

FCC Part 15 Subpart C Test Report

for DSSS System

Product Name : 3G/2G fixed wireless phone
Model Name : F800C

Prepared for:

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Date of Report : 02-07-2017
Date of Test : 01-05-2017~01-23-2017

Notes :

The test results only relate to these samples which have been tested.
Partly using this report will not be admitted unless been allowed by Unilab.
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Applicant: CO-COMM SERVICIOS TELECOMUNICACIONES S.L.
C/Lisboa, 20 – 28232 Las Rozas (Madrid), Spain.

Manufacturer: CO-COMM SERVICIOS TELECOMUNICACIONES S.L.
C/Lisboa, 20 – 28232 Las Rozas (Madrid), Spain.

Product Name: 3G/2G fixed wireless phone

Brand Name: CO-COMM

Model Name: F800

FCC ID: 2AKWZF800C

EUT Voltage: Extreme Low:3.5V Nominal:3.7V Extreme High:4.2V

Date of Receipt: 01-05-2017

Date of Test: 01-05-2017~01-23-2017

Test Standard: FCC CFR Title 47 Part 15 Subpart C
ANSI C 63.4: 2014
ANSI C 63.10: 2013
KDB 558074 D01 v03r05

Test Result: PASS

Prepared by :

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| | | |
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1. GENERAL INFORMATION

1.1 EUT DESCRIPTION

| | |
|--------------------------|----------------------------|
| Product Name: | 3G/2G fixed wireless phone |
| Model Name: | F800C |
| Hardware Version: | F800C57v1.0 |
| Software Version: | F800C57v000.1.0 |
| RF Exposure Environment: | Uncontrolled |
| BT 4.1 LE | |
| Frequency Range: | 2402MHz~2480MHz |
| Type of Modulation: | GFSK |
| Channel Number: | 40 |
| Antenna Type: | Internal |
| Antenna Peak Gain: | 3.1dBi |

1.2 TEST MODE

Unilab has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report is the worst test mode and defined as:

| Test Mode | Test Voltage |
|--------------------------------|----------------|
| Mode 1: Bluetooth V4.1 LE:GFSK | AC 115V / 60Hz |

Note:

1. Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.
2. For the radiated emission test, every axis (X, Y, Z) was verified, and show the worst result on this report.

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4 and FCC CFR 47 2.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055, 2.1057, 15.207, 15.209 and 15.247.

2.1 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application

2.2 EUT EXERCISE

The EUT was operated in the engineering mode to fix the TX frequency that was for the purpose of the measurements. According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209 and 15.247 under the FCC Rules Part 15 Subpart C.

2.3 GENERAL TEST PROCEDURES

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4: 2014 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.4: 2014.

2.4 FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

| 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 | 2655 - 2900 | 22.01 - 23.12 |
| 8.41425 - 8.41475 | 162.0125 - 167.17 | 3260 - 3267 | 23.6 - 24.0 |
| 12.29 - 12.293 | 167.72 - 173.2 | 3332 - 3339 | 31.2 - 31.8 |
| 12.51975 - 12.52025 | 240 - 285 | 3345.8 - 3358 | 36.43 - 36.5 |
| 12.57675 - 12.57725 | 322 - 335.4 | 3600 - 4400 | (²) |

| | | | |
|---------------|--|--|--|
| 13.36 - 13.41 | | | |
|---------------|--|--|--|

1 Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

2 Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

2.5 Restricted Frequency Bands of RSS-GEN

Restricted bands, identified in Table 6, are designated primarily for safety-of-life services (distress calling and certain aeronautical bands), certain satellite downlinks, radio astronomy and some government uses. Except where otherwise indicated, the following restrictions apply:

(a) Fundamental components of modulation of licence-exempt radio apparatus shall not fall within the restricted bands of Table 6 except for apparatus complying under RSS-287;

(b) Unwanted emissions that fall into restricted bands of Table below shall comply with the limits specified in RSS-Gen; and

(c) Unwanted emissions that do not fall within the restricted frequency bands of Table 6 shall comply either with the limits specified in the applicable RSS or with those specified in this RSS-Gen.

| MHz | MHz | MHz | MHz | GHz |
|-----------------|-------------------|---------------------|---------------|-------------|
| 0.090-0.110 | 8.37625-8.38675 | 74.8-75.2 | 1718.8-1722.2 | 9.0-9.2 |
| 2.1735-2.1905 | 8.41425-8.41475 | 108-138 | 2200-2300 | 9.3-9.5 |
| 3.020-3.026 | 12.29-12.293 | 156.52475-156.52525 | 2310-2390 | 10.6-12.7 |
| 4.125-4.128 | 12.51975-12.52025 | 156.7-156.9 | 2655-2900 | 13.25-13.4 |
| 4.17725-4.17775 | 12.57675-12.57725 | 240-285 | 3260-3267 | 14.47-14.5 |
| 4.20725-4.20775 | 13.36-13.41 | 322-335.4 | 3332-3339 | 15.35-16.2 |
| 5.677-5.683 | 16.42-16.423 | 399.9-410 | 3345.8-3358 | 17.7-21.4 |
| 6.215-6.218 | 16.69475-16.69525 | 608-614 | 3500-4400 | 22.01-23.12 |
| 6.26775-6.26825 | 16.80425-16.80475 | 960-1427 | 4500-5150 | 23.6-24.0 |
| 6.31175-6.31225 | 25.5-25.67 | 1435-1626.5 | 5350-5460 | 31.2-31.8 |
| 8.291-8.294 | 37.5-38.25 | 1645.5-1646.5 | 7250-7750 | 36.43-36.5 |
| 8.362-8.366 | 73-74.6 | 1660-1710 | 8025-8500 | Above 38.6 |

* Certain frequency bands listed in Table 6 and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to the devices are set out in the 200- and 300-series of RSSs, such as RSS-210 and RSS-310, which contain the requirements that apply to licence-exempt radio apparatus.

3. TECHNICAL SUMMARY

3.1 SUMMARY OF STANDARDS AND TEST RESULTS

The EUT have been tested according to the applicable standards as referenced below:

| Test Item | FCC | Result |
|-----------|-----|--------|
|-----------|-----|--------|

| | | |
|-----------------------------------|--|------|
| 6 dB bandwidth | §15.247 (a) | Pass |
| Power spectral density | §15.247 (e) | Pass |
| Peak Output Power (Conduction) | §15.247 (b)(1) | Pass |
| Spurious Emissions (Conduction) | §15.247 (d) | Pass |
| Band edge measurement | §15.247 (d) | Pass |
| Spurious Emissions (Radiation) | §15.247 (d) §15.35 (b) §15.209 (a) | Pass |
| Restricted Bands of operation | §15.205 | Pass |
| AC power line conducted emissions | §15.207(a) | Pass |

3.2 TEST UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

| Test item | Value |
|------------------------|--------|
| Conducted disturbance | 3.4 dB |
| Radiated disturbance | 4.2 dB |
| Conducted output power | 1.1 dB |
| Power spectral density | 1.7 dB |
| Band width | 20 kHz |

3.3 TEST EQUIPMENT LIST

| Equipment | Manufacturer | Model | Serial No. | Due Date |
|----------------------------------|-----------------------------|-----------------------------------|------------|------------|
| Receiver | Agilent | N9038A | MY51210142 | 11/01/2017 |
| Power meter | R&S | NRP2 | 101607 | 06/07/2017 |
| Loop Antenna | Schwarzbeck | FMZB1519 | 1519-020 | 03/24/2018 |
| LISN | R&S | ENV216 | 100069 | 06/07/2017 |
| 3m Chamber & Accessory Equipment | ETS-LINDGREN | FACT-3 | CT-0000336 | 03/12/2017 |
| Microwave Preamp | EM Electronics | EM30180 | 3008A02425 | 06/07/2017 |
| Power Splitter | Agilent | 11667C/ 52401 | MY53806148 | 02/26/2018 |
| Biconilog Antenna | Schwarzbeck | VULB 9160 | 3316 | 09/08/2018 |
| Horn Antenna | Schwarzbeck | BBHA9120D | 942 | 09/08/2018 |
| Horn Antenna | Schwarzbeck | BBHA9120D | 943 | 09/08/2018 |
| Horn Antenna(18-40GHz) | ETS | 3116 | 00070497 | 09/08/2018 |
| Directional coupler | ATM | C122H-10 | C279710-02 | / |
| RF cable | HUBER+SUHNER | SUCOFLEX 104 | 342800/4 | / |
| Attenuator | Compliance Direction System | ATT-20 | / | / |
| Wave Trap | Walnwright instrument | WRCT2402/2480-2400/2483.5-30/20SS | SN30 | / |

3.4 TEST FACILITY

All test facilities used to collect the test data are located at No.1350, Lianxi Rd. Pudong New District, Shanghai, China. The site and apparatus are constructed in conformance with the requirements of ANSI C63.4: 2014, CISPR 16-1-1 and other equivalent standards. The laboratory is compliance with the requirements of the ISO/IEC/E 17025.

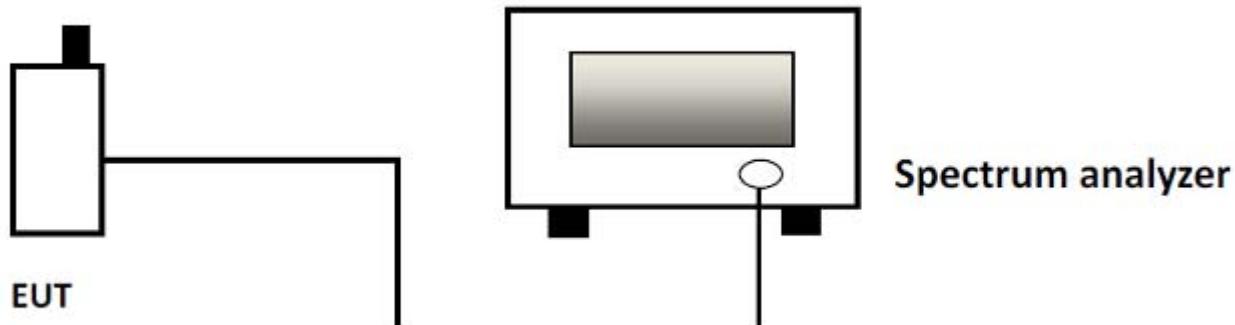
3.5 TEST SETUP CONFIGURATION

The information contained within this report is intended to show verification of compliance of the EUT to the requirements of CFR 47 FCC Part 15.247.

Unilab has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report.

4. 6 DB BANDWIDTH

4.1 TEST SETUP



4.2 LIMITS

| | |
|-------|------------------------|
| Limit | $\geq 500 \text{ kHz}$ |
|-------|------------------------|

4.3 TEST PROCEDURE

Place the EUT on the table and set it in transmitting mode. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to spectrum analyzer. The loss between RF output port of the EUT and the input port of the tester will be taken into consideration.

The measurement will be conducted at three channels.

Bluetooth: Low (0), Middle (19) and High (39).

Using occupied BW measurement function of spectrum analyzer and settings are:

XdB = -6dB

RBW = 100 kHz

VBW $\geq 3 \times$ RBW

Span = approximately 2 to 3 times the 6 dB bandwidth, centered on a channel

Sweep = auto

Detector function = peak

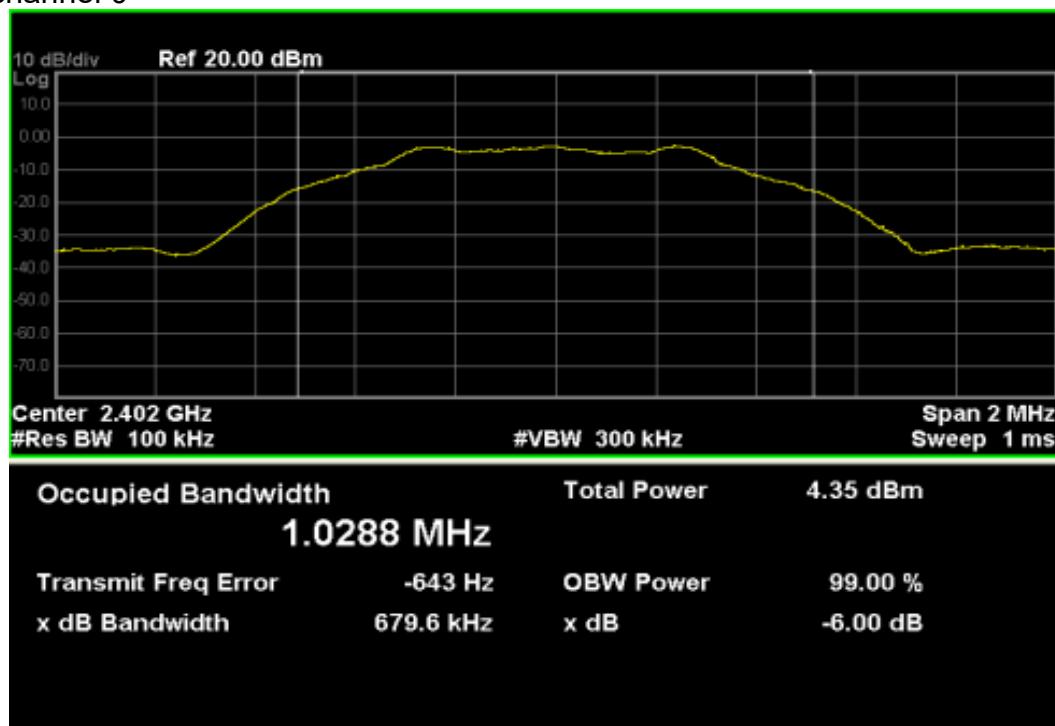
Trace = max hold

4.4 RESULTS & PERFORMANCE

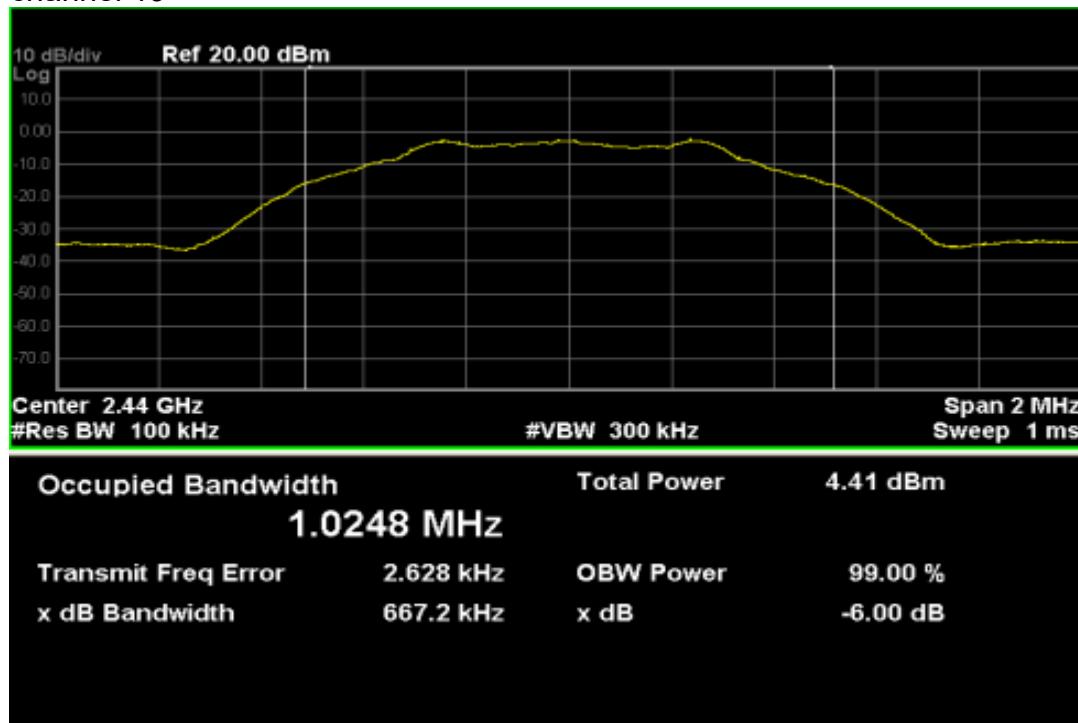
| Channel | Measured 6dB bandwidth (KHz) | Limit (MHz) | Result |
|--------------------------|------------------------------|-------------|--------|
| Bluetooth V4.1 LE | | | |
| GFSK CH0 | 679.6 | ≥0.5 | PASS |
| GFSK CH19 | 667.2 | ≥0.5 | PASS |
| GFSK CH39 | 682.4 | ≥0.5 | PASS |

Bluetooth V4.1 LE:

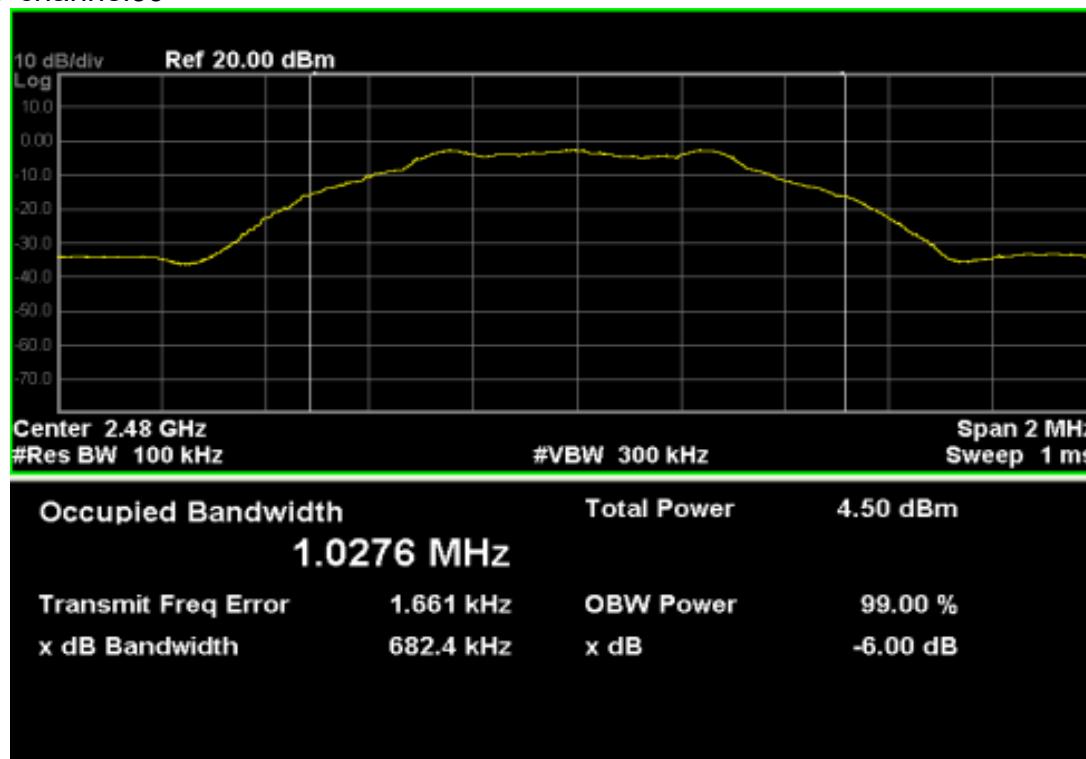
GFSK channel 0



GFSK channel 19

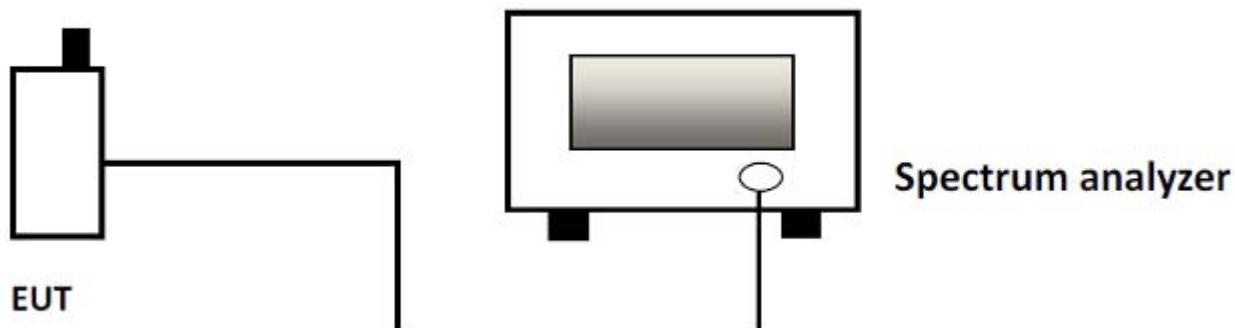


GFSK channel39



5. POWER SPECTRAL DENSITY

5.1 TEST SETUP



5.2 LIMITS

| | |
|--------|--------------------------------|
| Limits | $\leq 8\text{dBm}/3\text{kHz}$ |
|--------|--------------------------------|

5.3 TEST PROCEDURE

Set analyzer center frequency to DTS channel center frequency.

