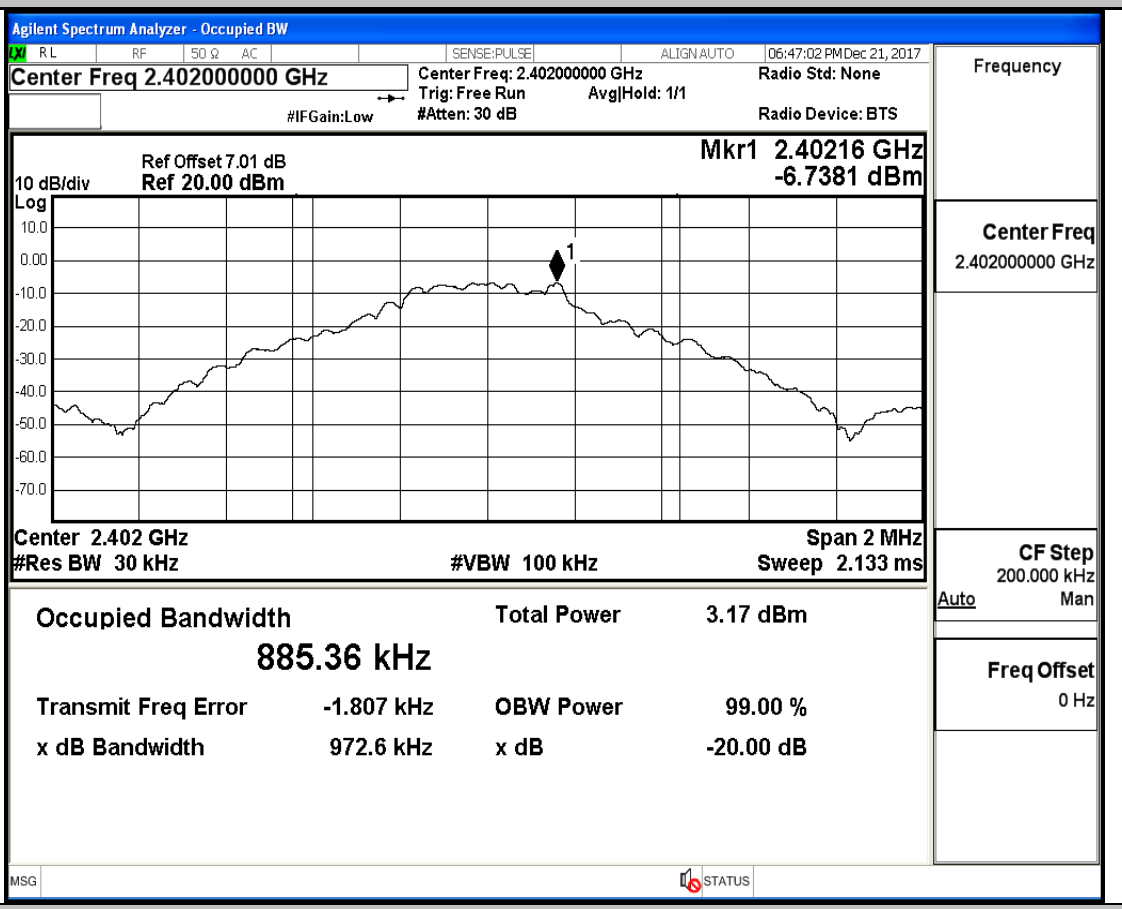
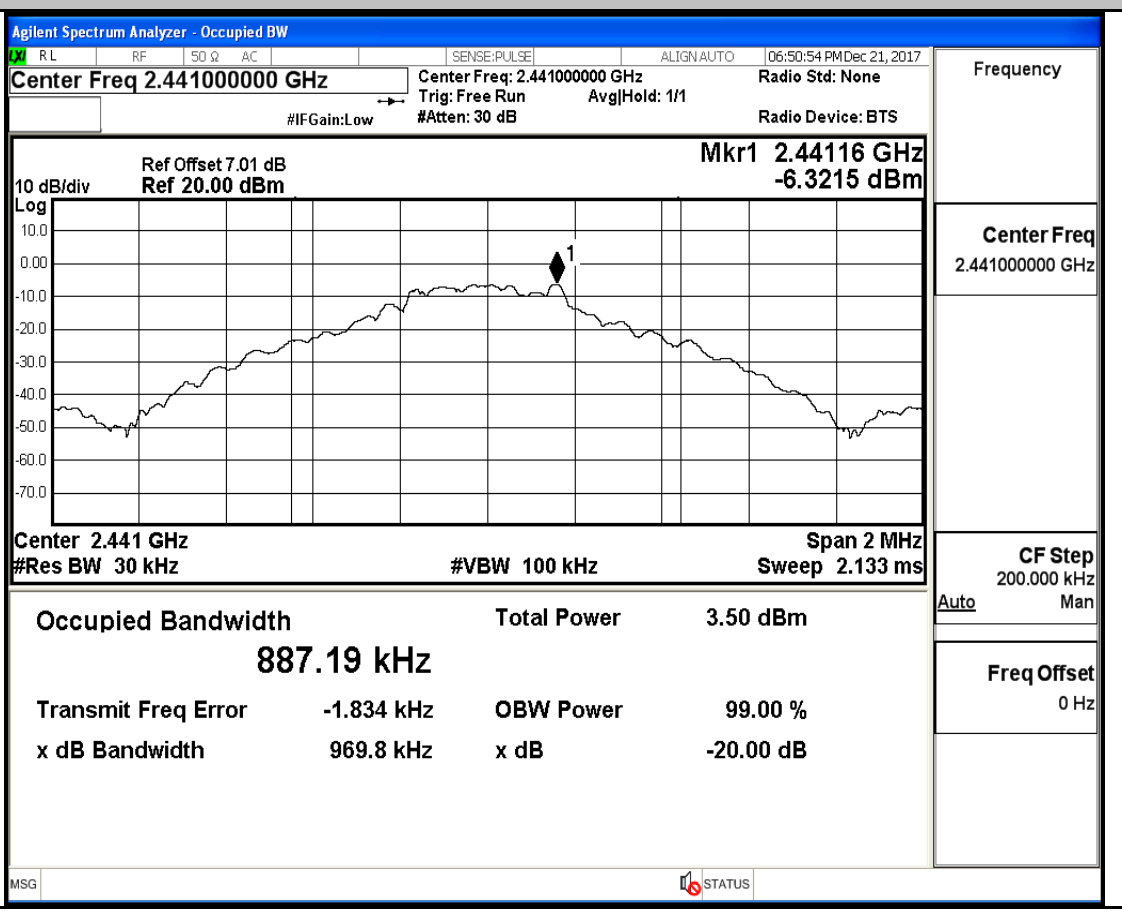
### A.1.20 dB Bandwidth

| Test Mode | Test Channel | EBW[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|
| DH5 | 2402 | 0.9726 | --- | PASS |
| DH5 | 2441 | 0.9698 | --- | PASS |
| DH5 | 2480 | 1.028 | --- | PASS |
| 2DH5 | 2402 | 1.286 | --- | PASS |
| 2DH5 | 2441 | 1.284 | --- | PASS |
| 2DH5 | 2480 | 1.285 | --- | PASS |
| 3DH5 | 2402 | 1.297 | --- | PASS |
| 3DH5 | 2441 | 1.288 | --- | PASS |
| 3DH5 | 2480 | 1.288 | --- | PASS |

