

## Appendix B

### RF Test Data for BT V4.1(Conducted Measurement)

Product Name: Home Karaoke Party Speaker

Trade Mark: gemini

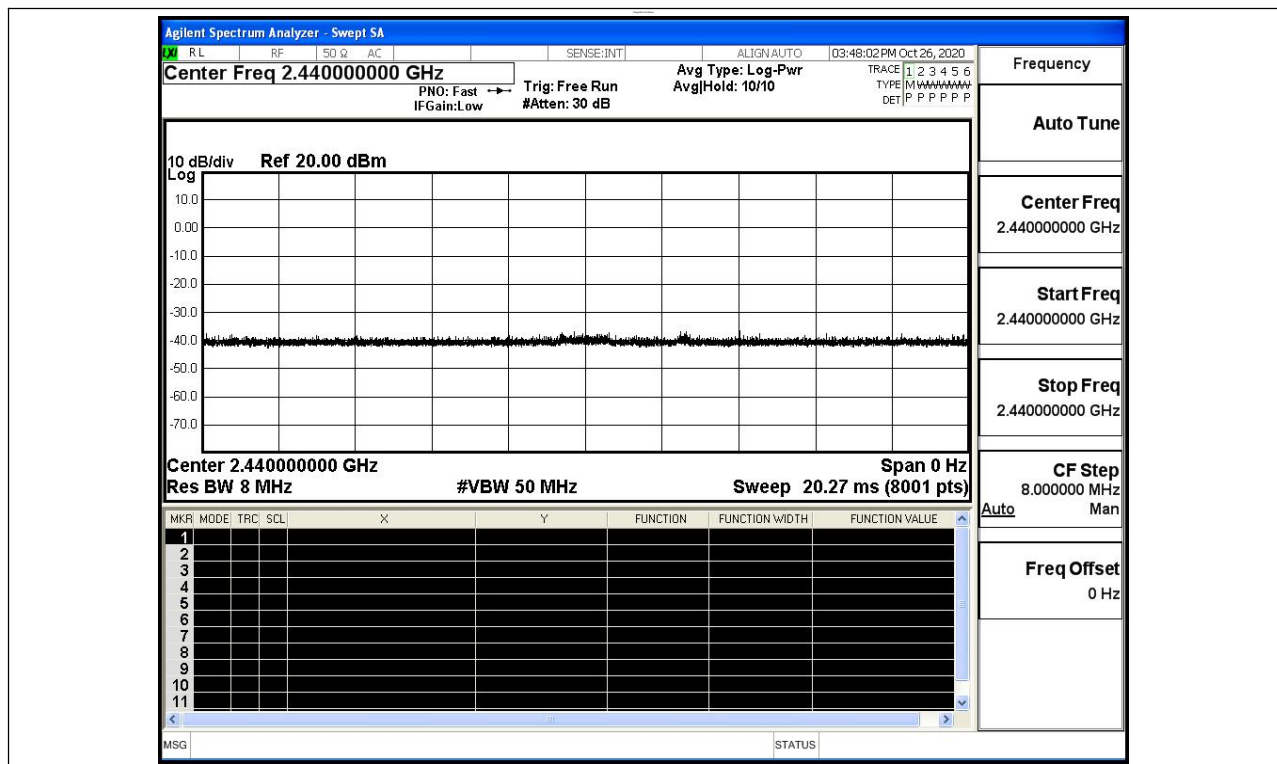
Test Model: GPK-800

#### Environmental Conditions

|                    |           |
|--------------------|-----------|
| Temperature:       | 22.3° C   |
| Relative Humidity: | 53.5%     |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Jay Li    |
| Supervised by:     | Li Huan   |

