# FCC Radio Test Report

## FCC ID: 2AN6E-FLY6PRO

**According to**

**47 CFR FCC Part 15, Subpart C(Section 15.247)**
**ANSI C63.10:2013**

| | | |
|---|---|---|
| Product Name | : | Fly6 PRO |
| Model No. | : | CE604 |
| Trade Mark | : | CYCLIQ |
| Product No. | : | POC230803010-S001 |
| Applicant | : | CYCLIQ PRODUCTS PTY LTD |
| | | PO Box 404, Subiaco, 6904, Australia |
| Receipt date | : | 2023.08.03 |
| Test date | : | 2023.08.09~2023.08.18 |
| Issued Date | : | 2023.08.25 |

| Prepared By: | Checked By: | Approved By: | |
|---|---|---|---|
| Gavin Xu | Tim zhang | Misue Su | |
| Gavin Xu | Tim.zhang | Misue Su | |

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**REPORT ISSUED HISTORY**

Original Report Issue Date: 2023.08.25

● No additional attachment

○ Additional attachments were issued following record

| Attachment No. | Issue Date | Description |
|---|---|---|
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## 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

| FCC CFR Title 47, Part 15, Subpart C | | | | |
|---|---|---|---|---|
| **Standard(s) Section** | **Test Item** | **Test Result** | **Judgment** | **Remark** |
| 15.207 | AC Power Line Conducted Emissions | APPENDIX A | PASS | ------ |
| 15.247(d)<br>15.205(a)<br>15.209(a) | Radiated Emissions | APPENDIX B<br>APPENDIX C<br>APPENDIX D | PASS | ------ |
| 15.247(a)(2) | Bandwidth | APPENDIX E | PASS | ------ |
| 15.247(b)(3) | Maximum Output Power | APPENDIX F | PASS | ------ |
| 15.247(d) | Conducted Spurious Emission | APPENDIX G | PASS | ------ |
| 15.247(e) | Power Spectral Density | APPENDIX H | PASS | ------ |
| 15.203 | Antenna Requirement | ------ | PASS | Note(2) |

Note:

(1) “N/A” denotes test is not applicable to this device.

(2) The device what use a permanently attached SMD antenna were considered sufficient to comply with the provisions of 15.203.

## 1.1 TEST FACILITY

| | |
|---|---|
| Company: | Shenzhen Haiyun Standard Technical CO., Ltd. |
| Address: | No. 110-113, 115, 116, Block B, Jinyuan Business Building, Bao'an District, Shenzhen, China |
| CNAS Registration Number: | CNAS L18252 |
| CAB identifier: | CN0145 |
| Company Number: | 30427 |
| A2LA Certificate Number: | 6823.01 |
| FCC Designation Number: | CN1340 |
| Test Firm Registration Number. | 457288 |
| Telephone: | 0755-26024411 |

## 1.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

| Uncertainty | |
|---|---|
| Parameter | Uncertainty |
| Occupied Channel Bandwidth | ±143.88kHz |
| Power Spectral Density | ±0.743dB |
| Conducted Spurious Emission | ±1.328dB |
| RF power conducted | ±0.384dB |
| Conducted emission(9kHz~30MHz) AC main | ±2.72dB |
| Radiated emission(9kHz~30MHz) | ±2.66dB |
| Radiated emission (30MHz~1GHz) | ±4.62dB |
| Radiated emission (1GHz~18GHz) | ±4.86dB |
| Radiated emission (18GHz~40GHz) | ±3.80dB |

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

## 1.3 TEST ENVIRONMENT CONDITIONS

| Test Item | Temperature | Humidity | Test Voltage | Tested By |
|---|---|---|---|---|
| AC Power Line Conducted Emissions | 25°C | 52% | AC 120V/60Hz | Albert Fan |
| Radiated Emissions-9 kHz to 30 MHz | 24.2°C | 53% | DC 3.85V | Albert Fan |
| Radiated Emissions-30 MHz to 1000 MHz | 24.2°C | 53% | DC 3.85V | Albert Fan |
| Radiated Emissions-Above 1000 MHz | 24.2°C | 53% | DC 3.85V | Albert Fan |
| Bandwidth | 24.5°C | 54% | DC 3.85V | Jason Huang |
| Maximum Output Power | 24.5°C | 54% | DC 3.85V | Jason Huang |
| Conducted Spurious Emission | 24.5°C | 54% | DC 3.85V | Jason Huang |
| Power Spectral Density | 24.5°C | 54% | DC 3.85V | Jason Huang |

## 2. GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

| | |
|---|---|
| Equipment | Fly6 PRO |
| Brand Name | CYCLIQ |
| Test Model | CE604 |
| Power Supply | DC 3.85V from lithium battery |
| Operation Frequency | 2402 MHz~2480 MHz |
| Modulation Type | GFSK |
| Bit Rate of Transmitter | 1Mbps, 2Mbps |
| Max. Output Power | -6.2 dBm (-0.0002 W) |

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. Channel List:

| Channel | Frequency (MHz) | Channel | Frequency (MHz) |
|---|---|---|---|
| **00** | **2402** | 20 | 2442 |
| 01 | 2404 | 21 | 2444 |
| 02 | 2406 | 22 | 2446 |
| 03 | 2408 | 23 | 2448 |
| 04 | 2410 | 24 | 2450 |
| 05 | 2412 | 25 | 2452 |
| 06 | 2414 | 26 | 2454 |
| 07 | 2416 | 27 | 2456 |
| 08 | 2418 | 28 | 2458 |
| 09 | 2420 | 29 | 2460 |
| 10 | 2422 | 30 | 2462 |
| 11 | 2424 | 31 | 2464 |
| 12 | 2426 | 32 | 2466 |
| 13 | 2428 | 33 | 2468 |
| 14 | 2430 | 34 | 2470 |
| 15 | 2432 | 35 | 2472 |
| 16 | 2434 | 36 | 2474 |
| 17 | 2436 | 37 | 2476 |
| 18 | 2438 | 38 | 2478 |
| **19** | **2440** | **39** | **2480** |

3. Table for Filed Antenna:

| Ant. | Brand | Model Name | Antenna Type | Connector | Gain (dBi) |
|---|---|---|---|---|---|
| 1 | Yuyang | YY-01 | PCB | Ant | 2.04 |

Note:

(1) The antenna gain is provided by the manufacturer.
(2) The antenna is for testing purposes only.
(3) The antenna manufacture is Shenzhen Yuyang Wireless Technology Co., Ltd.

## 2.2 DESCRIPTION OF TEST MODES

The test system was pre-tested based on the consideration of all possible combinations of EUT operation mode.

| Pretest Mode | Description |
|---|---|
| Mode 1 | TX Mode_1Mbps Channel 00/19/39 |
| Mode 2 | TX Mode_2Mbps Channel 00/19/39 |
| Mode 3 | TX Mode_1Mbps Channel 00 |

Following mode(s) was (were) found to be the worst case(s) and selected for the final test.

| **AC power line conducted emissions test** | |
|---|---|
| Final Test Mode | Description |
| Mode 3 | TX Mode_1Mbps Channel 00 |

| **Radiated emissions test - Below 1GHz** | |
|---|---|
| Final Test Mode | Description |
| Mode 3 | TX Mode_1Mbps Channel 00 |

| **Radiated emissions test - Above 1GHz** | |
|---|---|
| Final Test Mode | Description |
| Mode 1 | TX Mode_1Mbps Channel 00/19/39 |
| Mode 2 | TX Mode_2Mbps Channel 00/19/39 |

| **Conducted test** | |
|---|---|
| Final Test Mode | Description |
| Mode 1 | TX Mode_1Mbps Channel 00/19/39 |
| Mode 2 | TX Mode_2Mbps Channel 00/19/39 |

Note:

(1) For radiated emission above 1 GHz test, the spurious points of 1GHz~18GHz and 18GHz~26.5GHz have been pre-tested and in this report only recorded the worst case. The remaining spurious points are all below the limit value of 20dB.

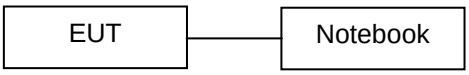
(2) For AC power line conducted emissions and radiated emissions below 1 GHz test, the TX Mode_1Mbps Channel 00 is found to be the worst case and recorded.

## 2.3 PARAMETERS OF TEST SOFTWARE

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level.

| Test Software Version | Command | | |
|---|---|---|---|
| Frequency (MHz) | 2402 | 2440 | 2480 |
| 1Mbps | default | default | default |
| 2Mbps | default | default | default |

## 2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED




## 2.5 SUPPORT UNITS

| Support Equipment | | | | |
|---|---|---|---|---|
| No. | Equipment | Brand Name | Model Name | Remarks |
| 1 | Notebook | Lenovo | Thinkbook 15 | / |
| 2 | Adapter | Lenovo | ADLX65ULGC2A | / |

## 3. AC POWER LINE CONDUCTED EMISSIONS

### 3.1 LIMIT

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

Note:

(1) The tighter limit applies at the band edges.
(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

### 3.2 TEST PROCEDURE

a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50μH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. LISN at least 80 cm from nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

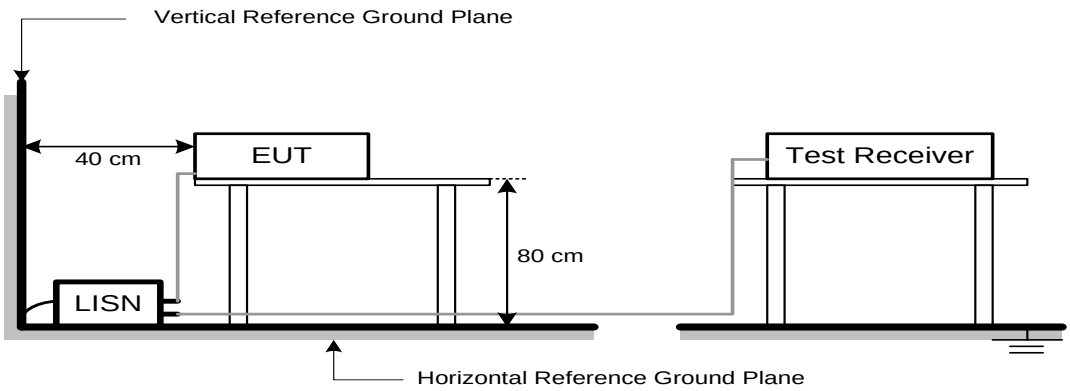
The following table is the setting of the receiver:

| Receiver Parameters | Setting |
|---|---|
| Start Frequency | 0.15 MHz |
| Stop Frequency | 30 MHz |
| IF Bandwidth | 9 kHz |

### 3.3 DEVIATION FROM TEST STANDARD

No deviation.

## 3.4 TEST SETUP




## 3.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

## 3.6 TEST RESULTS

Please refer to the APPENDIX A.

Remark:

(1) All readings are QP Mode value unless otherwise stated AVG in column of『Note』. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform.In this case, a " * " marked in AVG Mode column of Interference Voltage Measured.

(2) Measuring frequency range from 150 kHz to 30 MHz.

## 4. RADIATED EMISSIONS

### 4.1 LIMIT

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

LIMITS OF RADIATED EMISSION MEASUREMENT (9 kHz-1000 MHz)

| Frequency (MHz) | Field Strength (microvolts/meter) | 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 |

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000 MHz)

| Frequency (MHz) | (dBμV/m at 3 m) | |
|---|---|---|
| | Peak | Average |
| Above 1000 | 74 | 54 |

Note:

(1) The limit for radiated test was performed according to FCC CFR Title 47, Part 15, Subpart C.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBμV/m)=20log Emission level (μV/m).

## 4.2 TEST PROCEDURE

a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(below 1 GHz)
b. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 1.5 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.(above 1 GHz)
c. The height of the equipment or of the substitution antenna shall be 0.8m or 1.5m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
e. The receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
f. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
g. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn‘t perform. (below 1 GHz)
h. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn‘t perform. (above 1 GHz)
i. For the actual test configuration, please refer to the related Item –EUT Test Photos.

The following table is the setting of the receiver:

| Spectrum Parameters | Setting |
|---|---|
| Start ~ Stop Frequency | 9 kHz~150 kHz for RBW 200 Hz |
| Start ~ Stop Frequency | 0.15 MHz~30 MHz for RBW 9 kHz |
| Start ~ Stop Frequency | 30 MHz~1000 MHz for RBW 100 kHz |

| Spectrum Parameters | Setting |
|---|---|
| Start Frequency | 1000 MHz |
| Stop Frequency | 10th carrier harmonic |
| RBW / VBW<br>(Emission in restricted band) | 1 MHz / 3 MHz for PK value<br>1 MHz / 1/T Hz for AVG value |

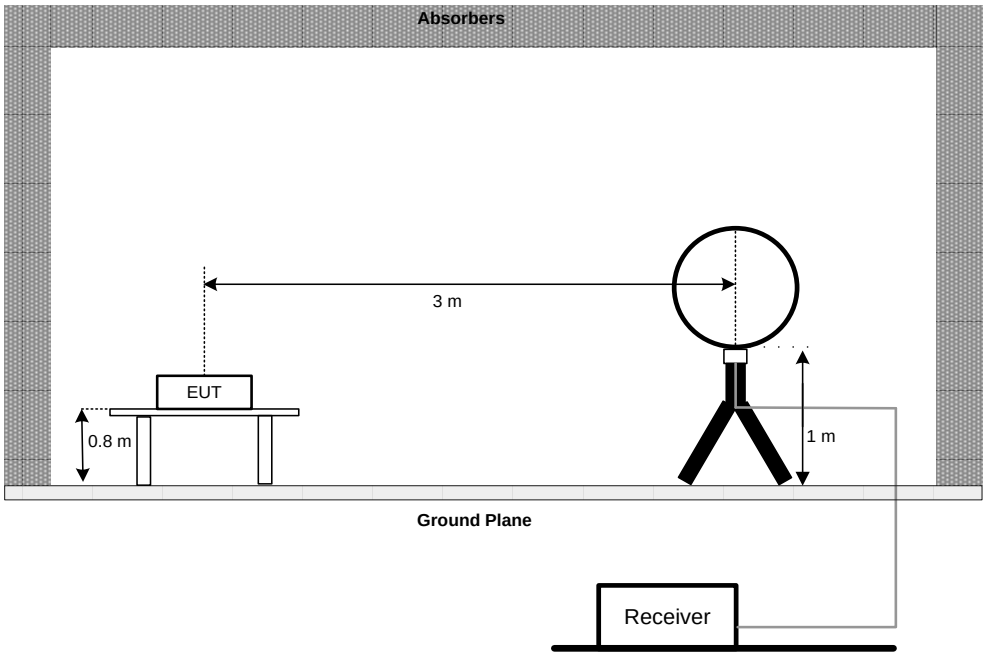
| Spectrum Parameters | Setting |
|---|---|
| Start ~ Stop Frequency | 9 kHz~90 kHz for PK/AVG detector |
| Start ~ Stop Frequency | 90 kHz~110 kHz for QP detector |
| Start ~ Stop Frequency | 110 kHz~490 kHz for PK/AVG detector |
| Start ~ Stop Frequency | 490 kHz~30 MHz for QP detector |
| Start ~ Stop Frequency | 30 MHz~1000 MHz for QP detector |
| Start ~ Stop Frequency | 1 GHz~26.5 GHz for PK/AVG detector |

## 4.3 DEVIATION FROM TEST STANDARD

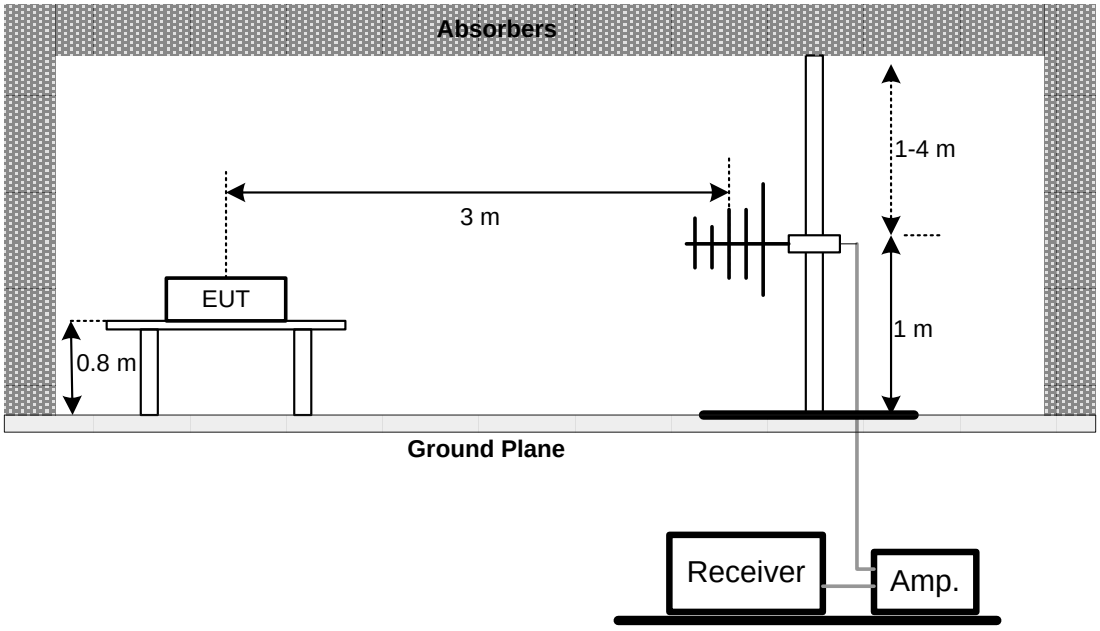
No deviation.

## 4.4 TEST SETUP

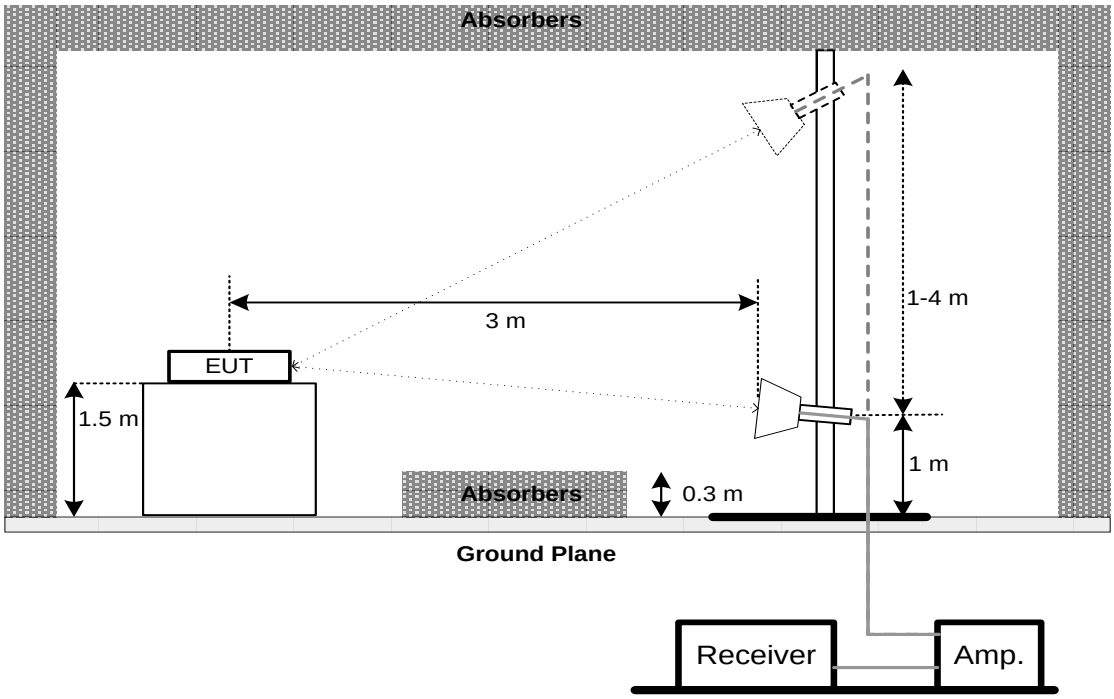
**9 kHz to 30 MHz**




**30 MHz to 1 GHz**



**Above 1 GHz**




## 4.5 EUT OPERATING CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

## 4.6 TEST RESULT - 9 kHz TO 30 MHz

Please refer to the APPENDIX B.

Remark:

(1) Distance extrapolation factor = 40 log (specific distance / test distance) (dB).
(2) Limit line = specific limits (dBμV) + distance extrapolation factor.

## 4.7 TEST RESULT - 30 MHz TO 1000 MHz

Please refer to the APPENDIX C.

## 4.8 TEST RESULT - ABOVE 1000 MHz

Please refer to the APPENDIX D.

Remark:

(1) No limit: This is fundamental signal, the judgment is not applicable.
For fundamental signal judgment was referred to Peak output test.

## 5. BANDWIDTH

### 5.1 LIMIT

| Section | Test Item | Limit |
|---|---|---|
| FCC 15.247(a)(2) | 6 dB Bandwidth | >= 500 kHz |
| | 99% Emission Bandwidth | - |

### 5.2 TEST PROCEDURE

a. The EUT was directly connected to the tonscend test system and antenna output port as show in the block diagram below.

b. The following table is the setting of the spectrum analyzer:

For 6 dB Bandwidth:

| Spectrum Parameters | Setting |
|---|---|
| Span Frequency | > Measurement Bandwidth |
| RBW | 100 kHz |
| VBW | 300 kHz |
| Detector | Peak |
| Trace | Max Hold |
| Sweep Time | Auto |

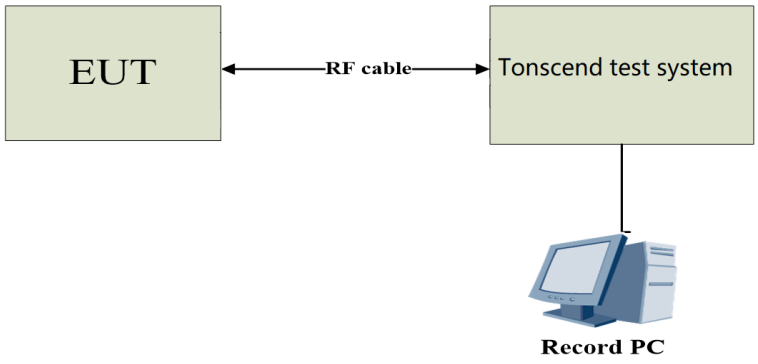
For 99% Emission Bandwidth:

| Spectrum Parameters | Setting |
|---|---|
| Span Frequency | Between 1.5 times and 5.0 times the OBW |
| RBW | 1% to 5% of the OBW |
| VBW | approximately three times RBW |
| Detector | Peak |
| Trace | Max Hold |
| Sweep Time | Auto |

### 5.3 DEVIATION FROM STANDARD

No deviation.

