# Appendix B

# RF Test Data for BT V4.2(BDR/EDR) (Conducted Measurement)

**Product Name: Bluetooth headphones**

**Trade Mark: N/A**

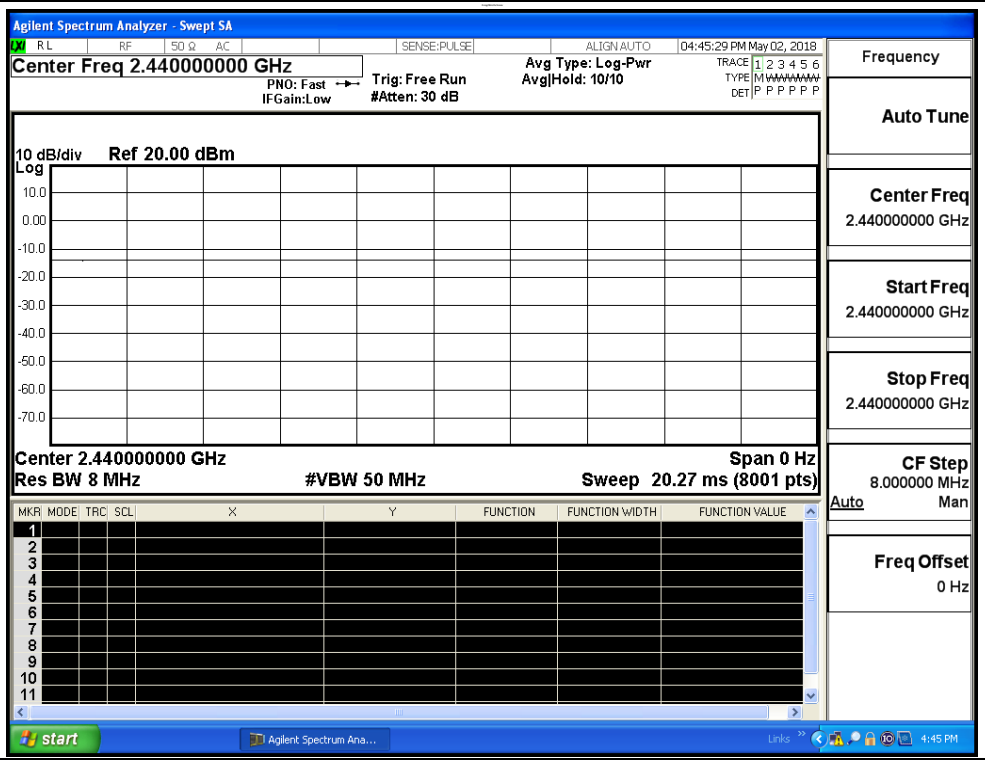
**Test Model: AZ10012**

## Environmental Conditions

| | |
|---|---|
| Temperature: | 21.3 ° C |
| Relative Humidity: | 53.2% |
| ATM Pressure: | 100.0 kPa |
| Test Engineer: | WANGCHUANG |
| Supervised by: | Jayden.Zhuo |

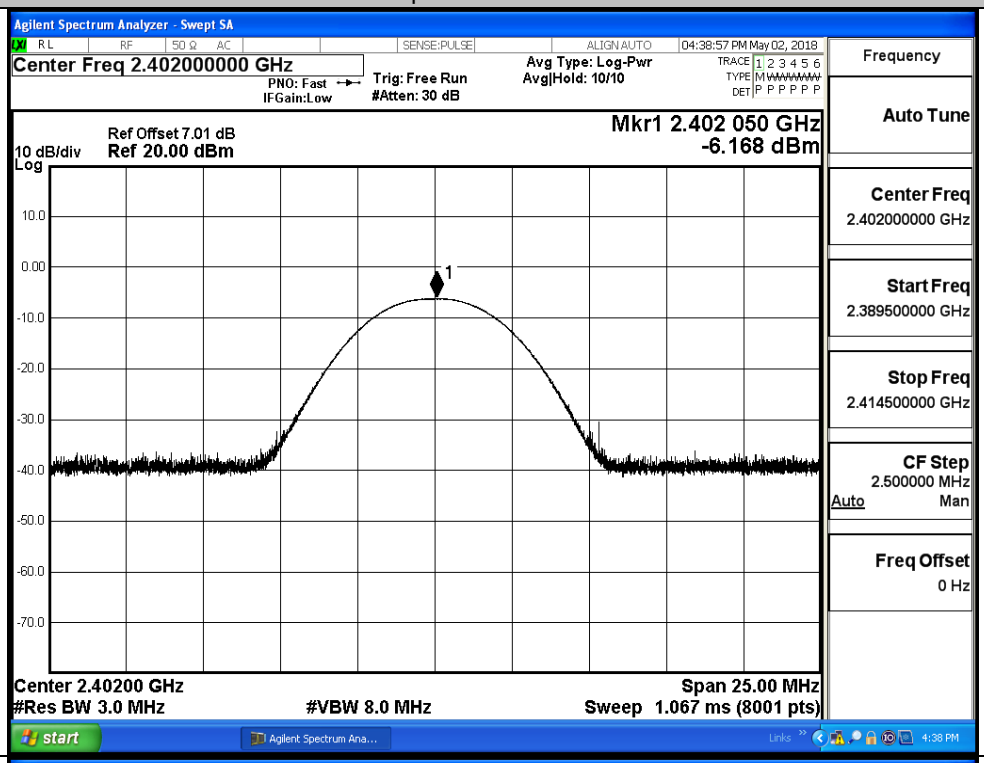
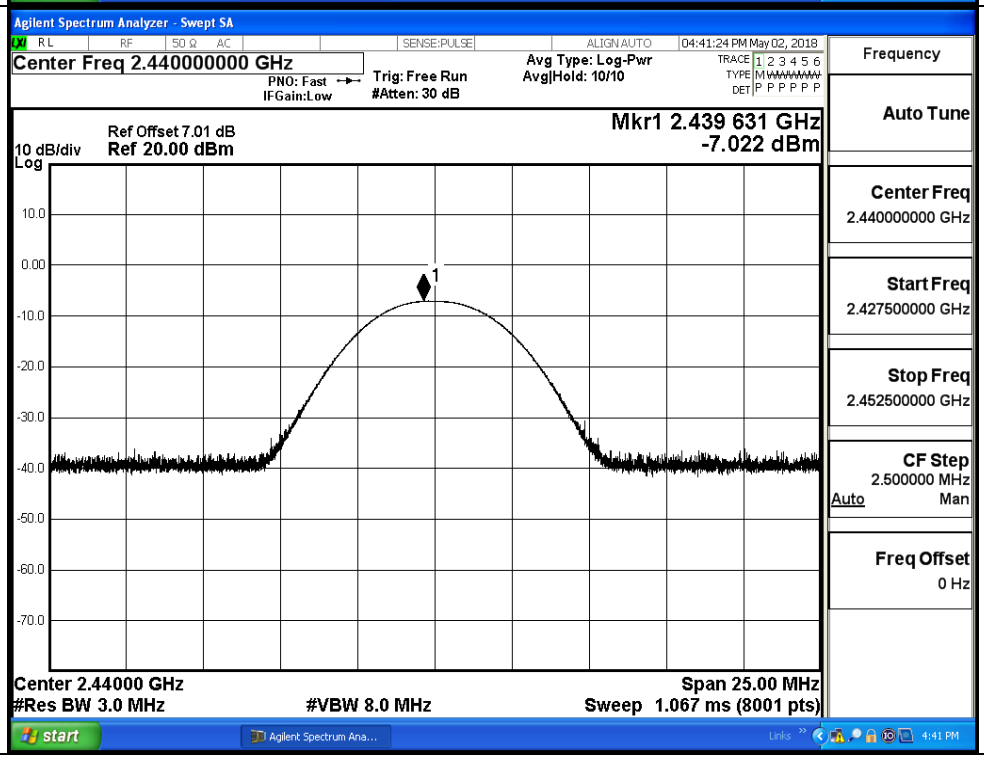
## B.1 Duty Cycle

