | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 9927.3600 | -50.77 | -38.25 | -12.52 | -76.45 | 38.86 | 10.21 | 35.19 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

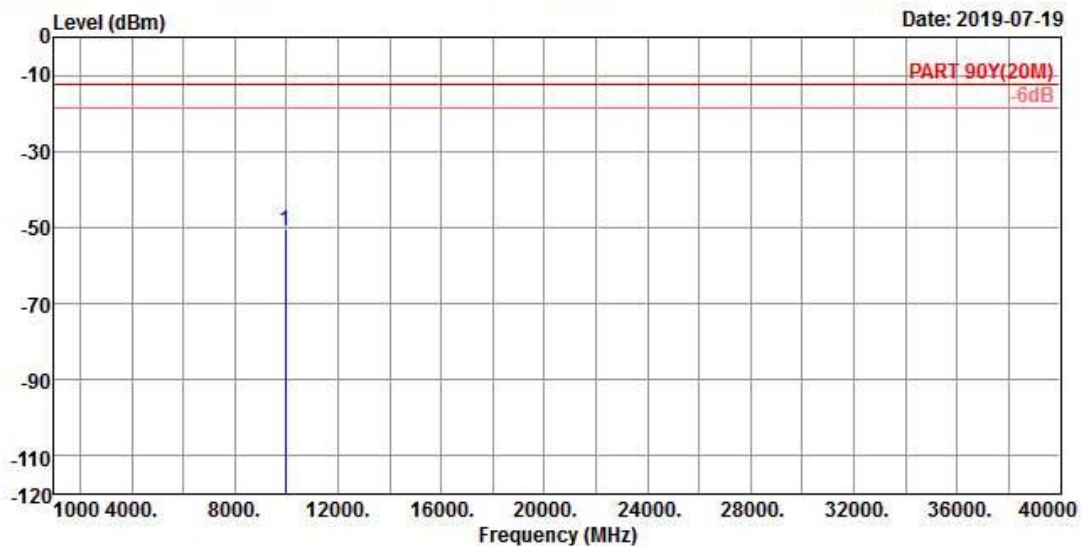
| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 20M | **Test Freq. (MHz)** | 4980 |
| **Operating Function** | Transmit | **Polarization** | V |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 9960.0000 | -51.08 | -38.56 | -12.52 | -76.80 | 38.88 | 10.24 | 35.20 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

| Transmitter Radiated Unwanted Emissions (Above 1GHz) | | | |
|---|---|---|---|
| **Modulation Mode** | 20M | **Test Freq. (MHz)** | 4980 |
| **Operating Function** | Transmit | **Polarization** | H |




| | Freq | Level | Over Limit | Limit Line | Read Level | LISN Factor | Cable Loss | Preamp Factor | Remark |
|---|---|---|---|---|---|---|---|---|---|
| | MHz | dBm | dB | dBm | dBm | dB | dB | dB | |
| 1 | 9956.1200 | -51.14 | -38.62 | -12.52 | -76.85 | 38.87 | 10.23 | 35.19 | Average |

Note 1: “>20dB” means spurious emission levels that exceed the level of 20 dB below the applicable limit.
Note 2: “N/F” means Nothing Found spurious emissions (No spurious emissions were detected.)
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

# 3.8 Frequency Stability

## 3.8.1 Frequency Stability Limit

| Frequency Stability Limit |
|---|
| ☒ The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized frequency band. |
| Note 1: These measurements shall also be performed at normal and extreme test conditions.<br>Note 2: Refer as FCC Part 90.213. |

## 3.8.2 Measuring Instruments

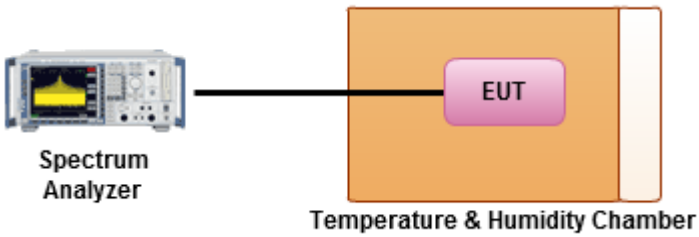
Refer a test equipment and calibration data table in this test report.

## 3.8.3 Test Procedures

| Test Method | |
|---|---|
| ☒ | Refer as ANSI C63.26-2015, clause 3.2.2 for frequency stability tests |
| | ☒ Frequency stability with respect to ambient temperature |
| | ☒ Frequency stability when varying supply voltage |
| ☒ | For conducted measurement. |
| | ☒ For conducted measurements on devices with multiple transmit chains:<br>Measurements need only to be performed on one of the active transmit chains (antenna outputs) |
| ☐ | For radiated measurement. The equipment to be measured and the test antenna shall be oriented to obtain the maximum emitted power level. |

## 3.8.4 Test Setup

**Frequency Stability**




## 3.8.5 Test Result of Frequency Stability

Refer as Appendix G

# 4 Test Equipment and Calibration Data

**< Conducted >**

| Instrument | Manufacturer | Model No. | Serial No. | Spec. | Calibration Date | Calibration Due Date |
|---|---|---|---|---|---|---|
| Spectrum Analyzer | R&S | FSV 40 | 101013 | 10Hz~40GHz | 13/Mar/2019 | 12/Mar/2020 |
| SMB100A Signal Generator | R&S | SMB100A03 | 181147 | 100kHz~40GHz | 12/Nov/2018 | 10/Nov/2020 |
| Power Sensor | Anritsu | MA2411B | 0917017 | 300MHz ~ 40GHz | 19/Feb/2019 | 18/Feb/2020 |
| Power Meter | Anritsu | ML2495A | 0949003 | 300MHz ~ 40GHz | 19/Feb/2019 | 18/Feb/2020 |
| Cable 0.2m | HUBER | MY10710/4 | RF Cable - 01 | 30MHz~18G | 21/Mar/2019 | 20/Mar/2020 |
| Cable 0.2m | HUBER | MY10711/4 | RF Cable - 02 | 30MHz ~18G | 21/Mar/2019 | 20/Mar/2020 |
| Cable 1.5m | HUBER | MY37964/4 | RF Cable - 13 | 30MHz ~18G | 21/Mar/2019 | 20/Mar/2020 |
| Cable 1.5m | HUBER | MY37965/4 | RF Cable - 14 | 30MHz ~18G | 21/Mar/2019 | 20/Mar/2020 |
| Cable 0.5m | HUBER | MY10714/4 | RF Cable – 05 | 30MHz~18G | 21/Mar/2019 | 20/Mar/2020 |
| *TEMP & hmuidity Chamber | Giant Force | GTH-225-40-CP-AR | MAA1611-005 | -40~100℃ 10~98%RH | 04/Dec/2018 | 03/Dec/2019 |

**< Radiated >**

| Instrument | Manufacturer | Model No. | Serial No. | Spec. | Calibration Date | Calibration Due Date |
|---|---|---|---|---|---|---|
| 3m Semi Anechoic Chamber | SIDT FRANKONIA | SAC-3M | 03CH02-HY | 30MHz ~ 1GHz 3m | 19/Oct/2018 | 18/Oct/2019 |
| 3m Semi Anechoic Chamber | SIDT FRANKONIA | SAC-3M | 03CH02-HY | 1GHz ~ 18GHz 3m | 17/Oct/2018 | 16/Oct/2019 |
| Amplifier | Agilent | 8447D | 2944A11149 | 30-1000MHz | 02/Jul/2019 | 01/Jul/2020 |
| Microwave Preamplifier | Agilent | 8449B | 3008A02373 | 1GHz ~ 26.5GHz | 23/Oct/2018 | 22/Oct/2019 |
| Signal Analyzer | R&S | FSP40 | 100593 | 9 kHz ~ 40 GHz | 27/Dec/2018 | 26/Dec/2019 |
| RF Cable-R03m | Jye Bao | RG142 | CB017 | 9kHz ~ 1GHz | 18/Jan/2019 | 17/Jan/2020 |
| RF Cable-high | SUHNER | SUCOFLEX104 | MY34918/4 | 1GHz ~ 40GHz | 18/Jan/2019 | 17/Jan/2020 |
| Bilog Antenna & 5dB Attenuator | SCHAFFNER / MTJ | CBL 6112B / MTJ6102-05 | 2723 / 2 | 30MHz ~ 1GHz | 08/Sep/2018 | 07/Sep/2019 |
| Preamplifier | MITEQ | TTA1840-35-HG | 1864481 | 18GHz ~ 40GHz | 24/Aug/2018 | 23/Aug/2019 |
| EMI Test Receiver | R&S | ESR | 102052 | 9kHz ~ 3.6GHz | 09/Apr/2019 | 08/Apr/2020 |
| Loop Antenna | TESEQ | HLA 6120 | 31244 | 9k-30MHz | 15/Mar/2019 | 14/Mar/2020 |
| Broadband Horn Antenna | SCHWARZBECK | BBHA 9170 | BBHA 9170221 | 15GHz ~ 40GHz | 22/Mar/2019 | 21/Mar/2020 |
| Double Ridged Guide Horn Antenna | SCHWARZBECK | BBHA 9120 D | BBHA 9120 D 01543 | 1GHz ~ 18GHz | 03/Jun/2019 | 02/Jun/2020 |

## Summary

| Mode | Max-NdB (Hz) | Max-OBW (Hz) | ITU-Code | Min-NdB (Hz) | Min-OBW (Hz) |
|---|---|---|---|---|---|
| 4.94-4.99GHz | - | - | - | - | - |
| OFDM_5MHz_Nss2_2TX | 5.444M | 4.442M | 4M44 | 4.931M | 4.429M |
| OFDM_20MHz_Nss2_2TX | 22.225M | 17.716M | 17M7 | 21.375M | 17.666M |

**Max-N dB** = Maximum 26dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;
**Min-N dB** = Minimum 26dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

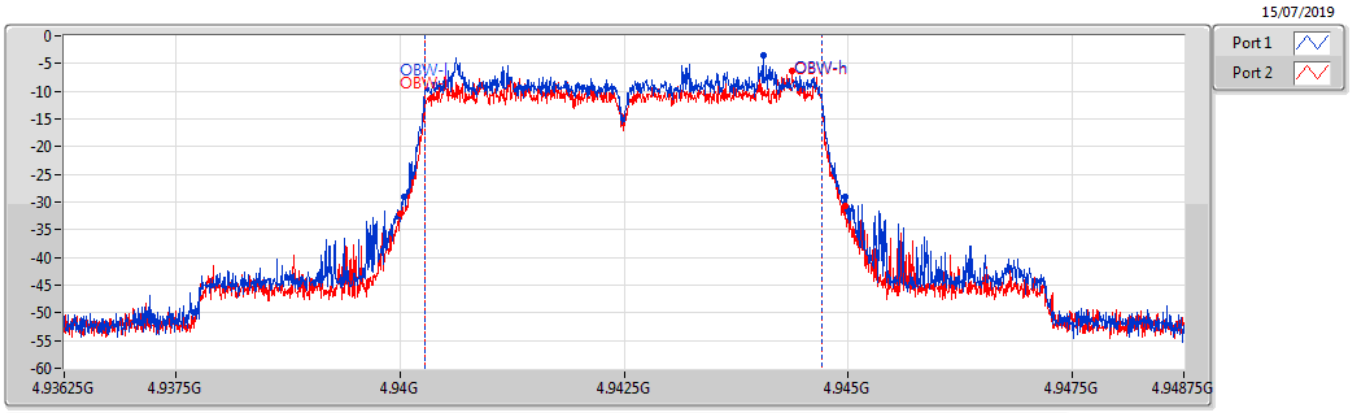
## Result

| Mode | Result | Limit (Hz) | Port 1-NdB (Hz) | Port 1-OBW (Hz) | Port 2-NdB (Hz) | Port 2-OBW (Hz) |
|---|---|---|---|---|---|---|
| 4.94-4.99GHz_OFDM_5MHz_Nss2_2TX | - | - | - | - | - | - |
| 4942.5MHz | Pass | Inf | 4.931M | 4.435M | 4.969M | 4.442M |
| 4967.5MHz | Pass | Inf | 5.444M | 4.429M | 5.038M | 4.435M |
| 4987.5MHz | Pass | Inf | 5.163M | 4.435M | 5M | 4.442M |
| 4.94-4.99GHz_OFDM_20MHz_Nss2_2TX | - | - | - | - | - | - |
| 4950MHz | Pass | Inf | 21.925M | 17.666M | 21.75M | 17.716M |
| 4965MHz | Pass | Inf | 22.225M | 17.691M | 21.375M | 17.691M |
| 4980MHz | Pass | Inf | 21.875M | 17.716M | 21.45M | 17.666M |

**Port X-N dB** = Port **X** 26dB down bandwidth; **Port X-OBW** = Port **X** 99% occupied bandwidth;

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **EBW**

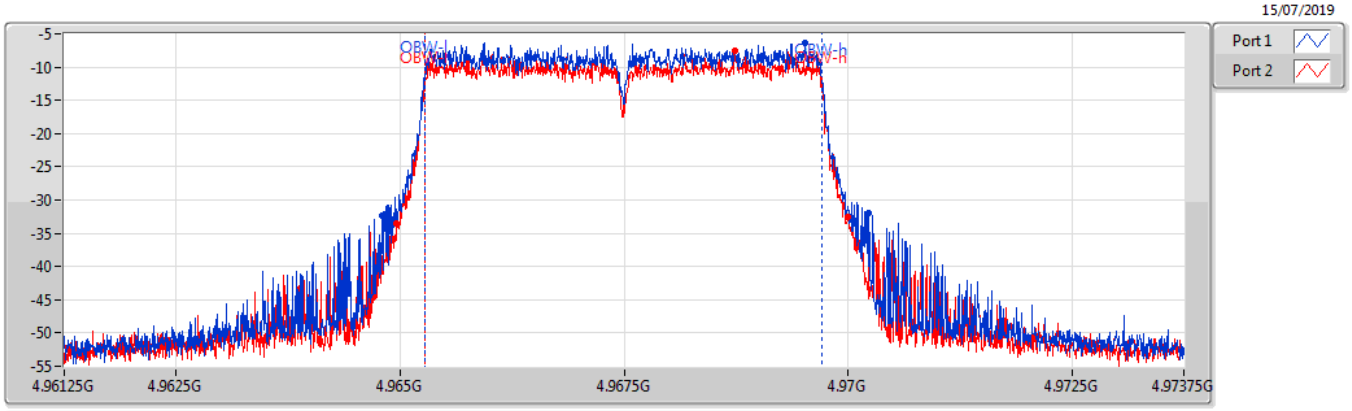
**4942.5MHz**




| 26dB(Hz) | Fl-26dB(Hz) | Fh-26dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Port | CF(Hz) | Span(Hz) | RBW(Hz) | VBW(Hz) |
|---|---|---|---|---|---|---|---|---|---|---|
| 4.931M | 4.940044G | 4.944975G | 4.435M | 4.94027G | 4.944705G | 1 | 4.9425G | 12.5M | 50k | 200k |
| 4.969M | 4.94G | 4.944969G | 4.442M | 4.94027G | 4.944711G | 2 | 4.9425G | 12.5M | 50k | 200k |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **EBW**

