

## Appendix A

### RF Test Data for BT 4.1(BLE) (Conducted Measurement)

Product Name: TPMS

Trade Mark: BIT

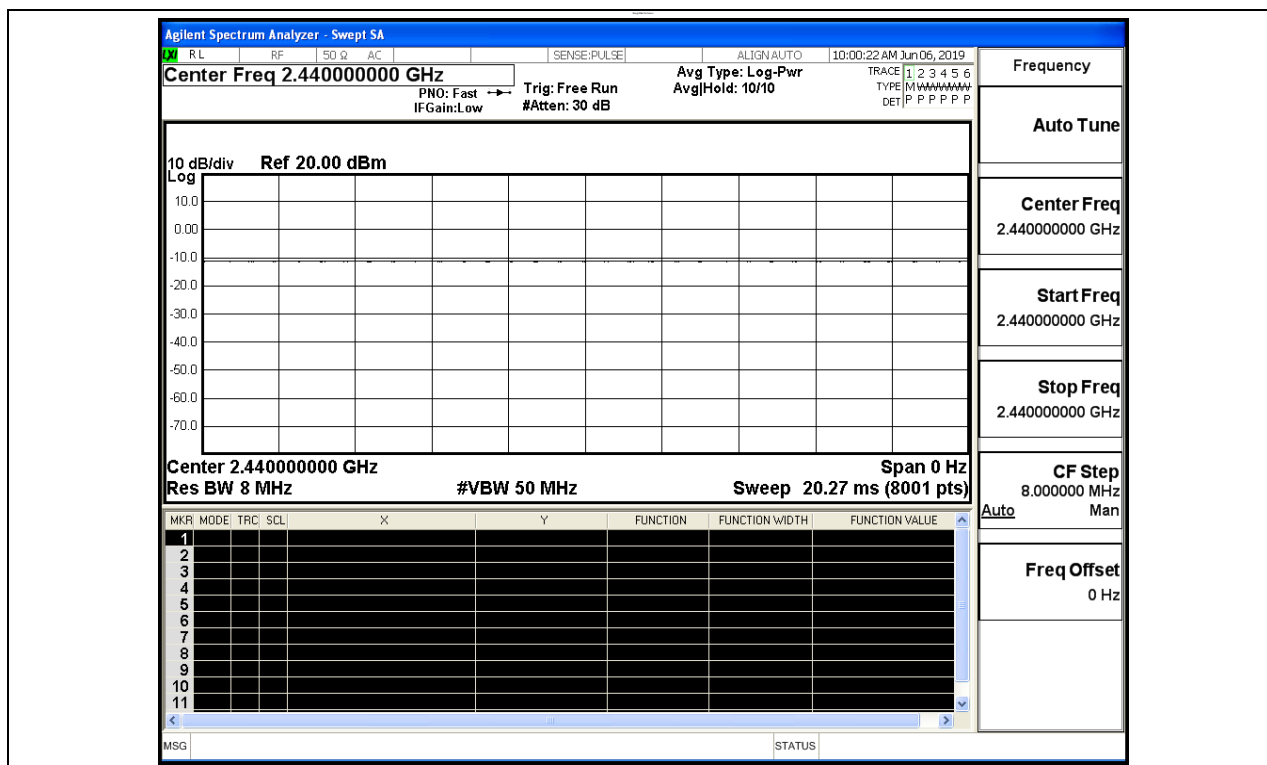
Test Model: TPMS Sensor

#### Environmental Conditions

|                    |            |
|--------------------|------------|
| Temperature:       | 23.6 ° C   |
| Relative Humidity: | 53.9%      |
| ATM Pressure:      | 100.0 kPa  |
| Test Engineer:     | LI HUAN    |
| Supervised by:     | WangChuang |

