





RADIO TEST REPORT FCC ID: VLJ-SH039

Product: Bluetooth earphone Trade Mark: Motorola Model No.: SH039 Serial Model: VerveBuds 110 Report No.: S19061903201002 Issue Date: 31 Jul. 2019

Prepared for

Binatone Electronics International Ltd. Floor 23A, 9 Des Voeux Road West, Sheung Wan Hong Kong China

Prepared by

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NTEK北测



1 TEST RESULT CERTIFICATION

| Applicant's name: | Binatone Electronics International Ltd. | |
|------------------------------|--|--|
| Address: | Floor 23A, 9 Des Voeux Road West, Sheung Wan Hong Kong China | |
| Manufacturer's Name: | Binatone Electronics International Ltd. | |
| Address: | Floor 23A, 9 Des Voeux Road West, Sheung Wan Hong Kong China | |
| Product description | | |
| Product name: | Bluetooth earphone | |
| Model and/or type reference: | SH039 | |
| Serial Model: | VerveBuds 110 | |
| | · | |

Measurement Procedure Used:

APPLICABLE STANDARDS

| APPLICABLE STANDARD/ TEST PROCEDURE | TEST RESULT |
|--|-------------|
| FCC 47 CFR Part 2, Subpart J | |
| FCC 47 CFR Part 15, Subpart C | |
| KDB 174176 D01 Line Conducted FAQ v01r01 | Complied |
| ANSI C63.10-2013 | |
| KDB 558074 D01 15.247 Meas Guidance v05r02 | |
| | |

This device described above has been tested by Shenzhen NTEK Testing Technology Co., Ltd., and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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The test results of this report relate only to the tested sample identified in this report.

| Date of Test | : 28 Jun. 2019 ~ 31 Jul. 2019 | |
|----------------------|-------------------------------|--|
| Testing Engineer | :(Allen Liu) | |
| Technical Manager | : Jason chen (Jason Chen) | |
| Authorized Signatory | :(Sam Chen) | |
| | | |





2 SUMMARY OF TEST RESULTS

| FCC Part15 (15.247), Subpart C | | | | | | |
|---|----------------------------|------|--|--|--|--|
| Standard Section Test Item Verdict Remark | | | | | | |
| 15.207 | Conducted Emission | PASS | | | | |
| 15.247 (a)(2) | 6dB Bandwidth | PASS | | | | |
| 15.247 (b) Peak Output Power | | PASS | | | | |
| 15.209 (a) 15.205 (a) | Radiated Spurious Emission | PASS | | | | |
| 15.247 (e) | Power Spectral Density | PASS | | | | |
| 15.247 (d) | Band Edge Emission | PASS | | | | |
| 15.247 (d) Spurious RF Conducted Emission | | PASS | | | | |
| 15.203 | Antenna Requirement | PASS | | | | |

Remark:

- 1. "N/A" denotes test is not applicable in this Test Report.
- 2. All test items were verified and recorded according to the standards and without any deviation during the test.
- 3. There are left and right ear plugs on the EUT. Both have been tested.





3 FACILITIES AND ACCREDITATIONS

3.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen 518126 P.R. China.

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10 and CISPR Publication 22.

3.2 LABORATORY ACCREDITATIONS AND LISTINGS

| Site Description | |
|------------------|---|
| CNAS-Lab. | : The Laboratory has been assessed and proved to be in compliance with CNAS-CL01:2006 (identical to ISO/IEC 17025:2005) |
| | The Certificate Registration Number is L5516. |
| IC-Registration | The Certificate Registration Number is 9270A. |
| | CAB identifier:CN0074 |
| FCC- Accredited | Test Firm Registration Number: 463705. |
| | Designation Number: CN1184 |
| A2LA-Lab. | The Certificate Registration Number is 4298.01 |
| | This laboratory is accredited in accordance with the recognized |
| | International Standard ISO/IEC 17025:2005 General requirements for |
| | the competence of testing and calibration laboratories. |
| | This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system |
| | (refer to joint ISO-ILAC-IAF Communique dated 8 January 2009). |
| Name of Firm | : Shenzhen NTEK Testing Technology Co., Ltd. |
| Site Location | 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen 518126 P.R. China. |
| | |

3.3 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y\pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

| No. | Item | Uncertainty |
|-----|-------------------------------------|-------------|
| 1 | Conducted Emission Test | ±2.80dB |
| 2 | RF power, conducted | ±0.16dB |
| 3 | Spurious emissions, conducted | ±0.21dB |
| 4 | All emissions, radiated(30MHz~1GHz) | ±2.64dB |
| 5 | All emissions, radiated(1GHz~6GHz) | ±2.40dB |
| 6 | All emissions, radiated(>6GHz) | ±2.52dB |
| 7 | Temperature | ±0.5°C |
| 8 | Humidity | ±2% |





4 GENERAL DESCRIPTION OF EUT

| Product Feature and Specification | | | | |
|-----------------------------------|---|--|--|--|
| Equipment | Bluetooth earphone | | | |
| Trade Mark | Motorola | | | |
| FCC ID | VLJ-SH039 | | | |
| Model No. | SH039 | | | |
| Serial Model | VerveBuds 110 | | | |
| Model Difference | All the model are the same circuit and RF module, except the model name. | | | |
| Operating Frequency | 2402MHz~2480MHz | | | |
| Modulation | GFSK | | | |
| Number of Channels | 40 Channels | | | |
| Bluetooth Version | BT V4.0 | | | |
| Antenna Type | FPCB Antenna | | | |
| Antenna Gain | 2 dBi | | | |
| | DC supply: | | | |
| Power supply | Earphone: DC 3.7V/60mAh from Battery or DC 3.7V form Charging case Charging case: DC 3.7V/300mAh from Battery or DC 5V from USB Port | | | |
| | Adapter supply: | | | |
| HW Version | v1.3 | | | |
| SW Version | v0.80 | | | |

Note: Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.





Revision History

| Report No. Version Description Issued Date | | | | | | |
|--|--------|-------------------------|--------------|--|--|--|
| S19061903201002 | Rev.01 | Initial issue of report | Jul 31, 2019 | | | |
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5 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

Test of channel included the lowest and middle and highest frequency to perform the test, then record on this report.

Those data rates (1Mbps for GFSK modulation) were used for all test.

The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement -X, Y, and Z-plane. The X-plane results were found as the worst case and were shown in this report.

Carrier Frequency and Channel list:

| Channel | Frequency(MHz) |
|---------|----------------|
| 0 | 2402 |
| 1 | 2404 |
| | |
| 19 | 2440 |
| 20 | 2442 |
| | |
| 38 | 2478 |
| 39 | 2480 |

Note: fc=2402MHz+k×2MHz k=0 to 39

The following summary table is showing all test modes to demonstrate in compliance with the standard.

| Test Cases | | | | | |
|--------------------------|---|--|--|--|--|
| Test Item | Data Rate/ Modulation | | | | |
| | BT V4.0 / GFSK | | | | |
| AC Conducted Emission | Mode 1: normal link mode | | | | |
| | Mode 1: normal link mode | | | | |
| Radiated Test | Mode 2: Bluetooth Tx Ch00_2402MHz_1Mbps | | | | |
| Cases | Mode 3: Bluetooth Tx Ch19_2440MHz_1Mbps | | | | |
| | Mode 4: Bluetooth Tx Ch39_2480MHz_1Mbps | | | | |
| Conducted Test | Mode 2: Bluetooth Tx Ch00_2402MHz_1Mbps | | | | |
| Conducted Test | Mode 3: Bluetooth Tx Ch19_2440MHz_1Mbps | | | | |
| | Mode 4: Bluetooth Tx Ch39_2480MHz_1Mbps | | | | |

Note:

1. The engineering test program was provided and the EUT was programmed to be in continuously transmitting mode.

2. AC power line Conducted Emission was tested under maximum output power.

3. For radiated test cases, the worst mode data rate 1Mbps was reported only, because this data rate has the highest RF output power at preliminary tests, and no other significantly frequencies found in conducted spurious emission.

4. EUT is set to continuous transmission mode. duty cycle greater than 98%.

5. EUT built-in battery-powered, the battery is fully-charged.





SETUP OF EQUIPMENT UNDER TEST 6 6.1 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM For AC Conducted Emission Mode AC PLUG C-1 AE-1 E-1 EUT Adapter For Radiated Test Cases EUT For Conducted Test Cases C-2 Measurement EUT Instrument Note: The temporary antenna connector is soldered on the PCB board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.





6.2 SUPPORT EQUIPMENT

The EUT has been tested as an independent unit together with other necessary accessories or support units. 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 |
|------|-----------|-----------|----------------|------------|-------------|
| AE-1 | Adapter | N/A | N/A | N/A | Peripherals |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| Item | Cable Type | Shielded Type | Ferrite Core | Length |
|------|------------|---------------|--------------|--------|
| C-1 | USB cable | NO | NO | 0.5m |
| C-2 | RF cable | YES | NO | 0.1m |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Notes:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in [Length] column.
- (3) "YES" is means "shielded" "with core"; "NO" is means "unshielded" "without core".





6.3 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation& Conducted Test equipment

| | | estequipment | | | | | |
|------|---|-----------------|-----------------|-------------------|------------------|---------------------|---------------------------|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Last calibration | Calibrated until | Calibrati on period |
| 1 | Spectrum Analyzer | Aglient | E4407B | MY45108040 | 2019.05.13 | 2020.05.12 | 1 year |
| 2 | Spectrum Analyzer | Agilent | N9020A | MY49100060 | 2018.10.08 | 2019.10.07 | 1 year |
| 3 | Spectrum Analyzer | R&S | FSV40 | 101417 | 2018.10.08 | 2019.10.07 | 1 year |
| 4 | Test Receiver | R&S | ESPI7 | 101318 | 2019.05.13 | 2020.05.12 | 1 year |
| 5 | Bilog Antenna | TESEQ | CBL6111D | 31216 | 2019.04.15 | 2020.04.14 | 1 year |
| 6 | 50Ω Coaxial Switch | Anritsu | MP59B | 6200983705 | 2018.05.19 | 2020.05.18 | 2 year |
| 7 | Horn Antenna | EM | EM-AH-1018 0 | 2011071402 | 2019.04.15 | 2020.04.14 | 1 year |
| 8 | Broadband Horn Antenna | SCHWARZBE CK | BBHA 9170 | 803 | 2018.12.11 | 2019.12.10 | 1 year |
| 9 | Amplifier | EMC | EMC051835 SE | 980246 | 2018.08.05 | 2019.08.04 | 1 year |
| 10 | Active Loop Antenna | SCHWARZBE CK | FMZB 1519 B | 055 | 2018.12.11 | 2019.12.10 | 1 year |
| 11 | Power Meter | DARE | RPR3006W | 15I00041SN 084 | 2018.08.05 | 2019.08.04 | 1 year |
| 12 | Test Cable (9KHz-30MHz) | N/A | R-01 | N/A | 2017.04.21 | 2020.04.20 | 3 year |
| 13 | Test Cable (30MHz-1GHz) | N/A | R-02 | N/A | 2017.04.21 | 2020.04.20 | 3 year |
| 14 | High Test Cable(1G-40G Hz) | N/A | R-03 | N/A | 2017.04.21 | 2020.04.20 | 3 year |
| 15 | High Test Cable(1G-40G Hz) | N/A | R-04 | N/A | 2017.04.21 | 2020.04.20 | 3 year |
| 16 | Filter | TRILTHIC | 2400MHz | 29 | 2017.04.19 | 2020.04.18 | 3 year |
| 17 | temporary antenna connector (Note) | NTS | R001 | N/A | N/A | N/A | N/A |

Note:

We will use the temporary antenna connector (soldered on the PCB board) When conducted test And this temporary antenna connector is listed within the instrument list





| AC Co | onduction Test | equipment | | | | | |
|-------|--------------------------------|-----------------|-----------|------------|------------------|---------------------|--------------------|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Last calibration | Calibrated until | Calibration period |
| 1 | Test Receiver | R&S | ESCI | 101160 | 2019.05.19 | 2020.05.18 | 1 year |
| 2 | LISN | R&S | ENV216 | 101313 | 2019.04.18 | 2020.04.19 | 1 year |
| 3 | LISN | SCHWARZBE CK | NNLK 8129 | 8129245 | 2019.05.19 | 2020.05.18 | 1 year |
| 4 | 50Ω Coaxial Switch | ANRITSU CORP | MP59B | 6200983704 | 2018.05.19 | 2020.05.18 | 2 year |
| 5 | Test Cable (9KHz-30MH z) | N/A | C01 | N/A | 2017.04.21 | 2020.04.20 | 3 year |
| 6 | Test Cable (9KHz-30MH z) | N/A | C02 | N/A | 2017.04.21 | 2020.04.20 | 3 year |
| 7 | Test Cable (9KHz-30MH z) | N/A | C03 | N/A | 2017.04.21 | 2020.04.20 | 3 year |

Note: Each piece of equipment is scheduled for calibration once a year except the Aux Equipment & Test Cable which is scheduled for calibration every 2 or 3 years.





7 TEST REQUIREMENTS

7.1 CONDUCTED EMISSIONS TEST

7.1.1 Applicable Standard

According to FCC Part 15.207(a) and KDB 174176 D01 Line Conducted FAQ v01r01

7.1.2 Conformance Limit

| Fraguanov (MHz) | Conducted | Emission Limit | |
|-----------------|------------|----------------|--|
| Frequency(MHz) | Quasi-peak | Average | |
| 0.15-0.5 | 66-56* | 56-46* | |
| 0.5-5.0 | 56 | 46 | |
| 5.0-30.0 | 60 | 50 | |

Note: 1. *Decreases with the logarithm of the frequency

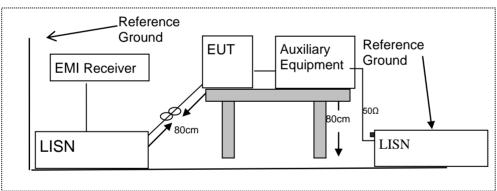
2. The lower limit shall apply at the transition frequencies

3. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

7.1.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.1.4 Test Configuration



7.1.5 Test Procedure

According to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 Conducted emissions the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode.

- 1. The EUT was placed 0.4 meter from the conducting wall of the shielding room.
- 2. The EUT was placed on a table which is 0.8m above ground plane.
- Connect EUT to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- 4. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40cm long.
- 5. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- 6. LISN at least 80 cm from nearest part of EUT chassis.
- 7. The frequency range from 150KHz to 30MHz was searched.
- 8. Set the test-receiver system to Peak Detect Function and specified bandwidth(IF bandwidth=9KHz) with Maximum Hold Mode
- 9. For the actual test configuration, please refer to the related Item –EUT Test Photos.





7.1.6 Test Results

| EUT: | | Bluetooth | h earphone Model Name : | | : | SH039 | 1 | |
|--------------|--------------------|----------------------|-------------------------|--------------|---------|-------------------|--------|--------|
| Temperature: | Temperature: 26 °C | | Relative Humidity: | | nidity: | 54% | | |
| Pressure: | | 1010hPa | | Phase : | | L | | |
| Test Voltage | : | DC 5V fro AC 120V | om Adapter /60Hz | Test Mode: | | Mode ² | 1 | |
| | | | T | | | | | |
| Frequency | Rea | ding Level | Correct Factor | Measure-ment | Lim | its | Margin | Remarl |
| (MHz) | (| (dBµV) | (dB) | (dBµV) | (dBļ | JV) | (dB) | Reman |
| 0.4979 | | 25.64 | 9.74 | 35.38 | 56.0 | 03 | -20.65 | QP |
| 0.4979 | | 15.28 | 9.74 | 25.02 | 46.0 | 03 | -21.01 | AVG |
| 0.5737 | | 28.29 | 9.74 | 38.03 | 56.0 | 00 | -17.97 | QP |
| 0.5737 | | 18.62 | 9.74 | 28.36 | 46.0 | 00 | -17.64 | AVG |
| 0.9818 | | 22.16 | 9.74 | 31.90 | 56.0 | 00 | -24.10 | QP |
| 0.9818 | | 11.51 | 9.74 | 21.25 | 46.0 | 00 | -24.75 | AVG |
| 1.1737 | | 21.89 | 9.74 | 31.63 | 56.0 | 00 | -24.37 | QP |
| 1.1737 | | 10.91 | 9.74 | 20.65 | 46.0 | 00 | -25.35 | AVG |
| 2.2259 | | 20.89 | 9.78 | 30.67 | 56.0 | 00 | -25.33 | QP |
| 2.2259 | | 11.00 | 9.78 | 20.78 | 46.0 | 00 | -25.22 | AVG |
| 3.0698 | | 19.61 | 9.83 | 29.44 | 56.0 | 00 | -26.56 | QP |
| 3.0698 | | 8.50 | 9.83 | 18.33 | 46.0 | 00 | -27.67 | AVG |

Remark:

1. All readings are Quasi-Peak and Average values.

2. Factor = Insertion Loss + Cable Loss.

100.0 dBuV Limit: AVG: 40 Whitehall peak AVG -20 0.150 0.5 (MHz) 5 30.000





| EUT: Bluetooth | | n earphone | | Model Name : | | SH039 | | |
|----------------|--------------------|----------------------|---------------------|--------------|-----------|--------|--------|--------|
| Temperature: | Temperature: 26 °C | | Relative Humidity: | | 54% | | | |
| Pressure: | | 1010hPa | | | Phase : | | N | |
| | | DC 5V fro AC 120V | om Adapter /60Hz | | Test Mode | e: | Mode 1 | |
| | 1 | | 1 | | | 1 | | |
| Frequency | Rea | ding Level | Correct Factor | Meas | sure-ment | Limits | Margin | Remark |
| (MHz) | (| dBµV) | (dB) | | (dBµV) | (dBµV) | (dB) | Remark |
| 0.5060 | | 25.64 | 9.75 | 35.39 | | 56.00 | -20.61 | QP |
| 0.5060 | | 15.58 9.75 | | | 25.33 | 46.00 | -20.67 | AVG |
| 0.5779 | | 27.12 | 9.75 | | 36.87 | 56.00 | -19.13 | QP |
| 0.5779 | | 14.51 | 9.75 | | 24.26 | 46.00 | -21.74 | AVG |
| 1.3979 | | 21.01 | 9.76 | | 30.77 | 56.00 | -25.23 | QP |
| 1.3979 | | 10.49 | 9.76 | | 20.25 | 46.00 | -25.75 | AVG |
| 2.3260 | | 20.53 | 9.81 | | 30.34 | 56.00 | -25.66 | QP |
| 2.3260 | | 11.42 | 9.81 | 9.81 | | 46.00 | -24.77 | AVG |
| 3.1659 | | 19.62 | 9.88 | | 29.50 | 56.00 | -26.50 | QP |
| 3.1659 | | 8.44 | 9.88 | | 18.32 | 46.00 | -27.68 | AVG |
| 4.1258 | 18.38 9.92 | | 28.30 | 56.00 | -27.70 | QP | | |
| , | 1 | | | 1 | | | | |

18.33

46.00

-27.67

AVG

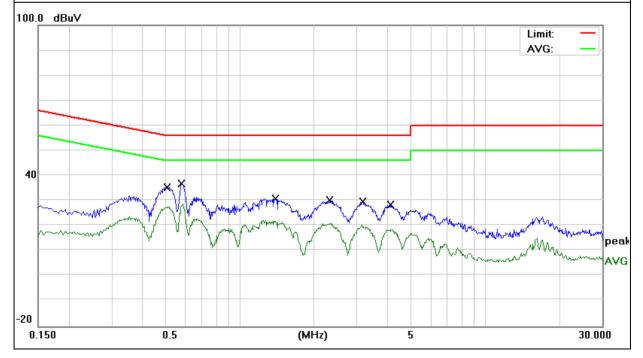
Remark:

4.1258

All readings are Quasi-Peak and Average values.
 Factor = Insertion Loss + Cable Loss.