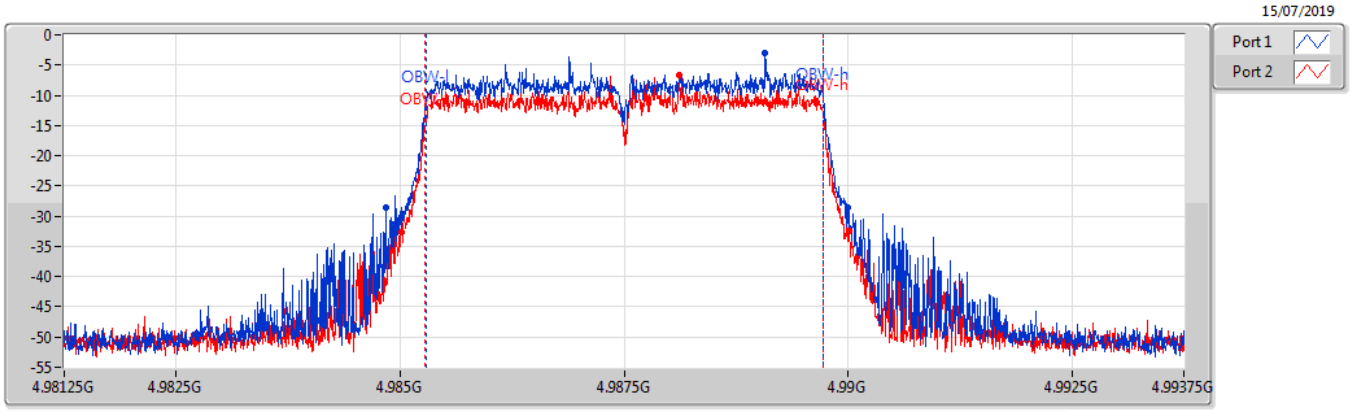
**4967.5MHz**




| 26dB(Hz) | Fl-26dB(Hz) | Fh-26dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Port | CF(Hz) | Span(Hz) | RBW(Hz) | VBW(Hz) |
|---|---|---|---|---|---|---|---|---|---|---|
| 5.444M | 4.964794G | 4.970238G | 4.429M | 4.965276G | 4.969705G | 1 | 4.9675G | 12.5M | 50k | 200k |
| 5.038M | 4.964963G | 4.97G | 4.435M | 4.96527G | 4.969705G | 2 | 4.9675G | 12.5M | 50k | 200k |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **EBW**

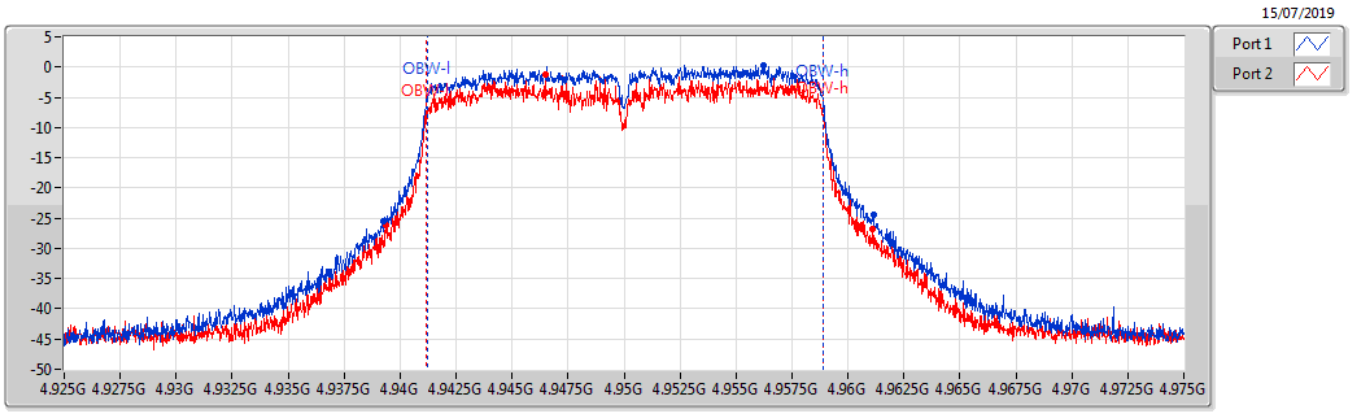
**4987.5MHz**




| 26dB(Hz) | Fl-26dB(Hz) | Fh-26dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Port | CF(Hz) | Span(Hz) | RBW(Hz) | VBW(Hz) |
|---|---|---|---|---|---|---|---|---|---|---|
| 5.163M | 4.984838G | 4.99G | 4.435M | 4.985289G | 4.989724G | 1 | 4.9875G | 12.5M | 50k | 200k |
| 5M | 4.985013G | 4.990013G | 4.442M | 4.985282G | 4.989724G | 2 | 4.9875G | 12.5M | 50k | 200k |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **EBW**

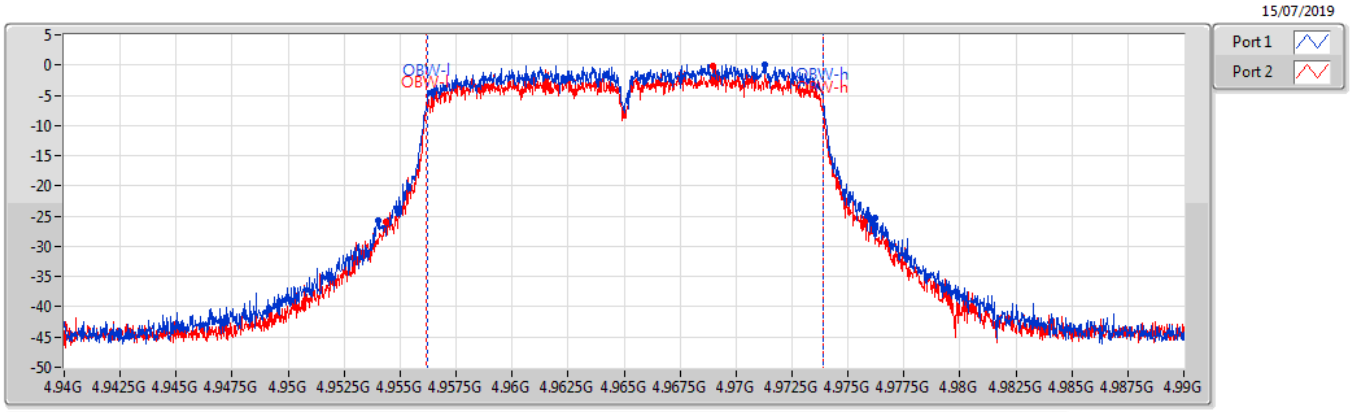
**4950MHz**




| 26dB(Hz) | Fl-26dB(Hz) | Fh-26dB(Hz) | OBW(Hz) | Fl-OBW(Hz) | Fh-OBW(Hz) | Port | CF(Hz) | Span(Hz) | RBW(Hz) | VBW(Hz) |
|---|---|---|---|---|---|---|---|---|---|---|
| 21.925M | 4.939225G | 4.96115G | 17.666M | 4.941204G | 4.958871G | 1 | 4.95G | 50M | 200k | 1M |
| 21.75M | 4.93935G | 4.9611G | 17.716M | 4.941179G | 4.958896G | 2 | 4.95G | 50M | 200k | 1M |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **EBW**

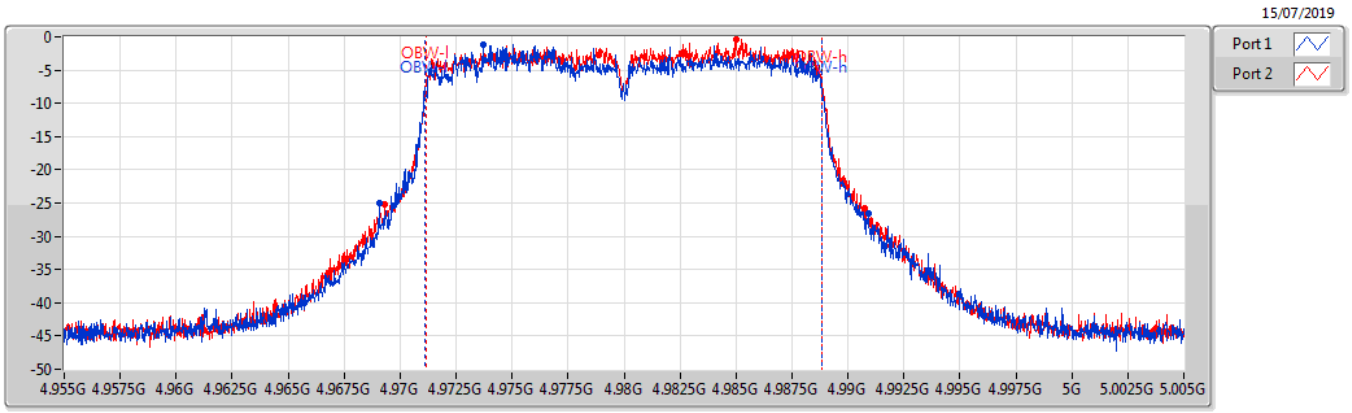
**4965MHz**




| 26dB(Hz) | FI-26dB(Hz) | Fh-26dB(Hz) | OBW(Hz) | FI-OBW(Hz) | Fh-OBW(Hz) | Port | CF(Hz) | Span(Hz) | RBW(Hz) | VBW(Hz) |
|---|---|---|---|---|---|---|---|---|---|---|
| 22.225M | 4.954G | 4.976225G | 17.691M | 4.956204G | 4.973896G | 1 | 4.965G | 50M | 200k | 1M |
| 21.375M | 4.954375G | 4.97575G | 17.691M | 4.956179G | 4.973871G | 2 | 4.965G | 50M | 200k | 1M |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **EBW**

**4980MHz**




| 26dB(Hz) | FI-26dB(Hz) | Fh-26dB(Hz) | OBW(Hz) | FI-OBW(Hz) | Fh-OBW(Hz) | Port | CF(Hz) | Span(Hz) | RBW(Hz) | VBW(Hz) |
|---|---|---|---|---|---|---|---|---|---|---|
| 21.875M | 4.96905G | 4.990925G | 17.716M | 4.971129G | 4.988846G | 1 | 4.98G | 50M | 200k | 1M |
| 21.45M | 4.969325G | 4.990775G | 17.666M | 4.971179G | 4.988846G | 2 | 4.98G | 50M | 200k | 1M |

## Summary

| Mode | Power (dBm) | Power (W) | EIRP (dBm) | EIRP (W) |
|---|---|---|---|---|
| 4.94-4.99GHz | - | - | - | - |
| OFDM_5MHz_Nss2_2TX | 13.48 | 0.022 | 19.78 | 0.09506 |
| OFDM_20MHz_Nss2_2TX | 19.68 | 0.093 | 25.98 | 0.39628 |

## Result

| Mode | Result | DG (dBi) | Power (dBm) | Power Lim. (dBm) | EIRP (dBm) | Port 1 (dBm) | Port 2 (dBm) |
|---|---|---|---|---|---|---|---|
| 4.94-4.99GHz_OFDM_5MHz_Nss2_2TX | - | - | - | - | - | - | - |
| 4942.5MHz | Pass | 6.30 | 13.48 | 14.00 | 19.78 | 11.27 | 9.48 |
| 4967.5MHz | Pass | 6.30 | 13.24 | 14.00 | 19.54 | 10.96 | 9.34 |
| 4987.5MHz | Pass | 6.30 | 13.48 | 14.00 | 19.78 | 11.60 | 8.95 |
| 4.94-4.99GHz_OFDM_20MHz_Nss2_2TX | - | - | - | - | - | - | - |
| 4950MHz | Pass | 6.30 | 19.67 | 20.00 | 25.97 | 17.64 | 15.40 |
| 4965MHz | Pass | 6.30 | 19.68 | 20.00 | 25.98 | 17.32 | 15.91 |
| 4980MHz | Pass | 6.30 | 19.11 | 20.00 | 25.41 | 16.18 | 16.01 |

**DG** = Directional Gain; **Port n** = Port n output power

## Summary

| Mode | PD (dBm/MHz) | EIRP PD (dBm/MHz) |
|---|---|---|
| 4.94-4.99GHz | - | - |
| 802.11J_5MHz_Nss2_2TX | 0.68 | 6.98 |
| 802.11J_20MHz_Nss2_2TX | 1.17 | 7.47 |

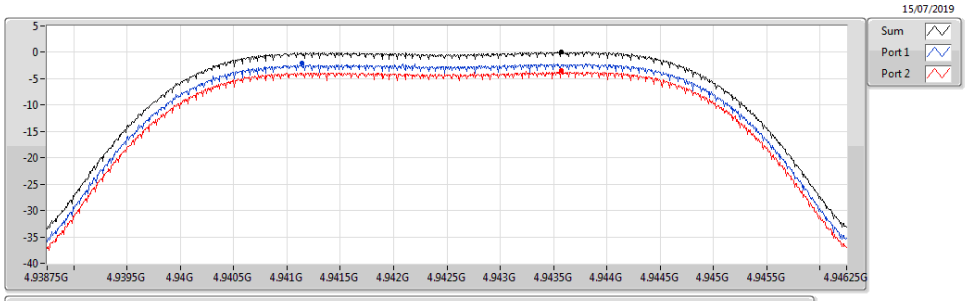
## Result

| Mode | Result | DG (dBi) | PD (dBm/MHz) | PD Limit (dBm/MHz) | EIRP PD (dBm/MHz) | EIRP PD Limit (dBm/MHz) | Port 1 (dBm/MHz) | Port 2 (dBm/MHz) |
|---|---|---|---|---|---|---|---|---|
| 4.94-4.99GHz_802.11J_5MHz_Nss2_2TX | - | - | - | - | - | - | - | - |
| 4942.5MHz | Pass | 6.30 | 0.16 | 8.00 | 6.46 | Inf | -2.11 | -3.38 |
| 4967.5MHz | Pass | 6.30 | 0.68 | 8.00 | 6.98 | Inf | -1.53 | -3.03 |
| 4987.5MHz | Pass | 6.30 | 0.40 | 8.00 | 6.7 | Inf | -1.42 | -4.03 |
| 4.94-4.99GHz_802.11J_20MHz_Nss2_2TX | - | - | - | - | - | - | - | - |
| 4950MHz | Pass | 6.30 | 1.17 | 8.00 | 7.47 | Inf | -0.75 | -2.97 |
| 4965MHz | Pass | 6.30 | 0.34 | 8.00 | 6.64 | Inf | -1.34 | -3.36 |
| 4980MHz | Pass | 6.30 | 0.90 | 8.00 | 7.2 | Inf | -1.36 | -2.64 |

**DG** = Directional Gain;
**PD** = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port Xpower density;

**4.94-4.99GHz_802.11J_5MHz_Nss2,QPSK_2TX** **PSD**

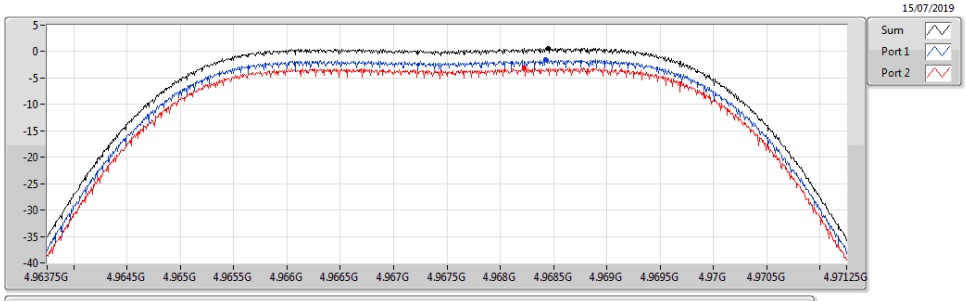
**4942.5MHz_QPSK**




| PD | CF | Span | RBW | VBW | Sweep | Detector | Port |
|---|---|---|---|---|---|---|---|
| (dBm/MHz) | (Hz) | (Hz) | (Hz) | (Hz) | (s) | | |
| -2.11 | 4.9425G | 7.5M | 1M | 3M | 10.1 | RMS | 1 |
| -3.38 | 4.9425G | 7.5M | 1M | 3M | 10.1 | RMS | 2 |
| Sum PD | | | | | | | |
| (dBm/MHz) | | | | | | | |
| 0.16 | | | | | | | |

