

Appendix B

RF Test Data for BT V4.2 (BLE) (Conducted Measurement)

Product Name: Android TV BOX

Trade Mark: MECOOL

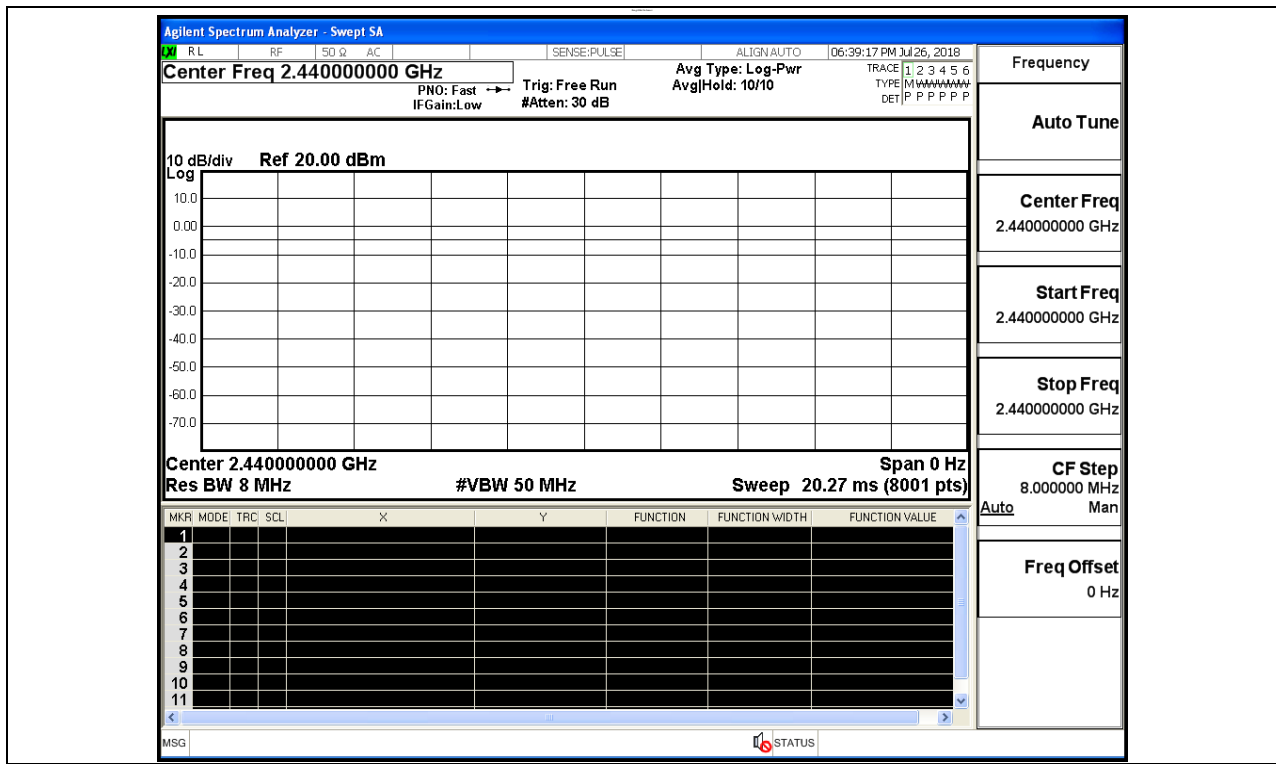
Test Model: KM8

Environmental Conditions

| | |
|--------------------|-------------|
| Temperature: | 23.7 ° C |
| Relative Humidity: | 52.1% |
| ATM Pressure: | 100.0 kPa |
| Test Engineer: | Wilson.Hong |
| Supervised by: | Jayden.Zhuo |

B.1 Duty Cycle

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

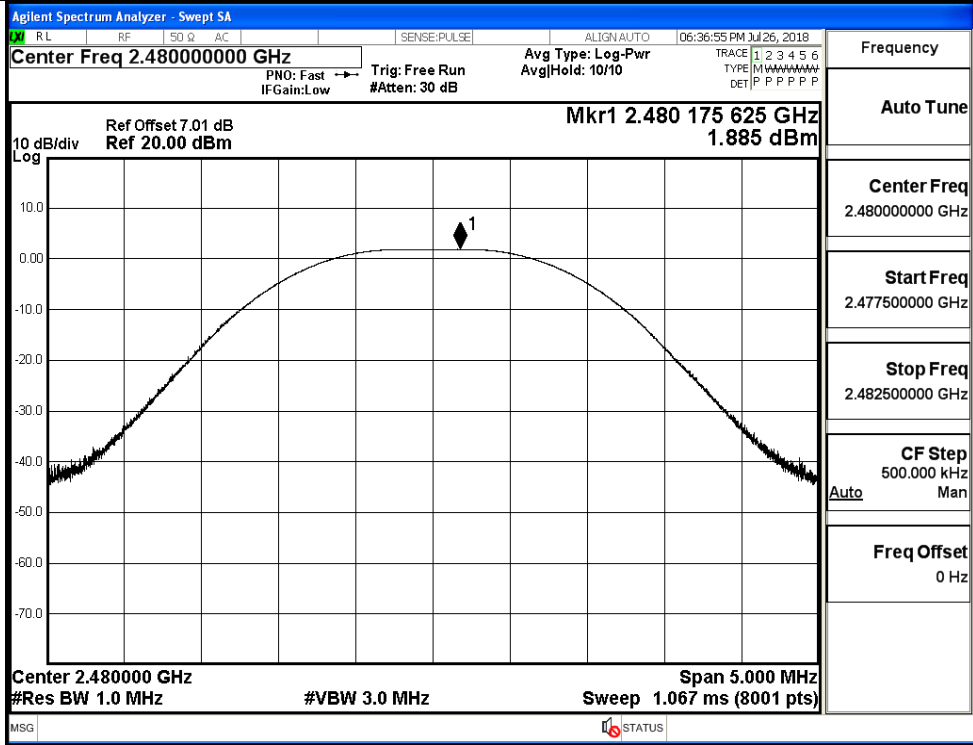


B.2 Maximum Conducted Peak Output Power

| Mode | Channel | Conduct Peak Power[dBm] | Limit [dBm] | Verdict |
|-------|---------|-------------------------|-------------|---------|
| BT LE | LCH | 1.213 | 30 | PASS |
| BT LE | MCH | 2.281 | 30 | PASS |
| BT LE | HCH | 1.885 | 30 | PASS |