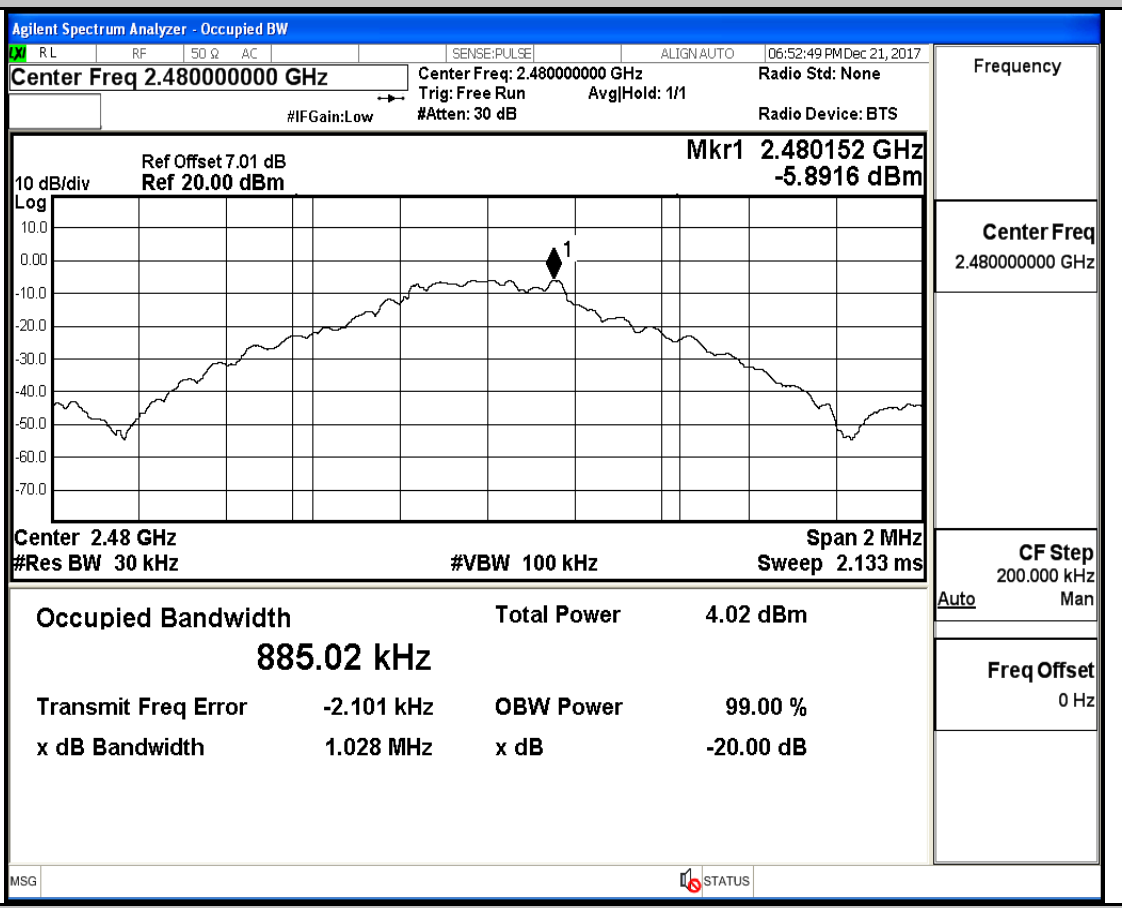
20 dB Bandwidth_DH5_2402



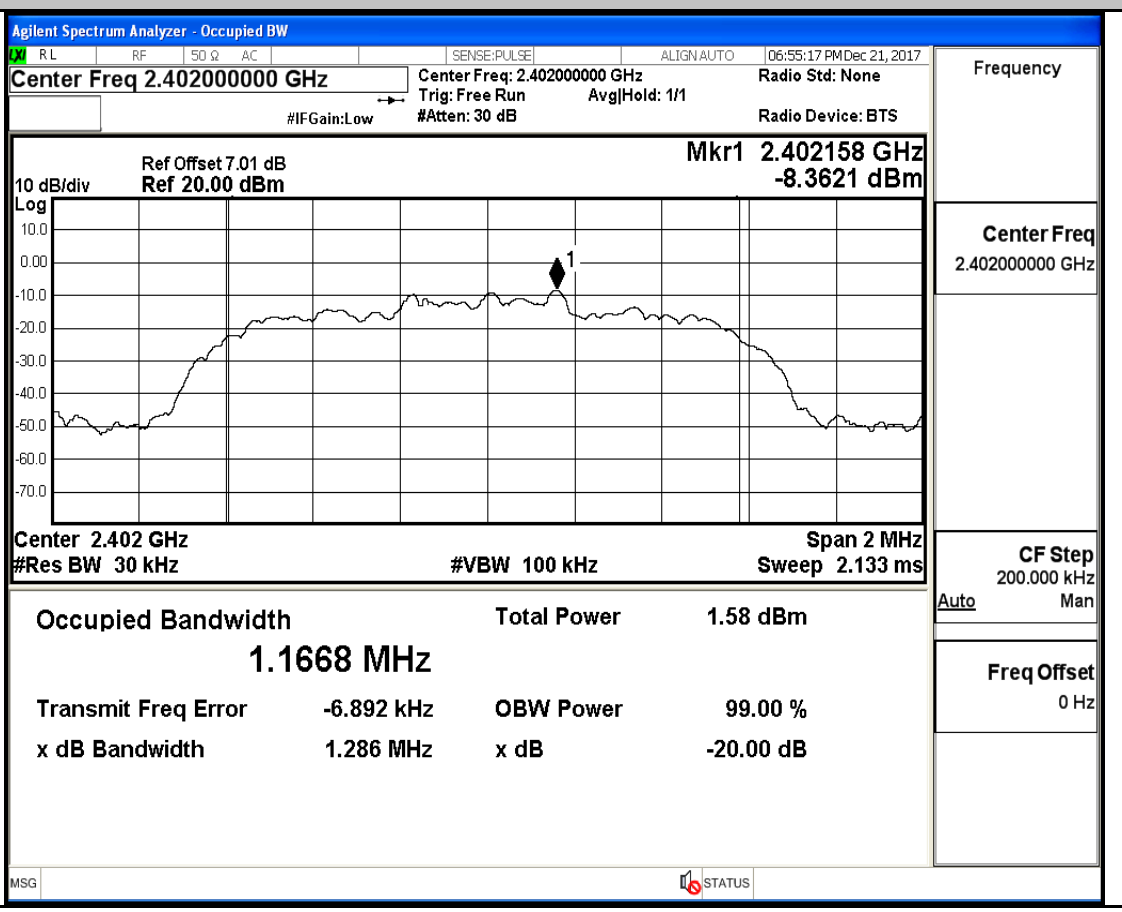

20 dB Bandwidth_DH5_2441



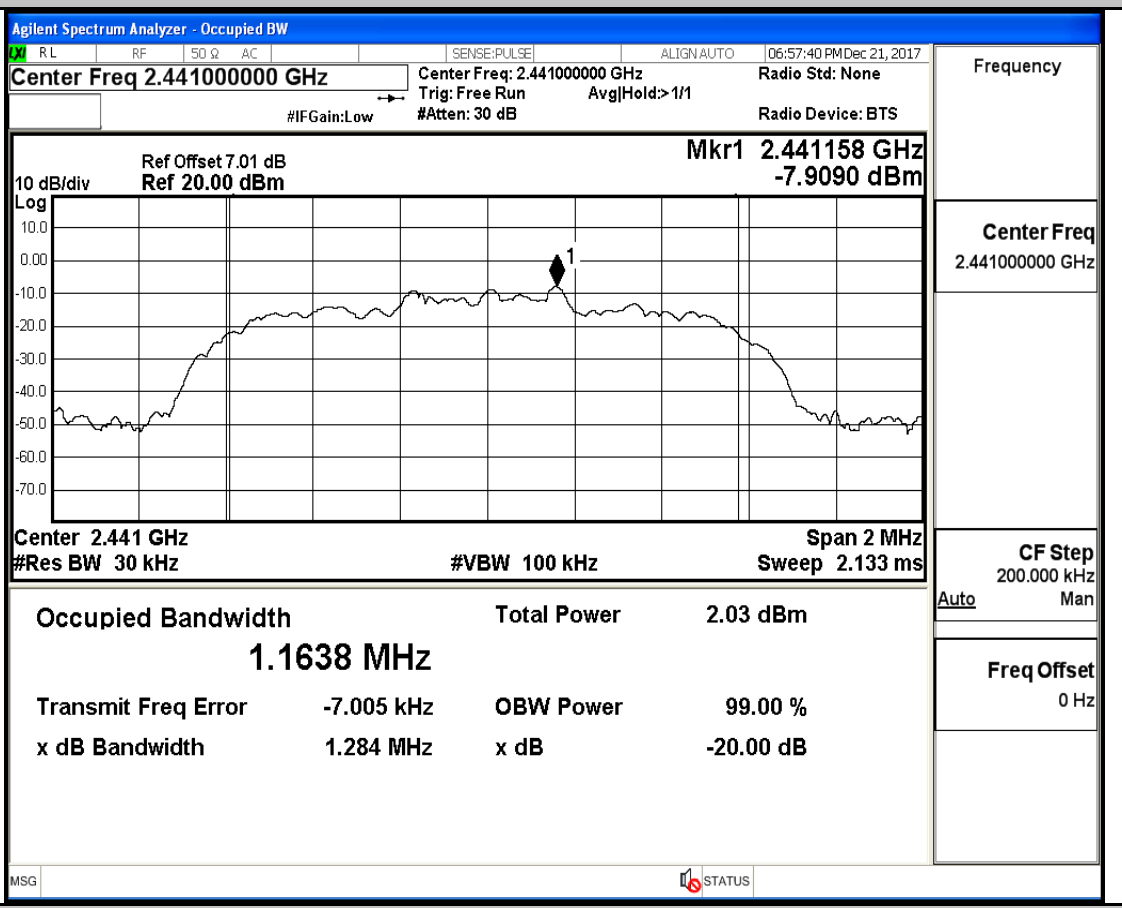
20 dB Bandwidth_DH5_2480



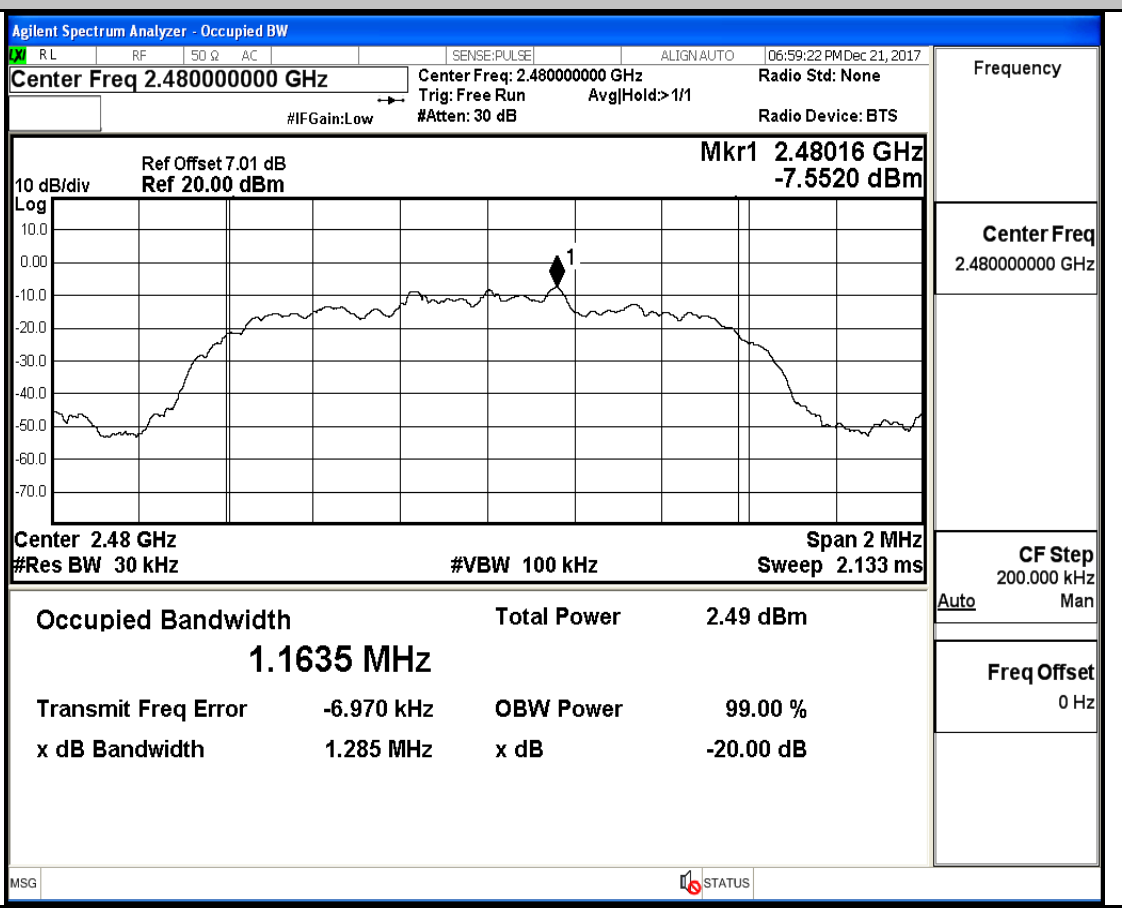

20 dB Bandwidth_2DH5_2402