### 5.4 TEST SETUP




### 5.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

## 5.6 TEST RESULTS

Please refer to the APPENDIX E.

## 6. MAXIMUM OUTPUT POWER

### 6.1 LIMIT

| Section | Test Item | Limit |
|---|---|---|
| FCC 15.247(b)(3) | Maximum Output Power | 1.0000 watt or 30.00 dBm |

### 6.2 TEST PROCEDURE

a. The EUT was directly connected to the tonscend test system and antenna output port as show in the block diagram below.

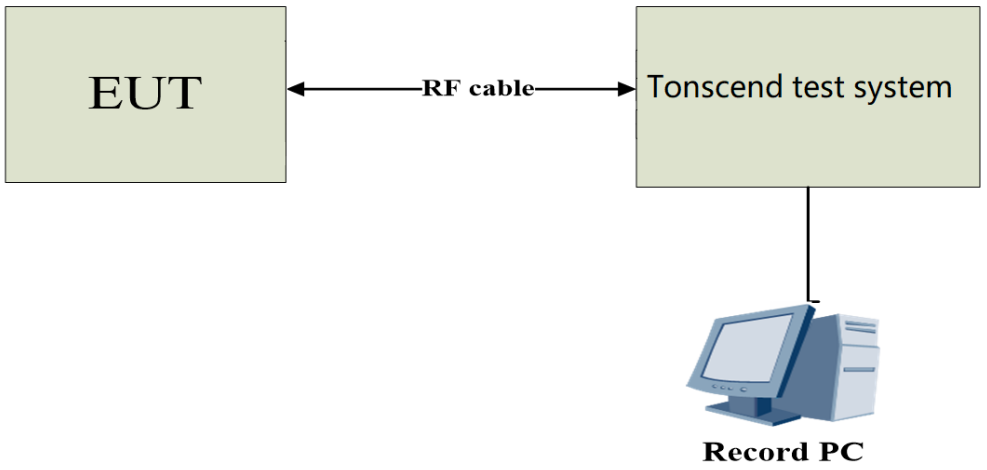
b. The following table is the setting of the spectrum analyzer:

| Spectrum Parameters | Setting |
|---|---|
| Span Frequency | ≥ 3×RBW |
| RBW | 2 MHz |
| VBW | 3×RBW |
| Detector | Peak |
| Trace | Max Hold |
| Sweep Time | Auto |

### 6.3 DEVIATION FROM STANDARD

No deviation.

### 6.4 TEST SETUP




### 6.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 6.6 TEST RESULTS

Please refer to the APPENDIX F.

## 7. CONDUCTED SPURIOUS EMISSION

### 7.1 LIMIT

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak Output Power limits. If the transmitter complies with the Output Power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required.

### 7.2 TEST PROCEDURE

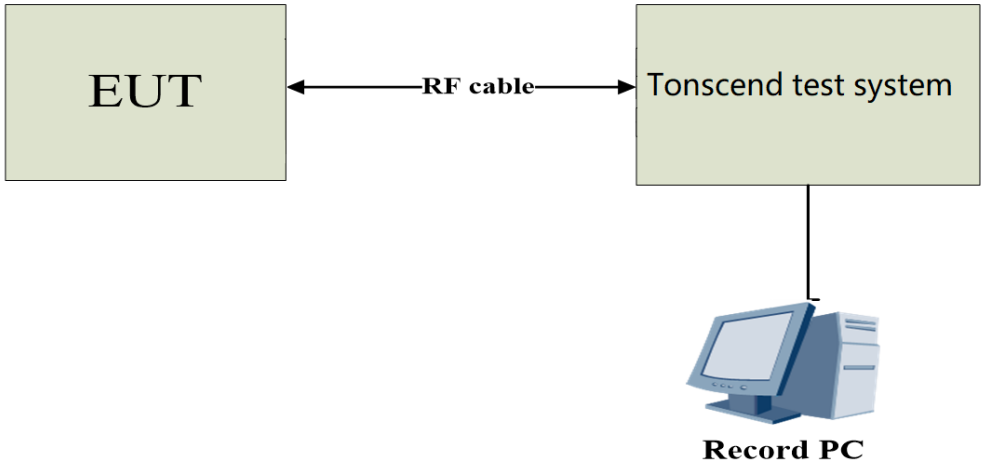
a. The EUT was directly connected to the tonscend test system and antenna output port as show in the block diagram below.
b. The following table is the setting of the spectrum analyzer:

| Spectrum Parameters | Setting |
|---|---|
| Start Frequency | 30 MHz |
| Stop Frequency | 26.5 GHz |
| RBW | 100 kHz |
| VBW | 300 kHz |
| Detector | Peak |
| Trace | Max Hold |
| Sweep Time | Auto |

### 7.3 DEVIATION FROM STANDARD

No deviation.

### 7.4 TEST SETUP




### 7.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 7.6 TEST RESULTS

Please refer to the APPENDIX G.

## 8. POWER SPECTRAL DENSITY

### 8.1 LIMIT

| Section | Test Item | Limit |
|---|---|---|
| FCC 15.247(e) | Power Spectral Density | 8 dBm<br>(in any 3 kHz) |

### 8.2 TEST PROCEDURE

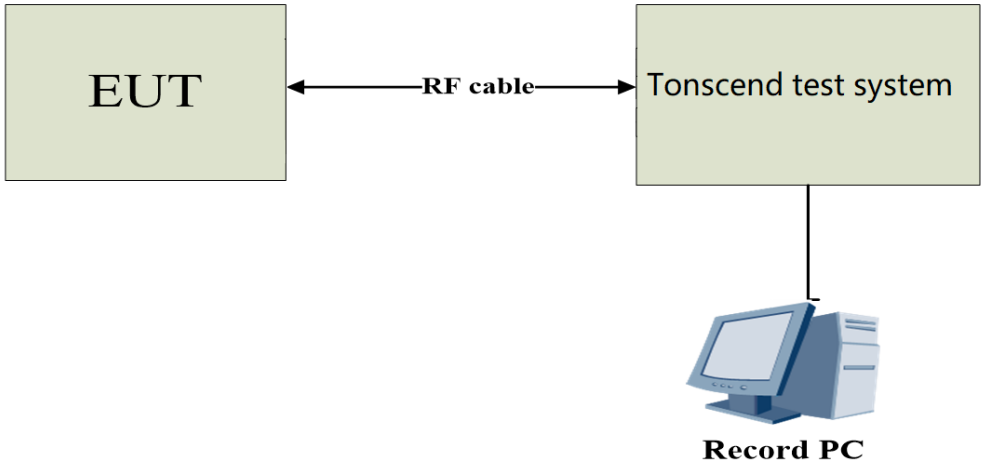
a. The EUT was directly connected to the tonscend test system and antenna output port as show in the block diagram below.
b. The following table is the setting of the spectrum analyzer:

| Spectrum Parameters | Setting |
|---|---|
| Span Frequency | 1.5 times DTS BW |
| RBW | 3 kHz |
| VBW | 10 kHz |
| Detector | Peak |
| Trace | Max Hold |
| Sweep Time | Auto |

### 8.3 DEVIATION FROM STANDARD

No deviation.

### 8.4 TEST SETUP




### 8.5 EUT OPERATION CONDITIONS

The EUT was programmed to be in continuously transmitting mode.

### 8.6 TEST RESULTS

Please refer to the APPENDIX H.

## 9. MEASUREMENT INSTRUMENTS LIST

| Radiated Emissions | | | | | | |
|---|---|---|---|---|---|---|
| No. | Equipment | Manufacturer | Type No. | Serial No. | Cal. date (yyyy/mm/dd) | Cal. Due date (yyyy/mm/dd) |
| 1 | Test receiver | Rohde&Schwarz | ESU | 100184 | 2023/5/3 | 2024/5/2 |
| 2 | Horn Antenna | Schwarzbeck | BBHA 9120 D | 9120D-1273 | 2023/4/23 | 2024/4/22 |
| 3 | Low frequency amplifier | Unknown | LNA 0920N | 2014 | 2023/5/3 | 2024/5/2 |
| 4 | High frequency amplifier | Schwarzbeck | BBV 9718 | 284 | 2023/5/3 | 2024/5/2 |
| 5 | Loop Antenna | Schwarzbeck | FMZB1519B | 00029 | 2022/7/4 | 2025/7/3 |
| 6 | Log periodic antenna | Schwarzbeck | VULB 9168 | 1151 | 2023/4/23 | 2024/4/22 |
| 7 | Horn Antenna | Schwarzbeck | BBHA 9120 D | 9120D-1273 | 2022/5/5 | 2025/5/4 |
| 8 | Horn Antenna | Schwarzbeck | BBHA 9170 | 9170#685 | 2022/7/4 | 2025/7/3 |
| 9 | Temp&Humidity Recorder | Meideshi | JR900 | / | 2023/5/3 | 2024/5/2 |
| 10 | RF cable(966 chamber)9kHz-1GHz | Unknown | Unknown | Unknown | 2023/5/3 | 2024/5/2 |
| 11 | RF cable(966 chamber)1GHz-18GHz | Unknown | Unknown | Unknown | 2023/5/3 | 2024/5/2 |
| 12 | RF cable(966 chamber)18GHz-40GHz | Unknown | Unknown | Unknown | 2023/5/3 | 2024/5/2 |
| 13 | Test software | Farad Technology Co., Ltd | EZ-EMC | / | / | / |
| **Conducted Emission** | | | | | | |
| 1 | Test receiver | Rohde&Schwarz | ESCI | 100718 | 2023/5/3 | 2024/5/2 |
| 2 | LISN | Rohde&Schwarz | ENV216 | 100075 | 2023/5/3 | 2024/5/2 |
| 3 | Pulse limiter | Rohde&Schwarz | ESH3-Z2 | 102299 | 2023/5/3 | 2024/5/2 |
| 4 | RF cable (9kHz-30MHz) | Unknown | Unknown | Unknown | 2023/5/3 | 2024/5/2 |
| 5 | Test software | Farad Technology Co., Ltd | EZ-EMC | / | / | / |
| RF conducted Emissions | | | | | | |
| 1 | MXA Signal Analyzer | Keysight | N9021B | MY60080169 | 2023/4/23 | 2024/4/22 |
| 2 | RF Control Unit | dsusoft | JS0806-2 | 21G8060449 | 2023/4/23 | 2024/4/22 |
| 3 | power supply unit | dsusoft | JS0806-4ADC | N/A | 2023/4/23 | 2024/4/22 |
| 4 | VXG Signal Generator | Keysight | M9384B | MY61270787 | 2023/4/23 | 2024/4/22 |
| 5 | EXG Analog Signal Generator | Keysight | N5173B | MY59101282 | 2023/4/23 | 2024/4/22 |
| 6 | Test software | dsusoft | JS1120-3 | / | / | / |

## 10. ANTENNA REQUIREMENT

Test standard: FCC part 15.203

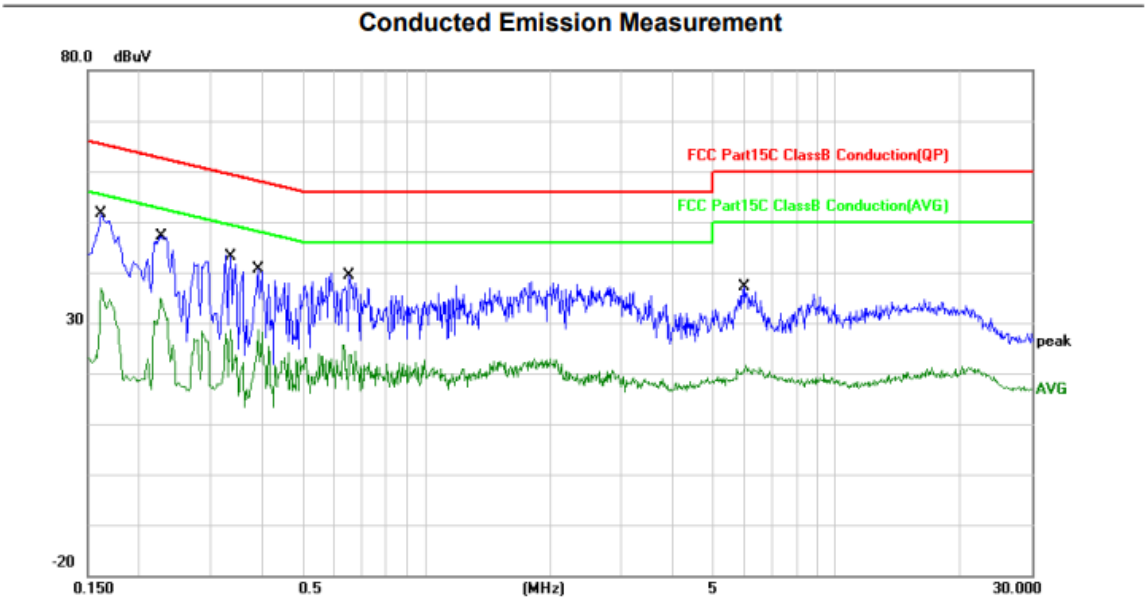
According to the manufacturer declared, the EUT has PCB antenna, the antenna gain is 2.04dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement.

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

Refer to EUT Photo for further details.

# APPENDIX A - AC POWER LINE CONDUCTED EMISSIONS

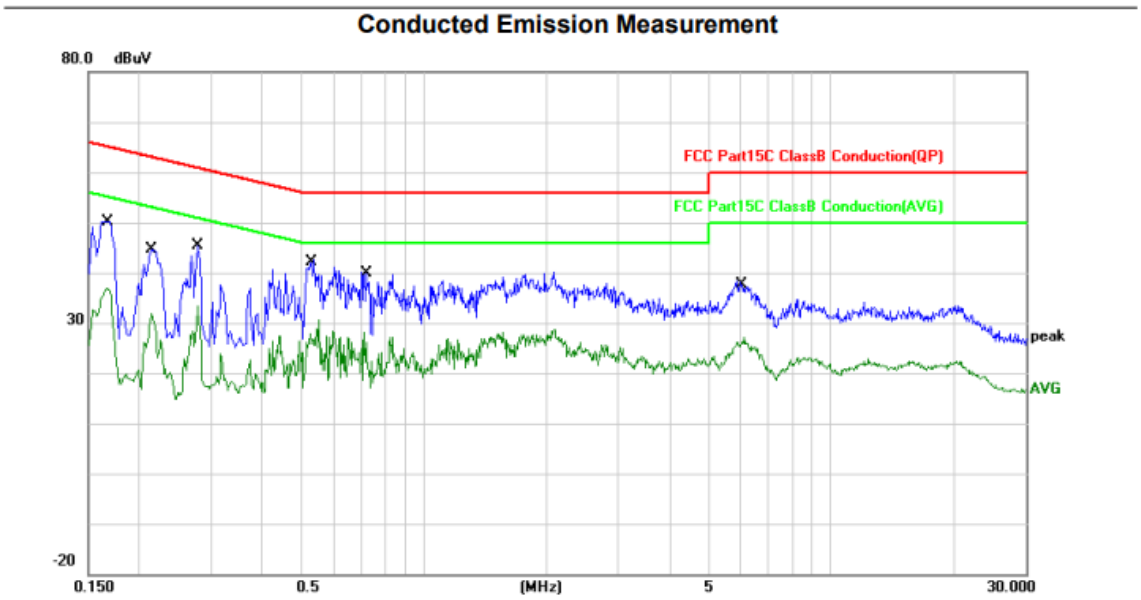
| Test Mode | TX Mode_1Mbps Channel 00 | Phase | Line |
|---|---|---|---|




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV | dBuV | dB | Detector | Comment |
| 1 | * | 0.1615 | 29.67 | 19.88 | 49.55 | 65.39 | -15.84 | QP | |
| 2 | | 0.1615 | 16.96 | 19.88 | 36.84 | 55.39 | -18.55 | AVG | |
| 3 | | 0.2255 | 25.36 | 19.88 | 45.24 | 62.61 | -17.37 | QP | |
| 4 | | 0.2255 | 14.88 | 19.88 | 34.76 | 52.61 | -17.85 | AVG | |
| 5 | | 0.3341 | 21.37 | 19.88 | 41.25 | 59.35 | -18.10 | QP | |
| 6 | | 0.3341 | 8.65 | 19.88 | 28.53 | 49.35 | -20.82 | AVG | |
| 7 | | 0.3896 | 18.57 | 19.88 | 38.45 | 58.07 | -19.62 | QP | |
| 8 | | 0.3896 | 8.62 | 19.88 | 28.50 | 48.07 | -19.57 | AVG | |
| 9 | | 0.6518 | 17.48 | 19.88 | 37.36 | 56.00 | -18.64 | QP | |
| 10 | | 0.6518 | 3.76 | 19.88 | 23.64 | 46.00 | -22.36 | AVG | |
| 11 | | 6.0145 | 15.09 | 19.93 | 35.02 | 60.00 | -24.98 | QP | |
| 12 | | 6.0145 | 1.68 | 19.93 | 21.61 | 50.00 | -28.39 | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | TX Mode_1Mbps Channel 00 | Phase | Neutral |
|---|---|---|---|




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB | dBuV | dBuV | dB | Detector | Comment |
| 1 | | 0.1660 | 27.33 | 19.88 | 47.21 | 65.16 | -17.95 | QP | |
| 2 | | 0.1660 | 17.06 | 19.88 | 36.94 | 55.16 | -18.22 | AVG | |
| 3 | | 0.2140 | 22.80 | 19.88 | 42.68 | 63.05 | -20.37 | QP | |
| 4 | | 0.2140 | 12.05 | 19.88 | 31.93 | 53.05 | -21.12 | AVG | |
| 5 | | 0.2775 | 22.77 | 19.88 | 42.65 | 60.89 | -18.24 | QP | |
| 6 | | 0.2775 | 13.61 | 19.88 | 33.49 | 50.89 | -17.40 | AVG | |
| 7 | * | 0.5243 | 20.24 | 19.88 | 40.12 | 56.00 | -15.88 | QP | |
| 8 | | 0.5243 | 8.11 | 19.88 | 27.99 | 46.00 | -18.01 | AVG | |
| 9 | | 0.7131 | 18.13 | 19.88 | 38.01 | 56.00 | -17.99 | QP | |
| 10 | | 0.7131 | 8.26 | 19.88 | 28.14 | 46.00 | -17.86 | AVG | |
| 11 | | 6.0465 | 15.93 | 19.93 | 35.86 | 60.00 | -24.14 | QP | |
| 12 | | 6.0465 | 6.43 | 19.93 | 26.36 | 50.00 | -23.64 | AVG | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

# APPENDIX B - RADIATED EMISSION - 9 KHZ TO 30 MHZ

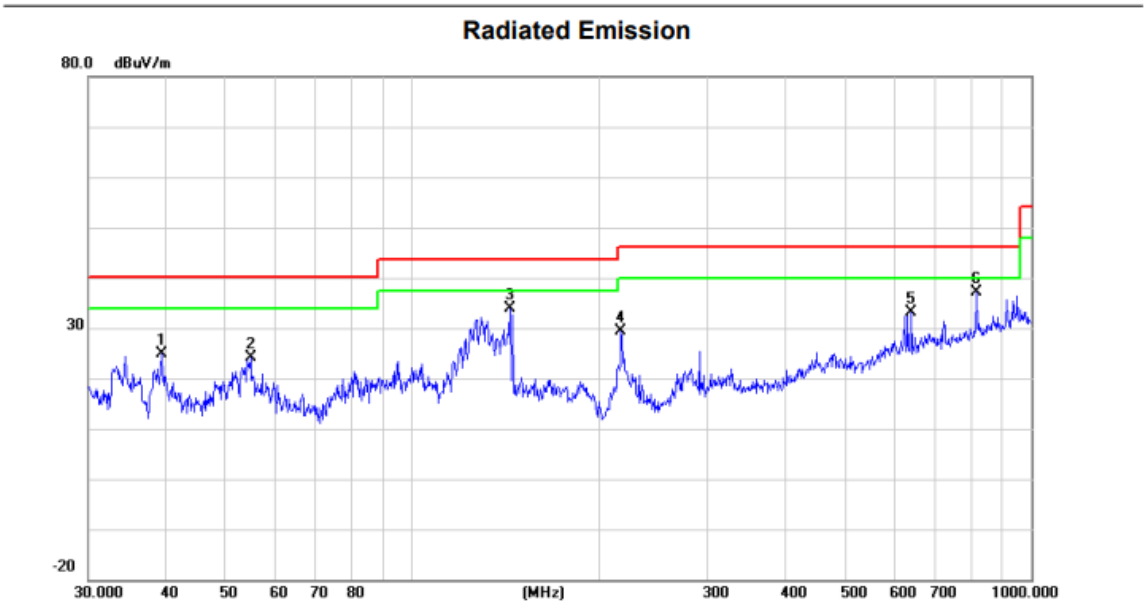
Radiated emission: 9KHz-30MHz

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

# APPENDIX C - RADIATED EMISSION - 30 MHZ TO 1000 MHZ

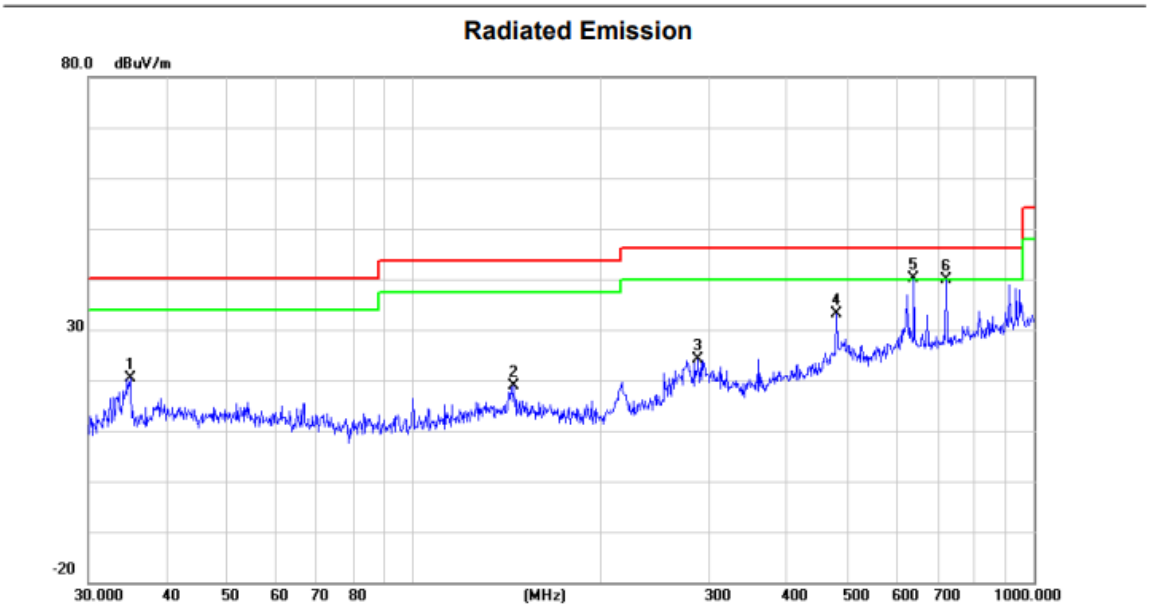
| Test Mode | TX Mode_1Mbps Channel 00 | Polarization | Vertical |
|---|---|---|---|