| Test Graphs | |
|-------------|--|
| LCH | <p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.402000000 GHz</p> <p>Mkr1 2.401 860 000 GHz 1.213 dBm</p> <p>Ref Offset 7.01 dB Ref 20.00 dBm</p> <p>Center 2.402000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 1.067 ms (8001 pts)</p> <p>Span 5.000 MHz</p> |
| MCH | <p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.440000000 GHz</p> <p>Mkr1 2.439 841 250 GHz 2.281 dBm</p> <p>Ref Offset 7.01 dB Ref 20.00 dBm</p> <p>Center 2.440000 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 1.067 ms (8001 pts)</p> <p>Span 5.000 MHz</p> |

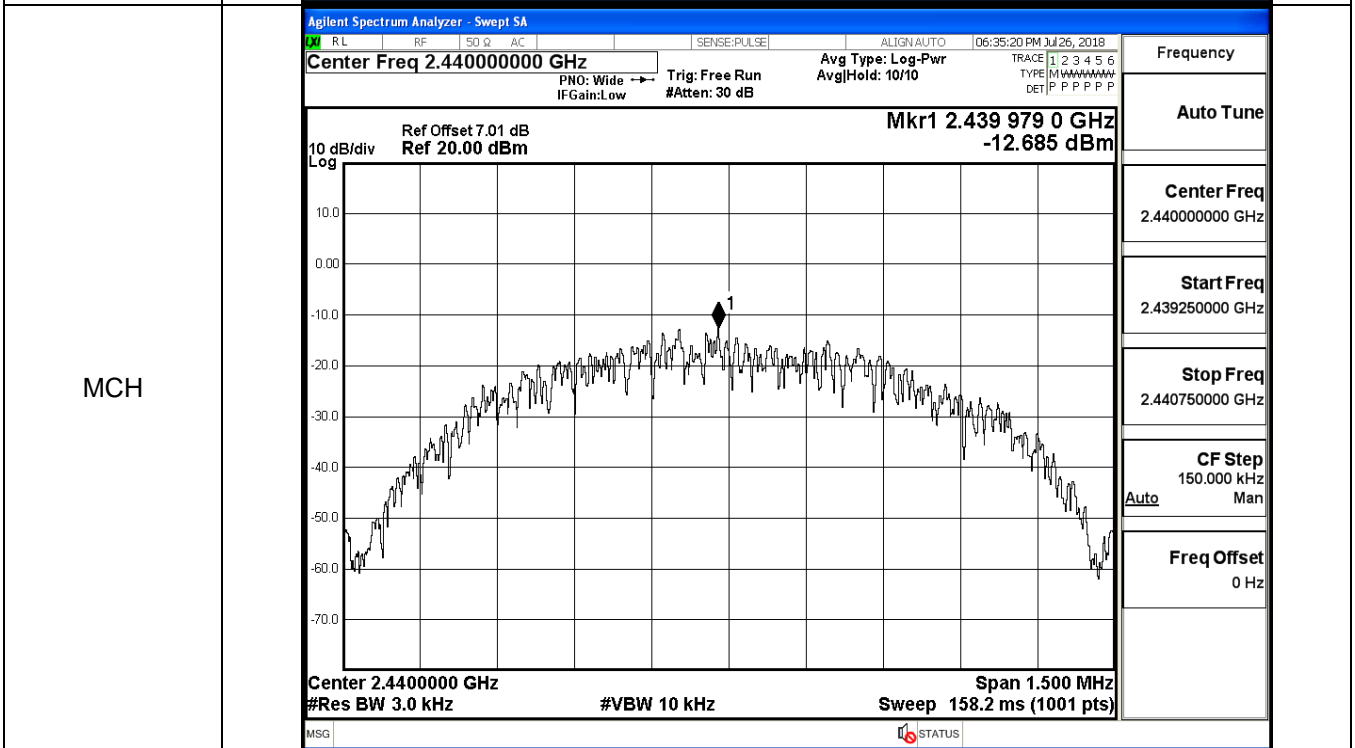
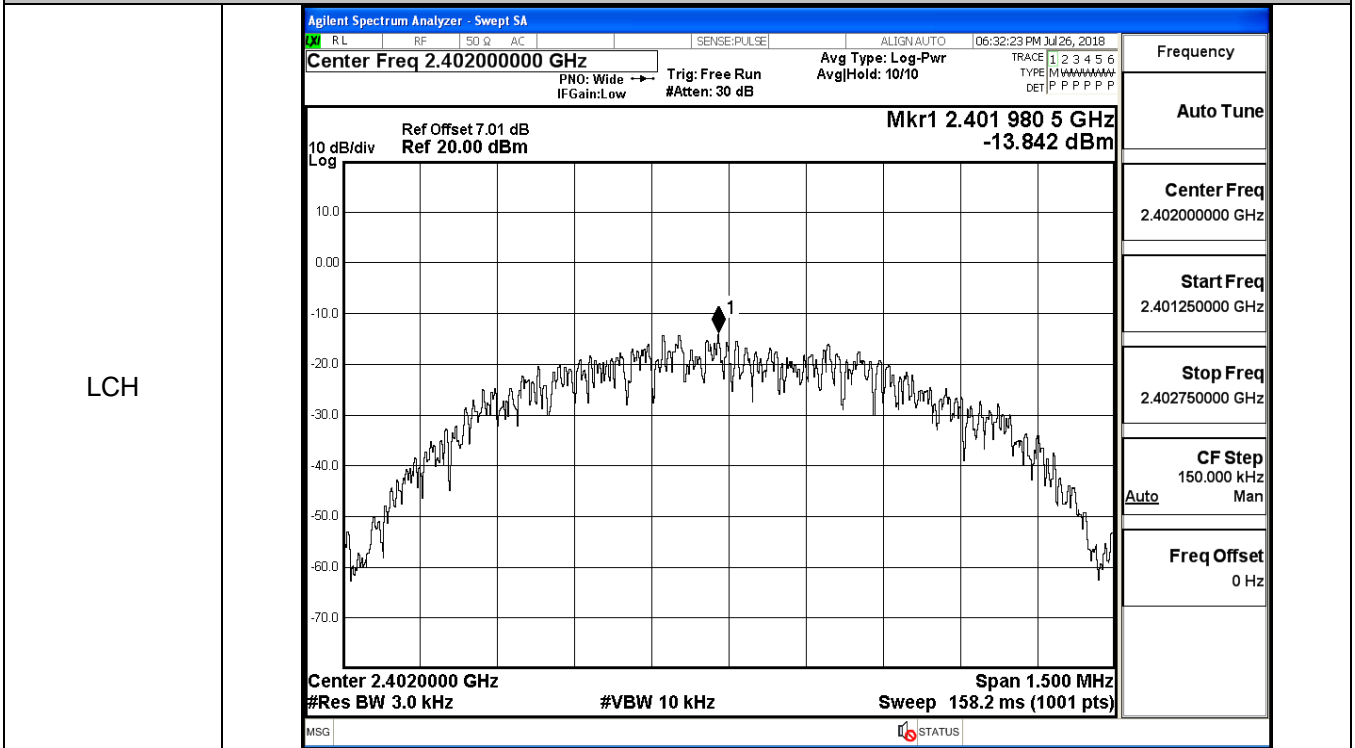
HCH