**4.94-4.99GHz_802.11J_5MHz_Nss2,QPSK_2TX** **PSD**

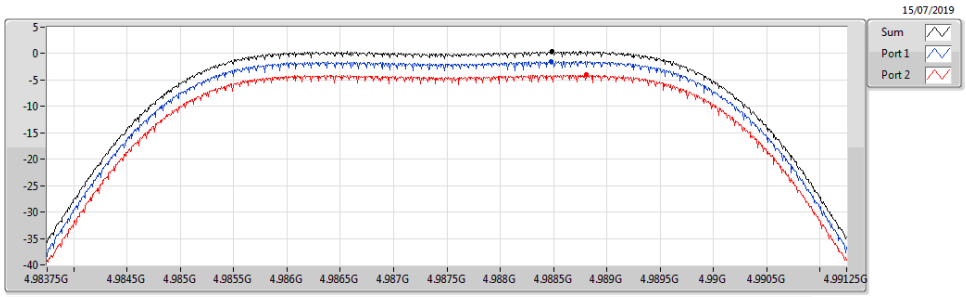
**4967.5MHz_QPSK**




| PD | CF | Span | RBW | VBW | Sweep | Detector | Port |
|---|---|---|---|---|---|---|---|
| (dBm/MHz) | (Hz) | (Hz) | (Hz) | (Hz) | (s) | | |
| -1.53 | 4.9675G | 7.5M | 1M | 3M | 10.1 | RMS | 1 |
| -3.03 | 4.9675G | 7.5M | 1M | 3M | 10.1 | RMS | 2 |
| Sum PD | | | | | | | |
| (dBm/MHz) | | | | | | | |
| 0.68 | | | | | | | |

**4.94-4.99GHz_802.11J_5MHz_Nss2,QPSK_2TX** **PSD**

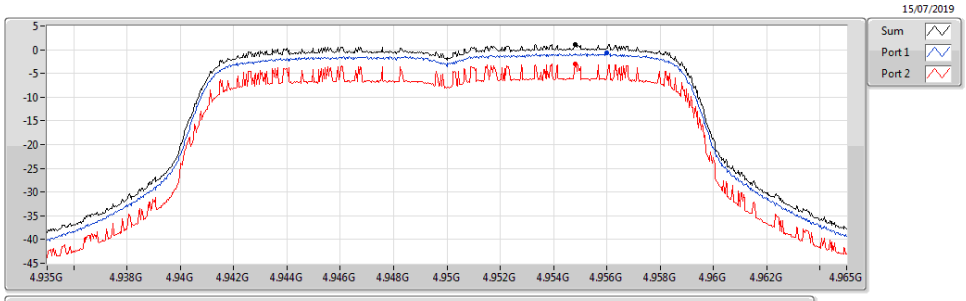
**4987.5MHz_QPSK**




| PD | CF | Span | RBW | VBW | Sweep | Detector | Port |
|---|---|---|---|---|---|---|---|
| (dBm/MHz) | (Hz) | (Hz) | (Hz) | (Hz) | (s) | | |
| -1.42 | 4.9875G | 7.5M | 1M | 3M | 10.1 | RMS | 1 |
| -4.03 | 4.9875G | 7.5M | 1M | 3M | 10.1 | RMS | 2 |
| Sum PD | | | | | | | |
| (dBm/MHz) | | | | | | | |
| 0.40 | | | | | | | |

**4.94-4.99GHz_802.11J_20MHz_Nss2,QPSK_2TX** **PSD**

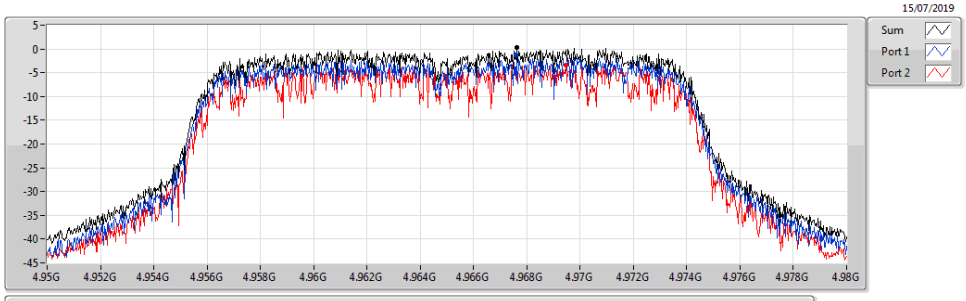
**4950MHz_QPSK**




| PD | CF | Span | RBW | VBW | Sweep | Detector | Port |
|---|---|---|---|---|---|---|---|
| (dBm/MHz) | (Hz) | (Hz) | (Hz) | (Hz) | (s) | | |
| -0.75 | 4.95G | 30M | 1M | 3M | 10.1 | RMS | 1 |
| -2.97 | 4.95G | 30M | 1M | 3M | 10.1 | RMS | 2 |
| Sum PD | | | | | | | |
| (dBm/MHz) | | | | | | | |
| 1.17 | | | | | | | |

**4.94-4.99GHz_802.11J_20MHz_Nss2,QPSK_2TX** **PSD**

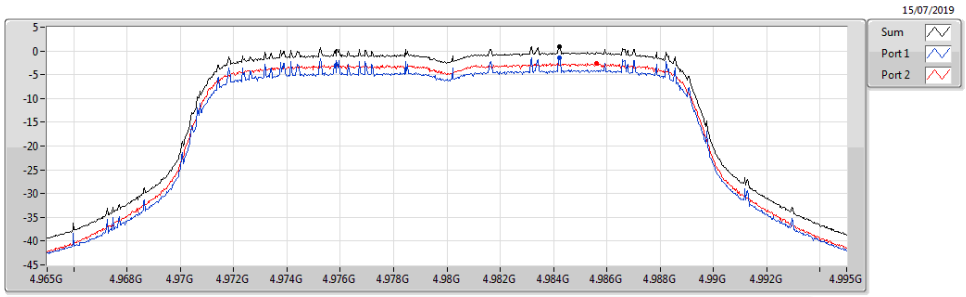
**4965MHz_QPSK**




| PD | CF | Span | RBW | VBW | Sweep | Detector | Port |
|---|---|---|---|---|---|---|---|
| (dBm/MHz) | (Hz) | (Hz) | (Hz) | (Hz) | (s) | | |
| -1.34 | 4.965G | 30M | 1M | 3M | 10.1 | RMS | 1 |
| -3.36 | 4.965G | 30M | 1M | 3M | 10.1 | RMS | 2 |
| Sum PD | | | | | | | |
| (dBm/MHz) | | | | | | | |
| 0.34 | | | | | | | |

**4.94-4.99GHz_802.11J_20MHz_Nss2,QPSK_2TX** **PSD**

**4980MHz_QPSK**




| PD | CF | Span | RBW | VBW | Sweep | Detector | Port |
|---|---|---|---|---|---|---|---|
| (dBm/MHz) | (Hz) | (Hz) | (Hz) | (Hz) | (s) | | |
| -1.36 | 4.98G | 30M | 1M | 3M | 10.1 | RMS | 1 |
| -2.64 | 4.98G | 30M | 1M | 3M | 10.1 | RMS | 2 |
| Sum PD | | | | | | | |
| (dBm/MHz) | | | | | | | |
| 0.90 | | | | | | | |

**Summary**

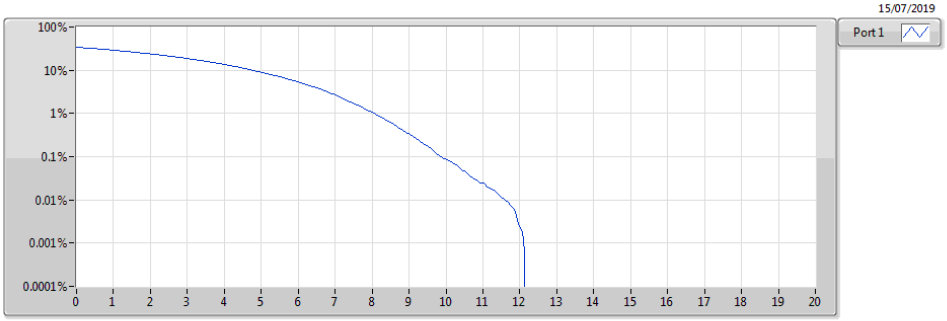
| Mode | Result | Freq (MHz) | Limit (dB) | 0.1% | Port |
|---|---|---|---|---|---|
| 4.94-4.99GHz | - | - | - | - | - |
| OFDM_5MHz_Nss2_2TX | Pass | 4942.5 | 13.00 | 9.86 | 1 |
| OFDM_20MHz_Nss2_2TX | Pass | 4950 | 13.00 | 8.70 | 1 |

## Result

| Mode | Result | Freq (MHz) | Limit (dB) | 0.1% | Port |
|---|---|---|---|---|---|
| 4.94-4.99GHz_OFDM_5MHz_Nss2_2TX | - | - | - | - | - |
| 4942.5MHz | Pass | 4942.5 | 13.00 | 9.86 | 1 |
| 4967.5MHz | Pass | 4967.5 | 13.00 | 8.64 | 1 |
| 4987.5MHz | Pass | 4987.5 | 13.00 | 9.33 | 1 |
| 4.94-4.99GHz_OFDM_20MHz_Nss2_2TX | - | - | - | - | - |
| 4950MHz | Pass | 4950 | 13.00 | 8.70 | 1 |
| 4965MHz | Pass | 4965 | 13.00 | 8.32 | 1 |
| 4980MHz | Pass | 4980 | 13.00 | 8.49 | 1 |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **PAR**

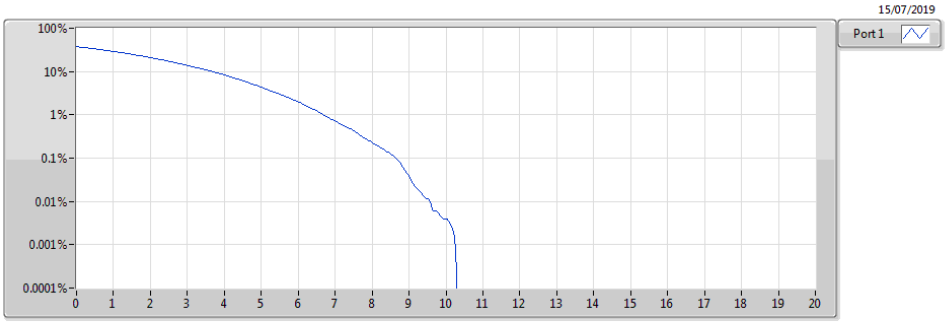
**4942.5MHz**




| Freq (MHz) | MBW(Hz) | 0.1% | Margin(dB) | Limit(dB) | Port |
|---|---|---|---|---|---|
| 4942.5 | 10M | 9.86 | -3.14 | 13.00 | 1 |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **PAR**

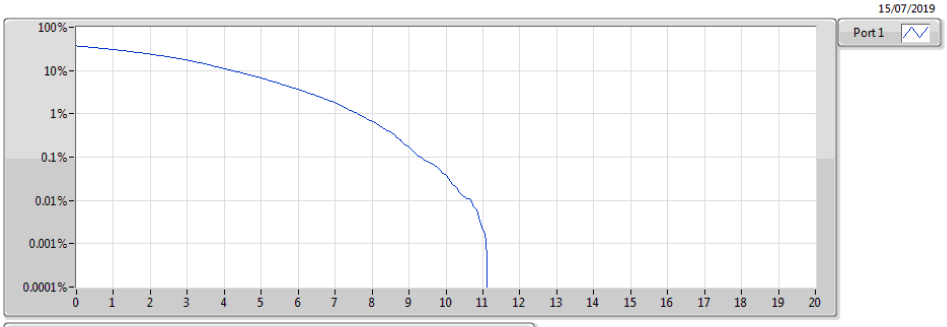
**4967.5MHz**




| Freq (MHz) | MBW(Hz) | 0.1% | Margin(dB) | Limit(dB) | Port |
|---|---|---|---|---|---|
| 4967.5 | 10M | 8.64 | -4.36 | 13.00 | 1 |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **PAR**

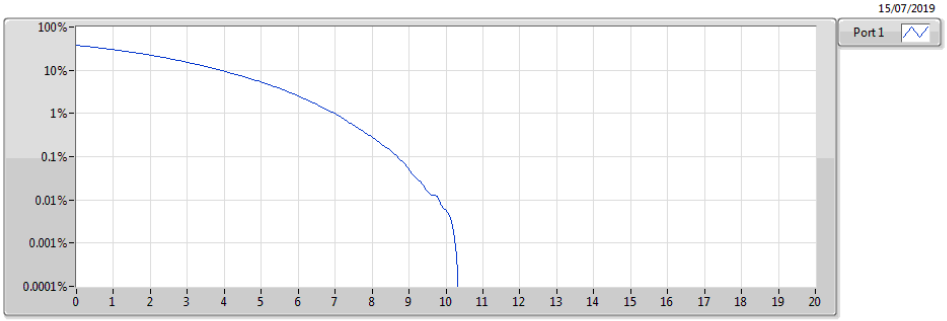
**4987.5MHz**




| Freq (MHz) | MBW(Hz) | 0.1% | Margin(dB) | Limit(dB) | Port |
|---|---|---|---|---|---|
| 4987.5 | 10M | 9.33 | -3.67 | 13.00 | 1 |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **PAR**

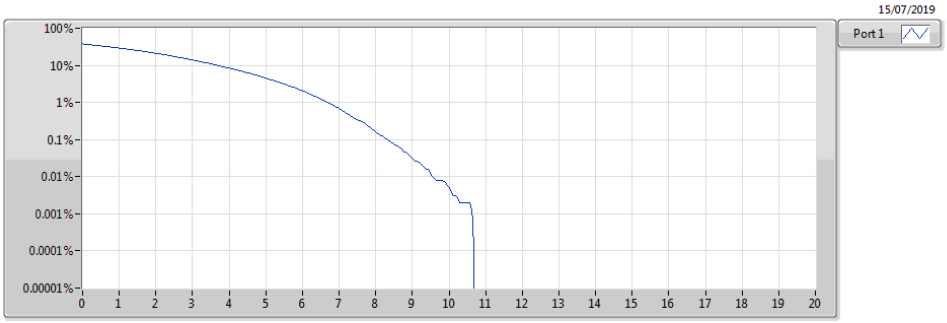
**4950MHz**




| Freq (MHz) | MBW(Hz) | 0.1% | Margin(dB) | Limit(dB) | Port |
|---|---|---|---|---|---|
| 4950 | 20M | 8.70 | -4.30 | 13.00 | 1 |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **PAR**

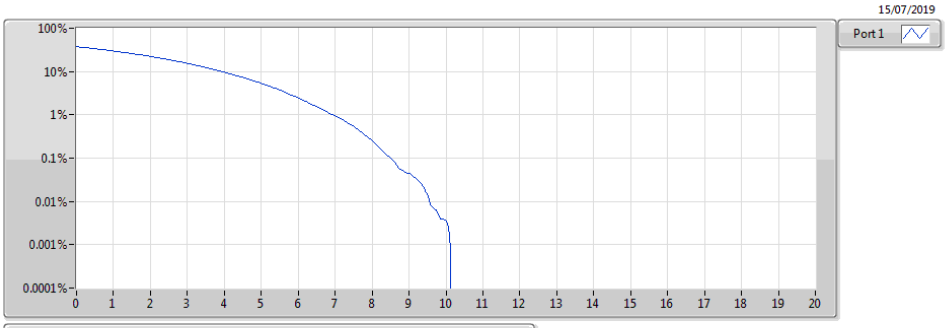
**4965MHz**




| Freq (MHz) | MBW(Hz) | 0.1% | Margin(dB) | Limit(dB) | Port |
|---|---|---|---|---|---|
| 4965 | 20M | 8.32 | -4.68 | 13.00 | 1 |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **PAR**