Set the span to 1.5 times the DTS bandwidth.

Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.

Set the VBW $\geq 3 \times \text{RBW}$.

Detector = peak.

Sweep time = auto couple.

Trace mode = max hold.

Allow trace to fully stabilize.

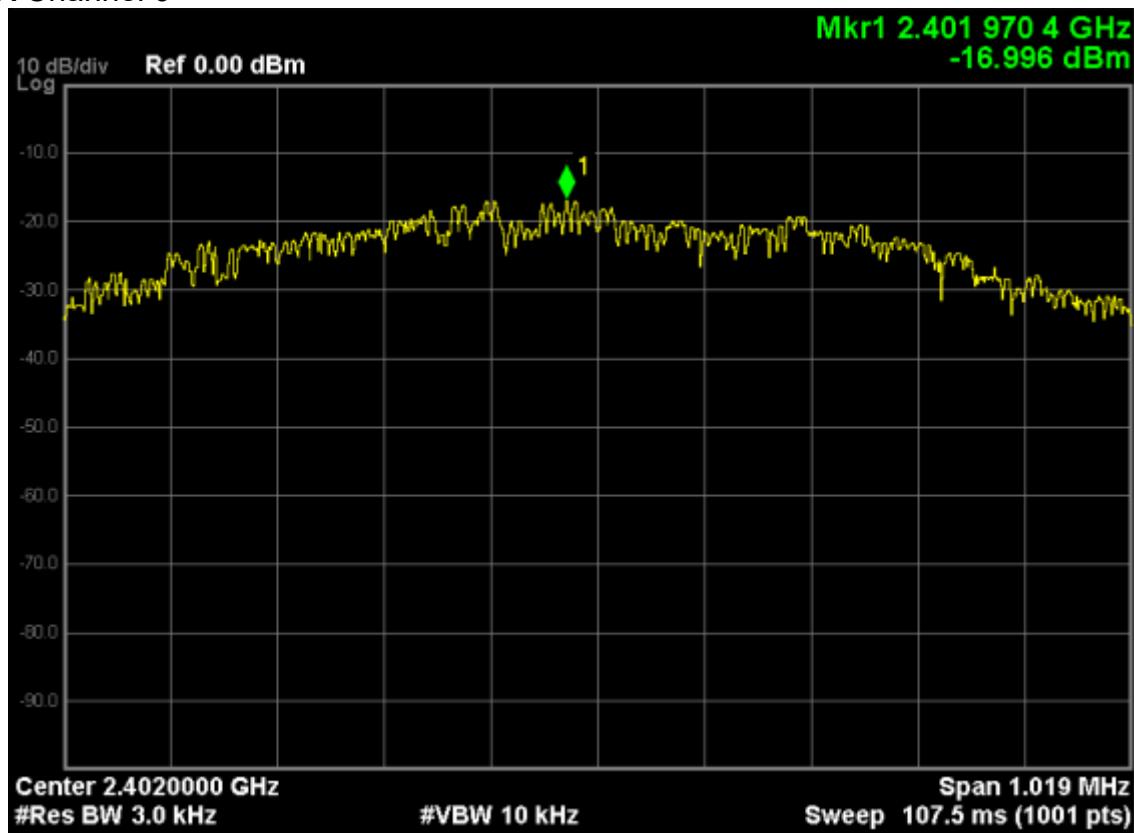
Use the peak marker function to determine the maximum amplitude level within the RBW.
If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

5.4 RESULTS & PERFORMANCE

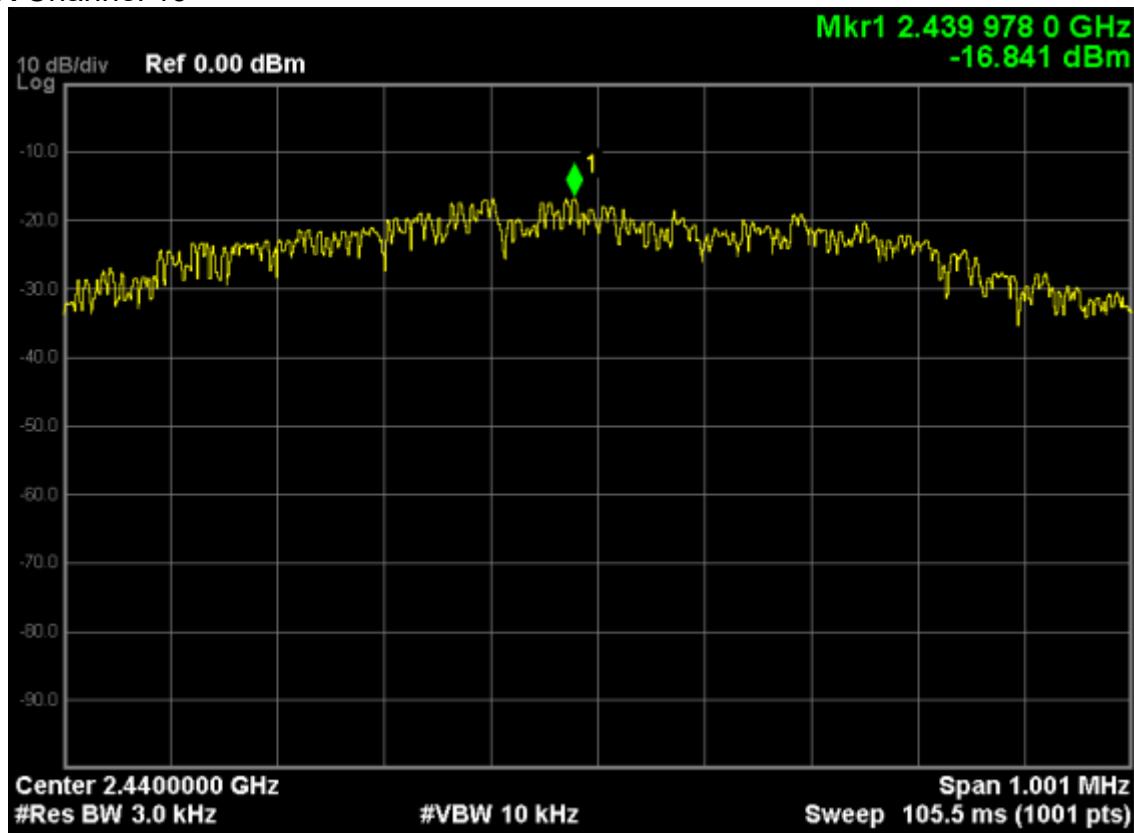
| Mode | Channel | Measured level (dBm/3KHz) | Limit (dBm/3KHz) | Result |
|----------------------|---------|------------------------------|---------------------|--------|
| Bluetooth V4.1 LE | CH0 | -16.996 | ≤8.00 | Pass |
| | CH19 | -16.841 | ≤8.00 | Pass |
| | CH39 | -16.720 | ≤8.00 | Pass |

Bluetooth V4.1 LE

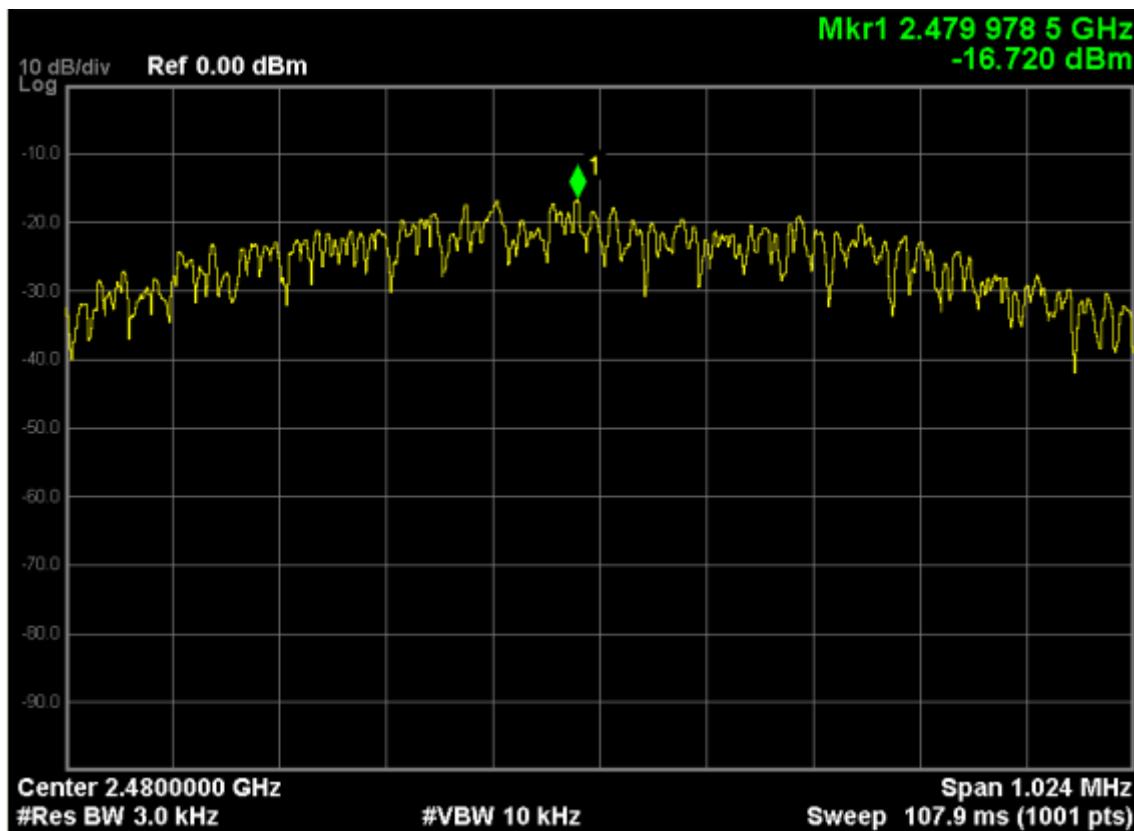
GFSK Channel 0



GFSK Channel 19

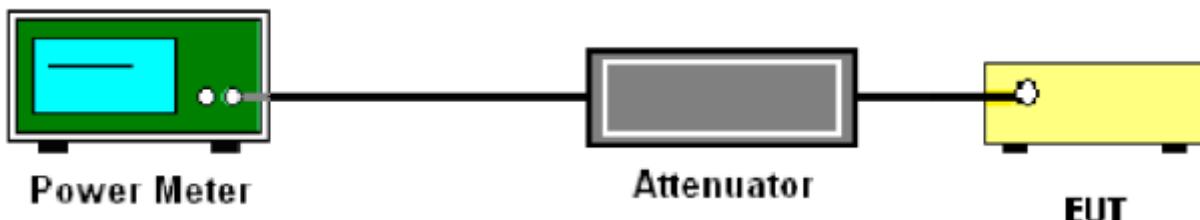


GFSK Channel 39



6. PEAK OUTPUT POWER (CONDUCTION)

6.1 TEST SETUP



6.2 LIMITS

| | |
|--------|--------|
| Limits | <30dBm |
|--------|--------|

6.3 TEST PROCEDURE

Place the EUT on the table and set it in transmitting mode. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to spectrum analyzer. The loss between RF output port of the EUT and the input port of the tester will be taken into consideration.

The measurement will be conducted at three channels.

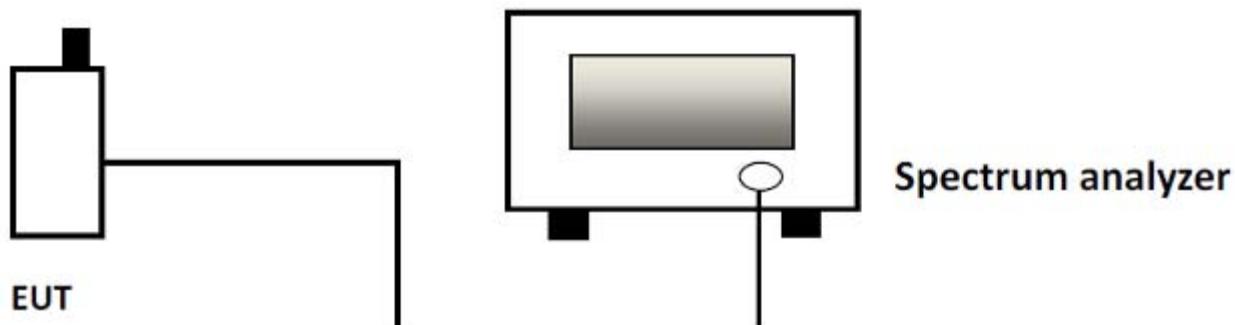
Bluetooth: Low(0), Middle(19) and High (39).

6.4 RESULTS & PERFORMANCE

| Bluetooth V4.1 LE | | | |
|-------------------|------------------|-------------|-------------|
| Channel | Peak power (dBm) | Limit (dBm) | Margin (dB) |
| 0 (2402MHz) | 1.4 | 30 | 28.6 |
| 19 (2440MHz) | 1.5 | 30 | 28.5 |
| 39 (2480MHz) | 1.2 | 30 | 28.8 |

7. SPURIOUS EMISSIONS (CONDUCTION)

7.1 TEST SETUP



7.2 LIMITS

| Limit | <(P-20dB) |
|---|-----------|
| Note: P is the highest level of the desired power | |

7.3 TEST PROCEDURE

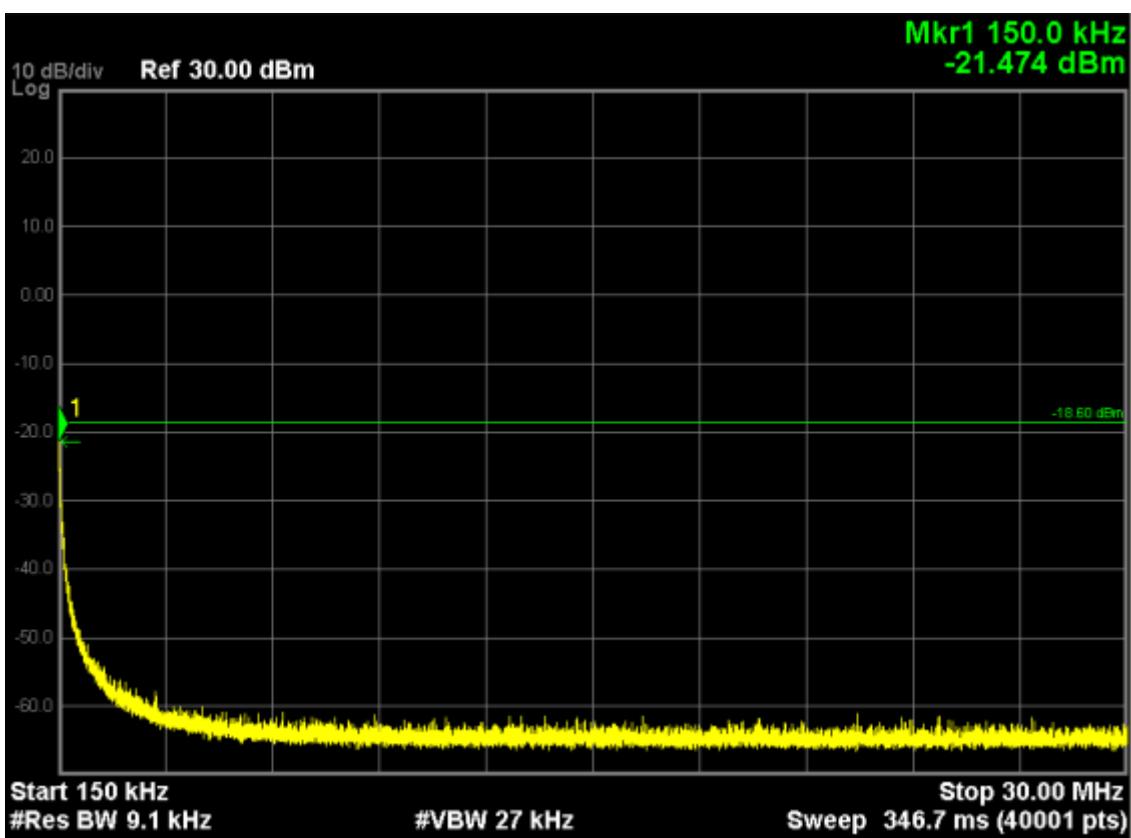
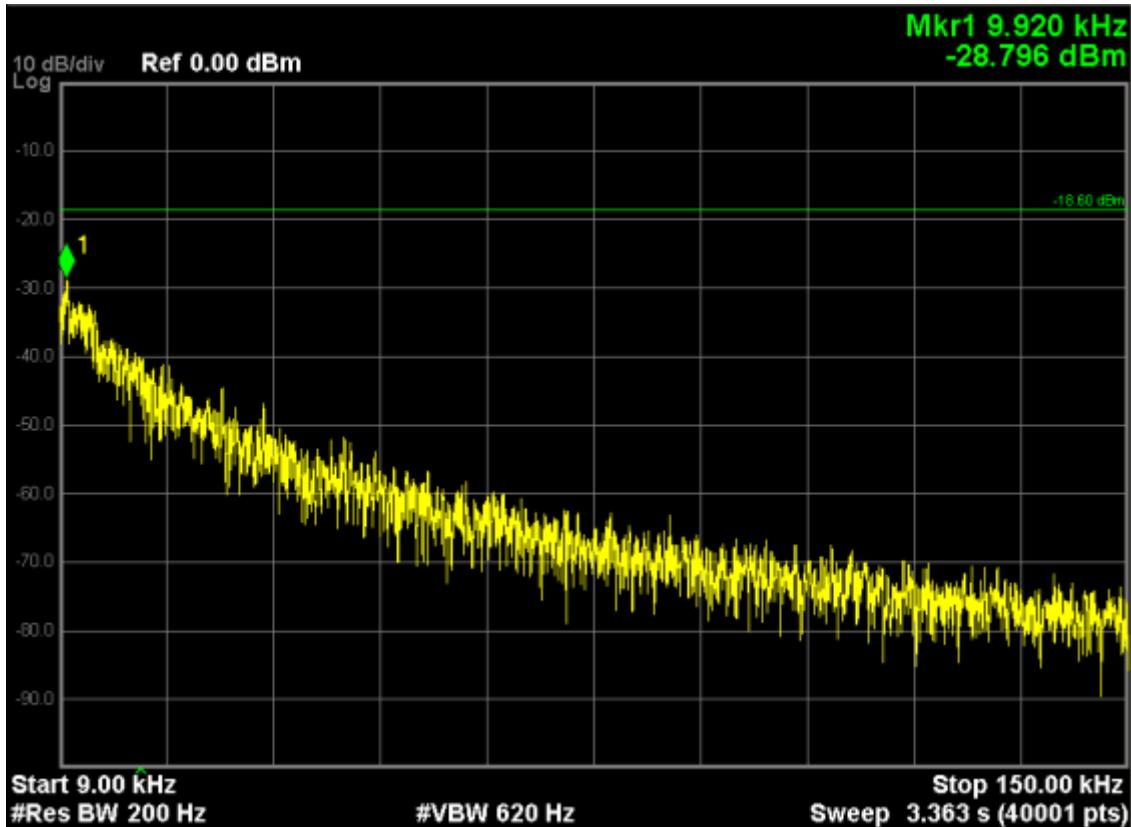
The EUT was connected to Spectrum Analyzer and Base Station via power divider. Use the following spectrum analyzer settings:

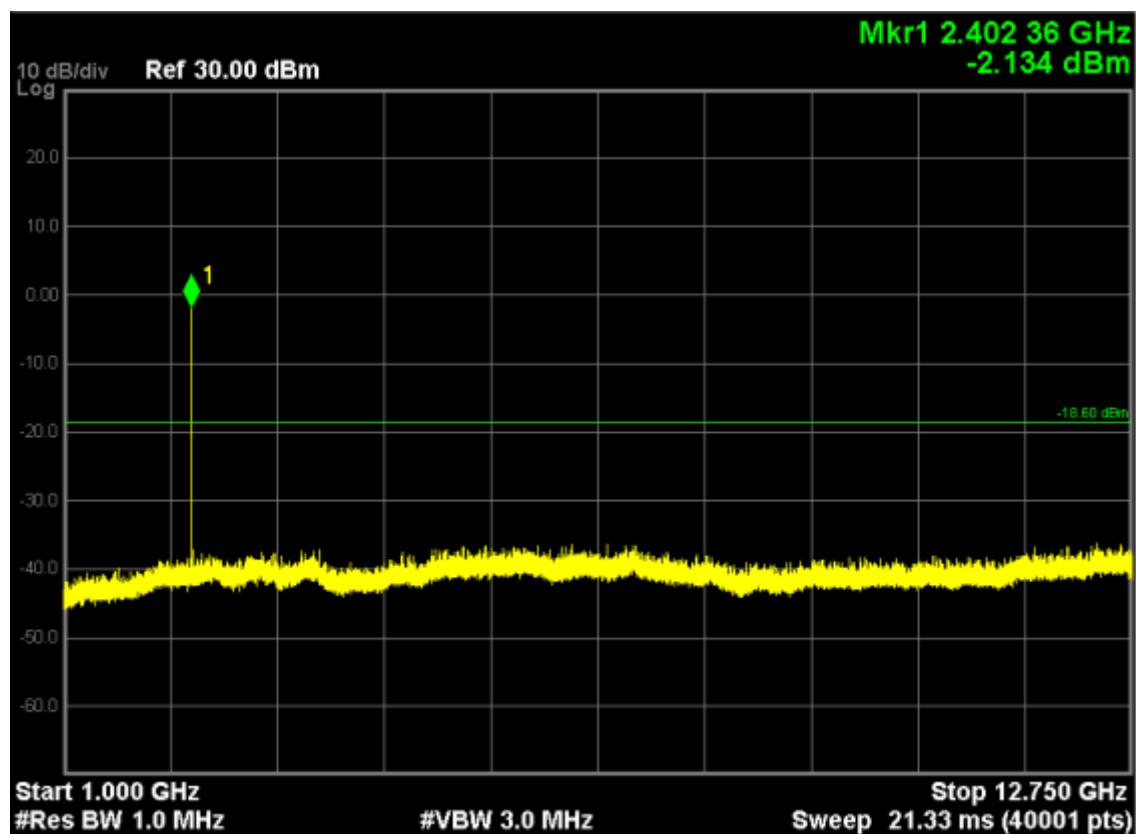
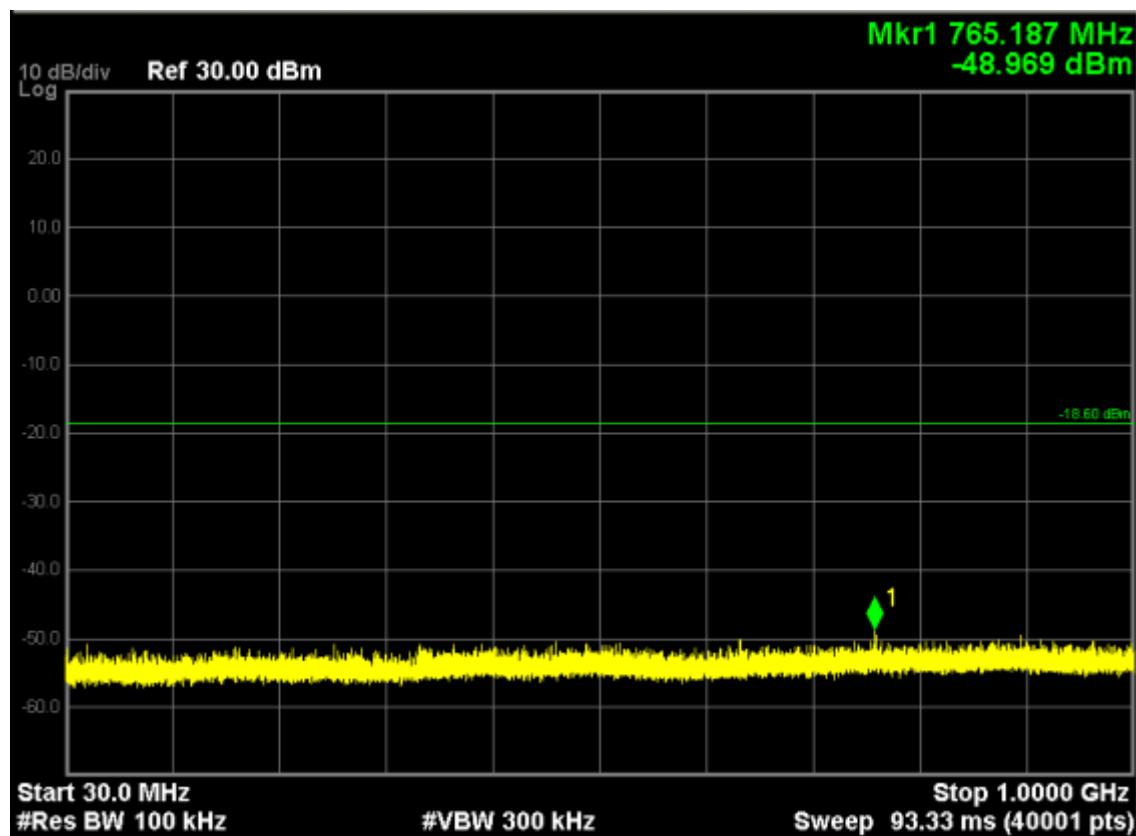
Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10th harmonic. Typically, several plots are required to cover this entire span.

RBW = 100 kHz; VBW \geq RBW; Sweep = auto; Detector function = peak; Trace = max hold
Allow the trace to stabilize. Set the marker on the peak of any spurious emission recorded.
The level displayed must comply with the limit specified in this Section.

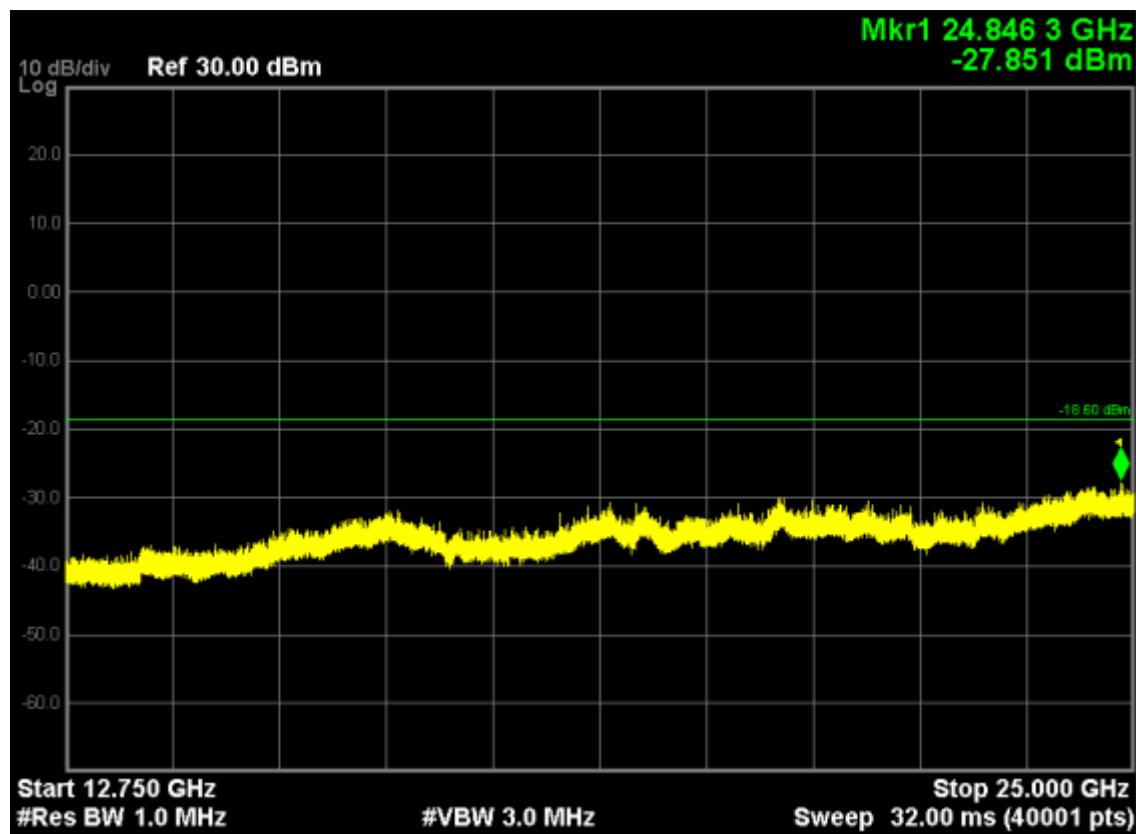
7.4 RESULTS & PERFORMANCE

Bluetooth V4.1 LE GFSK Channel 0

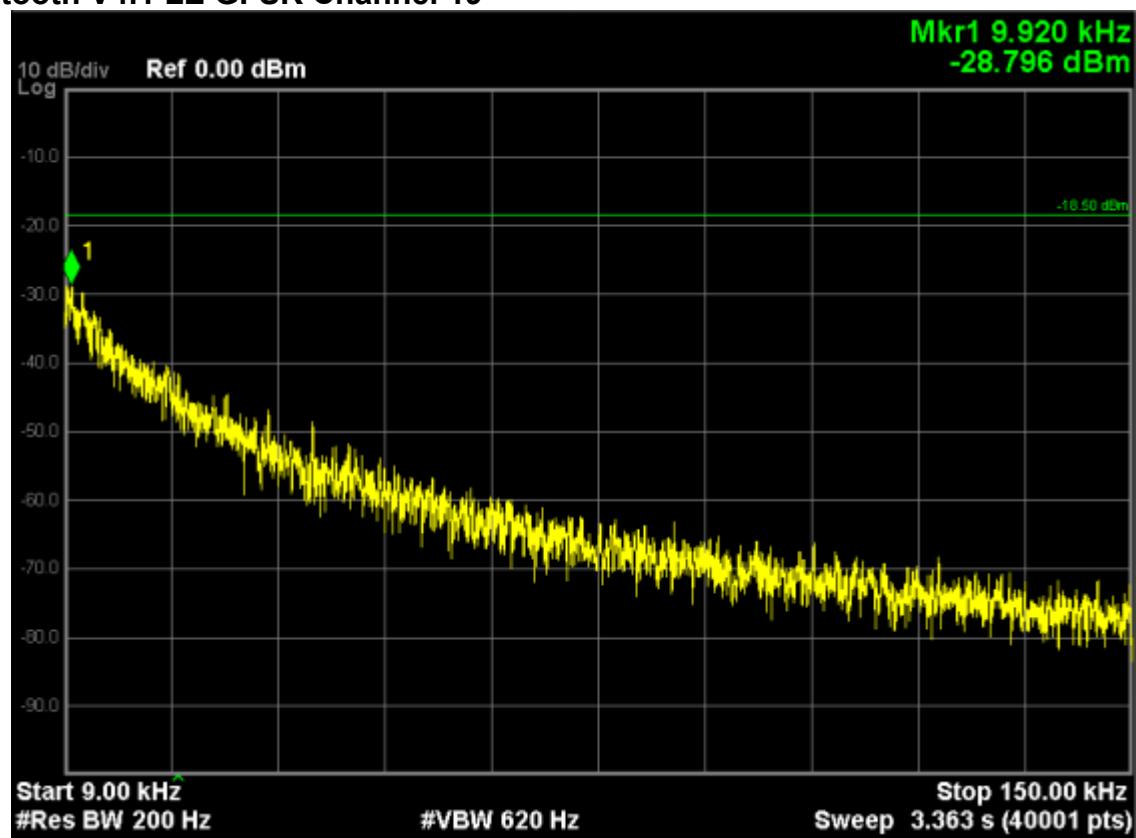


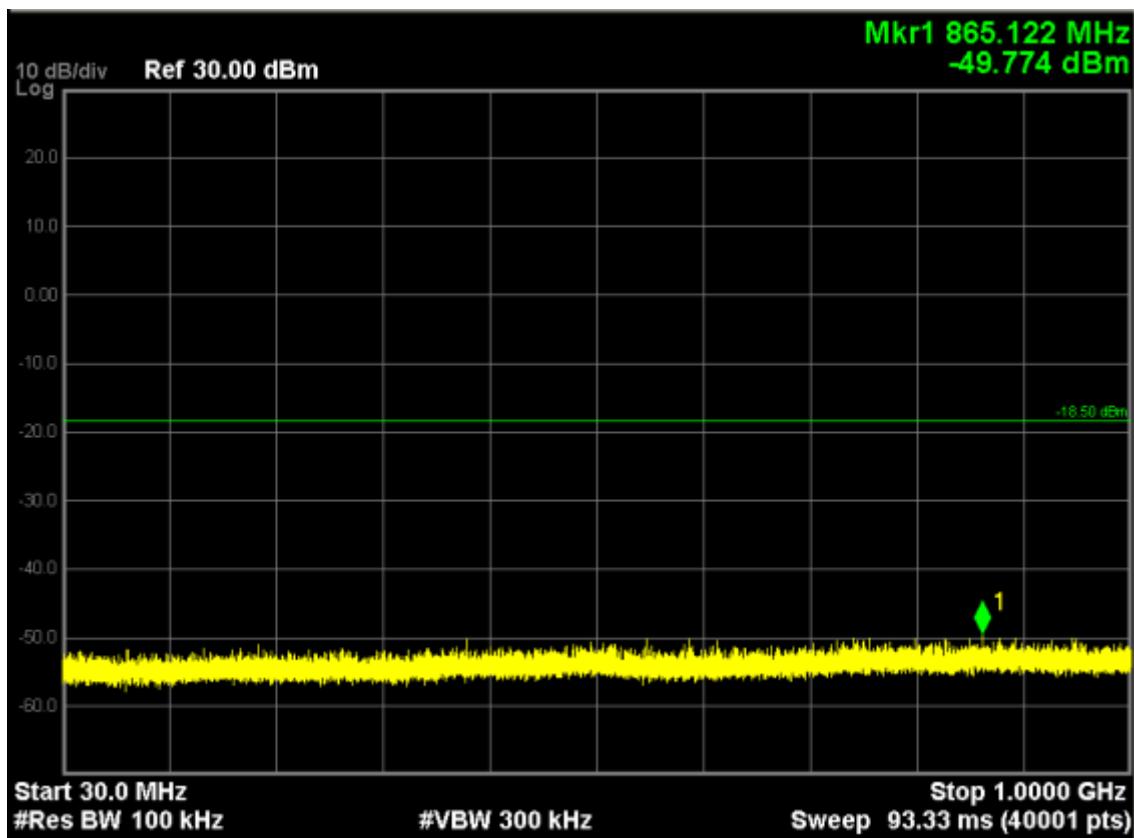
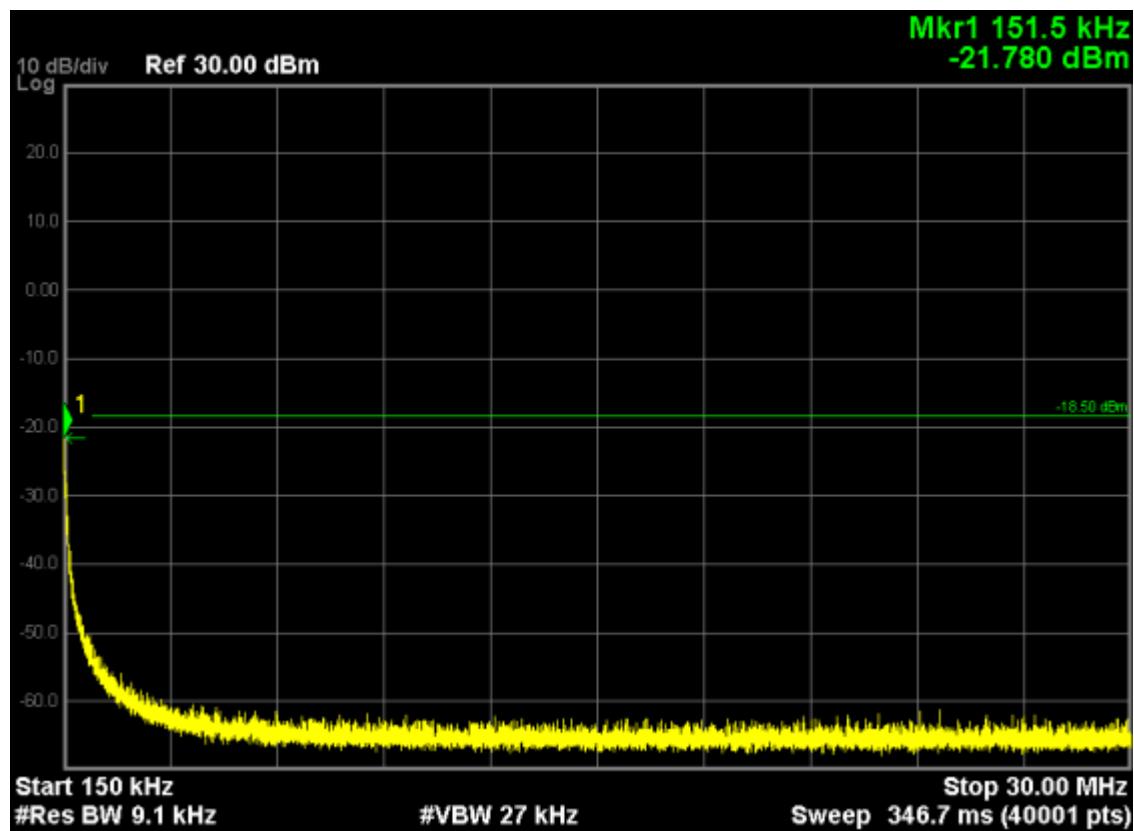


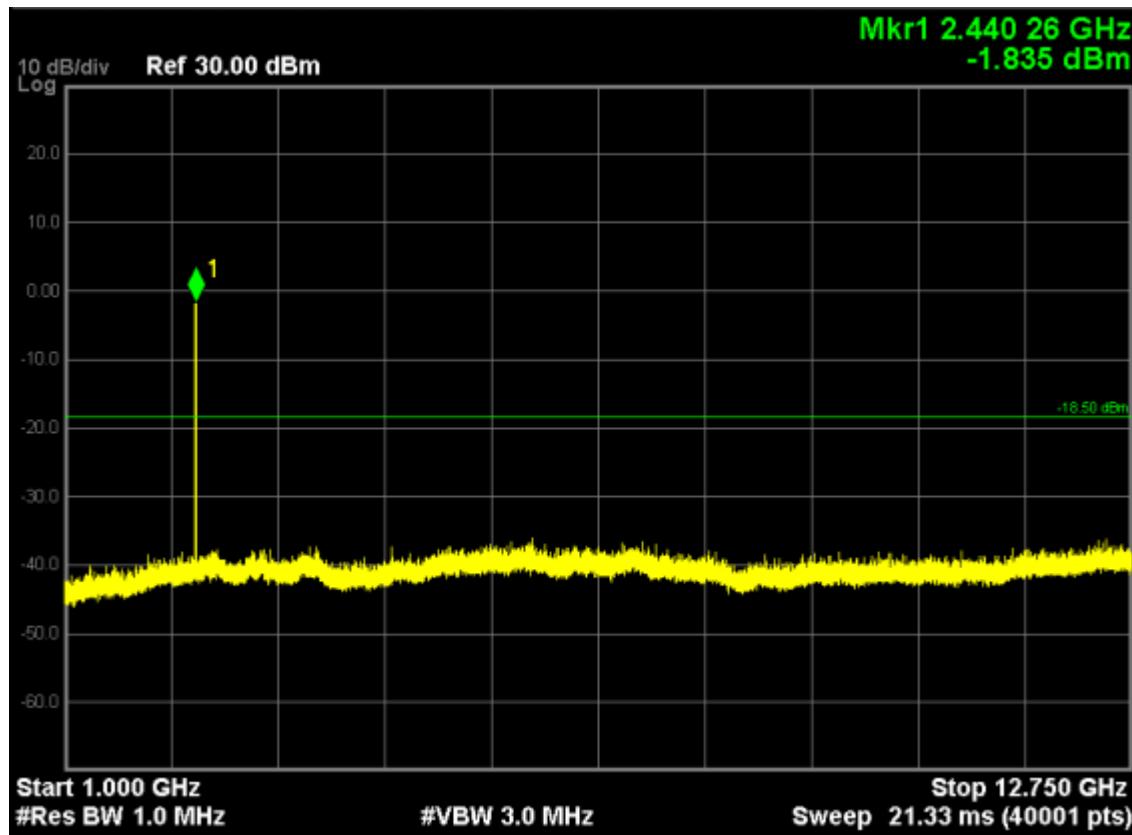
Note: The point mark1 is carrier.



