


| | | | | |
|--|--|---|---|--|
| Prüfbericht-Nr.: <i>Test Report No.:</i> | 17051282 001 | Auftrags-Nr.: <i>Order No.:</i> | 164041262 | Seite 1 von 70 <i>Page 1 of 70</i> |
| Kunden-Referenz-Nr.: <i>Client Reference No.:</i> | 466337 | Auftragsdatum: <i>Order date.:</i> | 17.07.2015 | |
| Auftraggeber: <i>Client:</i> | Lightcomm Technology Co., Ltd. RM1708-10, 17/F, PROSPERITY CENTRE, 25 CHONG YIP STREET, KWUN TONG, HONG KONG | | | |
| Prüfgegenstand: <i>Test item:</i> | Bluetooth Stereo Speaker with Power bank | | | |
| Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i> | BTD01A-A, NS-SPBTBRICK-R, NS-SPBTBRICK-CS, NS-SPBTBRICK-C, NS-SPBTBRICK-SB | | | |
| Auftrags-Inhalt: <i>Order content:</i> | FCC/IC Certification and Verification | | | |
| Prüfgrundlage: <i>Test specification:</i> | CFR47 FCC Part 15: Subpart C Section 15.247 CFR47 FCC Part 15: Subpart C Section 15.207 CFR47 FCC Part 15: Subpart C Section 15.209 CFR47 FCC Part 15: Subpart C Section 15.107 CFR47 FCC Part 15: Subpart C Section 15.109 FCC KDB Publication 447498 D01 v05r02 | RSS-247 Issue 1 May 2015 RSS-Gen Issue 4 November 2014 ICES-003 Issue 5 August 2012 RSS-102 Issue 5 March 2015 | | |
| Wareneingangsdatum: <i>Date of receipt:</i> | 19.07.2015 |  | | |
| Prüfmuster-Nr.: <i>Test sample No.:</i> | A000228680-001 A000228680-002 | | | |
| Prüfzeitraum: <i>Testing period:</i> | 19.07.2015 - 22.07.2015 | | | |
| Ort der Prüfung: <i>Place of testing:</i> | Shenzhen Emtek Co., Ltd. | | | |
| Prüflaboratorium: <i>Testing laboratory:</i> | TÜV Rheinland (Shenzhen) Co., Ltd. | | | |
| Prüfergebnis*: <i>Test result*:</i> | Pass | | | |
| geprüft von / tested by: | | kontrolliert von / reviewed by: | | |
| 12.08.2015 | Ryan Yang / Senior Project Engineer | 20.08.2015 | Sam Lin / Technical Certifier | |
| <i>Datum</i> <i>Date</i> | <i>Name/Stellung</i> <i>Name/Position</i> | <i>Unterschrift</i> <i>Signature</i> | <i>Datum</i> <i>Date</i> | <i>Name/Stellung</i> <i>Name/Position</i> |
| Sonstiges / Other: | | | | |
| This test report is for approval of 2.4G band operation. FCC ID: XMF-BTD01 Application NO.: BTD01A-A, NS-SPBTBRICK-R, NS-SPBTBRICK-CS, NS-SPBTBRICK-C, NS-SPBTBRICK-SB IC: 20064-BTD01 Application NO.: NS-SPBTBRICK-R, NS-SPBTBRICK-CS, NS-SPBTBRICK-C, NS-SPBTBRICK-SB | | | | |
| Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i> | | Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged:</i> | | |
| * Legende: | 1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n) | 2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n) | 3 = befriedigend N/A = nicht anwendbar | 4 = ausreichend N/T = nicht getestet |
| Legend: | 1 = very good P(ass) = passed a.m. test specifications(s) | 2 = good F(ail) = failed a.m. test specifications(s) | 3 = satisfactory N/A = not applicable | 4 = sufficient N/T = not tested |
| Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i> | | | | |

V04

Test Summary

5.1.1 ANTENNA REQUIREMENT*RESULT: Pass***5.1.2 PEAK CONDUCTED OUTPUT POWER***RESULT: Pass***5.1.3 CONDUCTED POWER SPECTRAL DENSITY***RESULT: Pass***5.1.4 6dB BANDWIDTH***RESULT: Pass***5.1.5 99% BANDWIDTH***RESULT: Pass***5.1.6 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHz BANDWIDTH***RESULT: Pass***5.1.7 RADIATED SPURIOUS EMISSION***RESULT: Pass***5.1.8 20dB BANDWIDTH***RESULT: Pass***5.1.9 CARRIER FREQUENCY SEPARATION***RESULT: Pass***5.1.10 NUMBER OF HOPPING FREQUENCY***RESULT: Pass***5.1.11 TIME OF OCCUPANCY***RESULT: Pass***5.1.12 CONDUCTED EMISSIONS***RESULT: Pass***5.1.13 RADIATED EMISSION***RESULT: Pass***6.1.1 ELECTROMAGNETIC FIELDS***RESULT: Pass*

Contents

| | | |
|---------------|--|-----------|
| 1 | GENERAL REMARKS | 5 |
| 1.1 | COMPLEMENTARY MATERIALS | 5 |
| 2 | TEST SITES | 5 |
| 2.1 | TEST FACILITIES | 5 |
| 2.2 | LIST OF TEST AND MEASUREMENT INSTRUMENTS | 6 |
| 2.3 | TRACEABILITY..... | 7 |
| 2.4 | CALIBRATION..... | 7 |
| 2.5 | MEASUREMENT UNCERTAINTY..... | 7 |
| 2.6 | LOCATION OF ORIGINAL DATA..... | 7 |
| 2.7 | STATUS OF FACILITY USED FOR TESTING | 7 |
| 3 | GENERAL PRODUCT INFORMATION..... | 8 |
| 3.1 | PRODUCT FUNCTION AND INTENDED USE | 8 |
| 3.2 | RATINGS AND SYSTEM DETAILS | 8 |
| 3.3 | INDEPENDENT OPERATION MODES | 10 |
| 3.4 | NOISE GENERATING AND NOISE SUPPRESSING PARTS | 10 |
| 3.5 | SUBMITTED DOCUMENTS | 10 |
| 4 | TEST SET-UP AND OPERATION MODES..... | 11 |
| 4.1 | PRINCIPLE OF CONFIGURATION SELECTION..... | 11 |
| 4.2 | TEST OPERATION AND TEST SOFTWARE | 11 |
| 4.3 | SPECIAL ACCESSORIES AND AUXILIARY EQUIPMENT | 11 |
| 4.4 | COUNTERMEASURES TO ACHIEVE EMC COMPLIANCE | 11 |
| 4.5 | TEST SETUP DIAGRAM..... | 12 |
| 5 | TEST RESULTS | 14 |
| 5.1 | TRANSMITTER REQUIREMENT & TEST SUITES..... | 14 |
| <i>5.1.1</i> | <i>Antenna Requirement.....</i> | <i>14</i> |
| <i>5.1.2</i> | <i>Peak Conducted Output Power.....</i> | <i>15</i> |
| <i>5.1.3</i> | <i>Conducted Power Spectral Density.....</i> | <i>22</i> |
| <i>5.1.4</i> | <i>6dB Bandwidth.....</i> | <i>25</i> |
| <i>5.1.5</i> | <i>99% Bandwidth.....</i> | <i>28</i> |
| <i>5.1.6</i> | <i>Conducted Spurious Emissions Measured in 100 kHz Bandwidth.....</i> | <i>34</i> |
| <i>5.1.7</i> | <i>Radiated Spurious Emission.....</i> | <i>43</i> |
| <i>5.1.8</i> | <i>20dB Bandwidth.....</i> | <i>44</i> |
| <i>5.1.9</i> | <i>Carrier Frequency Separation.....</i> | <i>48</i> |
| <i>5.1.10</i> | <i>Number of Hopping Frequency</i> | <i>51</i> |
| <i>5.1.11</i> | <i>Time of Occupancy.....</i> | <i>53</i> |
| <i>5.1.12</i> | <i>Conducted Emissions</i> | <i>64</i> |

| | | |
|---------------|--|-----------|
| <i>5.1.13</i> | <i>Radiated Emission</i> | 65 |
| 6 | SAFETY HUMAN EXPOSURE | 66 |
| 6.1 | RADIO FREQUENCY EXPOSURE COMPLIANCE | 66 |
| <i>6.1.1</i> | <i>Electromagnetic Fields</i> | 66 |
| 7 | PHOTOGRAPHS OF THE TEST SET-UP | 67 |
| 8 | LIST OF TABLES | 70 |
| 9 | LIST OF PHOTOGRAPHS | 70 |

1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix 1: Test result

2 Test Sites

2.1 Test Facilities

Shenzhen Emtek Co., Ltd.

Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, China

FCC Registration No.: 406365

Test site Industry Canada No.: 4480A-4

The tests at the test sites have been conducted under the supervision of a TÜV engineer.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Shenzhen Emtek Co., Ltd.

| Radio Spectrum Test | | | | |
|--|---------------------|------------------|-------------------------|-------------------|
| Equipment | Manufacturer | Model No. | Serial No. | Cal. Until |
| Spectrum Analyzer | R&S | FSV40 | 132.1-3008K39-100967-AP | 17.05.2016 |
| Spectrum Analyzer | Agilent | E4407B | 88156318 | 17.05.2016 |
| Spectrum Analyzer | Agilent | N9010A | My53470879 | 17.05.2016 |
| Conducted Emissions | | | | |
| Equipment | Manufacturer | Model No. | Serial No. | Cal. Until |
| Test Receiver | R&S | ESCI | 26115-010-0027 | 17.05.2016 |
| L.I.S.N. | R&S | ENV216 | 101161 | 17.05.2016 |
| 50Ω Coaxial Switch | Anritsu | MP59B | 6100175589 | 17.05.2016 |
| Voltage Probe | R&S | ESH2-Z3 | 100122 | 17.05.2016 |
| Spurious Emission & Radiated Emission | | | | |
| Equipment | Manufacturer | Model No. | Serial No. | Cal. Until |
| EMI Test Receiver | R&S | ESU | 1302.6005.26 | 17.05.2016 |
| Loop Antenna | Schwarzbeck | FMZB 1519 | 1519-012 | 17.05.2016 |
| Pre-Amplifier | HP | 8447F | 2944A07999 | 17.05.2016 |
| Bilog Antenna | Schwarzbeck | VULB9163 | 142 | 17.05.2016 |
| Pre-Amplifier | A.H. | PAM-0126 | 1415261 | 17.05.2016 |
| Horn Antenna | Schwarzbeck | BBHA 9120 | 707 | 17.05.2016 |
| Horn Antenna | Schwarzbeck | BBHA 9170 | BBHA9170399 | 17.05.2016 |
| Cable | N/A | 3M SF104-26.5 | 295838/4 | 17.05.2016 |
| Cable | N/A | 6M SF104-26.5 | 295840/4 | 17.05.2016 |
| Cable | Schwarzbeck | AK9513 | ACRX1 | 17.05.2016 |
| Cable | Rosenberger | N/A | FP2RX2 | 17.05.2016 |
| Cable | Schwarzbeck | AK9513 | CRPX1 | 17.05.2016 |
| Cable | Schwarzbeck | AK9513 | CRRX2 | 17.05.2016 |
| Cable | H+B | 0.5M SF104-26.5 | 289147/4 | 17.05.2016 |
| Cable | H+B | 3M SF104-26.5 | 295838/4 | 17.05.2016 |
| Cable | H+B | 6M SF104-26.5 | 295840/4 | 17.05.2016 |

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

| Parameter | Uncertainty |
|------------------------|-------------|
| Radio Spectrum | ± 1.0 dB |
| All emission, radiated | ± 3.0 dB |
| Conducted Emission | ± 2.0 dB |
| Radiated Emission | ± 2.0 dB |
| Antenna Port Emission | ± 3.0 dB |
| Temperature | ± 0.5 °C |
| Humidity | ± 3.0 % |

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix 1 of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

Shenzhen Emtek Co., Ltd. Test facility located at Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3 General Product Information

3.1 Product Function and Intended Use

The EUT is a "Bluetooth Speaker" with Bluetooth 4.0 dual mode, which is intended to enable Bluetooth connectivity with Notebook or smart phone, and play the music from Bluetooth device.

According to the declaration of the applicant, the electrical circuit design, PCB layout, components used and internal structure are identical for all models, only difference being the model No. and appearance.

Refer to User Manual for further details.

3.2 Ratings and System Details

Table 2: Technical Specification of EUT

| Technical Specification | Value | |
|---------------------------|--|--|
| Product Name | Bluetooth Stereo Speaker with Power bank | |
| Model Number | BTD01A-A, NS-SPBTBRICK-R, NS-SPBTBRICK-CS, NS-SPBTBRICK-C, NS-SPBTBRICK-SB | |
| Operating Frequency | 2402-2480MHz | |
| Extreme Temperature Range | -20°C ~ +55°C | |
| Operation Voltage | DC 5.0V | From USB for charging |
| | DC 3.7V | From Internal rechargeable lithium battery |
| Modulation | BDR mode | GFSK |
| | EDR mode | $\pi/4$ DQPSK, 8DPSK |
| | Low Energy mode | GFSK |
| Number of Channel | BDR & EDR mode:79 channels; | Low Energy mode:40 channels |
| Channel Spacing | BDR & EDR mode: 1MHz; | Low Energy mode: 2MHz; |
| Bluetooth Version | Bluetooth 4.0 (dual mode) | |
| Antenna Type and Gain | PCB Antenna, 0 dBi | |

Table 3: RF Channel and Frequency of Bluetooth

| RF Channel | Frequency (MHz) | RF Channel | Frequency (MHz) | RF Channel | Frequency (MHz) | RF Channel | Frequency (MHz) |
|------------|-----------------|------------|-----------------|------------|-----------------|------------|-----------------|
| 00 | 2402.00 | 20 | 2422.00 | 40 | 2442.00 | 60 | 2462.00 |
| 01 | 2403.00 | 21 | 2423.00 | 41 | 2443.00 | 61 | 2463.00 |
| 02 | 2404.00 | 22 | 2424.00 | 42 | 2444.00 | 62 | 2464.00 |
| 03 | 2405.00 | 23 | 2425.00 | 43 | 2445.00 | 63 | 2465.00 |
| 04 | 2406.00 | 24 | 2426.00 | 44 | 2446.00 | 64 | 2466.00 |
| 05 | 2407.00 | 25 | 2427.00 | 45 | 2447.00 | 65 | 2467.00 |
| 06 | 2408.00 | 26 | 2428.00 | 46 | 2448.00 | 66 | 2468.00 |
| 07 | 2409.00 | 27 | 2429.00 | 47 | 2449.00 | 67 | 2469.00 |
| 08 | 2410.00 | 28 | 2430.00 | 48 | 2450.00 | 68 | 2470.00 |
| 09 | 2411.00 | 29 | 2431.00 | 49 | 2451.00 | 69 | 2471.00 |
| 10 | 2412.00 | 30 | 2432.00 | 50 | 2452.00 | 70 | 2472.00 |
| 11 | 2413.00 | 31 | 2433.00 | 51 | 2453.00 | 71 | 2473.00 |
| 12 | 2414.00 | 32 | 2434.00 | 52 | 2454.00 | 72 | 2474.00 |
| 13 | 2415.00 | 33 | 2435.00 | 53 | 2455.00 | 73 | 2475.00 |
| 14 | 2416.00 | 34 | 2436.00 | 54 | 2456.00 | 74 | 2476.00 |
| 15 | 2417.00 | 35 | 2437.00 | 55 | 2457.00 | 75 | 2477.00 |
| 16 | 2418.00 | 36 | 2438.00 | 56 | 2458.00 | 76 | 2478.00 |
| 17 | 2419.00 | 37 | 2439.00 | 57 | 2459.00 | 77 | 2479.00 |
| 18 | 2420.00 | 38 | 2440.00 | 58 | 2460.00 | 78 | 2480.00 |
| 19 | 2421.00 | 39 | 2441.00 | 59 | 2461.00 | / | / |

Table 4: RF Channel and Frequency of Bluetooth Low Energy

| RF Channel | Frequency (MHz) | RF Channel | Frequency (MHz) | RF Channel | Frequency (MHz) | RF Channel | Frequency (MHz) |
|------------|-----------------|------------|-----------------|------------|-----------------|------------|-----------------|
| 00 | 2402.00 | 10 | 2424.00 | 20 | 2444.00 | 30 | 2464.00 |
| 01 | 2404.00 | 11 | 2426.00 | 21 | 2446.00 | 31 | 2466.00 |
| 02 | 2406.00 | 12 | 2428.00 | 22 | 2448.00 | 32 | 2468.00 |
| 03 | 2408.00 | 13 | 2430.00 | 23 | 2450.00 | 33 | 2470.00 |
| 04 | 2410.00 | 14 | 2432.00 | 24 | 2452.00 | 34 | 2472.00 |
| 05 | 2412.00 | 15 | 2434.00 | 25 | 2454.00 | 35 | 2474.00 |
| 06 | 2414.00 | 16 | 2436.00 | 26 | 2456.00 | 36 | 2476.00 |
| 07 | 2416.00 | 17 | 2438.00 | 27 | 2458.00 | 37 | 2478.00 |
| 08 | 2418.00 | 18 | 2440.00 | 28 | 2460.00 | 38 | 2480.00 |
| 09 | 2420.00 | 19 | 2442.00 | 29 | 2462.00 | 39 | 2464.00 |

3.3 Independent Operation Modes

The basic operation modes are:

- A. On,
 - 1. Bluetooth mode (BDR & EDR mode)
 - a. Transmitting
 - 1) Low Channel
 - 2) Middle Channel
 - 3) High Channel
 - b. Receiving
 - 2. Bluetooth mode (Low Energy mode)
 - a. Transmitting
 - 1) Low Channel
 - 2) Middle Channel
 - 3) High Channel
 - b. Receiving
- B. On, Transmitting on Hopping channel
- C. On, Bluetooth connecting mode
- D. AUX input
- E. Charging
- F. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- | | |
|---------------------------|----------------------|
| - Model Difference Letter | - User Manual |
| - Circuit Diagram | - Block Diagram |
| - PCB Layout | - Instruction Manual |
| - Bill of Material | - Rating Label |
| - Operation Description | - Photo Document |
| - FCC label and location | - Application form |

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its maximum power level.

The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.10: 2013 and ANSI C63.4: 2014

According to clause 3.1, all tests were performed on model **BTD01A-A** in this report.

4.3 Special Accessories and Auxiliary Equipment

The EUT was tested together with the following accessories:

| Description | Manufacturer | Part No. | S/N |
|---------------|--------------|--------------|---------------------|
| PC | LENOVO | 9702 | 100-240Vac, 50/60Hz |
| LCD Monitor | LENOVO | 9227-AE6 | 100-240Vac, 50/60Hz |
| Keyboard | LENOVO | KU-0225 | USB Operated |
| Mouse | LENOVO | MO28UOL | USB Operated |
| AC/DC Adapter | HUONIU | HNEB050200EU | 100-240Vac, 50/60Hz |

4.4 Countermeasures to Achieve EMC Compliance

Additional countermeasures to the submitted test sample(s) for Radiated Emission were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

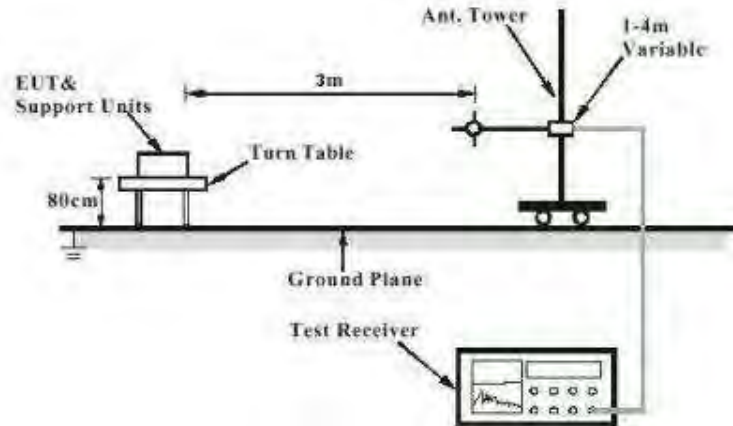


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

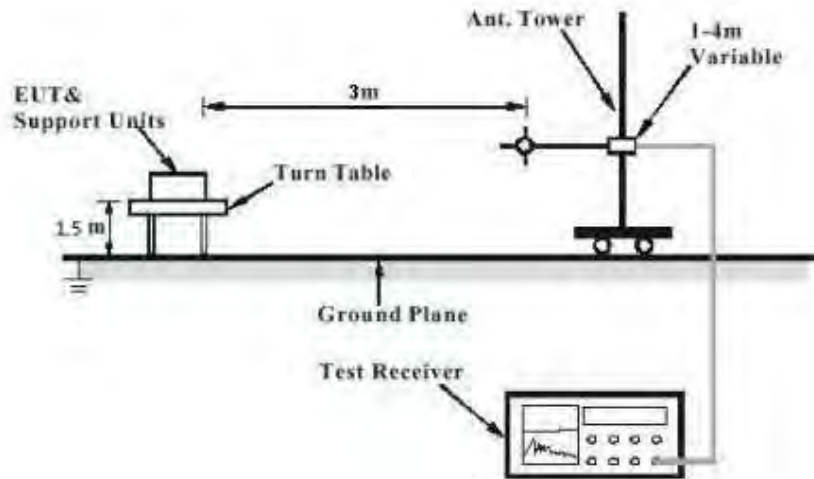


Diagram of Measurement Configuration for Mains Conduction Measurement

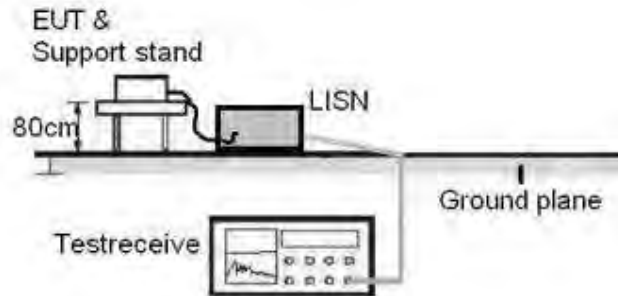
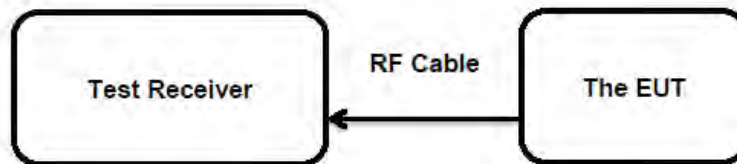


Diagram of Measurement Configuration for Conducted Transmitter Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT: **Pass**

Test Specification

Test standard : FCC Part 15.247(b)(4) and Part 15.203
RSS-Gen 6.7

Limits : the use of antennas with directional gains that do not
exceed 6dBi

According to the manufacturer declared, the EUT has an internal antenna, the directional gain of antenna is 0 dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

Therefore the EUT is considered sufficient to comply with the provision.

5.1.2 Peak Conducted Output Power

RESULT:**Pass****Test Specification**

| | |
|-------------------|--|
| Test standard | : FCC Part 15.247(b)(1)&(3) RSS-247 Clause 5.4(2)&(4) |
| Basic standard | : ANSI C63.10: 2013 |
| Limits | : BDR & EDR: 0.125 Watts Low Energy: 1.0 Watts |
| Kind of test site | : Shielded Room |

Test Setup

| | |
|----------------------|--|
| Date of testing | : 23.07.2015 |
| Input voltage | : AC 120V, 60Hz via AC input of Notebook |
| Operation mode | : A.1.a, A.2.a (see 3.3) |
| Test channel | : Low / Middle/ High |
| Ambient temperature | : 25°C |
| Relative humidity | : 56% |
| Atmospheric pressure | : 101 kPa |

Table 5: Test Result of Peak Conducted Output Power, BDR

| Channel | Channel Frequency (MHz) | Peak Output Power | | Limit (W) |
|----------------|-------------------------|-------------------|---------|-----------|
| | | (dBm) | (W) | |
| Low Channel | 2402 | 3.128 | 0.00205 | 0.125 |
| Middle Channel | 2441 | 5.529 | 0.00357 | 0.125 |
| High Channel | 2480 | 6.286 | 0.00425 | 0.125 |

Table 6: Test Result of Peak Conducted Output Power, EDR

| Channel | Channel Frequency (MHz) | Peak Output Power | | Limit (W) |
|----------------|-------------------------|-------------------|---------|-----------|
| | | (dBm) | (W) | |
| Low Channel | 2402 | 1.381 | 0.00137 | 0.125 |
| Middle Channel | 2441 | 3.905 | 0.00246 | 0.125 |
| High Channel | 2480 | 4.781 | 0.00301 | 0.125 |

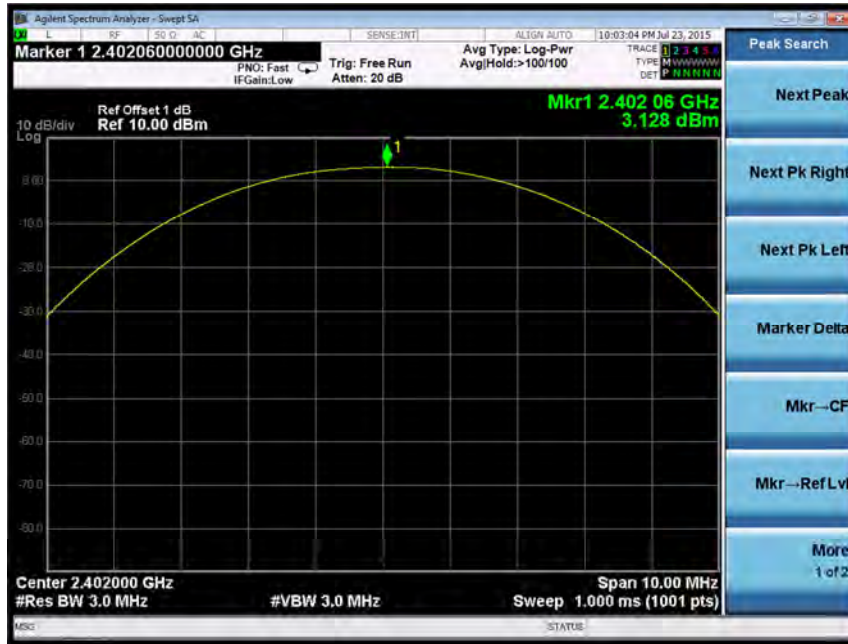
Table 7: Test Result of Peak Conducted Output Power, Low Energy

| Channel | Channel Frequency (MHz) | Peak Output Power | | Limit (W) |
|----------------|-------------------------|-------------------|---------|-----------|
| | | (dBm) | (W) | |
| Low Channel | 2402 | 5.085 | 0.00322 | 1.0 |
| Middle Channel | 2440 | 6.493 | 0.00446 | 1.0 |
| High Channel | 2480 | 7.160 | 0.00520 | 1.0 |

For the measurement records, refer to following test plot:

Test Plot of Peak Conducted Output Power, BDR

Low channel:



Middle channel:



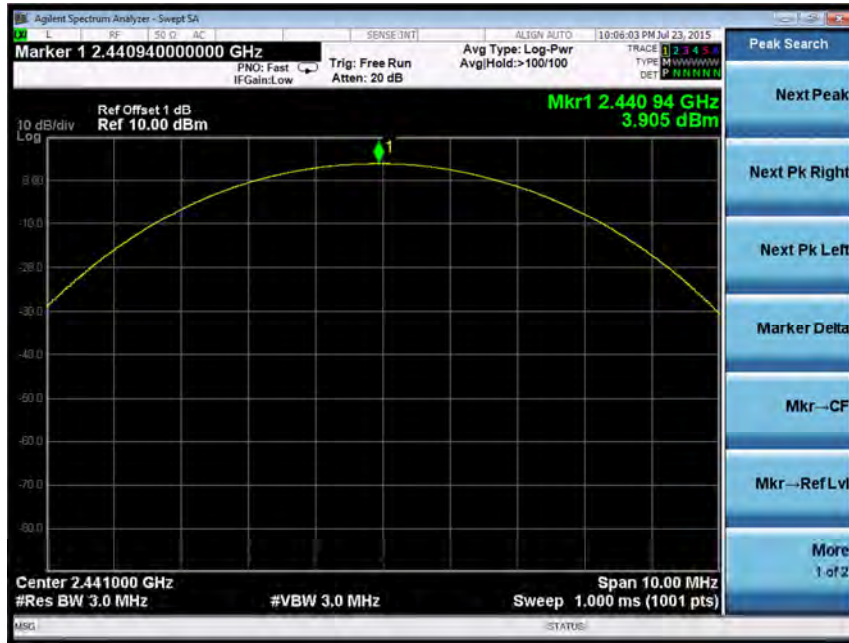
High channel:


Test Plot of Peak Conducted Output Power, EDR

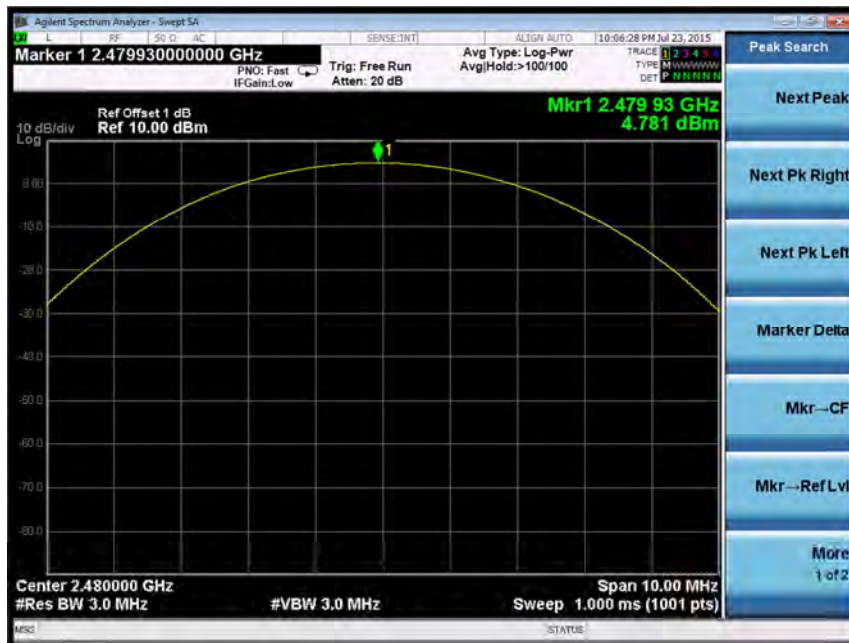
Low channel:



Middle channel:

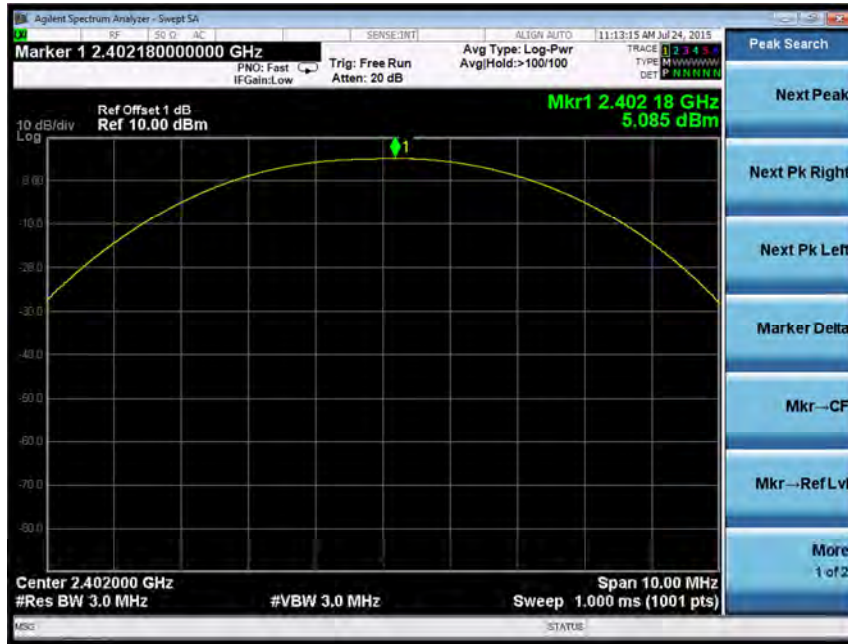


High channel:



Test Plot of Peak Conducted Output Power, Low Energy

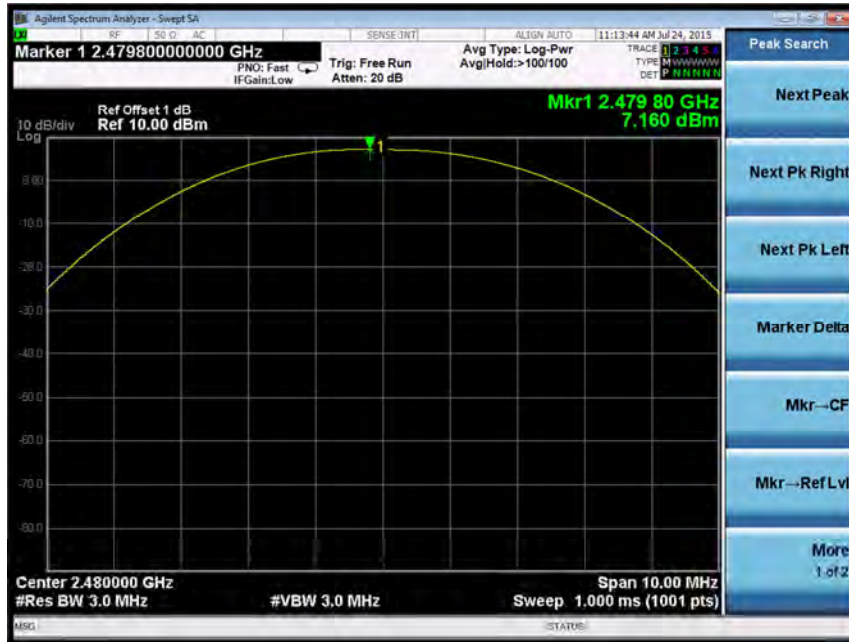
Low channel:



Middle channel:



High channel:



5.1.3 Conducted Power Spectral Density

RESULT:
Pass
Test Specification

Test standard : FCC Part 15.247(e)
 : RSS-247 Clause 5.2(2)
 Basic standard : ANSI C63.10: 2013
 Limits : 8 dBm/3kHz
 Kind of test site : Shielded Room

Test Setup

Date of testing : 24.07.2015
 Input voltage : AC 120V, 60Hz via AC input of Notebook
 Operation mode : A.2.a (see 3.3)
 Test channel : Low / Middle/ High
 Ambient temperature : 25°C
 Relative humidity : 56%
 Atmospheric pressure : 101 kPa

Table 8: Test Result of Power Spectral Density, Low Energy

| Channel | Channel Frequency (MHz) | Power Spectral Density (dBm/3kHz) | Limit (dBm/3kHz) |
|----------------|-------------------------|-----------------------------------|------------------|
| Low Channel | 2402 | -10.722 | 8.0 |
| Middle Channel | 2440 | -9.051 | 8.0 |
| High Channel | 2480 | -8.324 | 8.0 |

For the measurement records, refer to following test plot:

Test Plot of Power Spectral Density, Low Energy

Low channel:



Middle channel:



High channel:



5.1.4 6dB Bandwidth

RESULT:
Pass
Test Specification

Test standard : FCC Part 15.247(a)(2)
 RSS-247 Clause 5.2(1)

Basic standard : ANSI C63.10: 2013

Limits : More than 500 KHz

Kind of test site : Shielded Room

Test Setup

Date of testing : 24.07.2015

Input voltage : AC 120V, 60Hz via AC input of Notebook

Operation mode : A.2.a (see 3.3)

Test channel : Low / Middle/ High

Ambient temperature : 25°C

Relative humidity : 56%

Atmospheric pressure : 101 kPa

Table 9: Test Result of 6dB Bandwidth, Low Energy

| Channel | Channel Frequency (MHz) | -6dB Bandwidth (kHz) | Limit (kHz) | Result |
|----------------|-------------------------|----------------------|-------------|--------|
| Low Channel | 2402 | 697.6 | 500 | Pass |
| Middle Channel | 2440 | 699.5 | 500 | Pass |
| High Channel | 2480 | 695.4 | 500 | Pass |

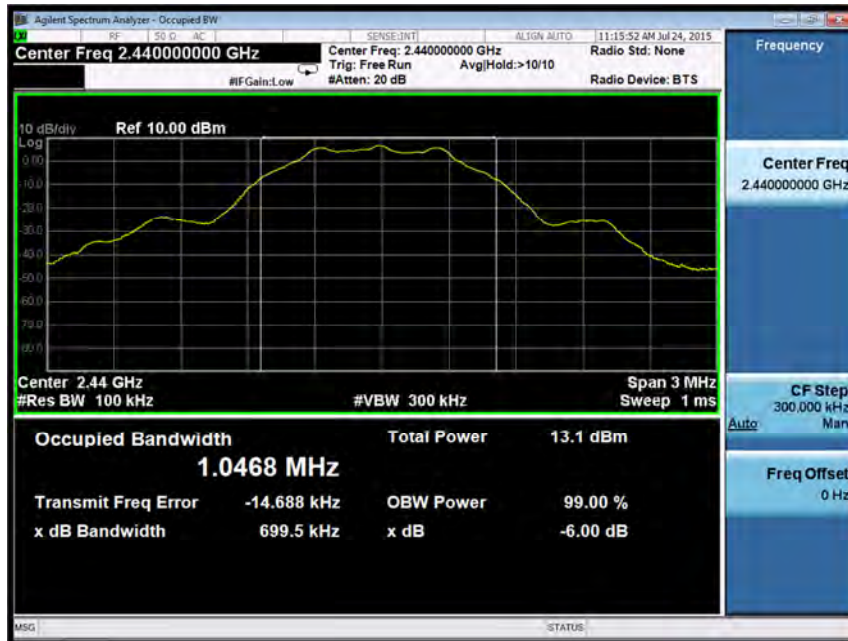
For the measurement records, refer to following test plot:

Test Plot of 6dB Bandwidth, Low Energy

Low channel:



Middle channel:



High channel:



5.1.5 99% Bandwidth

RESULT:
Pass
Test Specification

Test standard : RSS-Gen Clause 6.6
 Basic standard : ANSI C63.10: 2013
 Kind of test site : Shielded Room

Test Setup

Date of testing : 24.07.2015
 Input voltage : AC 120V, 60Hz via AC input of Notebook
 Operation mode : A.1.a , A.2.a (see 3.3)
 Test channel : Low / Middle/ High
 Ambient temperature : 25°C
 Relative humidity : 56%
 Atmospheric pressure : 101 kPa

Table 10: Test Result of 99% Bandwidth, BDR mode

| Channel | Channel Frequency (MHz) | 99% Bandwidth (kHz) | Limit (kHz) | Result |
|----------------|-------------------------|---------------------|-------------|--------|
| Low Channel | 2402 | 843.40 | / | Pass |
| Middle Channel | 2441 | 834.87 | / | Pass |
| High Channel | 2480 | 836.50 | / | Pass |

Table 11: Test Result of 99% Bandwidth, EDR mode

| Channel | Channel Frequency (MHz) | 99% Bandwidth (kHz) | Limit (kHz) | Result |
|----------------|-------------------------|---------------------|-------------|--------|
| Low Channel | 2402 | 1145.80 | / | Pass |
| Middle Channel | 2441 | 1141.10 | / | Pass |
| High Channel | 2480 | 1141.60 | / | Pass |

Table 12: Test Result of 99% Bandwidth, Low Energy

| Channel | Channel Frequency (MHz) | 99% Bandwidth (kHz) | Limit (kHz) | Result |
|----------------|-------------------------|---------------------|-------------|--------|
| Low Channel | 2402 | 1030.00 | / | Pass |
| Middle Channel | 2440 | 1025.20 | / | Pass |
| High Channel | 2480 | 1023.50 | / | Pass |

For the measurement records, refer to following test plot:

Test Plot of 99% Bandwidth, BDR

Low channel:



Middle channel:



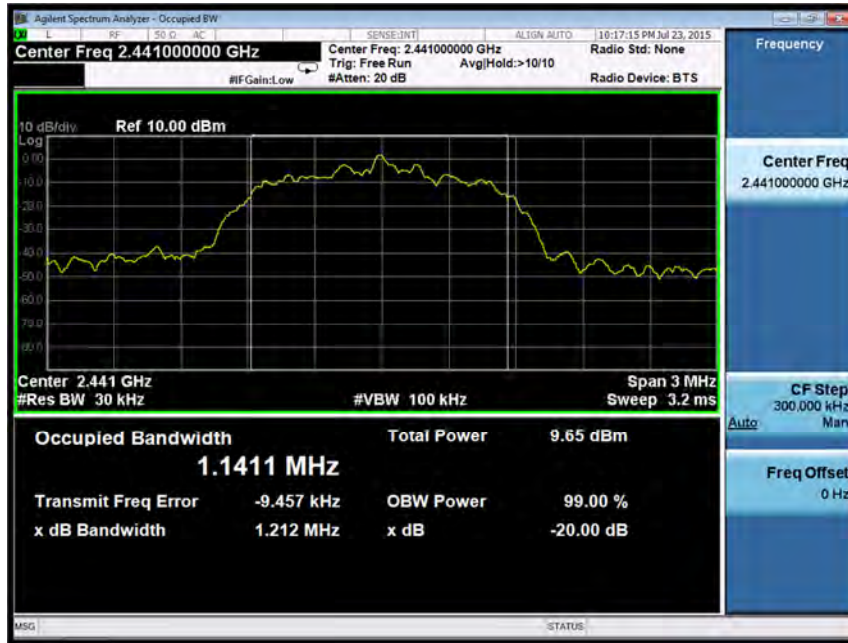
High channel:


Test Plot of 99% Bandwidth, EDR

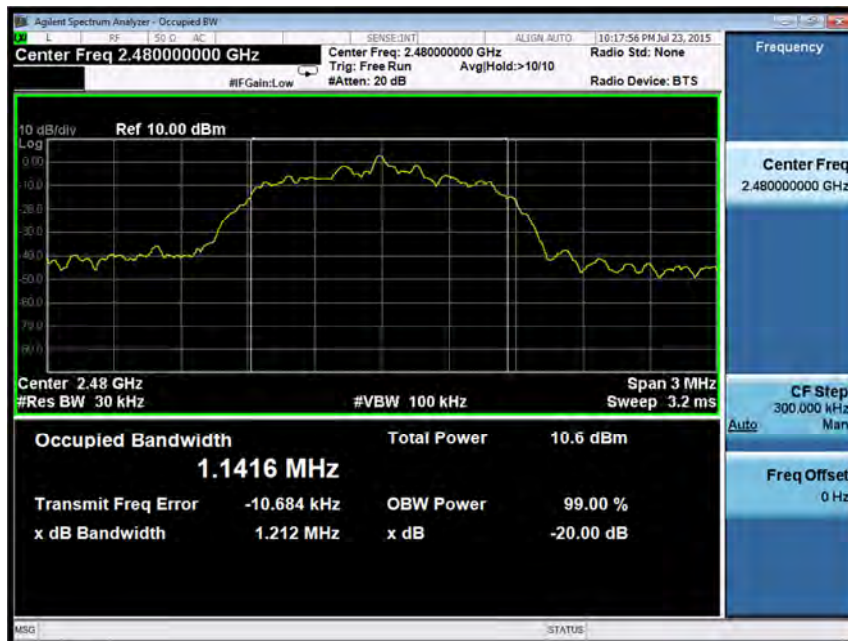
Low channel:



Middle channel:



High channel:



Test Plot of 99% Bandwidth, Low Energy

Low channel:



Middle channel:



High channel:



5.1.6 Conducted Spurious Emissions Measured in 100 kHz Bandwidth

RESULT: **Pass****Test Specification**

| | |
|-------------------|--|
| Test standard | : FCC Part 15.247(d) RSS-247 Clause 5.5 |
| Basic standard | : ANSI C63.10: 2013 |
| Limits | : 20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power); In addition, radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified in 15.209(a) |
| Kind of test site | : Shielded Room |

Test Setup

| | |
|----------------------|--|
| Date of testing | : 24.07.2015 |
| Input voltage | : AC 120V, 60Hz via AC input of Notebook |
| Operation mode | : A.1.a, A.2.a (see 3.3) |
| Test channel | : Low / Middle/ High |
| Ambient temperature | : 25°C |
| Relative humidity | : 56% |
| Atmospheric pressure | : 101 kPa |

All emissions are more than 20dB below fundamental, compliance is achieved as well.