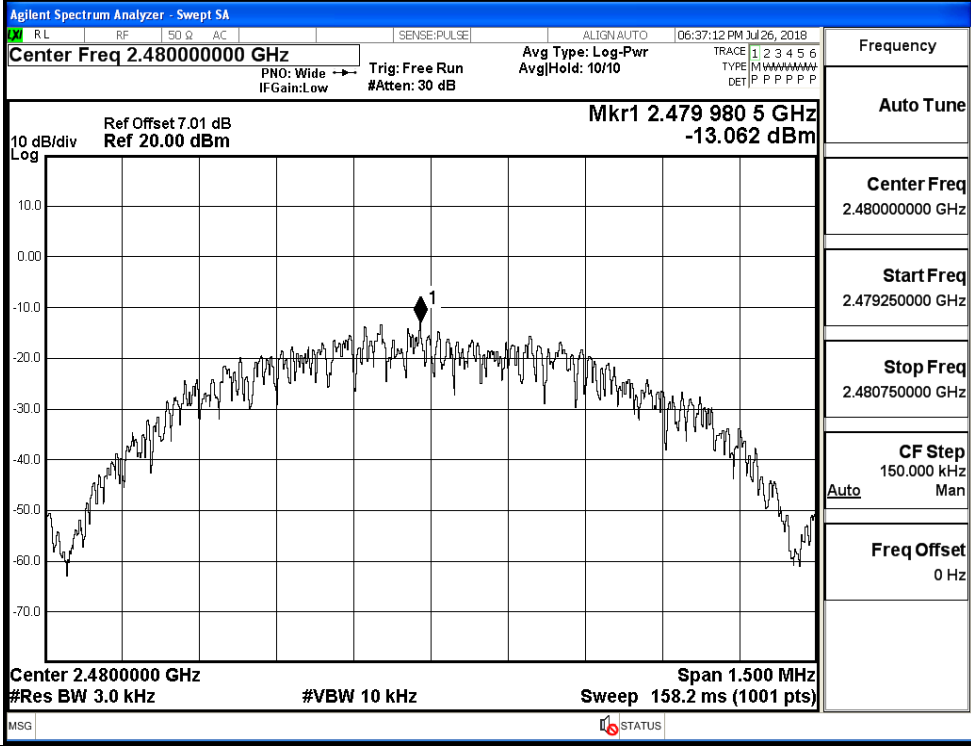
B.3 Maximum Power Spectral Density

| Mode | Channel | PSD [dBm/3KHz] | Limit [dBm/3KHz] | Verdict |
|-------|---------|----------------|------------------|---------|
| BT LE | LCH | -13.842 | 8 | PASS |
| BT LE | MCH | -12.685 | 8 | PASS |
| BT LE | HCH | -13.062 | 8 | PASS |