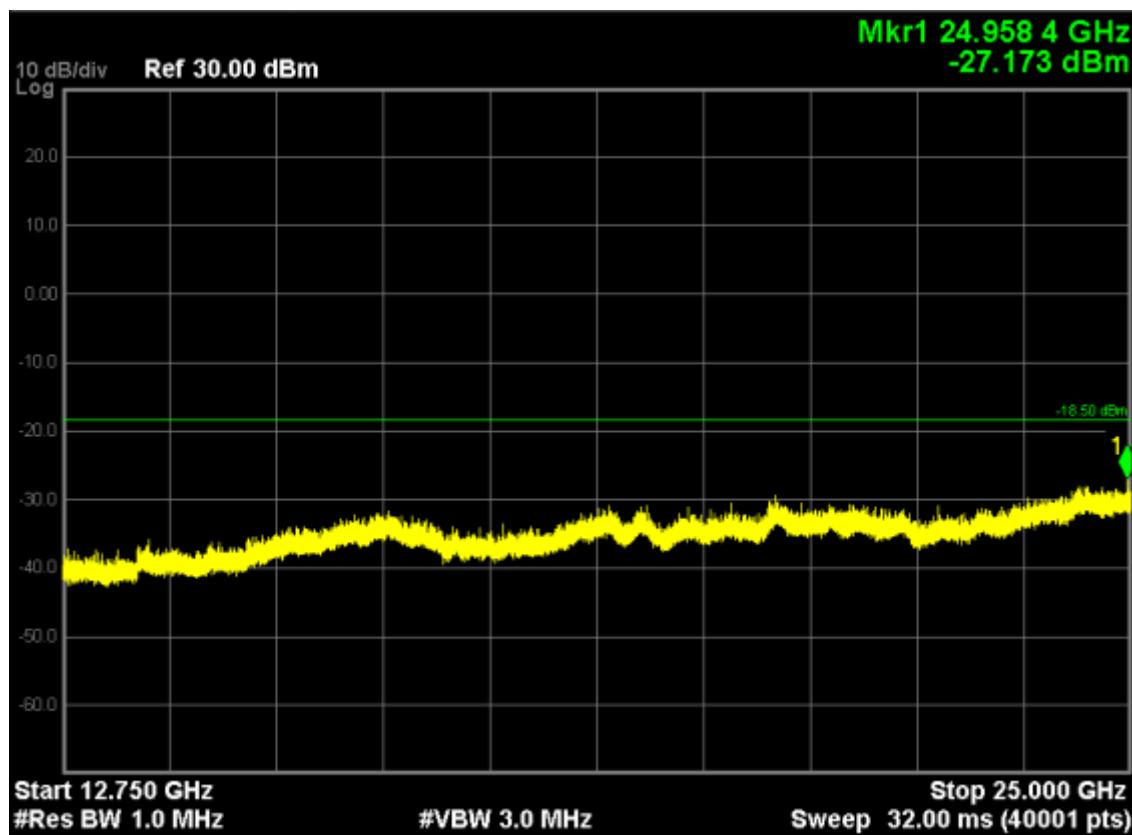
Bluetooth V4.1 LE GFSK Channel 19



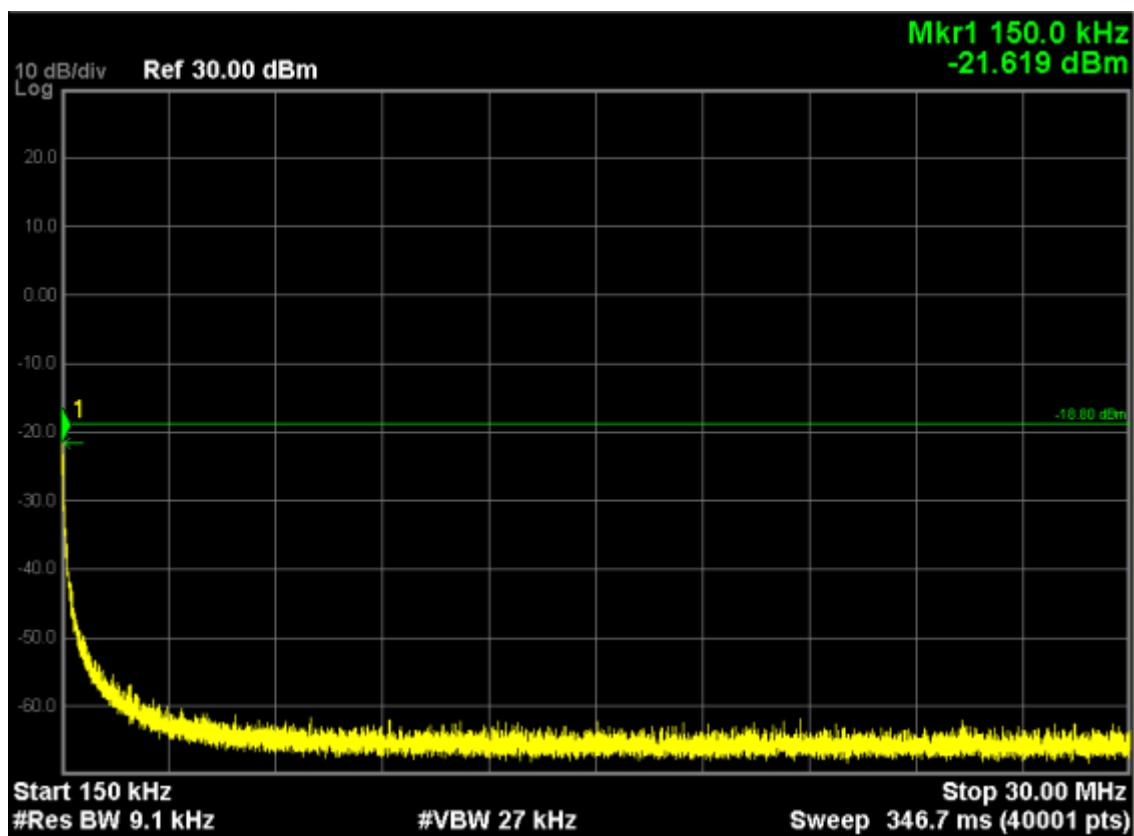
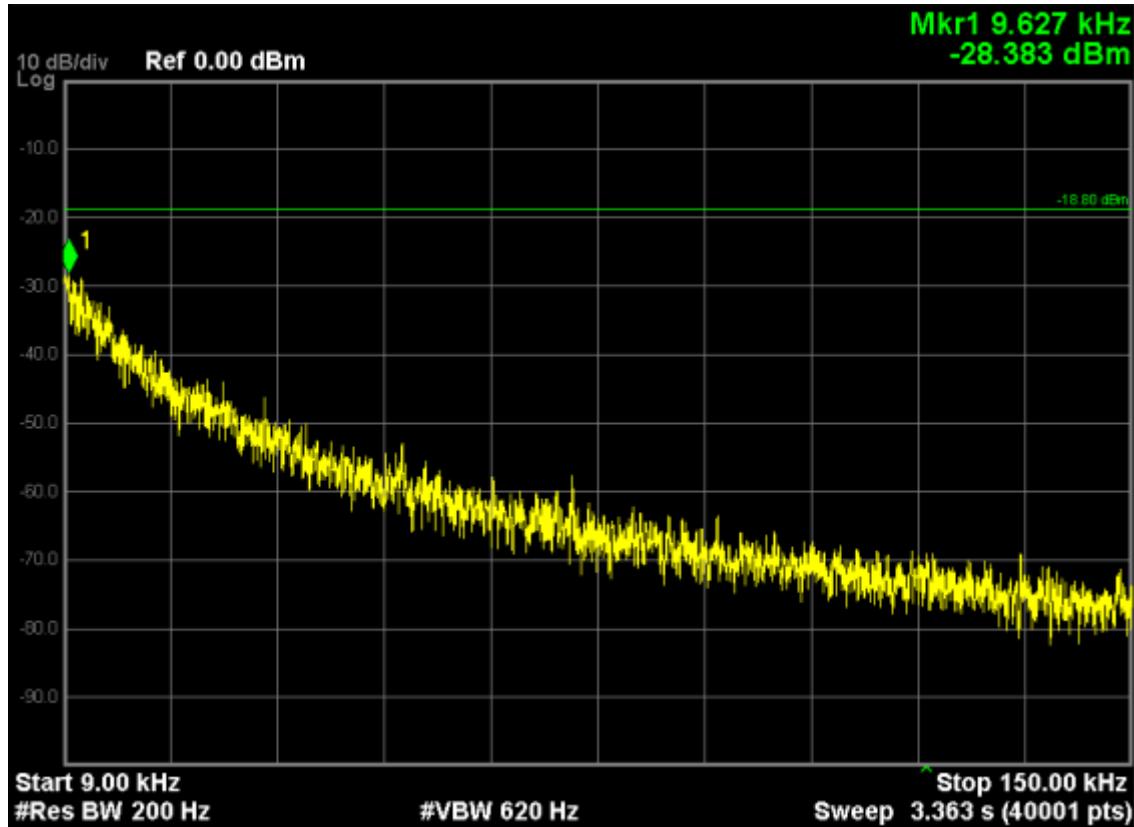


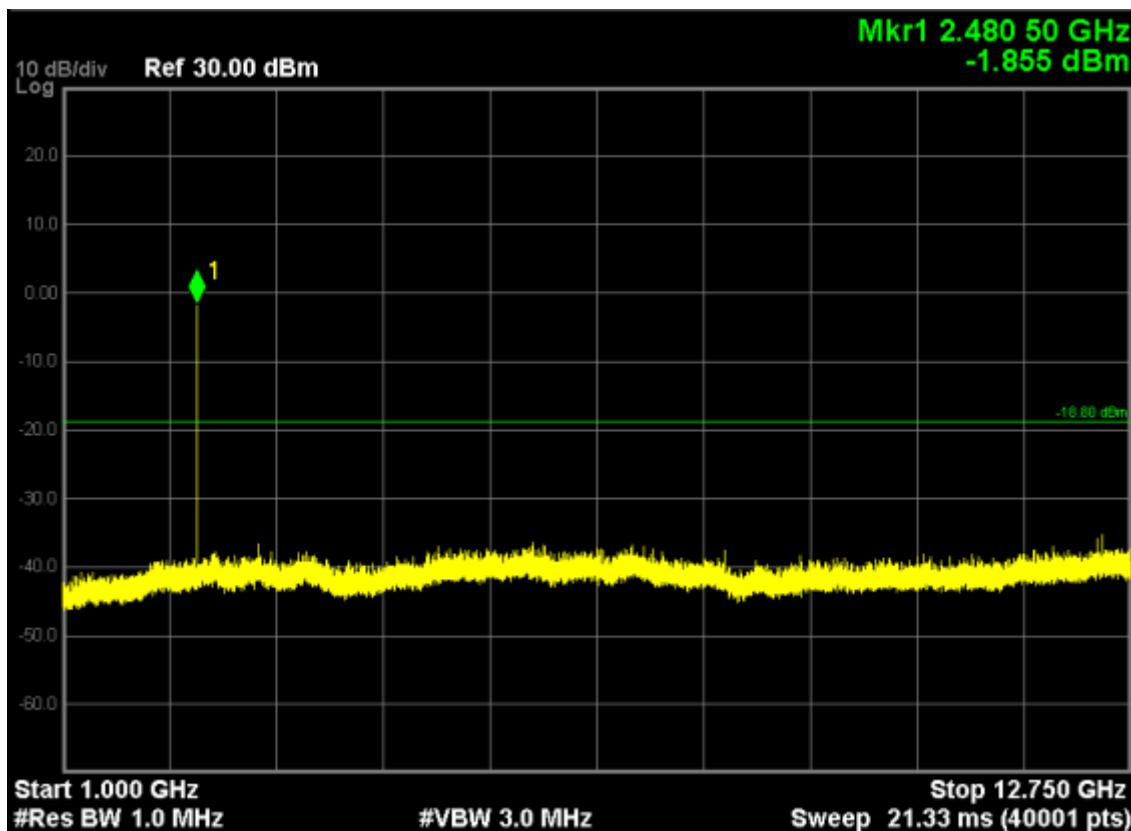
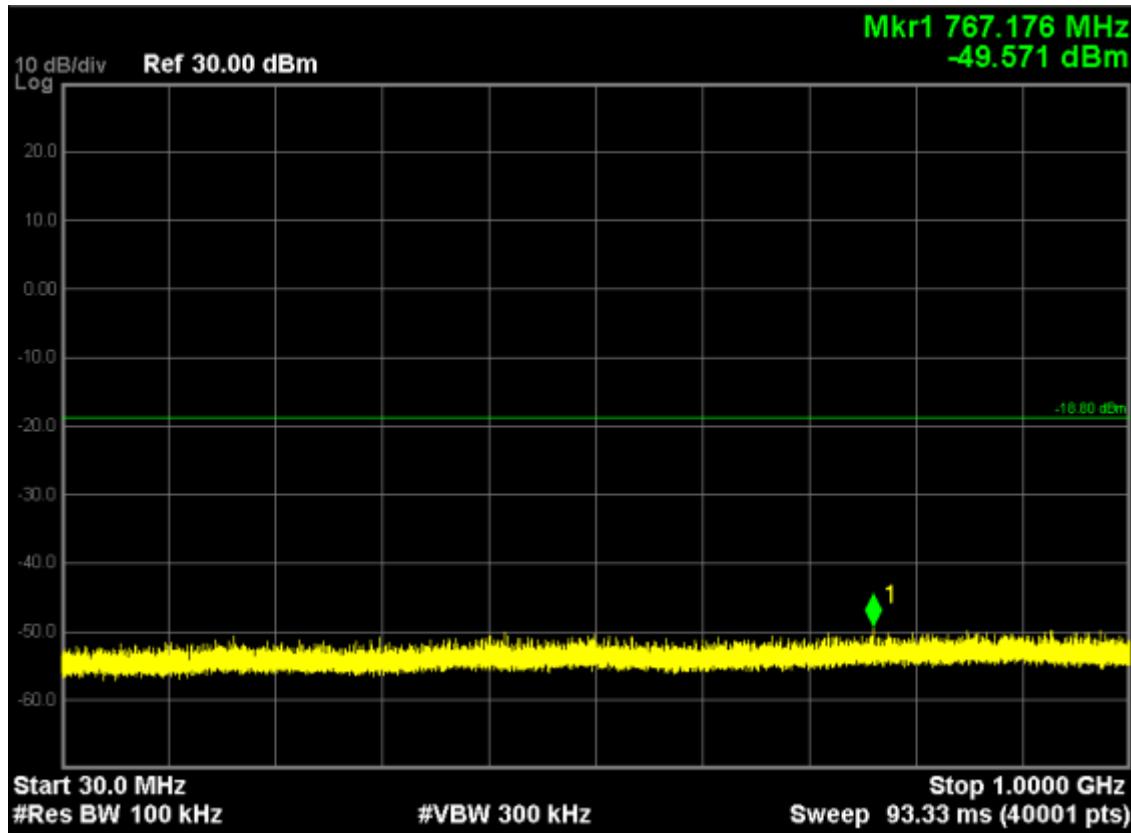


Note: The Mark1 point is carrier.

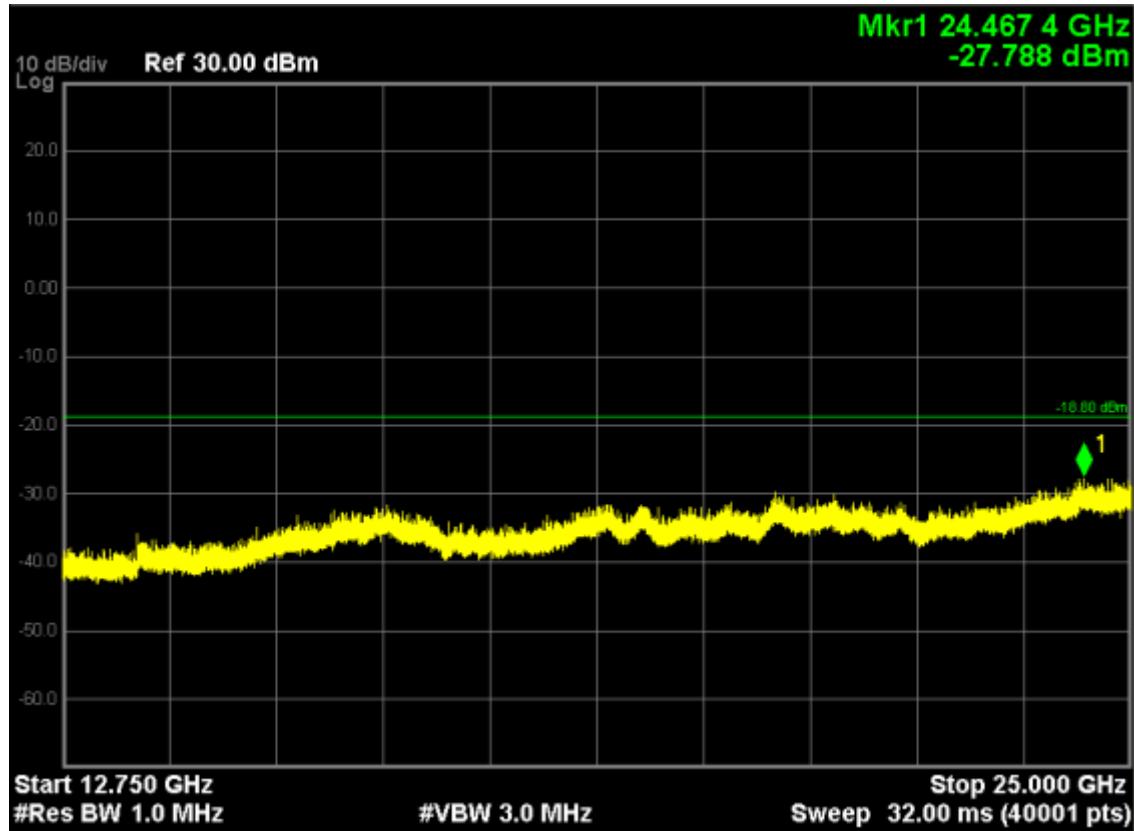


Bluetooth V4.1 LE GFSK Channel 39



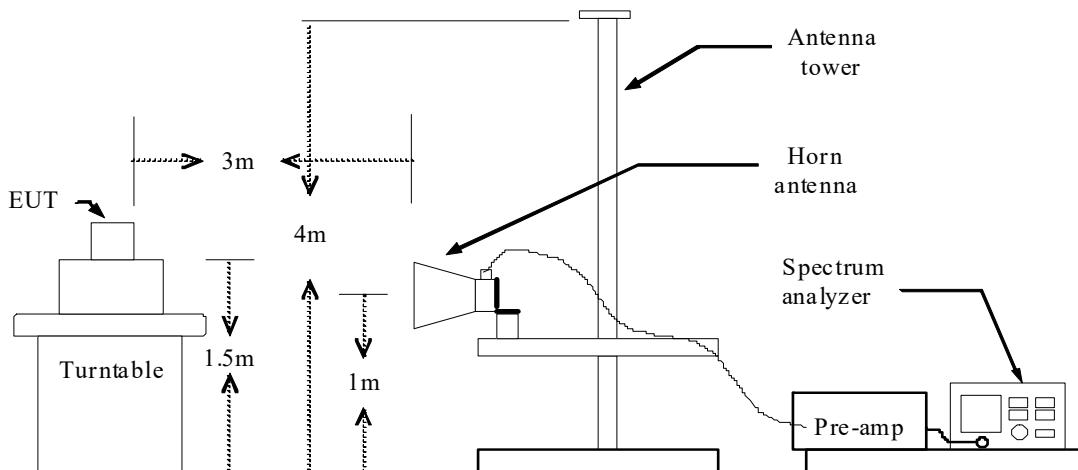


Note: The Mark1 point is carrier.



8. BAND EDGE MEASUREMENT

8.1 TEST SETUP



8.2 LIMITS

According to §15.247(d), in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 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, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a).

8.3 TEST PROCEDURE

The EUT is placed on a turntable, which is 0.8m above the ground plane.

The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.

EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.

Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

PEAK: RBW=VBW=1MHz / Sweep=AUTO

AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO

Repeat the procedures until all the PEAK and AVERAGE versus POLARIZATION are measured.