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | |
|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector |
| 1 | | 39.4371 | 35.62 | -10.71 | 24.91 | 40.00 | -15.09 | QP |
| 2 | | 54.8348 | 35.66 | -11.55 | 24.11 | 40.00 | -15.89 | QP |
| 3 | | 143.8295 | 43.45 | -9.63 | 33.82 | 43.50 | -9.68 | QP |
| 4 | | 217.5443 | 40.32 | -10.84 | 29.48 | 46.00 | -16.52 | QP |
| 5 | | 640.6110 | 33.08 | 0.02 | 33.10 | 46.00 | -12.90 | QP |
| 6 | * | 815.9678 | 34.04 | 3.16 | 37.20 | 46.00 | -8.80 | QP |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

| Test Mode | TX Mode_1Mbps Channel 00 | Polarization | Horizontal |
|---|---|---|---|

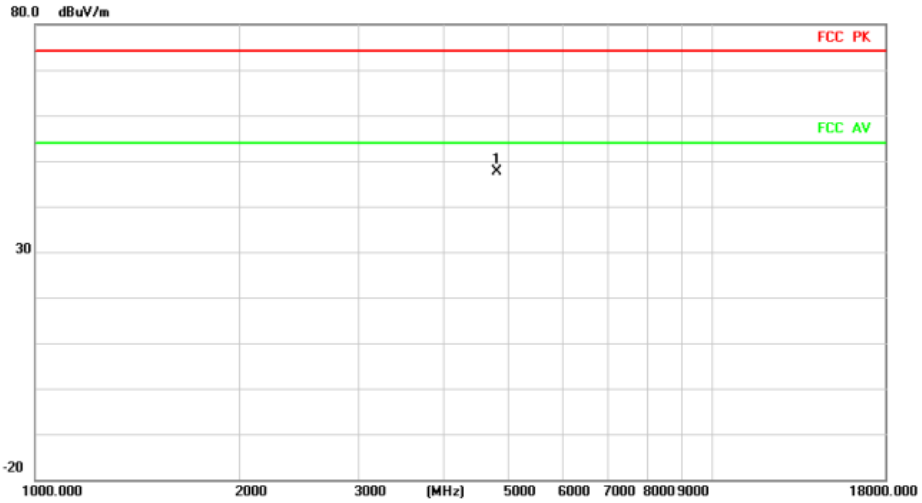



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | |
|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector |
| 1 | | 35.0048 | 31.90 | -11.63 | 20.27 | 40.00 | -19.73 | QP |
| 2 | | 145.3506 | 28.49 | -9.61 | 18.88 | 43.50 | -24.62 | QP |
| 3 | | 287.9904 | 32.65 | -8.55 | 24.10 | 46.00 | -21.90 | QP |
| 4 | | 480.5276 | 37.04 | -3.93 | 33.11 | 46.00 | -12.89 | QP |
| 5 | * | 640.6110 | 40.04 | 0.02 | 40.06 | 46.00 | -5.94 | QP |
| 6 | | 721.7260 | 38.51 | 1.36 | 39.87 | 46.00 | -6.13 | QP |

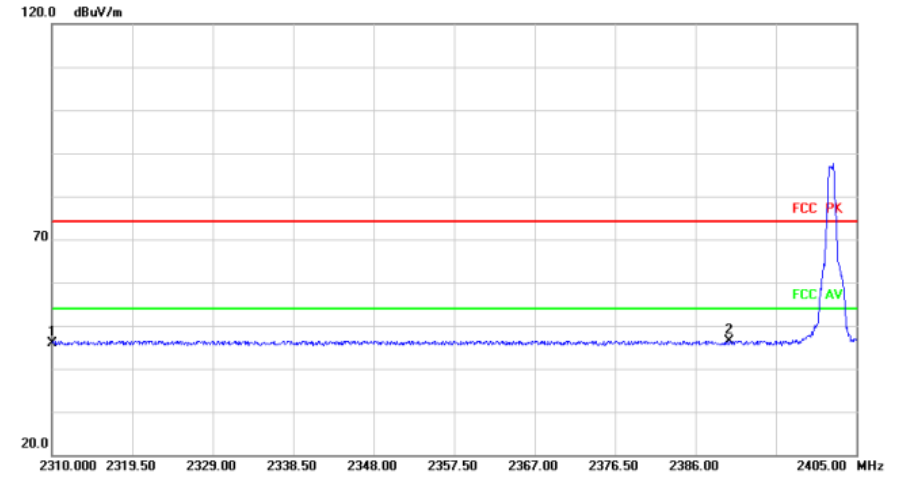
REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

# APPENDIX D - RADIATED EMISSION - ABOVE 1000 MHZ

| Test Mode | TX 2402 MHz_1Mbps | Polarization | Vertical |
|---|---|---|---|

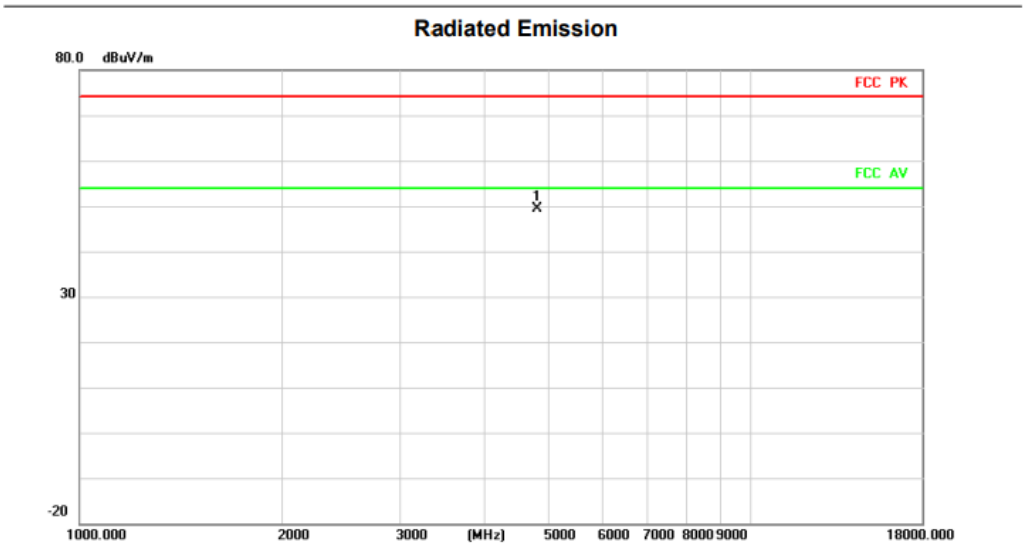



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | * | 4804.000 | 49.73 | -1.99 | 47.74 | 74.00 | -26.26 | peak | | | |

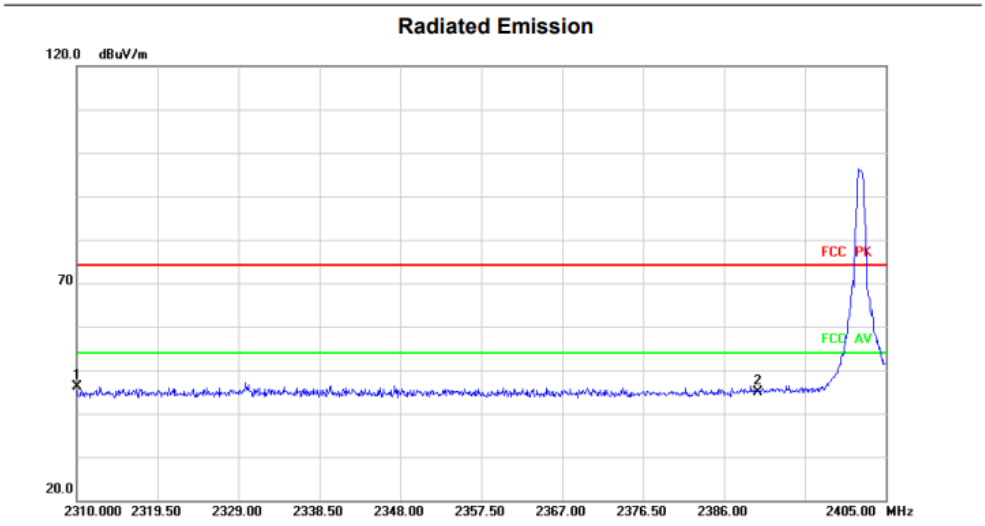



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | | 2310.000 | 45.70 | 0.19 | 45.89 | 74.00 | -28.11 | peak | | | |
| 2 | * | 2390.000 | 46.03 | 0.41 | 46.44 | 74.00 | -27.56 | peak | | | |

| Test Mode | TX 2402 MHz_1Mbps | Polarization | Horizontal |
|---|---|---|---|

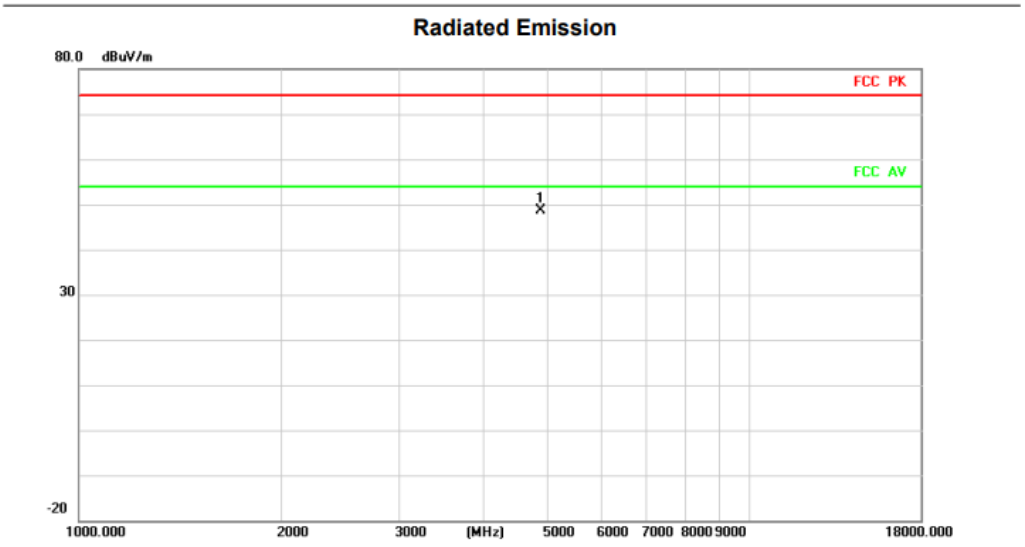



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | * | 4804.000 | 51.48 | -1.99 | 49.49 | 74.00 | -24.51 | peak | | | |



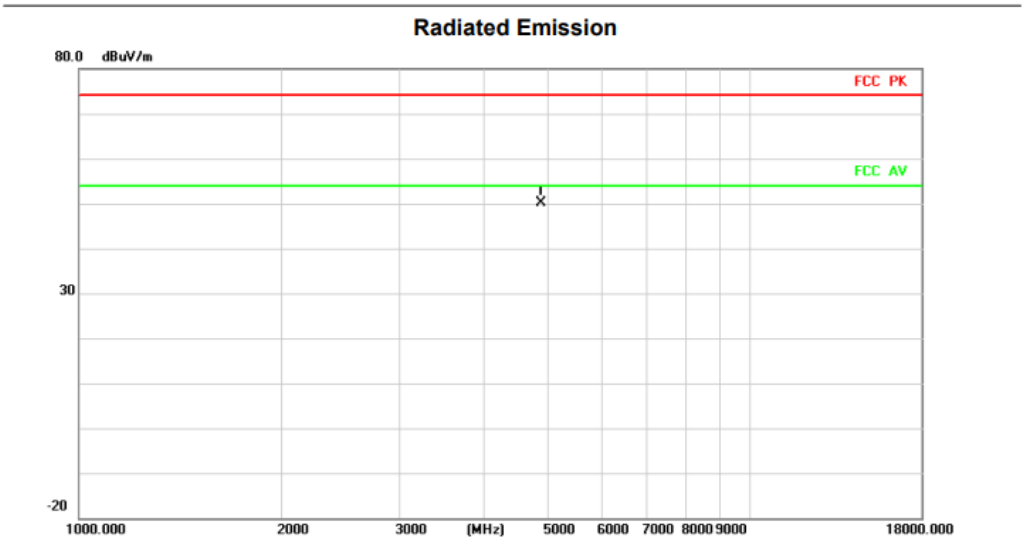

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | * | 2310.000 | 45.99 | 0.19 | 46.18 | 74.00 | -27.82 | peak | | | |
| 2 | | 2390.000 | 44.58 | 0.41 | 44.99 | 74.00 | -29.01 | peak | | | |

| Test Mode | TX 2440 MHz _1Mbps | Polarization | Vertical |
|---|---|---|---|



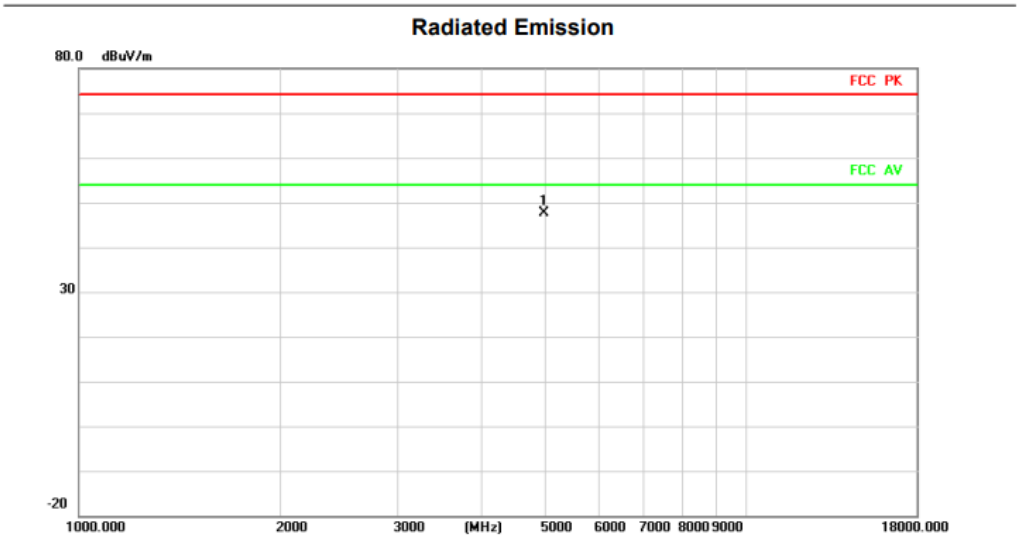

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | * | 4880.000 | 50.13 | -1.55 | 48.58 | 74.00 | -25.42 | peak | | | |

| Test Mode | TX 2440 MHz _1Mbps | Polarization | Horizontal |
|---|---|---|---|

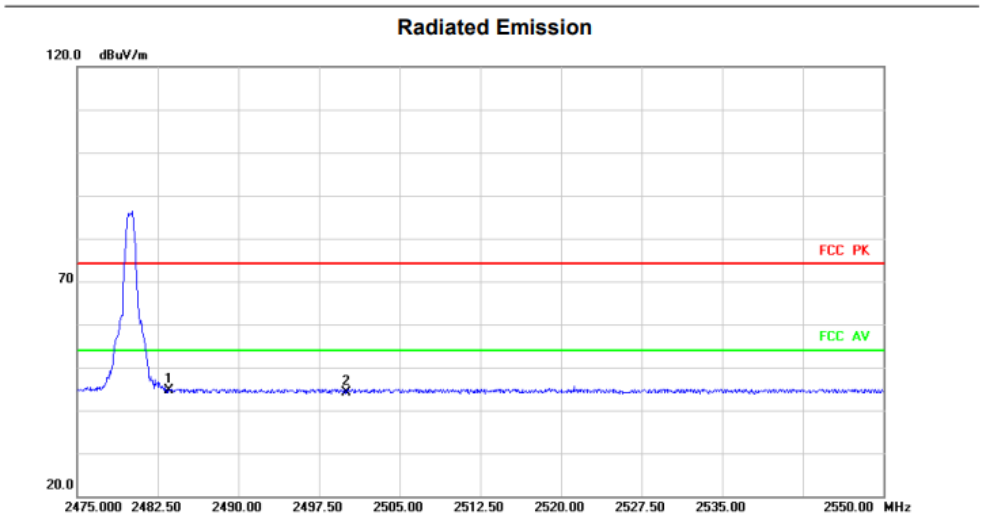



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | * | 4880.000 | 51.74 | -1.55 | 50.19 | 74.00 | -23.81 | peak | | | |

| Test Mode | TX 2480 MHz_1Mbps | Polarization | Vertical |
|---|---|---|---|

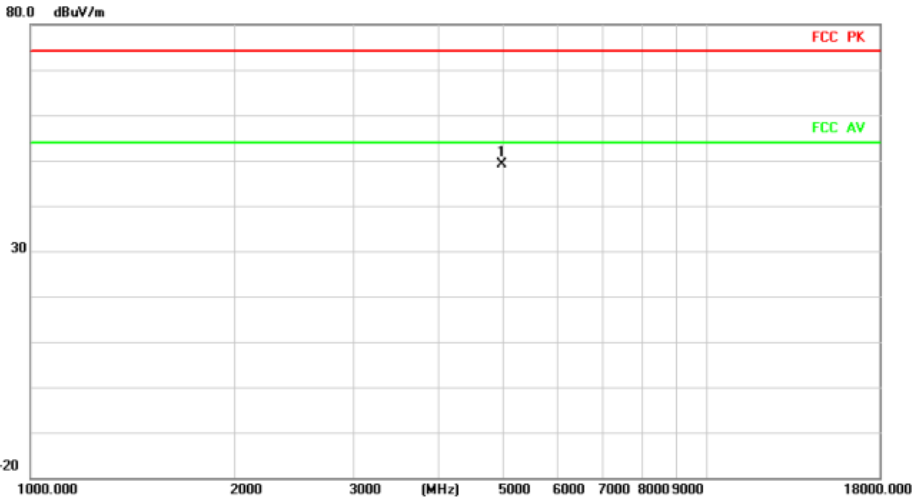



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | * | 4960.000 | 48.63 | -1.08 | 47.55 | 74.00 | -26.45 | peak | | | |

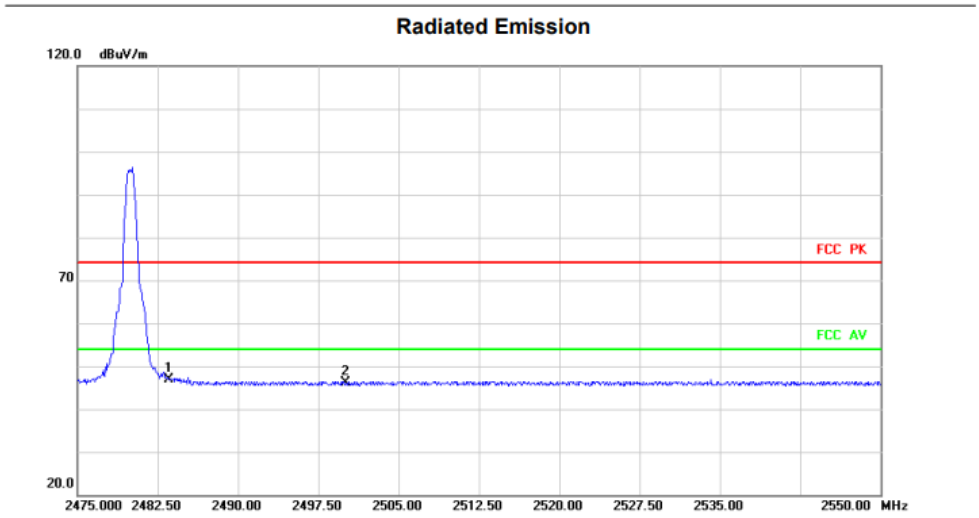



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | * | 2483.500 | 43.63 | 1.09 | 44.72 | 74.00 | -29.28 | peak | | | |
| 2 | | 2500.000 | 42.80 | 1.22 | 44.02 | 74.00 | -29.98 | peak | | | |

| Test Mode | TX 2480 MHz_1Mbps | Polarization | Horizontal |
|---|---|---|---|

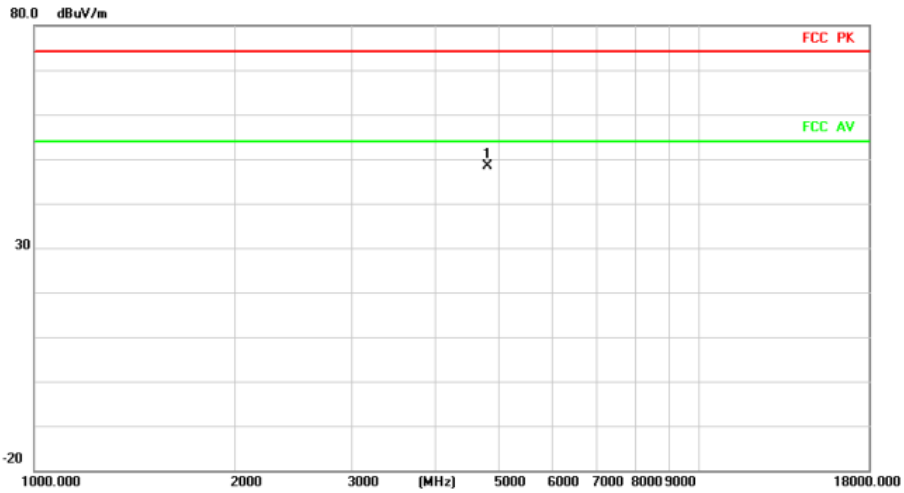



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | * | 4960.000 | 50.23 | -1.08 | 49.15 | 74.00 | -24.85 | peak | | | |