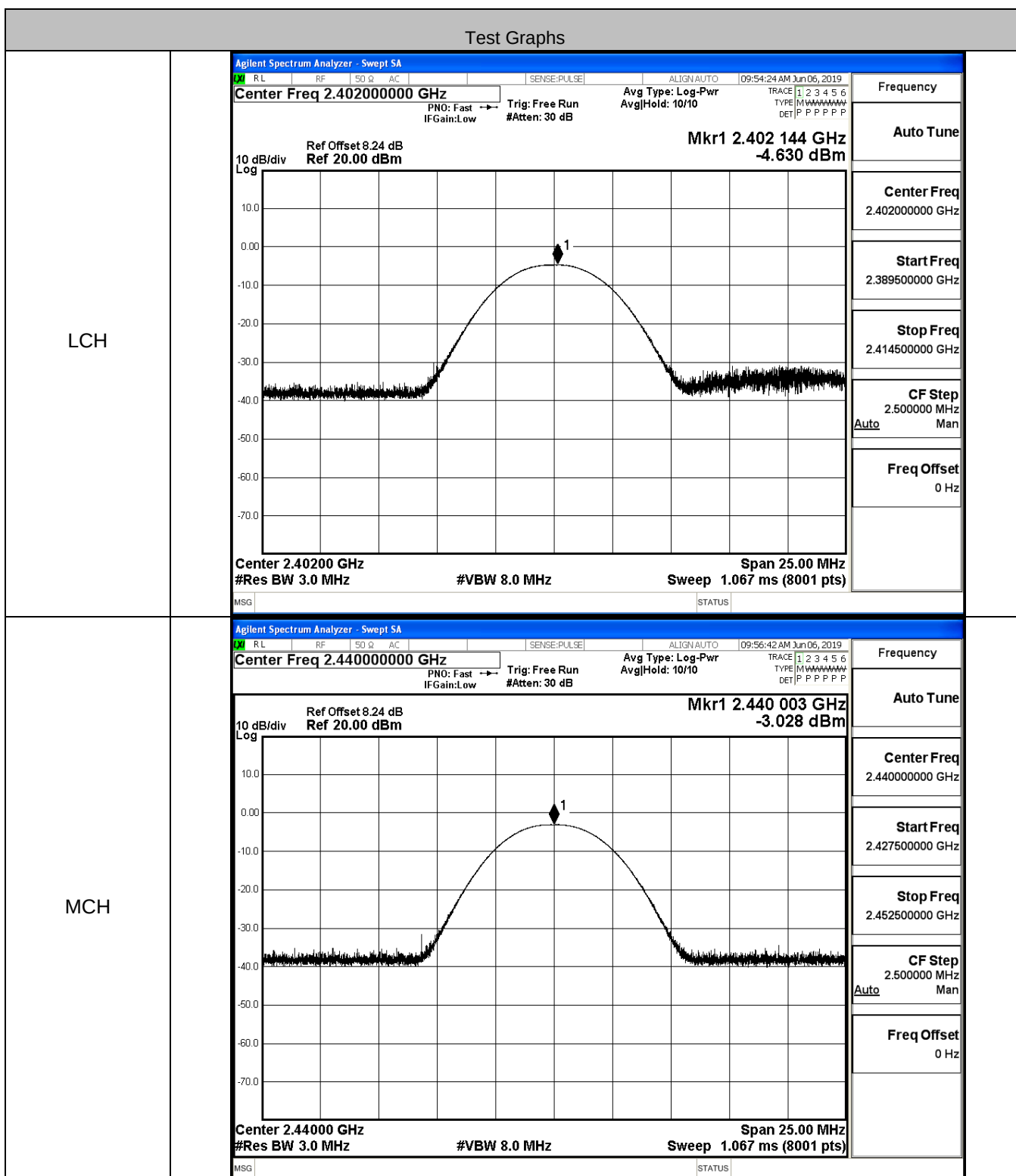
#### A.1 Duty Cycle

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

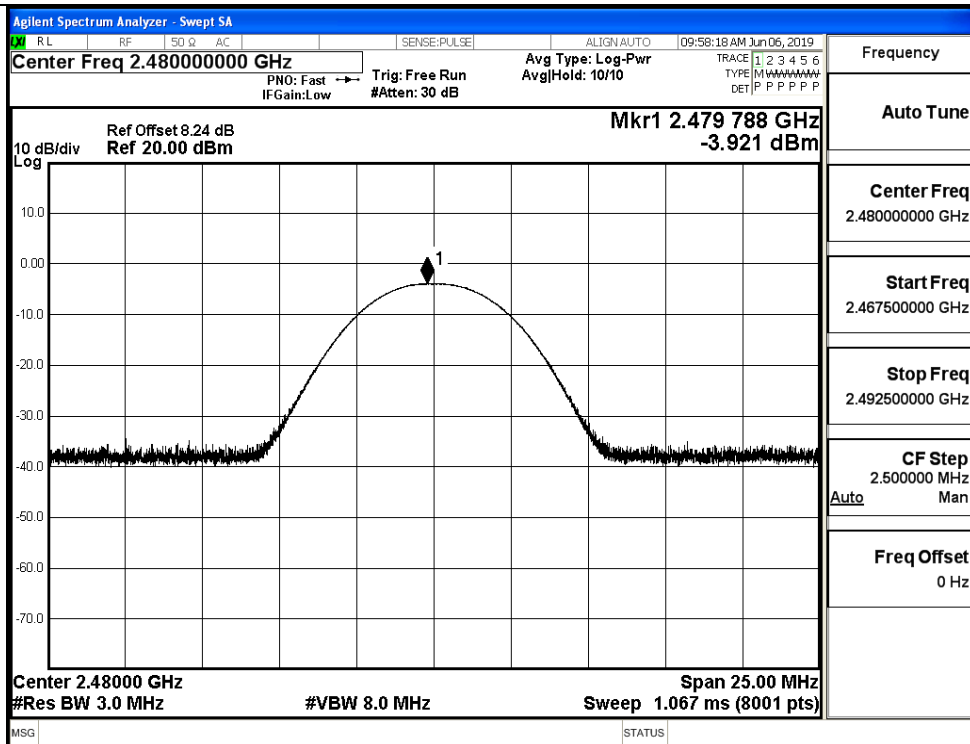


## A.2 Maximum Conducted Peak Output Power

| Mode  | Channel | Conduct Peak Power[dBm] | Limit [dBm] | Verdict |
|-------|---------|-------------------------|-------------|---------|
| BT LE | LCH     | -4.63                   | 30          | PASS    |
| BT LE | MCH     | -3.028                  | 30          | PASS    |
| BT LE | HCH     | -3.921                  | 30          | PASS    |



HCH

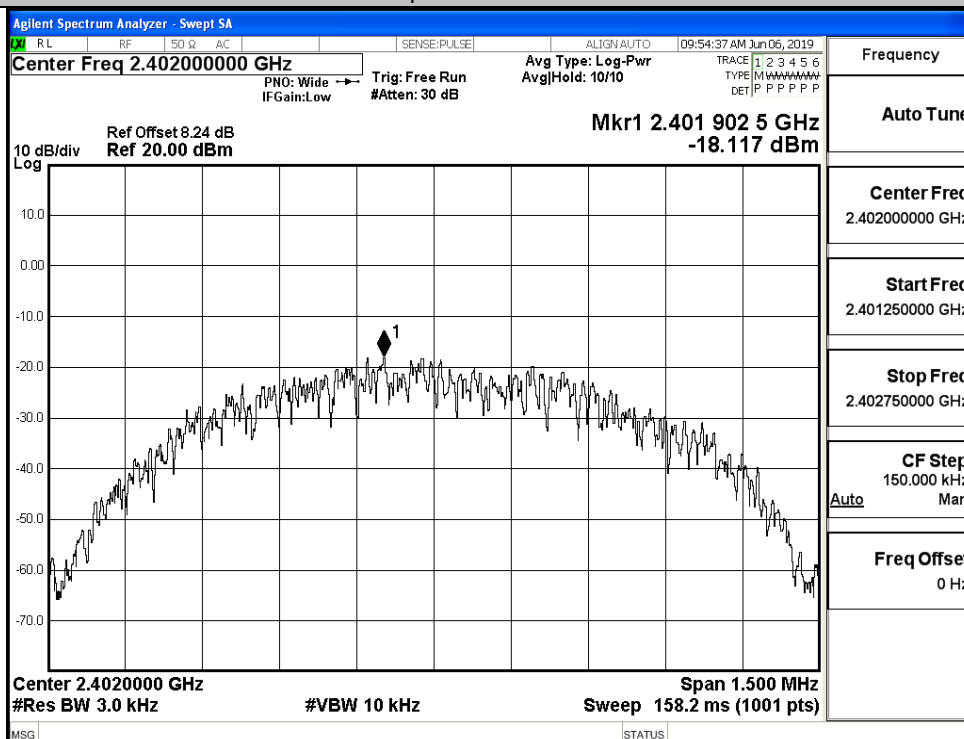


### A.3 Maximum Power Spectral Density

| Mode  | Channel | PSD [dBm/3KHz] | Limit [dBm/3KHz] | Verdict |
|-------|---------|----------------|------------------|---------|
| BT LE | LCH     | -18.117        | 8                | PASS    |
| BT LE | MCH     | -18.055        | 8                | PASS    |
| BT LE | HCH     | -18.957        | 8                | PASS    |

#### Test Graphs

LCH

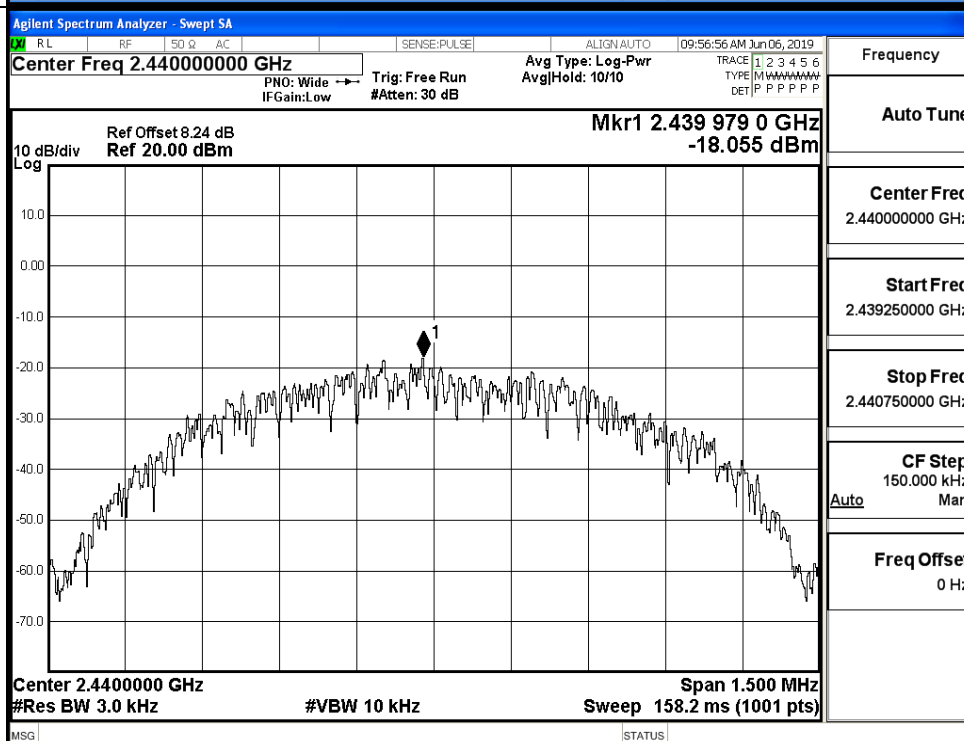


Frequency

Auto Tune

Center Freq  
2.402000000 GHzStart Freq  
2.401250000 GHzStop Freq  
2.402750000 GHzCF Step  
150.000 kHz  
Auto ManFreq Offset  
0 Hz