**4980MHz**




| Freq (MHz) | MBW(Hz) | 0.1% | Margin(dB) | Limit(dB) | Port |
|---|---|---|---|---|---|
| 4980 | 20M | 8.49 | -4.51 | 13.00 | 1 |

## Summary

| Mode | Result | F-Start (Hz) | F-Stop (Hz) | RBW (Hz) | VBW (Hz) | Detector | Freq (Hz) | Level (dBm) | Limit (dBm) | Margin (dB) | Port | Remark | Ref.Limit (dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.94-4.99GHz | - | - | - | - | - | - | - | - | - | - | - | - | - |
| OFDM_5MHz_Nss2_2TX | Pass | 4.9925G | 5G | 50k | 30k | Average | 5G | -64.62 | -56.36 | -8.26 | 2 | - | - |
| OFDM_20MHz_Nss2_2TX | Pass | 4.961G | 4.97G | 200k | 30k | Average | 4.96109G | -41.04 | -32.53 | -8.51 | 2 | - | - |

## Result

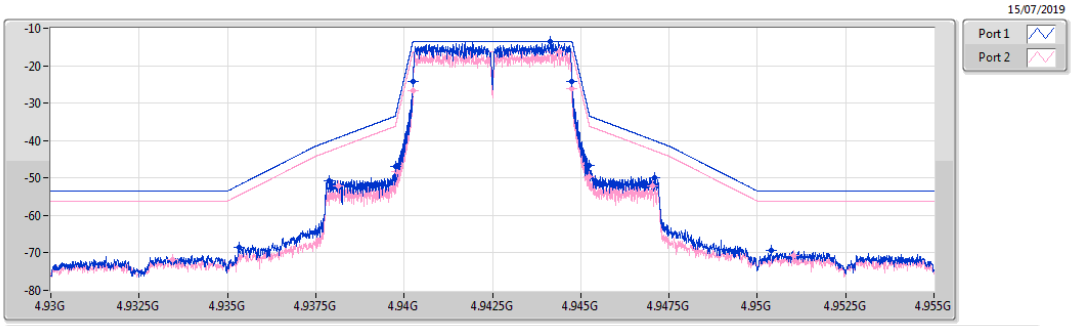
| Mode | Result | F-Start (Hz) | F-Stop (Hz) | RBW (Hz) | VBW (Hz) | Detector | Freq (Hz) | Level (dBm) | Limit (dBm) | Margin (dB) | Port | Remark | Ref.Limit (dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.94-4.99GHz_OFDM_5MHz_Nss2_2TX | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4942.5MHz | Pass | 4.93G | 4.9375G | 50k | 30k | Average | 4.93533G | -68.48 | -51.92 | -16.56 | 1 | - | - |
| 4942.5MHz | Pass | 4.9375G | 4.93975G | 50k | 30k | Average | 4.93789G | -50.69 | -40.08 | -10.61 | 1 | - | - |
| 4942.5MHz | Pass | 4.93975G | 4.94G | 50k | 30k | Average | 4.93977G | -46.83 | -32.60 | -14.23 | 1 | - | - |
| 4942.5MHz | Pass | 4.94G | 4.94025G | 50k | 30k | Average | 4.94025G | -24.19 | -13.57 | -10.62 | 1 | - | - |
| 4942.5MHz | Pass | 4.94025G | 4.94475G | 50k | 30k | Average | 4.944143G | -13.48 | Inf | -Inf | 1 | Ref.PK | - |
| 4942.5MHz | Pass | 4.94475G | 4.945G | 50k | 30k | Average | 4.94475G | -24.12 | -13.55 | -10.57 | 1 | - | - |
| 4942.5MHz | Pass | 4.945G | 4.94525G | 50k | 30k | Average | 4.94523G | -46.53 | -32.57 | -13.96 | 1 | - | - |
| 4942.5MHz | Pass | 4.94525G | 4.9475G | 50k | 30k | Average | 4.9471G | -50.05 | -40.06 | -9.99 | 1 | - | - |
| 4942.5MHz | Pass | 4.9475G | 4.955G | 50k | 30k | Average | 4.95039G | -69.46 | -53.48 | -15.98 | 1 | - | - |
| 4942.5MHz | Pass | 4.93G | 4.9375G | 50k | 30k | Average | 4.93345G | -71.72 | -56.18 | -15.54 | 2 | - | - |
| 4942.5MHz | Pass | 4.9375G | 4.93975G | 50k | 30k | Average | 4.93814G | -52.01 | -41.90 | -10.11 | 2 | - | - |
| 4942.5MHz | Pass | 4.93975G | 4.94G | 50k | 30k | Average | 4.93979G | -48.31 | -34.71 | -13.60 | 2 | - | - |
| 4942.5MHz | Pass | 4.94G | 4.94025G | 50k | 30k | Average | 4.94025G | -26.68 | -16.23 | -10.45 | 2 | - | - |
| 4942.5MHz | Pass | 4.94025G | 4.94475G | 50k | 30k | Average | 4.944386G | -16.18 | Inf | -Inf | 2 | Ref.PK | - |
| 4942.5MHz | Pass | 4.94475G | 4.945G | 50k | 30k | Average | 4.94475G | -26.10 | -16.18 | -9.92 | 2 | - | - |
| 4942.5MHz | Pass | 4.945G | 4.94525G | 50k | 30k | Average | 4.94525G | -49.57 | -36.00 | -13.57 | 2 | - | - |
| 4942.5MHz | Pass | 4.94525G | 4.9475G | 50k | 30k | Average | 4.94702G | -52.10 | -42.47 | -9.63 | 2 | - | - |
| 4942.5MHz | Pass | 4.9475G | 4.955G | 50k | 30k | Average | 4.95102G | -70.78 | -56.18 | -14.60 | 2 | - | - |
| 4967.5MHz | Pass | 4.955G | 4.9625G | 50k | 30k | Average | 4.96001G | -65.23 | -54.01 | -11.22 | 1 | - | - |
| 4967.5MHz | Pass | 4.9625G | 4.96475G | 50k | 30k | Average | 4.96475G | -46.35 | -34.06 | -12.29 | 1 | - | - |
| 4967.5MHz | Pass | 4.96475G | 4.965G | 50k | 30k | Average | 4.96476G | -45.24 | -33.65 | -11.59 | 1 | - | - |
| 4967.5MHz | Pass | 4.965G | 4.96525G | 50k | 30k | Average | 4.96525G | -25.00 | -14.07 | -10.93 | 1 | - | - |
| 4967.5MHz | Pass | 4.96525G | 4.96975G | 50k | 30k | Average | 4.96813G | -14.06 | Inf | -Inf | 1 | Ref.PK | - |
| 4967.5MHz | Pass | 4.96975G | 4.97G | 50k | 30k | Average | 4.96975G | -23.23 | -14.24 | -8.99 | 1 | - | - |
| 4967.5MHz | Pass | 4.97G | 4.97025G | 50k | 30k | Average | 4.97023G | -44.28 | -33.12 | -11.16 | 1 | - | - |
| 4967.5MHz | Pass | 4.97025G | 4.9725G | 50k | 30k | Average | 4.97027G | -45.48 | -34.12 | -11.36 | 1 | - | - |
| 4967.5MHz | Pass | 4.9725G | 4.98G | 50k | 30k | Average | 4.97504G | -68.46 | -54.06 | -14.40 | 1 | - | - |
| 4967.5MHz | Pass | 4.955G | 4.9625G | 50k | 30k | Average | 4.96G | -64.79 | -56.31 | -8.48 | 2 | - | - |
| 4967.5MHz | Pass | 4.9625G | 4.96475G | 50k | 30k | Average | 4.96473G | -48.16 | -36.40 | -11.76 | 2 | - | - |
| 4967.5MHz | Pass | 4.96475G | 4.965G | 50k | 30k | Average | 4.9648G | -45.89 | -34.50 | -11.39 | 2 | - | - |
| 4967.5MHz | Pass | 4.965G | 4.96525G | 50k | 30k | Average | 4.96525G | -27.69 | -16.49 | -11.20 | 2 | - | - |
| 4967.5MHz | Pass | 4.96525G | 4.96975G | 50k | 30k | Average | 4.969147G | -16.31 | Inf | -Inf | 2 | Ref.PK | - |
| 4967.5MHz | Pass | 4.96975G | 4.97G | 50k | 30k | Average | 4.96975G | -26.01 | -16.47 | -9.54 | 2 | - | - |
| 4967.5MHz | Pass | 4.97G | 4.97025G | 50k | 30k | Average | 4.97025G | -47.61 | -36.27 | -11.34 | 2 | - | - |
| 4967.5MHz | Pass | 4.97025G | 4.9725G | 50k | 30k | Average | 4.9703G | -47.91 | -36.47 | -11.44 | 2 | - | - |
| 4967.5MHz | Pass | 4.9725G | 4.98G | 50k | 30k | Average | 4.97499G | -69.88 | -56.26 | -13.62 | 2 | - | - |
| 4987.5MHz | Pass | 4.975G | 4.9825G | 50k | 30k | Average | 4.98033G | -66.25 | -52.22 | -14.03 | 1 | - | - |
| 4987.5MHz | Pass | 4.9825G | 4.98475G | 50k | 30k | Average | 4.98474G | -52.25 | -33.84 | -18.41 | 1 | - | - |
| 4987.5MHz | Pass | 4.98475G | 4.985G | 50k | 30k | Average | 4.98484G | -45.96 | -30.18 | -15.78 | 1 | - | - |
| 4987.5MHz | Pass | 4.985G | 4.98525G | 50k | 30k | Average | 4.98525G | -25.20 | -13.82 | -11.38 | 1 | - | - |
| 4987.5MHz | Pass | 4.98525G | 4.98975G | 50k | 30k | Average | 4.988594G | -13.82 | Inf | -Inf | 1 | Ref.PK | - |
| 4987.5MHz | Pass | 4.98975G | 4.99G | 50k | 30k | Average | 4.98975G | -23.65 | -13.86 | -9.79 | 1 | - | - |
| 4987.5MHz | Pass | 4.99G | 4.99025G | 50k | 30k | Average | 4.99023G | -48.64 | -32.90 | -15.74 | 1 | - | - |
| 4987.5MHz | Pass | 4.99025G | 4.9925G | 50k | 30k | Average | 4.9903G | -50.86 | -34.00 | -16.86 | 1 | - | - |
| 4987.5MHz | Pass | 4.9925G | 5G | 50k | 30k | Average | 5G | -64.73 | -53.82 | -10.91 | 1 | - | - |
| 4987.5MHz | Pass | 4.975G | 4.9825G | 50k | 30k | Average | 4.98038G | -68.18 | -54.55 | -13.63 | 2 | - | - |
| 4987.5MHz | Pass | 4.9825G | 4.98475G | 50k | 30k | Average | 4.98471G | -53.99 | -36.50 | -17.49 | 2 | - | - |
| 4987.5MHz | Pass | 4.98475G | 4.985G | 50k | 30k | Average | 4.98498G | -43.13 | -27.23 | -15.90 | 2 | - | - |
| 4987.5MHz | Pass | 4.985G | 4.98525G | 50k | 30k | Average | 4.98525G | -27.02 | -16.40 | -10.62 | 2 | - | - |
| 4987.5MHz | Pass | 4.98525G | 4.98975G | 50k | 30k | Average | 4.985705G | -16.36 | Inf | -Inf | 2 | Ref.PK | - |
| 4987.5MHz | Pass | 4.98975G | 4.99G | 50k | 30k | Average | 4.98975G | -26.70 | -16.36 | -10.34 | 2 | - | - |
| 4987.5MHz | Pass | 4.99G | 4.99025G | 50k | 30k | Average | 4.99023G | -51.35 | -35.74 | -15.61 | 2 | - | - |