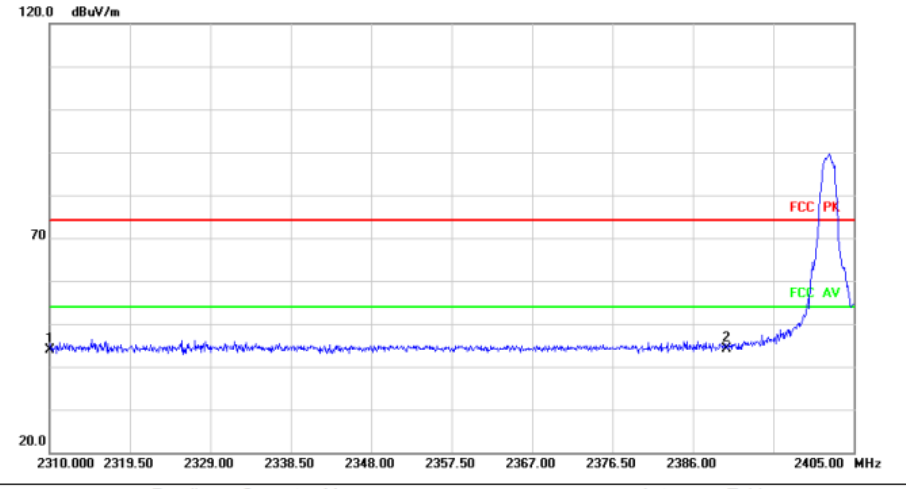



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | * | 2483.500 | 45.67 | 1.09 | 46.76 | 74.00 | -27.24 | peak | | | |
| 2 | | 2500.000 | 44.99 | 1.22 | 46.21 | 74.00 | -27.79 | peak | | | |

| Test Mode | TX 2402 MHz_2Mbps | Polarization | Vertical |
|---|---|---|---|




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | * | 4804.000 | 50.41 | -1.99 | 48.42 | 74.00 | -25.58 | peak | | | |



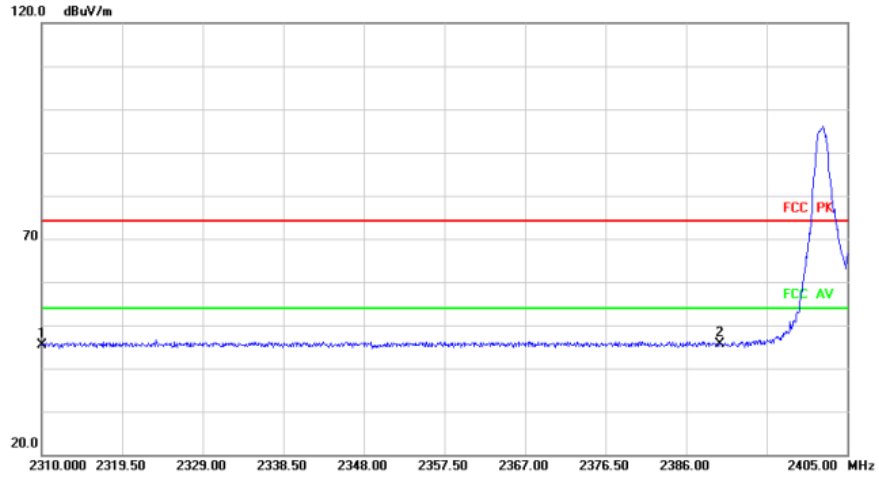

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | | 2310.000 | 43.64 | 0.19 | 43.83 | 74.00 | -30.17 | peak | | | |
| 2 | * | 2390.000 | 43.62 | 0.41 | 44.03 | 74.00 | -29.97 | peak | | | |

| Test Mode | TX 2402 MHz_2Mbps | Polarization | Horizontal |
|---|---|---|---|

**Radiated Emission**

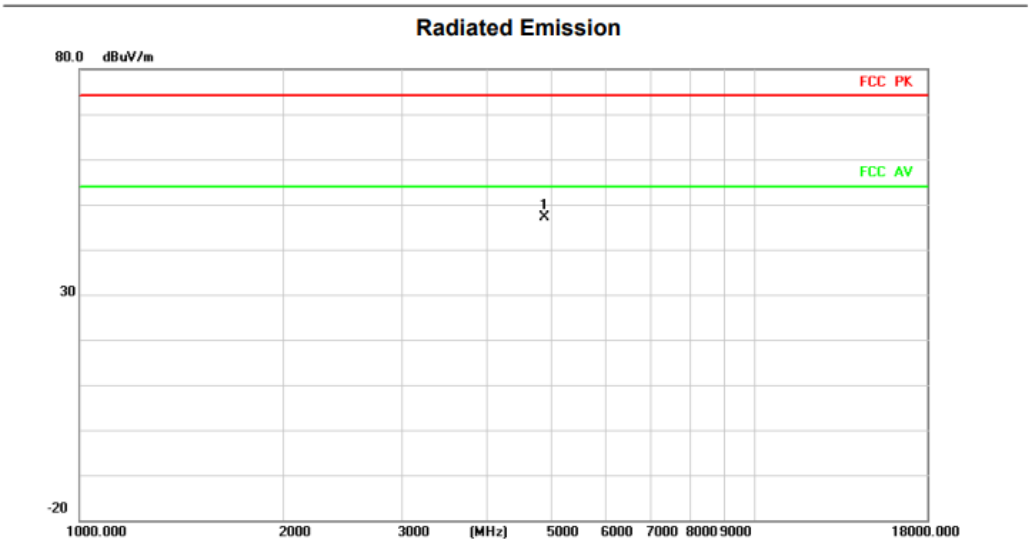

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | * | 4804.000 | 52.22 | -1.99 | 50.23 | 74.00 | -23.77 | peak | | | |

**Radiated Emission**



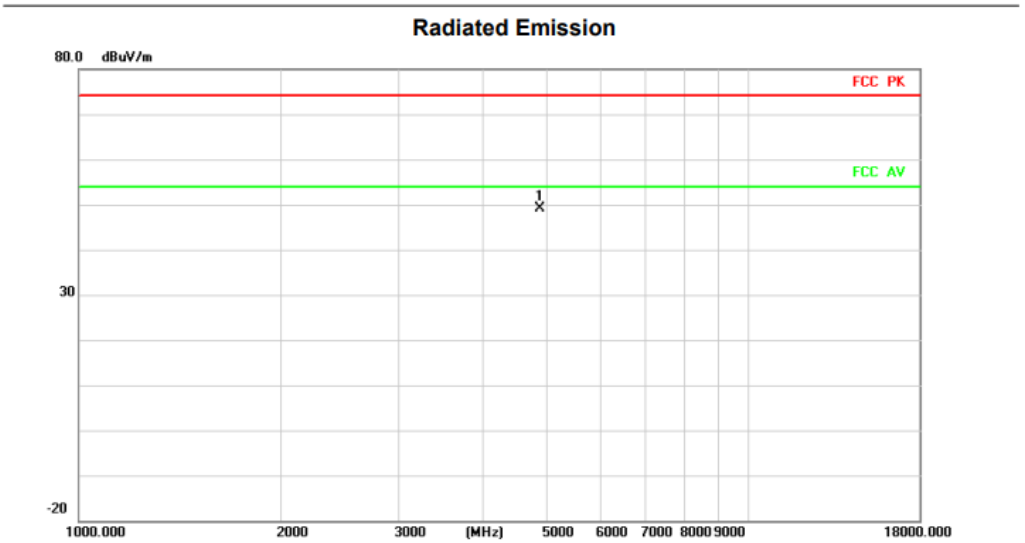

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | | 2310.000 | 45.23 | 0.19 | 45.42 | 74.00 | -28.58 | peak | | | |
| 2 | * | 2390.000 | 45.15 | 0.41 | 45.56 | 74.00 | -28.44 | peak | | | |

| Test Mode | TX 2440 MHz _2Mbps | Polarization | Vertical |
|---|---|---|---|



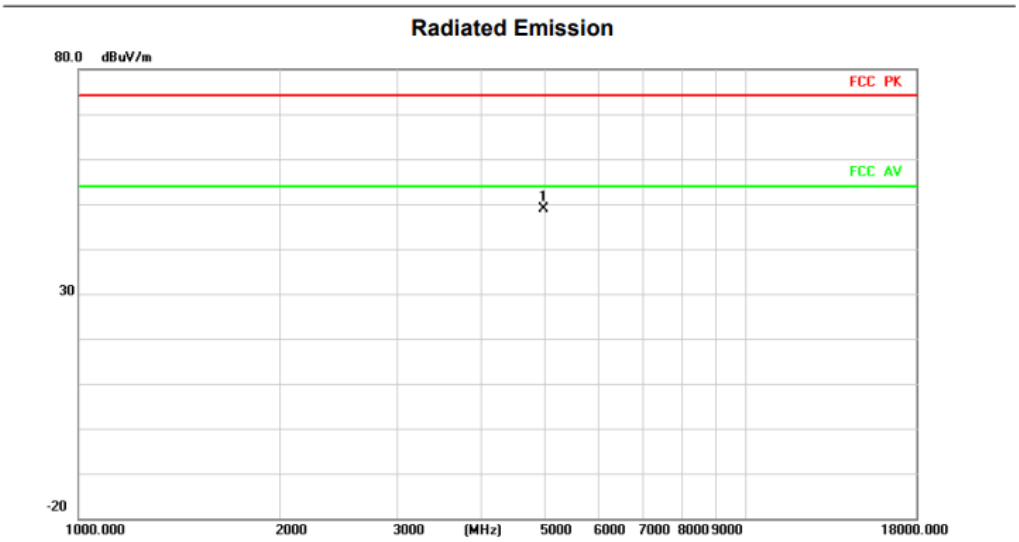

| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | * | 4880.000 | 48.64 | -1.55 | 47.09 | 74.00 | -26.91 | peak | | | |

| Test Mode | TX 2440 MHz _2Mbps | Polarization | Horizontal |
|---|---|---|---|

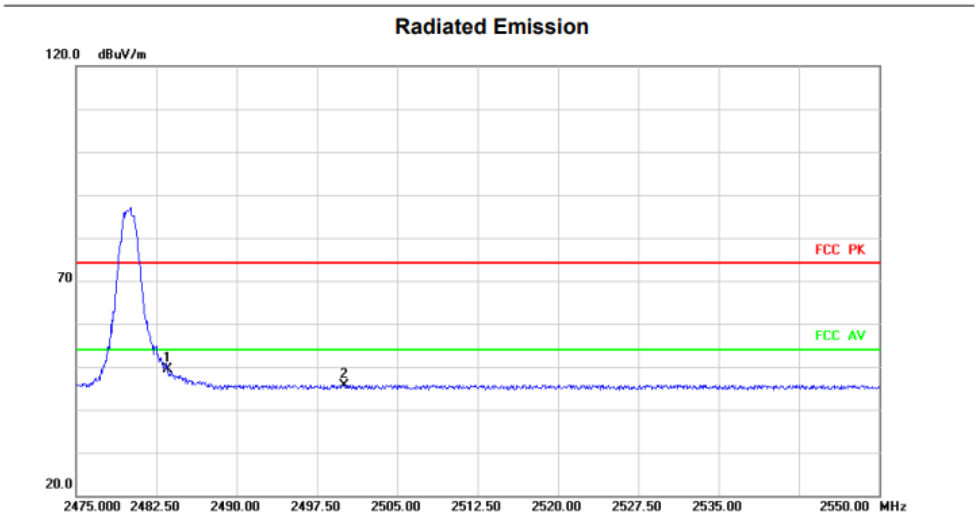



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | * | 4880.000 | 50.64 | -1.55 | 49.09 | 74.00 | -24.91 | peak | | | |

| Test Mode | TX 2480 MHz_2Mbps | Polarization | Vertical |
|---|---|---|---|

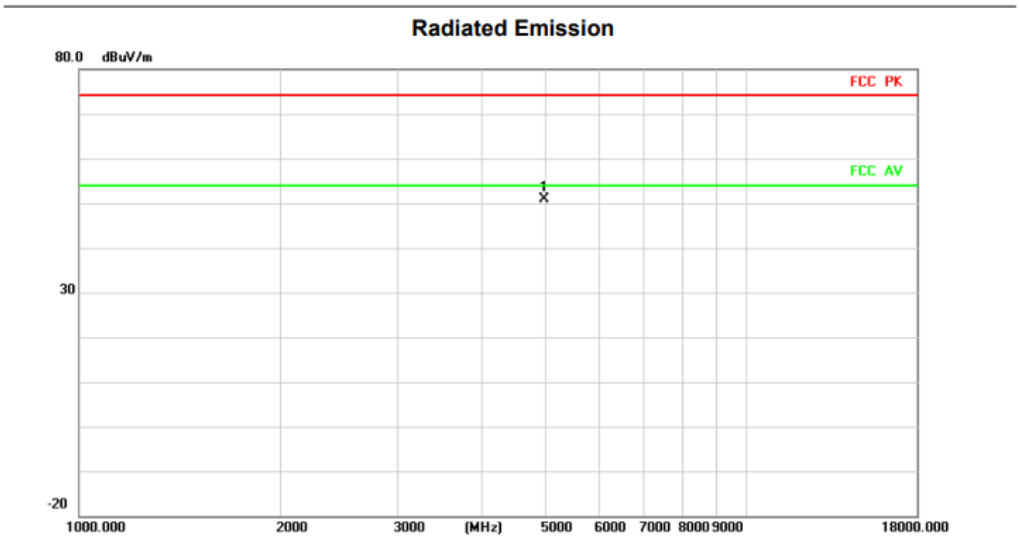



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | * | 4960.000 | 50.04 | -1.08 | 48.96 | 74.00 | -25.04 | peak | | | |

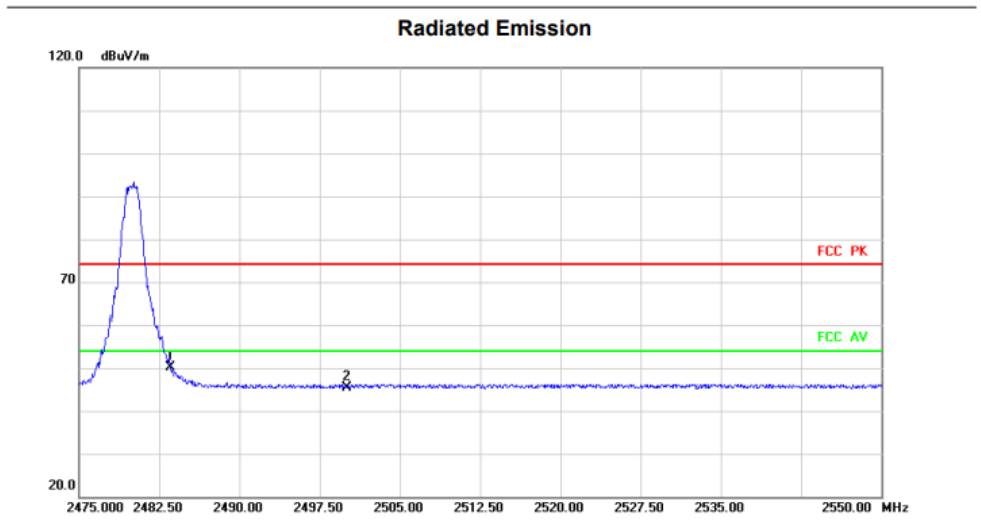



| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | * | 2483.500 | 48.24 | 1.09 | 49.33 | 74.00 | -24.67 | peak | | | |
| 2 | | 2500.000 | 44.46 | 1.22 | 45.68 | 74.00 | -28.32 | peak | | | |

| Test Mode | TX 2480 MHz_2Mbps | Polarization | Horizontal |
|---|---|---|---|




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | * | 4960.000 | 51.84 | -1.08 | 50.76 | 74.00 | -23.24 | peak | | | |




| No. | Mk. | Freq. | Reading Level | Correct Factor | Measure-ment | Limit | Over | | Antenna Height | Table Degree | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MHz | dBuV | dB/m | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | * | 2483.500 | 48.93 | 1.09 | 50.02 | 74.00 | -23.98 | peak | | | |
| 2 | | 2500.000 | 44.12 | 1.22 | 45.34 | 74.00 | -28.66 | peak | | | |

REMARKS:
(1) Measurement Value = Reading Level + Correct Factor.
(2) Margin Level = Measurement Value - Limit Value.

Note: The high frequency, which started from 18GHz to 25GHz, was pre-scanned and the result which was 20dB lower than the limit line was not recorded in this report.

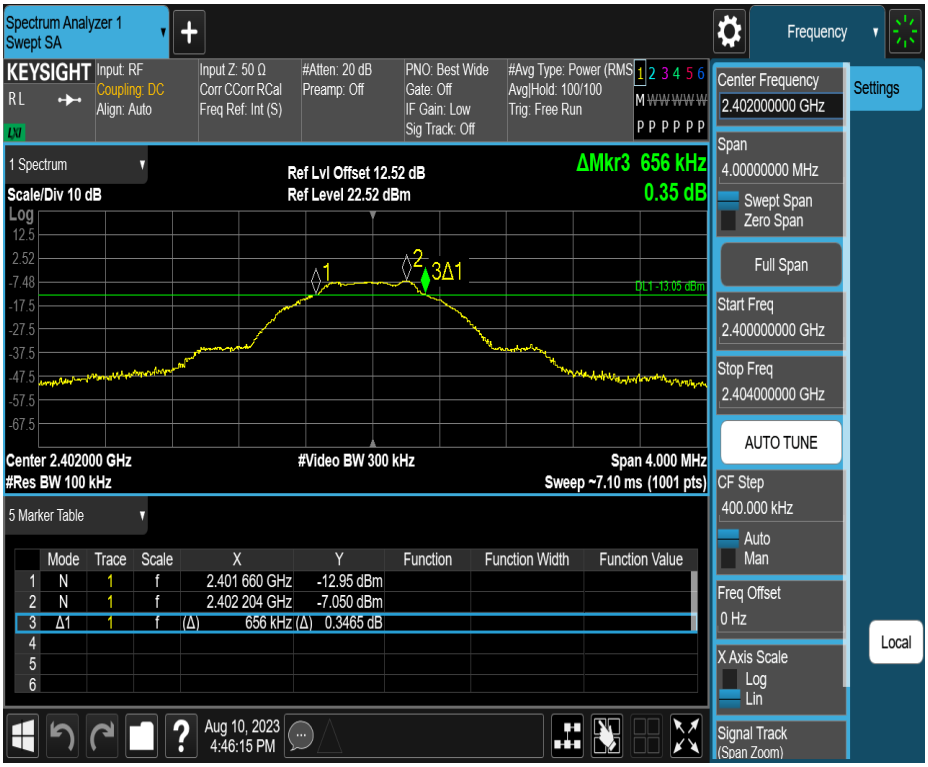
# APPENDIX E - BANDWIDTH

**DTS Bandwidth**

| Test Mode | Antenna | Freq(MHz) | DTS BW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|---|---|---|
| BLE_1M | Ant1 | 2402 | 0.656 | 2401.660 | 2402.316 | 0.5 | PASS |
| | | 2440 | 0.660 | 2439.652 | 2440.312 | 0.5 | PASS |
| | | 2480 | 0.672 | 2479.648 | 2480.320 | 0.5 | PASS |
| BLE_2M | Ant1 | 2402 | 1.244 | 2401.380 | 2402.624 | 0.5 | PASS |
| | | 2440 | 1.256 | 2439.376 | 2440.632 | 0.5 | PASS |
| | | 2480 | 1.264 | 2479.368 | 2480.632 | 0.5 | PASS |