8.41

9.92







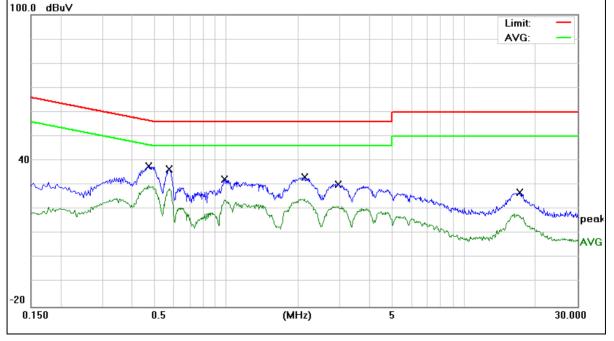
| EUT: | Bluetooth earphone | Model Name : | SH039 |
|----------------|------------------------------------|--------------------|--------|
| Temperature: | 26 ℃ | Relative Humidity: | 54% |
| Pressure: | 1010hPa | Phase : | L |
| Lest Voltage . | DC 5V from Adapter AC 240V/60Hz | Test Mode: | Mode 1 |

| Frequency | Reading Level | Correct Factor | Measure-ment | Limits | Margin | Demonto |
|-----------|---------------|----------------|--------------|--------|--------|---------|
| (MHz) | (dBµV) | (dB) | (dBµV) | (dBµV) | (dB) | Remark |
| 0.4697 | 27.99 | 9.74 | 37.73 | 56.52 | -18.79 | QP |
| 0.4697 | 13.59 | 9.74 | 23.33 | 46.52 | -23.19 | AVG |
| 0.5737 | 26.79 | 9.74 | 36.53 | 56.00 | -19.47 | QP |
| 0.5737 | 15.71 | 9.74 | 25.45 | 46.00 | -20.55 | AVG |
| 0.9818 | 22.66 | 9.74 | 32.40 | 56.00 | -23.60 | QP |
| 0.9818 | 14.92 | 9.74 | 24.66 | 46.00 | -21.34 | AVG |
| 2.1379 | 23.42 | 9.78 | 33.20 | 56.00 | -22.80 | QP |
| 2.1379 | 15.55 | 9.78 | 25.33 | 46.00 | -20.67 | AVG |
| 2.9580 | 20.55 | 9.83 | 30.38 | 56.00 | -25.62 | QP |
| 2.9580 | 10.42 | 9.83 | 20.25 | 46.00 | -25.75 | AVG |
| 17.1176 | 16.81 | 10.15 | 26.96 | 60.00 | -33.04 | QP |
| 17.1176 | 5.21 | 10.15 | 15.36 | 50.00 | -34.64 | AVG |

Remark:

1. All readings are Quasi-Peak and Average values. 2. Factor = Insertion Loss + Cable Loss.





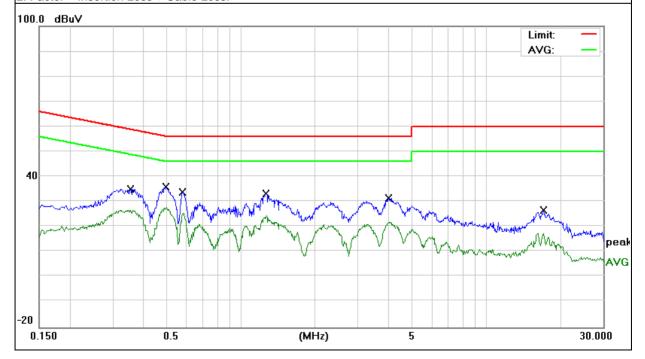




| EUT: Bluetooth earphone | | Model Name : | | SH039 | | | | |
|-------------------------|--|--------------|----------------|--------------------|-----------|-----------|--------|--------|
| Temperature: | | 26 ℃ | | Relative Humidity: | | lumidity: | 54% | |
| Pressure: | | 1010hPa | | | | | Ν | |
| Test Voltage : | t Voltage : DC 5V from Adapter AC 240V/60Hz Test Mode | | Ð: | Mode 1 | | | | |
| | | | | | | | | |
| Frequency | кеа | ding Level | Correct Factor | Mea | sure-ment | Limits | Margin | Remark |
| (MHz) | (| (dBµV) | (dB) | | (dBµV) | (dBµV) | (dB) | |
| 0.3539 | | 25.45 | 9.75 | | 35.20 | 58.87 | -23.67 | QP |
| 0.3539 | | 15.58 | 9.75 | | 25.33 | 48.87 | -23.54 | AVG |
| 0.4939 | | 26.08 | 9.75 | | 35.83 | 56.10 | -20.27 | QP |
| 0.4939 | | 14.50 | 9.75 | | 24.25 | 46.10 | -21.85 | AVG |
| 0.5779 | | 24.12 | 9.75 | | 33.87 | 56.00 | -22.13 | QP |
| 0.5779 | | 13.27 | 9.75 | | 23.02 | 46.00 | -22.98 | AVG |
| 1.2660 | | 23.51 | 9.75 | | 33.26 | 56.00 | -22.74 | QP |
| 1.2660 | | 11.70 | 9.75 | | 21.45 | 46.00 | -24.55 | AVG |
| 3.9940 | | 21.63 | 9.92 | | 31.55 | 56.00 | -24.45 | QP |
| 3.9940 | | 10.66 | 9.92 | | 20.58 | 46.00 | -25.42 | AVG |
| 17.1178 | | 16.36 | 10.14 | | 26.50 | 60.00 | -33.50 | QP |
| 17.1178 | | 5.19 | 10.14 | | 15.33 | 50.00 | -34.67 | AVG |

Remark:

All readings are Quasi-Peak and Average values.
 Factor = Insertion Loss + Cable Loss.







7.2 RADIATED SPURIOUS EMISSION

7.2.1 Applicable Standard

According to FCC Part 15.247(d) and 15.209 and ANSI C63.10-2013

7.2.2 Conformance Limit

According to FCC Part 15.247(d): radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)). According to FCC Part15.205, Restricted bands

| According to 1 00 1 art10.20 | | | | | | | |
|------------------------------|---------------------|---------------|-------------|--|--|--|--|
| MHz | MHz | MHz | GHz | | | | |
| 0.090-0.110 | 16.42-16.423 | 399.9-410 | 4.5-5.15 | | | | |
| 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 | 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 | | | | | | | |
| | | | | | | | |

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

| Restricted Frequency(MHz) | Field Strength (µV/m) | Field Strength (dBµV/m) | Measurement Distance |
|------------------------------|-----------------------|-------------------------|----------------------|
| 0.009~0.490 | 2400/F(KHz) | 20 log (uV/m) | 300 |
| 0.490~1.705 | 24000/F(KHz) | 20 log (uV/m) | 30 |
| 1.705~30.0 | 30 | 29.5 | 30 |
| 30-88 | 100 | 40 | 3 |
| 88-216 | 150 | 43.5 | 3 |
| 216-960 | 200 | 46 | 3 |
| Above 960 | 500 | 54 | 3 |

Limits of Radiated Emission Measurement(Above 1000MHz)

| Frequency(MHz) | Class B (dBuV/ | /m) (at 3M) |
|-------------------|----------------|-------------|
| Frequency(iviriz) | PEAK | AVERAGE |
| Above 1000 | 74 | 54 |

Remark :1. Emission level in dBuV/m=20 log (uV/m)

2. Measurement was performed at an antenna to the closed point of EUT distance of meters.

3. For Frequency 9kHz~30MHz: Distance extrapolation factor =40log(Specific distance/ test distance)(dB); Limit line=Specific limits(dBuV) + distance extrapolation factor.

For Frequency above 30MHz: Distance extrapolation factor =20log(Specific distance/ test distance)(dB); Limit line=Specific limits(dBuV) + distance extrapolation factor.



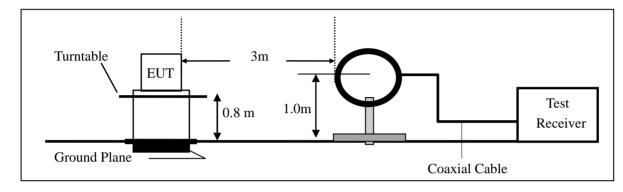


7.2.3 Measuring Instruments

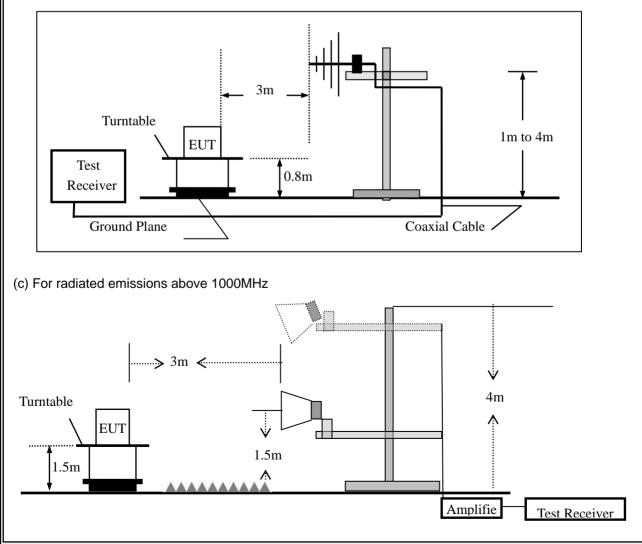
The Measuring equipment is listed in the section 6.3 of this test report.

7.2.4 Test Configuration

(a) For radiated emissions below 30MHz



(b) For radiated emissions from 30MHz to 1000MHz







7.2.5 Test Procedure

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.10-2013. The test distance is 3m. The setup is according to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 and CAN/CSA-CEI/IEC CISPR 22.

This test is required for any spurious emission that falls in a Restricted Band, as defined in Section 15.205. It must be performed with the highest gain of each type of antenna proposed for use with the EUT. Use the following spectrum analyzer settings:

| Spectrum Parameter | Setting |
|---------------------------------------|--|
| Attenuation | Auto |
| Start Frequency | 1000 MHz |
| Stop Frequency | 10th carrier harmonic |
| RB / VB (emission in restricted band) | 1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average |

| Receiver Parameter | Setting |
|------------------------|----------------------------------|
| Attenuation | Auto |
| Start ~ Stop Frequency | 9kHz~150kHz / RB 200Hz for QP |
| Start ~ Stop Frequency | 150kHz~30MHz / RB 9kHz for QP |
| Start ~ Stop Frequency | 30MHz~1000MHz / RB 120kHz for QP |

- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 m for below 1GHz and 1.5m for above 1GHz the ground at a 3 meter. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m for below 1GHz and 1.5m for above 1GHz; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For the radiated emission test above 1GHz: Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
- e. 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.
- f. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- g. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported





| During the radiated emission t | est, the Spectrum An | alyzer was set with the follow | ving configurations: |
|--------------------------------|----------------------|--------------------------------|----------------------|
| Frequency Band (MHz) | Function | Resolution bandwidth | Video Bandwidth |
| 30 to 1000 | QP | 120 kHz | 300 kHz |
| Ab aug 4000 | Peak | 1 MHz | 1 MHz |
| Above 1000 | Average | 1 MHz | 10 Hz |

Note: for the frequency ranges below 30 MHz, a narrower RBW is used for these ranges but the measured value should add a RBW correction factor (RBWCF) where RBWCF [dB] =10*lg(100 [kHz]/narrower RBW [kHz])., the narrower RBW is 1 kHz and RBWCF is 20 dB for the frequency 9 kHz to 150 kHz, and the narrower RBW is 10 kHz and RBWCF is 10 dB for the frequency 150 kHz to 30 MHz.

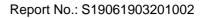
7.2.6 Test Results

■ Spurious Emission below 30MHz (9KHz to 30MHz)

| EUT: | Bluetooth earphone | Model No.: | SH039 |
|--------------|--------------------|--------------------|-----------|
| Temperature: | 20 ℃ | Relative Humidity: | 48% |
| Test Mode: | Mode2/Mode3/Mode4 | Test By: | Allen Liu |

| Free |] . | Ant.Pol. | Emission L | evel(dBuV/m) | Limit 3 | m(dBuV/m) | Over(dB) | | |
|------|------------|----------|------------|--------------|---------|-----------|----------|----|--|
| (MH | z) | H/V | PK | AV | PK | AV | PK | AV | |
| | | | | | | | | | |

Note: the amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.







■ Spurious Emission below 1GHz (30MHz to 1GHz)

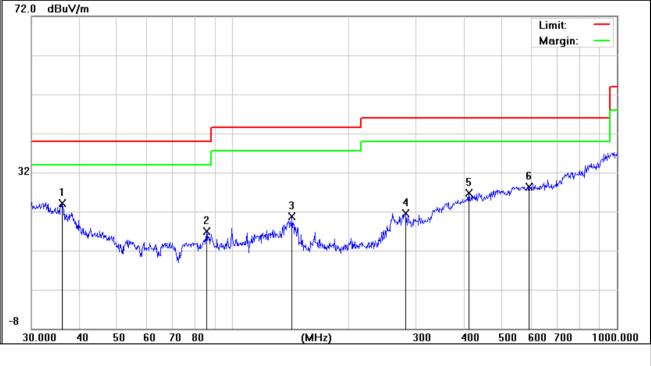
All the modulation modes have been tested, and the worst result was report as below:

| EUT: | Bluetooth earphone | Model Name : | SH039 |
|----------------|--------------------|--------------------|--------|
| Temperature: | 20 ℃ | Relative Humidity: | 48% |
| Pressure: | 1010hPa | Test Mode: | Mode 1 |
| Test Voltage : | DC 3.7V(Left) | | |

| Polar | Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Remark |
|----------------|-----------|------------------|--------|-------------------|----------|--------|--------|
| Polar (H/V) | (MHz) | (dBuV) | (dB) | (dBuV/m) | (dBuV/m) | (dB) | |
| V | 36.0007 | 7.81 | 16.33 | 24.14 | 40.00 | -15.86 | QP |
| V | 85.5977 | 7.03 | 9.90 | 16.93 | 40.00 | -23.07 | QP |
| V | 142.8240 | 7.50 | 13.21 | 20.71 | 43.50 | -22.79 | QP |
| V | 281.9945 | 4.92 | 16.63 | 21.55 | 46.00 | -24.45 | QP |
| V | 411.8240 | 6.70 | 20.04 | 26.74 | 46.00 | -19.26 | QP |
| V | 590.9737 | 4.77 | 23.53 | 28.30 | 46.00 | -17.70 | QP |

Remark:

Absolute Level= ReadingLevel+ Factor, Margin= Absolute Level - Limit







| | Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Remark |
|--------------------------------|------------------|------------------|------------------------|-------------------|----------|------------------|--------|
| (H/V) | (MHz) | (dBuV) | (dB) | (dBuV/m) | (dBuV/m) | (dB) | Roman |
| Н | 31.6202 | 6.21 | 18.32 | 24.53 | 40.00 | -15.47 | QP |
| Н | 53.1313 | 7.78 | 7.73 | 15.51 | 40.00 | -24.49 | QP |
| Н | 90.2205 | 6.23 | 10.39 | 16.62 | 43.50 | -26.88 | QP |
| Н | 140.8351 | 7.12 | 13.28 | 20.40 | 43.50 | -23.10 | QP |
| Н | 260.1444 | 7.17 | 16.35 | 23.52 | 46.00 | -22.48 | QP |
| Н | 419.1080 | 6.27 | 20.30 | 26.57 | 46.00 | -19.43 | QP |
| Remark: Absolute 72.0 dB | e Level= Reading | Level+ Facto | r, Margin= A | Absolute Level | - Limit | | 1 |
| | | | | | | Limit: Margir | n: |
| 32 1 8 30.000 | 40 50 60 | 70 80 | 4 //***/****/****// | | 300 400 | 500 600 700 | |
| | | | | | | | |