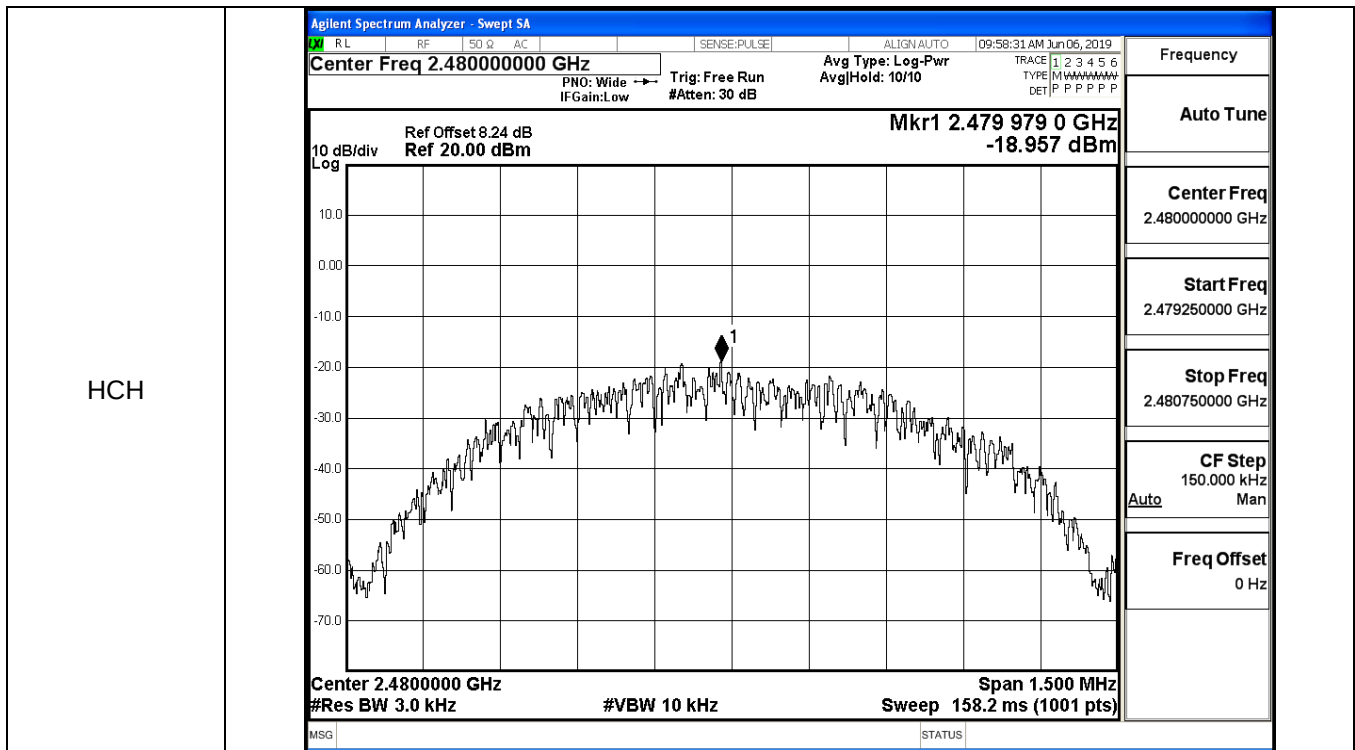
MCH



Frequency

Auto Tune

Center Freq  
2.440000000 GHzStart Freq  
2.439250000 GHzStop Freq  
2.440750000 GHzCF Step  
150.000 kHz  
Auto ManFreq Offset  
0 Hz

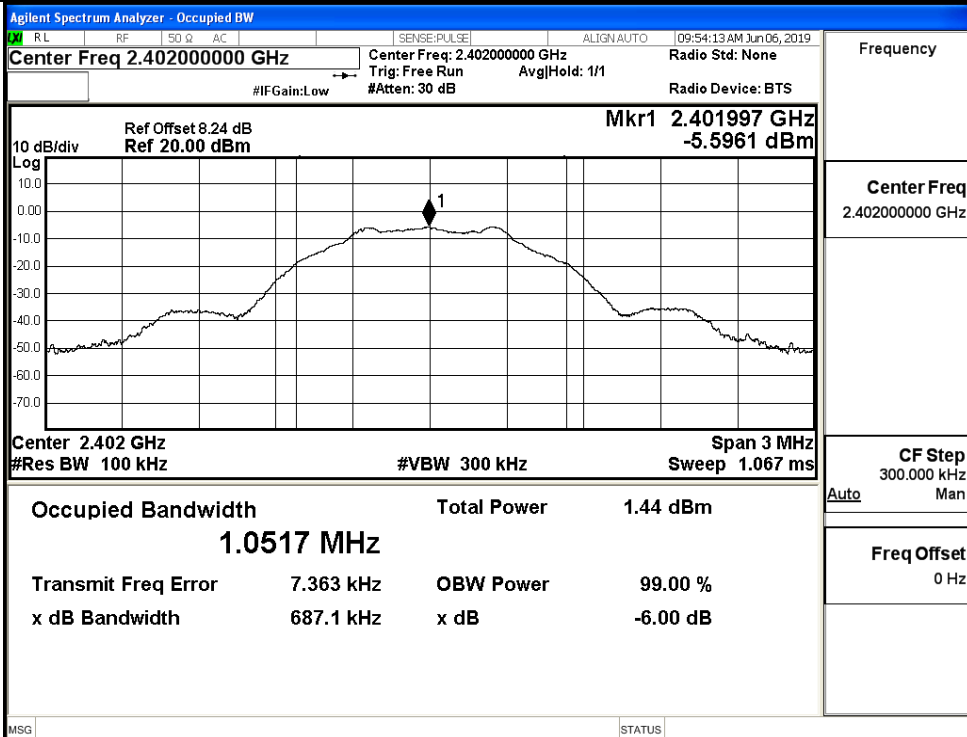


## A.4 6dB Bandwidth

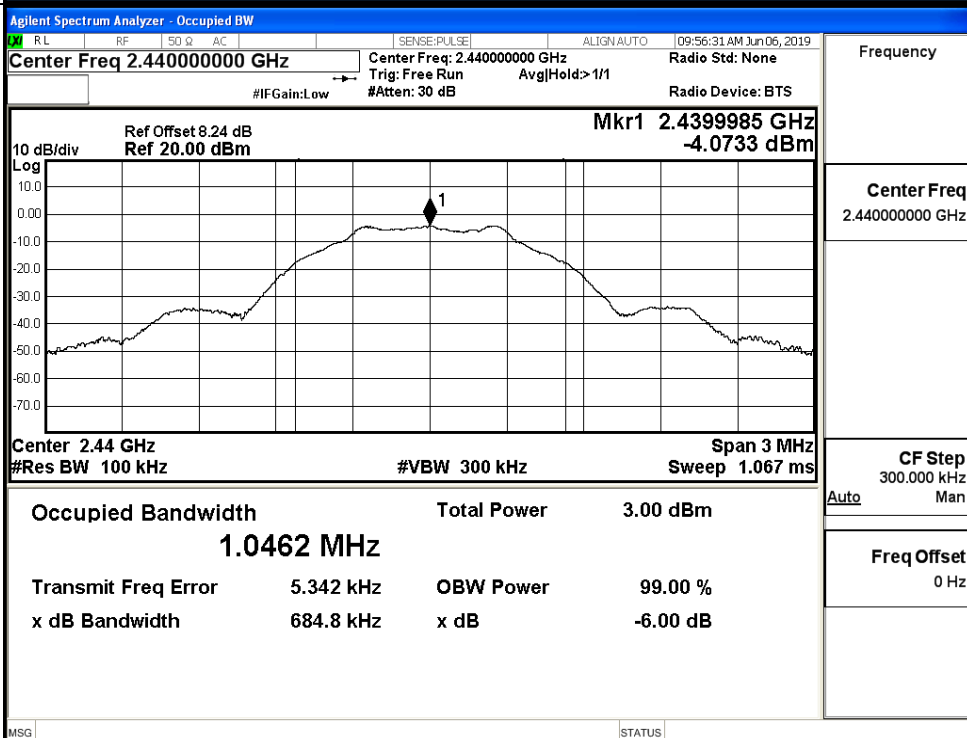
| Mode  | Channel | 6dB Bandwidth [MHz] | Limit [MHz] | Verdict |
|-------|---------|---------------------|-------------|---------|
| BT LE | LCH     | 0.6871              | $\geq 0.5$  | PASS    |
| BT LE | MCH     | 0.6848              | $\geq 0.5$  | PASS    |
| BT LE | HCH     | 0.6915              | $\geq 0.5$  | PASS    |