Test Graphs

BLE_1M_Ant1_2402




BLE_1M_Ant1_2440

BLE_1M_Ant1_2480


BLE_2M_Ant1_2402

BLE_2M_Ant1_2440

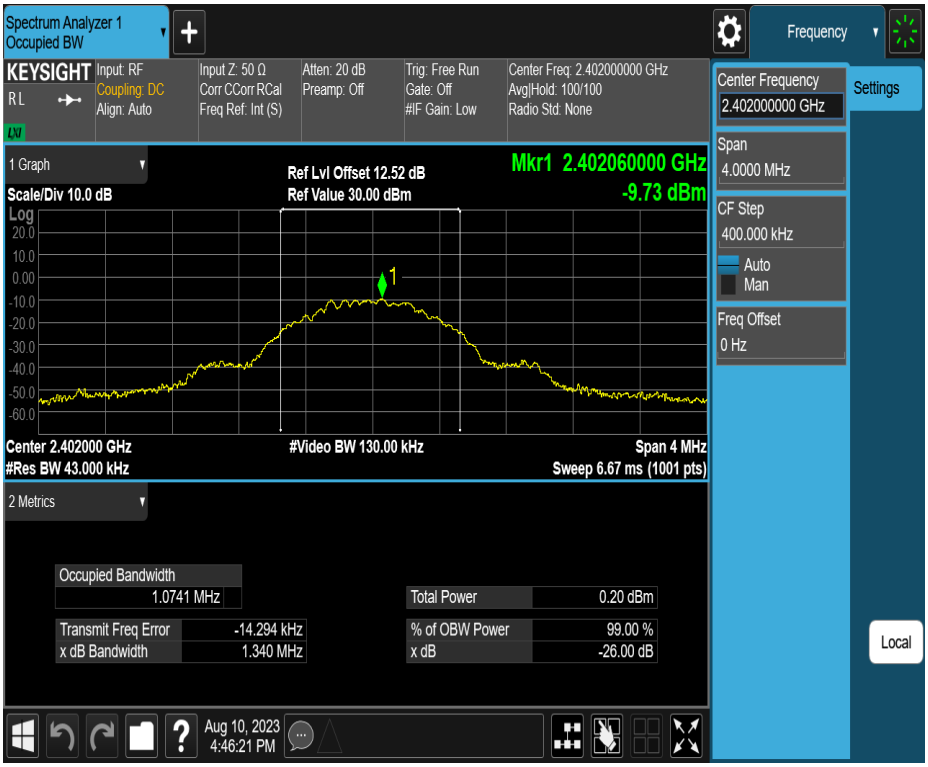

BLE_2M_Ant1_2480

**Occupied Channel Bandwidth**

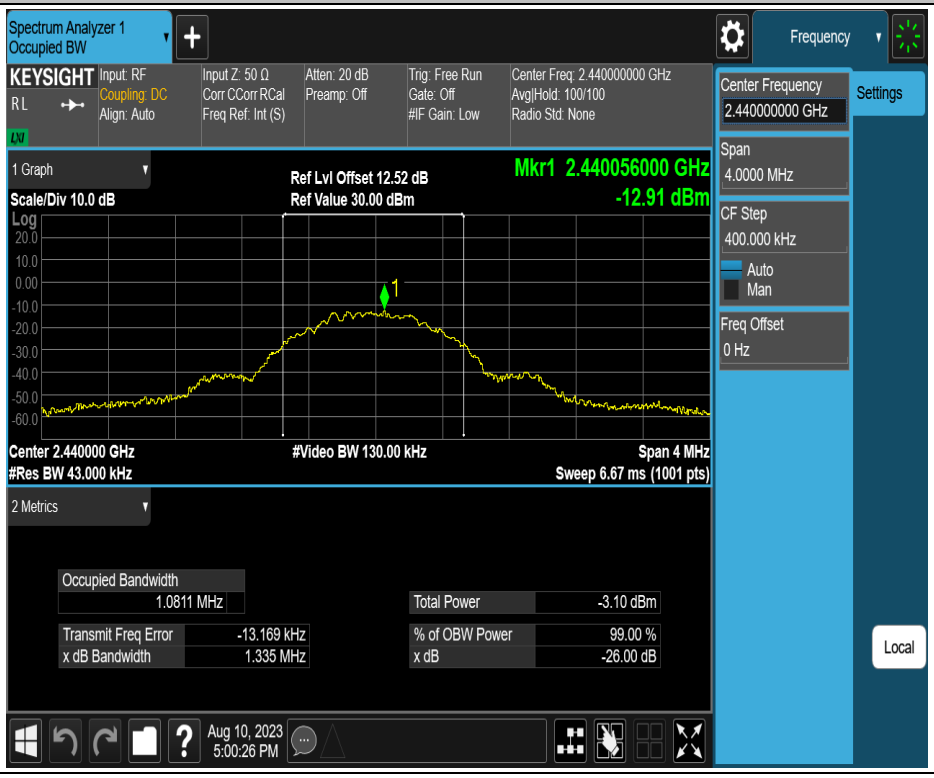
| Test Mode | Antenna | Freq(MHz) | OCB [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|---|---|---|
| BLE_1M | Ant1 | 2402 | 1.0741 | 2401.4487 | 2402.5228 | --- | --- |
| | | 2440 | 1.0811 | 2439.4463 | 2440.5274 | --- | --- |
| | | 2480 | 1.0991 | 2479.4330 | 2480.5321 | --- | --- |
| BLE_2M | Ant1 | 2402 | 2.0209 | 2400.9747 | 2402.9956 | --- | --- |
| | | 2440 | 2.0645 | 2438.9523 | 2441.0168 | --- | --- |
| | | 2480 | 2.1055 | 2478.9381 | 2481.0436 | --- | --- |

Test Graphs

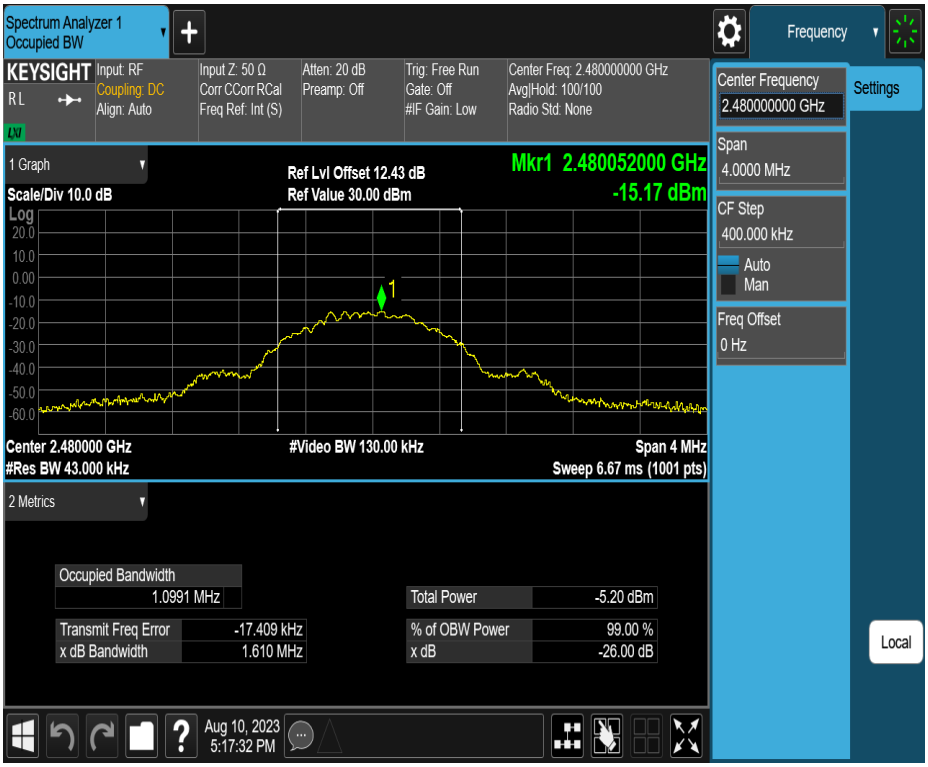
BLE_1M_Ant1_2402



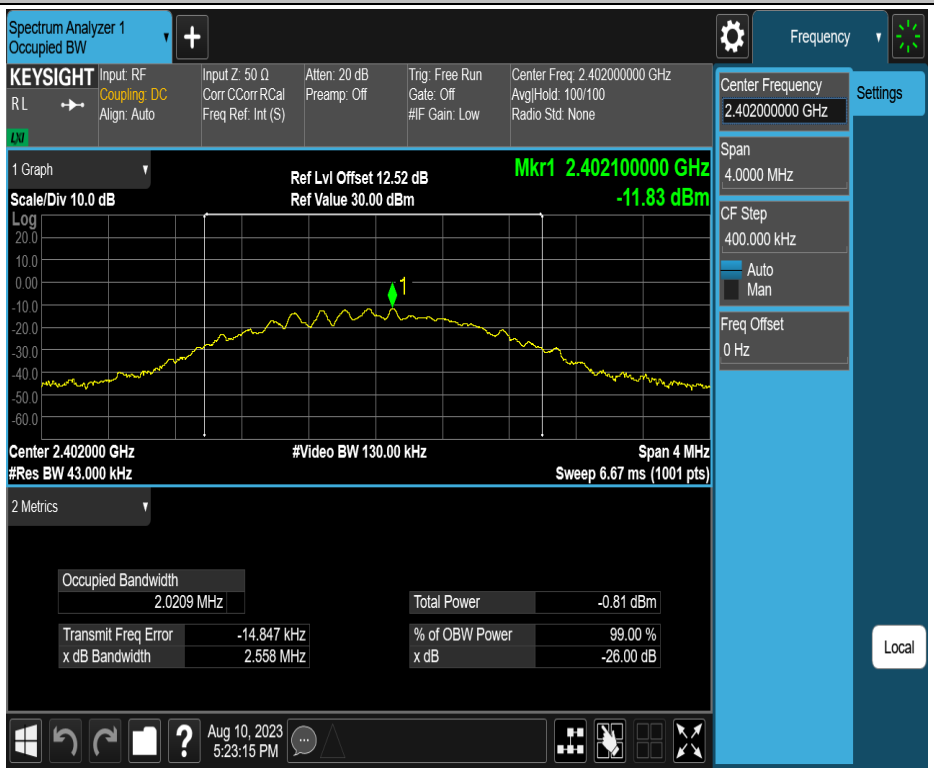

BLE_1M_Ant1_2440



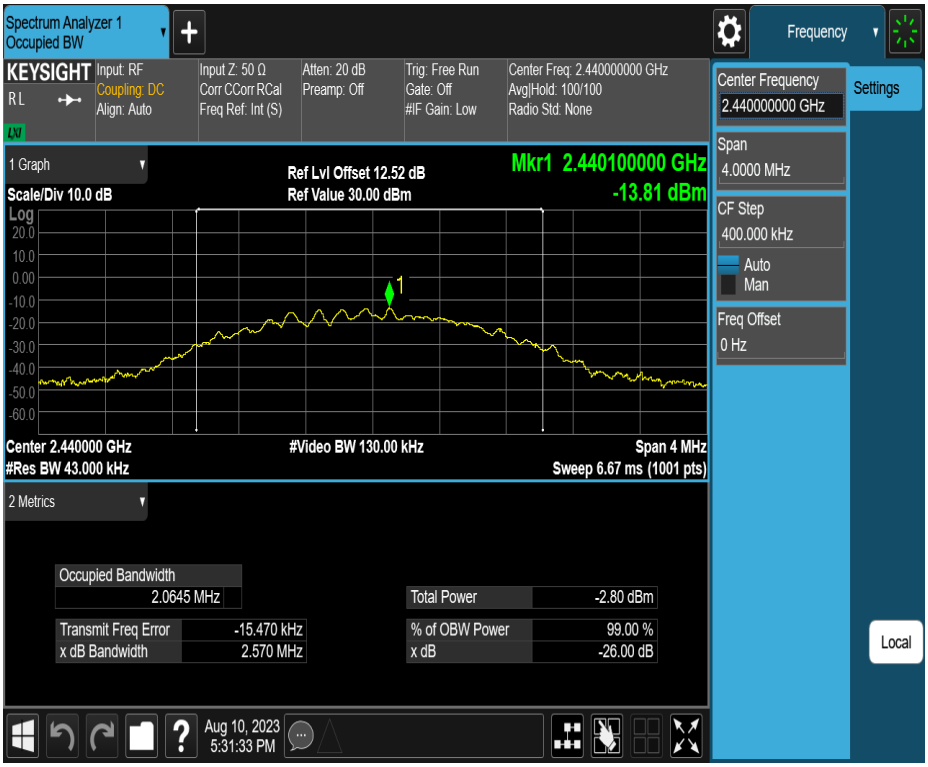
BLE_1M_Ant1_2480



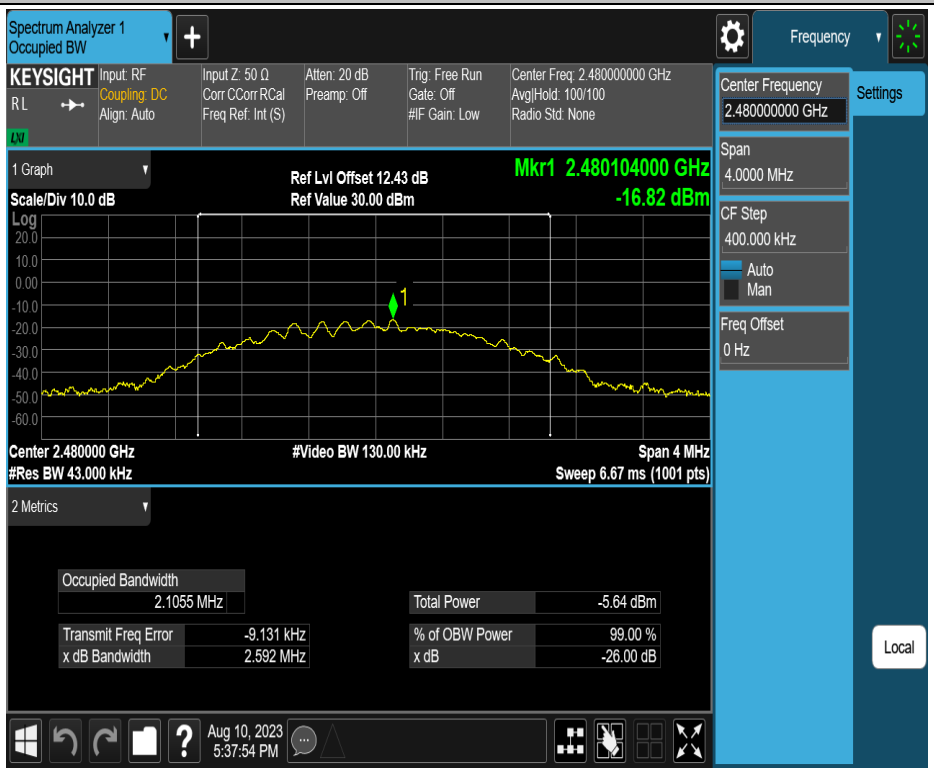

BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



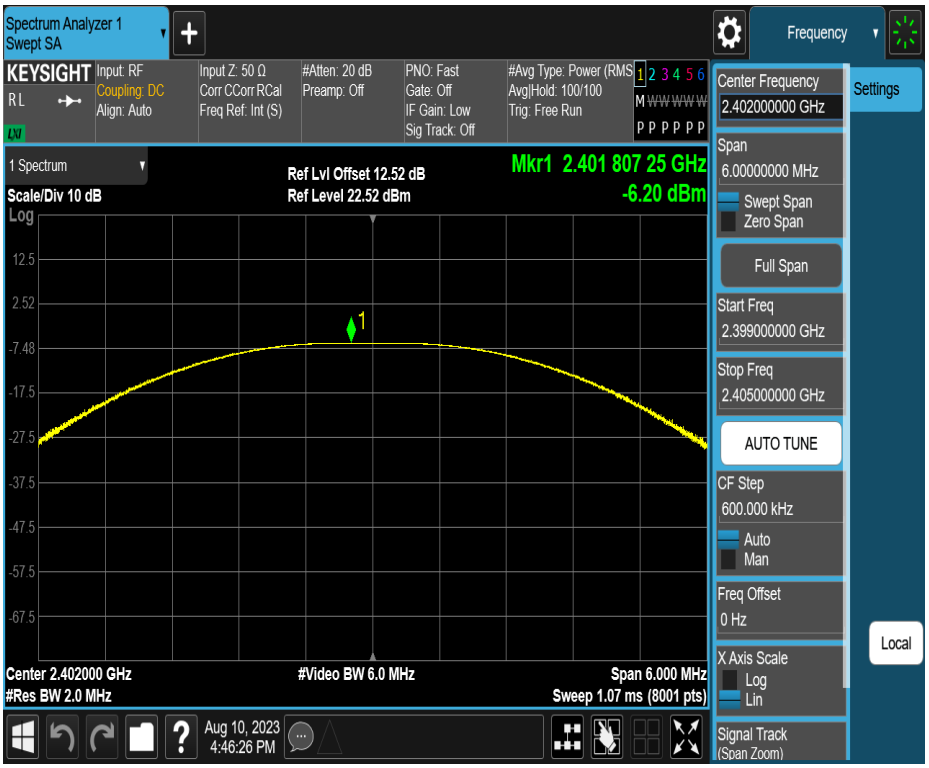
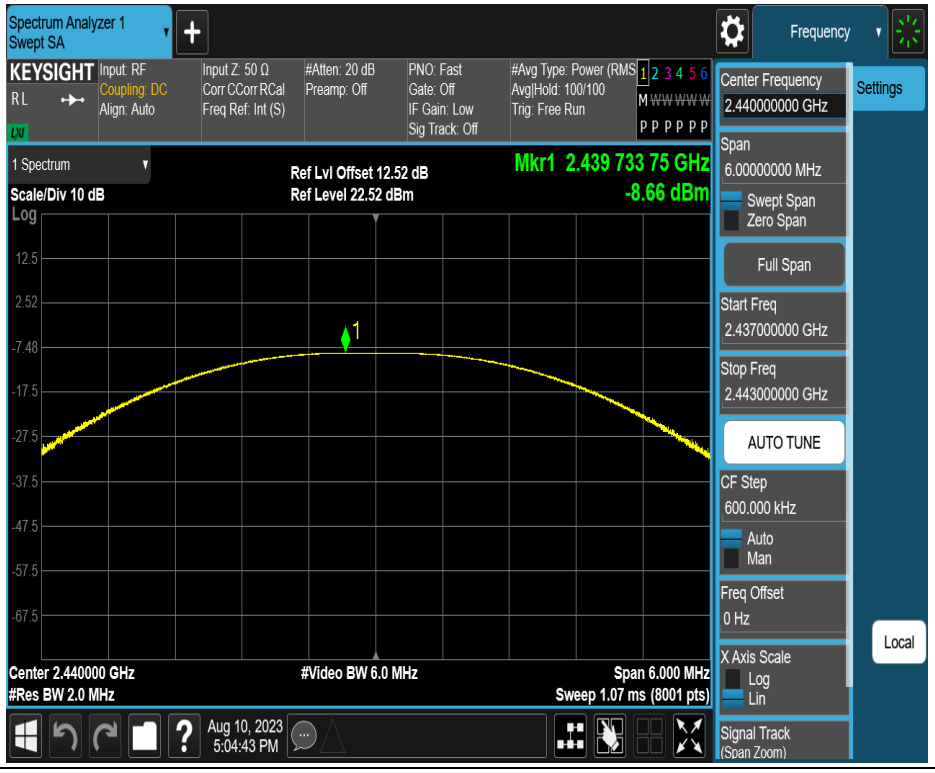

BLE_2M_Ant1_2480



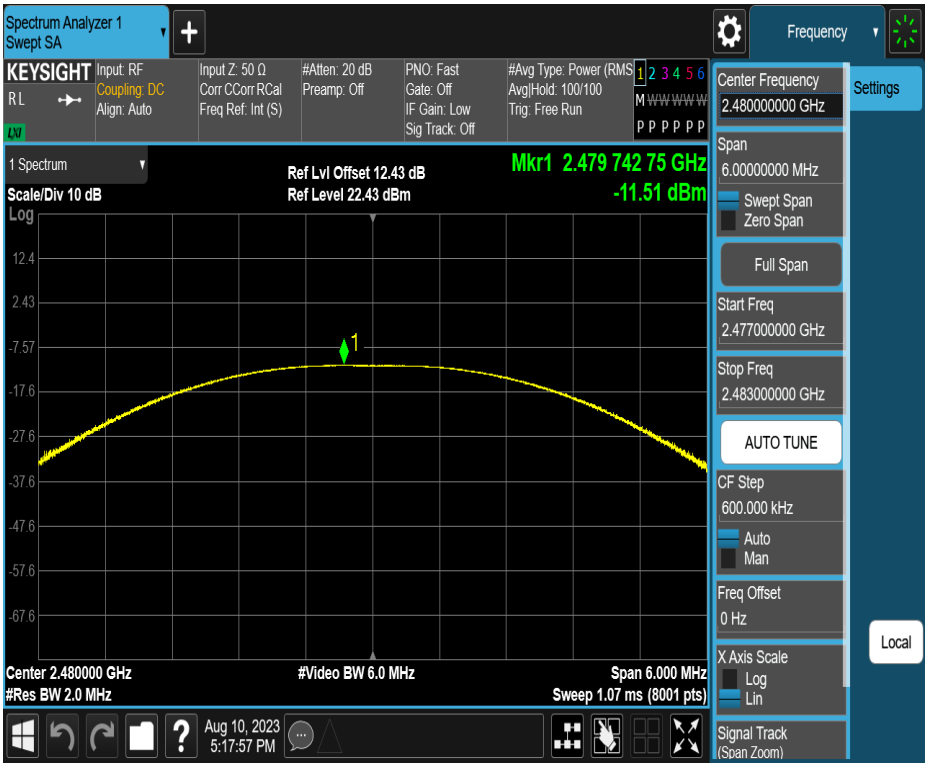
# APPENDIX F - MAXIMUM OUTPUT POWER

| Test Mode | Antenna | Freq(MHz) | Conducted Peak Powert[dBm] | Conducted Limit[dBm] | Verdict |
|---|---|---|---|---|---|
| BLE_1M | Ant1 | 2402 | **-6.20** | ≤30 | PASS |
| | | 2440 | -8.66 | ≤30 | PASS |
| | | 2480 | -11.51 | ≤30 | PASS |
| BLE_2M | Ant1 | 2402 | -6.51 | ≤30 | PASS |
| | | 2440 | -8.40 | ≤30 | PASS |
| | | 2480 | -11.30 | ≤30 | PASS |