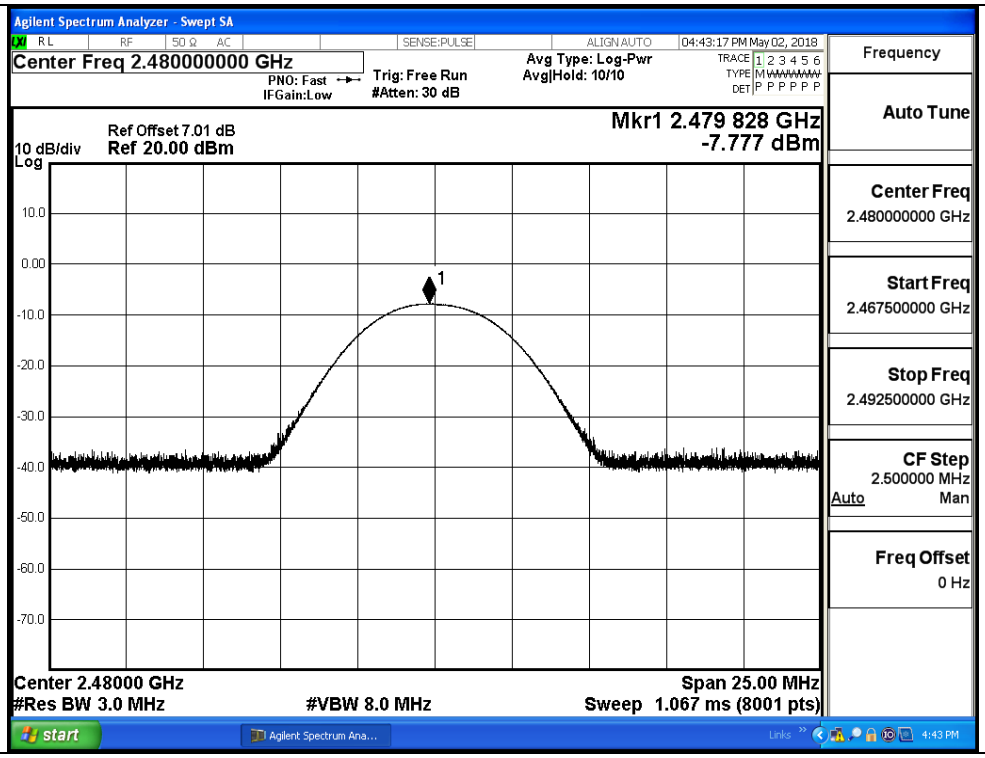
| Test Mode | Test Channel | Ant | Duty Cycle[%] | Verdict |
|---|---|---|---|---|
| BT LE | 2440 | Ant1 | 100 | PASS |



## B.2 Maximum Conducted Peak Output Power

| Mode | Channel | Conduct Peak Power[dBm] | Limit [dBm] | Verdict |
|---|---|---|---|---|
| BT LE | LCH | -6.168 | 30 | PASS |
| BT LE | MCH | -7.022 | 30 | PASS |
| BT LE | HCH | -7.777 | 30 | PASS |

| Test Graphs | | |
|---|---|---|
| LCH |  | |
| MCH |  | |

| | | |
|---|---|---|
| HCH | |  |

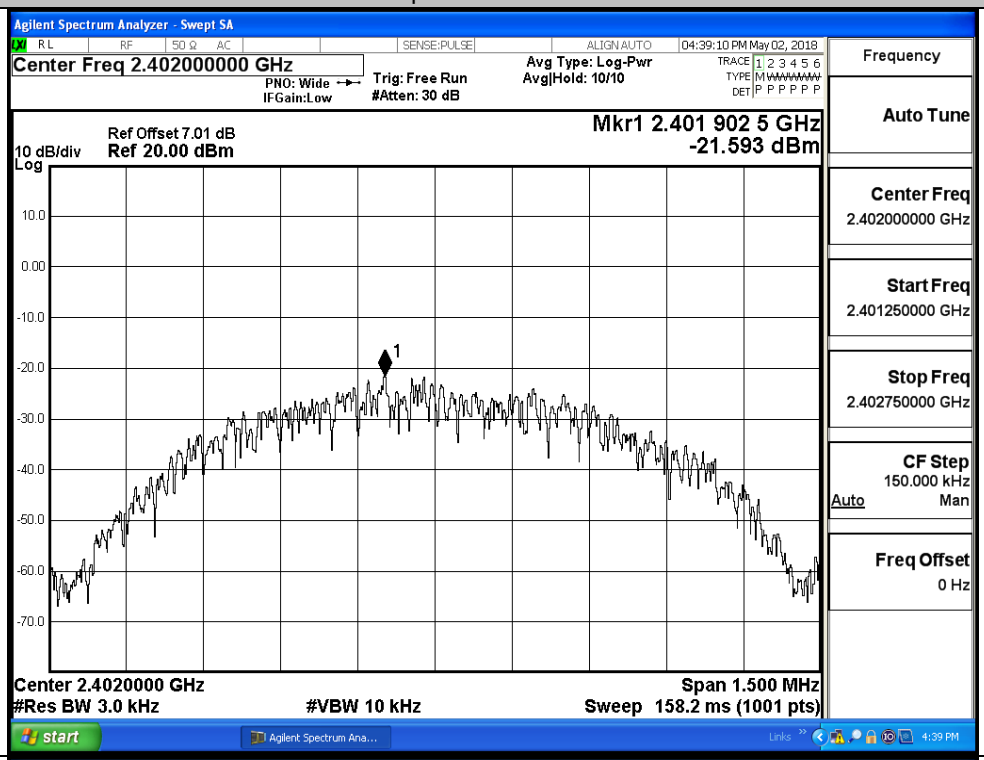
Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:PULSE
ALIGN AUTO
04:43:17 PM May 02, 2018
Center Freq 2.480000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 10/10
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P
Ref Offset 7.01 dB
10 dB/div
Log
Ref 20.00 dBm
Mkr1 2.479 828 GHz
-7.777 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Center 2.48000 GHz
#Res BW 3.0 MHz
#VBW 8.0 MHz
Span 25.00 MHz
Sweep 1.067 ms (8001 pts)
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.467500000 GHz
Stop Freq
2.492500000 GHz
CF Step
2.500000 MHz
Auto
Man
Freq Offset
0 Hz
start
Agilent Spectrum Ana...
Links
4:43 PM