Г



| EUT: Tempe | | Blue | etooth earph | one N | /lodel Na | ame : | | SH | 039 | | | |
|----------------|-----------------------------|-------|-----------------------|----------------|-----------|--------------|---------------------|--------|--------|-----------------|------------------|--------|
| | erature: | 20 ° | • | | Relative | | /: | 48% | | | | |
| Pressu | | | 0hPa | | est Mod | - | <u> </u> | | Mode 1 | | | |
| | oltage : | - | 3.7V(Right) | | | | | | | | | |
| | | | , | | | | | | | | | |
| Polar (H/V) | Frequenc | ÿ | Meter Reading | Factor | | ssion vel | Limi | ts | Margin | | Rem | Remark |
| (п/v) | (MHz) | | (dBuV) | (dB) | (dBı | ıV/m) | (dBuV | //m) | (| dB) | | |
| V | 38.6160 | | 9.07 | 14.99 | | .06 | 40.0 | | _ | 5.94 | Q | |
| V | 69.8448 | | 14.78 | 6.97 | | .75 | 40.0 | | | 8.25 | Q | |
| V V | 100.9338 | | 7.86 | 11.85 | | .71 | 43.5 | | | 3.79 | Q | |
| V | <u>150.0107</u> 206.3976 | | <u>13.92</u> 14.95 | 12.77 10.70 | | .69 .65 | <u>43.5</u> 43.5 | | | 6.81 7.85 | Q Q | |
| V | 252.0627 | | 11.61 | 15.06 | | .67 | 46.0 | | | 9.33 | Q | |
| Remark | | | | | | | | • | · · | 0.00 | | |
| | Level= Rea | dingl | Level+ Fact | or, Margin= | Absolut | e Level | - Limit | | | | | |
| 72.0 dB | uV/m | | | | | | 1 | | | | | 1 |
| | | | | | | | | | | Limit: Margi | n [.] — | |
| | | _ | | | | | | | | margi | | |
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| 32 | | | | | | | | | | | Manual Maria | |
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| manuel | , k | | 2 | MnM | , X | with w | Margare Antomatical | Marina | | | | |
| - nyda | when when when | m | 2 Mayrun M | Martin | W. M | AM. And | permany described | | | | | 1 |
| | - When | ΨV | Mayrum | WW · | M.M. | | | | | | | |
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| -8 | | | | | | | | | | | | |
| | 40 50 | 60 | 70 80 | | dHz) | | | 400 | 500 | 600 700 |) 1000 | |





| Polar | Frequency | Meter Reading | Factor | Emission Level | Limits | Margin | Remark |
|-------------|---------------------------|---|---------------------|-------------------|----------------------|------------------|--------|
| (H/V) | (MHz) | (dBuV) | (dB) | (dBuV/m) | (dBuV/m) | (dB) | |
| Н | 35.4992 | 5.91 | 16.52 | 22.43 | 40.00 | -17.57 | QP |
| Н | 53.6931 | 8.57 | 7.63 | 16.20 | 40.00 | -23.80 | QP |
| Н | 99.8777 | 6.77 | 11.75 | 18.52 | 43.50 | -24.98 | QP |
| Н | 141.8262 | 7.07 | 13.24 | 20.31 | 43.50 | -23.19 | QP |
| Н | 212.2692 | 13.25 | 10.94 | 24.19 | 43.50 | -19.31 | QP |
| H Remark | 251.1802 | 15.19 | 15.01 | 30.20 | 46.00 | -15.80 | QP |
| | e Level= Reading 3uV/m | Level+ Facto | r, Margin= A | Absolute Leve | I - Limit | Limit: Margir |] |
| 32 | | WINNING AND | 4 Nymadul Maraly | 5 4 | Wanned March Marcher | | |
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| | us Emissi | | <u>1GHz (10</u> | | | | | | | | |
|------------|-----------|--|--------------------------|------------------|------|------------|----------------|----------|--------|--------|------------|
| EUT: | | _ | oth earpho | ne | | el No.: | | SH | 039 | | |
| Temperatu | re: | 20 ℃ | | | Rela | tive Humid | ity: | 48% | 6 | | |
| Test Mode | : | Mode2/ (Left) | Mode2/Mode3/Mo (Left) | | | Test By: | | | en Liu | | |
| | | | | | | | | | | | |
| Frequenc | | Cable | Antenna | Preamp Factor | | Emission | Limi | ts | Margin | - · | |
| y (MHz) | | loss (dB) | Factor dB/m | | | | | (/m) | (dB) | Remark | Comment |
| (IVIHZ) | (dBµV) | dBµV) (dB) dB/m (dB) (dBµV/m) (d Low Channel (2402 MHz)-Abd | | | | | | (ab) | | | |
| 4000.00 | 00.45 | | | | | 45.05 | DL | Vertical | | | |
| 4839.88 | 62.15 | 5.21 | 35.59 | | | 58.65 | 74.0 | | -15.35 | Pk | Vertical |
| 4839.88 | 43.12 | 5.21 | 35.59 | 44. | | 39.62 | 54.0 | - | -14.38 | AV | Vertical |
| 7206.76 | 63.96 | 6.48 | 36.27 | 44. | | 62.11 | 74.0 | | -11.89 | Pk | Vertical |
| 7206.76 | 43.62 | 6.48 | 36.27 | 44. | | 41.77 | 54.00 | | -12.23 | AV | Vertical |
| 4804.84 | 62.01 | 5.21 | 35.55 | 44. | | 58.47 | 74.00 | | -15.53 | Pk | Horizontal |
| 4804.84 | 43.53 | 5.21 | 35.55 | 44.30 | | 39.99 | 54.00 | | -14.01 | AV | Horizontal |
| 7206.40 | 60.51 | 6.48 | 36.27 | 44. | | 58.74 | 74.00 54.00 | | -15.26 | Pk | Horizontal |
| 7206.40 | 43.00 | 6.48 | 36.27 | 44.52 | | 41.23 | | | -12.77 | AV | Horizontal |
| | | | - | | | 440 MHz)-A | | | | | |
| 4880.09 | 63.05 | 5.21 | 35.66 | 44. | - | 59.72 | 74.0 | - | -14.28 | Pk | Vertical |
| 4880.09 | 43.57 | 5.21 | 35.66 | 44. | | 40.24 | 54.0 | | -13.76 | AV | Vertical |
| 7320.96 | 60.63 | 7.10 | 36.50 | 44. | | 59.80 | 74.0 | | -14.20 | Pk | Vertical |
| 7320.96 | 43.02 | 7.10 | 36.50 | 44. | | 42.19 | 54.0 | | -11.81 | AV | Vertical |
| 4880.65 | 63.22 | 5.21 | 35.66 | 44. | - | 59.89 | 74.0 | - | -14.11 | Pk | Horizontal |
| 4880.65 | 43.09 | 5.21 | 35.66 | 44. | | 39.76 | 54.0 | | -14.24 | AV | Horizontal |
| 7321.00 | 63.49 | 7.10 | 36.50 | 44. | 43 | 62.66 | 74.0 | 00 | -11.34 | Pk | Horizontal |
| 7321.00 | 43.05 | 7.10 | 36.50 | 44. | - | 42.22 | 54.0 | - | -11.78 | AV | Horizontal |
| | | | _ | | | 480 MHz)- | | | | | |
| 4960.60 | 63.44 | 5.21 | 35.66 | 44. | | 60.11 | 74.0 | | -13.89 | Pk | Vertical |
| 4960.60 | 43.68 | 5.21 | 35.66 | 44. | | 40.35 | 54.0 | | -13.65 | AV | Vertical |
| 7440.48 | 63.40 | 7.10 | 36.50 | 44. | | 62.57 | 74.0 | | -11.43 | Pk | Vertical |
| 7440.48 | 43.18 | 7.10 | 36.50 | 44. | | 42.35 | 54.0 | | -11.65 | AV | Vertical |
| 4960.18 | 61.15 | 5.21 | 35.66 | 44. | | 57.82 | 74.0 | | -16.18 | Pk | Horizontal |
| 4960.18 | 43.09 | 5.21 | 35.66 | 44. | 20 | 39.76 | 54.0 | 00 | -14.24 | AV | Horizontal |
| 7440.76 | 63.48 | 7.10 | 36.50 | 44. | 43 | 62.65 | 74.0 | 00 | -11.35 | Pk | Horizontal |
| 7440.76 | 43.73 | 7.10 | 36.50 | 44. | 43 | 42.90 | 54.0 | 00 | -11.10 | AV | Horizontal |

Note: (1) All Readings are Peak Value (VBW=3MHz) and AV Value (VBW=10Hz).
(2) Emission Level= Antenna Factor + Cable Loss + Read Level - Preamp Factor
(3) All other emissions more than 20dB below the limit.





| EUT: | | Blueto | oth earpho | ne | Mod | el No.: | | SH | 039 | | | | |
|---------------------------------|---------------|------------------|------------------------------|------------------|--------|--------------------|---------|-----|--------|--------|------------|--|--|
| Temperatu | ire: | 20 ℃ | | | Rela | ative Humic | lity: | 489 | % | | | | |
| Test Mode | : | Mode2 (Right) | Mode2/Mode3/Mode4 (Right) | | | Test By: Allen Liu | | | en Liu | | | | |
| Frequenc y | Read Level | Cable loss | Antenna Factor | Preamp Factor | | Emission Level | Limits | | Margin | Remark | Comment | | |
| (MHz) | (dBµV) | (dB) | dB/m | (dE | 3) | (dBµV/m) | (dBµV | /m) | (dB) | | | | |
| | | | Low | Chanr | nel (2 | 402 MHz)-/ | Above ^ | 1G | | | | | |
| 4804.34 | 62.00 | 5.21 | 35.59 | 44.30 | | 58.50 | 74.0 | 0 | -15.50 | Pk | Vertical | | |
| 4804.34 | 40.14 | 5.21 | 35.59 | 44.3 | 30 | 36.64 | 54.0 | 0 | -17.36 | AV | Vertical | | |
| 7206.11 | 59.30 | 6.48 | 36.27 | 44.6 | 50 | 57.45 | 74.0 | 0 | -16.55 | Pk | Vertical | | |
| 7206.11 | 40.02 | 6.48 | 36.27 | 44.6 | 50 | 38.17 | 54.0 | 0 | -15.83 | AV | Vertical | | |
| 4804.17 | 61.99 | 5.21 | 35.55 | 44.3 | 30 | 58.45 | 74.00 | | -15.55 | Pk | Horizontal | | |
| 4804.17 | 40.51 | 5.21 | 35.55 | 44.3 | 30 | 36.97 | 54.00 | | -17.03 | AV | Horizontal | | |
| 7206.22 | 60.03 | 6.48 | 36.27 | 44.52 | | 58.26 | 74.00 | | -15.74 | Pk | Horizontal | | |
| 7206.22 | 39.47 | 6.48 | 36.27 | 44.52 | | 37.70 | 54.00 | | -16.30 | AV | Horizontal | | |
| Mid Channel (2440 MHz)-Above 1G | | | | | | | | | | | | | |
| 4880.47 | 62.83 | 5.21 | 35.66 | 44.2 | 20 | 59.50 | 74.0 | | -14.50 | Pk | Vertical | | |
| 4880.47 | 43.14 | 5.21 | 35.66 | 44.2 | 20 | 39.81 | 54.0 | 0 | -14.19 | AV | Vertical | | |
| 7320.27 | 63.44 | 7.10 | 36.50 | 44.4 | 43 | 62.61 | 74.0 | 0 | -11.39 | Pk | Vertical | | |
| 7320.27 | 40.59 | 7.10 | 36.50 | 44.4 | 43 | 39.76 | 54.0 | 0 | -14.24 | AV | Vertical | | |
| 4880.37 | 61.55 | 5.21 | 35.66 | 44.2 | 20 | 58.22 | 74.0 | | -15.78 | Pk | Horizontal | | |
| 4880.37 | 40.05 | 5.21 | 35.66 | 44.2 | 20 | 36.72 | 54.0 | 0 | -17.28 | AV | Horizontal | | |
| 7320.24 | 59.52 | 7.10 | 36.50 | 44.4 | 43 | 58.69 | 74.0 | 0 | -15.31 | Pk | Horizontal | | |
| 7320.24 | 42.42 | 7.10 | 36.50 | 44.4 | | 41.59 | 54.0 | _ | -12.41 | AV | Horizontal | | |
| | | | High | Chanr | nel (2 | 480 MHz)- | Above | 1G | | | - | | |
| 4960.48 | 63.00 | 5.21 | 35.52 | 44.2 | 21 | 59.52 | 74.0 | 0 | -14.48 | Pk | Vertical | | |
| 4960.48 | 40.67 | 5.21 | 35.52 | 44.2 | 21 | 37.19 | 54.0 | 0 | -16.81 | AV | Vertical | | |
| 7440.13 | 62.97 | 7.10 | 36.53 | 44.6 | 50 | 62.00 | 74.0 | 0 | -12.00 | Pk | Vertical | | |
| 7440.13 | 43.36 | 7.10 | 36.53 | 44.6 | 50 | 42.39 | 54.0 | 0 | -11.61 | AV | Vertical | | |
| 4960.33 | 61.37 | 5.21 | 35.52 | 44.2 | 21 | 57.89 | 74.0 | 0 | -16.11 | Pk | Horizontal | | |
| 4960.33 | 43.00 | 5.21 | 35.52 | 44.2 | 21 | 39.52 | 54.0 | 0 | -14.48 | AV | Horizontal | | |
| 7440.2 | 63.95 | 7.10 | 36.53 | 44.6 | 50 | 62.98 | 74.0 | 0 | -11.02 | Pk | Horizontal | | |
| 7440.2 | 44.56 | 7.10 | 36.53 | 44.6 | 50 | 43.59 | 54.0 | 0 | -10.41 | AV | Horizontal | | |