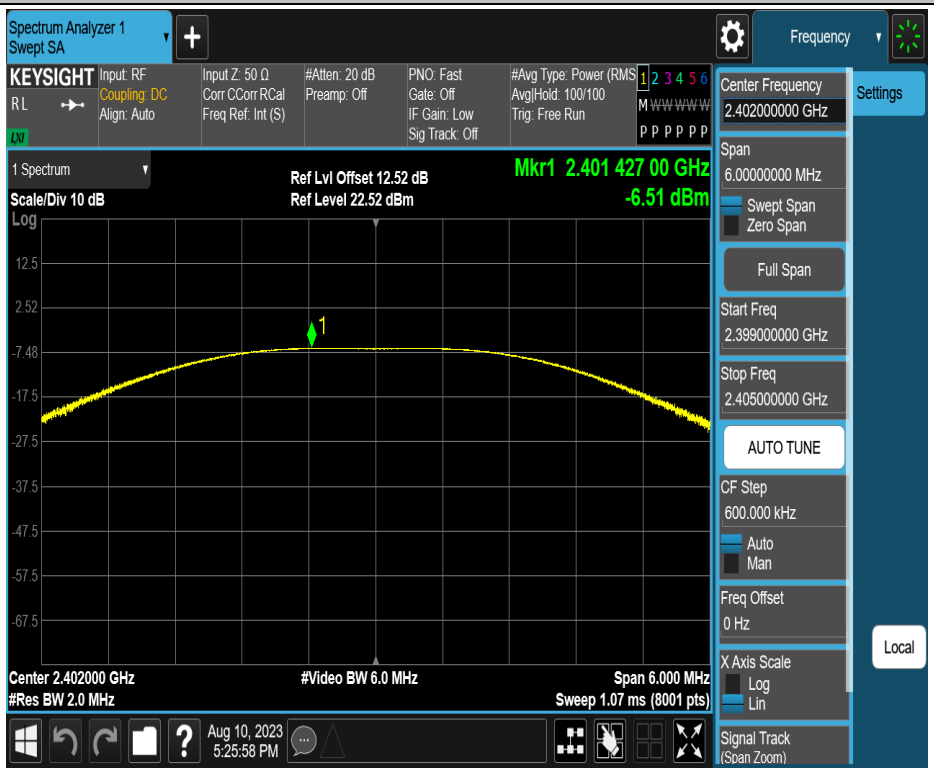
Test Graphs Peak

| BLE_1M_Ant1_2402 |
| --- |
|  |
| BLE_1M_Ant1_2440 |
|  |

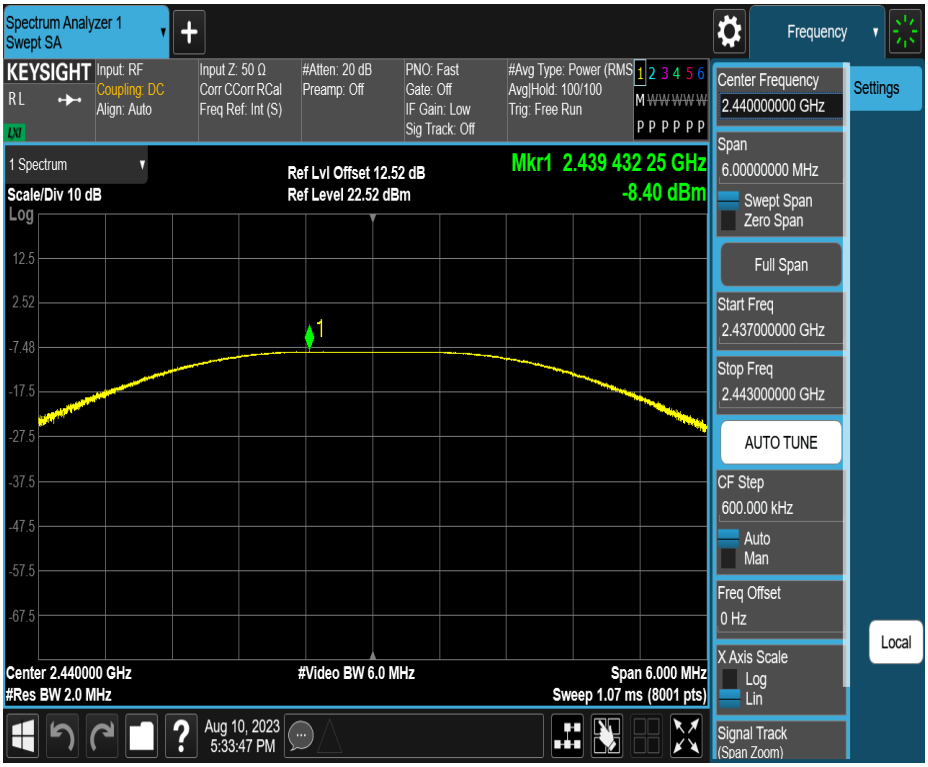
BLE_1M_Ant1_2480



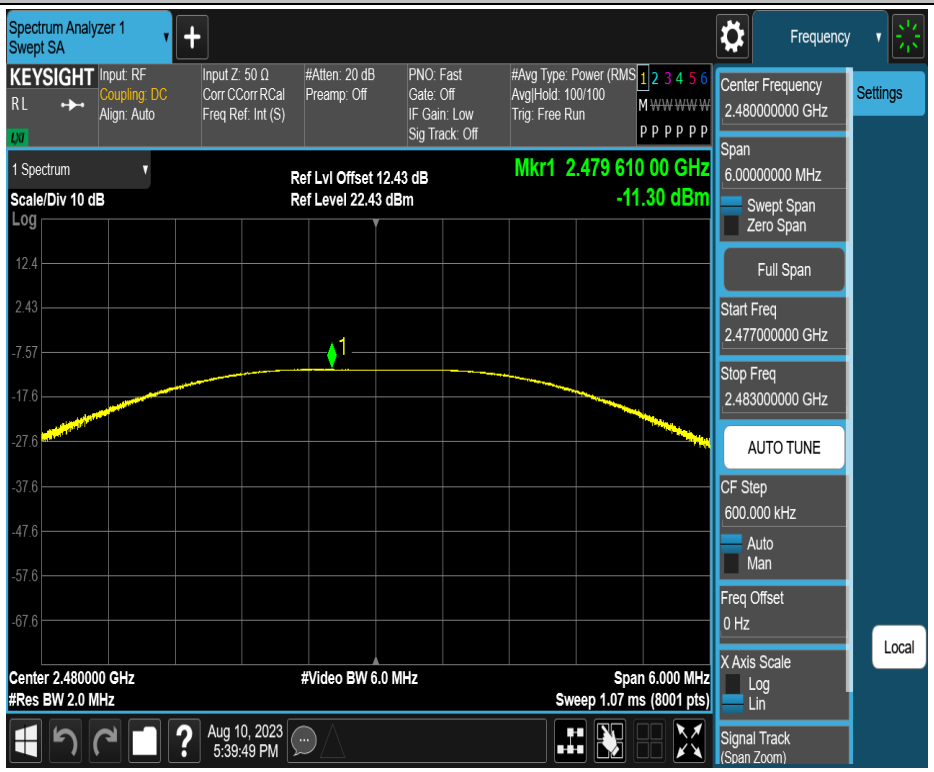

BLE_2M_Ant1_2402



BLE_2M_Ant1_2440

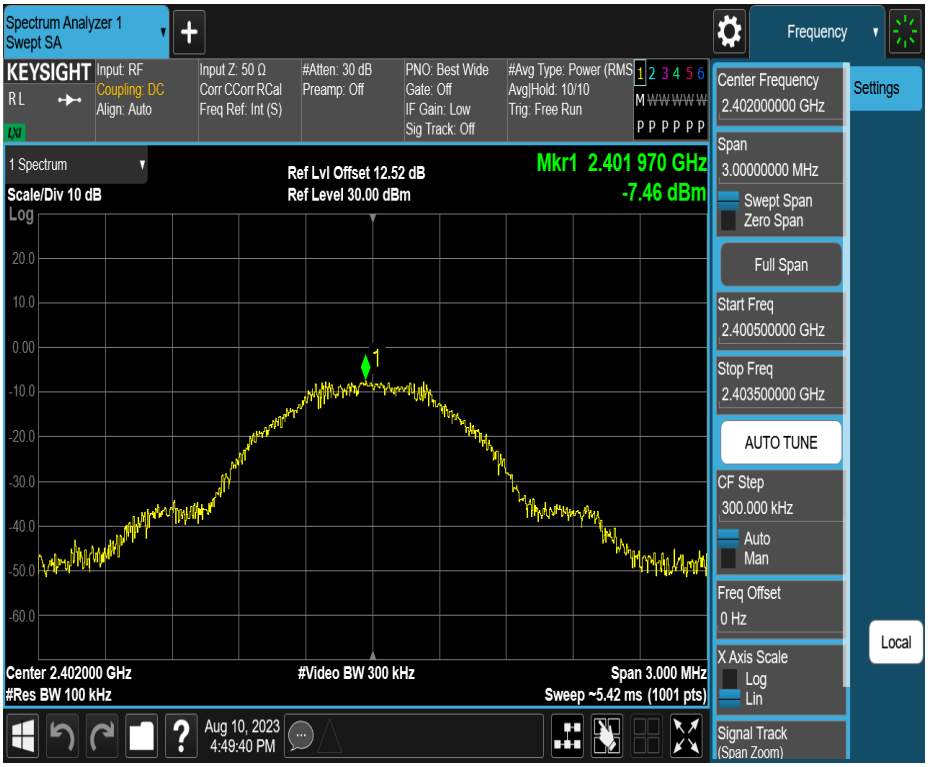
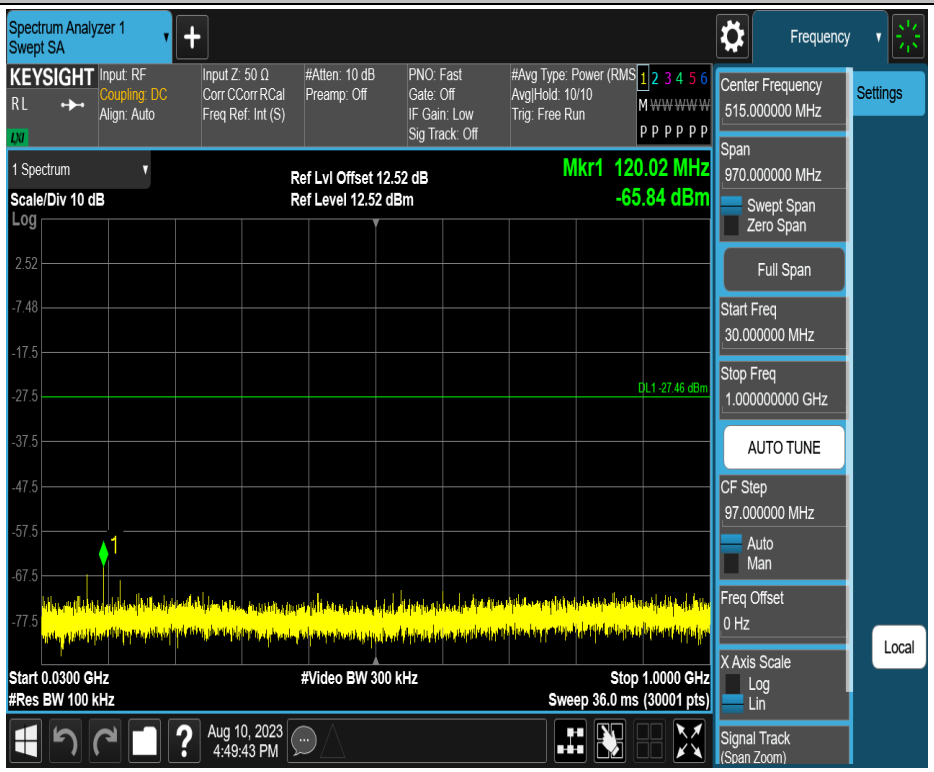


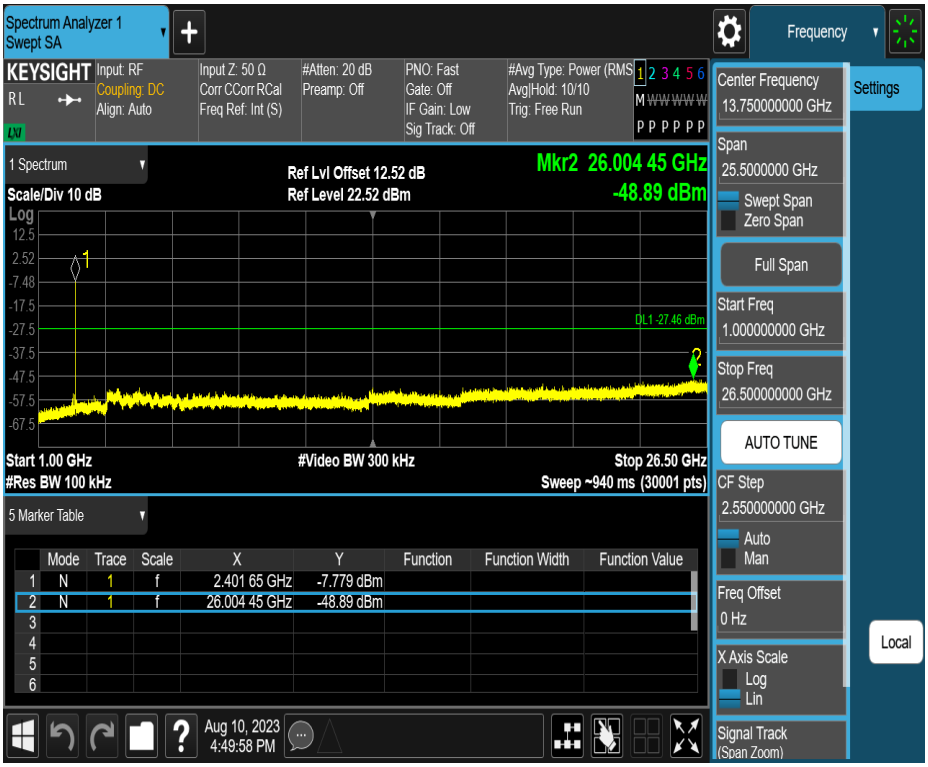

BLE_2M_Ant1_2480



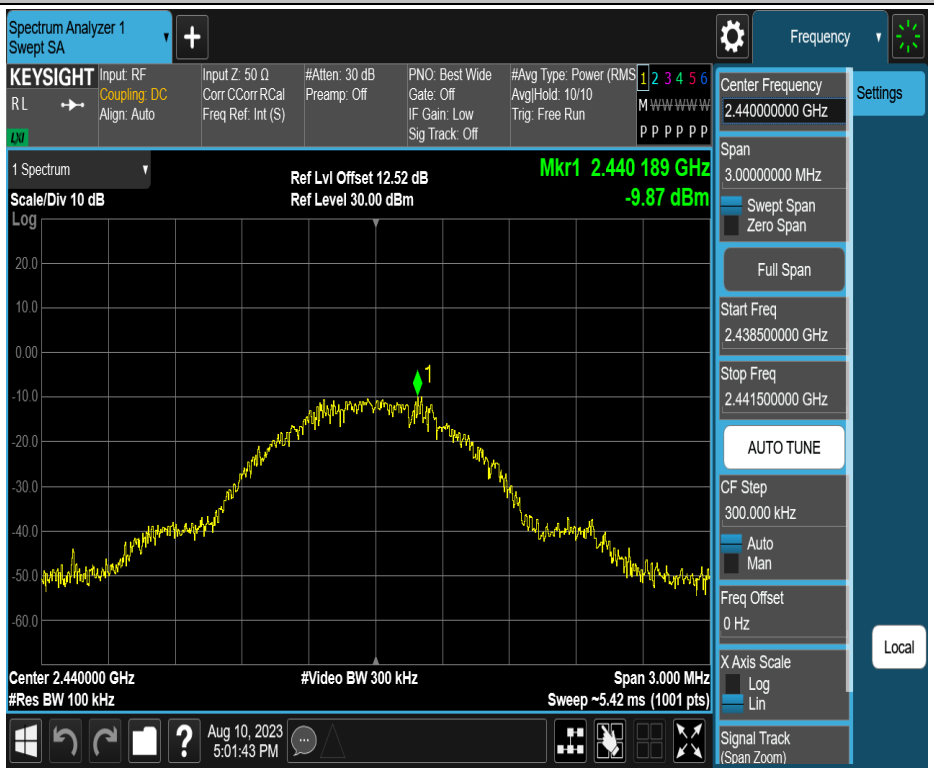
# APPENDIX G - CONDUCTED SPURIOUS EMISSION

Conducted Spurious Emission

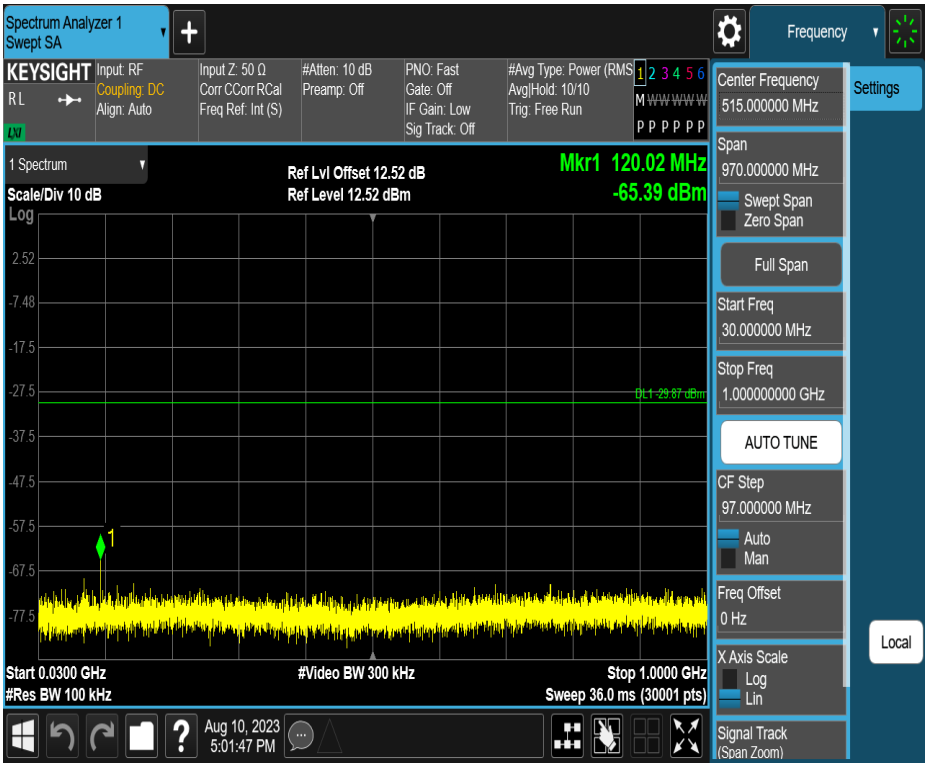
| BLE_1M_Ant1_2402_0~Reference |
| --- |
|  |
| BLE_1M_Ant1_2402_30~1000 |
|  |

| BLE_1M_Ant1_2402_1000~26500 |
| --- |
|  |

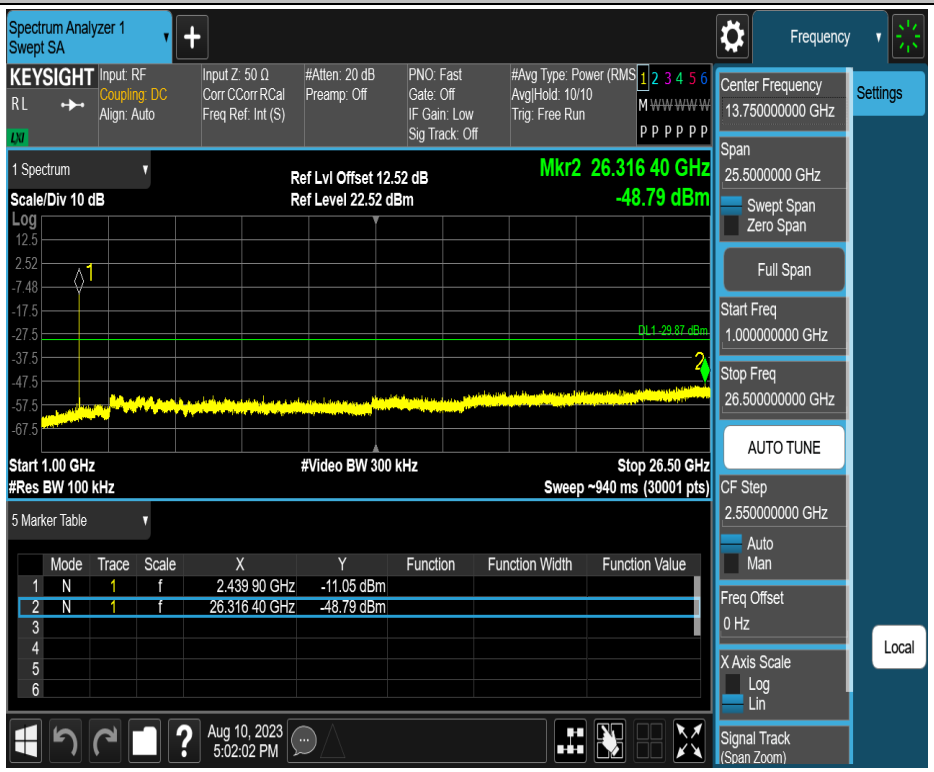


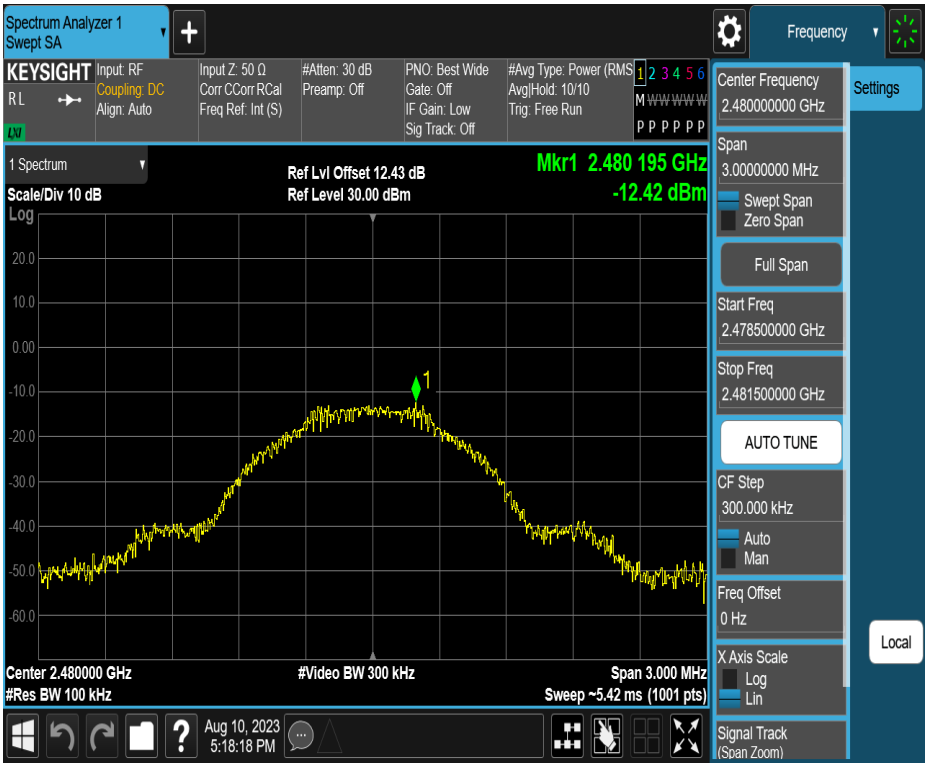
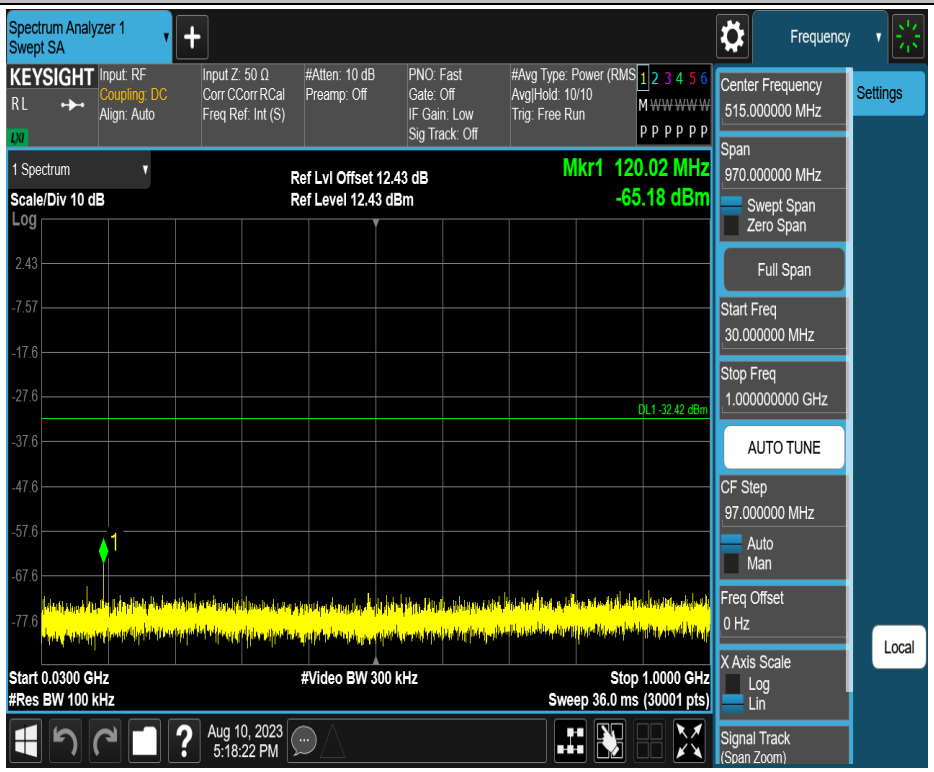
| BLE_1M_Ant1_2440_0~Reference |
| --- |
|  |

