

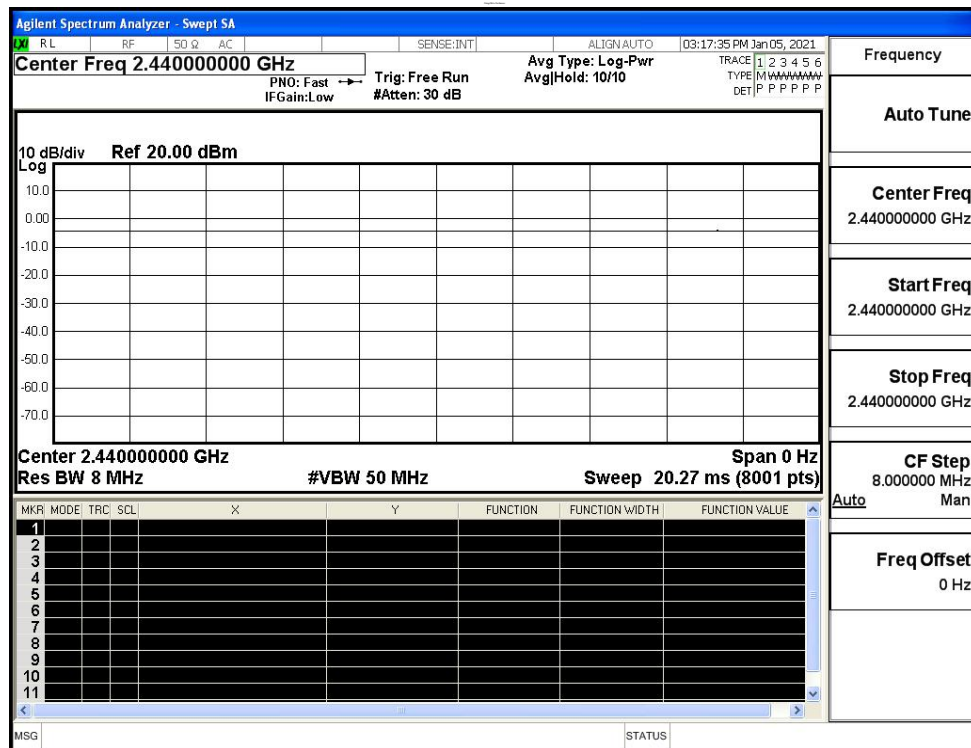
**Appendix A**  
**RF Test Data for BT V4.2 (Conducted Measurement)**  
**Product Name: Smart light**  
**Trade Mark: N/A**  
**Test Model: SD4015**

**Environmental Conditions**

|                    |           |
|--------------------|-----------|
| Temperature:       | 24.6° C   |
| Relative Humidity: | 54.1%     |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Ben Jin   |
| Supervised by:     | Li Huan   |

**A.1 Duty Cycle**

| Test Mode | Test Channel | Ant  | Duty Cycle[%] | Verdict |
|-----------|--------------|------|---------------|---------|
| BT LE     | 2440         | Ant1 | 100           | PASS    |