For the measurement records, refer to following test plot:

Test Plot of Conducted spurious emissions measured in 100kHz Bandwidth of BDR mode

Low channel:



Middle channel:



High channel:

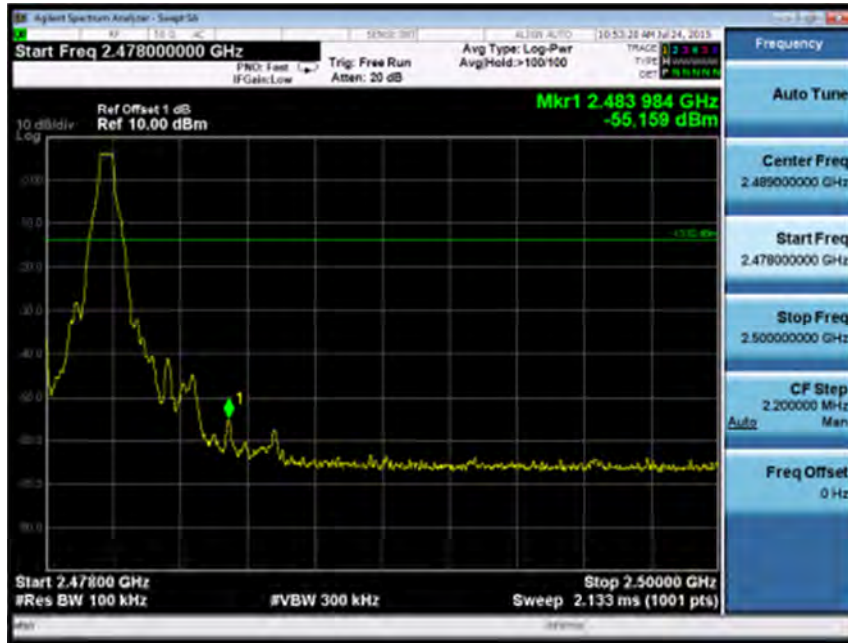


Test Plot of 100 kHz Bandwidth of Frequency Band Edge

Low channel:



High channel:


Test Plot of Conducted spurious emissions measured in 100kHz Bandwidth of EDR mode

Low channel:



Middle channel:



High channel:

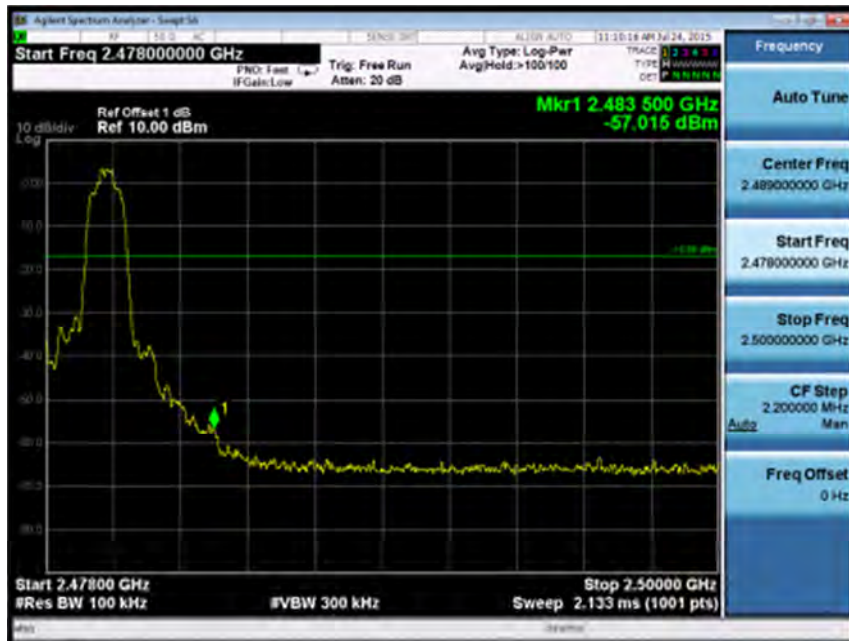


Test Plot of 100 kHz Bandwidth of Frequency Band Edge

Low channel:



High channel:



Test Plot of Conducted spurious emissions measured in 100kHz Bandwidth of Low Energy

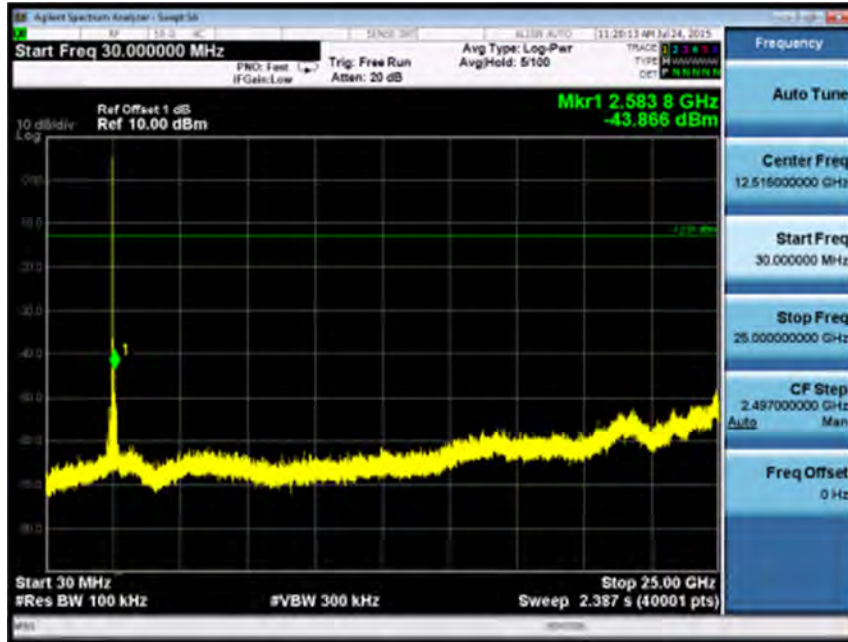
Low channel:



Middle channel:



High channel:



Test Plot of 100 kHz Bandwidth of Frequency Band Edge

Low channel:



High channel:



5.1.7 Radiated Spurious Emission

RESULT:**Pass****Test Specification**

| | |
|-------------------|---|
| Test standard | : FCC Part 15.247(d), FCC Part 15.205 RSS-247 Clause 5.5 |
| Basic standard | : ANSI C63.10: 2013 |
| Limits | : Refer to 15.209(a) of FCC part 15.247(d) RSS-Gen Table 4 |
| Kind of test site | : 3m Semi-anechoic chamber |

Test Setup

| | |
|----------------------|--|
| Date of testing | : 24.07.2015 |
| Input voltage | : AC 120V, 60Hz via AC input of Notebook |
| Operation mode | : A.1.a, A.2.a (see 3.3) |
| Test channel | : Low / Middle/ High |
| Ambient temperature | : 25°C |
| Relative humidity | : 56% |
| Atmospheric pressure | : 101 kPa |

Remark:

During the pretest the EUT was rotated through three orthogonal axes to determine the attitude that maximizes the emissions. After that the EUT was manually handled to find the orientation that has the maximum emission, which is the orientation shown in the test set-up photos.

Testing was carried out within frequency range 9kHz to the tenth harmonics.

For the measurement records, refer to the appendix 1.

5.1.8 20dB Bandwidth

RESULT:
Pass
Test Specification

Test standard : FCC Part 15.247(a)(1)
 RSS-247 Clause 5.1(1)

Basic standard : ANSI C63.10: 2013

Kind of test site : Shielded Room

Test Setup

Date of testing : 23.07.2015

Input voltage : AC 120V, 60Hz via AC input of Notebook

Operation mode : A.1.a (see 3.3)

Test channel : Low / Middle/ High

Ambient temperature : 25°C

Relative humidity : 56%

Atmospheric pressure : 101 kPa

Table 13: Test Result of 20dB Bandwidth, BDR mode

| Channel | Channel Frequency (MHz) | 20dB Bandwidth (kHz) | 2/3 of 20dB Bandwidth (kHz) | Limit (MHz) | Result |
|----------------|-------------------------|----------------------|-----------------------------|-------------|--------|
| Low Channel | 2402 | 843.40 | 562.267 | / | Pass |
| Middle Channel | 2441 | 834.87 | 556.580 | / | Pass |
| High Channel | 2480 | 836.50 | 557.667 | / | Pass |

Table 14: Test Result of 20dB Bandwidth, EDR mode

| Channel | Channel Frequency (MHz) | 20dB Bandwidth (kHz) | 2/3 of 20dB Bandwidth (kHz) | Limit (MHz) | Result |
|----------------|-------------------------|----------------------|-----------------------------|-------------|--------|
| Low Channel | 2402 | 1145.80 | 763.867 | / | Pass |
| Middle Channel | 2441 | 1141.11 | 760.740 | / | Pass |
| High Channel | 2480 | 1141.60 | 761.067 | / | Pass |

For the measurement records, refer to following test plot:

Test Plot of 20dB Bandwidth, BDR

Low channel:



Middle channel:



High channel:

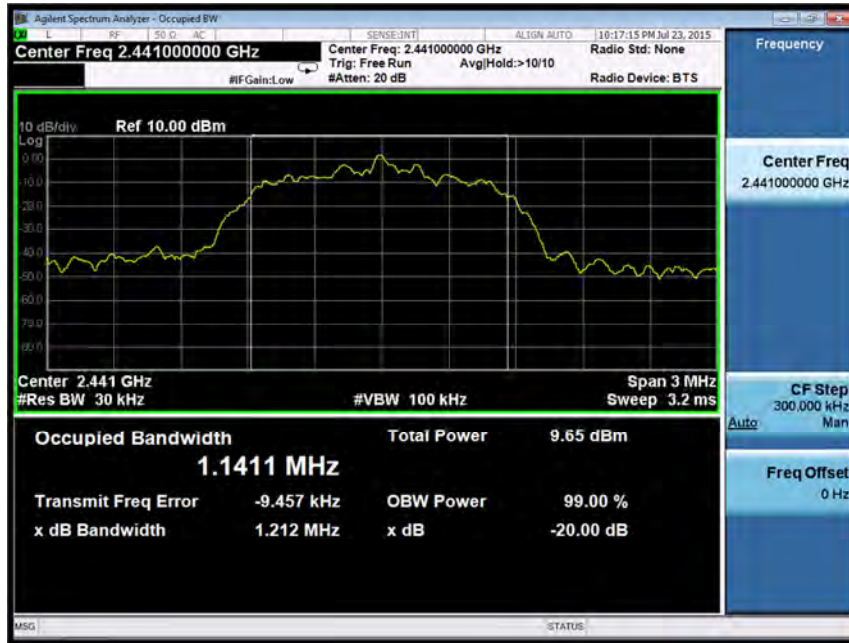


Test Plot of 20dB Bandwidth, EDR

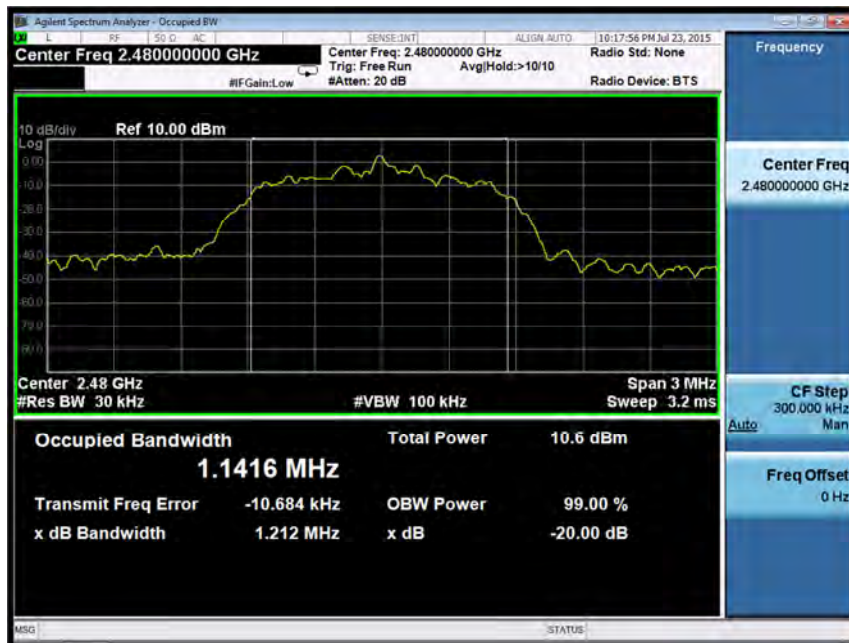
Low channel:



Middle channel:



High channel:

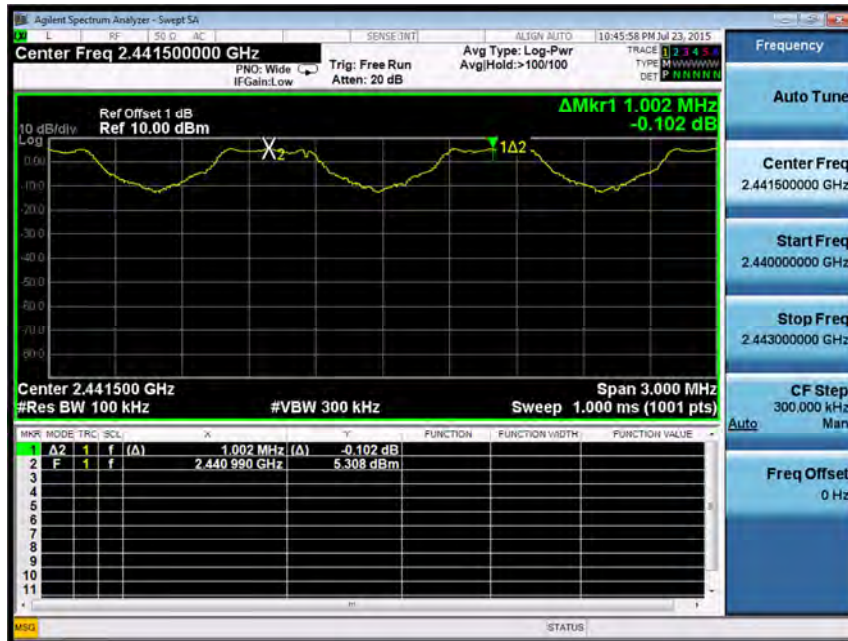


Test Plot of Carrier Frequency Separation

Low channel:



Middle channel:



5.1.10 Number of Hopping Frequency**RESULT:****Pass****Test Specification**

Test standard : FCC part 15.247(a)(1)(iii)
RSS-247 Clause 5.1(4)

Basic standard : ANSI C63.10: 2013

Limits : ≥ 15 non-overlapping channels

Kind of test site : Shielded Room

Test Setup

Date of testing : 22.07.2015

Input voltage : AC 120V, 60Hz via AC input of Notebook

Operation mode : B (see 3.3)

Ambient temperature : 25°C

Relative humidity : 56%

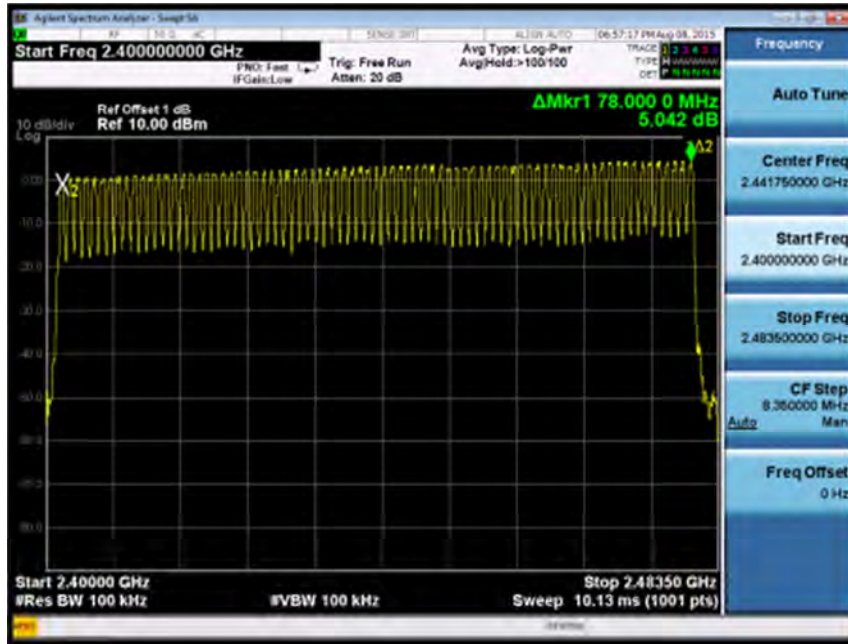
Atmospheric pressure : 101 kPa

Table 16: Test Result of Number of Hopping Frequency

| Frequency Range | Measured Quantity of Hopping Channel | Limit | Result |
|------------------|--------------------------------------|-----------|--------|
| 2402 to 2480 MHz | 79 | ≥ 15 | Pass |

For the measurement records, refer to following test plot:

Test Plot of Number of hopping frequency



5.1.11 Time of Occupancy**RESULT:****Pass****Test Specification**

Test standard : FCC part 15.247(a)(1)(iii)
RSS-247 Clause 5.1(4)

Basic standard : ANSI C63.10: 2013

Limits : 0.4s

Kind of test site : Shielded Room

Test Setup

Date of testing : 23.07.2015

Input voltage : AC 120V, 60Hz via AC input of Notebook

Test channel : Low / Middle/ High

Operation mode : A.1.a (see 3.3)

Ambient temperature : 25°C

Relative humidity : 56%

Atmospheric pressure : 101 kPa

Table 17: Test Result of Time of Occupancy, BDR mode

| Channel | Data Mode | Pulse width (ms) | Measured Dwell time(s) | Limit (s) | Result |
|----------------|-----------|------------------|------------------------|-----------|--------|
| Low Channel | DH1 | 0.420 | 0.134 | 0.4 | Pass |
| | DH3 | 1.680 | 0.269 | 0.4 | Pass |
| | DH5 | 2.930 | 0.313 | 0.4 | Pass |
| Middle Channel | DH1 | 0.424 | 0.136 | 0.4 | Pass |
| | DH3 | 1.680 | 0.269 | 0.4 | Pass |
| | DH5 | 2.930 | 0.313 | 0.4 | Pass |
| High Channel | DH1 | 0.424 | 0.136 | 0.4 | Pass |
| | DH3 | 1.680 | 0.269 | 0.4 | Pass |
| | DH5 | 2.930 | 0.313 | 0.4 | Pass |

Table 18: Test Result of Time of Occupancy, EDR mode

| Channel | Data Mode | Pulse width (ms) | Measured Dwell time (s) | Limit (s) | Result |
|----------------|-----------|------------------|-------------------------|-----------|--------|
| Low Channel | 3DH1 | 0.440 | 0.141 | 0.4 | Pass |
| | 3DH3 | 1.687 | 0.270 | 0.4 | Pass |
| | 3DH5 | 2.930 | 0.313 | 0.4 | Pass |
| Middle Channel | 3DH1 | 0.440 | 0.141 | 0.4 | Pass |
| | 3DH3 | 1.687 | 0.270 | 0.4 | Pass |
| | 3DH5 | 2.940 | 0.314 | 0.4 | Pass |
| High Channel | 3DH1 | 0.440 | 0.141 | 0.4 | Pass |
| | 3DH3 | 1.687 | 0.270 | 0.4 | Pass |
| | 3DH5 | 2.950 | 0.315 | 0.4 | Pass |

Note:

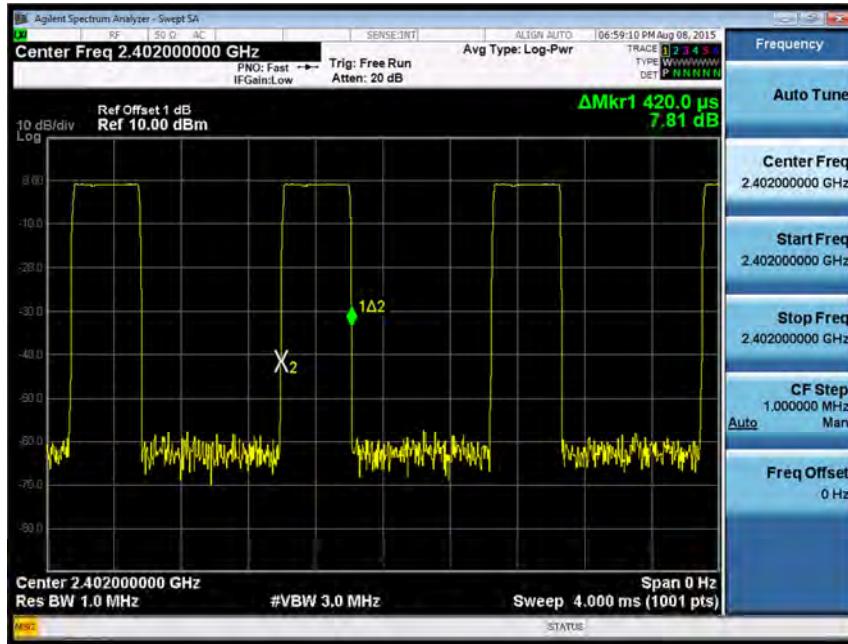
Dwell time = Pulse width x (Hopping rate / Number of channels) x Period

Period = 0.4 (seconds/ channel) x 79 (channel) = 31.6 seconds

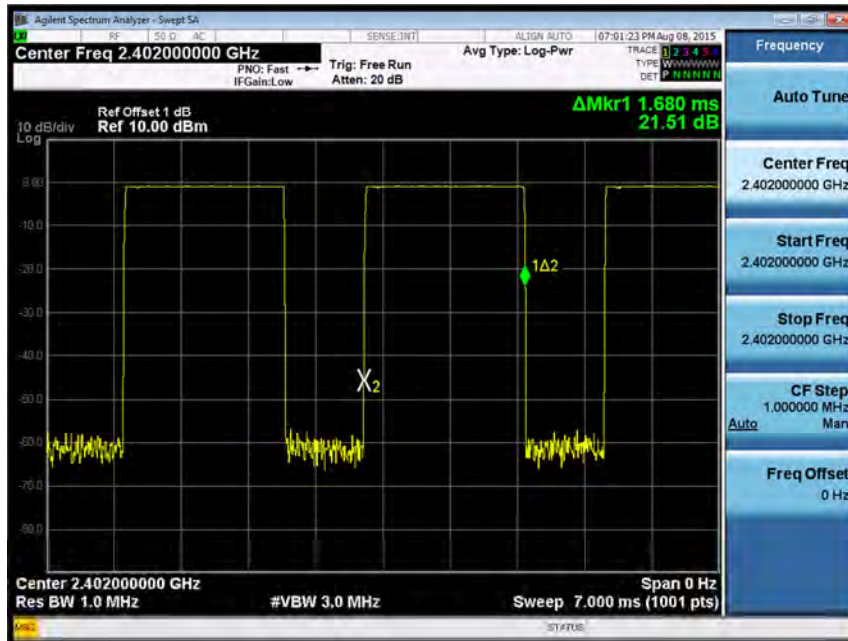
For the measurement records, refer to following test plot:

Test Plot of Time of Occupancy, BDR

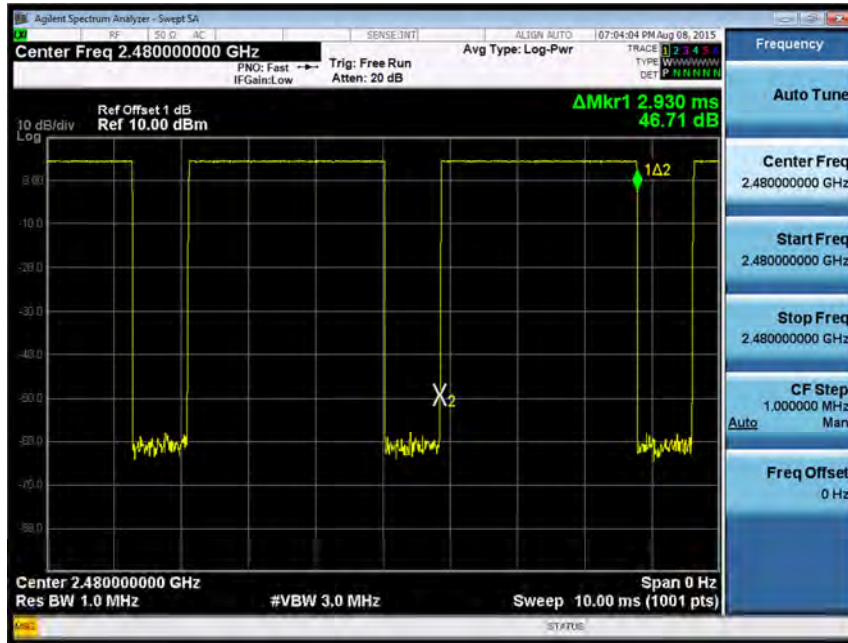
Low channel: DH1



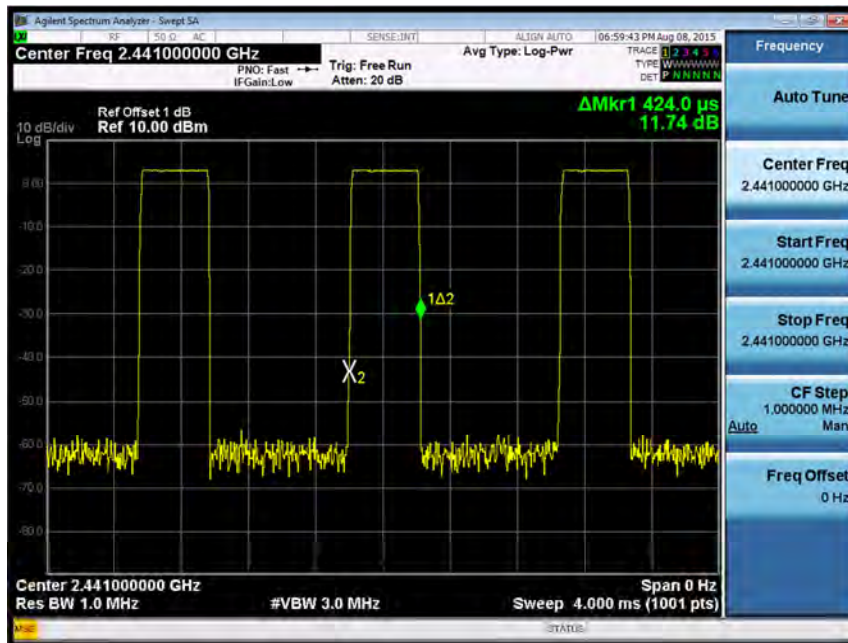
Low channel: DH3



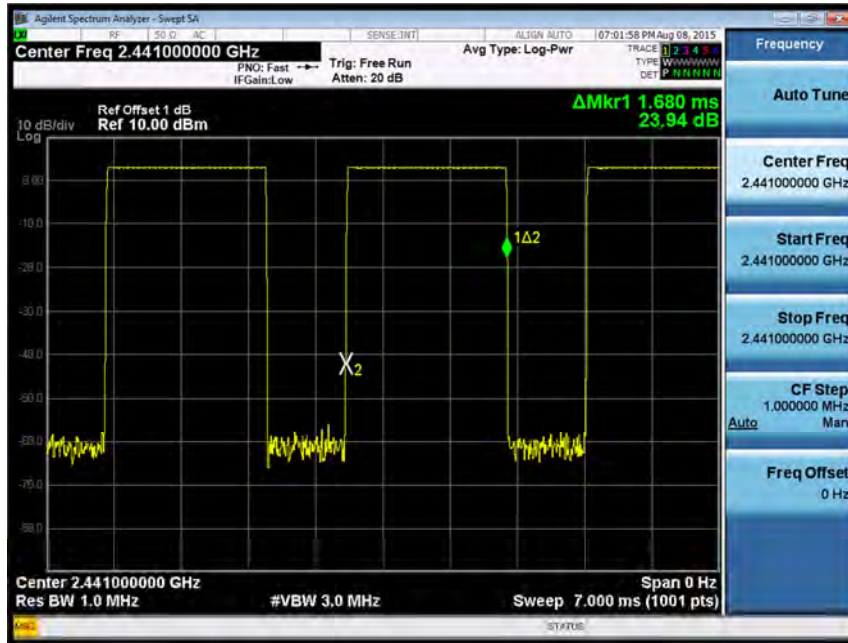
Low channel: DH5



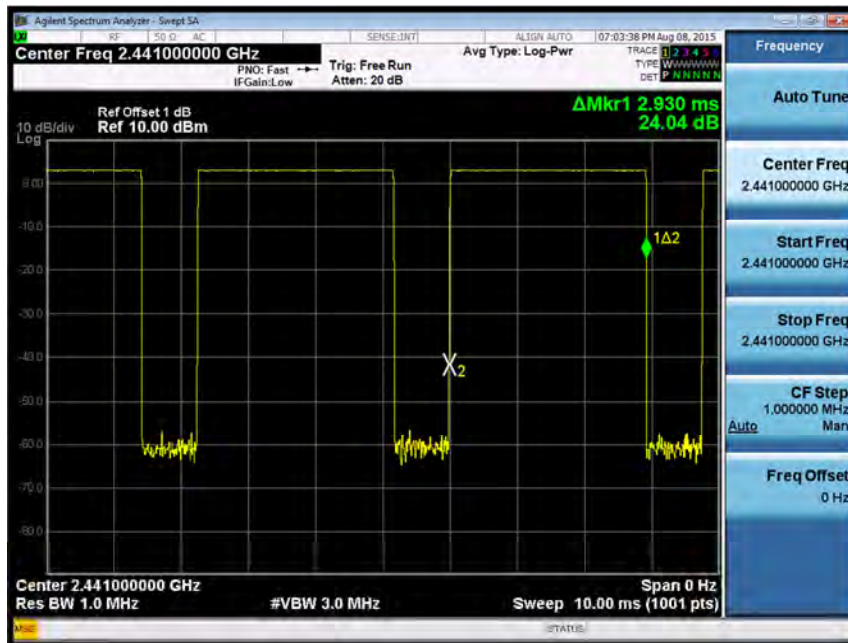
Middle channel: DH1



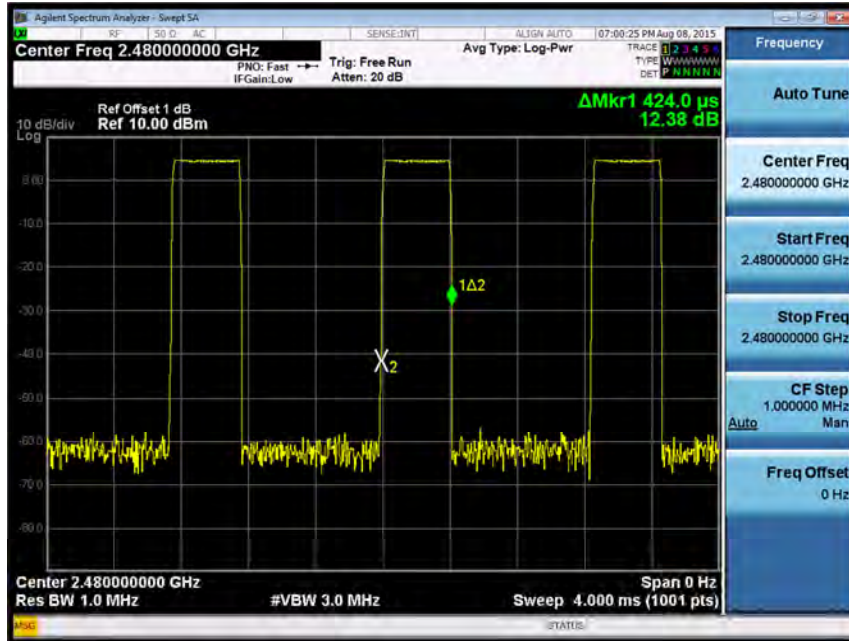
Middle channel: DH3



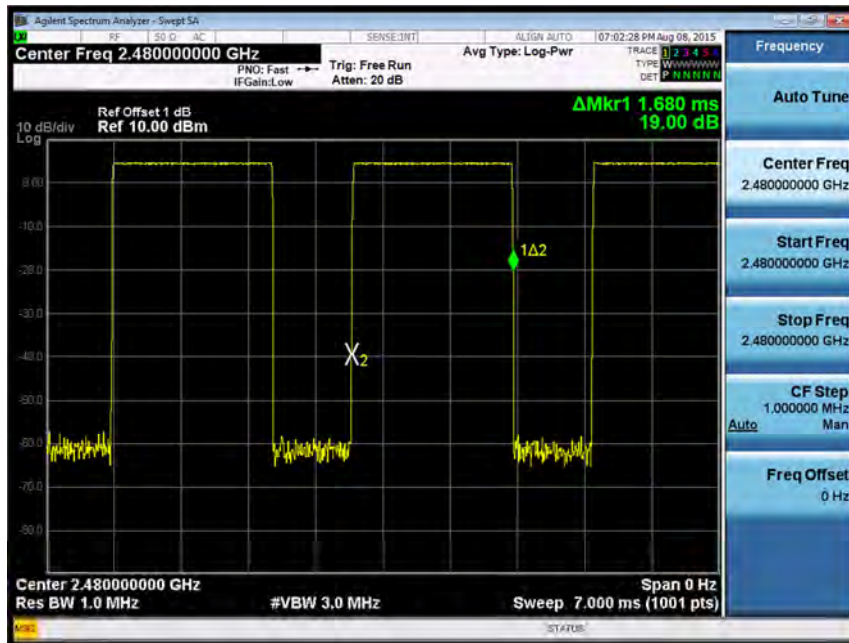
Middle channel: DH5



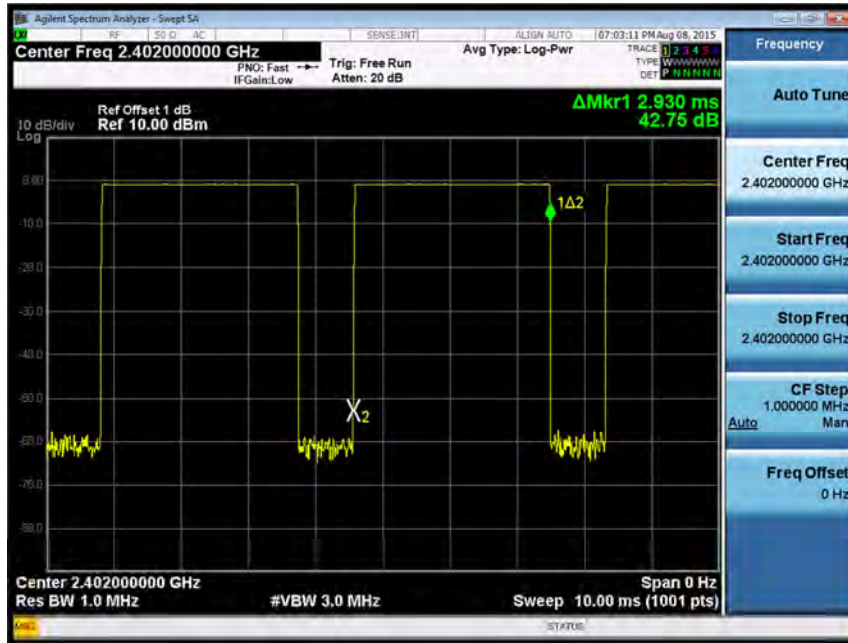
High channel: DH1



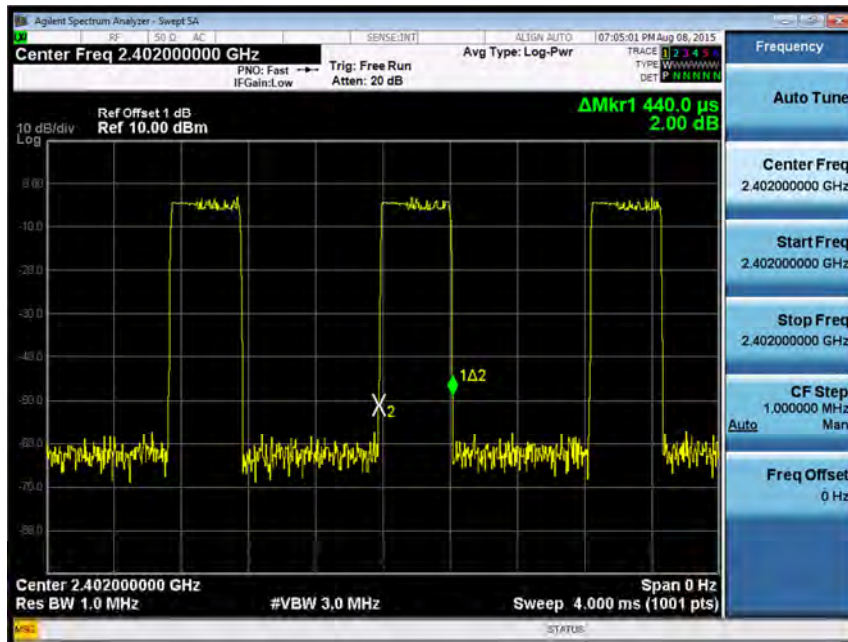
High channel: DH3



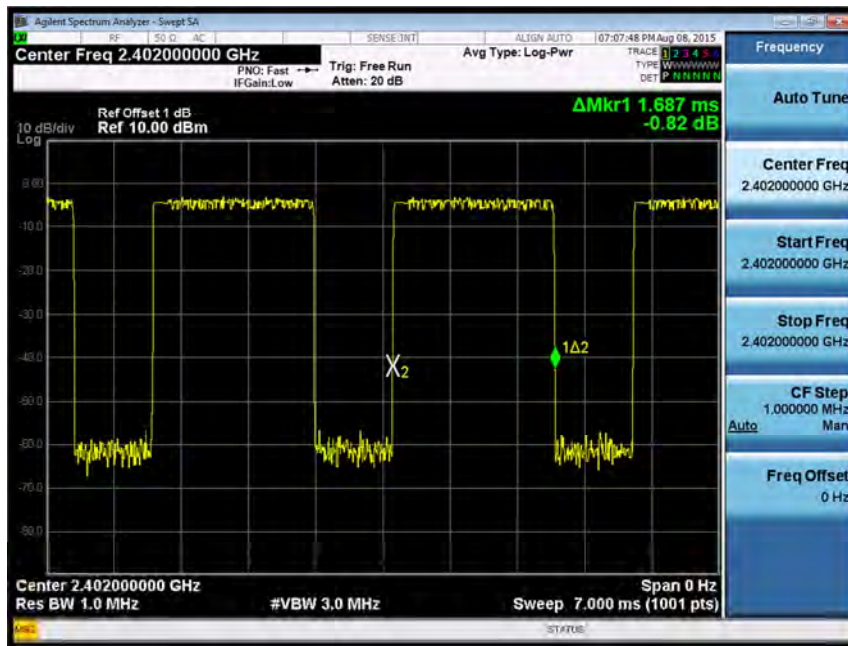
High channel: DH5


Test Plot of Time of Occupancy, EDR

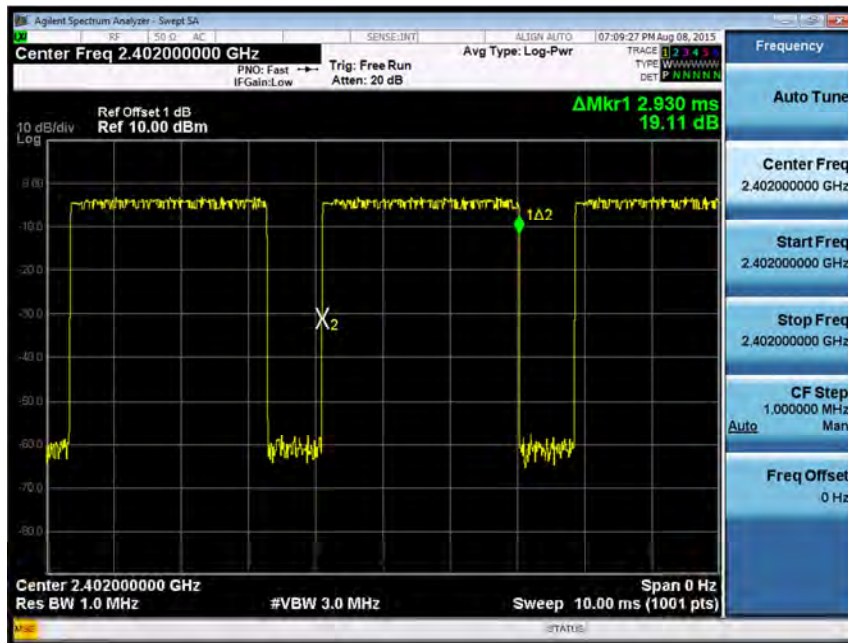
Low channel: 3DH1



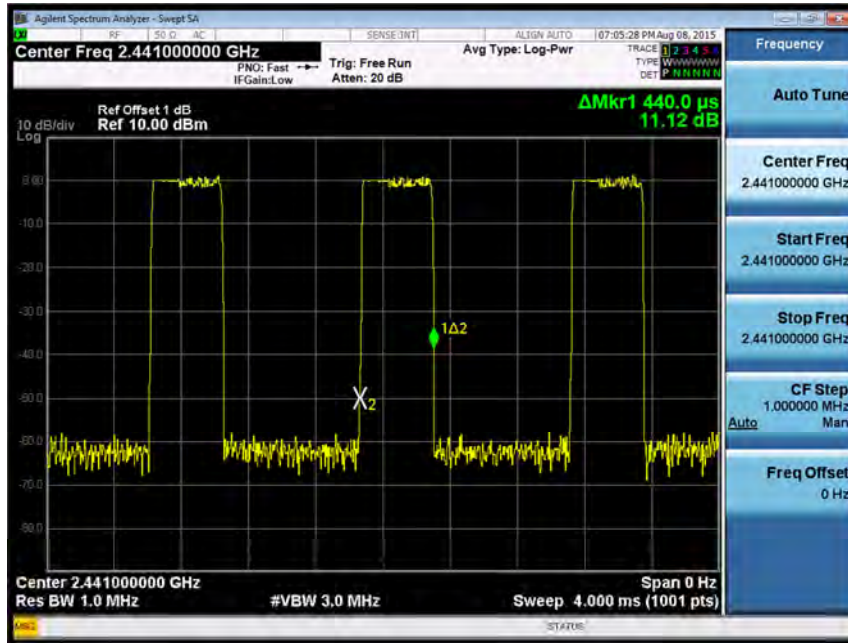
Low channel: 3DH3



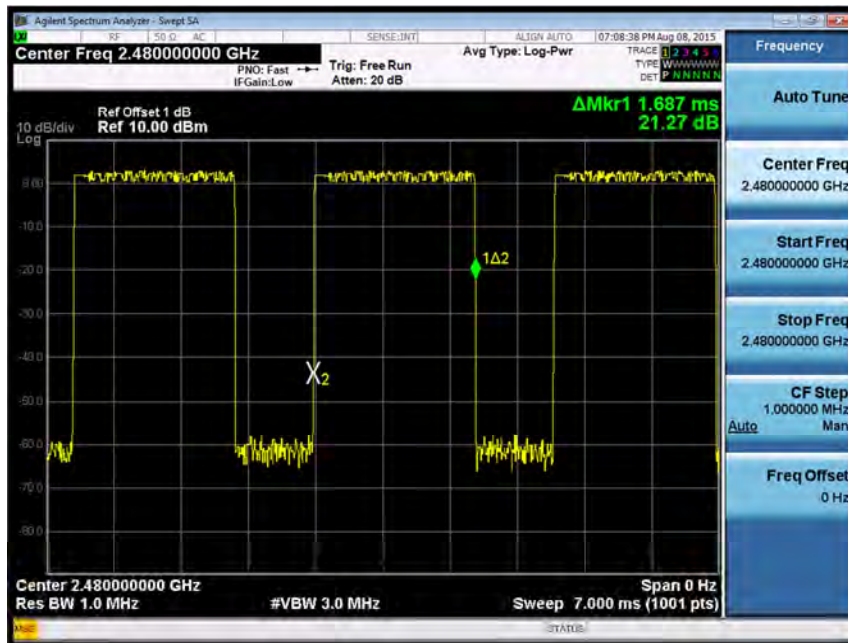
Low channel: 3DH5



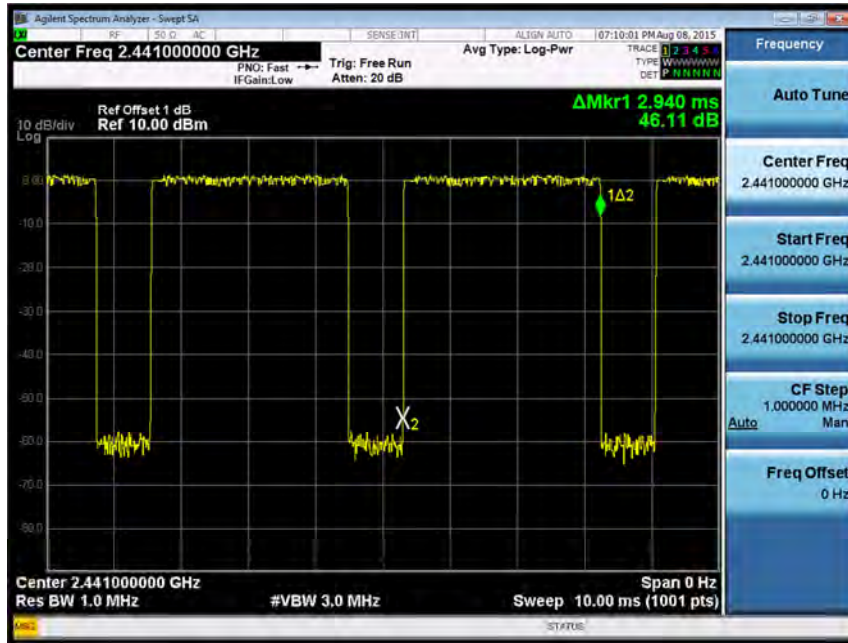
Middle channel: 3DH1



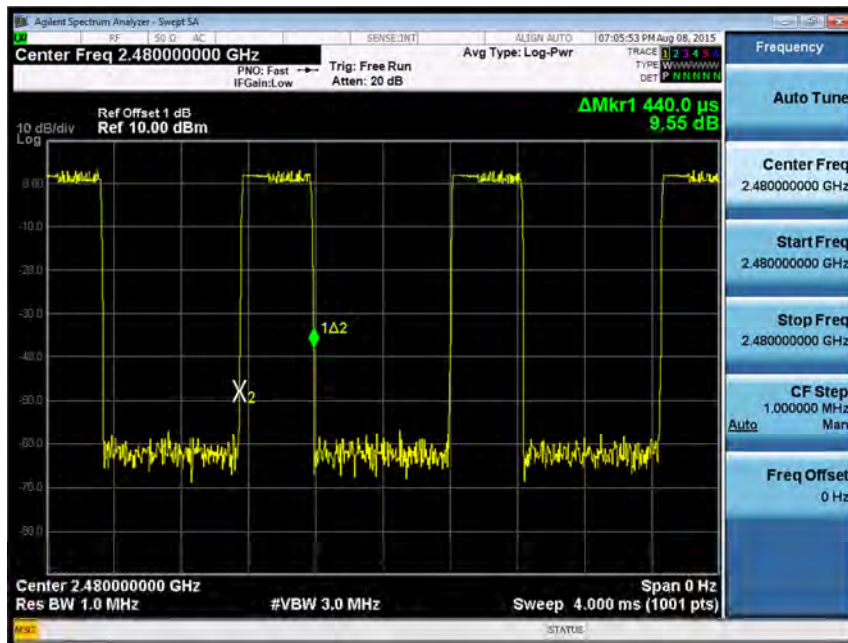
Middle channel: 3DH3



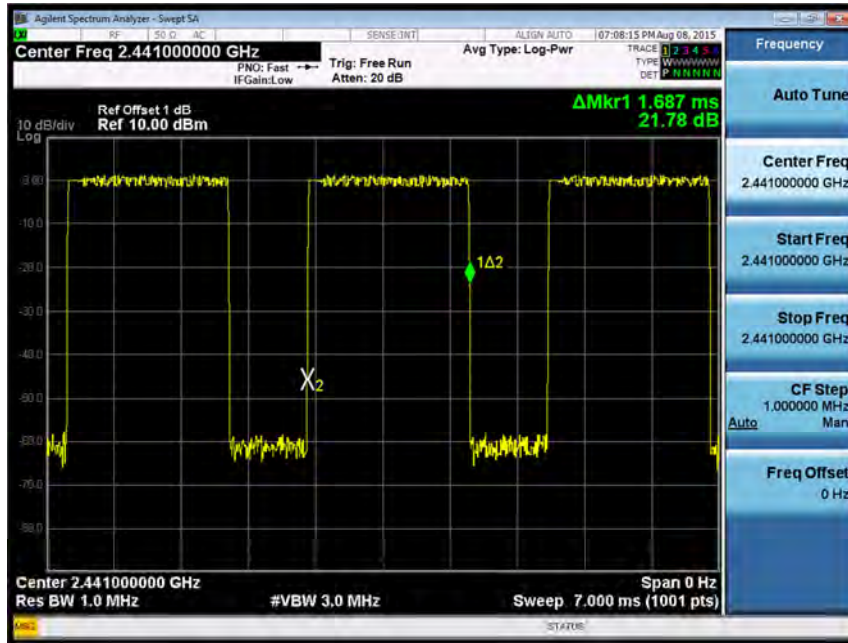
Middle channel: 3DH5



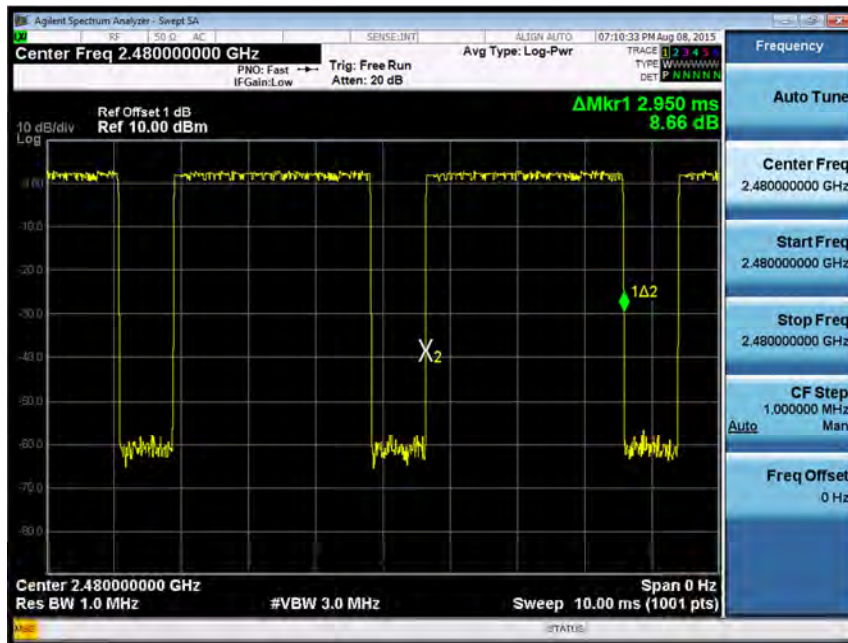
High channel: 3DH1



High channel: 3DH3



High channel: 3DH5



5.1.12 Conducted Emissions

RESULT:**Pass****Test Specification**

| | |
|-------------------|---|
| Test standard | : FCC Part 15.207(a) & FCC Part 15.107(a) RSS-Gen 8.8 Issue 4 & ICES-003 Issue 5 |
| Basic standard | : ANSI C63.10: 2013 & ANSI C63.4: 2014 |
| Frequency range | : 0.15 – 30MHz |
| Limits | : FCC Part 15.207(a) & FCC Part 15.107(a) RSS-Gen Issue 4 Table 3 & ICES-003 Issue 5 Table 2 |
| Kind of test site | : Shielded Room |

Test Setup

| | |
|----------------------|-----------------------------------|
| Date of testing | : 29.07.2015 |
| Input voltage | : AC 120V, 60Hz via AC/DC adapter |
| Operation mode | : C,D,E (see 3.3) |
| Earthing | : Not connected |
| Ambient temperature | : 25°C |
| Relative humidity | : 56% |
| Atmospheric pressure | : 101 kPa |

For the measurement records, refer to the appendix 1.

5.1.13 Radiated Emission**RESULT:****Pass****Test Specification**

| | |
|-------------------|--|
| Test standard | : FCC Part 15.109(a) ICES-003 Issue 5 |
| Basic standard | : ANSI C63.4: 2014 |
| Frequency range | : 30 - 6000MHz |
| Classification | : Class B |
| Limits | : FCC Part 15.109(a) ICES-003 Issue 5 Table 5 & Table 7 |
| Kind of test site | : 3m Semi-anechoic chamber |

Test Setup

| | |
|----------------------|-----------------------------------|
| Date of testing | : 27.07.2015 |
| Input voltage | : AC 120V, 60Hz via AC/DC adapter |
| Operation mode | : C,D,E (see 3.3) |
| Earthing | : Not connected |
| Ambient temperature | : 23°C |
| Relative humidity | : 48% |
| Atmospheric pressure | : 101 kPa |

For the measurement records, refer to the appendix 1.

6 Safety Human Exposure

6.1 Radio Frequency Exposure Compliance

6.1.1 Electromagnetic Fields

RESULT: **Pass**

Test Specification

Test standard : FCC KDB Publication 447498 v05r02
RSS-102 Issue 5 March 2015

The minimum distance for the EUT is 5mm, since maximum peak output power of the transmitter is 5.20 mW <10 mW, hence the EUT is excluded from SAR evaluation according to FCC KDB Publication 447498 D01 General RF Exposure Guidance v05r02

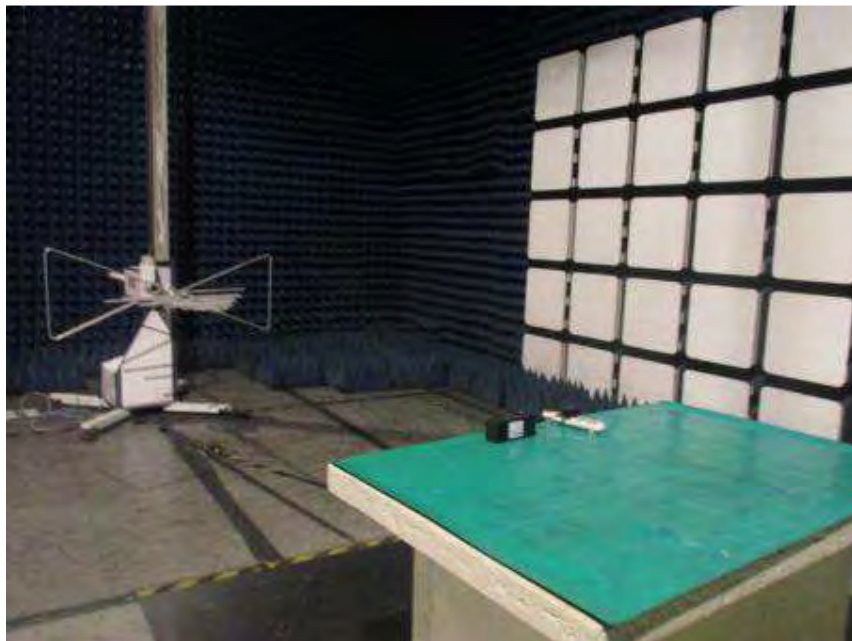
The maximum peak output power of the transmitter is 5.20 mW (7.16 dBm), only, which less than 20mW. Hence the EUT is exempted from routine evaluation limits (SAR Evaluation) according to clause 2.5.1 of RSS-102 Issue 5.

7 Photographs of the Test Set-Up

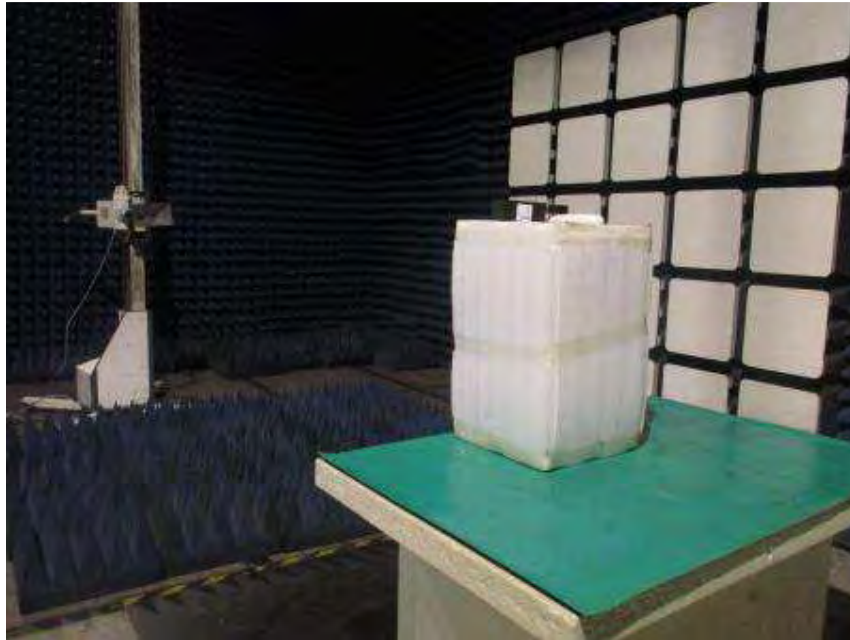
Photograph 1: Set-up for Radiated Spurious Emissions (9kHz - 30MHz)



Photograph 2: Set-up for Radiated Spurious Emissions (30MHz-1GHz)



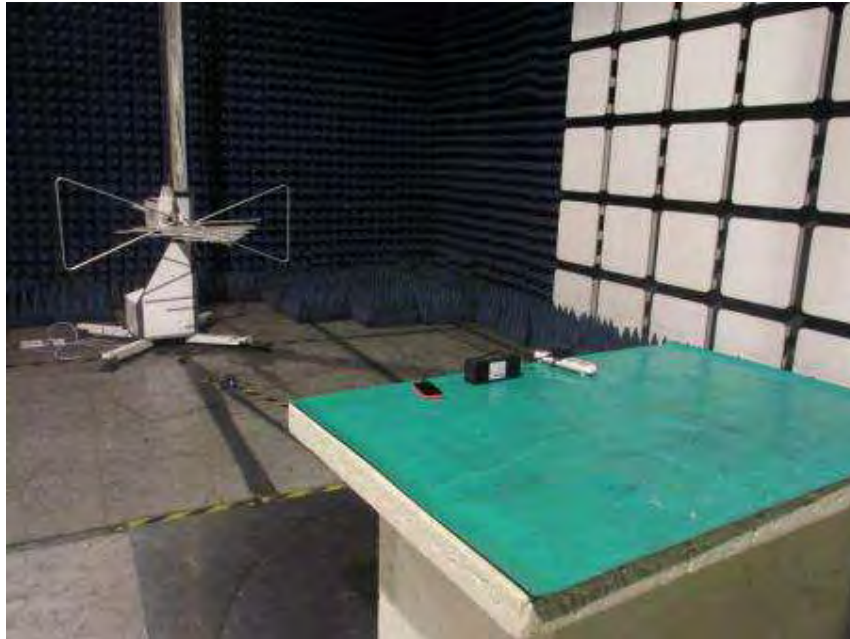
Photograph 3: Set-up for Radiated Spurious Emissions (Above 1GHz)



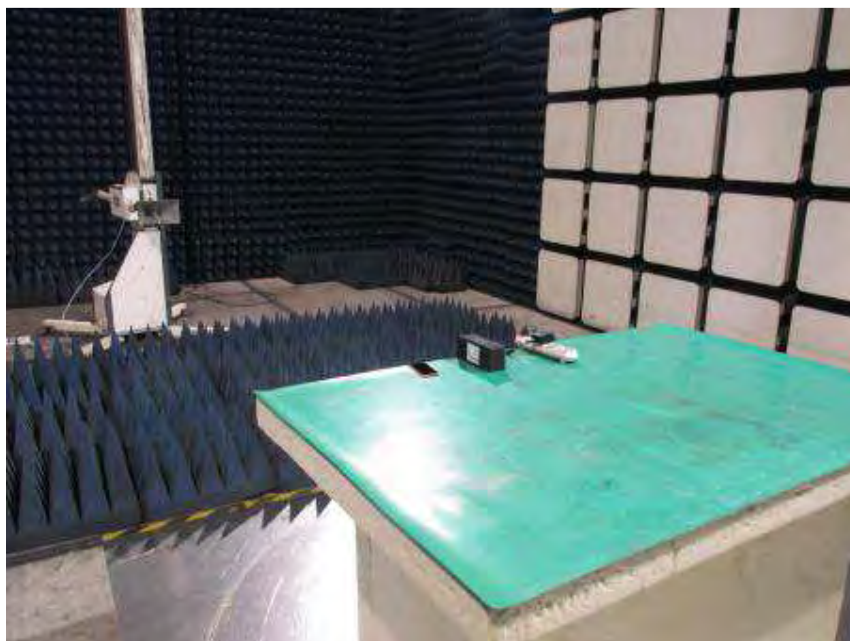
Photograph 4: Set-up for Conducted Emissions



Photograph 5: Set-up for Radiated Emission (Below 1GHz)



Photograph 6: Set-up for Radiated Emission (Above 1GHz)



8 List of Tables

| | |
|---|----|
| Table 1: List of Test and Measurement Equipment..... | 6 |
| Table 2: Technical Specification of EUT | 8 |
| Table 3: RF Channel and Frequency of Bluetooth | 9 |
| Table 4: RF Channel and Frequency of Bluetooth Low Energy | 9 |
| Table 5: Test Result of Peak Conducted Output Power, BDR | 16 |
| Table 6: Test Result of Peak Conducted Output Power, EDR | 16 |
| Table 7: Test Result of Peak Conducted Output Power, Low Energy | 16 |
| Table 8: Test Result of Power Spectral Density, Low Energy | 22 |
| Table 9: Test Result of 6dB Bandwidth, Low Energy | 25 |
| Table 10: Test Result of 99% Bandwidth, BDR mode..... | 28 |
| Table 11: Test Result of 99% Bandwidth, EDR mode..... | 28 |
| Table 12: Test Result of 99% Bandwidth, Low Energy | 28 |
| Table 13: Test Result of 20dB Bandwidth, BDR mode..... | 44 |
| Table 14: Test Result of 20dB Bandwidth, EDR mode..... | 44 |
| Table 15: Test Result of Carrier Frequency Separation | 48 |
| Table 16: Test Result of Number of Hopping Frequency | 51 |
| Table 17: Test Result of Time of Occupancy, BDR mode..... | 54 |
| Table 18: Test Result of Time of Occupancy, EDR mode..... | 54 |

9 List of Photographs

| | |
|--|----|
| Photograph 1: Set-up for Radiated Spurious Emissions (9kHz - 30MHz)..... | 67 |
| Photograph 2: Set-up for Radiated Spurious Emissions (30MHz-1GHz)..... | 67 |
| Photograph 3: Set-up for Radiated Spurious Emissions (Above 1GHz)..... | 68 |
| Photograph 4: Set-up for Conducted Emissions | 68 |
| Photograph 5: Set-up for Radiated Emission (Below 1GHz) | 69 |
| Photograph 6: Set-up for Radiated Emission (Above 1GHz)..... | 69 |

List of Figures

| | |
|---|----|
| Figure 1: Test figure of Radiated Spurious Emissions (9kHz – 30MHz), BDR (Low) | 2 |
| Figure 2: Test figure of Radiated Spurious Emissions (30MHz – 1GHz), BDR (Low) | 3 |
| Figure 3: Test figure of Radiated Spurious Emissions (1GHz –25GHz), BDR (Low) | 5 |
| Figure 4: Test figure of Radiated Spurious Emissions (9kHz – 30MHz), BDR (Mid) | 9 |
| Figure 5: Test figure of Radiated Spurious Emissions (30MHz – 1GHz), BDR (Mid) | 10 |
| Figure 6: Test figure of Radiated Spurious Emissions (1GHz –25GHz), BDR (Mid) | 12 |
| Figure 7: Test figure of Radiated Spurious Emissions (9kHz – 30MHz), BDR (High) | 16 |
| Figure 8: Test figure of Radiated Spurious Emissions (30MHz – 1GHz), BDR (High) | 17 |
| Figure 9: Test figure of Radiated Spurious Emissions (1GHz –25GHz), BDR (High) | 19 |
| Figure 10: Test figure of Radiated Spurious Emissions (30MHz – 1GHz), EDR (Low) | 23 |
| Figure 11: Test figure of Radiated Spurious Emissions (1GHz –25GHz), EDR (Low) | 25 |
| Figure 12: Test figure of Radiated Spurious Emissions (30MHz – 1GHz), EDR (Mid) | 29 |
| Figure 13: Test figure of Radiated Spurious Emissions (1GHz –25GHz), EDR (Mid) | 31 |
| Figure 14: Test figure of Radiated Spurious Emissions (30MHz – 1GHz), EDR (High) | 35 |
| Figure 15: Test figure of Radiated Spurious Emissions (1GHz –25GHz), EDR (High) | 37 |
| Figure 16: Test figure of Radiated Spurious Emissions (30MHz – 1GHz), Low Energy (Low) | 41 |
| Figure 17: Test figure of Radiated Spurious Emissions (1GHz –25GHz), Low Energy (Low) | 43 |
| Figure 18: Test figure of Radiated Spurious Emissions (30MHz – 1GHz), Low Energy (Mid) | 47 |
| Figure 19: Test figure of Radiated Spurious Emissions (1GHz –25GHz), Low Energy (Mid) | 49 |
| Figure 20: Test figure of Radiated Spurious Emissions (30MHz – 1GHz), Low Energy (High) | 53 |
| Figure 21: Test figure of Radiated Spurious Emissions (1GHz –25GHz), Low Energy (High) | 55 |
| Figure 22: Test figure of Radiated Emissions in Restricted Bands, BDR (Low) | 59 |
| Figure 23: Test figure of Radiated Emissions in Restricted Bands, BDR (High) | 61 |
| Figure 24: Test figure of Radiated Emissions in Restricted Bands, EDR (Low) | 63 |
| Figure 25: Test figure of Radiated Emissions in Restricted Bands, EDR (High) | 65 |
| Figure 26: Test figure of Radiated Emissions in Restricted Bands, Low Energy (Low) | 67 |
| Figure 27: Test figure of Radiated Emissions in Restricted Bands, Low Energy (High) | 69 |
| Figure 28: Test figure of Conducted Emissions | 71 |
| Figure 29: Test figure of Radiated Emissions | 77 |

Note: The measurements with active loop antenna were greater than 20dB below the limit, so Radiated Spurious Emissions (9kHz – 30MHz) tests were applied on BDR mode only.

Figure 1: Test figure of Radiated Spurious Emissions (9kHz – 30MHz), BDR (Low)

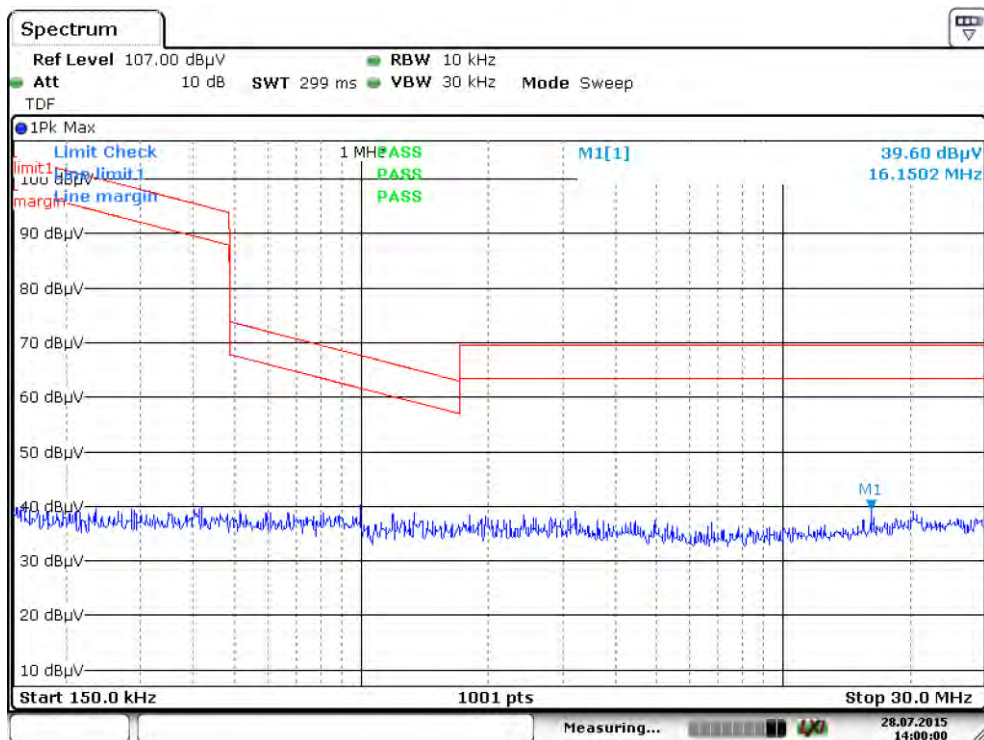
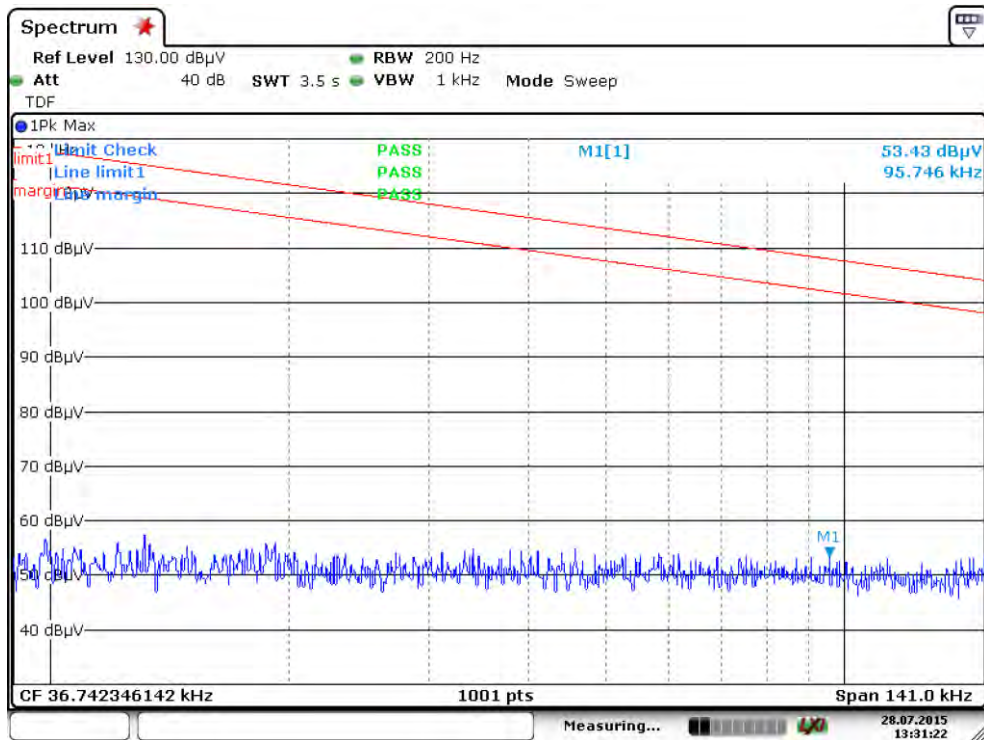
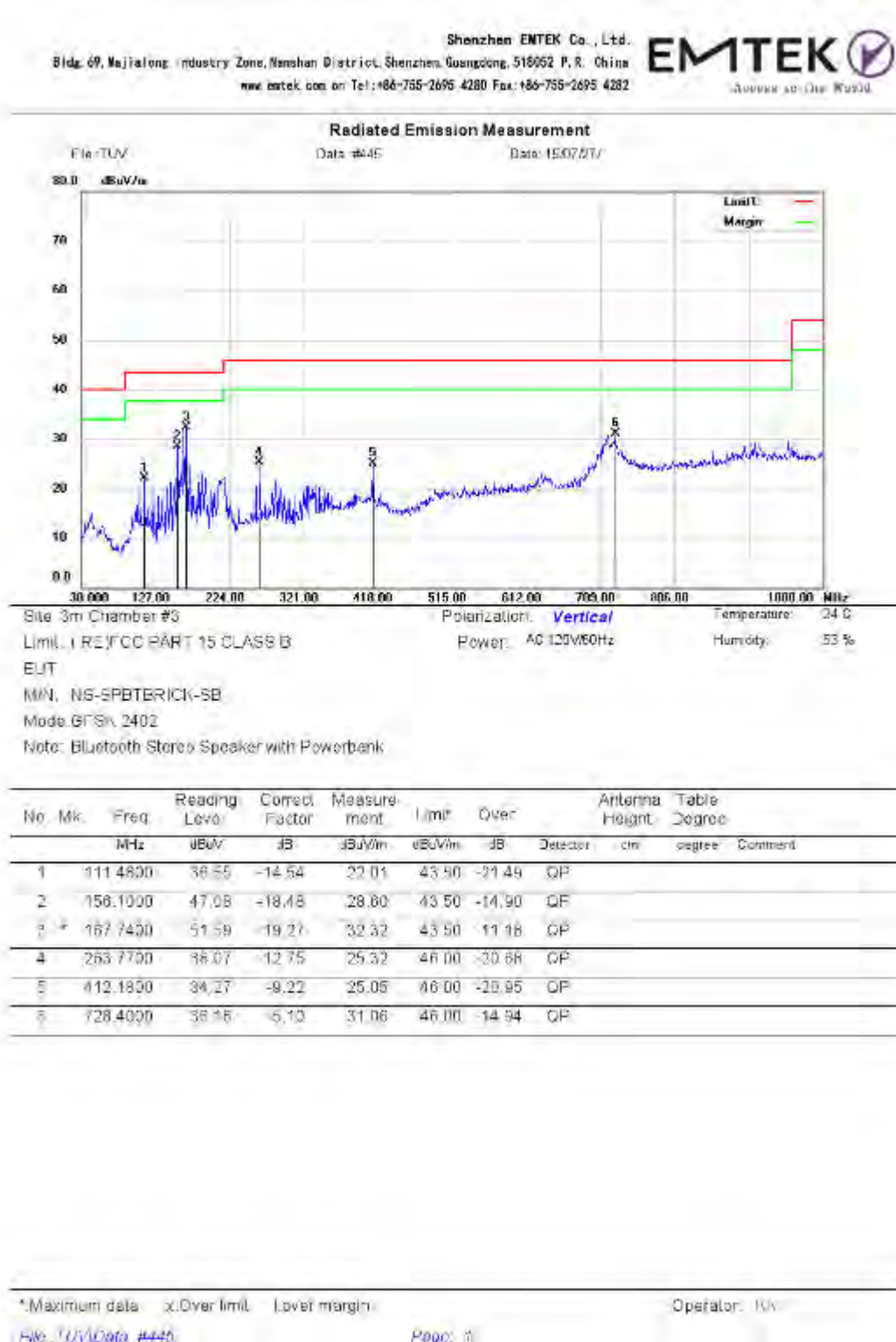


Figure 2: Test figure of Radiated Spurious Emissions (30MHz – 1GHz), BDR (Low)



Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282

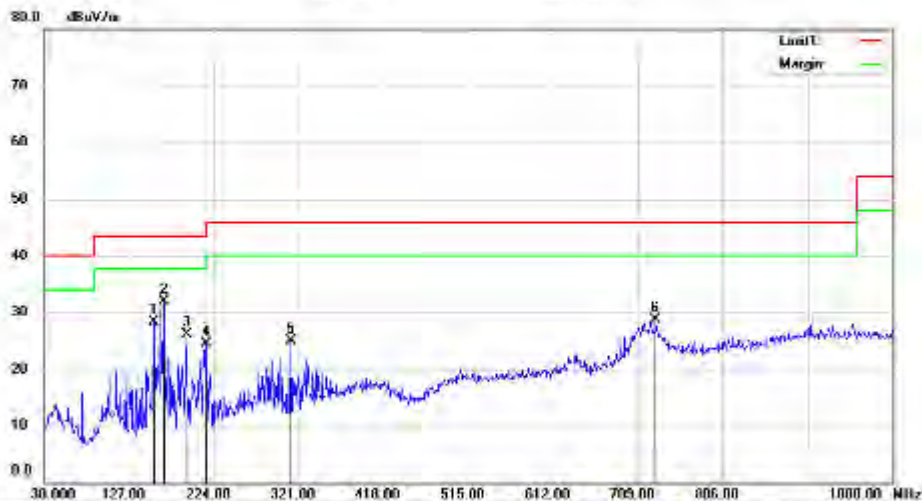


Radiated Emission Measurement

File: TUV

Data: #446

Date: 15/07/21



Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: I RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: GFSK 2402
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | |
|-----|----|----------|---------|--------|---------|--------|--------|----------|--------|--------|
| | | MHz | dBuV | Factor | dBuV/m | dBuV/m | dB | Detector | Height | Degree |
| | | | | dB | | | | | cm | degree |
| 1 | | 156.1000 | 46.60 | -18.48 | 28.32 | 43.50 | -15.18 | QP | | |
| 2 | * | 187.7400 | 51.24 | -19.27 | 31.97 | 43.50 | -11.53 | QP | | |
| 3 | | 192.9600 | 43.14 | -17.01 | 26.13 | 43.50 | -17.37 | QP | | |
| 4 | | 215.2700 | 40.66 | -16.38 | 24.58 | 43.50 | -18.92 | QP | | |
| 5 | | 312.2700 | 36.49 | -13.63 | 24.86 | 46.00 | -21.14 | QP | | |
| 6 | | 729.3700 | 53.77 | -6.04 | 28.70 | 46.00 | -17.30 | QP | | |

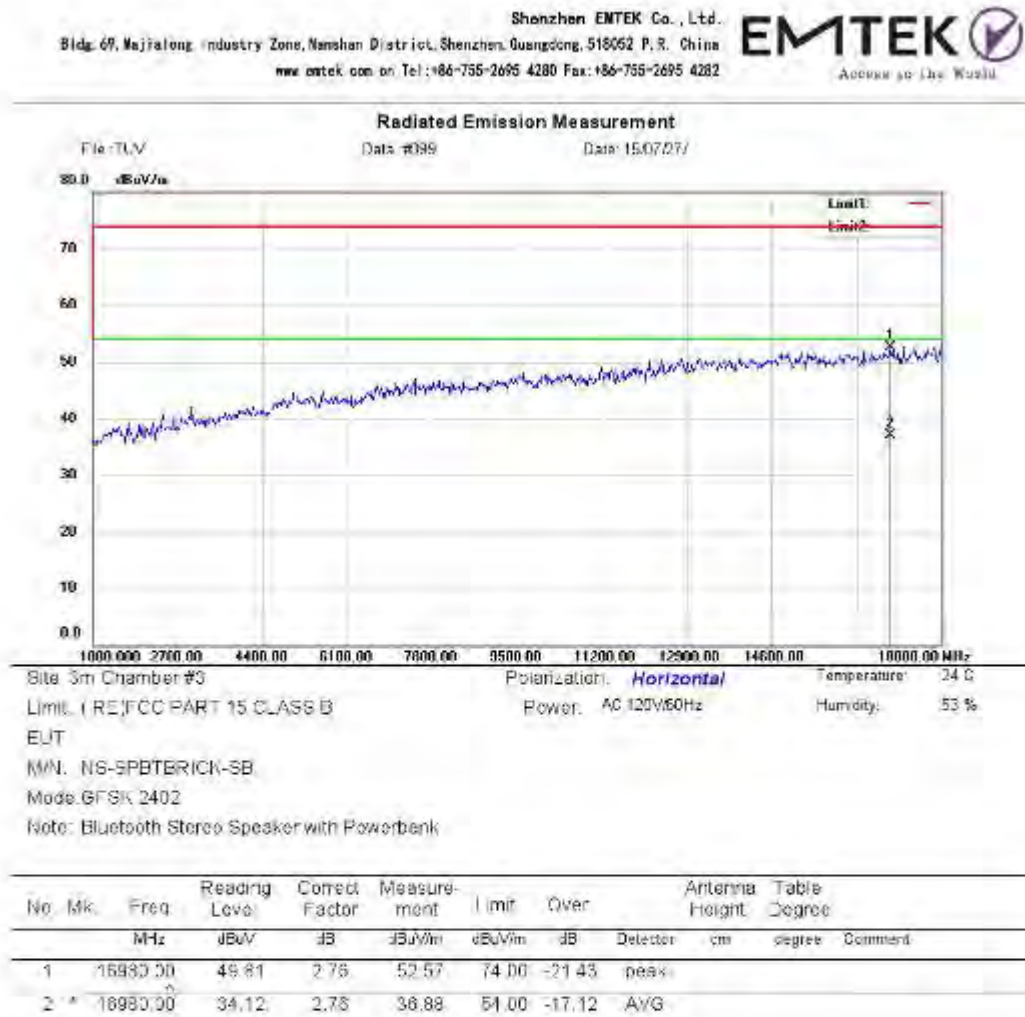
*Maximum data x:Over limit Level margin

Operator: INK

File: TUV\Data #446

Page: 4

Figure 3: Test figure of Radiated Spurious Emissions (1GHz –25GHz), BDR (Low)



*Maximum data x:Over limit. Level margin

Operator: 10x

File: TUV/Data #399

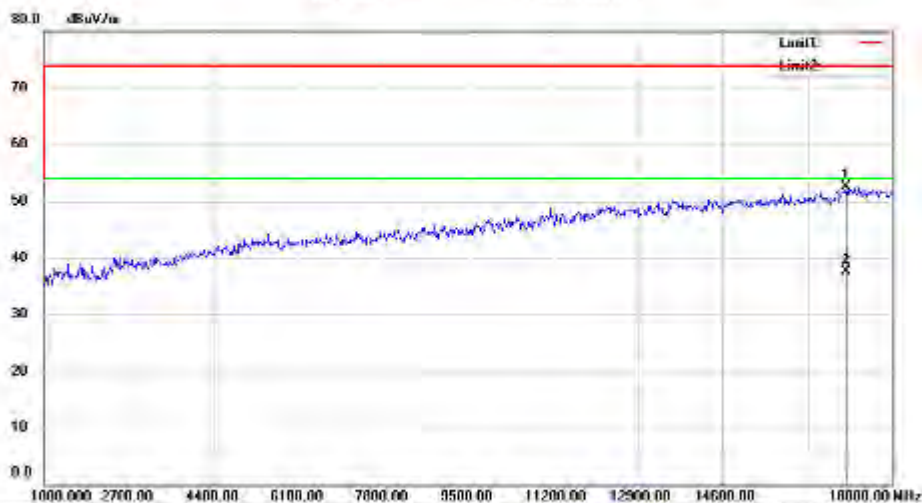
Page: 5

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #400 Date: 15/07/17



Site: 3m Chamber #3 Polarization: **Vertical** Temperature: 24 C
 Limit: I RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: GPSX 2402
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | |
|-----|----|----------|---------|--------|---------|--------|--------|----------|--------|--------|
| | | MHz | dBuV | Factor | dBuV/m | dBuV/m | dB | Detector | Height | Degree |
| | | | | dB | | | | | cm | degree |
| 1 | | 17082.00 | 48.74 | 3.85 | 52.59 | 74.00 | -21.41 | peak | | |
| 2 | * | 17082.00 | 33.84 | 3.85 | 37.49 | 51.00 | -13.51 | AVG | | |

*Maximum data α.Over limit Level margin

Operator: INV

File: TUV/Data #400

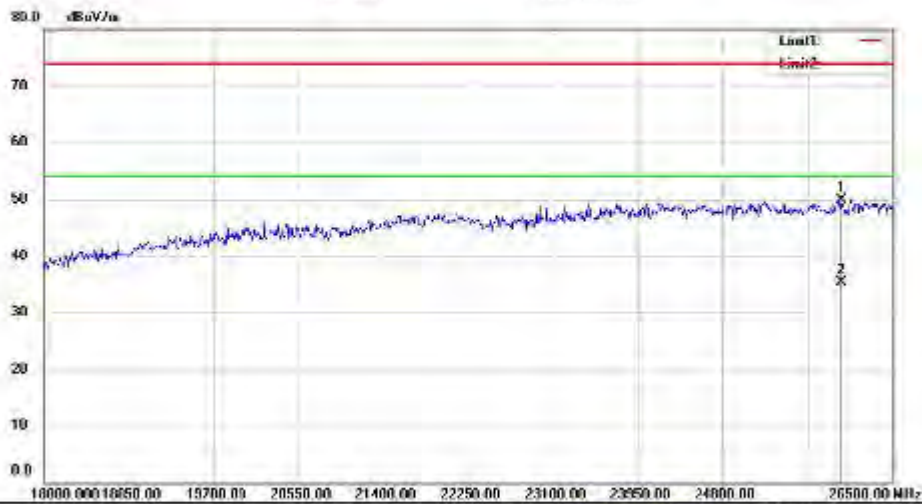
Page: 11

Shenzhen EMTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518062 P. R. China
www.emtek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #69 Date: 15/07/2017



Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: I RE FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: GFSK 2402
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk. | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | | |
|-----|-----|----------|---------|--------|---------|--------|--------|----------|--------|--------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree | Comment |
| 1 | | 25990.00 | 85.76 | -35.80 | 49.96 | 74.00 | -24.04 | peak | | | |
| 2 | * | 25990.00 | 71.06 | -35.80 | 35.26 | 54.00 | -18.74 | AVG | | | |

*Maximum data x: Over limit. Lower margin Operator: 10x

File: TUVData_#69 Page: 7

Shenzhen EMTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518062 P. R. China
www.emtek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #470 Date: 15/07/2017



Site: 3m Chamber #3 Polarization: **Vertical** Temperature: 24 C
 Limit: I RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: GFSK 2402
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk. | Freq. | Reading | Correc. | Measure- | Limit | Over | Antenna | Table | |
|-----|-----|----------|---------|---------|----------|--------|--------|----------|--------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree |
| | | | | | | | | cm | degree | Comment |
| 1 | | 26235.50 | 87.74 | -35.50 | 52.24 | 74.00 | -21.76 | peak | | |
| 2 | * | 26236.50 | 72.93 | -35.50 | 37.43 | 54.00 | -16.57 | AVG | | |

*Maximum data x: Over limit. Level margin Operator: 10x

File: TUVData #470 Page: 8

Figure 4: Test figure of Radiated Spurious Emissions (9kHz – 30MHz), BDR (Mid)

