

CFR 47 FCC PART 15 SUBPART C(DTS)

TEST REPORT

For

Automatic Feeder (WI-Fi Version)

MODEL NUMBER: P101T03, P101TXX ("X" represent "0-9" or "A-Z")

REPORT NUMBER: E04A24080488F00402

ISSUE DATE: September 20, 2024

FCC ID: Z63-P101T03

Prepared for

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Prepared by

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This report is based on a single evaluation of the submitted sample(s) of the above mentioned product, it does not imply an assessment of the production of the products. This report shall not be reproduced, except in full, without the written approval of Guangdong Global Testing Technology Co., Ltd.

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Revision History

| Rev. | Issue Date | Revisions | Revised By |
|------|-----------------------|---------------|------------|
| V0 | September 20, 2024 | Initial Issue | |

Summary of Test Results

| Test Item | Clause | Limit/Requirement | Result |
|---|--|------------------------------------|--------|
| Antenna Requirement | N/A | FCC Part 15.203/15.247 (c) | Pass |
| AC Power Line Conducted Emission | ANSI C63.10-2013, Clause 6.2 | FCC Part 15.207 | Pass |
| Conducted Output Power | ANSI C63.10-2013, Clause 11.9.1.3 | FCC Part 15.247 (b)(3) | Pass |
| 6dB Bandwidth and 99% Occupied Bandwidth | ANSI C63.10-2013, Clause 11.8.1 | FCC Part 15.247 (a)(2) | Pass |
| Power Spectral Density | ANSI C63.10-2013, Clause 11.10.2 | FCC Part 15.247 (e) | Pass |
| Conducted Band edge and spurious emission | ANSI C63.10-2013, Clause 11.11 | FCC Part 15.247(d) | Pass |
| Radiated Band edge and Spurious Emission | ANSI C63.10-2013, Clause 11.11 & Clause 11.12 | FCC Part 15.205/15.209 | Pass |
| Duty Cycle | ANSI C63.10-2013, Clause 11.6 | None; for reporting purposes only. | Pass |

*This test report is only published to and used by the applicant, and it is not for evidence purpose in China.

*The measurement result for the sample received is <Pass> according to <CFR 47 FCC PART 15 SUBPART C(DTS)> when <Accuracy Method> decision rule is applied.

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1. ATTESTATION OF TEST RESULTS

Applicant Information

| Company Name: | SHENZHEN AONI ELECTRONIC CO., LTD. |
|---------------|--|
| Address: | No.5,Bldg.,Honghui Industrial Park,2nd Liuxian Road,Xin'An streets, Bao'an District, ShenZhen, China |

Manufacturer Information

| Company Name: | SHENZHEN AONI ELECTRONIC CO., LTD. |
|---------------|--|
| Address: | No.5,Bldg.,Honghui Industrial Park,2nd Liuxian Road,Xin'An |
| | streets Bao'an District ShenZhen China |

EUT Information

| Automatic Feeder (WI-Fi Version) P101T03 |
|---|
| P101TXX ("X" represent "0-9" or "A-Z") |
| 1 |
| August 19, 2024 |
| Normal |
| A24080488 004 |
| August 20, 2024 to September 20, 2024 |
| |

APPLICABLE STANDARDS

| STANDARD | TEST RESULTS | | |
|-----------------------------------|--------------|--|--|
| CFR 47 FCC PART 15 SUBPART C(DTS) | Pass | | |
| | | | |

Prepared By:

Win Huang

)in -

Checked By:

San La

Alan He Laboratory Leader



2. TEST METHODOLOGY

All tests were performed in accordance with the standard CFR 47 FCC PART 15 SUBPART C(DTS)

3. FACILITIES AND ACCREDITATION

| | A2LA (Certificate No.: 6947.01) |
|---------------------------|---|
| | Guangdong Global Testing Technology Co., Ltd. |
| | has been assessed and proved to be in compliance with A2LA. |
| | FCC (FCC Designation No.: CN1343) |
| | Guangdong Global Testing Technology Co., Ltd. |
| | has been recognized to perform compliance testing on equipment |
| Accreditation Certificate | subject to Supplier's Declaration of Conformity (SDoC) and |
| | Certification rules |
| | ISED (Company No.: 30714) |
| | Guangdong Global Testing Technology Co., Ltd. |
| | has been registered and fully described in a report filed with ISED. |
| | The Company Number is 30714 and the test lab Conformity |
| | Assessment Body Identifier (CABID) is CN0148. |
| Note: All tests measureme | has been registered and fully described in a report filed with ISED. The Company Number is 30714 and the test lab Conformity |

Note: All tests measurement facilities use to collect the measurement data are located at Room 101-105, 203-210, Building 1, No.2, Keji 8 Road, Songshan Lake Park, Dongguan city, Guangdong, People's Republic of China, 523808

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

| k | Uncertainty |
|---|--|
| 1.96 | ±9.2 PPM |
| 1.96 | ±9.2 PPM |
| 1.96 | ±9.2 PPM |
| 1.96 | ±0.57% |
| 1.96 | ±1.5 dB |
| 1.96 | ±1.9 dB |
| Conducted Spurious Emission 1.96 9 kHz-30 MHz: ± 0.94 30 MHz-1 GHz: ± 1.5 1GHz-12.75GHz: ± 1.5 12.75 GHz-26.5 GHz: ± | |
| | 1.96 1.96 1.96 1.96 1.96 1.96 |

95% confidence level using a coverage factor of k=1.96.

| Test Item | Measurement Frequency Range | К | U(dB) |
|---|-----------------------------|---|-------|
| Conducted emissions from the AC mains power ports (AMN) | 150 kHz ~ 30 MHz | 2 | 3.37 |
| Radiated emissions | 9 kHz ~ 30 MHz | 2 | 4.16 |
| Radiated emissions | 30 MHz ~ 1 GHz | 2 | 3.79 |
| Radiated emissions | 1 GHz ~ 18 GHz | 2 | 5.62 |
| Radiated emissions | 18 GHz ~ 40 GHz | 2 | 5.54 |
| Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2. | | | |

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

| EUT Name | | Automatic Feeder (WI-Fi Version) |
|------------------|----|---|
| Model | | P101T03 |
| Series Model | | P101TXX ("X" represent "0-9" or "A-Z") |
| Model Difference | | Note: All models are identical except model name and grain bucket size. |
| Hardware Version | | V1.1 |
| Software Version | | V1.0.3 |
| Ratings | | Input: USB-C (DC 5V/1A)/3pcs 1# batteries (D battery) |
| Power Supply | AC | 100-240V~ 50/60Hz 0.25A Max |
| | DC | 5V |

| Frequency Band: | 2400 MHz to 2483.5 MHz |
|----------------------|--|
| Frequency Range: | 2402 MHz to 2480 MHz |
| Bluetooth Version: | Bluetooth V4.1 |
| Bluetooth Mode: | Bluetooth LE |
| Type of Modulation: | GFSK |
| Number of Channels: | 40 |
| Channel Separation: | 2 MHz |
| Maximum Peak Power: | 5.45 dBm |
| Antenna Type: | FPC Antenna |
| Antenna Gain: | 3.57 dBi |
| Normal Test Voltage: | 5 Vdc |
| EUT Test software: | Wifi Test Tool1.6.5 |
| Note: | The Antenna Gain was provided by customer, and this information may affect the validity of the results, customer should be responsible for this. |

5.2. CHANNEL LIST

| Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
|---------|--------------------|---------|--------------------|---------|--------------------|---------|--------------------|
| 0 | 2402 | 11 | 2424 | 22 | 2446 | 33 | 2468 |
| 1 | 2404 | 12 | 2426 | 23 | 2448 | 34 | 2470 |
| 2 | 2406 | 13 | 2428 | 24 | 2450 | 35 | 2472 |
| 3 | 2408 | 14 | 2430 | 25 | 2452 | 36 | 2474 |
| 4 | 2410 | 15 | 2432 | 26 | 2454 | 37 | 2476 |
| 5 | 2412 | 16 | 2434 | 27 | 2456 | 38 | 2478 |
| 6 | 2414 | 17 | 2436 | 28 | 2458 | 39 | 2480 |
| 7 | 2416 | 18 | 2438 | 29 | 2460 | / | / |
| 8 | 2418 | 19 | 2440 | 30 | 2462 | / | / |

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| 9 | 2420 | 20 | 2442 | 31 | 2464 | / | / |
|----|------|----|------|----|------|---|---|
| 10 | 2422 | 21 | 2444 | 32 | 2468 | / | / |

5.3. MAXIMUM EIRP

| Test Mode | Frequency (MHz) | Channel Number | Maximum Peak Output Power (dBm) | Maximum EIRP (dBm) |
|-----------|--------------------|----------------|---------------------------------------|--------------------------|
| BLE 1Mbps | 2402 ~ 2480 | 0-39[40] | 5.45 | / |

5.4. TEST CHANNEL CONFIGURATION

| Test Mode | Test Channel | Frequency |
|-----------|--|------------------------------|
| BLE 1Mbps | CH 0(Low Channel), CH 19(MID Channel), CH 39(High Channel) | 2402 MHz, 2440 MHz, 2480 MHz |

5.5. THE WORSE CASE POWER SETTING PARAMETER

| The | The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band | | | | | |
|---|--|-----------------------------|-------|-------|--|--|
| Test Software Version Wifi Test Tool1.6.5 | | | | | | |
| Modulation Anter | Transmit | Test Software setting value | | | | |
| | Number | CH 0 | CH 19 | CH 39 | | |
| BLE 1Mbps | 12 | | | | | |

5.6. DESCRIPTION OF AVAILABLE ANTENNAS

| Antenna | Frequency (MHz) | Antenna Type | MAX Antenna Gain (dBi) |
|---------|-----------------|--------------|------------------------|
| 1 | 2402-2480 | FPC | 3.57 |

| Test Mode | Transmit and Receive Mode | Description |
|--------------|------------------------------|--|
| BLE 1Mbps | ⊠1TX, 1RX | Antenna 1 can be used as transmitting/receiving antenna. |
| Note: | | |

5.7. EUT ACCESSORY

| Adapter | | | | |
|----------------------------|--------------------------------------|--|--|--|
| Model No.: BS05A-0501000US | | | | |
| Input: | 100-240V~ 50/60Hz 0.25A Max | | | |
| Output: | 5V 1000mA | | | |
| AC Cable: | N/A | | | |
| DC Cable: | 1.5 Meter Unshielded without ferrite | | | |

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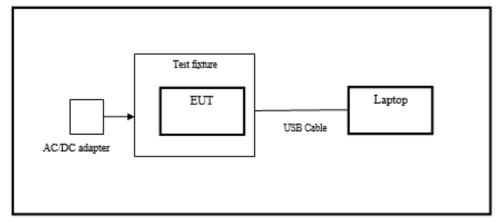
5.8. SUPPORT UNITS FOR SYSTEM TEST

The following support units or accessories were used to form a representative test configuration during the tests.

| Item | Equipment | Mfr/Brand | Model/Type No. | Series No. | Note |
|------|-----------|-----------|----------------|------------|-------------|
| E-1 | Laptop | Lenovo | Thinkpad T14 | PF-3EAKYR | GTG Support |

5.9. SETUP DIAGRAM

Radiated emissions & AC Power Line Conducted Emission:



| | Test Equipment of Conducted RF | | | | | | | |
|---|--------------------------------|-------------------------|-------------|------------|------------|--|--|--|
| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Due Date | | | |
| Spectrum Analyzer | Rohde & Schwarz | FSV40 | 102257 | 2024/09/14 | 2025/09/13 | | | |
| Spectrum Analyzer | KEYSIGHT | N9020A | MY51285127 | 2024/09/14 | 2025/09/13 | | | |
| EXG Analog Signal Generator | KEYSIGHT | N5173B | MY61253075 | 2024/09/14 | 2025/09/13 | | | |
| Vector Signal Generator | Rohde & Schwarz | SMM100A | 101899 | 2024/09/14 | 2025/09/13 | | | |
| RF Control box | MWRF-test | MW100-RFCB | MW220926GTG | 2024/09/14 | 2025/09/13 | | | |
| Wideband Radio Communication Tester | Rohde & Schwarz | CMW270 | 102792 | 2024/09/14 | 2025/09/13 | | | |
| Wideband Radio Communication Tester | Rohde & Schwarz | CMW500 | 103235 | 2024/09/14 | 2025/09/13 | | | |
| temperature humidity chamber | Espec | SH-241 | SH-241-2014 | 2024/09/14 | 2025/09/13 | | | |
| RF Test Software | MWRF-test | MTS8310E (Ver. V2/0) | N/A | N/A | N/A | | | |

| | Test Equipment of Radiated emissions below 1GHz | | | | | | | |
|-----------------------------|---|-------------------------------|------------|------------|------------|--|--|--|
| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Due Date | | | |
| 3m Semi-anechoic Chamber | ETS | 9m*6m*6m | Q2146 | 2022/08/30 | 2025/08/29 | | | |
| EMI Test Receiver | Rohde & Schwarz | ESCI3 | 101409 | 2024/09/14 | 2025/09/13 | | | |
| Spectrum Analyzer | KEYSIGHT | N9020A | MY51283932 | 2024/09/14 | 2025/09/13 | | | |
| Pre-Amplifier | HzEMC | HPA-9K0130 | HYPA21001 | 2024/09/14 | 2025/09/13 | | | |
| Biconilog Antenna | Schwarzbeck | VULB 9168 | 01315 | 2022/10/10 | 2025/10/09 | | | |
| Biconilog Antenna | ETS | 3142E | 00243646 | 2022/03/23 | 2025/03/22 | | | |
| Loop Antenna | ETS | 6502 | 243668 | 2022/03/30 | 2025/03/29 | | | |
| Test Software | Farad | EZ-EMC (Ver.FA-03A2 RE) | N/A | N/A | N/A | | | |

| | Test Equipment of Radiated emissions above 1GHz | | | | | |
|-----------------------------|---|------------|------------|------------|------------|--|
| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Due Date | |
| 3m Semi-anechoic Chamber | ETS | 9m*6m*6m | Q2149 | 2022/08/30 | 2025/08/29 | |
| Spectrum Analyzer | Rohde & Schwarz | FSV40 | 101413 | 2024/09/14 | 2025/09/13 | |
| Spectrum Analyzer | KEYSIGHT | N9020A | MY51283932 | 2024/09/14 | 2025/09/13 | |
| Pre-Amplifier | A-INFO | HPA-1G1850 | HYPA21003 | 2024/09/14 | 2025/09/13 | |
| Horn antenna | A-INFO | 3117 | 246069 | 2022/03/11 | 2025/03/10 | |
| Pre-Amplifier | ZKJC | HPA-184057 | HYPA21004 | 2024/09/14 | 2025/09/13 | |

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| Horn antenna | ZKJC | 3116C | 246265 | 2022/03/29 | 2025/03/28 |
|---------------|-------|--------------------------------|--------|------------|------------|
| Test Software | Farad | EZ-EMC (Ver.FA-03A2 RE+) | N/A | N/A | N/A |

| Test Equipment of Conducted emissions | | | | | |
|---------------------------------------|--------------------|------------------------------------|------------|------------|------------|
| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Due Date |
| Shielded Room | CHENG YU | 8m*5m*4m | N/A | 2022/10/29 | 2025/10/28 |
| EMI Test Receiver | Rohde & Schwarz | ESR3 | 102647 | 2024/09/14 | 2025/09/13 |
| LISN/AMN | Rohde & Schwarz | ENV216 | 102843 | 2024/09/14 | 2025/09/13 |
| NNLK 8129 RC | Schwarzbeck | NNLK 8129 RC | 5046 | 2024/09/14 | 2025/09/13 |
| Test Software | Farad | EZ-EMC (Ver. EMC-con-3A1 1+) | N/A | N/A | N/A |

7. ANTENNA PORT TEST RESULTS

7.1. CONDUCTED OUTPUT POWER

<u>LIMITS</u>

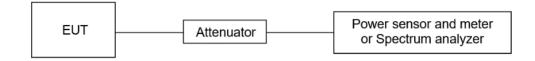
| CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 3 | | | | |
|--|------------------------------|------------------|-------------|--|
| Section Test Item Limit Frequency Range (MHz) | | | | |
| CFR 47 FCC 15.247(b)(3) ISED RSS-247 5.4 (d) | Peak Conduct Output Power | 1 watt or 30 dBm | 2400-2483.5 | |

TEST PROCEDURE

Connect the EUT to a low loss RF cable from the antenna port to the power sensor (video bandwidth is greater than the occupied bandwidth).

Measure peak emission level, the indicated level is the peak output power, after any corrections for external attenuators and cables.