## B.3 Maximum Power Spectral Density

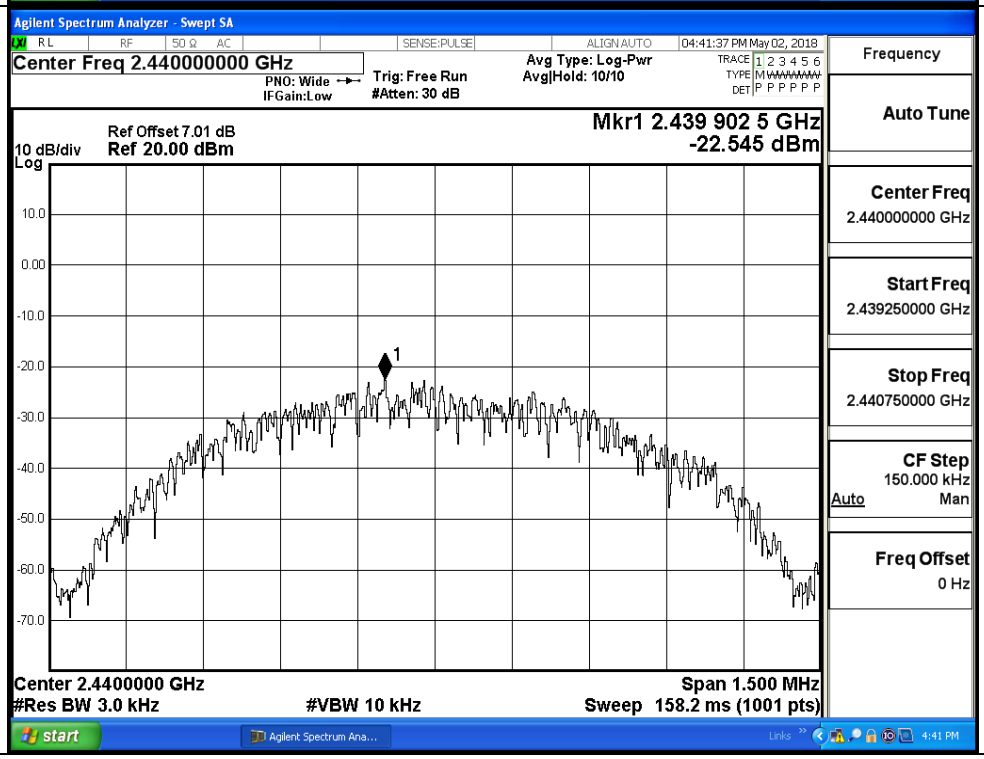
| Mode | Channel | PSD [dBm/3KHz] | Limit [dBm/3KHz] | Verdict |
|---|---|---|---|---|
| BT LE | LCH | -21.593 | 8 | PASS |
| BT LE | MCH | -22.545 | 8 | PASS |
| BT LE | HCH | -23.327 | 8 | PASS |

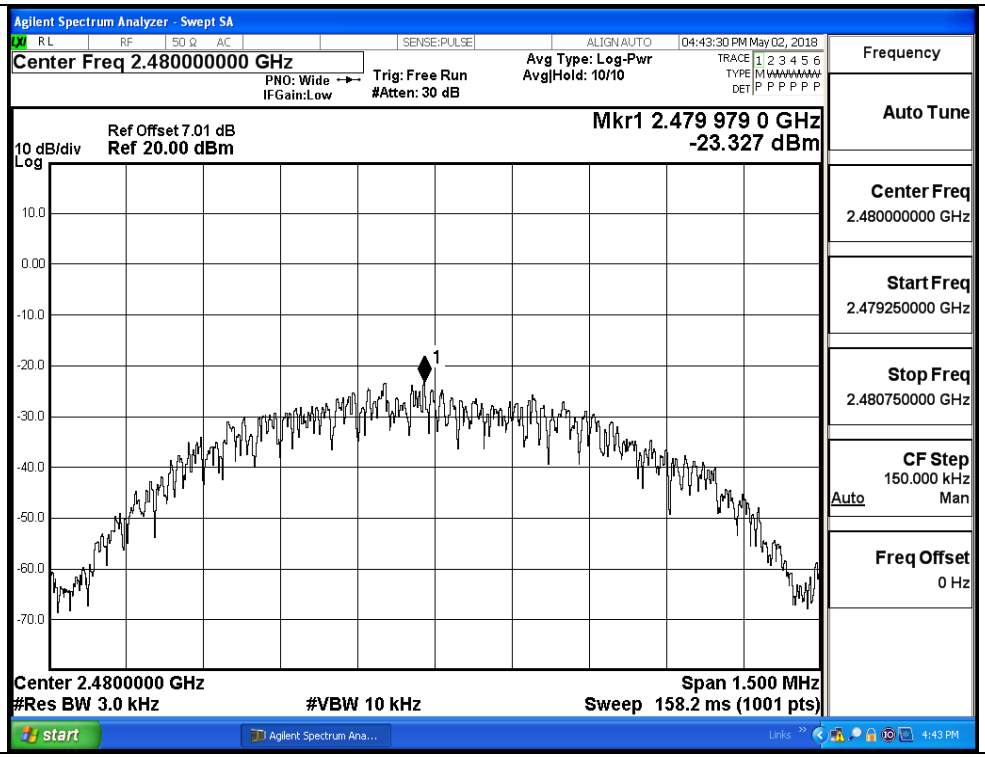
Test Graphs

LCH




MCH



| | | |
|---|---|---|
| HCH | |  |

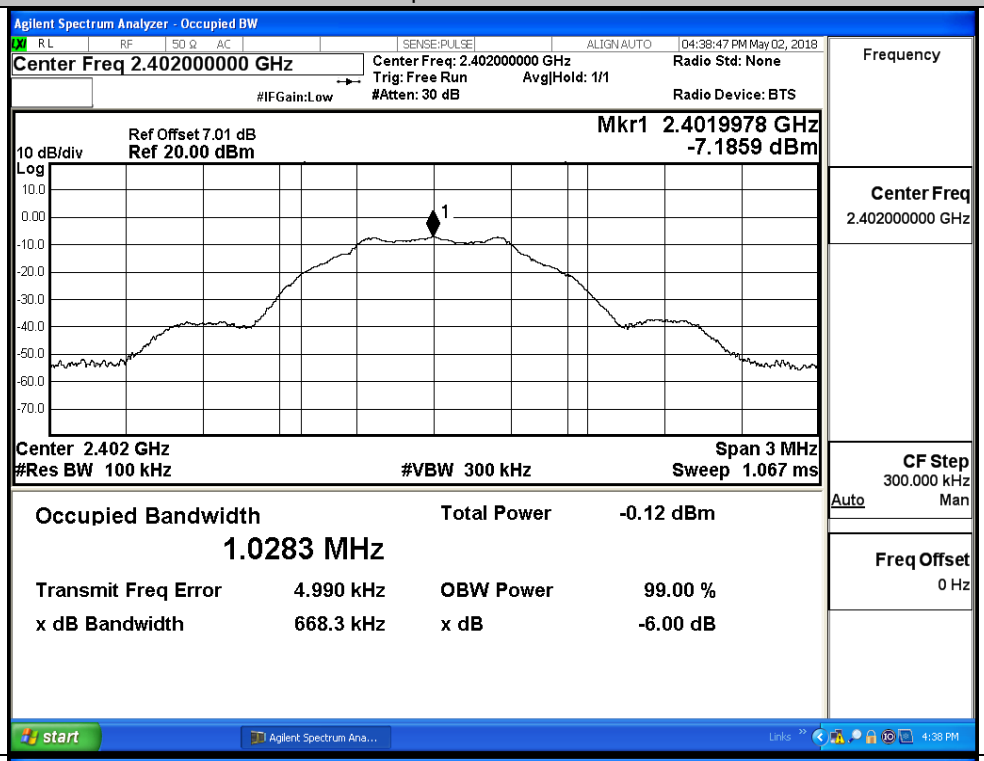
Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:PULSE
ALIGN AUTO
04:43:30 PM May 02, 2018
Center Freq 2.480000000 GHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 10/10
TRACE 1 2 3 4 5 6
TYPE M WWWWW
DET P P P P P
Ref Offset 7.01 dB
10 dB/div
Log
Ref 20.00 dBm
Mkr1 2.479 979 0 GHz
-23.327 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Center 2.4800000 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Span 1.500 MHz
Sweep 158.2 ms (1001 pts)
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.479250000 GHz
Stop Freq
2.480750000 GHz
CF Step
150.000 kHz
Auto
Man
Freq Offset
0 Hz
start
Agilent Spectrum Ana...
Links
4:43 PM

