# TEST REPORT

## No. I22N00681-BLE

**TCL Communication Ltd.**

**Tablet PC**

**Model Name:9460G**

**with**

**Hardware Version: PIO**

**Software Version: vDT8J**

**FCC ID: 2ACCJB179**

**Issued Date: 2022-03-28**

**Designation Number: CN1210**

**Note:**

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of SAICT.


**Test Laboratory:**

**Shenzhen Academy of Information and Communications Technology**

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# 1. Summary of Test Report

## 1.1. Test Items

| | |
|---|---|
| Description | Tablet PC |
| Model Name | 9460G |
| Applicant's name | TCL Communication Ltd. |
| Manufacturer's Name | TCL Communication Ltd. |

## 1.2. Test Standards

FCC Part15-2019; ANSI C63.10-2013

## 1.3. Test Result

**Pass**

Please refer to 5.2 Test Results.

## 1.4. Testing Location

Address: Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China

## 1.5. Project data

| | |
|---|---|
| Testing Start Date: | 2022-02-04 |
| Testing End Date: | 2022-02-24 |

## 1.6. Signature

**Ma Rui**

**(Prepared this test report)**

**An Ran**

**(Reviewed this test report)**

**Zhang Bojun**

**(Approved this test report)**

# 2. Client Information

## 2.1. Applicant Information

| | |
|---|---|
| Company Name: | TCL Communication Ltd. |
| Address: | 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong |
| Contact Person: | Peter yang |
| E-Mail: | peter.yang@tcl.com |
| Telephone: | +86 755 3664 5759 |
| FAX: | 0086-755-36612000-81722 |

## 2.2. Manufacturer Information

| | |
|---|---|
| Company Name: | TCL Communication Ltd. |
| Address: | 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong |
| Contact Person: | Peter yang |
| E-Mail: | peter.yang@tcl.com |
| Telephone: | +86 755 3664 5759 |
| FAX: | 0086-755-36612000-81722 |

# 3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

## 3.1. About EUT

| | |
|---|---|
| Description | Tablet PC |
| Model Name | 9460G |
| Frequency Range | 2400MHz~2483.5MHz |
| Type of Modulation | GFSK |
| Number of Channels | 40 |
| Antenna Type | Integrated |
| Antenna Gain | 0.79 dBi |
| Power Supply | 3.85V DC by Battery |
| FCC ID | 2ACCJB179 |
| Condition of EUT as received | No abnormality in appearance |

## 3.2. Internal Identification of EUT

| EUT ID* | IMEI | HW Version | SW Version | Receive Date |
|---|---|---|---|---|
| UT08aa | 358946220000451 | PIO | vDT8J | 2022-02-04 |
| UT02aa | 358946220000477 | PIO | vDT8J | 2022-02-10 |
| UT01aa | 358946220000485 | PIO | vDT8J | 2022-02-10 |

*EUT ID: is used to identify the test sample in the lab internally.

*UT08aa is used for Conduction test; UT01aa and UT02aa are used for Radiation test and AC Power line Conducted Emission test.

## 3.3. Internal Identification of AE

| AE ID* | Description | SN |
|---|---|---|
| AE1 | Battery | / |
| AE2 | Charger | / |
| AE3 | USB Cable | / |

*AE ID: is used to identify the test sample in the lab internally.

## 3.4. General Description

The Equipment under Test (EUT) is a model of Tablet PC with integrated antenna and battery. It consists of normal options: Lithium Battery and Charger. Manual and specifications of the EUT were provided to fulfil the test. Samples undergoing test were selected by the client.

# 4. Reference Documents

## 4.1. Documents supplied by applicant

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

## 4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

| Reference | Title | Version |
|---|---|---|
| FCC Part15 | FCC CFR 47, Part 15, Subpart C:<br>15.205 Restricted bands of operation;<br>15.209 Radiated emission limits, general requirements;<br>15.247 Operation within the bands 902-928MHz, 2400-2483.5 MHz, and 5725-5850 MHz | 2019 |
| ANSI C63.10 | American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices | 2013 |

# 5. Test Results

## 5.1. Testing Environment

Normal Temperature: 15~35℃

Relative Humidity: 20~75%

## 5.2. Test Results

| No | Test cases | Sub-clause of Part 15C | Verdict |
|---|---|---|---|
| 0 | Antenna Requirement | 15.203 | **P** |
| 1 | Maximum Peak Output Power | 15.247 (b) | **P** |
| 2 | Peak Power Spectral Density | 15.247 (e) | **P** |
| 3 | 6dB Bandwidth | 15.247 (a) | **P** |
| 4 | Band Edges Compliance | 15.247 (d) | **P** |
| 5 | Transmitter Spurious Emission - Conducted | 15.247 (d) | **P** |
| 6 | Transmitter Spurious Emission - Radiated | 15.247, 15.205, 15.209 | **P** |
| 7 | AC Power line Conducted Emission | 15.107, 15.207 | **P** |

See **ANNEX A** for details.

## 5.3. Statements

SAICT has evaluated the test cases requested by the applicant/manufacturer as listed in section 5.2 of this report, for the EUT specified in section 3, according to the standards or reference documents listed in section 4.2.

Disclaimer:

A. After confirmation with the customer, the sample information provided by the customer may affect the validity of the measurement results in this report, and the impact and consequences arising therefrom shall be borne by the customer.

B. The samples in this report are provided by the customer, and the test results are only applicable to the samples received.

# 6. Test Equipments Utilized

### Conducted test system

| No. | Equipment | Model | Serial Number | Manufacturer | Calibration Date | Calibration Period |
|---|---|---|---|---|---|---|
| 1 | Vector Signal Analyzer | FSV40 | 100903 | Rohde & Schwarz | 2022-12-29 | 1 year |
| 2 | Power Sensor | U2021XA | MY55430013 | Agilent | 2022-12-29 | 1 year |
| 3 | Data Acquisiton | U2531A | TW55443507 | Agilent | / | / |

### Radiated emission test system

| No. | Equipment | Model | Serial Number | Manufacturer | Calibration Date | Calibration Period |
|---|---|---|---|---|---|---|
| 1 | LISN | ESH2-Z5 | 100196 | R&S | 2022-12-31 | 1 year |
| 2 | Test Receiver | ESCI | 100701 | R&S | 2022-08-04 | 1 year |
| 3 | Loop Antenna | HLA6120 | 35779 | TESEQ | 2022-05-01 | 3 year |
| 4 | BiLog Antenna | VULB9163 | 9163 329 | Schwarzbeck | 2024-02-15 | 3 year |
| 5 | Horn Antenna | 3117 | 00066585 | ETS-Lindgren | 2025-03-03 | 3 year |
| 6 | Test Receiver | ESR7 | 101675 | R&S | 2022-07-16 | 1 year |
| 7 | Spectrum Analyzer | FSP 40 | 100378 | R&S | 2022-12-10 | 1 year |
| 8 | Chamber | FACT5-2.0 | 4166 | ETS-Lindgren | 2024-05-11 | 3 year |
| 9 | Antenna | QSH-SL-1 8-26-S-20 | 17013 | Q-par | 2024-01-13 | 3 year |
| 10 | Antenna | QSH-SL-2 6-40-K-20 | 17014 | Q-par | 2024-01-09 | 3 year |

### Test software

| No. | Equipment | Manufacturer | Version |
|---|---|---|---|
| 1 | TechMgr Software | CAICT | 2.1.1 |
| 2 | EMC32 | Rohde & Schwarz | 8.53.0 |
| 3 | EMC32 | Rohde & Schwarz | 10.01.00 |

EUT is engineering software provided by the customer to control the transmitting signal.
The EUT was programmed to be in continuously transmitting mode.

### Anechoic chamber

Fully anechoic chamber by ETS-Lindgren

# 7. Laboratory Environment

**Semi-anechoic chamber**

| | |
|---|---|
| Temperature | Min. = 15 ℃, Max. = 35 ℃ |
| Relative humidity | Min. = 20 %, Max. = 75 % |
| Shielding effectiveness | 0.014MHz-1MHz> 60 dB; 1MHz-18000MHz>90 dB |
| Electrical insulation | > 2MΩ |
| Ground system resistance | < 4 Ω |
| Normalised site attenuation (NSA) | < ±4 dB, 3 m distance, from 30 to 1000 MHz |

**Shielded room**

| | |
|---|---|
| Temperature | Min. = 15 ℃, Max. = 35 ℃ |
| Relative humidity | Min. = 20 %, Max. = 75 % |
| Shielding effectiveness | 0.014MHz-1MHz> 60 dB; 1MHz-1000MHz>90 dB |
| Electrical insulation | > 2MΩ |
| Ground system resistance | < 4Ω |

**Fully-anechoic chamber**

| | |
|---|---|
| Temperature | Min. = 15 ℃, Max. = 35 ℃ |
| Relative humidity | Min. = 20 %, Max. = 75 % |
| Shielding effectiveness | 0.014MHz-1MHz> 60 dB; 1MHz-18000MHz>90 dB |
| Electrical insulation | > 2MΩ |
| Ground system resistance | < 4Ω |
| Voltage Standing Wave Ratio (VSWR) | ≤ 6 dB, from 1 to 18 GHz, 3 m distance |
| Uniformity of field strength | Between 0 and 6 dB, from 80 to 6000 MHz |

## 8. Measurement Uncertainty

| Test Name | Uncertainty *(k=2)* | |
|---|---|---|
| 1. RF Output Power - Conducted | 1.32dB | |
| 2. Power Spectral Density - Conducted | 2.32dB | |
| 3. Occupied channel bandwidth - Conducted | 66Hz | |
| 4. Transmitter Spurious Emission - Conducted | 30MHz≤f<1GHz | 1.41dB |
| | 1GHz≤f<7GHz | 1.92dB |
| | 7GHz≤f<13GHz | 2.31dB |
| | 13GHz≤f≤26GHz | 2.61dB |
| 5. Transmitter Spurious Emission - Radiated | 9kHz≤f<30MHz | 1.70dB |
| | 30MHz≤f<1GHz | 4.90dB |
| | 1GHz≤f<18GHz | 4.60dB |
| | 18GHz≤f≤40GHz | 4.10dB |
| 6. AC Power line Conducted Emission | 150kHz≤f≤30MHz | 3.00dB |

# ANNEX A: Detailed Test Results

## A.0 Antenna requirement

**Measurement Limit:**

| Standard | Requirement |
|---|---|
| FCC CRF Part 15.203 | An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded. |

Conclusion: The Directional gains of antenna used for transmitting is 0.79dBi. The RF transmitter uses an integrate antenna without connector.

## A.1 Maximum Peak Output Power

**Method of Measurement: See ANSI C63.10-clause 11.9.1.3**

The maximum peak conducted output power may be measured using a broadband peak RF power meter.

**Measurement Limit:**

| Standard | Limit (dBm) | E.I.R.P Limit (dBm) |
|---|---|---|
| FCC CRF Part 15.247 (b) | < 30 | < 36 |

**Measurement Results:**

| Mode | Frequency (MHz) | Peak Conducted Output Power (dBm) | E.I.R.P (dBm) | Conclusion |
|---|---|---|---|---|
| LE-1M | 2402 (CH0) | -3.60 | -2.81 | **P** |
| | 2440 (CH19) | -2.17 | -1.38 | **P** |
| | 2480 (CH39) | -3.15 | -2.36 | **P** |
| LE-2M | 2402 (CH0) | -3.66 | -2.87 | **P** |
| | 2440 (CH19) | -2.26 | -1.47 | **P** |
| | 2480 (CH39) | -3.21 | -2.42 | **P** |

**Conclusion: Pass**

## A.2 Peak Power Spectral Density

**Method of Measurement: See ANSI C63.10-clause 11.10.2**

**Measurement Limit:**

| Standard | Limit |
|---|---|
| FCC CRF Part 15.247 (e) | < 8 dBm/3 kHz |

**Measurement Results:**

| Mode | Frequency (MHz) | Peak Power Spectral Density (dBm) | | Conclusion |
|---|---|---|---|---|
| LE-1M | 2402 (CH0) | Fig.1 | -20.68 | **P** |
| | 2440 (CH19) | Fig.2 | -19.27 | **P** |
| | 2480 (CH39) | Fig.3 | -20.29 | **P** |
| LE-2M | 2402 (CH0) | Fig.4 | -22.94 | **P** |
| | 2440 (CH19) | Fig.5 | -21.65 | **P** |
| | 2480 (CH39) | Fig.6 | -22.53 | **P** |