8.4 RESULTS & PERFORMANCE

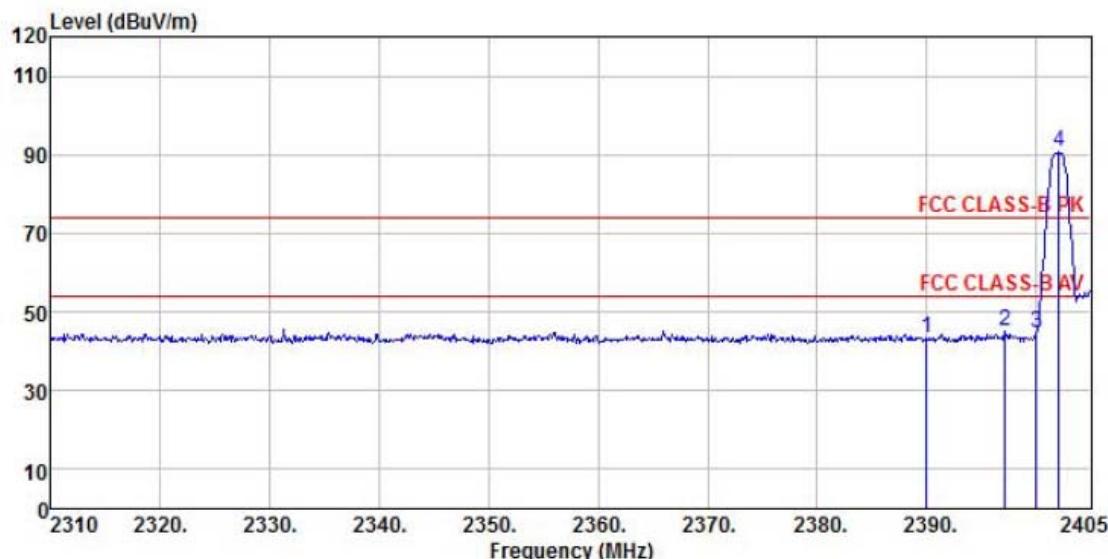
Radiated Band Edge:

Bluetooth V4.1 LE GFSK Channel 0

Test mode : Mode 1

Detector mode: Peak

Polarity: Horizontal



Site : chamber
Condition : FCC CLASS-B PK 3m BBHA9120D(942) HORIZONTAL

EUT :

Model Name : F800

Temp/Humi : 18 °C / 48 %

Power Rating:

Mode : BT CH0

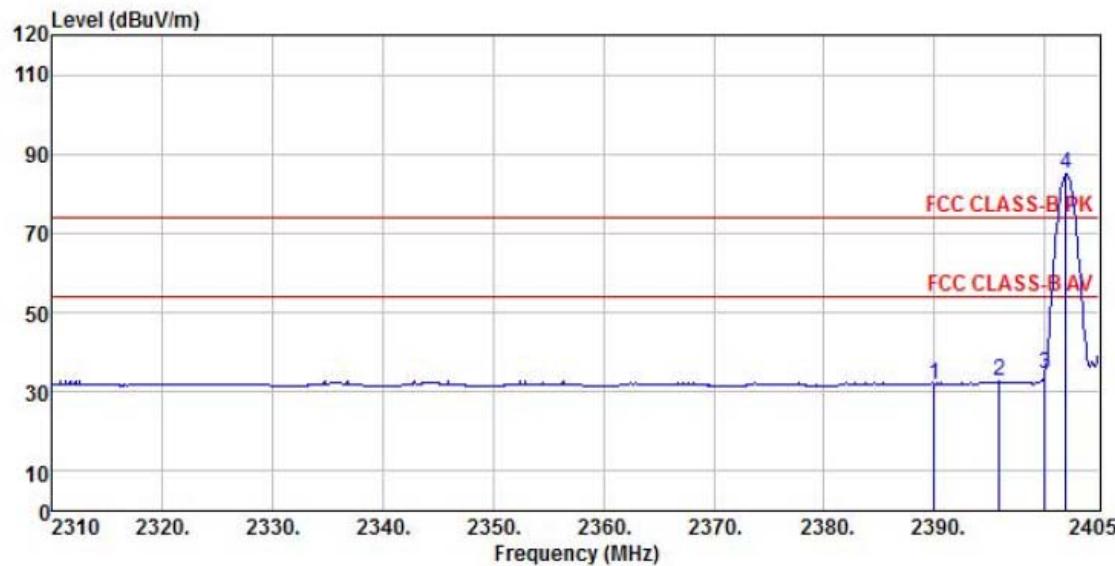
Memo :

| ReadAntenna | Cable | Preamp | Limit | Over | | | |
|-------------|-------|--------|-------------|-------|------|-------|--------|
| Freq | Level | Factor | Loss Factor | Level | Line | Limit | Remark |

| | MHz | dBuV | dB/m | dB | dB | dBuV/m | dBuV/m | dB |
|------|---------|-------|-------|------|-------|--------|--------|-------------|
| 1 | 2389.99 | 47.24 | 27.58 | 7.13 | 38.34 | 43.61 | 74.00 | -30.39 Peak |
| 2 | 2397.21 | 48.83 | 27.58 | 7.13 | 38.34 | 45.20 | 74.00 | -28.80 Peak |
| 3 | 2400.06 | 48.43 | 27.58 | 7.13 | 38.34 | 44.80 | 74.00 | -29.20 Peak |
| 4 pp | 2402.15 | 94.35 | 27.54 | 7.13 | 38.34 | 90.68 | 74.00 | 16.68 Peak |

Detector mode: Average

Polarity: Horizontal



Site : chamber
Condition : FCC CLASS-B PK 3m BBHA9120D(942) HORIZONTAL

EUT :

Model Name : F800

Temp/Humi : 18 °C / 48 %

Power Rating:

Mode : BT CH0

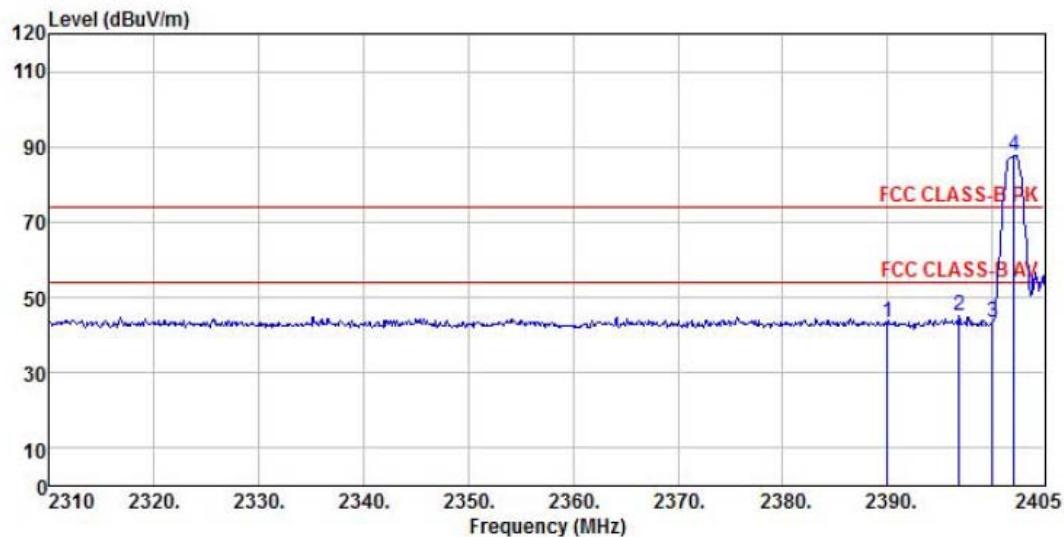
Memo :

| Read | Antenna | Cable | Preamp | Limit | Over | | | |
|------|---------|--------|--------|--------|-------|------|-------|--------|
| Freq | Level | Factor | Loss | Factor | Level | Line | Limit | Remark |

| | MHz | dBuV | dB/m | dB | dB | dBuV/m | dBuV/m | dB |
|------|---------|-------|-------|------|-------|--------|--------|----------------|
| 1 | 2389.99 | 35.41 | 27.58 | 7.13 | 38.34 | 31.78 | 54.00 | -22.22 Average |
| 2 | 2395.88 | 36.61 | 27.58 | 7.13 | 38.34 | 32.98 | 54.00 | -21.02 Average |
| 3 | 2400.06 | 38.27 | 27.58 | 7.13 | 38.34 | 34.64 | 54.00 | -19.36 Average |
| 4 pp | 2401.96 | 88.59 | 27.54 | 7.13 | 38.34 | 84.92 | 54.00 | 30.92 Average |

Detector mode: Peak

Polarity: Vertical

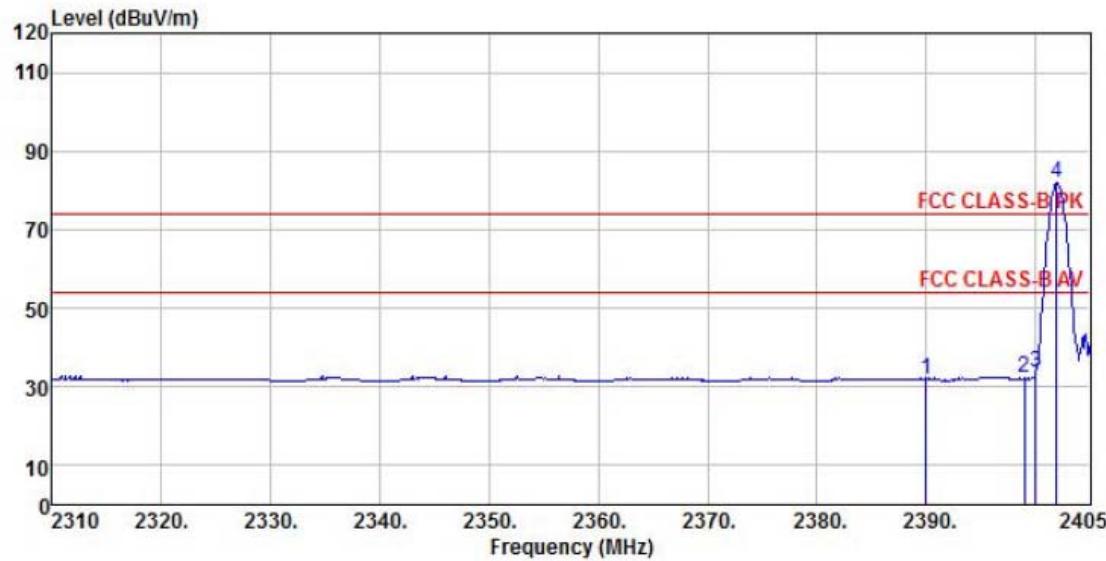


Site : chamber
Condition : FCC CLASS-B PK 3m BBHA9120D (942) VERTICAL
EUT :
Model Name : F800
Temp/Humi : 18 °C / 48 %
Power Rating:
Mode : BT CHO
Memo :

| Read | Antenna | Cable | Preamp | Limit | Over | | | | |
|------|---------|--------|--------|--------|-------|-------|-------|--------|------|
| Freq | Level | Factor | Loss | Factor | Level | Line | Limit | Remark | |
| 1 | 2389.99 | 46.95 | 27.58 | 7.13 | 38.34 | 43.32 | 74.00 | -30.68 | Peak |
| 2 | 2396.83 | 48.93 | 27.58 | 7.13 | 38.34 | 45.30 | 74.00 | -28.70 | Peak |
| 3 | 2400.06 | 47.15 | 27.58 | 7.13 | 38.34 | 43.52 | 74.00 | -30.48 | Peak |
| 4 pp | 2402.15 | 91.33 | 27.54 | 7.13 | 38.34 | 87.66 | 74.00 | 13.66 | Peak |

Detector mode: Average

Polarity: Vertical



Site : chamber
Condition : FCC CLASS-B PK 3m BBHA9120D(942) VERTICAL
EUT :
Model Name : F800
Temp/Humi : 18 °C / 48 %
Power Rating:
Mode : BT CH0
Memo :

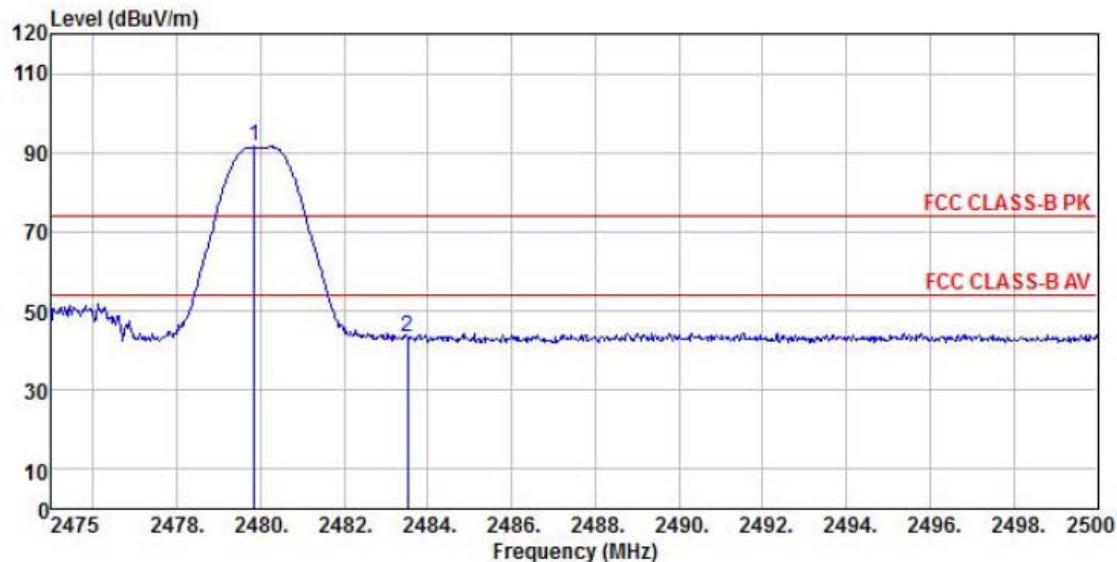
| Read | Antenna | Cable | Preamp | Limit | Over | | | |
|------|---------|--------|--------|--------|-------|------|-------|--------|
| Freq | Level | Factor | Loss | Factor | Level | Line | Limit | Remark |

| | MHz | dBuV | dB/m | dB | dB | dBuV/m | dBuV/m | dB |
|------|---------|-------|-------|------|-------|--------|--------|----------------|
| 1 | 2389.99 | 35.37 | 27.58 | 7.13 | 38.34 | 31.74 | 54.00 | -22.26 Average |
| 2 | 2399.02 | 36.08 | 27.58 | 7.13 | 38.34 | 32.45 | 54.00 | -21.55 Average |
| 3 | 2400.06 | 37.10 | 27.58 | 7.13 | 38.34 | 33.47 | 54.00 | -20.53 Average |
| 4 pp | 2401.96 | 85.73 | 27.54 | 7.13 | 38.34 | 82.06 | 54.00 | 28.06 Average |

Bluetooth V4.1 LE GFSK Channel 39

Detector mode: Peak

Polarity: Horizontal

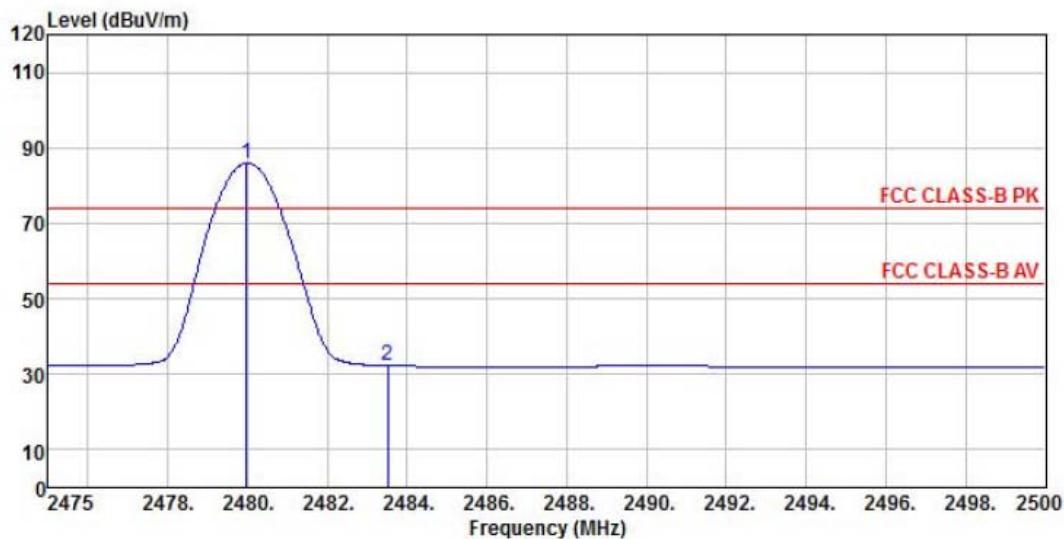


Site : chamber
Condition : FCC CLASS-B PK 3m BBHA9120D(942) HORIZONTAL
EUT :
Model Name : F800
Temp/Humi : 18 °C / 48 %
Power Rating:
Mode : BT CH39
Memo :
ReadAntenna Cable Preamp Limit Over
Freq Level Factor Loss Factor Level Line Limit Remark

| MHz | dBuV | dB/m | dB | dB | dBuV/m | dBuV/m | dB |
|------|---------|-------|-------|------|--------|--------|-------------------|
| 1 pp | 2479.85 | 94.94 | 27.52 | 7.41 | 38.31 | 91.56 | 74.00 17.56 Peak |
| 2 | 2483.50 | 46.62 | 27.52 | 7.41 | 38.31 | 43.24 | 74.00 -30.76 Peak |

Detector mode: Average

Polarity: Horizontal



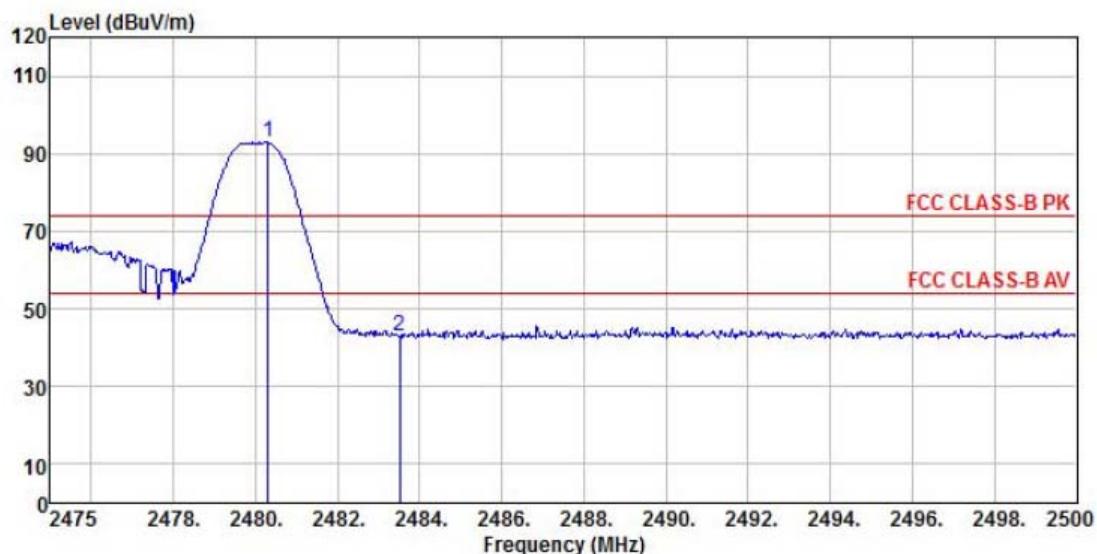
Site : chamber
Condition : FCC CLASS-B PK 3m BBHA9120D(942) HORIZONTAL
EUT :
Model Name : F800
Temp/Humi : 18 °C / 48 %
Power Rating:
Mode : BT CH39
Memo :
ReadAntenna Cable Preamp Limit Over
Freq Level Factor Loss Factor Level Line Limit Remark

| | MHz | dBuV | dB/m | dB | dB | dBuV/m | dBuV/m | dB |
|------|---------|-------|-------|------|-------|--------|--------|--------|
| 1 pp | 2479.98 | 89.31 | 27.52 | 7.41 | 38.31 | 85.93 | 54.00 | 31.93 |
| 2 | 2483.50 | 35.66 | 27.52 | 7.41 | 38.31 | 32.28 | 54.00 | -21.72 |