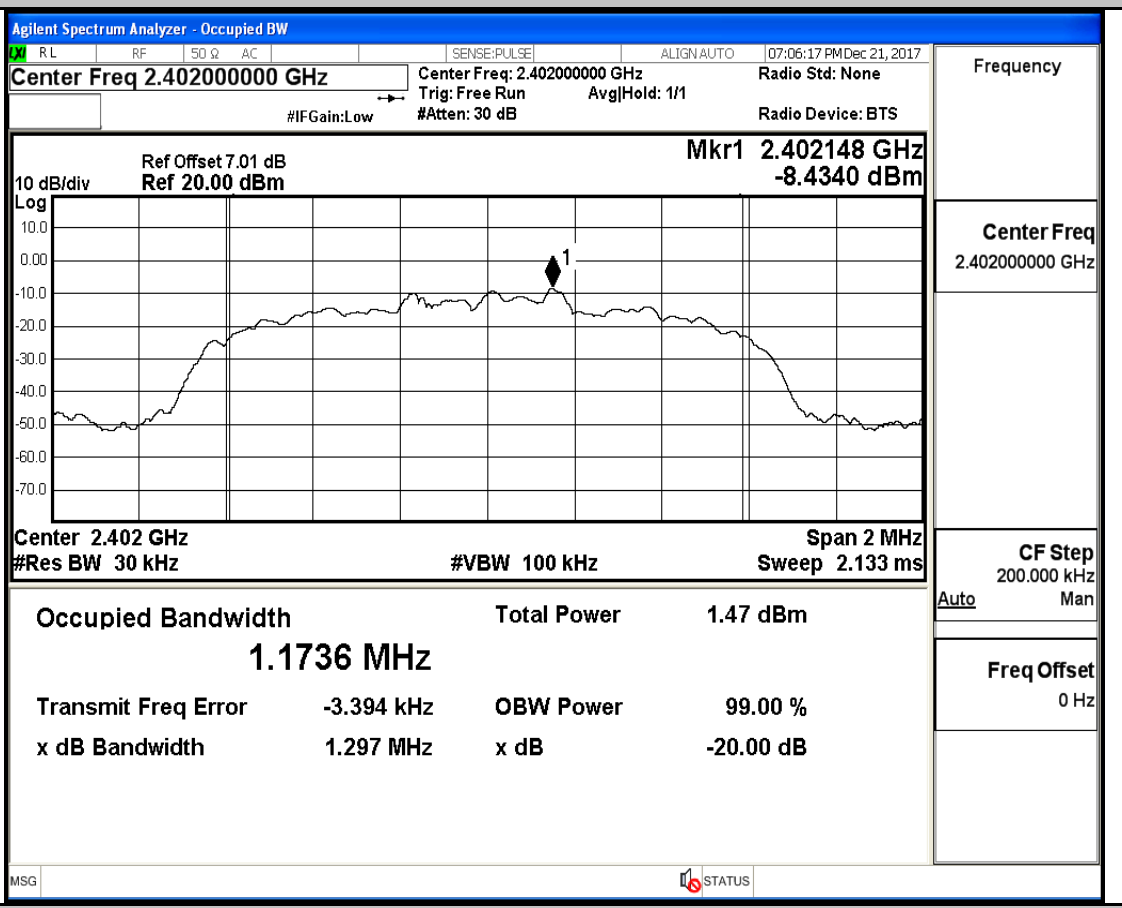
20 dB Bandwidth_2DH5_2441



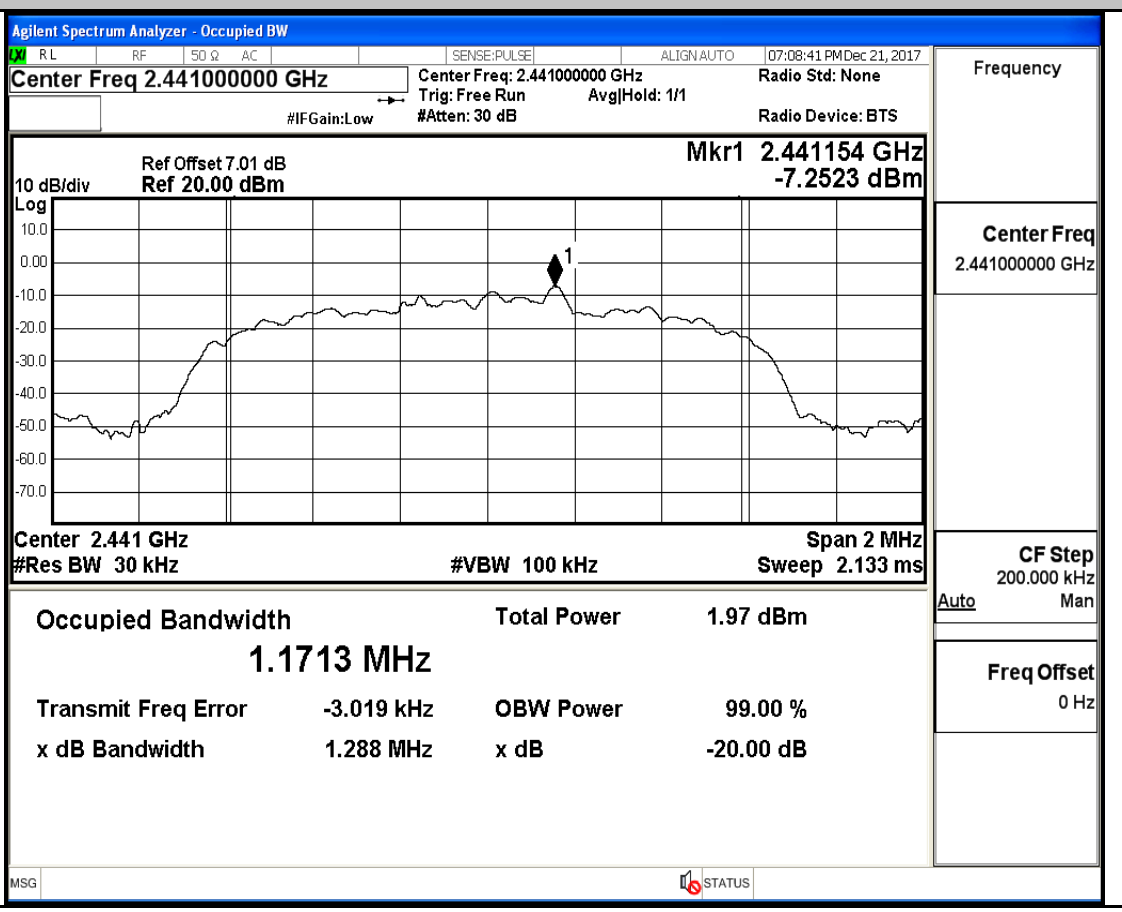

20 dB Bandwidth_2DH5_2480



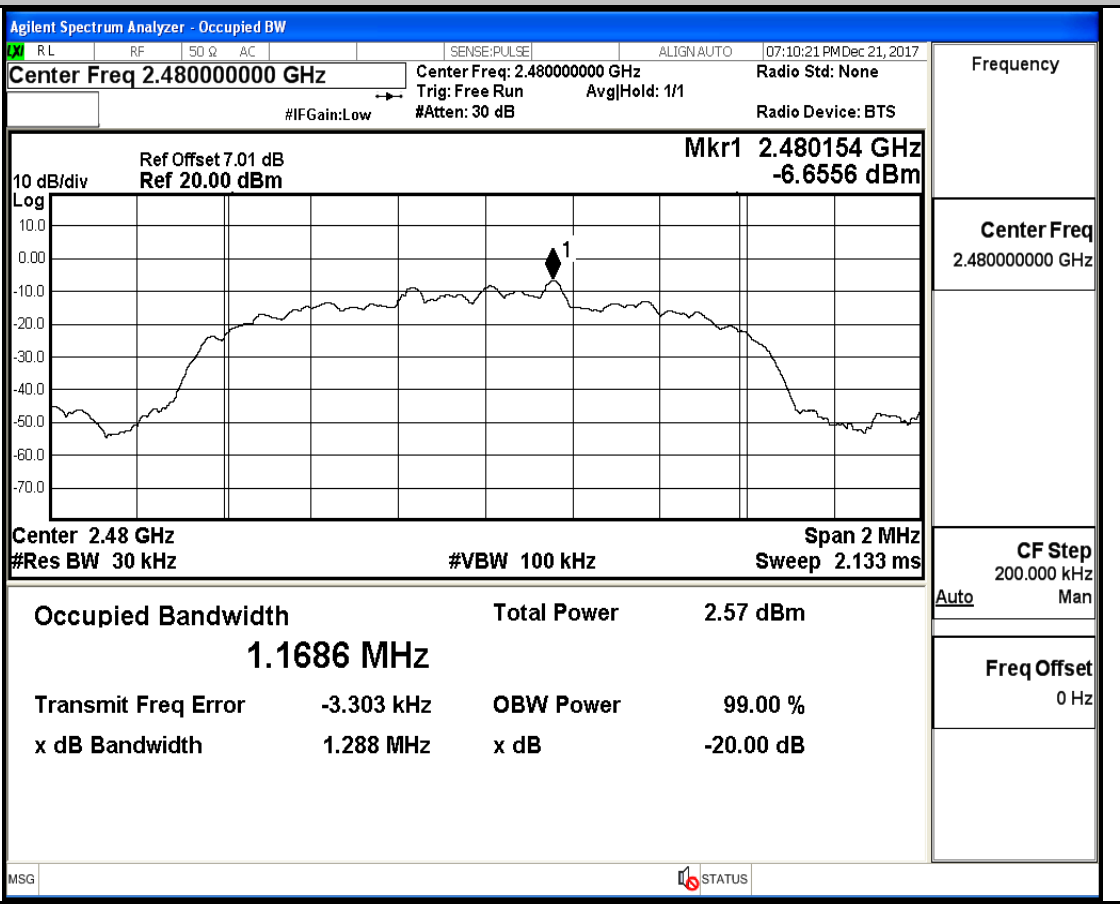
20 dB Bandwidth_3DH5_2402




20 dB Bandwidth_3DH5_2441