**See below for test graphs.**

**Conclusion: PASS**

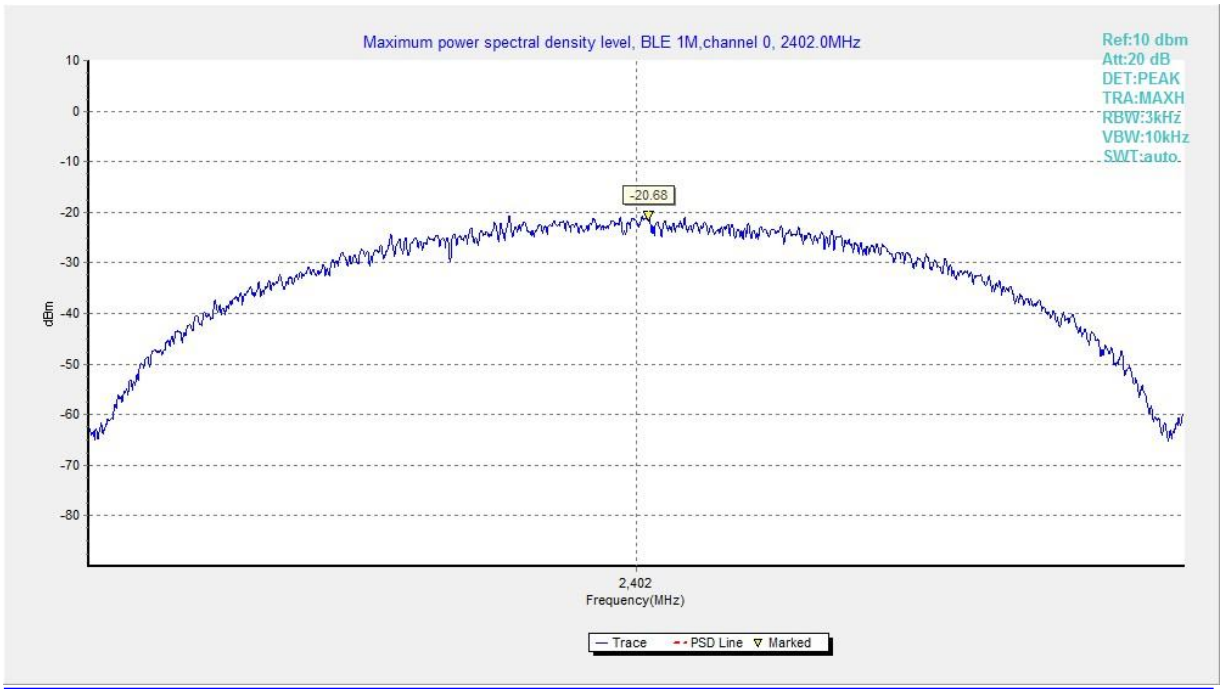


**Fig.1 Power Spectral Density (Ch 0), LE 1M**

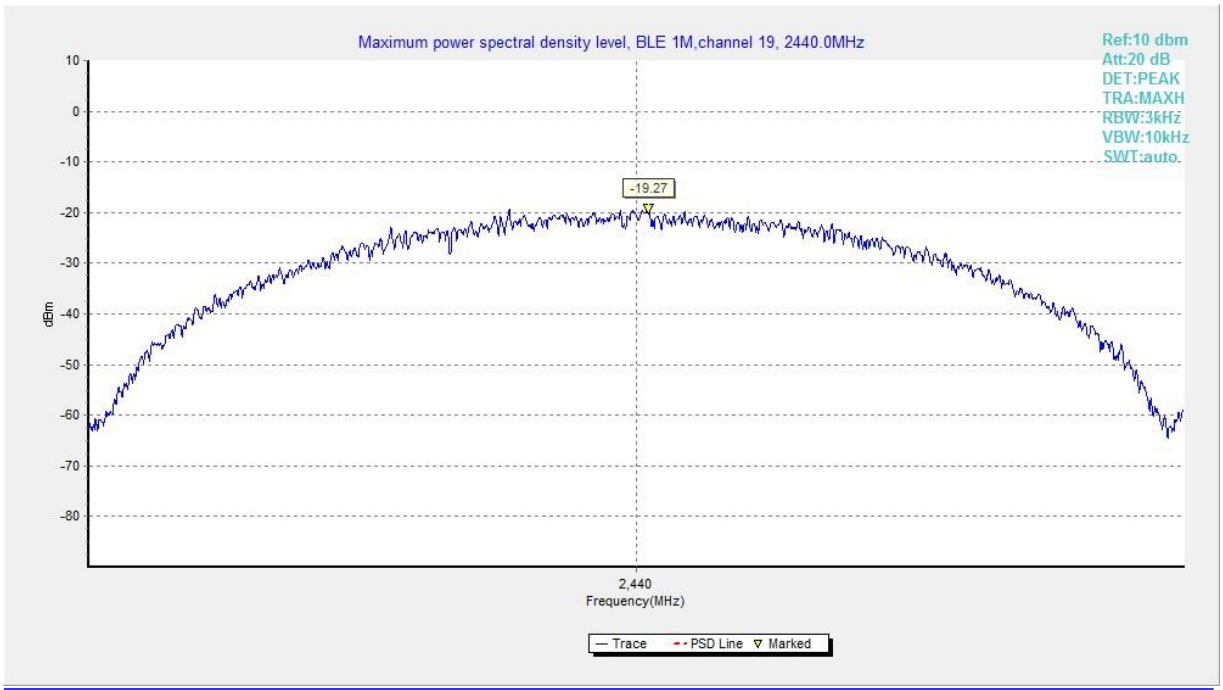


**Fig.2 Power Spectral Density (Ch 19), LE 1M**

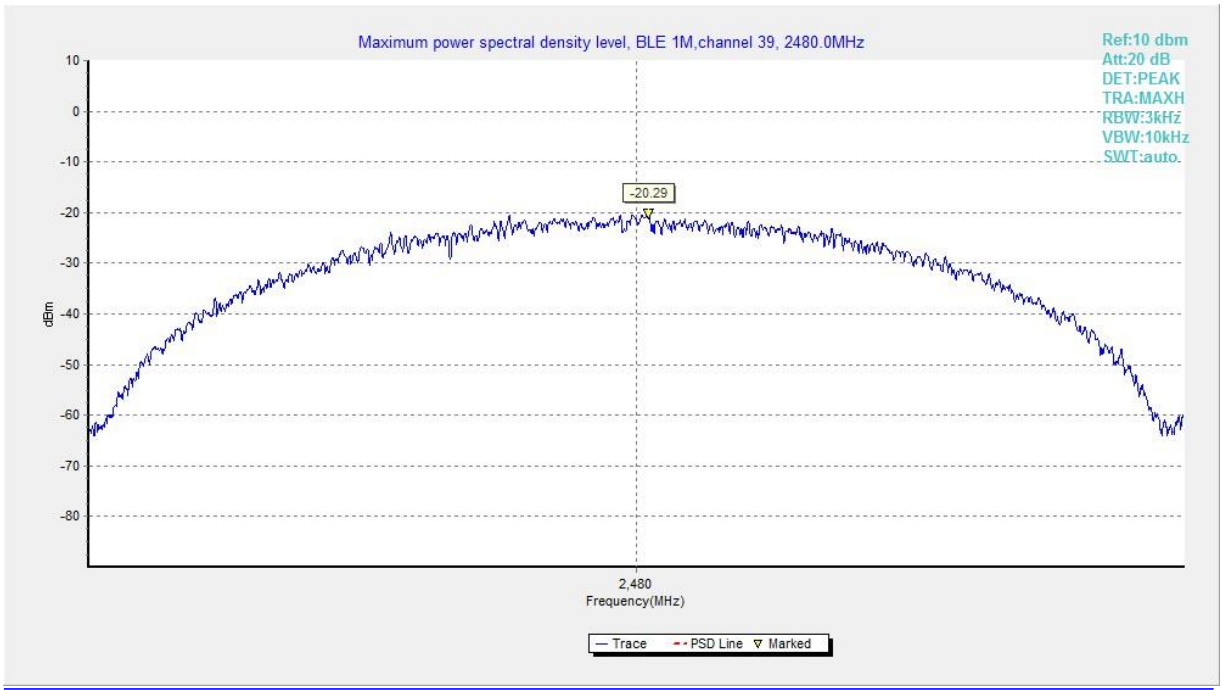


**Fig.3 Power Spectral Density (Ch 39), LE 1M**

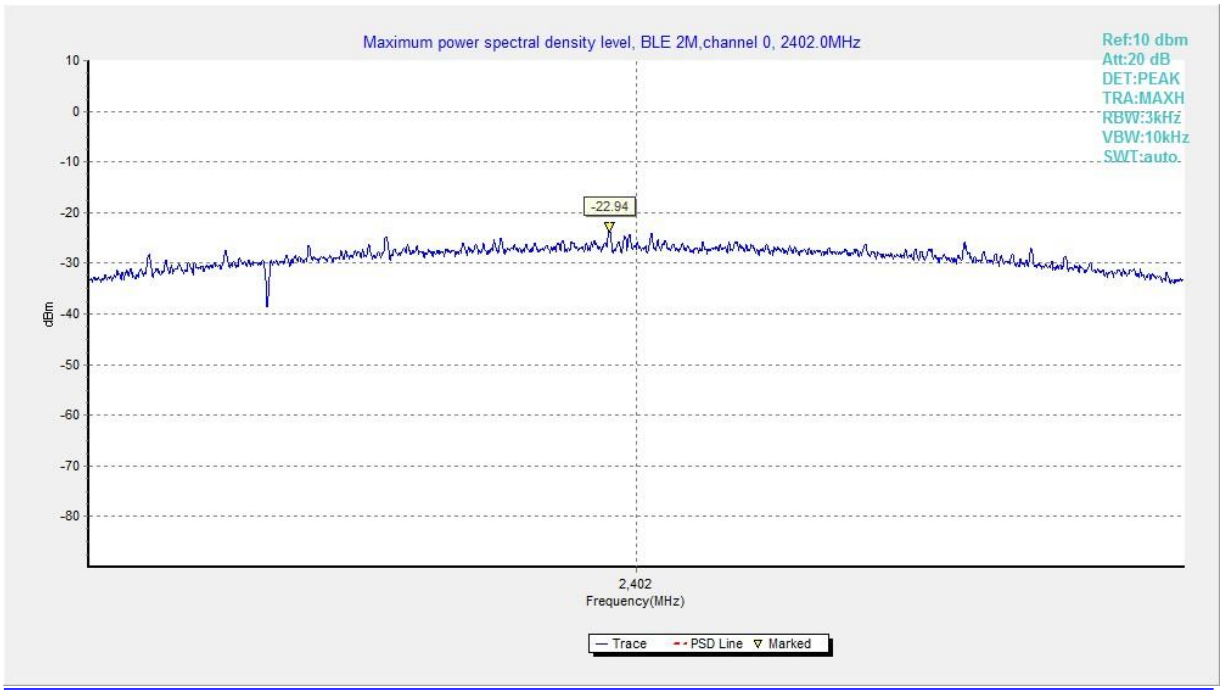


**Fig.4 Power Spectral Density (Ch 0), LE 2M**

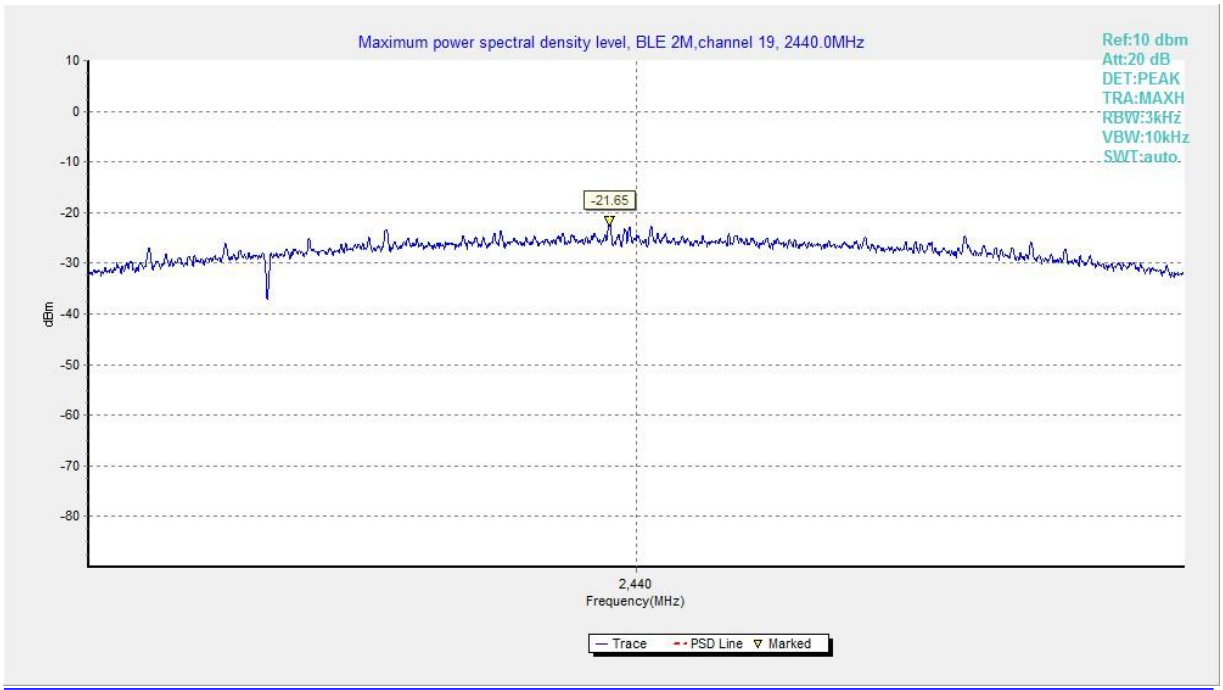


**Fig.5 Power Spectral Density (Ch 19), LE 2M**

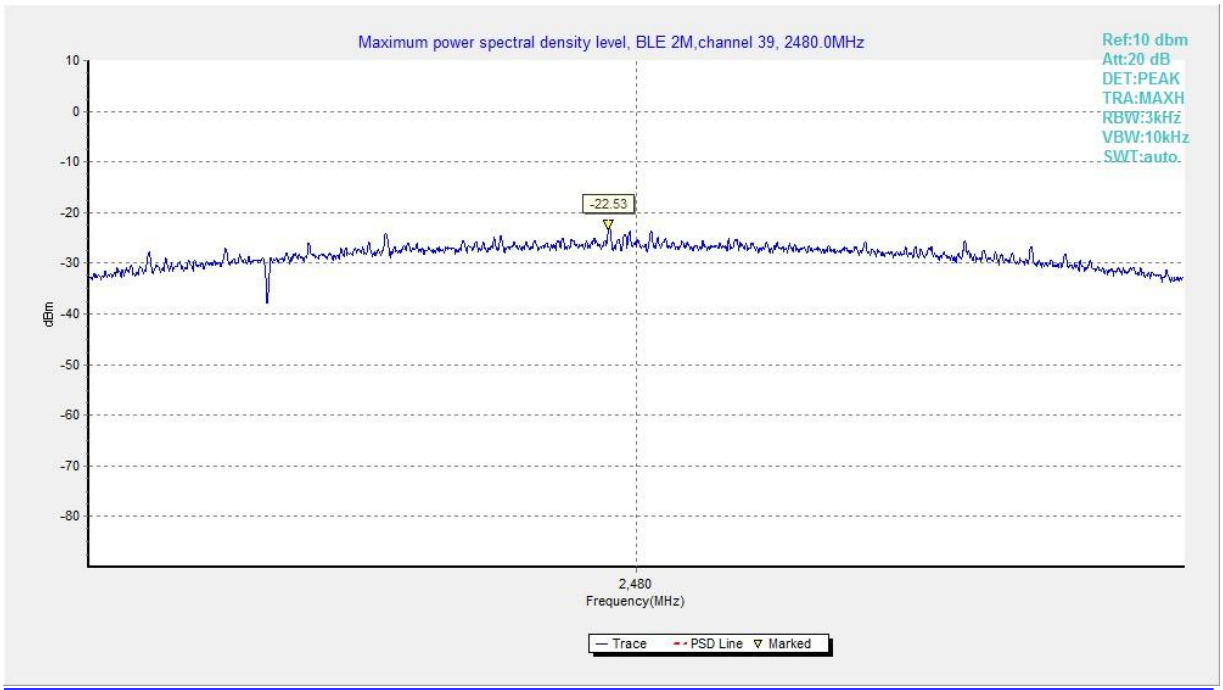


**Fig.6 Power Spectral Density (Ch 39), LE 2M**

## A.3 6dB Bandwidth

**Measurement Limit:**

| Standard | Limit (kHz) |
|---|---|
| FCC 47 CFR Part 15.247 (a) | ≥ 500 |

**Measurement Result:**

| Mode | Frequency (MHz) | Test Results (kHz) | | Conclusion |
|---|---|---|---|---|
| LE-1M | 2402 (CH0) | Fig.7 | 667.50 | **P** |
| | 2440 (CH19) | Fig.8 | 663.50 | **P** |
| | 2480 (CH39) | Fig.9 | 667.50 | **P** |
| LE-2M | 2402 (CH0) | Fig.10 | 1163.00 | **P** |
| | 2440 (CH19) | Fig.11 | 1164.50 | **P** |
| | 2480 (CH39) | Fig.12 | 1164.50 | **P** |