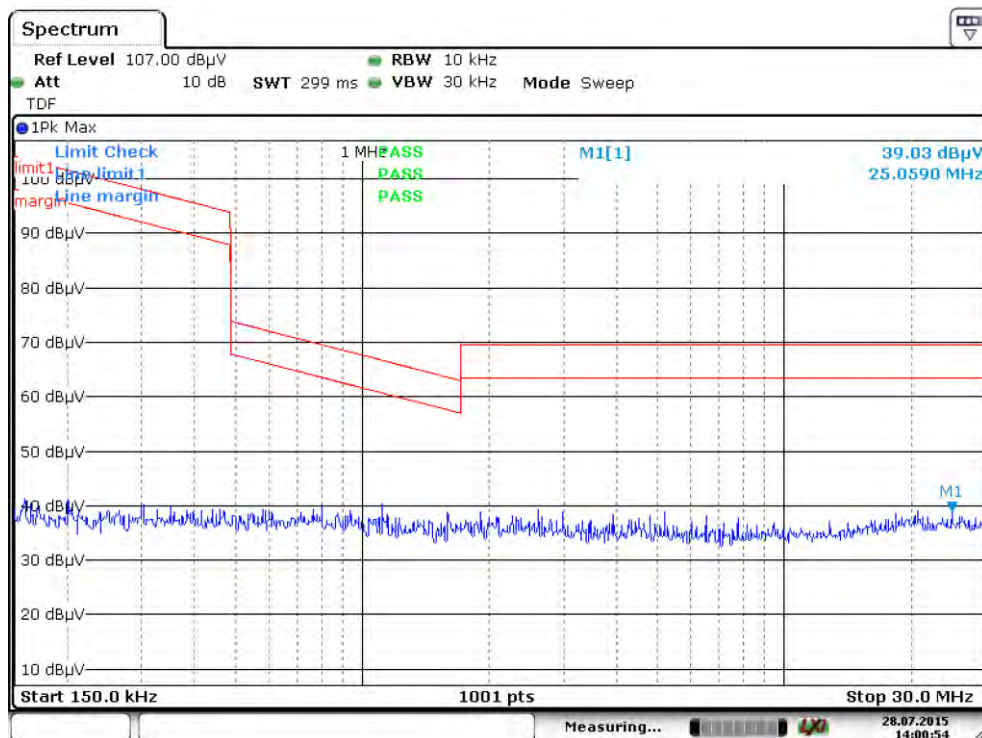
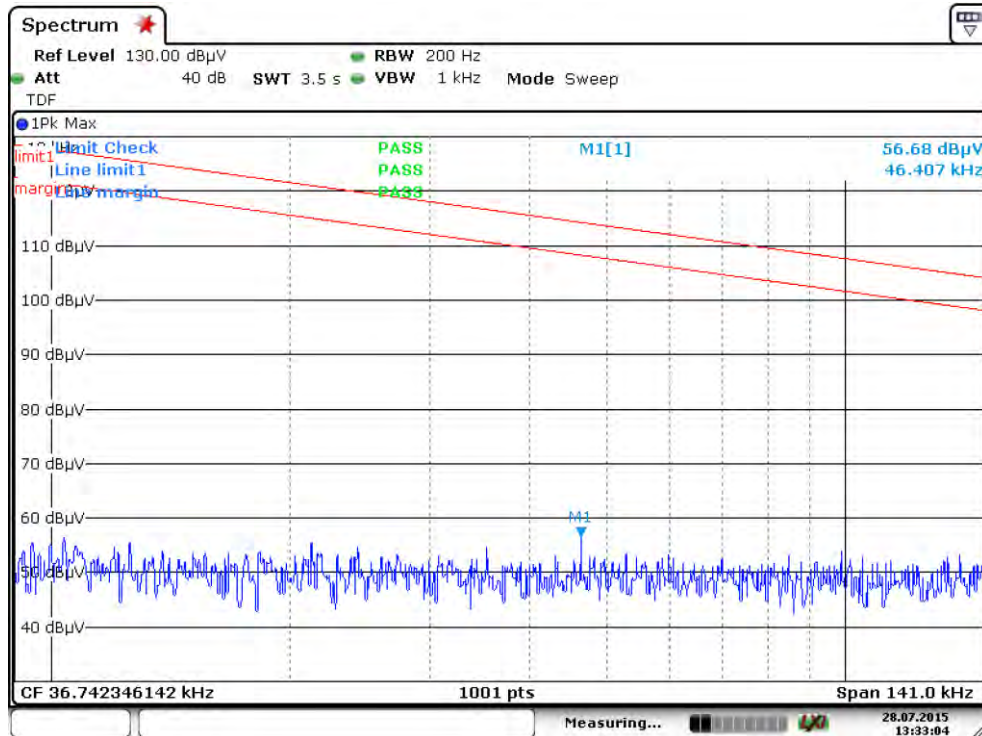
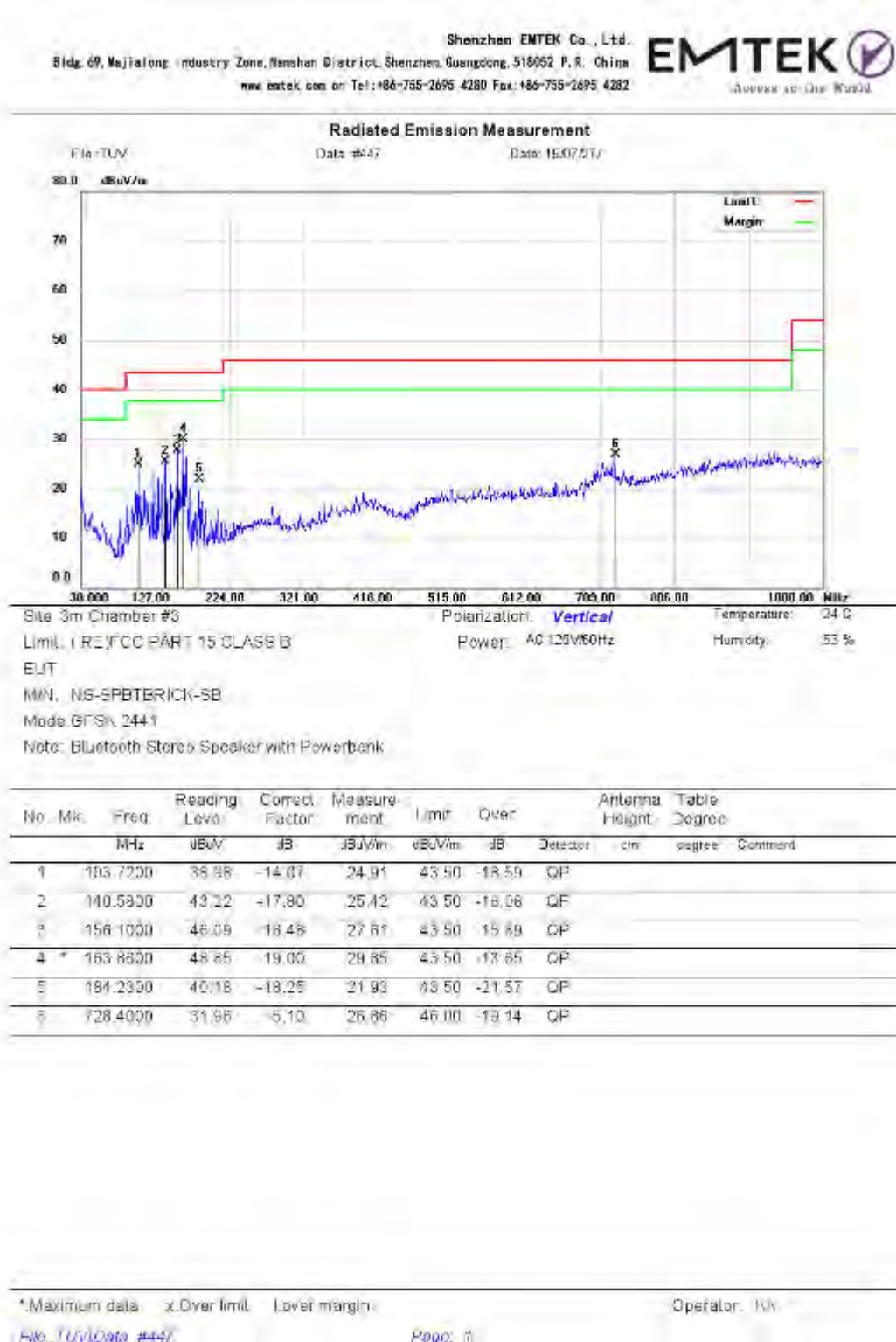


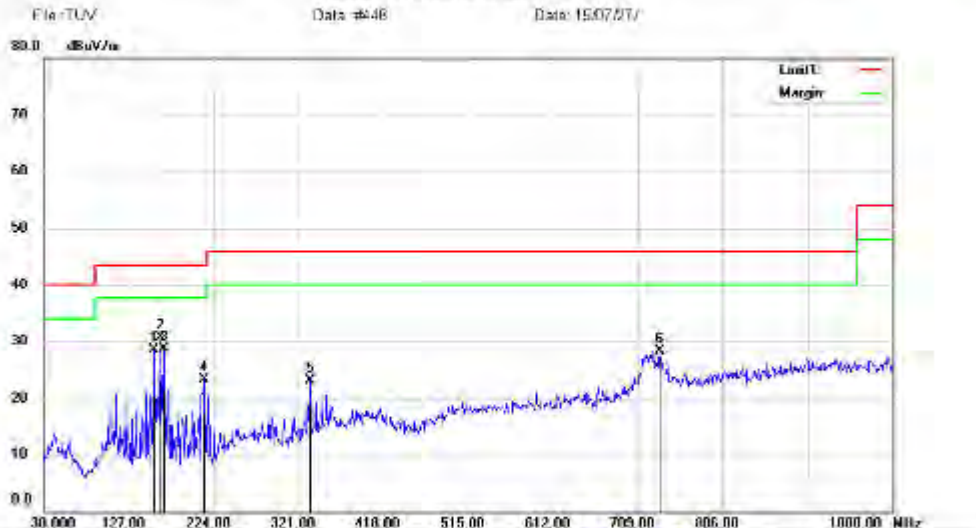
Figure 5: Test figure of Radiated Spurious Emissions (30MHz – 1GHz), BDR (Mid)



Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement



Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: I RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT: MN, NS-SPBTRICK-SB
 Mode: GPSX 2441
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk. | Freq. | Reading | Correc. | Measure- | Limit | Over | Antenna | Table | | |
|-----|-----|----------|---------|---------|----------|--------|--------|----------|--------|--------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree | |
| | | | | | | | | | cm | degree | Comment |
| 1 | | 156.1000 | 46.87 | -18.48 | 28.49 | 43.50 | -15.01 | QP | | | |
| 2 * | | 185.8800 | 49.69 | -19.00 | 30.69 | 43.50 | -12.81 | QP | | | |
| 3 | | 167.7400 | 48.03 | -19.27 | 28.76 | 43.50 | -14.74 | QP | | | |
| 4 | | 213.3300 | 39.64 | -16.38 | 23.26 | 43.50 | -30.24 | QP | | | |
| 5 | | 334.5800 | 35.76 | -12.75 | 23.01 | 46.00 | -22.99 | QP | | | |
| 6 | | 734.2200 | 33.27 | -4.92 | 28.35 | 46.00 | -17.65 | QP | | | |

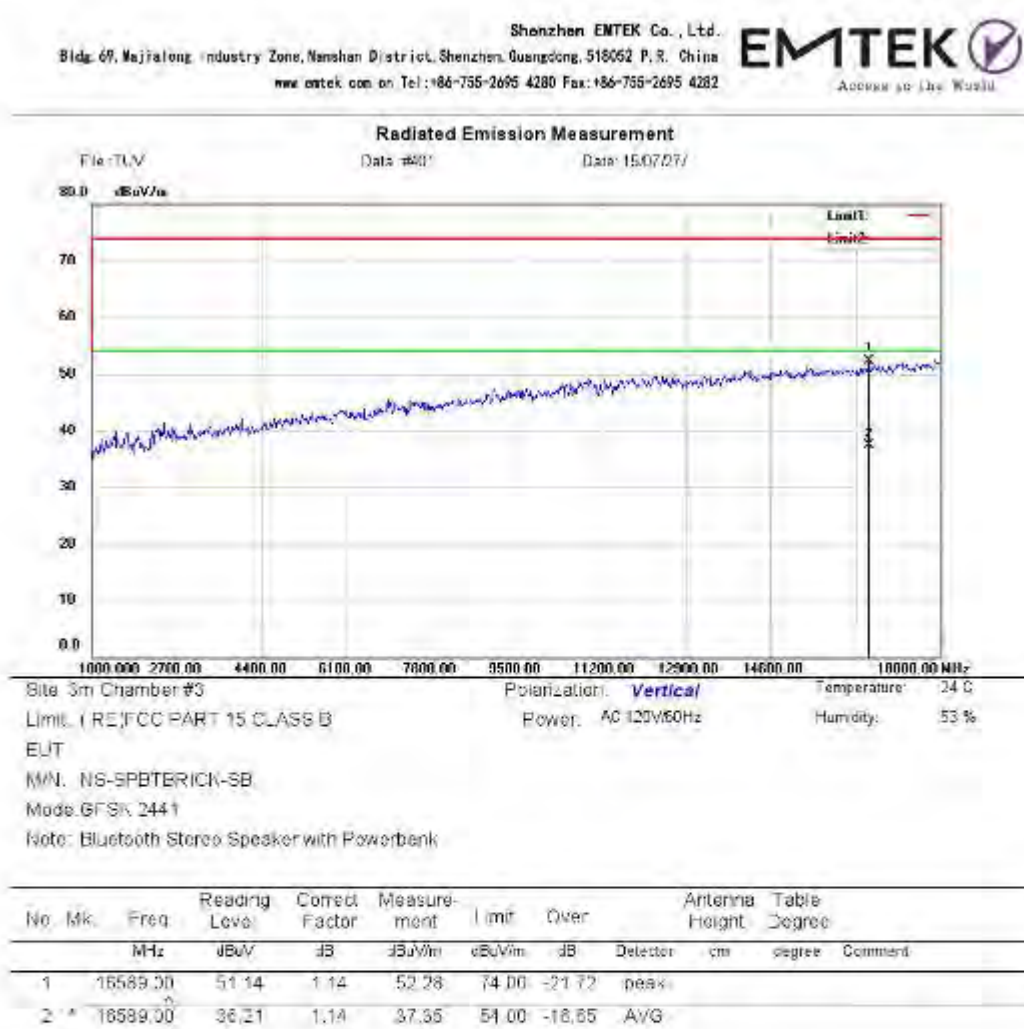
*Maximum data x:Over limit Level margin

Operator: INV

File: TUVData #448

Page: 11

Figure 6: Test figure of Radiated Spurious Emissions (1GHz –25GHz), BDR (Mid)



* Maximum data: (x) Over limit. () Level margin.

Operator: 10x

File: TUV/Data: #01

Page: 11

Shenzhen EMTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518062 P. R. China
www.emtek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282

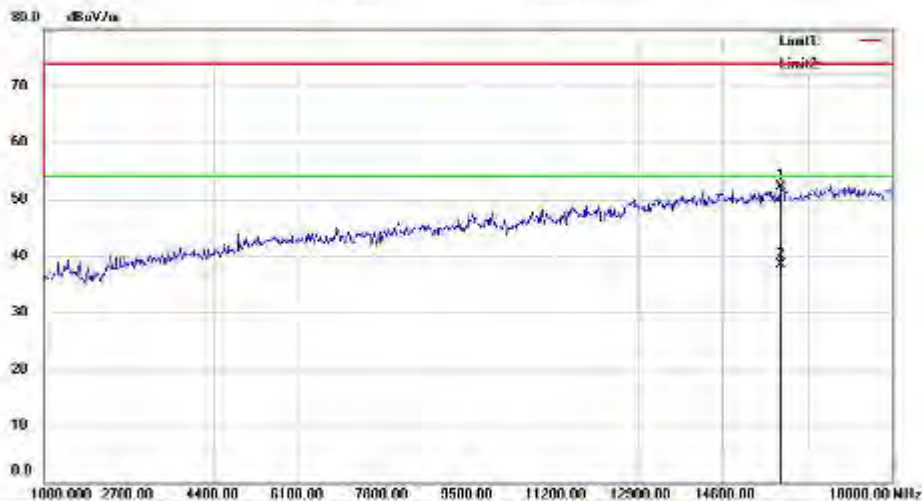


Radiated Emission Measurement

File: TUV

Data: #02

Date: 15/07/27



Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: (RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: GFSK 2441
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk. | Freq. | Reading | Correc. | Measure- | Limit | Over | Antenna | Table | | |
|-----|-----|----------|---------|---------|----------|--------|--------|----------|--------|--------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree | Comment |
| 1 | | 15755.00 | 52.52 | -0.39 | 52.13 | 74.00 | -21.87 | peak | cm | degree | |
| 2 | * | 15758.00 | 39.65 | -0.39 | 38.26 | 54.00 | -15.74 | AVG | | | |

*Maximum data x: Over limit. Lower margin Operator: 10x

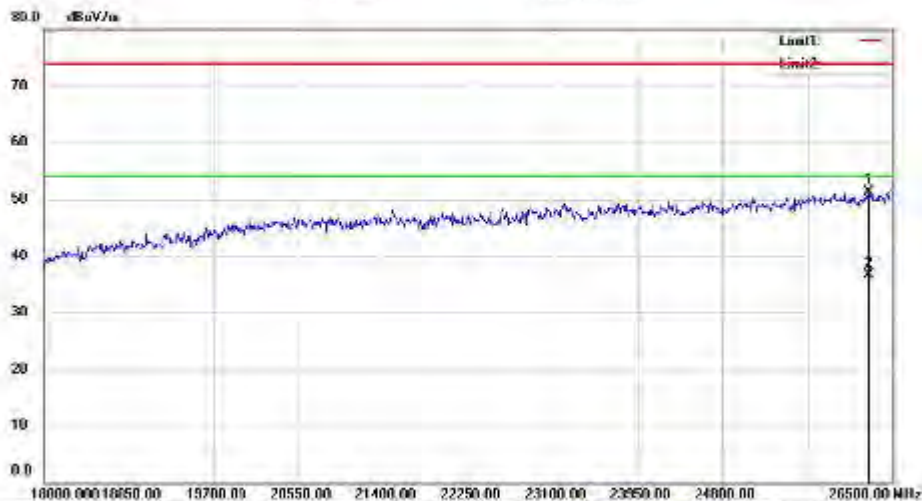
File: TUV\data #02 Page: 11

Shenzhen EMTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518062 P. R. China
www.emtek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data #471 Date: 15/07/2017



Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24.0
 Limit: (RE) FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: GFSK 2441
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk. | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | |
|-----|-----|----------|---------|--------|---------|--------|--------|----------|--------|---------|
| | | MHz | dBuV | Factor | ment | dBuV/m | dB | Detector | Height | Degree |
| | | | | dB | dBuV/m | | | cm | degree | Comment |
| 1 | | 26270.50 | 86.67 | -35.46 | 51.21 | 74.00 | -22.79 | peak | | |
| 2 | * | 26270.50 | 71.88 | -35.48 | 36.42 | 54.00 | -17.58 | AVG | | |

*Maximum data x: Over limit. Lower margin Operator: IQX

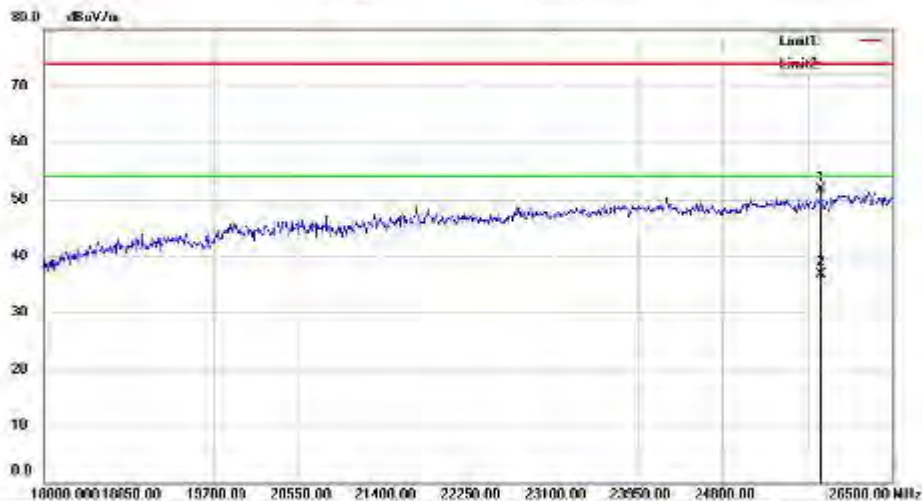
File: TUVData #471 Page: 14

Shenzhen EMTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518062 P. R. China
www.emtek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #472 Date: 15/07/2017



Site: 3m Chamber #3 Polarization: **Vertical** Temperature: 24 C
 Limit: I RE FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTERICK-SB
 Mode: GFSK 2441
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk. | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | | |
|-----|-----|----------|---------|--------|---------|-------|--------|----------|--------|--------|---------|
| | | MHz | dBuV | Factor | ment | dB | dB | Detector | Height | Degree | Comment |
| 1 | | 25796.00 | 87.70 | -36.05 | 51.65 | 74.00 | -22.35 | peak | | | |
| 2 | * | 25796.00 | 72.79 | -36.05 | 36.74 | 51.00 | -17.26 | AVG | | | |

*Maximum data x.Over limit. Lower margin Operator: 10x

File: TUVData_#472 Page: #

Figure 7: Test figure of Radiated Spurious Emissions (9kHz – 30MHz), BDR (High)

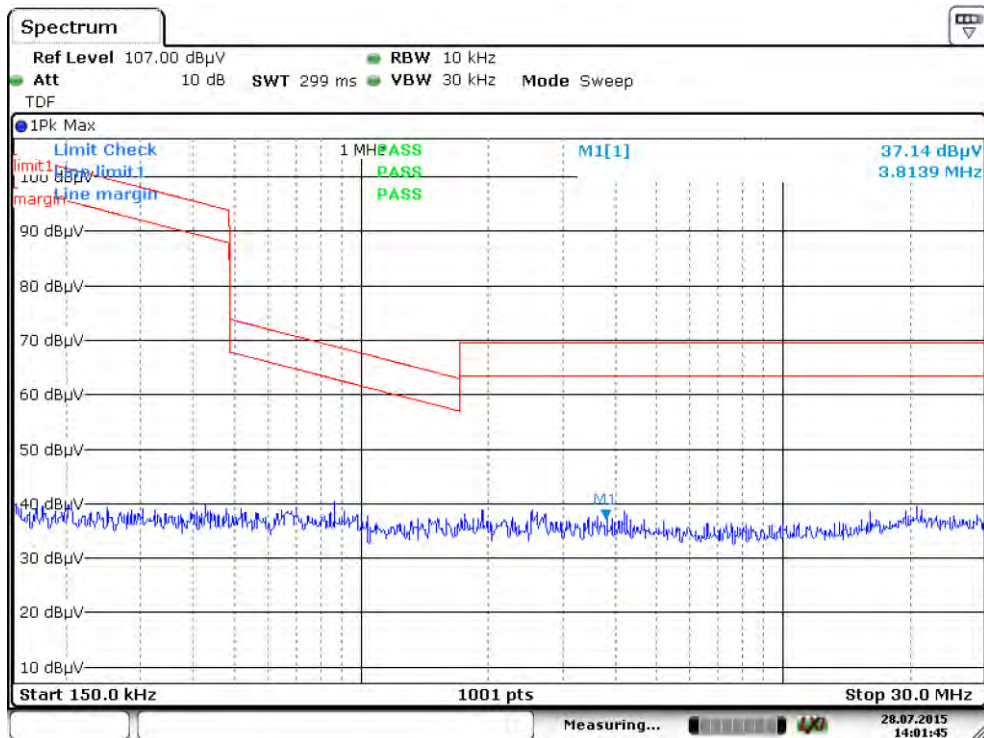
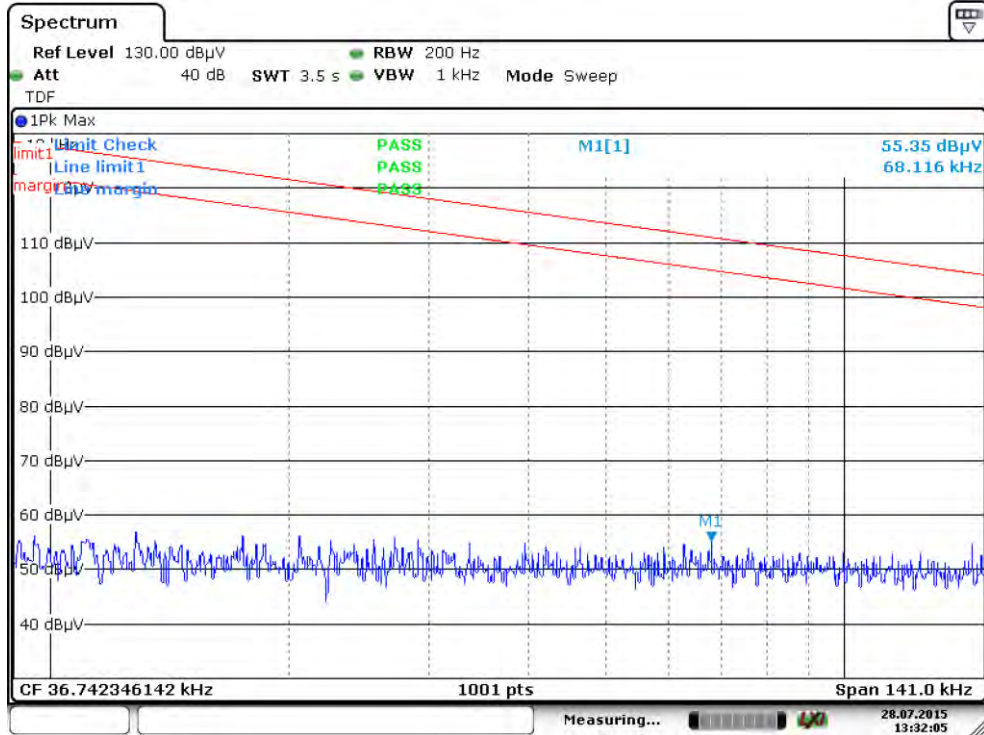
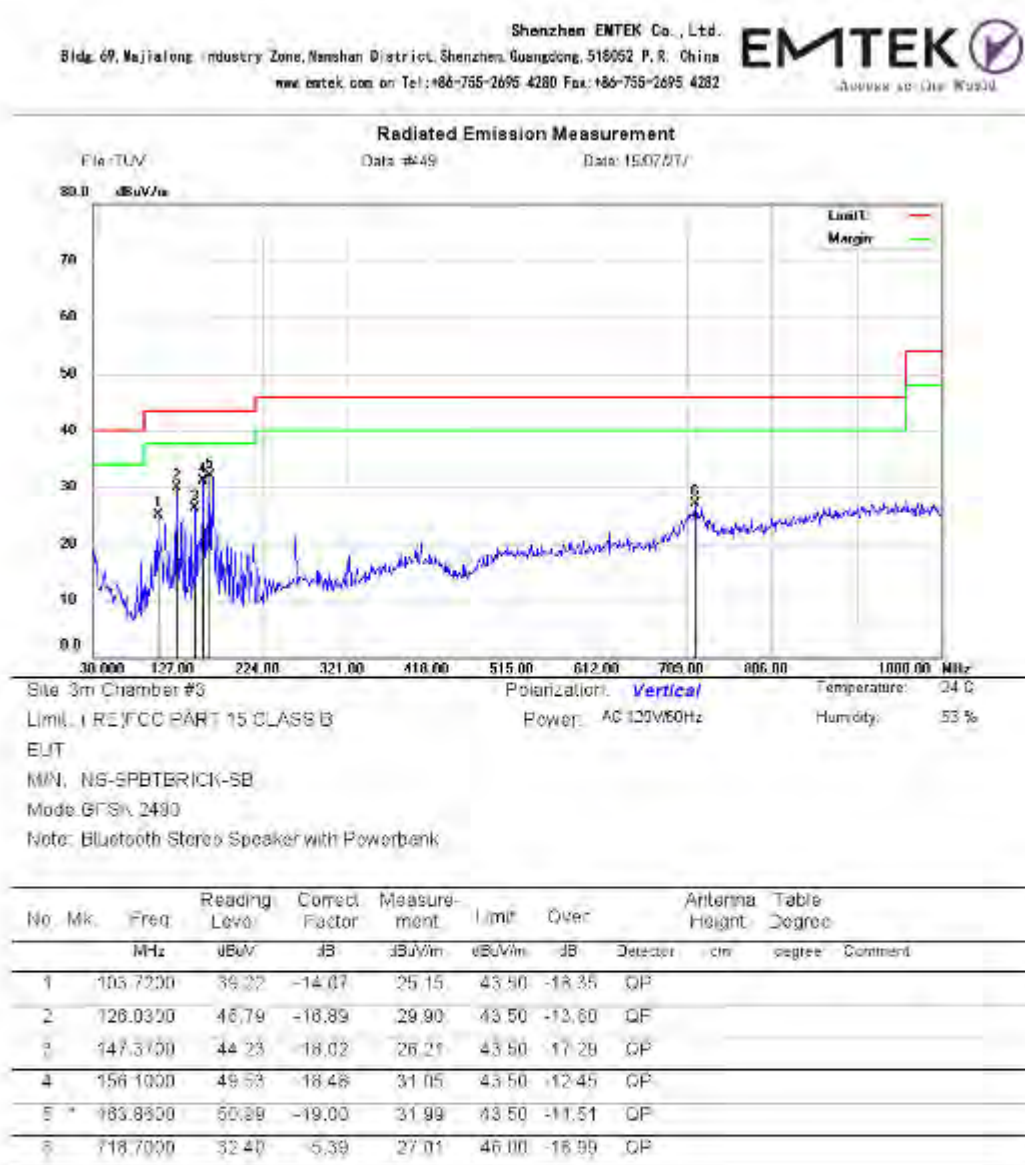


Figure 8: Test figure of Radiated Spurious Emissions (30MHz – 1GHz), BDR (High)



*Maximum data x: Over limit Level margin Operator: TK

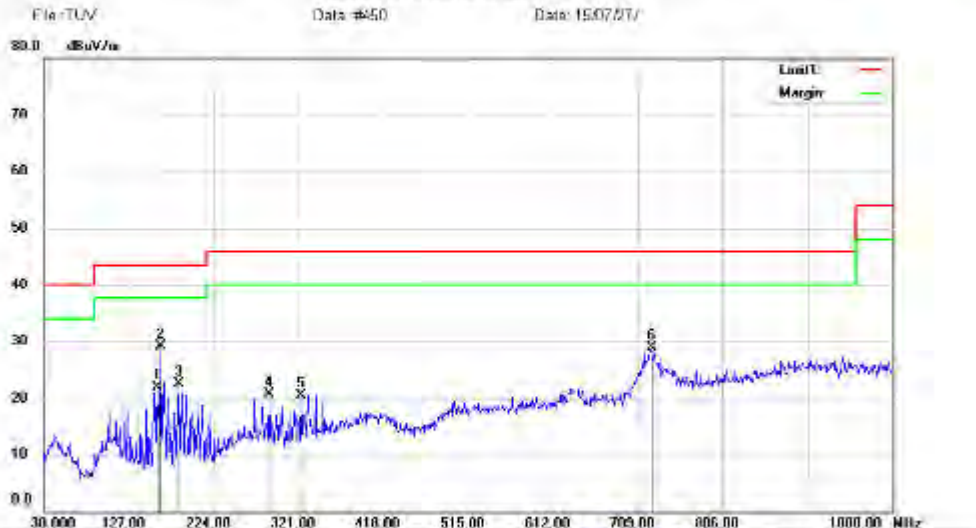
File: TUV/Data #49

Page: 17

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement



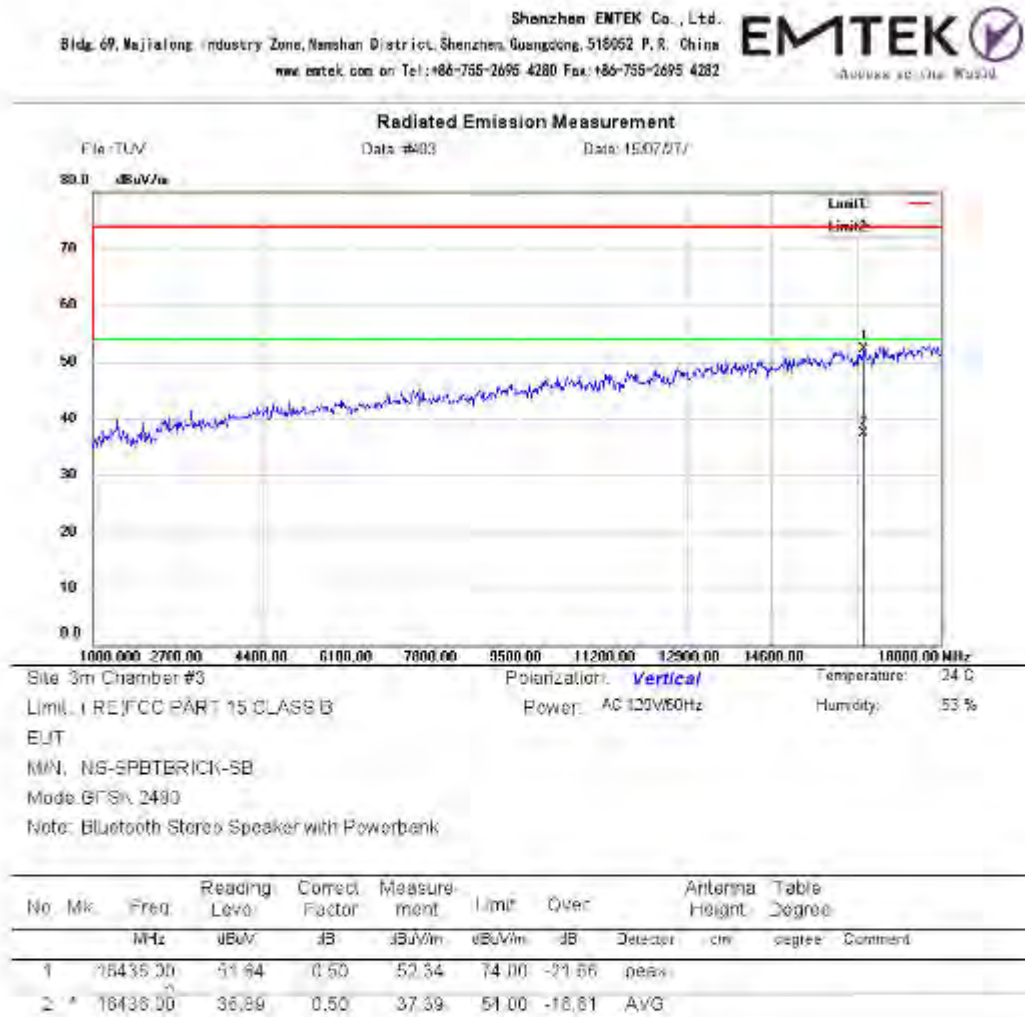
Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: I RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT: MN, NS-SPBTRICK-SB
 Mode: GPSX 2490
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk. | Freq. | Reading | Correc. | Measure- | Limit | Over | Antenna | Table | |
|-----|-----|----------|---------|---------|----------|--------|--------|----------|--------|--------|
| | | MHz | dBuV | Factor | ment | dBuV/m | dB | Detector | Height | Degree |
| | | | | dB | dBuV/m | | | | cm | degree |
| 1 | | 159.9800 | 40.72 | -18.72 | 22.00 | 43.50 | -21.50 | QP | | |
| 2 * | | 165.8800 | 48.18 | -19.00 | 29.18 | 43.50 | -14.32 | QP | | |
| 3 | | 184.2300 | 40.70 | -18.25 | 22.45 | 43.50 | -21.05 | QP | | |
| 4 | | 288.0200 | 33.77 | -13.07 | 20.70 | 46.00 | -25.30 | QP | | |
| 5 | | 323.9100 | 33.58 | -13.30 | 20.58 | 46.00 | -25.42 | QP | | |
| 6 | | 724.5200 | 34.19 | -6.21 | 28.98 | 46.00 | -17.02 | QP | | |

*Maximum data x:Over limit Level margin Operator: INX

File: TUVAData #450 Page: 18

Figure 9: Test figure of Radiated Spurious Emissions (1GHz –25GHz), BDR (High)



*Maximum data x: Over limit. Level margin:

Operator: RW

File: TUVData #403

Page: 11

Shenzhen EMTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518062 P. R. China
www.emtek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282

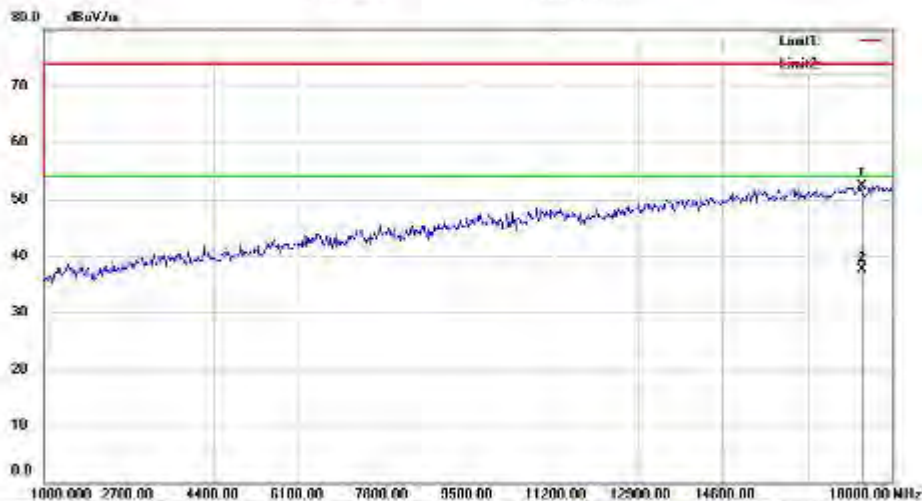


Radiated Emission Measurement

File: TUV

Data #404

Date: 15/07/27



Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: (RE) FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 ELT
 M/N: NS-SPBTRICK-SB
 Mode: GFSK 2400
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk. | Freq. | Reading | Correc. | Measure- | Limit | Over | Antenna | Table | |
|-----|-----|----------|---------|---------|----------|--------|--------|----------|--------|---------|
| | | MHz | dBuV | Factor | ment | dBuV/m | dB | Detector | Height | Degree |
| | | | | | dBuV/m | | | cm | degree | Comment |
| 1 | | 17385.00 | 44.74 | 7.61 | 52.35 | 74.00 | -21.65 | peak | | |
| 2 | * | 17385.00 | 29.98 | 7.61 | 37.59 | 54.00 | -16.41 | AVG | | |

*Maximum data x: Over limit. Lower margin

Operator: 100

File: TUV\data #404

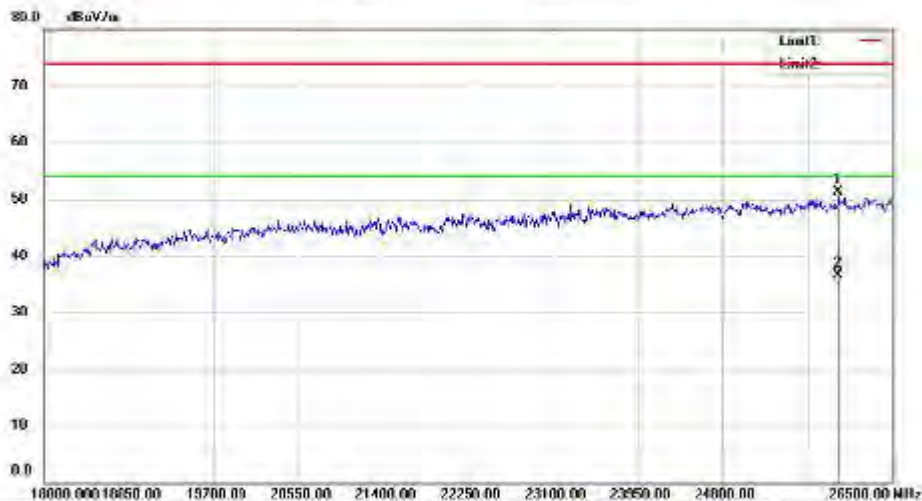
Page: 20

Shenzhen EMTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518062 P. R. China
www.emtek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #473 Date: 15/07/2017



Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24.0
 Limit: (RE) FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: GFSK 2400
 Note: Bluetooth Stereo Speaker with Powerbank

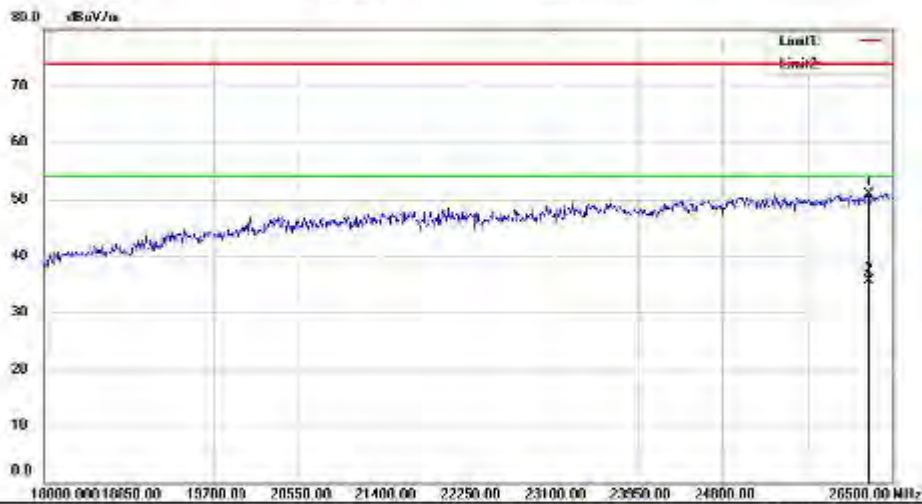
| No. | Mk. | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | | |
|-----|-----|----------|---------|--------|---------|--------|--------|----------|--------|--------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree | Comment |
| 1 | | 25984.50 | 87.14 | -35.83 | 51.31 | 74.00 | -22.69 | peak | cm | degree | |
| 2 | * | 25984.50 | 72.31 | -35.83 | 36.48 | 54.00 | -17.52 | AVG | | | |

Shenzhen EMTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518062 P. R. China
www.emtek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #474 Date: 15/07/2017



Site: 3m Chamber #3 Polarization: **Vertical** Temperature: 24.0
 Limit: (RE) FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: GFSK 2400
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk. | Freq. | Reading | Correc. | Measure- | Limit | Over | Antenna | Table | | |
|-----|-----|----------|---------|---------|----------|--------|--------|----------|--------|--------|---------|
| | | MHz | dBµV | dB | dBµV/m | dBµV/m | dB | Detector | Height | Degree | Comment |
| 1 | | 26270.50 | 86.44 | -35.46 | 50.98 | 74.00 | -23.02 | peak | | | |
| 2 | * | 26270.50 | 75.95 | -35.48 | 35.49 | 54.00 | -18.51 | AVG | | | |

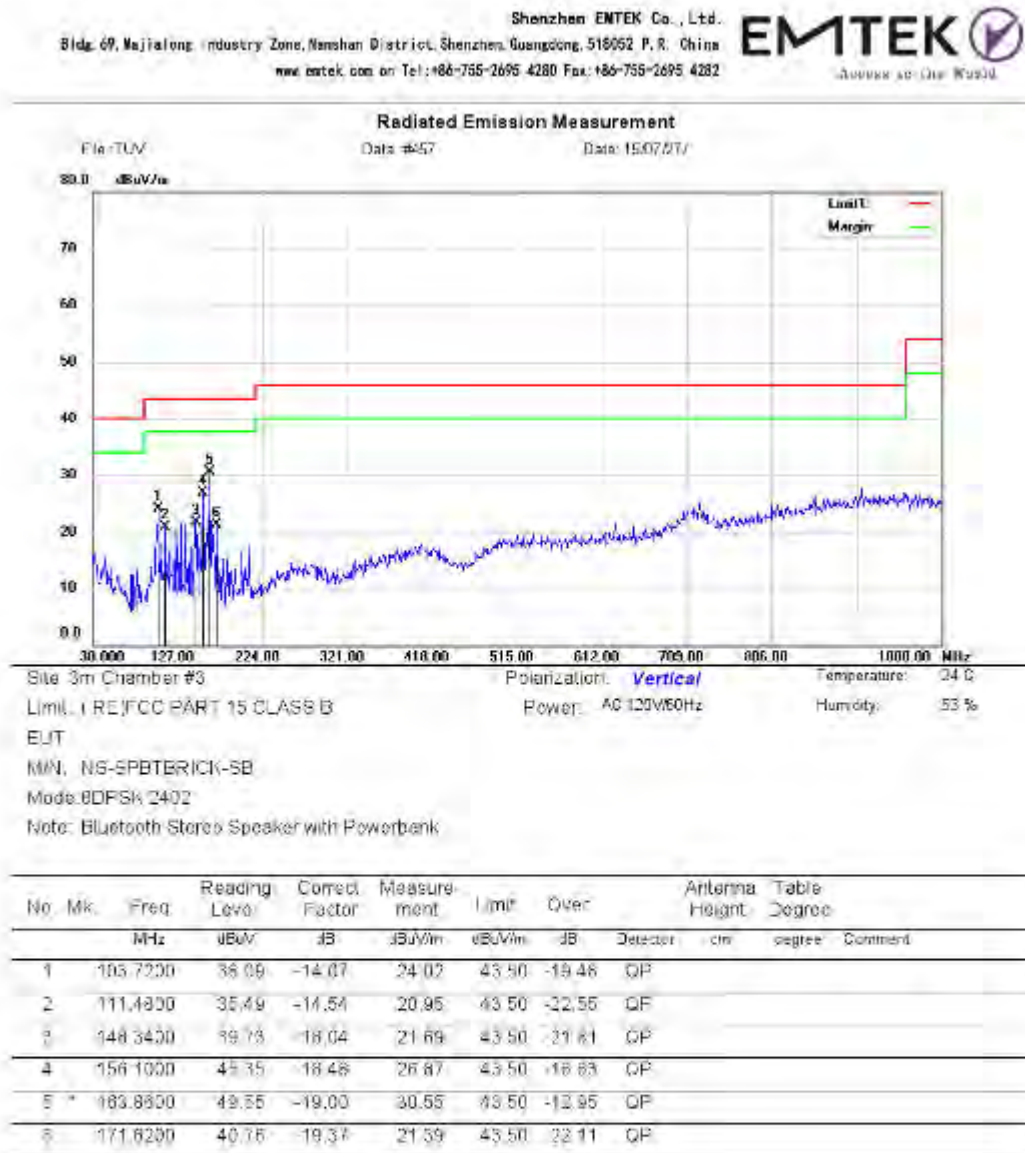
*Maximum data x: Over limit. Lower margin

Operator: 10x

File: TUVData #474

Page: 22

Figure 10: Test figure of Radiated Spurious Emissions (30MHz – 1GHz), EDR (Low)



*Maximum data x. Over limit. Level margin.