## B.4 6dB Bandwidth

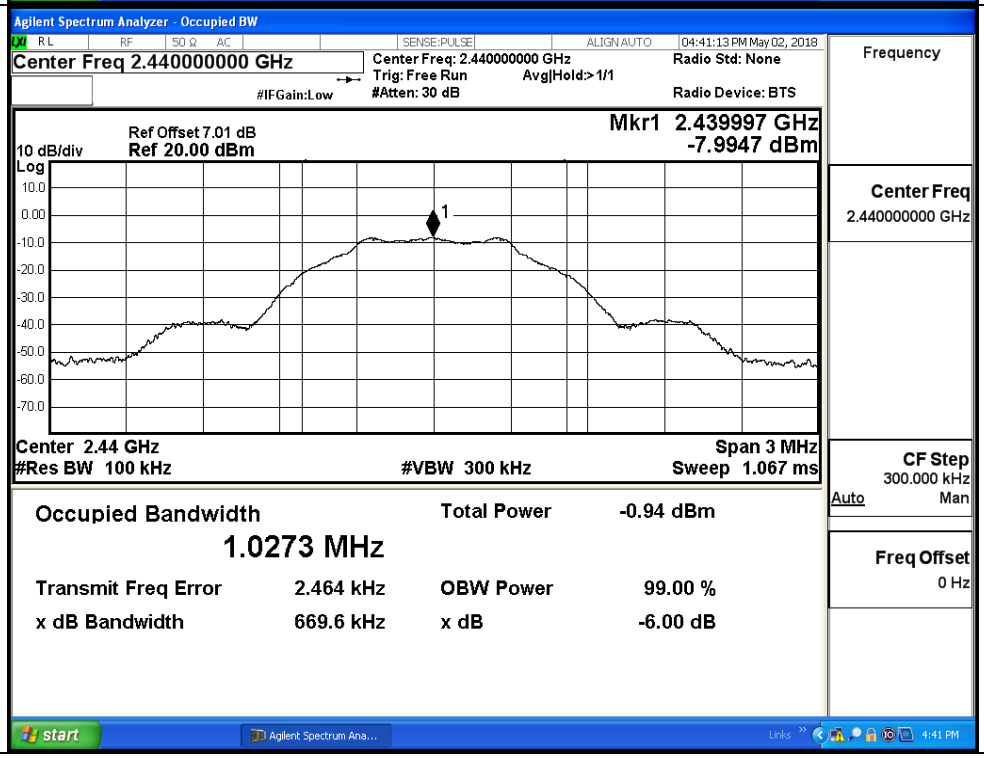
| Mode | Channel | 6dB Bandwidth [MHz] | Limit [MHz] | Verdict |
|---|---|---|---|---|
| BT LE | LCH | 0.6683 | ⩾0.5 | PASS |
| BT LE | MCH | 0.6696 | ⩾0.5 | PASS |
| BT LE | HCH | 0.6788 | ⩾0.5 | PASS |