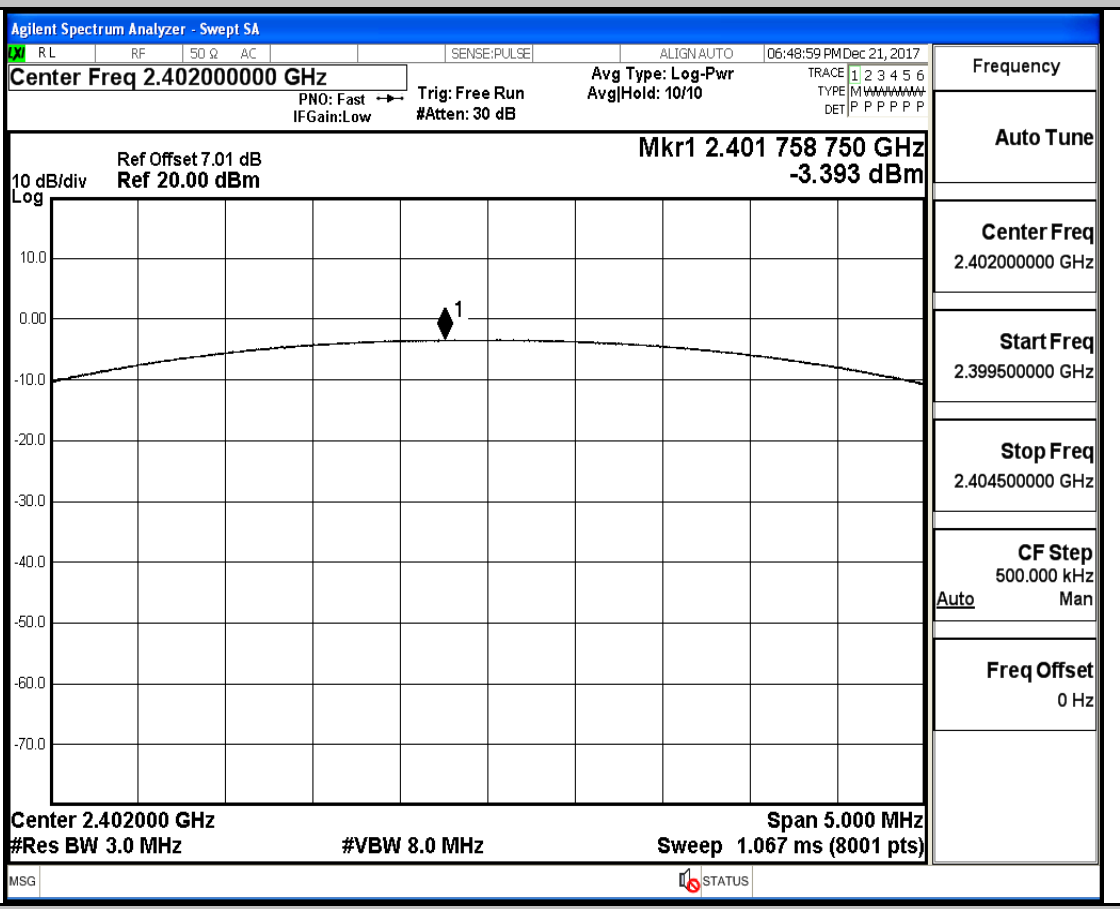


20 dB Bandwidth_3DH5_2480

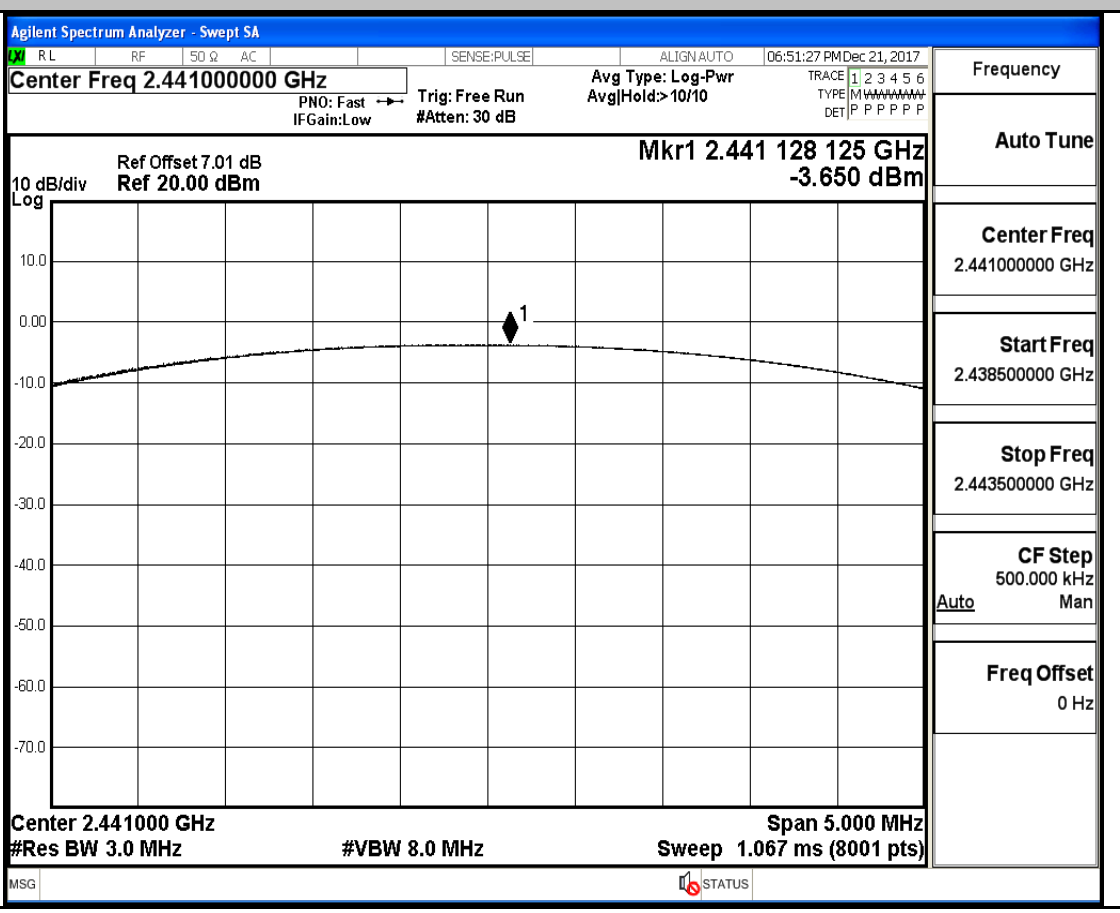


| Test Mode | Test Channel | Measured Maximum Peak Power(dBm) | Limits (dBm) | Verdict |
|---|---|---|---|---|
| DH5 | 2402 | -3.393 | 30 | PASS |
| DH5 | 2441 | -3.650 | 21 | PASS |
| DH5 | 2480 | -3.264 | 30 | PASS |
| 2DH5 | 2402 | -4.474 | 21 | PASS |
| 2DH5 | 2441 | -4.071 | 21 | PASS |
| 2DH5 | 2480 | -3.570 | 21 | PASS |
| 3DH5 | 2402 | -4.432 | 21 | PASS |
| 3DH5 | 2441 | -3.847 | 21 | PASS |
| 3DH5 | 2480 | -3.281 | 21 | PASS |