**See below for test graphs.**

**Conclusion: PASS**

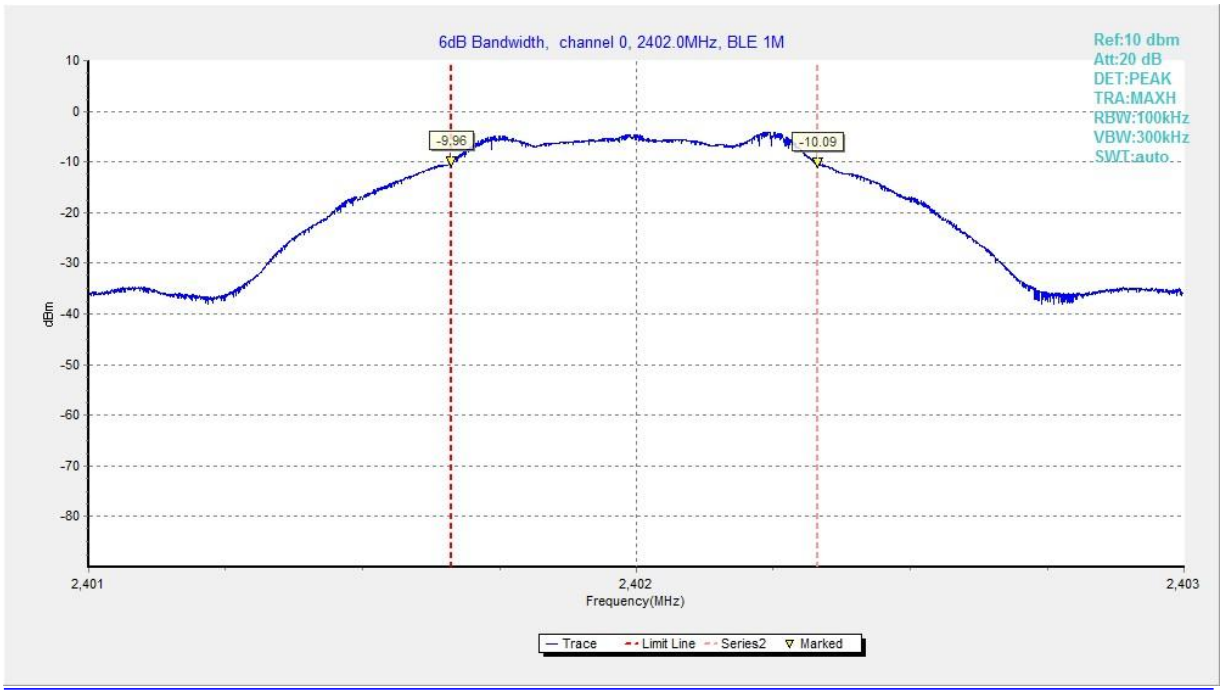


**Fig.7 6dB Bandwidth (Ch 0), LE 1M**

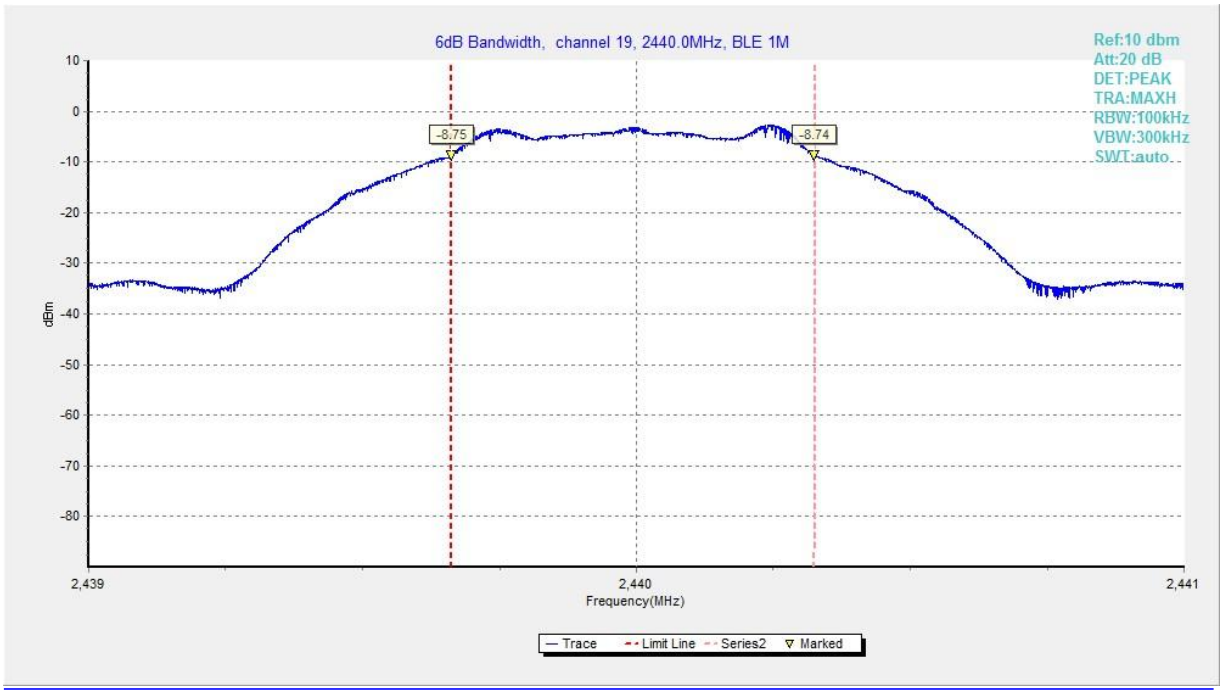


**Fig.8 6dB Bandwidth (Ch 19), LE 1M**

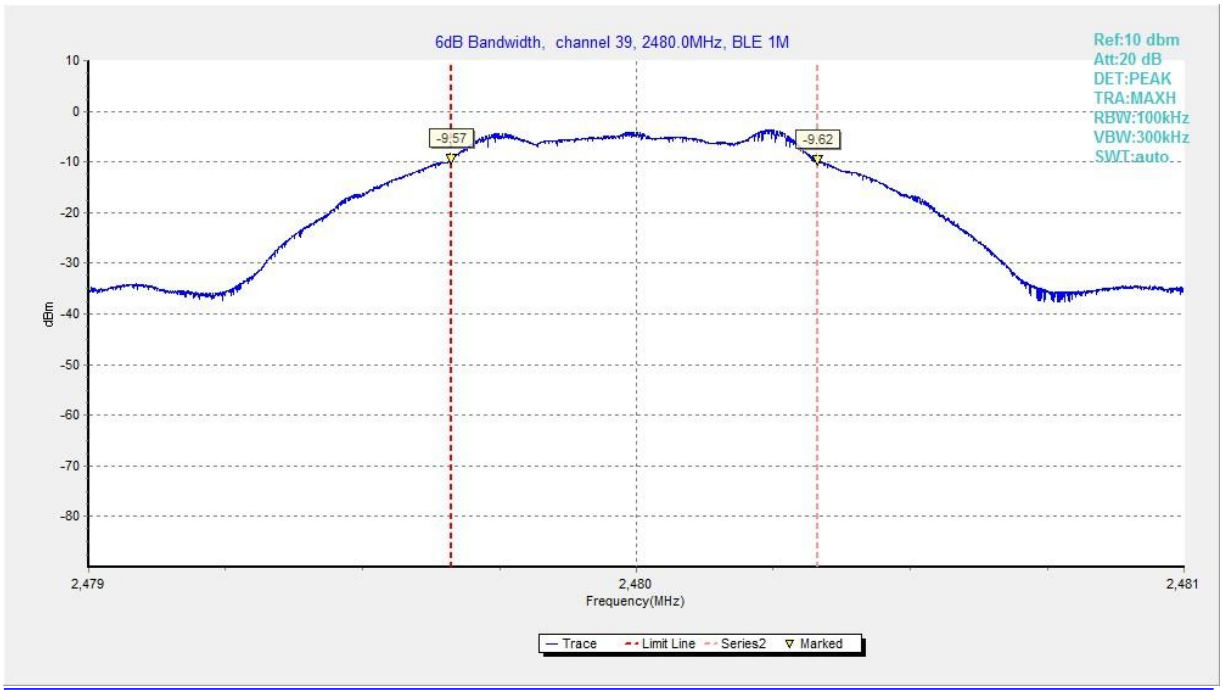


**Fig.9 6dB Bandwidth (Ch 39), LE 1M**

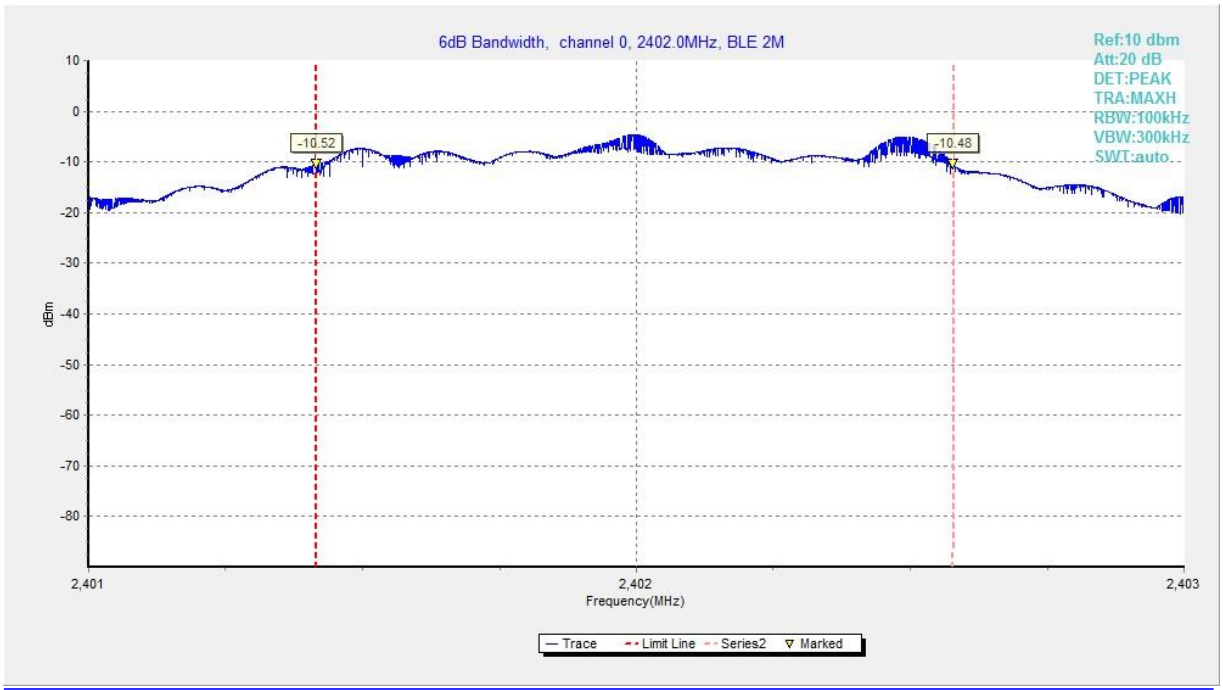


**Fig.10 6dB Bandwidth (Ch 0), LE 2M**

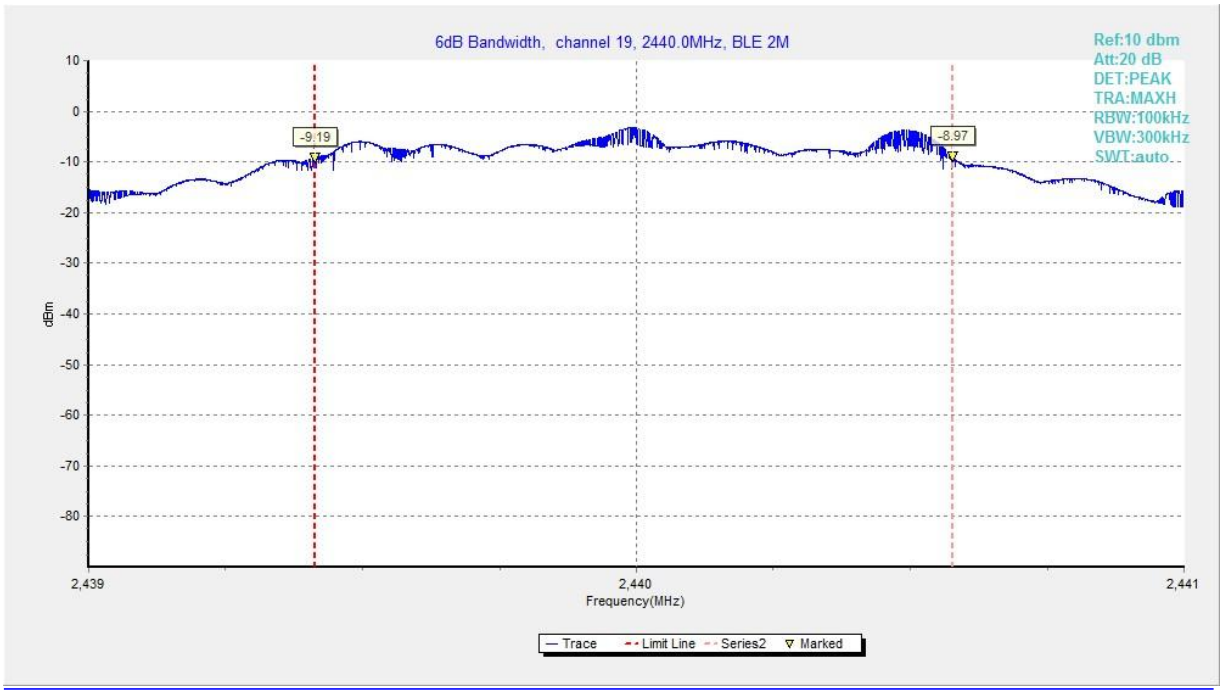


**Fig.11 6dB Bandwidth (Ch 19), LE 2M**

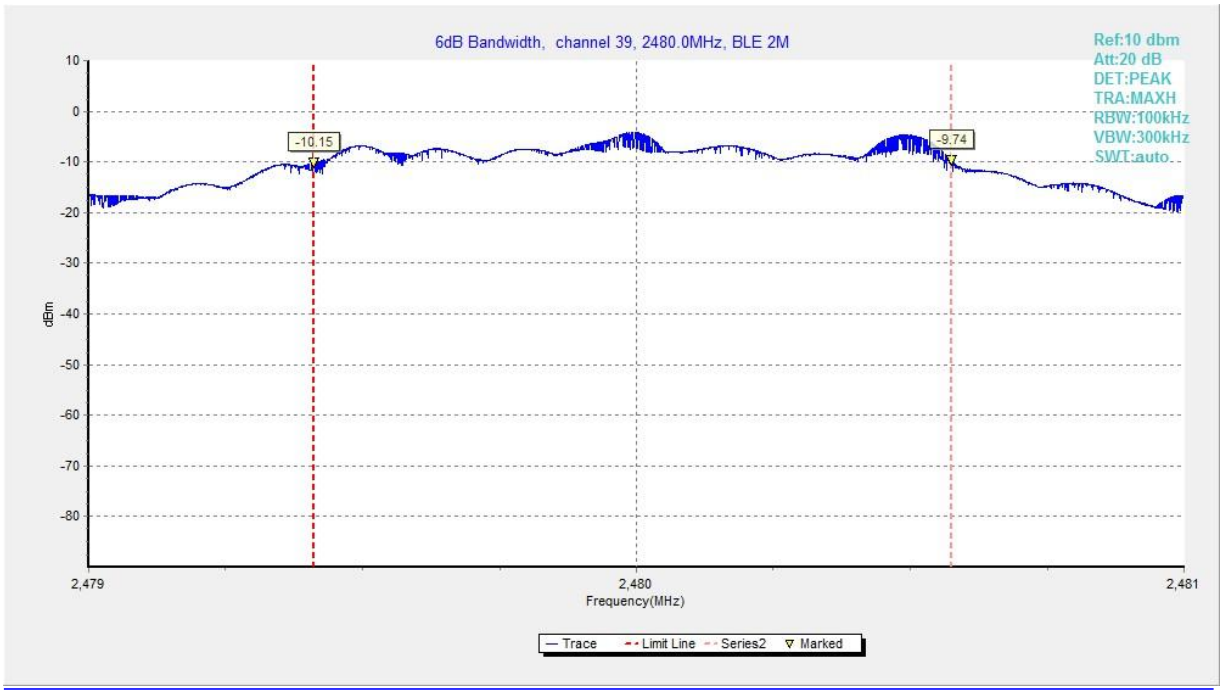


**Fig.12 6dB Bandwidth (Ch 39), LE 2M**

## A.4 Band Edges Compliance

**Measurement Limit:**

| Standard | Limit (dB) |
|---|---|
| FCC 47 CFR Part 15.247 (d) | > 20 |

**Measurement Result:**

| Mode | Frequency (MHz) | Test Results (dB) | | Conclusion |
|---|---|---|---|---|
| LE-1M | 2402 (CH0) | Fig.13 | 56.81 | P |
| | 2480 (CH39) | Fig.14 | 57.20 | P |
| LE-2M | 2402 (CH0) | Fig.15 | 31.12 | P |
| | 2480 (CH39) | Fig.16 | 54.58 | P |

**See below for test graphs.**

**Conclusion: Pass**

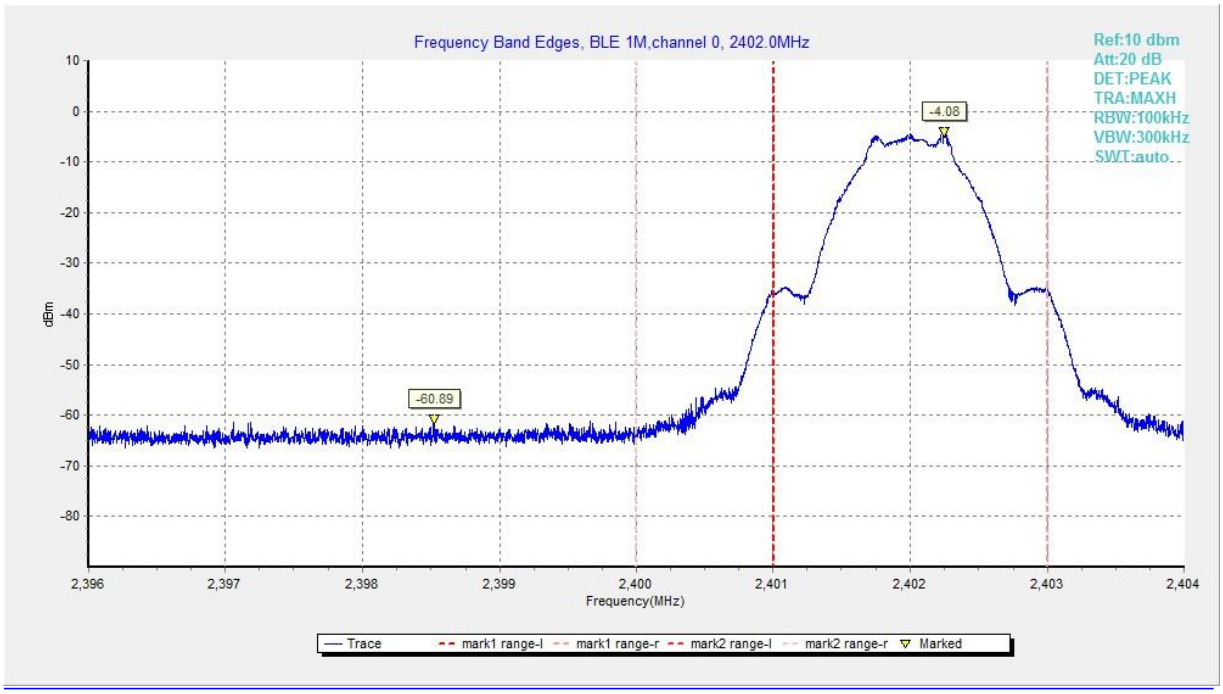


**Fig.13 Band Edges (Ch 0), LE 1M**

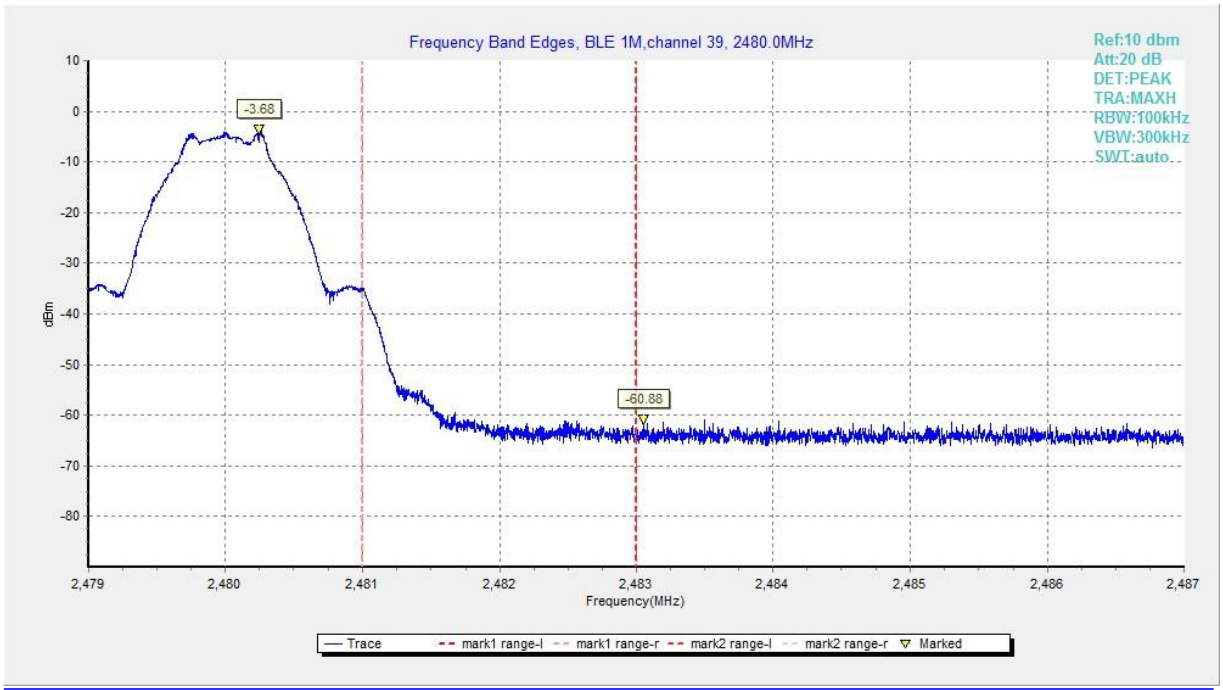


**Fig.14 Band Edges (Ch 39), LE 1M**

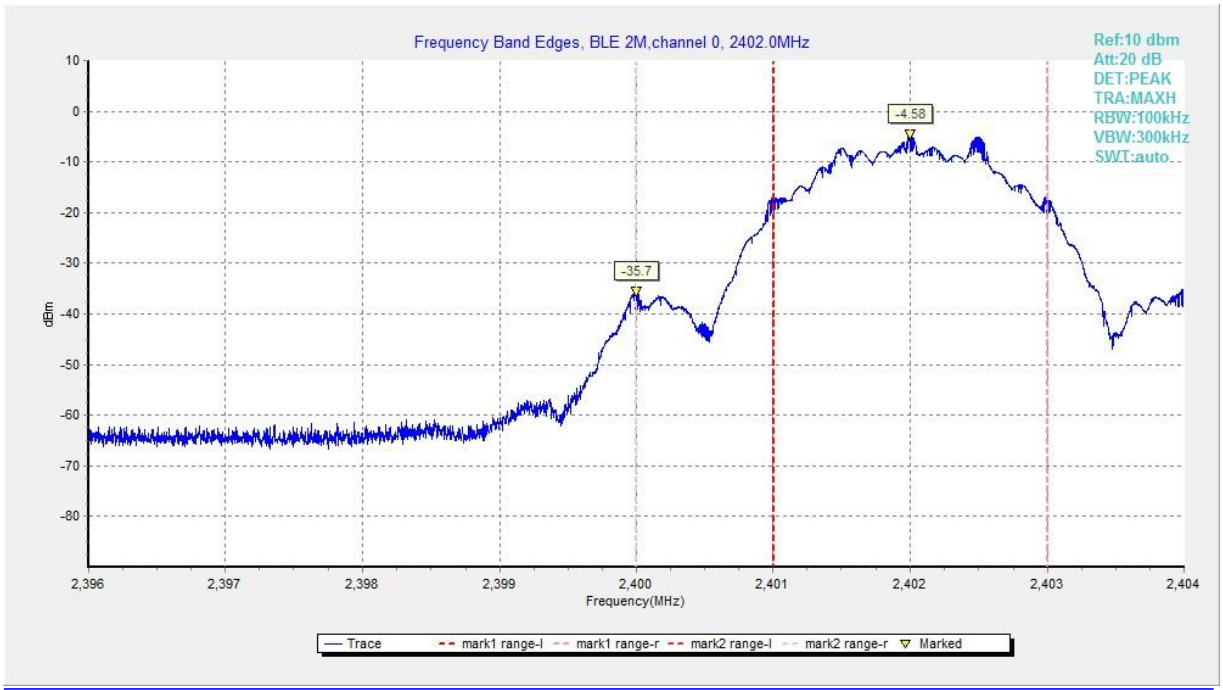


**Fig.15 Band Edges (Ch 0), LE 2M**

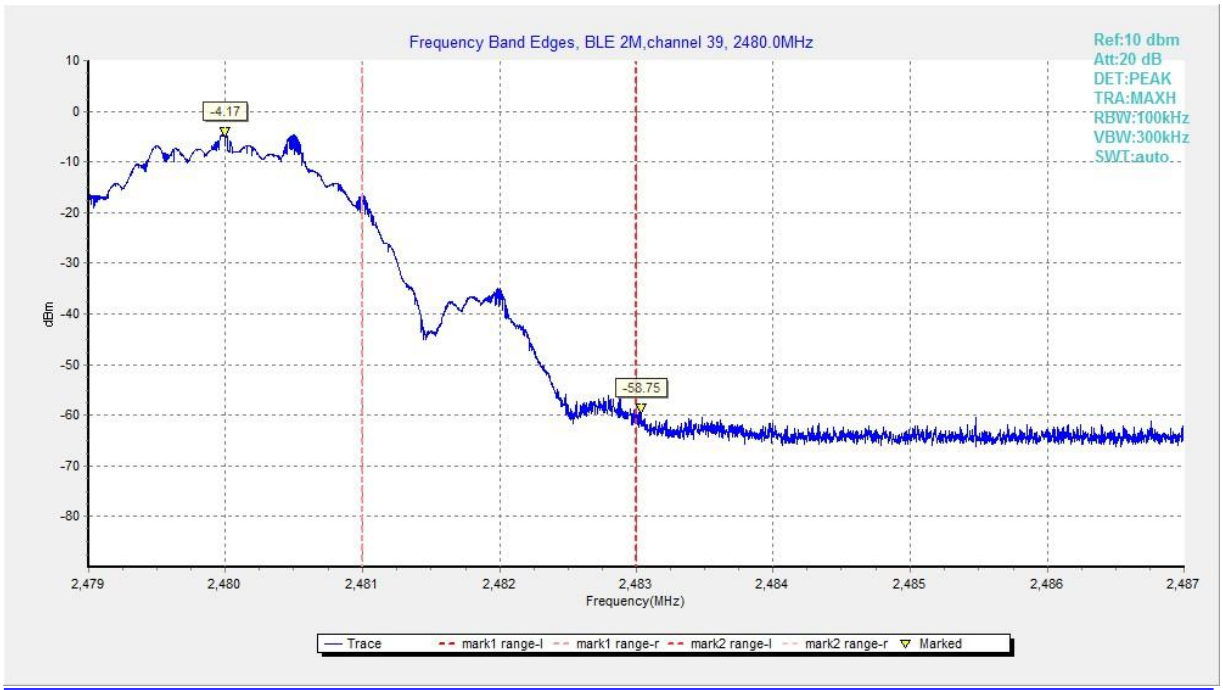


**Fig.16 Band Edges (Ch 39), LE 2M**

## A.5 Transmitter Spurious Emission - Conducted

**Measurement Limit:**

| Standard | Limit |
|---|---|
| FCC 47 CFR Part 15.247 (d) | 20dB below peak output power in 100kHz bandwidth |

**Measurement Results:**

| MODE | Channel | Frequency Range | Test Results | Conclusion |
|---|---|---|---|---|
| LE-1M | 0 | 2.402 GHz | Fig.17 | P |
| | | 1 GHz ~ 3 GHz | Fig.18 | P |
| | | 3 GHz ~ 10 GHz | Fig.19 | P |
| | 19 | 2.440 GHz | Fig.20 | P |
| | | 1 GHz ~ 3 GHz | Fig.21 | P |
| | | 3 GHz ~ 10 GHz | Fig.22 | P |
| | 39 | 2.480 GHz | Fig.23 | P |
| | | 1 GHz ~ 3 GHz | Fig.24 | P |
| | | 3 GHz ~ 10 GHz | Fig.25 | P |
| | All channels | 30 MHz ~ 1 GHz | Fig.26 | P |
| | | 10 GHz ~ 26 GHz | Fig.27 | P |
| LE-2M | 0 | 2.402 GHz | Fig.28 | P |
| | | 1 GHz ~ 3 GHz | Fig.29 | P |
| | | 3 GHz ~ 10 GHz | Fig.30 | P |
| | 19 | 2.440 GHz | Fig.31 | P |
| | | 1 GHz ~ 3 GHz | Fig.32 | P |
| | | 3 GHz ~ 10 GHz | Fig.33 | P |
| | 39 | 2.480 GHz | Fig.34 | P |
| | | 1 GHz ~ 3 GHz | Fig.35 | P |
| | | 3 GHz ~ 10 GHz | Fig.36 | P |
| | All channels | 30 MHz ~ 1 GHz | Fig.37 | P |
| | | 10 GHz ~ 26 GHz | Fig.38 | P |