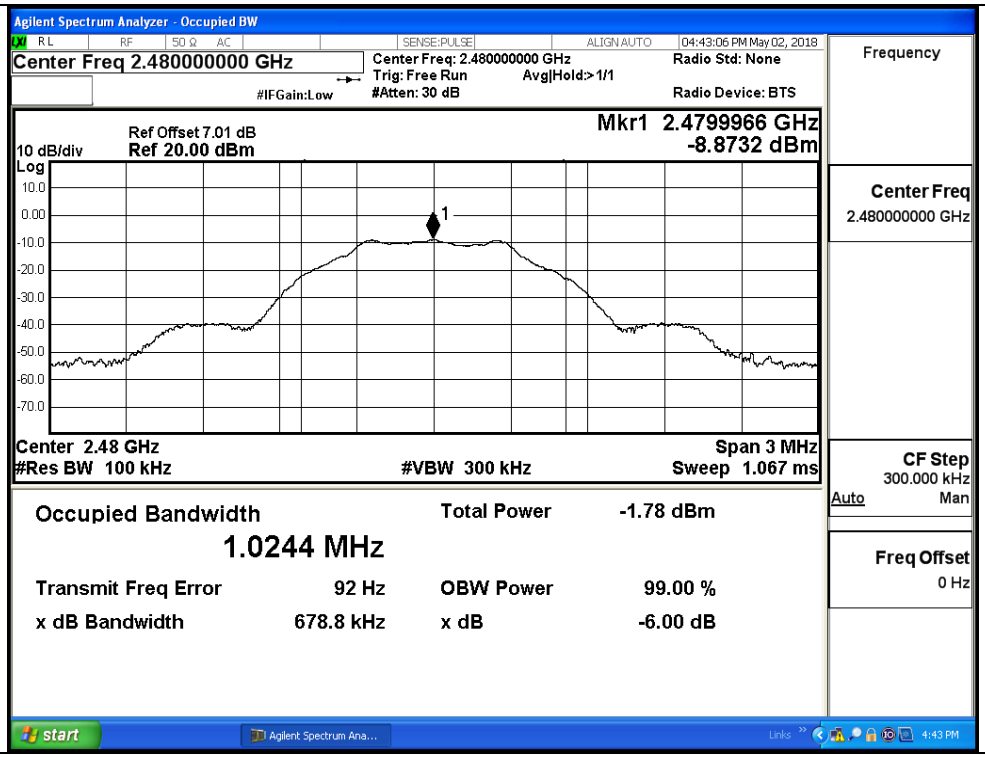
Test Graphs

LCH



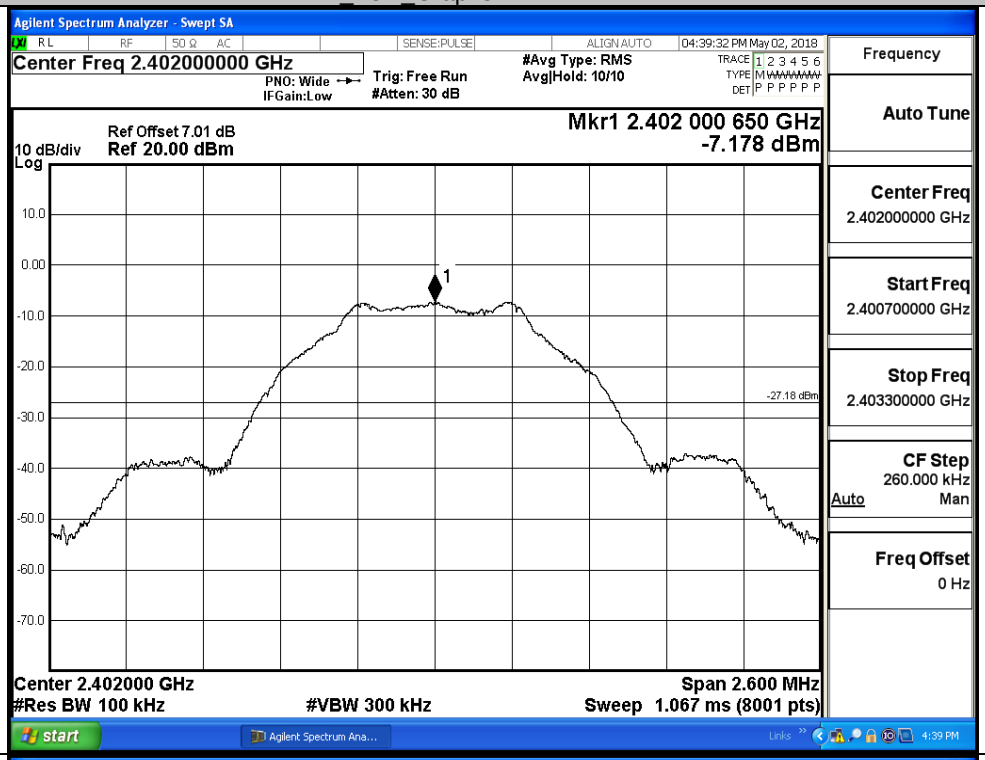
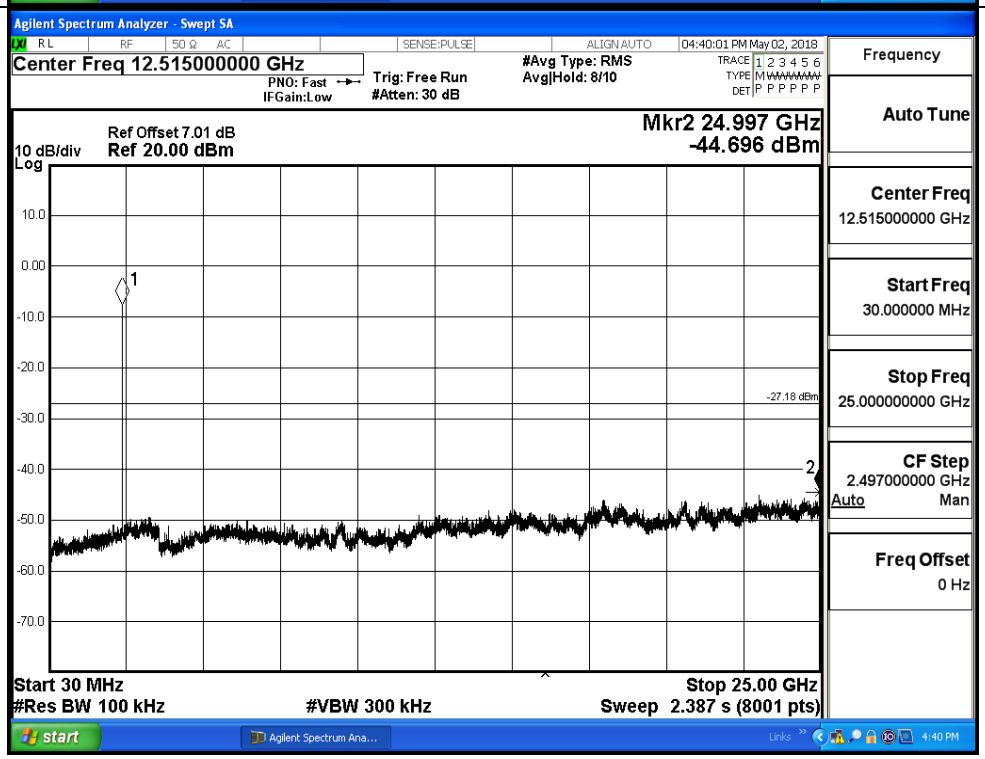

MCH

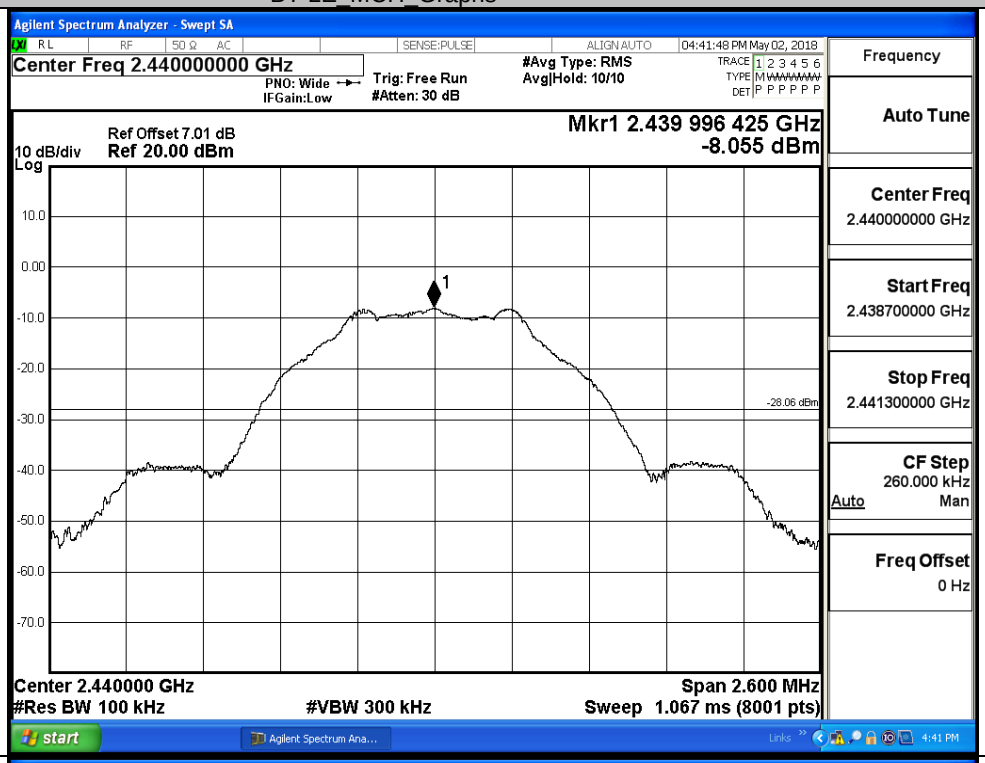
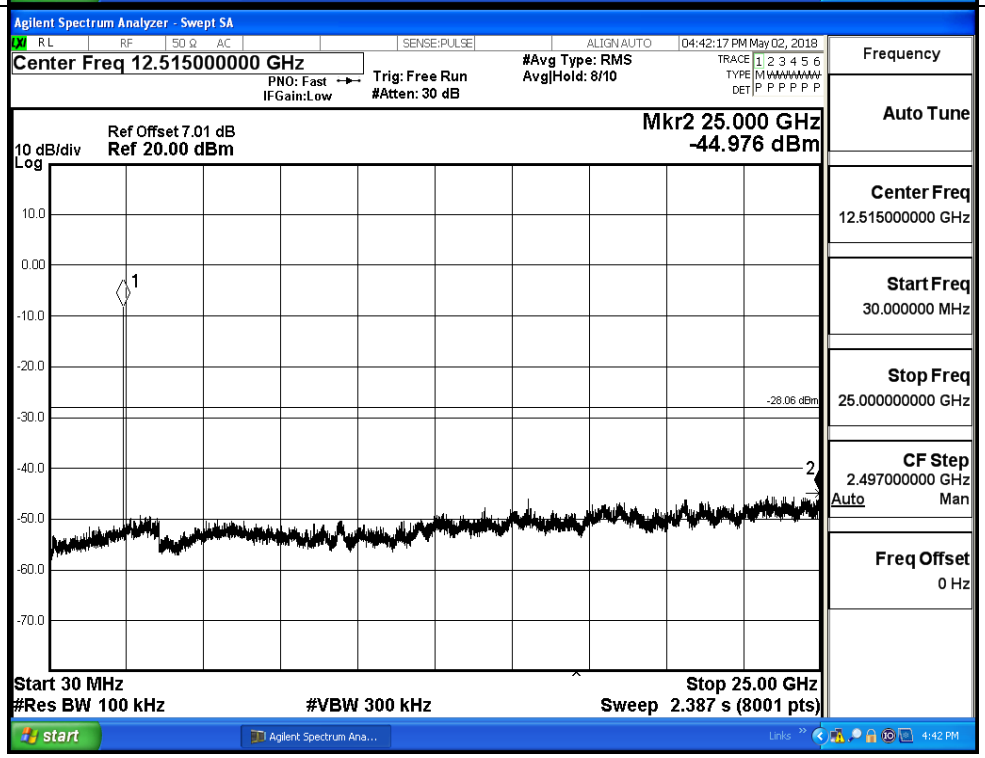