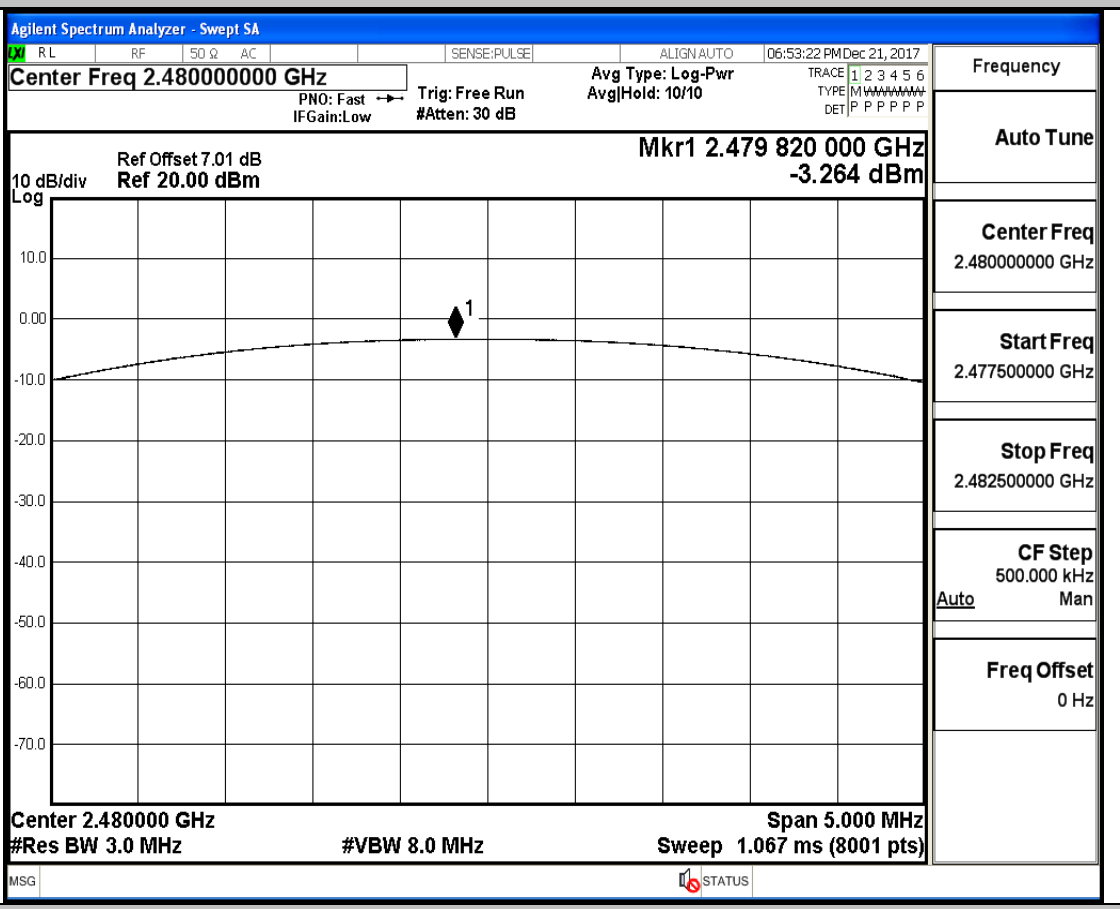
Conducted Peak Output Power_DH5_2402



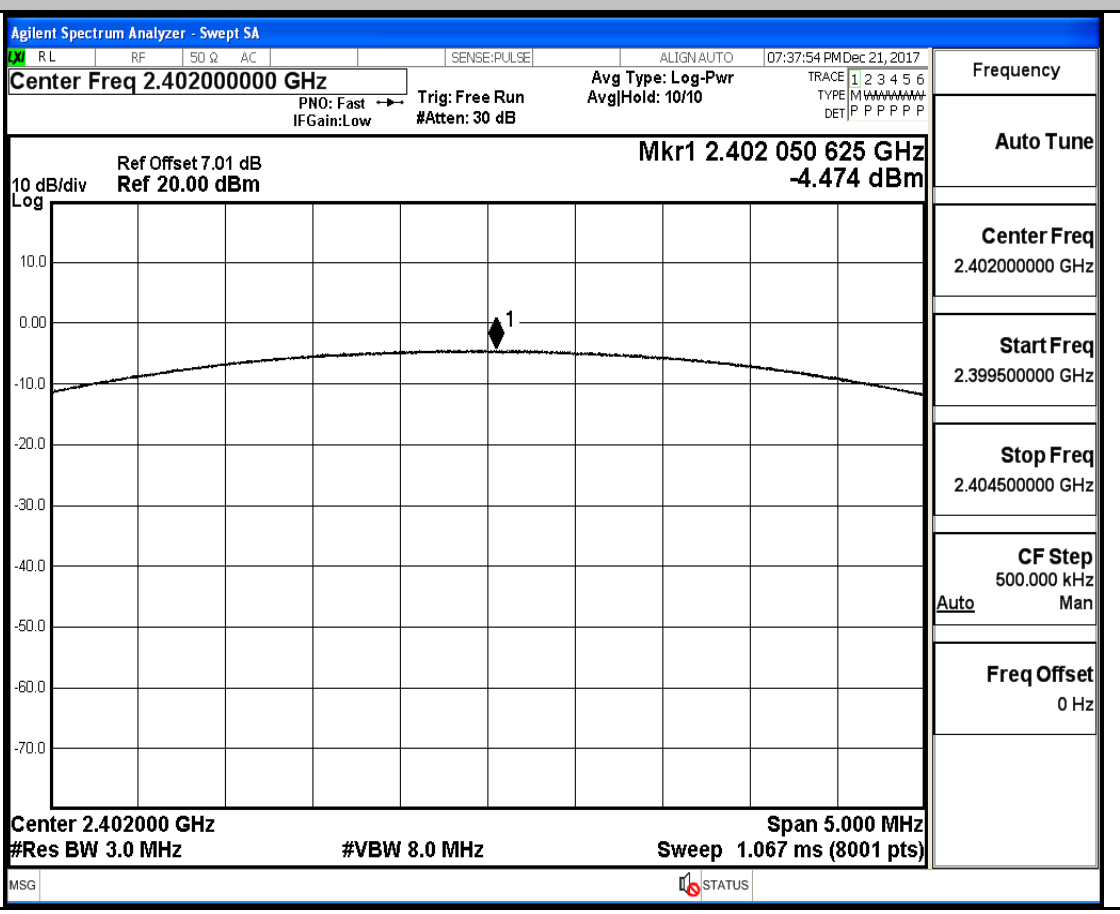

Conducted Peak Output Power_DH5_2441



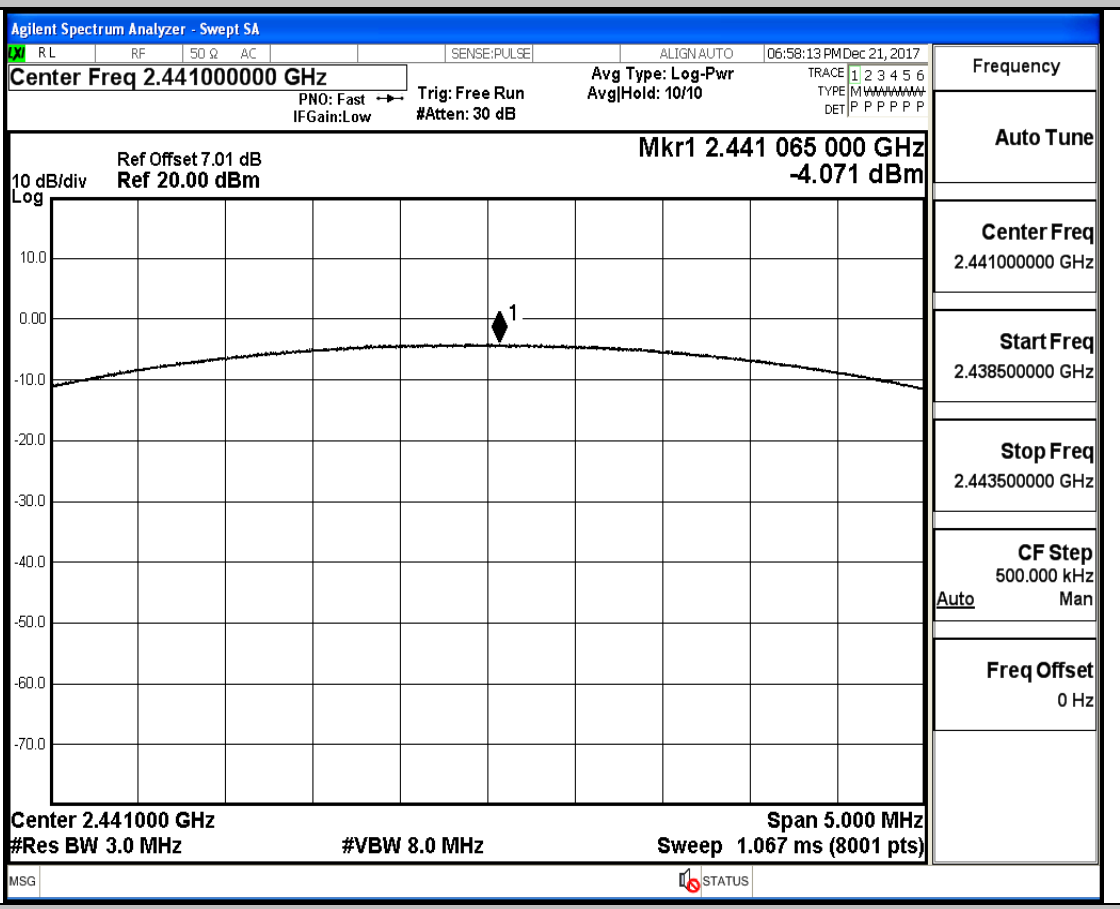