| Spurious Emission in Restricted Band 231 EUT: Bluetooth earphone | | | | | | | | 1039 | | |
|--|--|---|---|---|---|---|---|--|--|---|
| Temperature: 20 °C | | | | | | ve Humidit | | | | |
| Test Mode | | Mode2/ N | Mode2/ Mode4 (Left) | | | - | | Allen Liu | | |
| | | | | ' | | , | | - | | |
| Frequenc | Meter | Cable | Antenna | Prea | amp | Emission | Limits | Margin | Detector | |
| у | Reading | Loss | Factor | | ctor | Level | | - | | Comment |
| (MHz) | (dBµV) | (dB) | dB/m | (d | IB) | (dBµV/m) | (dBµV/m |) (dB) | Туре | |
| | | | | | | SK | | | | I |
| 2310.00 | 63.47 | 2.97 | 27.80 | | .80 | 50.44 | 74 | -23.5558 | Pk | Horizonta |
| 2310.00 | 43.37 | 2.97 | 27.80 | | 6.80 | 30.34 | 54 | -23.6647 | AV | Horizonta |
| 2310.00 | 64.47 | 2.97 | 27.80 | | 6.80 | 51.44 | 74 | -22.5555 | Pk | Vertical |
| 2310.00 | 43.81 | 2.97 | 27.80 | | .80 | 30.78 | 54 | -23.2184 | AV | Vertical |
| 2390.00 | 60.39 | 3.14 | 27.21 | | .80 | 46.94 | 74 | -27.0573 | Pk | Vertical |
| 2390.00 | 43.74 | 3.14 | 27.21 | | .80 | 30.29 | 54 | -23.7114 | AV | Vertical |
| 2390.00 | 61.86 | 3.14 | 27.21 | | 6.80 | 48.41 | 74 | -25.5928 | Pk | Horizonta |
| 2390.00 | 43.13 | 3.14 | 27.21 | 43 | .80 | 29.68 | 54 | -24.3244 | AV | Horizonta |
| 2483.50 | 63.84 | 3.58 | 27.70 | 44 | .00 | 51.12 | 74 | -22.8847 | Pk | Vertical |
| 2483.50 | 43.30 | 3.58 | 27.70 | 44 | .00 | 30.58 | 54 | -23.4208 | AV | Vertical |
| | | _ | | 1 | | - | | | | |
| 2483.50 | 62.25 | 3.58 | 27.70 | 44 | .00 | 49.53 | 74 | -24.4668 | Pk | Horizonta |
| 2483.50 2483.50 | 62.25 43.81 | 3.58 3.58 | 27.70 27.70 | | .00 .00 | 49.53 31.09 | 74 54 | -24.4668 -22.9137 | Pk AV | |
| 2483.50 EUT: | 43.81 | 3.58 Bluetooth | | 44 e | .00 Mode | 31.09 I No.: | 54 SH | -22.9137 039 | | |
| 2483.50 | 43.81 | 3.58 | 27.70 | 44 e | .00 Mode | 31.09 | 54 SH | -22.9137 039 | | |
| 2483.50 EUT: | 43.81 Jre: | 3.58 Bluetooth 20 ℃ | 27.70 | 44 e M F | .00 Mode | 31.09 I No.: ve Humidity | 54 SH y: 489 | -22.9137 039 | | Horizonta Horizonta |
| 2483.50 EUT: Temperatu Test Mode | 43.81 ure: :: | 3.58 Bluetooth 20 ℃ Mode2/ M | 27.70 n earphone Mode4 (Rig | 44 e N F ght) 7 | .00 Model Relati Test E | 31.09 I No.: ve Humidit 3y: | 54 SH y: 48 ⁴ Alle | -22.9137 039 6 en Liu | | |
| 2483.50 EUT: Temperatu Test Mode | 43.81 ure: o: Meter | 3.58 Bluetooth 20 °C Mode2/ N Cable | 27.70 n earphone Mode4 (Rig Antenna | 44 e M ght) 1 Prea | 00 Model Relati Test E amp | 31.09 I No.: ve Humidity 3y: Emission | 54 SH y: 489 | -22.9137 039 6 | | Horizonta |
| 2483.50 EUT: Temperatu Test Mode Frequenc y | 43.81 ure: e: Meter Reading | 3.58 Bluetooth 20 ℃ Mode2/ N Cable Loss | 27.70 n earphone Mode4 (Rig Antenna Factor | 44 Prea Fac | 00 Model Relati Test E amp ctor | 31.09 I No.: ve Humidity By: Emission Level | 54 SH y: 48 ⁴ Alle Limits | -22.9137 039 6 | AV | Horizonta |
| 2483.50 EUT: Temperatu Test Mode Frequenc | 43.81 ure: o: Meter | 3.58 Bluetooth 20 °C Mode2/ N Cable | 27.70 n earphone Mode4 (Rig Antenna | 44 Prea Fac | .00 Mode Relati Test E amp ctor IB) | 31.09 I No.: ve Humidity 3y: Emission | 54 SH y: 48 ⁴ Alle | -22.9137 039 % en Liu Margin | AV | |
| 2483.50 EUT: Temperatu Test Mode Frequenc y | 43.81 ure: e: Meter Reading | 3.58 Bluetooth 20 ℃ Mode2/ N Cable Loss | 27.70 n earphone Mode4 (Rig Antenna Factor | 44 e N fat) 7 Prea Fac (d | .00 Mode Relati Test E amp ctor IB) | 31.09 I No.: ve Humidity 3y: Emission Level (dBµV/m) | 54 SH y: 48 ⁴ Alle Limits | -22.9137 039 % en Liu Margin | AV | Horizonta |
| 2483.50 EUT: Temperatu Test Mode Frequenc y (MHz) | 43.81 ure: e: Meter Reading (dBµV) | 3.58 Bluetooth 20 ℃ Mode2/ M Cable Loss (dB) | 27.70 n earphone Mode4 (Rig Antenna Factor dB/m | 44 e N Fac Fac (d 43 | .00 Model Relati Test E amp ctor IB) GF | 31.09 I No.: ve Humidit By: Emission Level (dBµV/m) SK | 54 y: 48 ^c Alle Limits (dBµV/m | -22.9137 039 % en Liu Margin) (dB) | AV Detector Type | Horizonta Commen Horizonta |
| 2483.50 EUT: Temperatu Test Mode Frequenc y (MHz) 2310.00 | 43.81 ure: :: Meter Reading (dBµV) 61.55 | 3.58 Bluetooth 20 ℃ Mode2/ N Cable Loss (dB) 2.97 | 27.70 n earphone Mode4 (Rig Antenna Factor dB/m 27.80 | 44 e N Fat Fat (d 43 43 | .00 Model Relati Test E amp ctor IB) GF 5.80 | 31.09 I No.: ve Humidity 3y: Emission Level (dBµV/m) SK 48.52 | 54 9: 48' Alle Limits (dBµV/m 74 | -22.9137 039 % en Liu Margin) (dB) -25.48 | AV Detector Type Pk | Horizonta Commen Horizonta |
| 2483.50 EUT: Temperatu Test Mode Frequenc y (MHz) 2310.00 2310.00 | 43.81 ure: e: Meter Reading (dBµV) 61.55 41.31 | 3.58 Bluetooth 20 ℃ Mode2/ N Cable Loss (dB) 2.97 2.97 | 27.70 n earphone Mode4 (Rig Antenna Factor dB/m 27.80 27.80 | 44 e M F ght) 1 Prea Fac (d 43 43 43 | 00 Model Relati Test E amp ctor IB) GF 3.80 5.80 | 31.09 I No.: ve Humidit 3y: Emission Level (dBµV/m) SK 48.52 28.28 | 54 SH y: 48 ⁴ Alle Limits (dBµV/m 74 54 | -22.9137 039 % en Liu Margin) (dB) -25.48 -25.72 | AV Detector Type Pk AV | Horizonta Commen Horizonta Horizonta |
| 2483.50 EUT: Temperatu Test Mode Frequenc y (MHz) 2310.00 2310.00 2310.00 | 43.81 μre: e: Meter Reading (dBμV) 61.55 41.31 61.15 | 3.58 Bluetooth 20 °C Mode2/ № Cable Loss (dB) 2.97 2.97 2.97 | 27.70 n earphone Mode4 (Rig Antenna Factor dB/m 27.80 27.80 27.80 | 44 Prea Fac (d 43 43 43 43 | Model Relati Test E amp ctor IB) GF 5.80 5.80 5.80 | 31.09 I No.: ve Humidity 3y: Emission Level (dBµV/m) SK 48.52 28.28 48.12 | 54 y: 48 ^c Alle Limits (dBµV/m 74 54 74 | -22.9137 039 6 en Liu Margin) (dB) -25.48 -25.72 -25.88 | AV Detector Type Pk AV Pk | Horizonta Commen Horizonta Horizonta Vertical |
| 2483.50 EUT: Temperatu Test Mode Frequenc y (MHz) 2310.00 2310.00 2310.00 | 43.81 ure: e: Meter Reading (dBµV) 61.55 41.31 61.15 40.37 | 3.58 Bluetooth 20 ℃ Mode2/ N Cable Loss (dB) 2.97 2.97 2.97 2.97 | 27.70 n earphone Mode4 (Rig Antenna Factor dB/m 27.80 27.80 27.80 27.80 | 44 Pres Fac (d 43 43 43 43 43 | Model Relati Test E amp ctor IB) GF 5.80 5.80 5.80 5.80 5.80 | 31.09 I No.: ve Humidity 3y: Emission Level (dBµV/m) SK 48.52 28.28 48.12 27.34 | 54 y: 48 ^o Alle Limits (dBµV/m 74 54 74 54 | -22.9137 039 6 en Liu Margin) (dB) -25.48 -25.72 -25.88 -26.66 | AV Detector Type Pk AV Pk AV | Horizonta Commen Horizonta Horizonta Vertical Vertical |
| 2483.50 EUT: Temperatu Test Mode Frequenc y (MHz) 2310.00 2310.00 2310.00 2310.00 2390.00 | 43.81 μre: :: Meter Reading (dBμV) 61.55 41.31 61.15 40.37 61.74 | 3.58 Bluetooth 20 °C Mode2/ N Cable Loss (dB) 2.97 2.97 2.97 2.97 3.14 | 27.70 n earphone Mode4 (Rig Antenna Factor dB/m 27.80 27.80 27.80 27.80 27.80 27.21 | 44 e N Factor Factor (d 43 43 43 43 43 43 43 | 00 Model Relati Test E amp ctor IB) GF 3.80 3.80 3.80 3.80 3.80 3.80 | 31.09 I No.: ve Humidit 3y: Emission Level (dBµV/m) SK 48.52 28.28 48.12 27.34 48.29 | 54 y: 48 ⁴ Alle Limits (dBµV/m 74 54 74 54 74 54 | -22.9137 039 6 en Liu Margin) (dB) -25.48 -25.72 -25.88 -26.66 -25.71 | AV Detector Type Pk AV Pk AV Pk | Horizonta Commen Horizonta Horizonta Vertical Vertical Vertical |
| 2483.50 EUT: Temperatu Test Mode Frequenc y (MHz) 2310.00 2310.00 2310.00 2310.00 2390.00 2390.00 2390.00 | 43.81 μre: e: Meter Reading (dBμV) 61.55 41.31 61.75 40.37 61.74 42.33 63.20 | 3.58 Bluetooth 20 ℃ Mode2/ N Cable Loss (dB) 2.97 2.97 2.97 2.97 2.97 3.14 3.14 3.14 | 27.70 n earphone Mode4 (Rig Antenna Factor dB/m 27.80 27.80 27.80 27.80 27.21 27.21 27.21 | 44 e N Fat Fat (d 43 43 43 43 43 43 43 43 43 | 00 Model Relati Test E amp ctor IB) GF 3.80 3.80 3.80 3.80 3.80 3.80 3.80 3.80 | 31.09 I No.: ve Humidity 3y: Emission Level (dBµV/m) SK 48.52 28.28 48.12 27.34 48.29 28.88 49.75 | 54 y: 48° Alle Limits (dBµV/m 74 54 74 54 74 54 74 54 74 54 74 | -22.9137 039 6 en Liu Margin) (dB) -25.48 -25.72 -25.88 -26.66 -25.71 -25.12 -24.25 | AV Detector Type Pk AV Pk AV Pk AV | Horizonta Commen Horizonta Horizonta Vertical Vertical Vertical Horizonta |
| 2483.50 EUT: Temperatu Test Mode Frequenc y (MHz) 2310.00 2310.00 2310.00 2390.00 2390.00 | 43.81 μre: Meter Reading (dBμV) 61.55 41.31 61.15 40.37 61.74 42.33 63.20 41.65 | 3.58 Bluetooth 20 ℃ Mode2/ N Cable Loss (dB) 2.97 2.97 2.97 2.97 2.97 3.14 3.14 | 27.70 n earphone Mode4 (Rig Antenna Factor dB/m 27.80 27.80 27.80 27.80 27.21 27.21 27.21 27.21 | 44 Prea Fac (d 43 43 43 43 43 43 43 43 43 43 | 00 Model Relati Test E amp ctor B) GF 3.80 3.80 3.80 3.80 3.80 3.80 3.80 | 31.09 I No.: ve Humidity 3y: Emission Level (dBµV/m) SK 48.52 28.28 48.12 27.34 48.29 28.88 | 54 SH y: 48 ⁴ Alle Limits (dBµV/m 74 54 74 54 74 54 74 | -22.9137 039 6 en Liu Margin) (dB) -25.48 -25.72 -25.88 -26.66 -25.71 -25.12 -24.25 -25.80 | AV Detector Type Pk AV Pk AV Pk AV Pk AV Pk | Horizonta Commen Horizonta Horizonta Vertical Vertical Vertical Horizonta |
| 2483.50 EUT: Temperatu Test Mode Frequenc y (MHz) 2310.00 2310.00 2310.00 2310.00 2390.00 2390.00 2390.00 | 43.81 μre: e: Meter Reading (dBμV) 61.55 41.31 61.75 40.37 61.74 42.33 63.20 | 3.58 Bluetooth 20 °C Mode2/ M Cable Loss (dB) 2.97 2.97 2.97 2.97 3.14 3.14 3.14 3.14 | 27.70 n earphone Mode4 (Rig Antenna Factor dB/m 27.80 27.80 27.80 27.80 27.80 27.21 27.21 27.21 27.21 27.21 27.70 | 44 Pres Fac (d 43 43 43 43 43 43 43 43 43 43 43 43 43 | 00 Model Relati Test E amp ctor IB) GF 5.80 5.80 5.80 5.80 5.80 5.80 5.80 5.80 | 31.09 I No.: ve Humidity 3y: Emission Level (dBµV/m) SK 48.52 28.28 48.12 27.34 48.29 28.88 49.75 28.20 | 54 y: 48° Alle Limits (dBµV/m 74 54 74 54 74 54 74 54 74 54 74 54 | -22.9137 039 6 en Liu Margin) (dB) -25.48 -25.72 -25.88 -26.66 -25.71 -25.12 -24.25 | AV Detector Type Pk AV Pk AV Pk AV Pk AV | Horizonta Commen Horizonta Horizonta Vertical Vertical Vertical Horizonta Horizonta |
| 2483.50 EUT: Temperatu Test Mode Frequenc y (MHz) 2310.00 2310.00 2310.00 2310.00 2390.00 2390.00 2390.00 2390.00 2390.00 | 43.81 μre: c: Meter Reading (dBμV) 61.55 41.31 61.15 40.37 61.74 42.33 63.20 41.65 60.36 | 3.58 Bluetooth 20 °C Mode2/ N Cable Loss (dB) 2.97 2.97 2.97 2.97 3.14 3.14 3.14 3.14 3.14 3.58 | 27.70 n earphone Mode4 (Rig Antenna Factor dB/m 27.80 27.80 27.80 27.80 27.21 27.21 27.21 27.21 | 44 Prea Fac (d 43 43 43 43 43 43 43 43 43 43 43 43 43 | 00 Model Relati Test E amp ctor IB) GF 3.80 3.80 3.80 3.80 3.80 3.80 3.80 3.80 | 31.09 I No.: ve Humidity 3y: Emission Level (dBµV/m) SK 48.52 28.28 48.12 27.34 48.29 28.88 48.75 28.20 47.64 | 54 y: 48 ⁴ Alle Limits (dBµV/m 74 54 74 54 74 54 74 54 74 54 74 54 74 54 74 | -22.9137 039 6 en Liu Margin) (dB) -25.48 -25.72 -25.88 -26.66 -25.71 -25.12 -25.80 -25.80 -26.36 | AV Detector Type Pk AV Pk AV Pk AV Pk AV Pk AV Pk | Horizonta Commen Horizonta Horizonta Vertical Vertical Vertical Vertical Horizonta Horizonta Vertical |

Note: (1) All other emissions more than 20dB below the limit.