TEST SETUP



TEST ENVIRONMENT

| Temperature | 21.4°C | Relative Humidity | 52% |
|---------------------|--------|-------------------|-----|
| Atmosphere Pressure | 101kPa | | |

TEST RESULTS

Please refer to section "Test Data" - Appendix A

7.2. 6DB BANDWIDTH AND 99% OCCUPIED BANDWIDTH

LIMITS

| CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 3 | | | | |
|--|----------------------------|------------------------------|-------------|--|
| Section Test Item Limit Frequency Range (MHz) | | | | |
| CFR 47 FCC 15.247(a)(2) ISED RSS-247 5.2 (a) | 6 dB Bandwidth | ≥ 500 kHz | 2400-2483.5 | |
| ISED RSS-Gen Clause 6.7 | 99 % Occupied Bandwidth | For reporting purposes only. | 2400-2483.5 | |

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.8 for DTS bandwidth and clause 6.9 for Occupied Bandwidth.

| Center Frequency | The center frequency of the channel under test |
|------------------|---|
| Frequency Span | For 6 dB Bandwidth: Enough to capture all products of the modulation carrier emission For 99 % Occupied Bandwidth: Between 1.5 times and 5.0 times the OBW |
| Detector | Peak |
| IRB/// | For 6 dB Bandwidth: 100 kHz For 99 % Occupied Bandwidth: 1 % to 5 % of the occupied bandwidth |
| N/B/W | For 6 dB Bandwidth: ≥3 × RBW For 99 % Occupied Bandwidth: ≥3 × RBW |
| Trace | Max hold |
| Sweep | Auto couple |

Connect the EUT to the spectrum analyser and use the following settings:

a) Use the 99 % power bandwidth function of the instrument, allow the trace to stabilize and report the measured bandwidth.

b) Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

TEST SETUP



TEST ENVIRONMENT

| Temperature | 21.4°C | Relative Humidity | 52% |
|---------------------|--------|-------------------|-----|
| Atmosphere Pressure | 101kPa | | |

TEST RESULTS

Please refer to section "Test Data" - Appendix A

7.3. POWER SPECTRAL DENSITY

LIMITS

| CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 3 | | | | |
|--|------------------------|----------------------------|--------------------------|--|
| Section | Test Item | Limit | Frequency Range (MHz) | |
| CFR 47 FCC §15.247 (e) ISED RSS-247 5.2 (b) | Power Spectral Density | 8 dBm in any 3 kHz band | 2400-2483.5 | |

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.10.

Connect the EUT to the spectrum analyser and use the following settings:

| Center Frequency | The center frequency of the channel under test |
|------------------|--|
| Detector | PEAK |
| RBW | $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$ |
| VBW | ≥3 × RBW |
| Span | 1.5 x DTS bandwidth |
| Trace | Max hold |
| Sweep time | Auto couple |

Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.

If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

TEST SETUP



TEST ENVIRONMENT

| Temperature | 21.4°C | Relative Humidity | 52% |
|---------------------|--------|-------------------|-----|
| Atmosphere Pressure | 101kPa | | |

TEST RESULTS

Please refer to section "Test Data" - Appendix A

7.4. CONDUCTED BAND EDGE AND SPURIOUS EMISSION

LIMITS

| CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 3 | | | | |
|--|---|---|--|--|
| Section | Test Item Limit | | | |
| CFR 47 FCC §15.247 (d) ISED RSS-247 5.5 | Conducted Bandedge and Spurious Emissions | at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power | | |

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.11 and 11.13.

Connect the EUT to the spectrum analyser and use the following settings for reference level measurement:

| Center Frequency | The center frequency of the channel under test |
|------------------|--|
| Detector | Peak |
| RBW | 100 kHz |
| VBW | ≥3 × RBW |
| Span | 1.5 x DTS bandwidth |
| Trace | Max hold |
| Sweep time | Auto couple. |

Allow trace to fully stabilize and use the peak marker function to determine the maximum PSD level.

Change the settings for emission level measurement:

| 15040 | Set the center frequency and span to encompass frequency range to be measured |
|--------------------|---|
| Detector | Peak |
| RBW | 100 kHz |
| VBW | ≥3 × RBW |
| measurement points | ≥span/RBW |
| Trace | Max hold |
| Sweep time | Auto couple. |

Allow trace to fully stabilize and use the peak marker function to determine the maximum PSD level. Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11.

TEST SETUP



TEST ENVIRONMENT

| Temperature | 21.4°C | Relative Humidity | 52% |
|---------------------|--------|-------------------|-----|
| Atmosphere Pressure | 101kPa | | |

TEST RESULTS

Please refer to section "Test Data" - Appendix A

7.5. DUTY CYCLE

<u>LIMITS</u>

None; for reporting purposes only.

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.6 Zero – Span Spectrum Analyzer method.

TEST SETUP



TEST ENVIRONMENT

| Temperature | 21.4°C | Relative Humidity | 52% |
|---------------------|--------|-------------------|-----|
| Atmosphere Pressure | 101kPa | | |

TEST RESULTS

Please refer to section "Test Data" - Appendix A

8. RADIATED TEST RESULTS

<u>LIMITS</u>

Please refer to CFR 47 FCC §15.205 and §15.209.

Please refer to ISED RSS-GEN Clause 8.9 and Clause 8.10.

Radiation Disturbance Test Limit for FCC (Class B) (9 kHz ~ 1 GHz)

| Emissions radiated outside of the specified frequency bands above 30 MHz | | | |
|--|---------------------------------------|-------------------------|---------|
| Frequency Range (MHz) | Field Strength Limit (uV/m) at 3 m | Field Stren (dBuV/m) | • |
| | | Quasi-l | Peak |
| 30 - 88 | 100 | 40 | |
| 88 - 216 | 150 | 43. | 5 |
| 216 - 960 | 200 | 46 | |
| Above 960 | 500 | 54 | |
| Above 1000 | 500 | Peak | Average |
| Above 1000 | 500 | 74 | 54 |

| FCC Emissions radiated outside of the specified frequency bands below 30 MHz | | |
|--|-----------------------------------|-------------------------------|
| Frequency (MHz) | Field strength (microvolts/meter) | Measurement distance (meters) |
| 0.009-0.490 | 2400/F(kHz) | 300 |
| 0.490-1.705 | 24000/F(kHz) | 30 |
| 1.705-30.0 | 30 | 30 |

ISED General field strength limits at frequencies below 30 MHz

| Table 6 – General field strength limits at frequencies below 30 MHz | | |
|---|--|--------------------------|
| Frequency | Magnetic field strength (H-Field) (μA/m) | Measurement distance (m) |
| 9 - 490 kHz ^{Note 1} | 6.37/F (F in kHz) | 300 |
| 490 - 1705 kHz | 63.7/F (F in kHz) | 30 |
| 1.705 - 30 MHz | 0.08 | 30 |

Note 1: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

ISED Restricted bands please refer to ISED RSS-GEN Clause 8.10

| Table 7 – Restricted frequency bands ^{Nob 1} | | |
|---|-----------------------|---------------|
| MHz | MHz | GHz |
| 0.090 - 0.110 | 149.9 - 150.05 | 9.0 - 9.2 |
| 0.495 - 0.505 | 158.52475 - 158.52525 | 9.3 - 9.5 |
| 2.1735 - 2.1905 | 158.7 - 158.9 | 10.6 - 12.7 |
| 3.020 - 3.028 | 162.0125 - 167.17 | 13.25 - 13.4 |
| 4.125 - 4.128 | 167.72 - 173.2 | 14.47 - 14.5 |
| 4.17725 - 4.17775 | 240 - 285 | 15.35 - 16.2 |
| 4.20725 - 4.20775 | 322 - 335.4 | 17.7 - 21.4 |
| 5.677 - 5.683 | 399.9 - 410 | 22.01 - 23.12 |
| 6.215 - 6.218 | 608 - 614 | 23.6 - 24.0 |
| 6.26775 - 6.26825 | 980 - 1427 | 31.2 - 31.8 |
| 8.31175 - 8.31225 | 1435 - 1626.5 | 36.43 - 36.5 |
| 8.291 - 8.294 | 1645.5 - 1648.5 | Above 38.6 |
| 8.362 - 8.366 | 1680 - 1710 | |
| 8.37625 - 8.38675 | 1718.8 - 1722.2 | |
| 8.41425 - 8.41475 | 2200 - 2300 | |
| 12.29 - 12.293 | 2310 - 2390 | |
| 12.51975 - 12.52025 | 2483.5 - 2500 | |
| 12.57675 - 12.57725 | 2655 - 2900 | |
| 13.36 - 13.41 | 3260 - 3267 | |
| 16.42 - 16.423 | 3332 - 3339 | |
| 18.69475 - 18.69525 | 3345.8 - 3358 | |
| 16.80425 - 16.80475 | 3500 - 4400 | |
| 25.5 - 25.67 | 4500 - 5150 | |
| 37.5 - 38.25 | 5350 - 5460 | |
| 73 - 74.6 | 7250 - 7750 | |
| 74.8 - 75.2 | 8025 - 8500 | |

Note 1: Certain frequency bands listed in table 7 and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to related devices are set out in the 200 and 300 series of RSSs.

FCC Restricted bands of operation refer to FCC §15.205 (a):

| MHz | MHz | MHz | GHz |
|--------------------------|---------------------|---------------|------------------|
| 0.090-0.110 | 16.42-16.423 | 399.9-410 | 4.5-5.15 |
| ¹ 0.495-0.505 | 16.69475-16.69525 | 608-614 | 5.35-5.46 |
| 2.1735-2.1905 | 16.80425-16.80475 | 960-1240 | 7.25-7.75 |
| 4.125-4.128 | 25.5-25.67 | 1300-1427 | 8.025-8.5 |
| 4.17725-4.17775 | 37.5-38.25 | 1435-1626.5 | 9.0-9.2 |
| 4.20725-4.20775 | 73-74.6 | 1645.5-1646.5 | 9.3-9.5 |
| 6.215-6.218 | 74.8-75.2 | 1660-1710 | 10.6-12.7 |
| 6.26775-6.26825 | 108-121.94 | 1718.8-1722.2 | 13.25-13.4 |
| 6.31175-6.31225 | 123-138 | 2200-2300 | 14.47-14.5 |
| 8.291-8.294 | 149.9-150.05 | 2310-2390 | 15.35-16.2 |
| 8.362-8.366 | 156.52475-156.52525 | 2483.5-2500 | 17.7-21.4 |
| 8.37625-8.38675 | 156.7-156.9 | 2690-2900 | 22.01-23.12 |
| 8.41425-8.41475 | 162.0125-167.17 | 3260-3267 | 23.6-24.0 |
| 12.29-12.293 | 167.72-173.2 | 3332-3339 | 31.2-31.8 |
| 12.51975-12.52025 | 240-285 | 3345.8-3358 | 36.43-36.5 |
| 12.57675-12.57725 | 322-335.4 | 3600-4400 | (²) |
| 13.36-13.41 | | | |

Note: ¹Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz. ²Above 38.6c

TEST PROCEDURE

Below 30 MHz

TRF No.: 04-E001-0B

| RBW | 200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz) |
|-------|--|
| VBW | 200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz) |
| Sweep | Auto |

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.4.

2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80 cm above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a 1 m height antenna tower.

5. The radiated emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.

6. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak and average detector mode remeasured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak and average detector and reported.

7. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field site based on KDB 414788.

8. The limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377Ω . For example, the measurement frequency X KHz resulted in a level of Y dBuV/m, which is equivalent to Y-51.5 = Z dBuA/m, which has the same margin, W dB, to the corresponding RSS-GEN Table 6 limit as it has to be 15.209(a) limit.

Below 1 GHz and above 30 MHz

The setting of the spectrum analyser

| RBW | 120 kHz |
|----------|----------|
| VBW | 300 kHz |
| Sweep | Auto |
| Detector | Peak/QP |
| Trace | Max hold |

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.5.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high

pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80 cm above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

Above 1G

The setting of the spectrum analyser

| RBW | 1 MHz |
|----------|--------------------------------|
| IV BW | PEAK: 3 MHz AVG: see note 6 |
| Sweep | Auto |
| Detector | Peak |
| Trace | Max hold |

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.6.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

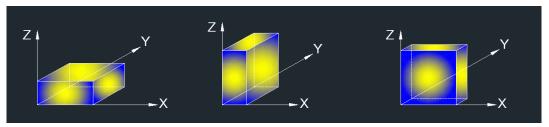
3. The EUT was placed on a turntable with 1.5 m above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement above 1 GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.

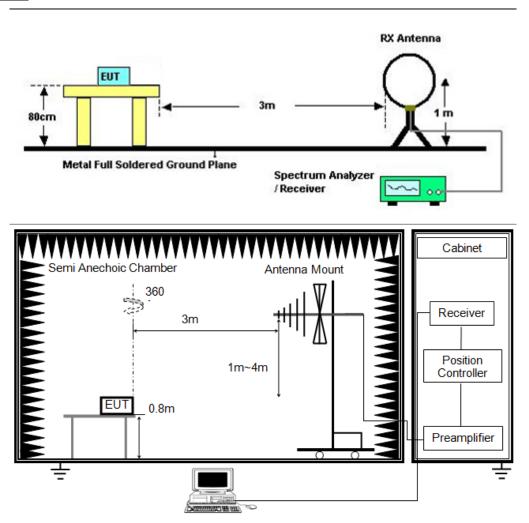
6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 7.1.ON TIME AND DUTY CYCLE.

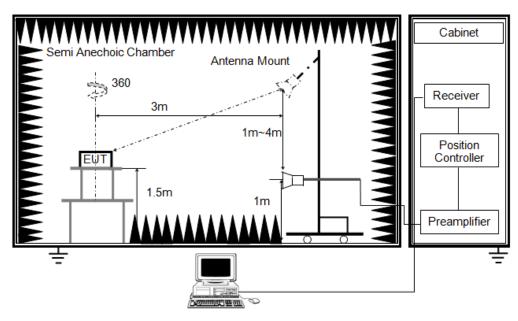
X axis, Y axis, Z axis positions:



Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

TEST SETUP





TEST ENVIRONMENT

| Temperature | 23.2℃ | Relative Humidity | 52% |
|---------------------|--------------|-------------------|-----|
| Atmosphere Pressure | 101kPa | | |

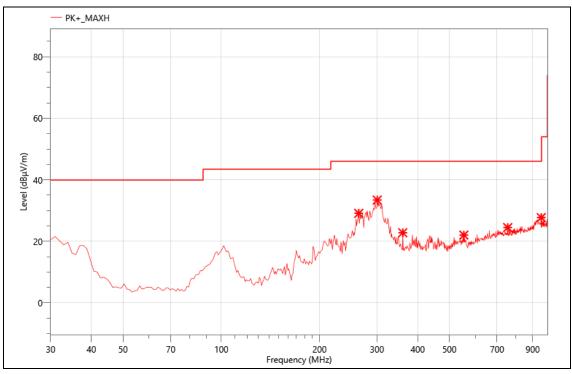
TEST RESULTS

8.1. RADIATED BAND EDGE AND SPURIOUS EMISSION

Undesirable radiated Spurious Emission below 1GHz (30MHz to 1GHz)

All modes have been tested and the worst result as bellow:

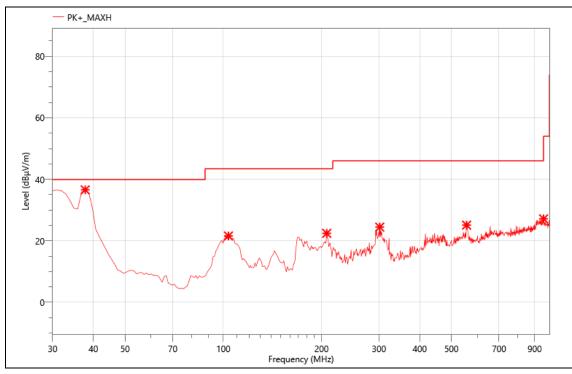
| Mode: | BLE 2402 |
|--------|-------------------|
| Power: | AC 120V/60Hz |
| TE: | Big |
| Date | 2024/09/13 |
| T/A/P | 23.2°C/52%/101Kpa |



Critical_Freqs

| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|-----|----------------|-------------------|---------------|-------------------|-------------------|----------------|------|------|
| 1 | 263.770 | 47.43 | -18.32 | 29.11 | 46.00 | 16.89 | PK+ | Н |
| 2 | 300.630 | 52.26 | -18.83 | 33.43 | 46.00 | 12.57 | PK+ | Н |
| 3 | 359.800 | 38.67 | -15.88 | 22.79 | 46.00 | 23.21 | PK+ | Н |
| 4 | 553.800 | 31.95 | -9.92 | 22.03 | 46.00 | 23.97 | PK+ | Н |
| 5 | 754.590 | 31.79 | -7.32 | 24.47 | 46.00 | 21.53 | PK+ | Н |
| 6 | 956.350 | 31.44 | -3.71 | 27.73 | 46.00 | 18.27 | PK+ | Н |

| Mode: | BLE 2402 |
|--------|-------------------|
| Power: | AC 120V/60Hz |
| TE: | Big |
| Date | 2024/09/13 |
| T/A/P | 23.2°C/52%/101Kpa |

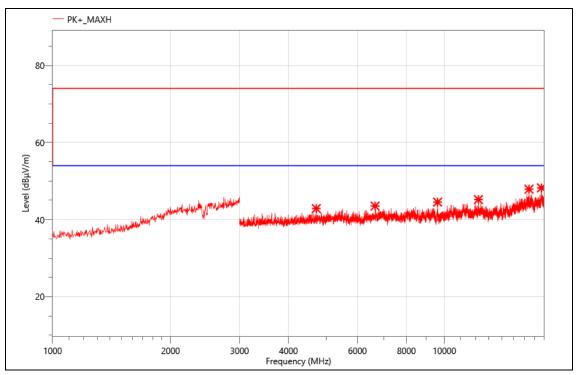


| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|-----|----------------|-------------------|---------------|-------------------|-------------------|----------------|------|------|
| 1 | 37.760 | 55.33 | -18.76 | 36.57 | 40.00 | 3.43 | PK+ | V |
| 2 | 103.720 | 45.25 | -23.67 | 21.58 | 43.50 | 21.92 | PK+ | V |
| 3 | 207.510 | 43.94 | -21.5 | 22.44 | 43.50 | 21.06 | PK+ | V |
| 4 | 301.600 | 43.25 | -18.78 | 24.47 | 46.00 | 21.53 | PK+ | V |
| 5 | 556.710 | 35.20 | -10.09 | 25.11 | 46.00 | 20.89 | PK+ | V |
| 6 | 958.290 | 30.95 | -3.79 | 27.16 | 46.00 | 18.84 | PK+ | V |

