



TEST REPORT

FCC ID: 2AB3E-IPA29

Applicant : ION AUDIO,LLC
Address : 200 Scenic View Drive, Cumberland, RI 02864, U.S.A

Equipment Under Test (EUT):

Name : Rechargeable Speaker System
Model : Road Rider
Trademark : ION

Standards : FCC PART 15, SUBPART C : 2015 (Section 15.247)
RSS-247 ISSUE 1 MAY 2015; RSS-GEN ISSUE 4 NOV 2014
ANSI C63.4:2014 ; ANSI C63.10:2013

Report No : T1851328 02
Date of Test : September 14- October 25, 2015
Date of Issue : October 26, 2015

Test Result : PASS

In the configuration tested, the EUT complied with the standards specified above
Authorized Signature

(Mark Zhu)
Manager

The manufacture should ensure that all the products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of Shenzhen Alpha Product Testing Co., Ltd. Or test done by Shenzhen Alpha Product Testing Co., Ltd. Approvals in connection with, distribution or use of the product described in this report must be approved by Shenzhen Alpha Product Testing Co., Ltd. Approvals in writing.

Contents

| | |
|---|-----------|
| 1. General Information | 4 |
| 1.1. Description of Device (EUT) | 4 |
| 1.2. Accessories of device (EUT) | 5 |
| 1.3. Test Lab information | 5 |
| 2. Summary of test | 6 |
| 2.1. Summary of test result | 6 |
| 2.2. Assistant equipment used for test..... | 6 |
| 2.3. Block Diagram | 7 |
| 2.4. Test mode | 7 |
| 2.5. Test Conditions..... | 8 |
| 2.6. Measurement Uncertainty (95% confidence levels, k=2) | 8 |
| 2.7. Test Equipment..... | 9 |
| 3. Maximum Peak Output power | 10 |
| 3.1. Limit | 10 |
| 3.2. Test Procedure | 10 |
| 3.3. Test Setup | 10 |
| 3.4. Test Result | 10 |
| 4. Bandwidth | 11 |
| 4.1. Limit | 11 |
| 4.2. Test Procedure | 11 |
| 4.3. Test Result | 11 |
| 5. Carrier Frequency Separation | 17 |
| 5.1. Limit | 17 |
| 5.2. Test Procedure | 17 |
| 5.3. Test Result | 17 |
| 6. Number Of Hopping Channel | 20 |
| 6.1. Limit..... | 20 |
| 6.2. Test Procedure | 20 |
| 6.3. Test Result | 20 |
| 7. Dwell Time | 23 |
| 7.1. Test limit | 23 |
| 7.2. Test Procedure..... | 23 |
| 7.3. Test Results | 23 |
| 8. Radiated emissions | 30 |
| 8.1. Limit..... | 30 |
| 8.2. Block Diagram of Test setup..... | 31 |
| 8.3. Test Procedure | 32 |
| 8.4. Test Result | 32 |
| 9. Band Edge Compliance | 44 |
| 9.1. Block Diagram of Test Setup | 44 |
| 9.2. Limit | 44 |
| 9.3. Test Procedure | 44 |
| 9.4. Test Result | 44 |

| | |
|---|-----------|
| 10. Power Line Conducted Emissions | 63 |
| 10.1. Block Diagram of Test Setup | 63 |
| 10.2. Limit | 63 |
| 10.3. Test Procedure | 63 |
| 10.4. Test Result | 64 |
| 11. Antenna Requirements..... | 66 |
| 11.1. Limit | 66 |
| 11.2. Result..... | 66 |
| 12. Test setup photo | 67 |
| 12.1. Photos of Radiated emission | 67 |
| 12.2. Photos of Conducted Emission test..... | 68 |
| 13. Photos of EUT | 69 |

1. General Information

1.1. Description of Device (EUT)

| | | |
|---------------------|---|---|
| EUT | : | Rechargeable Speaker System |
| Model No. | : | Road Rider |
| Difference | : | N/A |
| Trade mark | : | ION |
| Power supply | : | AC 120V/60Hz or DC 12V from battery |
| Radio Technology | : | BT 3.0+EDR |
| Operation frequency | : | 2402-2480MHz |
| Modulation | : | GFSK, $\pi/4$ DQPSK, 8-DPSK |
| Antenna Type | : | Integrated Antenna, max gain 0dBi. |
| Adapter | : | N/A |
| Applicant | : | ION AUDIO,LLC |
| Address | : | 200 Scenic View Drive, Cumberland, RI 02864, U.S.A |
| manufacture | : | ION AUDIO, LLC |
| Address | : | 200 Scenic View Drive, Cumberland, RI 02864, U.S.A. |

1.2. Accessories of device (EUT)

| | | |
|--------------|---|------------|
| Description | : | Microphone |
| Manufacturer | : | ION |
| Model No. | : | N/A |

1.3. Test Lab information

Shenzhen Alpha Product Testing Co., Ltd
Building B, East Area of Nanchang Second, Industrial Zone, Gushu 2nd Road,
Bao'an, Shenzhen, China

August 11, 2014 File on Federal Communication Commission
Registration Number: 203110

July 18, 2014 Certificated by IC
Registration Number: 12135A

2. Summary of test

2.1. Summary of test result

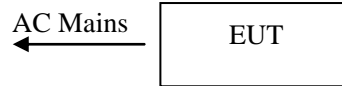
| Description of Test Item | Standard | Results |
|-----------------------------------|---|---------|
| Maximum Peak Output Power | FCC Part 15: 15.247(b)(1) ANSI C63.4 :2014&RSS-247 5.4(2) & ANSI C63.10 :2013 | PASS |
| Bandwidth | FCC Part 15: 15.215 ANSI C63.4 :2014&RSS-247 5.1(2) & ANSI C63.10 :2013 | PASS |
| Carrier Frequency Separation | FCC Part 15: 15.247(a)(1) ANSI C63.4 :2014& RSS-247 5.1(2) & ANSI C63.10 :2013 | PASS |
| Number Of Hopping Channel | FCC Part 15: 15.247(a)(1)(iii) ANSI C63.4 :2014&RSS-247 5.1(4) & ANSI C63.10 :2013 | PASS |
| Dwell Time | FCC Part 15: 15.247(a)(1)(iii) ANSI C63.4 :2014&RSS-247 5.1(4) & ANSI C63.10 :2013 | PASS |
| Radiated Emission | FCC Part 15: 15.209 FCC Part 15: 15.247(d) ANSI C63.4 :2014&RSS-247 Section 5.5& ANSI C63.10 :2013 | PASS |
| Band Edge Compliance | FCC Part 15: 15.247(d) ANSI C63.4 :2014&RSS-247 Section 5.5& ANSI C63.10 :2013 | PASS |
| Power Line Conducted Emissions | FCC Part 15: 15.207 ANSI C63.4 :2014&IC RSS Gen, Section 7.2.4& ANSI C63.10 :2013 | PASS |
| Antenna requirement | FCC Part 15: 15.203 &IC RSS Gen, Section 7.1.4 | PASS |
| Note: Test with the test software | | |

2.2. Assistant equipment used for test

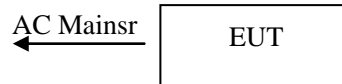
| | | |
|--------------------------|---|----------|
| Description | : | Notebook |
| Manufacturer | : | ACER |
| Model No. | : | ZQT |
| Remark: FCC DOC approved | | |

2.3. Block Diagram

1, For radiated emissions test: EUT was placed on a turn table, which is 0.8 meter high above ground. EUT was be set into BT test mode by software before test.



2, For Power Line Conducted Emissions Test: EUT was connected to notebook by 1.5m USB line



2.4. Test mode

The test software was used to control EUT work in Continuous TX mode, and select test channel, wireless mode.

| Tested mode, channel, and data rate information | | |
|---|--------------|-----------------|
| Mode | Channel | Frequency (MHz) |
| GFSK | Low :CH1 | 2402 |
| | Middle: CH40 | 2441 |
| | High: CH79 | 2480 |

| Tested mode, channel, and data rate information | | |
|---|--------------|-----------------|
| Mode | Channel | Frequency (MHz) |
| π /4 DQPSK | Low :CH1 | 2402 |
| | Middle: CH40 | 2441 |
| | High: CH79 | 2480 |

| Tested mode, channel, and data rate information | | |
|---|--------------|-----------------|
| Mode | Channel | Frequency (MHz) |
| 8- DPSK | Low :CH1 | 2402 |
| | Middle: CH40 | 2441 |
| | High: CH79 | 2480 |

2.5. Test Conditions

| | |
|-------------------|-----------|
| Temperature range | 21-25°C |
| Humidity range | 40-75% |
| Pressure range | 86-106kPa |

2.6. Measurement Uncertainty (95% confidence levels, k=2)

| Item | MU | Remark |
|---|--------------------|-------------|
| Uncertainty for Power point Conducted Emissions Test | 2.42dB | |
| Uncertainty for Radiation Emission test in 3m chamber (below 30MHz) | 2.13 dB | Polarize: V |
| | 2.57dB | Polarize: H |
| Uncertainty for Radiation Emission test in 3m chamber (30MHz to 1GHz) | 3.54dB | Polarize: V |
| | 4.1dB | Polarize: H |
| Uncertainty for Radiation Emission test in 3m chamber (1GHz to 25GHz) | 2.08dB | Polarize: H |
| | 2.56dB | Polarize: V |
| Uncertainty for radio frequency | 1×10^{-9} | |
| Uncertainty for conducted RF Power | 0.65dB | |
| Uncertainty for temperature | 0.2°C | |
| Uncertainty for humidity | 1% | |
| Uncertainty for DC and low frequency voltages | 0.06% | |

2.7. Test Equipment

| Equipment | Manufacture | Model No. | Serial No. | Cal. Due day | Cal Interval |
|---------------------|---------------|--------------|-------------------|--------------|--------------|
| 3m Semi-Anechoic | ETS-LINDGREN | N/A | SEL0017 | 2016.01.19 | 1 Year |
| Spectrum analyzer | Agilent | E4407B | MY49510055 | 2016.01.19 | 1 Year |
| Receiver | R&S | ESCI | 101165 | 2016.01.19 | 1 Year |
| Bilog Antenna | SCHWARZBECK | VULB 9168 | 9168-438 | 2017.01.21 | 2 Year |
| Horn Antenna | SCHWARZBECK | BBHA 9120 D | BBHA 9120 D(1201) | 2017.01.21 | 2 Year |
| Horn Antenna | SCHWARZBECK | BBHA 9170 | BBHA 9170 D(1432) | 2017.01.21 | 2 Year |
| Active Loop Antenna | Beijing Daze | ZN30900A | SEL0097 | 2016.01.19 | 1 Year |
| Cable | Resenberger | SUCOFLEX 104 | MY6562/4 | 2016.01.19 | 1 Year |
| Cable | Resenberger | SUCOFLEX 104 | 309972/4 | 2016.01.19 | 1 Year |
| Cable | Resenberger | SUCOFLEX 104 | 329112/4 | 2016.01.19 | 1 Year |
| L.I.S.N.#1 | Schwarzbeck | NSLK8126 | 8126466 | 2016.01.19 | 1 Year |
| L.I.S.N.#2 | ROHDE&SCHWARZ | ENV216 | 101043 | 2016.01.19 | 1 Year |
| Power Meter | Anritsu | ML2487A | 6K00001491 | 2016.01.19 | 1 Year |
| Power sensor | Anritsu | ML2491A | 32516 | 2016.01.19 | 1 Year |
| Pre-amplifier | SCHWARZBECK | BBV9743 | 9743-019 | 2016.01.19 | 1 Year |
| Pre-amplifier | Quietek | AP-180C | CHM-0602012 | 2016.01.19 | 1 Year |

3. Maximum Peak Output power

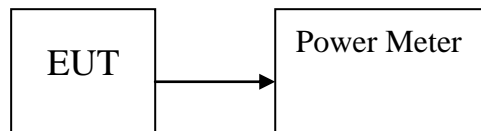
3.1. Limit

Please refer RSS-247 & section15.247.

3.2. Test Procedure

The transmitter output is connected to the RF Power Meter. The RF Power Meter is set to the peak power detection.

3.3. Test Setup



3.4. Test Result

| EUT: Rechargeable Speaker System M/N: Road Rider | | | | | |
|--|------------|-----------------------|----------------------|------------------|-------------|
| Test date: 2015-10-23 | | Test site: RF site | | Tested by: Peter | |
| Mode | Freq (MHz) | PK Output Power (dBm) | PK Output Power (mW) | Limit (dBm) | Margin (dB) |
| GFSK | 2402 | 3.25 | 2.113 | 21 | 17.750 |
| | 2441 | 3.39 | 2.183 | 21 | 17.610 |
| | 2480 | 4.51 | 2.825 | 21 | 16.490 |
| $\pi/4$ DQPSK, | 2402 | 2.42 | 1.746 | 21 | 18.580 |
| | 2441 | 2.49 | 1.774 | 21 | 18.510 |
| | 2480 | 2.81 | 1.901 | 21 | 18.210 |
| 8- DPSK | 2402 | 2.25 | 1.679 | 21 | 18.750 |
| | 2441 | 2.32 | 1.706 | 21 | 18.680 |
| | 2480 | 2.78 | 1.762 | 21 | 18.540 |
| Conclusion: PASS | | | | | |

4. Bandwidth

4.1. Limit

Please refer RSS-247 & section15.247.

4.2. Test Procedure

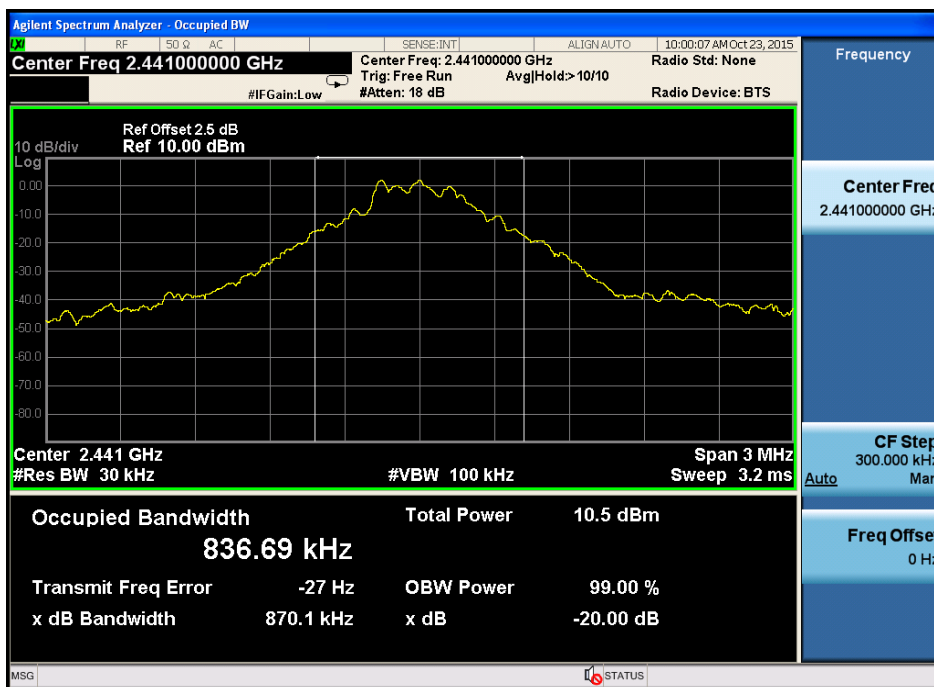
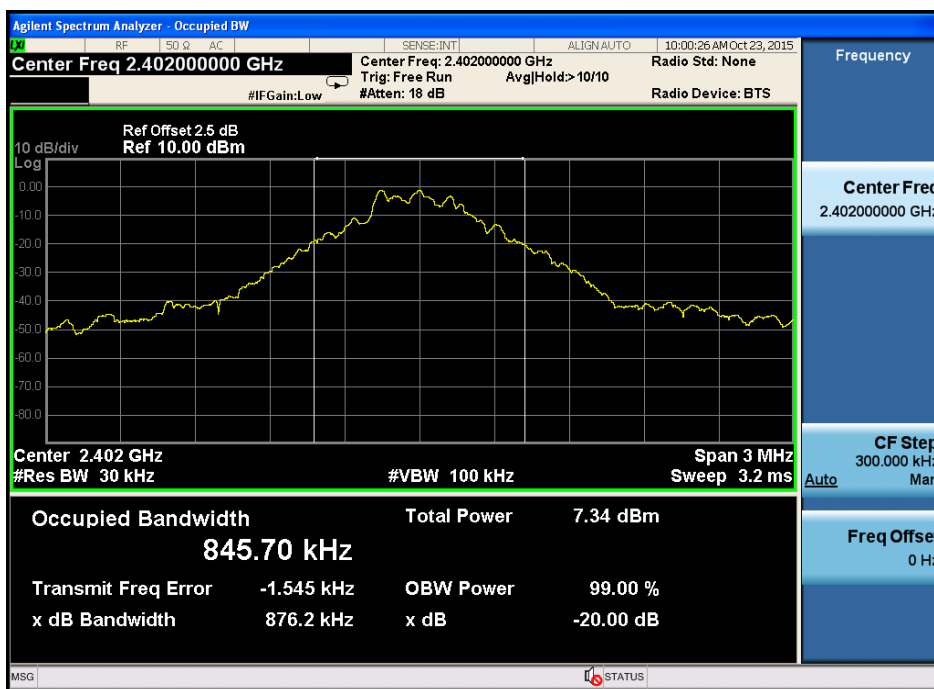
The transmitter output was coupled to a spectrum analyzer via a antenna. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 30kHz RBW and 100kHz VBW, PK detector. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