| | purious Em | | | | | | | | | | |
|--------|--|---|--|---|---|---|---|---|--|---|--|
| EUT: | · · · · · · | | | | | Model No.: | | | SH039 | | |
| Temp | Temperature:20 °C | | | Relative | e Humidity: | 48% | 48% | | | | |
| Test N | est Mode: Mode2/ Mode4(Left) | | | Test By | Test By: A | | | Allen Liu | | | |
| | Frequenc v | Readin g Level | Cable Loss | Antenn a | Preamp Factor | Emission Level | Limits | Margin | Detecto r | | |
| | (MHz) | (dBµV) | (dB) | dB/m | (dB) | (dBµ V/m) | (dBµ V/m) | (dB) | Туре | Comment | |
| | 3260 | 63.70 | 4.04 | 29.57 | 44.70 | 52.61 | 74.00 | -21.39 | Pk | Vertical | |
| | 3260 | 43.61 | 4.04 | 29.57 | 44.70 | 32.52 | 54.00 | -21.48 | AV | Vertical | |
| | 3260 | 62.89 | 4.04 | 29.57 | 44.70 | 51.80 | 74.00 | -22.20 | Pk | Horizontal | |
| | 3260 | 43.31 | 4.04 | 29.57 | 44.70 | 32.22 | 54.00 | -21.78 | AV | Horizontal | |
| | 3332 | 61.48 | 4.26 | 29.87 | 44.40 | 51.21 | 74.00 | -22.79 | Pk | Vertical | |
| | 3332 | 43.56 | 4.26 | 29.87 | 44.40 | 33.29 | 54.00 | -20.71 | AV | Vertical | |
| | 3332 | 63.12 | 4.26 | 29.87 | 44.40 | 52.85 | 74.00 | -21.15 | Pk | Horizontal | |
| | 3332 | 43.18 | 4.26 | 29.87 | 44.40 | 32.91 | 54.00 | -21.09 | AV | Horizontal | |
| | 17797 | 49.61 | 10.99 | 43.95 | 43.50 | 61.05 | 74.00 | -12.95 | Pk | Vertical | |
| | 17797 | 34.32 | 10.99 | 43.95 | 43.50 | 45.76 | 54.00 | -8.24 | AV | Vertical | |
| | 11131 | JT.JZ | | | | | | | | | |
| | 17788 | 45.58 | 11.81 | 43.69 | 44.60 | 56.48 | 74.00 | -17.52 | Pk | Horizontal | |
| | | | | 43.69 43.69 | 44.60 44.60 | 56.48 44.98 | 74.00 54.00 | -17.52 -9.02 | Pk AV | Horizontal Horizontal | |
| EUT: | 17788 | 45.58 34.08 Blue | 11.81 11.81 etooth ea | 43.69 | 44.60 Model N | 44.98 No.: | 54.00 SH(| -9.02)39 | | | |
| | 17788 | 45.58 34.08 | 11.81 11.81 etooth ea | 43.69 | 44.60 Model N | 44.98 | 54.00 SH0 48% | -9.02)39 % | | | |
| | 17788 17788 berature: | 45.58 34.08 Blue 20 ° | 11.81 11.81 etooth ea | 43.69 | 44.60 Model N Relative | 44.98 No.: e Humidity: | 54.00 SH0 48% | -9.02)39 | | | |
| Temp | 17788 17788 berature: | 45.58 34.08 Blue 20 ° | 11.81 11.81 etooth ea | 43.69 arphone | 44.60 Model N Relative | 44.98 No.: e Humidity: | 54.00 SH0 48% | -9.02)39 % | | Horizontal | |
| Temp | 17788 17788 berature: Mode: Frequenc | 45.58 34.08 Blue 20 ° Moo | 11.81 11.81 etooth ea C de2/ Mod | 43.69 Irphone e4(Right) Antenn | 44.60 Model N Relative Test By Preamp | 44.98 No.: e Humidity: r: Emission | 54.00 SH(48% Alle | -9.02 039 6 n Liu | AV | | |
| Temp | 17788 17788 berature: Mode: Frequenc y | 45.58 34.08 Blue 20 ° Moo Readin g Level | 11.81 11.81 C de2/ Mod Cable Loss | 43.69 arphone e4(Right) Antenn a | 44.60 Model N Relative Test By Preamp Factor | 44.98 No.: e Humidity: r: Emission Level (dBµ | 54.00 SH(48% Alle Limits (dBµ | -9.02 039 6 n Liu Margin | AV Detecto r | Horizontal | |
| Temp | 17788 17788 berature: Mode: Frequenc y (MHz) | 45.58 34.08 20 ℃ Moo Readin g Level (dBµV) | 11.81 11.81 ctooth ea C de2/ Mod Cable Loss (dB) | 43.69 arphone e4(Right) Antenn a dB/m | 44.60 Model N Relative Test By Preamp Factor (dB) | 44.98 No.: Humidity: :: Emission Level (dBµ V/m) | 54.00 SH(48% Alle Limits (dBµ V/m) | -9.02 039 6 n Liu Margin (dB) | AV Detecto r Type | Horizontal | |
| Temp | 17788 17788 erature: Mode: Frequenc y (MHz) 3260 | 45.58 34.08 Blue 20 ° Moo Readin g Level (dBµV) 61.83 | 11.81 11.81 etooth ea C de2/ Mod Cable Loss (dB) 4.04 | 43.69 arphone e4(Right) Antenn a dB/m 29.57 | 44.60 Model N Relative Test By Preamp Factor (dB) 44.70 | 44.98 No.: Humidity: Emission Level (dBµ V/m) 50.74 | 54.00 SH0 48% Alle Limits (dBµ V/m) 74 | -9.02 039 6 n Liu Margin (dB) -23.26 | AV Detecto r Type Pk | Horizontal Comment Vertical | |
| Temp | 17788 17788 berature: Mode: Frequenc y (MHz) 3260 3260 | 45.58 34.08 Blue 20 ℃ Moc Readin g Level (dBµV) 61.83 55.23 | 11.81 11.81 etooth ea C de2/ Mod Cable Loss (dB) 4.04 4.04 | 43.69 arphone e4(Right) Antenn a dB/m 29.57 29.57 | 44.60 Model N Relative Test By Preamp Factor (dB) 44.70 44.70 | 44.98 No.: Humidity: :: Emission Level (dBµ V/m) 50.74 44.14 | 54.00 SH(48% Alle Limits (dBµ V/m) 74 54 | -9.02 039 6 n Liu Margin (dB) -23.26 -9.86 | AV Detecto r Type Pk AV | Horizontal Comment Vertical Vertical | |
| Temp | 17788 17788 berature: Mode: Frequenc y (MHz) 3260 3260 3260 | 45.58 34.08 Blue 20 % Moo Readin g Level (dBµV) 61.83 55.23 63.64 | 11.81 11.81 etooth ea C de2/ Mod Cable Loss (dB) 4.04 4.04 4.04 | 43.69 arphone e4(Right) Antenn a dB/m 29.57 29.57 29.57 | 44.60Model NRelativeTest ByPreampFactor(dB)44.7044.70 | 44.98 No.: Humidity: :: Emission Level (dBµ V/m) 50.74 44.14 52.55 | 54.00 SH(48% Alle Limits (dBµ V/m) 74 54 74 | -9.02 039 6 n Liu Margin (dB) -23.26 -9.86 -9.86 | AV Detecto r Type Pk AV Pk | Horizontal Comment Vertical Vertical Horizontal | |
| Temp | 17788 17788 berature: Wode: Frequenc y (MHz) 3260 3260 3260 3260 | 45.58 34.08 Blue 20 ℃ Moo Readin g Level (dBµV) 61.83 55.23 63.64 55.48 | 11.81 11.81 etooth ea C de2/ Mod Cable Loss (dB) 4.04 4.04 4.04 | 43.69 arphone e4(Right) Antenn a dB/m 29.57 29.57 29.57 29.57 | 44.60 Model N Relative Test By Preamp Factor (dB) 44.70 44.70 44.70 | 44.98 No.: Humidity: Emission Level (dBµ V/m) 50.74 44.14 52.55 44.39 | 54.00 SH(48% Alle Limits (dBµ V/m) 74 54 74 54 | -9.02 039 6 n Liu Margin (dB) -23.26 -9.86 -21.45 -9.61 | AV Detecto r Type Pk AV Pk AV | Horizontal Comment Vertical Vertical Horizontal Horizontal | |
| Temp | 17788 17788 berature: Mode: Frequenc y (MHz) 3260 3260 3260 3260 3260 3332 | 45.58 34.08 Blue 20 ℃ Moo Readin g Level (dBµV) 61.83 55.23 63.64 55.48 62.33 | 11.81 11.81 etooth ea C de2/ Mod Cable Loss (dB) 4.04 4.04 4.04 4.04 4.04 | 43.69 arphone e4(Right) Antenn a dB/m 29.57 29.57 29.57 29.57 29.87 | 44.60 Model N Relative Test By Preamp Factor (dB) 44.70 44.70 44.70 44.70 | 44.98 No.: Humidity: :: Emission Level (dBµ V/m) 50.74 44.14 52.55 44.39 52.06 | 54.00 SH(48% Alle Limits (dBµ V/m) 74 54 74 54 | -9.02 39 6 n Liu Margin (dB) -23.26 -9.86 -21.45 -9.61 -21.94 | AV Detecto r Type Pk AV Pk AV Pk | Horizontal Comment Vertical Vertical Horizontal Vertical | |
| Temp | 17788 17788 werature: Mode: Frequenc y (MHz) 3260 3260 3260 3260 3260 3332 3332 | 45.58 34.08 Blue 20 ℃ Moo Readin g Level (dBµV) 61.83 55.23 63.64 55.48 62.33 55.27 | 11.81 11.81 etooth ea C de2/ Mod Cable Loss (dB) 4.04 4.04 4.04 4.04 4.04 4.26 4.26 | 43.69 arphone e4(Right) Antenn a dB/m 29.57 29.57 29.57 29.57 29.87 29.87 | 44.60 Model N Relative Test By Freamp Factor (dB) 44.70 44.70 44.70 44.70 44.40 | 44.98 No.: Humidity: Emission Level (dBµ V/m) 50.74 44.14 52.55 44.39 52.06 45.00 | 54.00 SH0 489 Alle Limits (dBµ V/m) 74 54 74 54 74 54 | -9.02 039 6 n Liu Margin (dB) -23.26 -9.86 -9.86 -21.45 -9.61 -21.94 -9.00 | AV Detecto r Type Pk AV Pk AV Pk AV | Horizontal Comment Vertical Vertical Horizontal Horizontal Vertical Vertical | |
| Temp | 17788 17788 herature: Wode: Frequenc y (MHz) 3260 3260 3260 3260 3260 3260 3332 3332 | 45.58 34.08 Blue 20 ℃ Moo C Readin g Level (dBµV) 61.83 55.23 63.64 55.48 62.33 55.27 63.17 | 11.81 11.81 etooth ea C de2/ Mod Cable Loss (dB) 4.04 4.04 4.04 4.04 4.04 4.26 4.26 4.26 | 43.69 arphone e4(Right) Antenn a dB/m 29.57 29.57 29.57 29.57 29.87 29.87 29.87 | 44.60 Model N Relative Test By Preamp Factor (dB) 44.70 44.70 44.70 44.70 44.40 | 44.98 | 54.00 SH(48% Alle Limits (dBµ V/m) 74 54 74 54 74 54 74 | -9.02 39 6 n Liu Margin (dB) -23.26 -9.86 -21.45 -9.61 -21.94 -9.00 -21.10 | AV Detecto r Type Pk AV Pk AV Pk AV Pk AV Pk | Horizontal Comment Vertical Vertical Horizontal Vertical Vertical Vertical Vertical | |
| Temp | 17788 17788 werature: Mode: Frequenc y (MHz) 3260 3260 3260 3260 3260 3260 3332 3332 | 45.58 34.08 Blue 20 % Moo Readin g Level (dBµV) 61.83 55.23 63.64 55.48 62.33 55.27 63.17 50.26 | 11.81 11.81 ctooth ea C de2/ Mod Cable Loss (dB) 4.04 4.04 4.04 4.04 4.04 4.26 4.26 4.26 4.26 | 43.69 arphone e4(Right) Antenn a dB/m 29.57 29.57 29.57 29.57 29.87 29.87 29.87 29.87 29.87 | 44.60 Model N Relative Test By Preamp Factor (dB) 44.70 44.70 44.70 44.40 44.40 44.40 | 44.98 No.: Humidity: C Emission Level (dBµ V/m) 50.74 44.14 52.55 44.39 52.06 45.00 52.90 39.99 | 54.00 SH(48% Alle Limits (dBµ V/m) 74 54 74 54 74 54 74 54 | -9.02 39 6 n Liu Margin (dB) -23.26 -9.86 -21.45 -9.61 -21.94 -9.00 -21.10 -14.01 | AV Detecto r Type Pk AV Pk AV Pk AV Pk AV Pk AV | Horizontal Comment Vertical Vertical Horizontal Vertical Vertical Vertical Horizontal Horizontal | |
| Temp | 17788 17788 werature: Mode: Frequenc y (MHz) 3260 3260 3260 3260 3260 3332 3332 3332 | 45.58 34.08 Blue 20 ° Moo Readin g Level (dBµV) 61.83 55.23 63.64 55.48 62.33 55.27 63.17 50.26 43.41 | 11.81 11.81 etooth ea C de2/ Mod Cable Loss (dB) 4.04 4.04 4.04 4.04 4.04 4.04 4.26 4.26 4.26 10.99 | 43.69 arphone e4(Right) Antenn a dB/m 29.57 29.57 29.57 29.57 29.87 29.87 29.87 29.87 29.87 29.87 43.95 | 44.60 Model N Relative Test By Preamp Factor (dB) 44.70 44.70 44.70 44.70 44.40 44.40 44.40 44.40 | 44.98 No.: = Humidity: : Emission Level (dBμ V/m) 50.74 44.14 52.55 44.39 52.06 45.00 52.90 39.99 54.85 | 54.00 SH(48% Alle Limits (dBµ V/m) 74 54 74 54 74 54 74 54 74 | -9.02 39 6 n Liu Margin (dB) -23.26 -9.86 -9.86 -21.45 -9.61 -21.94 -9.00 -21.10 -14.01 -19.15 | AV Detecto r Type Pk AV Pk AV Pk AV Pk AV Pk AV Pk | Horizontal Comment Vertical Vertical Horizontal Horizontal Vertical Horizontal Horizontal Vertical Vertical | |

Note: (1) All other emissions more than 20dB below the limit.





7.3 6DB BANDWIDTH

7.3.1 Applicable Standard

According to FCC Part 15.247(a)(2) and KDB 558074 D01 15.247 Meas Guidance v05r02 Section 8.2.

7.3.2 Conformance Limit

The minimum permissible 6dB bandwidth is 500 kHz.

7.3.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.3.4 Test Setup

Please refer to Section 6.1 of this test report.

7.3.5 Test Procedure

The testing follows Subclause 11.8 of ANSI C63.10

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT was operating in controlled its channel.

Use the following spectrum analyzer settings:

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) \ge 3*RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.

g) 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.

7.3.6 Test Results

| EUT: | Bluetooth earphone | Model No.: | SH039 |
|--------------|--------------------|--------------------|-----------|
| Temperature: | 20 ℃ | Relative Humidity: | 48% |
| Test Mode: | Mode2/Mode3/Mode4 | Test By: | Allen Liu |

Test data reference attachment.





7.4 DUTY CYCLE

7.4.1 Applicable Standard

According to KDB 558074 D01 15.247 Meas Guidance v05r02 Section 6.

7.4.2 Conformance Limit

No limit requirement.

7.4.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.4.4 Test Setup

Please refer to Section 6.1 of this test report.

7.4.5 Test Procedure

The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on and off times of the transmitted signal. Set the center frequency of the instrument to the center frequency of the transmission. Set RBW \geq OBW if possible; otherwise, set RBW to the largest available value. Set VBW \geq RBW. Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if T \leq 16.7 microseconds.)

The transmitter output is connected to the Spectrum Analyzer. We tested accroding to the zero-span measurement method, 6.0)b) in KDB 558074

The largest available value of RBW is 8 MHz and VBW is 50 MHz. The zero-span method of measuring duty cycle shall not be used if $T \le 6.25$ microseconds. (50/6.25 = 8)

```
The zero-span method was used because all measured T data are > 6.25 microseconds and both RBW and VBW are > 50/T.
```

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. The EUT was operating in controlled its channel. Use the following spectrum analyzer settings: Span = Zero Span RBW = 8MHz(the largest available value) VBW = 8MHz (\geq RBW) Number of points in Sweep >100 Detector function = peak Trace = Clear write Measure T_{total} and T_{on} Calculate Duty Cycle = T_{on}/T_{total}





7.4.6 Test Results

| EUT: | Bluetooth earphone | Model No.: | SH039 |
|--------------|--------------------|--------------------|-----------|
| Temperature: | 20 ℃ | Relative Humidity: | 48% |
| Test Mode: | Mode2/Mode3/Mode4 | Test By: | Allen Liu |

Test data reference attachment.





7.5 PEAK OUTPUT POWER

7.5.1 Applicable Standard

According to FCC Part 15.247(b)(3) and KDB 558074 D01 15.247 Meas Guidance v05r02 Section 8.3.1.

7.5.2 Conformance Limit

The maximum peak conducted output power of the intentional radiator for systems using digital modulation in the 2400 - 2483.5 MHz bands shall not exceed: 1 Watt (30dBm). If transmitting antenna of directional gain greater than 6dBi is used, the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

7.5.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.5.4 Test Setup

Please refer to Section 6.1 of this test report.

7.5.5 Test Procedure

The testing follows Subclause 11.9.1.1 of ANSI C63.10 The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. Set to the maximum power setting and enable the EUT transmit continuously. The EUT was operating in controlled its channel. Use the following spectrum analyzer settings: Set the RBW \geq DTS bandwidth. Set VBW =3*RBW. Set the span \geq 3*RBW Set Sweep time = auto couple. Set Detector = peak. Set Trace mode = max hold. Allow trace to fully stabilize. Use peak marker function to determine the peak amplitude level.

7.5.6 Test Results

| EUT: | Bluetooth earphone | Model No.: | SH039 |
|--------------|--------------------|--------------------|-----------|
| Temperature: | 20 ℃ | Relative Humidity: | 48% |
| Test Mode: | Mode2/Mode3/Mode4 | Test By: | Allen Liu |

Test data reference attachment.





7.6 POWER SPECTRAL DENSITY

7.6.1 Applicable Standard

According to FCC Part 15.247(e) and KDB 558074 D01 15.247 Meas Guidance v05r02 Section 8.4.

7.6.2 Conformance Limit

The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

7.6.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.6.4 Test Setup

Please refer to Section 6.1 of this test report.

7.6.5 Test Procedure

The testing follows Measurement Procedure Subclause 11.10.2 of ANSI C63.10 This procedure shall be used if maximum peak conducted output power was used to demonstrate compliance, and is optional if the maximum conducted (average) output power was used to demonstrate compliance.

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT was operating in controlled its channel.

- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span to 1.5*DTS bandwidth.
- c) Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set the VBW \geq 3 RBW.
- e) Detector = peak.
- f) Sweep time = auto couple.
- \hat{g}) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.





7.6.6 Test Results

| EUT: | Bluetooth earphone | Model No.: | SH039 |
|--------------|--------------------|--------------------|-----------|
| Temperature: | 20 ℃ | Relative Humidity: | 48% |
| Test Mode: | Mode2/Mode3/Mode4 | Test By: | Allen Liu |

Test data reference attachment.





7.7 CONDUCTED BAND EDGE MEASUREMENT

7.7.1 Applicable Standard

According to FCC Part 15.247(d) and KDB 558074 D01 15.247 Meas Guidance v05r02 Section 8.7.

7.7.2 Conformance Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

7.7.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.7.4 Test Setup

Please refer to Section 6.1 of this test report.

7.7.5 Test Procedure

The testing follows FCC KDB 558074 D01 15.247 Meas Guidance v05r02 Section 8.7.

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT was operating in controlled its channel.

Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.

Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.

Repeat above procedures until all measured frequencies were complete.

7.7.6 Test Results

| EUT: | Bluetooth earphone | Model No.: | SH039 |
|--------------|--------------------|--------------------|-----------|
| Temperature: | 20 ℃ | Relative Humidity: | 48% |
| Test Mode: | Mode2/Mode4 | Test By: | Allen Liu |

Test data reference attachment.





7.8 SPURIOUS RF CONDUCTED EMISSIONS

7.8.1 Conformance Limit

1. Below -20dB of the highest emission level in operating band.

2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

7.8.2 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.8.3 Test Setup

Please refer to Section 6.1 of this test report.

7.8.4 Test Procedure

The Spurious RF conducted emissions compliance of RF radiated emission should be measured by following the guidance in ANSI C63.10-2013 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW=100kHz and VBW= 300KHz to measure the peak field strength , and measure frequeny range from 9KHz to 26.5GHz.

7.8.5 Test Results

Remark: The measurement frequency range is from 9KHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the spurious emissions and bandege measurement data.

Test data reference attachment.





7.9 ANTENNA APPLICATION

7.9.1 Antenna Requirement

15.203 requirement: For intentional device, according to 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.

7.9.2 Result

The EUT antenna is permanent attached FPCB antenna (Gain: 2dBi). It comply with the standard requirement.





8 TEST RESULTS

8.1 DUTY CYCLE

| Condition | Mode | Frequence | cy (MHz) | Duty C | Cycle (%) | Correction Factor (c | JΒ) |
|-----------|----------|--|--|-----------|-----------|----------------------|-----|
| NVNT | BLE | 24 | | | 100 | 0 | |
| NVNT | BLE | 24 | 40 | | 100 | 0 | |
| NVNT | BLE | 24 | | | 100 | 0 | |
| | | Du | ity Cycle NV | NT BLE 24 | 402MHz | _ | |
| 6 | Spectrum |) | | | | | |
| | GGL | 2 dBm Offset 7.6 40 dB e SWT 100 | 2 dB 👄 RBW 1 MH) ms 👄 VBW 3 MH | | | | |
| • | 1Pk Clrw | | | M1 | [1] | -3.83 dBm | |
| 2 | 0 dBm | | | | [+] | 70.6000 ms | |
| | | | | | | | |
| 1 | 0 dBm | | | | | | |
| o | dBm | | | | | | |
| - | | | | | <u>*</u> | | |
| -; | 10 dBm | | | | | | |
| -4 | 20 dBm | | | | | | |
| | | | | | | | |
| - | 30 dBm | | | | | | |
| | 40 dBm | | | _ | | | |
| | | | | | | | |
| -1 | 50 dBm | | | | | | |
| -1 | 50 dBm | | | | | | |
| | | | | | | | |
| | 70 dBm | | | 01 pts | | 10.0 ms/ | |