## Test Graphs

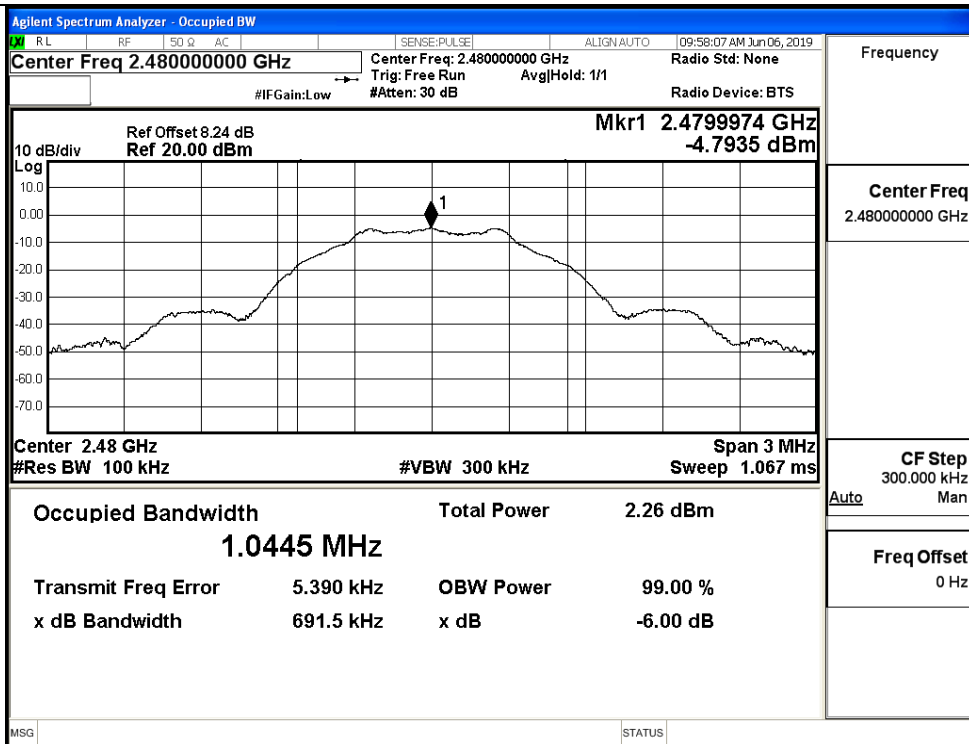
LCH



MCH



HCH

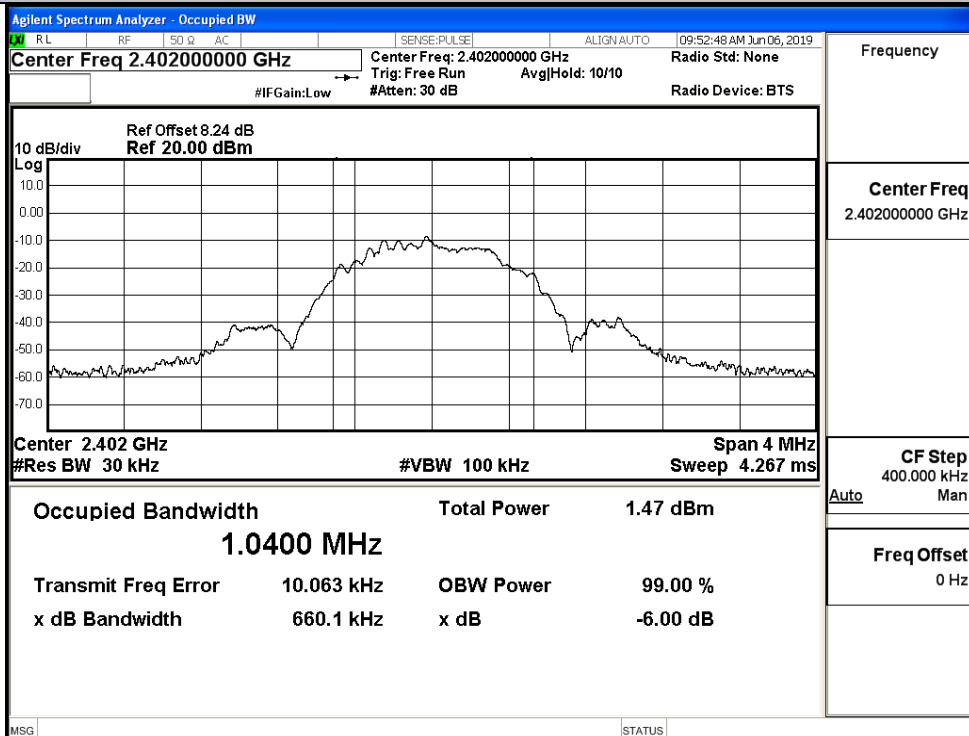


## A.5 Occupied Bandwidth

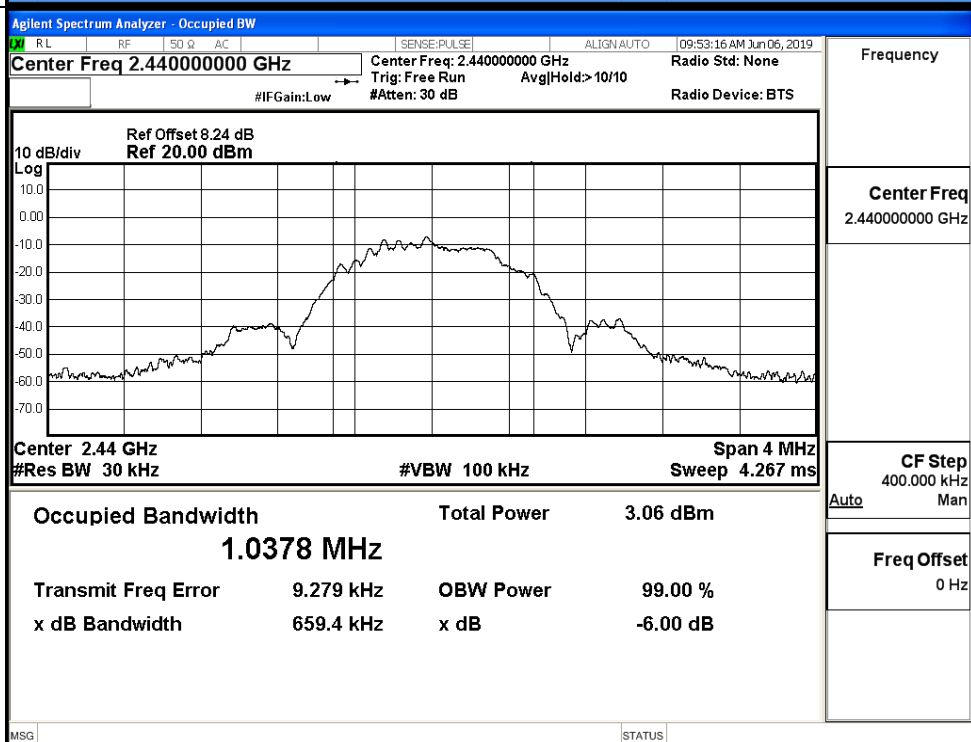
| Mode  | Channel | Occupied Bandwidth [MHz] | Limit [MHz] | Verdict |
|-------|---------|--------------------------|-------------|---------|
| BT LE | LCH     | 1.0400                   | No Limit    | PASS    |
| BT LE | MCH     | 1.0378                   | No Limit    | PASS    |
| BT LE | HCH     | 1.0344                   | No Limit    | PASS    |