Test Graphs



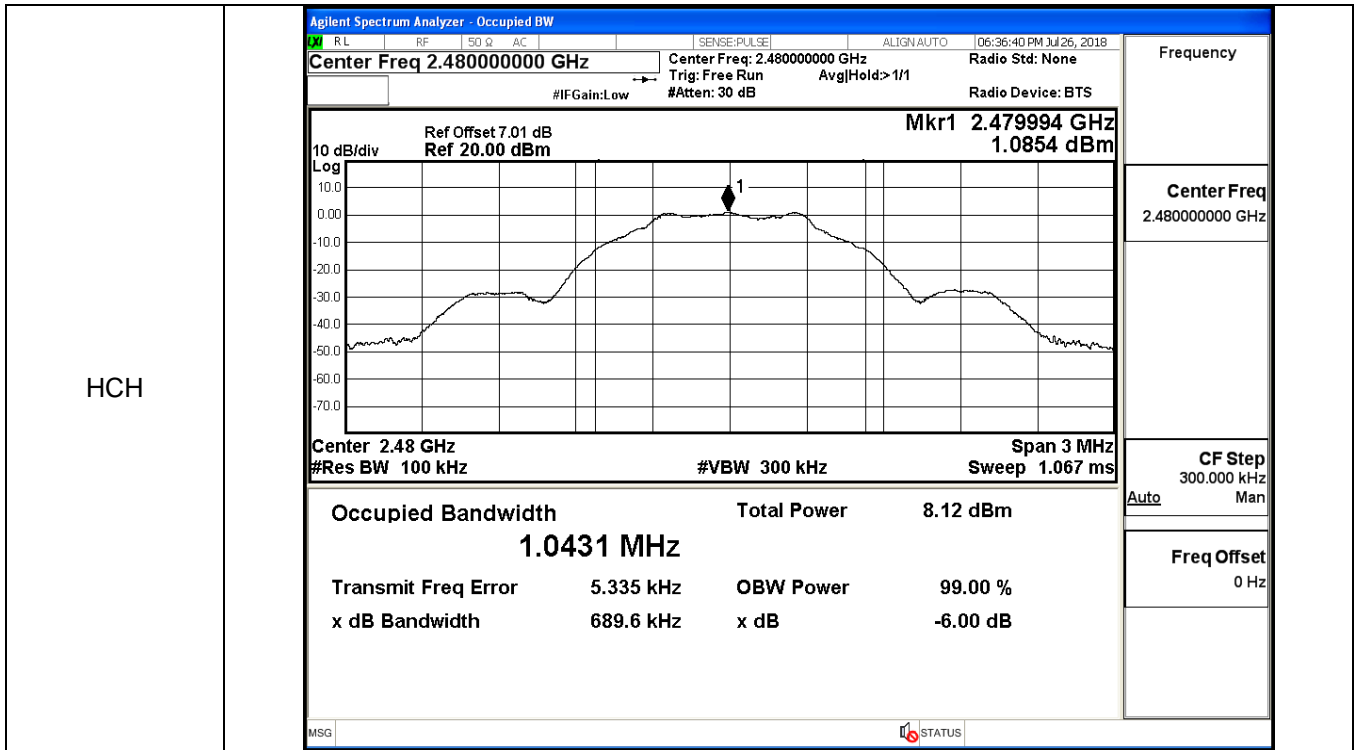
HCH



B.4 6dB Bandwidth

| Mode | Channel | 6dB Bandwidth [MHz] | Limit [MHz] | Verdict |
|-------|---------|---------------------|-------------|---------|
| BT LE | LCH | 0.6923 | ≥0.5 | PASS |
| BT LE | MCH | 0.6991 | ≥0.5 | PASS |
| BT LE | HCH | 0.6896 | ≥0.5 | PASS |

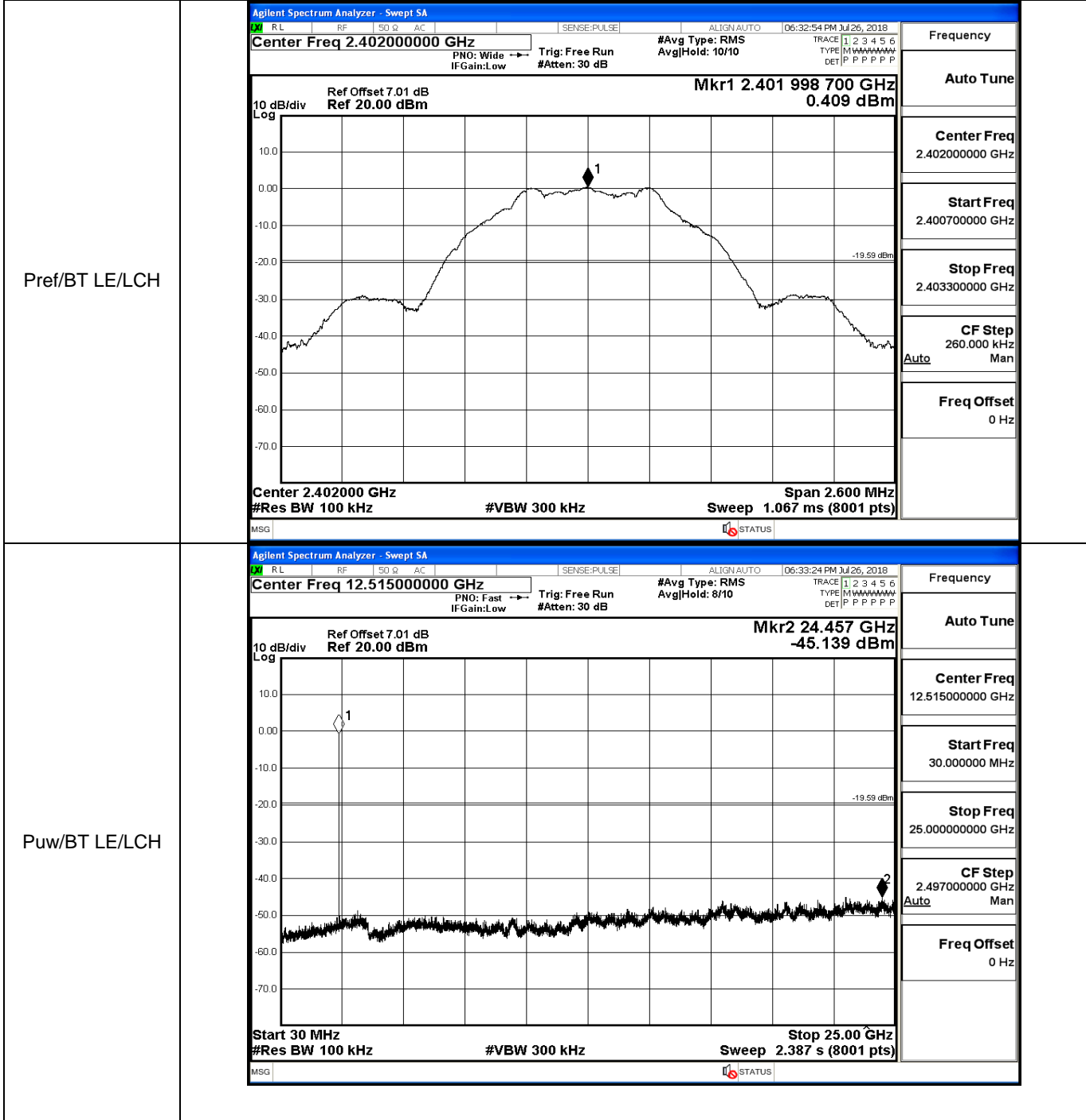
| Test Graphs | |
|-------------|---|
| LCH | <div style="border: 1px solid black; padding: 5px;"> <p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.40200000 GHz Center Freq: 2.402000000 GHz Radio Std: None</p> <p>Trig: Free Run AvgHold: 1/1 Radio Device: BTS</p> <p>#IFGain: Low #Atten: 30 dB</p> <p>10 dB/div Ref Offset 7.01 dB Mkr1 2.401994 GHz Log Ref 20.00 dBm 0.43679 dBm</p> <p>Center 2.402 GHz #Res BW 100 kHz #VBW 300 kHz Span 3 MHz Sweep 1.067 ms</p> <p>Occupied Bandwidth Total Power 7.53 dBm 1.0496 MHz</p> <p>Transmit Freq Error 5.581 kHz OBW Power 99.00 % x dB Bandwidth 692.3 kHz x dB -6.00 dB</p> <p>MSG STATUS</p> </div> |
| MCH | <div style="border: 1px solid black; padding: 5px;"> <p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.44000000 GHz Center Freq: 2.440000000 GHz Radio Std: None</p> <p>Trig: Free Run AvgHold: >1/1 Radio Device: BTS</p> <p>#IFGain: Low #Atten: 30 dB</p> <p>10 dB/div Ref Offset 7.01 dB Mkr1 2.4399948 GHz Log Ref 20.00 dBm 1.4553 dBm</p> <p>Center 2.44 GHz #Res BW 100 kHz #VBW 300 kHz Span 3 MHz Sweep 1.067 ms</p> <p>Occupied Bandwidth Total Power 8.54 dBm 1.0472 MHz</p> <p>Transmit Freq Error 4.587 kHz OBW Power 99.00 % x dB Bandwidth 699.1 kHz x dB -6.00 dB</p> <p>MSG STATUS</p> </div> |