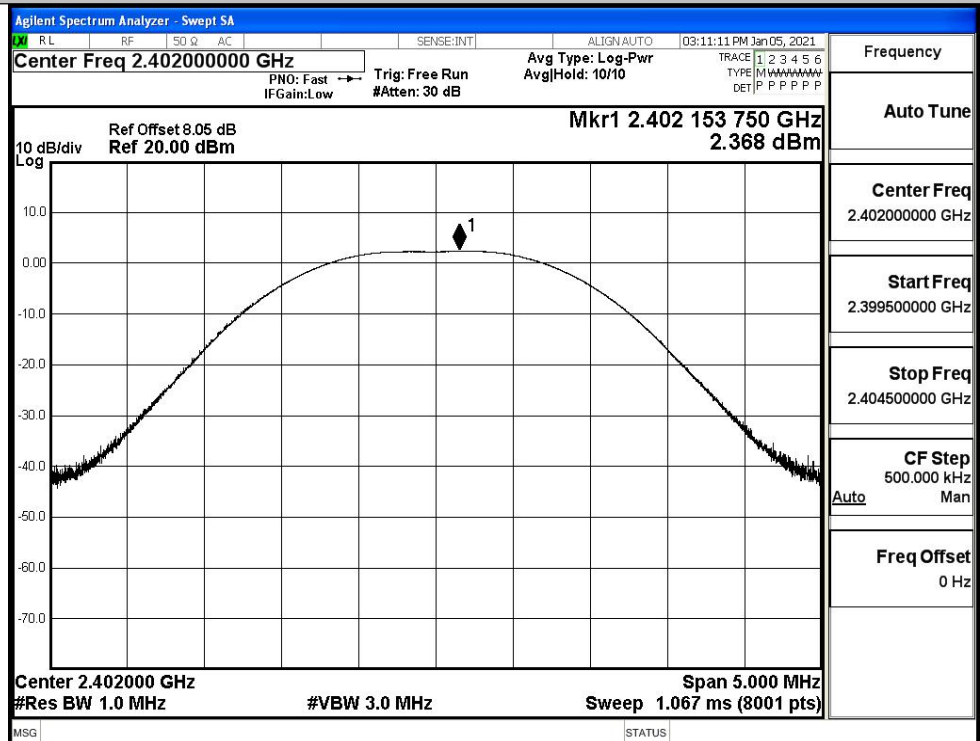


## A.2 Maximum Conducted Peak Output Power

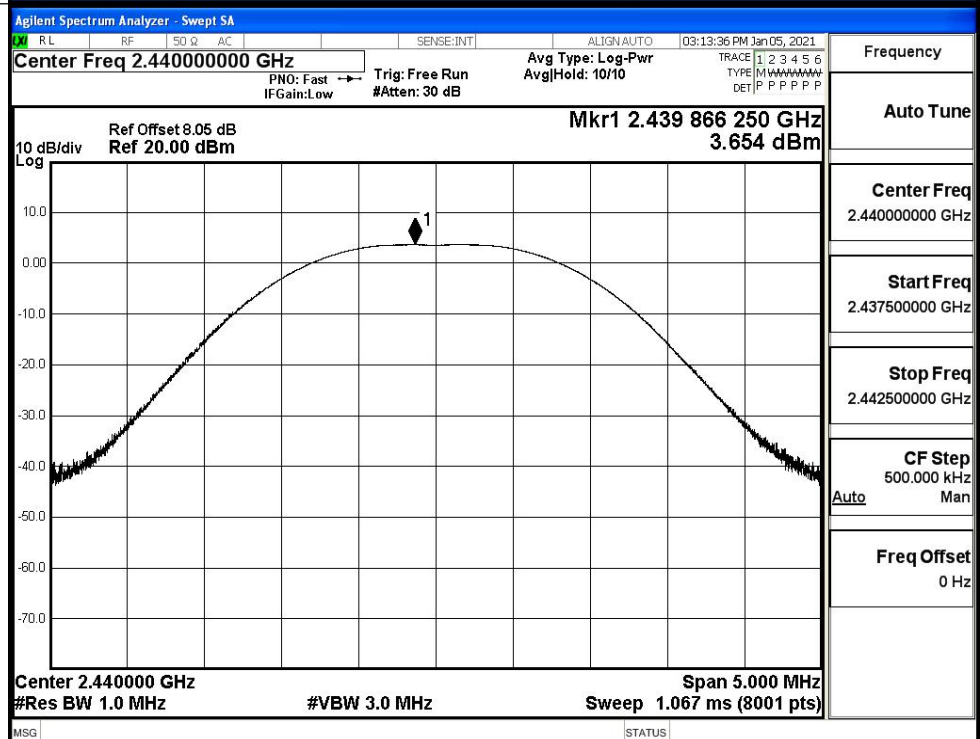
| Mode  | Channel | Conduct Peak Power[dBm] | Limit [dBm] | Verdict |
|-------|---------|-------------------------|-------------|---------|
| BT LE | LCH     | 2.368                   | 30          | PASS    |
| BT LE | MCH     | 3.654                   | 30          | PASS    |
| BT LE | HCH     | 1.825                   | 30          | PASS    |

Test Graphs

LCH



MCH



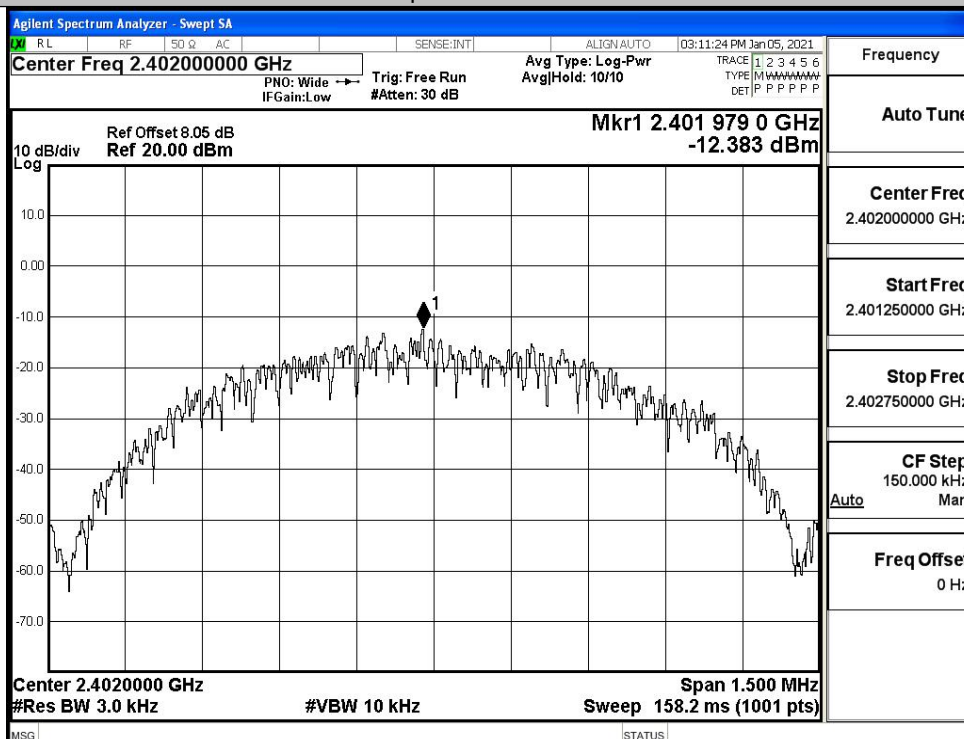


### A.3 Maximum Power Spectral Density

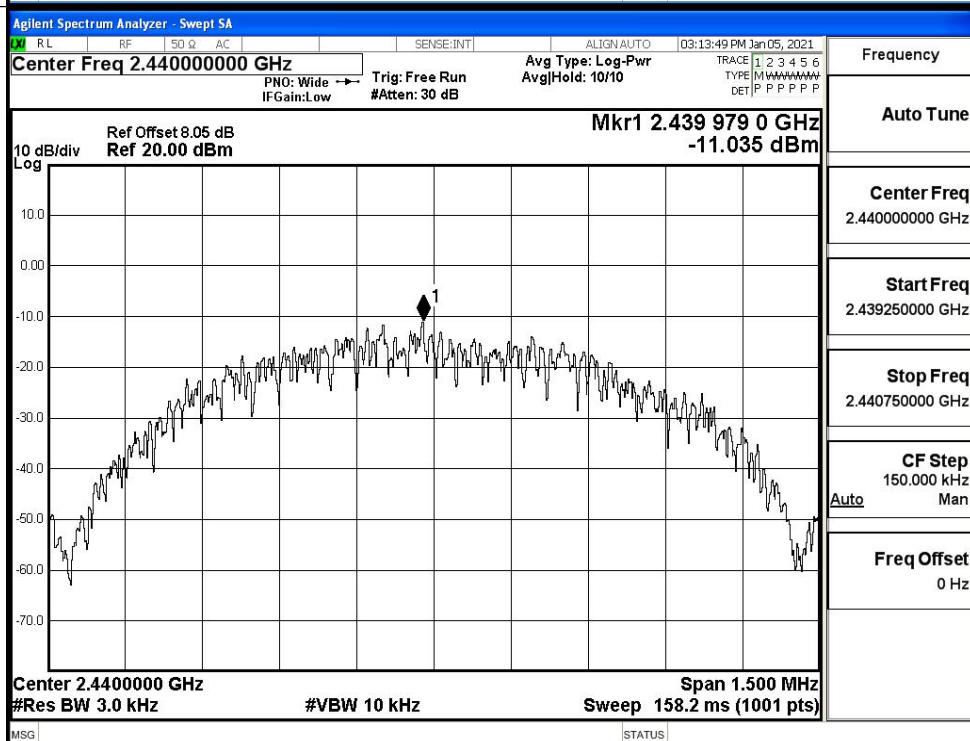
| Mode  | Channel | PSD [dBm/3KHz] | Limit [dBm/3KHz] | Verdict |
|-------|---------|----------------|------------------|---------|
| BT LE | LCH     | -12.383        | 8                | PASS    |
| BT LE | MCH     | -11.035        | 8                | PASS    |
| BT LE | HCH     | -12.929        | 8                | PASS    |