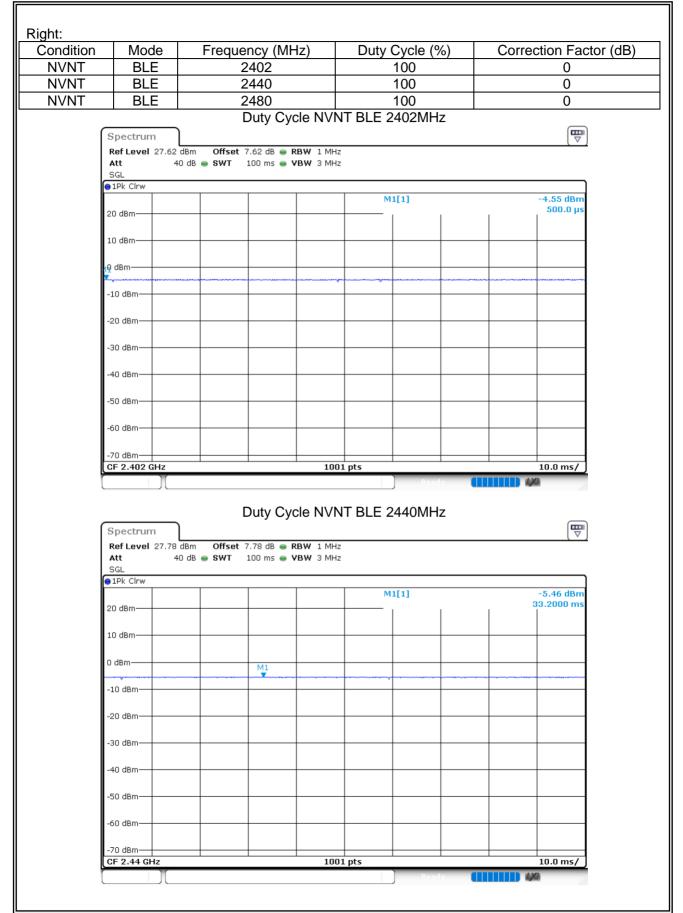




| Ref Level 27.78 d Att 40 | Bm Offset dB 🕳 SWT | : 7.78 dB 👄 I 100 ms 👄 ' | VBW 1 MHz | | | | | |
|--|-----------------------|-----------------------------|----------------------|---------|--------|-------|---|-------------------------|
| SGL | _ | | | | | | | |
| 1Pk Clrw | | | 1 | | | | | E DC dDm |
| 20 dBm | | | | M | 1[1] | | | -5.36 dBm 73.1000 ms |
| 20 0011 | | | | | | | | |
| 10 dBm | | | | | | | | |
| | | | | | | | | |
| 0 dBm | | | | | | M1 | | |
| 10 d0 | | | | · · · | | | | |
| -10 dBm | | | | | | | | |
| -20 dBm | | | | | | | _ | |
| | | | | | | | | |
| -30 dBm | | | | | | | - | |
| 40 dBm | | | | | | | | |
| -40 dBm | | | | | | | | |
| -50 dBm | | | | | | | | |
| | | | | | | | | |
| -60 dBm | | | | | | | + | |
| | | | | | | | | |
| -70 dBm — | | | | | | - | | |
| SF 2.44 GHz | Pro Offical | Duty Cy | | | 2480MH | dv 🚺 | | 10.0 ms/ |
| CF 2.44 GHz Spectrum Ref Level 27.60 d Att 40 | Bm Offset dB ● SWT | : 7.60 dB 😑 I | cle NVN | | 2480MH | dv 🚺 | | 440 |
| CF 2.44 GHz Spectrum Ref Level 27.60 d Att 40 SGL | | : 7.60 dB 😑 I | CIE NVN RBW 1 MHz | | 2480MH | lv (| | 440 |
| CF 2.44 GHz Spectrum Ref Level 27.60 d Att 40 | | : 7.60 dB 😑 I | CIE NVN RBW 1 MHz | T BLE 2 | 2480MH | dv 🚺 | | 440 |
| CF 2.44 GHz Spectrum Ref Level 27.60 d Att 40 SGL | | : 7.60 dB 😑 I | CIE NVN RBW 1 MHz | T BLE 2 | | dy (| | |
| CF 2.44 GHz Spectrum Ref Level 27.60 d Att 40 SGL 1Pk Clrw 20 dBm | | : 7.60 dB 😑 I | CIE NVN RBW 1 MHz | T BLE 2 | | dy () | | -6.66 dBm |
| CF 2.44 GHz Spectrum Ref Level 27.60 d Att 40 SGL JIPk Clrw | | : 7.60 dB 😑 I | CIE NVN RBW 1 MHz | T BLE 2 | | | | -6.66 dBm |
| CF 2.44 GHz Spectrum Ref Level 27.60 d Att 40 SGL 1Pk Clrw 20 dBm 10 dBm | | : 7.60 dB 😑 I | CIE NVN RBW 1 MHz | T BLE 2 | | | | -6.66 dBm |
| CF 2.44 GHz Spectrum Ref Level 27.60 d Att 40 SGL IPk Clrw 20 dBm 10 dBm 0 dBm | | : 7.60 dB 😑 I | CIE NVN RBW 1 MHz | T BLE 2 | | | | -6.66 dBm |
| CF 2.44 GHz Spectrum Ref Level 27.60 d Att 40 SGL IPk Clrw 20 dBm 10 dBm 0 dBm | dB • SWT | : 7.60 dB 😑 I | CIE NVN RBW 1 MHz | T BLE 2 | | | | -6.66 dBm |
| CF 2.44 GHz Spectrum Ref Level 27.60 d Att 40 SGL 1Pk Clrw 20 dBm 10 dBm -10 dBm -10 dBm | dB • SWT | : 7.60 dB 😑 I | CIE NVN RBW 1 MHz | T BLE 2 | | | | -6.66 dBm |
| CF 2.44 GHz Spectrum Ref Level 27.60 d Att 40 SGL 1Pk Clrw 20 dBm 10 dBm 0 dBm | dB • SWT | : 7.60 dB 😑 I | CIE NVN RBW 1 MHz | T BLE 2 | | | | -6.66 dBm |
| CF 2.44 GHz Spectrum Ref Level 27.60 d Att 40 SGL 10 dBm 10 dBm -10 dBm -20 dBm -20 dBm | dB • SWT | : 7.60 dB 😑 I | CIE NVN RBW 1 MHz | T BLE 2 | | | | -6.66 dBm |
| CF 2.44 GHz Spectrum Ref Level 27.60 d Att 40 SGL 1Pk Clrw 20 dBm 10 dBm -10 dBm -10 dBm | dB • SWT | : 7.60 dB 😑 I | CIE NVN RBW 1 MHz | T BLE 2 | | | | -6.66 dBm |
| CF 2.44 GHz Spectrum Ref Level 27.60 d Att 40 SGL 10 dBm 10 dBm -10 dBm -20 dBm -20 dBm | dB • SWT | : 7.60 dB 😑 I | CIE NVN RBW 1 MHz | T BLE 2 | | | | -6.66 dBm |
| CF 2.44 GHz Spectrum Ref Level 27.60 d Att 40 SGL DIPk Clrw 20 dBm 10 dBm -10 dBm -20 dBm -30 dBm -40 dBm | dB • SWT | : 7.60 dB 😑 I | CIE NVN RBW 1 MHz | T BLE 2 | | | | -6.66 dBm |
| CF 2.44 GHz Spectrum Ref Level 27.60 d Att 40 SGL 10 dBm 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm | dB • SWT | : 7.60 dB 😑 I | CIE NVN RBW 1 MHz | T BLE 2 | | | | -6.66 dBm |
| CF 2.44 GHz Spectrum Ref Level 27.60 d Att 40 SGL ID dBm 0 dBm 10 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm | dB • SWT | : 7.60 dB 😑 I | CIE NVN RBW 1 MHz | T BLE 2 | | | | -6.66 dBm |
| CF 2.44 GHz Spectrum Ref Level 27.60 d Att 40 SGL DIPk Clrw 20 dBm 10 dBm -10 dBm -20 dBm -30 dBm -40 dBm | dB • SWT | : 7.60 dB 😑 I | CIE NVN RBW 1 MHz | T BLE 2 | | | | -6.66 dBm |
| CF 2.44 GHz Spectrum Ref Level 27.60 d Att 40 SGL ID dBm 0 dBm 10 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm | dB • SWT | : 7.60 dB 😑 I | CIE NVN RBW 1 MHz | | | | | -6.66 dBm |











Duty Cycle NVNT BLE 2480MHz Spectrum Ref Level 27.60 dBm Offset 7.60 dB 👄 RBW 1 MHz Att 40 dB 🔵 SWT 100 ms 😑 VBW 3 MHz SGL ⊖1Pk Clrw M1[1] -6.70 dBm 24.5000 m 20 dBm· 10 dBm· 0 dBm-M1 -10 dBm--20 dBm--30 dBm--40 dBm· -50 dBm--60 dBm--70 dBm-1001 pts CF 2.48 GHz 10.0 ms/





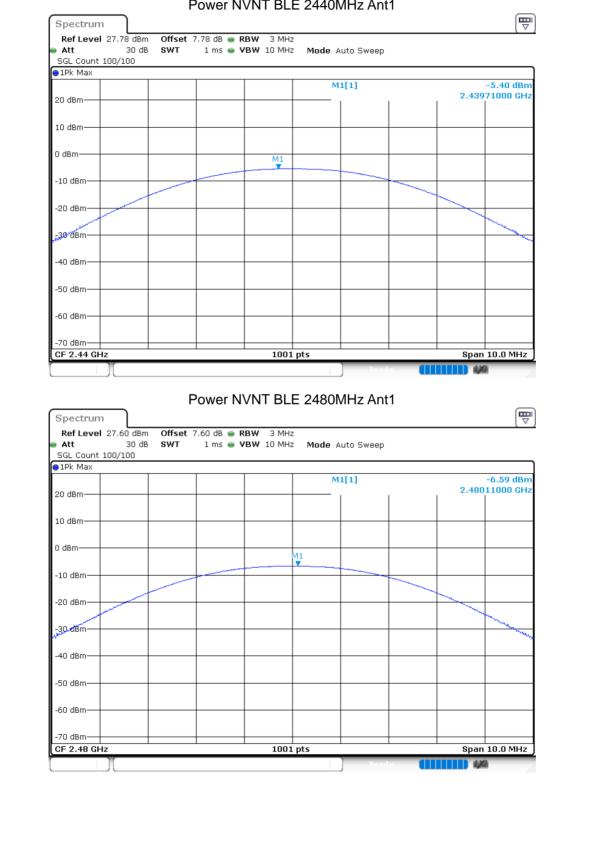
8.2 MAXIMUM CONDUCTED OUTPUT POWER

| Condition | Mode | Frequency | Antenna | Conducted | Duty | Total | Limit | Verdic |
|-----------|-------------------------------|-------------------------------|----------------|----------------|---------------|--------|----------------|--------|
| | | (MHz) | | Power | Factor | Power | (dBm) | |
| | | | | (dBm) | (dB) | (dBm) | · · / | |
| NVNT | BLE | 2402 | Ant 1 | -3.759 | 0 | -3.759 | 30 | Pass |
| NVNT | BLE | 2440 | Ant 1 | -5.405 | 0 | -5.405 | 30 | Pass |
| NVNT | BLE | 2480 | Ant 1 | -6.593 | 0 | -6.593 | 30 | Pass |
| | | | Power N | IVNT BLE 240 |)2MHz Ant1 | | | |
| | Spectre | um | | | | | | |
| | | | fset 7.62 dB 👄 | | | | | |
| | Att SGL Could SGL Could | 30 dB SV nt 100/100 | VT 1 ms 👄 | VBW 10 MHz Mod | le Auto Sweep | | | |
| | 1Pk Ma: | | | | | | | |
| | | | | | M1[1] | 0.400 | -3.76 dBm | |
| | 20 dBm— | | | | - 1 1 | 2.402 | 12000 GHz | |
| | 10 dBm- | | | | | | | |
| | | | | | | | | |
| | 0 dBm | | | M1 | | | | |
| | | | | | | | | |
| | -10 dBm- | | | | | | | |
| | -20 dBm- | | | | | | | |
| | -20 ubiii- | | | | | | / | |
| | -30 dBm- | | | | | | - marked along | |
| | | | | | | | | |
| | -40 dBm- | | | | | | | |
| | -50 dBm- | | | | | | | |
| | -30 0811- | | | | | | | |
| | -60 dBm- | | | | | | | |
| | | | | | | | | |
| | -70 dBm- | | | | | | | |
| | CF 2.40 | 2 GHz | | 1001 pts | | Span | 10.0 MHz | |





Power NVNT BLE 2440MHz Ant1



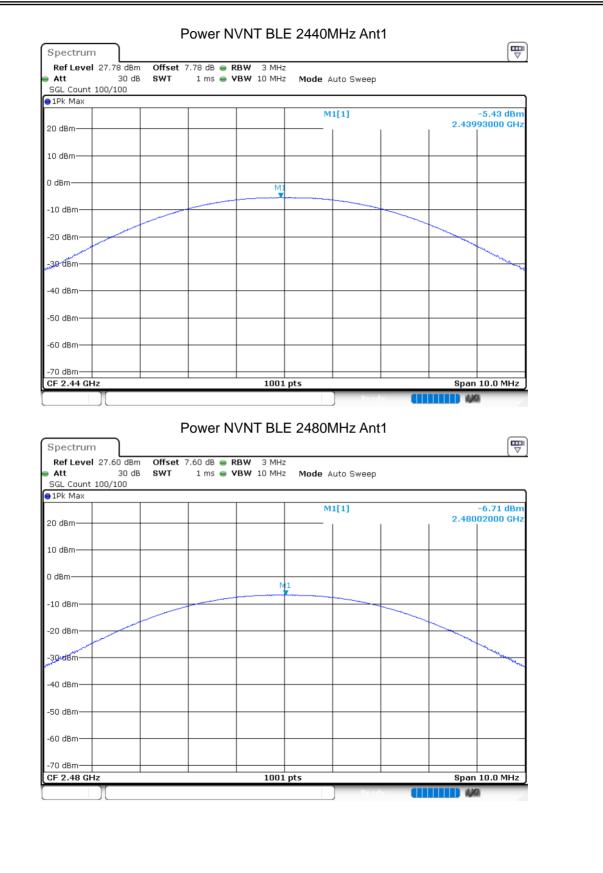




| Right: Condition | Mode | Frequency | Antenna | Conducted | Duty | Total | Limit | Verdio |
|---------------------|----------------|-----------------------------|----------------|--------------|---------------|--------|------------------------|--------|
| | | (MHz) | | Power | Factor | Power | (dBm) | |
| | | 、 , | | (dBm) | (dB) | (dBm) | · · / | |
| NVNT | BLE | 2402 | Ant 1 | -4.500 | 0 | -4.500 | 30 | Pass |
| NVNT | BLE | 2440 | Ant 1 | -5.427 | 0 | -5.427 | 30 | Pass |
| NVNT | BLE | 2480 | Ant 1 | -6.711 | 0 | -6.711 | 30 | Pass |
| | | | Power N | IVNT BLE 240 |)2MHz Ant1 | | | |
| | Spectru | ım | | | | | | |
| | Ref Lev Att | el 27.62 dBm Of 30 dB SV | fset 7.62 dB 👄 | | - Auto Succes | | | |
| | | nt 100/100 | YI IMS 🖶 | | e Auto Sweep | | | |
| | ●1Pk Max | | | | | | | |
| | 20 dBm— | | | | M1[1] | 2.401 | -4.50 dBm 80000 GHz | |
| | 20 ubiii- | | | | | | | |
| | 10 dBm— | | | | | | | |
| | | | | | | | | |
| | 0 dBm | | | M1 | | | | |
| | -10 dBm— | | | | | _ | | |
| | | | | | | | | |
| | -20 dBm- | | | | | | | |
| | -20 dBm- | | | | | | and the second second | |
| | | | | | | | | |
| | -40 dBm— | | | | | | | |
| | -50 dBm- | | | | | | | |
| | -30 ubiii- | | | | | | | |
| | -60 dBm— | | | | | | | |
| | -70 dBm- | | | | | | | |
| | | | | | | | | |









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| Condition | Mode | Frequency (MHz) | Antenna | 99% OBW | -6 dl Bandw | | | t -6 dB dwidth | Verdio |
|-----------|-----------------|---------------------------------|-----------------|----------------|----------------|----|---------------|------------------------|--------|
| | | () | | (MHz) | (MH: | | | IHz) | |
| NVNT | BLE | 2402 | Ant 1 | 1.027 | 0.70 | 8 | _ ≥ | 0.5 | Pass |
| NVNT | BLE | 2440 | Ant 1 | 1.027 | 0.70 | 8 | ≥ | 0.5 | Pass |
| NVNT | BLE | 2480 | Ant 1 | 1.031 | 0.71 | | ≥ | 0.5 | Pass |
| | | | OBW NV | NT BLE 240 | 2MHz Ant1 | | | _ | |
| | Spectru | ım | | | | | | | |
| | | el 20.00 dBm | | 100 kHz | | | | | |
| | Att SGL Cour | 30 dB SW nt 1000/1000 | T 19.1 µs 👄 VBW | / 300 kHz Mode | Auto FFT | | | | |
| | ●1Pk Max | | 1 | | | | | | |
| | | | | | M1[1] | | | 12.46 dBm 23780 GHz | |
| | 10 dBm— | | | | Occ Bw | | | 73027 MHz | |
| | | | | | | | | | |
| | 0 dBm | | | | | | | | |
| | -10 dBm— | | | | M1 | | | | |
| | | | | | | | | | |
| | -20 dBm— | T1 | | | | T2 | | | |
| | -30 dBm- | | | | | Y | | | |
| | -50 0011 | | | | | | | | |
| | -40 dBm— | | | | | | \rightarrow | | |
| | | | | | | | \sim | | |
| | -50 dBm— | | | | | | | | |
| | -60 dBm— | | | | | | | | |
| | | | | | | | | | |
| | -70 dBm— | | | | | | | | |
| | CF 2.402 | 2 GHz | | 1001 pts | | | Spa | n 2.0 MHz | |
| | | | | | Ready | | | 7 | |



Spectrum



T

OBW NVNT BLE 2440MHz Ant1 👄 RBW 100 kHz SWT 19.1 µs 🖷 VBW 300 kHz Mode Auto FFT



1001 pts

-60 dBm

-70 dBm-

CF 2.48 GHz

Span 2.0 MHz

14.00



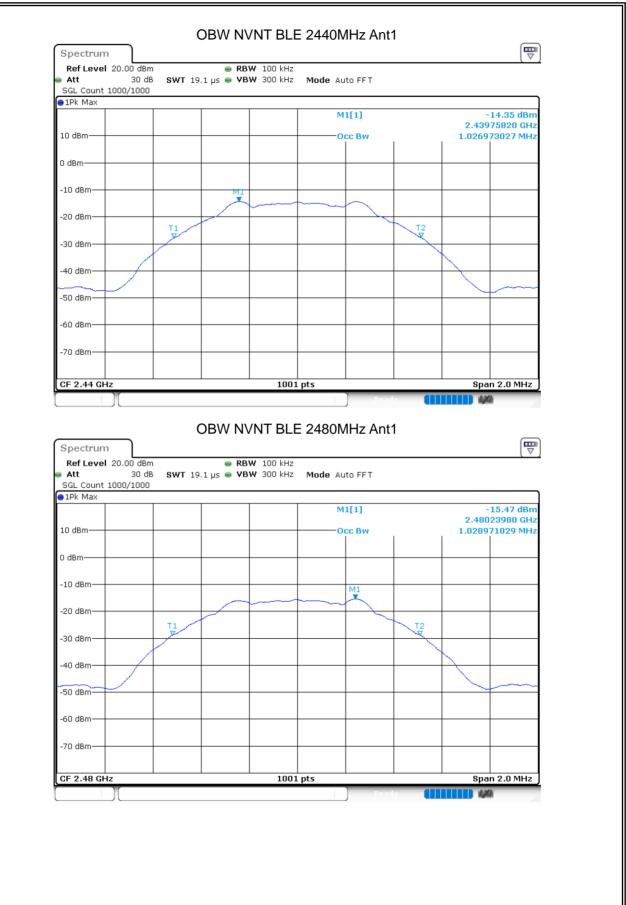
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| Condition | Mode | Frequency | Antenna | 99% | -6 dB | Limit -6 dB | Verdic |
|-----------|----------------|----------------------------------|---------------|----------------|------------------|---|--------|
| | | (MHz) | | OBW | Bandwidth | Bandwidth | |
| | | | | (MHz) | (MHz) | (MHz) | |
| NVNT | BLE | 2402 | Ant 1 | 1.027 | 0.686 | ≥0.5 | Pass |
| NVNT | BLE | 2440 | Ant 1 | 1.027 | 0.71 | ≥0.5 | Pass |
| NVNT | BLE | 2480 | Ant 1 | 1.029 | 0.714 | ≥0.5 | Pass |
| | | | OBW NV | NT BLE 240 | 2MHz Ant1 | _ | |
| | Spectru | m | | | | | |
| | | /el 20.00 dBm | | / 100 kHz | | ` <u> </u> | |
| | Att SGL Cou | 30 dB SWT nt 1000/1000 | 19.1 µs 👄 VBW | / 300 kHz Mode | Auto FFT | | |
| | ⊖1Pk Ma> | (| | 1 | | | |
| | 10 dBm— | | | | M1[1] -Occ Bw | -13.10 dBm 2.40175420 GHz 1.026973027 MHz | |
| | | | | | | | |
| | 0 dBm | | | | | | |
| | -10 dBm- | | M1 | | | | |
| | -20 dBm- | | | | ~ | | |
| | -20 0011 | T1 P | | | T2 V | | |
| | -30 dBm- | | | | | | |
| | -40 dBm- | + / | | | | | |
| | -50 dBm- | \downarrow \vdash | | | | | |
| | -60 dBm- | | _ | | | | |
| | -70 dBm- | | _ | | | | |
| | | | | | | | |
| | CF 2.402 | 2 GHz | | 1001 pts | | Span 2.0 MHz | |