Conducted Peak Output Power_DH5_2480



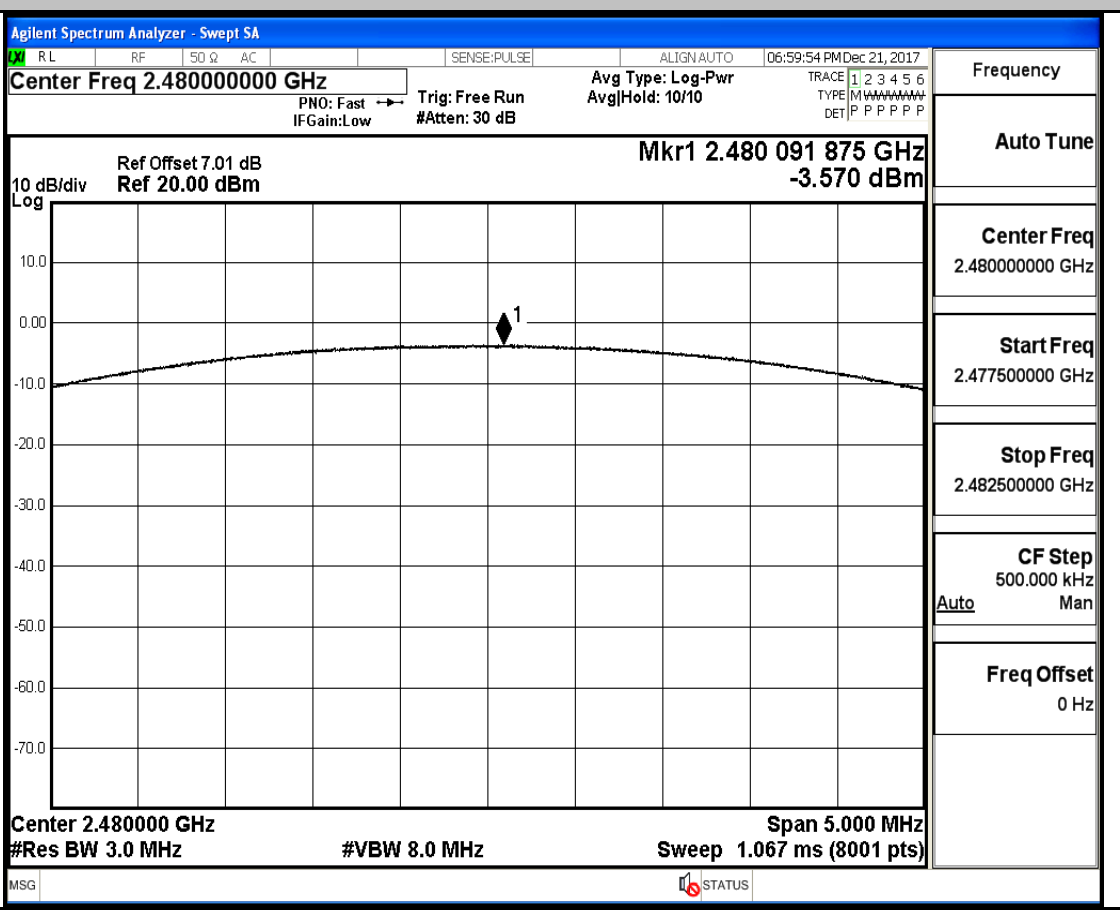

Conducted Peak Output Power_2DH5_2402



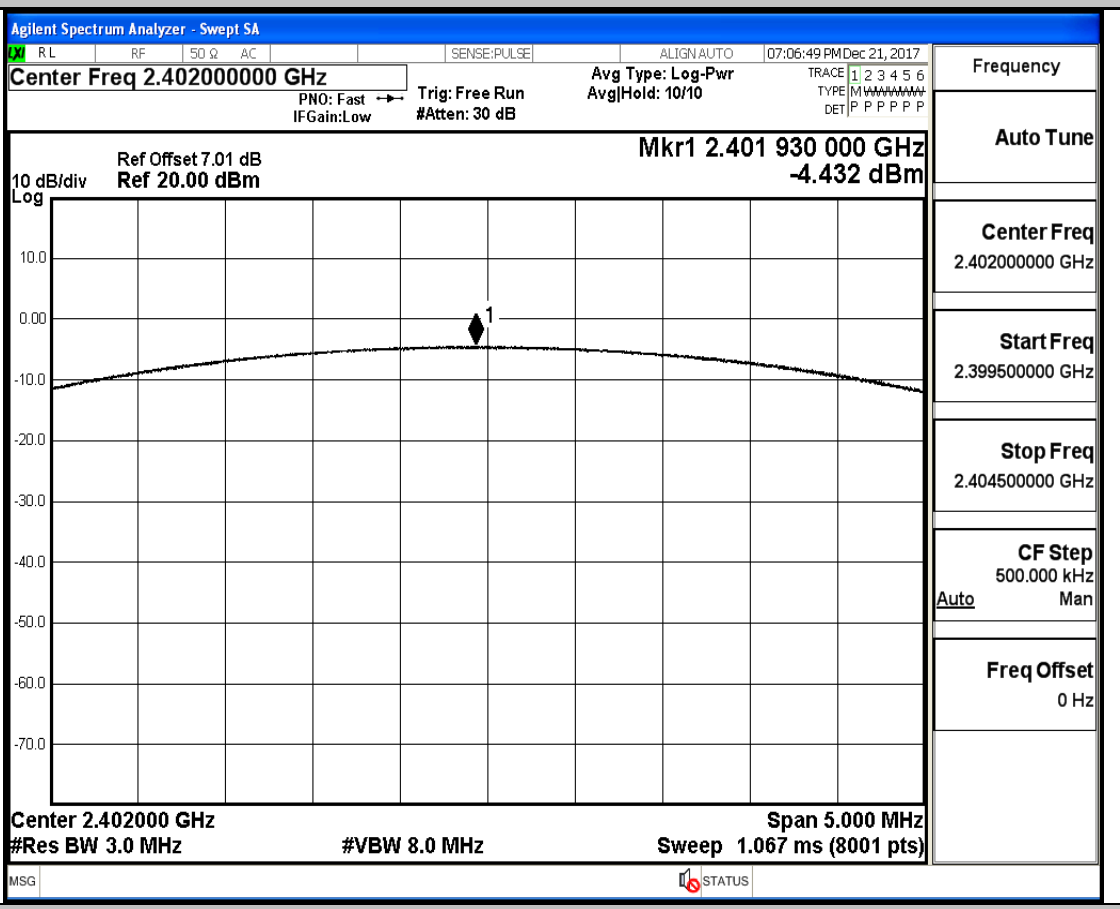
Conducted Peak Output Power_2DH5_2441