#### Test Graphs

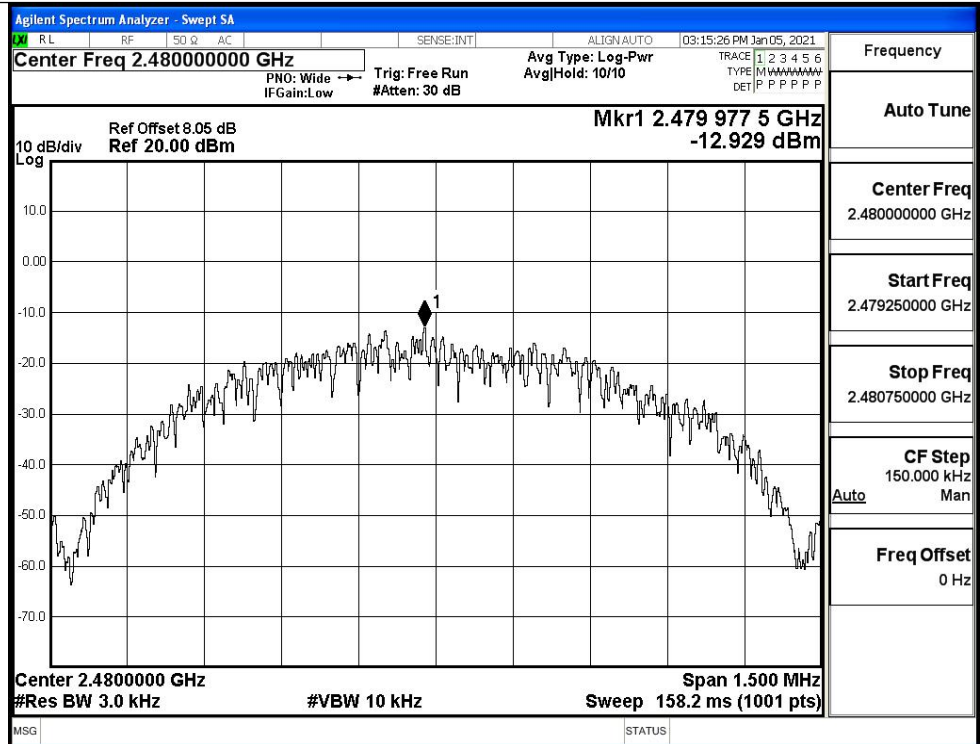
LCH



MCH



HCH

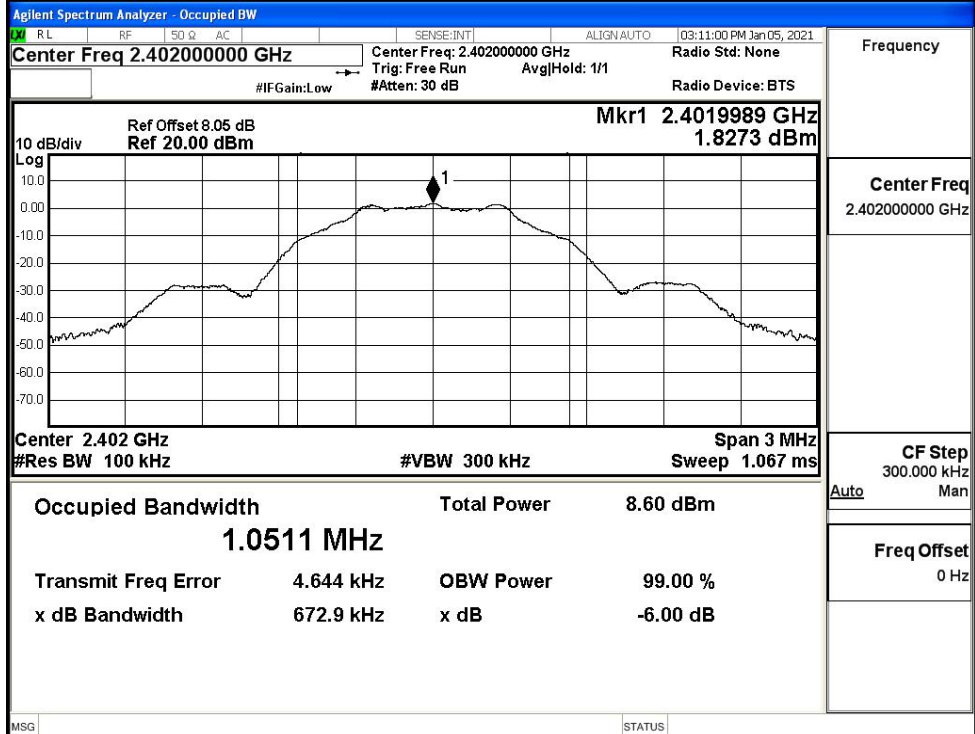


## A.4 6dB Bandwidth

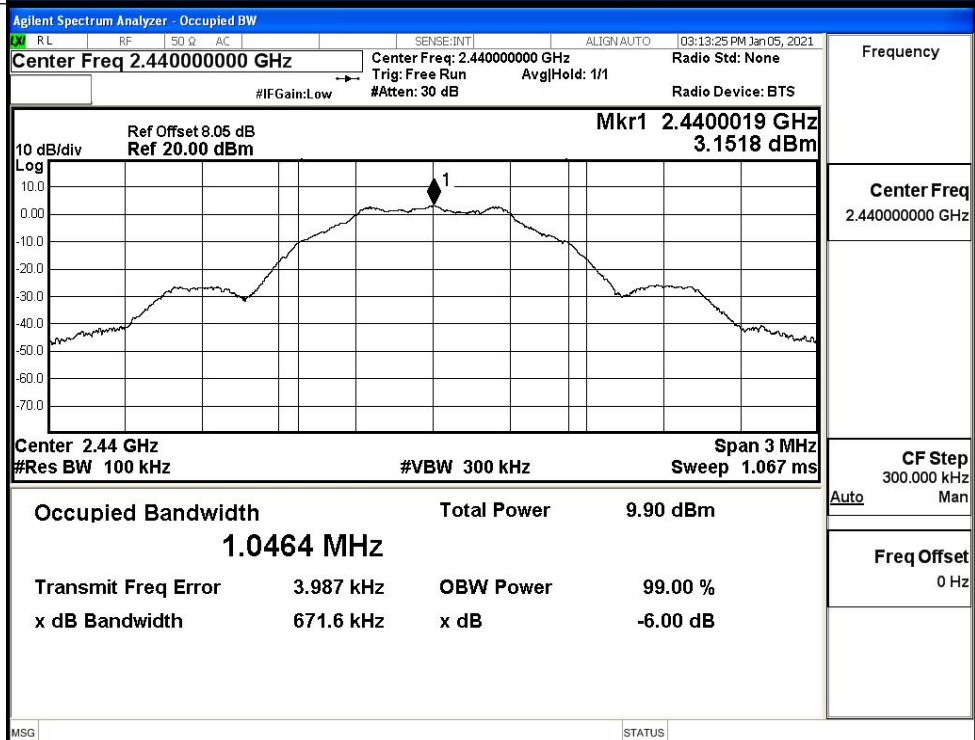
| Mode  | Channel | 6dB Bandwidth [MHz] | Limit [MHz] | Verdict |
|-------|---------|---------------------|-------------|---------|
| BT LE | LCH     | 0.6729              | $\geq 0.5$  | PASS    |
| BT LE | MCH     | 0.6716              | $\geq 0.5$  | PASS    |
| BT LE | HCH     | 0.6665              | $\geq 0.5$  | PASS    |