## Test Graphs

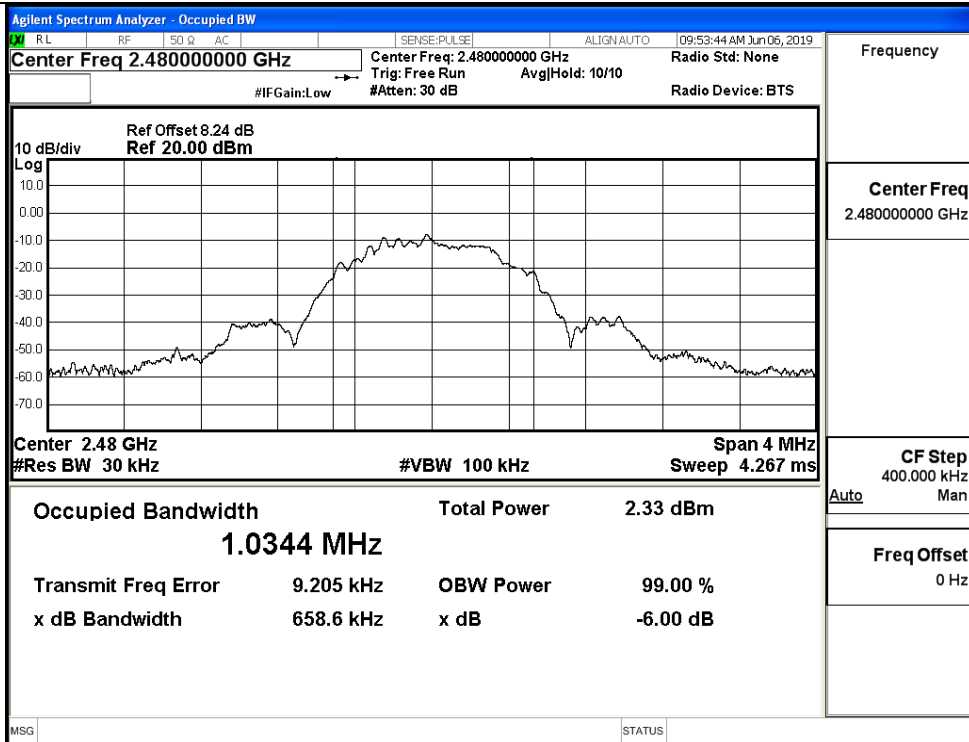
LCH



MCH



HCH

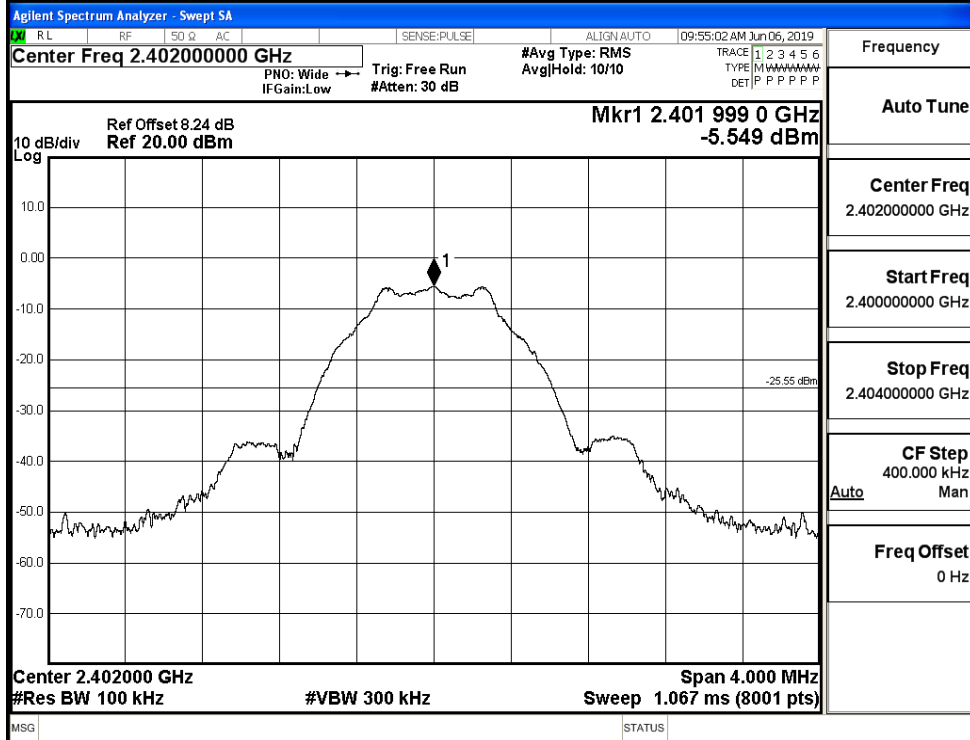


**A.6 RF Conducted Spurious Emissions**

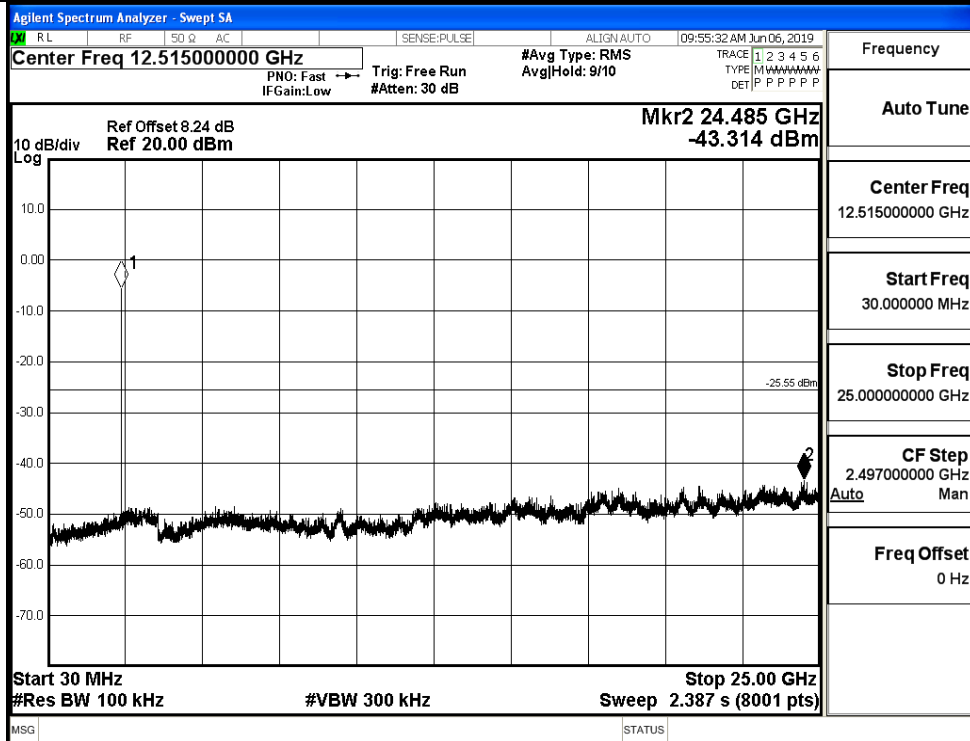
| Mode  | Channel | Pref [dBm] | Max. Level [dBm] | Limit [dBm] | Verdict |
|-------|---------|------------|------------------|-------------|---------|
| BT LE | LCH     | -5.549     | -43.314          | -25.549     | PASS    |
| BT LE | MCH     | -3.966     | -41.134          | -23.966     | PASS    |
| BT LE | HCH     | -4.76      | -43.393          | -24.760     | PASS    |