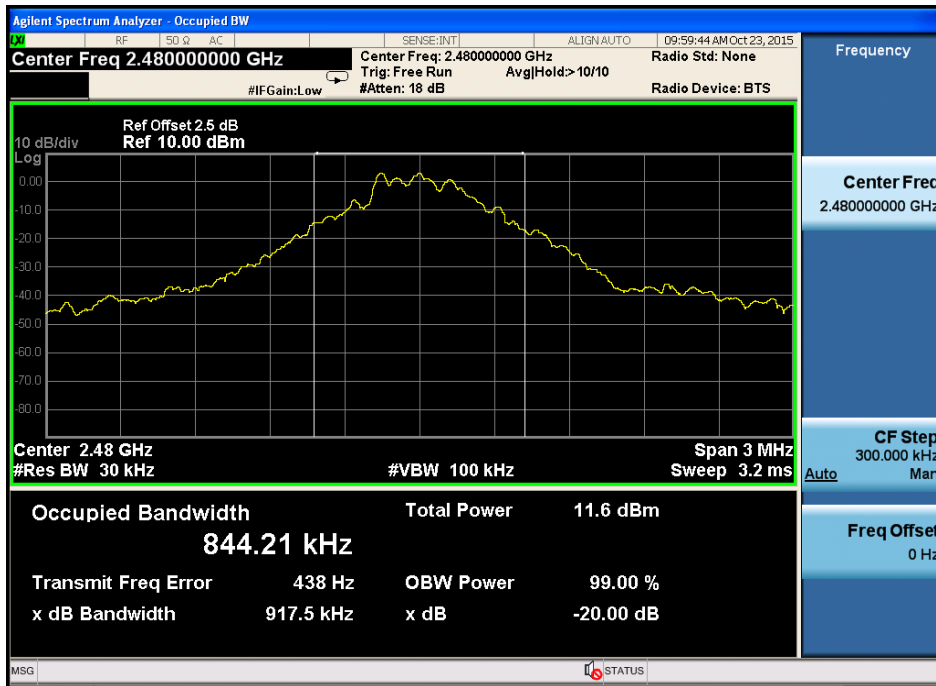
4.3. Test Result

| EUT: Rechargeable Speaker System | | M/N: Road Rider | | |
|----------------------------------|------------|----------------------|-------|------------------|
| Test date: 2015-10-23 | | Test site: RF site | | Tested by: Peter |
| Mode | Freq (MHz) | 20dB Bandwidth (KHz) | Limit | Conclusion |
| GFSK | 2402 | 876.2 | - | PASS |
| | 2441 | 870.1 | - | PASS |
| | 2480 | 917.5 | - | PASS |
| π /4 DQPSK | 2402 | 1227 | - | PASS |
| | 2441 | 1244 | - | PASS |
| | 2480 | 1240 | - | PASS |
| 8- DPSK | 2402 | 1213 | - | PASS |
| | 2441 | 1215 | - | PASS |
| | 2480 | 1215 | - | PASS |

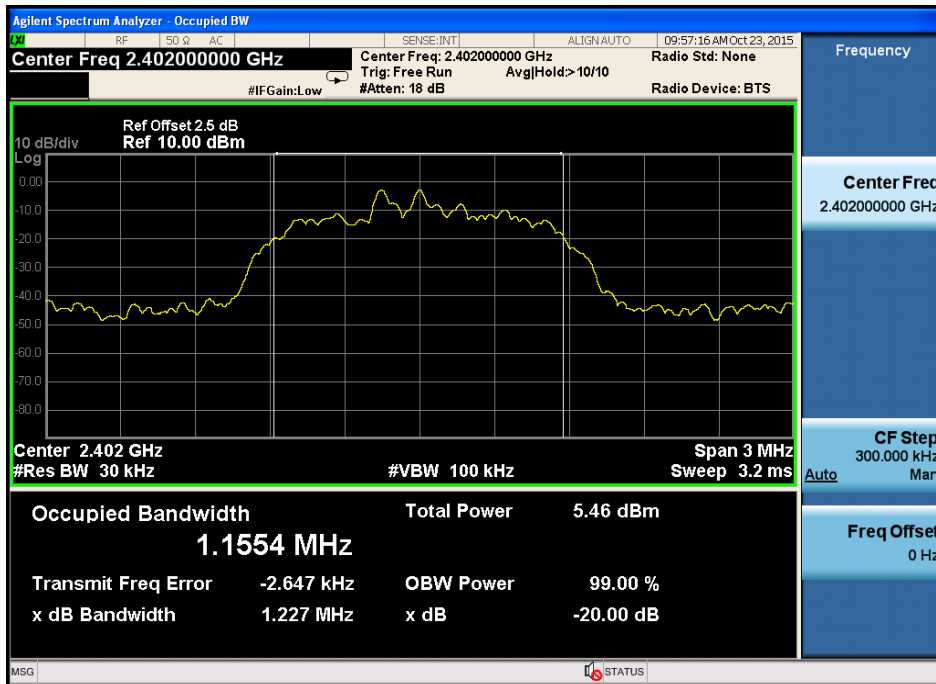
Original Test data

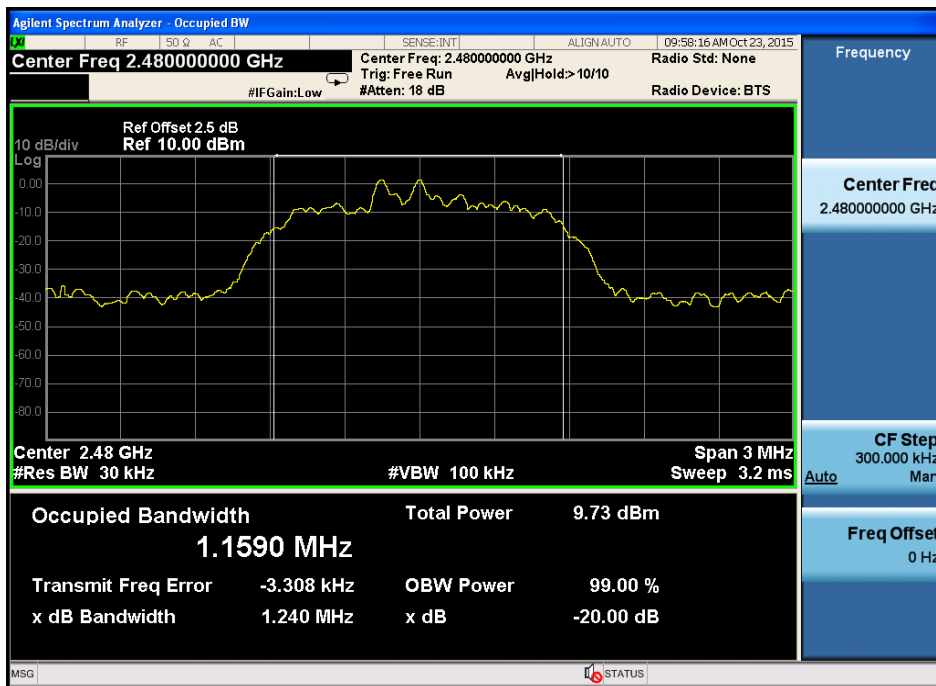
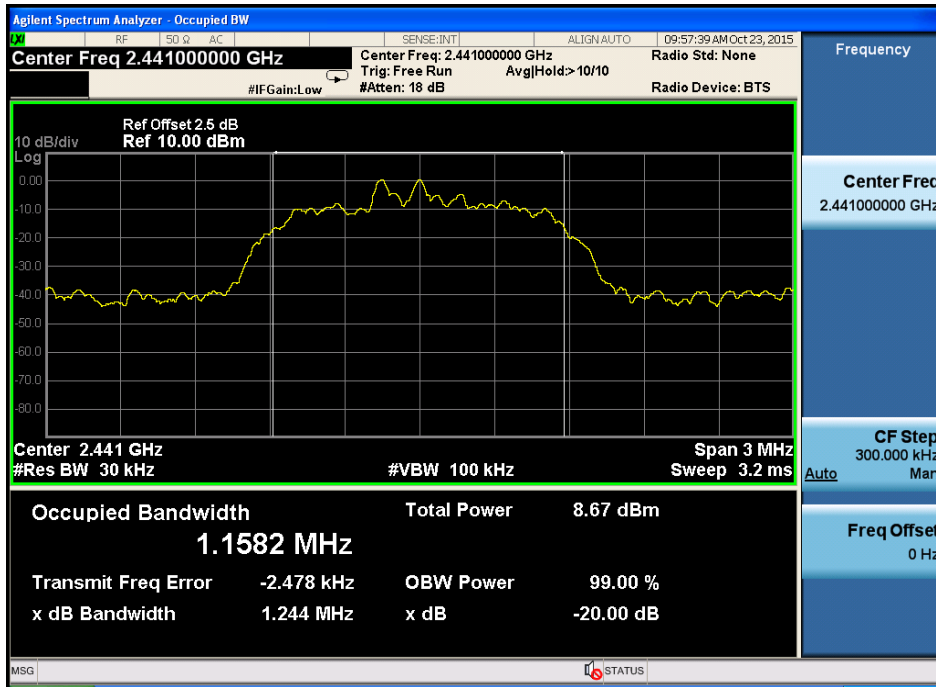
GFSK:



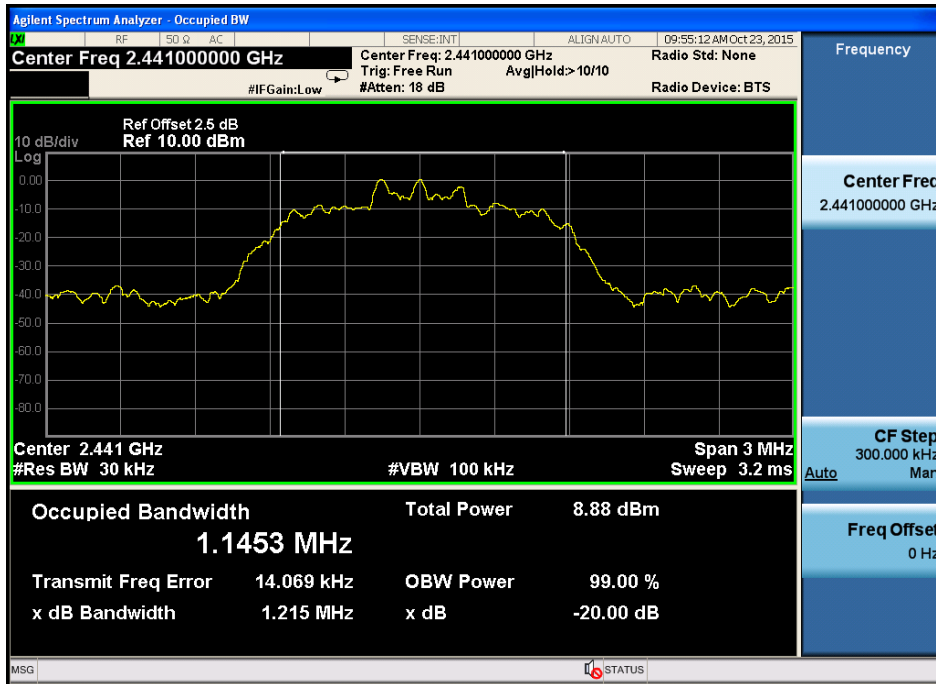
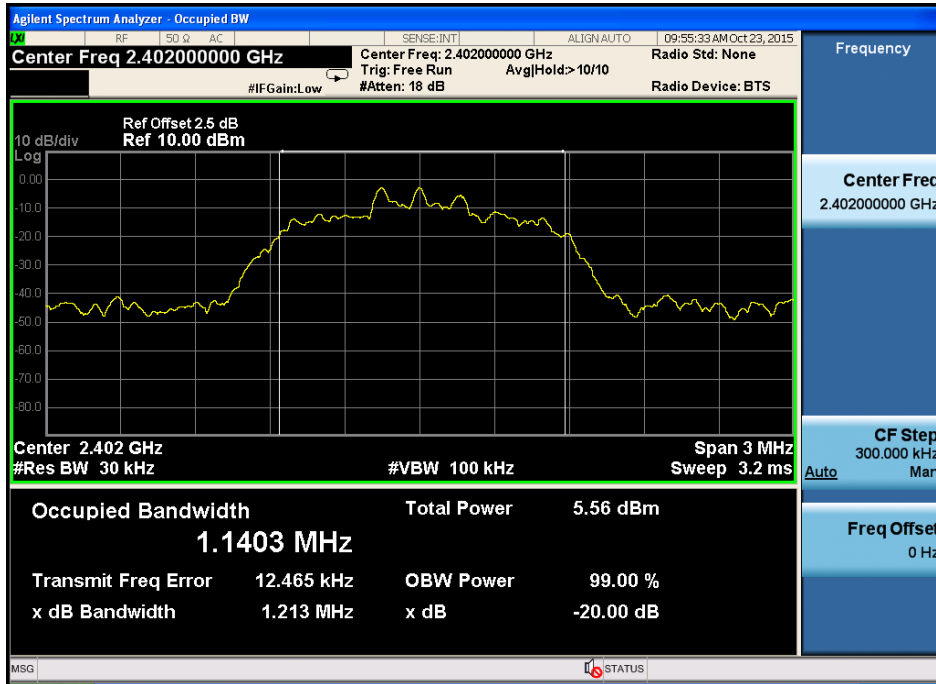


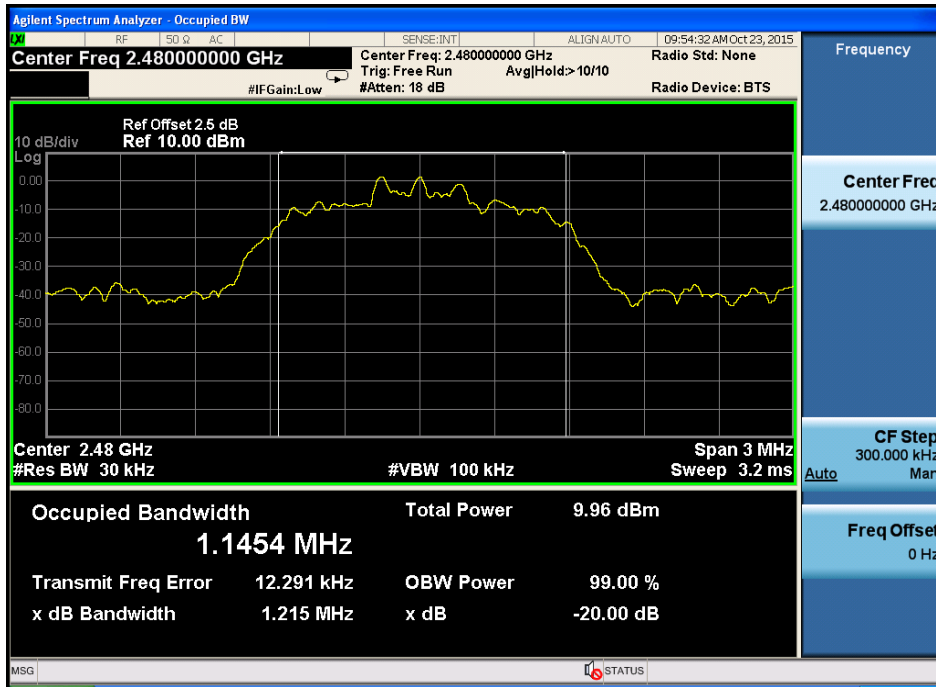
$\pi/4$ DQPSK





8- DPSK





5. Carrier Frequency Separation

5.1. Limit

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW

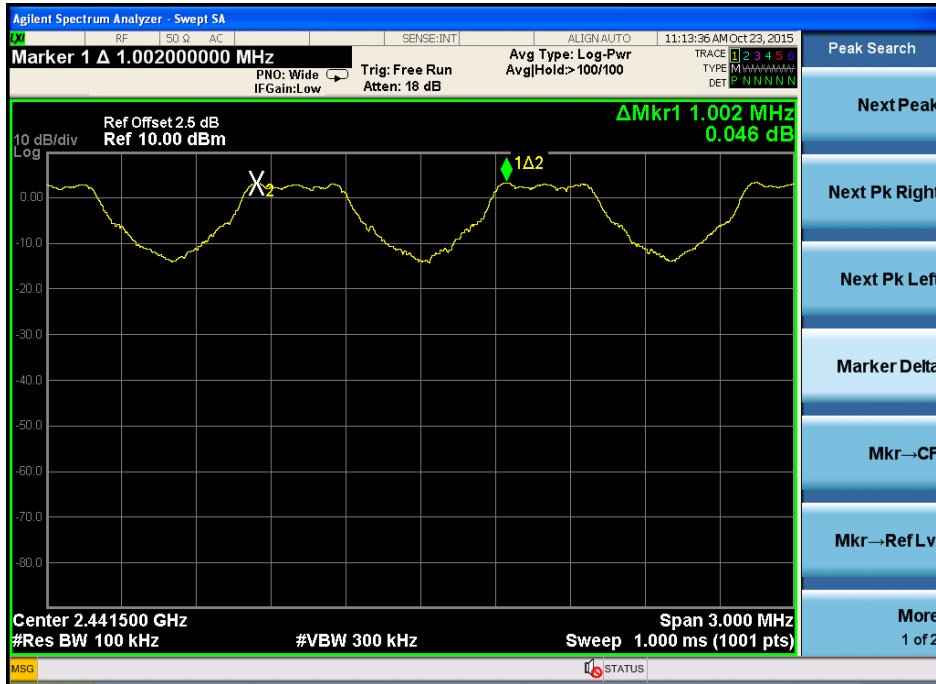
5.2. Test Procedure

The transmitter output was coupled to a spectrum analyzer via a antenna. The carrier frequency was measured by spectrum analyzer with 30kHz RBW and 100kHz VBW.