## Test Graphs

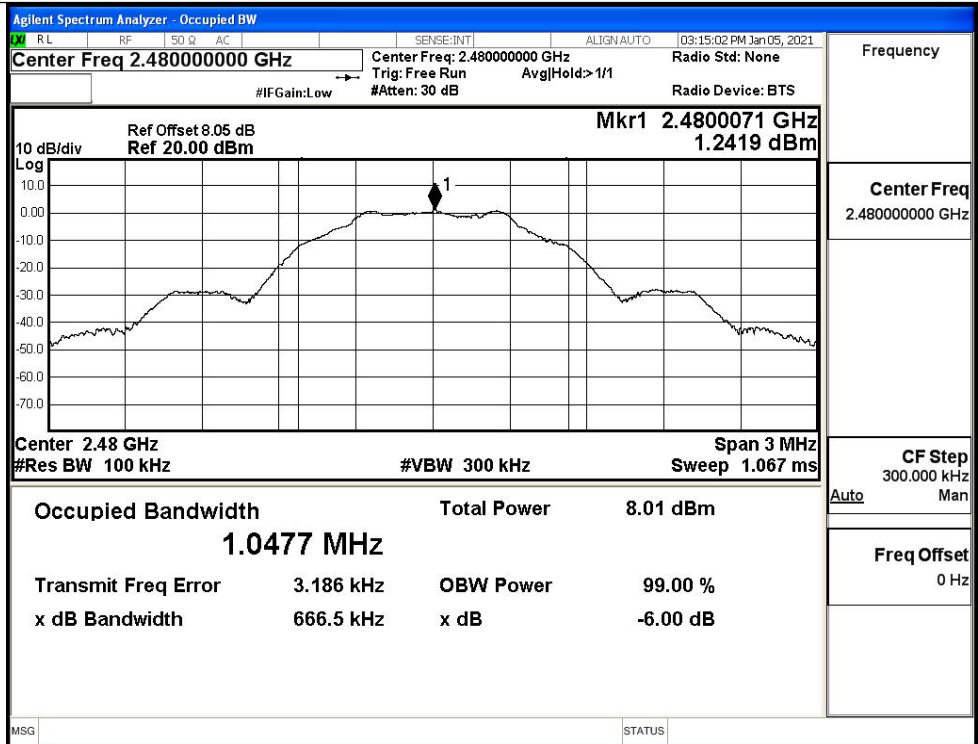
LCH



MCH



HCH

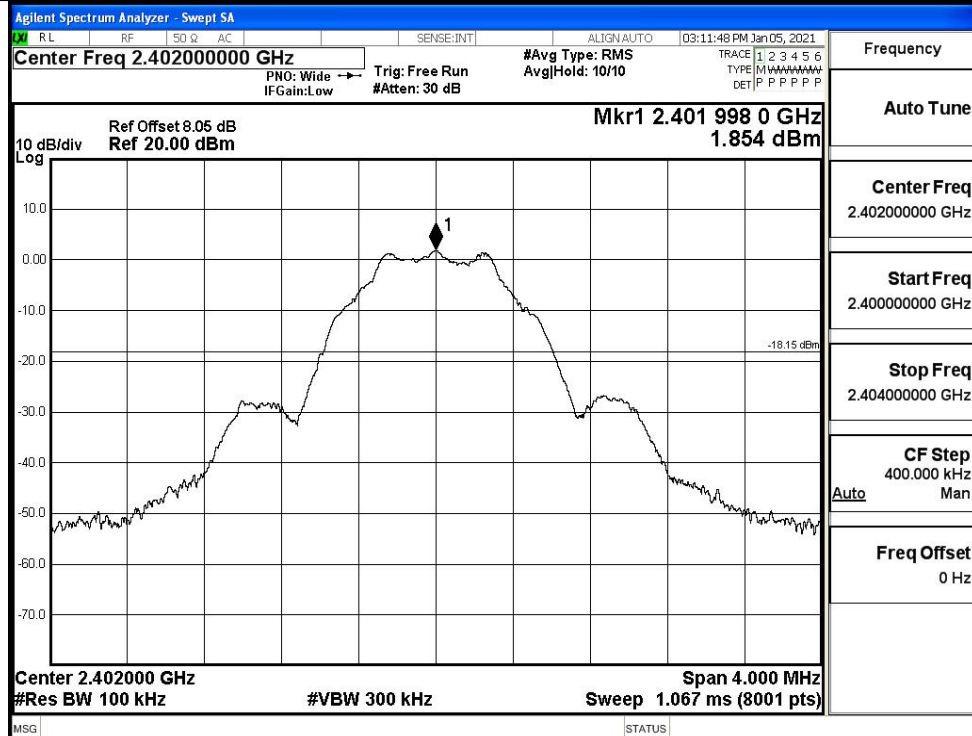


## A.5 RF Conducted Spurious Emissions

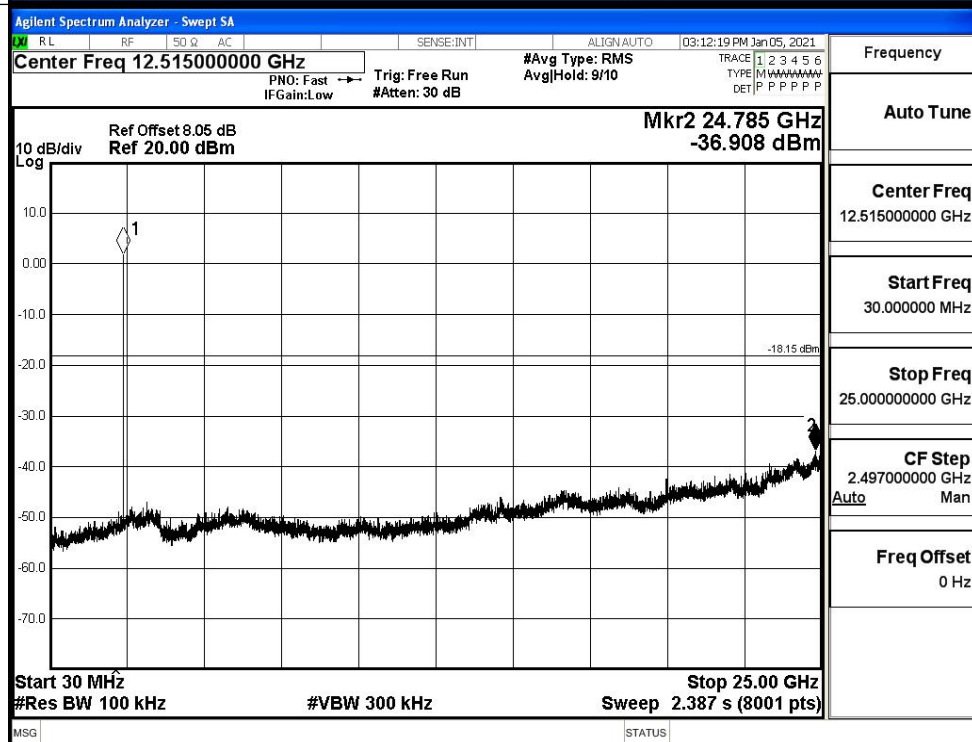
| Mode  | Channel | Pref [dBm] | Max. Level [dBm] | Limit [dBm] | Verdict |
|-------|---------|------------|------------------|-------------|---------|
| BT LE | LCH     | 1.854      | -36.908          | -18.146     | PASS    |
| BT LE | MCH     | 3.155      | -37.181          | -16.845     | PASS    |
| BT LE | HCH     | 1.189      | -36.810          | -18.811     | PASS    |