**See below for test graphs.**

**Conclusion: Pass**

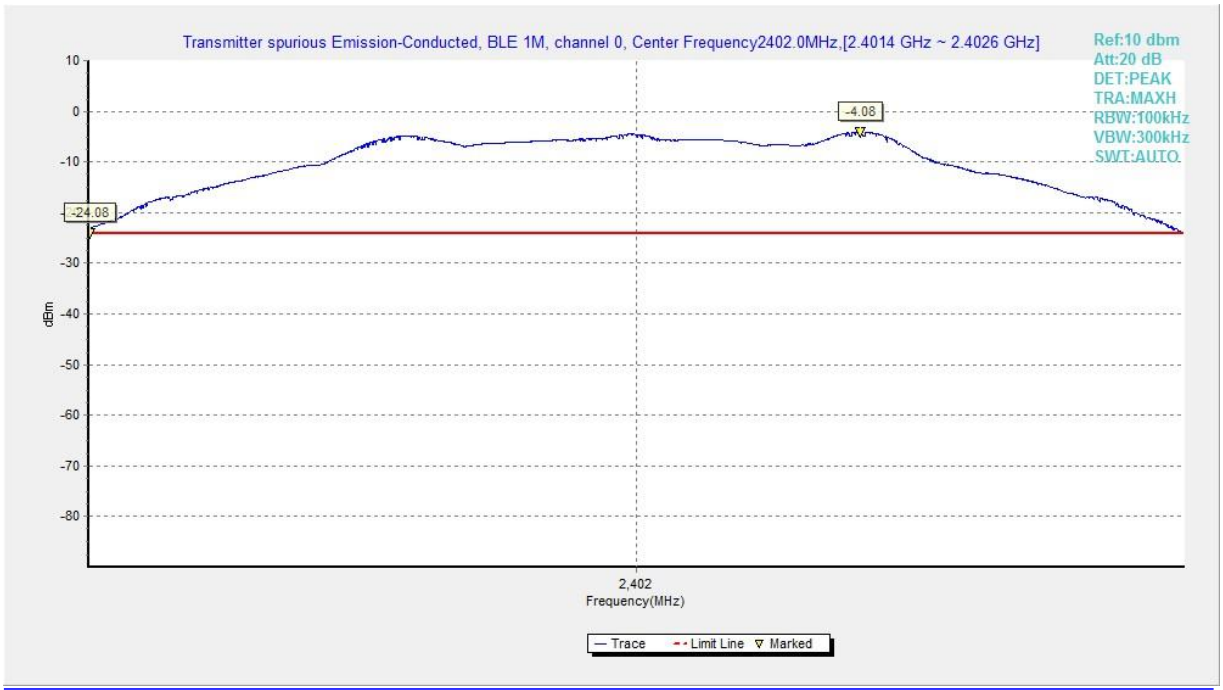


**Fig.17 Conducted Spurious Emission (Ch0, Center Frequency), LE 1M**

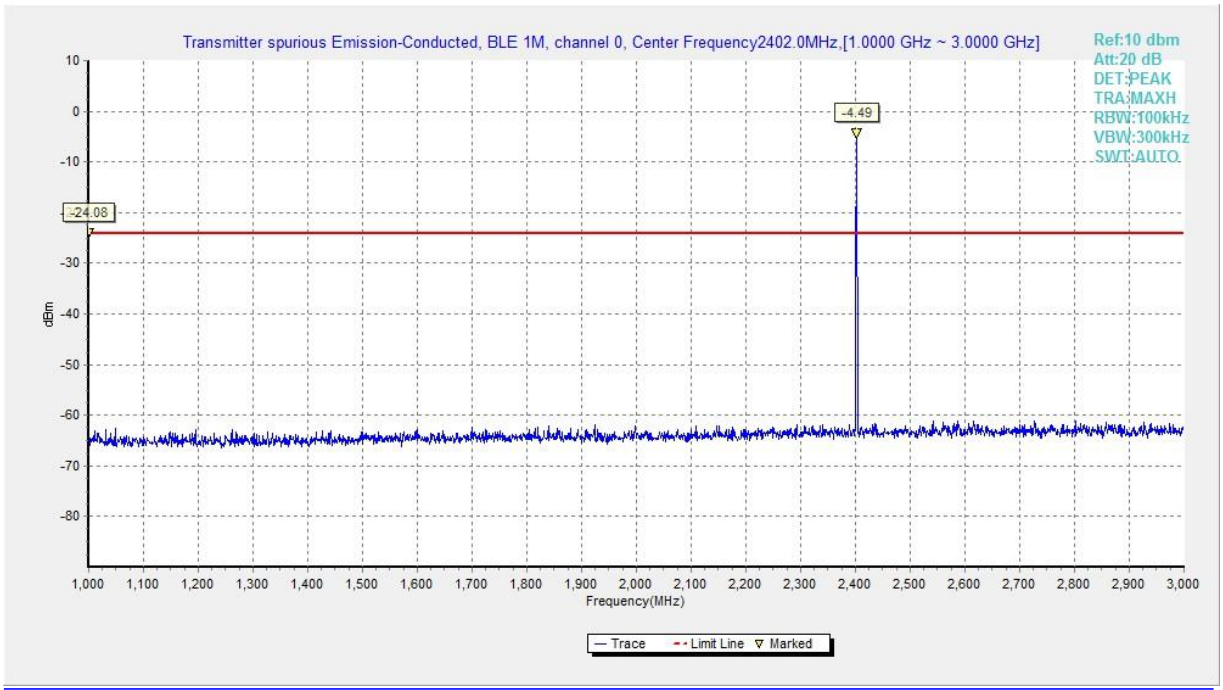


**Fig.18 Conducted Spurious Emission (Ch0, 1 GHz-3 GHz), LE 1M**

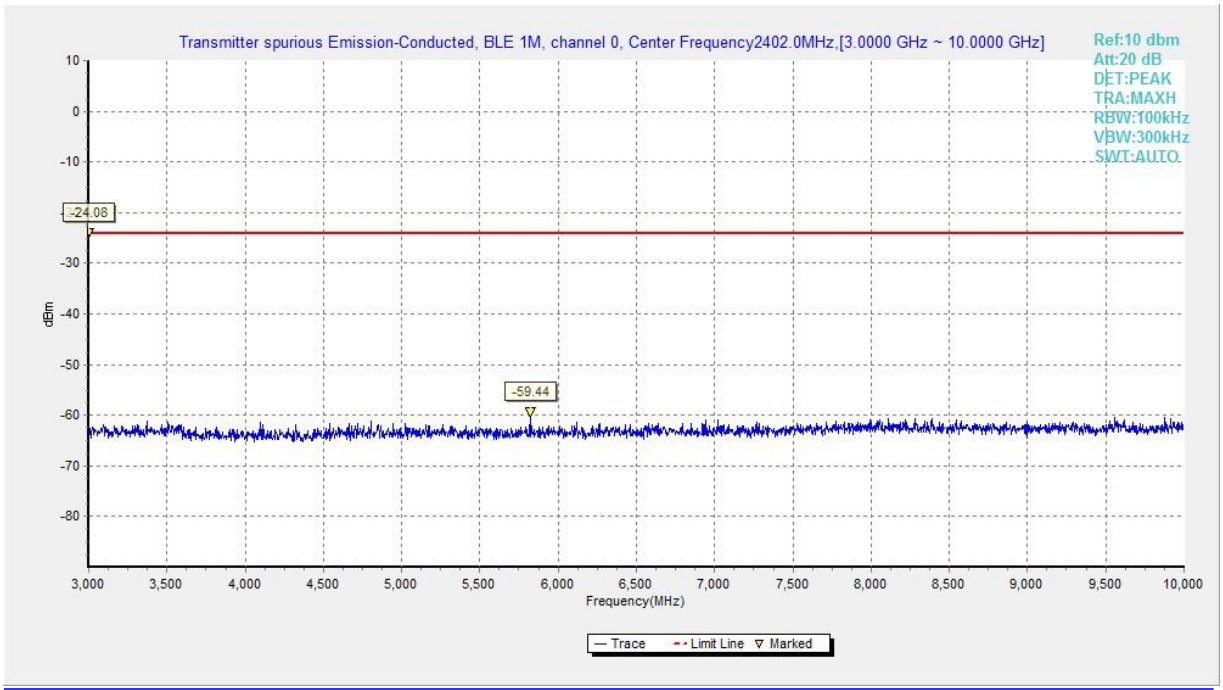


**Fig.19 Conducted Spurious Emission (Ch0, 3 GHz-10 GHz), LE 1M**

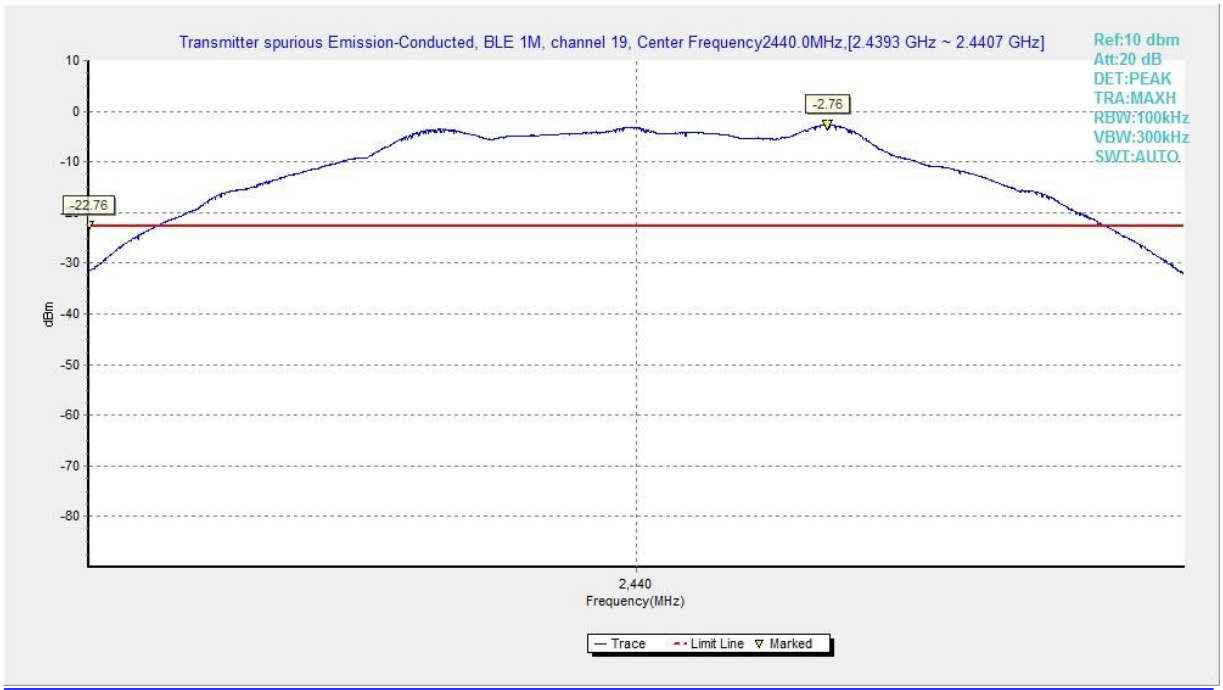


**Fig.20 Conducted Spurious Emission (Ch19, Center Frequency), LE 1M**

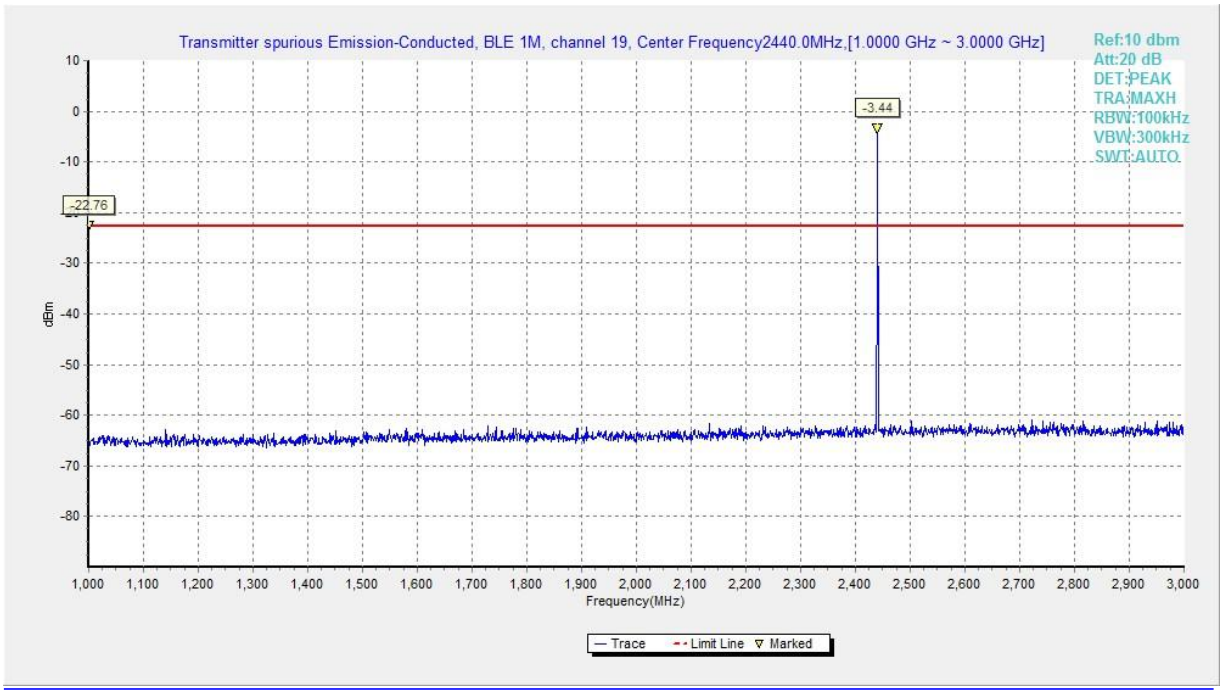


**Fig.21 Conducted Spurious Emission (Ch19, 1 GHz-3 GHz), LE 1M**

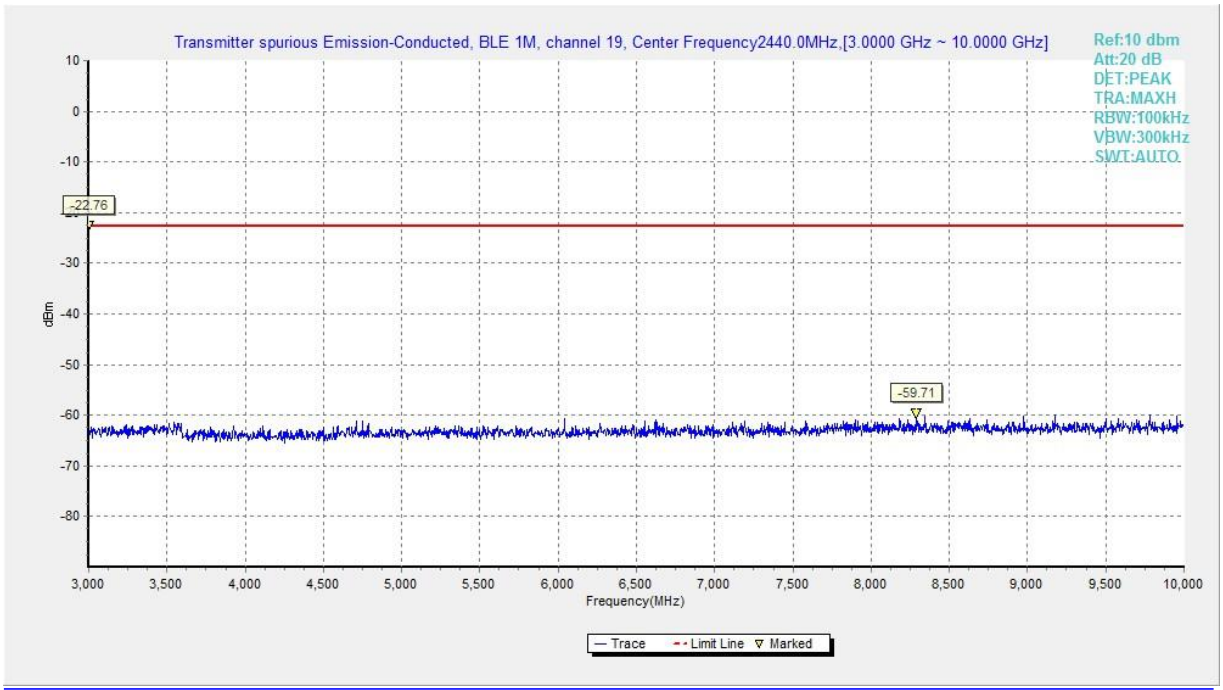


**Fig.22 Conducted Spurious Emission (Ch19, 3 GHz-10 GHz), LE 1M**

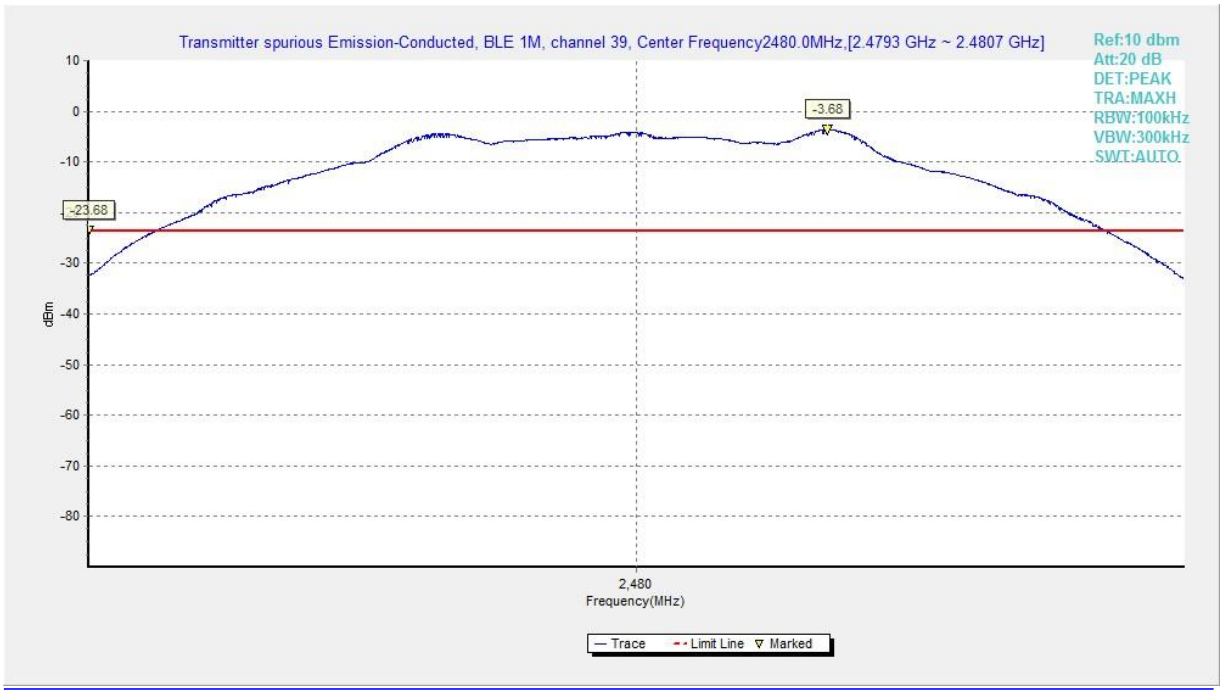


**Fig.23 Conducted Spurious Emission (Ch39, Center Frequency), LE 1M**

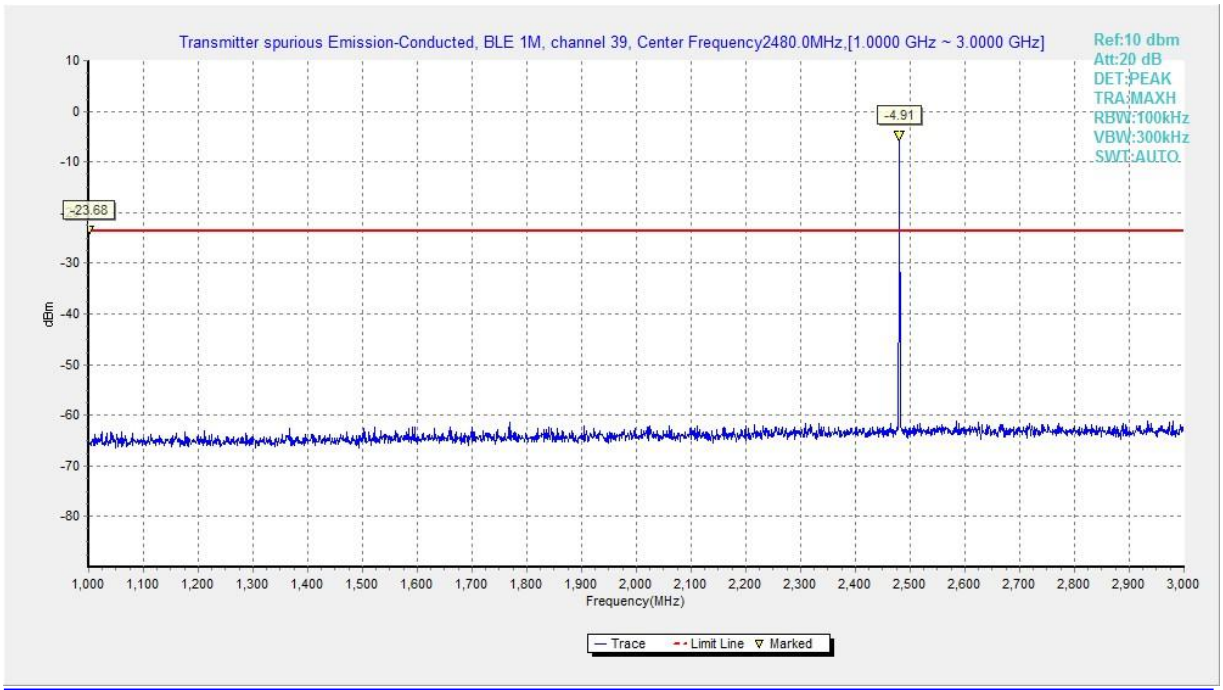


**Fig.24 Conducted Spurious Emission (Ch39, 1 GHz-3 GHz), LE 1M**

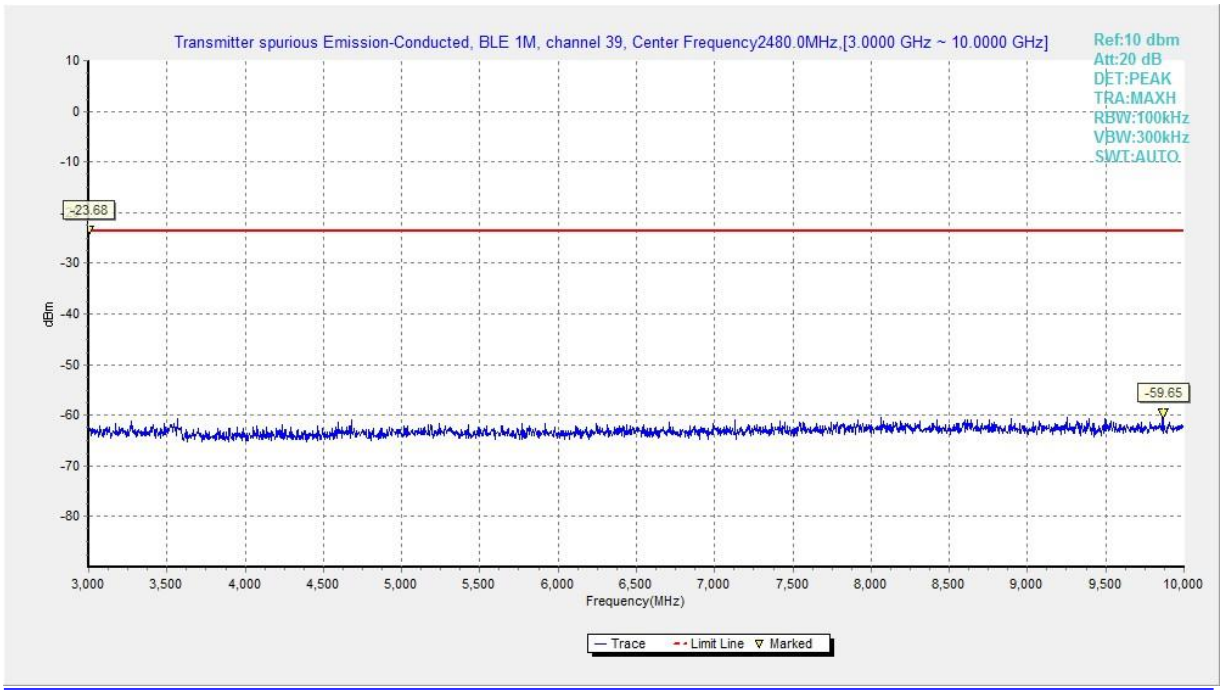


**Fig.25 Conducted Spurious Emission (Ch39, 3 GHz-10 GHz), LE 1M**

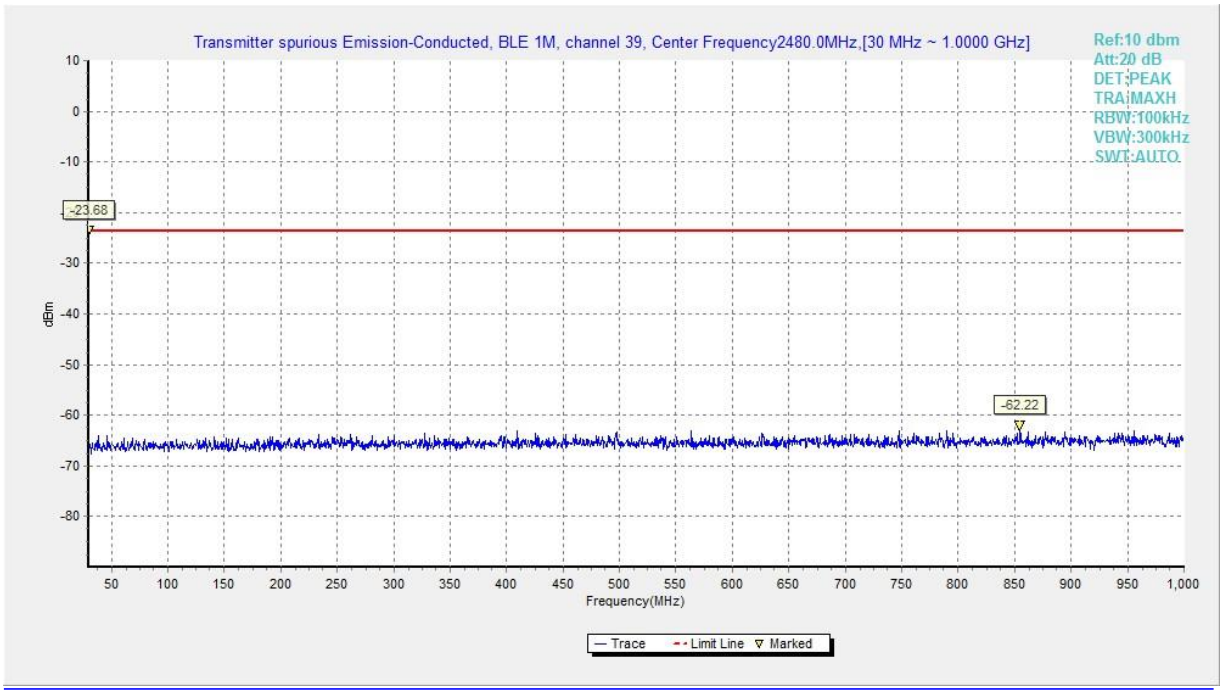


**Fig.26 Conducted Spurious Emission (All channels, 30 MHz-1 GHz), LE 1M**

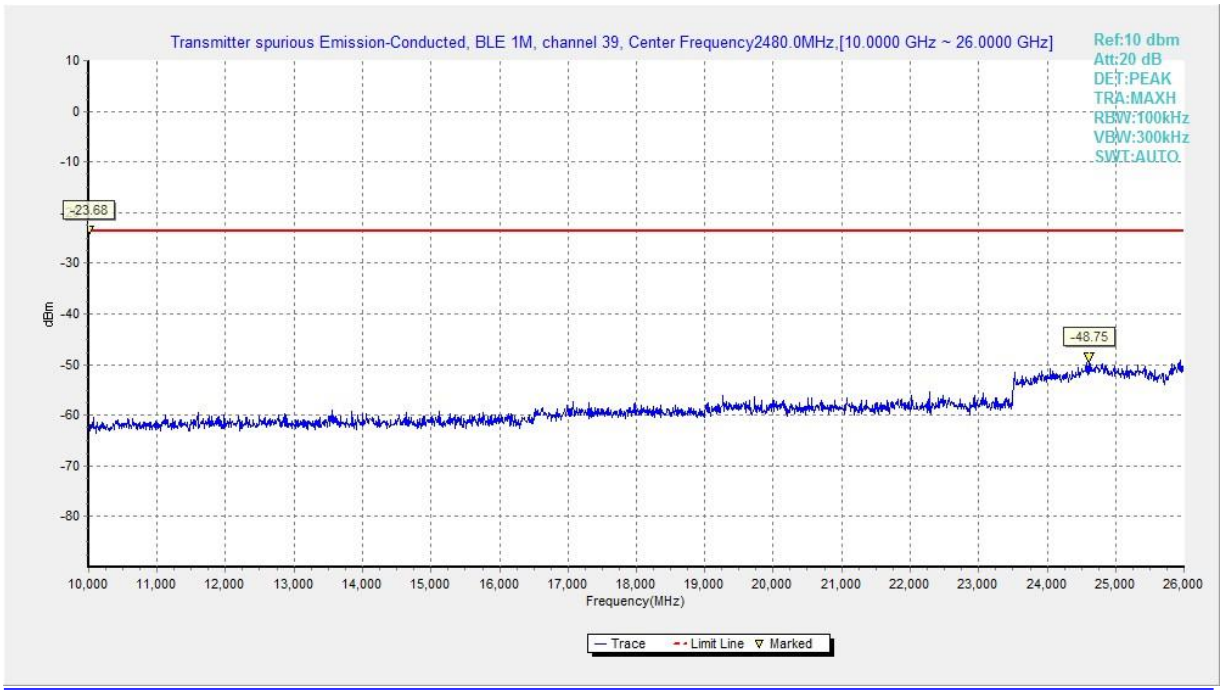


**Fig.27 Conducted Spurious Emission (All channels, 10 GHz-26 GHz), LE 1M**

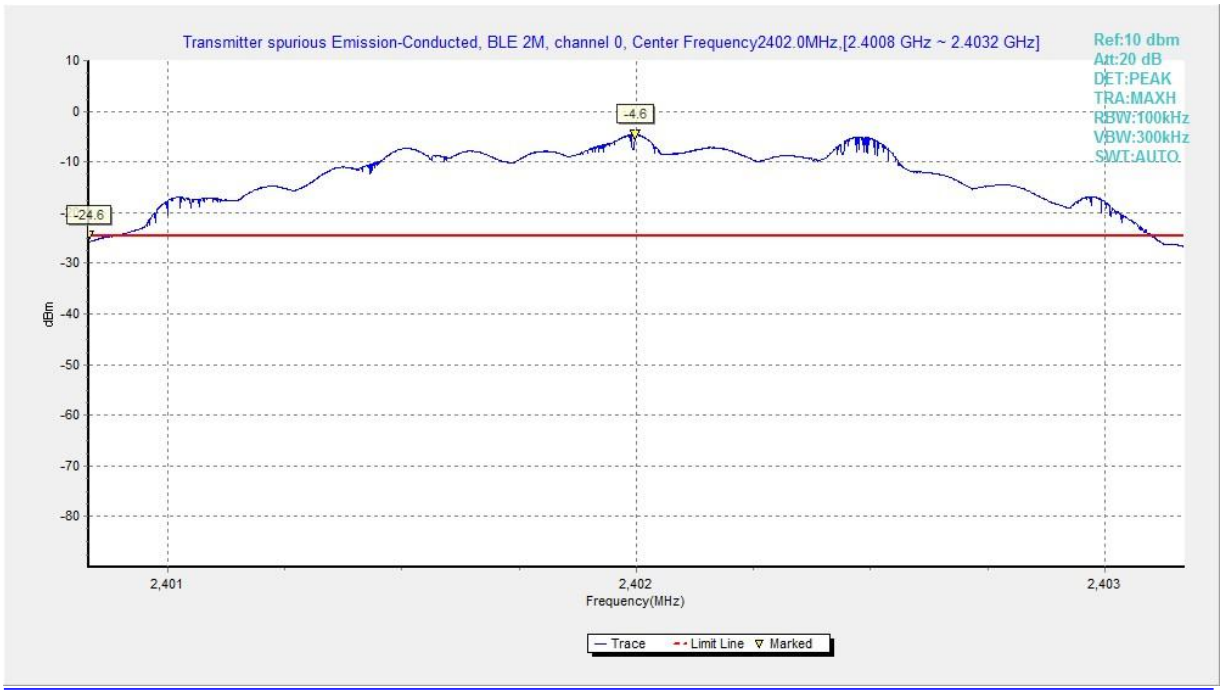


**Fig.28 Conducted Spurious Emission (Ch0, Center Frequency), LE 2M**

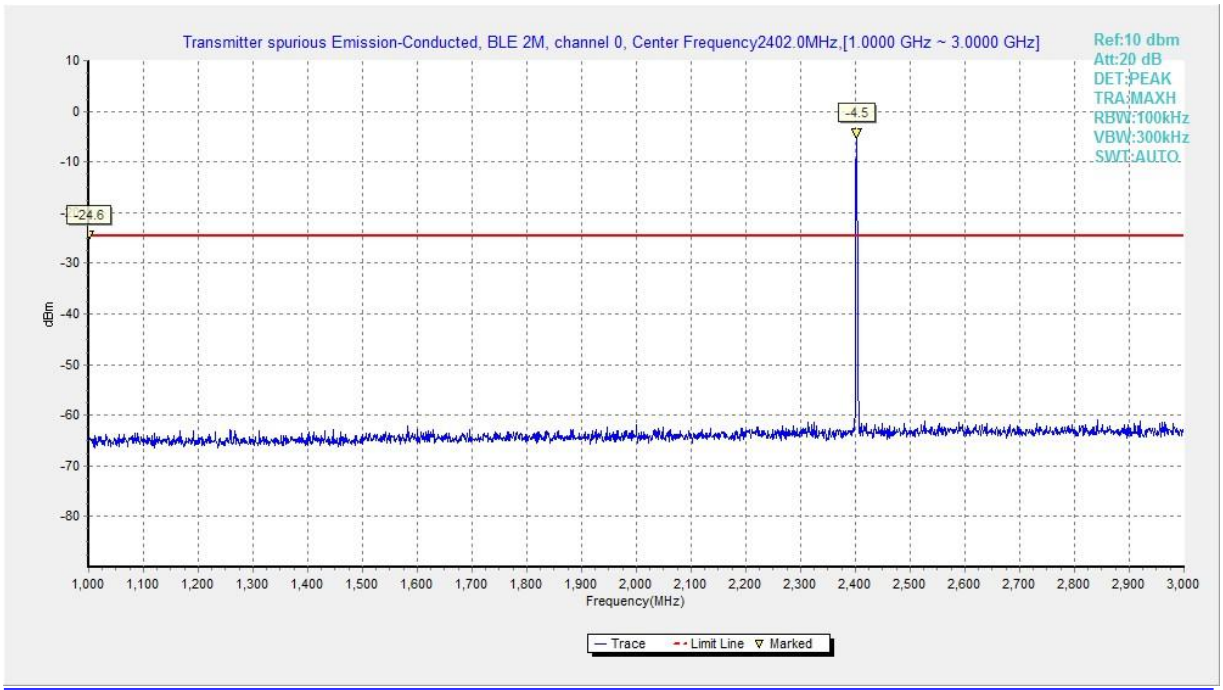


**Fig.29 Conducted Spurious Emission (Ch0, 1 GHz-3 GHz), LE 2M**

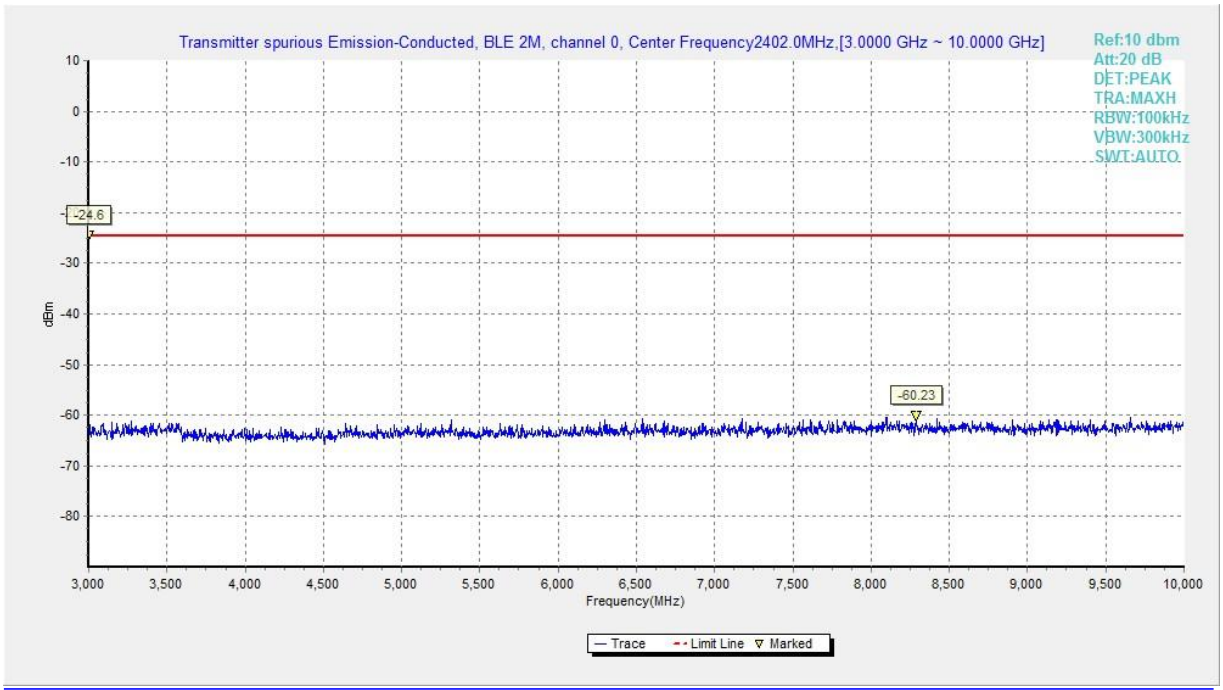


**Fig.30 Conducted Spurious Emission (Ch0, 3 GHz-10 GHz), LE 2M**

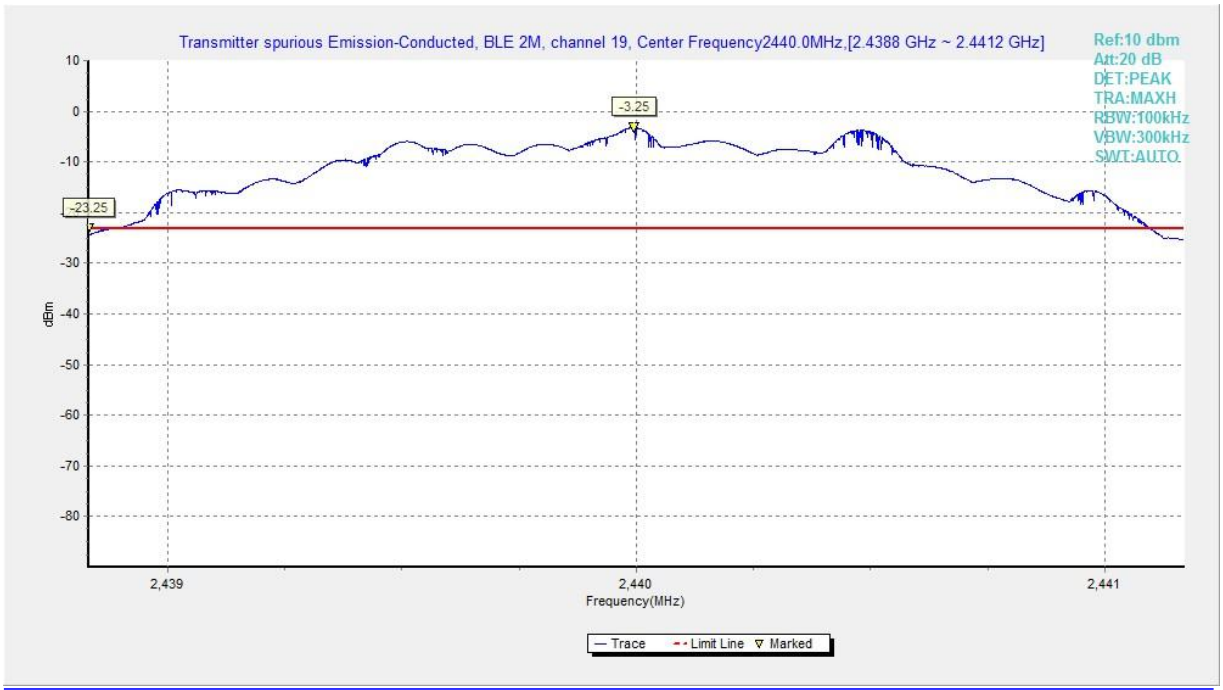


**Fig.31 Conducted Spurious Emission (Ch19, Center Frequency), LE 2M**

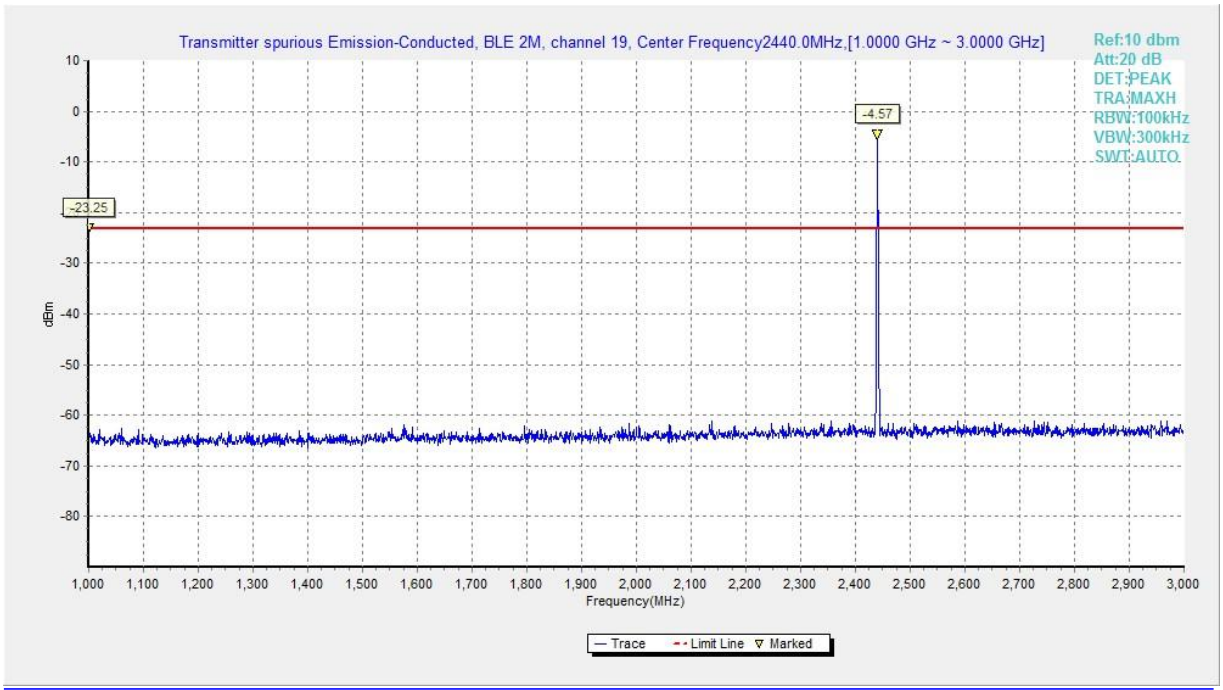


**Fig.32 Conducted Spurious Emission (Ch19, 1 GHz-3 GHz), LE 2M**

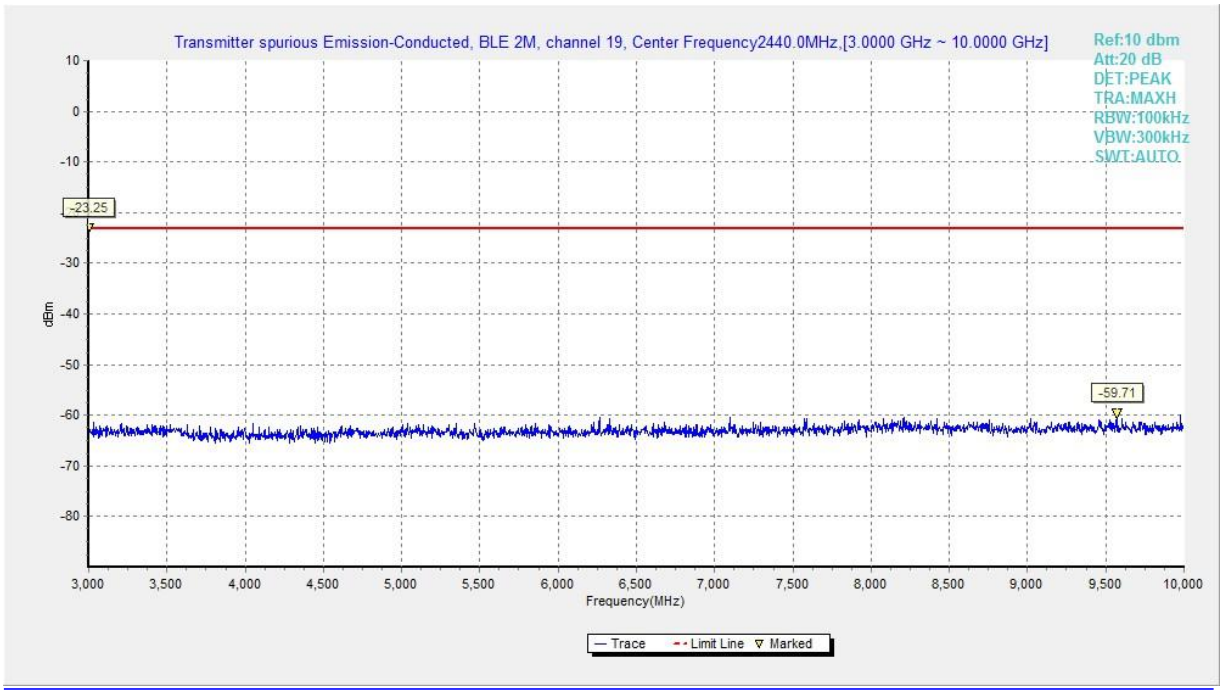


**Fig.33 Conducted Spurious Emission (Ch19, 3 GHz-10 GHz), LE 2M**

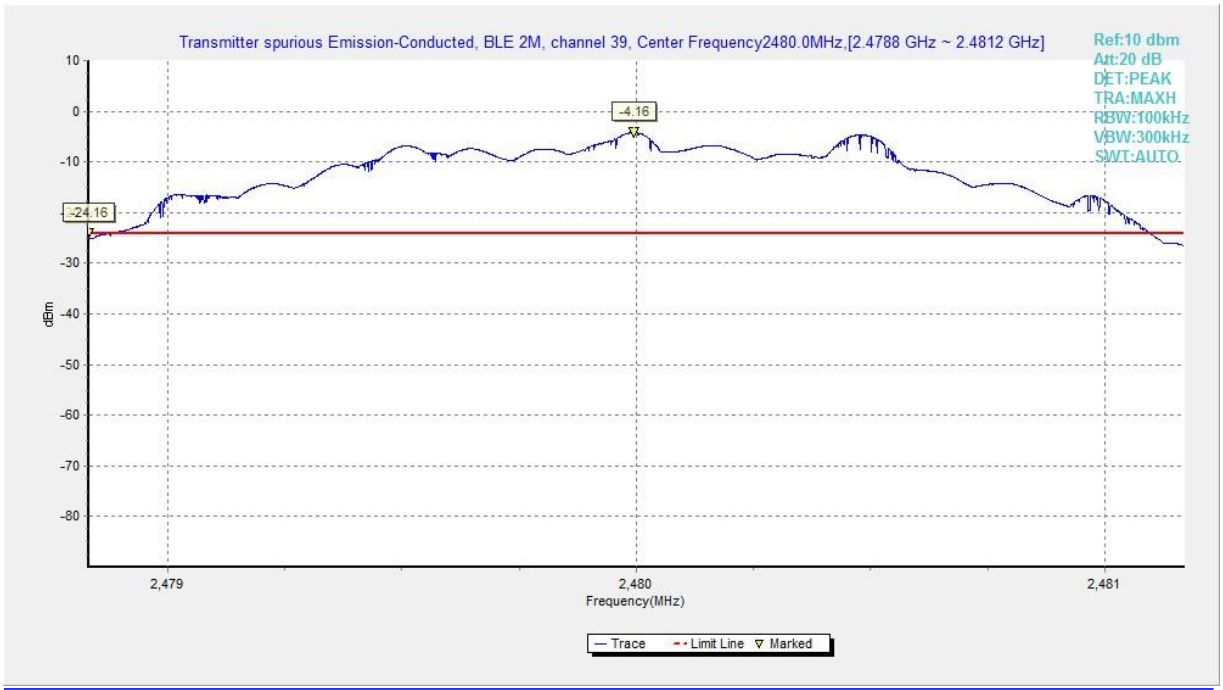


**Fig.34 Conducted Spurious Emission (Ch39, Center Frequency), LE 2M**

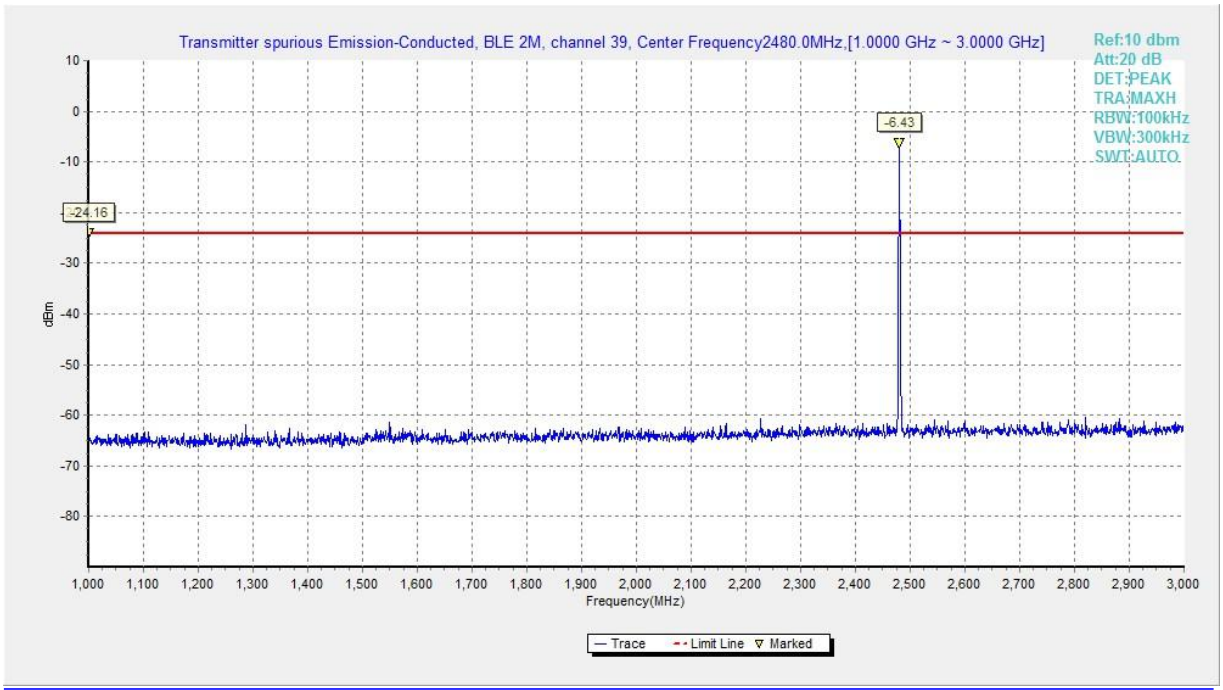


**Fig.35 Conducted Spurious Emission (Ch39, 1 GHz-3 GHz), LE 2M**

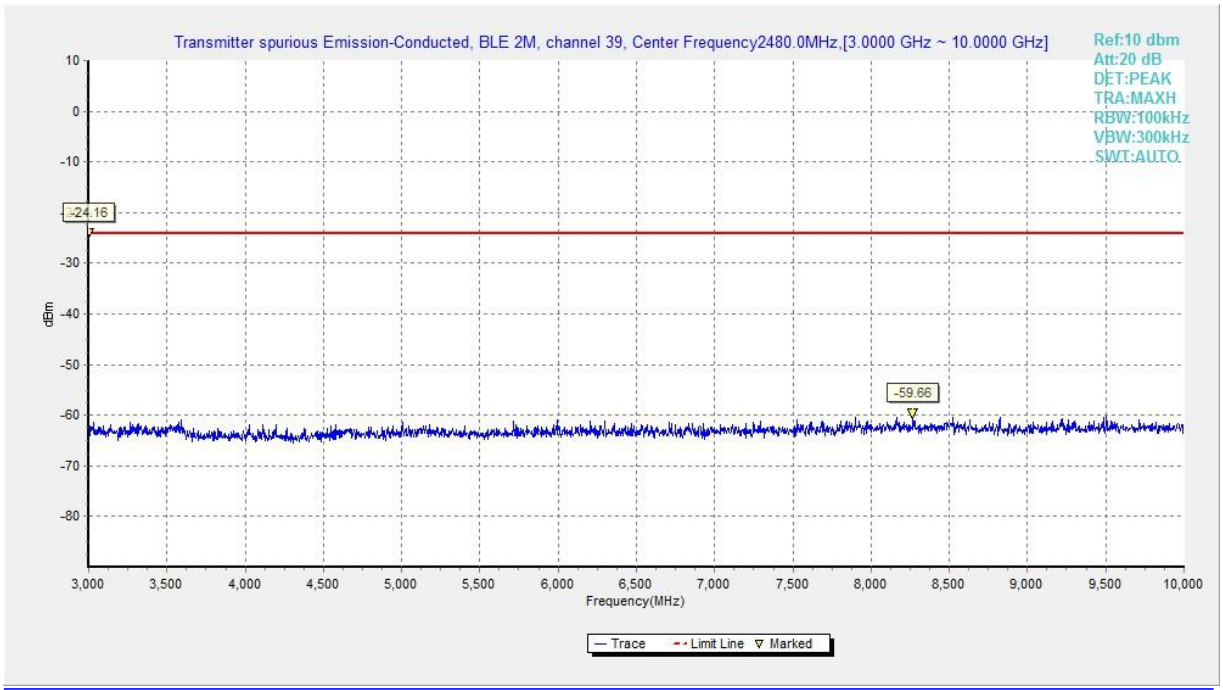