#### B.1 Duty Cycle

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

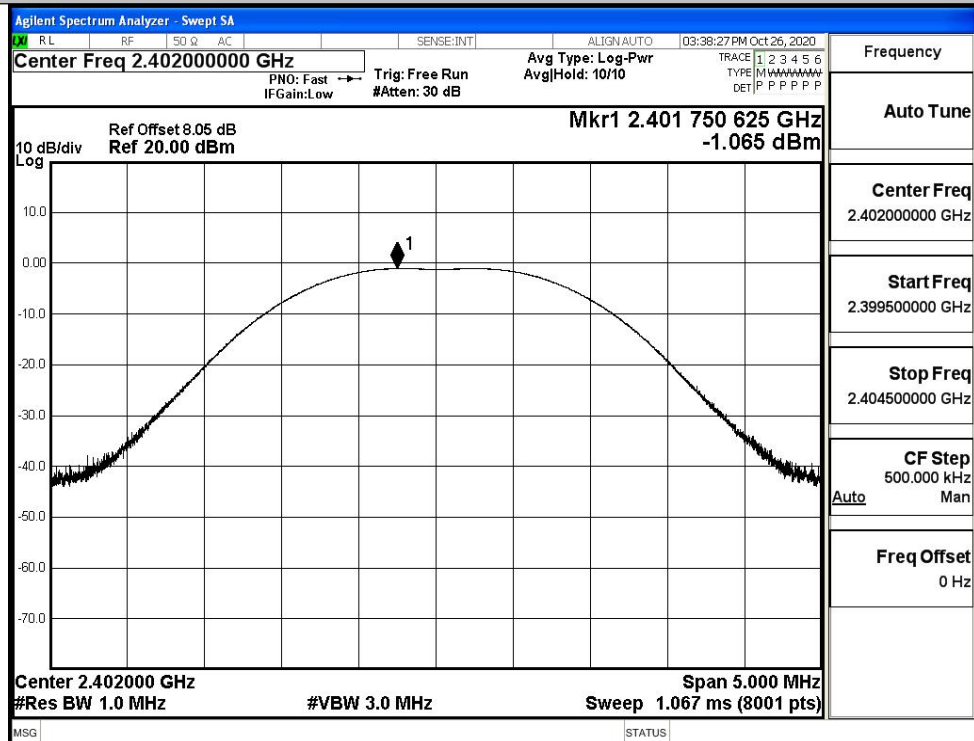


**B.2 Maximum Conducted Peak Output Power**

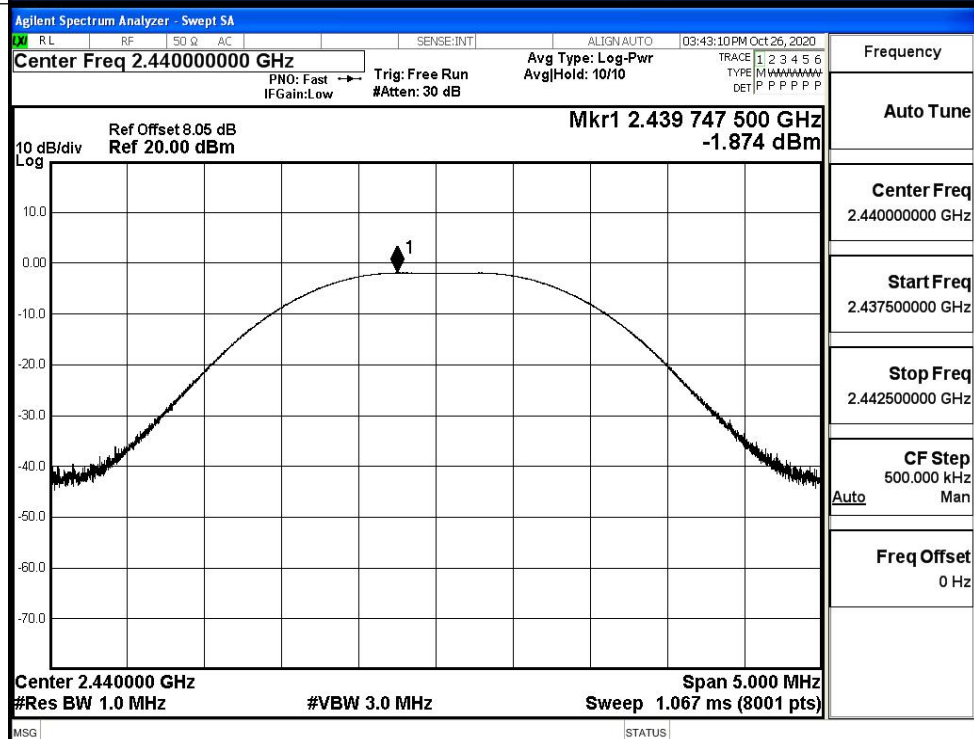
| Mode  | Channel | Conduct Peak Power[dBm] | Limit [dBm] | Verdict |
|-------|---------|-------------------------|-------------|---------|
| BT LE | LCH     | -1.065                  | 30          | PASS    |
| BT LE | MCH     | -1.874                  | 30          | PASS    |
| BT LE | HCH     | -2.516                  | 30          | PASS    |