BT\_LE\_LCH\_Graphs

Pref/BT LE/LCH

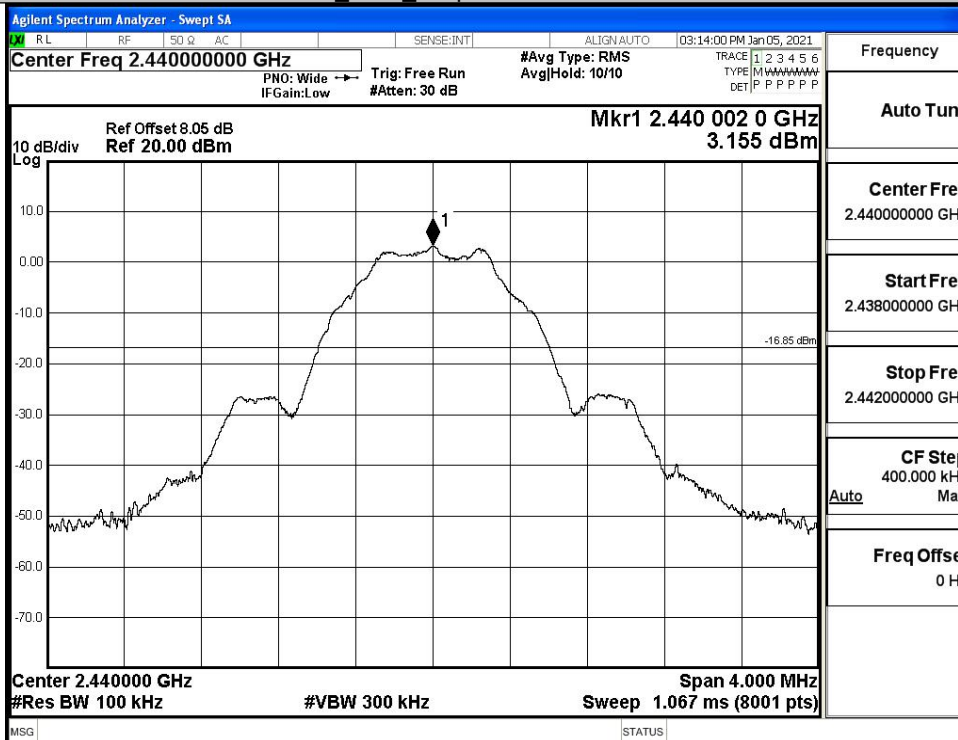


Puw/BT LE/LCH

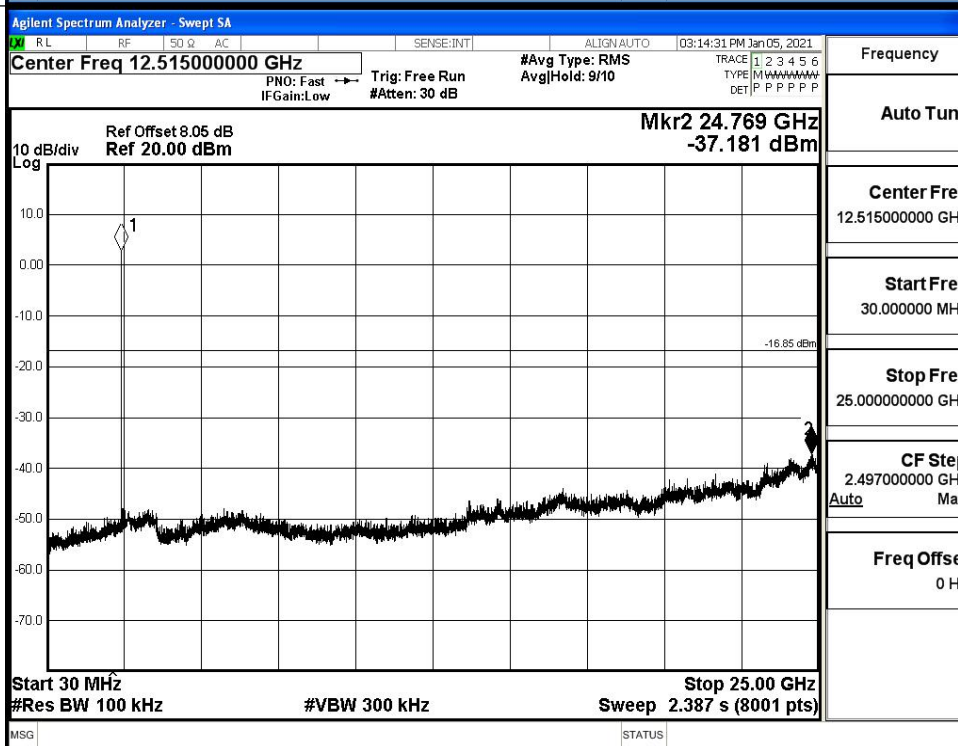


## BT LE MCH Graphs

Pref/BT LE/MCH

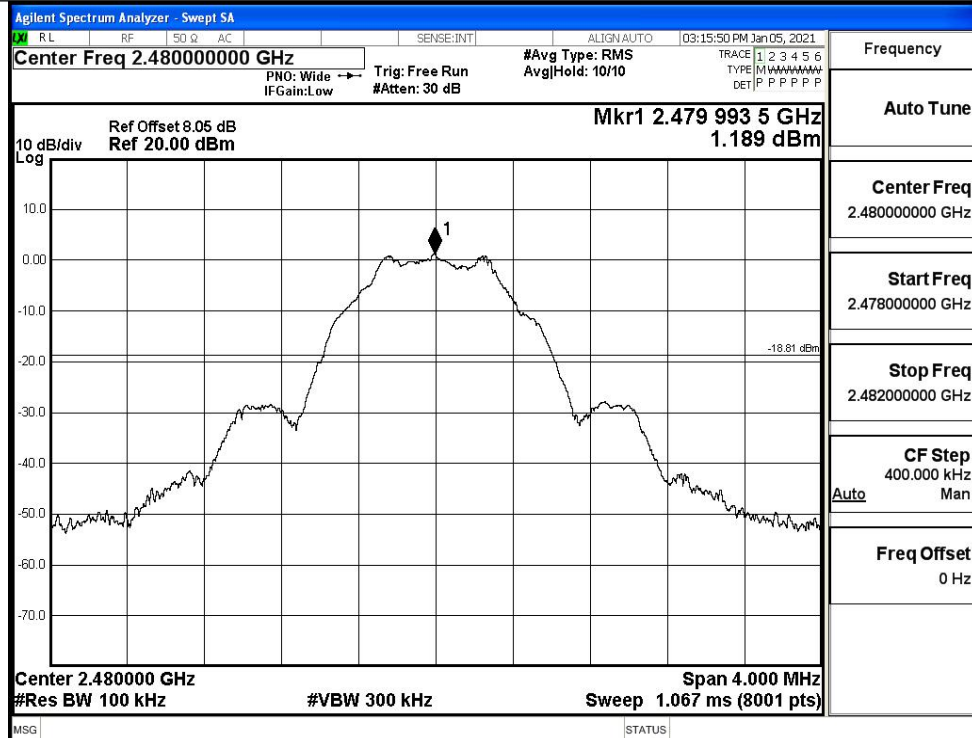


Puw/BT LE/MCH

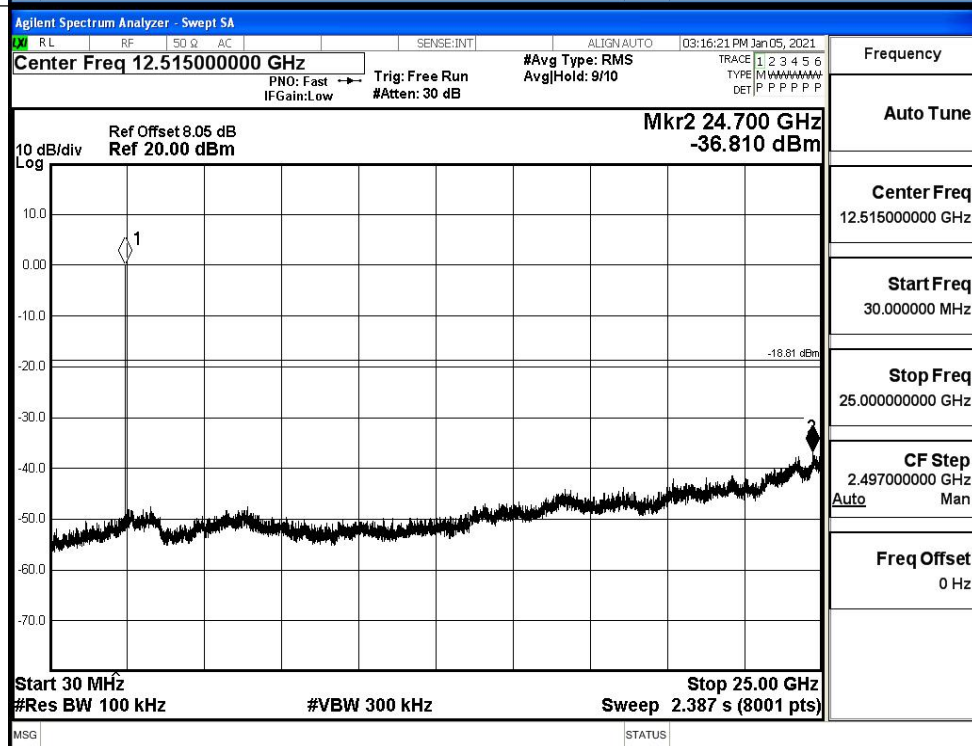


## BT LE HCH Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH

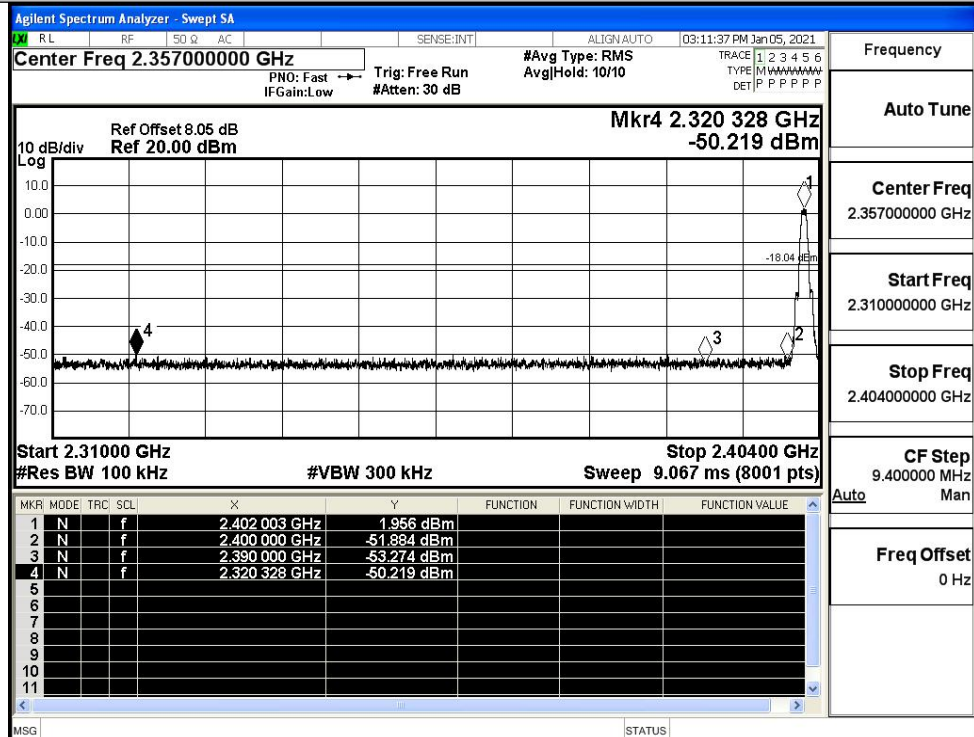


## A.6 Band-edge for RF Conducted Emissions

| Mode  | Channel | Carrier Power[dBm] | Max.Spurious Level [dBm] | Limit [dBm] | Verdict |
|-------|---------|--------------------|--------------------------|-------------|---------|
| BT LE | LCH     | 1.956              | -50.219                  | -18.04      | PASS    |
| BT LE | HCH     | 1.017              | -49.218                  | -18.98      | PASS    |