Operator: RW

File: TUV/Data #497

Page: 23

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282

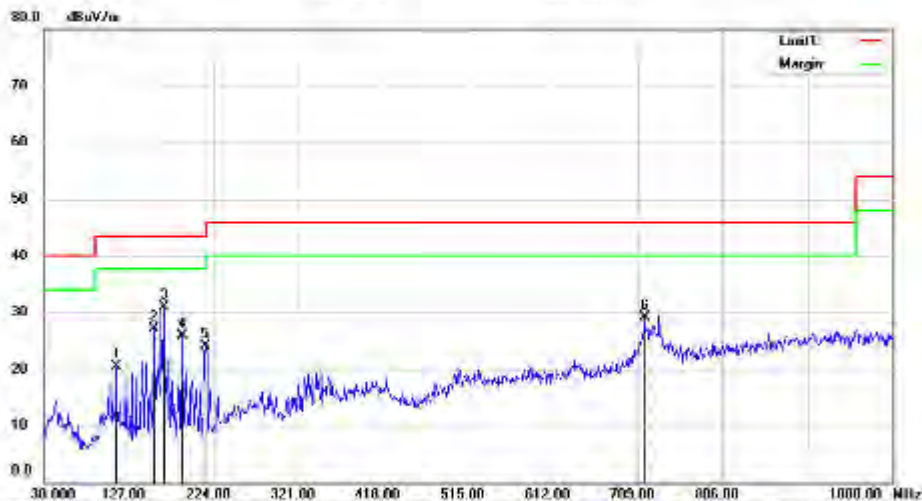


Radiated Emission Measurement

File: TUV

Date: #456

Date: 15/07/21



Site: 3m Chamber #3
Polarization: **Horizontal**
Temperature: 24 C
Limit: I RE/FCC PART 15 CLASS B
Power: AC 120V/60Hz
Humidity: 53 %
EUT
M/N: NS-SPBTRICK-SB
Mode: BPSK 2402
Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk. | Freq | Reading | Correc. | Measure- | Limit | Over | Antenna | Table | | |
|-----|-----|----------|---------|---------|----------|--------|--------|----------|--------|--------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree | Comment |
| 1 | | 111.4800 | 35.14 | -14.54 | 20.60 | 43.50 | -22.90 | QP | | | |
| 2 | | 156.1000 | 45.50 | -18.48 | 27.02 | 43.50 | -16.48 | QP | | | |
| 3 | * | 167.7400 | 50.10 | -19.27 | 30.83 | 43.50 | -12.67 | QP | | | |
| 4 | | 168.1100 | 43.54 | -17.59 | 25.95 | 43.50 | -17.55 | QP | | | |
| 5 | | 214.3000 | 40.39 | -16.38 | 24.01 | 43.50 | -19.49 | QP | | | |
| 6 | | 716.7800 | 34.54 | -6.45 | 28.08 | 46.00 | -17.92 | QP | | | |

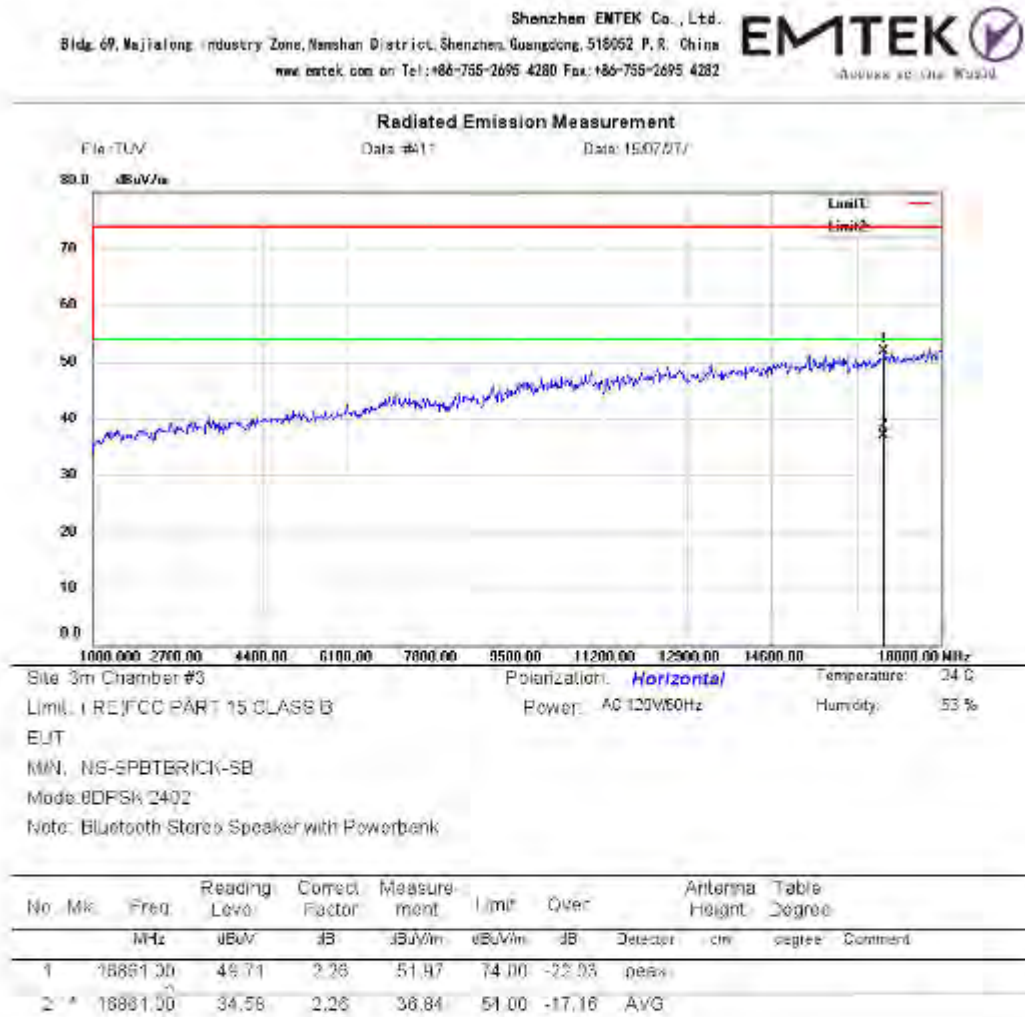
*Maximum data α: Over limit Level margin

Operator: INV

File: TUV\data #456

Page: 24

Figure 11: Test figure of Radiated Spurious Emissions (1GHz –25GHz), EDR (Low)



*Maximum data x: Over limit (Level margin)

Operator: RW

File: TUVData #411

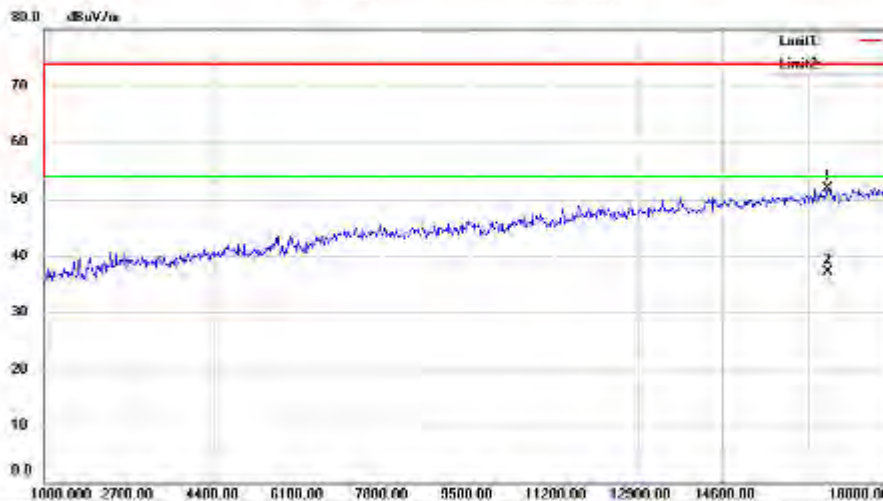
Page: 11

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #412 Date: 15/07/17



Site: 3m Chamber #3 Polarization: **Vertical** Temperature: 24 C
 Limit: I RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: BPSK 2402
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | |
|-----|----|----------|---------|--------|---------|--------|--------|----------|--------|--------|
| | | MHz | dBuV | Factor | dBuV/m | dBuV/m | dB | Detector | Height | Degree |
| | | | | | | | | | cm | degree |
| 1 | | 16705.00 | 50.33 | 1.63 | 51.96 | 74.00 | -22.04 | peak | | |
| 2 | * | 16705.00 | 35.52 | 1.63 | 37.15 | 51.00 | -13.85 | AVG | | |

*Maximum data x: Over limit Level margin

Operator: INV

File: TUVData #412

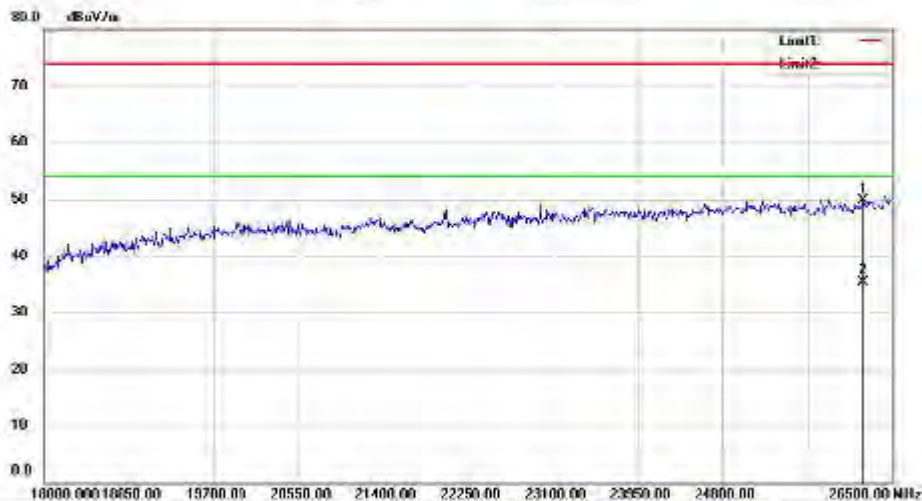
Page: 26

Shenzhen EMTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518062 P. R. China
www.emtek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #81 Date: 15/07/2017



Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: I RE FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 ELT
 M/N: NS-SPBTRICK-SB
 Mode: 8DPSK 2402
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | | |
|-----|----|----------|---------|--------|---------|--------|--------|----------|--------|--------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree | Comment |
| 1 | | 26211.00 | 85.19 | -35.53 | 49.66 | 74.00 | -24.34 | peak | | | |
| 2 | * | 26211.00 | 70.77 | -35.53 | 35.24 | 54.00 | -18.76 | AVG | | | |

*Maximum data x: Over limit. Lower margin Operator: 10x

File: TUVData #81 Page: 8

Shenzhen EMTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518062 P. R. China
www.emtek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282

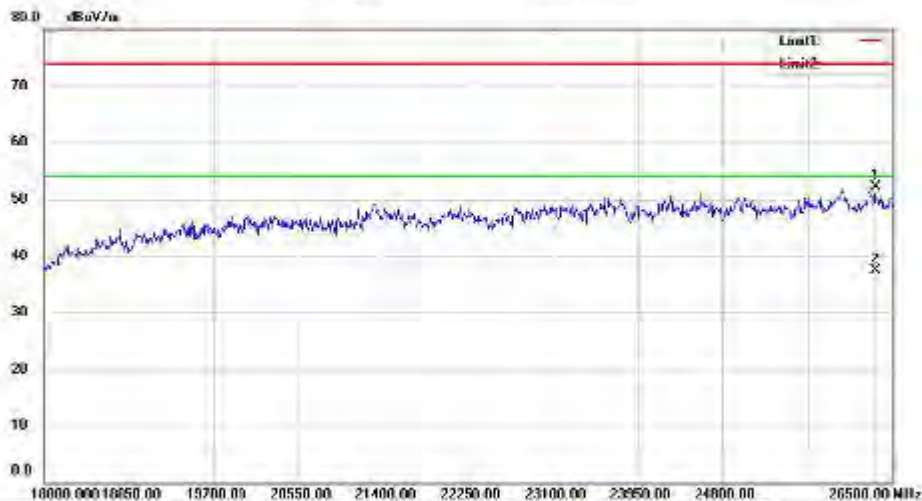


Radiated Emission Measurement

File: TUV

Data: #82

Date: 15/07/2017



Site: 3m Chamber #3
Limit: I RE FCC PART 15 CLASS B
ELT
MN: NS-SPBTRICK-SB
Mode: 8DPSK 2402
Note: Bluetooth Stereo Speaker with Powerbank

Polarization: **Vertical**
Power: AC 120V/60Hz
Temperature: 24 C
Humidity: 53 %

| No. | Mk. | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | | |
|-----|-----|----------|---------|--------|---------|--------|--------|----------|--------|--------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree | Comment |
| 1 | | 25330.00 | 87.56 | -35.39 | 52.17 | 74.00 | -21.83 | peak | | | |
| 2 | * | 26330.00 | 72.83 | -35.39 | 37.24 | 51.00 | -18.76 | AVG | | | |

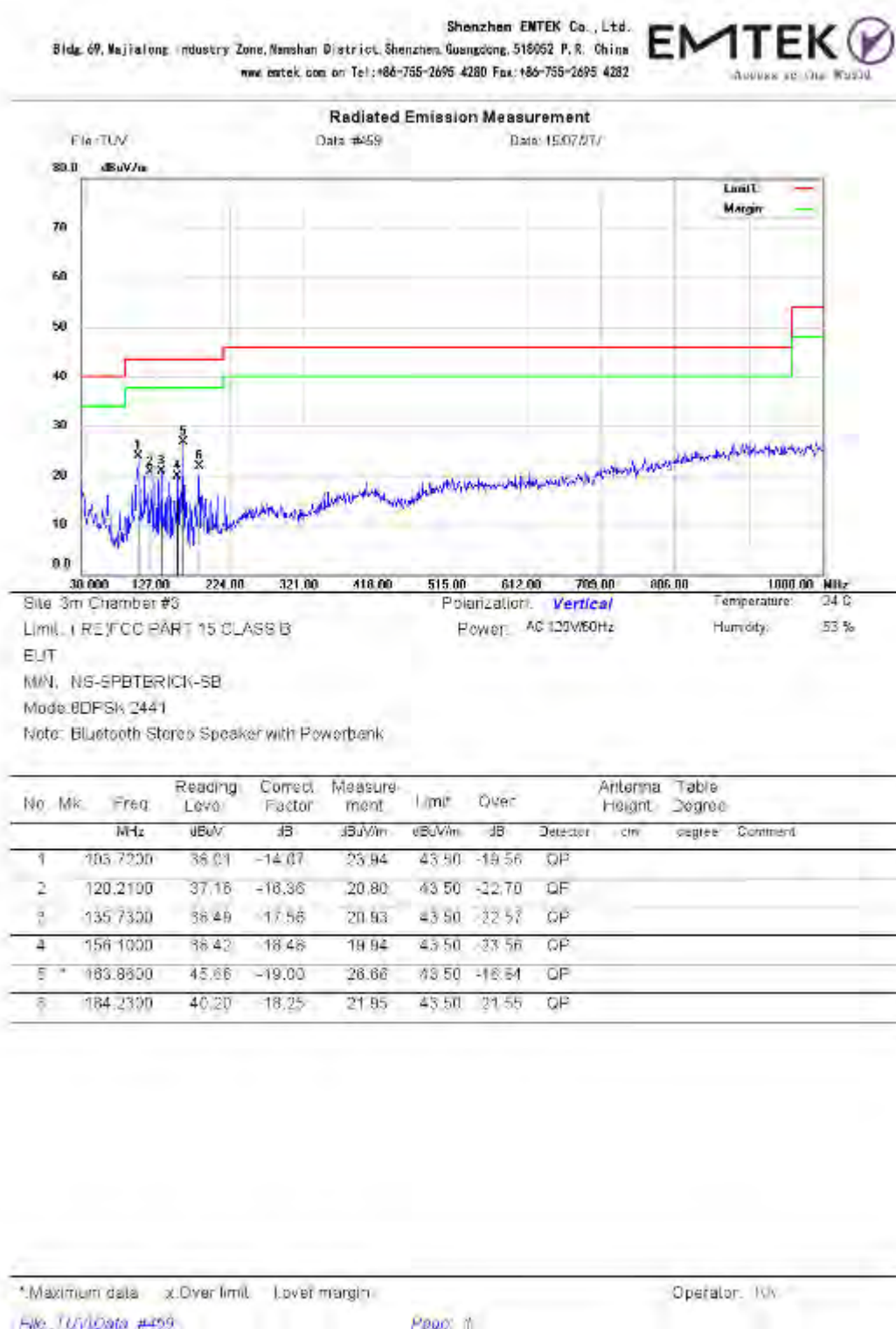
*Maximum data x: Over limit. Lower margin

Operator: 100

File: TUV\Data #82

Page: 8

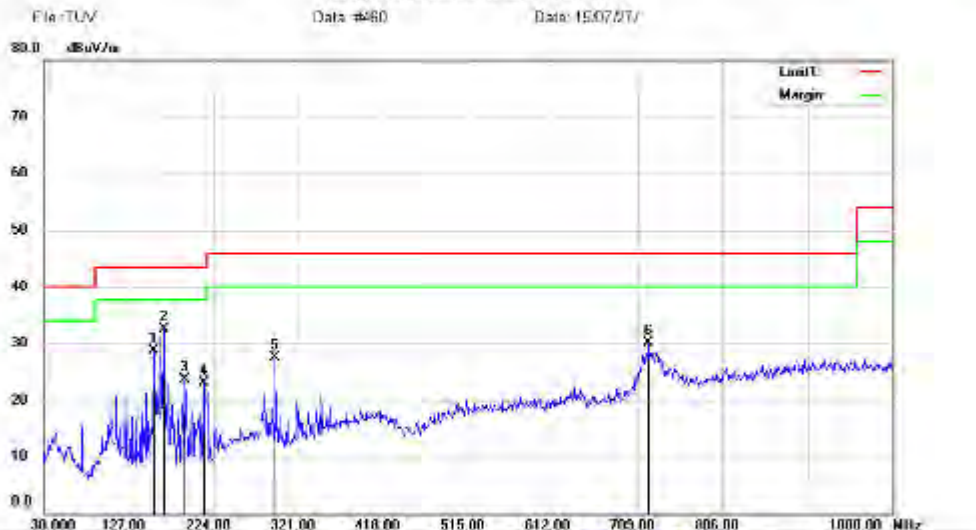
Figure 12: Test figure of Radiated Spurious Emissions (30MHz – 1GHz), EDR (Mid)



Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement



Site: 3m Chamber #3
Limit: I RE/FCC PART 15 CLASS B
EUT
M/N: NS-SPBTRICK-SB
Mode: 8DPSK 2441
Note: Bluetooth Stereo Speaker with Powerbank

Polarization: *Horizontal*
Power: AC 120V/60Hz
Temperature: 24 C
Humidity: 53 %

| No. | Mk. | Freq. | Reading | Correc. | Measure- | Limit | Over | Antenna | Table | | |
|-----|-----|----------|---------|---------|----------|--------|--------|----------|--------|--------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree | Comment |
| 1 | | 156.1000 | 47.10 | -18.48 | 28.62 | 43.50 | -14.88 | QP | | | |
| 2 * | | 187.7400 | 51.68 | -19.27 | 32.41 | 43.50 | -11.09 | QP | | | |
| 3 | | 191.0200 | 40.89 | -17.19 | 23.70 | 43.50 | -19.80 | QP | | | |
| 4 | | 213.3300 | 39.44 | -18.38 | 21.06 | 43.50 | -22.44 | QP | | | |
| 5 | | 294.8100 | 41.09 | -13.60 | 27.59 | 46.00 | -18.41 | QP | | | |
| 6 | | 721.6100 | 35.47 | -6.31 | 30.16 | 46.00 | -15.84 | QP | | | |

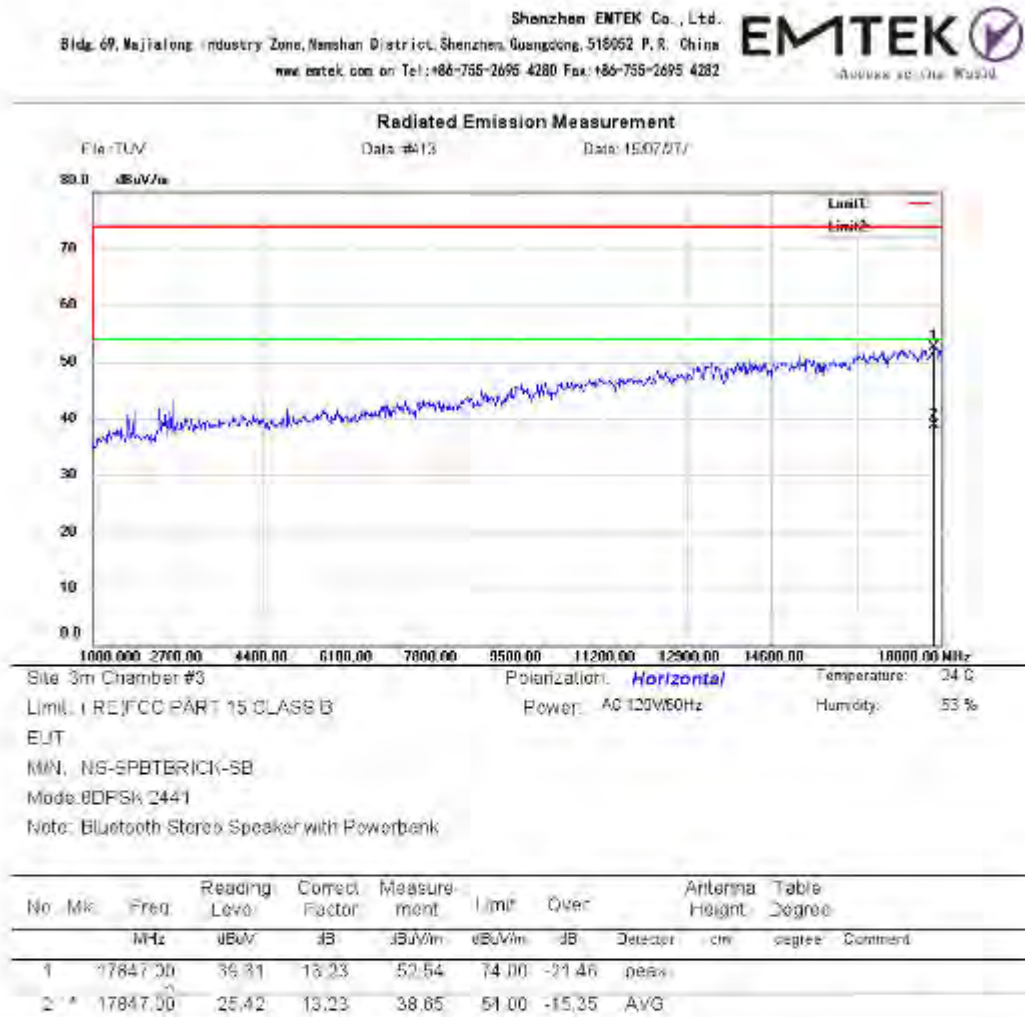
*Maximum data α:Over limit Level margin

Operator: INV

File: \\NV\data #480

Page: 30

Figure 13: Test figure of Radiated Spurious Emissions (1GHz –25GHz), EDR (Mid),



*Maximum data x: Over limit Level margin

Operator: RW

File: TUVData #413

Page: 11

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #414 Date: 15/07/2017



Site: 3m Chamber #3 Polarization: **Vertical** Temperature: 24 C
 Limit: I RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: 8DPSK 2441
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | |
|-----|----|----------|---------|--------|---------|--------|--------|----------|--------|--------|
| | | MHz | dBuV | Factor | dBuV/m | dBuV/m | dB | Detector | Height | Degree |
| | | | | | | | | | cm | degree |
| 1 | | 18487.00 | 51.46 | 0.71 | 52.17 | 74.00 | -21.83 | peak | | |
| 2 | * | 18497.00 | 36.78 | 0.71 | 37.49 | 51.00 | -13.51 | AVG | | |

*Maximum data x: Over limit Level margin

Operator: INV

File: TUVData #414

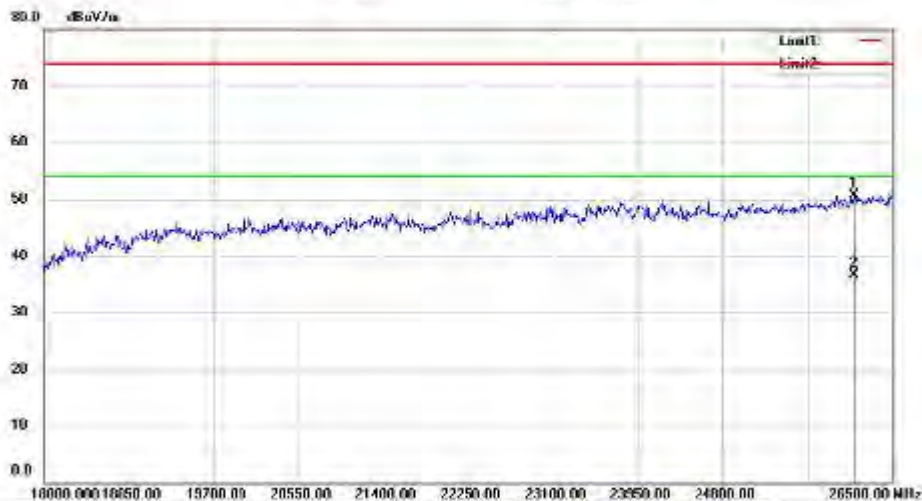
Page: 32

Shenzhen EMTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518062 P. R. China
www.emtek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #493 Date: 15/07/2017



Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24.0
 Limit: (RE) FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: 8DPSK 2441
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq. | Reading | Correc. | Measure- | Limit | Over | Antenna | Table | | |
|-----|----|----------|---------|---------|----------|--------|--------|----------|--------|--------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree | Comment |
| 1 | | 26117.50 | 86.43 | -35.65 | 50.78 | 74.00 | -23.22 | peak | | | |
| 2 | * | 26117.50 | 72.24 | -35.65 | 36.59 | 54.00 | -17.41 | AVG | | | |

*Maximum data x: Over limit. Level margin Operator: 100

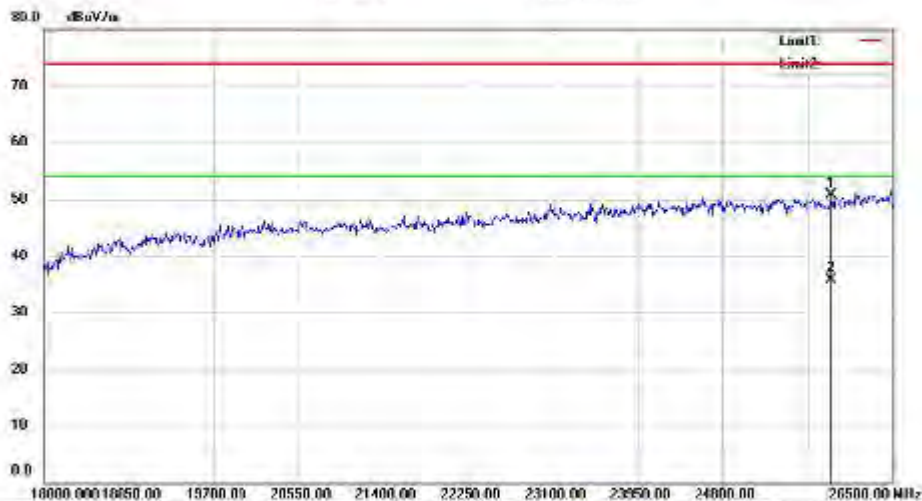
File: TUVData #493 Page: 33

Shenzhen EMTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518062 P. R. China
www.emtek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #84 Date: 15/07/2017



Site: 3m Chamber #3 Polarization: **Vertical** Temperature: 24 C
 Limit: I RE FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: 8DPSK 2441
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk. | Freq. | Reading | Correc. | Measure- | Limit | Over | Antenna | Table | | |
|-----|-----|----------|---------|---------|----------|--------|--------|----------|--------|--------|---------|
| | | MHz | dBµV | dB | dBµV/m | dBµV/m | dB | Detector | Height | Degree | Comment |
| 1 | | 25896.50 | 86.53 | -35.92 | 50.61 | 74.00 | -23.39 | peak | cm | degree | |
| 2 | * | 25896.50 | 71.67 | -35.92 | 35.75 | 54.00 | -18.25 | AVG | | | |

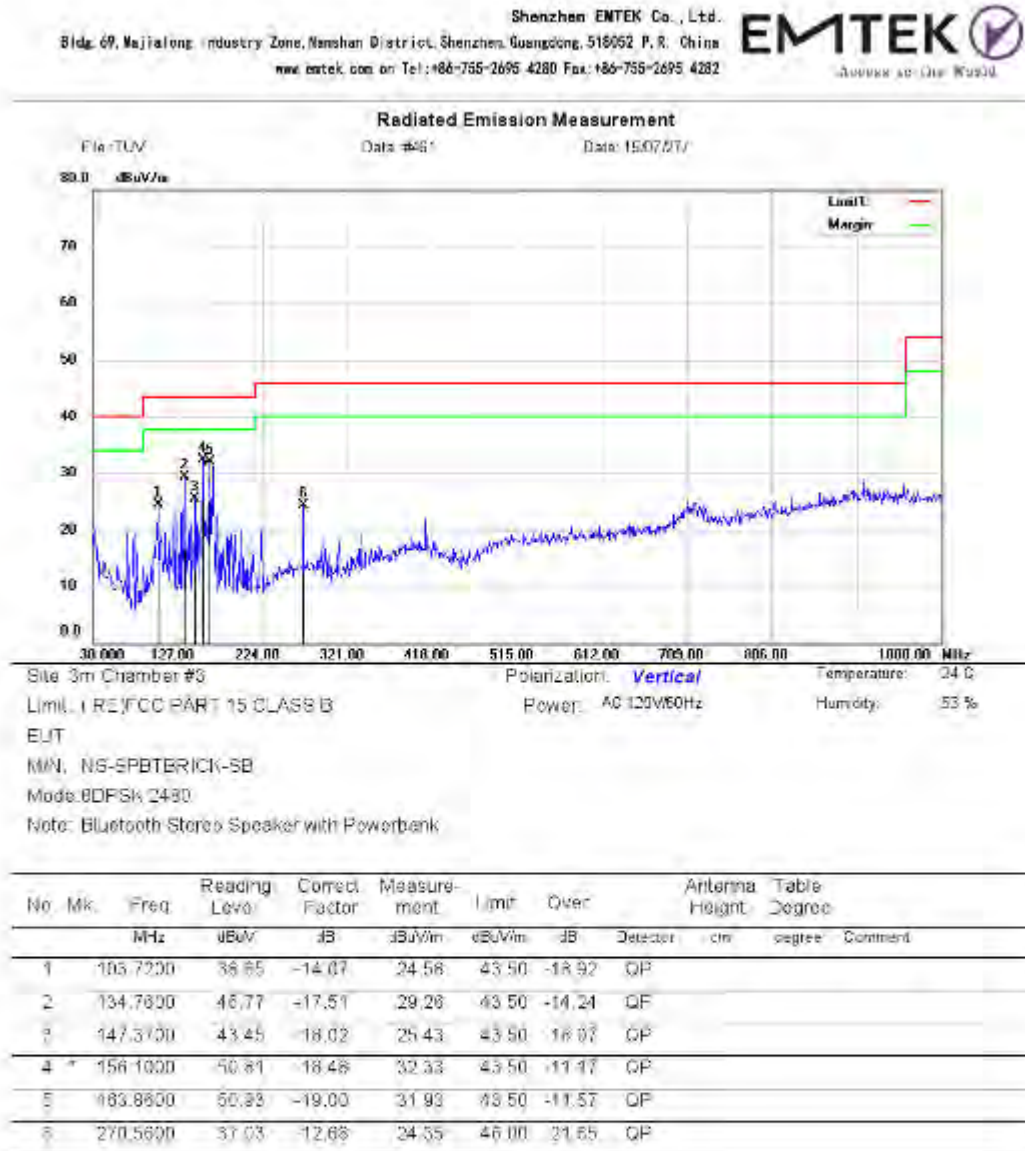
*Maximum data x: Over limit. Lower margin

Operator: 10x

File: TUVData #84

Page: #

Figure 14: Test figure of Radiated Spurious Emissions (30MHz – 1GHz), EDR (High)



*Maximum data x:Over limit Level margin:

Operator: TK

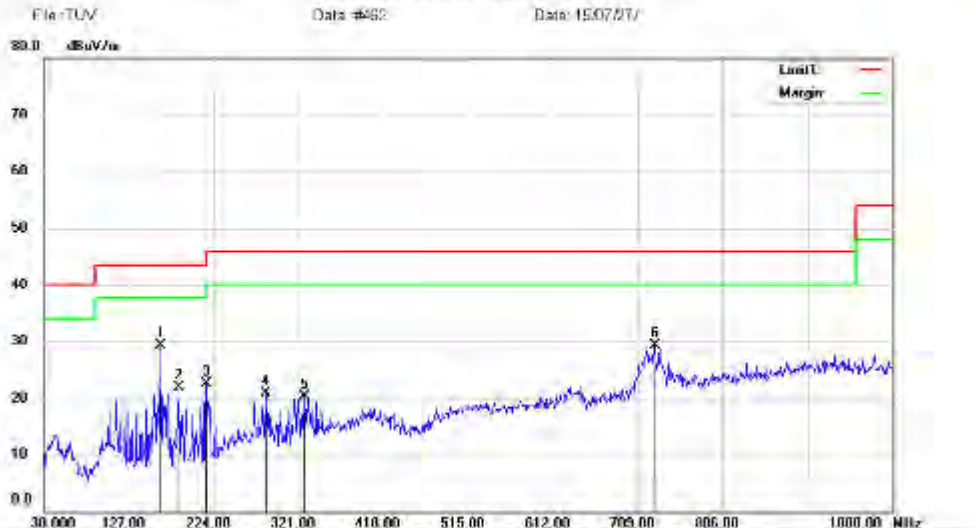
File: TU\Data #461

Page: 11

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

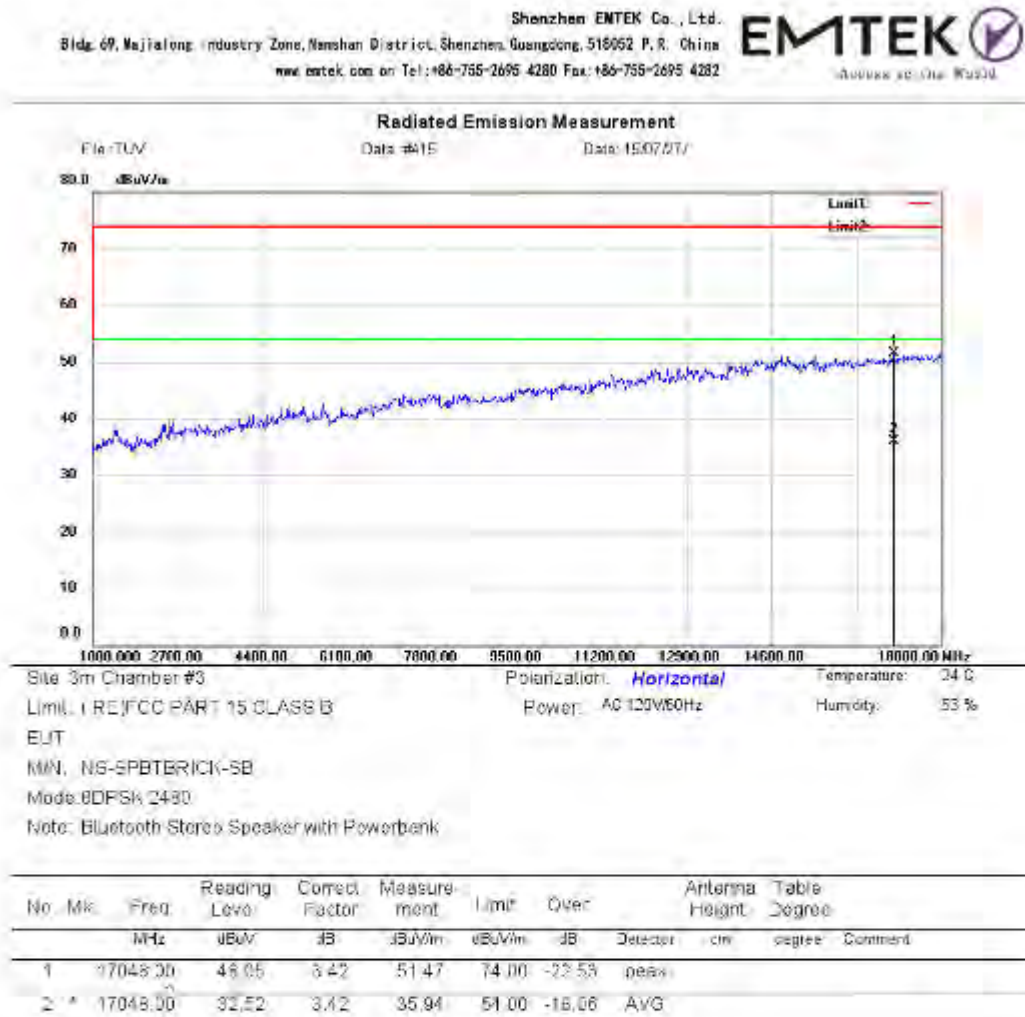


Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: I RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT: N/A, NS-SPBTRICK-SB
 Mode: BPSK 2400
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk. | Freq. | Reading | Correc. | Measure- | Limit | Over | Antenna | Table | | |
|-----|-----|---------|---------|---------|----------|--------|--------|----------|--------|--------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree | Comment |
| 1 | * | 183.800 | 48.28 | -19.00 | 29.23 | 43.50 | -14.27 | QP | | | |
| 2 | | 184.250 | 40.24 | -18.25 | 21.99 | 43.50 | -21.51 | QP | | | |
| 3 | | 215.250 | 38.93 | -18.38 | 20.55 | 43.50 | -22.95 | QP | | | |
| 4 | | 284.100 | 33.64 | -12.83 | 20.81 | 46.00 | -25.19 | QP | | | |
| 5 | | 327.780 | 33.95 | -13.09 | 20.86 | 46.00 | -25.14 | QP | | | |
| 6 | | 728.400 | 34.41 | -6.10 | 28.31 | 46.00 | -17.69 | QP | | | |

*Maximum data α.Over limit Level margin Operator: INV
 File: TUVData #492 Page: 36

Figure 15: Test figure of Radiated Spurious Emissions (1GHz –25GHz), EDR (High)



*Maximum data x: Over limit. Level margin:

Operator: RW

File: TUVData #415

Page: 11

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #416 Date: 15/07/17



Site: 3m Chamber #3 Polarization: **Vertical** Temperature: 24 C
 Limit: I RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: BPSK 2400
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | |
|-----|----|----------|---------|--------|---------|--------|--------|----------|--------|--------|
| | | MHz | dBuV | Factor | dBuV/m | dBuV/m | dB | Detector | Height | Degree |
| | | | | | | | | | cm | degree |
| 1 | | 17082.00 | 48.11 | 3.85 | 51.96 | 74.00 | -22.04 | peak | | |
| 2 | * | 17082.00 | 33.43 | 3.85 | 37.28 | 51.00 | -13.72 | AVG | | |

*Maximum data x: Over limit Level margin

Operator: INV

File: TUVData #416

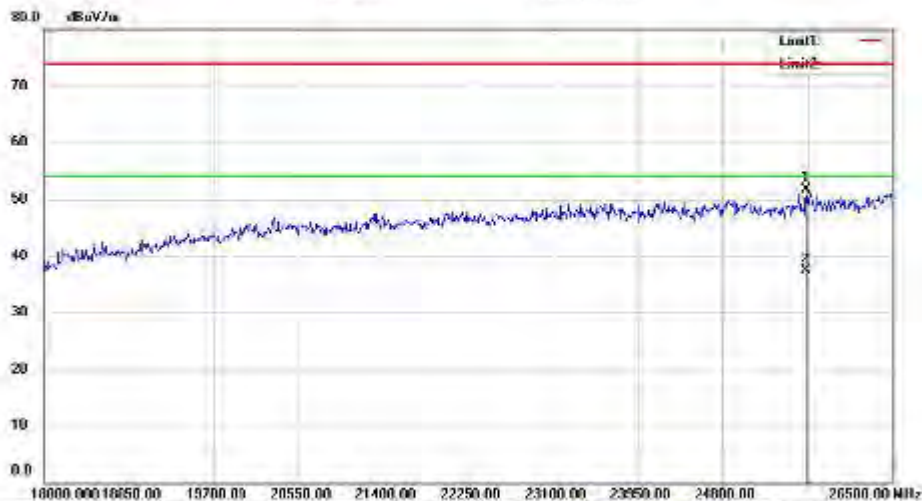
Page: 38

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518062 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #85 Date: 15/07/2017



Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: (RE) FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 ELT
 M/N: NS-SPBTRICK-SB
 Mode: 8DPSK 2430
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk. | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | | |
|-----|-----|----------|---------|--------|---------|--------|--------|----------|--------|--------|---------|
| | | MHz | dBuV | Factor | ment | dBuV/m | dB | Detector | Height | Degree | Comment |
| 1 | | 25633.00 | 87.90 | -36.24 | 51.66 | 74.00 | -22.34 | peak | cm | degree | |
| 2 | * | 25633.00 | 73.62 | -36.24 | 37.38 | 54.00 | -16.62 | AVG | | | |

*Maximum data x: Over limit. Lower margin Operator: 10x

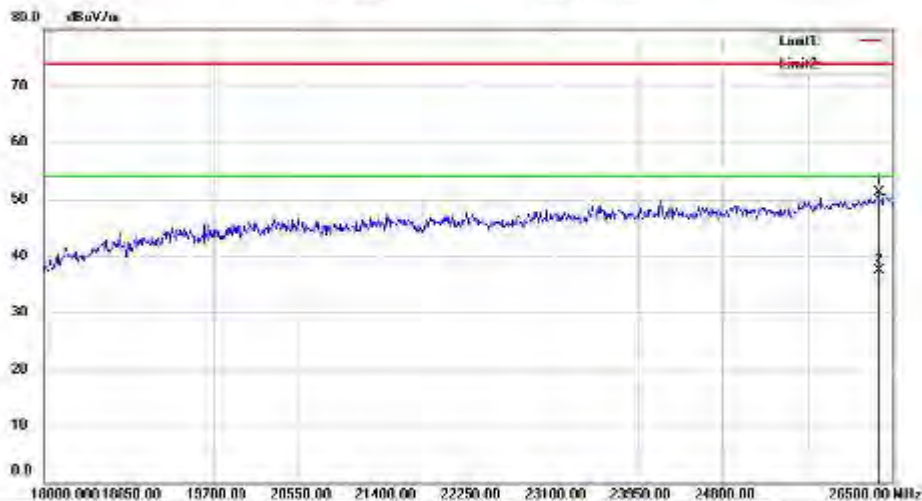
File: TUVData #85 Page: #

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518062 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #886 Date: 15/07/2017



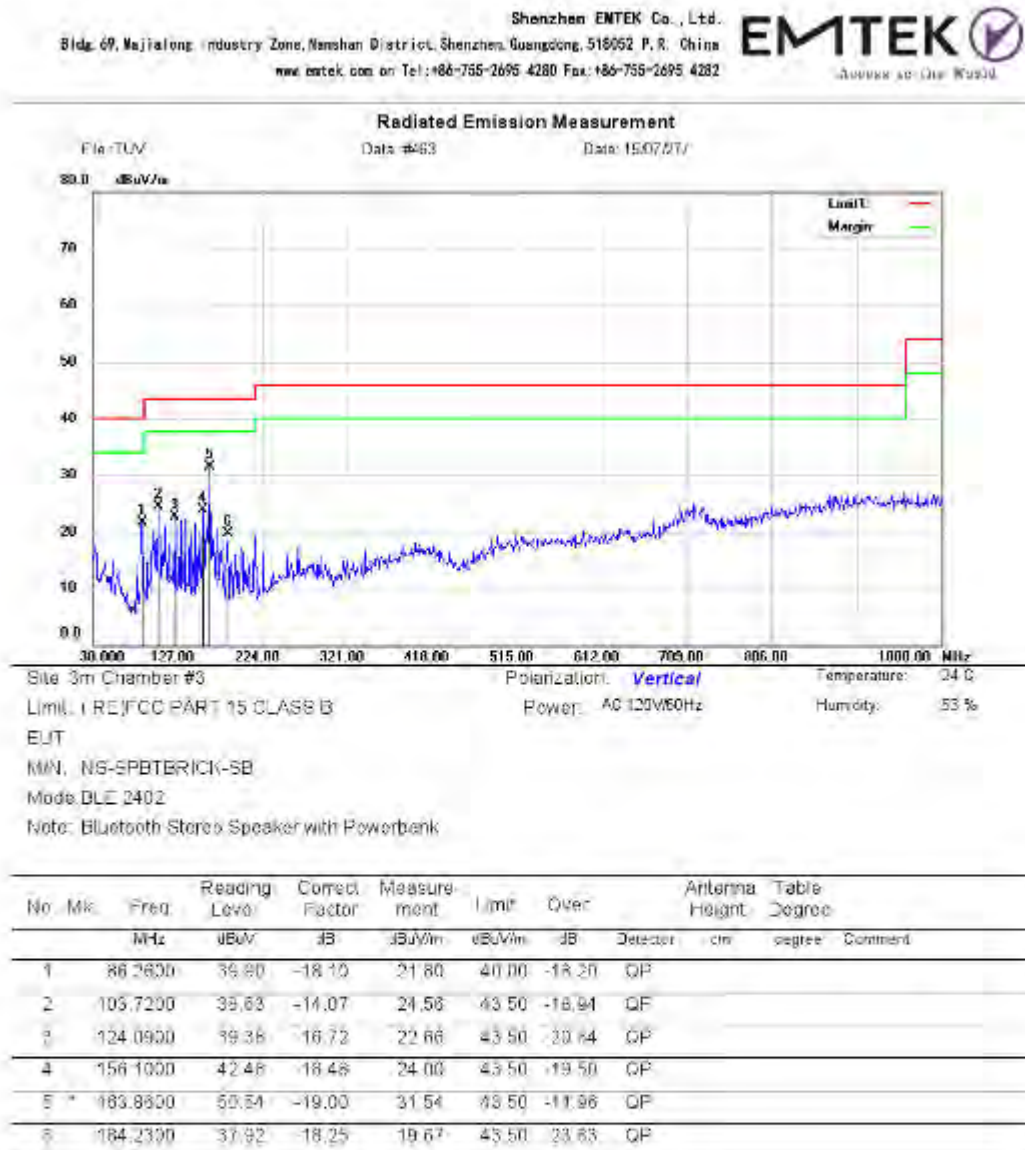
Site: 3m Chamber #3 Polarization: **Vertical** Temperature: 24.0
 Limit: (RE) FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: 8DPSK 2430
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | |
|-----|----|----------|---------|--------|---------|--------|--------|----------|--------|--------|
| | | MHz | dBuV | Factor | dBuV/m | dBuV/m | dB | Detector | Height | Degree |
| | | | | | | | | | cm | degree |
| 1 | | 25384.00 | 86.45 | -35.35 | 51.10 | 74.00 | -22.90 | peak | | |
| 2 | * | 26384.00 | 72.59 | -35.35 | 37.24 | 51.00 | -13.76 | AVG | | |

*Maximum data x: Over limit. Lower margin Operator: 100

File: TUVData #886 Page: 40

Figure 16: Test figure of Radiated Spurious Emissions (30MHz – 1GHz), Low Energy (Low)



*Maximum data x: Over limit Level margin:

Operator: TUV

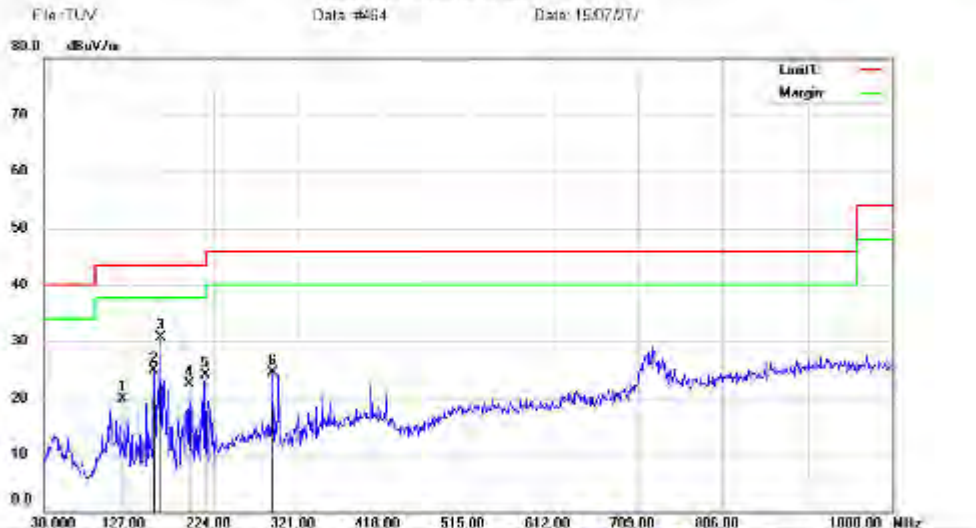
File: TUV/Data #493

Page: 11

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

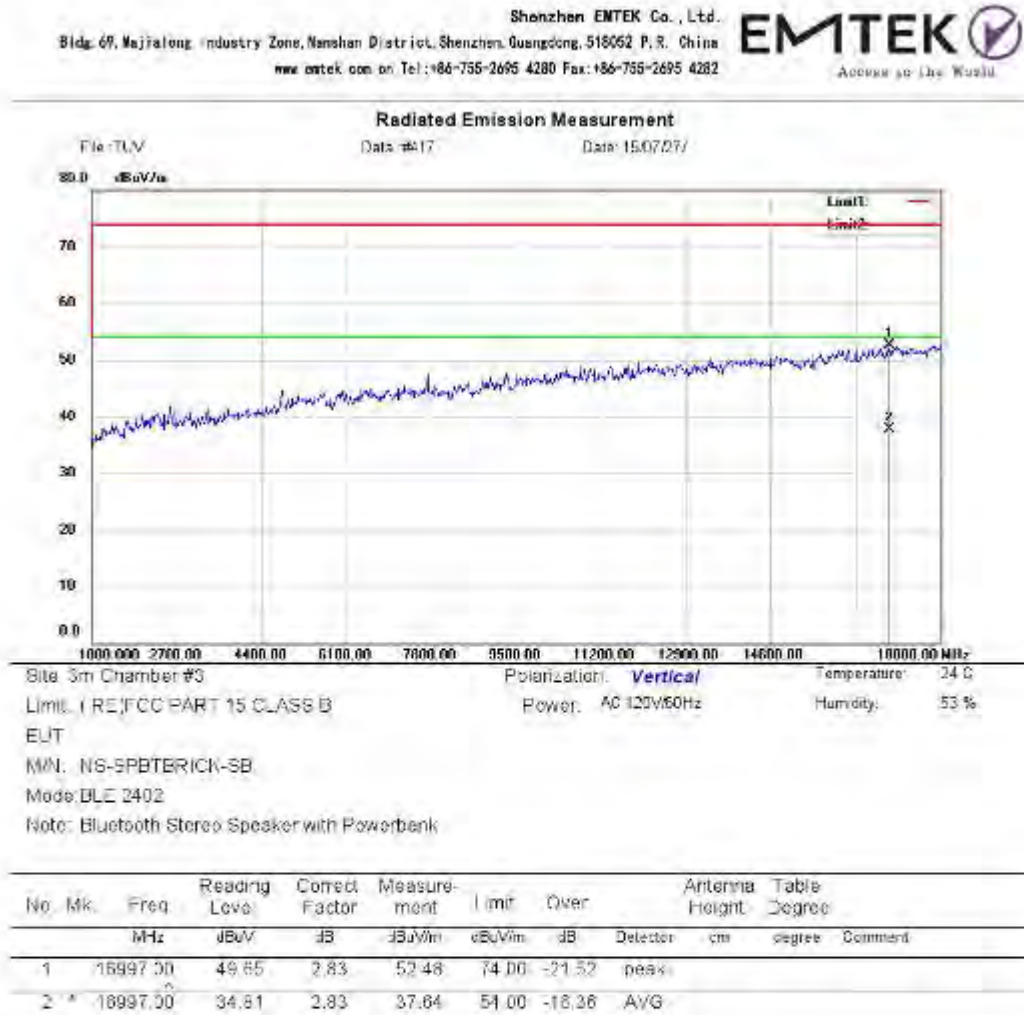


Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: I RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT: MN, NS-SPBTRICK-SB
 Mode: BLE 2402
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq | Reading | Correcd | Measure- | Limit | Over | Antenna | Table | |
|-----|----|----------|---------|---------|----------|--------|--------|----------|--------|--------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree |
| | | | | | | | | | cm | degree |
| 1 | | 120.2400 | 36.18 | -16.38 | 19.82 | 43.50 | -23.68 | QP | | |
| 2 | | 156.1000 | 43.48 | -18.48 | 25.00 | 43.50 | -18.50 | QP | | |
| 3 | | 153.8500 | 49.67 | -19.00 | 30.67 | 43.50 | -12.83 | QP | | |
| 4 | | 195.8700 | 39.30 | -16.76 | 22.54 | 43.50 | -20.96 | QP | | |
| 5 | | 214.3000 | 40.49 | -16.38 | 24.11 | 43.50 | -19.39 | QP | | |
| 6 | | 291.9000 | 37.60 | -13.32 | 24.28 | 46.00 | -21.72 | QP | | |

*Maximum data x: Over limit Level margin Operator: INK
 File: TUVData #454 Page: 42

Figure 17: Test figure of Radiated Spurious Emissions (1GHz –25GHz), Low Energy (Low)



*Maximum data x: Over limit. Lower margin

Operator: 10x

File: TUVData #417

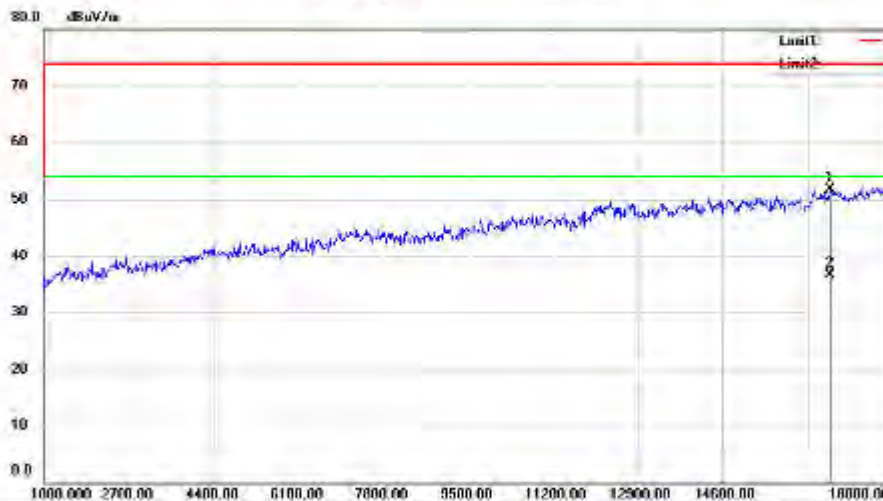
Page: 43

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #416 Date: 15/07/21



Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: I RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: BLE 2402
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | |
|-----|----|----------|---------|--------|---------|--------|--------|----------|--------|--------|
| | | MHz | dBuV | Factor | dBuV/m | dBuV/m | dB | Detector | Height | Degree |
| | | | | | | | | | cm | degree |
| 1 | | 18759.00 | 48.95 | 1.84 | 51.79 | 74.00 | -22.21 | peak | | |
| 2 | * | 18759.00 | 34.64 | 1.84 | 36.48 | 54.00 | -17.52 | AVG | | |

*Maximum data x.Over limit Level margin

Operator: INV

File: TUVData #416

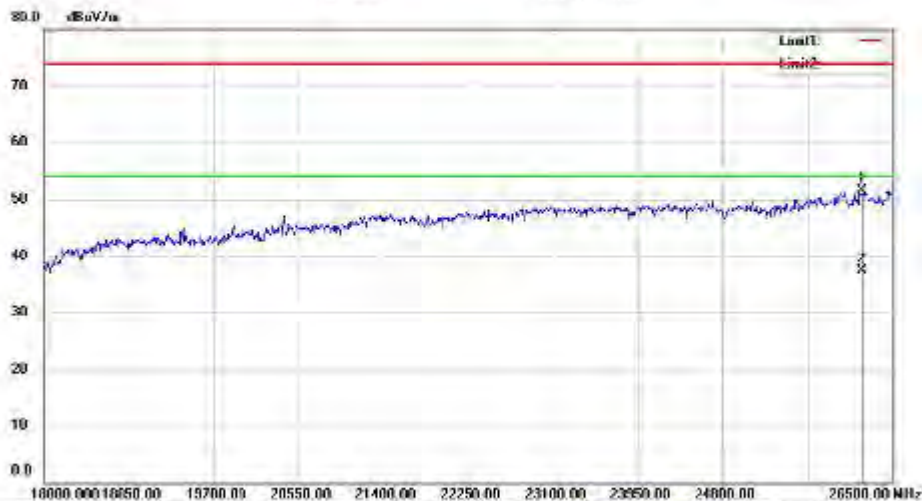
Page: 44

Shenzhen EMTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518062 P. R. China
www.emtek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #87 Date: 15/07/2017



Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: I RE FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: BLE 2402
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk. | Freq. | Reading Level | Correc. Factor | Measurement | Limit | Over | Antenna Height | Table Degree | Comment |
|-----|-----|----------|---------------|----------------|-------------|--------|--------|----------------|--------------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | cm | degree | |
| 1 | | 26202.50 | 87.08 | -35.54 | 51.54 | 74.00 | -22.46 | peak | | |
| 2 | * | 26202.50 | 72.78 | -35.54 | 37.24 | 51.00 | -13.76 | AVG | | |

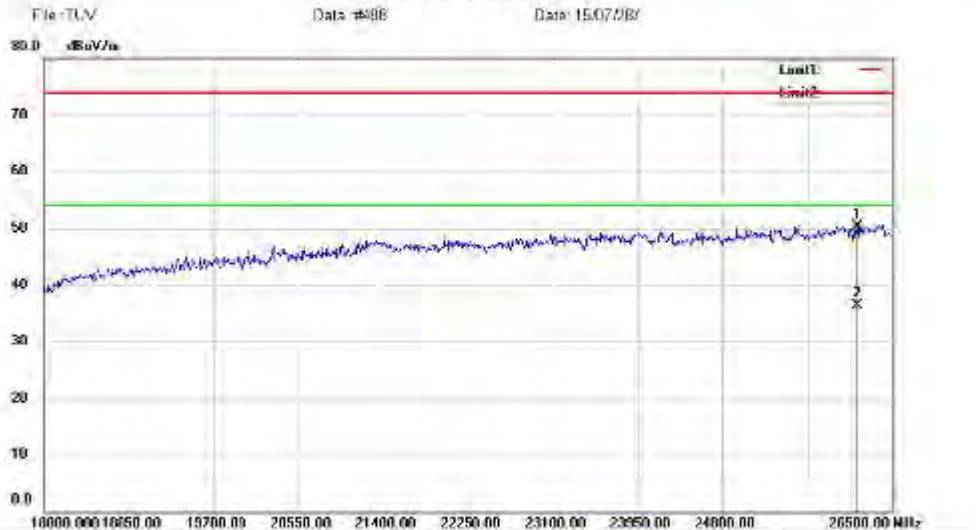
*Maximum data x: Over limit. Level margin Operator: 100

File: TUV/Data #87 Page: 4

Shenzhen EMTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518062 P. R. China
www.emtek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



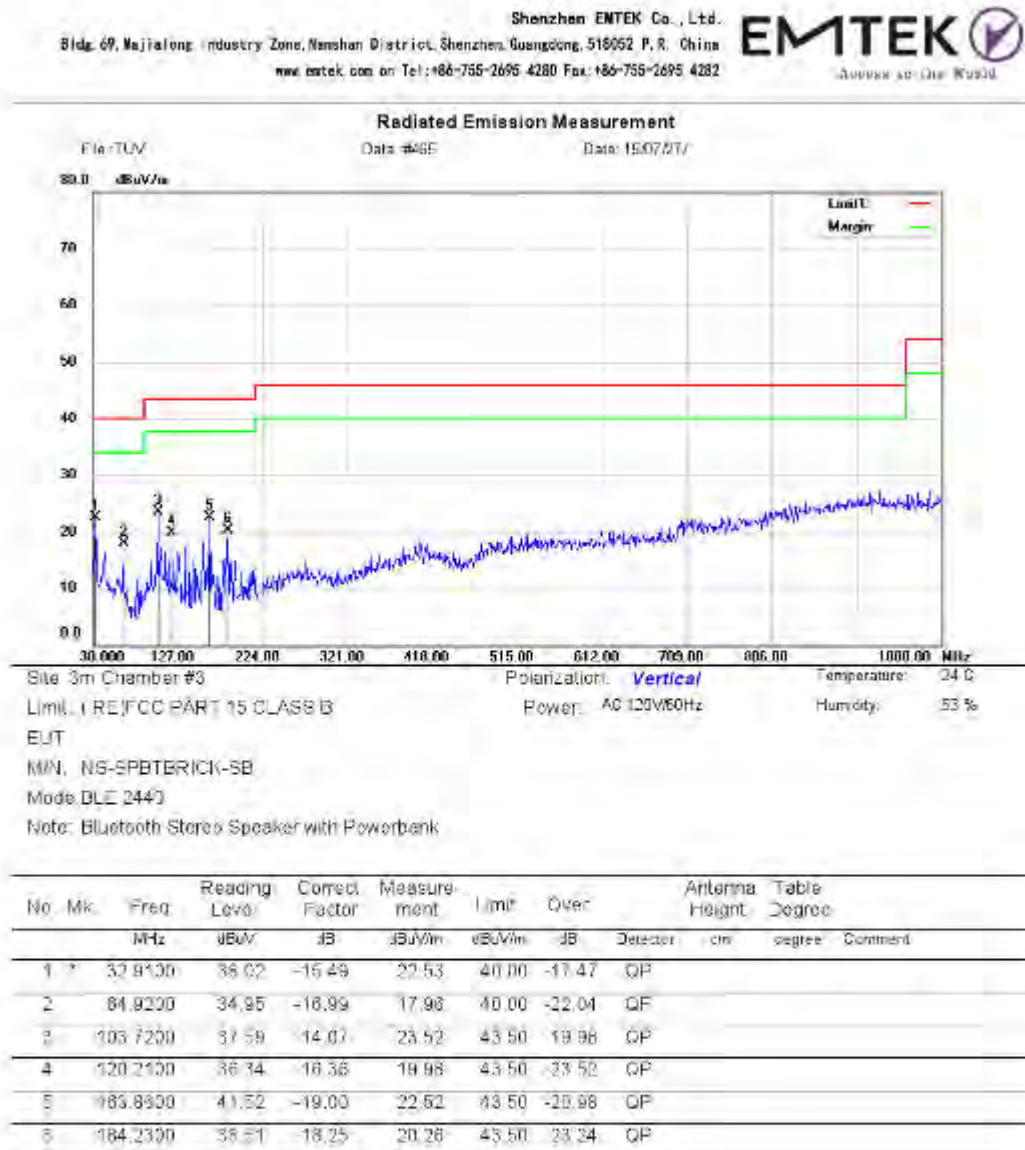
Radiated Emission Measurement



Site: 3m Chamber #3 Polarization: **Vertical** Temperature: 24 C
 Limit: (RE) FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 ELT
 M/N: NS-SPBTRICK-SB
 Mode: BLE 2402
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk. | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | | |
|-----|-----|----------|---------|--------|---------|--------|--------|----------|--------|--------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree | Comment |
| 1 | | 26151.50 | 85.84 | -35.61 | 50.23 | 74.00 | -23.77 | peak | | | |
| 2 | * | 26151.50 | 71.89 | -35.61 | 36.28 | 54.00 | -17.72 | AVG | | | |

Figure 18: Test figure of Radiated Spurious Emissions (30MHz – 1GHz), Low Energy (Mid)



*Maximum data x: Over limit. Level margin: Operator: TK

File: TU\10Data #465

Page: 11

Shenzhen EMTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518062 P. R. China
www.emtek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282

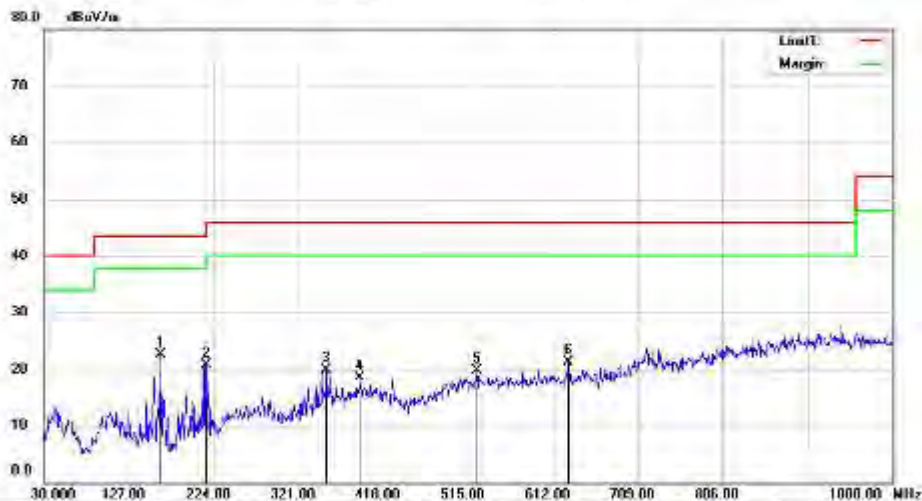


Radiated Emission Measurement

File: TUV

Date: #866

Date: 15/07/27



Site: 3m Chamber #3

Polarization: **Horizontal**

Temperature: 24 C

Limit: I RE/FCC PART 15 CLASS B

Power: AC 120V/60Hz

Humidity: 53 %

ELT

MM: NS-SPBTRICK-SB

Mode: BLE 2443

Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk. | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | |
|-----|-----|----------|---------|--------|---------|--------|--------|----------|--------|---------|
| | | MHz | dBuV | Factor | ment | dBuV/m | dB | Detector | Height | Comment |
| | | | | dB | dBuV/m | | | cm | degree | |
| 1 | * | 165.8600 | 41.43 | -19.00 | 22.43 | 43.50 | -21.07 | QP | | |
| 2 | | 215.2700 | 37.08 | -18.38 | 20.70 | 43.50 | -22.80 | QP | | |
| 3 | | 352.0400 | 31.28 | -11.42 | 19.86 | 46.00 | -26.14 | QP | | |
| 4 | | 391.8100 | 27.79 | -9.33 | 18.46 | 46.00 | -27.54 | QP | | |
| 5 | | 525.6700 | 27.36 | -7.58 | 19.78 | 46.00 | -26.22 | QP | | |
| 6 | | 629.4600 | 27.64 | -6.69 | 21.25 | 46.00 | -24.75 | QP | | |

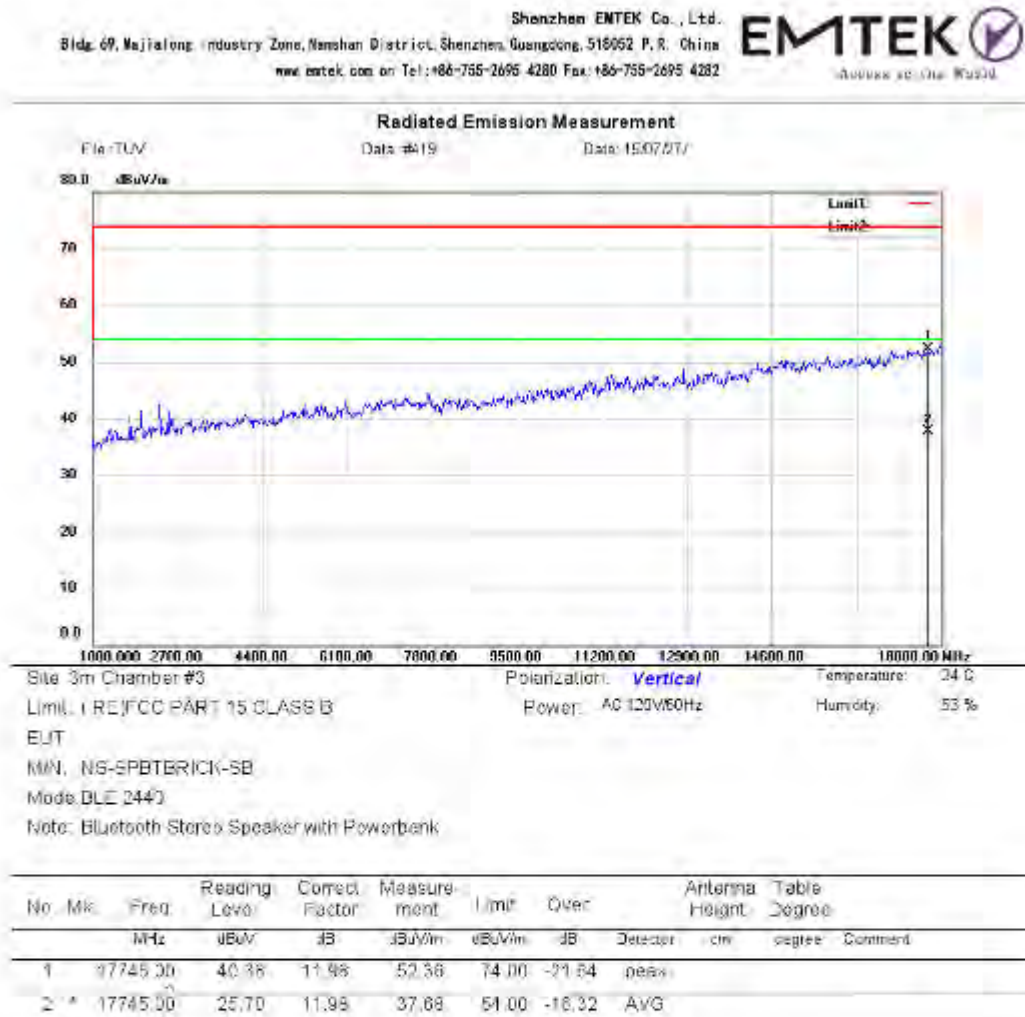
*Maximum data x: Over limit. Lower margin

Operator: 10x

File: TUV\data #866

Page: #1

Figure 19: Test figure of Radiated Spurious Emissions (1GHz –25GHz), Low Energy (Mid)



*Maximum data x: Over limit Level margin:

Operator: TUV

File: TUVData #419

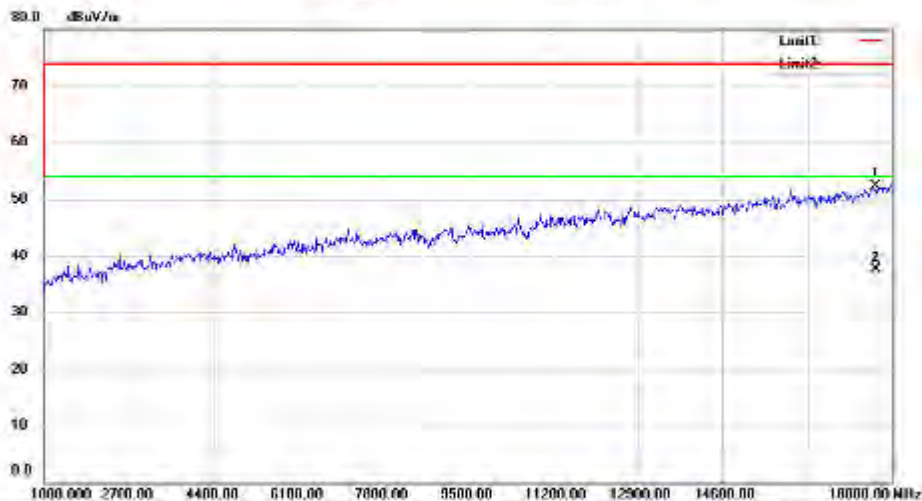
Page: 11

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #420 Date: 15/07/21



Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: 1 RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: BLE 2440
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | |
|-----|----|----------|---------|--------|---------|--------|--------|----------|--------|--------|
| | | MHz | dBuV | Factor | dBuV/m | dBuV/m | dB | Detector | Height | Degree |
| | | | | | | | | | cm | degree |
| 1 | | 17877.00 | 41.19 | 11.18 | 52.35 | 74.00 | -21.65 | peak | | |
| 2 | * | 17877.00 | 26.26 | 11.18 | 37.42 | 54.00 | -16.58 | AVG | | |

*Maximum data α. Over limit Level margin Operator: INV
 File: TUVData #420 Report

Shenzhen EMTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518062 P. R. China
www.emtek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #89 Date: 15/07/2017



Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: I RE FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 ELIT
 MM: NS-SPBTERICK-SB
 Mode: BLE 2440
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | | |
|-----|----|----------|---------|--------|---------|--------|--------|----------|--------|--------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree | Comment |
| 1 | | 26335.50 | 71.84 | -35.38 | 51.78 | 74.00 | -22.22 | peak | | | |
| 2 | * | 26335.50 | 71.84 | -35.38 | 36.48 | 54.00 | -17.52 | AVG | | | |

*Maximum data x:Over limit. Lower margin Operator: 10x

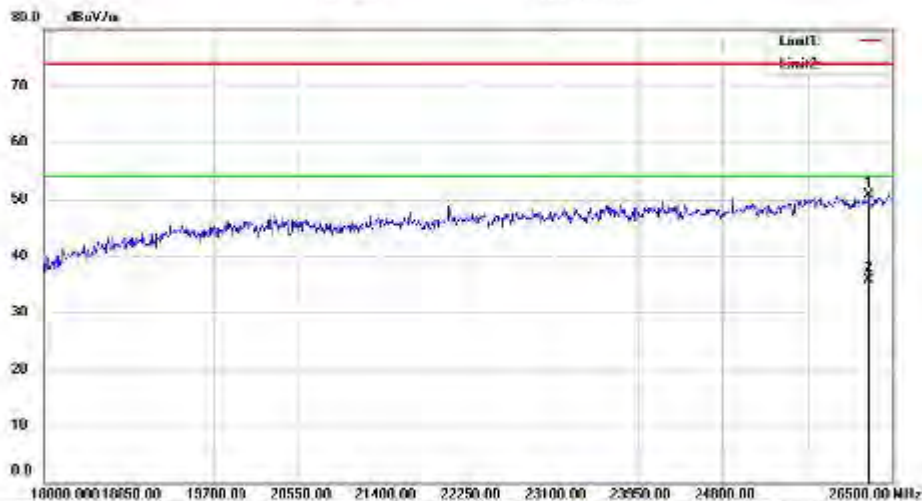
File: TUV/Data #89 Page: 8

Shenzhen EMTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.emtek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #490 Date: 15/07/2017



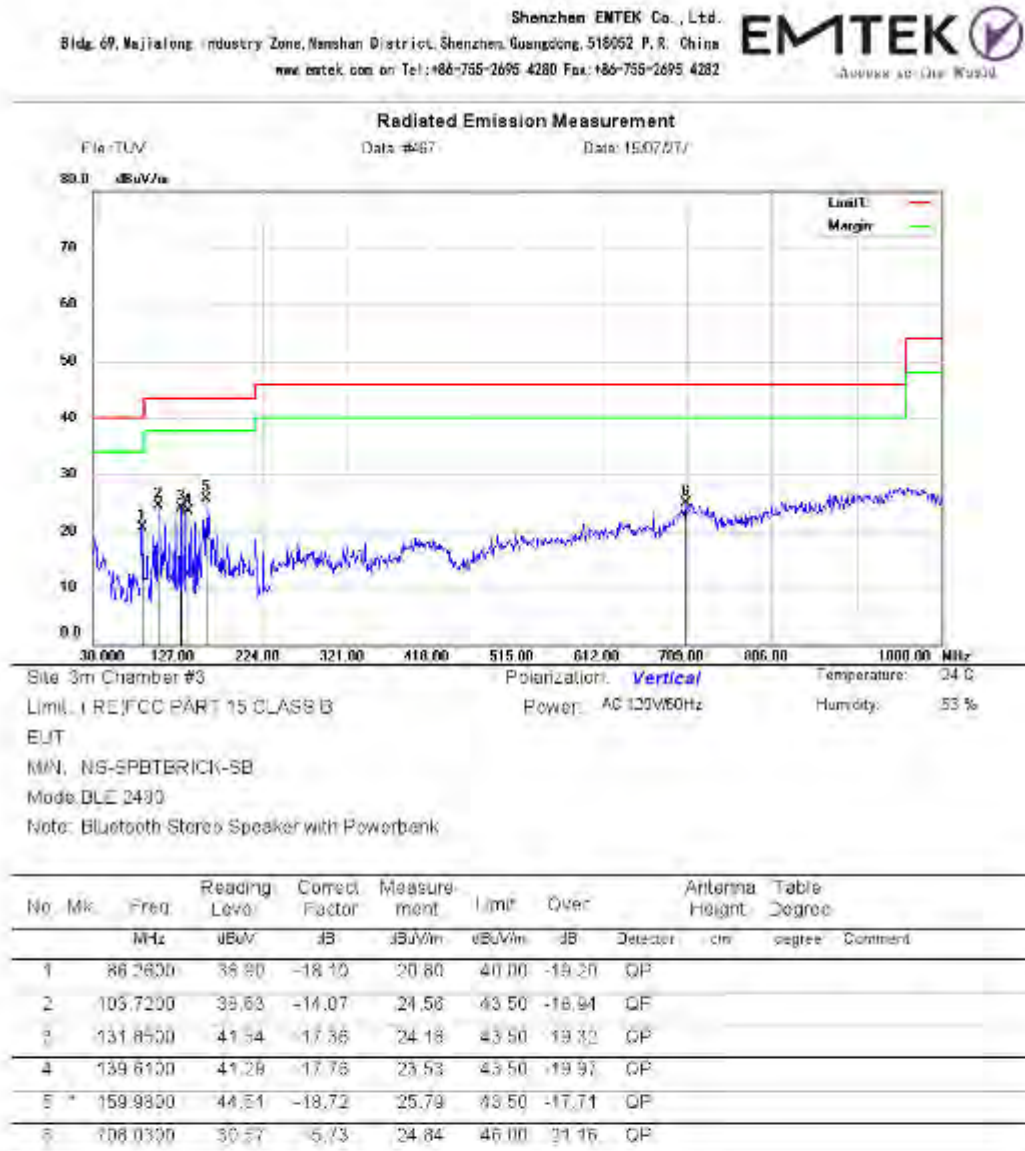
Site: 3m Chamber #3 Polarization: **Vertical** Temperature: 24.0
 Limit: I RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: BLE 2440
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk. | Freq. | Reading | Correc. | Measure- | Limit | Over | Antenna | Table | | |
|-----|-----|----------|---------|---------|----------|--------|--------|----------|--------|--------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree | Comment |
| 1 | | 25262.00 | 86.20 | -35.47 | 50.73 | 74.00 | -23.27 | peak | | | |
| 2 | * | 26282.00 | 71.22 | -35.47 | 35.75 | 54.00 | -18.25 | AVG | | | |

*Maximum data x: Over limit. Level margin Operator: 10x

File: TUVData_#490 Page: 52

Figure 20: Test figure of Radiated Spurious Emissions (30MHz – 1GHz), Low Energy (High)



*Maximum data α. Over limit. Level margin

Operator: RW

File: TUVData #457

Page: 53

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282

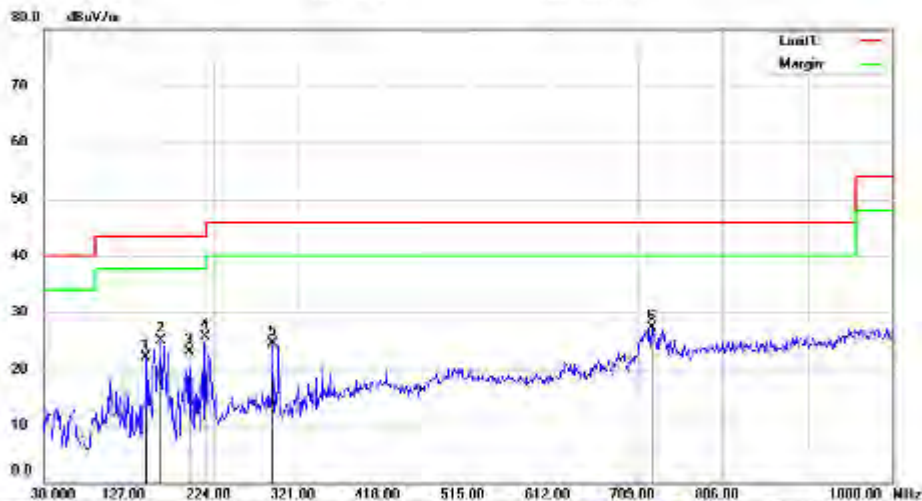


Radiated Emission Measurement

File: TUV

Date: #66

Date: 15/07/21



Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: I RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: BLE 2490
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq. | Reading | Correc. | Measure- | Limit | Over | Antenna | Table | |
|-----|----|----------|---------|---------|----------|--------|--------|----------|--------|--------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree |
| | | | | | | | | | cm | degree |
| 1 | | 147.5700 | 40.10 | -18.02 | 22.08 | 43.50 | -21.42 | QP | | |
| 2 | | 185.8800 | 44.17 | -19.00 | 25.17 | 43.50 | -18.33 | QP | | |
| 3 | | 195.8700 | 39.80 | -16.76 | 23.04 | 43.50 | -20.46 | QP | | |
| 4 | * | 214.3000 | 41.99 | -16.38 | 25.61 | 43.50 | -17.89 | QP | | |
| 5 | | 291.9000 | 37.88 | -13.32 | 24.56 | 46.00 | -21.42 | QP | | |
| 6 | | 724.5200 | 32.53 | -6.21 | 27.32 | 46.00 | -18.68 | QP | | |

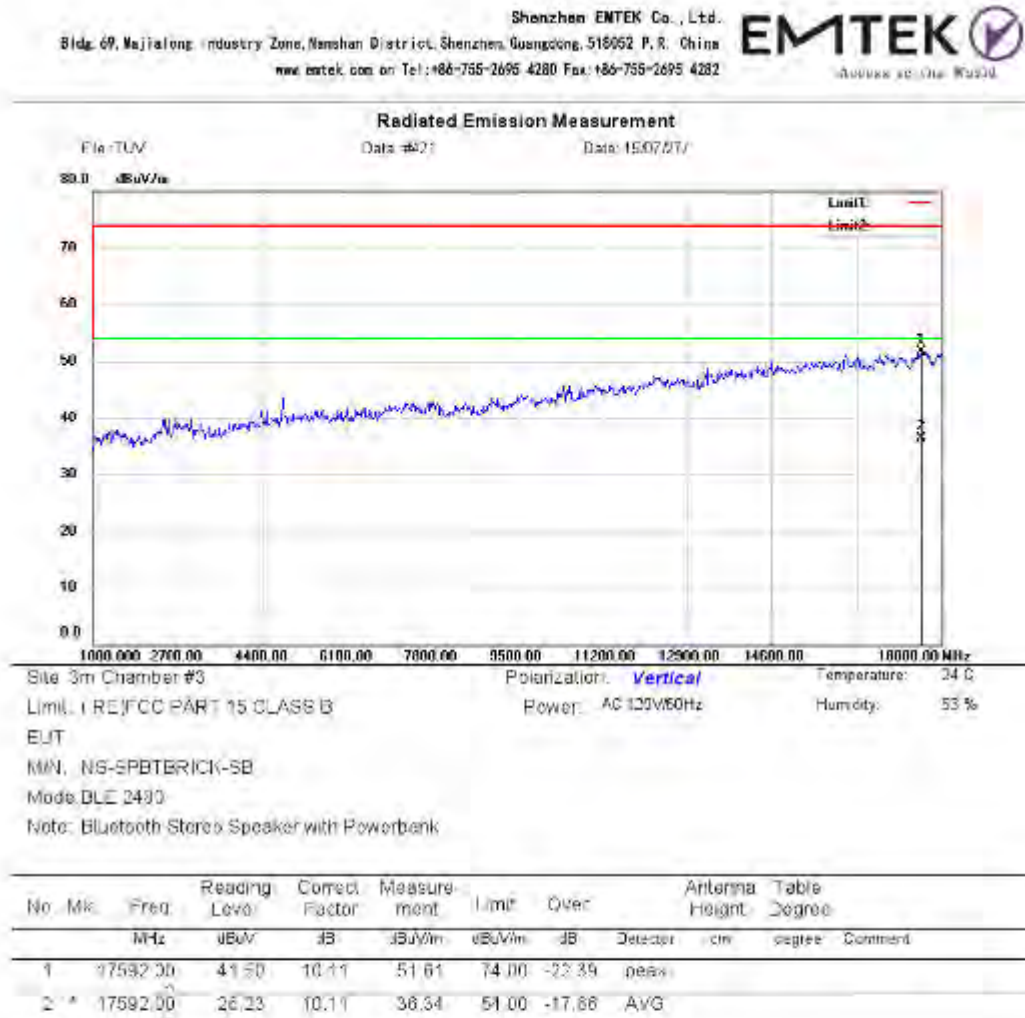
*Maximum data α.Over limit Level margin

Operator: INK

File: TUV/Data #66

Page: 6

Figure 21: Test figure of Radiated Spurious Emissions (1GHz –25GHz), Low Energy (High)