**Test Graphs**

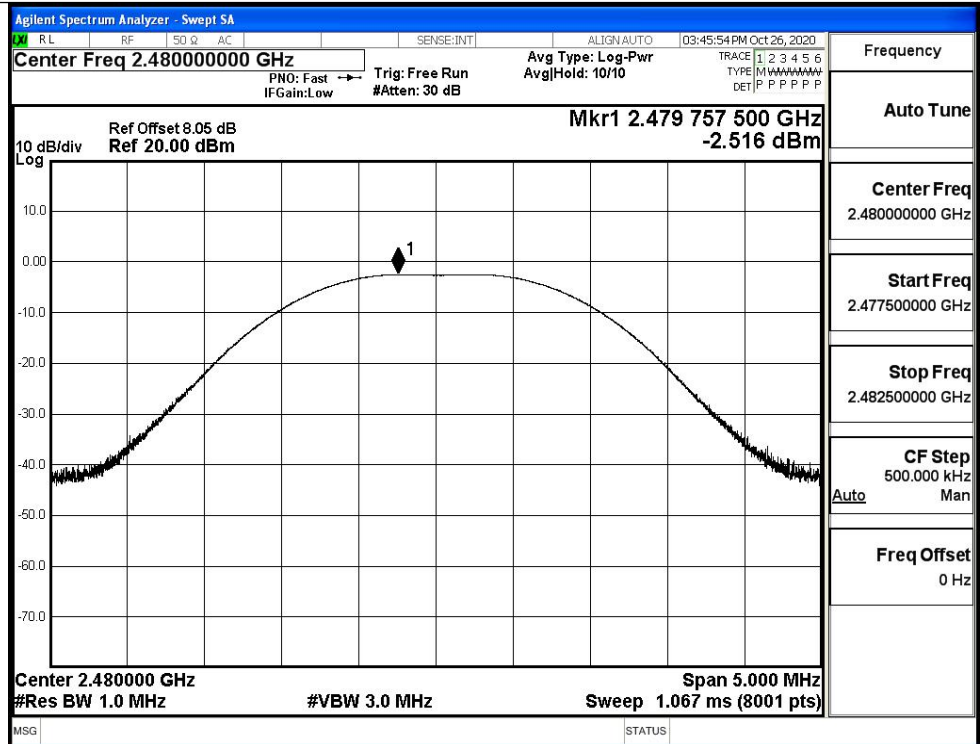
LCH



MCH



HCH

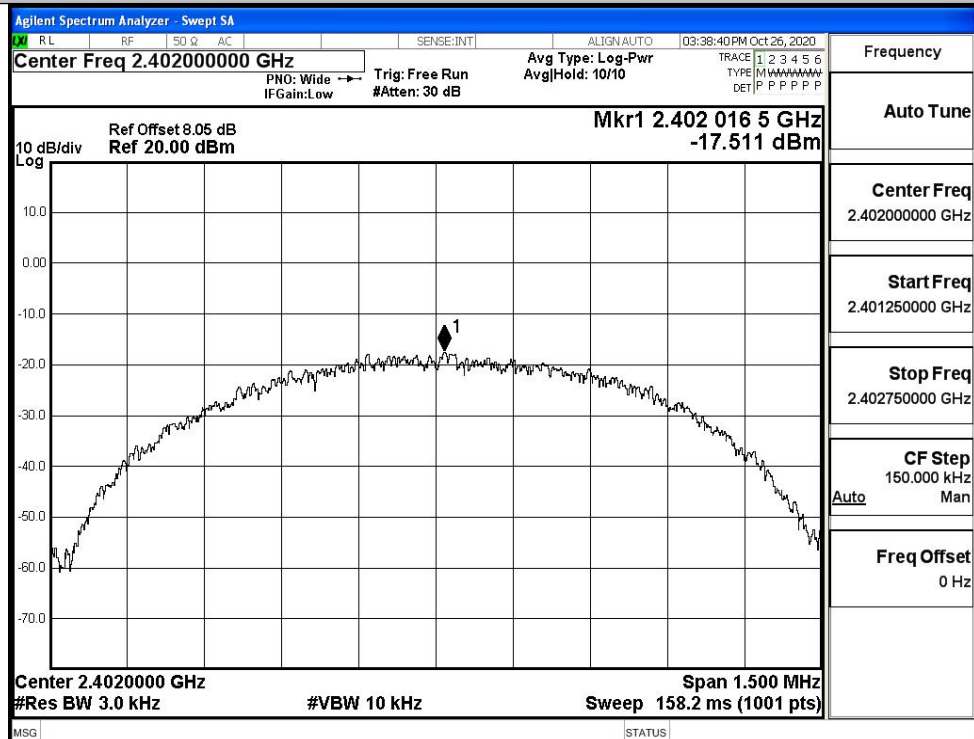


### B.3 Maximum Power Spectral Density

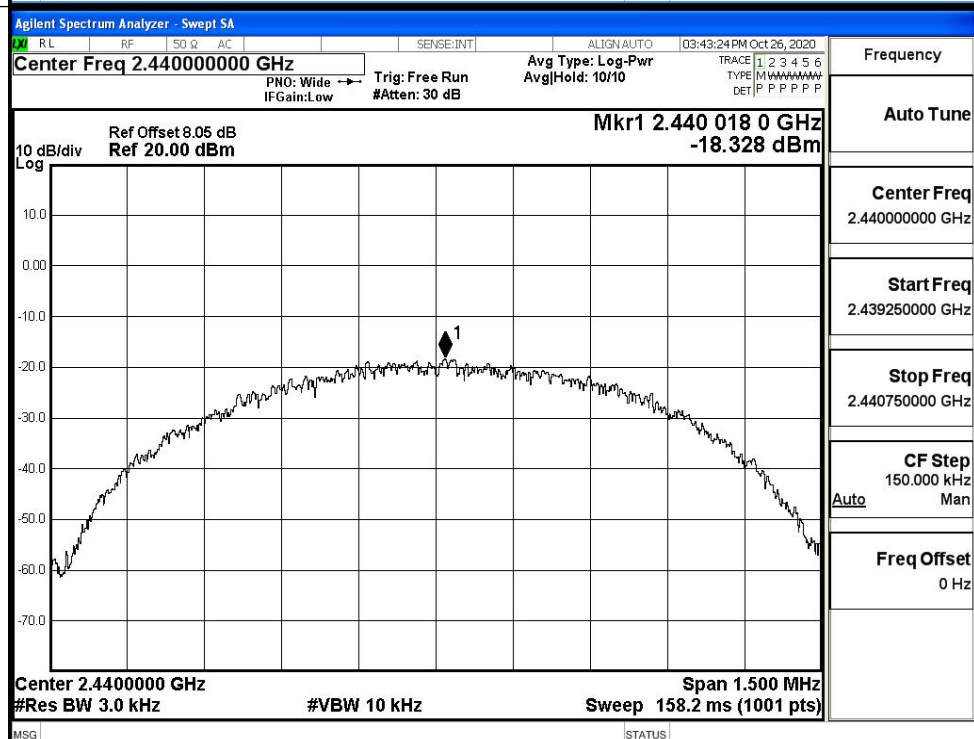
| Mode  | Channel | PSD [dBm/3KHz] | Limit [dBm/3KHz] | Verdict |
|-------|---------|----------------|------------------|---------|
| BT LE | LCH     | -17.511        | 8                | PASS    |
| BT LE | MCH     | -18.328        | 8                | PASS    |
| BT LE | HCH     | -18.676        | 8                | PASS    |