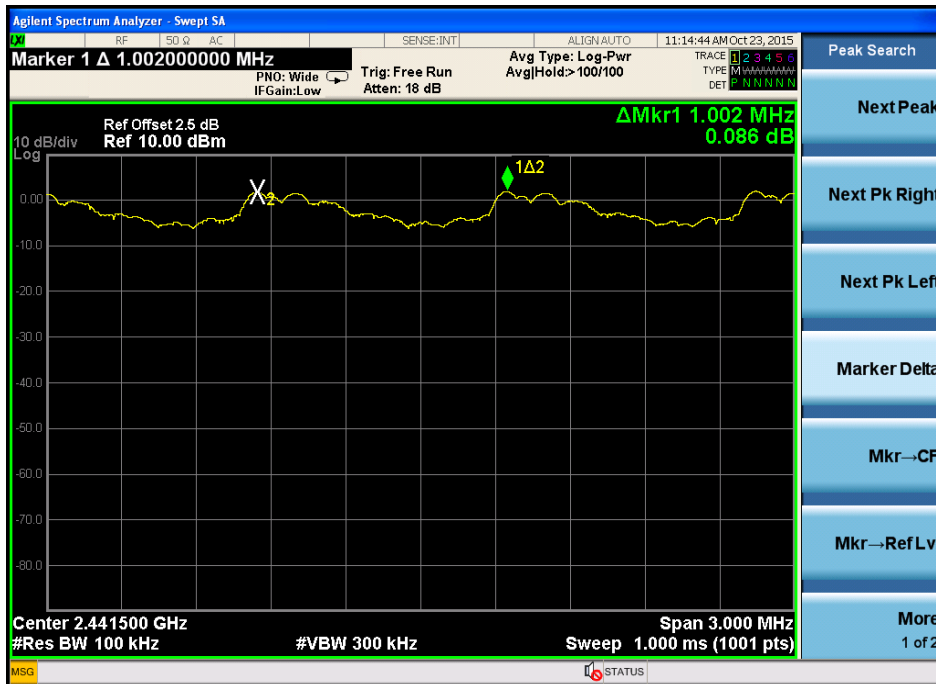
5.3. Test Result

| EUT: Rechargeable Speaker System M/N: Road Rider | | | | |
|--|--------------------------|----------------------|--------------------------------------|------------------|
| Test date: 2015-10-23 | | Test site: RF site | | Tested by: Peter |
| Mode/Channel | Channel separation (KHz) | 20dB Bandwidth (KHz) | Limit (KHz) 2/3 20dB bandwidth | Conclusion |
| GFSK | 1002 | 870.100 | 580.067 | PASS |
| π /4 DQPSK | 1002 | 1244.000 | 829.333 | PASS |
| 8- DPSK | 1002 | 1215.000 | 810.000 | PASS |

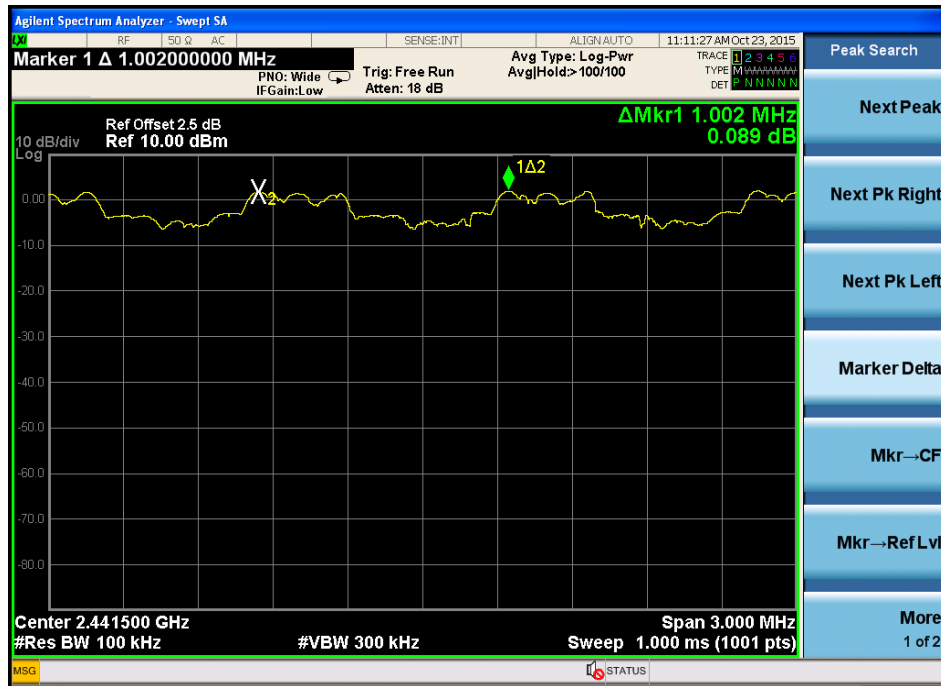
Original test data for channel separation
GFSK



$\pi/4$ DQPSK



8- DPSK



6. Number Of Hopping Channel

6.1. Limit

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels

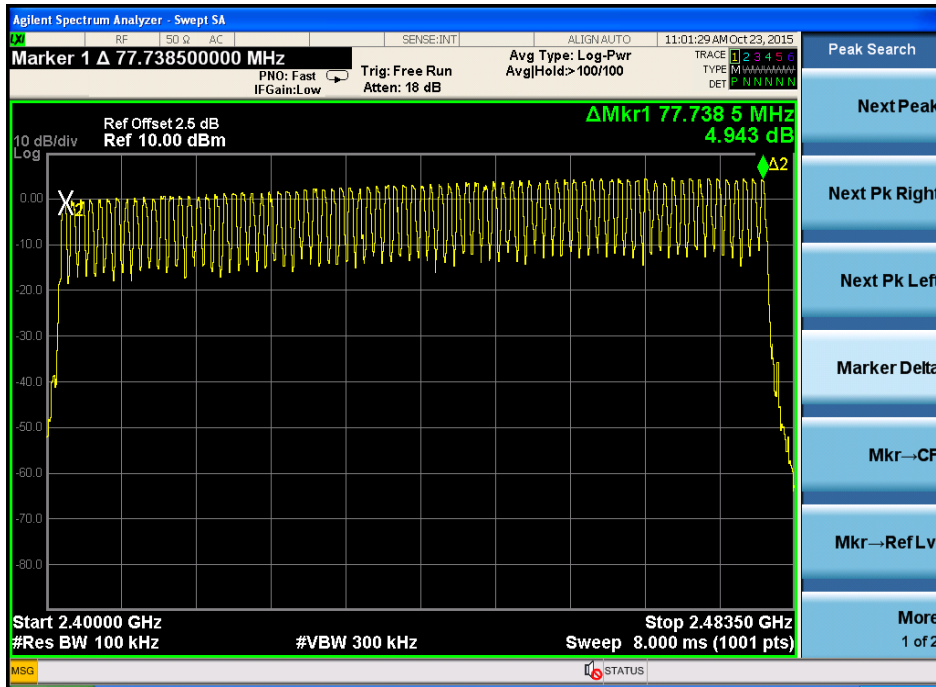
6.2. Test Procedure

The transmitter output was coupled to a spectrum analyzer via a antenna. The number of hopping channel was measured by spectrum analyzer with 300kHz RBW and 1MHz VBW.

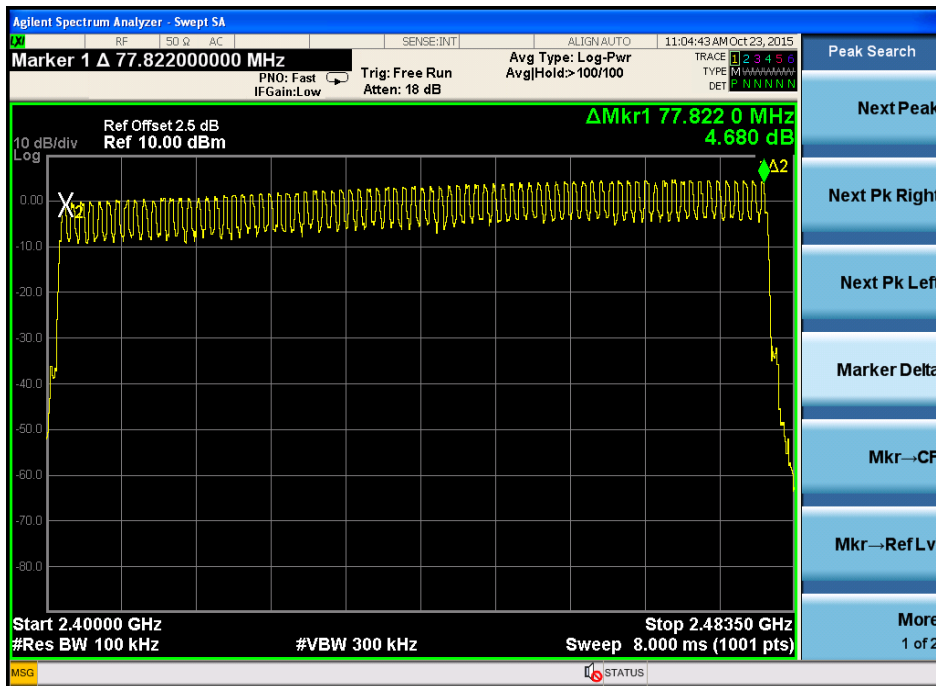
6.3. Test Result

| EUT: Rechargeable Speaker System M/N: Road Rider | | | |
|--|---------------------------|--------------------|------------------|
| Test date: 2015-10-23 | | Test site: RF site | Tested by: Peter |
| Mode | Number of hopping channel | Limit | Conclusion |
| GFSK | 79 | >15 | PASS |
| $\pi/4$ DQPSK | 79 | >15 | PASS |
| 8- DPSK | 79 | >15 | PASS |

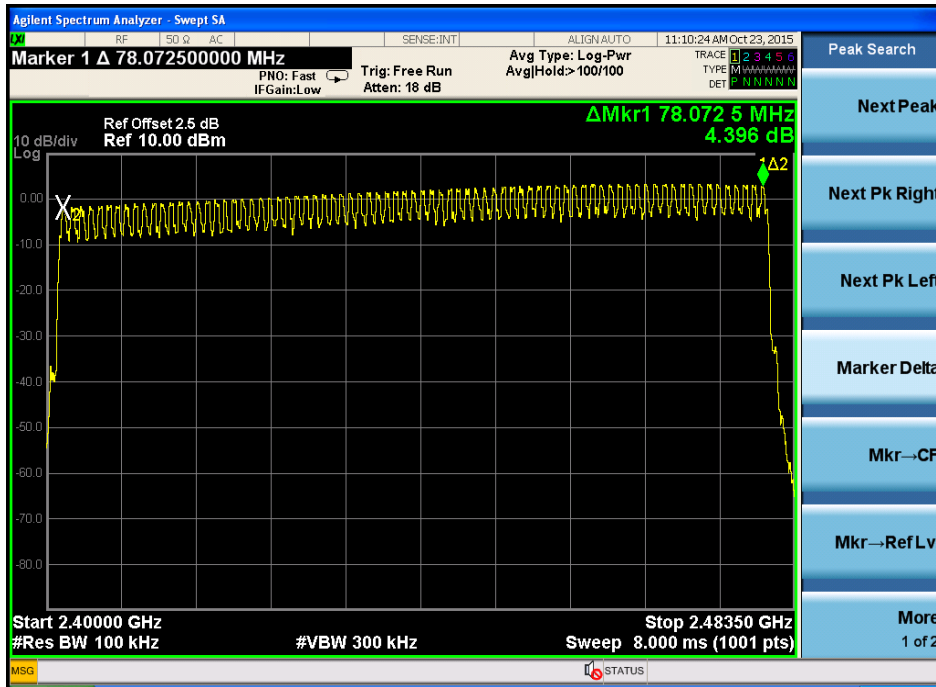
Original test data for hopping channel number
GFSK



$\pi/4$ DQPSK



8- DPSK



7. Dwell Time

7.1. Test limit

Please refer RSS-247 & section15.247.

7.2. Test Procedure

7.2.1. Place the EUT on the table and set it in transmitting mode.

7.2.2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.

7.2.3. Set center frequency of spectrum analyzer = operating frequency.

7.2.4. Set the spectrum analyzer as RBW, VBW=1MHz, Span = 0Hz, Sweep = auto.

7.2.5. Repeat above procedures until all frequency measured were complete.

7.3. Test Results

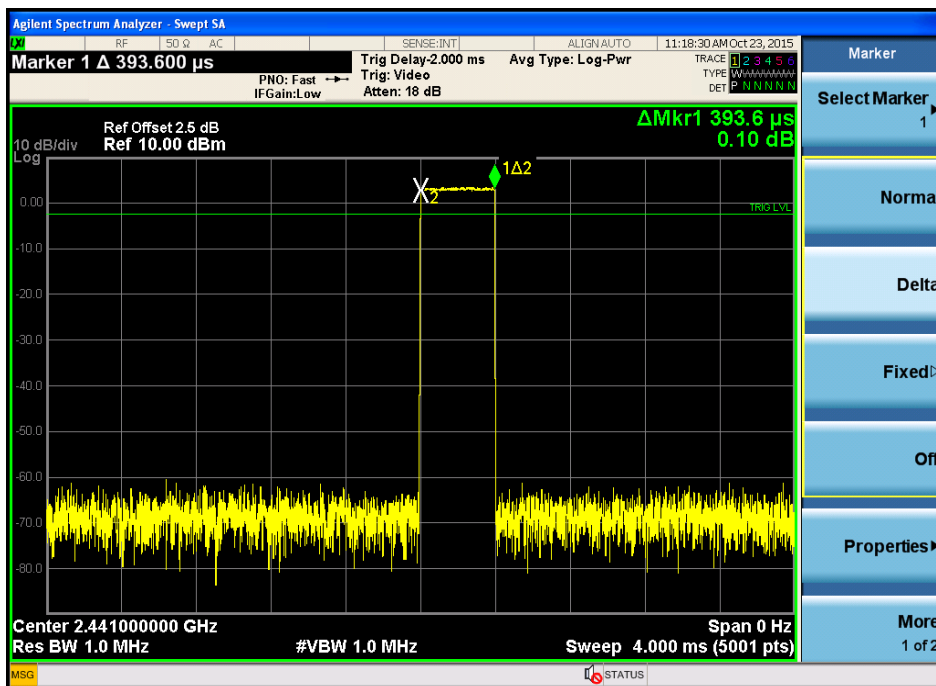
PASS.

Detailed information please see the following page.

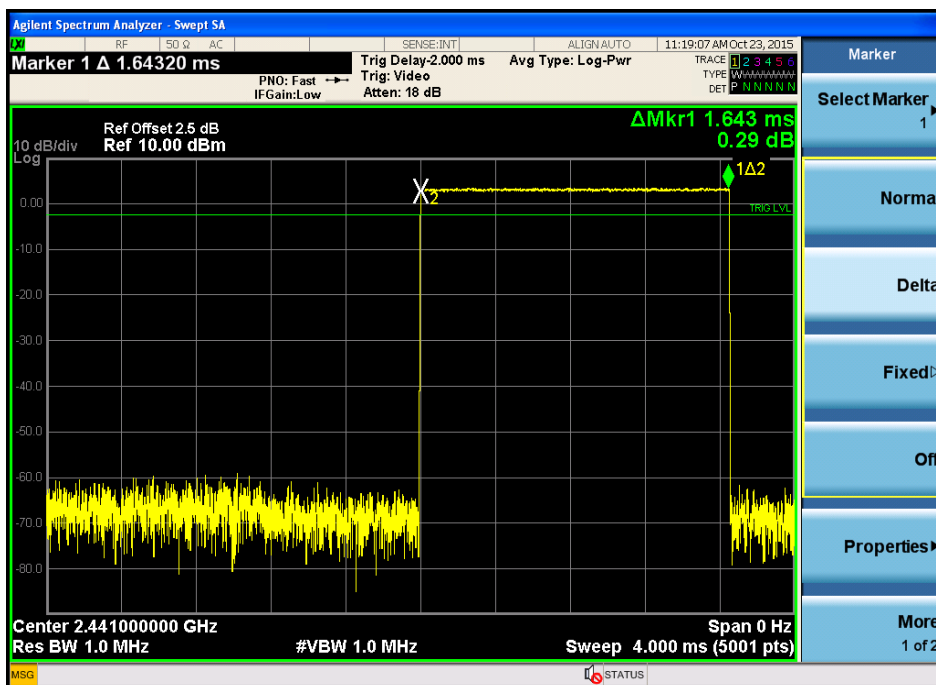
| EUT: Rechargeable Speaker System M/N: Road Rider | | | | | | |
|--|-------------|--------------------|---------------------|------------------|-----------|------------|
| Test date: 2015-10-23 | | Test site: RF site | | Tested by: Peter | | |
| Mode | Data Packet | Frequency (MHz) | Pulse Duration (ms) | Dwell Time (s) | Limit (s) | Conclusion |
| GFSK | DH1 | 2441 | 0.3936 | 0.252 | <0.4 | PASS |
| | DH3 | 2441 | 1.643 | 0.351 | <0.4 | PASS |
| | DH5 | 2441 | 2.891 | 0.370 | <0.4 | PASS |
| π /4 DQPSK | DH1 | 2441 | 0.3984 | 0.255 | <0.4 | PASS |
| | DH3 | 2441 | 1.651 | 0.352 | <0.4 | PASS |
| | DH5 | 2441 | 2.9 | 0.371 | <0.4 | PASS |
| 8- DPSK | DH1 | 2441 | 0.404 | 0.259 | <0.4 | PASS |
| | DH3 | 2441 | 1.655 | 0.353 | <0.4 | PASS |
| | DH5 | 2441 | 2.904 | 0.372 | <0.4 | PASS |
| Note: 1 A period time = 0.4 (s) * 79 = 31.6(s) 2 DH1 time slot = Pulse Duration * (1600/(1*79)) * A period time DH3 time slot = Pulse Duration * (1600/(3*79)) * A period time DH5 time slot = Pulse Duration * (1600/(5*79)) * A period time | | | | | | |

GFSK

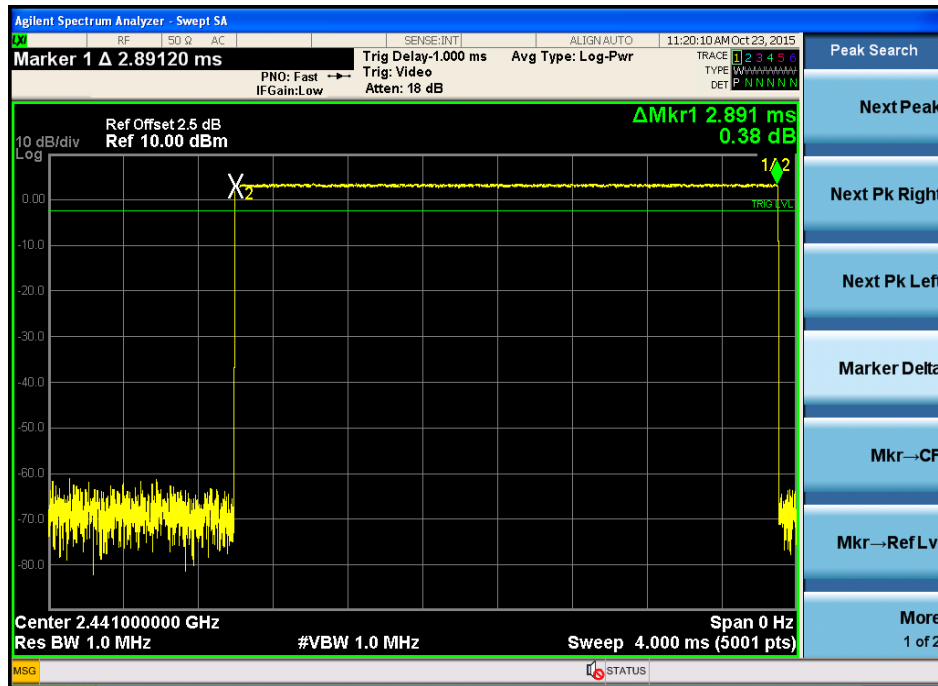
DH1:



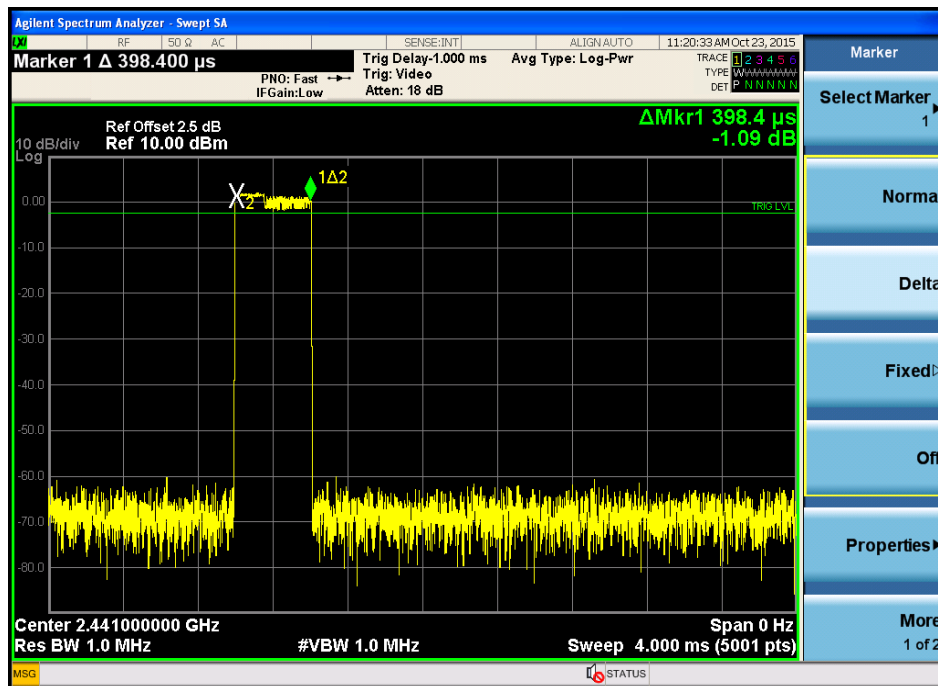
DH3:



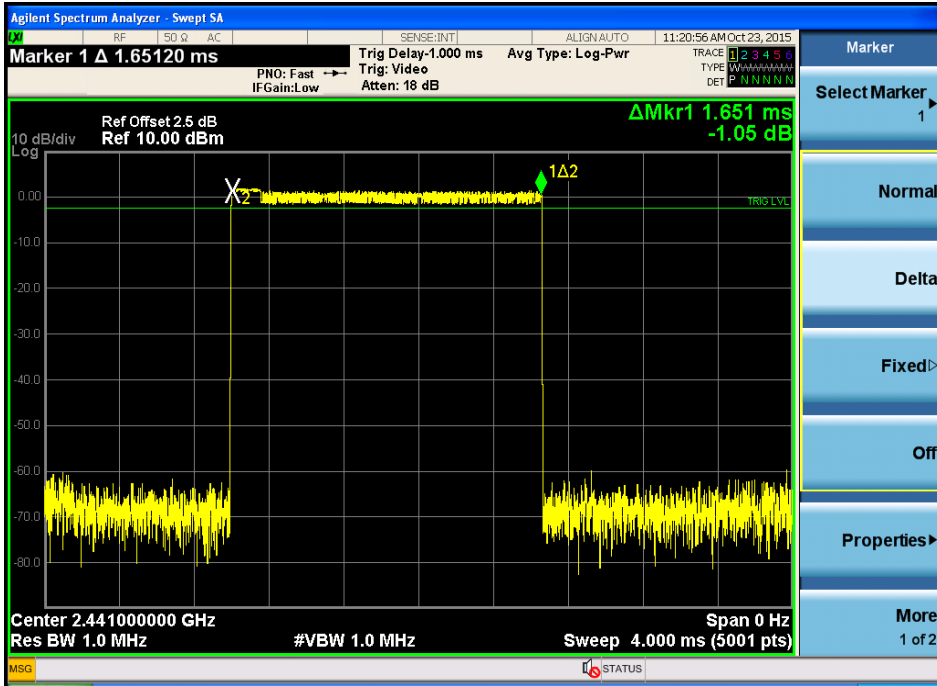
DH5



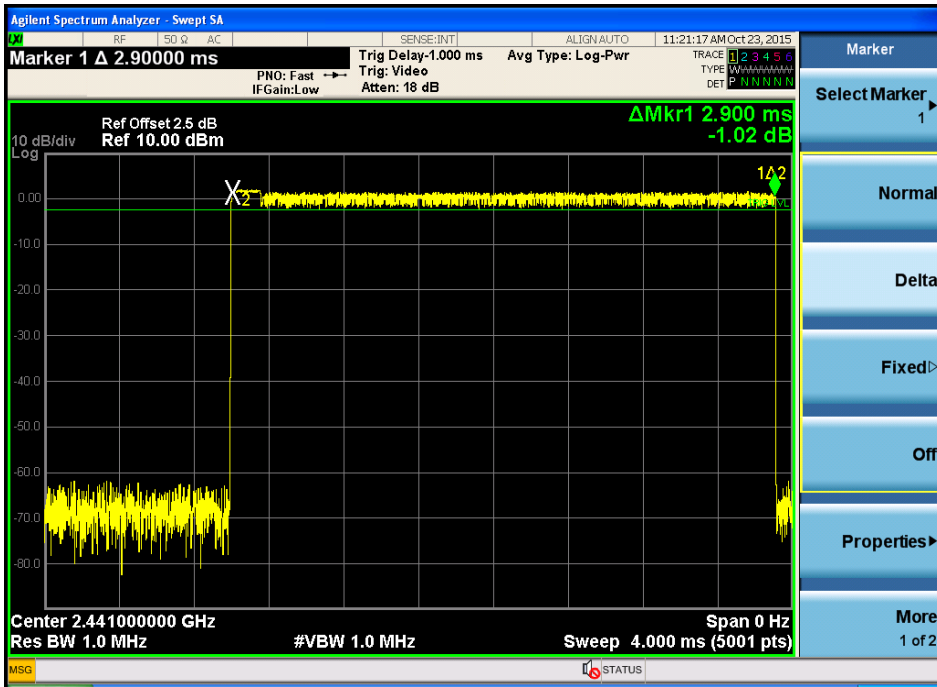
$\pi/4$ DQPSK DH1



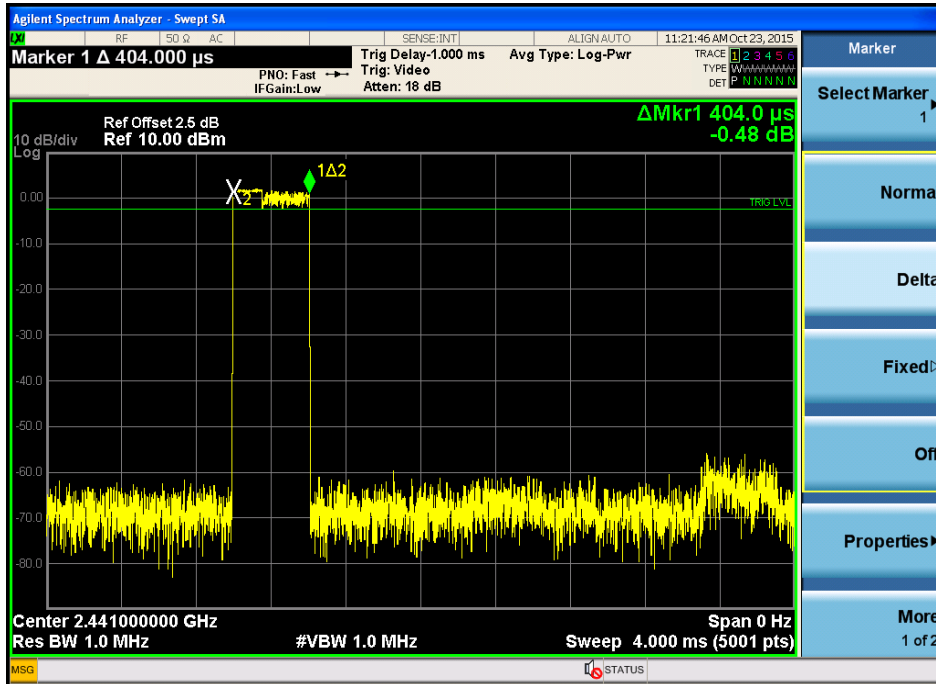
DH3



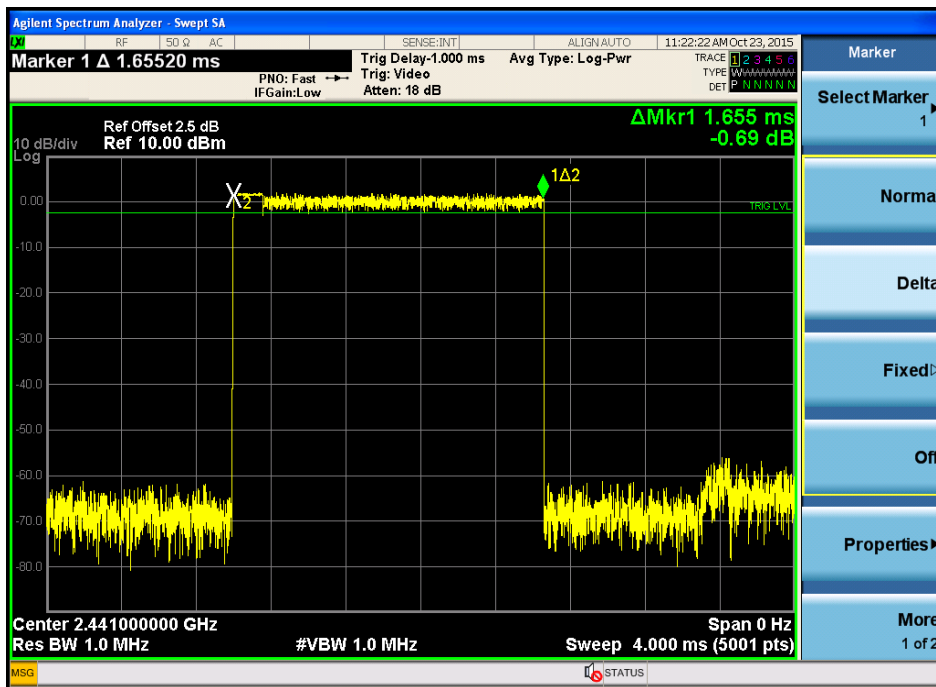
DH5



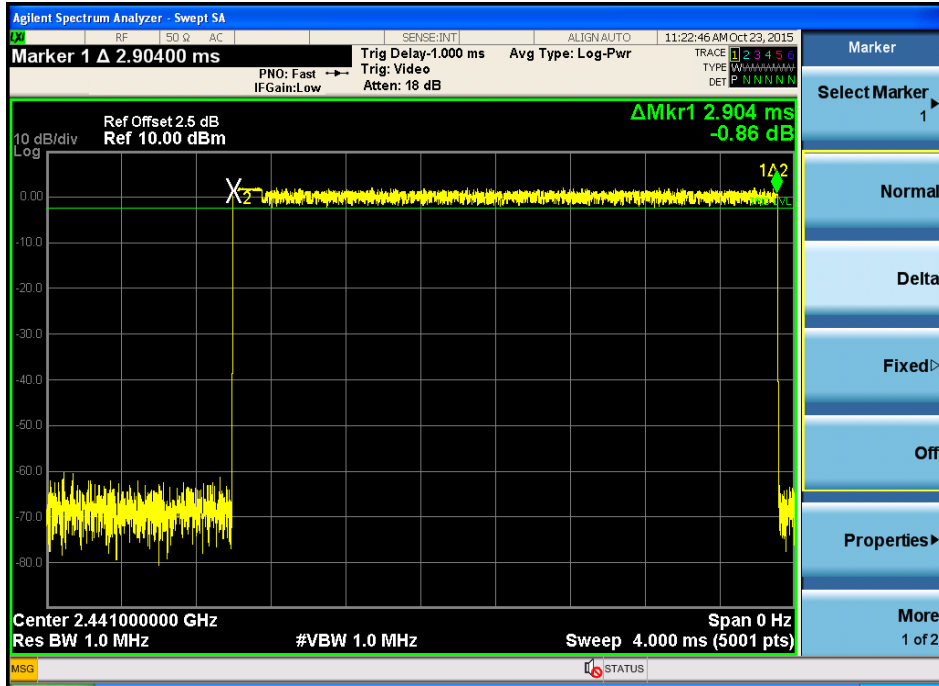
8- DPSK:
DH1



DH3



DH5



8. Radiated emissions

8.1. Limit

All the emissions appearing within RSS-GEN& FCC Part 15B restricted frequency bands shall not exceed the limits shown in RSS-GEN& FCC Part 15B, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with RSS-GEN & FCC Part 15B limits.

Restricted frequency band

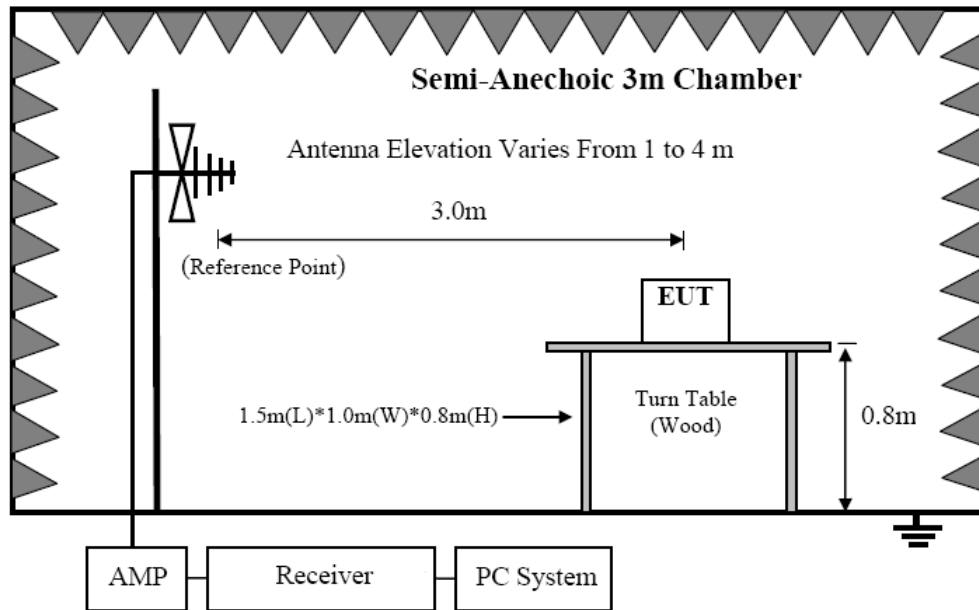
| MHz | MHz | MHz | GHz |
|----------------------------|-----------------------|-----------------|------------------|
| 0.090 - 0.110 | 16.42 - 16.423 | 399.9 - 410 | 4.5 - 5.15 |
| ¹ 0.495 - 0.505 | 16.69475 - 16.69525 | 608 - 614 | 5.35 - 5.46 |
| 2.1735 - 2.1905 | 16.80425 - 16.80475 | 960 - 1240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

Limit

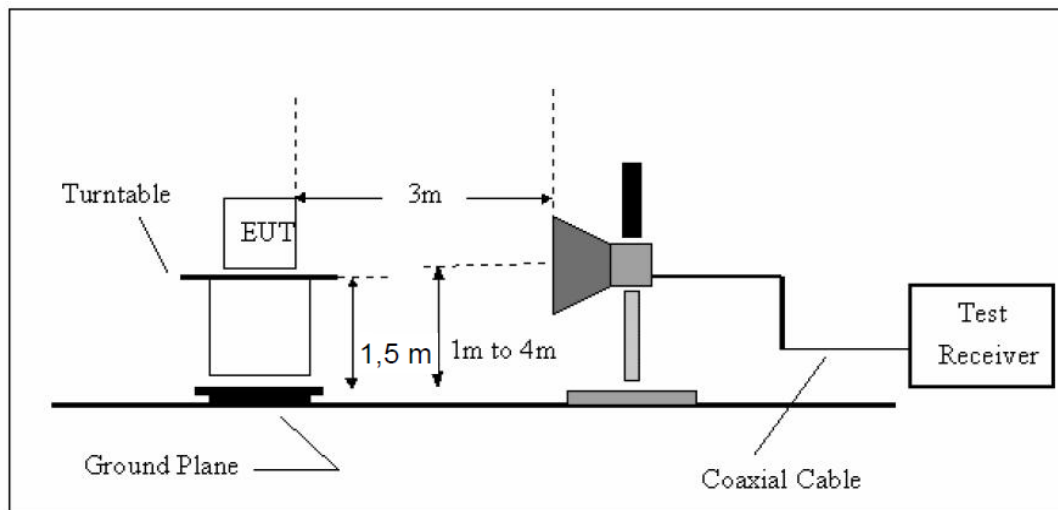
| FREQUENCY MHz | DISTANCE Meters | FIELD STRENGTHS LIMIT | |
|------------------|--------------------|---|-----------------------------------|
| | | $\mu\text{V}/\text{m}$ | $\text{dB}(\mu\text{V})/\text{m}$ |
| 0.009-0.490 | 300 | 2400/F(KHz) | / |
| 0.490-1.705 | 30 | 24000/F(KHz) | / |
| 1.705-30 | 30 | 30 | 29.5 |
| 30 ~ 88 | 3 | 100 | 40.0 |
| 88 ~ 216 | 3 | 150 | 43.5 |
| 216 ~ 960 | 3 | 200 | 46.0 |
| 960 ~ 1000 | 3 | 500 | 54.0 |
| Above 1000 | 3 | 74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average) | |

8.2. Block Diagram of Test setup

8.2.1 In 3m Anechoic Chamber Test Setup Diagram for below 1GHz



8.2.2 In 3m Anechoic Chamber Test Setup Diagram for frequency above 1GHz



Note: For harmonic emissions test a appropriate high pass filter was inserted in the input port of AMP.