*Maximum data x: Over limit. Level margin:

Operator: RW

File: TUVData #421

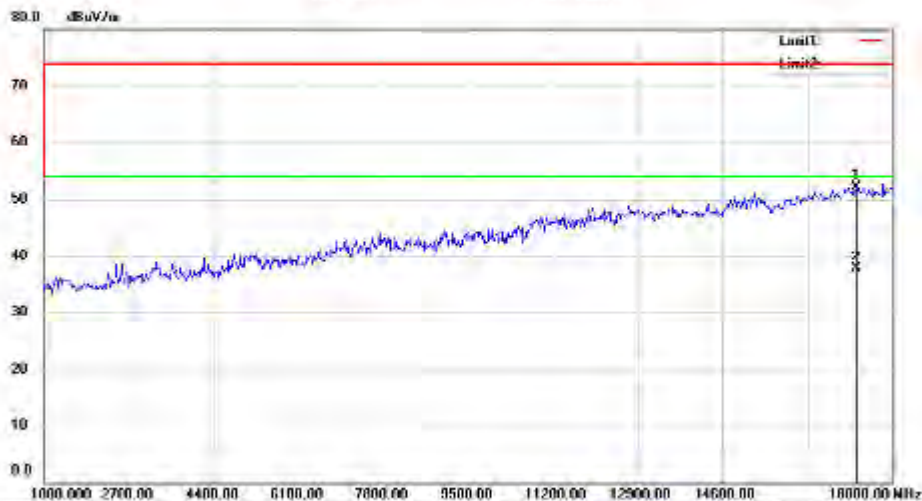
Page: 11

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #422 Date: 15/07/21



Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: I RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: BLE 2490
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | |
|-----|----|----------|---------|--------|---------|--------|--------|----------|--------|---------|
| | | MHz | dBuV | Factor | dBuV/m | dBuV/m | dB | Detector | Height | Degree |
| | | | | dB | | | | cm | | Comment |
| 1 | | 17238.00 | 45.84 | -8.36 | 52.20 | 74.00 | -21.80 | peak | | |
| 2 | * | 17238.00 | 31.28 | -8.36 | 37.64 | 51.00 | -13.36 | AVG | | |

*Maximum data α.Over limit Level margin

Operator: INV

File: TUVData #422

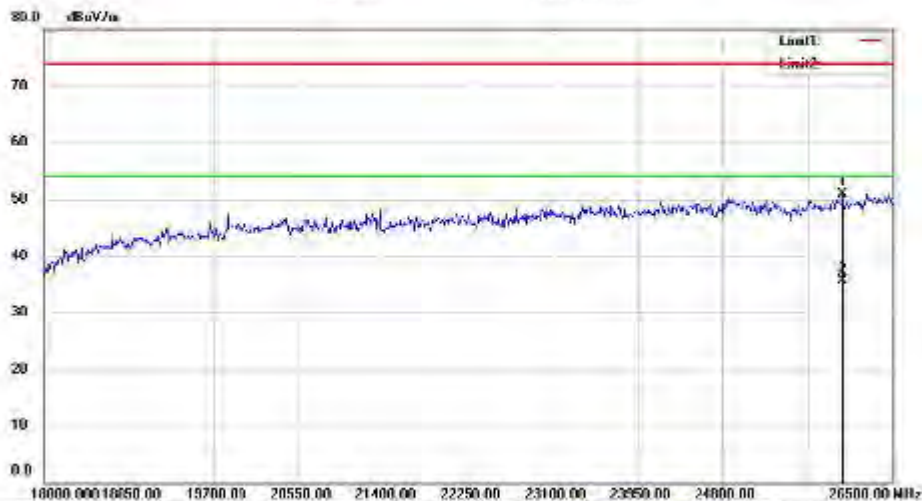
Page: 11

Shenzhen EMTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518062 P. R. China
www.emtek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data #491 Date: 15/07/2017



Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24.0
Limit: I RE FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
EUT
M/N: NS-SPBTRICK-SB
Mode: BLE 2400
Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk. | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | | |
|-----|-----|----------|---------|--------|---------|--------|--------|----------|--------|--------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree | Comment |
| 1 | | 26007.00 | 86.62 | -35.78 | 50.84 | 74.00 | -23.16 | peak | | | |
| 2 | * | 26007.00 | 71.27 | -35.78 | 35.49 | 54.00 | -18.51 | AVG | | | |

*Maximum data x: Over limit. Level margin Operator: 100

File: TUVData #491 Page: 57

Shenzhen EMTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518062 P. R. China
www.emtek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

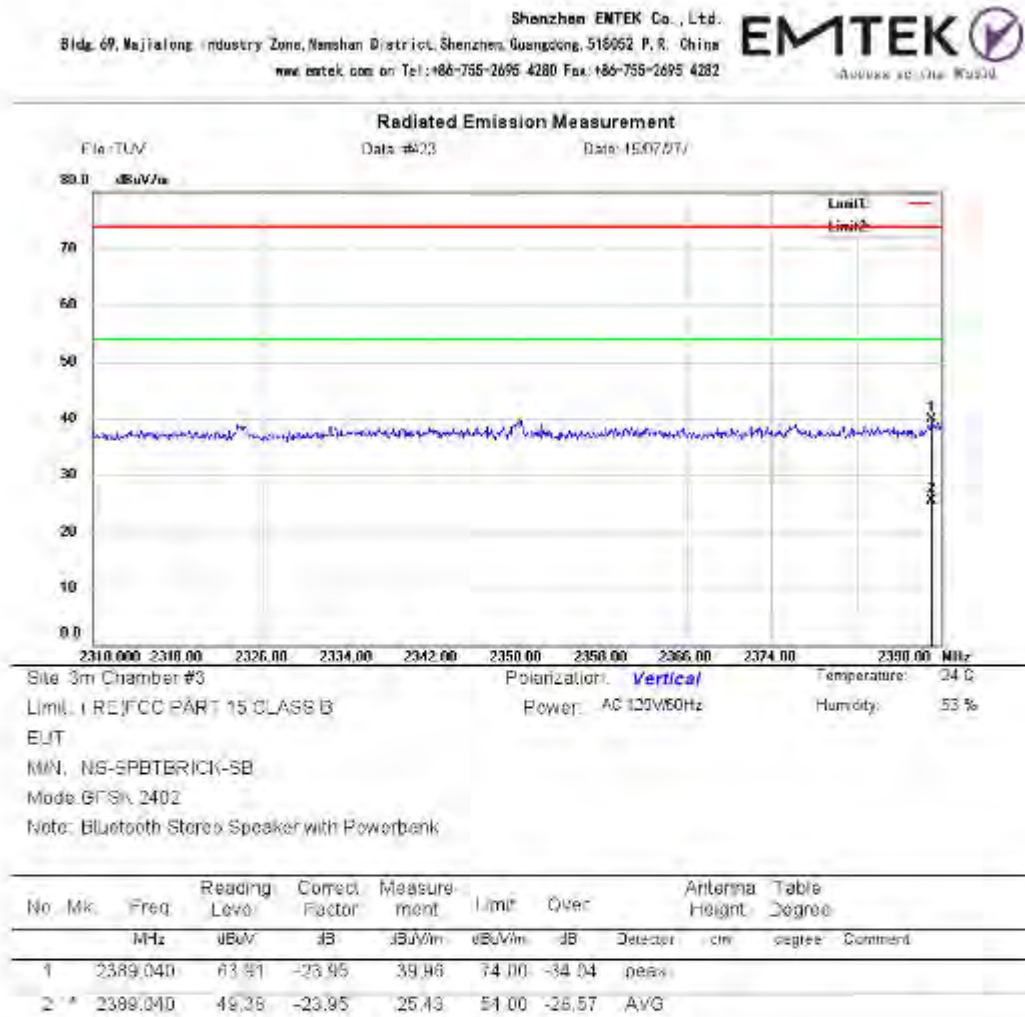
File: TUV Data: #492 Date: 15/07/2017



Site: 3m Chamber #3 Polarization: **Vertical** Temperature: 24 C
 Limit: I RE FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 ELT
 MN: NS-SPBTRICK-SB
 Mode: BLE 2400
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | | |
|-----|----|----------|---------|--------|---------|--------|--------|----------|--------|--------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree | Comment |
| 1 | | 26117.50 | 86.48 | -35.65 | 50.83 | 74.00 | -23.17 | peak | | | |
| 2 | * | 26117.50 | 71.13 | -35.65 | 35.48 | 54.00 | -18.52 | AVG | | | |

Figure 22: Test figure of Radiated Emissions in Restricted Bands, BDR (Low)



*Maximum data x: Over limit. Level margin:

Operator: TK

File: TUVData #423

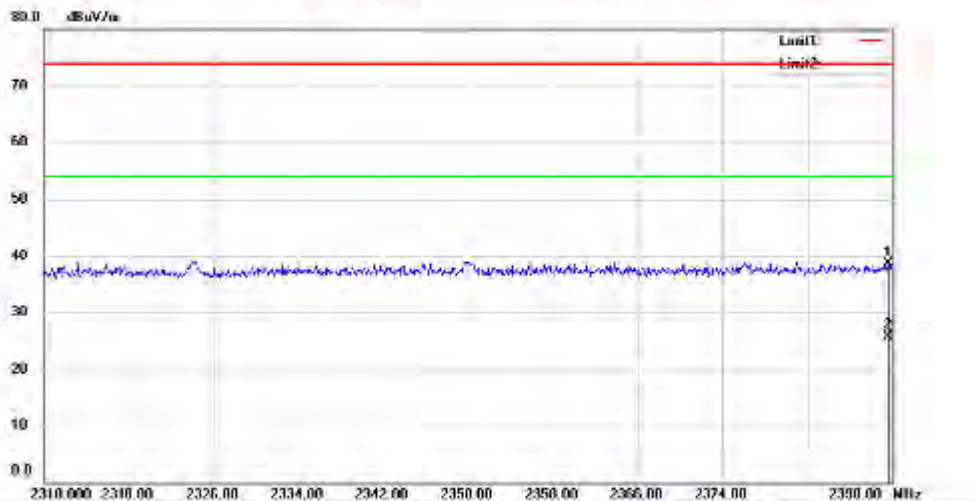
Page: 11

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #424 Date: 15/07/2017

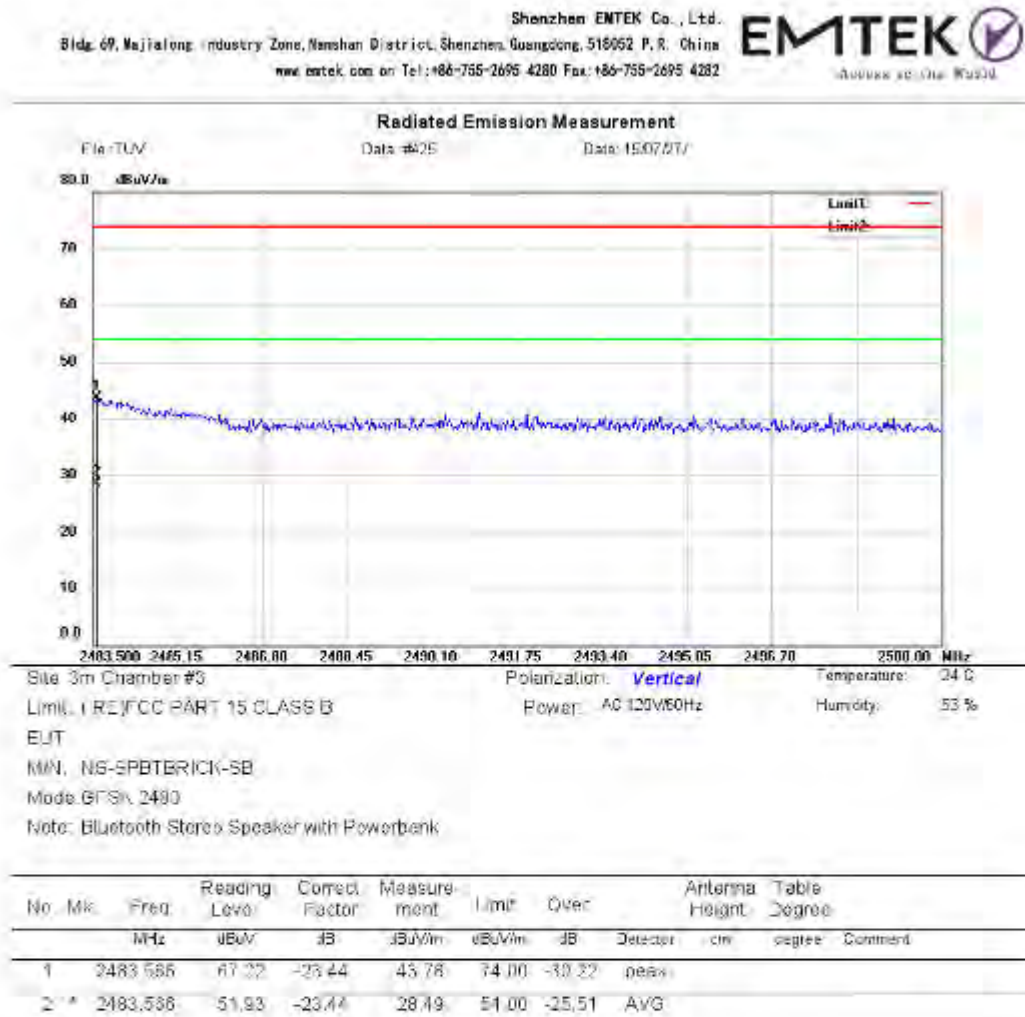


Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: I RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: GPSX 2402
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk. | Freq. | Reading | Correc. | Measure- | Limit | Over | Antenna | Table | |
|-----|-----|----------|---------|---------|----------|--------|--------|----------|--------|---------|
| | | MHz | dBuV | Factor | ment | dBuV/m | dB | Detector | Height | Degree |
| | | | | | dBuV/m | | | cm | degree | Comment |
| 1 | | 2389.600 | 42.40 | -23.95 | 38.45 | 54.00 | -35.55 | peak | | |
| 2 | * | 2389.600 | 49.57 | -23.95 | 25.62 | 54.00 | -28.38 | AVG | | |

*Maximum data x.Oyer limit Level margin Operator: INV
 File: TUVData #424 Page: 11

Figure 23: Test figure of Radiated Emissions in Restricted Bands, BDR (High)



*Maximum data x. Over limit. Level margin:

Operator: RW

File: TUVData #425

Page: 11

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data #426 Date: 15/07/17



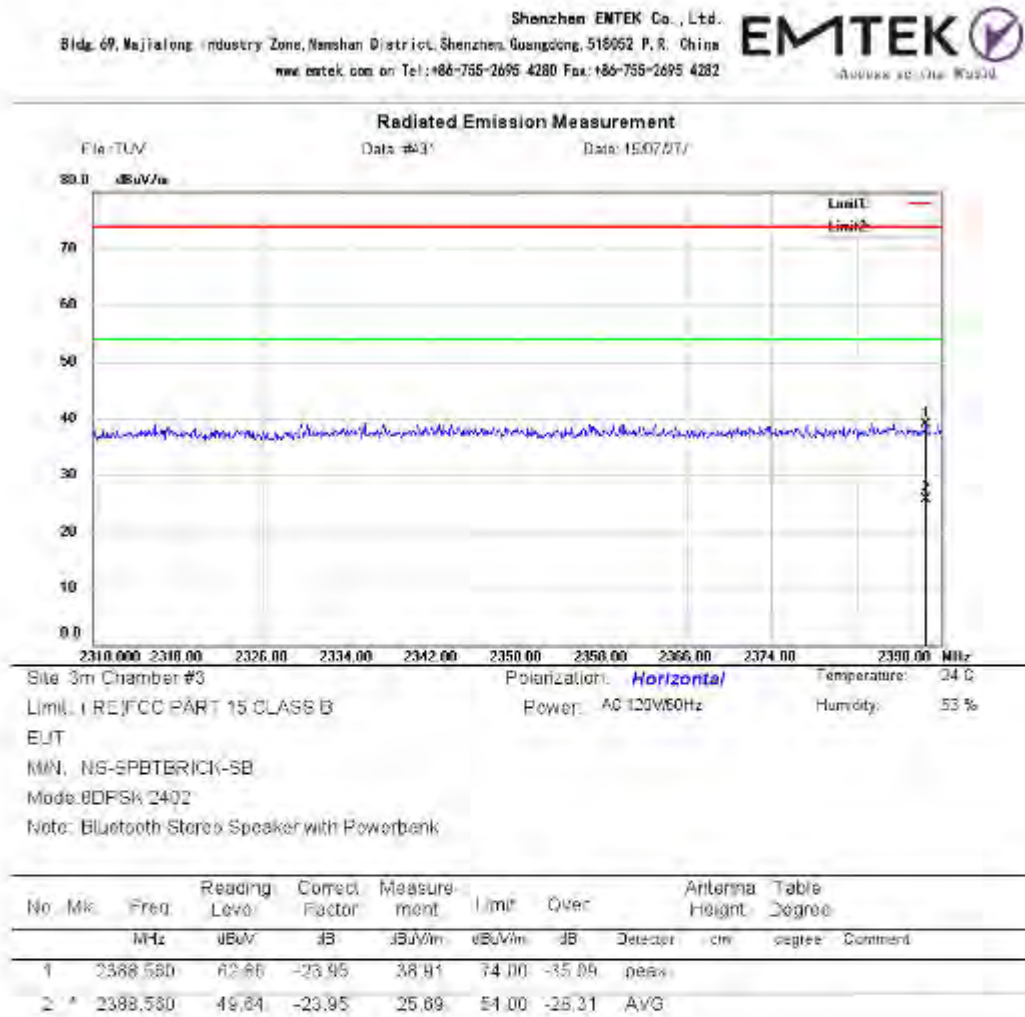
Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: I RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: GPSX 2490
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | |
|-----|----|----------|---------|--------|---------|--------|--------|----------|--------|---------|
| | | MHz | dBuV | Factor | ment | dBuV/m | dB | Detector | Height | Degree |
| | | | | | dB | | | cm | | Comment |
| 1 | | 2483.665 | 67.28 | -23.44 | 43.79 | 74.00 | -30.21 | peak | | |
| 2 | * | 2483.665 | 52.06 | -23.44 | 28.62 | 54.00 | -25.38 | AVG | | |

*Maximum data α. Over limit Level margin Operator: TUV

File: TUVData #426 Page: 11

Figure 24: Test figure of Radiated Emissions in Restricted Bands, EDR (Low),



*Maximum data x: Over limit. Level margin:

Operator: RW

File: TUVData #431

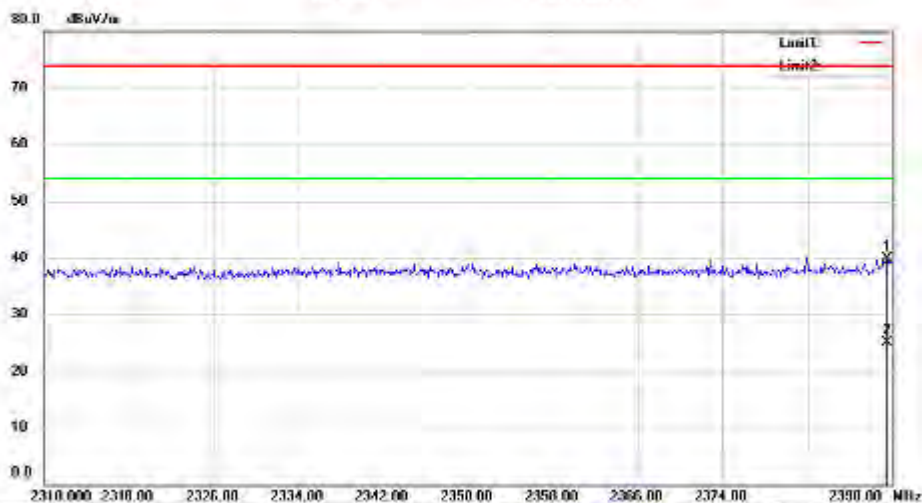
Page: 11

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #432 Date: 15/07/2017



Site: 3m Chamber #3 Polarization: **Vertical** Temperature: 24 C
 Limit: I RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: BPSK 2402
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | |
|-----|----|----------|---------|--------|---------|--------|--------|----------|--------|--------|
| | | MHz | dBuV | Factor | dBuV/m | dBuV/m | dB | Detector | Height | Degree |
| | | | | | | | | | cm | degree |
| 1 | | 2389.520 | 63.64 | -23.95 | 39.69 | 54.00 | -14.31 | peak | | |
| 2 | * | 2389.520 | 49.13 | -23.95 | 25.18 | 54.00 | -28.82 | AVG | | |

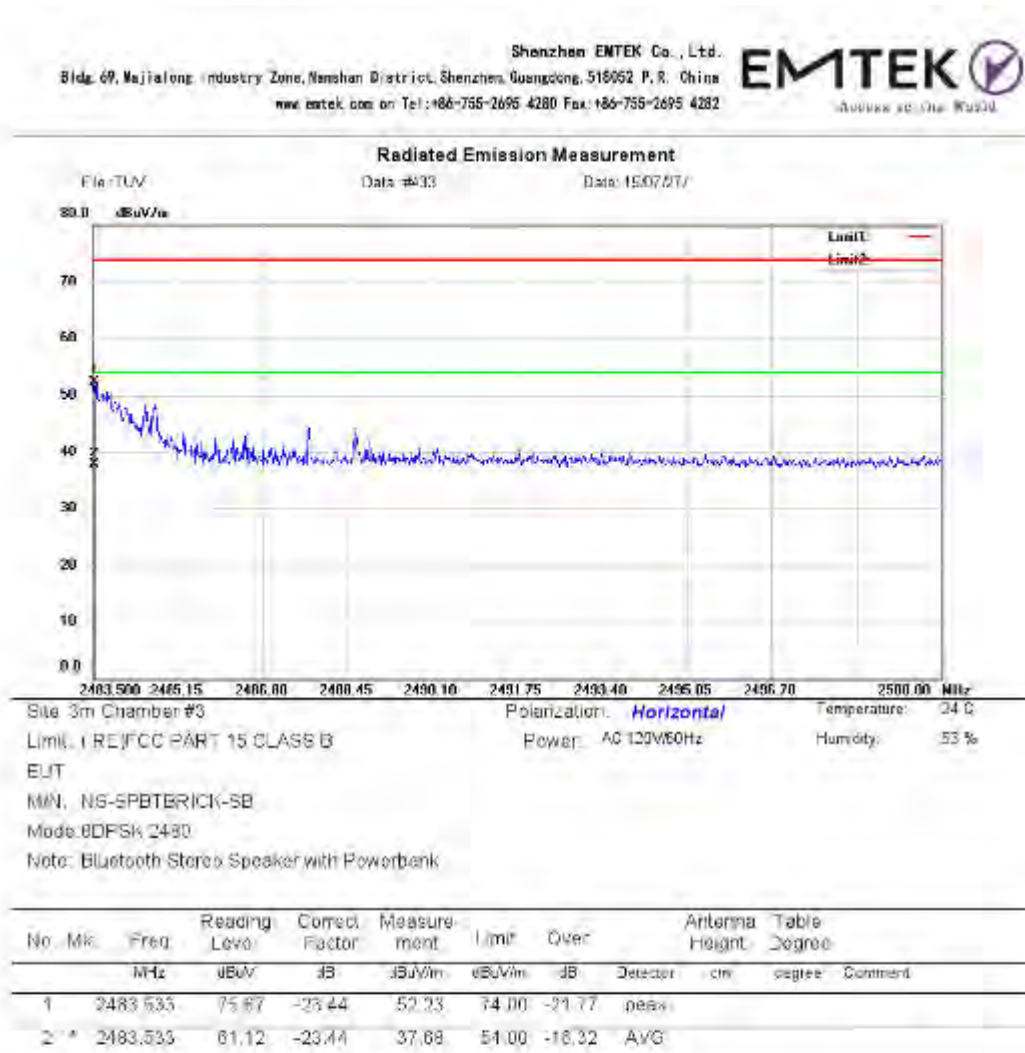
*Maximum data x.Oyer limit Level margin

Operator: INV

File: TUVData #432

Page: 11

Figure 25: Test figure of Radiated Emissions in Restricted Bands, EDR (High)



*Maximum data x.Over limit Level margin

Operator: TUV

File: TUVData #433

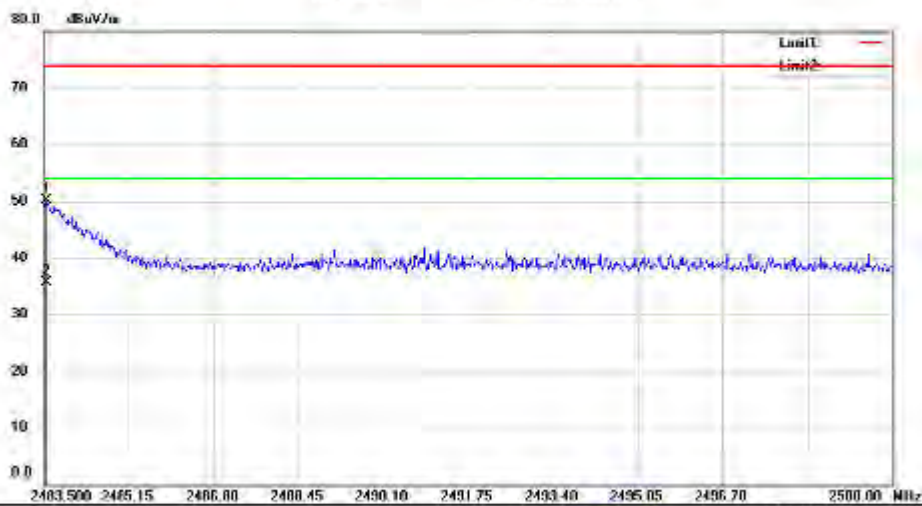
Report

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Date: #434 Date: 15/07/21



Site: 3m Chamber #3 Polarization: **Vertical** Temperature: 24 C
 Limit: I RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: BPSK 2480
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | |
|-----|----|----------|---------|--------|---------|--------|--------|----------|--------|--------|
| | | MHz | dBuV | Factor | dBuV/m | dBuV/m | dB | Detector | Height | Degree |
| | | | | | | | | | cm | degree |
| 1 | | 2483.550 | 73.51 | -23.44 | 50.07 | 74.00 | -23.93 | peak | | |
| 2 | * | 2483.550 | 55.90 | -23.44 | 35.46 | 54.00 | -18.54 | AVG | | |

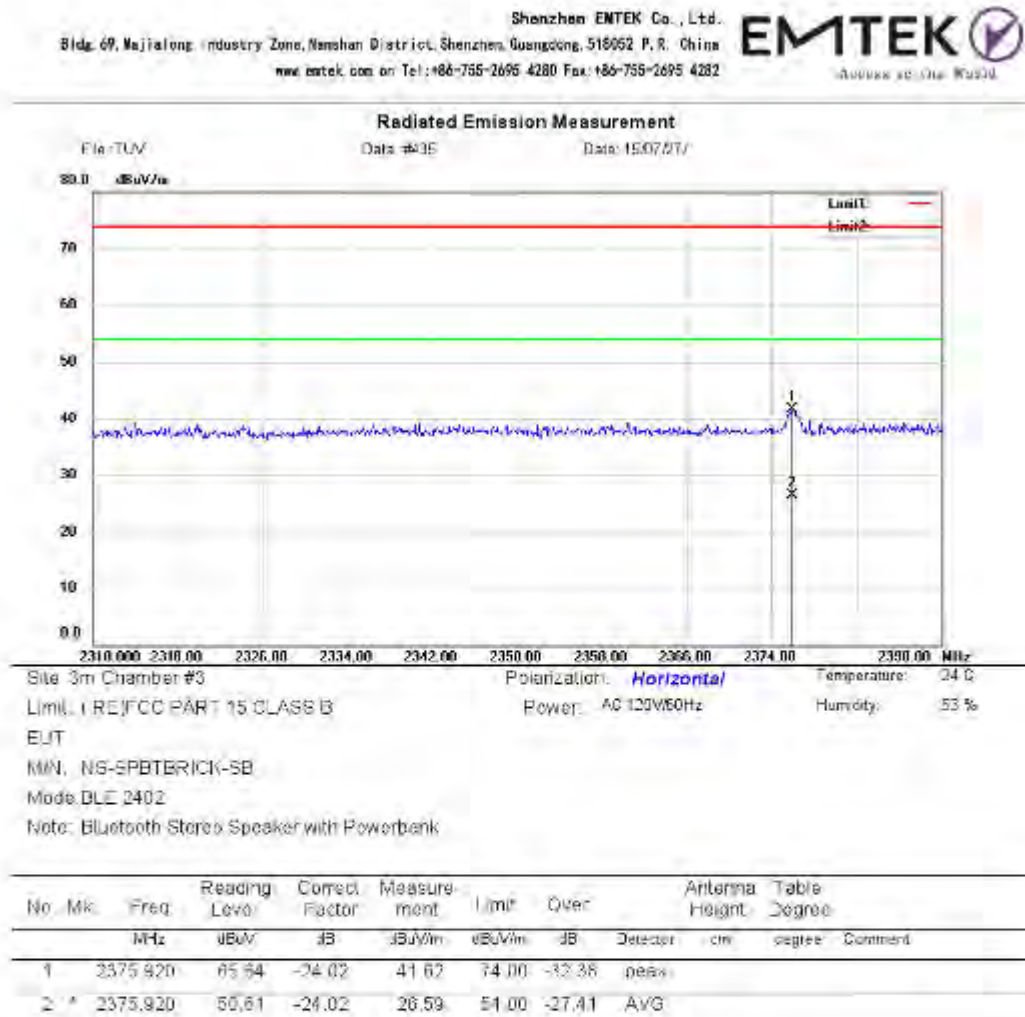
*Maximum data x: Over limit Level margin

Operator: INV

File: TUVData #434

Page: 66

Figure 26: Test figure of Radiated Emissions in Restricted Bands, Low Energy (Low),



*Maximum data x: Over limit. Level margin:

Operator: RW

File: TUVData #435

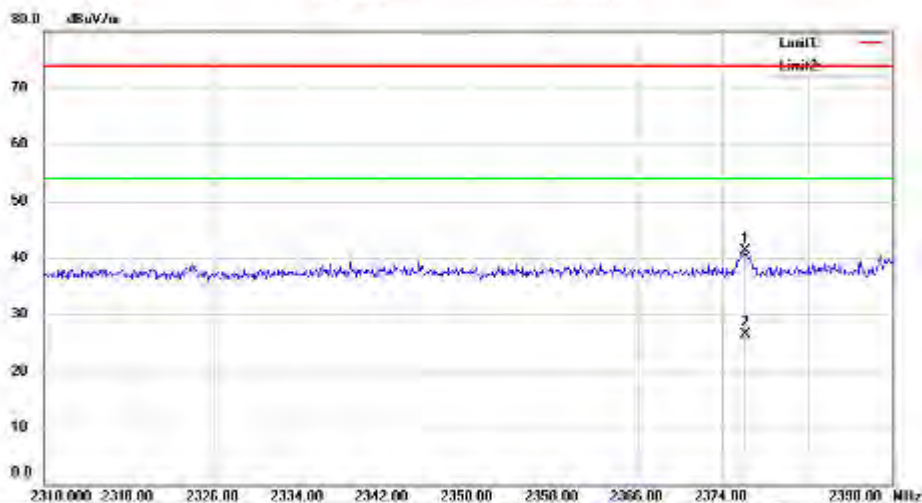
Page: 11

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #436 Date: 15/07/21



Site: 3m Chamber #3 Polarization: **Vertical** Temperature: 24 C
 Limit: I RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: BLE 2402
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | |
|-----|----|----------|---------|--------|---------|--------|--------|----------|--------|--------|
| | | MHz | dBuV | Factor | ment | dBuV/m | dB | Detector | Height | Degree |
| | | | | | dBuV/m | | | | cm | degree |
| 1 | | 2378.160 | 65.86 | -24.02 | 41.84 | 74.00 | -32.16 | peak | | |
| 2 | * | 2378.180 | 50.61 | -24.02 | 26.59 | 54.00 | -27.41 | AVG | | |

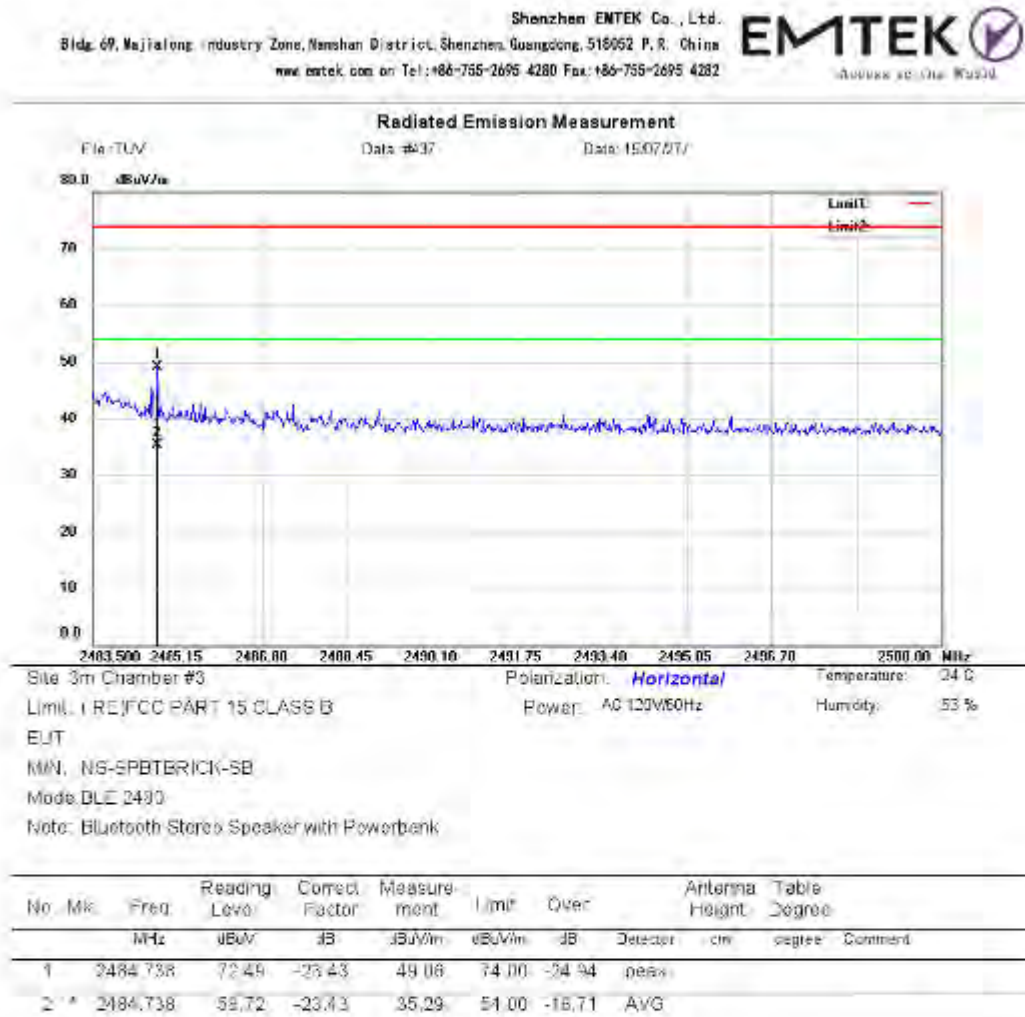
*Maximum data α. Over limit Level margin

Operator: INV

File: TUVData #436

Page: 11

Figure 27: Test figure of Radiated Emissions in Restricted Bands, Low Energy (High)



*Maximum data x: Over limit. Level margin:

Operator: RW

File: TUVData #437

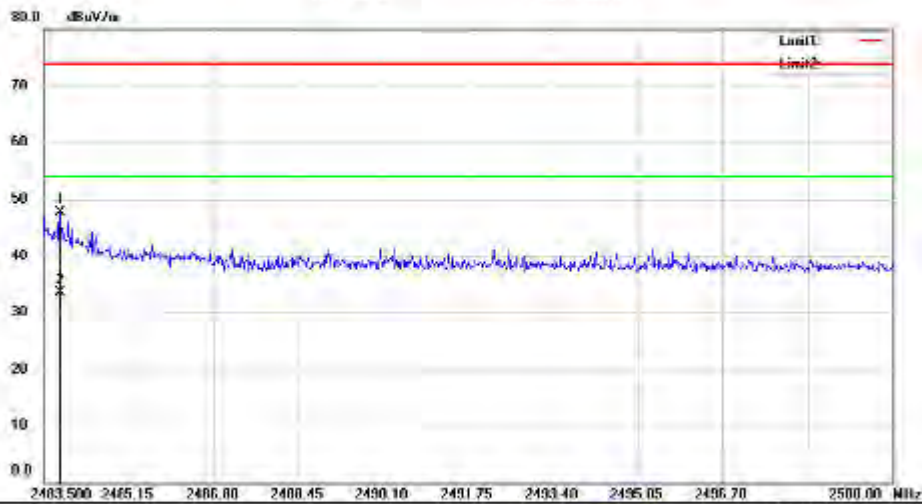
Page: 11

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV Data: #436 Date: 15/07/17



Site: 3m Chamber #3 Polarization: **Vertical** Temperature: 24 C
 Limit: I RE/FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: BLE 2490
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq. | Reading | Correc. | Measure- | Limit | Over | Antenna | Table | | |
|-----|----|----------|---------|---------|----------|--------|--------|----------|--------|--------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree | Comment |
| 1 | | 2483.814 | 71.22 | -23.44 | 47.78 | 54.00 | -26.22 | peak | | | |
| 2 | * | 2483.814 | 57.00 | -23.44 | 33.56 | 54.00 | -20.44 | AVG | | | |

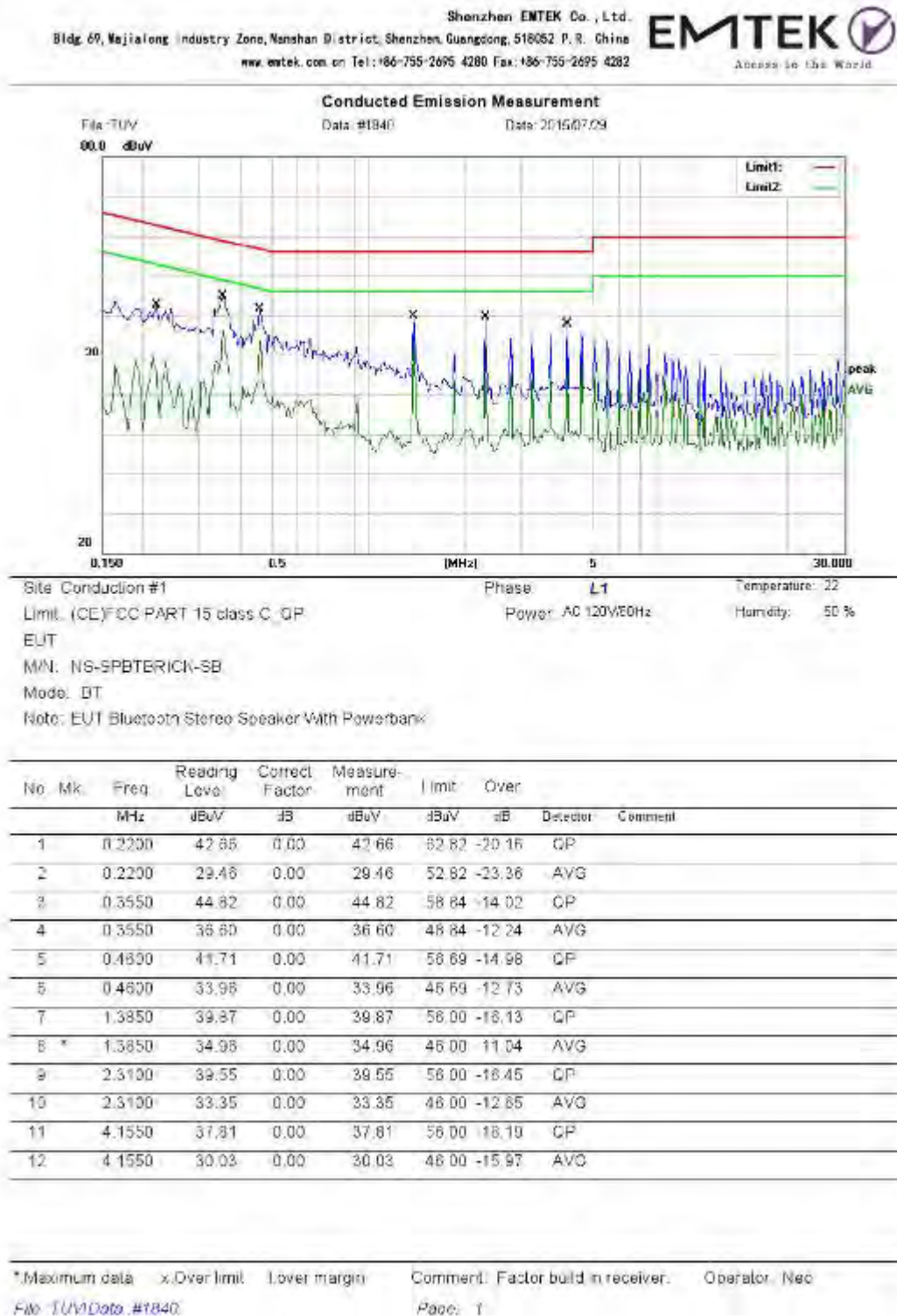
*Maximum data α. Over limit. Lower margin