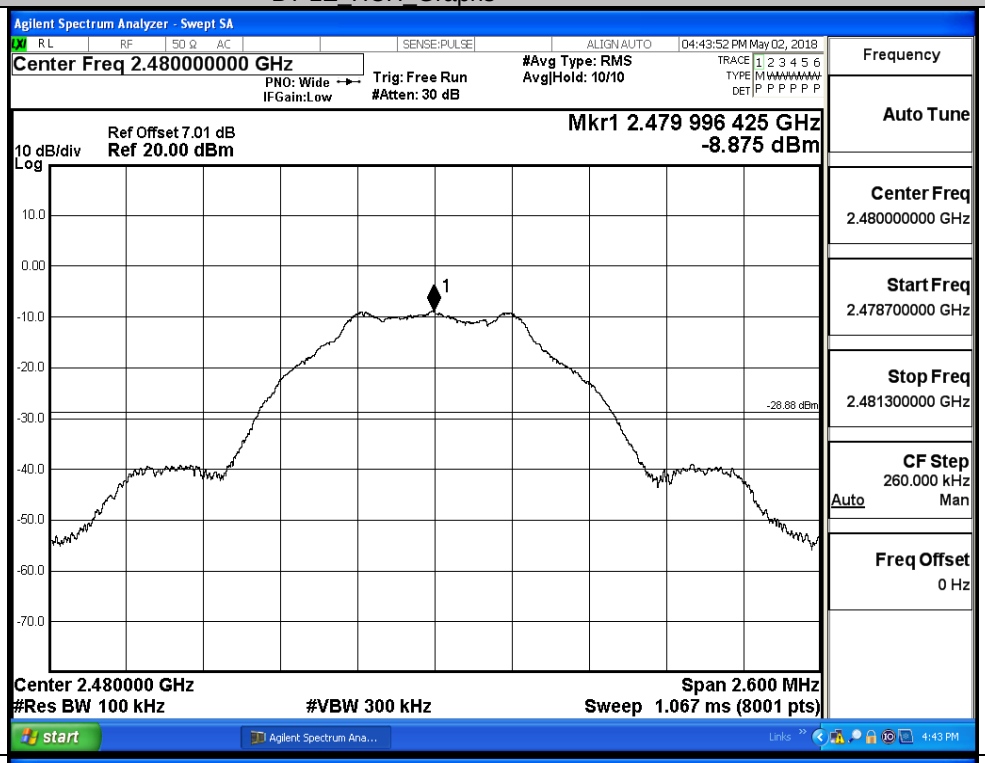
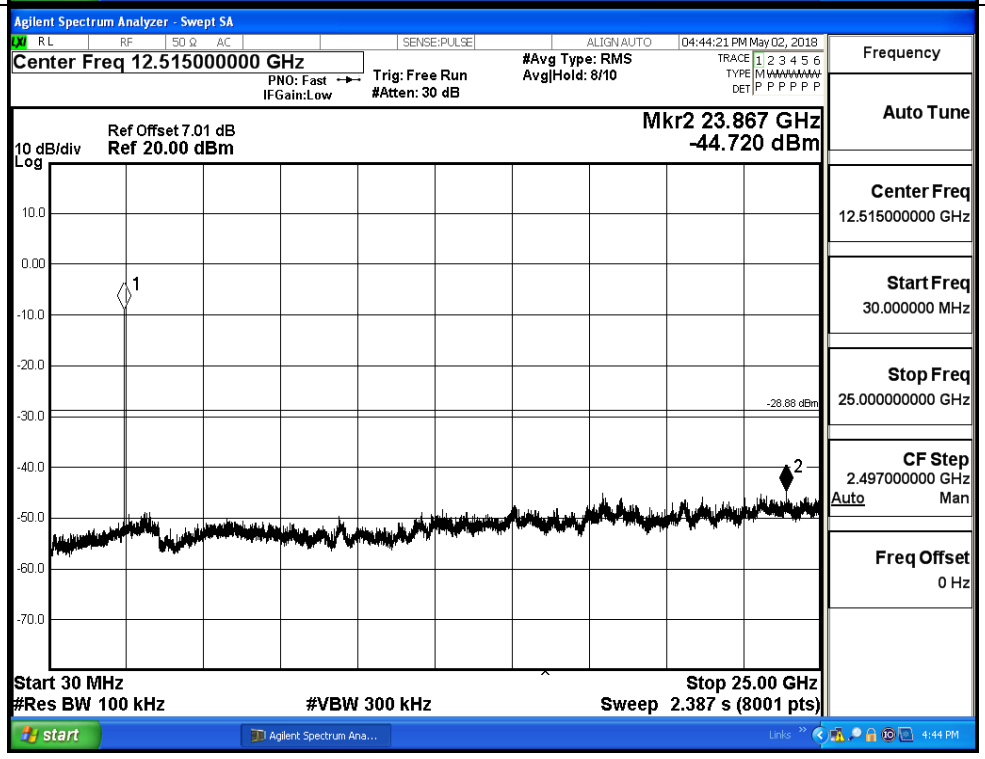
| | | |
|---|---|---|
| HCH | |  |