Undesirable radiated Spurious Emission Above 1GHz (1GHz to 40GHz)

| Mode: | BLE 2402 |
|--------|-------------------|
| Power: | AC 120V/60Hz |
| TE: | Big |
| Date | 2024/09/13 |
| T/A/P | 23.2°C/52%/101Kpa |

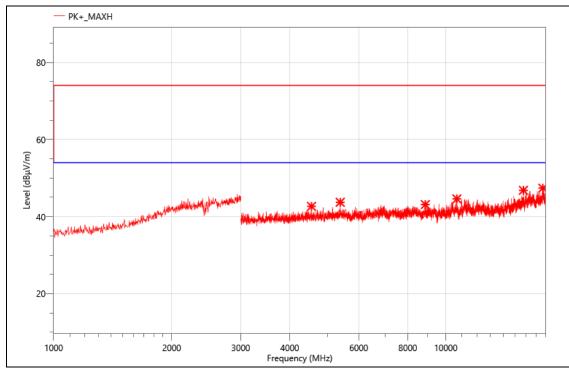
All modes have been tested and the worst result as bellow:



Critical_Freqs

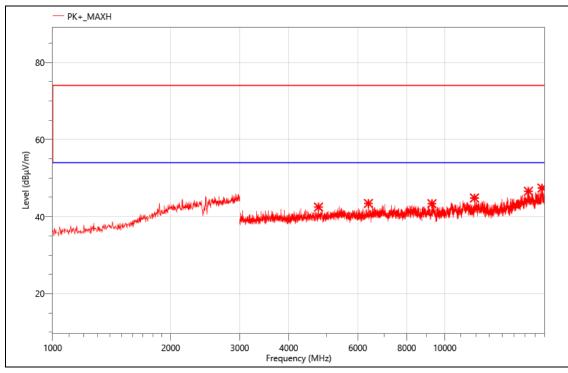
| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|-----|----------------|-------------------|---------------|-------------------|-------------------|----------------|------|------|
| 1 | 4710.000 | 54.39 | -11.53 | 42.86 | 74.00 | 31.14 | PK+ | Н |
| 2 | 6655.500 | 51.74 | -8.22 | 43.52 | 74.00 | 30.48 | PK+ | Н |
| 3 | 9607.500 | 51.60 | -7.06 | 44.54 | 74.00 | 29.46 | PK+ | Н |
| 4 | 12214.500 | 49.64 | -4.44 | 45.20 | 74.00 | 28.80 | PK+ | Н |
| 5 | 16441.500 | 49.53 | -1.64 | 47.89 | 74.00 | 26.11 | PK+ | Н |
| 6 | 17686.500 | 47.98 | 0.25 | 48.23 | 74.00 | 25.77 | PK+ | Н |

| Mode: | BLE 2402 |
|--------|-------------------|
| Power: | AC 120V/60Hz |
| TE: | Big |
| Date | 2024/09/13 |
| T/A/P | 23.2°C/52%/101Kpa |



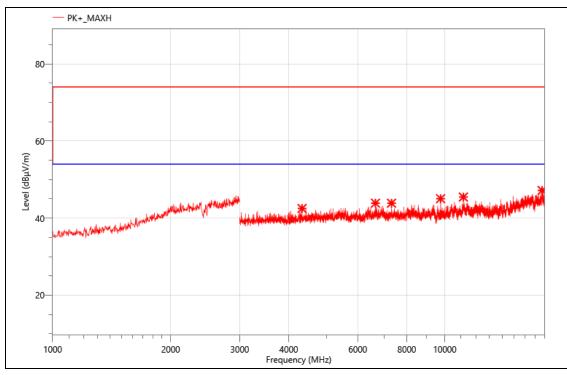
| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|-----|----------------|-------------------|---------------|-------------------|-------------------|----------------|------|------|
| 1 | 4545.000 | 54.62 | -11.97 | 42.65 | 74.00 | 31.35 | PK+ | V |
| 2 | 5380.500 | 52.78 | -9.06 | 43.72 | 74.00 | 30.28 | PK+ | V |
| 3 | 8868.000 | 50.92 | -7.79 | 43.13 | 74.00 | 30.87 | PK+ | V |
| 4 | 10672.500 | 49.68 | -5.09 | 44.59 | 74.00 | 29.41 | PK+ | V |
| 5 | 15774.000 | 49.10 | -2.29 | 46.81 | 74.00 | 27.19 | PK+ | V |
| 6 | 17676.000 | 47.07 | 0.31 | 47.38 | 74.00 | 26.62 | PK+ | V |

| Mode: | BLE 2440 |
|--------|-------------------|
| Power: | AC 120V/60Hz |
| TE: | Big |
| Date | 2024/09/13 |
| T/A/P | 23.2°C/52%/101Kpa |



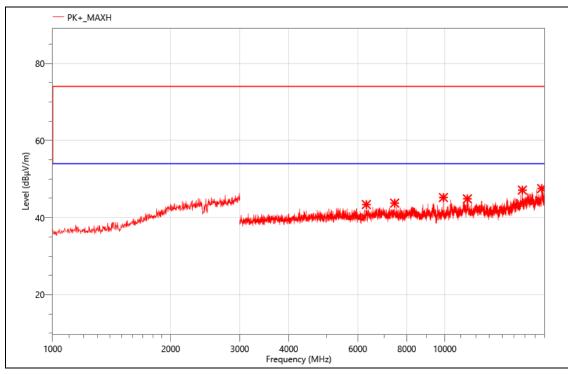
| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|-----|----------------|-------------------|---------------|-------------------|-------------------|----------------|------|------|
| 1 | 4764.000 | 53.81 | -11.35 | 42.46 | 74.00 | 31.54 | PK+ | V |
| 2 | 6385.500 | 51.31 | -7.91 | 43.40 | 74.00 | 30.60 | PK+ | V |
| 3 | 9274.500 | 50.59 | -7.24 | 43.35 | 74.00 | 30.65 | PK+ | V |
| 4 | 11905.500 | 49.20 | -4.38 | 44.82 | 74.00 | 29.18 | PK+ | V |
| 5 | 16341.000 | 48.36 | -1.79 | 46.57 | 74.00 | 27.43 | PK+ | V |
| 6 | 17694.000 | 47.19 | 0.21 | 47.40 | 74.00 | 26.60 | PK+ | V |

| Mode: | BLE 2440 |
|--------|-------------------|
| Power: | AC 120V/60Hz |
| TE: | Big |
| Date | 2024/09/13 |
| T/A/P | 23.2°C/52%/101Kpa |



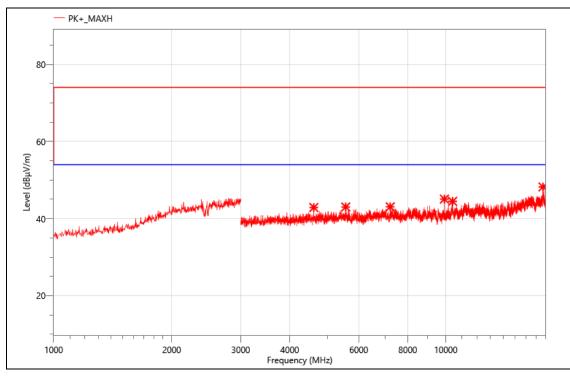
| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|-----|----------------|-------------------|---------------|-------------------|-------------------|----------------|------|------|
| 1 | 4324.500 | 54.85 | -12.35 | 42.50 | 74.00 | 31.50 | PK+ | Н |
| 2 | 6655.500 | 52.10 | -8.22 | 43.88 | 74.00 | 30.12 | PK+ | Н |
| 3 | 7314.000 | 51.55 | -7.69 | 43.86 | 74.00 | 30.14 | PK+ | Н |
| 4 | 9759.000 | 51.91 | -6.87 | 45.04 | 74.00 | 28.96 | PK+ | Н |
| 5 | 11152.500 | 49.72 | -4.26 | 45.46 | 74.00 | 28.54 | PK+ | Н |
| 6 | 17704.500 | 47.10 | 0.08 | 47.18 | 74.00 | 26.82 | PK+ | Н |

| Mode: | BLE 2480 |
|--------|-------------------|
| Power: | AC 120V/60Hz |
| TE: | Big |
| Date | 2024/09/13 |
| T/A/P | 23.2°C/52%/101Kpa |



| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|-----|----------------|-------------------|---------------|-------------------|-------------------|----------------|------|------|
| 1 | 6310.500 | 50.95 | -7.56 | 43.39 | 74.00 | 30.61 | PK+ | Н |
| 2 | 7449.000 | 51.82 | -8.06 | 43.76 | 74.00 | 30.24 | PK+ | Н |
| 3 | 9919.500 | 51.56 | -6.35 | 45.21 | 74.00 | 28.79 | PK+ | Н |
| 4 | 11421.000 | 49.37 | -4.5 | 44.87 | 74.00 | 29.13 | PK+ | Н |
| 5 | 15772.500 | 49.41 | -2.28 | 47.13 | 74.00 | 26.87 | PK+ | Н |
| 6 | 17664.000 | 47.37 | 0.17 | 47.54 | 74.00 | 26.46 | PK+ | Н |

| Mode: | BLE 2480 |
|--------|-------------------|
| Power: | AC 120V/60Hz |
| TE: | Big |
| Date | 2024/09/13 |
| T/A/P | 23.2°C/52%/101Kpa |



| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|-----|----------------|-------------------|---------------|-------------------|-------------------|----------------|------|------|
| 1 | 4608.000 | 54.52 | -11.64 | 42.88 | 74.00 | 31.12 | PK+ | V |
| 2 | 5557.500 | 52.43 | -9.41 | 43.02 | 74.00 | 30.98 | PK+ | V |
| 3 | 7216.500 | 51.07 | -8.02 | 43.05 | 74.00 | 30.95 | PK+ | V |
| 4 | 9919.500 | 51.42 | -6.35 | 45.07 | 74.00 | 28.93 | PK+ | V |
| 5 | 10408.500 | 50.00 | -5.52 | 44.48 | 74.00 | 29.52 | PK+ | V |
| 6 | 17691.000 | 47.98 | 0.23 | 48.21 | 74.00 | 25.79 | PK+ | V |

Note : [Margin=Limit-Meas.]; [Meas.=Reading+Corr.]

Note:

1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

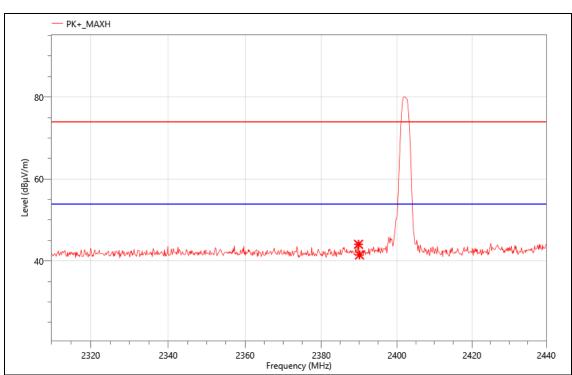
4. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

For the frequency above 18 GHz, a pre-scan was performed, and the result was 20 dB lower than the limit line, the test data was not shown in the report.

Band Edge

| Mode: | BLE 2402 |
|--------|-------------------|
| Power: | AC 120V/60Hz |
| TE: | Big |
| Date | 2024/09/13 |
| T/A/P | 23.2°C/52%/101Kpa |

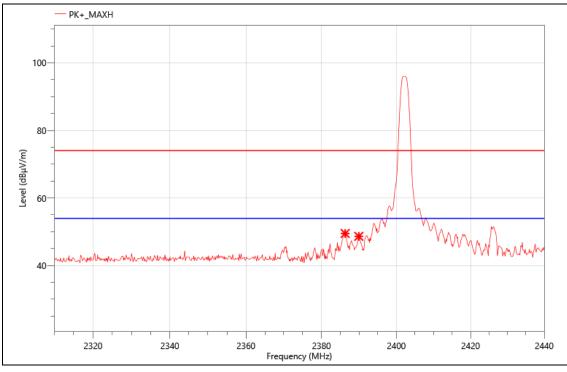
All modes have been tested and the worst result as bellow:



Critical_Freqs

| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|-----|----------------|-------------------|---------------|-------------------|-------------------|----------------|------|------|
| 1 | 2389.820 | 21.35 | 22.72 | 44.07 | 74.00 | 29.93 | PK+ | V |
| 2 | 2390.080 | 18.74 | 22.72 | 41.46 | 74.00 | 32.54 | PK+ | V |

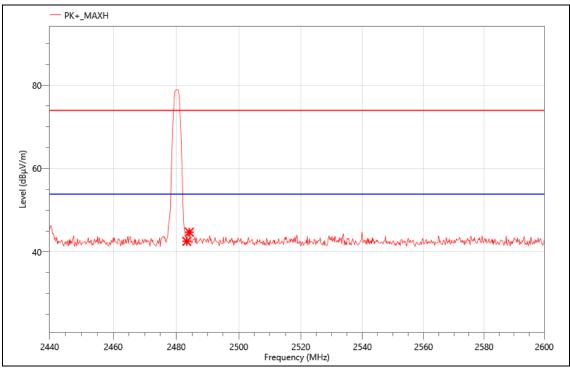
| Mode: | BLE 2402 |
|--------|-------------------|
| Power: | AC 120V/60Hz |
| TE: | Big |
| Date | 2024/09/13 |
| T/A/P | 23.2°C/52%/101Kpa |



| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|-----|----------------|-------------------|---------------|-------------------|-------------------|----------------|------|------|
| 1 | 2386.310 | 26.83 | 22.65 | 49.48 | 74.00 | 24.52 | PK+ | Н |
| 2 | 2389.950 | 25.92 | 22.72 | 48.64 | 74.00 | 25.36 | PK+ | Н |

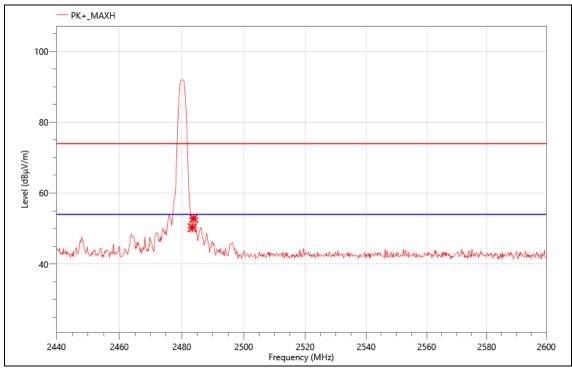
Note : [Margin=Limit-Meas.]; [Meas.=Reading+Corr.]

| Mode: | BLE 2480 |
|--------|-------------------|
| Power: | AC 120V/60Hz |
| TE: | Big |
| Date | 2024/09/13 |
| T/A/P | 23.2°C/52%/101Kpa |



| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|-----|----------------|-------------------|---------------|-------------------|-------------------|----------------|------|------|
| 1 | 2483.360 | 19.40 | 23.15 | 42.55 | 74.00 | 31.45 | PK+ | V |
| 2 | 2484.160 | 21.60 | 23.15 | 44.75 | 74.00 | 29.25 | PK+ | V |

| Mode: | BLE 2480 |
|--------|-------------------|
| Power: | AC 120V/60Hz |
| TE: | Big |
| Date | 2024/09/13 |
| T/A/P | 23.2°C/52%/101Kpa |



Critical_Freqs

| No. | Freq. (MHz) | Reading (dBµV) | Corr. (dB) | Meas. (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Det. | Pol. |
|-----|----------------|-------------------|---------------|-------------------|-------------------|----------------|------|------|
| 1 | 2483.360 | 27.08 | 23.15 | 50.23 | 74.00 | 23.77 | PK+ | Н |
| 2 | 2483.840 | 29.73 | 23.15 | 52.88 | 74.00 | 21.12 | PK+ | Н |

Note : [Margin=Limit-Meas.]; [Meas.=Reading+Corr.]

9. ANTENNA REQUIREMENT

REQUIREMENT

Please refer to FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Please refer to FCC §15.247(b)(4)

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DESCRIPTION

Pass

10. AC POWER LINE CONDUCTED EMISSION

LIMITS

Please refer to CFR 47 FCC §15.207 (a) and ISED RSS-Gen Clause 8.8

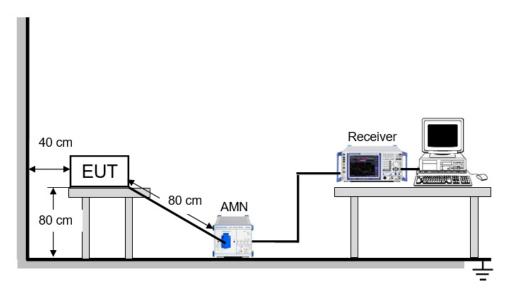
| FREQUENCY (MHz) | Quasi-peak | Average |
|-----------------|------------|-----------|
| 0.15 -0.5 | 66 - 56 * | 56 - 46 * |
| 0.50 -5.0 | 56.00 | 46.00 |
| 5.0 -30.0 | 60.00 | 50.00 |

TEST PROCEDURE

The EUT is put on a table of non-conducting material that is 80 cm high. The vertical conducting wall of shielding is located 40 cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2013.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9 kHz.