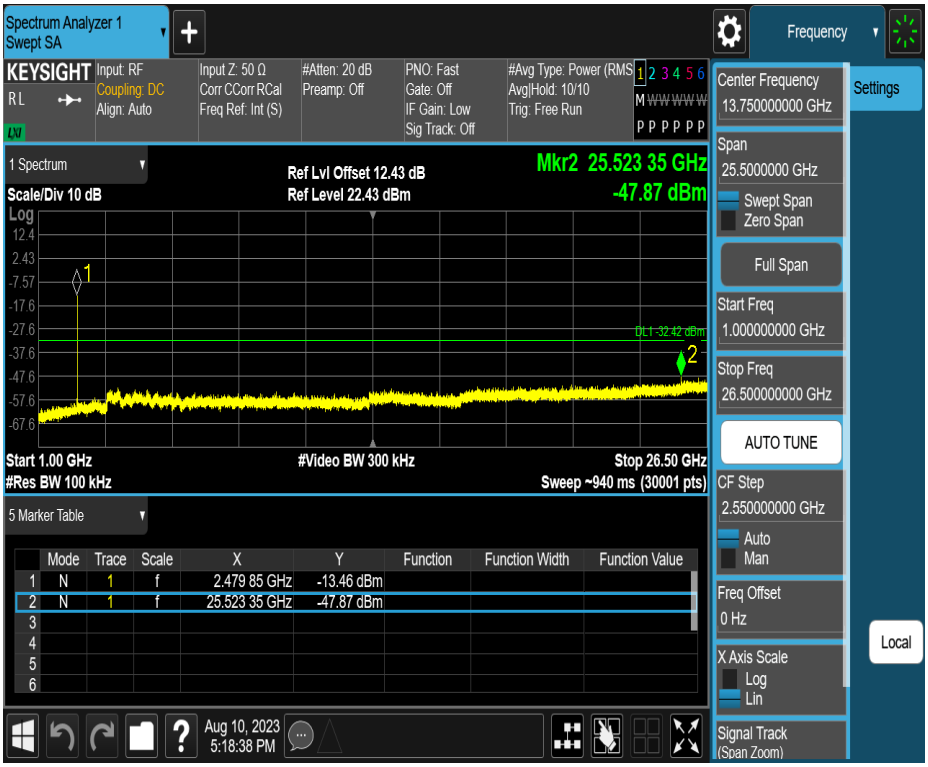
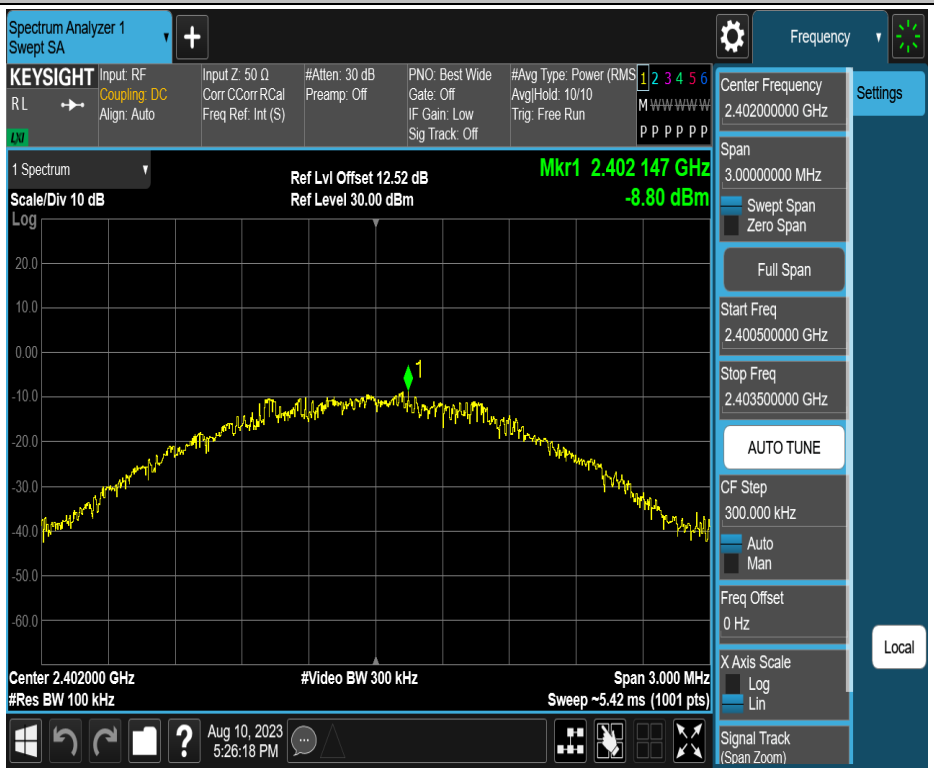
BLE_1M_Ant1_2440_30~1000



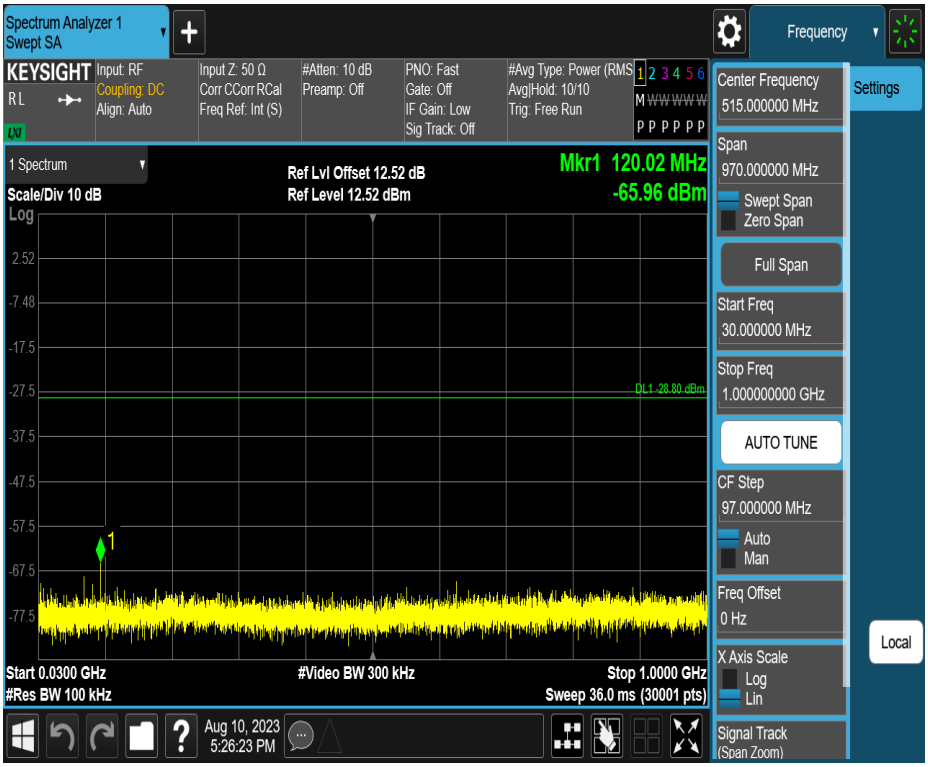

BLE_1M_Ant1_2440_1000~26500



| BLE_1M_Ant1_2480_0~Reference |
| --- |
|  |
| BLE_1M_Ant1_2480_30~1000 |
|  |

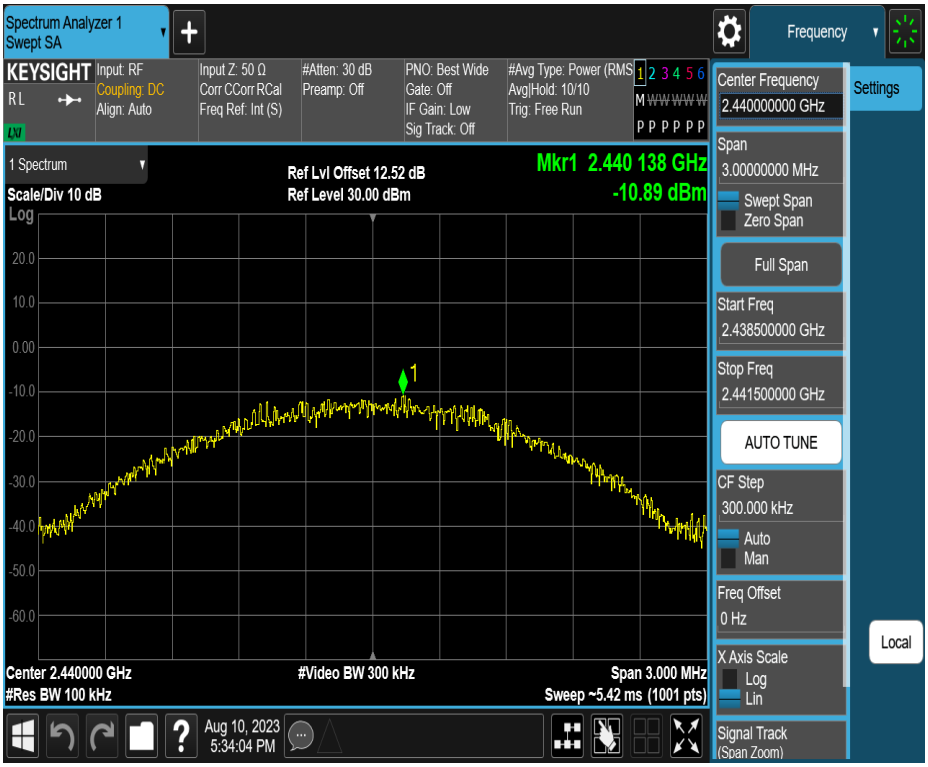
| BLE_1M_Ant1_2480_1000~26500 |
| --- |
|  |
| BLE_2M_Ant1_2402_0~Reference |
|  |

BLE_2M_Ant1_2402_30~1000

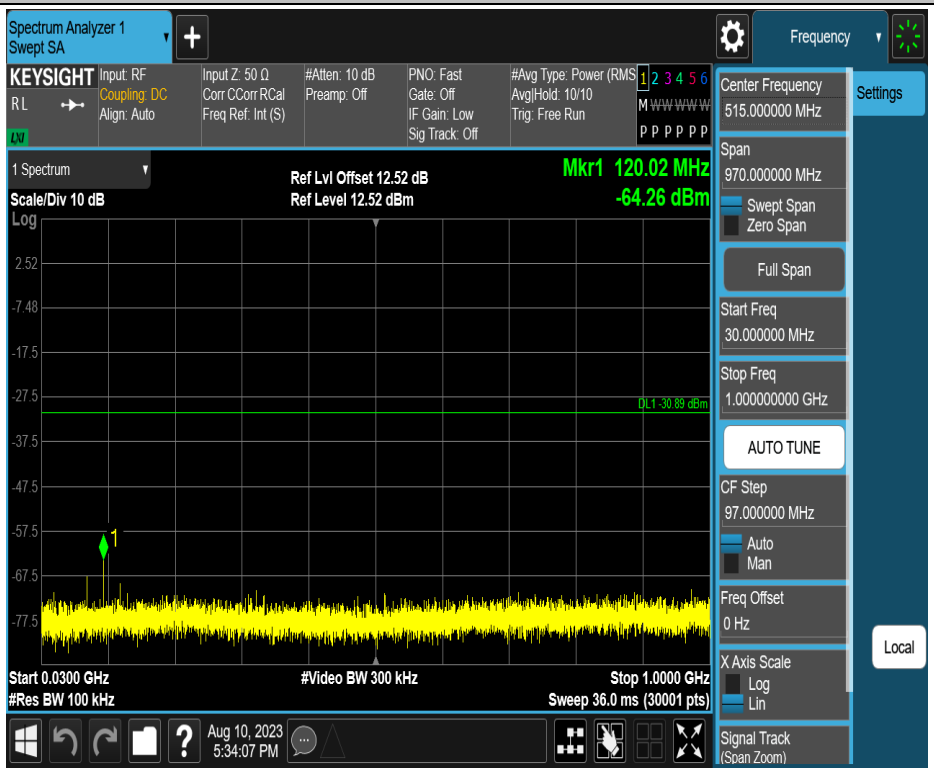


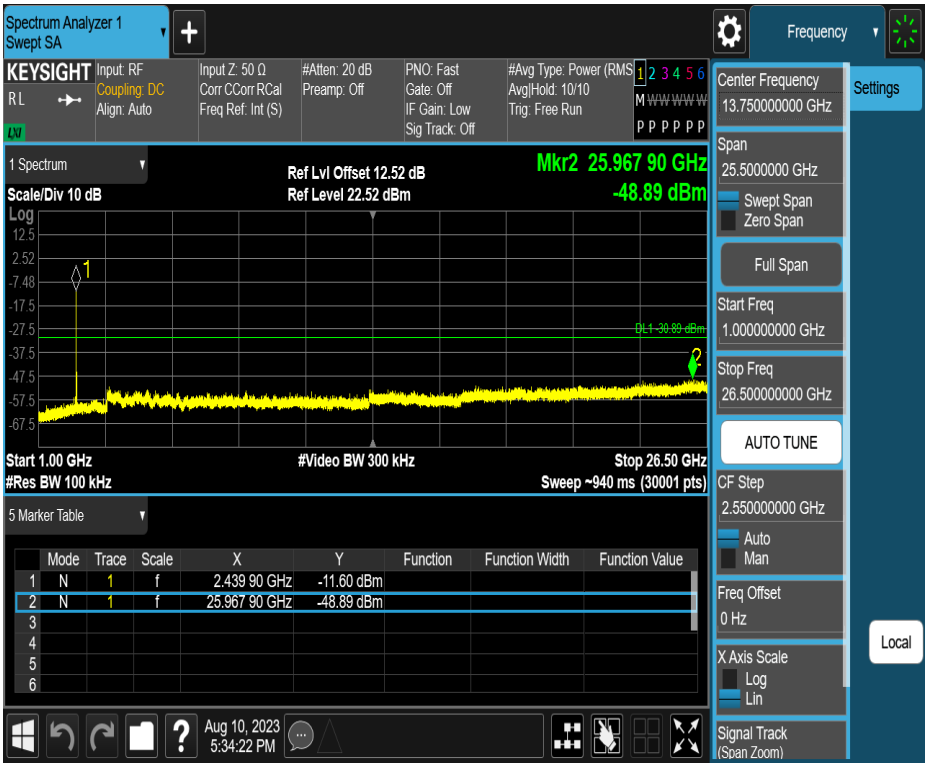

BLE_2M_Ant1_2402_1000~26500

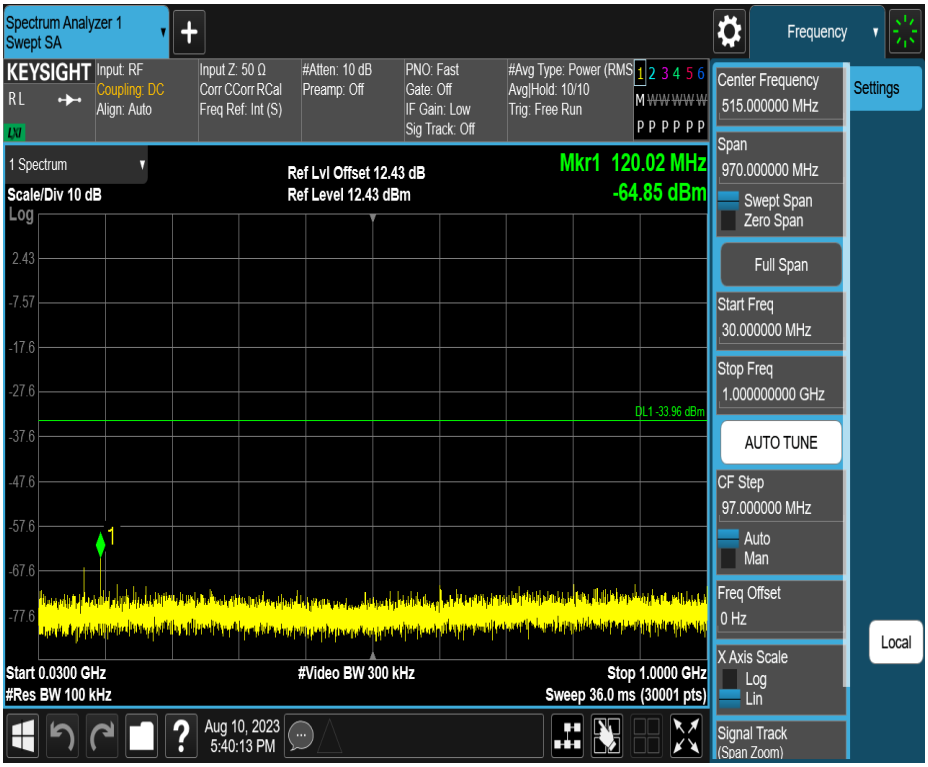
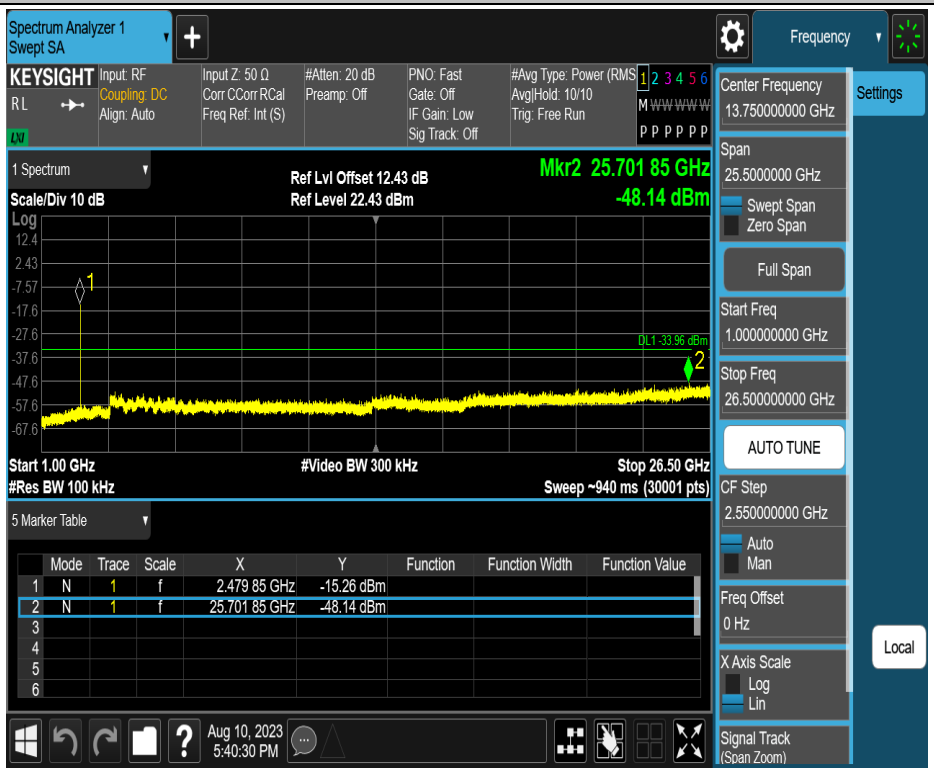
BLE_2M_Ant1_2440_0~Reference