B.5 RF Conducted Spurious Emissions

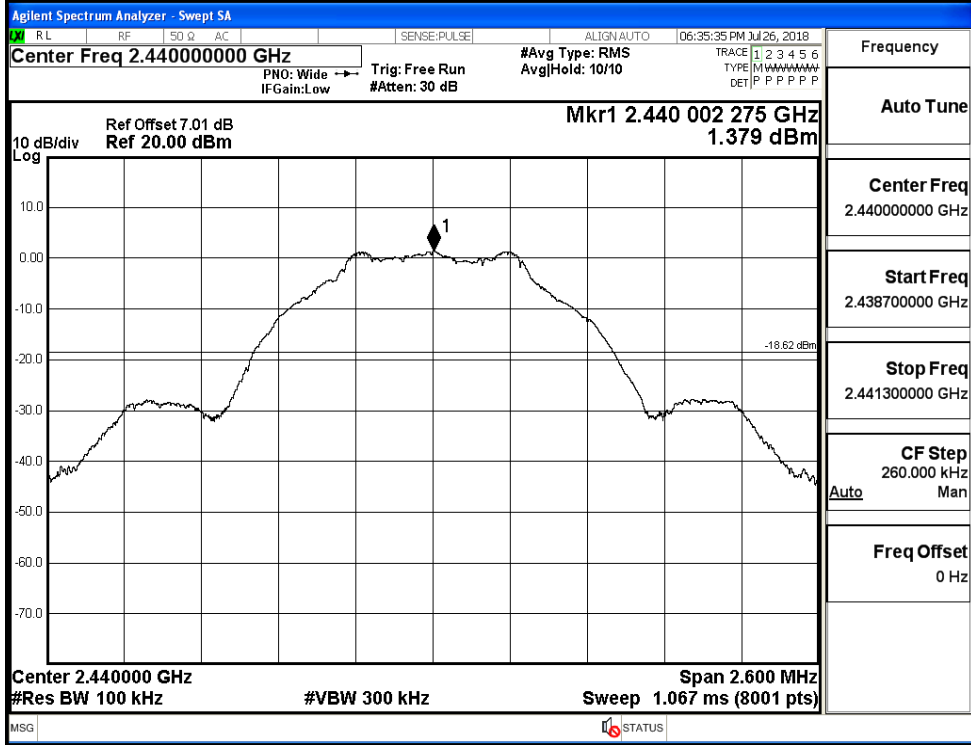
| Mode | Channel | Pref [dBm] | Max. Level [dBm] | Limit [dBm] | Verdict |
|-------|---------|------------|------------------|-------------|---------|
| BT LE | LCH | 0.409 | -45.139 | -19.591 | PASS |
| BT LE | MCH | 1.379 | -45.552 | -18.621 | PASS |
| BT LE | HCH | 1.074 | -44.062 | -18.926 | PASS |