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

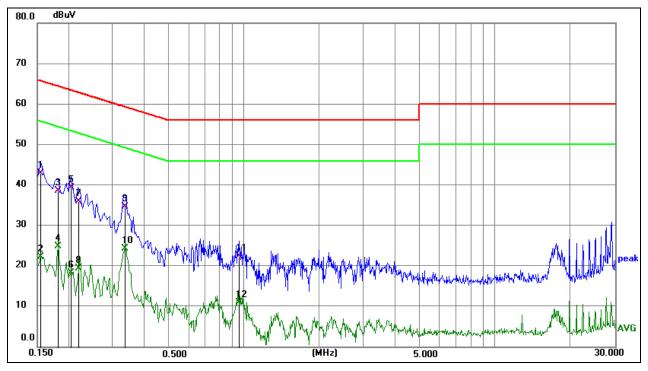
TEST SETUP



TEST ENVIRONMENT

| Temperature | 23.2°C | Relative Humidity | 52% |
|---------------------|--------|-------------------|-----|
| Atmosphere Pressure | 100kPa | | |

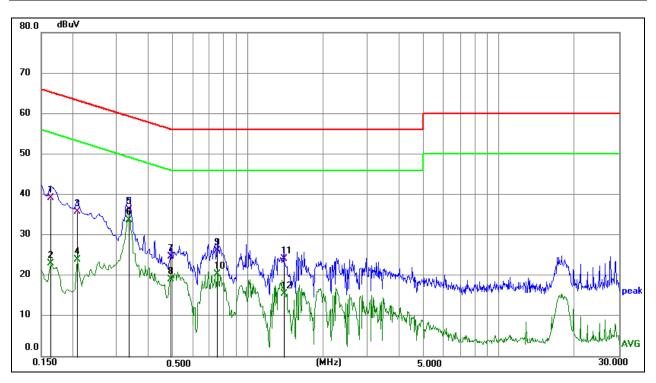
TEST RESULTS



Phase: N

Mode: BLE 2402MHz

| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|--------|--------|--------|--------|
| | (MHz) | (dBuV) | (dB) | (dBuV) | (dBuV) | (dB) | |
| 1 | 0.1545 | 32.89 | 9.99 | 42.88 | 65.75 | -22.87 | QP |
| 2 | 0.1545 | 12.22 | 9.99 | 22.21 | 55.75 | -33.54 | AVG |
| 3 | 0.1815 | 28.56 | 9.94 | 38.50 | 64.42 | -25.92 | QP |
| 4 | 0.1815 | 14.85 | 9.94 | 24.79 | 54.42 | -29.63 | AVG |
| 5 | 0.2040 | 29.44 | 9.94 | 39.38 | 63.45 | -24.07 | QP |
| 6 | 0.2040 | 8.35 | 9.94 | 18.29 | 53.45 | -35.16 | AVG |
| 7 | 0.2197 | 26.02 | 9.93 | 35.95 | 62.83 | -26.88 | QP |
| 8 | 0.2197 | 9.52 | 9.93 | 19.45 | 52.83 | -33.38 | AVG |
| 9 | 0.3345 | 24.68 | 9.89 | 34.57 | 59.34 | -24.77 | QP |
| 10 | 0.3345 | 14.35 | 9.89 | 24.24 | 49.34 | -25.10 | AVG |
| 11 | 0.9555 | 12.40 | 10.08 | 22.48 | 56.00 | -33.52 | QP |
| 12 | 0.9555 | 0.89 | 10.08 | 10.97 | 46.00 | -35.03 | AVG |



| Phase: L1 | Mode: BLE 2402MHz |
|-----------|-------------------|

| No. | Frequency | Reading | Correct | Result | Limit | Margin | Remark |
|-----|-----------|---------|---------|--------|--------|--------|--------|
| | (MHz) | (dBuV) | (dB) | (dBuV) | (dBuV) | (dB) | |
| 1 | 0.1635 | 29.32 | 9.91 | 39.23 | 65.28 | -26.05 | QP |
| 2 | 0.1635 | 13.04 | 9.91 | 22.95 | 55.28 | -32.33 | AVG |
| 3 | 0.2085 | 25.85 | 9.92 | 35.77 | 63.26 | -27.49 | QP |
| 4 | 0.2085 | 14.04 | 9.92 | 23.96 | 53.26 | -29.30 | AVG |
| 5 | 0.3345 | 26.46 | 9.93 | 36.39 | 59.34 | -22.95 | QP |
| 6 | 0.3345 | 23.79 | 9.93 | 33.72 | 49.34 | -15.62 | AVG |
| 7 | 0.4920 | 14.80 | 9.84 | 24.64 | 56.13 | -31.49 | QP |
| 8 | 0.4920 | 9.18 | 9.84 | 19.02 | 46.13 | -27.11 | AVG |
| 9 | 0.7575 | 16.11 | 10.02 | 26.13 | 56.00 | -29.87 | QP |
| 10 | 0.7575 | 10.38 | 10.02 | 20.40 | 46.00 | -25.60 | AVG |
| 11 | 1.3920 | 13.96 | 10.20 | 24.16 | 56.00 | -31.84 | QP |
| 12 | 1.3920 | 5.30 | 10.20 | 15.50 | 46.00 | -30.50 | AVG |

Note: 1. Result = Reading + Correct Factor.

2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 200 Hz (9 kHz ~ 150 kHz), 9 kHz (150 kHz ~ 30 MHz).

4. Step size: 80 Hz (0.009 MHz ~ 0.15 MHz), 4 kHz (0.15 MHz ~ 30 MHz), Scan time: auto.

Note: All the modes have been tested, only the worst data was recorded in the report.

11. TEST DATA - Appendix A

Duty Cycle

| Condition | Mode | Frequency (MHz) | Antenna | On Time (ms) | Period (ms) | Duty Cycle (%) | Correction Factor (dB) | 1/T (kHz) | Final settingFor VBW (kHz) |
|-----------|-----------|--------------------|---------|-----------------|----------------|-------------------|---------------------------|--------------|-------------------------------|
| NVNT | BLE 1M | 2402 | Ant1 | 0.45 | 0.63 | 71.43 | 1.46 | 2.25 | 1 |
| NVNT | BLE | 2440 | Ant1 | 0.45 | 0.63 | 71.43 | 1.46 | 2.24 | 1 |
| NVNT | 1M BLE | 2480 | Ant1 | 0.45 | 0.63 | 71.43 | 1.46 | 2.24 | 1 |
| | 1M | 2-100 | , | 0.40 | 0.00 | 71.40 | 1.40 | 2.27 | I |

| | | | | alpati onoi | | | | |
|-----------|-----------|--------------------|---------|--------------------------|---------------------|----------------------|----------------|---------|
| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Duty Factor (dB) | Total Power (dBm) | Limit (dBm) | Verdict |
| NVNT | BLE 1M | 2402 | Ant1 | 1.75 | 0 | 1.75 | 30 | Pass |
| NVNT | BLE 1M | 2440 | Ant1 | 3.88 | 0 | 3.88 | 30 | Pass |
| NVNT | BLE 1M | 2480 | Ant1 | 5.45 | 0 | 5.45 | 30 | Pass |