8.4 MAXIMUM POWER SPECTRAL DENSITY LEVEL

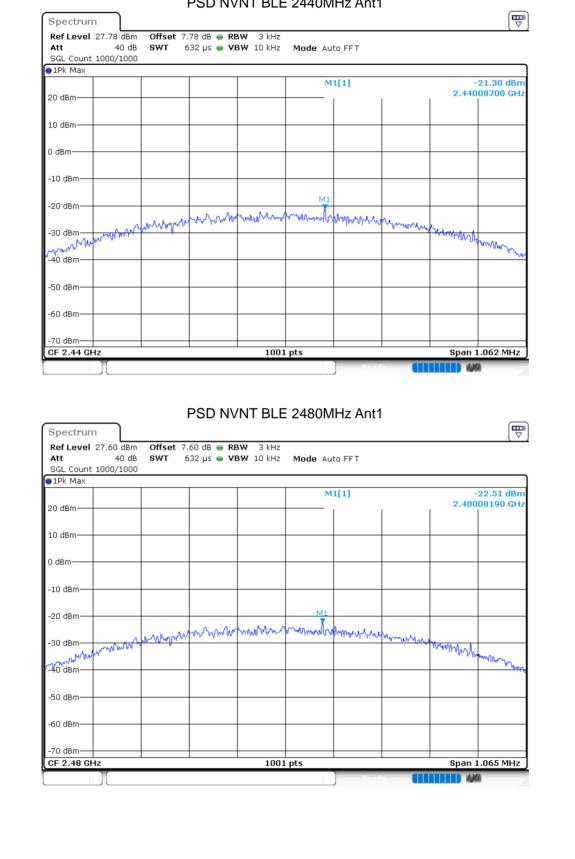
| Left: | | | | | | |
|-----------|-----------------|--|----------------------|--------------------|------------------------------|----------|
| Condition | Mode | Frequency (MHz) | Antenna | Max PSD (dBm/3kHz) | Limit | Verdict |
| | | | | | (dBm/3kHz) | |
| NVNT | BLE | 2402 | Ant 1 | -19.472 | 8 | Pass |
| NVNT | BLE | 2440 | Ant 1 | -21.297 | 8 | Pass |
| NVNT | BLE | 2480 | Ant 1 | -22.508 | 8 | Pass |
| | | PSI | D NVNT BL | E 2402MHz Ant1 | | |
| | Spectru | Im | | | |) |
| | Ref Leve | el 27.62 dBm Offset 7.62 d | з 😑 RBW Зkн | Z | | <u> </u> |
| | Att SGL Cour | 40 dB SWT 632 µ nt 1000/1000 | s 👄 VBW 10 kH | z Mode Auto FFT | | |
| | ⊖1Pk Max | | | | | |
| | 20 dBm— | | | M1[1] | -19.47 dBm 2.40207960 GHz | |
| | 20 UBIII- | | | | | |

| -30 dBm | | | | | | | | W reenshirtha | hun Mur Tra |
|---|--|--------------|-------------|-----------|----|------------------|--|---------------|-------------|
| -40 dBm | | | | | | | | W-manufrathy | www.www.ww |
| -40 dBm | - Martin And | A-Wrape w | | | | | | Whankingh | mar Mar Joy |
| -20 dBm -30 dBm -740 dBm -40 dBm | - Martin | J-Antrapa co | | | | | and and an and a start of the s | Wynnymyl | mar Ing |
| -30 dBm | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | 1. Malaco | | | | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | Wyogonghowsky | www.uu |
| -20 d8m | melina | A Malan | | | | | "HIMMAN AN | Mannahan | |
| | | | | | 1 | ማ ማበንንም አስተግራ ሌላ | No | 1 | 1 |
| -20 dBm | | | 1. A. n. Aw | hundhanan | M1 | lose e e e e | | | |
| -10 dBm | | | | | | | | | |
| | | | | | | | | | |
| 0 dBm | | | | | | | | | |
| 10 dBm | | | | | | | | | |













| ondition | Mode | Frequency (MHz) | Antenna | Max PSD | (dBm/3kHz) | Limit (dBm/3k | |
|----------|--|---|-------------------------------|----------|------------|------------------|-------|
| NVNT | BLE | 2402 | Ant 1 | -2 | 0.332 | 8 | Pass |
| NVNT | BLE | 2440 | Ant 1 | | 1.364 | 8 | Pass |
| NVNT | BLE | 2480 | Ant 1 | | 2.588 | 8 | Pass |
| | Att | el 27.62 dBm Offset 7.62 dl 40 dB SWT 632 µ 1000/1000 | 3 • RBW 3 kH 5 • VBW 10 kH | M1 | 1] | 2.402081 | |
| | -50 dBm- -60 dBm- -70 dBm- CF 2.402 | | 10 | 01 pts | | Span 1.02 | 9 MH2 |
| | | PSI | O NVNT BL | E 2440MH | lz Ant1 | | |
| | | | | | | | |





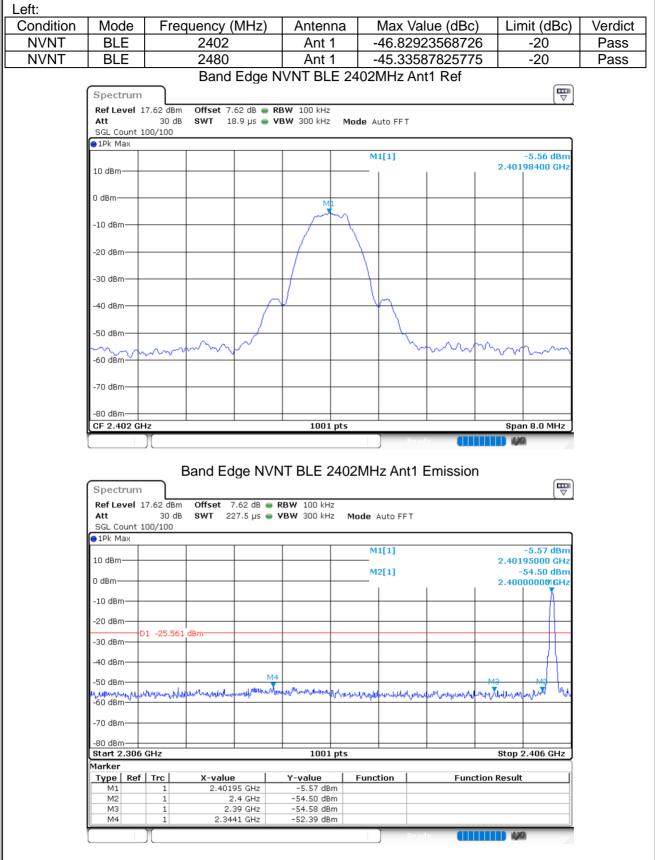
Report No.: S19061903201002

| Att 40 SGL Count 1000/10 | | 632 µs 👄 VE | 3W 10 kHz | Mode Au | to FFT | | | | |
|---|-------------------------------------|--------------------------------------|------------------------|---------|------------------|------------|------------------|---|--|
| ∋1Pk Max | | 1 | I | | | | | 04.05 JD | |
| 20 dBm | | | | | 1[1] | | | 21.36 dBm 08620 GHz | |
| | | | | | | | | | |
| 10 dBm | | | | | | | | | |
| 0 dBm | | | | | | | | | |
| -10 dBm | | | | | | | | | |
| | | | | | | | | | |
| -20 dBm | | L D D Da | manhand | M1 | almon work of | | | | |
| -30 dBm | mound | house the me in | -0-0HD040- | | an alwa Istara a | Monowing | 1 - And March of | man Mar War | |
| manululum | | | | | | | 00 | marken | |
| -40 dBm | | | | | | | | | |
| -50 dBm | | | | | | | | | |
| -60 dBm | _ | | | | | | | | |
| | | | | | | | | | |
| -70 dBm | | | 1001 | pts | | | Span : | L.065 MHz | |
| CF 2.44 GHz | | | | | | | | | |
| | Bm Offset | PSD NV 7.60 dB ● R 32.2 µs ● V | BW 3 kHz | | | ý (| | | |
| | Bm Offset dB SWT 6 | | BW 3 kHz | | | | | - /// | |
| Spectrum Ref Level 27.60 d Att 40 SGL Count 1000/10 1Pk Max | Bm Offset dB SWT 6 | 7.60 dB 👄 R | BW 3 kHz | Mode A | | | | (₩) 22.59 dBm | |
| Spectrum Ref Level 27.60 d Att 40 SGL Count 1000/10 1Pk Max | Bm Offset dB SWT 6 | 7.60 dB 👄 R | BW 3 kHz | Mode A | uto FFT | | | - () () () () () () () () () () () () () | |
| Spectrum Ref Level 27.60 d Att 40 SGL Count 1000/10 PIPK Max 20 dBm | Bm Offset dB SWT 6 | 7.60 dB 👄 R | BW 3 kHz | Mode A | uto FFT | | | (₩) 22.59 dBm | |
| Spectrum Ref Level 27.60 d Att 40 SGL Count 1000/10 1Pk Max 20 dBm 10 dBm | Bm Offset dB SWT 6 | 7.60 dB 👄 R | BW 3 kHz | Mode A | uto FFT | | | (₩) 22.59 dBm | |
| Spectrum Ref Level 27.60 d Att 40 SGL Count 1000/10 1Pk Max 20 dBm 10 dBm 0 dBm 0 | Bm Offset dB SWT 6 | 7.60 dB 👄 R | BW 3 kHz | Mode A | uto FFT | | | (₩) 22.59 dBm | |
| Spectrum Ref Level 27.60 d Att 40 SGL Count 1000/10 PIPK Max 20 dBm 10 dBm -10 dBm | Bm Offset dB SWT 6 100 | 7.60 dB e R 32.2 µs e V | BW 3 kHz /BW 10 kHz | Mode A | uto FFT | | | (₩) 22.59 dBm | |
| Spectrum Ref Level 27.60 d Att 40 SGL Count 1000/10 PIPK Max 20 dBm 10 dBm -10 dBm | Bm Offset dB SWT 6 100 | 7.60 dB e R 32.2 µs e V | BW 3 kHz /BW 10 kHz | Mode A | uto FFT | | 2.480 | 22.59 dBm 08020 GHz | |
| Spectrum Ref Level 27.60 d Att 40 SGL Count 1000/10 PIPK Max 20 dBm 10 dBm -10 dBm | Bm Offset dB SWT 6 100 | 7.60 dB e R 32.2 µs e V | BW 3 kHz /BW 10 kHz | Mode A | uto FFT | | 2.480 | 22.59 dBm 08020 GHz | |
| Spectrum Ref Level 27.60 d Att 40 SGL Count 1000/10 PIPK Max 20 dBm 10 dBm -10 dBm | Bm Offset dB SWT 6 100 | 7.60 dB e R 32.2 µs e V | BW 3 kHz /BW 10 kHz | Mode A | uto FFT | | 2.480 | 22.59 dBm 08020 GHz | |
| Spectrum Ref Level 27.60 d Att 40 SGL Count 1000/10 PIPk Max 20 dBm 10 dBm -10 dBm | Bm Offset dB SWT 6 100 | 7.60 dB e R 32.2 µs e V | BW 3 kHz /BW 10 kHz | Mode A | uto FFT | | 2.480 | (₩) 22.59 dBm | |
| Spectrum Ref Level 27.60 d Att 40 SGL Count 1000/10 1Pk Max 20 dBm 10 dBm 0 dBm 0 | Bm Offset dB SWT 6 100 | 7.60 dB e R 32.2 µs e V | BW 3 kHz /BW 10 kHz | Mode A | uto FFT | | 2.480 | 22.59 dBm 08020 GHz | |
| Spectrum Ref Level 27.60 d Att 40 SGL Count 1Pk Max 20 dBm 10 10 dBm -0 -10 dBm | Bm Offset dB SWT 6 100 | 7.60 dB e R 32.2 µs e V | BW 3 kHz /BW 10 kHz | Mode A | uto FFT | | 2.480 | 22.59 dBm 08020 GHz | |
| Spectrum Ref Level 27.60 d Att 40 SGL Count 1Pk Max 20 dBm 10 10 dBm -0 -10 dBm | Bm Offset dB SWT 6 100 | 7.60 dB e R 32.2 µs e V | BW 3 kHz /BW 10 kHz | Mode A | uto FFT | | 2.480 | 22.59 dBm 08020 GHz | |
| Spectrum Ref Level 27.60 d Att 40 SGL Count 1000/10 PIPK Max 20 dBm 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -40 dBm | Bm Offset dB SWT 6 100 | 7.60 dB e R 32.2 µs e V | BW 3 kHz /BW 10 kHz | | uto FFT | | 2.480 | 22.59 dBm 08020 GHz | |