#### Test Graphs

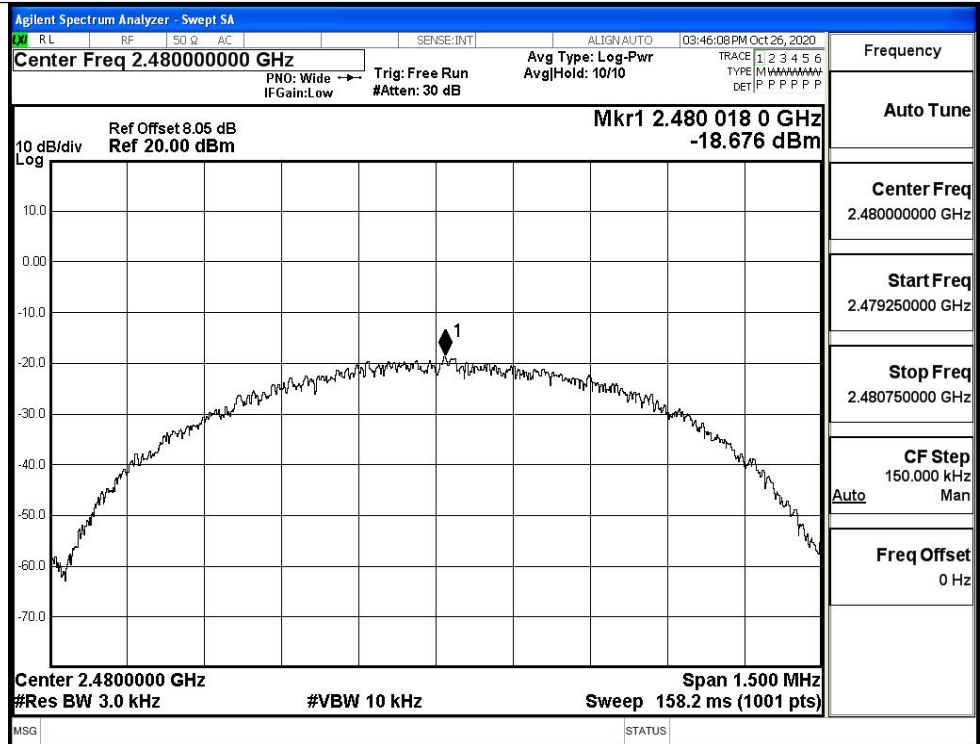
LCH



MCH



HCH

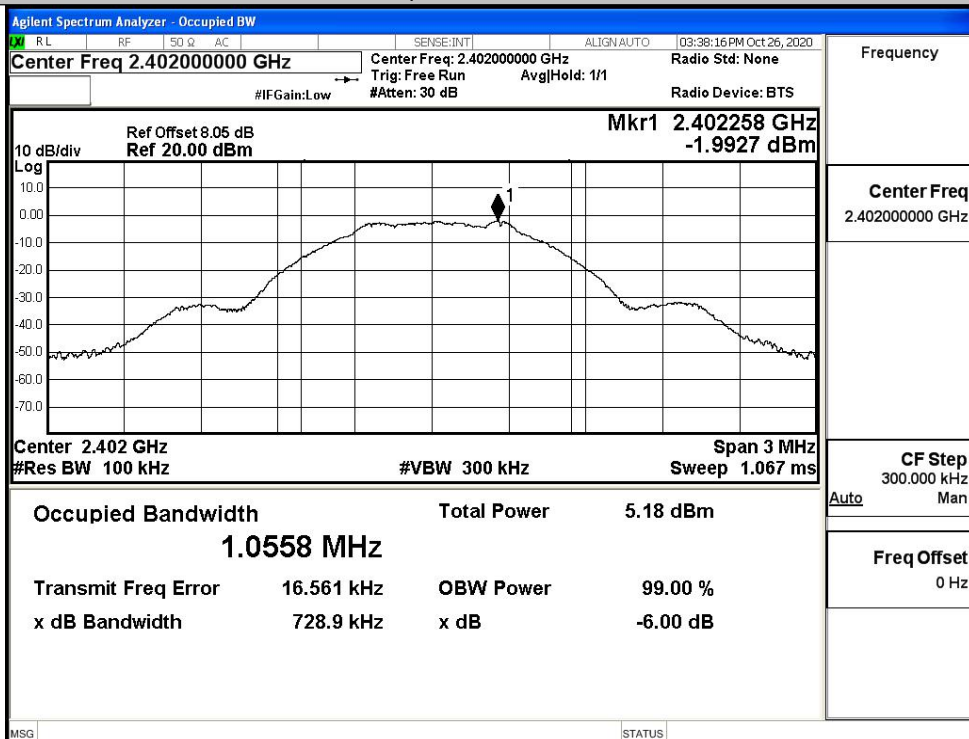


## B.4 6dB Bandwidth

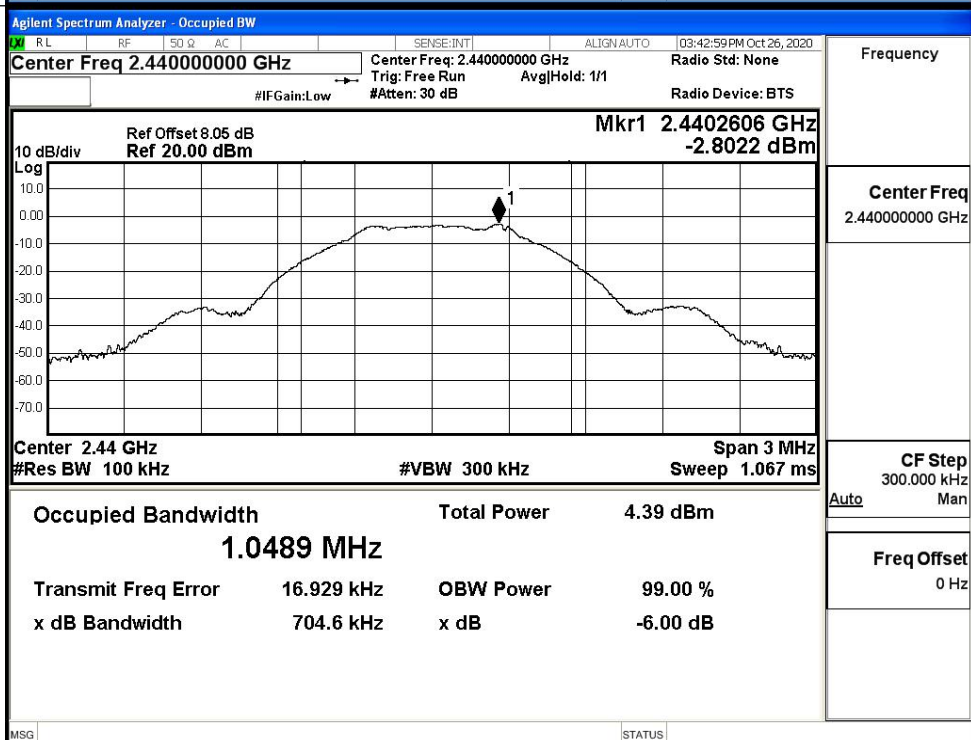
| Mode  | Channel | 6dB Bandwidth [MHz] | Limit [MHz] | Verdict |
|-------|---------|---------------------|-------------|---------|
| BT LE | LCH     | 0.7289              | $\geq 0.5$  | PASS    |
| BT LE | MCH     | 0.7046              | $\geq 0.5$  | PASS    |
| BT LE | HCH     | 0.7239              | $\geq 0.5$  | PASS    |