Maximum Conducted Output Power

| Ref Level 20.00 dBm Offset 2.52 dB • RBW 3 MHz Att 30 dB SWT 10.1 ms • VBW 10 MHz Mode Sweep SGL Count 100/100 Ibk Max M1[1] 1.75 dl 0 dBm M1 2.401898000 C 0 0 dBm M1 0 0 0 0 dBm M1 0 0 0 0 0 00 dBm M1 M1 0 0 0 0 00 dBm M1 M1 0 0 0 0 0 0 00 dBm M1 M1 M1 0 <td< th=""><th>Spectrum Mode Sweep S0. Court 100/100 SWT 1.0.1 ms VBW 10 MHz Mode Sweep S0. Court 100/100 1.75 den 1.75 den 1.75 den 10 den M11 2.401890000 en 1.75 den 0 den M11 2.40189000 en 1.75 den 50 den M11 2.53 den 8pon 10.0 MHz Spectrum M0001 pts Spon 10.0 MHz 1.75 den Spectrum M11 2.4092000 0e 1.75 den Spectrum M11 2.4092000 0e 1.75 den Spectrum M11 2.4092000 0e 1.75</th><th>Spectrum</th><th></th><th></th><th></th><th>M 2402MHz Ant</th><th></th><th></th><th></th></td<> | Spectrum Mode Sweep S0. Court 100/100 SWT 1.0.1 ms VBW 10 MHz Mode Sweep S0. Court 100/100 1.75 den 1.75 den 1.75 den 10 den M11 2.401890000 en 1.75 den 0 den M11 2.40189000 en 1.75 den 50 den M11 2.53 den 8pon 10.0 MHz Spectrum M0001 pts Spon 10.0 MHz 1.75 den Spectrum M11 2.4092000 0e 1.75 den Spectrum M11 2.4092000 0e 1.75 den Spectrum M11 2.4092000 0e 1.75 | Spectrum | | | | M 2402MHz Ant | | | | |
|--|--|---|--------------|--------------|-----------------------------|---------------|-----|-------|-----------------------|------------|
| Ref Level 20.00 dBm Offset 2.52 dB RBW 3 MH2 Att 30 dB SWT 10.1 ms VBW 10 MH2 Mode Sweep SGL Court 100/100 10.1 ms VBW 10 MH2 Mode Sweep 3.75 dl 0 dBm M1[1] 1.75 dl 2.401898000 C 3.75 dl 0 dBm M1 1.75 dl 2.401898000 C 3.75 dl 0 dBm M1 1.75 dl 3.75 dl 3.75 dl 0 dBm M1 1.75 dl 3.75 dl 3.75 dl 0 dBm M1 1.75 dl 3.75 dl 3.75 dl 00 dBm M1 1.75 dl 3.75 dl 3.75 dl 30 dBm M1 M1 1.75 dl 3.75 dl 30 dBm M1 M1 1.75 dl 3.77 dl 3.77 dl 30 dBm M1 M1 M1 1.75 dl 3.77 dl 3.77 dl 10 dBm M1 M1 M1 1.75 dl 3.77 dl 3.77 dl 10 dBm M1 M1< | Perture 12.00 dBm Offset 2.52 dB PEW 3 MHz S0L Count 100/100 1.01 ms VBW 10 MHz Mode Sweep 100 dbm 1.75 dbn 1.75 dbn 100 dbm 1.11 ms VBW 10 MHz 1.75 dbn 100 dbm 1.11 ms 1.75 dbn 1.75 dbn 100 dbm 1.11 ms 1.11 ms 1.11 ms 110 dbm 1.11 ms 1.11 ms 1.11 ms <th>opseuun</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> | opseuun | | | | | | | | |
| Att 30 dB SWT 10.1 ms VBW 10 MHz Mode Sweep GL_Count 100/100 Ink Max M1[1] 1.75 dl 0 dBm M1[1] 2.401898000 cl 0 dBm M1[1] 1.001 cl 0 dBm M1[1] 1.001 cl 0 dBm M1[1] 1.0001 cl 0 dBm M1[1] 1.0001 cl 10 dBm M1[1] 1.0001 cl 1.0001 cl 10 dBm M1[1] 1.0001 cl 1.0001 cl 10 dBm< | Att 30 db SWT 10.1 ms VBW 10 MHz Mode Sweep S0. Count 100/100 1.7.5 dm 1.7.5 dm 10 dbm M1[1] 2.401890000 GH 10 dbm M1 2.401890000 GH 10 dbm M1 1.7.5 dm 30 db M1 1.7.5 dm 30 db M1 1.7.5 dm 30 dbm M1 1.7.5 dm 40 dbm M1 1.7.5 dm 50 dbm M1 1.7.5 dm 51. Court 100/100 M1 M1 112 Marc M1 2.409920000 GH 50 dbm M1 M1 2.409920000 GH 50 dbm M1 M1 2.409920000 GH 50 dbm M1 M1 2.409920000 GH 0 db | Reflevel 20.00 dBr | m Offset 3 | 2 52 dB 🗰 RB | W 3 MHz | | | | (\ | |
| 1Pk Max M1[1] 1.75 dl 0 dBm M1[1] 2.401899000 cl dBm M1 1.75 dl 0 dBm M1 1.75 dl 10 dBm M1 M1 10 dBm M1 M | 104 Max M1[1] 1.75 db 10 dbm 11 2.40189000 Gh 0 dbm 11 2.40189000 Gh 10 dbm 11 2.40189000 Gh 10 dbm 11 2.40189000 Gh 10 dbm 11 11 10 dbm 11 11 10 dbm 11 11 20 dbm 11 11 21 dbm 11 <t< th=""><th></th><th></th><th></th><th></th><th>Mode Sweep</th><th></th><th></th><th></th></t<> | | | | | Mode Sweep | | | | |
| 0 dBm M1[1] 1.75 dl 0 dBm M1 2.401898000 dl 0 dBm M1 1.0 dl 10 dBm M1 | 0. dam M1[1] 1.75 den 0. dam M1 2.401890000 GH 0. dam M1 10 dem M1 30 dem M1 40 dem M1 50 dem M1 51 Count 100/100 178 Har 50 dem 10 dem <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | | | | | | | | | |
| 0 dBm M1 M1 M1 dBm M1 M1 M1 M1 10 | 0 dBm 9 2.401896000 GH 0 dBm 10 11 10 dBm 11 11 11 11 11 12 10 11 13 12 13 14 10 10 15 11 11 10 dBm 11 | трк мах | | | | M1[1] | | | 1 75 dBr | |
| dBm 10 dBm 1 | 0 dBm M1 10 dBm 10 dBm 30 dBm 10 dBm 50 dBm 10 dBm 10 dBm 10 dBm <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>2.401</td><td></td></td<> | | | | | | | 2.401 | | |
| dBm 10 dBm 1 | 0 dBm 10 dBm | LO dBm | + | | | | | | | |
| LO dBm 10 dBm | 10 dbm 30 dbm 40 dbm 50 dbm 60 dbm 70 dbm |) dBm | | | | | | | | |
| 00 dBm | 30 dBm 40 dBm | abin | | | | | | | | |
| i0 dBm iii iii iii iii iii iiii iiii iiiiiiii | 40 dBm | 10 dBm | | | | | | | | |
| i0 dBm iii iii iii iii iii iiii iiii iiiiiiii | 40 dBm | | | | | | | | | |
| i0 dBm iii iii iii iii iii iiii iiii iiiiiiii | 40 dBm | | + | | | | | | | |
| i0 dBm iii iii iii iii iii iiii iiii iiiiiiii | 40 dBm | | | | | | | | | |
| S0 dBm S0 dBm S0 dBm S0 dBm 70 dBm S0 dBm 70 dBm Span 10.0 Mk F 2.402 GHz 10001 pts F 2.402 GHz Span 10.0 Mk F 2.402 GHz 09:04:28 Power NVNT BLE 1M 2440MHz Ant1 Span 10.0 dBm Getrum RBW Smart | S0 dBm Image: Constraint of the second o | 30 dBm | | | | | | | | |
| S0 dBm S0 dBm S0 dBm S0 dBm 70 dBm S0 dBm 70 dBm Span 10.0 Mk F 2.402 GHz 10001 pts F 2.402 GHz Span 10.0 Mk F 2.402 GHz 09:04:28 Power NVNT BLE 1M 2440MHz Ant1 Span 10.0 dBm Getrum RBW Smart | S0 dBm Image: Constraint of the second o | 40 dBm | | | | | | | | |
| 50 dBm 60 dBm 70 dBm 70 dBm 70 dBm 10001 pts Span 10.0 MH Power NVNT BLE 1M 2440MHz Ant1 Epectrum RBW 3 MHz | 60 dBm 70 dBm 70 dBm 3F 2.402 GHz 5P 2.402 GHz 5 2.53 dB 5 8 RBW 10.1 ms 5 VBW 10 MHz 10 MHz 10 dBm 10 d | | | | | | | | | |
| PodBm Span 10.0 Mi F 2.402 GHz 10001 pts Span 10.0 Mi F 2.402 GHz 10001 pts Span 10.0 Mi Perform Perform 10002221 Power NVNT BLE 1M 2440MHz Ant1 Spectrum Ref Level 20.00 dBm Offset 2.53 dB RBW 3 MHz | 70 dBm Span 10.0 MHz 3F 2.402 GHz 10001 pts Span 10.0 MHz to::::::::::::::::::::::::::::::::::: | 50 dBm | | | | | | | | |
| PodBm Span 10.0 Mi F 2.402 GHz 10001 pts Span 10.0 Mi F 2.402 GHz 10001 pts Span 10.0 Mi Perform Perform 10002221 Power NVNT BLE 1M 2440MHz Ant1 Spectrum Ref Level 20.00 dBm Offset 2.53 dB RBW 3 MHz | 70 dBm Span 10.0 MHz 3F 2.402 CHz 10001 pts Span 10.0 MHz 10 dBm 100201 100201 Ref Level 20.00 dBm Offset 2.53 dB = RBW 3 MHz Mat 30 dB SWT 10.1 ms VBW 10 MHz Mode Sweep SGL Count 100/100 101 ms VBW 10 MHz Mode Sweep SGL Count 100/100 10 dBm 10 dBm | | | | | | | | | |
| F 2.402 GHz 10001 pts Span 10.0 Mi Pearly 13.09.2024 ae: 13.879.2024 09:04:28 Power NVNT BLE 1M 2440MHz Ant1 Spectrum Ref Level 20.00 dBm Offset 2.53 dB • RBW | SP 2.402 CHz 10001 pts Span 10.0 MHz ter: 13.87P.2024 09:04:28 100:01 pts 100:01 p | 60 dBm | + | | | | | | | |
| F 2.402 GHz 10001 pts Span 10.0 Mi Pearly 13.09.2024 ae: 13.879.2024 09:04:28 Power NVNT BLE 1M 2440MHz Ant1 Spectrum Ref Level 20.00 dBm Offset 2.53 dB • RBW | SP 2.402 CHz 10001 pts Span 10.0 MHz ter: 13.87P.2024 09:04:28 100:01 pts 100:01 p | 70 d8m | | | | | | | | |
| Beady Basely Basely </td <td>te: 13.979.2024 09:04:28 Power NVNT BLE 1M 2440MHz Ant1 Ref Level 20.00 dBm Offset 2.53 dB • RBW 3 MHz Att 30 dB SWT 10.1 ms • VBW 10 MHz Mode Sweep SGL count 100/100 10 dBm 0ffset 2.53 dB • RBW 3 MHz MI[1] 3.08 dBm GL count 100/100 10 dBm 0ffset 2.499920000 GH 0 dBm 0ffset 2.53 dB • RBW 3 MHz MI[1] 3.08 dBm GL count 100/100 10 dBm 0ffset 2.499920000 GH 0 dBm 0ffset 2.49992000 GH 0 dBm 0ffset 2.4992000 GH</td> <td>yo doni</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | te: 13.979.2024 09:04:28 Power NVNT BLE 1M 2440MHz Ant1 Ref Level 20.00 dBm Offset 2.53 dB • RBW 3 MHz Att 30 dB SWT 10.1 ms • VBW 10 MHz Mode Sweep SGL count 100/100 10 dBm 0ffset 2.53 dB • RBW 3 MHz MI[1] 3.08 dBm GL count 100/100 10 dBm 0ffset 2.499920000 GH 0 dBm 0ffset 2.53 dB • RBW 3 MHz MI[1] 3.08 dBm GL count 100/100 10 dBm 0ffset 2.499920000 GH 0 dBm 0ffset 2.49992000 GH 0 dBm 0ffset 2.4992000 GH | yo doni | | | | | | | | |
| Beady Basely Basely </td <td>13892424 te: 13.879.2024 09:04:28 Power NVNT BLE 1M 2440MHz Ant1 Spectrum Ref Level 20.00 dBm Offset 2.53 dB • RBW 3 MHz Att 30 dB SWT 10.1 ms • VBW 10 MHz Mode Sweep SGL count 100/100 19/10/10 0 dBm 0ffset 2.53 dB • RBW 3 MHz M1[1] 3.08 dB 0 dBm 0ffset 2.53 dB • RBW 3 MHz M1[1] 3.08 dB 0 dBm 0ffset 2.499920000 GH 0 dBm 0ffset 2.49920000 GH 0 dBm 0ffset 2.49920000 GH 0 dBm 0ffset 2.4992000 GH</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td></td> | 13892424 te: 13.879.2024 09:04:28 Power NVNT BLE 1M 2440MHz Ant1 Spectrum Ref Level 20.00 dBm Offset 2.53 dB • RBW 3 MHz Att 30 dB SWT 10.1 ms • VBW 10 MHz Mode Sweep SGL count 100/100 19/10/10 0 dBm 0ffset 2.53 dB • RBW 3 MHz M1[1] 3.08 dB 0 dBm 0ffset 2.53 dB • RBW 3 MHz M1[1] 3.08 dB 0 dBm 0ffset 2.499920000 GH 0 dBm 0ffset 2.49920000 GH 0 dBm 0ffset 2.49920000 GH 0 dBm 0ffset 2.4992000 GH | | | | | | | _ | | |
| Power NVNT BLE 1M 2440MHz Ant1 | Power NVNT BLE 1M 2440MHz Ant1 Ref Level 20.00 dBm Offset 2.53 dB RBW 3 MHz Att 30 dB SWT 10.1 ms VBW 10 MHz Mode Sweep SGL Count 100/100 M1[1] 3.88 dBr 2.4399920000 GH 0 dBm M1[1] 3.88 dBr 2.4399920000 GH 0 dBm M1[1] 3.88 dBr 2.4399920000 GH 0 dBm M1[1] 10 dBm M2 M1[1] 10 dBm M2 0 dBm dBm M2 <th c<="" th=""><th>3F 2.402 GHZ</th><th></th><th></th><th>10001</th><th>pts</th><th></th><th>spa</th><th>n 10.0 MHZ</th></th> | <th>3F 2.402 GHZ</th> <th></th> <th></th> <th>10001</th> <th>pts</th> <th></th> <th>spa</th> <th>n 10.0 MHZ</th> | 3F 2.402 GHZ | | | 10001 | pts | | spa | n 10.0 MHZ |
| | Att 30 dB SWT 10.1 ms VBW 10 MHz Mode Swep SGL Count 100/100 100/100 1111 3.88 dp 2.439920000 GH 0 dBm M1[1] 3.88 dp 2.439920000 GH 0 dBm M3 0 0 0 10 dBm M3 0 0 0 0 30 dBm 0 0 0 0 0 0 10 dBm 0 0 0 0 0 0 0 30 dBm 0 0 0 0 0 0 0 0 40 dBm 0 | | | Power NV | NT BLE 1 | M 2440MHz Ant | :1 | | _ | |
| Att 30 dB SWT 10.1 ms 🖷 VBW 10 MHz Mode Sweep | SGL Count 100/100 11Pk Max 10 dBm 10 | | | Power NV | NT BLE 1 | M 2440MHz Ant | :1 | | | |
| | 11Pk Max M1[1] 3.88 dBr .0 dBm M3 | Spectrum Ref Level 20.00 dBr | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz | | t1 | | T T | |
| | 0 dBm M3 10 dBm 10 dBm M3 10 dBm 10 dBm 10 dBm 30 dBm 10 dBm 30 dBm 10 dBm 30 dBm 10 dBm 10 dBm <t< th=""><th>Spectrum Ref Level 20.00 dBn Att 30 df</th><th>m Offset 2</th><th>2.53 dB 🖷 RE</th><th>SW 3 MHz</th><th></th><th>1</th><th></th><th>Ţ</th></t<> | Spectrum Ref Level 20.00 dBn Att 30 df | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz | | 1 | | Ţ | |
| | 0 dBm M3 Image: Constraint of the second se | Spectrum Ref Level 20.00 dBn Att 30 dB SGL Count 100/100 | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz | | :1 | | | |
| | 10 dBm 10 dBm <td>Spectrum Ref Level 20.00 dBn Att 30 dB SGL Count 100/100</td> <td>m Offset 2</td> <td>2.53 dB 🖷 RE</td> <td>SW 3 MHz</td> <td>Mode Sweep</td> <td>1</td> <td></td> <td>3.88 dBr</td> | Spectrum Ref Level 20.00 dBn Att 30 dB SGL Count 100/100 | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz | Mode Sweep | 1 | | 3.88 dBr | |
| 0 dBm | 10 dBm 10 dBm 30 dBm 40 dBm 50 dBm 60 dBm 70 dBm 10 dBm | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 91Pk Max | m Offset 2 | 2.53 dB 🖷 RE | 3 MHz 3 W 10 MHz | Mode Sweep | 1 | 2.439 | 3.88 dBr | |
| Mat I Mat | 30 dBm | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 11Pk Max | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.88 dBr | |
| MI | 30 dBm | Spectrum Ref Level 20.00 dBn Att 30 d8 SGL Count 100/100 11Pk Max .0 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.88 dBr | |
| dBm | 30 dBm | Spectrum Ref Level 20.00 dBn Att 30 d8 SGL Count 100/100 D1Pk Max 10 dBm D dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.88 dBr | |
| d8m | 40 dBm | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 01Pk Max 10 dBm 0 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| d8m | 40 dBm | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 10Pk Max .0 dBm 0 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| d8m | 50 dBm | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 01Pk Max 10 dBm 0 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| | 50 dBm | Spectrum Ref Level 20.00 dBn Att 30 di SGL Count 100/100 10PK Max 10 dBm 10 dBm 10 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| | 60 dBm | Spectrum Ref Level 20.00 dBn Att 30 di SGL Count 100/100 19FK Max 0 dBm 0 dBm 10 dBm 10 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| | 60 dBm | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 10Pk Max 0 dBm 10 dBm 10 dBm 30 dBm 30 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| dBm / / / / / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / / _ / _ / _ / / _ / / _ / / _ / | 70 dBm | Spectrum Ref Level 20.00 dBn Att 30 dB SGL Count 100/100 10 H Max 10 dBm 10 dBm 10 dBm 30 dBm 40 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| dBm / / / / / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / / _ / _ / _ / / _ / / _ / / _ / | 70 dBm | Spectrum Ref Level 20.00 dBn Att 30 dB SGL Count 100/100 10 H Max 10 dBm 10 dBm 10 dBm 30 dBm 40 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| dBm / / / / _ / _ | | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 10 H Max 10 dBm 10 dBm 10 dBm 30 dBm 40 dBm 50 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| dBm / / / / _ / _ | CF 2.44 GHz 10001 pts Span 10.0 MHz | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 10 H Max 10 dBm 10 dBm 10 dBm 30 dBm 40 dBm 50 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| dBm | CF 2.44 GHz 10001 pts Span 10.0 MHz | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 PPK Max 0 dBm 10 dBm 10 dBm 30 dBm 40 dBm 50 dBm 60 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| dBm | · · · · · · · · · · · · · · · · · · · | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 PPK Max 0 dBm 10 dBm 10 dBm 30 dBm 40 dBm 50 dBm 60 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2,439 | 3.89 dBr 920000 GH | |
| dBm | Peady 13.09.2824 | Spectrum Ref Level 20.00 dBn Att 30 dB SGL Count 100/100 PPk Max 0 dBm 10 dBm 10 dBm 30 dBm 40 dBm 60 dBm 70 dBm | m Offset 2 | 2.53 dB 🖷 RE | M3 MHz M3 10 MHz | Mode Sweep | | | 3.88 dBr | |
| 1Pk Max M1[1] 3.88 di 2.439920000 0 | 10 dBm | Spectrum Ref Level 20.00 dBn Att 30 df | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz | | :1 | | Ę | |
| | 0 dBm M3 A A A A A A A A A A A A A A A A A A | Spectrum Ref Level 20.00 dBn Att 30 dB 5GL Count 100/100 | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz | Mode Sweep | :1 | | | |
| 1Pk Max | 0 dBm M1 10 dBm 10 dBm 10 dBm 10 dBm 10 dBm | Gpectrum Ref Level 20.00 dBn Att 30 df | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz | | :1 | | 7 | |
| 2.439920000 | Indem M3 Indem 10 dBm Indem Indem 10 dBm Indem Indem 30 dBm Indem Indem 40 dBm Indem Indem 50 dBm Indem Indem 60 dBm Indem Indem | Spectrum Ref Level 20.00 dBn Att 30 dB 5GL Count 100/100 | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz | Mode Sweep | :1 | | | |
| | 10 dBm 10 dBm <td>Spectrum Ref Level 20.00 dBn Att 30 dB SGL Count 100/100</td> <td>m Offset 2</td> <td>2.53 dB 🖷 RE</td> <td>SW 3 MHz</td> <td>Mode Sweep</td> <td>1</td> <td>2.439</td> <td>3.88 dBi</td> | Spectrum Ref Level 20.00 dBn Att 30 dB SGL Count 100/100 | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz | Mode Sweep | 1 | 2.439 | 3.88 dBi | |
| D dBm | 10 dBm 10 dBm 30 dBm 40 dBm 50 dBm 60 dBm 70 dBm 70 dBm 10 dBm | Spectrum Ref Level 20.00 dBn Att 30 dB SGL Count 100/100 11Pk Max | m Offset 2 | 2.53 dB 🖷 RE | 3 MHz 3 W 10 MHz | Mode Sweep | 1 | 2.439 | 3.88 dBr | |
| Mat I Mat | 10 dBm 10 dBm 30 dBm 40 dBm 50 dBm 60 dBm 70 dBm 70 dBm 10 dBm | Spectrum Ref Level 20.00 dBn Att 30 dB SGL Count 100/100 11Pk Max | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | t1 | 2.439 | 3.88 dBr | |
| Mat I Mat | 30 dBm | Spectrum Ref Level 20.00 dBn Att 30 dB SGL Count 100/100 11Pk Max | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.88 dBr | |
| MI | 30 dBm | Spectrum Ref Level 20.00 dBn Att 30 d8 GGL Count 100/100 1Pk Max 0 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | 11 | 2.439 | 3.88 dBr | |
| MI | 30 dBm | Spectrum Ref Level 20.00 dBn Att 30 d8 GGL Count 100/100 1Pk Max 0 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.88 dBi | |
| dBm | 30 dBm | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 1Pk Max 0 dBm dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.88 dBi | |
| d8m | 40 dBm | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 1Pk Max 0 dBm dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| d8m | 40 dBm | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 1Pk Max 0 dBm dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| d8m | 40 dBm | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 1Pk Max 0 dBm idBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| | 50 dBm | Spectrum Ref Level 20.00 dBn Att 30 di SGL Count 100/100 1PK Max 0 dBm 0 dBm 10 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| | 50 dBm | Spectrum Ref Level 20.00 dBn Att 30 di SGL Count 100/100 1PK Max 0 dBm 0 dBm 10 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| | 60 dBm | Spectrum Ref Level 20.00 dBn Att 30 db GGL Count 100/100 1Pk Max 0 dBm 1 dBm 10 dBm 30 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| | 60 dBm | Spectrum Ref Level 20.00 dBn Att 30 db GGL Count 100/100 1Pk Max 0 dBm 1 dBm 10 dBm 30 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| | 70 dBm | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 10Pk Max 0 dBm 10 dBm 10 dBm 30 dBm 30 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| dBm / / / / / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / / _ / _ / _ / / _ / / _ / / _ / | 70 dBm | Spectrum Ref Level 20.00 dBn Att 30 dB SGL Count 100/100 10 HR Max 0 dBm 10 dBm 10 dBm 30 dBm 40 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| dBm / / / / / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / / _ / _ / _ / / _ / / _ / / _ / | 70 dBm | Spectrum Ref Level 20.00 dBn Att 30 dB SGL Count 100/100 10 HR Max 0 dBm 10 dBm 10 dBm 30 dBm 40 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| dBm / / / / / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / / _ / _ / _ / / _ / / _ / / _ / | 70 dBm | Spectrum Ref Level 20.00 dBn Att 30 dB SGL Count 100/100 10 HR Max 0 dBm 10 dBm 10 dBm 30 dBm 40 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| dBm / / / / / / _ / / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / _ / / _ / / _ / / _ / / _ / / _ / / _ / / _ / | | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 10 HR Max 0 dBm 10 dBm 30 dBm 30 dBm 40 dBm 50 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| dBm / / / / _ / _ | | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 10 HR Max 0 dBm 10 dBm 30 dBm 30 dBm 40 dBm 50 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| dBm / / / / _ / _ | | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 10 HR Max 0 dBm 10 dBm 30 dBm 30 dBm 40 dBm 50 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2,439 | 3.89 dBr 920000 GH | |
| dBm / / / / _ / _ | | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 10 H Max 10 dBm 10 dBm 10 dBm 30 dBm 40 dBm 50 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| dBm / / / / _ / _ | | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 91Pk Max 10 dBm 0 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| dBm | CF 2.44 GHz 10001 pts Span 10.0 MHz | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 PPK Max 0 dBm 10 dBm 10 dBm 30 dBm 40 dBm 50 dBm 60 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| dBm | Image: CF 2.44 GHz 10001 pts Span 10.0 MHz | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 PPK Max 0 dBm 10 dBm 10 dBm 30 dBm 40 dBm 50 dBm 60 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| dBm | CF 2.44 GHz 10001 pts Span 10.0 MHz | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 PPK Max 0 dBm 10 dBm 10 dBm 30 dBm 40 dBm 50 dBm 60 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| dBm | | Spectrum Ref Level 20.00 dBn Att 30 db SGL Count 100/100 PPK Max 0 dBm 10 dBm 10 dBm 30 dBm 40 dBm 50 dBm 60 dBm | m Offset 2 | 2.53 dB 🖷 RE | SW 3 MHz SW 10 MHz M3 | Mode Sweep | | 2.439 | 3.89 dBr 920000 GH | |
| dBm | | Spectrum Ref Level 20.00 dBn Att 30 dB SGL Count 100/100 PIPk Max 10 dBm 10 dBm 30 dBm 40 dBm 60 dBm 70 dBm | m Offset 2 | 2.53 dB 🖷 RE | M3 MHz M3 10 MHz | Mode Sweep | | | 3.88 dBr | |
| dBm 10 dBm 1 | Deady 13.09.2024 | Spectrum Ref Level 20.00 dBn Att 30 dB SGL Count 100/100 PIPk Max 10 dBm 10 dBm 30 dBm 40 dBm 60 dBm 70 dBm | m Offset 2 | 2.53 dB 🖷 RE | M3 MHz M3 10 MHz | Mode Sweep | | Spa | 3.88 dBr | |

| | Pow | er NVNT BLE 1 | M 2480MHz Ant | 1 | |
|--------------------------------|----------------------|-----------------|---------------|-----|---------------------------|
| Spectrum | | | | | |
| Ref Level 20.00 de | | B 🖷 RBW 3 MHz | | | |
| Att 30 (CCL Count 100/100) | dB SWT 10.1 m | is 🖷 VBW 10 MHz | Mode Sweep | | |
| SGL Count 100/100 | | | | | |
| | | | M1[1] | 2 | 5.45 dBm 480110000 GHz |
| 10 dBm | | | | + + | |
| | | | | | |
| 0 dBm | | | | | |
| 10.10 | | | | | |
| -10 dBm | | | | | |
| a fim | | | | | |
| | | | | | |
| -30 dBm | | | | | |
| | | | | | |
| -40 dBm | | | | | |
| | | | | | |
| -50 dBm | | | | | |
| | | | | | |
| -60 dBm | | | | | |
| -70 dBm | | | | | |
| -70 dBm | | | | | |
| | | | | | |
| CF 2.48 GHz | | 10001 | pts | | Span 10.0 MHz |
| | | | Ready | 40 | |
| Date: 13.87P.2024 | 09:09:33 | | | | |
| | | | | | |

| •••= | | | | | | |
|-----------|--------|-----------------|---------|-----------------------|-----------------------------|---------|
| Condition | Mode | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
| NVNT | BLE 1M | 2402 | Ant1 | 0.63 | 0.5 | Pass |
| NVNT | BLE 1M | 2440 | Ant1 | 0.63 | 0.5 | Pass |
| NVNT | BLE 1M | 2480 | Ant1 | 0.62 | 0.5 | Pass |