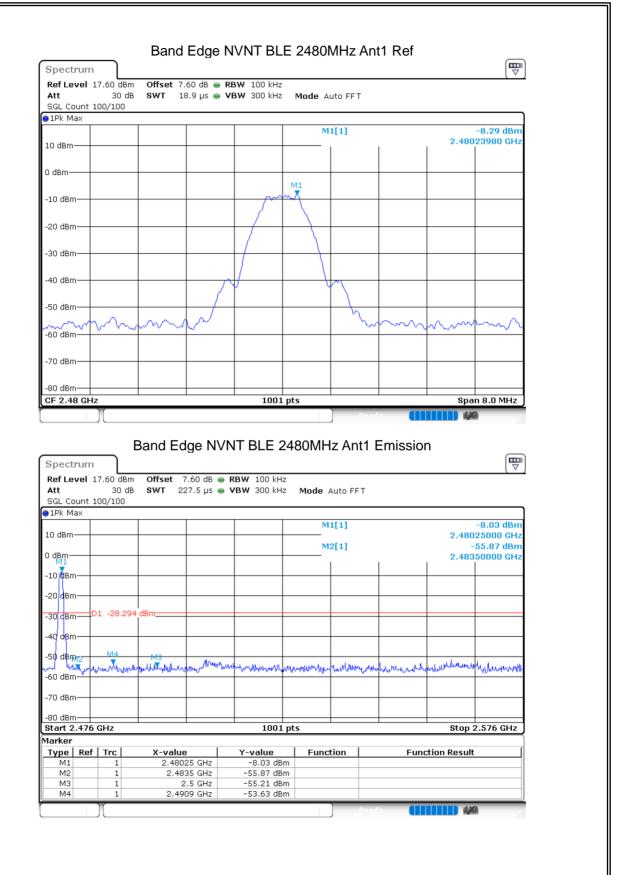


8.5 BAND EDGE











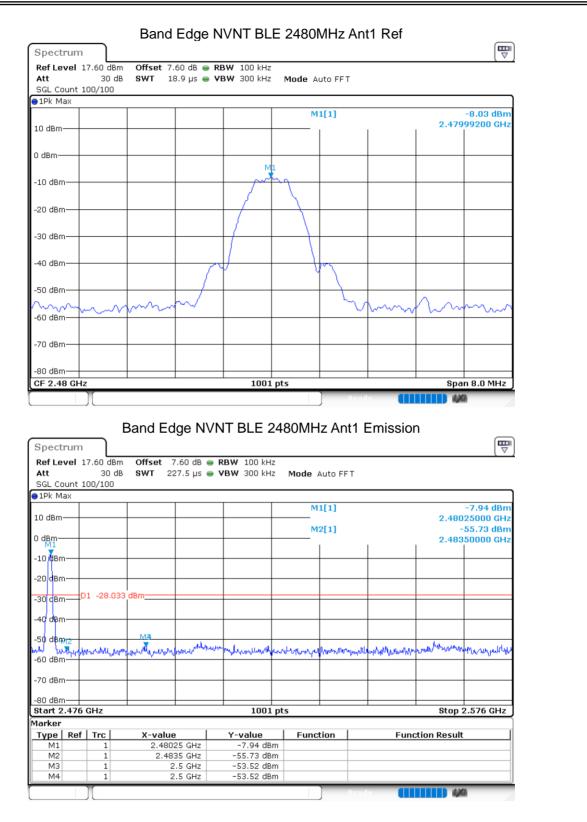
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| on | Mode | ⊢re | equency (MHz) | Antenna | Max V | /alue (dBc) | Limit (dBc) | Verd |
|----|--|-------------------------------|--|--|---------------------------------|--|---|------|
| Г | BLE | | 2402 | Ant 1 | | 345565033 | -20 | Pas |
| Т | BLE | | 2480 | Ant 1 | | 671867371 | -20 | Pas |
| | | | | NVNT BLE 2 | | | | |
| | Spectrur | | | | | | | |
| | Ref Level | | m Offset 7.62 dB 👄 | RBW 100 kHz | | | (∨) | |
| | Att | 30 d | IB SWT 18.9 μs 🖷 | | lode Auto FFT | | | |
| | SGL Count | 100/100 | | | | | | |
| | TEK MIGA | | | | M1[1] | | -5.59 dBm | |
| | 10 dBm | | | | | | 2.40175220 GHz | |
| | | | | | | | | |
| | 0 dBm | | | M1 | | | | |
| | 10 10- | | | - Kon | | | | |
| | -10 dBm— | | | | | | | |
| | -20 dBm | | | | | | | |
| | | | | | | | | |
| | -30 dBm— | | | | \rightarrow | | | |
| | | | | | | | | |
| | -40 dBm— | | | ~γ | -42 | | | |
| | | | | | | | | |
| | -50 dBm | | nm. | | | 1.0.000 | | |
| | -60 dBm- | \sim | m i m | | | www. | ~~~~~ | |
| | | | | | | | | |
| | -70 dBm— | | | | | | | |
| | | | | | | | | |
| | -80 dBm- | <u> </u> | | | | | | |
| | CF 2.402 (| | | 1001 ptc | | | Pease 0.0 MUs | |
| | | | Band Edge N | 1001 pts | R | adv (1111) 1 Emission | Span 8.0 MHz | |
| | Spectrur Ref Level | n 17.62 dB | | VNT BLE 240 |)2MHz Ant | | Span 8.0 MHz | |
| | Ref Level Att | n 17.62 dB 30 d | m Offset 7.62 dB (| VNT BLE 240 |)2MHz Ant | | | |
| | Ref Level | n 17.62 dB 30 d | m Offset 7.62 dB (| VNT BLE 240 |)2MHz Ant | | | |
| | Ref Level Att SGL Count 1Pk Max | n 17.62 dB 30 d | m Offset 7.62 dB (| VNT BLE 240 |)2MHz Ant | | -6.19 dBm | |
| | Ref Level Att SGL Count | n 17.62 dB 30 d | m Offset 7.62 dB (| VNT BLE 240 | 02MHz Ant Mode Auto FFT | | -6.19 dBm 2.40195000 GHz | |
| | Ref Level Att SGL Count 1Pk Max | n 17.62 dB 30 d | m Offset 7.62 dB (| VNT BLE 240 | 02MHz Ant? Mode Auto FFT | | -6.19 dBm | |
| | Ref Level Att SGL Count 1Pk Max | n 17.62 dB 30 d | m Offset 7.62 dB (| VNT BLE 240 | 02MHz Ant? Mode Auto FFT | | -6.19 dBm 2.40195000 GHz -52.23 dBm | |
| | Ref Level Att SGL Count 1Pk Max 10 dBm | n 17.62 dB 30 d | m Offset 7.62 dB (| VNT BLE 240 | 02MHz Ant? Mode Auto FFT | | -6.19 dBm 2.40195000 GHz -52.23 dBm | |
| | Ref Level Att SGL Count 1Pk Max 10 dBm | n 17.62 dB 30 d | m Offset 7.62 dB (B SWT 227.5 μs (| VNT BLE 240 | 02MHz Ant? Mode Auto FFT | | -6.19 dBm 2.40195000 GHz -52.23 dBm | |
| | Ref Level Att SGL Count 1Pk Max 10 dBm | n17.62 dB30 d | m Offset 7.62 dB (B SWT 227.5 μs (| VNT BLE 240 | 02MHz Ant? Mode Auto FFT | | -6.19 dBm 2.40195000 GHz -52.23 dBm | |
| | Ref Level Att SGL Count 1Pk Max 10 dBm | n17.62 dB30 d | m Offset 7.62 dB (B SWT 227.5 μs (| VNT BLE 240 | 02MHz Ant? Mode Auto FFT | | -6.19 dBm 2.40195000 GHz -52.23 dBm | |
| | Ref Level Att SGL Count ● 1Pk Max 10 dBm | 0 17.62 dB 30 c 100/100 | m Offset 7.62 dB (B SWT 227.5 μs (| VNT BLE 240 | 02MHz Ant Mode Auto FFT | | -6.19 dBm 2.40195000 GHz -52.23 dBm 2.40000000 GHz | |
| | Ref Level Att SGL Count ● 1Pk Max 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -40 dBm -50 dBm | 0 17.62 dB 30 c 100/100 | m Offset 7.62 dB (B SWT 227.5 μs (| VNT BLE 240 | 02MHz Ant Mode Auto FFT | | -6.19 dBm 2.40195000 GHz -52.23 dBm 2.40000000,GHz | |
| | Ref Level Att SGL Count ● 1Pk Max 10 dBm | 0 17.62 dB 30 c 100/100 | m Offset 7.62 dB (B SWT 227.5 μs (| VNT BLE 240 | 02MHz Ant Mode Auto FFT | | -6.19 dBm 2.40195000 GHz -52.23 dBm 2.40000000 GHz | |
| | Ref Level Att SGL Count ● 1Pk Max 10 dBm -10 dBm -20 dBm -30 dBm -30 dBm -40 dBm -50 dBm | 0 17.62 dB 30 c 100/100 | m Offset 7.62 dB (B SWT 227.5 μs (| VNT BLE 240 | 02MHz Ant Mode Auto FFT | | -6.19 dBm 2.40195000 GHz -52.23 dBm 2.40000000 GHz | |
| | Ref Level Att SGL Count ● 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm | 0 17.62 dB 30 c 100/100 | m Offset 7.62 dB (B SWT 227.5 μs (| VNT BLE 240 | 02MHz Ant Mode Auto FFT | | -6.19 dBm 2.40195000 GHz -52.23 dBm 2.40000000 GHz | |
| | Ref Level Att SGL Count ● 1Pk Max 10 dBm -10 dBm -20 dBm -20 dBm -30 dBm -30 dBm -50 dBm -70 dBm -70 dBm -70 dBm -70 dBm -80 dBm | D1 -25.5 | m Offset 7.62 dB (B SWT 227.5 μs (| VNT BLE 240 | 2004 Auto FFT | | -6.19 dBm 2.40195000 GHz -52.23 dBm 2.40000000 GHz | |
| | Ref Level Att SGL Count ● 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -50 dBm -70 dBm -80 dBm Btart 2.30 | 17.62 dB 30 c 100/100 | m Offset 7.62 dB (B SWT 227.5 μs (| VNT BLE 240 | D2MHz Ant* | Although and a second and a sec | -6.19 dBm 2.40195000 GHz -52.23 dBm 2.40000000 GHz -52.23 dBm 2.40000000 GHz -52.23 dBm 2.40000000 GHz -52.23 dBm 2.4000000 GHz -52.23 dBm 2.400 GHz | |
| | Ref Level Att SGL Count ● 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -50 dBm -70 dBm -80 dBm Btart 2.30 | D1 -25.5 | m Offset 7.62 dB (B SWT 227.5 μs (| VNT BLE 240 | 2004 Auto FFT | | -6.19 dBm 2.40195000 GHz -52.23 dBm 2.40000000 GHz -52.23 dBm 2.40000000 GHz -52.23 dBm 2.40000000 GHz -52.23 dBm 2.4000000 GHz -52.23 dBm 2.400 GHz | |
| | Ref Level Att SGL Count ● 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -70 dBm -70 dBm -80 dBm Start 2.30 Marker Type M1 | D1 -25.5 | m Offset 7.62 dB B SWT 227.5 μs SWT 227.5 μs SS dBm | VNT BLE 240 RBW 100 kHz VBW 300 kHz VBW 300 kHz M4 M4 M4 M4 M4 M4 M4 M4 M4 M4 | D2MHz Ant* | Although and a second and a sec | -6.19 dBm 2.40195000 GHz -52.23 dBm 2.40000000 GHz -52.23 dBm 2.40000000 GHz -52.23 dBm 2.40000000 GHz -52.23 dBm 2.4000000 GHz -52.23 dBm 2.400 GHz | |
| | Ref Level Att SGL Count ● 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm -80 dBm Start 2.30 Marker Type M1 | 17.62 dB 30 c 100/100 | m Offset 7.62 dB B SWT 227.5 μs SWT 227.5 μs SGBm SGBm SGBm SGBm SGBm SGBm SGBm SGBm | VNT BLE 240 | D2MHz Ant* | Although and a second and a sec | -6.19 dBm 2.40195000 GHz -52.23 dBm 2.40000000 GHz -52.23 dBm 2.40000000 GHz -52.23 dBm 2.40000000 GHz -52.23 dBm 2.4000000 GHz -52.23 dBm 2.400 GHz | |

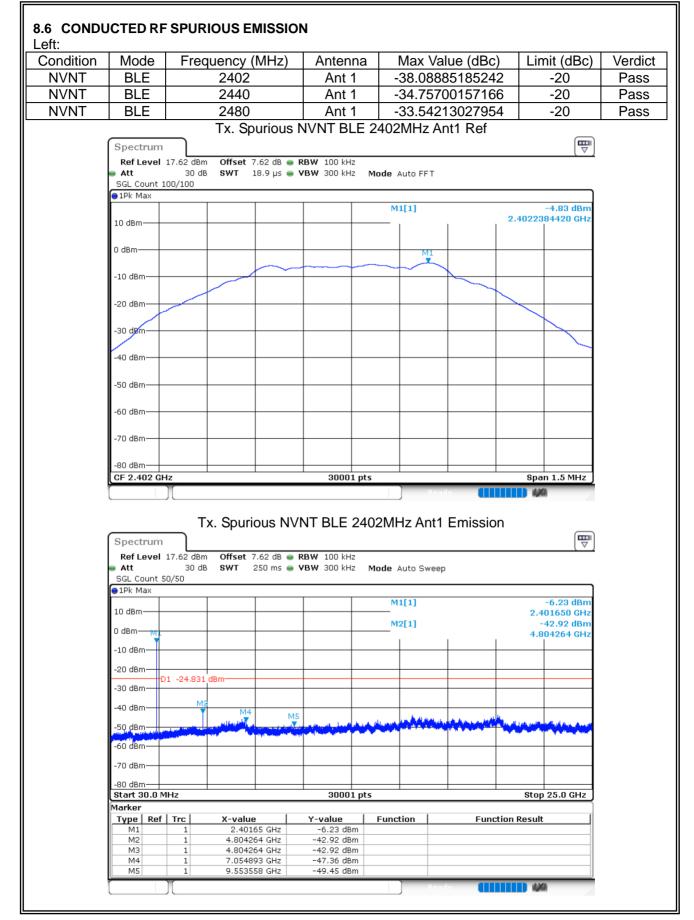






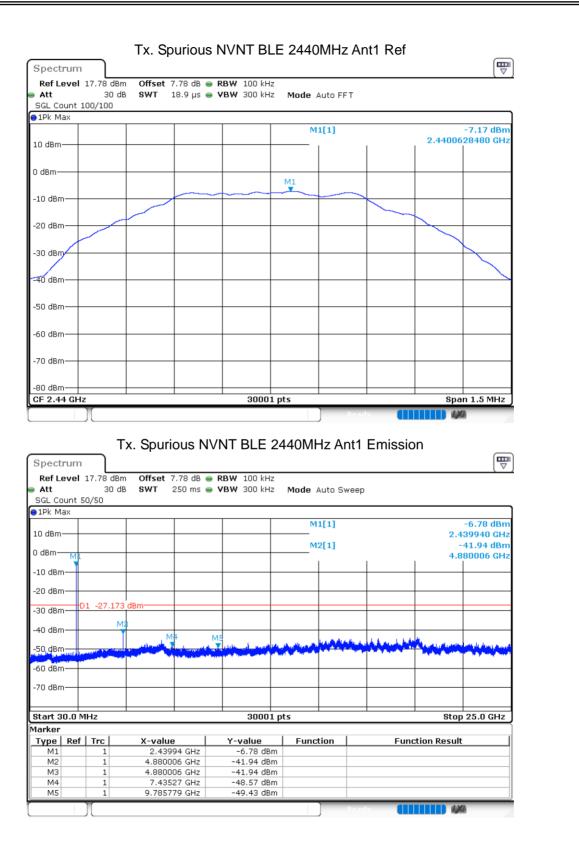






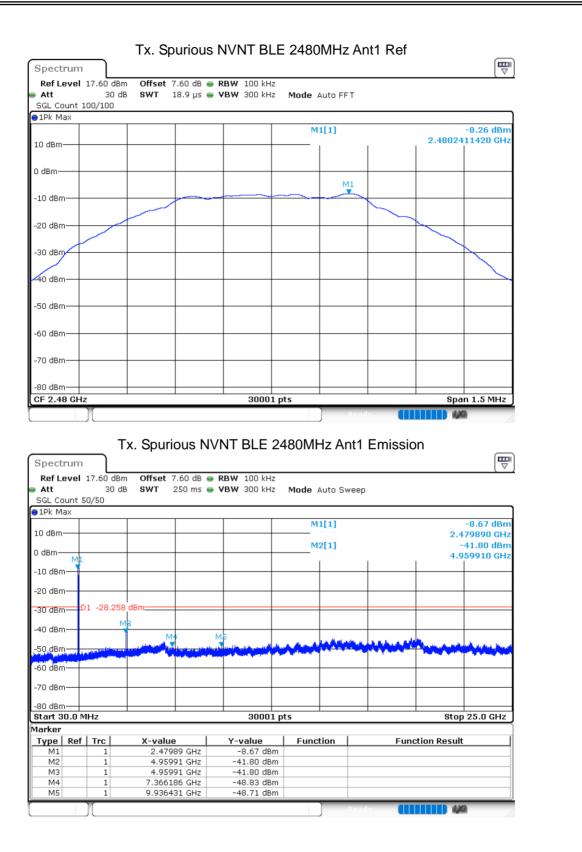






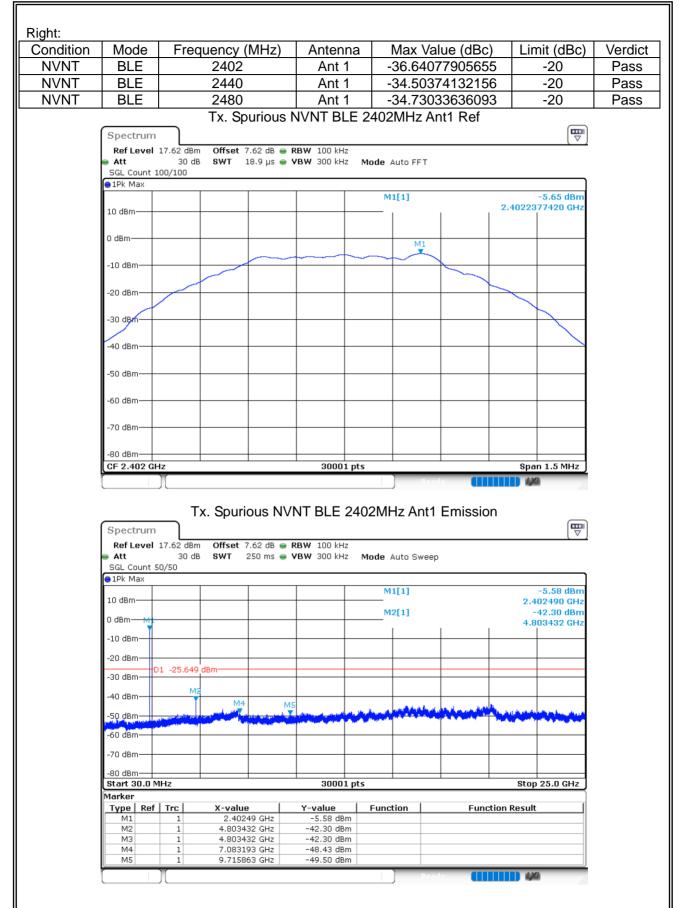






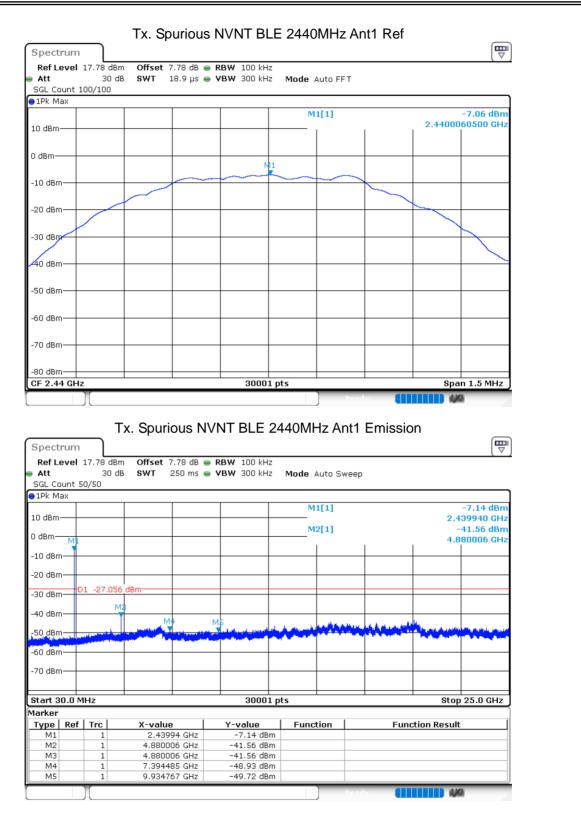






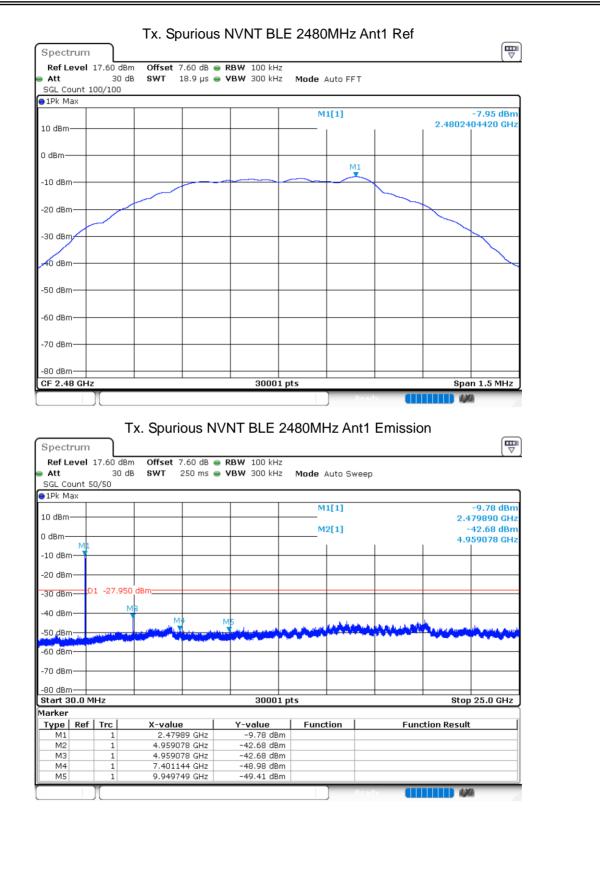












END OF REPORT