## Test Graphs

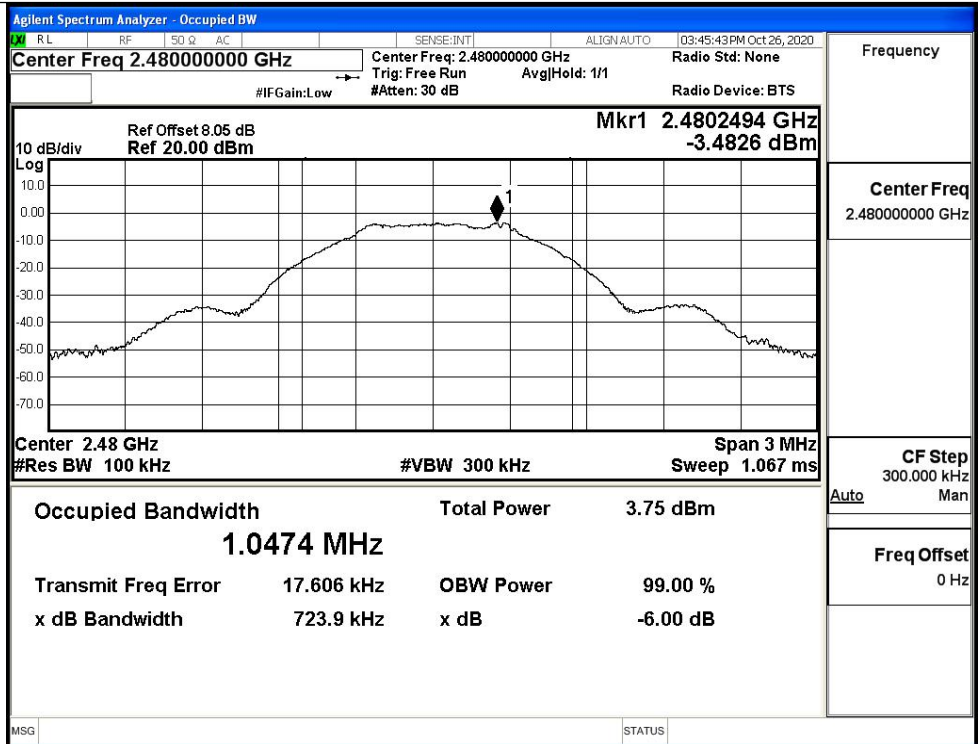
LCH



MCH



HCH

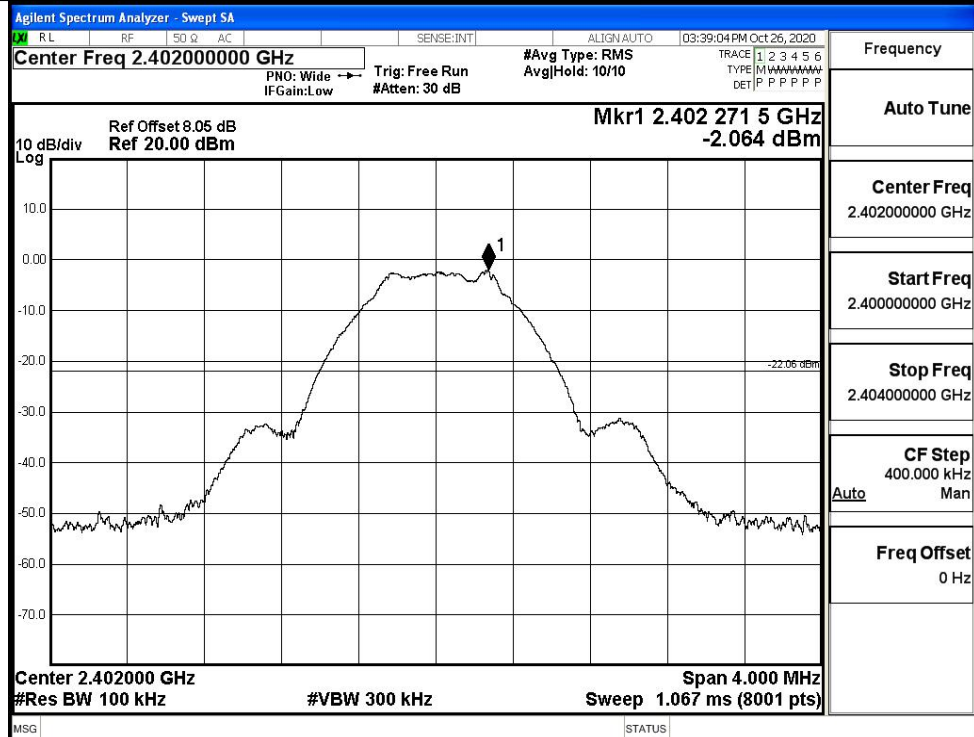


## B.5 RF Conducted Spurious Emissions

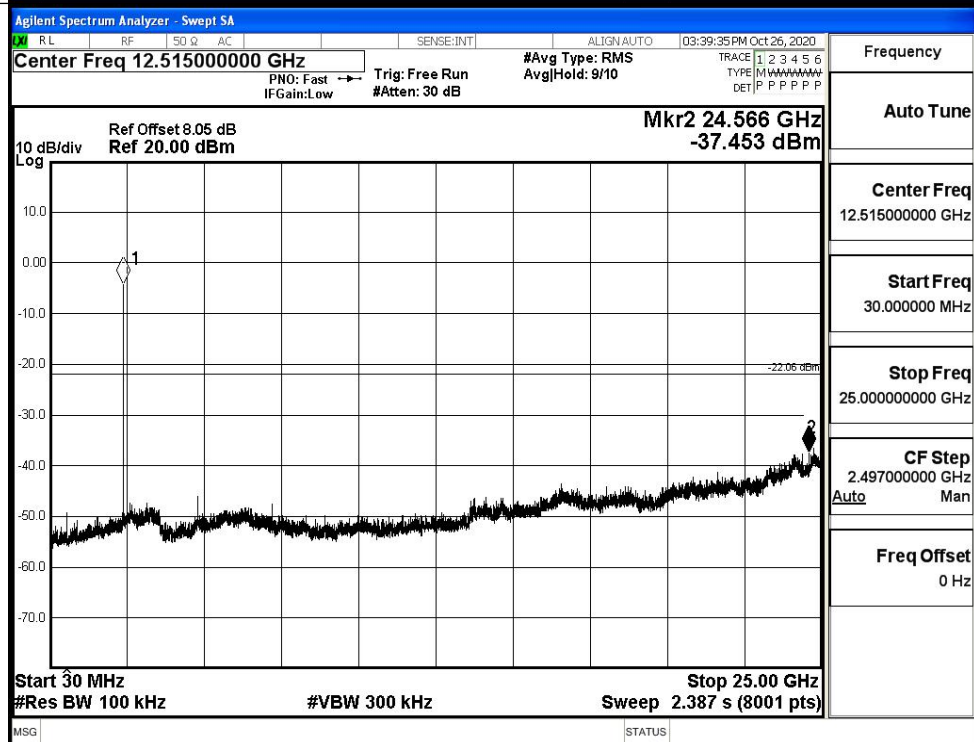
| Mode  | Channel | Pref [dBm] | Max. Level [dBm] | Limit [dBm] | Verdict |
|-------|---------|------------|------------------|-------------|---------|
| BT LE | LCH     | -2.064     | -37.453          | -22.064     | PASS    |
| BT LE | MCH     | -2.829     | -36.508          | -22.829     | PASS    |
| BT LE | HCH     | -3.419     | -36.548          | -23.419     | PASS    |