Average

Detector mode: Peak

Polarity: Vertical



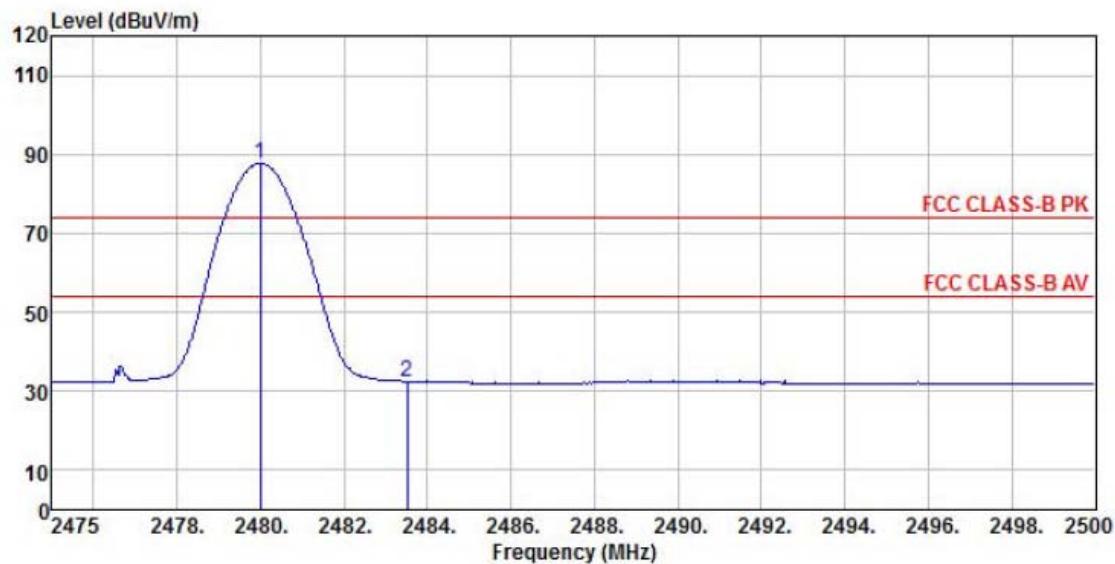
Site : chamber
Condition : FCC CLASS-B PK 3m BBHA9120D(942) VERTICAL
EUT :
Model Name : F800
Temp/Humi : 18 °C / 48 %
Power Rating:
Mode : BT CH39
Memo :

| Read | Antenna | Cable | Preamp | Limit | Over | | | |
|------|---------|--------|--------|--------|-------|------|-------|--------|
| Freq | Level | Factor | Loss | Factor | Level | Line | Limit | Remark |

| MHz | dBuV | dB/m | dB | dB | dBuV/m | dBuV/m | dB | |
|------|---------|-------|-------|------|--------|--------|-------|-------------|
| 1 pp | 2480.30 | 96.39 | 27.52 | 7.41 | 38.31 | 93.01 | 74.00 | 19.01 Peak |
| 2 | 2483.50 | 46.36 | 27.52 | 7.41 | 38.31 | 42.98 | 74.00 | -31.02 Peak |

Detector mode: Average

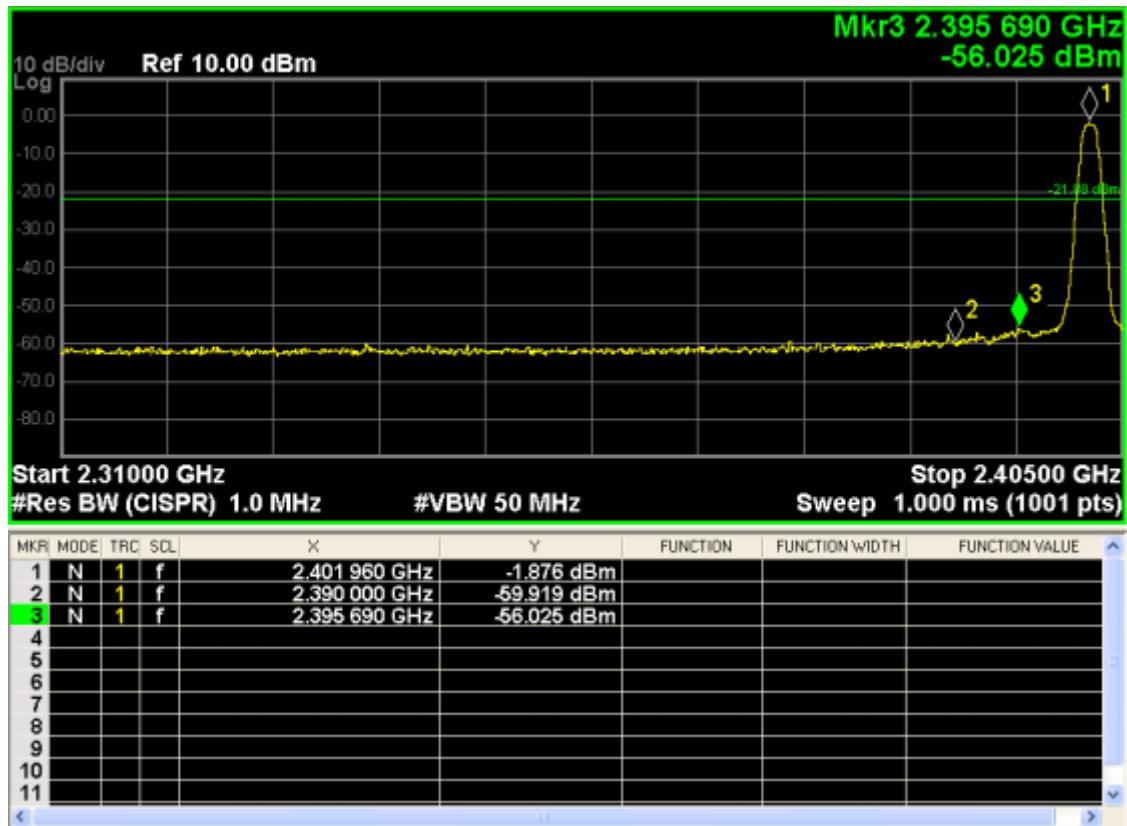
Polarity: Vertical



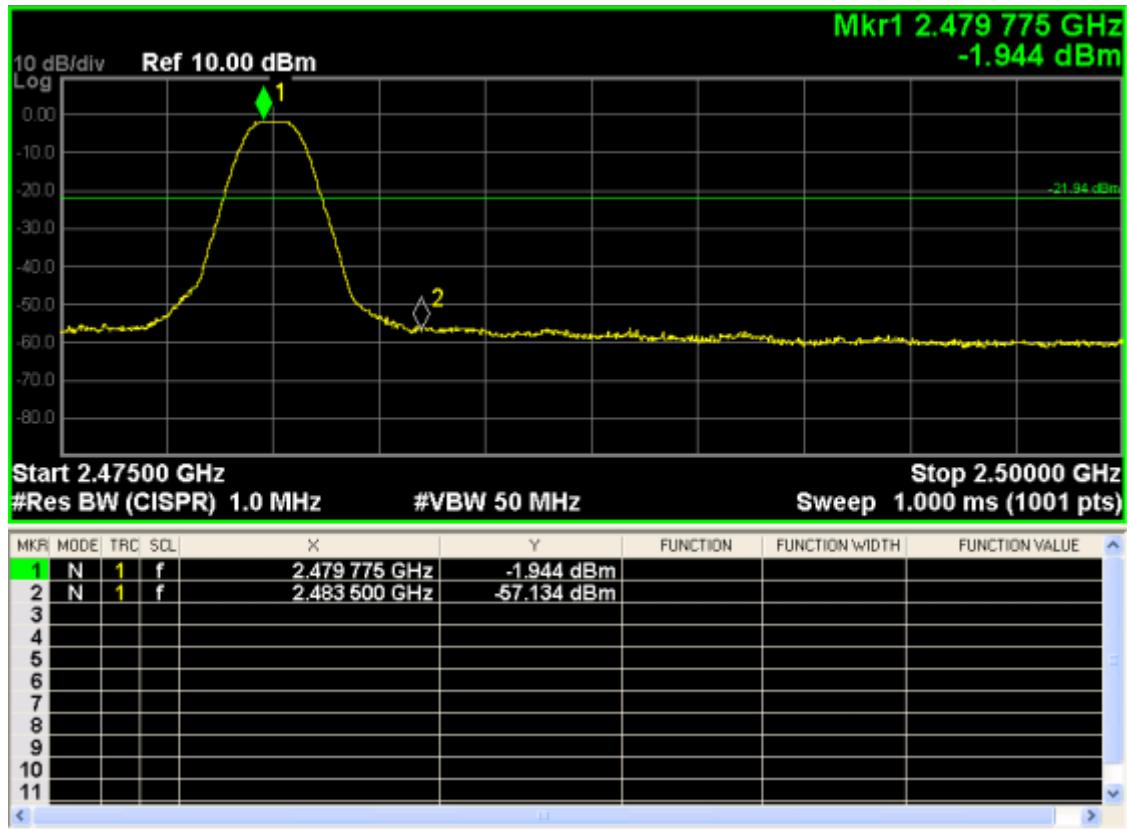
Site : chamber
Condition : FCC CLASS-B PK 3m BBHA9120D(942) VERTICAL
EUT :
Model Name : F800
Temp/Humi : 18 °C / 48 %
Power Rating:
Mode : BT CH39
Memo :
ReadAntenna Cable Preamp Limit Over
Freq Level Factor Loss Factor Level Line Limit Remark
MHz dBuV dB/m dB dB dBuV/m dBuV/m dB

| | | | | | | | | | |
|------|---------|-------|-------|------|-------|-------|-------|--------|---------|
| 1 pp | 2480.00 | 91.14 | 27.52 | 7.41 | 38.31 | 87.76 | 54.00 | 33.76 | Average |
| 2 | 2483.50 | 35.88 | 27.52 | 7.41 | 38.31 | 32.50 | 54.00 | -21.50 | Average |

**Conducted Band Edge:
Bluetooth V4.1 LE GFSK Channel 0**



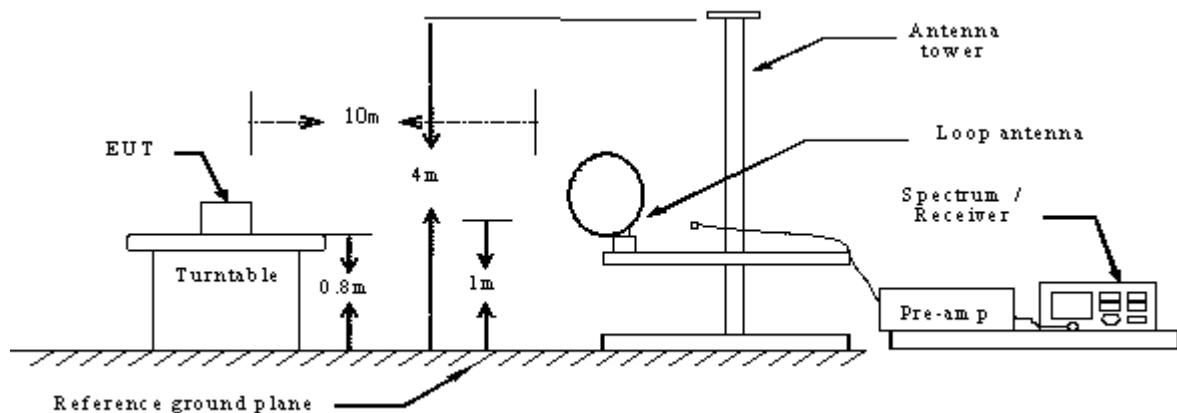
Bluetooth V4.1 LE GFSK Channel 39



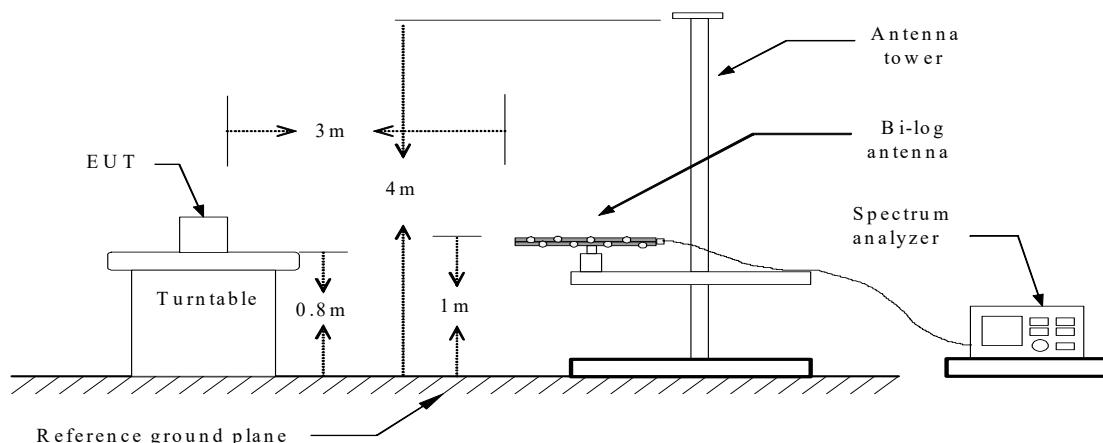
9. SPURIOUS EMISSIONS (RADIATION)

9.1 TEST SETUP

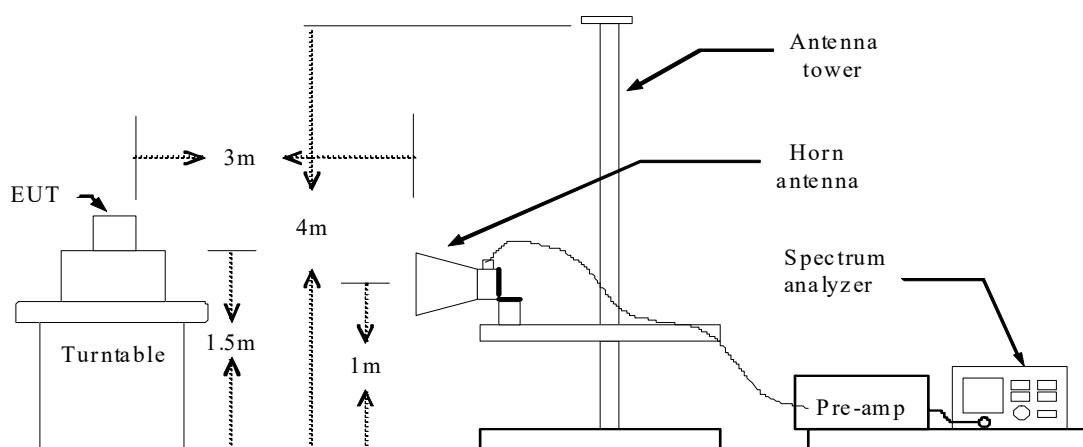
Radiated Spurious Measurement: below 30MHz



Radiated Spurious Measurement: below 1GHz



Radiated Spurious Measurement: above 1GHz



9.2 LIMITS

| Frequency (MHz) | Limits (uV/m) | Limits(dBuV/m) At 3m | Measured Distance (m) |
|--------------------|------------------|-------------------------|--------------------------|
| 0.009-0.490 | 2400/F(KHz) | 128.5-93.80 | 300 |
| 0.490-1.705 | 24000/F(KHz) | 73.80-63.00 | 30 |
| 1.705-30.0 | 30 | 69.5 | 30 |
| 30~88 | 100 | 40 | 3 |
| 88~216 | 150 | 43.5 | 3 |
| 216-960 | 200 | 46 | 3 |
| Above 960 | 500 | 54 | 3 |

Notes: the calculate formula for below 30MHz

$$L2 = 20\lg(L1) + 40\lg(d1/d2)$$

L2: is the specified limit in dB microvolts per metre at distance d2.

L1: is the specified limit in microvolts per metre at distance d1.

For example:

$L1 = 2400/9 \text{ } (\mu\text{V}/\text{m})$, $d1 = 300 \text{ } (\text{m})$, $d2 = 3 \text{ } (\text{m})$, so L2 as follows:

$$20\lg(2400/9) + 40\lg(300/3) = 128.5(\text{dB}\mu\text{V}/\text{m})$$

9.3 TEST PROCEDURE

Radiated Emission (9 kHz – 30 MHz) :

Spurious emissions from the EUT are measured in the frequency range of 9 kHz to 30 MHz using a tuned receiver and a shielded loop antenna. The antenna was positioned 3 meters horizontally from the EUT. The RBW of the spectrum analyzer is set to 200Hz(measured frequency range was 9KHz~150KHz) or 9KHz(measured frequency range was 150KHz~30MHz).Measurements have been made in all three orthogonal axes and the shielded loop antenna was rotated to locate the maximum of the emissions. The emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz (these two bands employing a average detector).

Radiated Emission (30 MHz – 1000 MHz):

According to description of ANSI C63.4: 2014 sec.13.4, the preliminary radiated emissions measurement were carried out. The preliminary radiated measurements were performed at the measurement distance that specified for compliance to determine the emission characteristics of the EUT. The EUT configuration (in X, Y and Z axis), cable configuration and mode of operation were determined for producing the maximum level of emissions. These configurations were used for the final radiated emissions measurements. The measurement is carried out using a spectrum analyzer or receiver. The Quasi-peak detector is used and RBW is set to 120kHz.The antenna height and turn table rotation is adjusted until the maximum power value is founded on spectrum analyzer or receiver.

Radiated Emission (Above 1 GHz):

According to description of ANSI C63.4: 2014 sec.13.4, the preliminary radiated emissions measurement were carried out. The preliminary radiated measurements were performed at the measurement distance that specified for compliance to determine the emission characteristics of the EUT. The EUT configuration (in X, Y and Z axis), cable configuration and mode of operation were determined for producing the maximum level of emissions. These configurations were used for the final radiated emissions measurements. The measurement is carried out using a spectrum analyzer or receiver. The spectrum analyzer scans from 1GHz to 25GHz (higher than the 10th harmonic of the carrier). The peak detector is used for Peak limit and RBW is set to 1MHz ,VBW \geq 3RBW. The peak detector is used for Average limit and RBW is set to 1MHz ,VBW is not smaller than 1/T, T = to the shortest pulse width. The antenna height and turn table rotation is adjusted until the maximum power value is founded on spectrum analyzer or receiver.

9.4 RESULTS & PERFORMANCE

Test mode: Mode 1

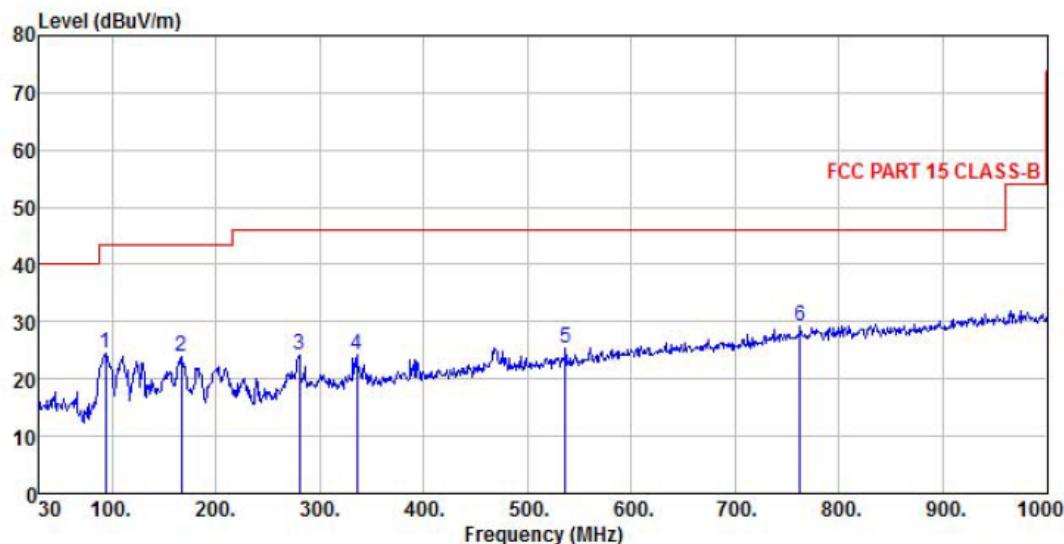
From 9KHz to 30MHz:

The test data was 20dB lower than the permissible limit was not recorded in the report.
802.11b, traffic mode; Channel 1

From 30MHz to 1GHz:

Bluetooth V4.1 LE GFSK Channel 0

Polarity: Horizontal



Site : chamber
Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL
EUT :

Model Name : F800
Temp/Humi : 17 °C /50 %

Power Rating:

Mode : BT CH0

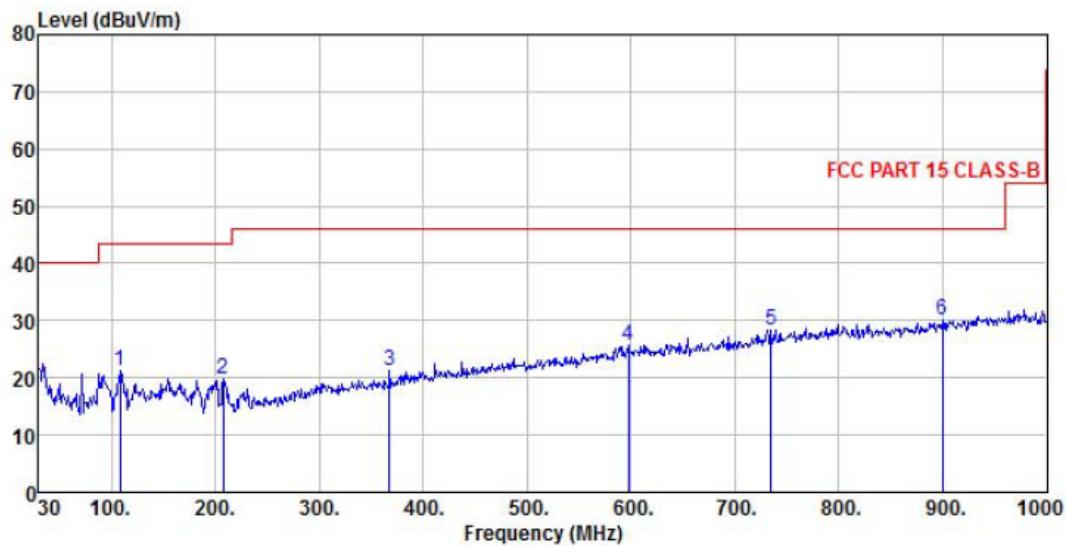
Memo :

| ReadAntenna | Cable | Preamp | Limit | Over | | | |
|-------------|-------|--------|-------|--------|-------|------|--------|
| Freq | Level | Factor | Loss | Factor | Level | Line | Remark |

| | MHz | dBuV | dB/m | dB | dB | dBuV/m | dBuV/m | dB |
|------|--------|-------|-------|------|------|--------|--------|-------------|
| 1 | 94.02 | 13.71 | 9.74 | 1.18 | 0.00 | 24.63 | 43.50 | -18.87 Peak |
| 2 | 166.77 | 8.55 | 13.44 | 1.79 | 0.00 | 23.78 | 43.50 | -19.72 Peak |
| 3 | 280.26 | 9.34 | 12.81 | 2.20 | 0.00 | 24.35 | 46.00 | -21.65 Peak |
| 4 | 335.55 | 7.59 | 14.00 | 2.50 | 0.00 | 24.09 | 46.00 | -21.91 Peak |
| 5 | 536.34 | 4.62 | 17.61 | 3.12 | 0.00 | 25.35 | 46.00 | -20.65 Peak |
| 6 pp | 762.35 | 4.08 | 21.38 | 3.70 | 0.00 | 29.16 | 46.00 | -16.84 Peak |

Bluetooth V4.1 LE GFSK Channel 0

Polarity: Vertical



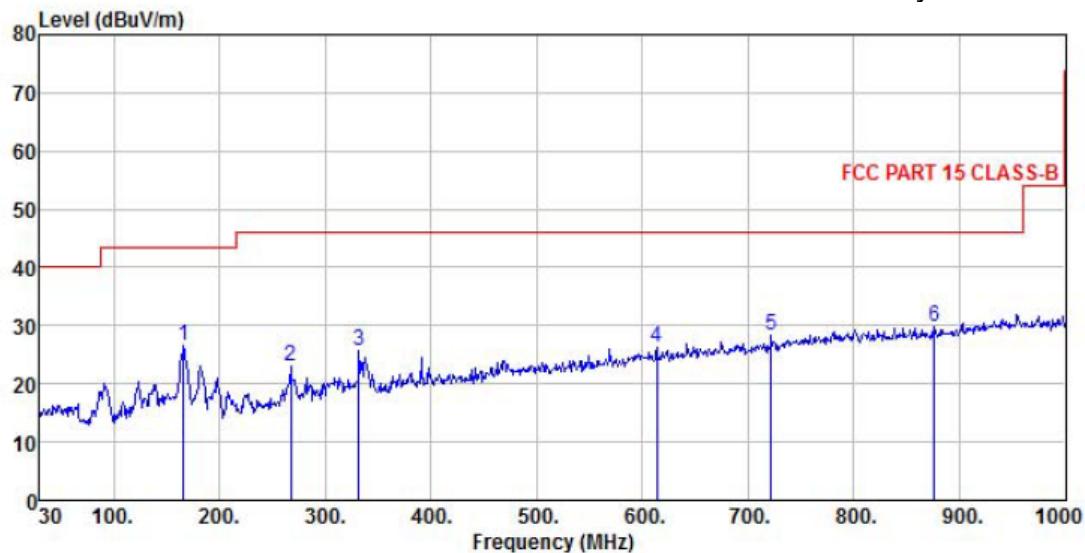
Site : chamber
Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL
EUT :
Model Name : F800
Temp/Humi : 17 °C /50 %
Power Rating:
Mode : BT CHO
Memo :

| ReadAntenna | Cable | Preamp | Limit | Over | | | |
|-------------|-------|--------|-------|--------|-------|------|--------|
| Freq | Level | Factor | Loss | Factor | Level | Line | Remark |

| | MHz | dBuV | dB/m | dB | dB | dBuV/m | dBuV/m | dB |
|------|--------|------|-------|------|------|--------|--------|-------------|
| 1 | 108.57 | 9.00 | 10.90 | 1.40 | 0.00 | 21.30 | 43.50 | -22.20 Peak |
| 2 | 207.51 | 7.46 | 10.49 | 1.93 | 0.00 | 19.88 | 43.50 | -23.62 Peak |
| 3 | 367.56 | 4.06 | 14.54 | 2.70 | 0.00 | 21.30 | 46.00 | -24.70 Peak |
| 4 | 597.45 | 3.17 | 19.11 | 3.34 | 0.00 | 25.62 | 46.00 | -20.38 Peak |
| 5 | 735.19 | 3.67 | 20.95 | 3.69 | 0.00 | 28.31 | 46.00 | -17.69 Peak |
| 6 pp | 900.09 | 3.33 | 22.58 | 4.06 | 0.00 | 29.97 | 46.00 | -16.03 Peak |

Bluetooth V4.1 LE GFSK Channel 19

Polarity: Horizontal



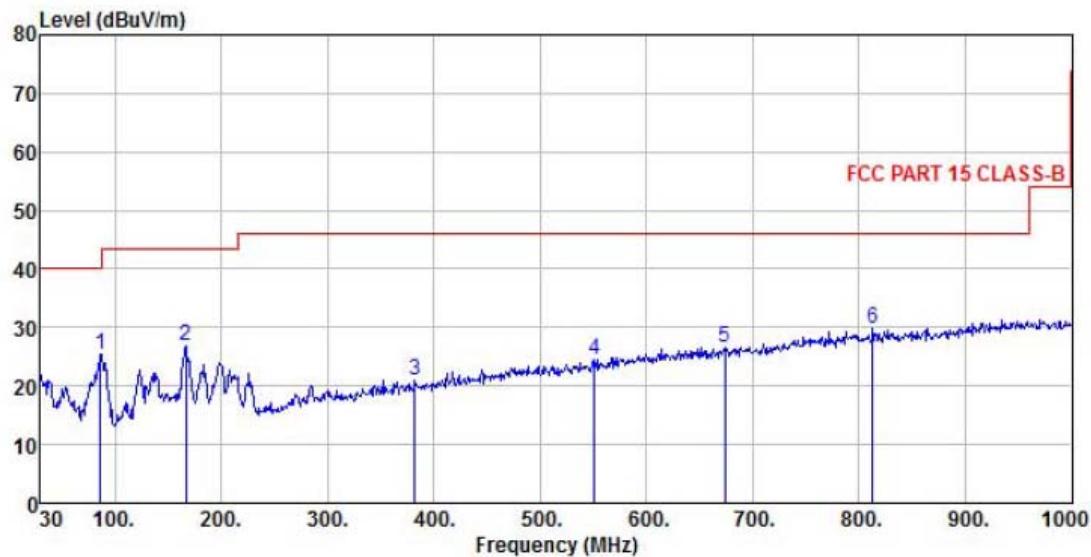
Site : chamber
Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL
EUT :
Model Name : F800
Temp/Humi : 17 °C /50 %
Power Rating:
Mode : BT CH19
Memo :

| Read | Antenna | Cable | Preamp | Limit | Over | | | |
|------|---------|--------|--------|--------|-------|------|-------|--------|
| Freq | Level | Factor | Loss | Factor | Level | Line | Limit | Remark |

| | MHz | dBuV | dB/m | dB | dB | dBuV/m | dBuV/m | dB |
|------|--------|-------|-------|------|------|--------|--------|-------------|
| 1 | 165.80 | 11.36 | 13.55 | 1.77 | 0.00 | 26.68 | 43.50 | -16.82 Peak |
| 2 | 267.65 | 8.36 | 12.40 | 2.21 | 0.00 | 22.97 | 46.00 | -23.03 Peak |
| 3 | 331.67 | 9.42 | 13.91 | 2.48 | 0.00 | 25.81 | 46.00 | -20.19 Peak |
| 4 | 613.94 | 3.83 | 19.19 | 3.39 | 0.00 | 26.41 | 46.00 | -19.59 Peak |
| 5 | 721.61 | 4.17 | 20.56 | 3.68 | 0.00 | 28.41 | 46.00 | -17.59 Peak |
| 6 pp | 875.84 | 3.73 | 22.09 | 3.96 | 0.00 | 29.78 | 46.00 | -16.22 Peak |

Bluetooth V4.1 LE GFSK Channel 19

Polarity: Vertical



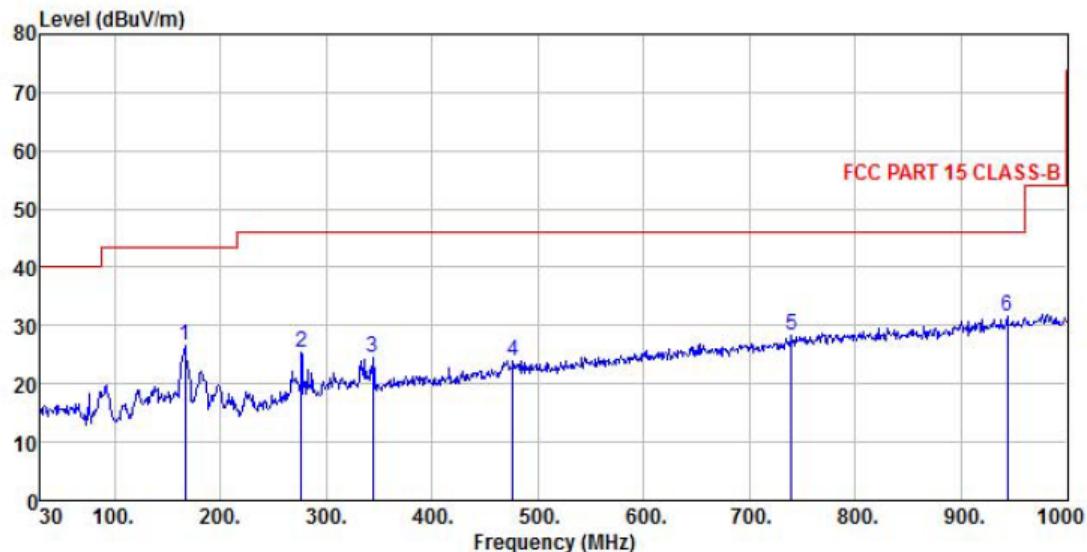
Site : chamber
Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL
EUT :
Model Name : F800
Temp/Humi : 17 °C /50 %
Power Rating:
Mode : BT CH19
Memo :

| ReadAntenna | Cable | Preamp | Limit | Over | | | | |
|-------------|-------|--------|-------|--------|-------|------|-------|--------|
| Freq | Level | Factor | Loss | Factor | Level | Line | Limit | Remark |

| | MHz | dBuV | dB/m | dB | dB | dBuV/m | dBuV/m | dB |
|------|--------|-------|-------|------|------|--------|--------|-------------|
| 1 pp | 86.26 | 15.50 | 8.89 | 1.09 | 0.00 | 25.48 | 40.00 | -14.52 Peak |
| 2 | 166.77 | 11.65 | 13.44 | 1.79 | 0.00 | 26.88 | 43.50 | -16.62 Peak |
| 3 | 382.11 | 3.41 | 14.92 | 2.75 | 0.00 | 21.08 | 46.00 | -24.92 Peak |
| 4 | 550.89 | 3.37 | 17.92 | 3.18 | 0.00 | 24.47 | 46.00 | -21.53 Peak |
| 5 | 674.08 | 3.21 | 19.82 | 3.56 | 0.00 | 26.59 | 46.00 | -19.41 Peak |
| 6 | 812.79 | 4.14 | 21.85 | 3.82 | 0.00 | 29.81 | 46.00 | -16.19 Peak |

Bluetooth V4.1 LE GFSK Channel 39

Polarity: Horizontal



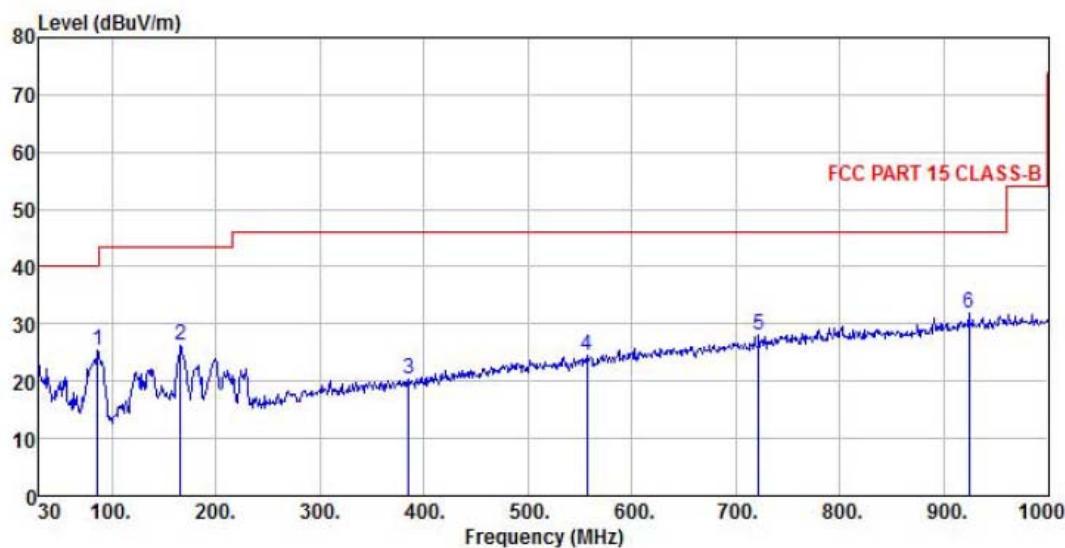
Site : chamber
Condition : FCC PART 15 CLASS-B 3m VULB9160 HORIZONTAL
EUT :
Model Name : F800
Temp/Humi : 17 °C /50 %
Power Rating:
Mode : BT CH39
Memo :

| ReadAntenna | Cable | Preamp | Limit | Over | | | |
|-------------|-------|--------|-------|--------|-------|------|--------|
| Freq | Level | Factor | Loss | Factor | Level | Line | Remark |

| | MHz | dBuV | dB/m | dB | dB | dBuV/m | dBuV/m | dB |
|------|--------|-------|-------|------|------|--------|--------|-------------|
| 1 | 166.77 | 11.24 | 13.44 | 1.79 | 0.00 | 26.47 | 43.50 | -17.03 Peak |
| 2 | 276.38 | 10.50 | 12.67 | 2.21 | 0.00 | 25.38 | 46.00 | -20.62 Peak |
| 3 | 344.28 | 7.74 | 14.17 | 2.54 | 0.00 | 24.45 | 46.00 | -21.55 Peak |
| 4 | 476.20 | 4.27 | 16.81 | 2.97 | 0.00 | 24.05 | 46.00 | -21.95 Peak |
| 5 | 740.04 | 3.46 | 21.06 | 3.77 | 0.00 | 28.29 | 46.00 | -17.71 Peak |
| 6 pp | 943.74 | 4.09 | 23.31 | 4.13 | 0.00 | 31.53 | 46.00 | -14.47 Peak |

Bluetooth V4.1 LE GFSK Channel 39

Polarity: Vertical



Site : chamber
Condition : FCC PART 15 CLASS-B 3m VULB9160 VERTICAL
EUT :
Model Name : F800
Temp/Humi : 17 °C /50 %
Power Rating:
Mode : BT CH39
Memo :

ReadAntenna Cable Preamp Limit Over
Freq Level Factor Loss Factor Level Line Limit Remark

| | MHz | dBuV | dB/m | dB | dB | dBuV/m | dBuV/m | dB |
|------|--------|-------|-------|------|------|--------|--------|-------------|
| 1 | 86.26 | 15.49 | 8.89 | 1.09 | 0.00 | 25.47 | 40.00 | -14.53 Peak |
| 2 | 165.80 | 11.08 | 13.55 | 1.77 | 0.00 | 26.40 | 43.50 | -17.10 Peak |
| 3 | 385.02 | 2.60 | 14.97 | 2.73 | 0.00 | 20.30 | 46.00 | -25.70 Peak |
| 4 | 556.71 | 3.31 | 18.07 | 3.22 | 0.00 | 24.60 | 46.00 | -21.40 Peak |
| 5 | 721.61 | 3.68 | 20.56 | 3.68 | 0.00 | 27.92 | 46.00 | -18.08 Peak |
| 6 pp | 924.34 | 4.76 | 22.92 | 4.10 | 0.00 | 31.78 | 46.00 | -14.22 Peak |

From 1GHz to 25GHz:

Only show the worst test data when EUT was operated on different mode.

EUT operation mode : BT GFSK(Ch0/Ch19/Ch39)

Bluetooth V4.1 LE GFSK Channel 0

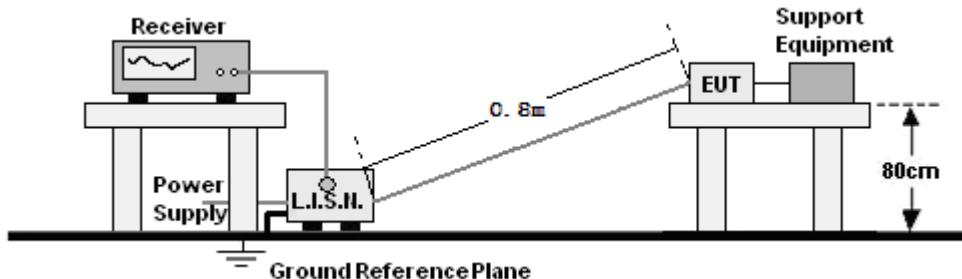
| Frequency (MHz) | Reading (dBuV) | Correct Factor(dB) | Antenna Polarity | Total (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector Type |
|-----------------|----------------|--------------------|------------------|----------------|----------------|-------------|---------------|
| 2402 | 104.89 | -3.55 | Horizontal | 100.45 | / | / | Peak |
| 4804 | 41.67 | 4.72 | Horizontal | 46.39 | 74 | 27.61 | Peak |
| 7206 | 43.83 | 10.83 | Horizontal | 54.66 | 74 | 19.34 | Peak |
| 2402 | 105.15 | -3.55 | Vertical | 101.60 | / | / | Peak |
| 4804 | 39.94 | 4.72 | Vertical | 44.66 | 74 | 29.34 | Peak |
| 7206 | 41.88 | 10.83 | Vertical | 52.71 | 74 | 21.29 | Peak |

Note:

- 1, Total=Reading + Correct factor;
- 2, 2402 MHz was fundamental signal which can be ignored;
- 3, Average measurement was not performed if peak level were lower than the average limit;
- 4, Other harmonics are lower than background noise.

10. AC POWER LINE CONDUCTED EMISSIONS

10.1 TEST SETUP



10.2 LIMITS

| Frequency range (MHz) | Limits dB(μ V) | |
|--------------------------|------------------------|----------|
| | Quasi-peak | Average |
| 0,15 to 0,50 | 66 to 56 | 56 to 46 |
| 0,50 to 5 | 56 | 46 |
| 5 to 30 | 60 | 50 |

NOTE: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 to 0.50 MHz.

10.3 TEST PROCEDURE

According to description of ANSI C63.4: 2009 sec.13.1.3, the AC power line preliminary conducted emissions measurements were carried out. The preliminary conducted measurements were performed using the spectrum analyzer to observe the emission characteristics of the EUT. The EUT configuration, cable configuration and mode of operation were determined for producing the maximum level of emissions. These configurations were used for final AC power line conducted emissions measurements. The EUT is placed on a non-metallic table 0.8m above the horizontal metal reference ground plane. The EUT is connected to LISN and LISN is connected to the reference ground. All other supplemental devices are connected with EUT through other LISN. The distance between EUT and LISN is 80cm. A radio link is established between EUT and the tester. The output power of the EUT is controlled by the tester and driven to maximum value. An initial pre-scan was performed on the live L line and neutral line with peak detector (9kHz RBW). Both average detector and quasi-peak detector are performed at the frequencies with maximized peak emission.