**Fig.36 Conducted Spurious Emission (Ch39, 3 GHz-10 GHz), LE 2M**

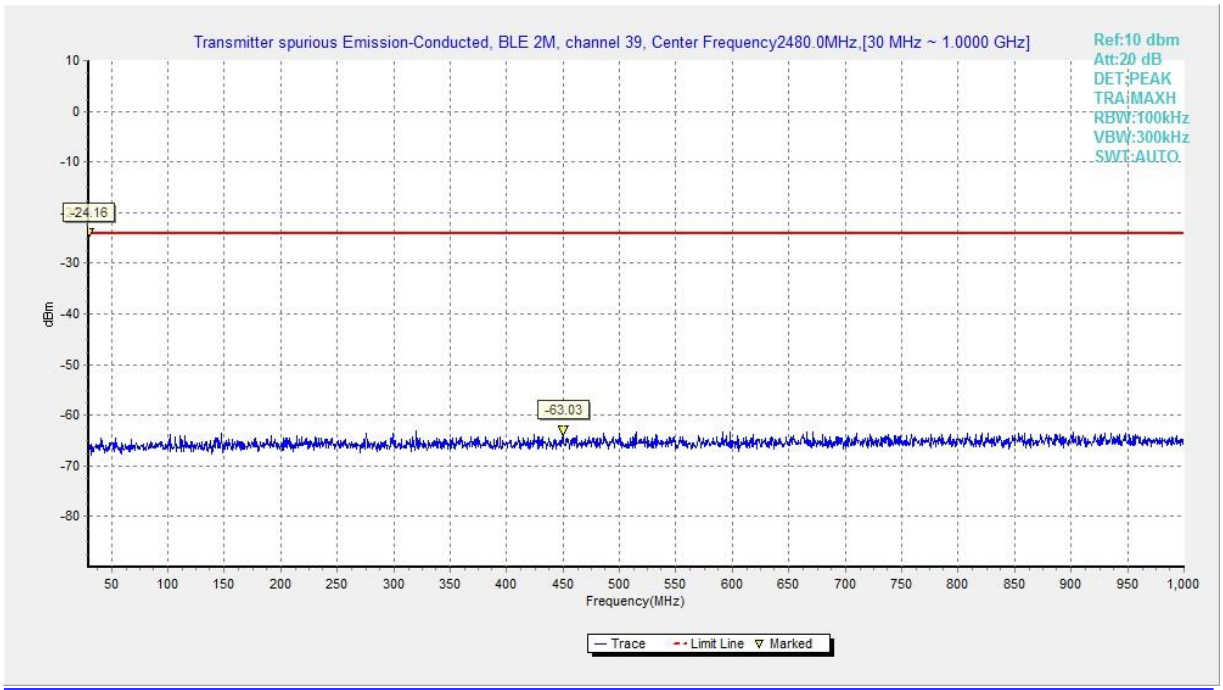


**Fig.37 Conducted Spurious Emission (All channels, 30 MHz-1 GHz), LE 2M**

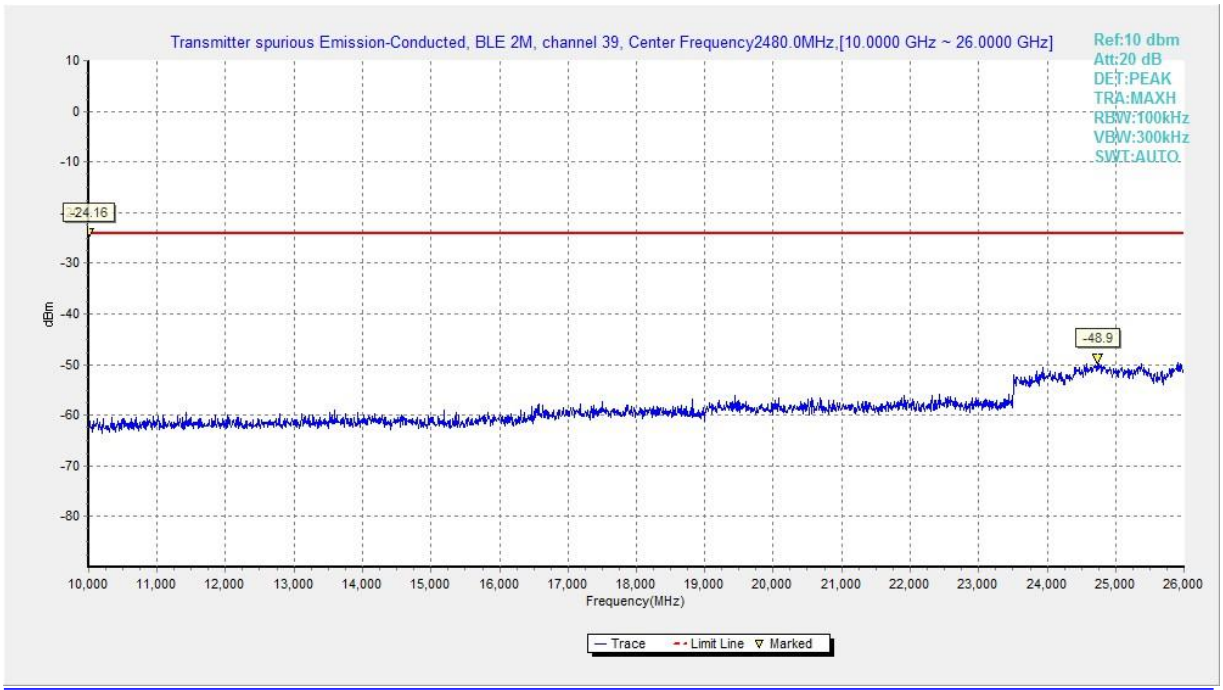


**Fig.38 Conducted Spurious Emission (All channels, 10 GHz-26 GHz), LE 2M**

## A.6 Transmitter Spurious Emission - Radiated

**Measurement Limit:**

| Standard | Limit |
|---|---|
| FCC 47 CFR Part 15.247, 15.205, 15.209 | 20dB below peak output 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) (see § 15.205(c)).

**Limit in restricted band:**

| Frequency of emission (MHz) | Field strength (μV/m) | Measurement distance (meters) |
|---|---|---|
| 0.009-0.490 | 2400/F(kHz) | 300 |
| 0.490-1.705 | 24000/F(kHz) | 30 |
| 1.705-30.0 | 30 | 30 |
| 30-88 | 100 | 3 |
| 88-216 | 150 | 3 |
| 216-960 | 200 | 3 |
| Above 960 | 500 | 3 |

**Test Condition:**

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

| Frequency of emission (MHz) | RBW/VBW | Sweep Time (s) |
|---|---|---|
| 30-1000 | 120kHz/300kHz | 5 |
| 1000-4000 | 1MHz/3MHz | 15 |
| 4000-18000 | 1MHz/3MHz | 40 |
| 18000-26500 | 1MHz/3MHz | 20 |

Note: According to the performance evaluation, the radiated emission margin of EUT is over 20dB in the band from 9kHz to 30MHz. Therefore, the measurement starts from 30MHz to tenth harmonic. The measurement results include the horizontal polarization and vertical polarization measurements.

**Measurement Results:**

| Mode | Channel | Frequency Range | Test Results | Conclusion |
|---|---|---|---|---|
| LE-1M | 0 | 3 GHz ~ 18 GHz | Fig.39 | **P** |
| | 19 | 9 kHz ~ 30 MHz | Fig.40 | **P** |
| | | 30 MHz ~ 1 GHz | Fig.41 | **P** |
| | | 1 GHz ~ 3 GHz | Fig.42 | **P** |
| | | 3 GHz ~ 18 GHz | Fig.43 | **P** |
| | | 18 GHz ~ 26.5 GHz | Fig.44 | **P** |
| | 39 | 3 GHz ~ 18 GHz | Fig.45 | **P** |
| | Restricted Band(CH0) | 2.38 GHz ~ 2.45 GHz | Fig.46 | **P** |
| | Restricted Band(CH39) | 2.45 GHz ~ 2.5 GHz | Fig.47 | **P** |
| LE-2M | 0 | 3 GHz ~ 18 GHz | Fig.48 | **P** |
| | 19 | 9 kHz ~ 30 MHz | Fig.49 | **P** |
| | | 30 MHz ~ 1 GHz | Fig.50 | **P** |
| | | 1 GHz ~ 3 GHz | Fig.51 | **P** |
| | | 3 GHz ~ 18 GHz | Fig.52 | **P** |
| | | 18 GHz ~ 26.5 GHz | Fig.53 | **P** |
| | 39 | 3 GHz ~ 18 GHz | Fig.54 | **P** |