| Mode | Result | F-Start (Hz) | F-Stop (Hz) | RBW (Hz) | VBW (Hz) | Detector | Freq (Hz) | Level (dBm) | Limit (dBm) | Margin (dB) | Port | Remark | Ref.Limit (dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4987.5MHz | Pass | 4.99025G | 4.9925G | 50k | 30k | Average | 4.99026G | -54.45 | -36.38 | -18.07 | 2 | - | - |
| 4987.5MHz | Pass | 4.9925G | 5G | 50k | 30k | Average | 5G | -64.62 | -56.36 | -8.26 | 2 | - | - |
| 4.94-4.99GHz_OFDM_20MHz_Nss2_2TX | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 4950MHz | Pass | 4.9G | 4.93G | 200k | 30k | Average | 4.92001G | -67.27 | -47.78 | -19.49 | 1 | - | - |
| 4950MHz | Pass | 4.93G | 4.939G | 200k | 30k | Average | 4.93891G | -38.63 | -27.87 | -10.76 | 1 | - | - |
| 4950MHz | Pass | 4.939G | 4.94G | 200k | 30k | Average | 4.93901G | -38.37 | -27.71 | -10.66 | 1 | - | - |
| 4950MHz | Pass | 4.94G | 4.941G | 200k | 30k | Average | 4.941G | -20.41 | -7.80 | -12.61 | 1 | - | - |
| 4950MHz | Pass | 4.941G | 4.959G | 200k | 30k | Average | 4.956588G | -7.79 | Inf | -Inf | 1 | Ref.PK | - |
| 4950MHz | Pass | 4.959G | 4.96G | 200k | 30k | Average | 4.959G | -19.99 | -7.79 | -12.20 | 1 | - | - |
| 4950MHz | Pass | 4.96G | 4.961G | 200k | 30k | Average | 4.96098G | -36.99 | -27.59 | -9.40 | 1 | - | - |
| 4950MHz | Pass | 4.961G | 4.97G | 200k | 30k | Average | 4.96114G | -37.50 | -27.91 | -9.59 | 1 | - | - |
| 4950MHz | Pass | 4.97G | 5G | 200k | 30k | Average | 5G | -61.23 | -47.79 | -13.44 | 1 | - | - |
| 4950MHz | Pass | 4.9G | 4.93G | 200k | 30k | Average | 4.92001G | -68.93 | -52.44 | -16.49 | 2 | - | - |
| 4950MHz | Pass | 4.93G | 4.939G | 200k | 30k | Average | 4.93894G | -43.43 | -32.51 | -10.92 | 2 | - | - |
| 4950MHz | Pass | 4.939G | 4.94G | 200k | 30k | Average | 4.93918G | -41.10 | -30.69 | -10.41 | 2 | - | - |
| 4950MHz | Pass | 4.94G | 4.941G | 200k | 30k | Average | 4.94099G | -25.90 | -12.59 | -13.31 | 2 | - | - |
| 4950MHz | Pass | 4.941G | 4.959G | 200k | 30k | Average | 4.95657G | -12.45 | Inf | -Inf | 2 | Ref.PK | - |
| 4950MHz | Pass | 4.959G | 4.96G | 200k | 30k | Average | 4.959G | -24.12 | -12.49 | -11.63 | 2 | - | - |
| 4950MHz | Pass | 4.96G | 4.961G | 200k | 30k | Average | 4.961G | -41.01 | -32.43 | -8.58 | 2 | - | - |
| 4950MHz | Pass | 4.961G | 4.97G | 200k | 30k | Average | 4.96109G | -41.04 | -32.53 | -8.51 | 2 | - | - |
| 4950MHz | Pass | 4.97G | 5G | 200k | 30k | Average | 4.99997G | -65.15 | -52.45 | -12.70 | 2 | - | - |
| 4965MHz | Pass | 4.915G | 4.945G | 200k | 30k | Average | 4.91995G | -65.07 | -48.77 | -16.30 | 1 | - | - |
| 4965MHz | Pass | 4.945G | 4.954G | 200k | 30k | Average | 4.95398G | -39.24 | -28.79 | -10.45 | 1 | - | - |
| 4965MHz | Pass | 4.954G | 4.955G | 200k | 30k | Average | 4.9541G | -38.74 | -27.81 | -10.93 | 1 | - | - |
| 4965MHz | Pass | 4.955G | 4.956G | 200k | 30k | Average | 4.95599G | -23.50 | -8.83 | -14.67 | 1 | - | - |
| 4965MHz | Pass | 4.956G | 4.974G | 200k | 30k | Average | 4.97157G | -8.77 | Inf | -Inf | 1 | Ref.PK | - |
| 4965MHz | Pass | 4.974G | 4.975G | 200k | 30k | Average | 4.97403G | -22.36 | -9.03 | -13.33 | 1 | - | - |
| 4965MHz | Pass | 4.975G | 4.976G | 200k | 30k | Average | 4.97599G | -38.17 | -28.67 | -9.50 | 1 | - | - |
| 4965MHz | Pass | 4.976G | 4.985G | 200k | 30k | Average | 4.97603G | -38.80 | -28.79 | -10.01 | 1 | - | - |
| 4965MHz | Pass | 4.985G | 5.015G | 200k | 30k | Average | 5.00003G | -61.85 | -48.77 | -13.08 | 1 | - | - |
| 4965MHz | Pass | 4.915G | 4.945G | 200k | 30k | Average | 4.92802G | -61.80 | -50.26 | -11.54 | 2 | - | - |
| 4965MHz | Pass | 4.945G | 4.954G | 200k | 30k | Average | 4.95398G | -42.49 | -30.28 | -12.21 | 2 | - | - |
| 4965MHz | Pass | 4.954G | 4.955G | 200k | 30k | Average | 4.95404G | -41.49 | -29.88 | -11.61 | 2 | - | - |
| 4965MHz | Pass | 4.955G | 4.956G | 200k | 30k | Average | 4.95599G | -24.88 | -10.35 | -14.53 | 2 | - | - |
| 4965MHz | Pass | 4.956G | 4.974G | 200k | 30k | Average | 4.967196G | -10.26 | Inf | -Inf | 2 | Ref.PK | - |
| 4965MHz | Pass | 4.974G | 4.975G | 200k | 30k | Average | 4.97401G | -23.93 | -10.33 | -13.60 | 2 | - | - |
| 4965MHz | Pass | 4.975G | 4.976G | 200k | 30k | Average | 4.97586G | -39.48 | -28.89 | -10.59 | 2 | - | - |
| 4965MHz | Pass | 4.976G | 4.985G | 200k | 30k | Average | 4.97609G | -41.56 | -30.34 | -11.22 | 2 | - | - |
| 4965MHz | Pass | 4.985G | 5.015G | 200k | 30k | Average | 4.99754G | -65.43 | -50.26 | -15.17 | 2 | - | - |
| 4980MHz | Pass | 4.93G | 4.96G | 200k | 30k | Average | 4.94401G | -70.02 | -50.34 | -19.68 | 1 | - | - |
| 4980MHz | Pass | 4.96G | 4.969G | 200k | 30k | Average | 4.96897G | -42.02 | -30.36 | -11.66 | 1 | - | - |
| 4980MHz | Pass | 4.969G | 4.97G | 200k | 30k | Average | 4.96901G | -41.92 | -30.27 | -11.65 | 1 | - | - |
| 4980MHz | Pass | 4.97G | 4.971G | 200k | 30k | Average | 4.971G | -22.72 | -10.34 | -12.38 | 1 | - | - |
| 4980MHz | Pass | 4.971G | 4.989G | 200k | 30k | Average | 4.982196G | -10.34 | Inf | -Inf | 1 | Ref.PK | - |
| 4980MHz | Pass | 4.989G | 4.99G | 200k | 30k | Average | 4.989G | -22.49 | -10.35 | -12.14 | 1 | - | - |
| 4980MHz | Pass | 4.99G | 4.991G | 200k | 30k | Average | 4.99088G | -39.09 | -29.14 | -9.95 | 1 | - | - |
| 4980MHz | Pass | 4.991G | 5G | 200k | 30k | Average | 4.99112G | -40.47 | -30.44 | -10.03 | 1 | - | - |
| 4980MHz | Pass | 5G | 5.03G | 200k | 30k | Average | 5.02712G | -67.33 | -50.34 | -16.99 | 1 | - | - |
| 4980MHz | Pass | 4.93G | 4.96G | 200k | 30k | Average | 4.94992G | -67.55 | -49.94 | -17.61 | 2 | - | - |
| 4980MHz | Pass | 4.96G | 4.969G | 200k | 30k | Average | 4.9689G | -41.40 | -30.03 | -11.37 | 2 | - | - |
| 4980MHz | Pass | 4.969G | 4.97G | 200k | 30k | Average | 4.96907G | -40.37 | -29.25 | -11.12 | 2 | - | - |
| 4980MHz | Pass | 4.97G | 4.971G | 200k | 30k | Average | 4.971G | -23.23 | -9.94 | -13.29 | 2 | - | - |
| 4980MHz | Pass | 4.971G | 4.989G | 200k | 30k | Average | 4.982178G | -9.94 | Inf | -Inf | 2 | Ref.PK | - |
| 4980MHz | Pass | 4.989G | 4.99G | 200k | 30k | Average | 4.98901G | -22.22 | -9.99 | -12.23 | 2 | - | - |

| Mode | Result | F-Start (Hz) | F-Stop (Hz) | RBW (Hz) | VBW (Hz) | Detector | Freq (Hz) | Level (dBm) | Limit (dBm) | Margin (dB) | Port | Remark | Ref.Limit (dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4980MHz | Pass | 4.99G | 4.991G | 200k | 30k | Average | 4.99097G | -39.29 | -29.60 | -9.69 | 2 | - | - |
| 4980MHz | Pass | 4.991G | 5G | 200k | 30k | Average | 4.99109G | -40.16 | -30.02 | -10.14 | 2 | - | - |
| 4980MHz | Pass | 5G | 5.03G | 200k | 30k | Average | 5.02598G | -66.03 | -49.94 | -16.09 | 2 | - | - |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **Mask**

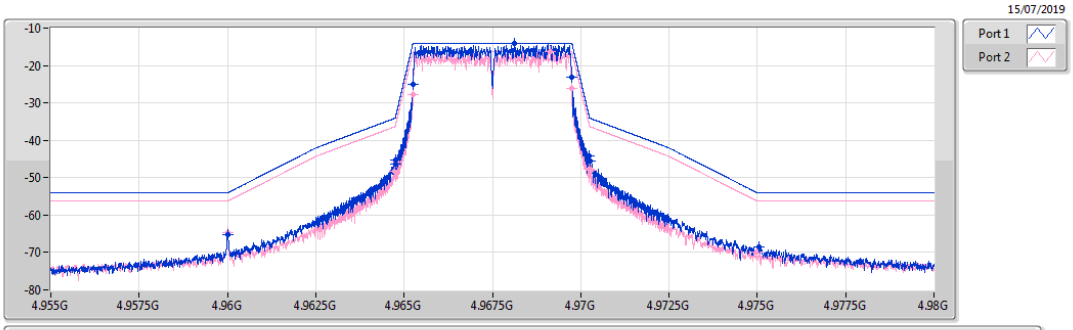
**4942.5MHz**




| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | VBW(Hz) | Detector | Freq(Hz) | Level(dBm) | Limit(dBm) | Margin(dB) | Port | Remark | Ref.Limit(dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.93G | 4.9375G | 50k | 30k | Average | 4.93533G | -68.48 | -51.92 | -16.56 | 1 | - | - |
| 4.9375G | 4.93975G | 50k | 30k | Average | 4.93789G | -50.69 | -40.08 | -10.61 | 1 | - | - |
| 4.93975G | 4.94G | 50k | 30k | Average | 4.93977G | -46.83 | -32.60 | -14.23 | 1 | - | - |
| 4.94G | 4.94025G | 50k | 30k | Average | 4.94025G | -24.19 | -13.57 | -10.62 | 1 | - | - |
| 4.94025G | 4.94475G | 50k | 30k | Average | 4.944143G | -13.48 | Inf | -Inf | 1 | Ref.PK | - |
| 4.94475G | 4.945G | 50k | 30k | Average | 4.94475G | -24.12 | -13.55 | -10.57 | 1 | - | - |
| 4.945G | 4.94525G | 50k | 30k | Average | 4.94523G | -46.53 | -32.57 | -13.96 | 1 | - | - |
| 4.94525G | 4.9475G | 50k | 30k | Average | 4.9471G | -50.05 | -40.06 | -9.99 | 1 | - | - |
| 4.9475G | 4.955G | 50k | 30k | Average | 4.95039G | -69.46 | -53.48 | -15.98 | 1 | - | - |
| 4.93G | 4.9375G | 50k | 30k | Average | 4.93345G | -71.72 | -56.18 | -15.54 | 2 | - | - |
| 4.9375G | 4.93975G | 50k | 30k | Average | 4.93814G | -52.01 | -41.90 | -10.11 | 2 | - | - |
| 4.93975G | 4.94G | 50k | 30k | Average | 4.93979G | -48.31 | -34.71 | -13.60 | 2 | - | - |
| 4.94G | 4.94025G | 50k | 30k | Average | 4.94025G | -26.68 | -16.23 | -10.45 | 2 | - | - |
| 4.94025G | 4.94475G | 50k | 30k | Average | 4.944386G | -16.18 | Inf | -Inf | 2 | Ref.PK | - |
| 4.94475G | 4.945G | 50k | 30k | Average | 4.94475G | -26.10 | -16.18 | -9.92 | 2 | - | - |
| 4.945G | 4.94525G | 50k | 30k | Average | 4.94525G | -49.57 | -36.00 | -13.57 | 2 | - | - |
| 4.94525G | 4.9475G | 50k | 30k | Average | 4.94702G | -52.10 | -42.47 | -9.63 | 2 | - | - |
| 4.9475G | 4.955G | 50k | 30k | Average | 4.95102G | -70.78 | -56.18 | -14.60 | 2 | - | - |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **Mask**

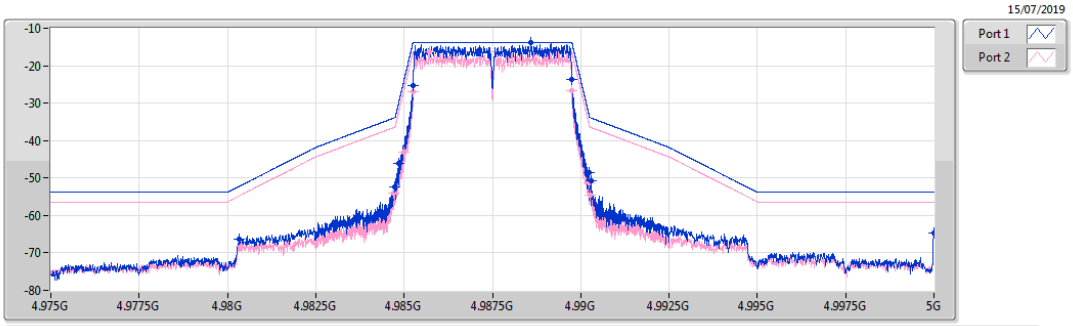
**4967.5MHz**




| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | VBW(Hz) | Detector | Freq(Hz) | Level(dBm) | Limit(dBm) | Margin(dB) | Port | Remark | Ref.Limit(dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.955G | 4.9625G | 50k | 30k | Average | 4.96001G | -65.23 | -54.01 | -11.22 | 1 | - | - |
| 4.9625G | 4.96475G | 50k | 30k | Average | 4.96475G | -46.35 | -34.06 | -12.29 | 1 | - | - |
| 4.96475G | 4.965G | 50k | 30k | Average | 4.96476G | -45.24 | -33.65 | -11.59 | 1 | - | - |
| 4.965G | 4.96525G | 50k | 30k | Average | 4.96525G | -25.00 | -14.07 | -10.93 | 1 | - | - |
| 4.96525G | 4.96975G | 50k | 30k | Average | 4.96813G | -14.06 | Inf | -Inf | 1 | Ref.PK | - |
| 4.96975G | 4.97G | 50k | 30k | Average | 4.96975G | -23.23 | -14.24 | -8.99 | 1 | - | - |
| 4.97G | 4.97025G | 50k | 30k | Average | 4.97023G | -44.28 | -33.12 | -11.16 | 1 | - | - |
| 4.97025G | 4.9725G | 50k | 30k | Average | 4.97027G | -45.48 | -34.12 | -11.36 | 1 | - | - |
| 4.9725G | 4.98G | 50k | 30k | Average | 4.97504G | -68.46 | -54.06 | -14.40 | 1 | - | - |
| 4.955G | 4.9625G | 50k | 30k | Average | 4.96G | -64.79 | -56.31 | -8.48 | 2 | - | - |
| 4.9625G | 4.96475G | 50k | 30k | Average | 4.96473G | -48.16 | -36.40 | -11.76 | 2 | - | - |
| 4.96475G | 4.965G | 50k | 30k | Average | 4.9648G | -45.89 | -34.50 | -11.39 | 2 | - | - |
| 4.965G | 4.96525G | 50k | 30k | Average | 4.96525G | -27.69 | -16.49 | -11.20 | 2 | - | - |
| 4.96525G | 4.96975G | 50k | 30k | Average | 4.969147G | -16.31 | Inf | -Inf | 2 | Ref.PK | - |
| 4.96975G | 4.97G | 50k | 30k | Average | 4.96975G | -26.01 | -16.47 | -9.54 | 2 | - | - |
| 4.97G | 4.97025G | 50k | 30k | Average | 4.97025G | -47.61 | -36.27 | -11.34 | 2 | - | - |
| 4.97025G | 4.9725G | 50k | 30k | Average | 4.9703G | -47.91 | -36.47 | -11.44 | 2 | - | - |
| 4.9725G | 4.98G | 50k | 30k | Average | 4.97499G | -69.88 | -56.26 | -13.62 | 2 | - | - |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **Mask**