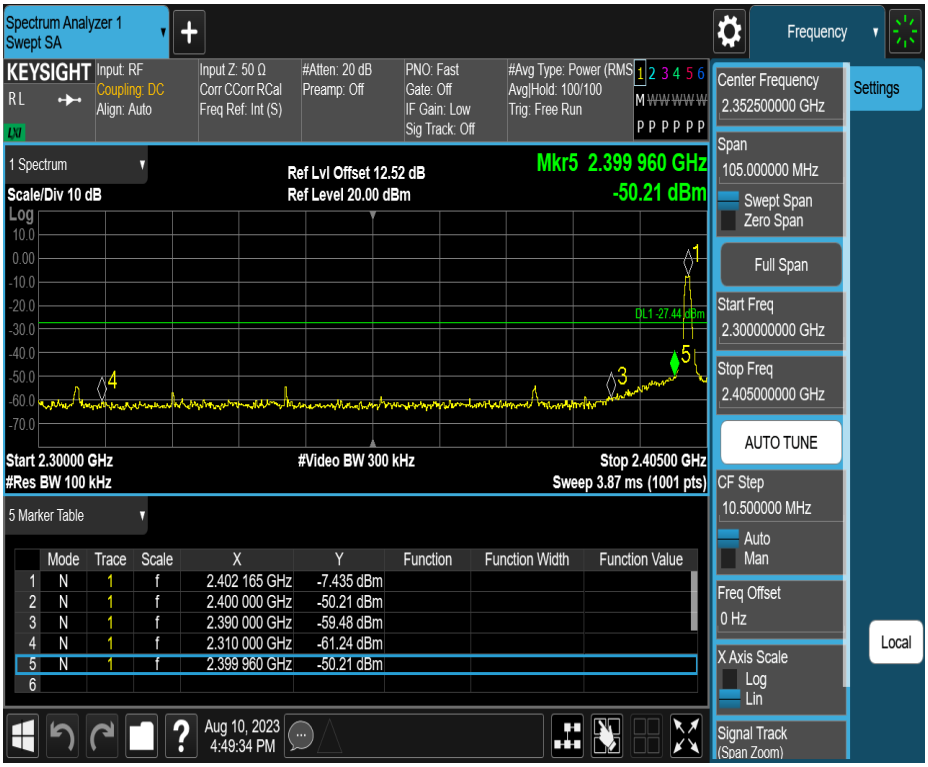
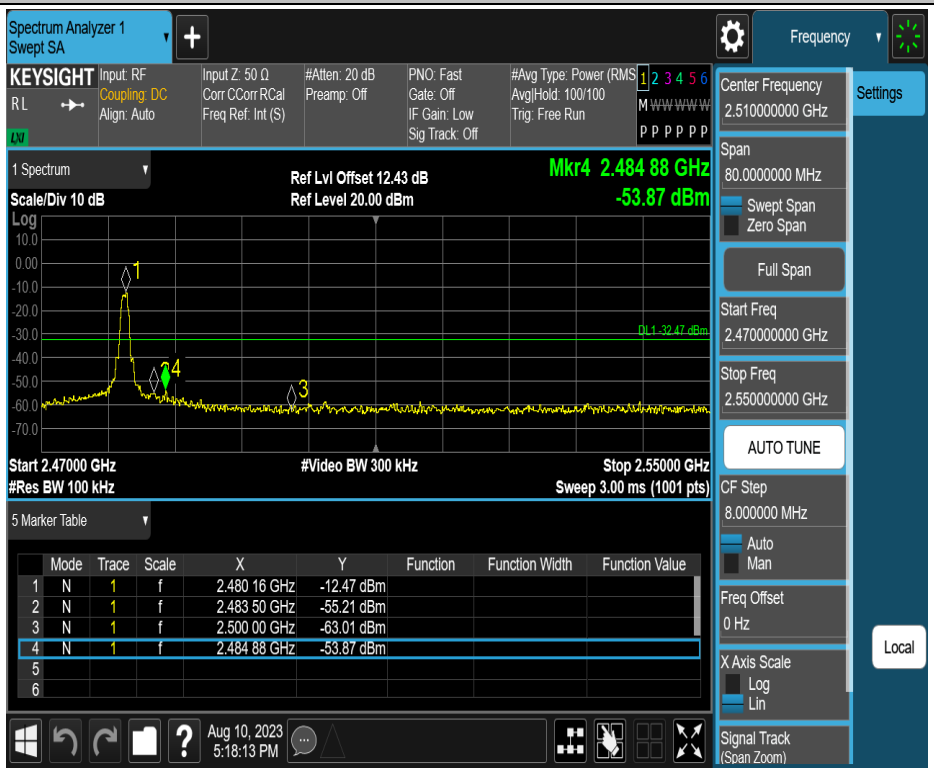

BLE_2M_Ant1_2440_30~1000



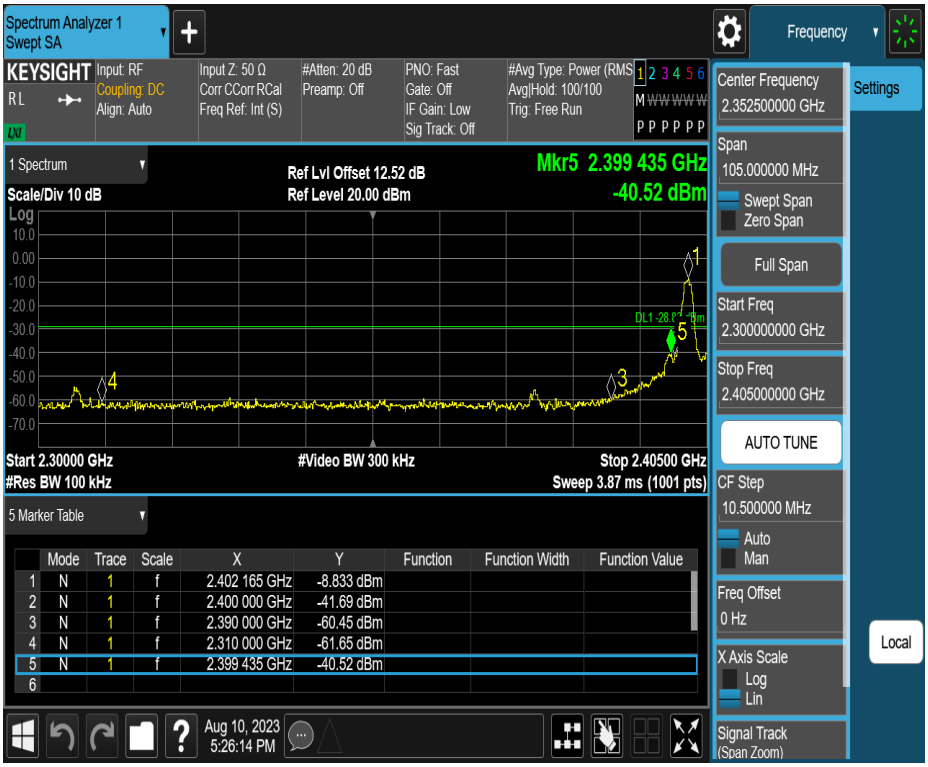
| BLE_2M_Ant1_2440_1000~26500 |
| --- |
|  |
| BLE_2M_Ant1_2480_0~Reference |
|  |

| BLE_2M_Ant1_2480_30~1000 |
| --- |
|  |
| BLE_2M_Ant1_2480_1000~26500 |
|  |

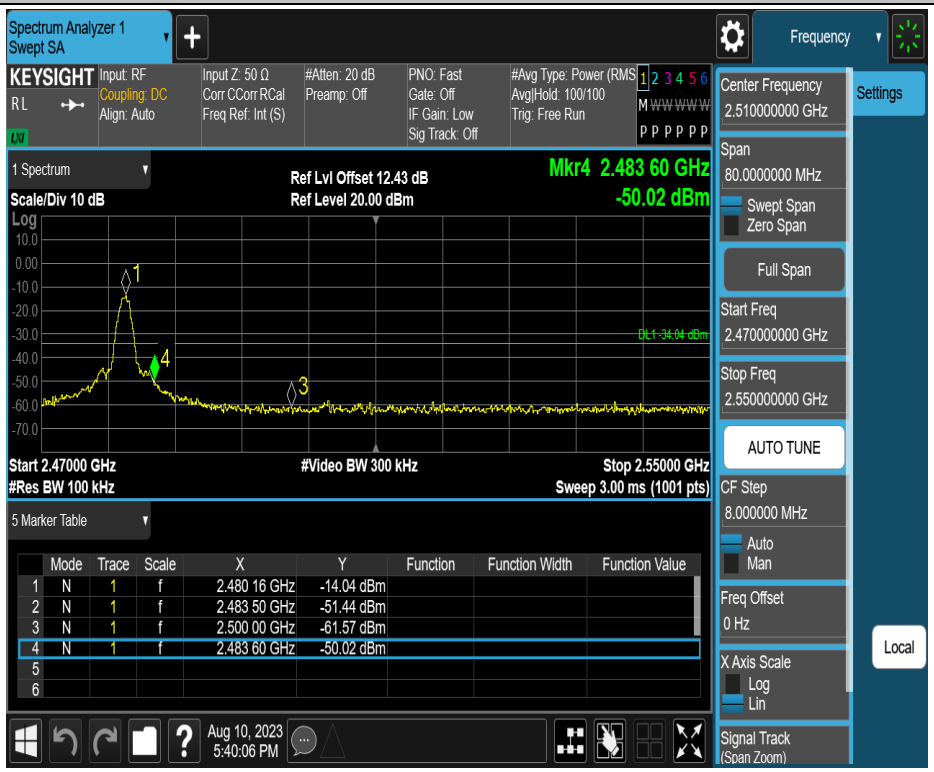
Band edge measurements

| BLE_1M_Ant1_Low_2402 |
| --- |
|  |
| BLE_1M_Ant1_High_2480 |
|  |

BLE_2M_Ant1_Low_2402



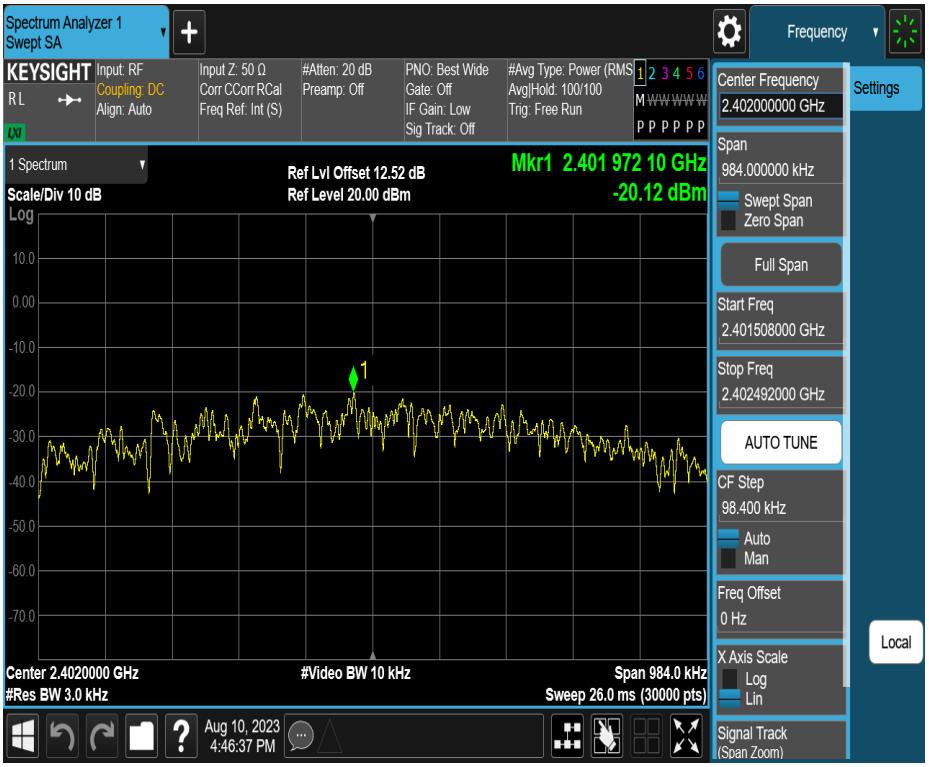
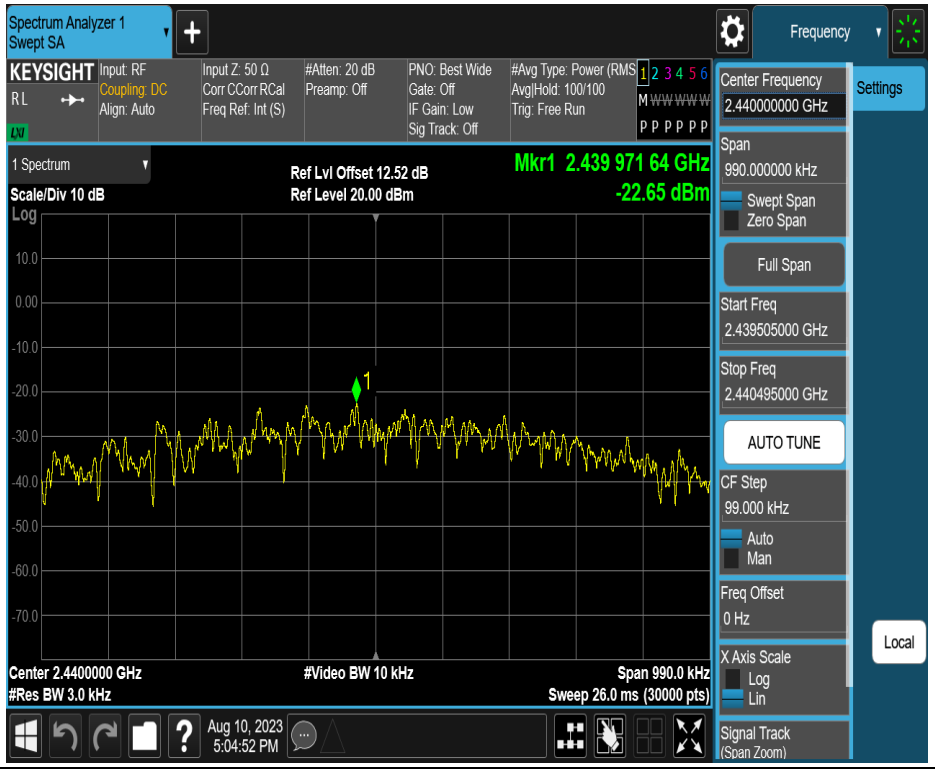

BLE_2M_Ant1_High_2480



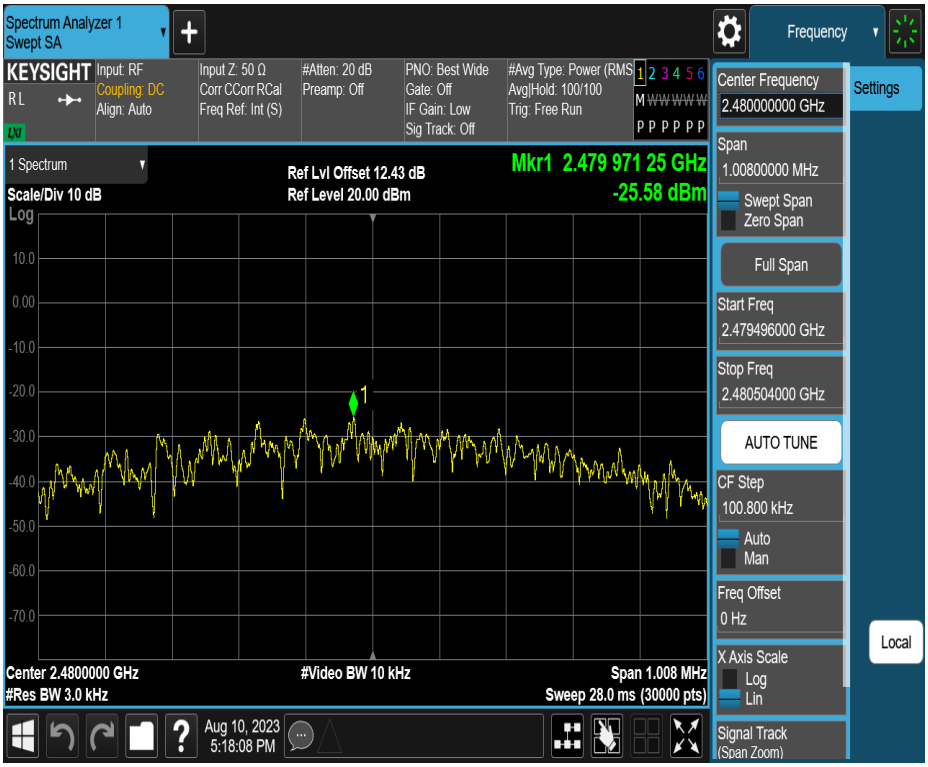
# APPENDIX H - POWER SPECTRAL DENSITY

| Test Mode | Antenna | Freq(MHz) | Result[dBm/3kHz] | Limit[dBm/3kHz] | Verdict |
|---|---|---|---|---|---|
| BLE_1M | Ant1 | 2402 | -20.12 | ≤8.00 | PASS |
| | | 2440 | -22.65 | ≤8.00 | PASS |
| | | 2480 | -25.58 | ≤8.00 | PASS |
| BLE_2M | Ant1 | 2402 | -23.66 | ≤8.00 | PASS |
| | | 2440 | -25.67 | ≤8.00 | PASS |
| | | 2480 | -28.58 | ≤8.00 | PASS |

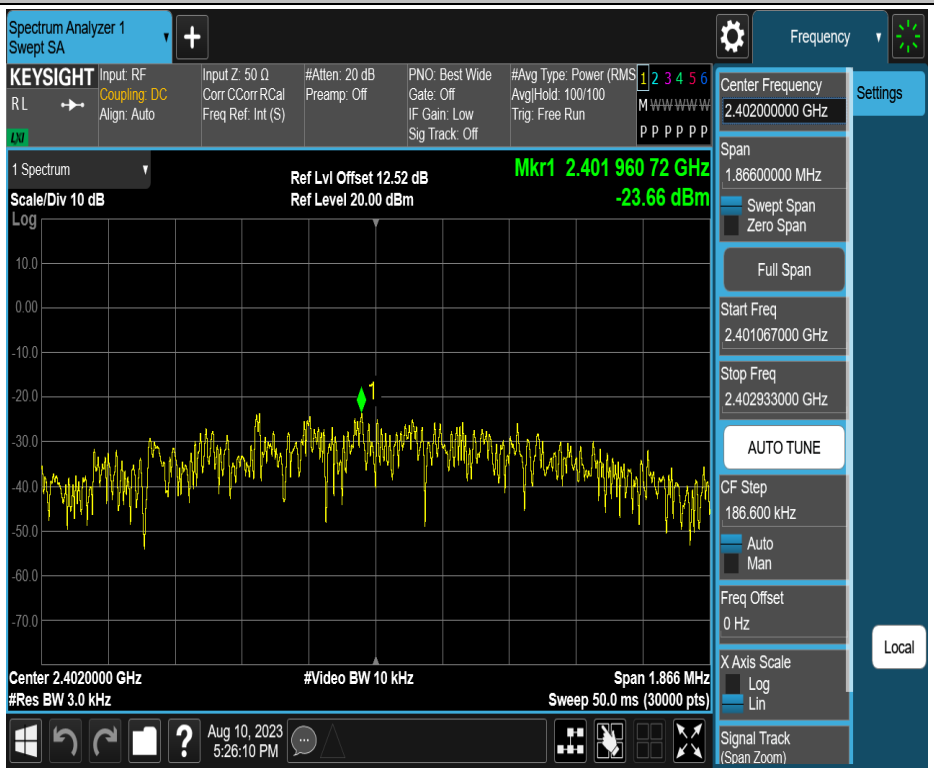
Test Graphs

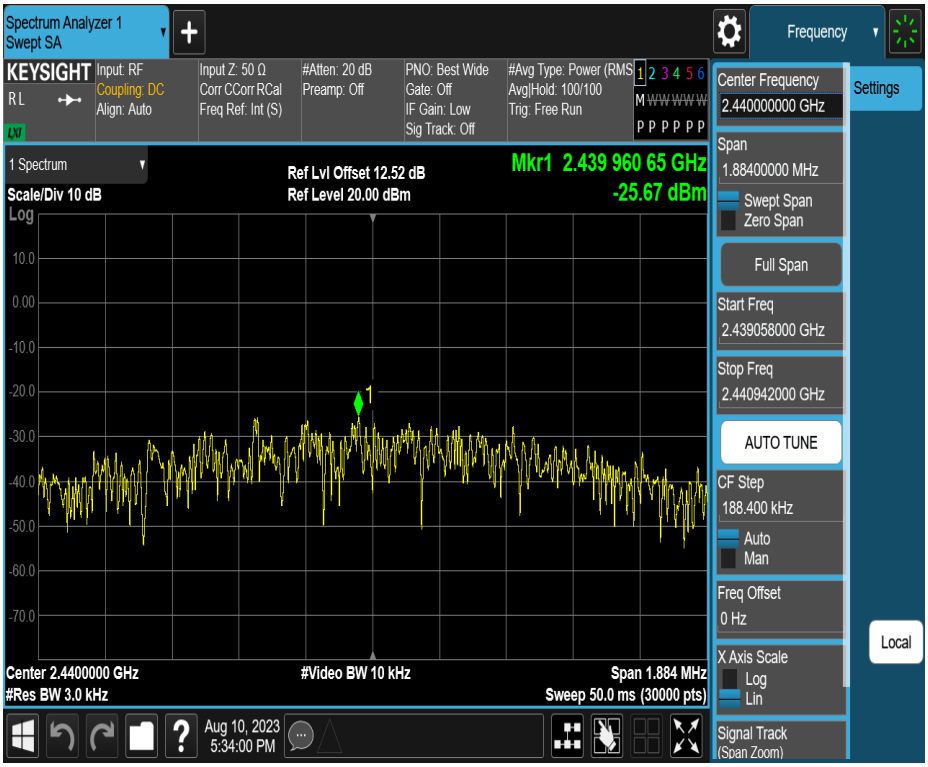
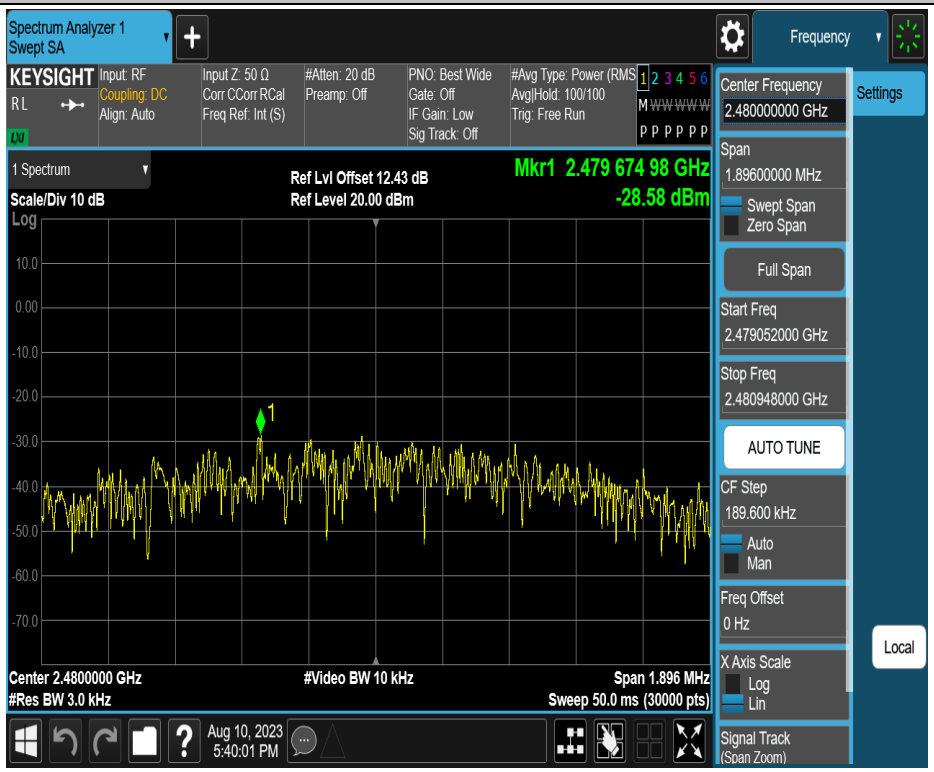
| BLE_1M_Ant1_2402 |
| --- |
|  |
| BLE_1M_Ant1_2440 |
|  |

BLE_1M_Ant1_2480




BLE_2M_Ant1_2402



| BLE_2M_Ant1_2440 |
| --- |
|  |
| BLE_2M_Ant1_2480 |
|  |

**End of Test Report**