| | Restricted Band(CH0) | 2.38 GHz ~ 2.45 GHz | Fig.55 | **P** |
| | Restricted Band(CH39) | 2.45 GHz ~ 2.5 GHz | Fig.56 | **P** |

**See below for test graphs.**

**Conclusion: Pass**

**Worst Case Result**

**LE-1M CH19 (3-18GHz)**

| Frequency (MHz) | MaxPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Pol | Corr. (dB) |
|---|---|---|---|---|---|
| 9872.500000 | 45.66 | 74.00 | 28.34 | H | 5.2 |
| 11495.000000 | 47.14 | 74.00 | 26.86 | H | 6.9 |
| 13284.000000 | 48.15 | 74.00 | 25.85 | V | 9.7 |
| 14883.500000 | 49.85 | 74.00 | 24.15 | H | 11.7 |
| 16542.000000 | 51.82 | 74.00 | 22.18 | H | 15.2 |
| 17951.000000 | 52.13 | 74.00 | 21.87 | H | 17.2 |

| Frequency (MHz) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Pol | Corr. (dB) |
|---|---|---|---|---|---|
| 9882.500000 | 34.17 | 54.00 | 19.83 | V | 5.4 |
| 11438.000000 | 34.90 | 54.00 | 19.10 | V | 6.7 |
| 12941.500000 | 36.80 | 54.00 | 17.21 | H | 9.5 |
| 15293.500000 | 37.74 | 54.00 | 16.26 | V | 12.4 |
| 16815.500000 | 40.06 | 54.00 | 13.94 | H | 16.0 |
| 17946.000000 | 40.76 | 54.00 | 13.24 | V | 17.3 |

**LE-2M CH19 (3-18GHz)**

| Frequency (MHz) | MaxPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Pol | Corr. (dB) |
|---|---|---|---|---|---|
| 9850.500000 | 45.63 | 74.00 | 28.37 | H | 5.3 |
| 11486.500000 | 46.61 | 74.00 | 27.39 | V | 6.9 |
| 12969.000000 | 47.86 | 74.00 | 26.14 | H | 9.4 |
| 15280.000000 | 49.49 | 74.00 | 24.51 | V | 12.2 |
| 16916.500000 | 51.83 | 74.00 | 22.17 | H | 16.0 |
| 17946.000000 | 51.67 | 74.00 | 22.33 | H | 17.3 |

| Frequency (MHz) | Average (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Pol | Corr. (dB) |
|---|---|---|---|---|---|
| 9881.500000 | 33.46 | 54.00 | 20.54 | V | 5.4 |
| 11472.500000 | 34.74 | 54.00 | 19.26 | H | 6.7 |
| 13097.000000 | 36.22 | 54.00 | 17.78 | H | 9.8 |
| 14462.000000 | 37.21 | 54.00 | 16.79 | H | 11.8 |
| 16889.500000 | 39.59 | 54.00 | 14.41 | V | 16.0 |
| 17910.500000 | 40.24 | 54.00 | 13.76 | V | 17.4 |

**Note:**

A "reference path loss" is established and the $A_{Rpl}$ is the attenuation of “reference path loss”, and Antenna Factor, the gain of the preamplifier, the cable loss. $P_{Mea}$ is the field strength recorded from the instrument.