## BT LE LCH Graphs

Pref/BT LE/LCH

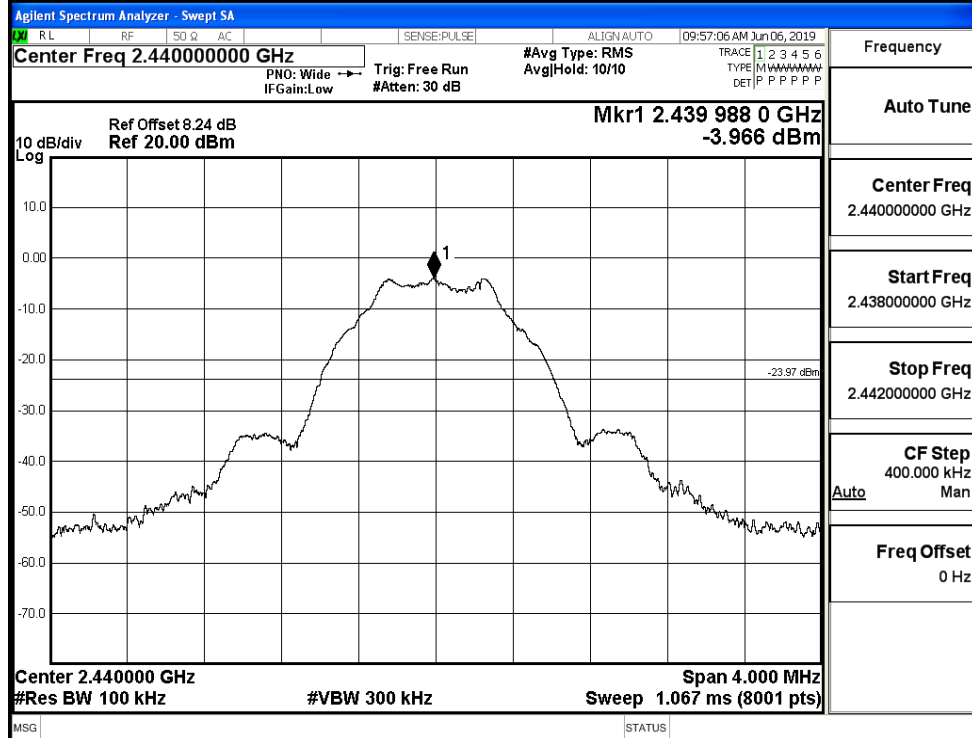


Puw/BT LE/LCH

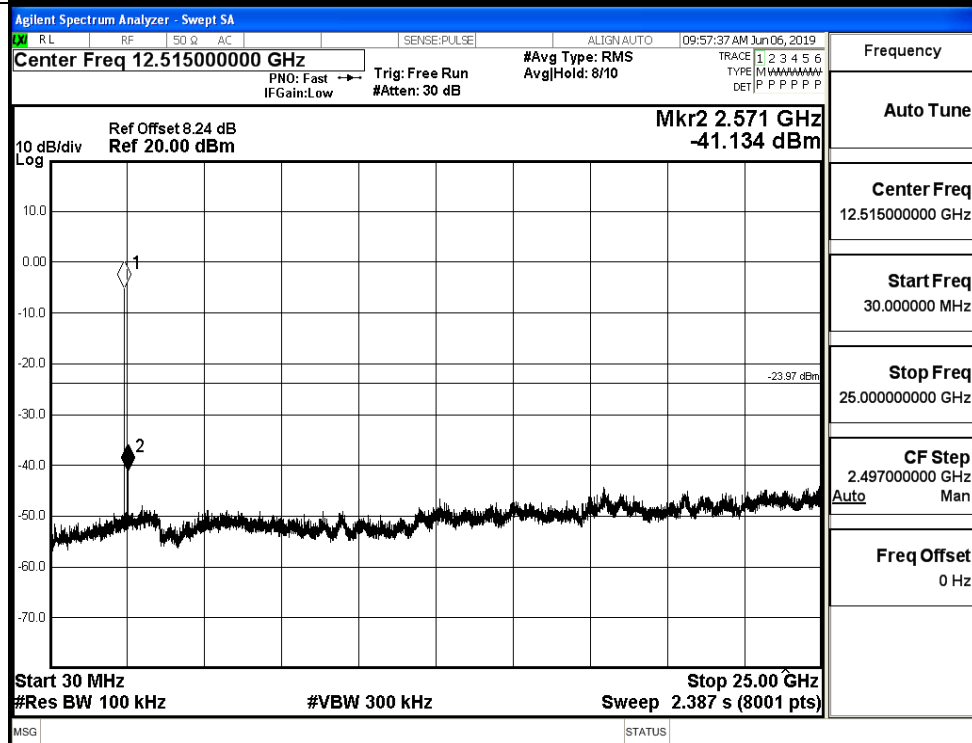


## BT LE MCH Graphs

Pref/BT LE/MCH

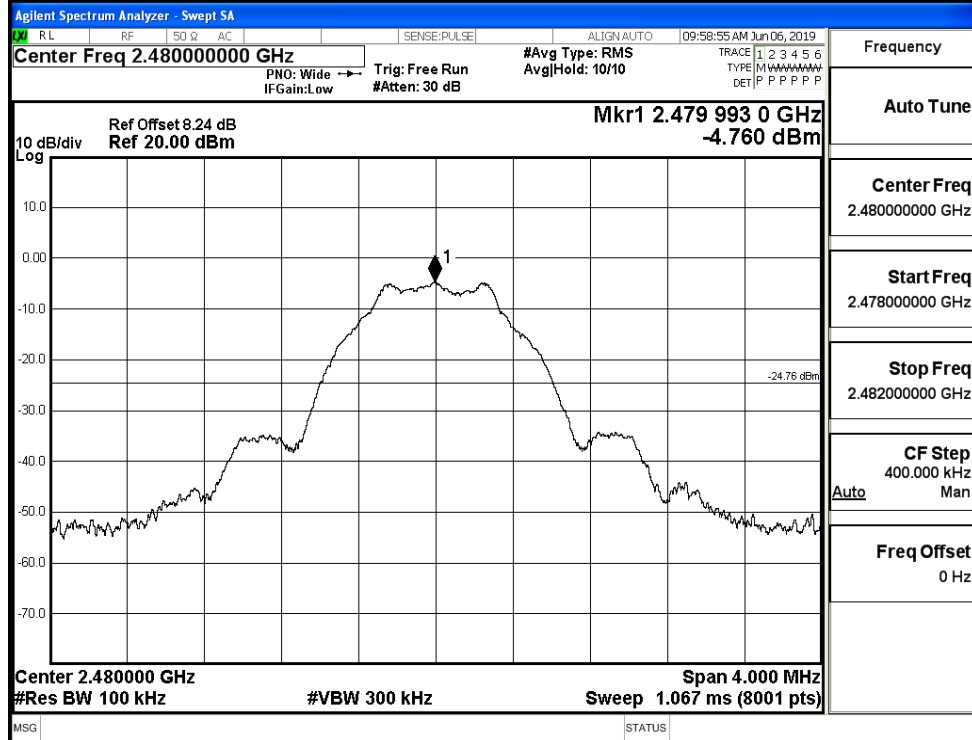


Puw/BT LE/MCH

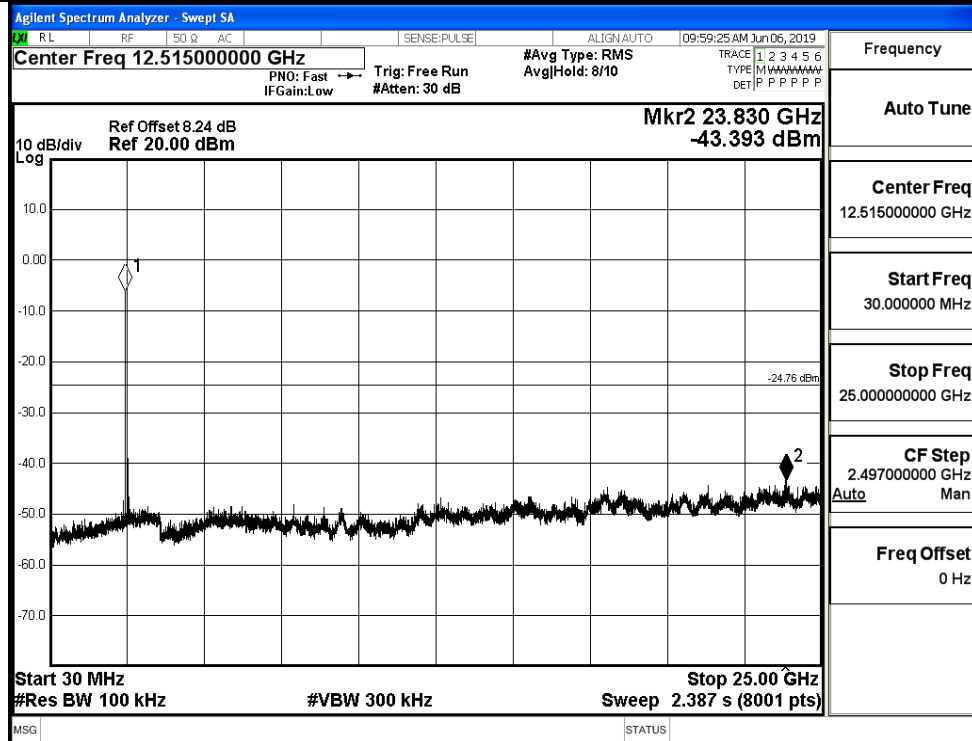


## BT LE HCH Graphs

Pref/BT LE/HCH



Puw/BT LE/HCH

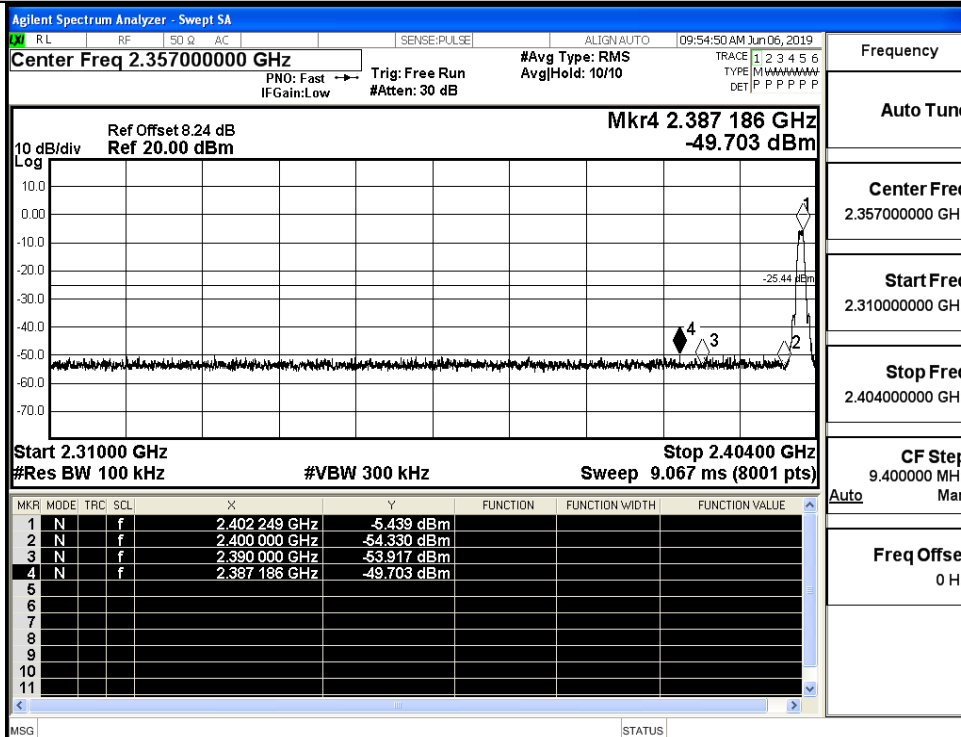