## Test Graphs

LCH



Frequency

Auto Tune

Center Freq

2.357000000 GHz

Start Freq

2.310000000 GHz

Stop Freq

2.404000000 GHz

CF Step

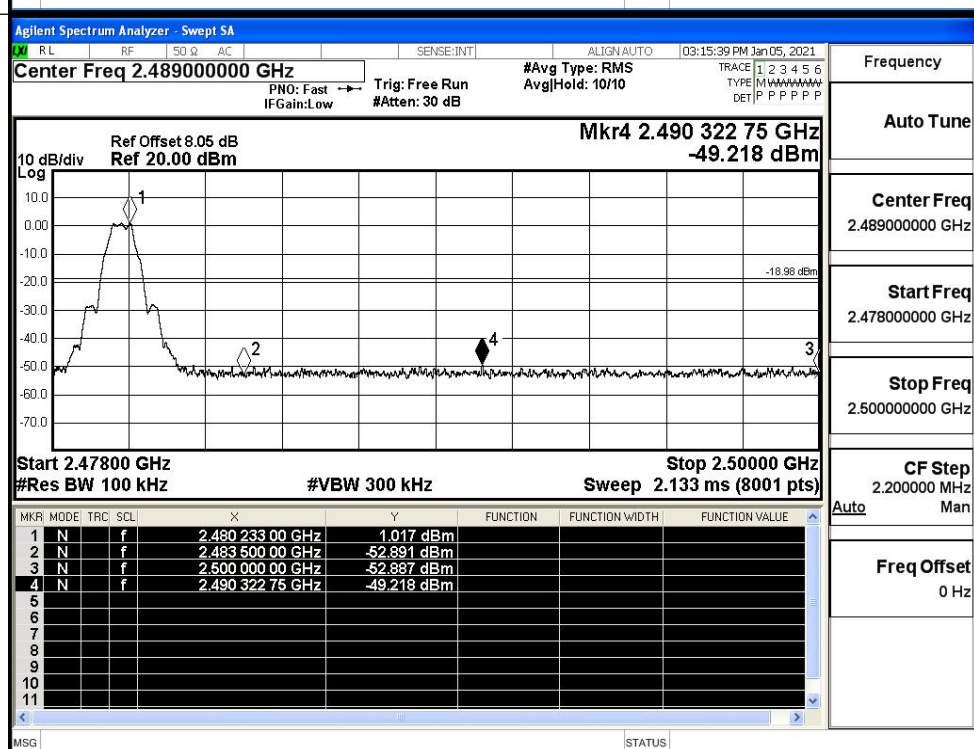
9.400000 MHz

Auto Man

Freq Offset

0 Hz

HCH



Frequency

Auto Tune

Center Freq

2.489000000 GHz

Start Freq

2.478000000 GHz

Stop Freq

2.500000000 GHz

CF Step

2.200000 MHz

Auto Man

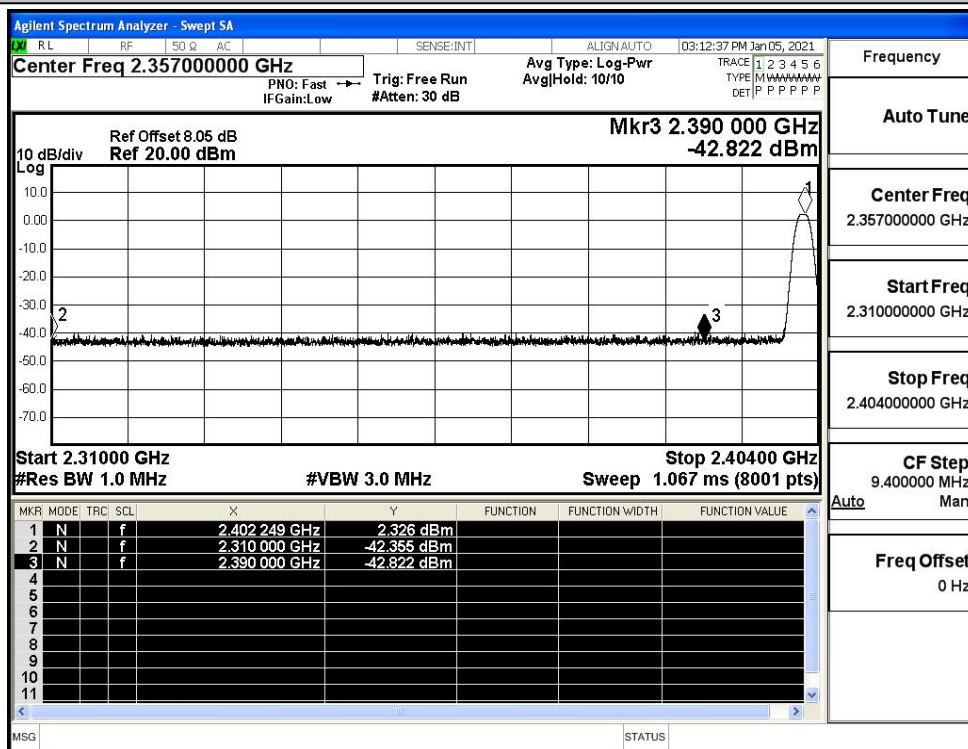
Freq Offset

0 Hz

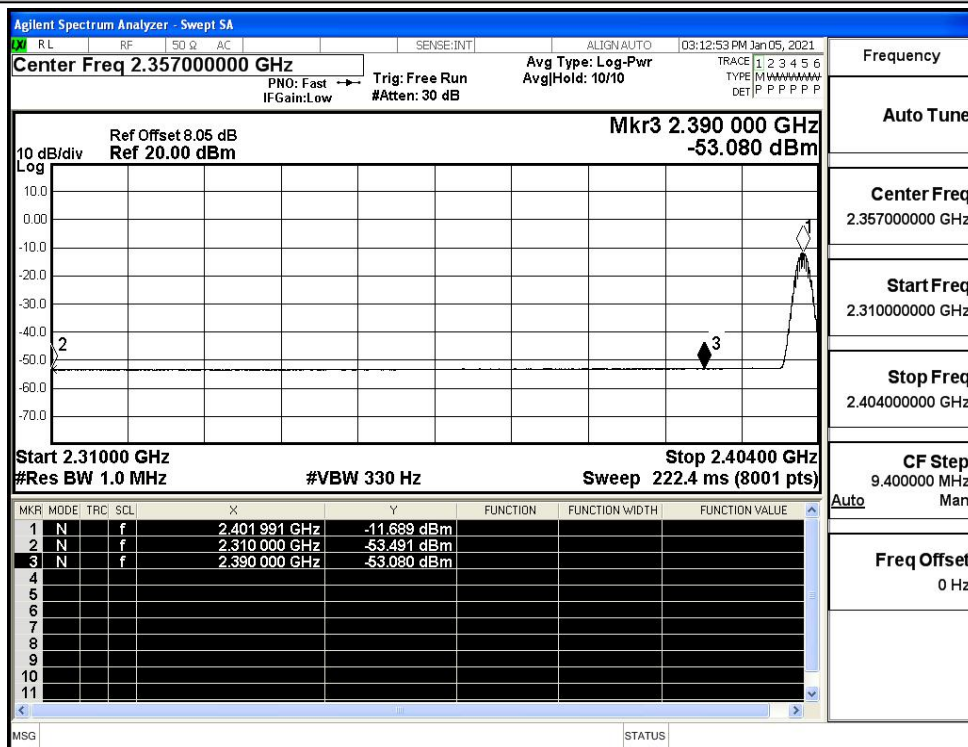
**A.7 Restrict-band band-edge measurements**

| Test Mode | Test Channel | Ant  | Freq.  | Power [dBm] | Gain | Ground Factor | E [dBuV/m] | Detector | Limit [dBuV/m] | Verdict |
|-----------|--------------|------|--------|-------------|------|---------------|------------|----------|----------------|---------|
| BT LE     | 2402         | Ant1 | 2310.0 | -42.36      | 2.0  | 0             | 54.87      | PEAK     | 74             | PASS    |
|           |              | Ant1 | 2310.0 | -53.49      | 2.0  | 0             | 43.74      | AV       | 54             | PASS    |