BT LE\_LCH\_Graphs

Pref/BT LE/LCH

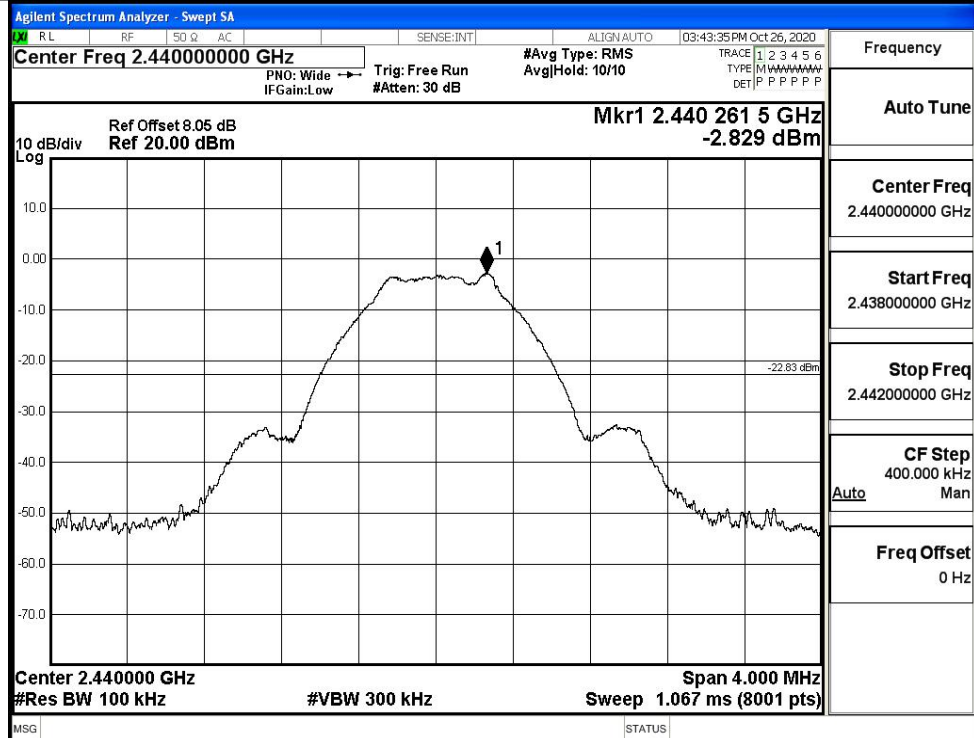


Puw/BT LE/LCH

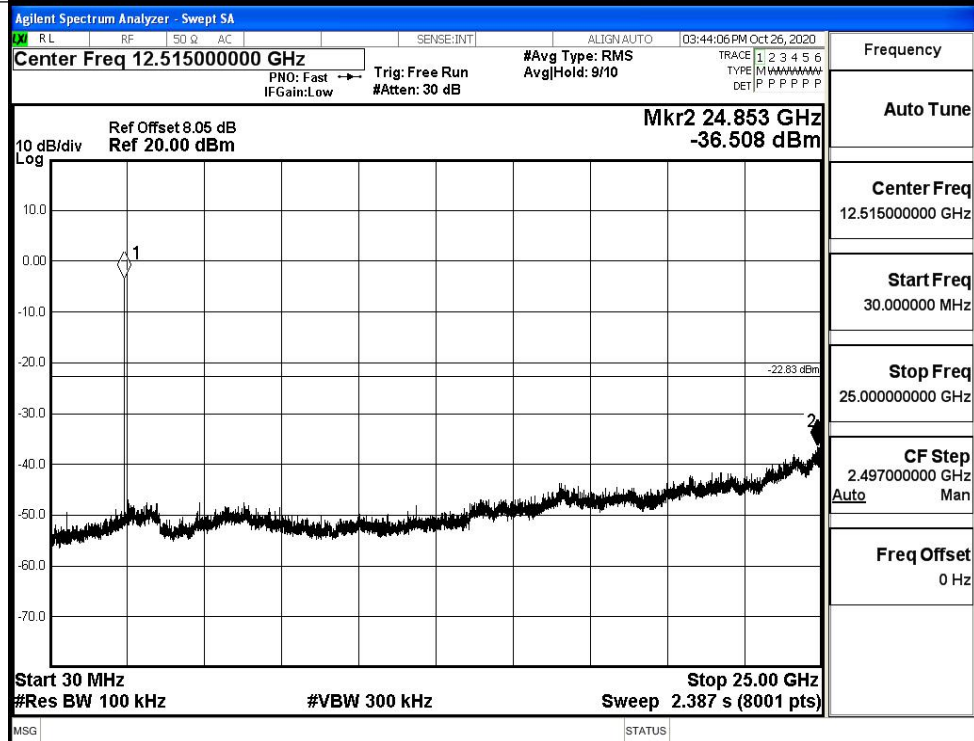


## BT LE MCH Graphs

Pref/BT LE/MCH

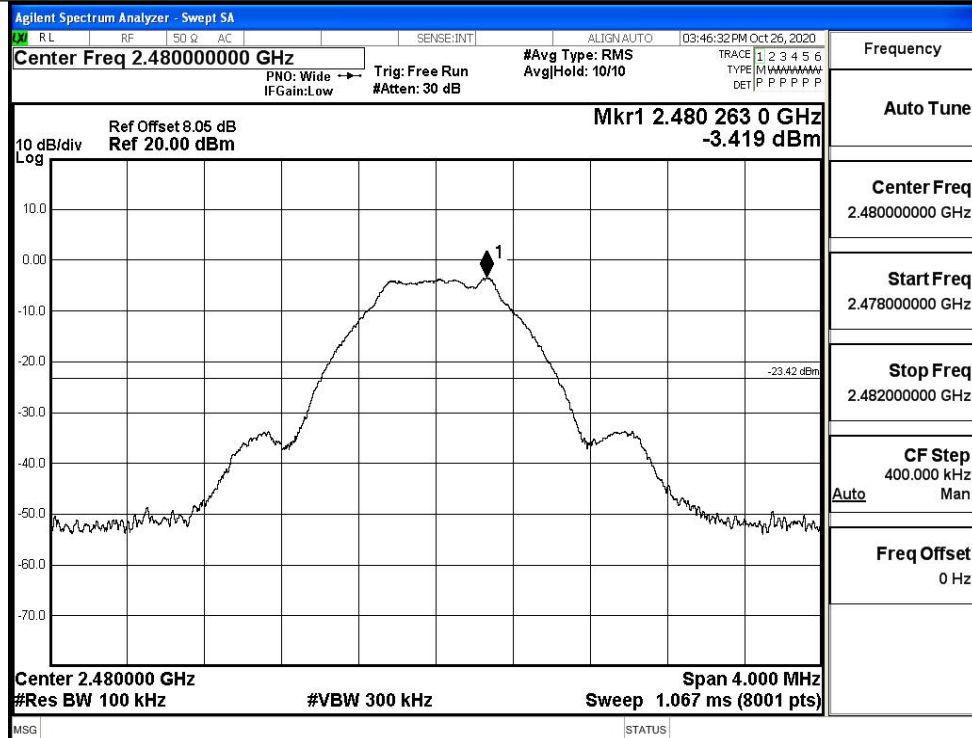


Puw/BT LE/MCH

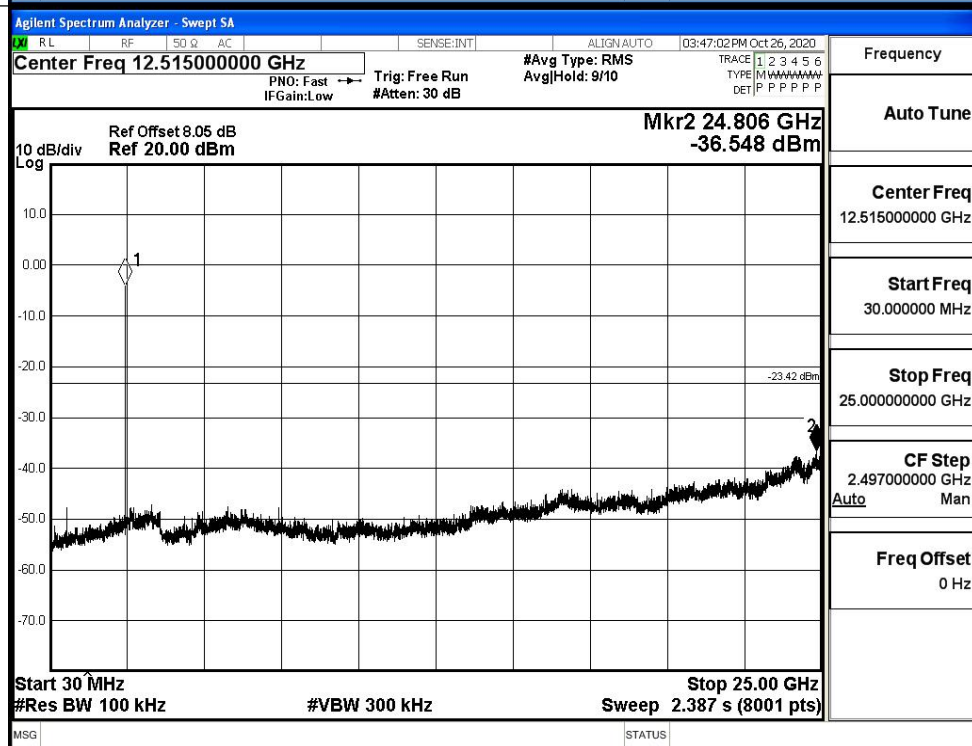


## BT LE HCH Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH

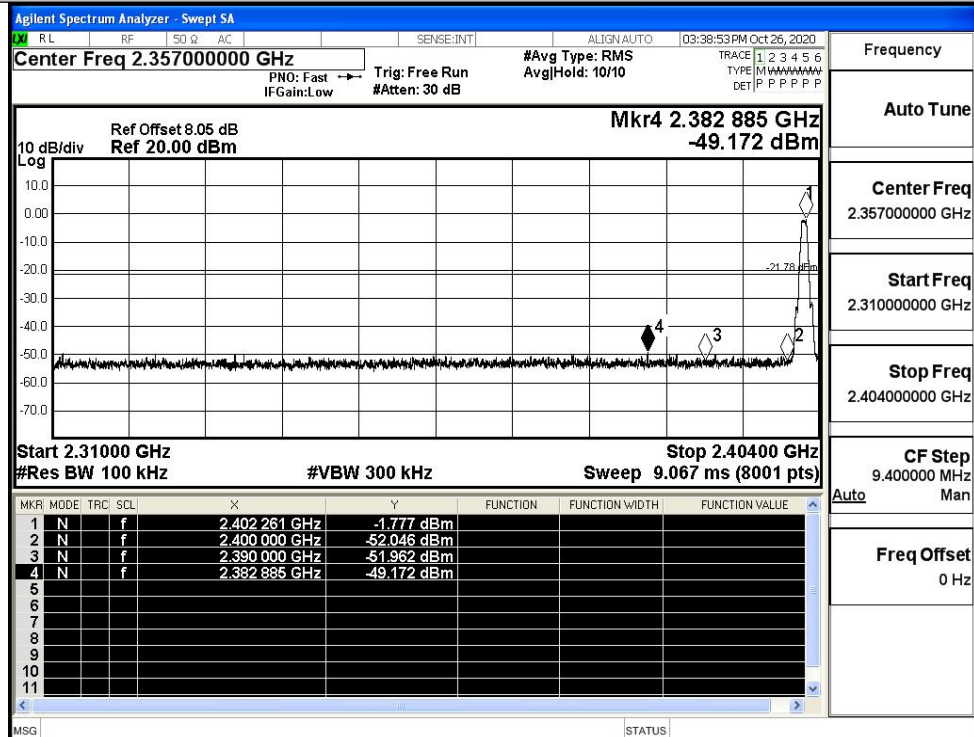