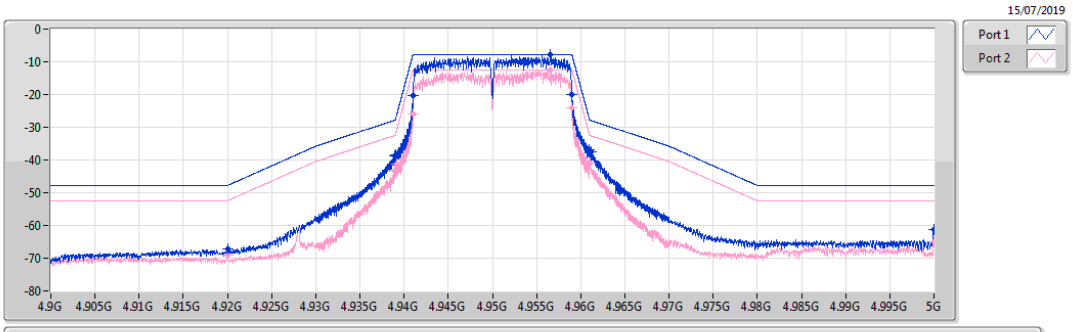
**4987.5MHz**




| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | VBW(Hz) | Detector | Freq(Hz) | Level(dBm) | Limit(dBm) | Margin(dB) | Port | Remark | Ref.Limit(dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.975G | 4.9825G | 50k | 30k | Average | 4.98033G | -66.25 | -52.22 | -14.03 | 1 | - | - |
| 4.9825G | 4.98475G | 50k | 30k | Average | 4.98474G | -52.25 | -33.84 | -18.41 | 1 | - | - |
| 4.98475G | 4.985G | 50k | 30k | Average | 4.98484G | -45.96 | -30.18 | -15.78 | 1 | - | - |
| 4.985G | 4.98525G | 50k | 30k | Average | 4.98525G | -25.20 | -13.82 | -11.38 | 1 | - | - |
| 4.98525G | 4.98975G | 50k | 30k | Average | 4.988594G | -13.82 | Inf | -Inf | 1 | Ref.PK | - |
| 4.98975G | 4.99G | 50k | 30k | Average | 4.98975G | -23.65 | -13.86 | -9.79 | 1 | - | - |
| 4.99G | 4.99025G | 50k | 30k | Average | 4.99023G | -48.64 | -32.90 | -15.74 | 1 | - | - |
| 4.99025G | 4.9925G | 50k | 30k | Average | 4.9903G | -50.86 | -34.00 | -16.86 | 1 | - | - |
| 4.9925G | 5G | 50k | 30k | Average | 5G | -64.73 | -53.82 | -10.91 | 1 | - | - |
| 4.975G | 4.9825G | 50k | 30k | Average | 4.98038G | -68.18 | -54.55 | -13.63 | 2 | - | - |
| 4.9825G | 4.98475G | 50k | 30k | Average | 4.98471G | -53.99 | -36.50 | -17.49 | 2 | - | - |
| 4.98475G | 4.985G | 50k | 30k | Average | 4.98498G | -43.13 | -27.23 | -15.90 | 2 | - | - |
| 4.985G | 4.98525G | 50k | 30k | Average | 4.98525G | -27.02 | -16.40 | -10.62 | 2 | - | - |
| 4.98525G | 4.98975G | 50k | 30k | Average | 4.985705G | -16.36 | Inf | -Inf | 2 | Ref.PK | - |
| 4.98975G | 4.99G | 50k | 30k | Average | 4.98975G | -26.70 | -16.36 | -10.34 | 2 | - | - |
| 4.99G | 4.99025G | 50k | 30k | Average | 4.99023G | -51.35 | -35.74 | -15.61 | 2 | - | - |
| 4.99025G | 4.9925G | 50k | 30k | Average | 4.99026G | -54.45 | -36.38 | -18.07 | 2 | - | - |
| 4.9925G | 5G | 50k | 30k | Average | 5G | -64.62 | -56.36 | -8.26 | 2 | - | - |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **Mask**

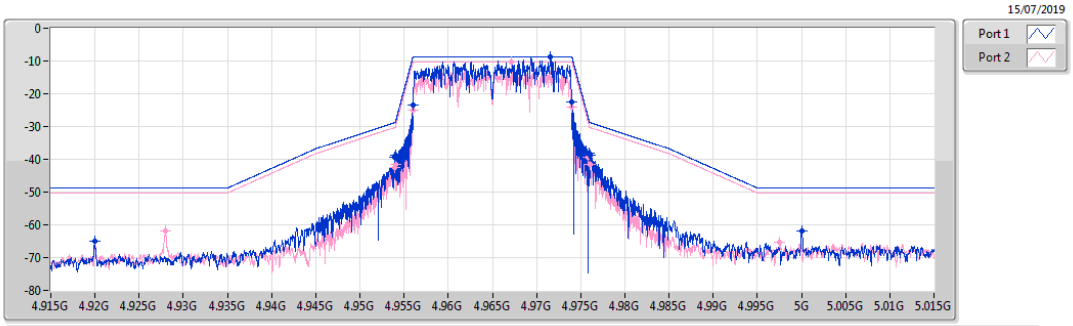
**4950MHz**




| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | VBW(Hz) | Detector | Freq(Hz) | Level(dBm) | Limit(dBm) | Margin(dB) | Port | Remark | Ref.Limit(dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.9G | 4.93G | 200k | 30k | Average | 4.92001G | -67.27 | -47.78 | -19.49 | 1 | - | - |
| 4.93G | 4.939G | 200k | 30k | Average | 4.93891G | -38.63 | -27.87 | -10.76 | 1 | - | - |
| 4.939G | 4.94G | 200k | 30k | Average | 4.93901G | -38.37 | -27.71 | -10.66 | 1 | - | - |
| 4.94G | 4.941G | 200k | 30k | Average | 4.941G | -20.41 | -7.80 | -12.61 | 1 | - | - |
| 4.941G | 4.959G | 200k | 30k | Average | 4.956588G | -7.79 | Inf | -Inf | 1 | Ref.PK | - |
| 4.959G | 4.96G | 200k | 30k | Average | 4.959G | -19.99 | -7.79 | -12.20 | 1 | - | - |
| 4.96G | 4.961G | 200k | 30k | Average | 4.96098G | -36.99 | -27.59 | -9.40 | 1 | - | - |
| 4.961G | 4.97G | 200k | 30k | Average | 4.96114G | -37.50 | -27.91 | -9.59 | 1 | - | - |
| 4.97G | 5G | 200k | 30k | Average | 5G | -61.23 | -47.79 | -13.44 | 1 | - | - |
| 4.9G | 4.93G | 200k | 30k | Average | 4.92001G | -68.93 | -52.44 | -16.49 | 2 | - | - |
| 4.93G | 4.939G | 200k | 30k | Average | 4.93894G | -43.43 | -32.51 | -10.92 | 2 | - | - |
| 4.939G | 4.94G | 200k | 30k | Average | 4.93918G | -41.10 | -30.69 | -10.41 | 2 | - | - |
| 4.94G | 4.941G | 200k | 30k | Average | 4.94099G | -25.90 | -12.59 | -13.31 | 2 | - | - |
| 4.941G | 4.959G | 200k | 30k | Average | 4.95657G | -12.45 | Inf | -Inf | 2 | Ref.PK | - |
| 4.959G | 4.96G | 200k | 30k | Average | 4.959G | -24.12 | -12.49 | -11.63 | 2 | - | - |
| 4.96G | 4.961G | 200k | 30k | Average | 4.961G | -41.01 | -32.43 | -8.58 | 2 | - | - |
| 4.961G | 4.97G | 200k | 30k | Average | 4.96109G | -41.04 | -32.53 | -8.51 | 2 | - | - |
| 4.97G | 5G | 200k | 30k | Average | 4.99997G | -65.15 | -52.45 | -12.70 | 2 | - | - |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **Mask**

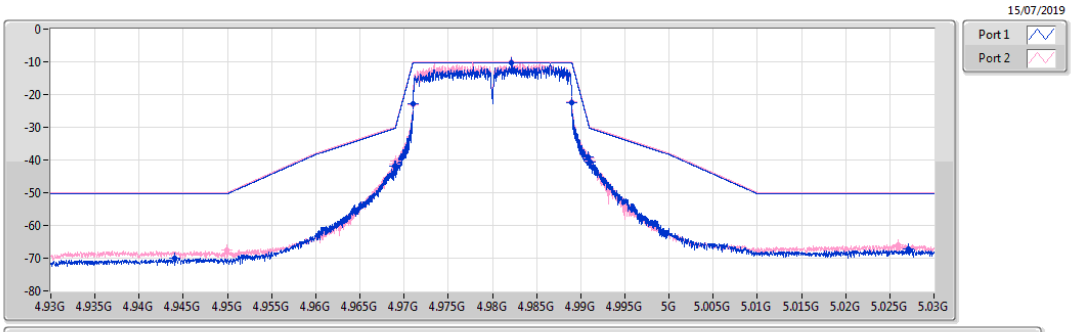
**4965MHz**




| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | VBW(Hz) | Detector | Freq(Hz) | Level(dBm) | Limit(dBm) | Margin(dB) | Port | Remark | Ref.Limit(dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.915G | 4.945G | 200k | 30k | Average | 4.91995G | -65.07 | -48.77 | -16.30 | 1 | - | - |
| 4.945G | 4.954G | 200k | 30k | Average | 4.95398G | -39.24 | -28.79 | -10.45 | 1 | - | - |
| 4.954G | 4.955G | 200k | 30k | Average | 4.9541G | -38.74 | -27.81 | -10.93 | 1 | - | - |
| 4.955G | 4.956G | 200k | 30k | Average | 4.95599G | -23.50 | -8.83 | -14.67 | 1 | - | - |
| 4.956G | 4.974G | 200k | 30k | Average | 4.97157G | -8.77 | Inf | -Inf | 1 | Ref.PK | - |
| 4.974G | 4.975G | 200k | 30k | Average | 4.97403G | -22.36 | -9.03 | -13.33 | 1 | - | - |
| 4.975G | 4.976G | 200k | 30k | Average | 4.97599G | -38.17 | -28.67 | -9.50 | 1 | - | - |
| 4.976G | 4.985G | 200k | 30k | Average | 4.97603G | -38.80 | -28.79 | -10.01 | 1 | - | - |
| 4.985G | 5.015G | 200k | 30k | Average | 5.00003G | -61.85 | -48.77 | -13.08 | 1 | - | - |
| 4.915G | 4.945G | 200k | 30k | Average | 4.92802G | -61.80 | -50.26 | -11.54 | 2 | - | - |
| 4.945G | 4.954G | 200k | 30k | Average | 4.95398G | -42.49 | -30.28 | -12.21 | 2 | - | - |
| 4.954G | 4.955G | 200k | 30k | Average | 4.95404G | -41.49 | -29.88 | -11.61 | 2 | - | - |
| 4.955G | 4.956G | 200k | 30k | Average | 4.95599G | -24.88 | -10.35 | -14.53 | 2 | - | - |
| 4.956G | 4.974G | 200k | 30k | Average | 4.967196G | -10.26 | Inf | -Inf | 2 | Ref.PK | - |
| 4.974G | 4.975G | 200k | 30k | Average | 4.97401G | -23.93 | -10.33 | -13.60 | 2 | - | - |
| 4.975G | 4.976G | 200k | 30k | Average | 4.97586G | -39.48 | -28.89 | -10.59 | 2 | - | - |
| 4.976G | 4.985G | 200k | 30k | Average | 4.97609G | -41.56 | -30.34 | -11.22 | 2 | - | - |
| 4.985G | 5.015G | 200k | 30k | Average | 4.99754G | -65.43 | -50.26 | -15.17 | 2 | - | - |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **Mask**

**4980MHz**




| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | VBW(Hz) | Detector | Freq(Hz) | Level(dBm) | Limit(dBm) | Margin(dB) | Port | Remark | Ref.Limit(dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.93G | 4.96G | 200k | 30k | Average | 4.94401G | -70.02 | -50.34 | -19.68 | 1 | - | - |
| 4.96G | 4.969G | 200k | 30k | Average | 4.96897G | -42.02 | -30.36 | -11.66 | 1 | - | - |
| 4.969G | 4.97G | 200k | 30k | Average | 4.96901G | -41.92 | -30.27 | -11.65 | 1 | - | - |
| 4.97G | 4.971G | 200k | 30k | Average | 4.971G | -22.72 | -10.34 | -12.38 | 1 | - | - |
| 4.971G | 4.989G | 200k | 30k | Average | 4.982196G | -10.34 | Inf | -Inf | 1 | Ref.PK | - |
| 4.989G | 4.99G | 200k | 30k | Average | 4.989G | -22.49 | -10.35 | -12.14 | 1 | - | - |
| 4.99G | 4.991G | 200k | 30k | Average | 4.99088G | -39.09 | -29.14 | -9.95 | 1 | - | - |
| 4.991G | 5G | 200k | 30k | Average | 4.99112G | -40.47 | -30.44 | -10.03 | 1 | - | - |
| 5G | 5.03G | 200k | 30k | Average | 5.02712G | -67.33 | -50.34 | -16.99 | 1 | - | - |
| 4.93G | 4.96G | 200k | 30k | Average | 4.94992G | -67.55 | -49.94 | -17.61 | 2 | - | - |
| 4.96G | 4.969G | 200k | 30k | Average | 4.9689G | -41.40 | -30.03 | -11.37 | 2 | - | - |
| 4.969G | 4.97G | 200k | 30k | Average | 4.96907G | -40.37 | -29.25 | -11.12 | 2 | - | - |
| 4.97G | 4.971G | 200k | 30k | Average | 4.971G | -23.23 | -9.94 | -13.29 | 2 | - | - |
| 4.971G | 4.989G | 200k | 30k | Average | 4.982178G | -9.94 | Inf | -Inf | 2 | Ref.PK | - |
| 4.989G | 4.99G | 200k | 30k | Average | 4.98901G | -22.22 | -9.99 | -12.23 | 2 | - | - |
| 4.99G | 4.991G | 200k | 30k | Average | 4.99097G | -39.29 | -29.60 | -9.69 | 2 | - | - |
| 4.991G | 5G | 200k | 30k | Average | 4.99109G | -40.16 | -30.02 | -10.14 | 2 | - | - |
| 5G | 5.03G | 200k | 30k | Average | 5.02598G | -66.03 | -49.94 | -16.09 | 2 | - | - |

## Summary

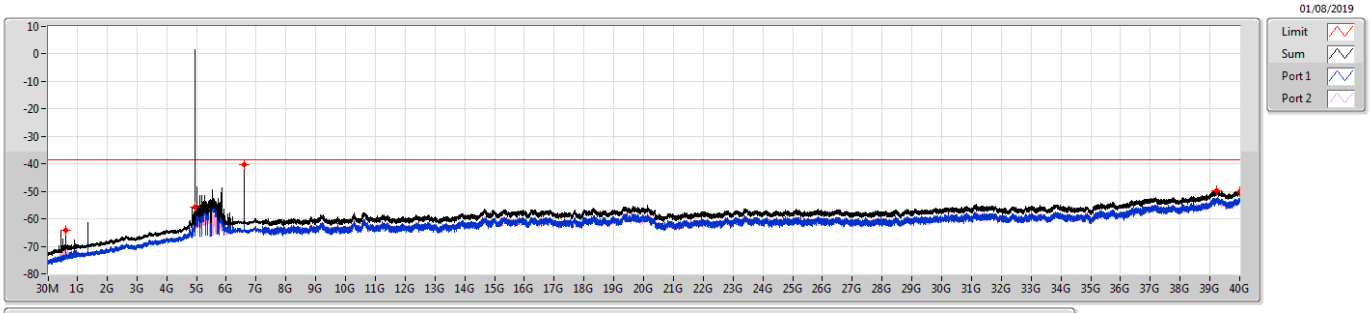
| Mode | Result | F-Start (Hz) | F-Stop (Hz) | RBW (Hz) | VBW (Hz) | Detector | Freq (Hz) | Level (dBm) | Limit (dBm) | Margin (dB) | Remark | Ref.Limit (dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.94-4.99GHz | - | - | - | - | - | - | - | - | - | - | - | - |
| OFDM_5MHz_Nss2_2TX | Pass | 4.95G | 7.2G | 1M | 3M | RMS | 6.59025G | -40.24 | -38.53 | -1.71 | - | - |
| OFDM_20MHz_Nss2_2TX | Pass | 4.995G | 7.2G | 1M | 3M | RMS | 6.62009G | -41.15 | -41.14 | -0.01 | - | - |