-6dB Bandwidth

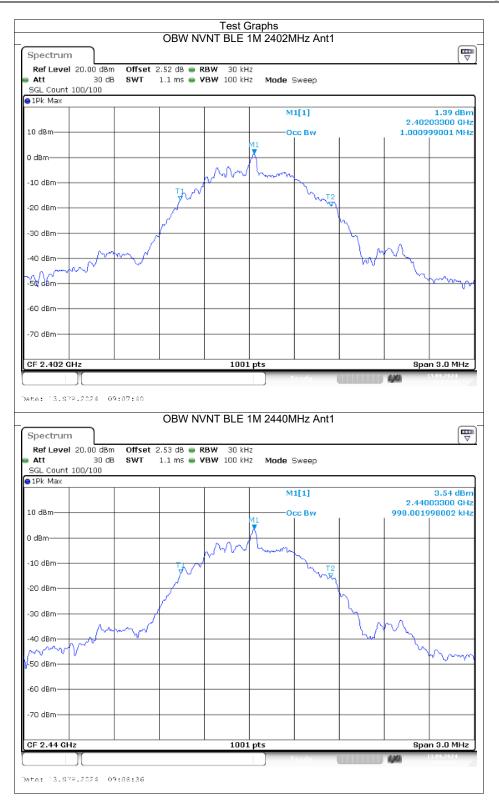
TRF No.: 04-E001-0B

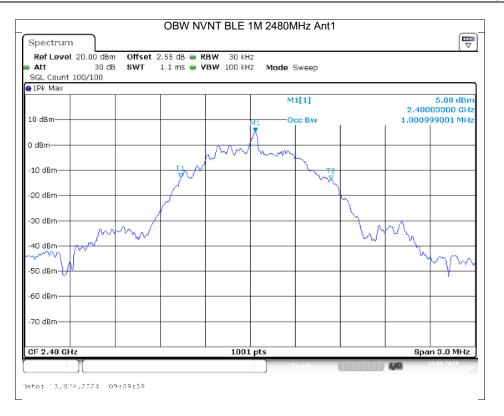
| | | -6dB | Bandwi | Test Gr | LE 1M 2402N | /Hz Ant1 | | |
|---|-------------------------------|-------------------------------|---|---|--|----------------|---------------------------|--|
| Spectrum | | | | | | | | |
| Ref Level | | | | RBW 100 kHz | | | | (• |
| SGL Count : | 30 d£ 100/100 | B SWT | 1 ms 👄 | VBW 300 kHz | Mode Sweep | | | |
| 1Pk Max | 100, 100 | | | | | | | |
| | | | | | M1[1] | | 2 4020 | 1.48 dBm 4200 GHz |
| 10 dBm | | | | 1 | M1 M2[1] | | - | 4.28 dBm |
| 0 dBm | | | Ma | mon mon | - vormpro- | M ² | 2.4017 | 1800 GHz |
| -10 dBm | | | y and the second | | - | W. Law | | |
| | | 1 | | | | June 1 | \sim | |
| -20 dBm | - | and the second | | | | | <u> </u> | |
| -30 dBm | WHAT - | | | | | | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |
| -40 dBm | w · | | | | | | T | ω. |
| FO dB- | | | | | | | | |
| -50 dBm | | | | | | | | |
| -60 dBm | | | | | | | | |
| -70 dBm | | | | | | | | |
| | | | | | | | | |
| CF 2.402 G | Hz | | | 1001 | ots | | Span | 2.0 MHz |
| Marker Type Ref | Tre | X-value | | Y-value | Function | L Fu | nction Result | |
| M1 | 1 | 2.4020 | 42 GHz | 1.48 dBm | 1 | | notion nosait | |
| M2 M3 | 1 | 2.4017: | | -4.28 dBm -4.42 dBm | | | | |
| | | | | | | | | |
| |)[| | | | LE 1M 2440N | /Hz Ant1 | 4,40 | .09.2024 19:07:05 |
| ate: 13.57 Spectrum Ref Level | 20.00 dBn | 9:07:46 -6dB n Offset 2 | Bandwi | dth NVNT B | Ready ILE 1M 2440N | | 1) AJAN ¹³ | .09.2024 // |
| ate: 13.87 Spectrum Ref Level Att SGL Count : | 20.00 dBn 30 dB | 9:07:46 -6dB n Offset 2 | Bandwi | dth NVNT B | Ready LE 1M 2440N | | | .09.2024 |
| ate: 13.87 Spectrum Ref Level Att SGL Count : | 20.00 dBn 30 dB | 9:07:46 -6dB n Offset 2 | Bandwi | dth NVNT B | Deads LE 1M 2440N Mode Sweep | | | |
| Spectrum Ref Level Att SGL Count : IPk Max | 20.00 dBn 30 dB | 9:07:46 -6dB n Offset 2 | Bandwi | dth NVNT B RBW 100 kHz VBW 300 kHz | LE 1M 2440N Mode Sweep M1[1] | | | 3.65 dBm |
| Spectrum Ref Level Att SGL Count : JPk Max 10 dBm | 20.00 dBn 30 dB | 9:07:46 -6dB n Offset 2 | B Bandwi 2.53 dB • 1 ms • | dth NVNT B RBW 100 kHz VBW 300 kHz | Deads LE 1M 2440N Mode Sweep | | 2.4400 | 3.65 dBm 3200 GHz 2.23 dBm |
| Spectrum Ref Level Att SGL Count : JPk Max 10 dBm | 20.00 dBn 30 dB | 9:07:46 -6dB n Offset 2 | Bandwi | dth NVNT B RBW 100 kHz VBW 300 kHz | Providy LE 1M 2440N Mode Sweep M1[1] M2[1] | | 2.4400 | 3.65 dBm 3200 GHz 2.23 dBm |
| Spectrum Ref Level Att SGL Count : 1Pk Max 10 dBm 0 dBm | 20.00 dBn 30 dB | 9:07:46 -6dB n Offset 2 | B Bandwi 2.53 dB • 1 ms • | dth NVNT B RBW 100 kHz VBW 300 kHz | Providy LE 1M 2440N Mode Sweep M1[1] M2[1] | | 2.4400 | 3.65 dBm 3200 GHz 2.23 dBm |
| Spectrum Ref Level Att SGL Count : JIPk Max 10 dBm -10 dBm -10 dBm | 20.00 dBn 30 dB | 9:07:46 -6dB n Offset 2 | B Bandwi 2.53 dB • 1 ms • | dth NVNT B RBW 100 kHz VBW 300 kHz | Providy LE 1M 2440N Mode Sweep M1[1] M2[1] | | 2.4400 | 3.65 dBm 3200 GHz 2.23 dBm |
| Ate: 13.877 Spectrum Ref Level Att SGL Count : IVK Max 10 dBm 0 dBm -10 dBm -20 dBm | 20.00 dBn 30 dB | 9:07:46 -6dB n Offset 2 | B Bandwi 2.53 dB • 1 ms • | dth NVNT B RBW 100 kHz VBW 300 kHz | Providy LE 1M 2440N Mode Sweep M1[1] M2[1] | | 2.4400 | 3.65 dBm 3200 GHz 2.23 dBm |
| Spectrum Ref Level Att SGL Count : IPk Max | 20.00 dBn 30 dB | 9:07:46 -6dB n Offset 2 | B Bandwi 2.53 dB • 1 ms • | dth NVNT B RBW 100 kHz VBW 300 kHz | Providy LE 1M 2440N Mode Sweep M1[1] M2[1] | | 2.4400 - 2.4397 | 3.65 dBm 3200 GHz 2.23 dBm |
| Ate: 13.873 Spectrum Ref Level Att SGL Count : 10 dBm 0 dBm -10 dBm -20 dBm | 20.00 dBn 30 dB | 9:07:46 -6dB n Offset 2 | B Bandwi 2.53 dB • 1 ms • | dth NVNT B RBW 100 kHz VBW 300 kHz | Providy LE 1M 2440N Mode Sweep M1[1] M2[1] | | 2.4400 - 2.4397 | 3.65 dBm 3200 GHz 2.23 dBm 1800 GHz |
| ste: 13.87 Spectrum Ref Level Att SGL Count : SGL Count : 10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -40 dBm | 20.00 dBn 30 dB | 9:07:46 -6dB n Offset 2 | B Bandwi 2.53 dB • 1 ms • | dth NVNT B RBW 100 kHz VBW 300 kHz | Providy LE 1M 2440N Mode Sweep M1[1] M2[1] | | 2.4400 - 2.4397 | 3.65 dBm 3200 GHz 2.23 dBm 1800 GHz |
| ate: 13.873 Spectrum Ref Level Att SGL Count : SGL Count : 10 dBm 10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -40 dBm | 20.00 dBn 30 dB | 9:07:46 -6dB n Offset 2 | B Bandwi 2.53 dB • 1 ms • | dth NVNT B RBW 100 kHz VBW 300 kHz | Providy LE 1M 2440N Mode Sweep M1[1] M2[1] | | 2.4400 - 2.4397 | 3.65 dBm 3200 GHz 2.23 dBm 1800 GHz |
| ste: 13.87 Spectrum Ref Level Att SGL Count : SGL Count : 10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -40 dBm | 20.00 dBn 30 dB | 9:07:46 -6dB n Offset 2 | B Bandwi 2.53 dB • 1 ms • | dth NVNT B RBW 100 kHz VBW 300 kHz | Providy LE 1M 2440N Mode Sweep M1[1] M2[1] | | 2.4400 - 2.4397 | 3.65 dBm 3200 GHz 2.23 dBm 1800 GHz |
| ate: 13.873 Spectrum Ref Level Att SGL Count : SGL Count : 10 dBm 10 dBm -10 dBm -20 dBm -20 dBm -20 dBm -60 dBm | 20.00 dBn 30 dB | 9:07:46 -6dB n Offset 2 | B Bandwi 2.53 dB • 1 ms • | dth NVNT B RBW 100 kHz VBW 300 kHz | Providy LE 1M 2440N Mode Sweep M1[1] M2[1] | | 2.4400 - 2.4397 | 3.65 dBm 3200 GHz 2.23 dBm 1800 GHz |
| ate: 13.873 Spectrum Ref Level Att SGL Count : SGL Count : 10 dBm 10 dBm -0 dBm -20 dBm -20 dBm -20 dBm -60 dBm -50 dBm -70 dBm | 20.00 dBm 30 dt 100/100 | 9:07:46 -6dB n Offset 2 | B Bandwi 2.53 dB • 1 ms • | dth NVNT B | Povrkv LE 1M 2440N Mode Sweep M1[1] M2[1] | | 2.4400 | 3.65 dBm 3200 GHz 2.23 dBm 1800 GHz |
| ate: 13.873 Spectrum Ref Level Att SGL Count : ID dBm O dBm -10 dBm -20 dBm -20 dBm -20 dBm -70 dBm -70 dBm -70 dBm -70 dBm -70 dBm | 20.00 dBm 30 dt 100/100 | 9:07:46 -6dB n Offset 2 | B Bandwi 2.53 dB • 1 ms • | dth NVNT B RBW 100 kHz VBW 300 kHz | Povrkv LE 1M 2440N Mode Sweep M1[1] M2[1] | | 2.4400 | 3.65 dBm 3200 GHz 2.23 dBm 1800 GHz |
| ste: 13.873 Spectrum Ref Level Att SGL Count : 10 dBm 0 0 dBm -10 dBm -20 dBm -20 dBm -40 dBm -50 dBm | 20.00 dBn 30 dt 100/100 | 9:07:46 -6dB n Offset 2 | Bandwi 2.53 dB • 1 ms • | dth NVNT B | Povrkv LE 1M 2440N Mode Sweep M1[1] M2[1] | 2 M3 | 2.4400 | |
| ate: 13.873 Spectrum Ref Level Att SGL Count : SGL Count : 10 dBm 10 dBm -0 dBm -20 dBm -20 dBm -20 dBm -60 dBm -50 dBm -60 dBm -70 dBm -70 dBm -70 dBm -70 dBm -70 dBm -70 dBm | 20.00 dBn 30 dt 100/100 | -6dB -6dB -6dB | Bandwi 2.53 dB • 1 ms • M2 M2 | dth NVNT B RBW 100 kHz yBW 300 kHz M M M M M M M M M M M M M | Province LE 1M 2440N Mode Sweep M1[1] M1[1] M2 | 2 M3 | 2.4400 | 3.65 dBm 3200 GHz 2.23 dBm 1800 GHz |
| ate: 3.873 Spectrum Ref Level Att SGL Count : SGL Count : 10 dBm 10 dBm 0 dBm -10 dBm -20 dBm -20 dBm -60 dBm -50 dBm -70 dBm -70 dBm -70 dBm -70 dBm -70 dBm | 20.00 dBn 30 dt 100/100 | 9:07:46 -6dB 3 SWT | B Bandwi 2.53 dB • 1 ms • M2 M2 M2 M2 M2 M2 M2 M2 M2 M2 | dth NVNT B | Province ALE 1M 2440N Mode Sweep M1[1] M1[1] M2[1] M | 2 M3 | 2.4400 | 3.65 dBm 3200 GHz 2.23 dBm 1800 GHz |

| | | -6dB | Bandw | idth NVNT E | BLE 1M 2 | 2480M | IHz Ant1 | | _ |
|---------------|----------|----------|----------|--------------------|---------------|--|----------|--------------|-------------|
| Spectrum | | | | | | | | | |
| Ref Level 20 | 0.00 dBm | Offset 2 | .55 dB 😑 | RBW 100 kHz | | | | | |
| 🖷 Att | 30 dB | SWT | 1 ms 😑 | VBW 300 kHz | Mode 3 | Sweep | | | |
| SGL Count 10 | 0/100 | | | | | | | | |
| 😑 1Pk Max | | | | | | | | | |
| | | | | | M | 1[1] | | | 5.22 dBm |
| 10 dBm | | | | | /1 | | | | 03200 GHz |
| | | | M2, | | 🗶 М | 2[1] | MB | | -0.26 dBm |
| 0 dBm | | | | an - marine | hor | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | her . | 2.479 | 72600 GHz |
| | | | - | | | | - Maria | | |
| -10 dBm | | | | | | | - mar | | |
| | | 5 | | | | | | \sim 1 | |
| -20 dBm | / | ~ | | | | | | | |
| 19078R-1141 | WW . | | | | | | | ~~~~ | |
| 130 asw - 1 | •• | | | | | | | 1 | Marda and I |
| -40 dBm | | | | | | | | | |
| -40 0811 | | | | | | | | | |
| -50 dBm | | | | | | | | | |
| | | | | | | | | | |
| -60 dBm | | | | | | | | | |
| | | | | | | | | | |
| -70 dBm | | | | | | | | | |
| | | | | | | | | | |
| CF 2.48 GHz | | | | 1001 | pts | | | Spai | 1 2.0 MHz |
| Marker | | | | | | | | | |
| | Trc | X-value | - 1 | Y-value | Func | tion | Fun | ction Result | 1 |
| M1 | 1 | 2.48003 | | 5.22 dBn | | | | | |
| M2 | 1 | 2.47972 | | -0.26 dBn | | | | | |
| M3 | 1 | 2.4803 | 48 GHz | -0.53 dBn | 1 | | | | |
| | | | | | | le ad y | | 430 | 3.09.2024 |
| | <u> </u> | | | | | | | | |
| ate: 13.87P.3 | 2024 04 | 9:10:04 | | | | | | | |