## A.7 Band-edge for RF Conducted Emissions

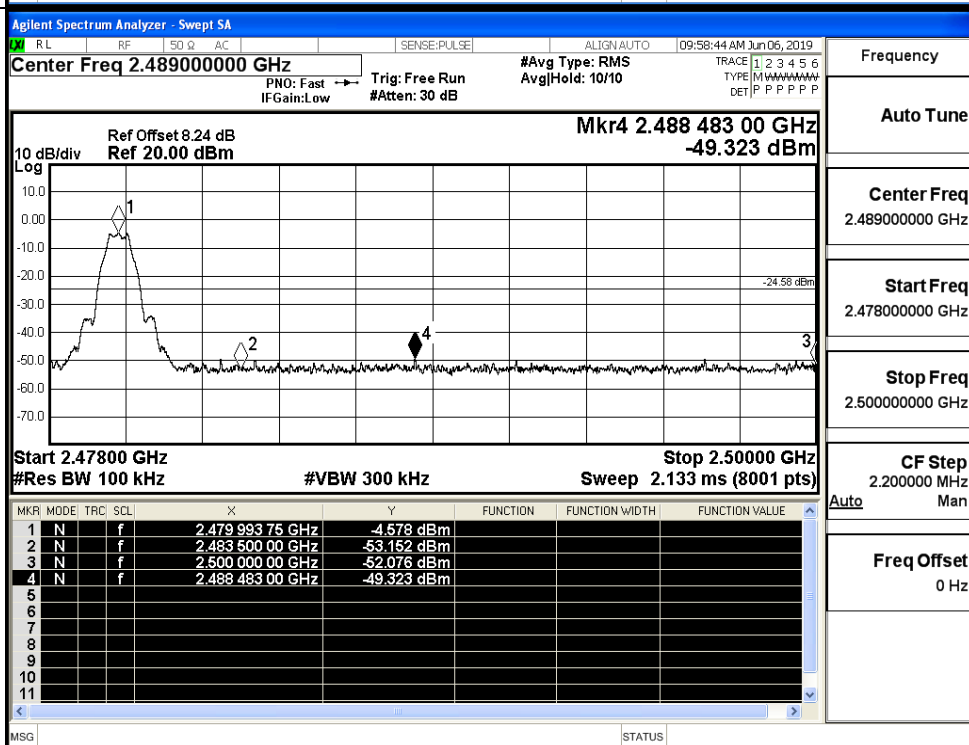
| Mode  | Channel | Carrier Power[dBm] | Max.Spurious Level [dBm] | Limit [dBm] | Verdict |
|-------|---------|--------------------|--------------------------|-------------|---------|
| BT LE | LCH     | -5.439             | -49.703                  | -25.44      | PASS    |
| BT LE | HCH     | -4.578             | -49.323                  | -24.58      | PASS    |