BT LE_LCH_Graphs

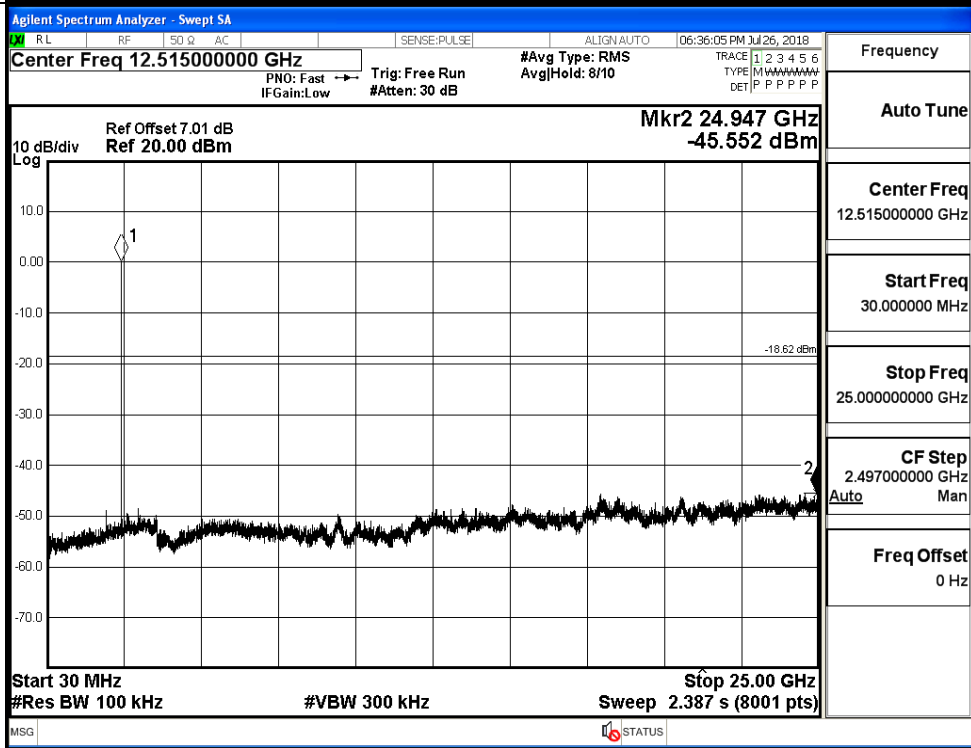


BT LE_MCH_Graphs

Pref/BT LE/MCH

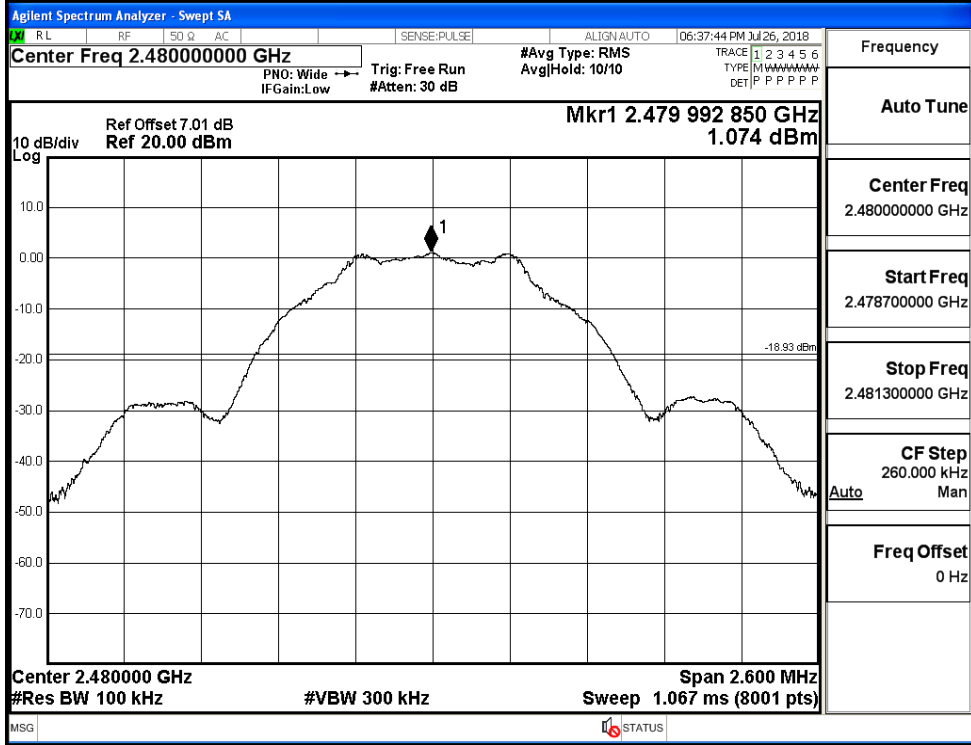


Puw/BT LE/MCH

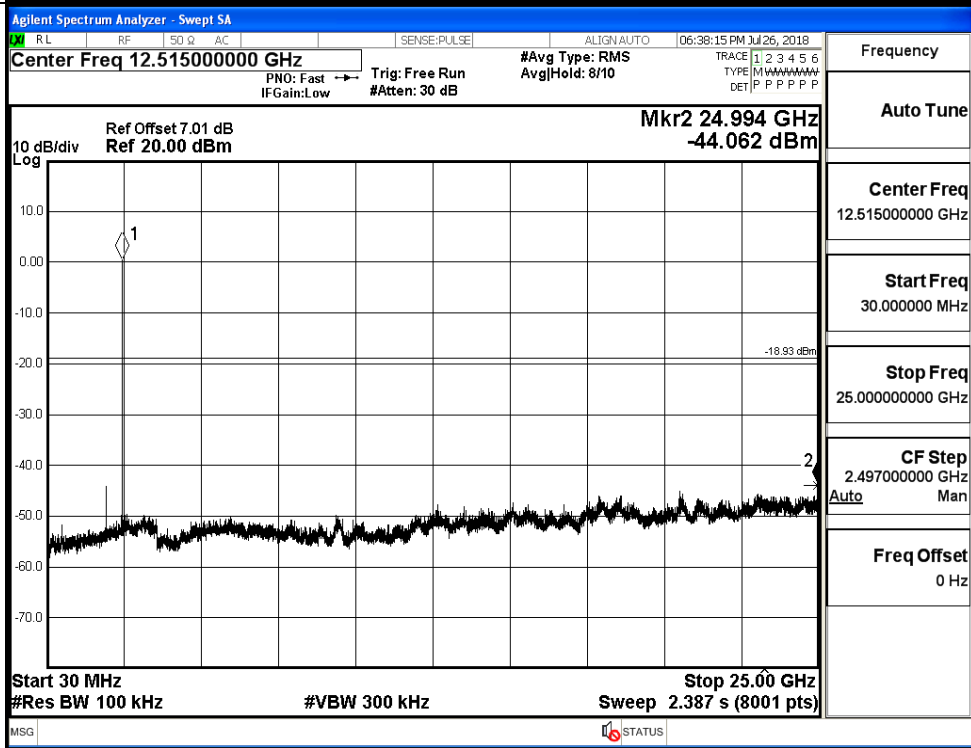


BT LE_HCH_Graphs

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 | 0.570 | -51.166 | -19.43 | PASS |
| BT LE | HCH | 1.322 | -51.069 | -18.68 | PASS |

Test Graphs

LCH

Agilent Spectrum Analyzer - Swept SA
 Center Freq 2.35700000 GHz
 Mkr4 2.346 037 GHz
 -51.166 dBm
 Start 2.31000 GHz Stop 2.40400 GHz
 #Res BW 100 kHz #VBW 300 kHz Sweep 9.067 ms (8001 pts)

| MKR | MODE | TRC | SCL | X | Y | FUNCTION | FUNCTION WIDTH | FUNCTION VALUE |
|-----|------|-----|-----|--------------|-------------|----------|----------------|----------------|
| 1 | N | f | | 2.401991 GHz | 0.570 dBm | | | |
| 2 | N | f | | 2.400000 GHz | -54.124 dBm | | | |
| 3 | N | f | | 2.390000 GHz | -54.180 dBm | | | |
| 4 | N | f | | 2.346037 GHz | -51.166 dBm | | | |

Frequency

Auto Tune

Center Freq
2.35700000 GHz

Start Freq
2.31000000 GHz

Stop Freq
2.40400000 GHz

CF Step
9.400000 MHz

Freq Offset
0 Hz

HCH

Agilent Spectrum Analyzer - Swept SA
 Center Freq 2.48900000 GHz
 Mkr4 2.487 495 75 GHz
 -51.069 dBm
 Start 2.47800 GHz Stop 2.50000 GHz
 #Res BW 100 kHz #VBW 300 kHz Sweep 2.133 ms (8001 pts)

| MKR | MODE | TRC | SCL | X | Y | FUNCTION | FUNCTION WIDTH | FUNCTION VALUE |
|-----|------|-----|-----|----------------|-------------|----------|----------------|----------------|
| 1 | N | f | | 2.47999925 GHz | 1.322 dBm | | | |
| 2 | N | f | | 2.48350000 GHz | -54.540 dBm | | | |
| 3 | N | f | | 2.50000000 GHz | -54.225 dBm | | | |
| 4 | N | f | | 2.48749575 GHz | -51.069 dBm | | | |