Operator: INV

File: TUVData #436

Page: 11

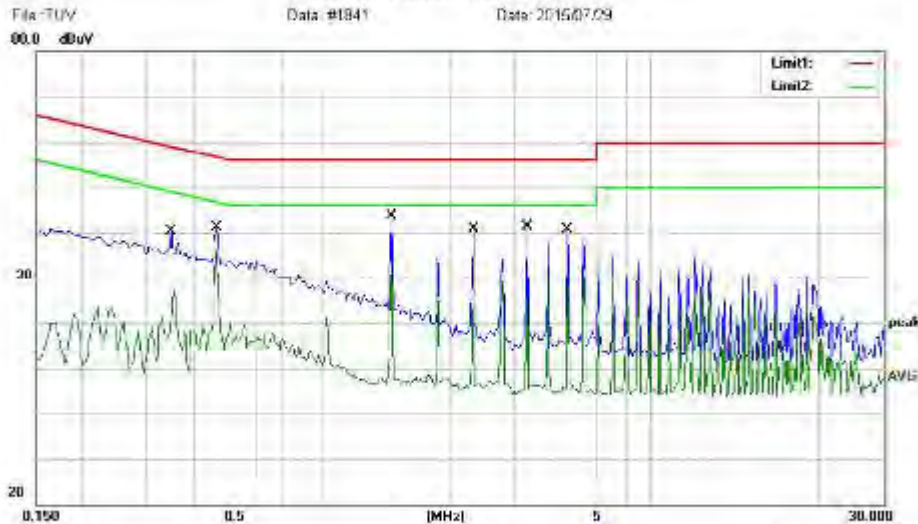
Figure 28: Test figure of Conducted Emissions



Shenzhen ENTEK Co., Ltd.
Bldg. 69, Wajialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.entek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Conducted Emission Measurement



Site Conduction #1 Phase N Temperature: 22
 Limit: (CE) FCC PART 15 class C_QP Power: AC 120V50Hz Humidity: 50 %
 EUT
 M/N: NS-SPBTERICK-SB
 Mode: DT
 Note: EUT Bluetooth Stereo Speaker With Powerbank

| No. | Mk. | Freq. MHz | Reading Level dBuV | Correct. Factor dB | Measure- ment dBuV | Limit dBuV | Over dB | Detector | Comment |
|-----|-----|--------------|--------------------------|--------------------------|--------------------------|---------------|------------|----------|---------|
| 1 | | 0.3500 | 40.27 | 0.00 | 40.27 | 58.96 | -18.69 | QP | |
| 2 | | 0.3500 | 27.32 | 0.00 | 27.32 | 48.96 | -21.64 | AVG | |
| 3 | | 0.4650 | 41.18 | 0.00 | 41.18 | 56.60 | -15.42 | QP | |
| 4 | | 0.4650 | 36.33 | 0.00 | 36.33 | 46.60 | -10.27 | AVG | |
| 5 | | 1.3850 | 43.73 | 0.00 | 43.73 | 58.00 | -12.27 | QP | |
| 6 | * | 1.3850 | 35.96 | 0.00 | 35.96 | 46.00 | -10.04 | AVG | |
| 7 | | 2.3100 | 40.91 | 0.00 | 40.91 | 58.00 | -15.09 | QP | |
| 8 | | 2.3100 | 33.58 | 0.00 | 33.58 | 46.00 | -12.42 | AVG | |
| 9 | | 3.2300 | 41.38 | 0.00 | 41.38 | 58.00 | -14.64 | QP | |
| 10 | | 3.2300 | 33.38 | 0.00 | 33.38 | 46.00 | -12.64 | AVG | |
| 11 | | 4.1500 | 40.55 | 0.00 | 40.55 | 58.00 | -15.45 | QP | |
| 12 | | 4.1500 | 31.89 | 0.00 | 31.89 | 46.00 | -14.11 | AVG | |

*Maximum data x:Over limit l:lower margin Comment: Factor build in receiver. Operator: Neo

File: TUVData #1841

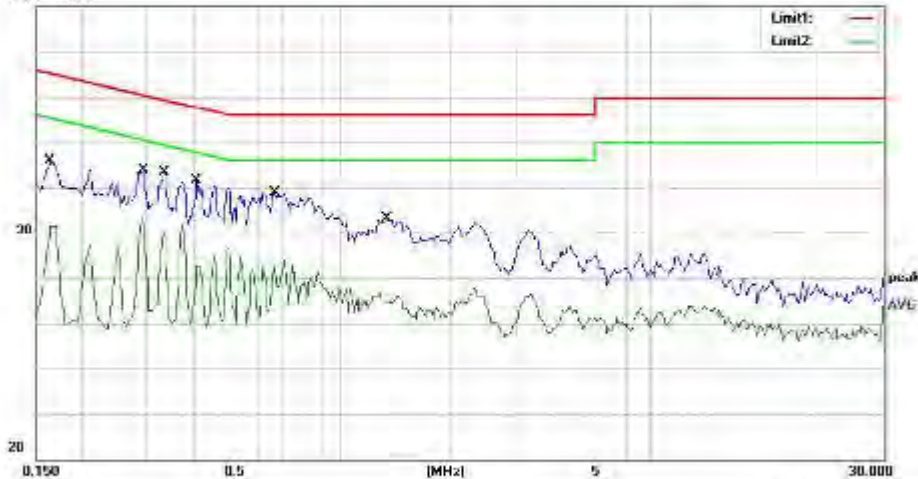
Page: 1

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Wajialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.entek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Conducted Emission Measurement

File: TUV Data #1836 Date: 2016/07/29 Time: 14:38:15



Site: Conduction #1 Phase: L1 Temperature: 22
Limit: (CE) FCC PART 15 class B CP Power: AC 120V/50Hz Humidity: 50 %
EUT
M/N: NS-SPBTERICK-SB
Mode: charging full load
Note: EUT Bluetooth Stereo Speaker With Powerbank

| No. | Mk. | Freq. MHz | Reading Level dBuV | Correct Factor dB | Measure- ment dBuV | Limit dBuV | Over dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|--------------------------|---------------|------------|----------|---------|
| 1 | | 0.1650 | 45.84 | 0.00 | 45.84 | 55.21 | -19.37 | CP | |
| 2 | | 0.1650 | 31.69 | 0.00 | 31.69 | 55.21 | -23.52 | AVG | |
| 3 | | 0.2950 | 43.93 | 0.00 | 43.93 | 60.38 | -16.45 | CP | |
| 4 | | 0.2950 | 33.31 | 0.00 | 33.31 | 50.38 | -17.07 | AVG | |
| 5 | * | 0.3350 | 43.39 | 0.00 | 43.39 | 59.33 | -15.94 | CP | |
| 6 | | 0.3350 | 31.92 | 0.00 | 31.92 | 49.33 | -17.41 | AVG | |
| 7 | | 0.4100 | 41.71 | 0.00 | 41.71 | 57.65 | -15.94 | CP | |
| 8 | | 0.4100 | 22.64 | 0.00 | 22.64 | 47.65 | -25.01 | AVG | |
| 9 | | 0.6700 | 38.95 | 0.00 | 38.95 | 56.00 | -17.05 | CP | |
| 10 | | 0.6700 | 23.64 | 0.00 | 23.64 | 46.00 | -22.36 | AVG | |
| 11 | | 1.3500 | 33.47 | 0.00 | 33.47 | 56.00 | -22.53 | CP | |
| 12 | | 1.3500 | 16.98 | 0.00 | 16.98 | 46.00 | -29.02 | AVG | |

*Maximum data x: Over limit l: lower margin Comment: Factor built in receiver. Operator: Neo

File: TUVData.#1836

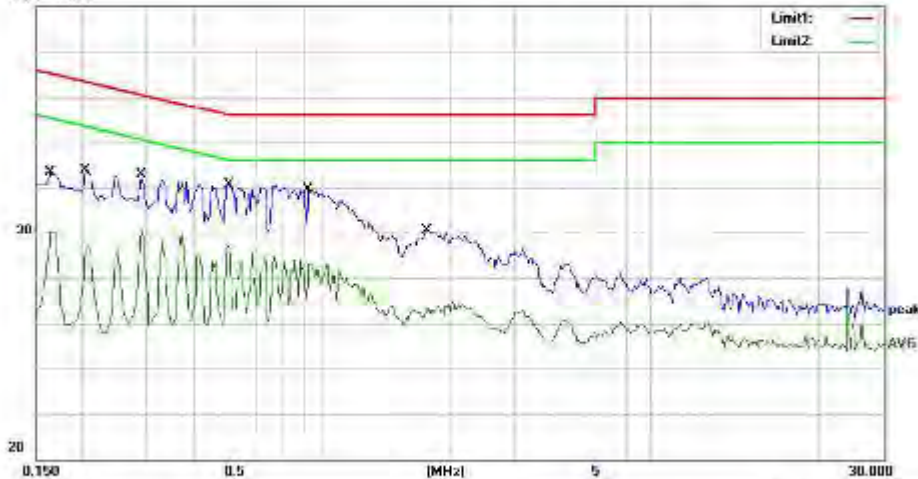
Page: 1

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Wajialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.entek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Conducted Emission Measurement

File: TUV Data: #1837 Date: 2016/07/29 Time: 14:38:30



Site Conduction #1 Phase N Temperature: 22
Limit: (CE) FCC PART 15 class B QP Power: AC 120V/50Hz Humidity: 50 %
EUT
M/N: NS-SPBTERICK-SB
Mode: charging full load
Note: EUT Bluetooth Stereo Speaker With Powerbank

| No. | Mk. | Freq | Reading | Correct | Measure- | Limit | Over | Detector | Comment |
|-----|-----|--------|---------|---------|----------|-------|--------|----------|---------|
| | | MHz | Level | Factor | ment | dBuV | dB | | |
| | | | dBuV | dB | dBuV | dBuV | dB | | |
| 1 | | 0.1650 | 43.32 | 0.00 | 43.32 | 55.21 | -21.89 | QP | |
| 2 | | 0.1650 | 30.28 | 0.00 | 30.28 | 55.21 | -24.93 | AVG | |
| 3 | | 0.2050 | 43.80 | 0.00 | 43.80 | 53.41 | -19.61 | QP | |
| 4 | | 0.2050 | 27.12 | 0.00 | 27.12 | 53.41 | -26.29 | AVG | |
| 5 | | 0.2900 | 42.87 | 0.00 | 42.87 | 50.52 | -17.65 | QP | |
| 6 | | 0.2900 | 31.10 | 0.00 | 31.10 | 50.52 | -19.42 | AVG | |
| 7 | * | 0.5000 | 40.60 | 0.00 | 40.60 | 58.00 | -17.40 | QP | |
| 8 | | 0.5000 | 27.53 | 0.00 | 27.53 | 48.00 | -20.47 | AVG | |
| 9 | | 0.8250 | 39.71 | 0.00 | 39.71 | 58.00 | -18.29 | QP | |
| 10 | | 0.8250 | 24.18 | 0.00 | 24.18 | 48.00 | -23.84 | AVG | |
| 11 | | 1.7300 | 30.71 | 0.00 | 30.71 | 58.00 | -27.29 | QP | |
| 12 | | 1.7300 | 14.92 | 0.00 | 14.92 | 48.00 | -33.08 | AVG | |

*Maximum data x: Over limit Lower margin Comment: Factor build in receiver. Operator: Neo

File: TUVData.#1837

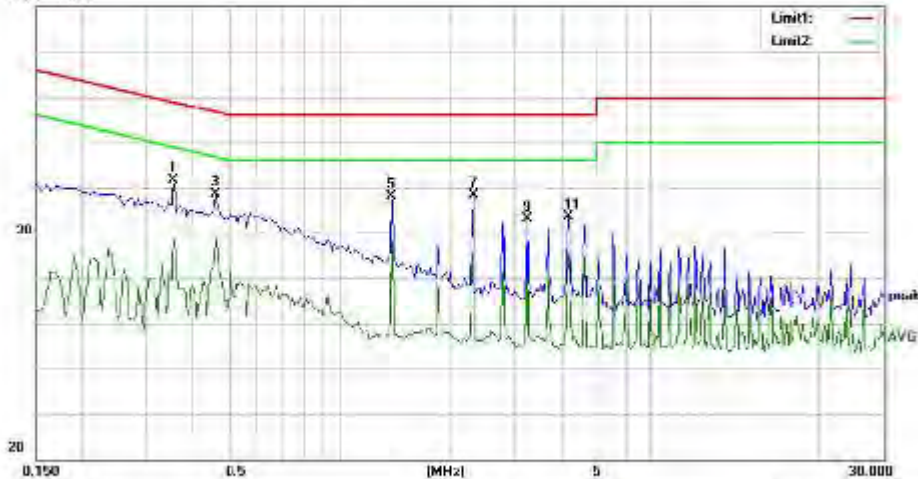
Page: 1

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Wajialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.entek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Conducted Emission Measurement

File: TUV Data: #1838 Date: 20160709 Time: 14:41:30



Site: Conduction #1 Phase: L1 Temperature: 22
 Limit: (CE) FCC PART 15 class B QP Power: AC 120V50Hz Humidity: 50 %
 EUT
 M/N: NS-SPBTRICK-SB
 Model: charging AUX IN
 Note: EUT Bluetooth Stereo Speaker With Powerbank

| No. | Mk. | Freq MHz | Reading Level dBuV | Correct Factor dB | Measure- ment dBuV | Limit dBuV | Over dB | Detector | Comment |
|-----|-----|-------------|--------------------------|-------------------------|--------------------------|---------------|------------|----------|---------|
| 1 | | 0.3550 | 41.56 | 0.00 | 41.56 | 58.84 | -17.28 | peak | |
| 2 | | 0.3550 | 28.63 | 0.00 | 28.63 | 48.84 | -20.21 | AVG | |
| 3 | | 0.4600 | 38.71 | 0.00 | 38.71 | 56.69 | -17.98 | peak | |
| 4 | | 0.4600 | 28.68 | 0.00 | 28.68 | 46.69 | -18.01 | AVG | |
| 5 | | 1.3850 | 38.13 | 0.00 | 38.13 | 58.00 | -17.87 | peak | |
| 6 * | | 1.3850 | 29.67 | 0.00 | 29.67 | 46.00 | -16.33 | AVG | |
| 7 | | 2.3100 | 38.37 | 0.00 | 38.37 | 58.00 | -17.63 | peak | |
| 8 | | 2.3100 | 28.87 | 0.00 | 28.87 | 46.00 | -17.13 | AVG | |
| 9 | | 3.2350 | 33.08 | 0.00 | 33.08 | 58.00 | -22.94 | peak | |
| 10 | | 3.2350 | 26.38 | 0.00 | 26.38 | 48.00 | -19.82 | AVG | |
| 11 | | 4.1700 | 33.67 | 0.00 | 33.67 | 58.00 | -22.33 | peak | |
| 12 | | 4.1700 | 25.19 | 0.00 | 25.19 | 48.00 | -20.81 | AVG | |

*Maximum data x.Over limit l.Over margin Comment: Factor build in receiver. Operator: Neo

File: TUVData.#1838

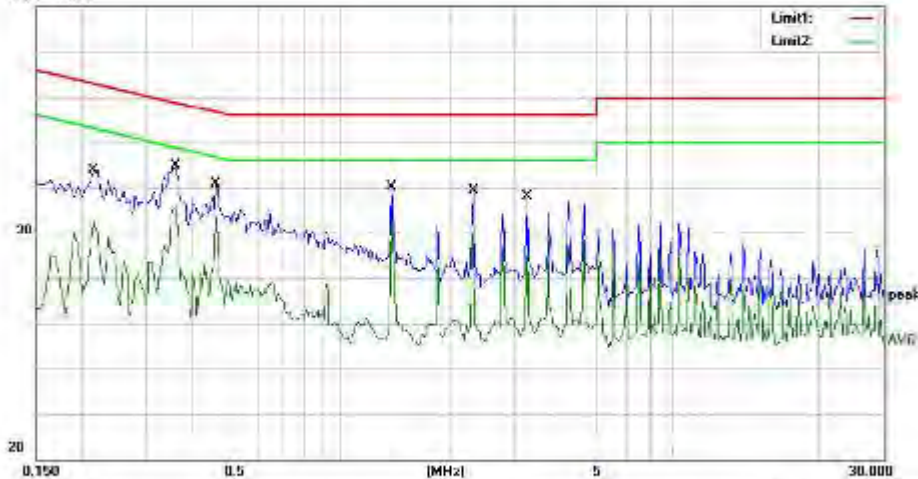
Page: 1

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.entek.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Conducted Emission Measurement

File: TUV Data: #1839 Date: 2016/07/29 Time: 14:43:09



Site: Conduction #1 Phase: N Temperature: 22
 Limit: (CE) FCC PART 15 class B CP Power: AC 120V/50Hz Humidity: 50 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: charging AUX IN
 Note: EUT Bluetooth Stereo Speaker With Powerbank

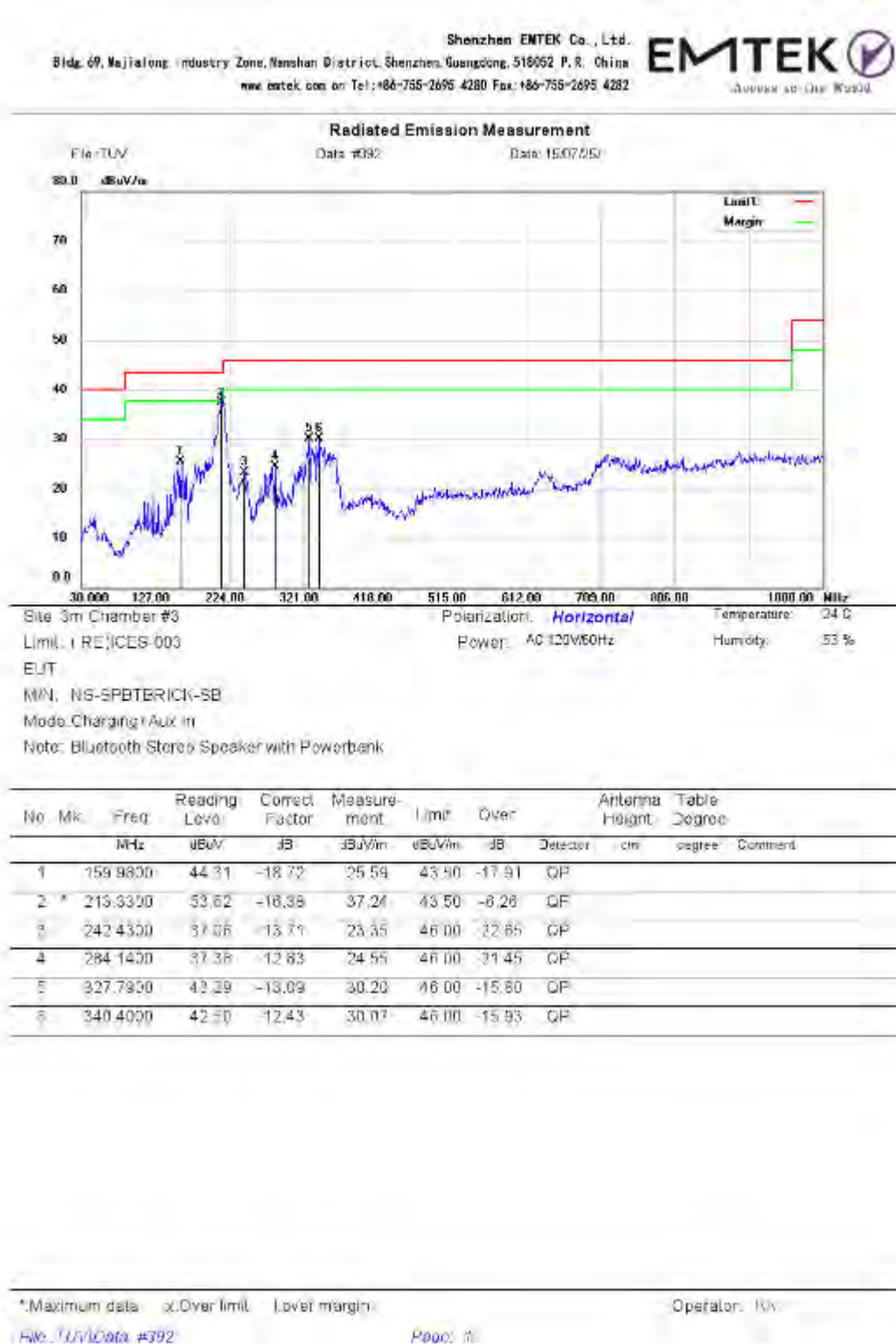
| No. | Mk. | Freq. MHz | Reading Level dBuV | Correct Factor dB | Measure- ment dBuV | Limit dBuV | Over dB | Detector | Comment |
|-----|-----|--------------|--------------------------|-------------------------|--------------------------|---------------|------------|----------|---------|
| 1 | | 0.2150 | 43.88 | 0.00 | 43.88 | 53.01 | -19.13 | CP | |
| 2 | | 0.2150 | 32.62 | 0.00 | 32.62 | 53.01 | -20.39 | AVG | |
| 3 | | 0.3600 | 44.88 | 0.00 | 44.88 | 58.73 | -13.85 | CP | |
| 4 | | 0.3600 | 36.22 | 0.00 | 36.22 | 48.73 | -12.51 | AVG | |
| 5 | | 0.4800 | 40.77 | 0.00 | 40.77 | 58.69 | -17.92 | CP | |
| 6 | | 0.4800 | 33.96 | 0.00 | 33.96 | 48.69 | -14.73 | AVG | |
| 7 | | 1.3850 | 40.09 | 0.00 | 40.09 | 58.00 | -17.91 | CP | |
| 8 | * | 1.3850 | 35.19 | 0.00 | 35.19 | 48.00 | -12.81 | AVG | |
| 9 | | 2.3100 | 39.49 | 0.00 | 39.49 | 58.00 | -18.51 | CP | |
| 10 | | 2.3100 | 33.62 | 0.00 | 33.62 | 48.00 | -14.38 | AVG | |
| 11 | | 3.2350 | 38.10 | 0.00 | 38.10 | 58.00 | -19.90 | CP | |
| 12 | | 3.2350 | 30.54 | 0.00 | 30.54 | 48.00 | -17.46 | AVG | |

*Maximum data x:Over limit l:lower margin Comment: Factor build in receiver. Operator: Neo

File: TUVData.#1839

Page: 1

Figure 29: Test figure of Radiated Emissions



Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV

Data: #393

Date: 15/07/2015



Site: 3m Chamber #3
Limit: I RE JICES-003
ELIT
M/N: NS-SPBTRICK-SB
Mode: Charging/Aux in
Note: Bluetooth Stereo Speaker with Powerbank

Polarization: **Vertical**
Power: AC 120V/60Hz
Temperature: 24 C
Humidity: 53 %

| No. | Mk | Freq. MHz | Reading Level dBuV | Correc. Factor dB | Measure- ment dBuV/m | Limit dBuV/m | Over dB | Detector | Antenna Height cm | Table Degree | Comment |
|-----|----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|----------|-------------------------|-----------------|---------|
| 1 | | 30.9700 | 41.41 | -16.13 | 25.28 | 40.00 | -14.72 | QP | | | |
| 2 | | 47.4800 | 42.08 | -13.97 | 28.09 | 40.00 | -11.91 | QP | | | |
| 3 | | 95.9600 | 38.00 | -14.69 | 23.11 | 43.50 | -20.39 | QP | | | |
| 4 | | 131.8500 | 44.40 | -17.36 | 27.04 | 43.50 | -16.46 | QP | | | |
| 5 | | 159.9800 | 54.28 | -18.72 | 35.56 | 43.50 | -7.94 | QP | | | |
| 6 | | 212.3600 | 52.87 | -16.38 | 36.49 | 43.50 | -7.01 | QP | | | |

*Maximum data x.Over limit Level margin

Operator: INV

File: TUV\data #393

Page: 81

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement



Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: I REICES-003 Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: BT Mode
 Note: Bluetooth Stereo Speaker with Powerbank

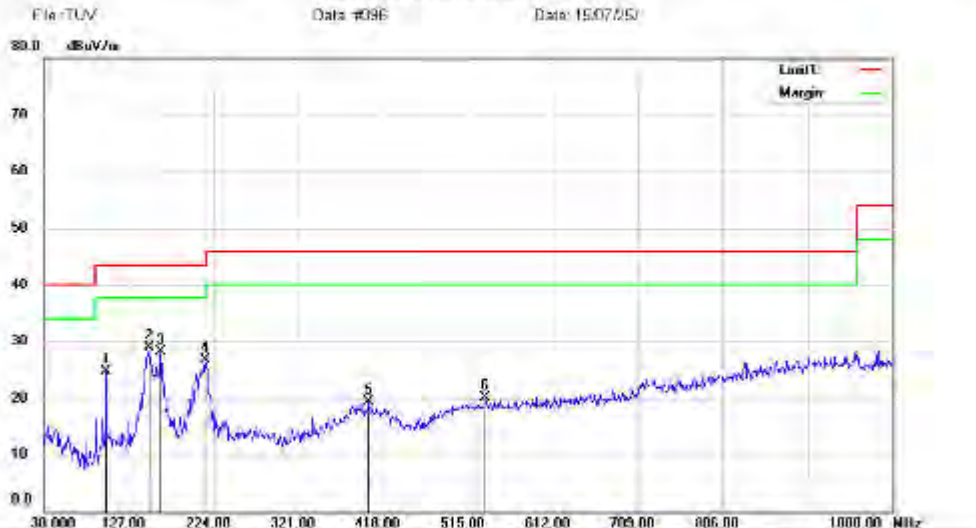
| No. | Mk. | Freq. | Reading | Correc. | Measure- | Limit | Over | Antenna | Table | | |
|-----|-----|----------|---------|---------|----------|--------|--------|----------|--------|--------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree | Comment |
| 1 | | 197.8100 | 41.23 | -16.59 | 24.64 | 43.50 | -18.86 | QP | | | |
| 2 * | | 211.3900 | 41.10 | -16.38 | 24.72 | 43.50 | -18.78 | QP | | | |
| 3 | | 268.0200 | 33.15 | -13.07 | 20.09 | 46.00 | -25.91 | QP | | | |
| 4 | | 502.3900 | 35.57 | -17.78 | 17.79 | 46.00 | -28.21 | QP | | | |
| 5 | | 836.2500 | 32.35 | -8.63 | 23.82 | 46.00 | -22.18 | QP | | | |
| 6 | | 720.6400 | 33.82 | -6.33 | 27.59 | 46.00 | -18.41 | QP | | | |

*Maximum data α: Over limit Level margin Operator: INK
 File: TUVData #095 Page: 8

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement



Site: 3m Chamber #3
Limit: I RE JCES-003
ELIT
M/N: NS-SPBTRICK-SB
Mode: BT Mode
Note: Bluetooth Stereo Speaker with Powerbank

Polarization: **Vertical**
Power: AC 120V/60Hz
Temperature: 24 C
Humidity: 53 %

| No. | Mk. | Freq. | Reading | Corred. | Measure- | Limit | Over | Antenna | Table | |
|-----|-----|----------|---------|---------|----------|--------|--------|----------|--------|---------|
| | | MHz | dBuV | dB | ment | dBuV/m | dB | Detector | Height | Degree |
| | | | | | dBuV/m | | | cm | degree | Comment |
| 1 | | 100.8100 | 38.80 | -14.02 | 24.78 | 43.50 | -18.72 | QP | | |
| 2 * | | 150.2800 | 47.06 | -18.12 | 28.94 | 43.50 | -14.56 | QP | | |
| 3 | | 153.8800 | 47.10 | -19.00 | 28.10 | 43.50 | -15.40 | QP | | |
| 4 | | 214.3000 | 43.15 | -16.38 | 26.77 | 43.50 | -16.73 | QP | | |
| 5 | | 401.5100 | 28.29 | -8.92 | 19.37 | 46.00 | -26.63 | QP | | |
| 6 | | 535.3700 | 27.30 | -7.51 | 20.19 | 46.00 | -25.81 | QP | | |

*Maximum data α.Over limit Level margin Operator: INK

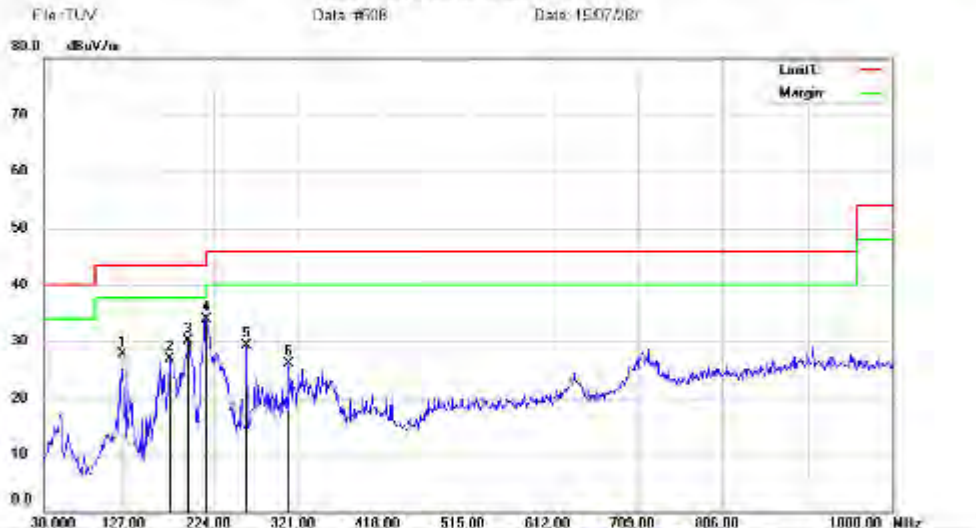
File: TUWData #398

Page: 80

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement



Site: 3m Chamber #3
Limit: I REJICES-003
EUT
M/N: NS-SPBTRICK-SB
Mode: Gal+AUX IN
Note: Bluetooth Stereo Speaker with Powerbank
Polarization: **Horizontal**
Power: AC 120V/60Hz
Temperature: 24 C
Humidity: 53 %

| No. | Mk | Freq | Reading | Correcd | Measure- | Limit | Over | Antenna | Table | |
|-----|----|----------|---------|---------|----------|--------|--------|----------|--------|--------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree |
| | | | | | | | | | cm | degree |
| 1 | | 120.2400 | 44.06 | -16.36 | 27.70 | 43.50 | -15.80 | QP | | |
| 2 | | 174.5300 | 46.16 | -19.22 | 26.94 | 43.50 | -16.56 | QP | | |
| 3 | | 194.9000 | 46.94 | -16.65 | 30.09 | 43.50 | -13.41 | QP | | |
| 4 | * | 215.2700 | 50.36 | -16.36 | 33.98 | 43.50 | -9.52 | QP | | |
| 5 | | 281.8300 | 42.16 | -12.77 | 29.39 | 46.00 | -16.61 | QP | | |
| 6 | | 310.3300 | 39.68 | -13.67 | 26.01 | 46.00 | -19.99 | QP | | |

*Maximum data α.Over limit Level margin Operator: INV

File: TUWData #508 Page: 81

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement

File: TUV

Date: #509

Date: 15/07/2017



Site: 3m Chamber #3
Limit: I RE JICES-003
EUT
M/N: NS-SPBTRICK-SB
Mode: Gal+AUX IN
Note: Bluetooth Stereo Speaker with Powerbank
Polarization: Vertical
Power: AC 120V/60Hz
Temperature: 24 C
Humidity: 53 %

| No. | Mk | Freq. | Reading | Correc. | Measure- | Limit | Over | Antenna | Table | |
|-----|----|----------|---------|---------|----------|--------|--------|----------|--------|---------|
| | | MHz | dBuV | Factor | ment | dBuV/m | dB | Detector | Height | Degree |
| | | | | | dBuV/m | | | cm | degree | Comment |
| 1 | | 48.4300 | 46.44 | -14.40 | 32.04 | 40.00 | -7.96 | QP | | |
| 2 | | 94.0200 | 43.19 | -15.45 | 27.74 | 43.50 | -15.76 | QP | | |
| 3 | | 131.8500 | 44.23 | -17.36 | 26.87 | 43.50 | -16.63 | QP | | |
| 4 | | 148.3400 | 47.64 | -18.04 | 29.60 | 43.50 | -13.90 | QP | | |
| 5 | | 195.8700 | 46.26 | -16.76 | 29.50 | 43.50 | -14.00 | QP | | |
| 6 | | 215.2700 | 52.25 | -16.36 | 35.87 | 43.50 | -7.63 | QP | | |

*Maximum data α. Over limit Level margin

Operator: INK

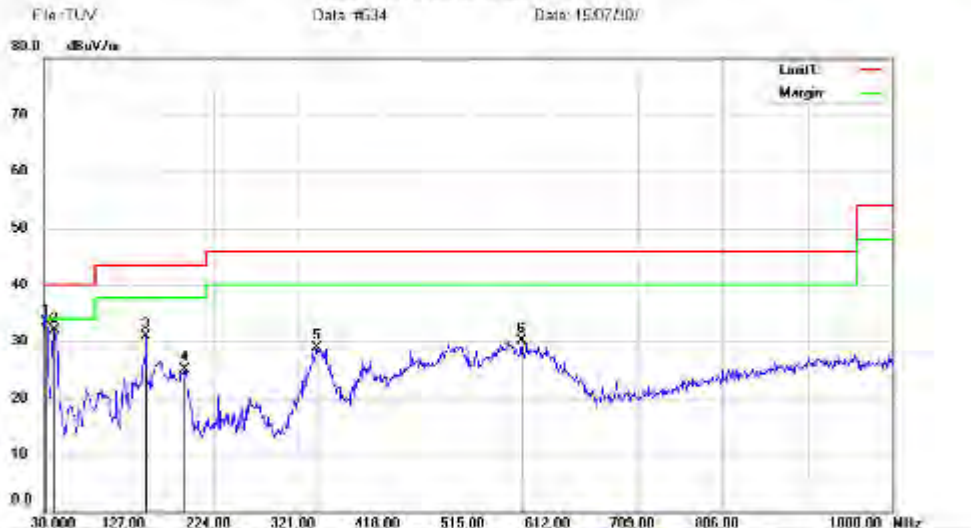
File: TUV\data #509

Page: 81

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement



Site: 3m Chamber #3
Limit: I REICES 003
EUT
M/N: NS-SPBTRICK-SB
Mode: Charging Full Load
Note: Bluetooth Stereo Speaker with Powerbank

Polarization: **Vertical**
Power: AC 120V/60Hz
Temperature: 24 C
Humidity: 53 %

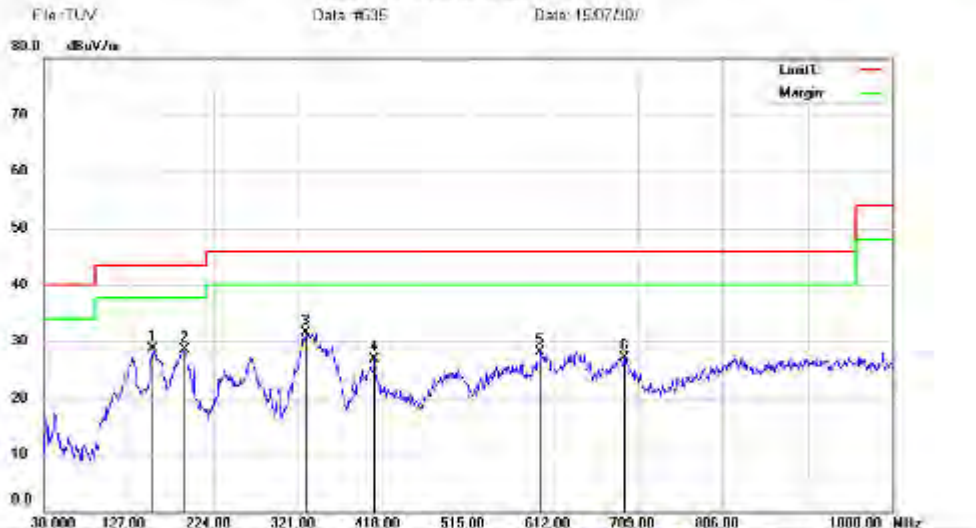
| No. | Mk | Freq | Reading | Correc | Measure | Limit | Over | Antenna | Table | |
|-----|----|----------|---------|--------|---------|--------|--------|----------|--------|---------|
| | | MHz | dBuV | Factor | ment | dBuV/m | dB | Detector | Height | Degree |
| | | | | dB | dBuV/m | | | cm | | Comment |
| 1 | * | 32.8100 | 48.73 | -16.49 | 33.24 | 40.00 | -6.76 | QP | | |
| 2 | | 41.6400 | 44.88 | -12.93 | 31.95 | 40.00 | -8.05 | QP | | |
| 3 | | 147.3700 | 48.84 | -18.02 | 30.82 | 43.50 | -12.68 | QP | | |
| 4 | | 191.0200 | 42.35 | -17.19 | 25.16 | 43.50 | -18.34 | QP | | |
| 5 | | 342.8400 | 41.28 | -12.26 | 28.97 | 46.00 | -17.03 | QP | | |
| 6 | | 576.1100 | 37.34 | -7.19 | 30.15 | 46.00 | -15.85 | QP | | |

*Maximum data α.Over limit Level margin Operator: INV
File: \\INV\data #534 Page: 83

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement



Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: I RES/CES 003 Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: Charging Full Load
 Note: Bluetooth Stereo Speaker with Powerbank

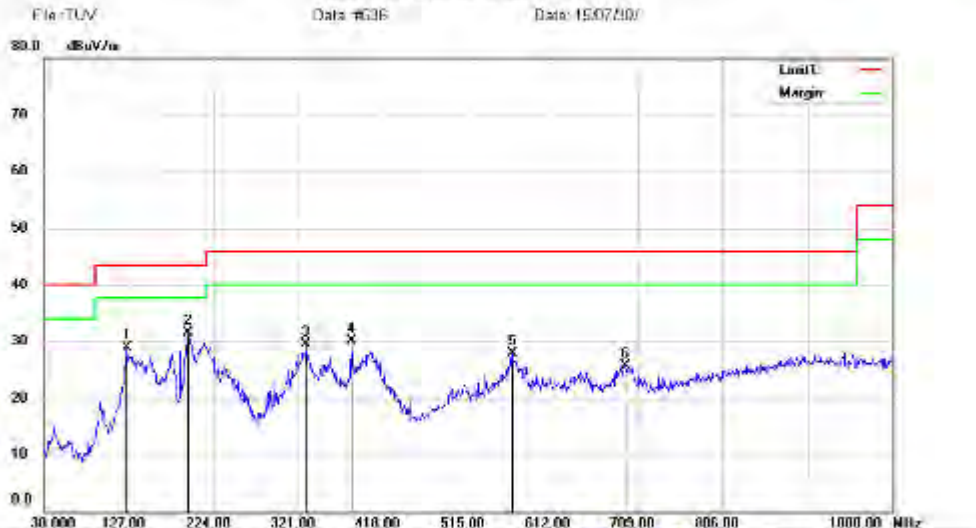
| No. | Mk | Freq | Reading | Corred | Measure | Limit | Over | Antenna | Table | |
|-----|----|----------|---------|--------|---------|--------|--------|----------|--------|--------|
| | | MHz | dBuV | Factor | dBuV/m | dBuV/m | dB | Detector | Height | Degree |
| | | | | | | | | | cm | degree |
| 1 | | 155.1300 | 47.08 | -18.42 | 28.66 | 43.50 | -14.84 | QP | | |
| 2 | | 191.0200 | 45.69 | -17.19 | 28.50 | 43.50 | -15.00 | QP | | |
| 3 | | 328.7800 | 44.52 | -13.04 | 31.48 | 46.00 | -14.52 | QP | | |
| 4 | | 408.3000 | 35.91 | -9.10 | 26.81 | 46.00 | -19.19 | QP | | |
| 5 | | 597.4500 | 35.18 | -7.02 | 28.16 | 46.00 | -17.84 | QP | | |
| 6 | | 695.4800 | 33.19 | -6.05 | 27.14 | 46.00 | -18.86 | QP | | |

*Maximum data α.Over limit Level margin Operator: INK
 File: TUVData #035 Page: 84

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement



Site: 3m Chamber #3 Polarization: **Horizontal** Temperature: 24 C
 Limit: I RES/CES 003 Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: Bat+Full Load
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq. | Reading | Correc. | Measure- | Limit | Over | Antenna | Table | |
|-----|----|----------|---------|---------|----------|--------|--------|----------|--------|--------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | Height | Degree |
| | | | | | | | | | cm | degree |
| 1 | | 125.0800 | 45.68 | -16.81 | 28.87 | 43.50 | -14.63 | QP | | |
| 2 | * | 194.9000 | 48.29 | -16.85 | 31.44 | 43.50 | -12.06 | QP | | |
| 3 | | 329.7300 | 42.40 | -12.99 | 29.41 | 46.00 | 16.59 | QP | | |
| 4 | | 381.1400 | 40.12 | -9.94 | 30.18 | 46.00 | 15.82 | QP | | |
| 5 | | 585.4400 | 35.21 | -7.26 | 27.95 | 46.00 | 18.05 | QP | | |
| 6 | | 695.4200 | 31.82 | -6.02 | 25.80 | 46.00 | 20.20 | QP | | |

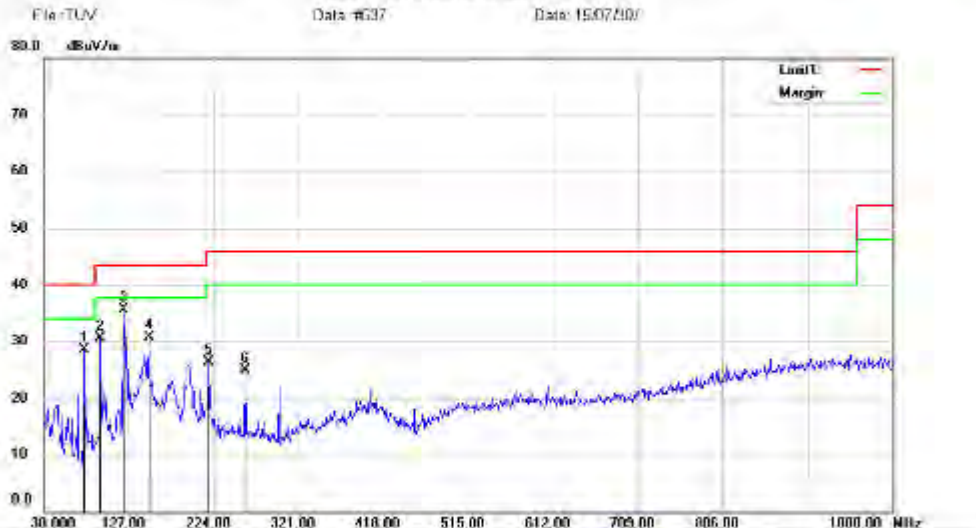
*Maximum data α. Over limit Level margin Operator: INK

File: TUVData #536 Page: 85

Shenzhen ENTEK Co., Ltd.
Bldg. 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, 518052 P. R. China
www.enteck.com.cn Tel: +86-755-2695 4280 Fax: +86-755-2695 4282



Radiated Emission Measurement



Site: 3m Chamber #3 Polarization: **Vertical** Temperature: 24 C
 Limit: I RES/CES 003 Power: AC 120V/60Hz Humidity: 53 %
 EUT
 M/N: NS-SPBTRICK-SB
 Mode: Bat+Full Load
 Note: Bluetooth Stereo Speaker with Powerbank

| No. | Mk | Freq. MHz | Reading Level dBuV | Correc. Factor dB | Measure- ment dBuV/m | Limit dBuV/m | Over dB | Antenna Detector | Table Height cm | Table Degree | Comment |
|-----|----|--------------|--------------------------|-------------------------|----------------------------|-----------------|------------|---------------------|-----------------------|-----------------|---------|
| 1 | | 75.5900 | 48.05 | -19.50 | 28.55 | 40.00 | -11.45 | QP | | | |
| 2 | | 94.0200 | 45.96 | -15.45 | 30.51 | 43.50 | -12.99 | QP | | | |
| 3 | | 121.1800 | 51.95 | -16.45 | 35.50 | 43.50 | -8.00 | QP | | | |
| 4 | | 150.2800 | 48.86 | -18.12 | 30.74 | 43.50 | -12.76 | QP | | | |
| 5 | | 218.1800 | 42.77 | -16.37 | 26.40 | 46.00 | -19.60 | QP | | | |
| 6 | | 260.8600 | 37.36 | -12.79 | 24.57 | 46.00 | -21.43 | QP | | | |

*Maximum data α.Over limit Level margin

Operator: INV

File: TUVData #537

Page: 86