8.3. Test Procedure

- (1) EUT was placed on a non-metallic table, 80 cm above the ground plane inside a semi-anechoic chamber for below 1GHz testing, and 150cm for above 1GHz testing.
- (2) Setup EUT and simulator as shown in section 1.4 and 6.1
- (3) Test antenna was located 3m from the EUT on an adjustable mast. Below pre-scan procedure was first performed in order to find prominent radiated emissions.
 - (a) Change work frequency or channel of device if practicable.
 - (b) Change modulation type of device if practicable.
 - (c) Rotated EUT though three orthogonal axes to determine the attitude of EUT arrangement produces highest emissions
- (4) Spectrum frequency from 9KHz to 25GHz (tenth harmonic of fundamental frequency) was investigated
- (5) For final emissions measurements at each frequency of interest, the EUT were rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.10 2013 on Radiated Emission test.
- (6) For emissions above 1GHz, both Peak and Average level were measured with Spectrum Analyzer, and the RBW is set at 1MHz, VBW is set at 3MHz for Peak measure; RBW is set at 1MHz, VBW is set at 10Hz for Average measure.

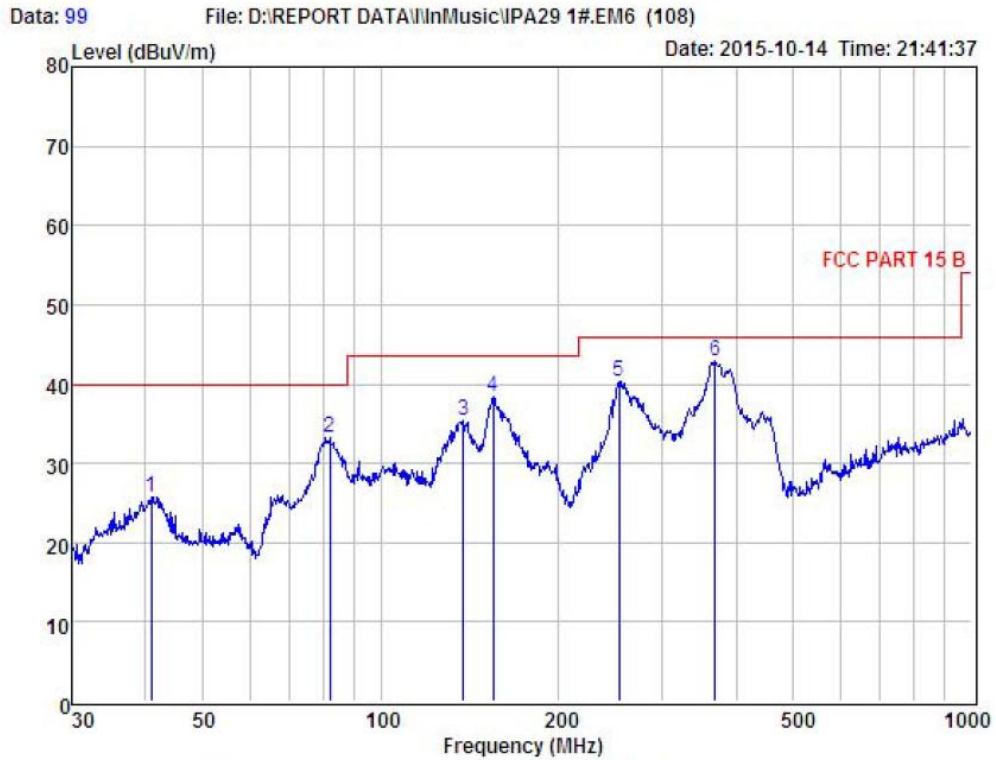
8.4. Test Result

We have scanned the 10th harmonic from 9KHz to the EUT.
Detailed information please see the following page.

From 9KHz to 30MHz: Conclusion: PASS

Note: The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

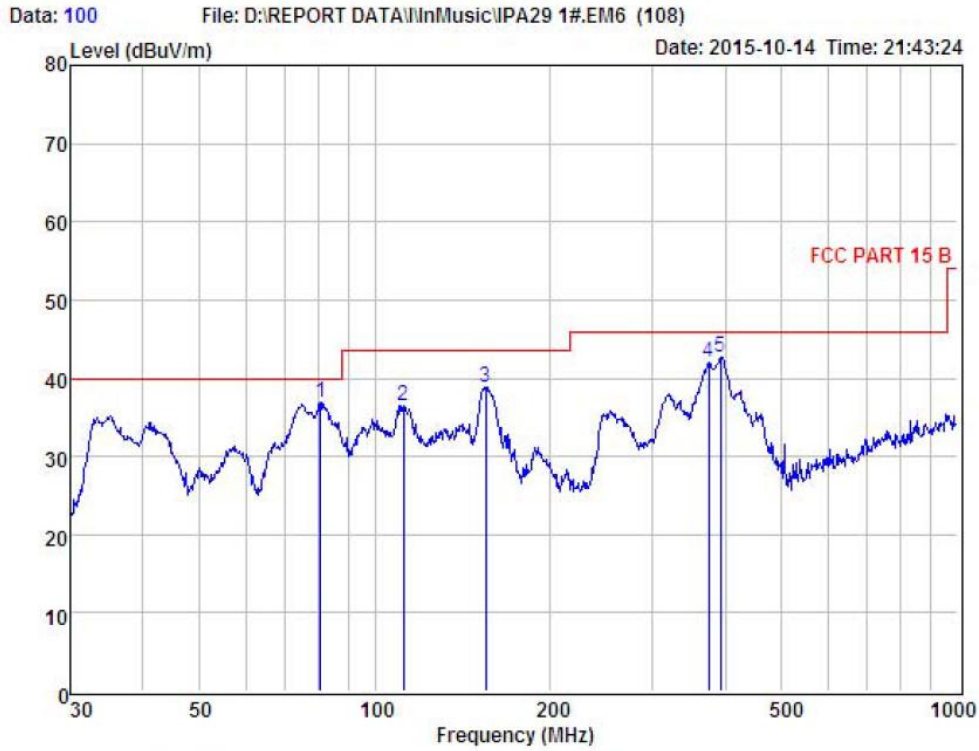
From 30MHz to 1000MHz: Conclusion: PASS



Condition : FCC PART 15 B 3m POL: HORIZONTAL
 EUT :
 Model No : IPA29
 Test Mode : Charging and BTmode
 Power : AC 120V/60Hz
 Test Engineer :
 Remark :
 Temp : 24.2°C
 Hum : 54%

| Item | Freq MHz | Read Level dBuV | Antenna Factor dB | Preamp Factor dB | Cable Loss dB | Level dBuV | Limit dBuV | Margin dBuV | Remark |
|------|-------------|-----------------------|-------------------------|------------------------|---------------------|---------------|---------------|----------------|--------|
| 1 | 40.84 | 42.52 | 13.93 | 30.85 | 0.18 | 25.78 | 40.00 | -14.22 | Peak |
| 2 | 82.07 | 53.75 | 9.32 | 30.02 | 0.20 | 33.25 | 40.00 | -6.75 | Peak |
| 3 | 137.90 | 51.05 | 13.37 | 29.36 | 0.41 | 35.47 | 43.50 | -8.03 | Peak |
| 4 | 154.82 | 53.10 | 14.15 | 29.31 | 0.39 | 38.33 | 43.50 | -5.17 | Peak |
| 5 | 252.95 | 56.34 | 11.65 | 28.23 | 0.60 | 40.36 | 46.00 | -5.64 | Peak |
| 6 | 368.11 | 55.39 | 14.20 | 27.51 | 0.86 | 42.94 | 46.00 | -3.06 | Peak |

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss



Condition : FCC PART 15 B 3m POL: VERTICAL
 EUT :
 Model No : IPA29
 Test Mode : Charging and BT mode
 Power : AC 120V/60Hz
 Test Engineer :
 Remark :
 Temp : 24.2°C
 Hum : 54%

| Item | Freq MHz | Read Level dBuV | Antenna Factor dB | Preamp Factor dB | Cable Loss dB | Level dBuV | Limit dBuV | Margin dBuV | Remark |
|------|-------------|-----------------------|-------------------------|------------------------|---------------------|---------------|---------------|----------------|--------|
| 1 | 80.64 | 57.41 | 9.32 | 29.96 | 0.14 | 36.91 | 40.00 | -3.09 | Peak |
| 2 | 112.13 | 54.43 | 11.50 | 29.89 | 0.47 | 36.51 | 43.50 | -6.99 | Peak |
| 3 | 154.82 | 53.57 | 14.15 | 29.31 | 0.39 | 38.80 | 43.50 | -4.70 | Peak |
| 4 | 374.62 | 54.05 | 14.32 | 27.43 | 1.07 | 42.01 | 46.00 | -3.99 | Peak |
| 5 | 392.10 | 54.69 | 14.61 | 27.37 | 0.78 | 42.71 | 46.00 | -3.29 | Peak |

Remark: Level = Read Level + Antenna Factor - Preamp Factor + Cable Loss

| 1GHz—25GHz Radiated emission Test result | | | | | | | | | |
|---|------------|---------------------|-----------------------|----------------|-----------------|-----------------|----------------|-------------|--------|
| EUT: Rechargeable Speaker System | | | | | M/N: Road Rider | | | | |
| Power: AC 120V/60Hz | | | | | | | | | |
| Test date: 2015-10-23 Test site: 3m Chamber Tested by: Peter | | | | | | | | | |
| Test mode: GFSK Tx CH1 2402MHz | | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | | |
| No | Freq (MHz) | Read Level (dBuV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 1 | 4804 | 41.69 | 33.95 | 10.18 | 34.26 | 51.56 | 74 | 22.44 | PK |
| 2 | 4804 | 32.31 | 33.95 | 10.18 | 34.26 | 42.18 | 54 | 11.82 | AV |
| 3 | 7206 | / | | | | | | | |
| 4 | 9608 | / | | | | | | | |
| 5 | 12010 | / | | | | | | | |
| Antenna Polarity: Horizontal | | | | | | | | | |
| 1 | 4804 | 42.58 | 33.95 | 10.18 | 34.26 | 52.45 | 74 | 21.55 | PK |
| 2 | 4804 | 31.52 | 33.95 | 10.18 | 34.26 | 41.39 | 54 | 12.61 | AV |
| 3 | 7206 | / | | | | | | | |
| 4 | 9608 | / | | | | | | | |
| 5 | 12010 | / | | | | | | | |
| Note: | | | | | | | | | |
| 1, Measuring frequency from 1GHz to 25GHz | | | | | | | | | |
| 2, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | | |

| 1GHz—25GHz Radiated emission Test result | | | | | | | | | |
|---|------------|---------------------|-----------------------|----------------|-----------------|-----------------|----------------|-------------|--------|
| EUT: Rechargeable Speaker System | | | | | M/N: Road Rider | | | | |
| Power: AC 120V/60Hz | | | | | | | | | |
| Test date: 2015-10-23 Test site: 3m Chamber Tested by: Peter | | | | | | | | | |
| Test mode: GFSK Tx CH40 2441MHz | | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | | |
| No | Freq (MHz) | Read Level (dBuV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 1 | 4882 | 42.34 | 33.93 | 10.2 | 34.29 | 52.18 | 74 | 21.82 | PK |
| 2 | 4882 | 32.14 | 33.93 | 10.2 | 34.29 | 41.98 | 54 | 12.02 | AV |
| 3 | 7323 | / | | | | | | | |
| 4 | 9764 | / | | | | | | | |
| 5 | 12205 | / | | | | | | | |
| Antenna Polarity: Horizontal | | | | | | | | | |
| 1 | 4882 | 42.17 | 33.93 | 10.2 | 34.29 | 52.01 | 74 | 21.99 | PK |
| 2 | 4882 | 31.72 | 33.93 | 10.2 | 34.29 | 41.56 | 54 | 12.44 | AV |
| 3 | 7323 | / | | | | | | | |
| 4 | 9764 | / | | | | | | | |
| 5 | 12205 | / | | | | | | | |
| Note: | | | | | | | | | |
| 1, Measuring frequency from 1GHz to 25GHz | | | | | | | | | |
| 2, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | | |

| 1GHz—25GHz Radiated emission Test result | | | | | | | | | |
|---|------------|---------------------|-----------------------|----------------|-----------------|-----------------|----------------|-------------|--------|
| EUT: Rechargeable Speaker System | | | | | M/N: Road Rider | | | | |
| Power: AC 120V/60Hz | | | | | | | | | |
| Test date: 2015-10-23 Test site: 3m Chamber Tested by: Peter | | | | | | | | | |
| Test mode: GFSK Tx CH79 2480MHz | | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | | |
| No | Freq (MHz) | Read Level (dBuV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 1 | 4960 | 42.62 | 33.98 | 10.22 | 34.25 | 52.57 | 74 | 21.43 | PK |
| 2 | 4960 | 31.84 | 33.98 | 10.22 | 34.25 | 41.79 | 54 | 12.21 | AV |
| 3 | 7440 | / | | | | | | | |
| 4 | 9920 | / | | | | | | | |
| 5 | 12400 | / | | | | | | | |
| Antenna Polarity: Horizontal | | | | | | | | | |
| 1 | 4960 | 42.56 | 33.98 | 10.22 | 34.25 | 52.51 | 74 | 21.49 | PK |
| 2 | 4960 | 31.82 | 33.98 | 10.22 | 34.25 | 41.77 | 54 | 12.23 | AV |
| 3 | 7440 | / | | | | | | | |
| 4 | 9920 | / | | | | | | | |
| 5 | 12400 | / | | | | | | | |
| Note: | | | | | | | | | |
| 1, Measuring frequency from 1GHz to 25GHz | | | | | | | | | |
| 2, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | | |

| 1GHz—25GHz Radiated emission Test result | | | | | | | | | |
|---|------------|---------------------|-----------------------|----------------|-----------------|-----------------|----------------|-------------|--------|
| EUT: Rechargeable Speaker System | | | | | M/N: Road Rider | | | | |
| Power: AC 120V/60Hz | | | | | | | | | |
| Test date: 2015-10-23 Test site: 3m Chamber Tested by: Peter | | | | | | | | | |
| Test mode: $\pi/4$ DQPSK Tx CH1 2402MHz | | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | | |
| No | Freq (MHz) | Read Level (dBuV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 1 | 4804 | 42.23 | 33.95 | 10.18 | 34.26 | 52.1 | 74 | 21.9 | PK |
| 2 | 4804 | 31.72 | 33.95 | 10.18 | 34.26 | 41.59 | 54 | 12.41 | AV |
| 3 | 7206 | / | | | | | | | |
| 4 | 9608 | / | | | | | | | |
| 5 | 12010 | / | | | | | | | |
| Antenna Polarity: Horizontal | | | | | | | | | |
| 1 | 4804 | 42.25 | 33.95 | 10.18 | 34.26 | 52.12 | 74 | 21.88 | PK |
| 2 | 4804 | 32 | 33.95 | 10.18 | 34.26 | 41.87 | 54 | 12.13 | AV |
| 3 | 7206 | / | | | | | | | |
| 4 | 9608 | / | | | | | | | |
| 5 | 12010 | / | | | | | | | |
| Note: | | | | | | | | | |
| 1, Measuring frequency from 1GHz to 25GHz | | | | | | | | | |
| 2, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | | |

| 1GHz—25GHz Radiated emission Test result | | | | | | | | | |
|---|------------|---------------------|-----------------------|----------------|-----------------|-----------------|----------------|-------------|--------|
| EUT: Rechargeable Speaker System | | | | | M/N: Road Rider | | | | |
| Power: AC 120V/60Hz | | | | | | | | | |
| Test date: 2015-10-23 Test site: 3m Chamber Tested by: Peter | | | | | | | | | |
| Test mode: $\pi/4$ DQPSK Tx CH40 2441MHz | | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | | |
| No | Freq (MHz) | Read Level (dBuV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 1 | 4882 | 42.35 | 33.93 | 10.2 | 34.29 | 52.19 | 74 | 21.81 | PK |
| 2 | 4882 | 31.93 | 33.93 | 10.2 | 34.29 | 41.77 | 54 | 12.23 | AV |
| 3 | 7323 | / | | | | | | | |
| 4 | 9764 | / | | | | | | | |
| 5 | 12205 | / | | | | | | | |
| Antenna Polarity: Horizontal | | | | | | | | | |
| 1 | 4882 | 42.35 | 33.93 | 10.2 | 34.29 | 52.19 | 74 | 21.81 | PK |
| 2 | 4882 | 31.72 | 33.93 | 10.2 | 34.29 | 41.56 | 54 | 12.44 | AV |
| 3 | 7323 | / | | | | | | | |
| 4 | 9764 | / | | | | | | | |
| 5 | 12205 | / | | | | | | | |
| Note: | | | | | | | | | |
| 1, Measuring frequency from 1GHz to 25GHz | | | | | | | | | |
| 2, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | | |

| 1GHz—25GHz Radiated emission Test result | | | | | | | | | |
|---|------------|---------------------|-----------------------|----------------|-----------------|-----------------|----------------|-------------|--------|
| EUT: Rechargeable Speaker System | | | | | M/N: Road Rider | | | | |
| Power: AC 120V/60Hz | | | | | | | | | |
| Test date: 2015-10-23 Test site: 3m Chamber Tested by: Peter | | | | | | | | | |
| Test mode: $\pi/4$ DQPSK Tx CH79 2480MHz | | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | | |
| No | Freq (MHz) | Read Level (dBuV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 1 | 4960 | 42.25 | 33.98 | 10.22 | 34.25 | 52.2 | 74 | 21.8 | PK |
| 2 | 4960 | 32.1 | 33.98 | 10.22 | 34.25 | 42.05 | 54 | 11.95 | AV |
| 3 | 7440 | / | | | | | | | |
| 4 | 9920 | / | | | | | | | |
| 5 | 12400 | / | | | | | | | |
| Antenna Polarity: Horizontal | | | | | | | | | |
| 1 | 4960 | 42.63 | 33.98 | 10.22 | 34.25 | 52.58 | 74 | 21.42 | PK |
| 2 | 4960 | 32.2 | 33.98 | 10.22 | 34.25 | 42.15 | 54 | 11.85 | AV |
| 3 | 7440 | / | | | | | | | |
| 4 | 9920 | / | | | | | | | |
| 5 | 12400 | / | | | | | | | |
| Note: | | | | | | | | | |
| 1, Measuring frequency from 1GHz to 25GHz | | | | | | | | | |
| 2, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | | |

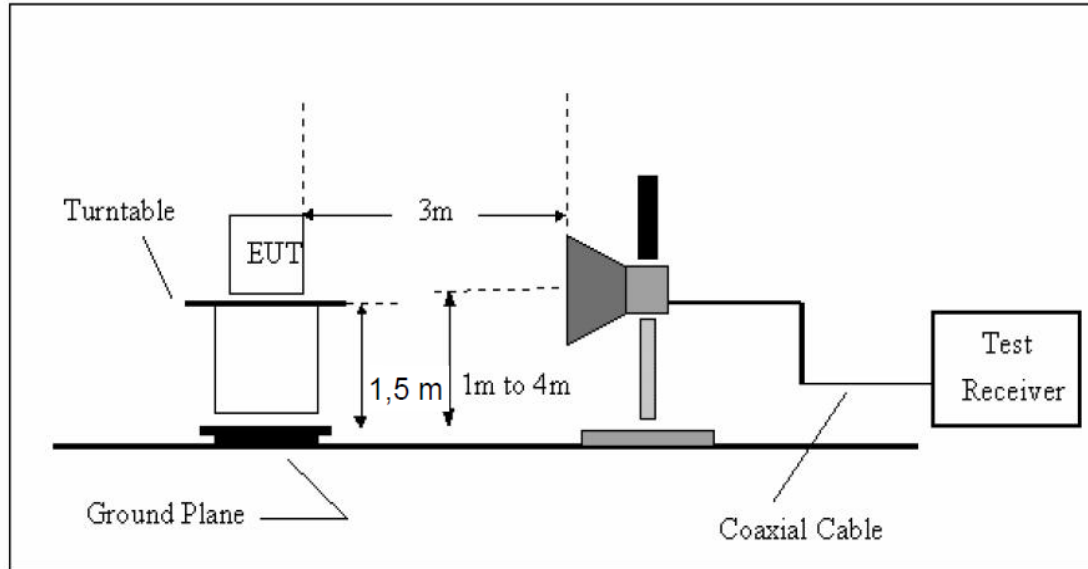
| 1GHz—25GHz Radiated emission Test result | | | | | | | | | |
|---|------------|---------------------|-----------------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| EUT: Rechargeable Speaker System | | | | | M/N: EXPLORER IPA76S | | | | |
| Power: AC 120V/60Hz | | | | | | | | | |
| Test date: 2015-10-23 Test site: 3m Chamber Tested by: Peter | | | | | | | | | |
| Test mode: 8- DQPSK Tx CH1 2402MHz | | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | | |
| No | Freq (MHz) | Read Level (dBuV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 1 | 4804 | 42.24 | 33.95 | 10.18 | 34.26 | 52.11 | 74 | 21.89 | PK |
| 2 | 4804 | 31.63 | 33.95 | 10.18 | 34.26 | 41.5 | 54 | 12.5 | AV |
| 3 | 7206 | / | | | | | | | |
| 4 | 9608 | / | | | | | | | |
| 5 | 12010 | / | | | | | | | |
| Antenna Polarity: Horizontal | | | | | | | | | |
| 1 | 4804 | 41.92 | 33.95 | 10.18 | 34.26 | 51.79 | 74 | 22.21 | PK |
| 2 | 4804 | 31.29 | 33.95 | 10.18 | 34.26 | 41.16 | 54 | 12.84 | AV |
| 3 | 7206 | / | | | | | | | |
| 4 | 9608 | / | | | | | | | |
| 5 | 12010 | / | | | | | | | |
| Note: | | | | | | | | | |
| 1, Measuring frequency from 1GHz to 25GHz | | | | | | | | | |
| 2, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | | |

| 1GHz—25GHz Radiated emission Test result | | | | | | | | | |
|---|------------|---------------------|-----------------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| EUT: Rechargeable Speaker System | | | | | M/N: EXPLORER IPA76S | | | | |
| Power: AC 120V/60Hz | | | | | | | | | |
| Test date: 2015-10-23 Test site: 3m Chamber Tested by: Peter | | | | | | | | | |
| Test mode: 8- DQPSK Tx CH40 2441MHz | | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | | |
| No | Freq (MHz) | Read Level (dBuV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 1 | 4882 | 42.05 | 33.93 | 10.2 | 34.29 | 51.89 | 74 | 22.11 | PK |
| 2 | 4882 | 31.72 | 33.93 | 10.2 | 34.29 | 41.56 | 54 | 12.44 | AV |
| 3 | 7323 | / | | | | | | | |
| 4 | 9764 | / | | | | | | | |
| 5 | 12205 | / | | | | | | | |
| Antenna Polarity: Horizontal | | | | | | | | | |
| 1 | 4882 | 42.23 | 33.93 | 10.2 | 34.29 | 52.07 | 74 | 21.93 | PK |
| 2 | 4882 | 31.84 | 33.93 | 10.2 | 34.29 | 41.68 | 54 | 12.32 | AV |
| 3 | 7323 | / | | | | | | | |
| 4 | 9764 | / | | | | | | | |
| 5 | 12205 | / | | | | | | | |
| Note: | | | | | | | | | |
| 1, Measuring frequency from 1GHz to 25GHz | | | | | | | | | |
| 2, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | | |

| 1GHz—25GHz Radiated emission Test result | | | | | | | | | |
|---|------------|---------------------|-----------------------|----------------|----------------------|-----------------|----------------|-------------|--------|
| EUT: Rechargeable Speaker System | | | | | M/N: EXPLORER IPA76S | | | | |
| Power: AC 120V/60Hz | | | | | | | | | |
| Test date: 2015-10-23 Test site: 3m Chamber Tested by: Peter | | | | | | | | | |
| Test mode: 8- DQPSK Tx CH79 2480MHz | | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | | |
| No | Freq (MHz) | Read Level (dBuV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 1 | 4960 | 42.03 | 33.98 | 10.22 | 34.25 | 51.98 | 74 | 22.02 | PK |
| 2 | 4960 | 33.25 | 33.98 | 10.22 | 34.25 | 43.2 | 54 | 10.8 | AV |
| 3 | 7440 | / | | | | | | | |
| 4 | 9920 | / | | | | | | | |
| 5 | 12400 | / | | | | | | | |
| Antenna Polarity: Horizontal | | | | | | | | | |
| 1 | 4960 | 42.35 | 33.98 | 10.22 | 34.25 | 52.3 | 74 | 21.7 | PK |
| 2 | 4960 | 31.72 | 33.98 | 10.22 | 34.25 | 41.67 | 54 | 12.33 | AV |
| 3 | 7440 | / | | | | | | | |
| 4 | 9920 | / | | | | | | | |
| 5 | 12400 | / | | | | | | | |
| Note: | | | | | | | | | |
| 1, Measuring frequency from 1GHz to 25GHz | | | | | | | | | |
| 2, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | | |

9. Band Edge Compliance

9.1. Block Diagram of Test Setup



9.2. Limit

All the lower and upper band-edges emissions appearing within restricted frequency bands shall not exceed the limits shown in RSS-GEN&FCC Part 15B, all the other emissions outside operation shall be at least 20dB below the fundamental emissions, or comply with RSS-GEN&FCC Part 15B limits.

9.3. Test Procedure

All restriction band and non- restriction band have been tested , only worse case is reported.

9.4. Test Result

PASS. (See below detailed test data)

Radiated Method

GFSK (CH Low)

| Band Edge Test result | | | | | | | | |
|---|---------------------|-----------------------|----------------|-----------------|-----------------|----------------|-------------|-----------|
| EUT: Rechargeable Speaker System | | | | | M/N: Road Rider | | | |
| Power: AC 120V/60Hz | | | | | | | | |
| Test date: 2015-10-23 Test site: 3m Chamber Tested by: Peter | | | | | | | | |
| Test mode: Tx CH Low 2402MHz | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | |
| Freq (MHz) | Read Level (dBUV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBUV/m) | Limit (dBUV/m) | Margin (dB) | Remark |
| 2390 | 42.58 | 27.62 | 3.92 | 34.97 | 39.15 | 74 | 34.85 | PK |
| 2390 | -- | 27.62 | 3.92 | 34.97 | -- | 54 | -- | AV |
| 2400 | 41.91 | 27.62 | 3.94 | 34.97 | 38.5 | 74 | 35.5 | PK |
| 2400 | -- | 27.62 | 3.94 | 34.97 | -- | 54 | -- | AV |
| Antenna Polarity: Horizontal | | | | | | | | |
| 2390 | 42.07 | 27.62 | 3.92 | 34.97 | 38.64 | 74 | 35.36 | PK |
| 2390 | -- | 27.62 | 3.92 | 34.97 | -- | 54 | -- | AV |
| 2400 | 42.28 | 27.62 | 3.94 | 34.97 | 38.87 | 74 | 35.13 | PK |
| 2400 | -- | 27.62 | 3.94 | 34.97 | -- | 54 | -- | AV |
| Note: | | | | | | | | |
| 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | |

GFSK (CH High)

| Band Edge Test result | | | | | | | | |
|---|---------------------|-----------------------|----------------|-----------------|-----------------|----------------|-------------|-----------|
| EUT: Rechargeable Speaker System | | | | | M/N: Road Rider | | | |
| Power: AC 120V/60Hz | | | | | | | | |
| Test date: 2015-10-23 Test site: 3m Chamber Tested by: Peter | | | | | | | | |
| Test mode: Tx CH High 2480MHz | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | |
| Freq (MHz) | Read Level (dBuV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 2483.5 | 41.91 | 27.89 | 4 | 34.97 | 38.83 | 74 | 35.17 | PK |
| 2483.5 | | -- | -- | -- | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Antenna Polarity: Horizontal | | | | | | | | |
| 2483.5 | 42.1 | 27.89 | 4 | 34.97 | 39.02 | 74 | 34.98 | PK |
| 2483.5 | | -- | -- | -- | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Note: | | | | | | | | |
| 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | |

GFSK (Hopping Low)

| Band Edge Test result | | | | | | | | |
|---|---------------------|-----------------------|-----------------------|-----------------|------------------|----------------|-------------|-----------|
| EUT: Rechargeable Speaker System | | | | | M/N: Road Rider | | | |
| Power: AC 120V/60Hz | | | | | | | | |
| Test date: 2015-10-23 | | | Test site: 3m Chamber | | Tested by: Peter | | | |
| Test mode: Tx | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | |
| Freq (MHz) | Read Level (dBuV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 2390 | 40.91 | 27.62 | 3.92 | 34.97 | 37.48 | 74 | 36.52 | PK |
| 2390 | -- | 27.62 | 3.92 | 34.97 | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Antenna Polarity: Horizontal | | | | | | | | |
| 2390 | 41.86 | 27.62 | 3.92 | 34.97 | 38.43 | 74 | 35.57 | PK |
| 2390 | -- | 27.62 | 3.92 | 34.97 | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Note: | | | | | | | | |
| 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | |

GFSK (Hopping High)

| Band Edge Test result | | | | | | | | |
|---|---------------------|-----------------------|----------------|-----------------|-----------------|----------------|-------------|-----------|
| EUT: Rechargeable Speaker System | | | | | M/N: Road Rider | | | |
| Power: AC 120V/60Hz | | | | | | | | |
| Test date: 2015-10-23 Test site: 3m Chamber Tested by: Peter | | | | | | | | |
| Test mode: Tx | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | |
| Freq (MHz) | Read Level (dBuV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 2483.5 | 41.38 | 27.89 | 4 | 34.97 | 38.3 | 74 | 35.7 | PK |
| 2483.5 | | -- | -- | -- | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Antenna Polarity: Horizontal | | | | | | | | |
| 2483.5 | 41.6 | 27.89 | 4 | 34.97 | 38.52 | 74 | 35.48 | PK |
| 2483.5 | | -- | -- | -- | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Note: | | | | | | | | |
| 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | |

$\pi/4$ DQPSK (CH Low)

| Band Edge Test result | | | | | | | | |
|---|---------------------|-----------------------|----------------|-----------------|-----------------|----------------|-------------|-----------|
| EUT: Rechargeable Speaker System | | | | | M/N: Road Rider | | | |
| Power: AC 120V/60Hz | | | | | | | | |
| Test date: 2015-10-23 Test site: 3m Chamber Tested by: Peter | | | | | | | | |
| Test mode: Tx CH Low 2402MHz | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | |
| Freq (MHz) | Read Level (dBUV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBUV/m) | Limit (dBUV/m) | Margin (dB) | Remark |
| 2390 | 41.68 | 27.62 | 3.92 | 34.97 | 38.25 | 74 | 35.75 | PK |
| 2390 | -- | 27.62 | 3.92 | 34.97 | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Antenna Polarity: Horizontal | | | | | | | | |
| 2390 | 42 | 27.62 | 3.92 | 34.97 | 38.57 | 74 | 35.43 | PK |
| 2390 | -- | 27.62 | 3.92 | 34.97 | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Note: | | | | | | | | |
| 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | |

$\pi/4$ DQPSK (CH High)

| Band Edge Test result | | | | | | | | |
|---|---------------------|-----------------------|----------------|-----------------|-----------------|----------------|-------------|--------|
| EUT: Rechargeable Speaker System | | | | | M/N: Road Rider | | | |
| Power: AC 120V/60Hz | | | | | | | | |
| Test date: 2015-10-23 Test site: 3m Chamber Tested by: Peter | | | | | | | | |
| Test mode: Tx CH High 2480MHz | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | |
| Freq (MHz) | Read Level (dBuV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 2483.5 | 41.09 | 27.89 | 4 | 34.97 | 38.01 | 74 | 35.99 | PK |
| 2483.5 | | -- | -- | -- | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Antenna Polarity: Horizontal | | | | | | | | |
| 2483.5 | 41.53 | 27.89 | 4 | 34.97 | 38.45 | 74 | 35.55 | PK |
| 2483.5 | | -- | -- | -- | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Note: | | | | | | | | |
| 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | |

$\pi/4$ DQPSK (Hopping Low)

| Band Edge Test result | | | | | | | | |
|---|---------------------|-----------------------|----------------|-----------------|-----------------|----------------|-------------|-----------|
| EUT: Rechargeable Speaker System | | | | | M/N: Road Rider | | | |
| Power: AC 120V/60Hz | | | | | | | | |
| Test date: 2015-10-23 Test site: 3m Chamber Tested by: Peter | | | | | | | | |
| Test mode: | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | |
| Freq (MHz) | Read Level (dBuV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 2390 | 41.68 | 27.62 | 3.92 | 34.97 | 38.25 | 74 | 35.75 | PK |
| 2390 | -- | 27.62 | 3.92 | 34.97 | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Antenna Polarity: Horizontal | | | | | | | | |
| 2390 | 41.64 | 27.62 | 3.92 | 34.97 | 38.21 | 74 | 35.79 | PK |
| 2390 | -- | 27.62 | 3.92 | 34.97 | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Note: | | | | | | | | |
| 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | |

$\pi/4$ DQPSK (Hopping High)

| Band Edge Test result | | | | | | | | |
|---|---------------------|-----------------------|----------------|-----------------|-----------------|----------------|-------------|--------|
| EUT: Rechargeable Speaker System | | | | | M/N: Road Rider | | | |
| Power: AC 120V/60Hz | | | | | | | | |
| Test date: 2015-10-23 Test site: 3m Chamber Tested by: Peter | | | | | | | | |
| Test mode: Tx | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | |
| Freq (MHz) | Read Level (dBuV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 2483.5 | 40.93 | 27.89 | 4 | 34.97 | 37.85 | 74 | 36.15 | PK |
| 2483.5 | | -- | -- | -- | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Antenna Polarity: Horizontal | | | | | | | | |
| 2483.5 | 42.18 | 27.89 | 4 | 34.97 | 39.1 | 74 | 34.9 | PK |
| 2483.5 | | -- | -- | -- | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Note: | | | | | | | | |
| 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | |

8- DPSK (CH Low)

| Band Edge Test result | | | | | | | | |
|---|---------------------|-----------------------|----------------|-----------------|-----------------|----------------|-------------|-----------|
| EUT: Rechargeable Speaker System | | | | | M/N: Road Rider | | | |
| Power: AC 120V/60Hz | | | | | | | | |
| Test date: 2015-10-23 Test site: 3m Chamber Tested by: Peter | | | | | | | | |
| Test mode: Tx CH Low 2402MHz | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | |
| Freq (MHz) | Read Level (dBuV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 2390 | 41.86 | 27.62 | 3.92 | 34.97 | 38.43 | 74 | 35.57 | PK |
| 2390 | -- | 27.62 | 3.92 | 34.97 | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Antenna Polarity: Horizontal | | | | | | | | |
| 2390 | 42.07 | 27.62 | 3.92 | 34.97 | 38.64 | 74 | 35.36 | PK |
| 2390 | -- | 27.62 | 3.92 | 34.97 | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Note: | | | | | | | | |
| 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | |

8- DPSK (CH High)

| Band Edge Test result | | | | | | | | |
|---|---------------------|-----------------------|----------------|-----------------|-----------------|----------------|-------------|-----------|
| EUT: Rechargeable Speaker System | | | | | M/N: Road Rider | | | |
| Power: AC 120V/60Hz | | | | | | | | |
| Test date: 2015-10-23 Test site: 3m Chamber Tested by: Peter | | | | | | | | |
| Test mode: Tx CH High 2480MHz | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | |
| Freq (MHz) | Read Level (dBuV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 2483.5 | 40.91 | 27.89 | 4 | 34.97 | 37.83 | 74 | 36.17 | PK |
| 2483.5 | | -- | -- | -- | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Antenna Polarity: Horizontal | | | | | | | | |
| 2483.5 | 42.26 | 27.89 | 4 | 34.97 | 39.18 | 74 | 34.82 | PK |
| 2483.5 | | -- | -- | -- | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Note: | | | | | | | | |
| 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | |

8- DPSK (Hopping Low)

| Band Edge Test result | | | | | | | | |
|---|---------------------|-----------------------|----------------|-----------------|-----------------|----------------|-------------|-----------|
| EUT: Rechargeable Speaker System | | | | | M/N: Road Rider | | | |
| Power: AC 120V/60Hz | | | | | | | | |
| Test date: 2015-10-23 Test site: 3m Chamber Tested by: Peter | | | | | | | | |
| Test mode: Tx | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | |
| Freq (MHz) | Read Level (dBUV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBUV/m) | Limit (dBUV/m) | Margin (dB) | Remark |
| 2390 | 41.58 | 27.62 | 3.92 | 34.97 | 38.15 | 74 | 35.85 | PK |
| 2390 | -- | 27.62 | 3.92 | 34.97 | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Antenna Polarity: Horizontal | | | | | | | | |
| 2390 | 42.11 | 27.62 | 3.92 | 34.97 | 38.68 | 74 | 35.32 | PK |
| 2390 | -- | 27.62 | 3.92 | 34.97 | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Note: | | | | | | | | |
| 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | |

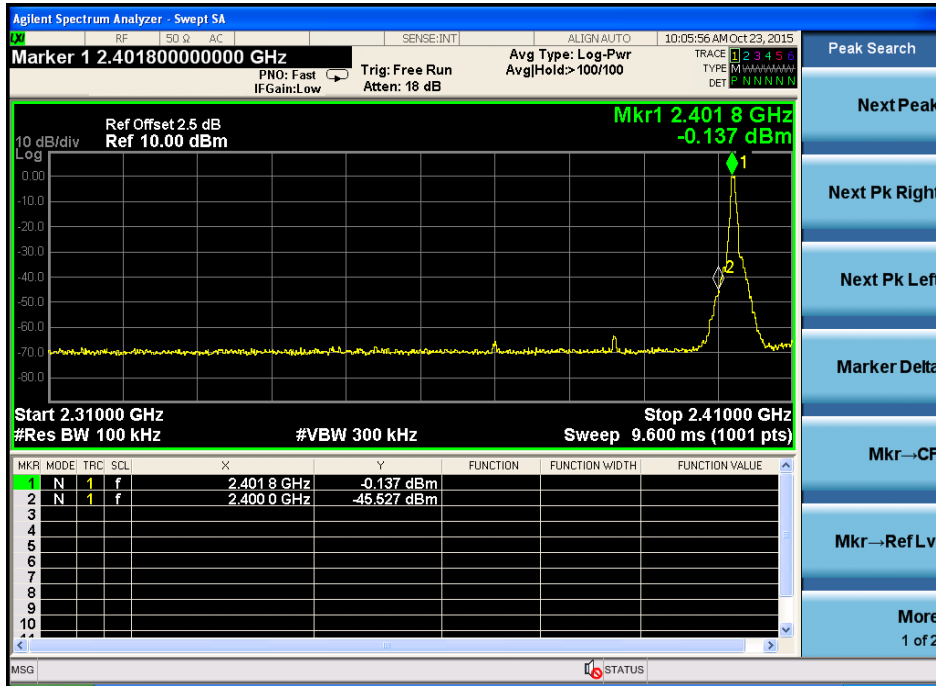
8- DPSK (Hopping High)

| Band Edge Test result | | | | | | | | |
|---|---------------------|-----------------------|----------------|-----------------|-----------------|----------------|-------------|--------|
| EUT: Rechargeable Speaker System | | | | | M/N: Road Rider | | | |
| Power: AC 120V/60Hz | | | | | | | | |
| Test date: 2015-10-23 Test site: 3m Chamber Tested by: Peter | | | | | | | | |
| Test mode: Tx | | | | | | | | |
| Antenna polarity: Vertical | | | | | | | | |
| Freq (MHz) | Read Level (dBuV/m) | Antenna Factor (dB/m) | Cable loss(dB) | Amp Factor (dB) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
| 2483.5 | 41 | 27.89 | 4 | 34.97 | 37.92 | 74 | 36.08 | PK |
| 2483.5 | | -- | -- | -- | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Antenna Polarity: Horizontal | | | | | | | | |
| 2483.5 | 41.71 | 27.89 | 4 | 34.97 | 38.63 | 74 | 35.37 | PK |
| 2483.5 | | -- | -- | -- | -- | 54 | -- | AV |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Note: | | | | | | | | |
| 1, Spectrum Set for PK measure: RBW=1MHz, VBW=1MHz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 2, Spectrum Set for AV measure: RBW=1MHz, VBW=10Hz, Sweep time=Auto, Detector: PK | | | | | | | | |
| 3, Result = Read level + Antenna factor + cable loss-Amp factor | | | | | | | | |
| 4, All the other emissions not reported were too low to read and deemed to comply with FCC limit. | | | | | | | | |

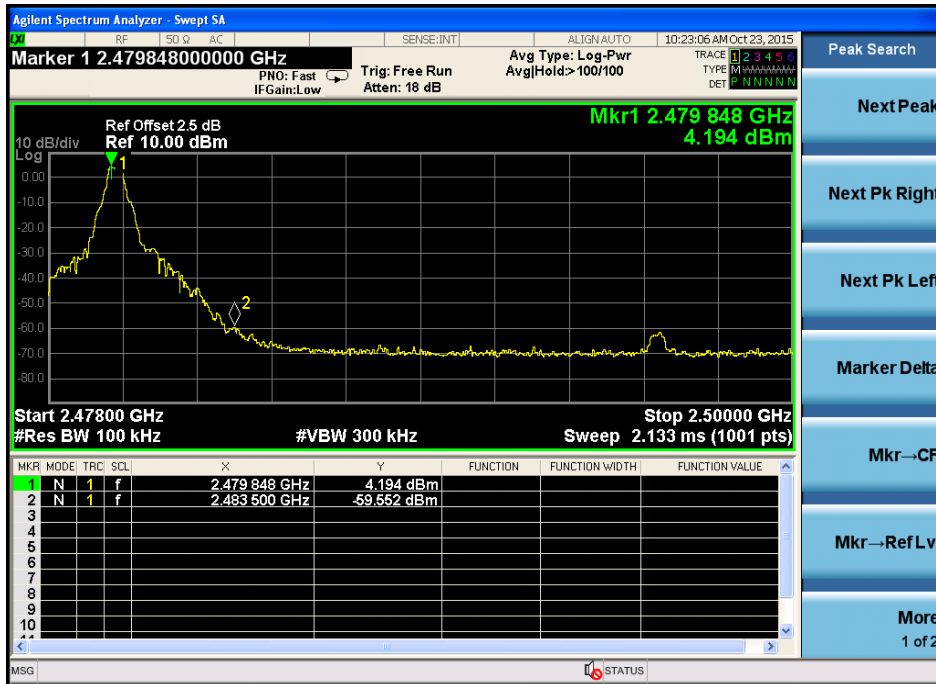
Conducted Method

GFSK

CH LOW :

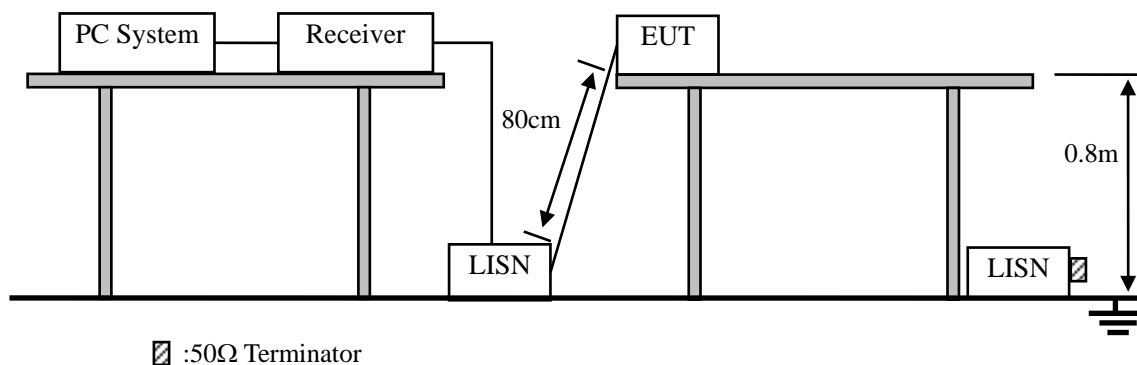


CH High :



10. Power Line Conducted Emissions

10.1. Block Diagram of Test Setup



10.2. Limit

| Frequency | Maximum RF Line Voltage | |
|-----------------|----------------------------------|-------------------------------|
| | Quasi-Peak Level dB(μ V) | Average Level dB(μ V) |
| 150kHz ~ 500kHz | 66 ~ 56* | 56 ~ 46* |
| 500kHz ~ 5MHz | 56 | 46 |
| 5MHz ~ 30MHz | 60 | 50 |

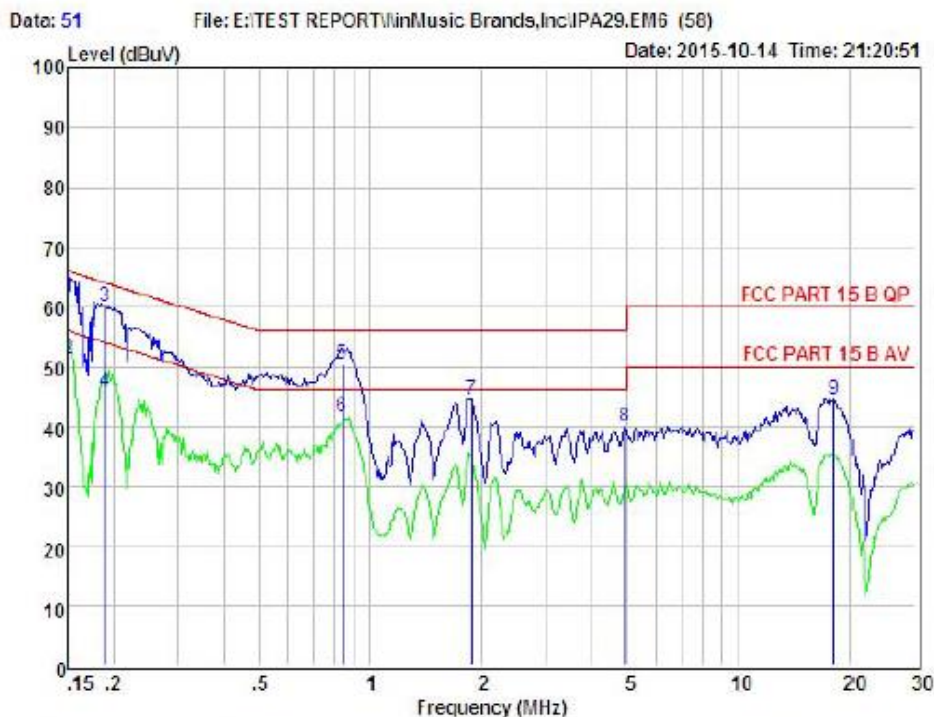
- Notes: 1. * Decreasing linearly with logarithm of frequency.
 2. The lower limit shall apply at the transition frequencies.

10.3. Test Procedure

- (1) The EUT was placed on a non-metallic table, 80cm above the ground plane.
- (2) Setup the EUT and simulator as shown in 10.1
- (3) The EUT Power connected to the power mains through a power adapter and a line impedance stabilization network (L.I.S.N1). The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (L.I.S.N2), this provided a 50-ohm coupling impedance for the EUT (Please refer to the block diagram of the test setup and photographs). Both sides of power line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.10 2013 on conducted Emission test.
- (4) The bandwidth of test receiver is set at 10KHz.
- (5) The frequency range from 150 KHz to 30MHz is checked.

10.4. Test Result

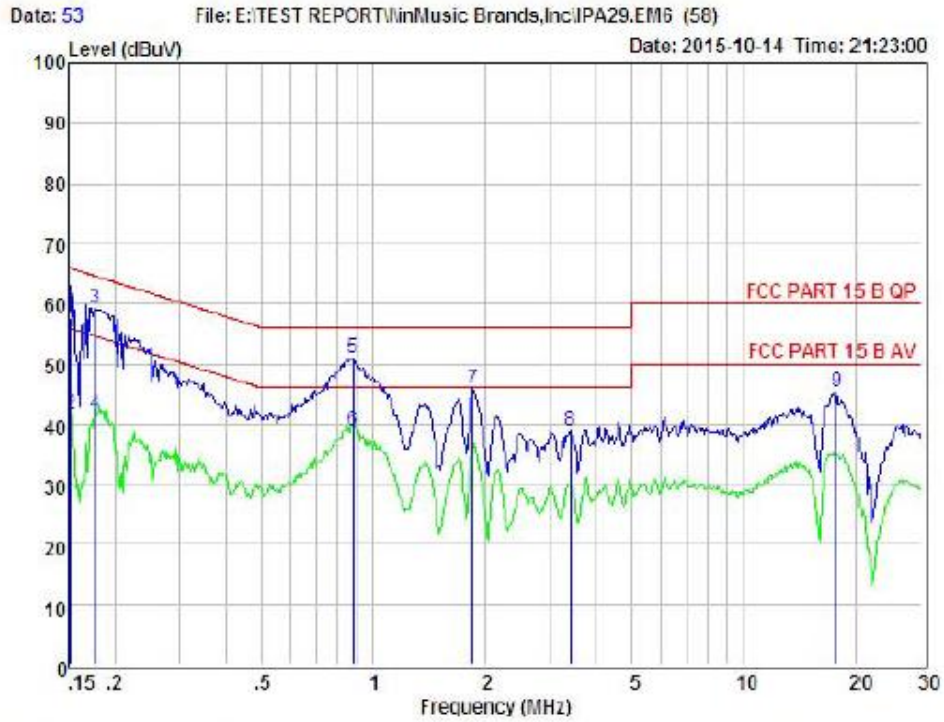
PASS. (See below detailed test data)



Data: 51 File: E:\TEST REPORT\LinMusic Brands, Inc\IPA29.EM6 (58) Date: 2015-10-14 Time: 21:20:51
 Condition : FCC PART 15 B QP POL: LINE Temp: 24.1 °C Hum: 51 %
 EUT :
 Model No :
 Test Mode : BT Mode
 Power : AC 120V/60Hz
 Test Engineer :
 Remark :

| Item | Freq MHz | Read dBuV | LISN Factor dB | Preamp Factor dB | Cable Loss dB | Level dBuV | Limit dBuV | Margin dBuV | Remark |
|------|-------------|--------------|----------------------|------------------------|---------------------|---------------|---------------|----------------|---------|
| 1 | 0.150 | 52.10 | 0.03 | -9.49 | 0.10 | 61.72 | 66.00 | -4.28 | QP |
| 2 | 0.150 | 41.60 | 0.03 | -9.49 | 0.10 | 51.22 | 56.00 | -4.78 | Average |
| 3 | 0.189 | 50.36 | 0.03 | -9.82 | 0.10 | 60.01 | 64.06 | -4.05 | Peak |
| 4 | 0.189 | 36.30 | 0.03 | -9.82 | 0.10 | 45.95 | 54.06 | -8.11 | Average |
| 5 | 0.839 | 40.60 | 0.04 | -9.60 | 0.10 | 50.34 | 56.00 | -5.66 | QP |
| 6 | 0.839 | 31.80 | 0.04 | -9.60 | 0.10 | 41.54 | 46.00 | -4.46 | Average |
| 7 | 1.888 | 34.75 | 0.05 | -9.71 | 0.10 | 44.61 | 56.00 | -11.39 | Peak |
| 8 | 4.926 | 29.68 | 0.10 | -9.92 | 0.12 | 39.82 | 56.00 | -16.18 | Peak |
| 9 | 18.232 | 34.05 | 0.29 | -9.82 | 0.32 | 44.48 | 60.00 | -15.52 | Peak |

Remarks: Level = Read + LISN Factor - Preamp Factor + Cable loss



Condition : IT 15 B QP POL: NEUTRAL Temp:24.1 °C Hum:51 %
 EUT :
 Model No : IPA29
 Test Mode : BT Mode
 Power : AC 120V/60Hz
 Test Engineer:
 Remark :

| Item | Freq MHz | Read dBuV | LISN Factor dB | Preamplifier Factor dB | Cable Loss dB | Level dBuV | Limit dBuV | Margin dBuV | Remark |
|------|-------------|--------------|----------------------|------------------------------|---------------------|---------------|---------------|----------------|---------|
| 1 | 0.152 | 48.00 | 0.03 | -9.82 | 0.10 | 57.65 | 65.91 | -8.26 | QP |
| 2 | 0.152 | 32.00 | 0.03 | -9.82 | 0.10 | 41.65 | 55.91 | -14.26 | Average |
| 3 | 0.178 | 49.51 | 0.03 | -9.82 | 0.10 | 59.16 | 64.59 | -5.43 | Peak |
| 4 | 0.178 | 32.00 | 0.03 | -9.82 | 0.10 | 41.65 | 54.59 | -12.94 | Average |
| 5 | 0.880 | 41.05 | 0.04 | -9.82 | 0.10 | 50.81 | 56.00 | -5.19 | Peak |
| 6 | 0.880 | 29.20 | 0.04 | -9.82 | 0.10 | 38.96 | 46.00 | -7.04 | Average |
| 7 | 1.858 | 35.90 | 0.05 | -9.71 | 0.10 | 45.76 | 56.00 | -10.24 | Peak |
| 8 | 3.399 | 28.81 | 0.08 | -9.84 | 0.12 | 38.85 | 56.00 | -17.15 | Peak |
| 9 | 17.849 | 34.77 | 0.29 | -9.82 | 0.32 | 45.20 | 60.00 | -14.80 | Peak |

Remarks: Level = Read + LISN Factor - Preamp Factor + Cable loss

Note1: If QP Result comply with AV limit, AV Result is deemed to comply with AV limit

11. Antenna Requirements

11.1. Limit

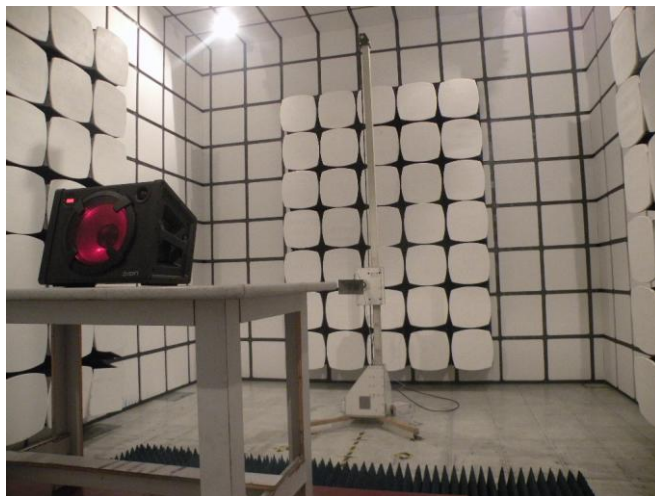
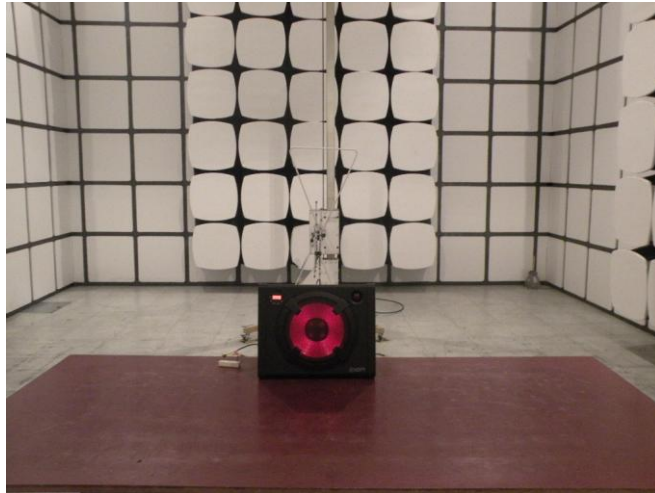
For intentional device, according to RSS-GEN, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to RSS-GEN, if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

11.2. Result

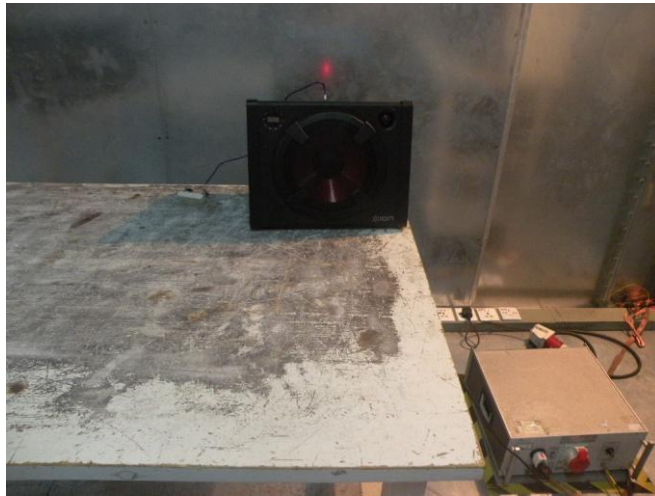
The antennas used for this product are PCB Antenna for Bluetooth, no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is only 0dBi .