Frequency

Auto Tune

Center Freq
2.48900000 GHz

Start Freq
2.47800000 GHz

Stop Freq
2.50000000 GHz

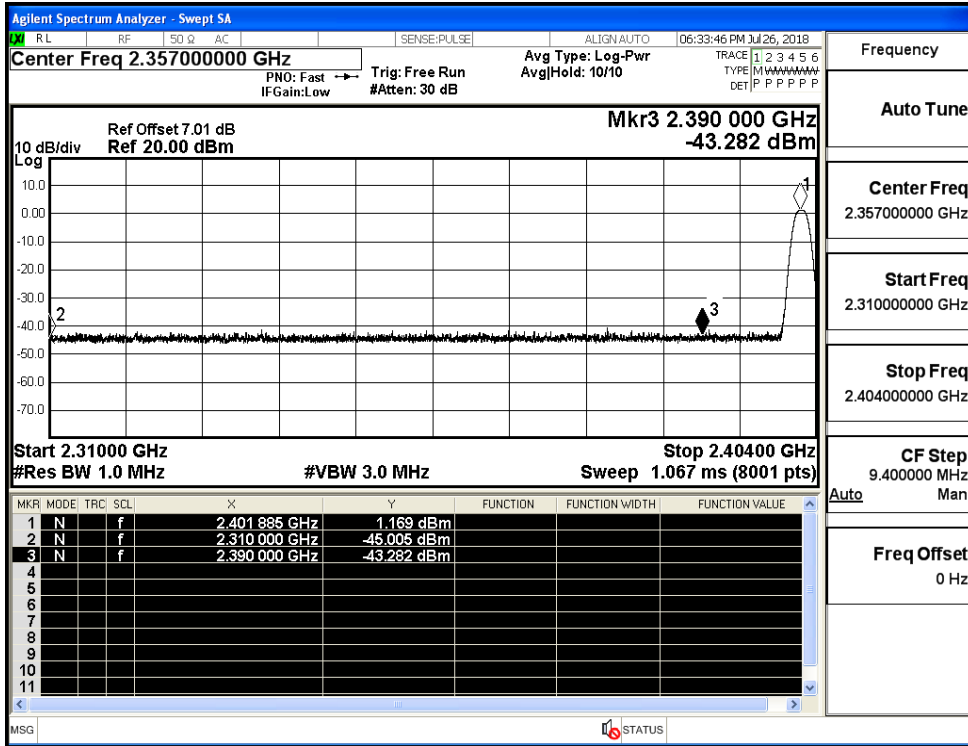
CF Step
2.200000 MHz

Freq Offset
0 Hz

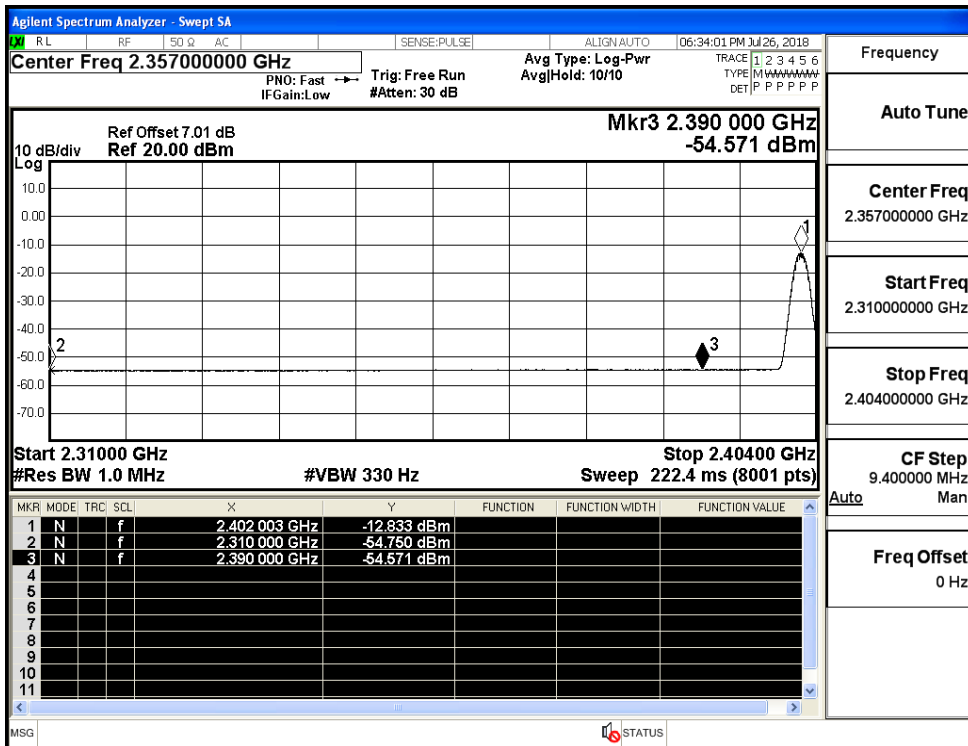
B.7 Restrict-band band-edge measurements

| 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 | -45.01 | 2.0 | 0 | 52.25 | PEAK | 74 | PASS |
| | | Ant1 | 2310.0 | -54.75 | 2.0 | 0 | 42.51 | AV | 54 | PASS |
| | | Ant1 | 2390.0 | -43.28 | 2.0 | 0 | 53.98 | PEAK | 74 | PASS |
| | | Ant1 | 2390.0 | -54.57 | 2.0 | 0 | 42.69 | AV | 54 | PASS |
| | 2480 | Ant1 | 2483.5 | -44.60 | 2.0 | 0 | 52.66 | PEAK | 74 | PASS |
| | | Ant1 | 2483.5 | -54.11 | 2.0 | 0 | 43.15 | AV | 54 | PASS |
| | | Ant1 | 2500.0 | -44.03 | 2.0 | 0 | 53.22 | PEAK | 74 | PASS |
| | | Ant1 | 2500.0 | -53.99 | 2.0 | 0 | 43.27 | AV | 54 | PASS |

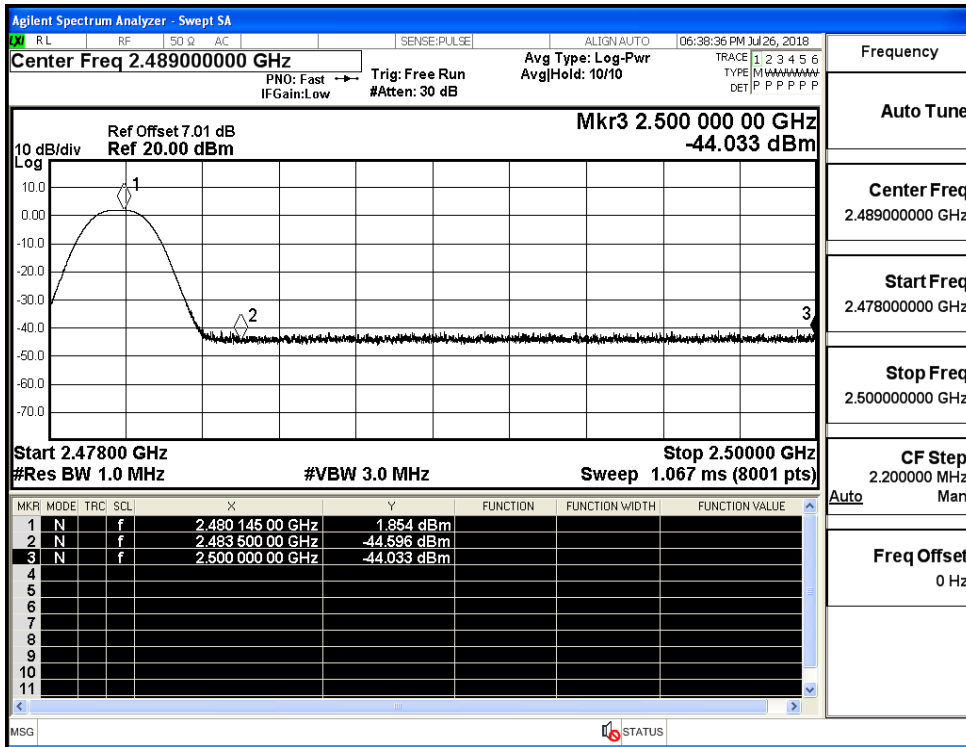
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK



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