## Test Graphs

LCH



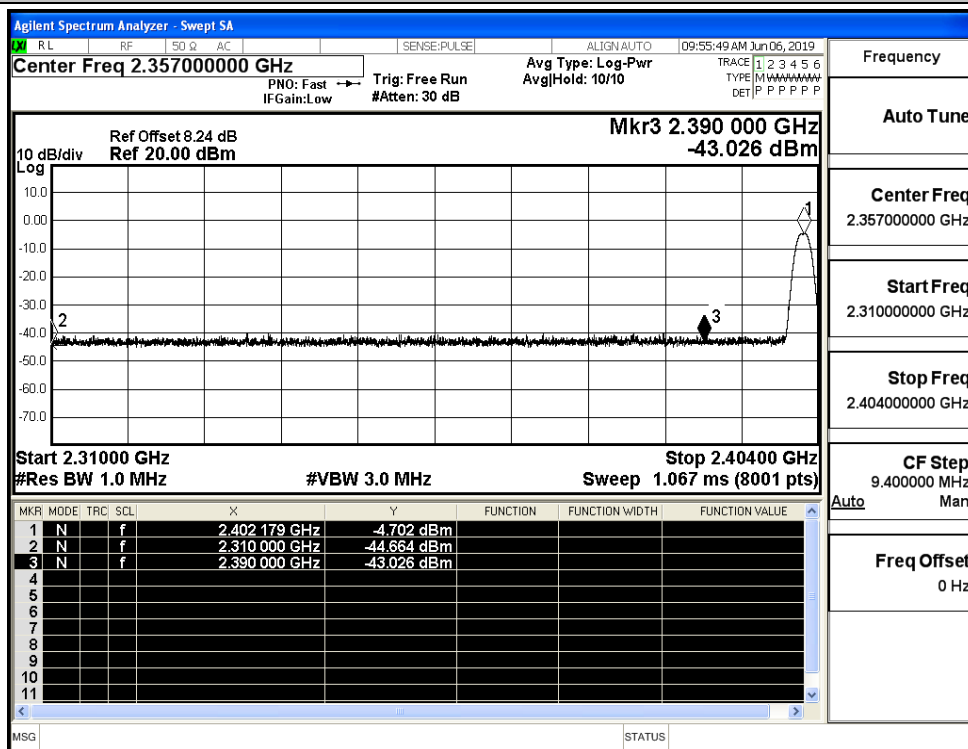
HCH



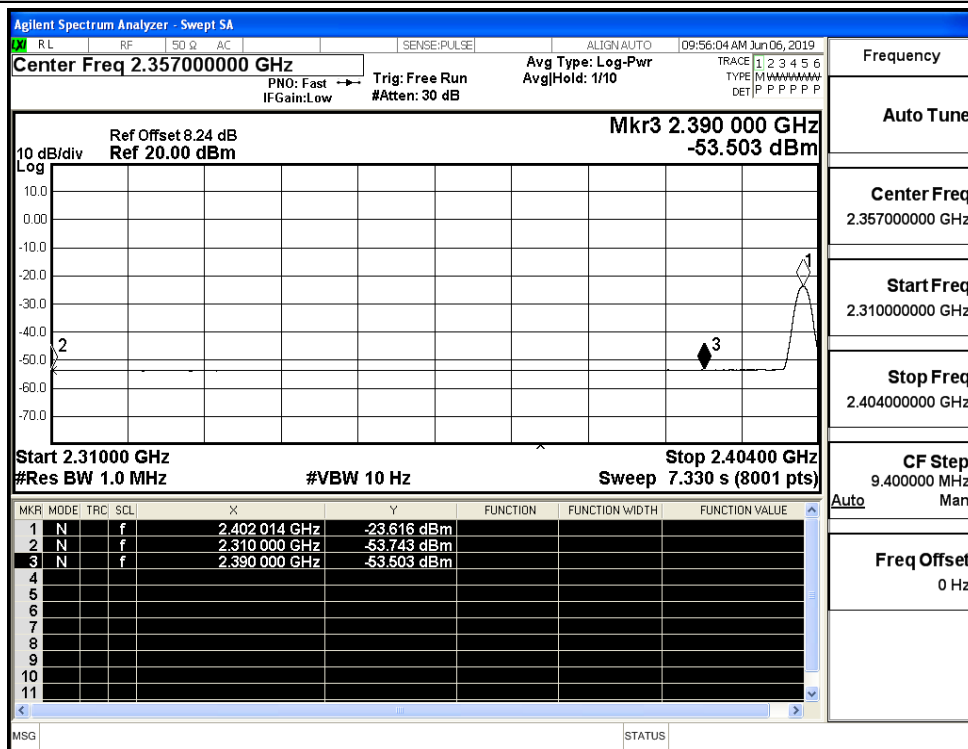
## A.8 Restrict-band band-edge measurements

| 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 | -44.66      | 2.0  | 0             | 50.59      | PEAK     | 74             | PASS  |
|           |              | Ant1 | 2310.0 | -53.74      | 2.0  | 0             | 41.51      | AV       | 54             | PASS  |
|           |              | Ant1 | 2390.0 | -43.03      | 2.0  | 0             | 52.23      | PEAK     | 74             | PASS  |
|           |              | Ant1 | 2390.0 | -53.50      | 2.0  | 0             | 41.75      | AV       | 54             | PASS  |
|           | 2480         | Ant1 | 2483.5 | -41.85      | 2.0  | 0             | 53.41      | PEAK     | 74             | PASS  |
|           |              | Ant1 | 2483.5 | -53.25      | 2.0  | 0             | 42.01      | AV       | 54             | PASS  |
|           |              | Ant1 | 2500.0 | -41.83      | 2.0  | 0             | 53.43      | PEAK     | 74             | PASS  |
|           |              | Ant1 | 2500.0 | -53.09      | 2.0  | 0             | 42.17      | AV       | 54             | PASS  |

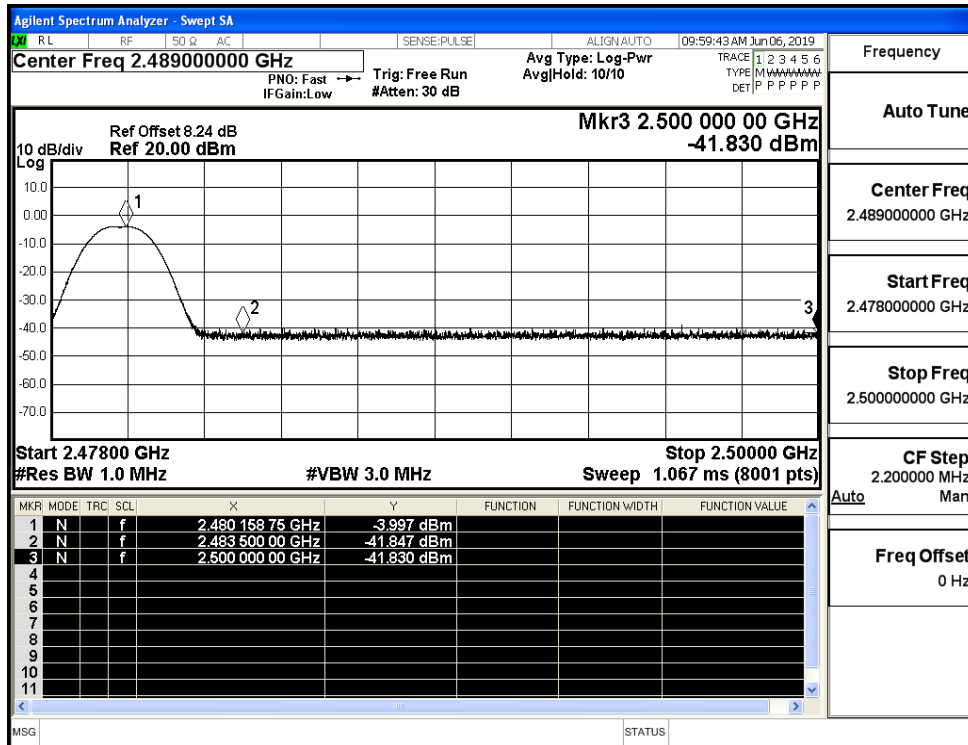
## Restrict-band band-edge measurements\_BT LE\_2402\_Ant1\_PEAK



## 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