12. Test setup photo

12.1. Photos of Radiated emission

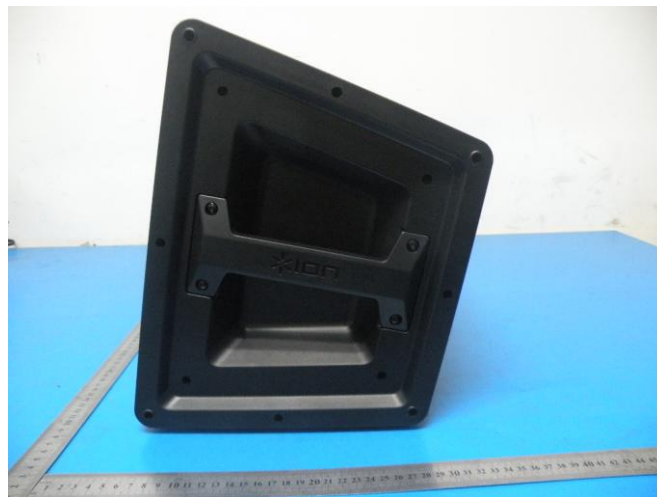


12.2.Photos of Conducted Emission test



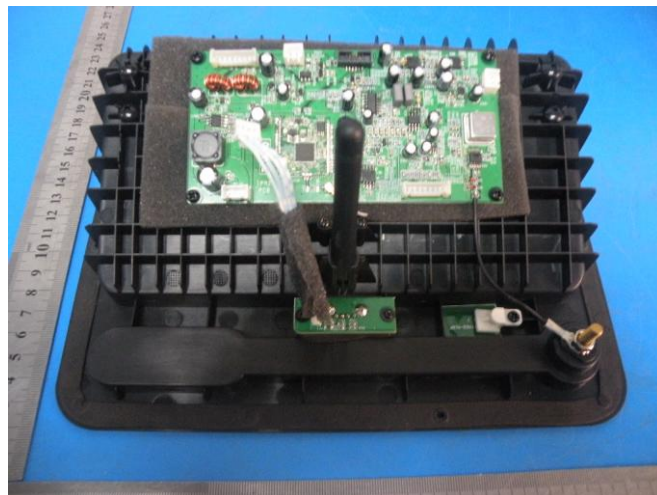
13. Photos of EUT

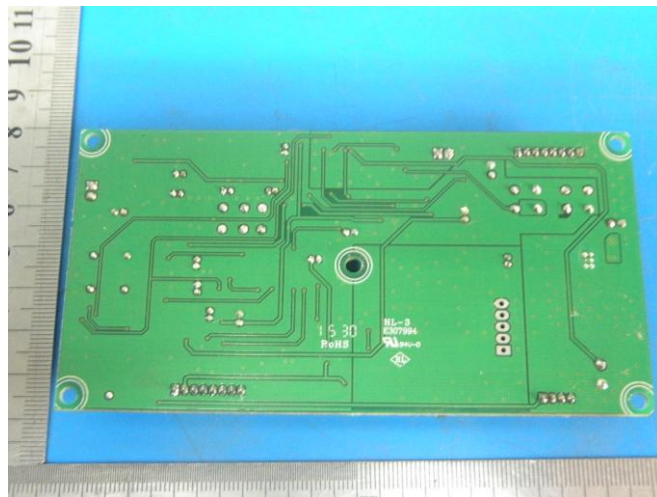


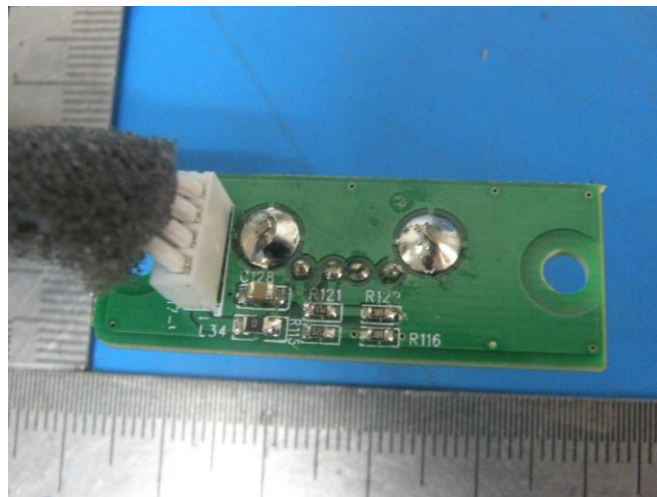
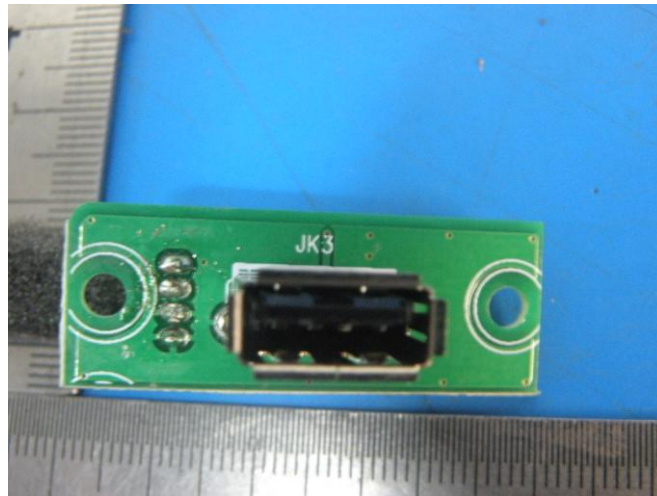


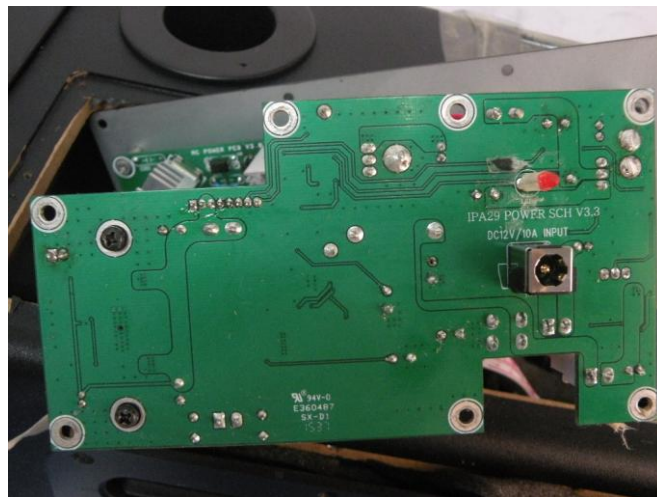
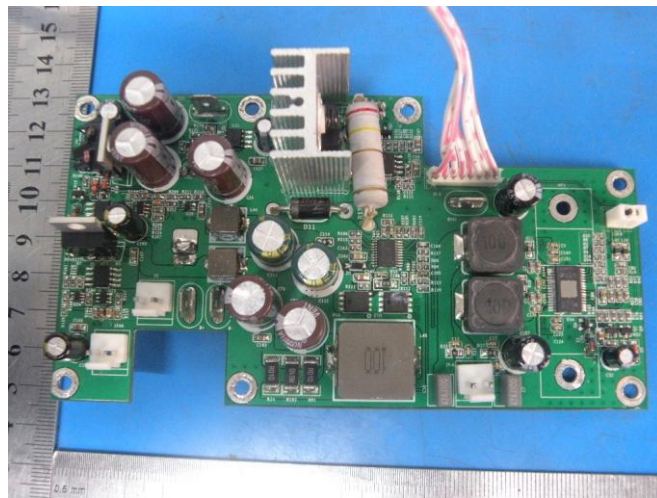


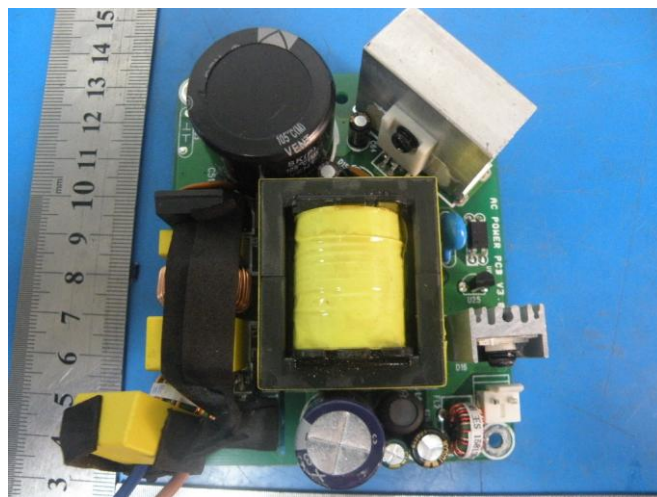
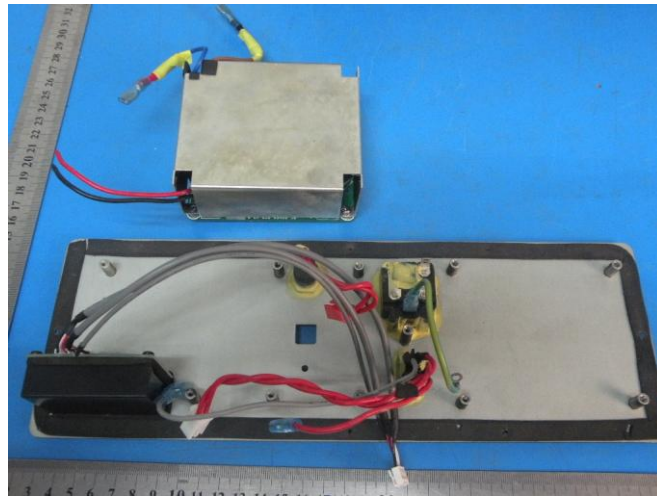


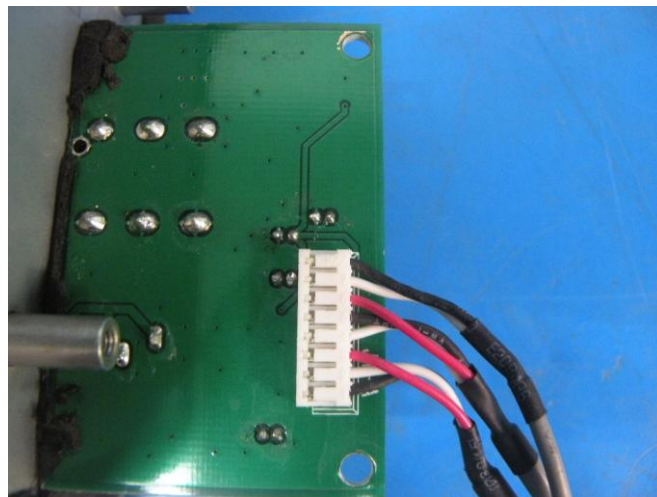
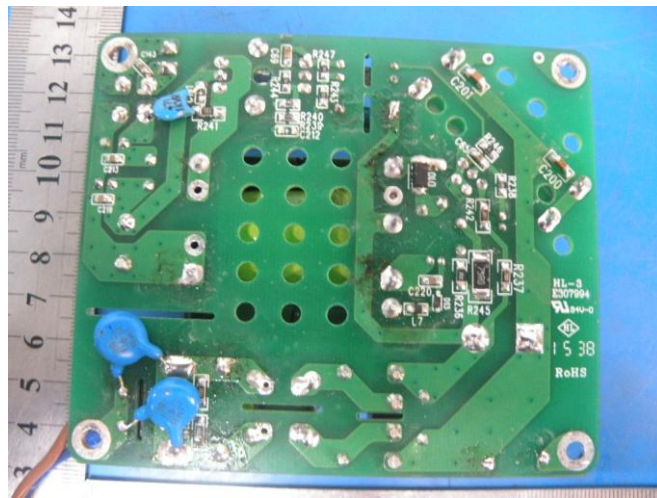


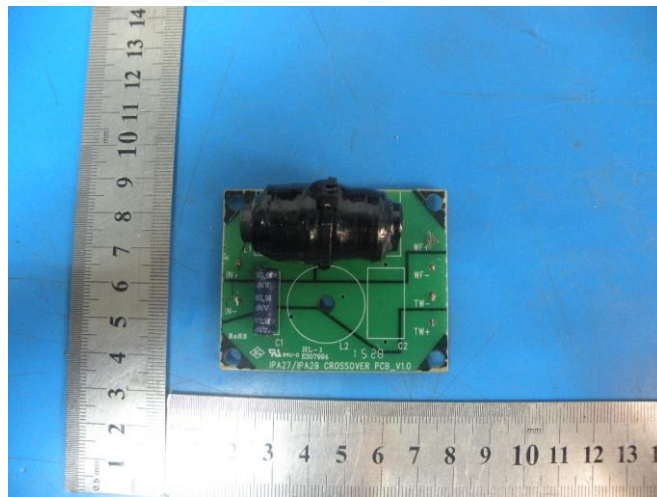
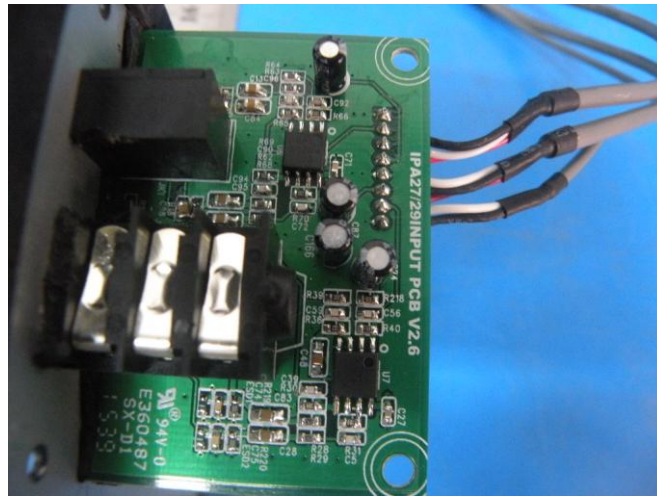


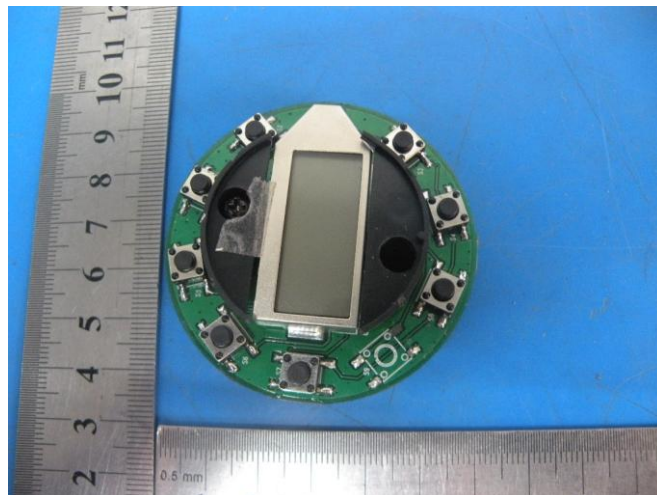
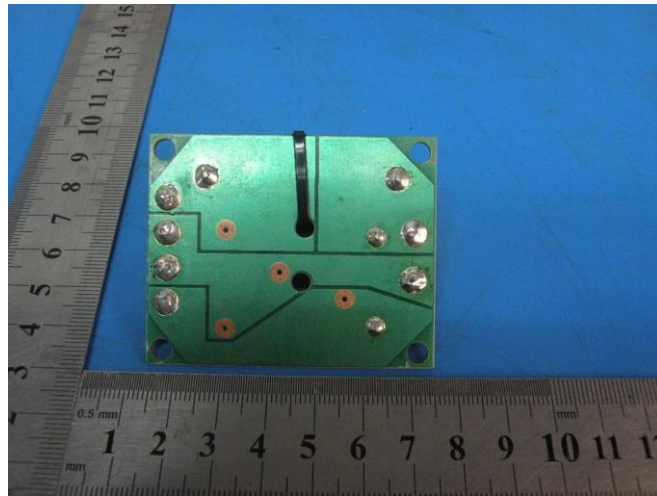


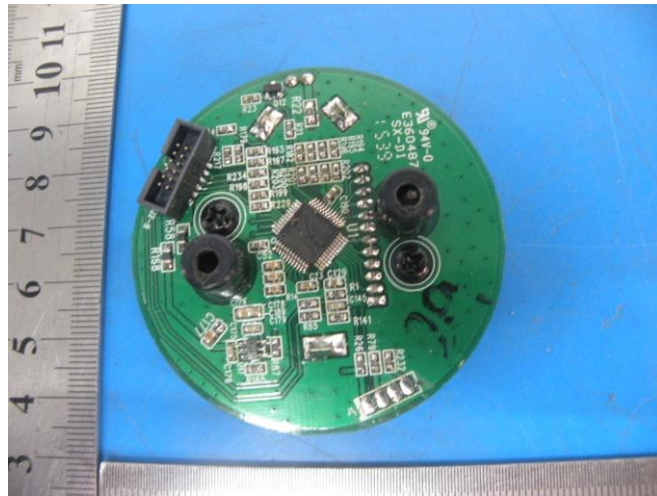












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