Occupied Channel Bandwidth

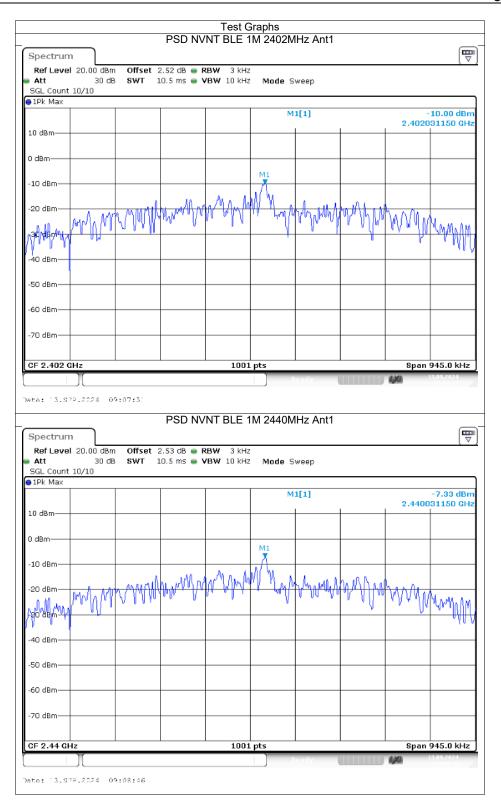
| Condition | Mode | Frequency (MHz) | Antenna | 99% OBW (MHz) |
|-----------|--------|-----------------|---------|---------------|
| NVNT | BLE 1M | 2402 | Ant1 | 1.001 |
| NVNT | BLE 1M | 2440 | Ant1 | 0.998 |
| NVNT | BLE 1M | 2480 | Ant1 | 1.001 |

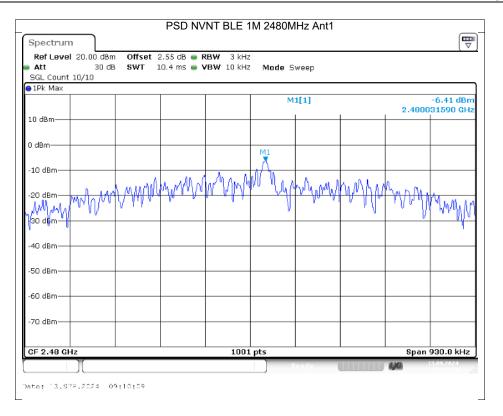




Maximum Power Spectral Density Level

| | | | | ····· | | | | |
|-----------|-----------|--------------------|---------|-----------------------------|---------------------|-------------------------|---------------------|---------|
| Condition | Mode | Frequency (MHz) | Antenna | Conducted PSD (dBm/3kHz) | Duty Factor (dB) | Total PSD (dBm/3kHz) | Limit (dBm/3kHz) | Verdict |
| NVNT | BLE 1M | 2402 | Ant1 | -10 | 0 | -10 | 8 | Pass |
| NVNT | BLE 1M | 2440 | Ant1 | -7.33 | 0 | -7.33 | 8 | Pass |
| NVNT | BLE 1M | 2480 | Ant1 | -6.41 | 0 | -6.41 | 8 | Pass |





| Band | Edge | | | | | |
|-----------|--------|-----------------|---------|-----------------|-------------|---------|
| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
| NVNT | BLE 1M | 2402 | Ant1 | -40.94 | -20 | Pass |
| NVNT | BLE 1M | 2480 | Ant1 | -48.23 | -20 | Pass |

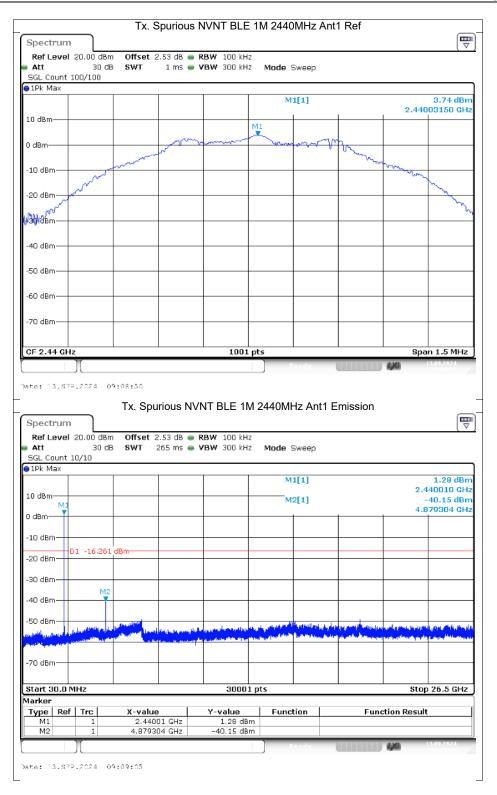
| | | Bai | nd Edge | Test C NVNT BLE | 1M 2402MI | Hz Ant1 Re | ef | | |
|---|---|--|--|---|--|--|--------------------|--------------|--|
| Spectrum | | | - | | | | | | Ē |
| Ref Level | 20.00 dB | m Offset | 2.52 dB 👄 | RBW 100 kH | Iz | | | | (. |
| Att SGL Count : | 30 c | | 1 ms 👄 | VBW 300 kH | Iz Mode Sw | eep | | | |
| 1Pk Max | 1100/1100 | J | | | | | | | |
| | | | | | M1[| 1] | | | 1.59 dBn |
| | | | | | | | | 2.402 | 03200 GH |
| 10 dBm | | | | | | | | | |
| 0 dBm | | | | | | | | | |
| o abin | | | | 1 | ~ | | | | |
| 10 dBm | | | | | | | | | |
| | | | | | 1 1 | | | | |
| -20 dBm | | | | | | | | | |
| | | | | | | | | | |
| -30 dBm | | | | ~ | t _ | ~ | | | |
| | | | - And and the second | | | | | | |
| -40 dBm | and a starter and a starter a | - Martin Martin | | | | N. Contraction of the Contractio | menun | A. 49 . | |
| ~~ W W . | | | | | | | | and a second | umanum |
| -50 dBm | | | | | | | | | |
| | | | | | | | | | |
| -60 dBm | | | | | | | | | |
| -70 dBm | | | | | | | | | |
| -70 asm | | | | | | | | | |
| | | | | | | | | | |
| CF 2.402 G | Hz | | | 1001 | 1 pts | | | Spa | n 8.0 MHz |
| ate: 13.57 |)[9.2024 | | Edge NV | /NT BLE 1N | Вес И 2402MHz | Ant1 Emis | sion | 4,40 | 13.09.2024 |
| ste: 13.87 Spectrum | _ | | Edge NV | /NT BLE 1N | Рос И 2402MHz | Ant1 Emis | sion | 4,44 | 13.09.2024 99.02.00 |
| Spectrum Ref Level | 20.00 dB | Band m Offset | 2.52 dB 👄 | RBW 100 kH | Iz | Ant1 Emis | sion | 4,44 | 13.09.2024 |
| Spectrum Ref Level Att | 20.00 dB 30 c | Band m Offset B SWT | 2.52 dB 👄 | | Iz | | sion | <i>lla</i> | 13.09.2024 |
| Spectrum Ref Level Att SGL Count | 20.00 dB 30 c | Band m Offset B SWT | 2.52 dB 👄 | RBW 100 kH | Iz | | sion | <i>iya</i> | (T |
| Spectrum Ref Level Att | 20.00 dB 30 c | Band m Offset B SWT | 2.52 dB 👄 | RBW 100 kH | Iz | eep | sion | <i>iya</i> | |
| Spectrum Ref Level Att SGL Count | 20.00 dB 30 c | Band m Offset B SWT | 2.52 dB 👄 | RBW 100 kH | Iz Mode Sw | reep 1] | sion | | 1.46 dBr 05000 GH |
| Spectrum Ref Level Att SGL Count 1Pk Max | 20.00 dB 30 c | Band m Offset B SWT | 2.52 dB 👄 | RBW 100 kH | lz Iz Mode Sw | reep 1] | sion | - | 1.46 dBr 05000 GH 39.35,dBr |
| Spectrum Ref Level Att SGL Count 1Pk Max | 20.00 dB 30 c | Band m Offset B SWT | 2.52 dB 👄 | RBW 100 kH | Iz Mode Sw | reep 1] | sion | - | 1.46 dBr 05000 GH 39.35,dBr |
| Spectrum Ref Level Att SGL Count 1Pk Max | 20.00 dB 30 c | Band m Offset B SWT | 2.52 dB 👄 | RBW 100 kH | Iz Mode Sw | reep 1] | sion | - | 1.46 dBr 05000 GH 39.35,dBr |
| Spectrum Ref Level Att SGL Count IPk Max 10 dBm 0 dBm -10 dBm | 20.00 dB 30 c 1000/1000 | Band m Offset B SWT | 2.52 dB 👄 | RBW 100 kH | Iz Mode Sw | reep 1] | sion | - | 1.46 dBr 05000 GH 39.35,dBr |
| Spectrum Ref Level Att SGL Count IPk Max 10 dBm 0 dBm -10 dBm | 20.00 dB 30 c 1000/1000 | Band m Offset B SWT | 2.52 dB 👄 | RBW 100 kH | Iz Mode Sw | reep 1] | sion | - | 1.46 dBr 05000 GH 39.35,dBr |
| Spectrum Ref Level Att SGL Count IPk Max 10 dBm 0 dBm | 20.00 dB 30 c 1000/1000 | Band m Offset B SWT | 2.52 dB 👄 | RBW 100 kH | Iz Mode Sw | reep 1] | sion | - | 1.46 dBr 05000 CH 39.35,dBr 000007CH |
| Spectrum Ref Level Att SGL Count IPk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm | 20.00 dB 30 c 1000/1000 | Band m Offset B SWT | 2.52 dB 👄 | RBW 100 kH | Iz Mode Sw | reep 1] | sion | - | 1.46 dBr 05000 GH 39.35,dBr |
| Spectrum Ref Level SGL Count) IPk Max 10 dBm 0 dBm -10 dBm -20 dBm | 20.00 dB 30 c 1000/1000 | Band m Offset B SWT | 2.52 dB 👄 | RBW 100 kH | Iz Mode Sw | reep 1] | sion | 2.400 | 1.46 dBr 05000 GH 39.35 ₄ dBr 000000CH |
| Spectrum Ref Level Att SGL Count SGL Count 10 dBm 0 dBm 10 dBm 20 dBm 40 dBm 40 dBm | 20.00 dB 30 c 1000/1000 | Band m Offset B SWT 2 dBm | 2.52 dB • 1 ms • | RBW 100 kH | 12 12 Mode Sw M1[M2[1 | eep 1] 1] 1] | | 2.400 | 1.46 dBr 05000 CH 39.35,dBr 000007CH |
| Spectrum Ref Level Att SGL Count SGL Count 10 dBm 0 dBm 10 dBm 20 dBm 40 dBm 40 dBm | 20.00 dB 30 c 1000/1000 | Band m Offset B SWT 2 dBm | 2.52 dB • 1 ms • | RBW 100 kH | 12 12 Mode Sw M1[M2[1 | eep 1] 1] 1] | | 2.400 | 1.46 dBr 05000 GH 39.35 ₄ dBr 000000CH |
| Spectrum Ref Level Att SGL Count SGL Count 10 dBm 0 dBm 10 dBm 20 dBm 40 dBm 40 dBm | 20.00 dB 30 c 1000/1000 | Band m Offset B SWT 2 dBm | 2.52 dB • 1 ms • | RBW 100 kH | Iz Mode Sw | eep 1] 1] 1] | | 2.400 | 1.46 dBr 05000 GH 39.35 ₄ dBr 000000CH |
| Spectrum Ref Level Att SGL Count SGL Count 10 dBm 0 dBm 10 dBm 20 dBm 40 dBm 40 dBm | 20.00 dB 30 c 1000/1000 | Band m Offset B SWT 2 dBm | 2.52 dB • 1 ms • | RBW 100 kH | 12 12 Mode Sw M1[M2[1 | eep 1] 1] 1] | | 2.400 | 1.46 dBr 05000 GH 39.35 ₄ dBr 000000CH |
| Spectrum Ref Level Att SGL Count ID dBm D dBm D dBm 20 dBm 30 dBm 40 dBm 50 dBm 50 dBm | 20.00 dB 30 c 1000/1000 | Band m Offset B SWT 2 dBm | 2.52 dB • 1 ms • | RBW 100 kH | 12 12 Mode Sw M1[M2[1 | eep 1] 1] 1] | | 2.400 | 1.46 dBr 05000 GH 39.35 ₄ dBr 000000CH |
| Spectrum Ref Level Att SGL Count 1Pk Max 10 dBm 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -70 dBm -70 dBm Start 2.306 | 20.00 dB 30 c 1000/1000 | Band m Offset B SWT 2 dBm | 2.52 dB • 1 ms • | RBW 100 kH | 12 12 Mode Sw M1[M2[10 10 10 10 10 10 10 10 10 10 | eep 1] 1] 1] | | 2.400 | 1.46 dBr 05000 GH 39.35,dBr 00000,GH |
| Spectrum Ref Level Att SGL Count IPk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -70 dBm -70 dBm Start 2.306 | 20.00 dB 30 c 1000/1000 01 -18.41 | Band | 2.52 dB 1 ms | RBW 100 kH | 12 12 Mode Sw M1[M2[M2[M2[M2[M2[M2[M2[M2 | eep 1] 1] | hylin pear fabrill | 2,400 | 1.46 dBr 05000 GH 39.35,dBr 00000 GH |
| Spectrum Ref Level Att SGL Count IPk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -70 dBm -70 dBm Start 2.306 | 20.00 dB 30 c 1000/1000 | Band | 2.52 dB 1 ms | RBW 100 kH VBW 300 kH | 12 22 Mode Sw M1[M2[M2[M2[M2[M2[M2[M2[M2 | eep 1] 1] | hylin pear fabrill | 2.400 | 2.406 GHz |
| Spectrum Ref Level Att SGL Count 1Pk Max 10 dBm 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -30 dBm -50 dBm -60 dBm -70 dBm Start 2.306 Type M1 M2 | 20.00 dB 30 c 1000/1000 01 -18.41 01 -18.41 01 -18.41 01 -18.41 | Band m Offset B SWT 2 dBm 2 dBm 2 dBm 2 dBm 2 dBm 4 dBm 4 dBm 5 dBm | 2.52 dB 1 ms 1 m | RBW 100 kH VBW 300 kH | iz iz Mode Sw M1[M2[M2[M2[M2[M2[M2[M2[M2 | eep 1] 1] | hylin pear fabrill | 2,400 | 1.46 dBr 05000 GH 39.35,dBr 00000 GH |
| Spectrum Ref Level Att SGL Count 1Pk Max 10 dBm 10 dBm 20 dBm -10 dBm -20 dBm -30 dBm | 20.00 dB 30 c 1000/1000 01 -18.41 01 -18.41 GHz I Trc 1 | Band m Offset B SWT 2 dBm 2 dBm 2 dBm 2 dBm 2 dBm 4 dBm 4 dBm 5 dBm | 2.52 dB 1 ms 1 m | RBW 100 kH | iz iz Mode Sw M1[M2[M2[M2[M2[M2[M2[M2[M2 | eep 1] 1] | hylin pear fabrill | 2,400 | 1.46 dBr 05000 GH 39.35,dBr 00000 GH |