## Result

| Mode | Result | F-Start (Hz) | F-Stop (Hz) | RBW (Hz) | VBW (Hz) | Detector | Freq (Hz) | Level (dBm) | Limit (dBm) | Margin (dB) | Remark | Ref.Limit (dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.94-4.99GHz_OFDM_5MHz_Nss2_2TX | - | - | - | - | - | - | - | - | - | - | - | - |
| 4942.5MHz | Pass | 30M | 1G | 1M | 3M | RMS | 625.1M | -64.18 | -38.53 | -25.65 | - | - |
| 4942.5MHz | Pass | 1G | 4.935G | 1M | 3M | RMS | 4.935G | -55.84 | -38.53 | -17.31 | - | - |
| 4942.5MHz | Pass | 4.95G | 7.2G | 1M | 3M | RMS | 6.59025G | -40.24 | -38.53 | -1.71 | - | - |
| 4942.5MHz | Pass | 7.2G | 40G | 1M | 3M | RMS | 39.22483G | -49.66 | -38.53 | -11.13 | - | - |
| 4942.5MHz | Pass | 7.2G | 40G | 1M | 3M | RMS | 40G | -49.97 | -38.53 | -11.44 | - | - |
| 4967.5MHz | Pass | 30M | 1G | 1M | 3M | RMS | 624.85M | -63.28 | -38.97 | -24.31 | - | - |
| 4967.5MHz | Pass | 1G | 4.96G | 1M | 3M | RMS | 4.92832G | -57.53 | -38.97 | -18.56 | - | - |
| 4967.5MHz | Pass | 4.975G | 7.2G | 1M | 3M | RMS | 6.62373G | -43.55 | -38.97 | -4.58 | - | - |
| 4967.5MHz | Pass | 7.2G | 40G | 1M | 3M | RMS | 39.22811G | -49.42 | -38.97 | -10.45 | - | - |
| 4967.5MHz | Pass | 7.2G | 40G | 1M | 3M | RMS | 40G | -49.74 | -38.97 | -10.77 | - | - |
| 4987.5MHz | Pass | 30M | 1G | 1M | 3M | RMS | 624.85M | -63.58 | -38.99 | -24.59 | - | - |
| 4987.5MHz | Pass | 1G | 4.98G | 1M | 3M | RMS | 4.98G | -54.44 | -38.99 | -15.45 | - | - |
| 4987.5MHz | Pass | 4.995G | 7.2G | 1M | 3M | RMS | 6.6504G | -45.13 | -38.99 | -6.14 | - | - |
| 4987.5MHz | Pass | 7.2G | 40G | 1M | 3M | RMS | 39.99781G | -49.49 | -38.99 | -10.50 | - | - |
| 4987.5MHz | Pass | 7.2G | 40G | 1M | 3M | RMS | 40G | -50.18 | -38.99 | -11.19 | - | - |
| 4.94-4.99GHz_OFDM_20MHz_Nss2_2TX | - | - | - | - | - | - | - | - | - | - | - | - |
| 4950MHz | Pass | 30M | 1G | 1M | 3M | RMS | 625.1M | -64.61 | -40.76 | -23.85 | - | - |
| 4950MHz | Pass | 1G | 4.92G | 1M | 3M | RMS | 4.87394G | -54.34 | -40.76 | -13.58 | - | - |
| 4950MHz | Pass | 4.98G | 7.2G | 1M | 3M | RMS | 6.60005G | -41.08 | -40.76 | -0.32 | - | - |
| 4950MHz | Pass | 7.2G | 40G | 1M | 3M | RMS | 39.16688G | -49.69 | -40.76 | -8.93 | - | - |
| 4950MHz | Pass | 7.2G | 40G | 1M | 3M | RMS | 40G | -50.92 | -40.76 | -10.16 | - | - |
| 4965MHz | Pass | 30M | 1G | 1M | 3M | RMS | 625.1M | -64.29 | -41.14 | -23.15 | - | - |
| 4965MHz | Pass | 1G | 4.935G | 1M | 3M | RMS | 4.92811G | -55.32 | -41.14 | -14.18 | - | - |
| 4965MHz | Pass | 4.995G | 7.2G | 1M | 3M | RMS | 6.62009G | -41.15 | -41.14 | -0.01 | - | - |
| 4965MHz | Pass | 7.2G | 40G | 1M | 3M | RMS | 39.20843G | -49.52 | -41.14 | -8.38 | - | - |
| 4965MHz | Pass | 7.2G | 40G | 1M | 3M | RMS | 40G | -50.75 | -41.14 | -9.61 | - | - |
| 4980MHz | Pass | 30M | 1G | 1M | 3M | RMS | 624.85M | -63.88 | -41.15 | -22.73 | - | - |
| 4980MHz | Pass | 1G | 4.95G | 1M | 3M | RMS | 4.90606G | -55.94 | -41.15 | -14.79 | - | - |
| 4980MHz | Pass | 5.01G | 7.2G | 1M | 3M | RMS | 6.63991G | -42.57 | -41.15 | -1.42 | - | - |
| 4980MHz | Pass | 7.2G | 40G | 1M | 3M | RMS | 39.29699G | -49.46 | -41.15 | -8.31 | - | - |
| 4980MHz | Pass | 7.2G | 40G | 1M | 3M | RMS | 40G | -50.33 | -41.15 | -9.18 | - | - |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **CSE-TX-Sum**

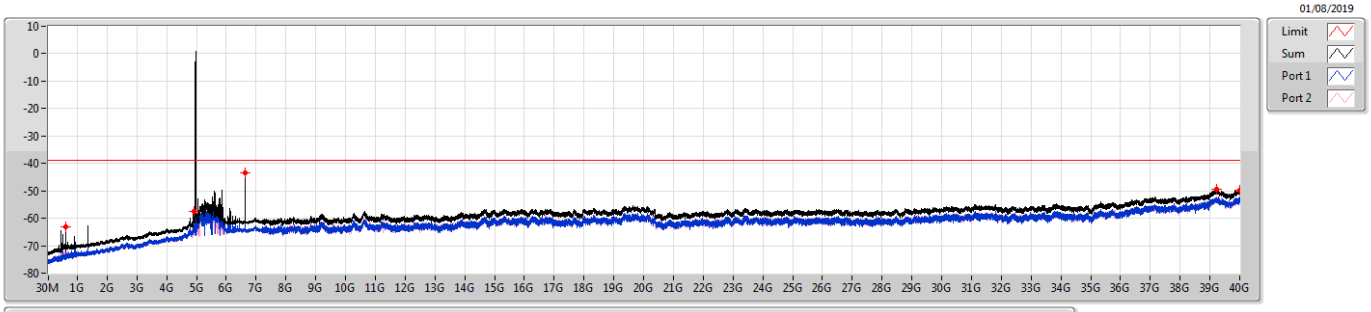
**4942.5MHz**




| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | VBW(Hz) | Detector | Freq(Hz) | Level(dBm) | Limit(dBm) | Margin(dB) | Remark | Ref.Limit(dB) | P3(dBm) | P1(dBm) | P2(dBm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30M | 1G | 1M | 3M | RMS | 625.1M | -64.18 | -38.53 | -25.65 | - | - | | -69.76 | -65.58 |
| 1G | 4.935G | 1M | 3M | RMS | 4.935G | -55.84 | -38.53 | -17.31 | - | - | | -60.42 | -57.70 |
| 4.95G | 7.2G | 1M | 3M | RMS | 6.59025G | -40.24 | -38.53 | -1.71 | - | - | | -43.69 | -42.85 |
| 7.2G | 40G | 1M | 3M | RMS | 39.22483G | -49.66 | -38.53 | -11.13 | - | - | | -52.59 | -52.75 |
| 7.2G | 40G | 1M | 3M | RMS | 40G | -49.97 | -38.53 | -11.44 | - | - | | -53.23 | -52.75 |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **CSE-TX-Sum**

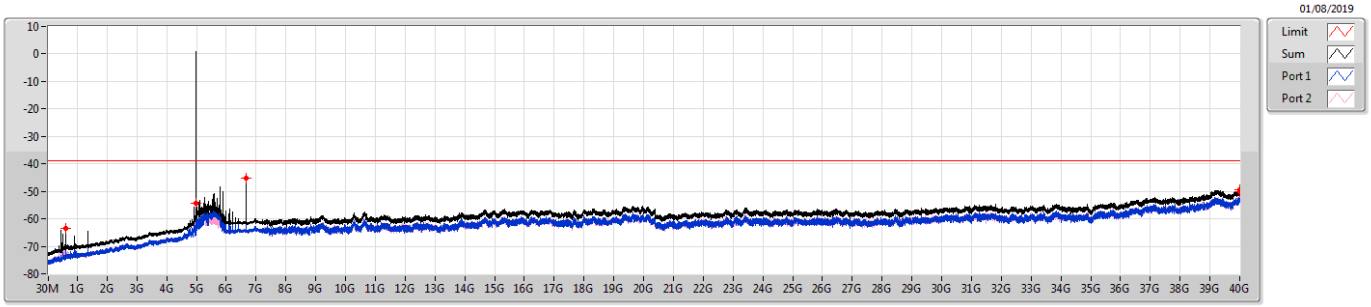
**4967.5MHz**




| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | VBW(Hz) | Detector | Freq(Hz) | Level(dBm) | Limit(dBm) | Margin(dB) | Remark | Ref.Limit(dB) | P3(dBm) | P1(dBm) | P2(dBm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30M | 1G | 1M | 3M | RMS | 624.85M | -63.28 | -38.97 | -24.31 | - | - | | -69.77 | -64.38 |
| 1G | 4.96G | 1M | 3M | RMS | 4.92832G | -57.53 | -38.97 | -18.56 | - | - | | -63.14 | -58.92 |
| 4.975G | 7.2G | 1M | 3M | RMS | 6.62373G | -43.55 | -38.97 | -4.58 | - | - | | -48.18 | -45.38 |
| 7.2G | 40G | 1M | 3M | RMS | 39.22811G | -49.42 | -38.97 | -10.45 | - | - | | -52.99 | -51.93 |
| 7.2G | 40G | 1M | 3M | RMS | 40G | -49.74 | -38.97 | -10.77 | - | - | | -52.73 | -52.78 |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **CSE-TX-Sum**

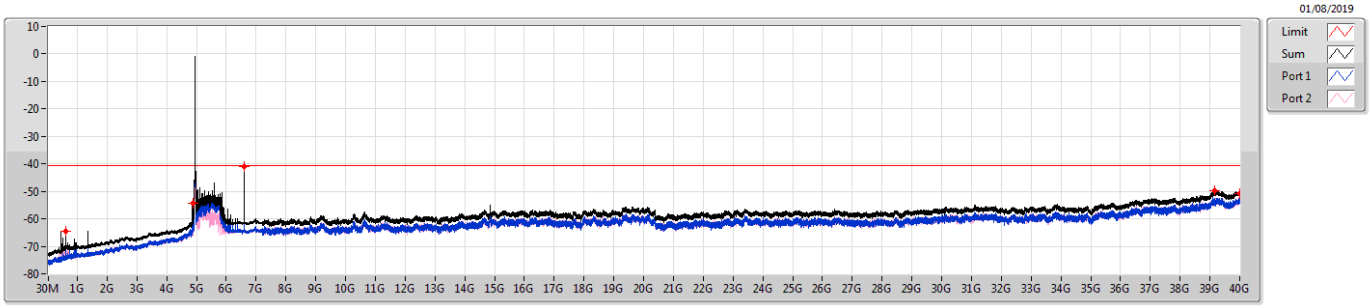
**4987.5MHz**




| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | VBW(Hz) | Detector | Freq(Hz) | Level(dBm) | Limit(dBm) | Margin(dB) | Remark | Ref.Limit(dB) | P3(dBm) | P1(dBm) | P2(dBm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30M | 1G | 1M | 3M | RMS | 624.85M | -63.58 | -38.99 | -24.59 | - | - | | -70.09 | -64.68 |
| 1G | 4.98G | 1M | 3M | RMS | 4.98G | -54.44 | -38.99 | -15.45 | - | - | | -56.65 | -58.43 |
| 4.995G | 7.2G | 1M | 3M | RMS | 6.6504G | -45.13 | -38.99 | -6.14 | - | - | | -50.74 | -46.53 |
| 7.2G | 40G | 1M | 3M | RMS | 39.99781G | -49.49 | -38.99 | -10.50 | - | - | | -52.61 | -52.39 |
| 7.2G | 40G | 1M | 3M | RMS | 40G | -50.18 | -38.99 | -11.19 | - | - | | -53.01 | -53.37 |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **CSE-TX-Sum**

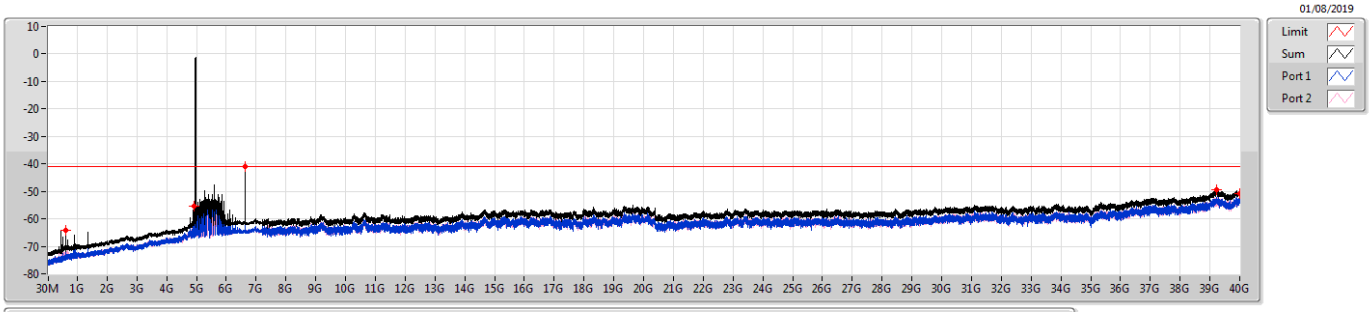
**4950MHz**




| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | VBW(Hz) | Detector | Freq(Hz) | Level(dBm) | Limit(dBm) | Margin(dB) | Remark | Ref.Limit(dB) | P3(dBm) | P1(dBm) | P2(dBm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30M | 1G | 1M | 3M | RMS | 625.1M | -64.61 | -40.76 | -23.85 | - | - | | -71.58 | -65.58 |
| 1G | 4.92G | 1M | 3M | RMS | 4.87394G | -54.34 | -40.76 | -13.58 | - | - | | -56.37 | -58.63 |
| 4.98G | 7.2G | 1M | 3M | RMS | 6.60005G | -41.08 | -40.76 | -0.32 | - | - | | -48.42 | -41.97 |
| 7.2G | 40G | 1M | 3M | RMS | 39.16688G | -49.69 | -40.76 | -8.93 | - | - | | -52.50 | -52.92 |
| 7.2G | 40G | 1M | 3M | RMS | 40G | -50.92 | -40.76 | -10.16 | - | - | | -53.82 | -54.04 |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **CSE-TX-Sum**

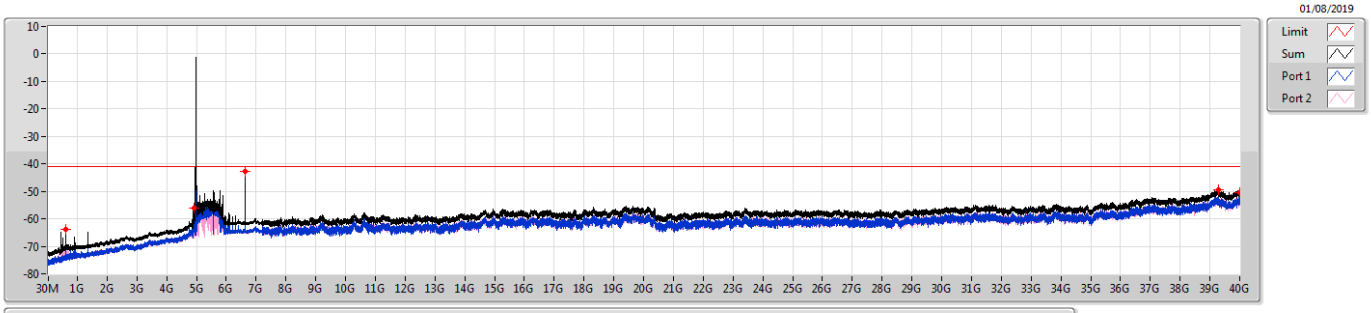
**4965MHz**




| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | VBW(Hz) | Detector | Freq(Hz) | Level(dBm) | Limit(dBm) | Margin(dB) | Remark | Ref.Limit(dB) | P3(dBm) | P1(dBm) | P2(dBm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30M | 1G | 1M | 3M | RMS | 625.1M | -64.29 | -41.14 | -23.15 | - | - | | -70.66 | -65.43 |
| 1G | 4.935G | 1M | 3M | RMS | 4.92811G | -55.32 | -41.14 | -14.18 | - | - | | -62.31 | -56.29 |
| 4.995G | 7.2G | 1M | 3M | RMS | 6.62009G | -41.15 | -41.14 | -0.01 | - | - | | -49.33 | -41.87 |
| 7.2G | 40G | 1M | 3M | RMS | 39.20843G | -49.52 | -41.14 | -8.38 | - | - | | -52.22 | -52.87 |
| 7.2G | 40G | 1M | 3M | RMS | 40G | -50.75 | -41.14 | -9.61 | - | - | | -54.37 | -53.23 |