## B.6 Band-edge for RF Conducted Emissions

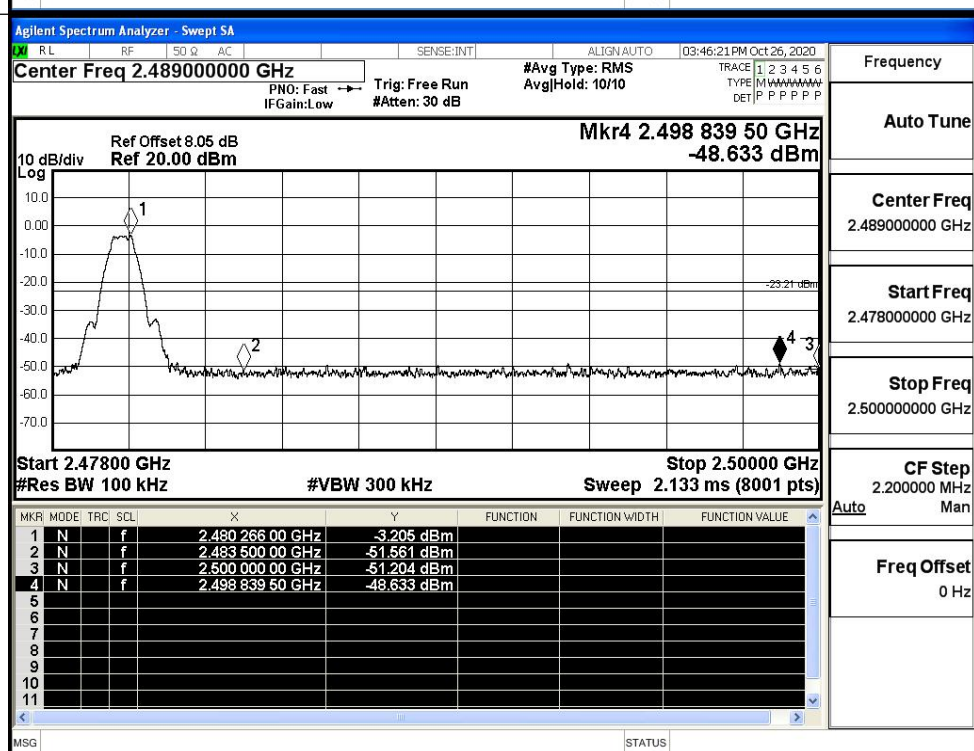
| Mode  | Channel | Carrier Power[dBm] | Max.Spurious Level [dBm] | Limit [dBm] | Verdict |
|-------|---------|--------------------|--------------------------|-------------|---------|
| BT LE | LCH     | -1.777             | -49.172                  | -21.78      | PASS    |
| BT LE | HCH     | -3.205             | -48.633                  | -23.21      | PASS    |