|           |              | Ant1 | 2390.0 | -42.82      | 2.0  | 0             | 54.41      | PEAK     | 74             | PASS    |
|           |              | Ant1 | 2390.0 | -53.08      | 2.0  | 0             | 44.15      | AV       | 54             | PASS    |
|           | 2480         | Ant1 | 2483.5 | -40.62      | 2.0  | 0             | 56.61      | PEAK     | 74             | PASS    |
|           |              | Ant1 | 2483.5 | -52.52      | 2.0  | 0             | 44.71      | AV       | 54             | PASS    |
|           |              | Ant1 | 2500.0 | -42.66      | 2.0  | 0             | 54.57      | PEAK     | 74             | PASS    |
|           |              | Ant1 | 2500.0 | -52.47      | 2.0  | 0             | 44.76      | AV       | 54             | PASS    |

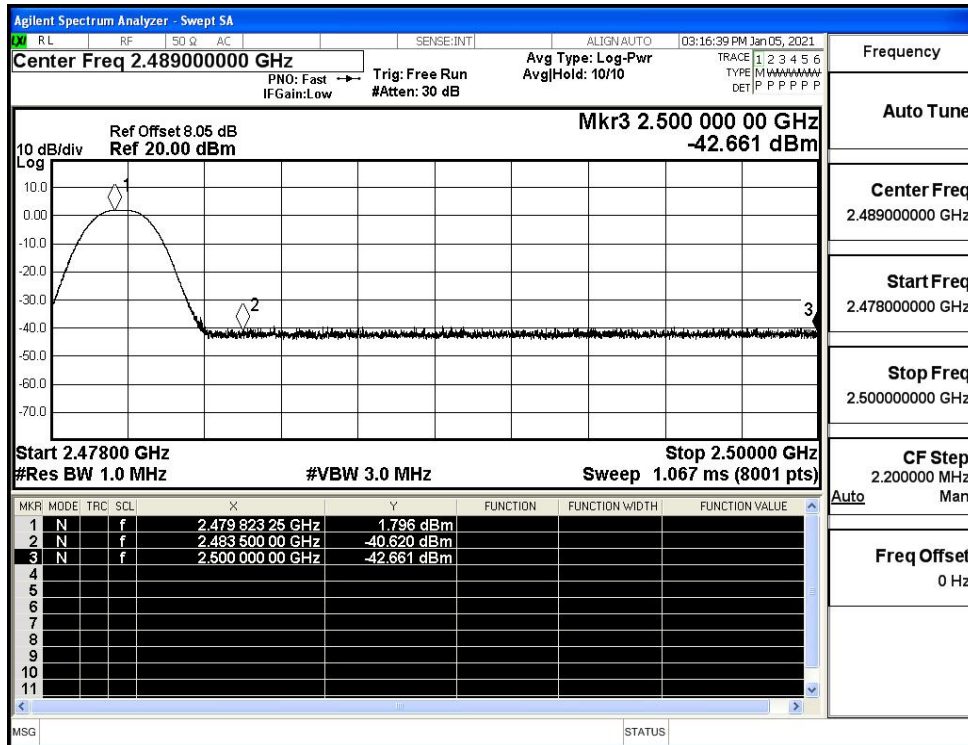
## Restrict-band band-edge measurements\_BT LE\_2402\_Ant1\_PEAK



## Restrict-band band-edge measurements\_BT LE\_2402\_Ant1\_AV



## Restrict-band band-edge measurements\_BT LE\_2480\_Ant1\_PEAK



## Restrict-band band-edge measurements\_BT LE\_2480\_Ant1\_AV