Agilent Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
SENSE:PULSE
ALIGN AUTO
04:43:06 PM May 02, 2018
Center Freq 2.480000000 GHz
Center Freq: 2.480000000 GHz
Trig: Free Run
Avg|Hold:>1/1
#IFGain:Low
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Frequency
Ref Offset 7.01 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr1 2.4799966 GHz
-8.8732 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Center Freq
2.480000000 GHz
Center 2.48 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 3 MHz
Sweep 1.067 ms
CF Step
300.000 kHz
Auto
Man
Occupied Bandwidth
1.0244 MHz
Total Power
-1.78 dBm
Freq Offset
0 Hz
Transmit Freq Error
92 Hz
OBW Power
99.00 %
x dB Bandwidth
678.8 kHz
x dB
-6.00 dB
start
Agilent Spectrum Ana...
Links
4:43 PM

## B.5 RF Conducted Spurious Emissions

| Mode | Channel | Pref [dBm] | Max. Level [dBm] | Limit [dBm] | Verdict |
|---|---|---|---|---|---|
| BT LE | LCH | -7.178 | -44.696 | -27.178 | PASS |
| BT LE | MCH | -8.055 | -44.976 | -28.055 | PASS |
| BT LE | HCH | -8.875 | -44.720 | -28.875 | 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 |  |

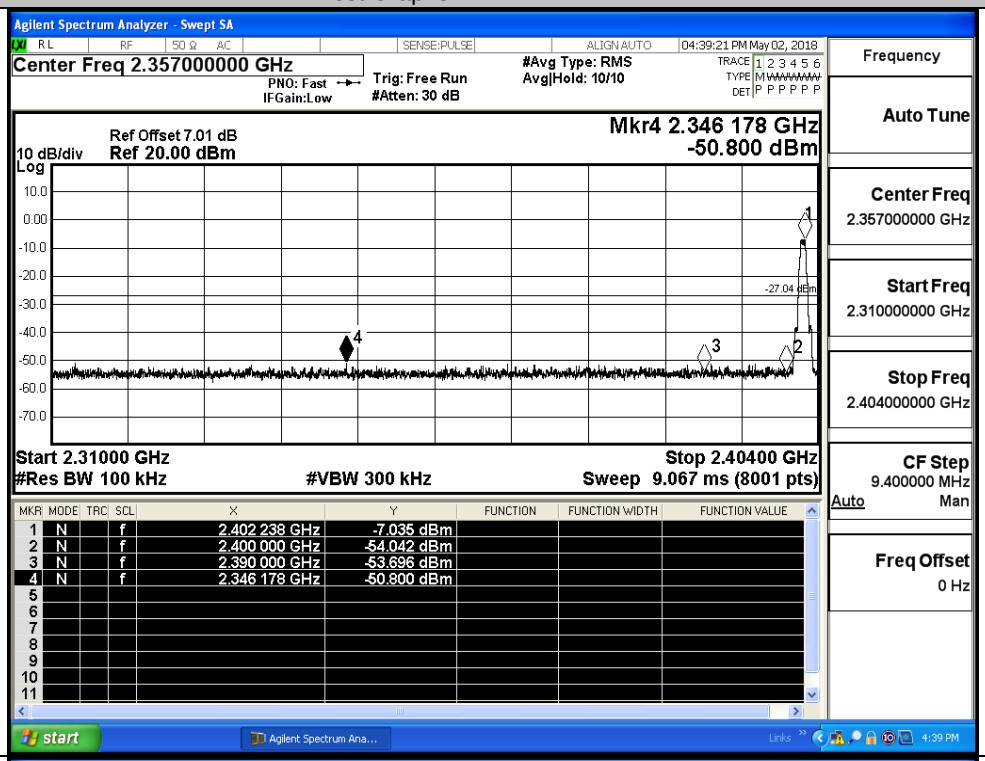
| BT LE_HCH_Graphs | |
|---|---|
| Pref/BT LE/HCH |  |
| Puw/BT LE/HCH |  |

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

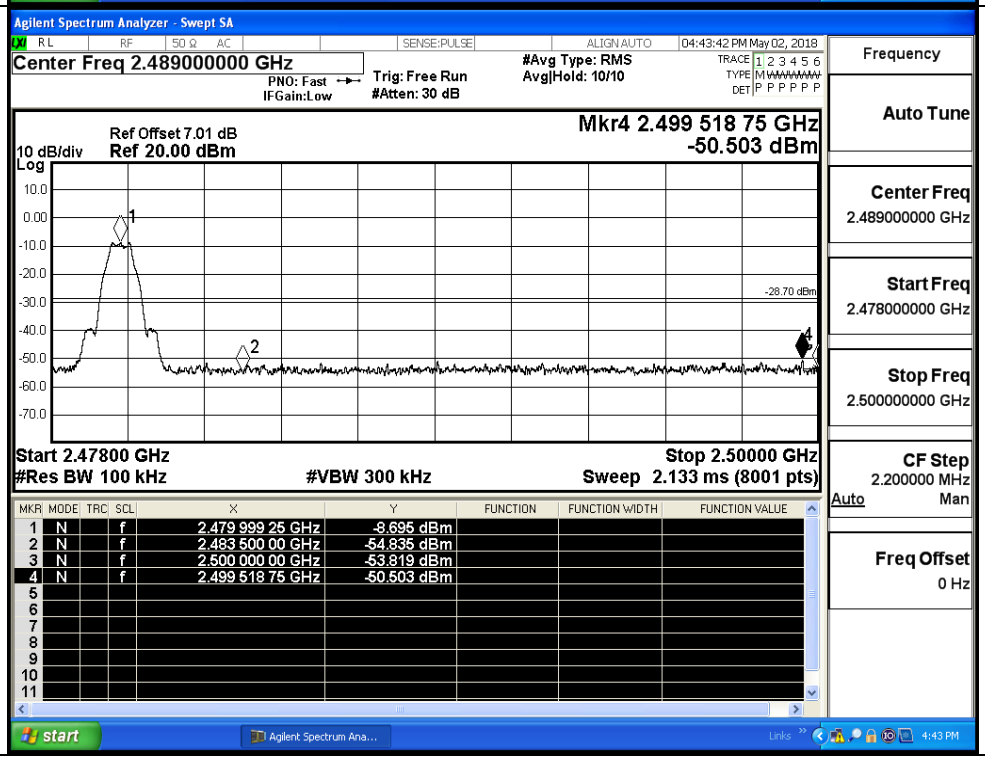
| Mode | Channel | Carrier Power[dBm] | Max.Spurious Level [dBm] | Limit [dBm] | Verdict |
|---|---|---|---|---|---|
| BT LE | LCH | -7.035 | -50.800 | -27.04 | PASS |
| BT LE | HCH | -8.695 | -50.503 | -28.7 | PASS |