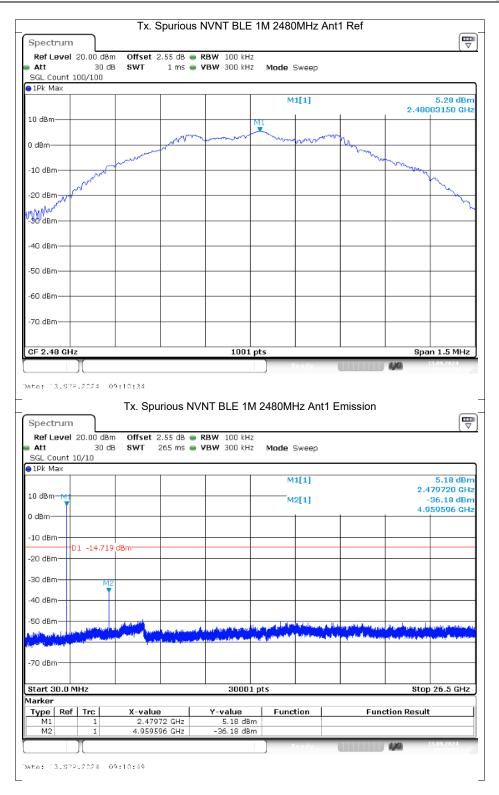
| | Bar | nd Edge N | VNT BLE | 1M 2480 | MHz Ant1 | Ref | | _ |
|---|----------------------------------|-------------------------|---|-----------------------|-----------------------|--|--------|--|
| Spectrum | | | | | | | | (₩ |
| Ref Level 20.00 (| dBm Offset () dB SWT | 2.55 dB 👄 R 1 ms 👄 V | BW 100 kHz BW 300 kHz | | Sweep | | | |
| SGL Count 1100/11 | .00 | | | | F | | | |
| ●1Pk Max | | 1 1 | | м | 1[1] | | | 5.31 dBn |
| | | | | | | | 2.480 | 04000 GH |
| 10 dBm | | | N | 1 | | | | |
| 0 dBm | | | \sim | S- | | | | |
| | | | | \sim | | | | |
| -10 dBm | | | | \rightarrow | | | | |
| -20 dBm | | | | | | | | |
| -20 dBm | | | 1 | 1 | | | | |
| -30 dBm | | | er | | m | | | |
| | a marine provent | aver | | | lange | man | | |
| -40,dBm | | | | | | and the second sec | Janana | mound |
| -50 dBm | | | | | | | | |
| | | | | | | | | |
| -60 dBm | | + | | | | | | |
| 70 40 | | | | | | | | |
| -70 dBm | | | | | | | | |
| CF 2.48 GHz | | | | <u> </u> | | | | |
| GF 2.48 GHZ | | | 1001 | pts | _ | | spa | n 8.0 MHz |
| Spectrum | Band B | Edge NVN | | | lz Ant1 Er | nission | | |
| Spectrum Ref Level 20.00 (Att 30 | Band B dBm Offset 2 dB SwT | 2.55 dB 👄 R | | | | mission | | (The second seco |
| Spectrum Ref Level 20.00 (Att 30 SGL Count 500/500 | Band B dBm Offset 2 dB SwT | 2.55 dB 👄 R | BW 100 kHz | ! | | mission | | |
| Spectrum Ref Level 20.00 (Att 30 SGL Count 500/500 | Band B dBm Offset 2 dB SwT | 2.55 dB 👄 R | BW 100 kHz | Mode S | | nission | | 5.28 dBr |
| Spectrum Ref Level 20.00 Att 30 SGL Count 500/500 1Pk Max | Band B dBm Offset 2 dB SwT | 2.55 dB 👄 R | BW 100 kHz | Mode S | Sweep | mission | | 5.28 dBr 05000 GH |
| Spectrum Ref Level 20.00 (Att 30 SGL Count 500/500) IPk Max | Band B dBm Offset 2 dB SwT | 2.55 dB 👄 R | BW 100 kHz | Mode S | Gweep 1[1] | nission | - | 5.28 dBr 05000 GH 43.08 dBr |
| Spectrum Ref Level 20.00 (Att 30 SGL Count 500/500 10k Max 10 rd&m 0 d&m | Band B dBm Offset 2 dB SwT | 2.55 dB 👄 R | BW 100 kHz | Mode S | Gweep 1[1] | nission | - | 5.28 dBr 05000 GH 43.08 dBr |
| Spectrum Ref Level 20.00 (Att 30 SGL Count 500/500 1Pk Max 10 rdBm 0 dam -10 cBm D1 -14.4 | Band B dBm Offset 2 dB SwT | 2.55 dB 👄 R | BW 100 kHz | Mode S | Gweep 1[1] | | - | 5.28 dBr 05000 GH 43.08 dBr |
| Spectrum Ref Level 20.00 d Att 30 SGL Count 500/500 IPk Max 10 kBm 0 dan -10 kBm | Band E | 2.55 dB 👄 R | BW 100 kHz | Mode S | Gweep 1[1] | | - | 5.28 dBr 05000 GH 43.08 dBr |
| Spectrum Ref Level 20.00 (Att 30 SGL Count 500/500 IPk Max 10 kBm 0 dam -10 kBm D1 -14.4 | Band E | 2.55 dB 👄 R | BW 100 kHz | Mode S | Gweep 1[1] | | - | 5.28 dBr 05000 GH 43.08 dBr |
| Spectrum Ref Level 20.00 d Att 30 SGL Count 500/500 IPk Max 10 rdBm 0 dBm -10 cBm -20 oBm | Band E | 2.55 dB 👄 R | BW 100 kHz | Mode S | Gweep 1[1] | | - | 5.28 dBr 05000 GH 43.08 dBr |
| Spectrum Ref Level 20.00 d Att 33 SGL Count 500/500 IPk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 d | Band B | 2.55 dB • R 1 ms • V | BW 100 kHz BW 300 kHz | Mode s | Sweep 1[1] 2[1] | | 2.483 | 5.28 dBr 05000 GH 43.08 dBr 50000 GH |
| Spectrum Ref Level 20.00 d Att 33 SGL Count 500/500 IPk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 d | Band B | 2.55 dB • R 1 ms • V | BW 100 kHz BW 300 kHz | Mode s | Sweep 1[1] 2[1] | | 2.483 | 5.28 dBr 05000 GH 43.08 dBr 50000 GH |
| Spectrum Ref Level 20.00 d Att 33 SGL Count 500/500 IPk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 d | Band E | 2.55 dB • R 1 ms • V | BW 100 kHz BW 300 kHz | Mode s | Sweep 1[1] 2[1] | | 2.483 | 5.28 dBr 05000 GH 43.08 dBr 50000 GH |
| Spectrum Ref Level 20.00 o Att 30 SGL Count 500/500 1Pk Max 10 d8m 0 d8 m -10 d8m -20 o8m -30 d8m -50 d8m -60 d8m -60 d8m -20 o8m -20 o8m -30 d8m -30 d8m | Band B | 2.55 dB • R 1 ms • V | BW 100 kHz BW 300 kHz | Mode s | Sweep 1[1] 2[1] | | 2.483 | 5.28 dBr 05000 GH 43.08 dBr 50000 GH |
| Spectrum Ref Level 20.00 d Att 30 SGL Count 500/500 IPk Max 10 IPk Max 10 0 d8m 0 0 -10 d8m D1 -14.4 -20 d8m -30 d8m -40 d8m -50 d8m -40 d8m -40 d8m -70 d8m -70 d8m -70 d8m | Band B | 2.55 dB • R 1 ms • V | BW 100 kHz BW 300 kHz | : | Sweep 1[1] 2[1] | | 2.483 | 5.28 dBr 05000 GH 43.08 dBr 50000 GH |
| Spectrum Ref Level 20.00 (Att 30 SGL Count 500/500 1Pk Max 10 10 rdBm 0 -10 cBm 01 -20 qBm | Band B | 2.55 dB • R 1 ms • V | BW 100 kHz BW 300 kHz | : | Sweep 1[1] 2[1] | | 2.483 | 5.28 dBr 05000 GH 43.08 dBr 50000 GH |
| Ref Level 20.00 G Att 30 SGL Count 500/500 IPk Max 10 0 dBm 0 -10 cBm D1 -14.0 -20 aBm -30 dBm -30 dBm -50 dBm -50 dBm -70 dBm -70 dBm -70 dBm -70 dBm -70 dBm | Band B | 2.55 dB R | BW 100 kHz BW 300 kHz | Mode s M M M | Sweep 1[1] 2[1] | | 2.483 | 5.28 dBn 05000 GH 43.08 dBn 50000 GH |
| Spectrum Ref Level 20.00 (Att 33 SGL Count 500/500 1Pk Max 10 10 dBm 0 -10 dBm D1 -20 dBm | Band E | 2.55 dB R 1 ms V | BW 100 kHz BW 300 kHz 300 kHz | : Mode S | Sweep 1[1] 2[1] | | 2.483 | 5.28 dBr 05000 GH 43.08 dBr 50000 GH |
| Spectrum Ref Level 20.00 d Att 33 SGL Count 500/500 1Pk Max 0 dBm -10 dBm -20 dBm -30 dBm -50 dBm -60 dBm -70 dBm | Band E | 2.55 dB R 1 ms V | BW 100 kHz BW 300 kHz 300 kHz | : Mode S | Sweep 1[1] 2[1] | | 2.483 | 2.576 GHz |

Conducted RF Spurious Emission

| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|--------|-----------------|---------|-----------------|-------------|---------|
| NVNT | BLE 1M | 2402 | Ant1 | -38.14 | -20 | Pass |
| NVNT | BLE 1M | 2440 | Ant1 | -43.89 | -20 | Pass |
| NVNT | BLE 1M | 2480 | Ant1 | -41.46 | -20 | Pass |

| | Tx. S | Spurious N | Test Gr | apris 1M 2402MHz | Ant1 Ref | | |
|--|----------|----------------------------------|---|--|---|----------|--|
| Spectrum | | | | | | | |
| Ref Level 20.00 dBm | Offset 2 | 2.52 dB 🔵 R | BW 100 kHz | | | | () |
| Att 30 dB | | | 'BW 300 kHz | Mode Sweep |) | | |
| SGL Count 100/100 | | | | | | | |
| 1Pk Max | I | | | | | | 1.50 db. |
| | | | | M1[1] | | 2,402 | 1.50 dBr 203000 GH |
| 10 dBm | | | | | | + | |
| | | | L. L. | 11 | | | |
| 0 dBm | | م | | mun | mus.n. | | |
| | | - A. | | · • • | a north | | |
| -10 dBm | - at | | | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | mon have | |
| and the second sec | | | | | | - vor | h. |
| -20 dBm | | | | | | | 1ª Ca |
| and proved | | | | | | | - www |
| 139,#B/m | | | | | | | |
| -40 dBm | | | | | | | |
| | | | | | | | |
| -50 dBm | | | | | | | |
| | | | | | | | |
| -60 dBm | | | | | | | |
| | | | | | | | |
| -70 dBm | | | | | | | |
| | | | | | | | |
| CF 2.402 GHz | | | 1001 p | ute . | | | in 1.5 MHz |
| | | | 1001 | ~ | | . 4M | 13.09.2024 |
| ate: 13.87P.2024 0 | | irious NVI | NT BI F 1M | 2402MHz Ai | nt1 Emission | - Age of | 6 9:05:12 |
| ste: 13.87P.2024 0 | | irious NVI | NT BLE 1M | 2402MHz Ar | nt1 Emission | | |
| Spectrum Ref Level 20.00 dBm | Tx. Spu | 2.52 dB 👄 R | BW 100 kHz | 2402MHz Ar | nt1 Emission | | Ţ |
| Spectrum Ref Level 20.00 dBm Att 30 dB | Tx. Spu | 2.52 dB 👄 R | | 2402MHz An Mode Sweep | | | T T |
| Spectrum Ref Level 20.00 dBm Att 30 dE SGL Count 10/10 | Tx. Spu | 2.52 dB 👄 R | BW 100 kHz | | | | 7 |
| Spectrum Ref Level 20.00 dBm Att 30 dB | Tx. Spu | 2.52 dB 👄 R | BW 100 kHz | Mode Sweep | | | (1 |
| Spectrum Ref Level 20.00 dBr Att 30 dE SGL Count 10/10 JPk Max | Tx. Spu | 2.52 dB 👄 R | BW 100 kHz | Mode Sweep | | | 1.02 dBi 102070 GH |
| Spectrum Ref Level 20.00 dBm Att 30 dE SGL Count 10/10 | Tx. Spu | 2.52 dB 👄 R | BW 100 kHz | Mode Sweep | | - | 1.02 dBi 102070 GH -36.64 dBi |
| Spectrum Ref Level 20.00 dBr Att 30 dB SGL Count 10/10 Pk Max 10 dBm | Tx. Spu | 2.52 dB 👄 R | BW 100 kHz | Mode Sweep | | - | 1.02 dBi 102070 GH -36.64 dBi |
| Spectrum Ref Level 20.00 dBm Att 30 dE SGL Count 10/10 1Pk Max 10 dBm M1 0 dBm | Tx. Spu | 2.52 dB 👄 R | BW 100 kHz | Mode Sweep | | - | 1.02 dBi 102070 GH -36.64 dBi |
| Spectrum Ref Level 20.00 dBm Att 30 dB SGL Count 10/10 1Pk Max 10 dBm 10 dBm -10 dBm | Tx. Spu | 2.52 dB 👄 R | BW 100 kHz | Mode Sweep | | - | 1.02 dBi 102070 GH -36.64 dBi |
| Spectrum Ref Level 20.00 dBm Att 30 dE SGL Count 10/10 PIPk Max 10 dBm M1 | Tx. Spu | 2.52 dB 👄 R | BW 100 kHz | Mode Sweep | | - | 1.02 dBi 102070 GH -36.64 dBi |
| Spectrum Ref Level 20.00 dBm Att 30 dB SGL Count 10/10 9 IPk Max 10 dBm -10 dBm -10 dBm -20 dBm D1 -18.504 | Tx. Spu | 2.52 dB 👄 R | BW 100 kHz | Mode Sweep | | - | 1.02 dBi 102070 GH -36.64 dBi |
| Spectrum Ref Level 20.00 dBm Att 30 dB SGL Count 10/10 9 IPk Max 10 dBm -10 dBm -10 dBm -20 dBm D1 -18.504 | Tx. Spu | 2.52 dB 👄 R | BW 100 kHz | Mode Sweep | | - | 1.02 dBi 102070 GH -36.64 dBi |
| Spectrum Ref Level 20.00 dBm a Att 30 dB SGL Count 10/10 PIPk Max 10 dBm 10 dBm -10 dBm -10 dBm -10 dBm -10 dBm -20 dBm -20 dBm | Tx. Spu | 2.52 dB 👄 R | BW 100 kHz | Mode Sweep | | - | 1.02 dBi 102070 GH -36.64 dBi |
| Spectrum Ref Level 20.00 dBm Att 30 dB SGL Count 10/10 1Pk Max 10 dBm -10 dBm -10 dBm -20 dBm -20 dBm -40 dBm | Tx. Spu | 2.52 dB 👄 R | BW 100 kHz | Mode Sweep | | - | 1.02 dBr 102070 GH -36.64 dBr |
| Spectrum Ref Level 20.00 dBm Att 30 dB SGL Count 10/10 PIPk Max 10 dBm 10 dBm 10 dBm 20 dBm 20 dBm 40 dBm 50 dBm 50 dBm 10 dBm 1 | Tx. Spu | 2.52 dB • R 265 ms • V | XBW 100 kHz /BW 300 kHz | Mode Sweep M1[1] M2[1] | | 4.8 | 1.02 dBi 102070 GH -36.64 dBi 103423 GH |
| Spectrum Ref Level 20.00 dBm Att 30 dB SGL Count 10/10 9 IPk Max 10 dBm -10 dBm -10 dBm -10 dBm -20 dBm -20 dBm -40 dBm | Tx. Spu | 2.52 dB • R 265 ms • V | XBW 100 kHz /BW 300 kHz | Mode Sweep | | - 4.E | 1.02 dBi 102070 GH -36.64 dBi 103423 GH |
| Spectrum Ref Level 20.00 dBm SGL Count 10/10 IPk Max 10 dBm 10 dBm -10 dBm -10 dBm -20 dBm D1 -18,504 -30 dBm M2 -40 dBm -50 d | Tx. Spu | 2.52 dB • R 265 ms • V | XBW 100 kHz /BW 300 kHz | Mode Sweep | | - 4.E | 1.02 dBr 102070 GH -36.64 dBr 103423 GH |
| Spectrum Ref Level 20.00 dBm SGL Count 10/10 IPk Max 10 dBm 10 dBm -10 dBm -10 dBm -20 dBm D1 -18.504 -30 dBm M2 -40 dBm -50 dBm -50 dBm | Tx. Spu | 2.52 dB • R 265 ms • V | XBW 100 kHz /BW 300 kHz | Mode Sweep | | - 4.E | 1.02 dBi 102070 GH -36.64 dBi 103423 GH |
| Spectrum Ref Level 20.00 dBm SGL Count 10/10 IPk Max 10 dBm -10 dBm -10 dBm -20 dBm D1 -18.504 -30 dBm M2 -40 dBm | Tx. Spu | 2.52 dB • R 265 ms • V | XBW 100 kHz /BW 300 kHz | Mode Sweep | | - 4.E | 1.02 dBi 102070 GH -36.64 dBi 103423 GH |
| Spectrum Ref Level 20.00 dBm SGL Count 10/10 IPk Max 10 dBm 10 dBm 20 dBm 20 dBm 20 dBm 70 dBm 70 dBm 70 dBm 50 dBm 70 dB | Tx. Spu | 2.52 dB • R 265 ms • V | XBW 100 kHz /BW 300 kHz | Mode Sweep | | | 1.02 dBi 102070 GH -36.64 dBi 103423 GH |
| Spectrum Ref Level 20.00 dBm SGL Count 10/10 IPk Max 10 dBm 10 dBm 10 dBm 20 dBm D1 -18.504 -30 dBm -70 dBm -70 dBm Start 30.0 MHz Aarker | Tx. Spu | 2.52 dB | 88W 100 kHz 'BW 300 kHz | Mode Sweep M1[1] M2[1] M2[1] | | 4.E | 1.02 dBi 102070 GH 36.64 dBi 103423 GH |
| Spectrum Ref Level 20.00 dBm Att 30 dB SGL Count 10/10 IPk Max 10 dBm 10 dBm -10 dBm -10 dBm -20 dBm -20 dBm -70 dBm - | Tx. Spu | 2.52 dB R R | 88W 100 kHz /8W 300 kHz | Mode Sweep M1[1] M2[1 | | | 1.02 dBi 102070 GH 36.64 dBi 103423 GH |
| Spectrum Ref Level 20.00 dBm SGL Count 10/10 IPk Max 10 dBm 10 dBm 10 dBm 20 dBm D1 -18.504 -30 dBm -70 dBm -70 dBm Start 30.0 MHz Aarker | Tx. Spu | 2.52 dB R R R S | 88W 100 kHz 'BW 300 kHz | Mode Sweep M1[1] M2[1 | | 4.E | 1.02 dBi 102070 GH 36.64 dBi 103423 GH |
| Spectrum Ref Level 20.00 dBm Att 30 dB SGL Count 10/10 IPk Max 10 dBm 10 dBm 10 dBm 20 dBm 10 dBm -10 dBm -10 dBm -20 dBm -20 dBm -20 dBm -30 | Tx. Spu | 2.52 dB R R R S | 88W 100 kHz /BW 300 kHz /BW 300 kHz /BW 100 kHz | Mode Sweep M1[1] M2[1 | | 4.E | 1.02 dBi 102070 GH 36.64 dBi 103423 GH |





APPENDIX: PHOTOGRAPHS OF TEST CONFIGURATION

Please refer to the report: E04A24080488F00401.

APPENDIX: PHOTOGRAPHS OF THE EUT

Please refer to the report: E04A24080488F00401.

END OF REPORT