## Test Graphs

LCH



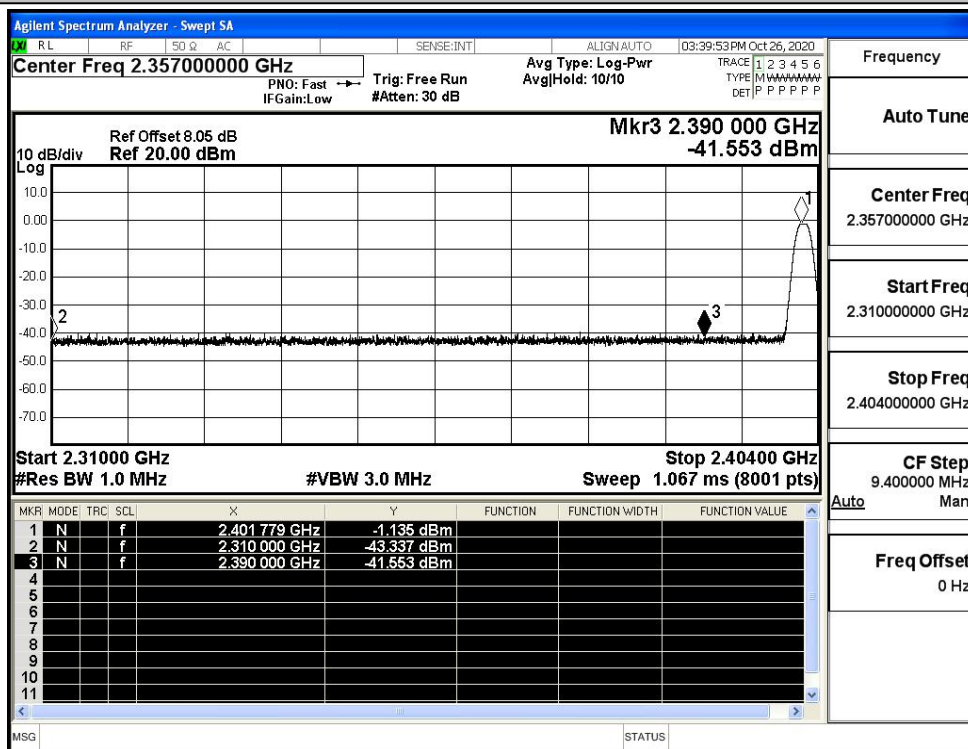
HCH



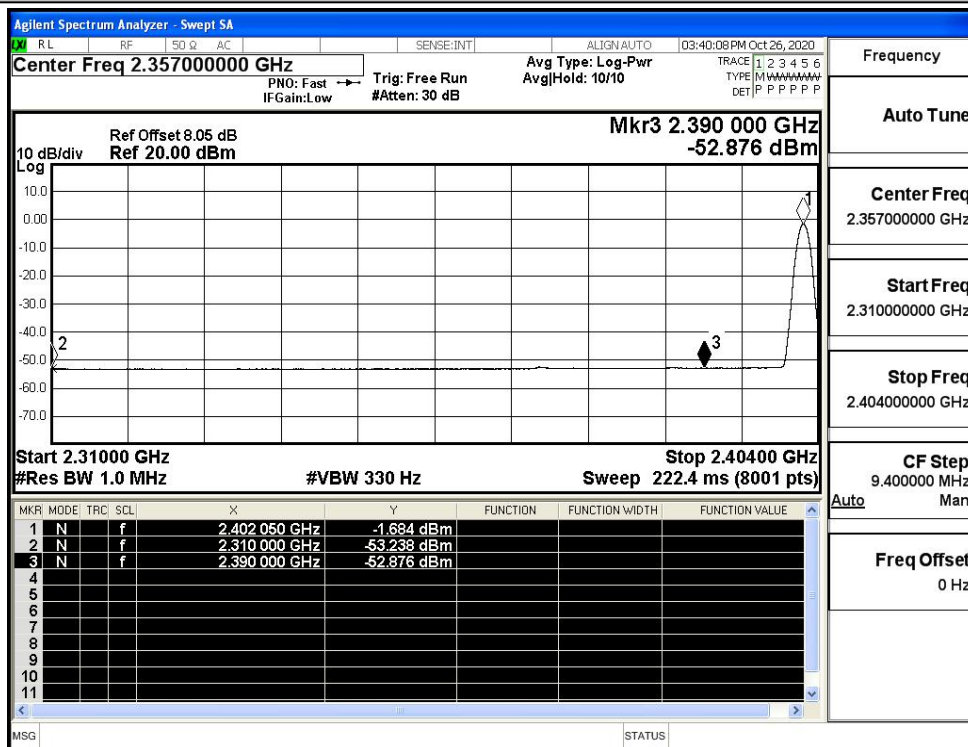
**B.7 Restrict-band band-edge measurements**

| Test Mode | Test Channel | Ant  | Freq.  | Power [dBm] | Gain | Ground Factor | E [dBuV/m] | Detector | Limit [dBuV/m] | Verdi |
|-----------|--------------|------|--------|-------------|------|---------------|------------|----------|----------------|-------|
| BT LE     | 2402         | Ant1 | 2310.0 | -43.34      | 2.0  | 0             | 53.89      | PEAK     | 74             | PASS  |
|           |              | Ant1 | 2310.0 | -53.24      | 2.0  | 0             | 43.99      | AV       | 54             | PASS  |
|           |              | Ant1 | 2390.0 | -41.55      | 2.0  | 0             | 55.68      | PEAK     | 74             | PASS  |
|           |              | Ant1 | 2390.0 | -52.88      | 2.0  | 0             | 44.35      | AV       | 54             | PASS  |
|           | 2480         | Ant1 | 2483.5 | -41.50      | 2.0  | 0             | 55.73      | PEAK     | 74             | PASS  |
|           |              | Ant1 | 2483.5 | -52.34      | 2.0  | 0             | 44.89      | AV       | 54             | PASS  |
|           |              | Ant1 | 2500.0 | -42.21      | 2.0  | 0             | 55.02      | PEAK     | 74             | PASS  |
|           |              | Ant1 | 2500.0 | -52.25      | 2.0  | 0             | 44.98      | AV       | 54             | PASS  |

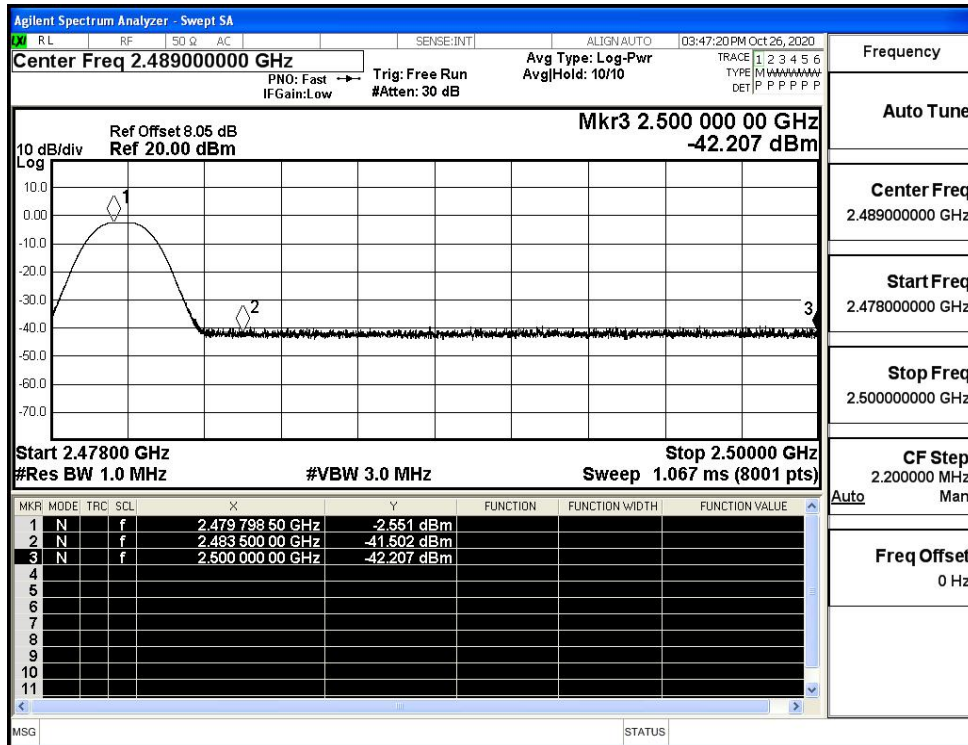
## Restrict-band band-edge measurements\_BT LE\_2402\_Ant1\_PEAK



## 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