Test Graphs

LCH



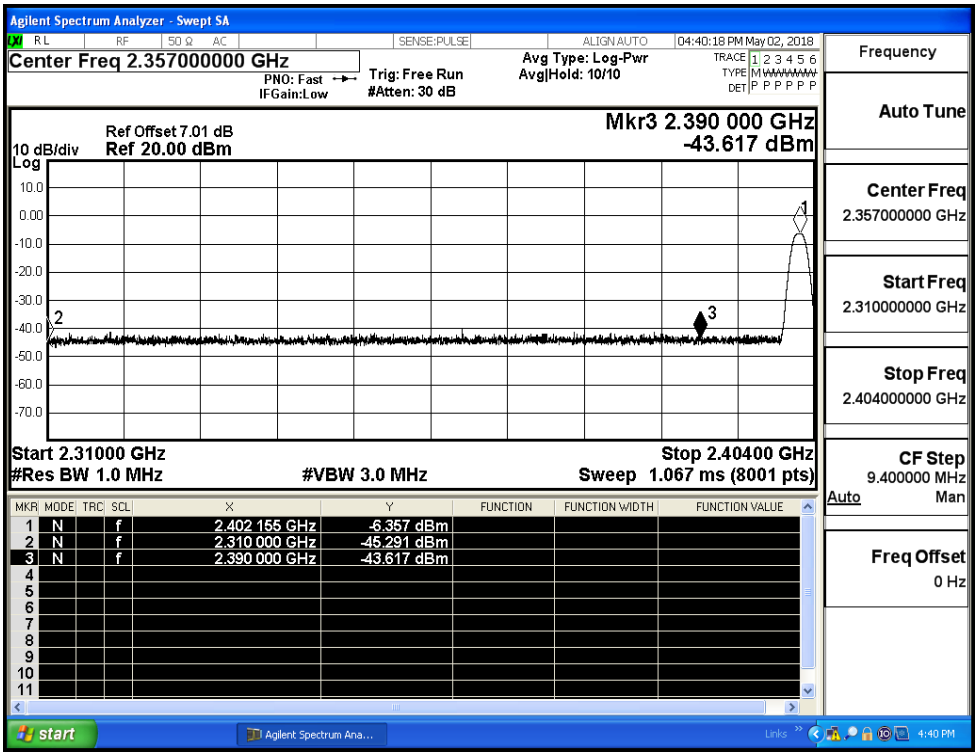

HCH



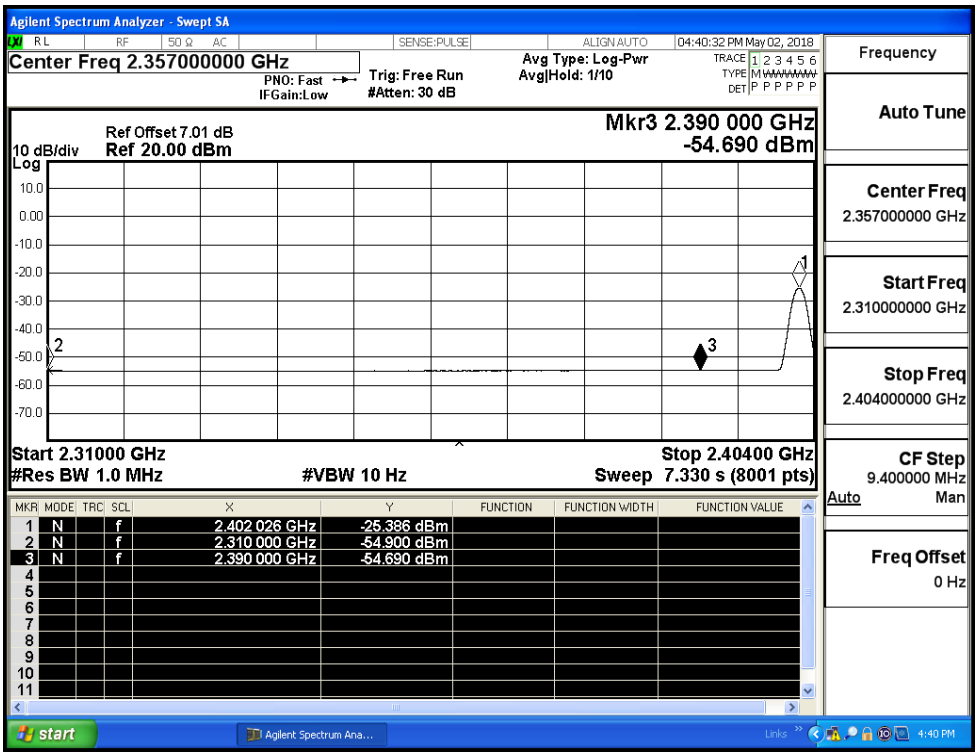
## B.7 Restrict-band band-edge measurements

| 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 | -45.29 | 2.0 | 0 | 49.97 | PEAK | 74 | PASS |
| | | Ant1 | 2310.0 | -54.90 | 2.0 | 0 | 40.36 | AV | 54 | PASS |
| | | Ant1 | 2390.0 | -43.62 | 2.0 | 0 | 51.64 | PEAK | 74 | PASS |
| | | Ant1 | 2390.0 | -54.69 | 2.0 | 0 | 40.57 | AV | 54 | PASS |
| | 2480 | Ant1 | 2483.5 | -44.33 | 2.0 | 0 | 50.92 | PEAK | 74 | PASS |
| | | Ant1 | 2483.5 | -54.50 | 2.0 | 0 | 40.76 | AV | 54 | PASS |
| | | Ant1 | 2500.0 | -43.60 | 2.0 | 0 | 51.66 | PEAK | 74 | PASS |
| | | Ant1 | 2500.0 | -54.33 | 2.0 | 0 | 40.92 | AV | 54 | PASS |

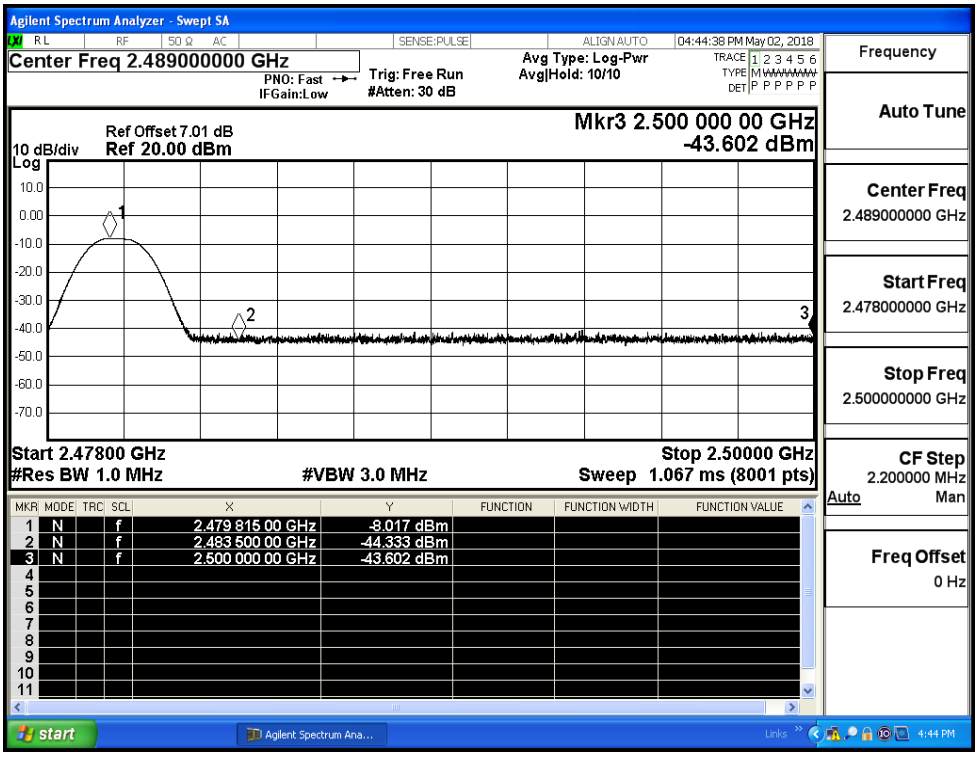
Restrict-band band-edge measurements_BT LE_2402_Ant1_PEAK




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