**4.94-4.99GHz_OFDM_5MHz_Nss2_2TX** **CSE-TX-Sum**

**4980MHz**




| F-Start(Hz) | F-Stop(Hz) | RBW(Hz) | VBW(Hz) | Detector | Freq(Hz) | Level(dBm) | Limit(dBm) | Margin(dB) | Remark | Ref.Limit(dB) | P3(dBm) | P1(dBm) | P2(dBm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30M | 1G | 1M | 3M | RMS | 624.85M | -63.88 | -41.15 | -22.73 | - | - | | -70.72 | -64.89 |
| 1G | 4.95G | 1M | 3M | RMS | 4.90606G | -55.94 | -41.15 | -14.79 | - | - | | -59.19 | -58.72 |
| 5.01G | 7.2G | 1M | 3M | RMS | 6.63991G | -42.57 | -41.15 | -1.42 | - | - | | -52.25 | -43.06 |
| 7.2G | 40G | 1M | 3M | RMS | 39.29699G | -49.46 | -41.15 | -8.31 | - | - | | -52.77 | -52.19 |
| 7.2G | 40G | 1M | 3M | RMS | 40G | -50.33 | -41.15 | -9.18 | - | - | | -53.25 | -53.44 |

## Summary

| Mode | Result | Ch (Hz) | Center (Hz) | Fl (Hz) | Fh (Hz) | ppm | Limit (Fl,Fh,ppm) | Port | Remark |
|---|---|---|---|---|---|---|---|---|---|
| 4.94-4.99GHz | - | - | - | - | - | - | - | - | - |
| OFDM_5MHz_Nss2_2TX | Pass | 4.9675G | 4.967542G | 4.965312G | 4.969771G | 8.397 | 4.94G,4.99G,Inf | 1 | - |
| OFDM_20MHz_Nss2_2TX | Pass | 4.965G | 4.965073G | 4.956279G | 4.973868G | 14.726 | 4.94G,4.99G,Inf | 1 | - |

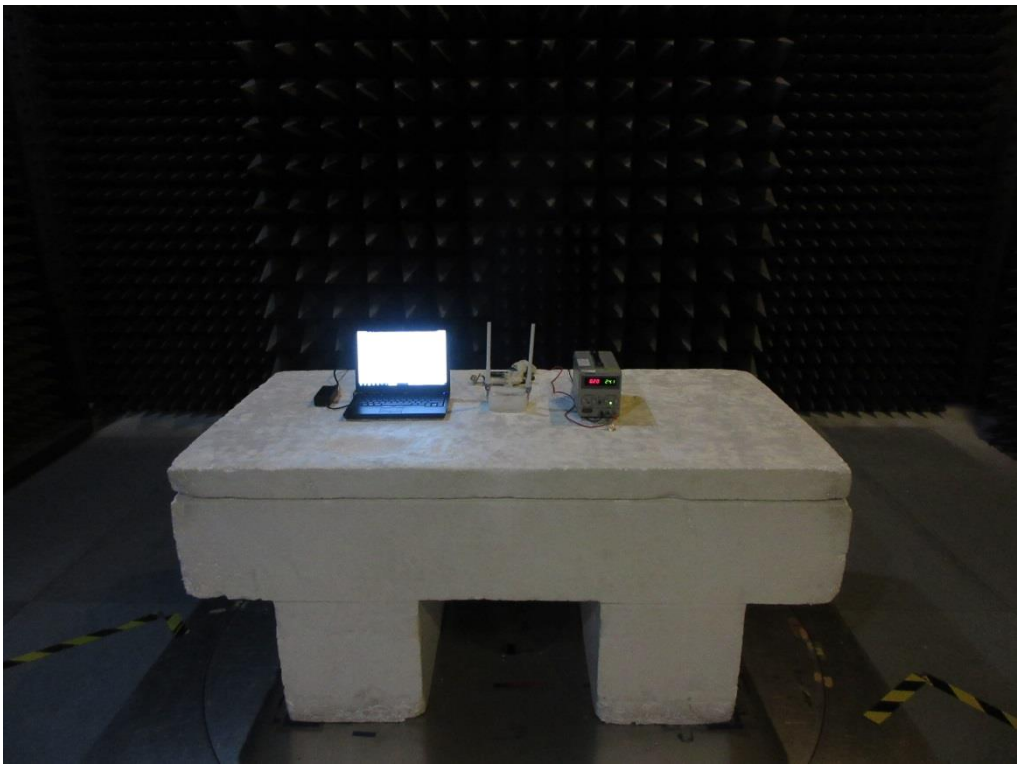
## Result

| Mode | Result | Ch (Hz) | Center (Hz) | Fl (Hz) | Fh (Hz) | ppm | Limit (Fl,Fh,ppm) | Port | Remark |
|---|---|---|---|---|---|---|---|---|---|
| 4.94-4.99GHz_OFDM_5MHz_Nss2_2TX | - | - | - | - | - | - | - | - | - |
| 4967.5MHz_-30°C | Pass | 4.9675G | 4.967539G | 4.965313G | 4.969765G | 7.831 | 4.94G,4.99G,Inf | 1 | - |
| 4967.5MHz_-20°C | Pass | 4.9675G | 4.967538G | 4.965314G | 4.969763G | 7.737 | 4.94G,4.99G,Inf | 1 | - |
| 4967.5MHz_-10°C | Pass | 4.9675G | 4.967542G | 4.965312G | 4.969771G | 8.397 | 4.94G,4.99G,Inf | 1 | - |
| 4967.5MHz_0°C | Pass | 4.9675G | 4.967524G | 4.965298G | 4.96975G | 4.812 | 4.94G,4.99G,Inf | 1 | - |
| 4967.5MHz_10°C | Pass | 4.9675G | 4.967517G | 4.96529G | 4.969745G | 3.491 | 4.94G,4.99G,Inf | 1 | - |
| 4967.5MHz_20°C | Pass | 4.9675G | 4.96751G | 4.965282G | 4.969738G | 2.076 | 4.94G,4.99G,Inf | 1 | - |
| 4967.5MHz_30°C | Pass | 4.9675G | 4.967486G | 4.965262G | 4.969711G | -2.736 | 4.94G,4.99G,Inf | 1 | - |
| 4967.5MHz_40°C | Pass | 4.9675G | 4.967488G | 4.965262G | 4.969714G | -2.453 | 4.94G,4.99G,Inf | 1 | - |
| 4967.5MHz_50°C | Pass | 4.9675G | 4.967496G | 4.96527G | 4.969722G | -0.849 | 4.94G,4.99G,Inf | 1 | - |
| 4967.5MHz_60°C | Pass | 4.9675G | 4.967526G | 4.965301G | 4.969752G | 5.284 | 4.94G,4.99G,Inf | 1 | - |
| 4967.5MHz_27.6V | Pass | 4.9675G | 4.967507G | 4.965279G | 4.969736G | 1.51 | 4.94G,4.99G,Inf | 1 | - |
| 4967.5MHz_24V | Pass | 4.9675G | 4.967506G | 4.965279G | 4.969732G | 1.132 | 4.94G,4.99G,Inf | 1 | - |
| 4967.5MHz_20.4V | Pass | 4.9675G | 4.967505G | 4.965276G | 4.969734G | 0.944 | 4.94G,4.99G,Inf | 1 | - |
| 4.94-4.99GHz_OFDM_20MHz_Nss2_2TX | - | - | - | - | - | - | - | - | - |
| 4965MHz_-30°C | Pass | 4.965G | 4.965056G | 4.95626G | 4.973853G | 11.328 | 4.94G,4.99G,Inf | 1 | - |
| 4965MHz_-20°C | Pass | 4.965G | 4.965073G | 4.956279G | 4.973868G | 14.726 | 4.94G,4.99G,Inf | 1 | - |
| 4965MHz_-10°C | Pass | 4.965G | 4.965062G | 4.95626G | 4.973864G | 12.461 | 4.94G,4.99G,Inf | 1 | - |
| 4965MHz_0°C | Pass | 4.965G | 4.965049G | 4.956249G | 4.973849G | 9.818 | 4.94G,4.99G,Inf | 1 | - |
| 4965MHz_10°C | Pass | 4.965G | 4.965032G | 4.956245G | 4.973819G | 6.419 | 4.94G,4.99G,Inf | 1 | - |
| 4965MHz_20°C | Pass | 4.965G | 4.96503G | 4.95623G | 4.97383G | 6.042 | 4.94G,4.99G,Inf | 1 | - |
| 4965MHz_30°C | Pass | 4.965G | 4.965017G | 4.956245G | 4.973789G | 3.398 | 4.94G,4.99G,Inf | 1 | - |
| 4965MHz_40°C | Pass | 4.965G | 4.964996G | 4.956177G | 4.973815G | -0.755 | 4.94G,4.99G,Inf | 1 | - |
| 4965MHz_50°C | Pass | 4.965G | 4.965002G | 4.956215G | 4.973789G | 0.378 | 4.94G,4.99G,Inf | 1 | - |
| 4965MHz_60°C | Pass | 4.965G | 4.965032G | 4.956237G | 4.973826G | 6.419 | 4.94G,4.99G,Inf | 1 | - |
| 4965MHz_27.6V | Pass | 4.965G | 4.965052G | 4.956275G | 4.97383G | 10.573 | 4.94G,4.99G,Inf | 1 | - |
| 4965MHz_24V | Pass | 4.965G | 4.965019G | 4.956211G | 4.973826G | 3.776 | 4.94G,4.99G,Inf | 1 | - |
| 4965MHz_20.4V | Pass | 4.965G | 4.965052G | 4.956249G | 4.973856G | 10.573 | 4.94G,4.99G,Inf | 1 | - |

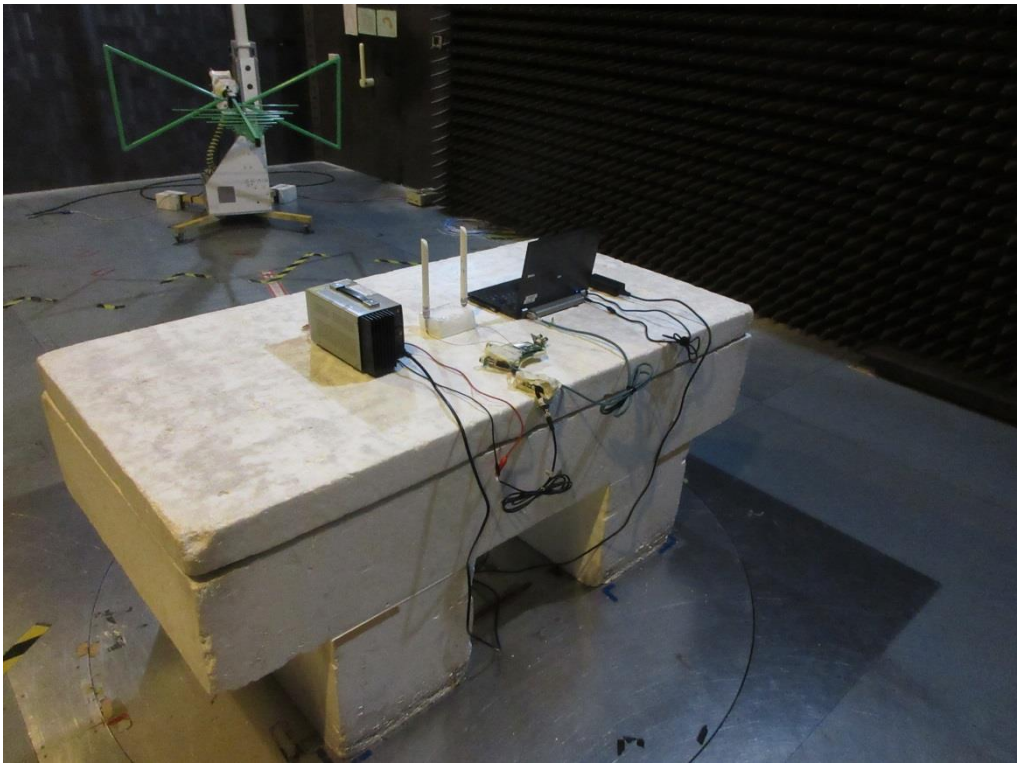
# 1. Photographs of Radiated Emissions Test Configuration

**For radiated emissions 30MHz~1GHz**

**Front view**

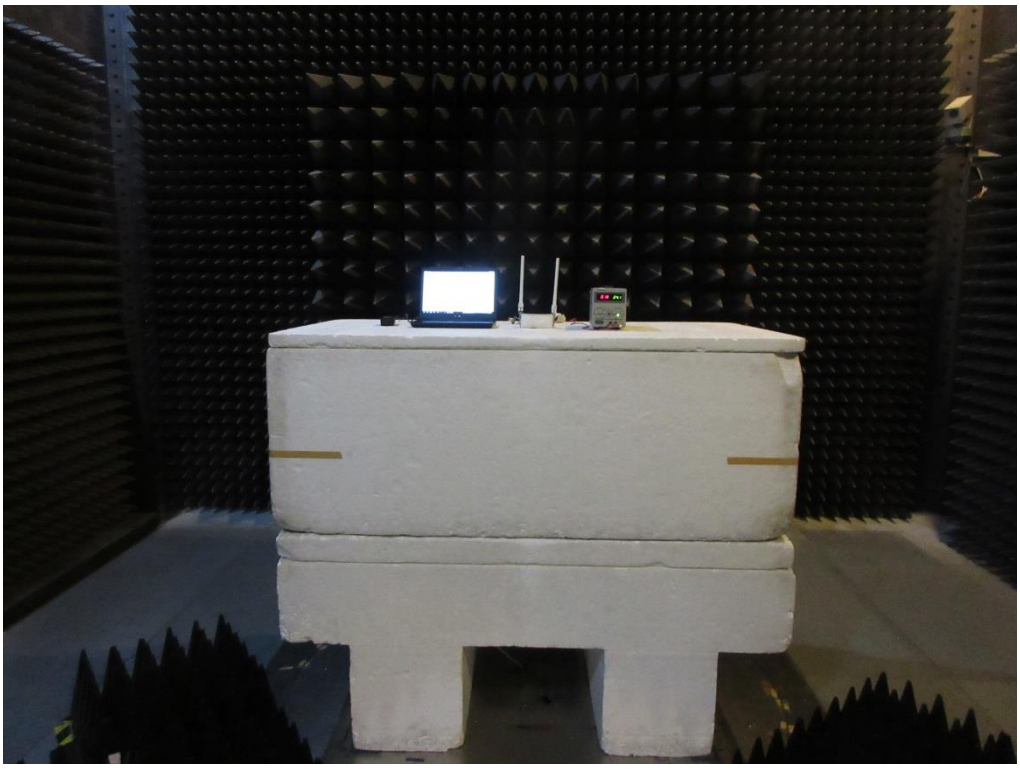


**Rear view**



**For radiated emissions above 1GHz**

**Front view**



**Rear view**

———THE END———