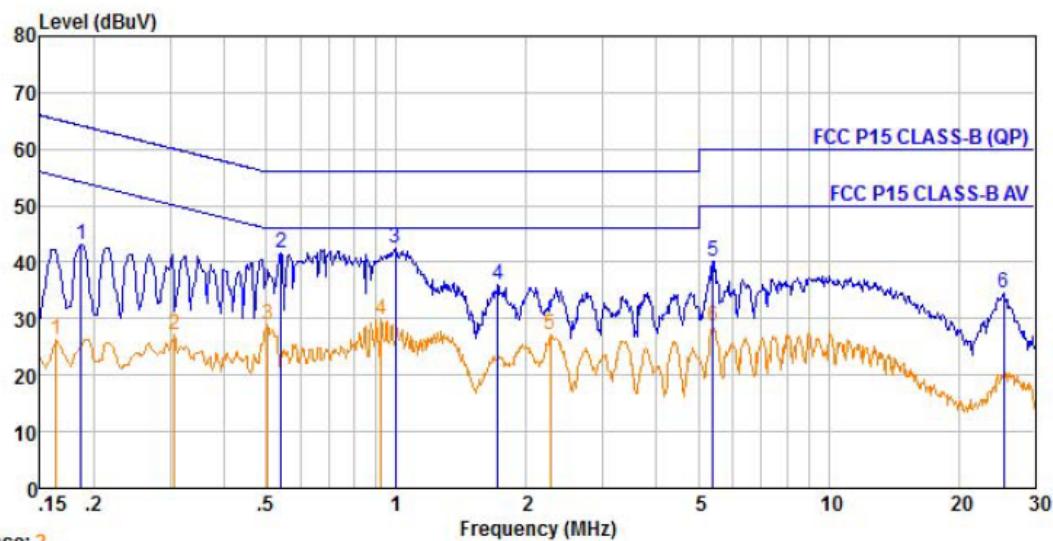
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

10.4 RESULTS & PERFORMANCE

Only show the worst test data when EUT was operated on different mode.
EUT operation mode: Ch0/Ch19/Ch39

Test mode: Mode 1

Bluetooth V4.1 LE GFSK Channel 0

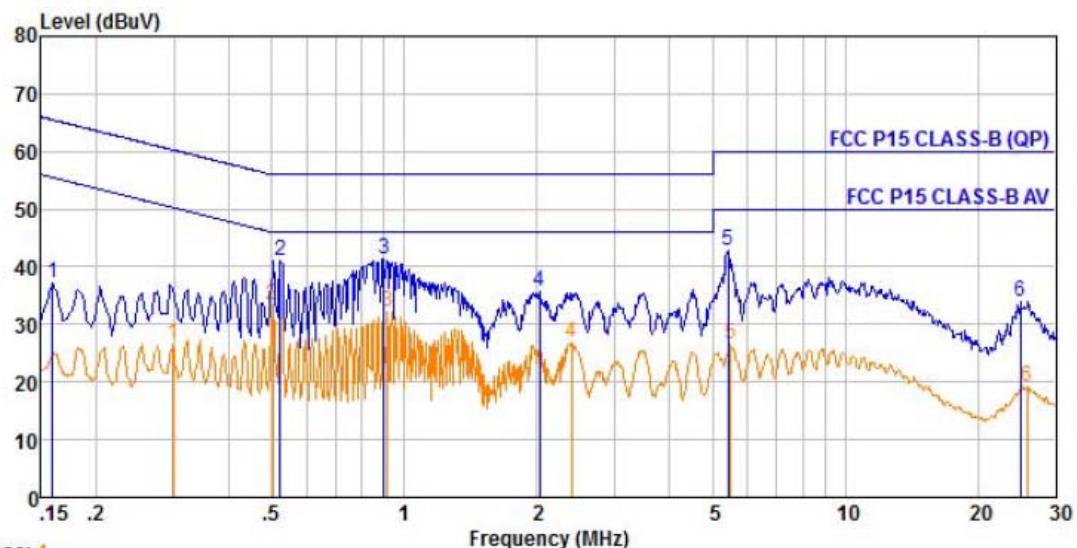


Trace: 2

Site : chamber
Condition : FCC P15 CLASS-B (QP) ENV216(L) LINE
EUT :
Model Name : F800
Temp/Humi : 17°C / 50 %
Power Rating:
Mode : BT CHO
Memo :

Read LISN Cable Preamp Limit Over
Freq Level Factor Loss Factor Level Line Limit Remark

| | MHz | Read | LISN | Cable | Preamp | Limit | Over | |
|------|-------|-------|--------|-------|--------|-------|-------|-------------|
| | Freq | Level | Factor | Loss | Factor | Level | Line | Limit |
| | MHz | dBuV | dB | dB | dB | dBuV | dBuV | dB |
| 1 | 0.19 | 33.43 | 9.46 | 0.23 | 0.00 | 43.12 | 64.20 | -21.08 Peak |
| 2 | 0.54 | 31.66 | 9.73 | 0.11 | 0.00 | 41.50 | 56.00 | -14.50 Peak |
| 3 pp | 0.99 | 32.70 | 9.67 | 0.14 | 0.00 | 42.51 | 56.00 | -13.49 Peak |
| 4 | 1.72 | 26.14 | 9.68 | 0.15 | 0.00 | 35.97 | 56.00 | -20.03 Peak |
| 5 | 5.39 | 30.43 | 9.65 | 0.17 | 0.00 | 40.25 | 60.00 | -19.75 Peak |
| 6 | 25.46 | 24.01 | 10.28 | 0.12 | 0.00 | 34.41 | 60.00 | -25.59 Peak |



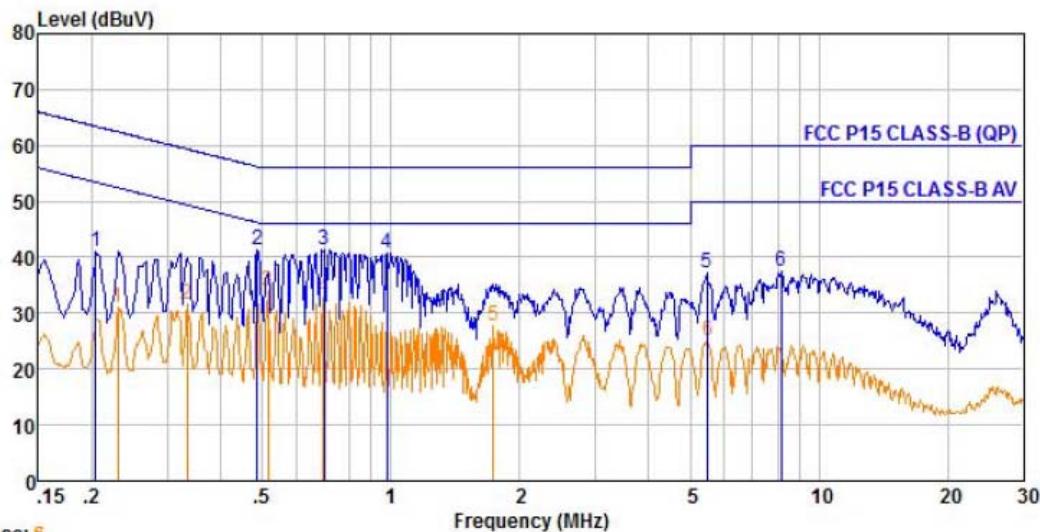
Trace: 4

Site : chamber
Condition : FCC P15 CLASS-B (QP) ENV216(N) NEUTRAL
EUT :
Model Name : F800
Temp/Humi : 17°C / 50 %
Power Rating:
Mode : BT CHO
Memo :

Read LISN Cable Preamp Limit Over
Freq Level Factor Loss Factor Level Line Limit Remark

| | MHz | dBuV | dB | dB | dB | dBuV | dBuV | dB |
|------|-------|-------|------|------|------|-------|-------|-------------|
| 1 | 0.16 | 27.49 | 9.63 | 0.09 | 0.00 | 37.21 | 65.52 | -28.31 Peak |
| 2 | 0.52 | 31.53 | 9.53 | 0.10 | 0.00 | 41.16 | 56.00 | -14.84 Peak |
| 3 pp | 0.90 | 31.67 | 9.64 | 0.13 | 0.00 | 41.44 | 56.00 | -14.56 Peak |
| 4 | 2.02 | 25.80 | 9.64 | 0.15 | 0.00 | 35.59 | 56.00 | -20.41 Peak |
| 5 | 5.42 | 33.00 | 9.54 | 0.18 | 0.00 | 42.72 | 60.00 | -17.28 Peak |
| 6 | 24.92 | 23.76 | 9.95 | 0.12 | 0.00 | 33.83 | 60.00 | -26.17 Peak |

Bluetooth V4.1 LE GFSK Channel 19

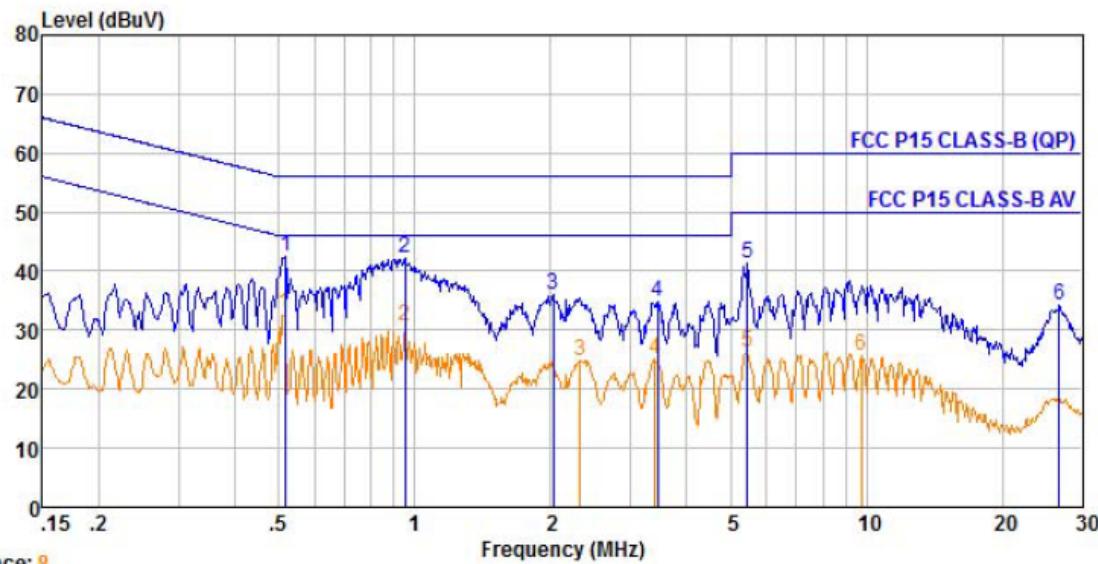


Trace: 6

Site : chamber
Condition : FCC P15 CLASS-B (QP) ENV216(L) LINE
EUT :
Model Name : F800
Temp/Humi : 17°C / 50 %
Power Rating:
Mode : BT CH19
Memo :

Read LISN Cable Preamp Limit Over
Freq Level Factor Loss Factor Level Line Limit Remark

| | MHz | dBuV | dB | dB | dB | dBuV | dBuV | dB |
|------|------|-------|------|------|------|-------|-------|-------------|
| 1 | 0.20 | 31.31 | 9.46 | 0.22 | 0.00 | 40.99 | 63.45 | -22.46 Peak |
| 2 | 0.49 | 31.47 | 9.75 | 0.10 | 0.00 | 41.32 | 56.23 | -14.91 Peak |
| 3 pp | 0.70 | 31.61 | 9.68 | 0.12 | 0.00 | 41.41 | 56.00 | -14.59 Peak |
| 4 | 0.98 | 30.96 | 9.67 | 0.14 | 0.00 | 40.77 | 56.00 | -15.23 Peak |
| 5 | 5.48 | 27.26 | 9.65 | 0.18 | 0.00 | 37.09 | 60.00 | -22.91 Peak |
| 6 | 8.15 | 27.67 | 9.67 | 0.29 | 0.00 | 37.63 | 60.00 | -22.37 Peak |

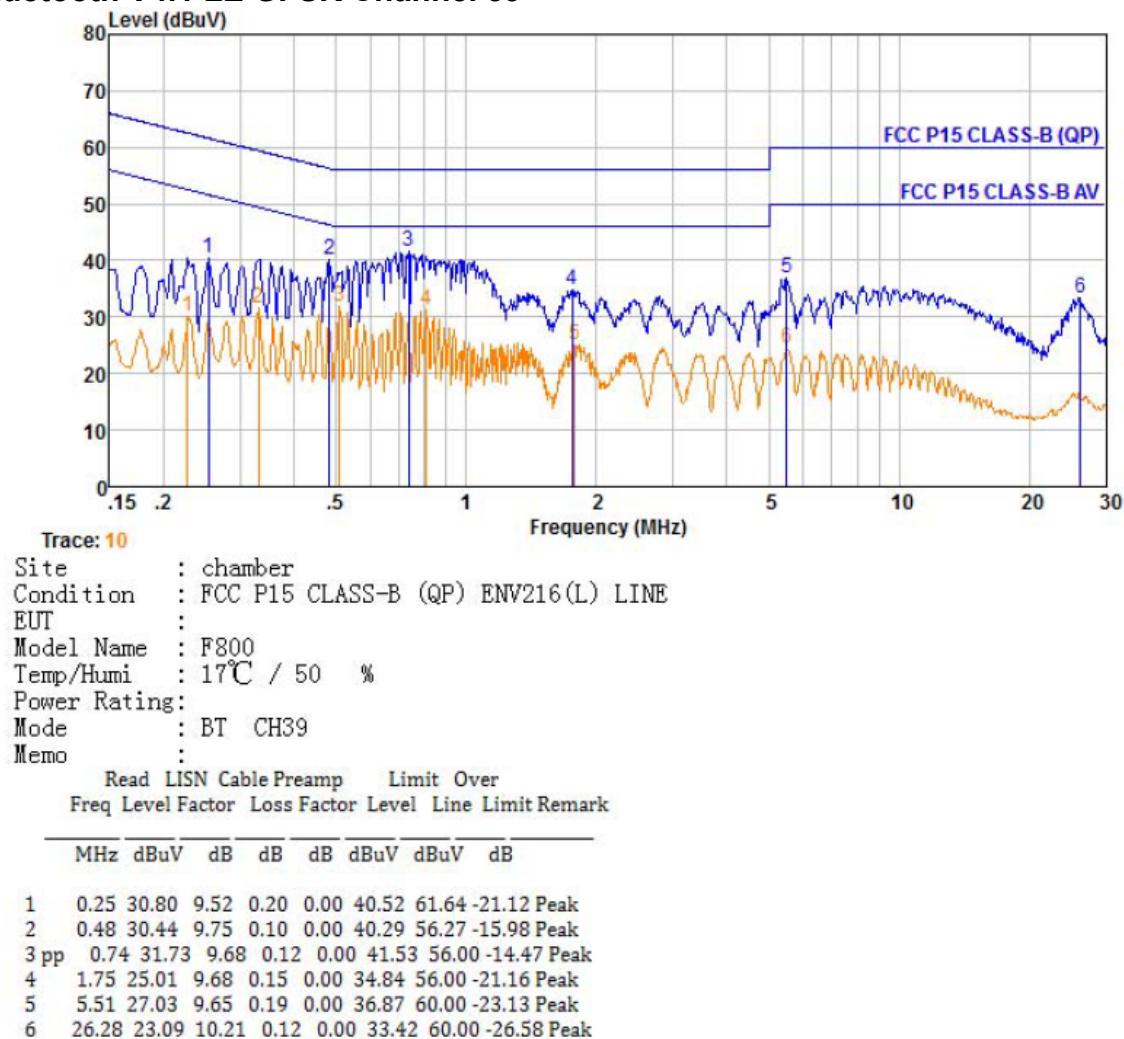


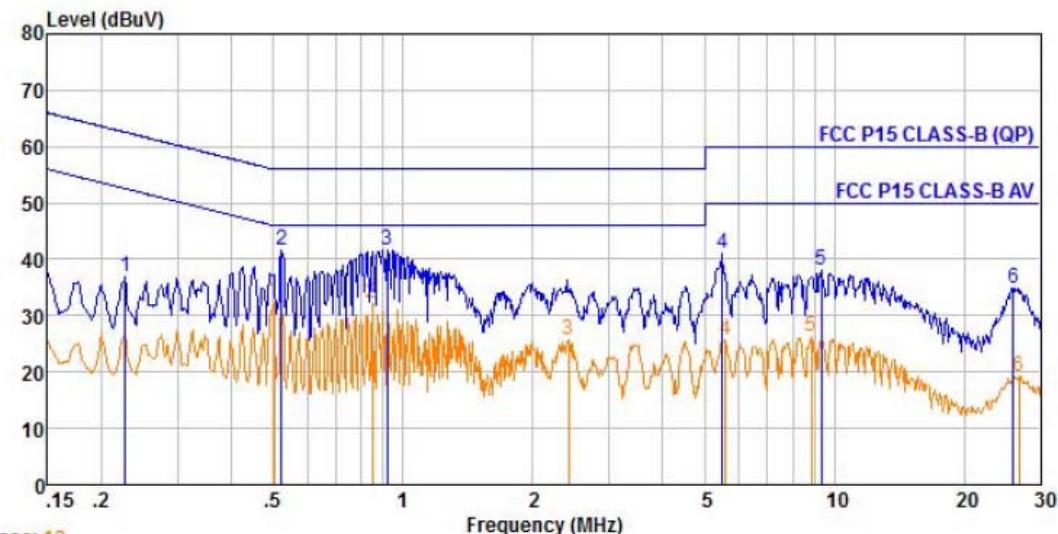
Trace: 8
Site : chamber
Condition : FCC P15 CLASS-B (QP) ENV216(N) NEUTRAL
EUT :
Model Name : F800
Temp/Humi : 17°C / 50 %
Power Rating:
Mode : BT CH19
Memo :

Read LISN Cable Preamp Limit Over
Freq Level Factor Loss Factor Level Line Limit Remark

| | MHz | dBuV | dB | dB | dB | dBuV | dBuV | dB |
|------|-------|-------|-------|------|------|-------|-------|-------------|
| 1 pp | 0.52 | 33.00 | 9.53 | 0.10 | 0.00 | 42.63 | 56.00 | -13.37 Peak |
| 2 | 0.95 | 32.30 | 9.64 | 0.14 | 0.00 | 42.08 | 56.00 | -13.92 Peak |
| 3 | 2.02 | 26.20 | 9.64 | 0.15 | 0.00 | 35.99 | 56.00 | -20.01 Peak |
| 4 | 3.45 | 25.14 | 9.59 | 0.15 | 0.00 | 34.88 | 56.00 | -21.12 Peak |
| 5 | 5.45 | 31.48 | 9.55 | 0.18 | 0.00 | 41.21 | 60.00 | -18.79 Peak |
| 6 | 26.70 | 24.04 | 10.18 | 0.12 | 0.00 | 34.34 | 60.00 | -25.66 Peak |

Bluetooth V4.1 LE GFSK Channel 39





Site : chamber
Condition : FCC P15 CLASS-B (QP) ENV216(N) NEUTRAL
EUT :
Model Name : F800
Temp/Humi : 17°C / 50 %
Power Rating:
Mode : BT CH39
Memo :
Read LISN Cable Preamp Limit Over
Freq Level Factor Loss Factor Level Line Limit Remark

| | MHz | dBuV | dB | dB | dB | dBuV | dBuV | dB |
|------|-------|-------|-------|------|------|-------|-------|-------------|
| 1 | 0.23 | 27.29 | 9.43 | 0.22 | 0.00 | 36.94 | 62.57 | -25.63 Peak |
| 2 | 0.52 | 31.93 | 9.53 | 0.10 | 0.00 | 41.56 | 56.00 | -14.44 Peak |
| 3 pp | 0.92 | 31.92 | 9.64 | 0.13 | 0.00 | 41.69 | 56.00 | -14.31 Peak |
| 4 | 5.51 | 31.25 | 9.55 | 0.19 | 0.00 | 40.99 | 60.00 | -19.01 Peak |
| 5 | 9.30 | 28.32 | 9.62 | 0.25 | 0.00 | 38.19 | 60.00 | -21.81 Peak |
| 6 | 26.00 | 24.76 | 10.09 | 0.12 | 0.00 | 34.97 | 60.00 | -25.03 Peak |

APPENDIX 1 PHOTOGRAHPS OF TEST SETUP

Please refer to the file named “Part 15C Setup Photos”.

APPENDIX 2 PHOTOGRAHPS OF EUT

Please refer to the files named “EUT External Photos” and “EUT Internal Photos”.

----End of the report----