The measurement results are obtained as described below:

Result = $P_{Mea}$ + Cable Loss + Antenna Factor - Gain of the preamplifier

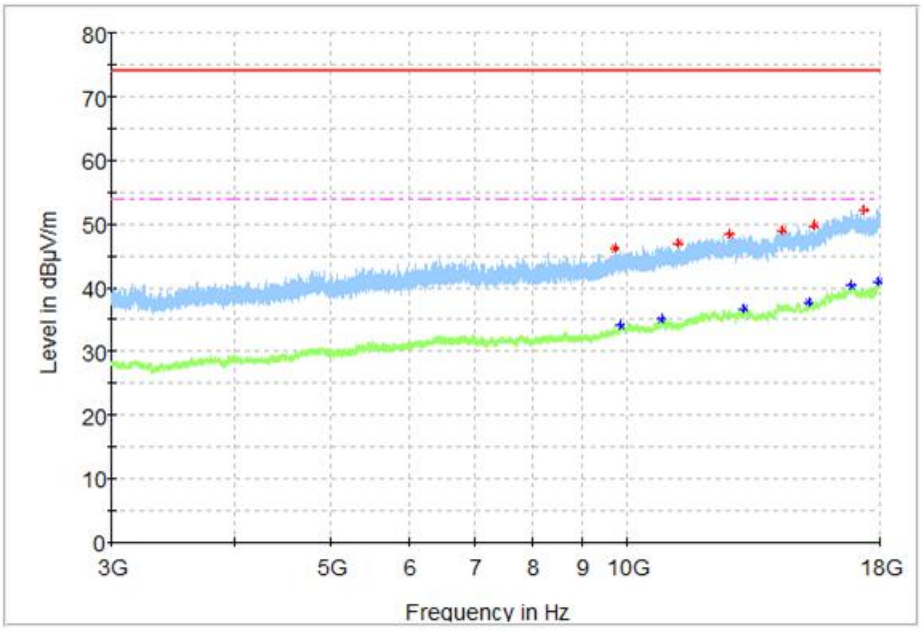


**Fig.39 Radiated Spurious Emission (Ch0, 3 GHz - 18 GHz), 1M**

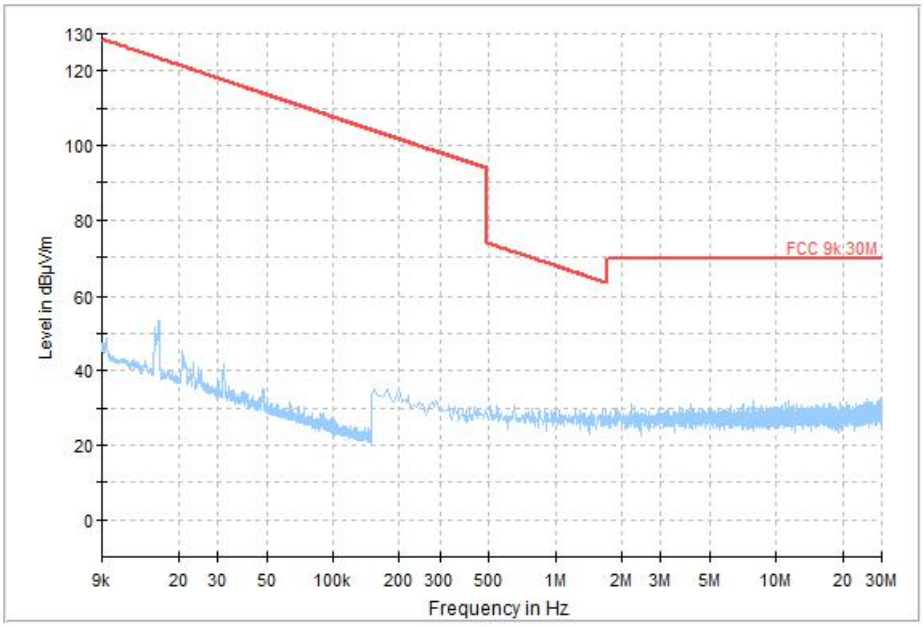


**Fig.40 Radiated Spurious Emission (Ch19, 9 kHz - 30 MHz), 1M**

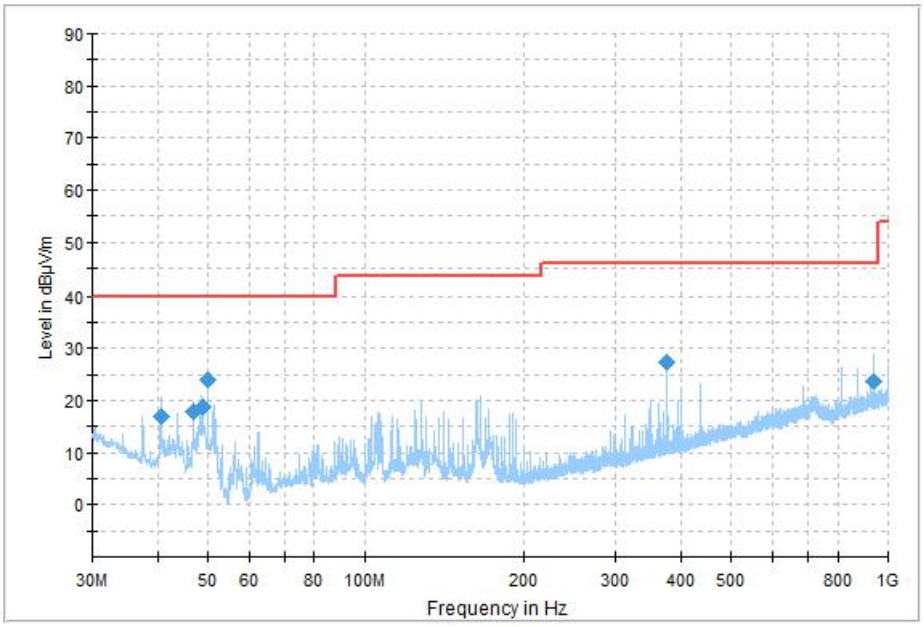


**Fig.41 Radiated Spurious Emission (Ch19, 30 MHz - 1 GHz), 1M**

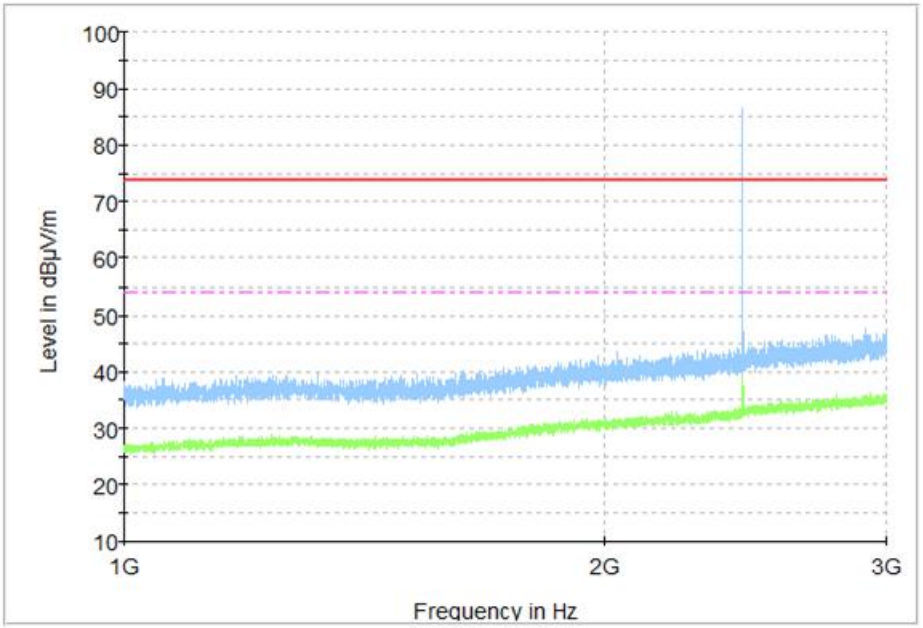


**Fig.42 Radiated Spurious Emission (Ch19, 1 GHz - 3 GHz), 1M**

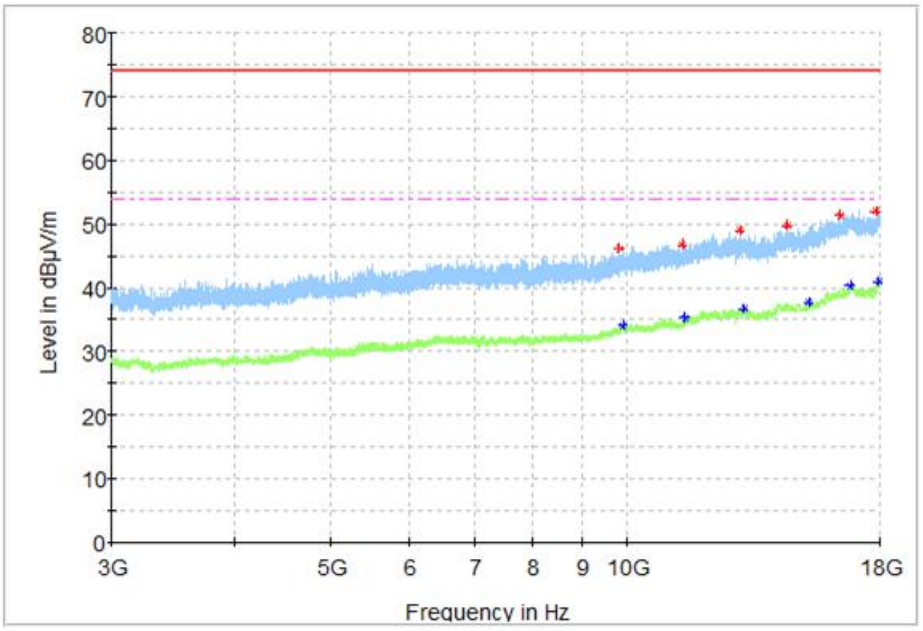


**Fig.43 Radiated Spurious Emission (Ch19, 3 GHz - 18 GHz), 1M**

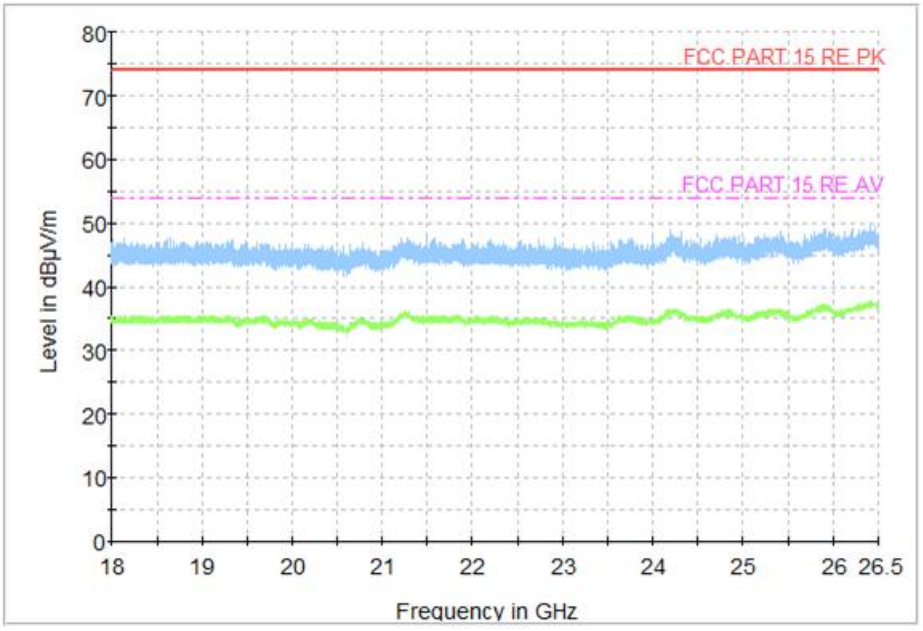


**Fig.44 Radiated Spurious Emission (Ch19, 18 GHz - 26.5 GHz), 1M**

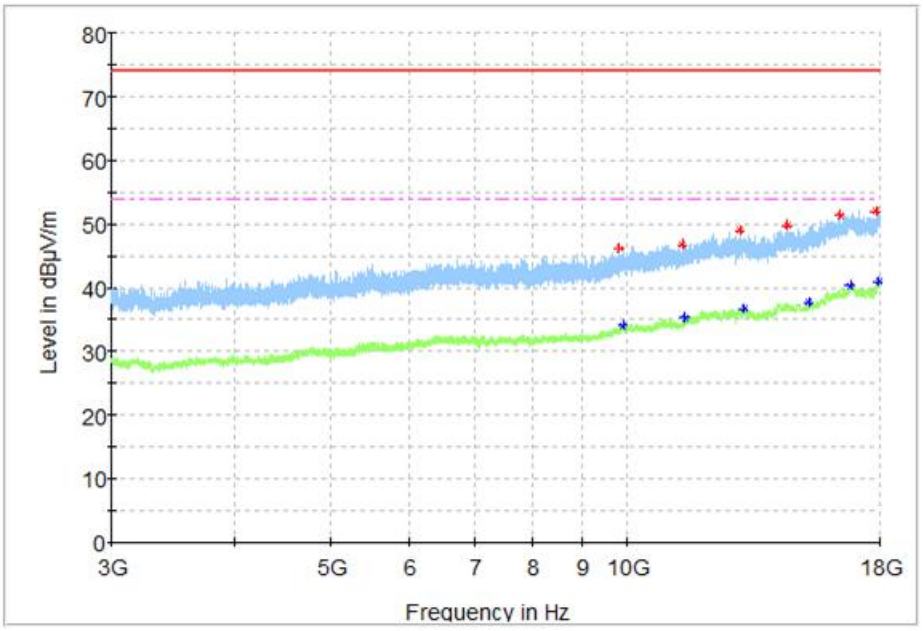


**Fig.45 Radiated Spurious Emission (Ch39, 3 GHz - 18 GHz), 1M**

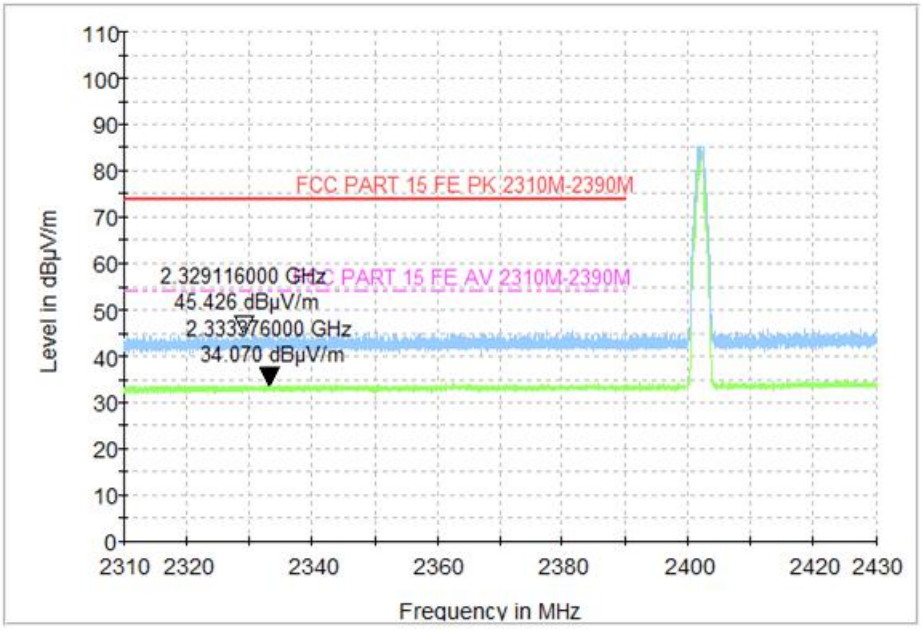


**Fig.46 Radiated Band Edges (Ch0, 2380GHz - 2450GHz), 1M**

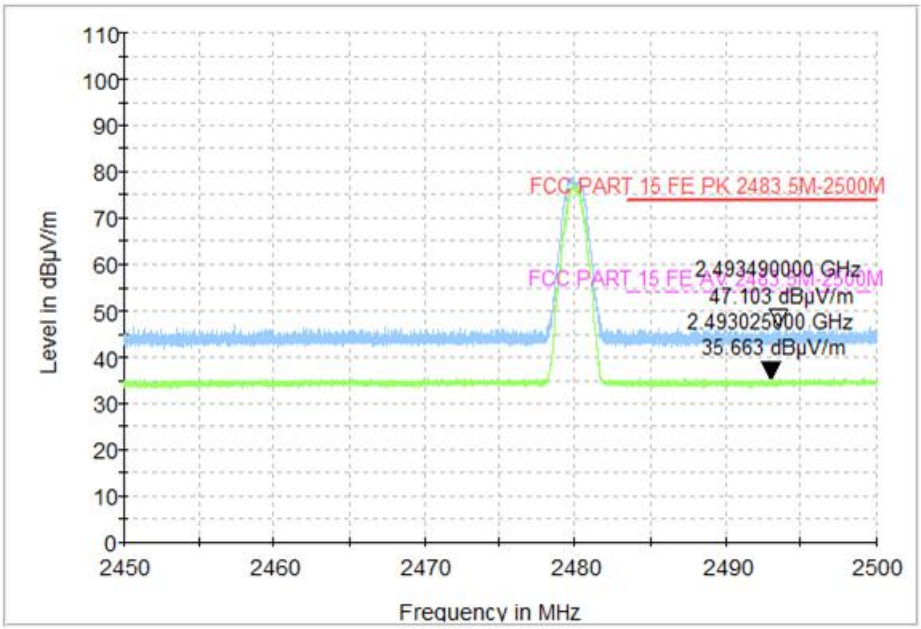


**Fig.47 Radiated Band Edges (Ch39, 2450GHz - 2500GHz), 1M**

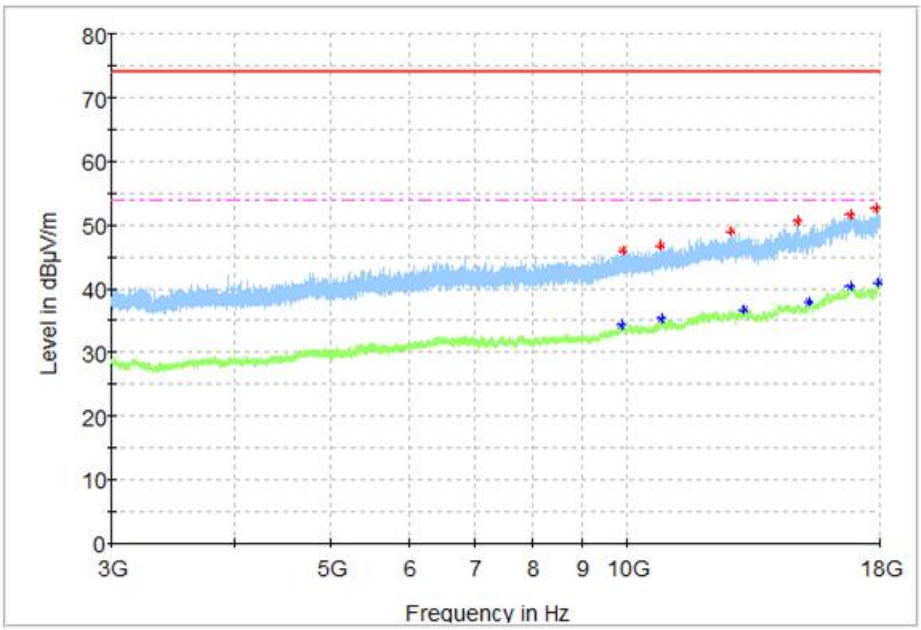


**Fig.48 Radiated Spurious Emission (Ch0, 3 GHz - 18 GHz), 2M**

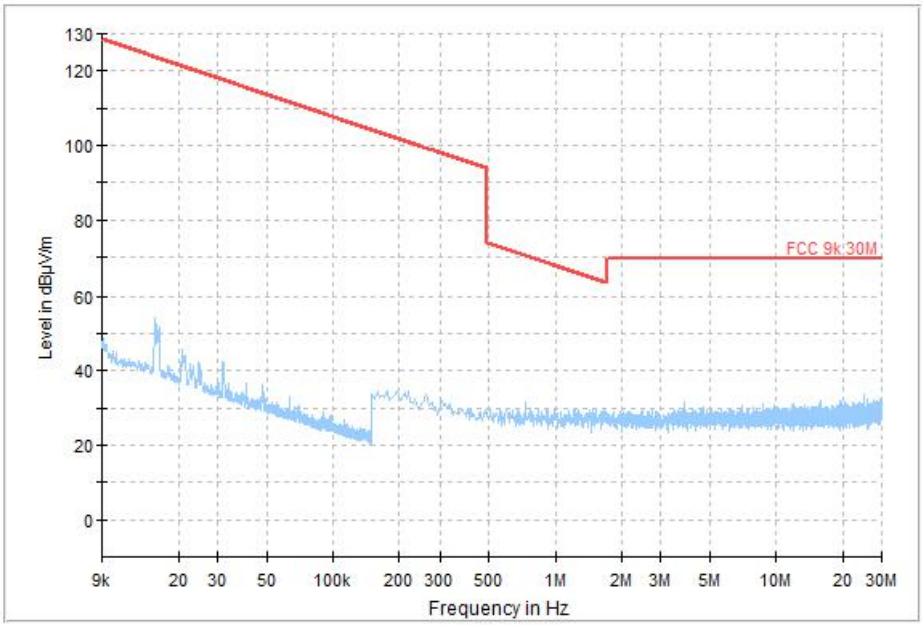


**Fig.49 Radiated Spurious Emission (Ch19, 9 kHz - 30 MHz), 2M**

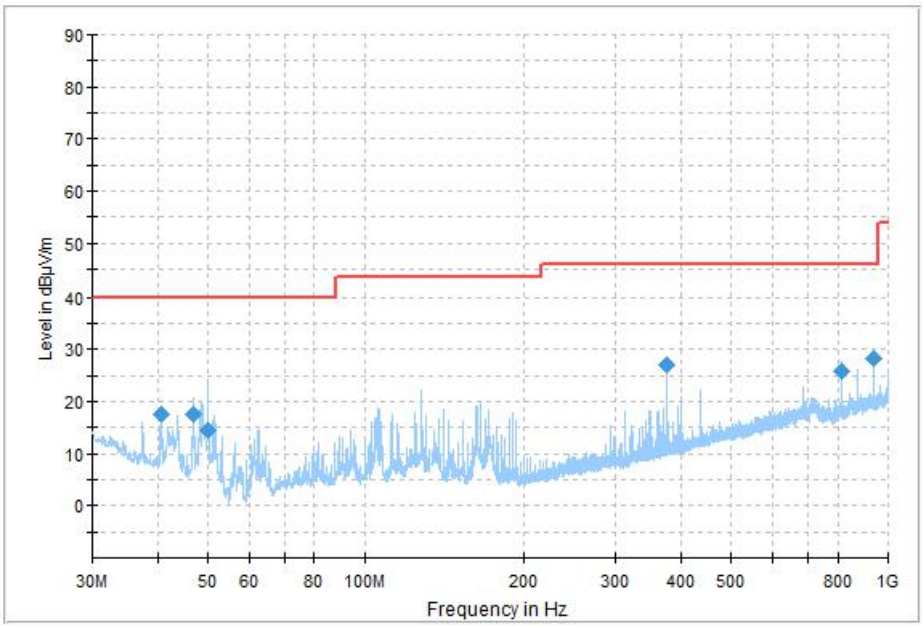


**Fig.50 Radiated Spurious Emission (Ch19, 30 MHz - 1 GHz), 2M**

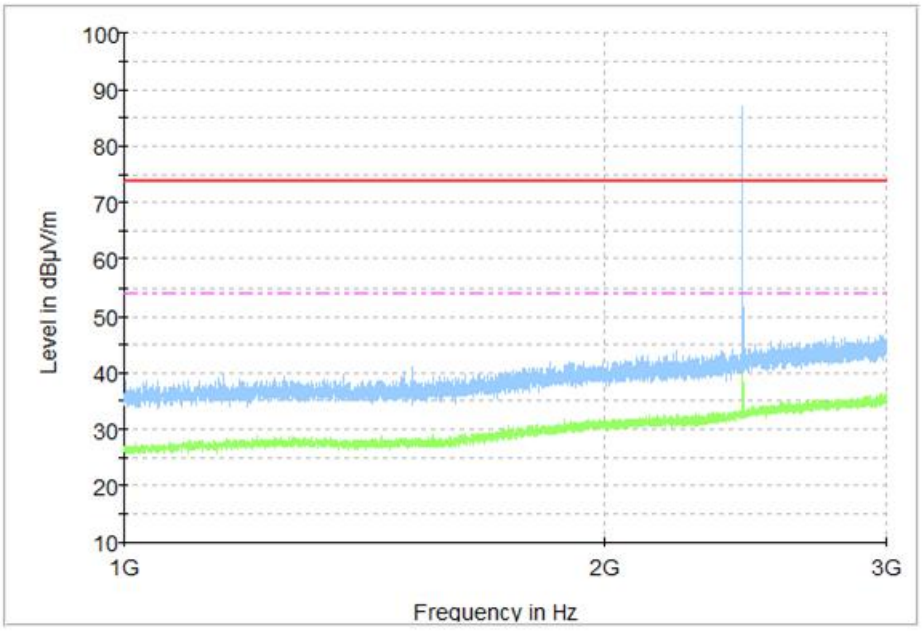


**Fig.51 Radiated Spurious Emission (Ch19, 1 GHz - 3 GHz), 2M**

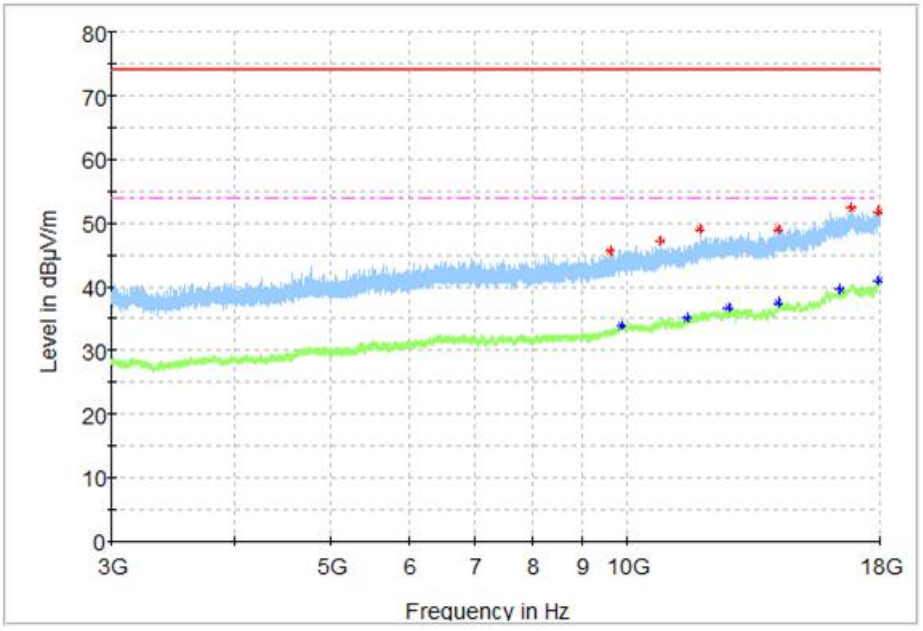


**Fig.52 Radiated Spurious Emission (Ch19, 3 GHz - 18 GHz), 2M**

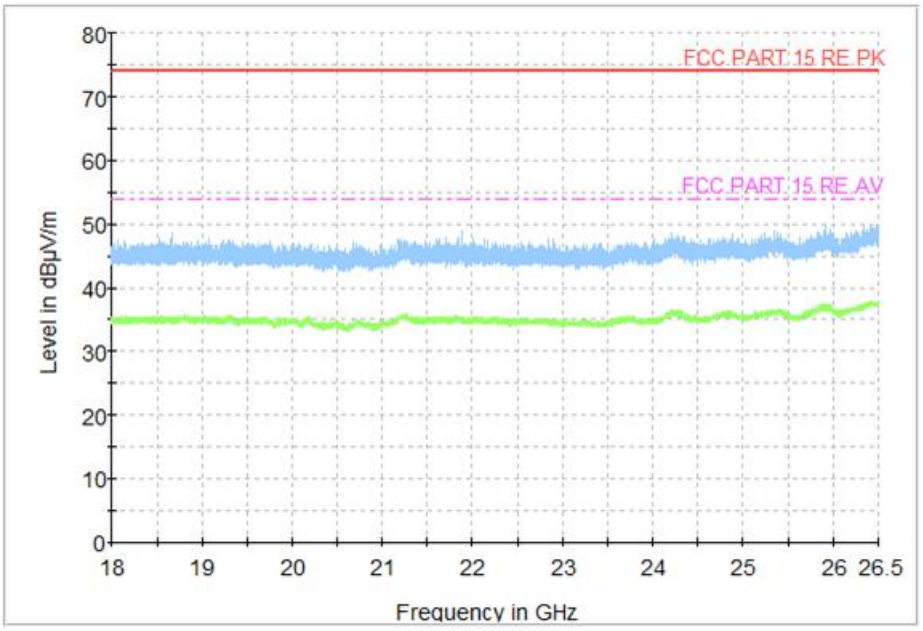


**Fig.53 Radiated Spurious Emission (Ch19, 18 GHz - 26.5 GHz), 2M**

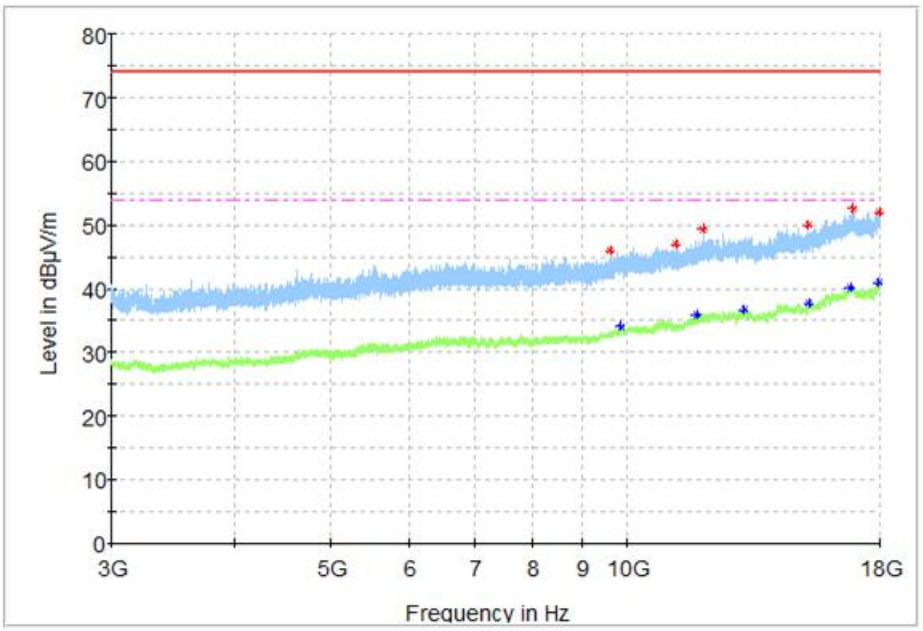


**Fig.54 Radiated Spurious Emission (Ch39, 3 GHz - 18 GHz), 2M**

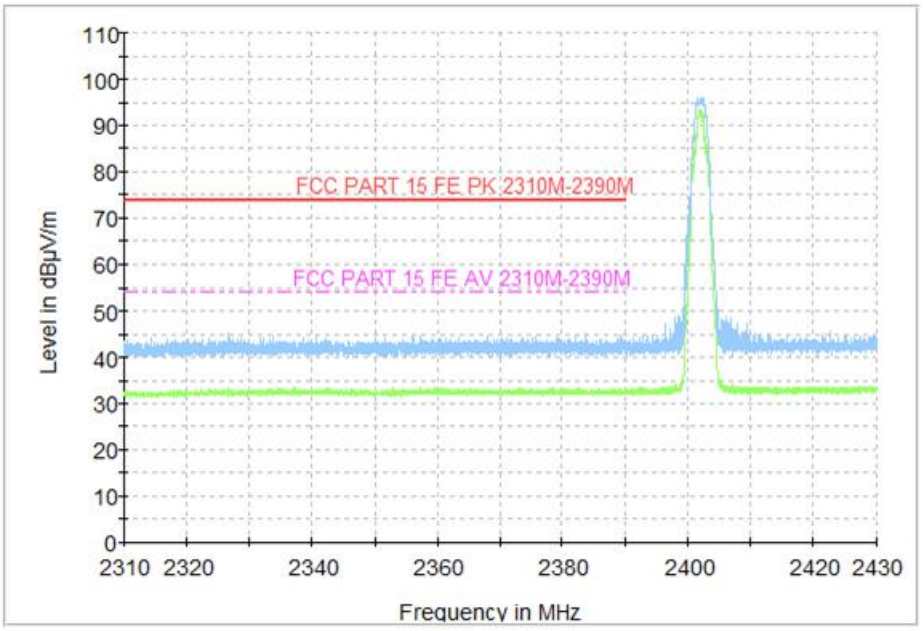


**Fig.55 Radiated Band Edges (Ch0, 2380GHz - 2450GHz), 2M**

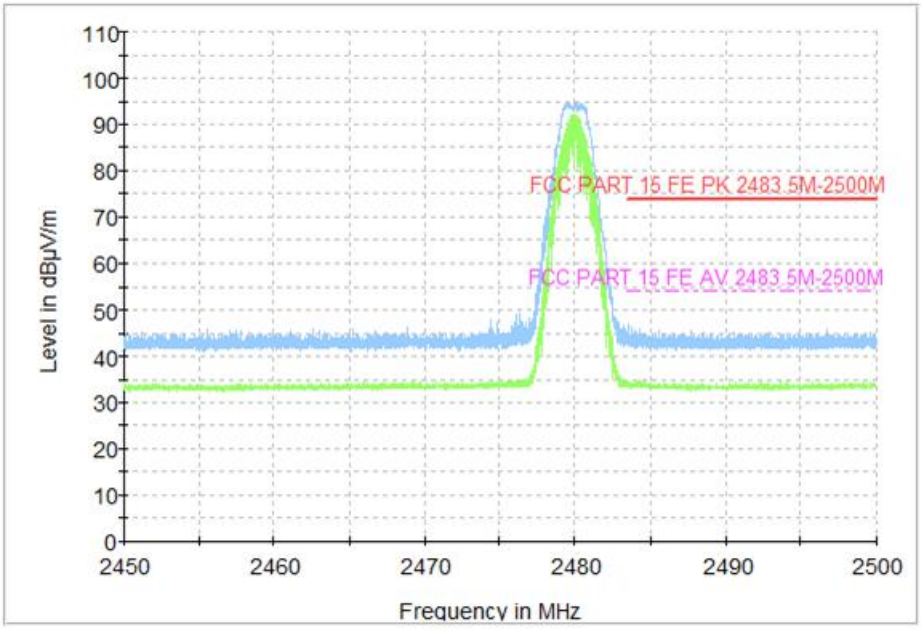


**Fig.56 Radiated Band Edges (Ch39, 2450GHz - 2500GHz), 2M**

## A.7 AC Power line Conducted Emission

**Test Condition:**

| Voltage (V) | Frequency (Hz) |
|---|---|
| 120 | 60 |

**Measurement Result and limit:**

**LE-1M**

BLE (Quasi-peak Limit) - AE2

| Frequency range (MHz) | Quasi-peak Limit (dBμV) | Result (dBμV) | | Conclusion |
|---|---|---|---|---|
| | | Traffic | Idle | |
| 0.15 to 0.5 | 66 to 56 | Fig.57 | Fig.58 | P |
| 0.5 to 5 | 56 | | | |
| 5 to 30 | 60 | | | |
| Note: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz. | | | | |

BLE (Average Limit) - AE2

| Frequency range (MHz) | Average-peak Limit (dBμV) | Result (dBμV) | | Conclusion |
|---|---|---|---|---|
| | | Traffic | Idle | |
| 0.15 to 0.5 | 56 to 46 | Fig.57 | Fig.58 | P |
| 0.5 to 5 | 46 | | | |
| 5 to 30 | 50 | | | |
| Note: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz. | | | | |

Note: The measurement results include the L1 and N measurements.

**See below for test graphs.**

**Conclusion: Pass**

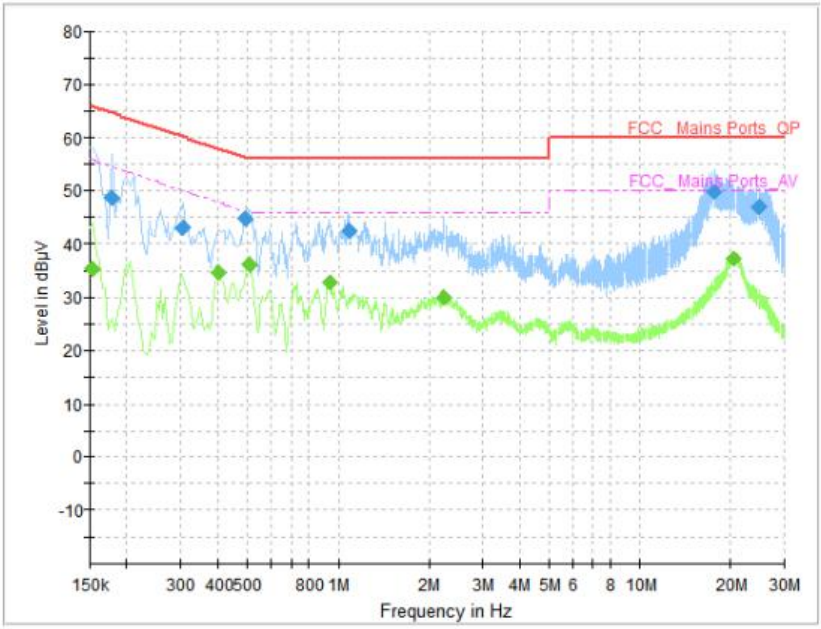


**Fig.57 AC Power line Conducted Emission (Traffic, AE2, 120V), 1M**

**Measurement Results: Quasi Peak**

| Frequency (MHz) | QuasiPeak (dBµV) | Limit (dBµV) | Margin (dB) | Line | Filter | Corr. (dB) |
|---|---|---|---|---|---|---|
| 0.178000 | 48.80 | 64.58 | 15.78 | N | ON | 10 |
| 0.306000 | 43.24 | 60.08 | 16.84 | N | ON | 10 |
| 0.490000 | 44.68 | 56.17 | 11.49 | N | ON | 10 |
| 1.082000 | 42.69 | 56.00 | 13.31 | N | ON | 10 |
| 17.586000 | 49.82 | 60.00 | 10.18 | L1 | ON | 10 |
| 24.722000 | 47.05 | 60.00 | 12.95 | L1 | ON | 10 |

**Measurement Results: Average**

| Frequency (MHz) | Average (dBµV) | Limit (dBµV) | Margin (dB) | Line | Filter | Corr. (dB) |
|---|---|---|---|---|---|---|
| 0.154000 | 35.35 | 55.78 | 20.43 | N | ON | 10 |
| 0.402000 | 34.77 | 47.81 | 13.04 | L1 | ON | 10 |
| 0.510000 | 36.13 | 46.00 | 9.87 | L1 | ON | 10 |
| 0.934000 | 32.76 | 46.00 | 13.24 | L1 | ON | 10 |
| 2.254000 | 30.06 | 46.00 | 15.94 | L1 | ON | 10 |
| 20.474000 | 37.16 | 50.00 | 12.84 | N | ON | 10 |

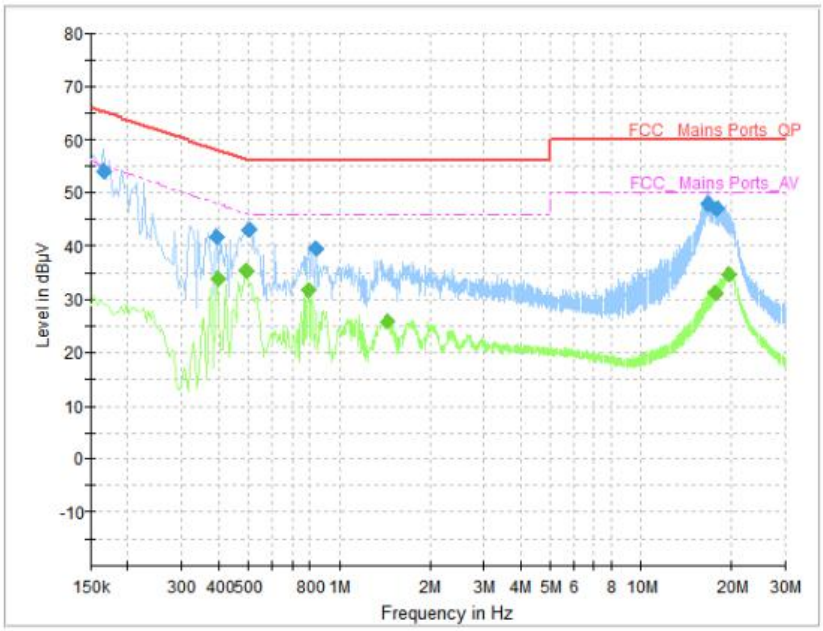


**Fig.58 AC Power line Conducted Emission (Idle, AE2, 120V), 1M**

**Measurement Results: Quasi Peak**

| Frequency (MHz) | QuasiPeak (dBµV) | Limit (dBµV) | Margin (dB) | Line | Filter | Corr. (dB) |
|---|---|---|---|---|---|---|
| 0.166000 | 53.89 | 65.16 | 11.27 | L1 | ON | 10 |
| 0.394000 | 41.77 | 57.98 | 16.21 | L1 | ON | 10 |
| 0.502000 | 43.21 | 56.00 | 12.79 | N | ON | 10 |
| 0.842000 | 39.38 | 56.00 | 16.62 | L1 | ON | 10 |
| 16.642000 | 47.97 | 60.00 | 12.03 | L1 | ON | 10 |
| 17.758000 | 47.01 | 60.00 | 12.99 | L1 | ON | 10 |

**Measurement Results: Average**

| Frequency (MHz) | Average (dBµV) | Limit (dBµV) | Margin (dB) | Line | Filter | Corr. (dB) |
|---|---|---|---|---|---|---|
| 0.398000 | 33.81 | 47.90 | 14.09 | L1 | ON | 10 |
| 0.494000 | 35.27 | 46.10 | 10.83 | L1 | ON | 10 |
| 0.794000 | 31.75 | 46.00 | 14.25 | L1 | ON | 10 |
| 1.446000 | 25.71 | 46.00 | 20.29 | L1 | ON | 10 |
| 17.618000 | 31.25 | 50.00 | 18.75 | N | ON | 11 |
| 19.434000 | 34.81 | 50.00 | 15.19 | N | ON | 10 |

# ANNEX B: Spot Check of Output Power

**Company Name:** TCL Communication Ltd.
**Product Name:** Tablet PC
**Model Name:** 9160G, 9460G

**Spot Check of Different Mode**

| Model | Mode | Frequency (MHz) | Conducted Power (dBm) |
|---|---|---|---|
| 9160G | LE 1M | 2440 (CH19) | -2.17 |
| | BR (GFSK) | 2441 (CH39) | 1.56 |
| | 802.11b | 2437 (CH6) | 17.48 |
| | 802.11a | 5280 (Ch56) | 16.81 |
| | | 5745 (CH149) | 16.55 |
| 9460G | LE 1M | 2440 (CH19) | -2.24 |
| | BR (GFSK) | 2441 (CH39) | 1.48 |
| | 802.11b | 2437 (CH6) | 17.38 |
| | 802.11a | 5280 (Ch56) | 16.76 |
| | | 5745 (CH149) | 16.44 |

Note: Spot check test data included for the variants based on worst-case results reported in the original FCC ID filing. From the above data, it can be concluded that the conducted output power of the variant is less than or near to the original. And the variant test data can refer to the original report. This condition applies to the reports I21N04177.

# ANNEX H: Spot Check of Transmitter unwanted emissions in the spurious domain

**Company Name:** TCL Communication Ltd
**Product Name:** Tablet PC
**Model Name:**9460G(FCC ID: 2ACCJB179)

**Differences between models**

| Model / Differences | 9160G (Initial Model) | 9460G (Record Model) |
|---|---|---|
| Model Name | 9160G | 9460G |
| GSM/WCDMA/LTE | Support | Nonsupport |

**Spot Check of Different Mode**

| Model Name | The Mode of the worst data of Original report | Frequency (MHz) | The worst result of Radiated Emission（dBμV/m） | The worst Margin(dB) |
|---|---|---|---|---|
| 9160G (Initial Model) | π/4 DQPSK | 2440 (CH39) | 40.97 | 13.03 |
| | BLE 1M | 2440(CH19) | 40.76 | 13.24 |
| | 802.11a | 5745(CH149) | 40.51 | 13.49 |
| | 802.11b | 2412(CH1) | 41.01 | 12.99 |
| 9460G (Record Model) | π/4 DQPSK | 2440 (CH39) | 40.62 | 13.38 |
| | BLE 1M | 2440(CH19) | 40.51 | 13.49 |
| | 802.11a | 5745(CH149) | 40.33 | 13.67 |
| | 802.11b | 2412(CH1) | 40.78 | 13.22 |

Spot check test data included for the variants based on worst-case results reported in the original FCC ID filing.

From the above data, it can be concluded that the Radiated Emission of the variant is better than that of the original. And the variant test data can refer to the original report.

This condition applies to the reports ***I21N04177*** and ***I22N00681***.

*****END OF REPORT*****