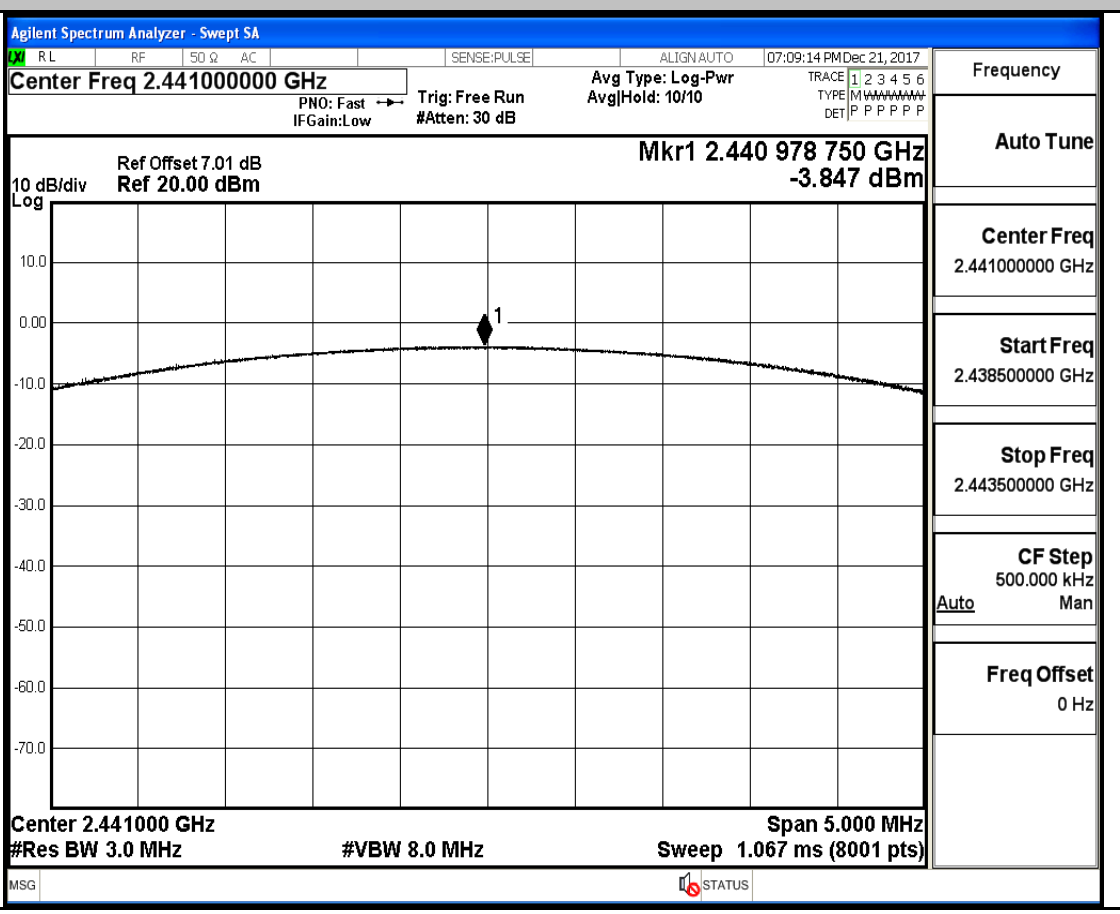

Conducted Peak Output Power_2DH5_2480



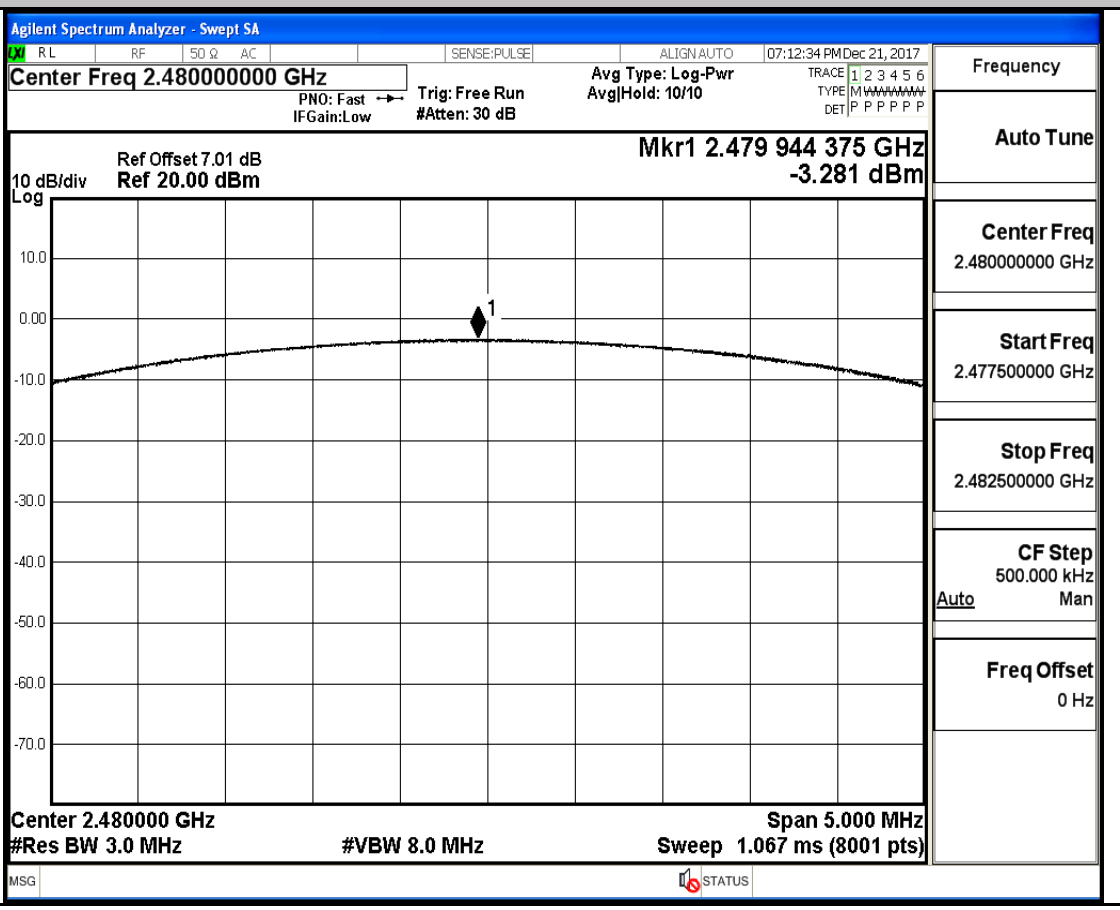
Conducted Peak Output Power_3DH5_2402




Conducted Peak Output Power_3DH5_2441



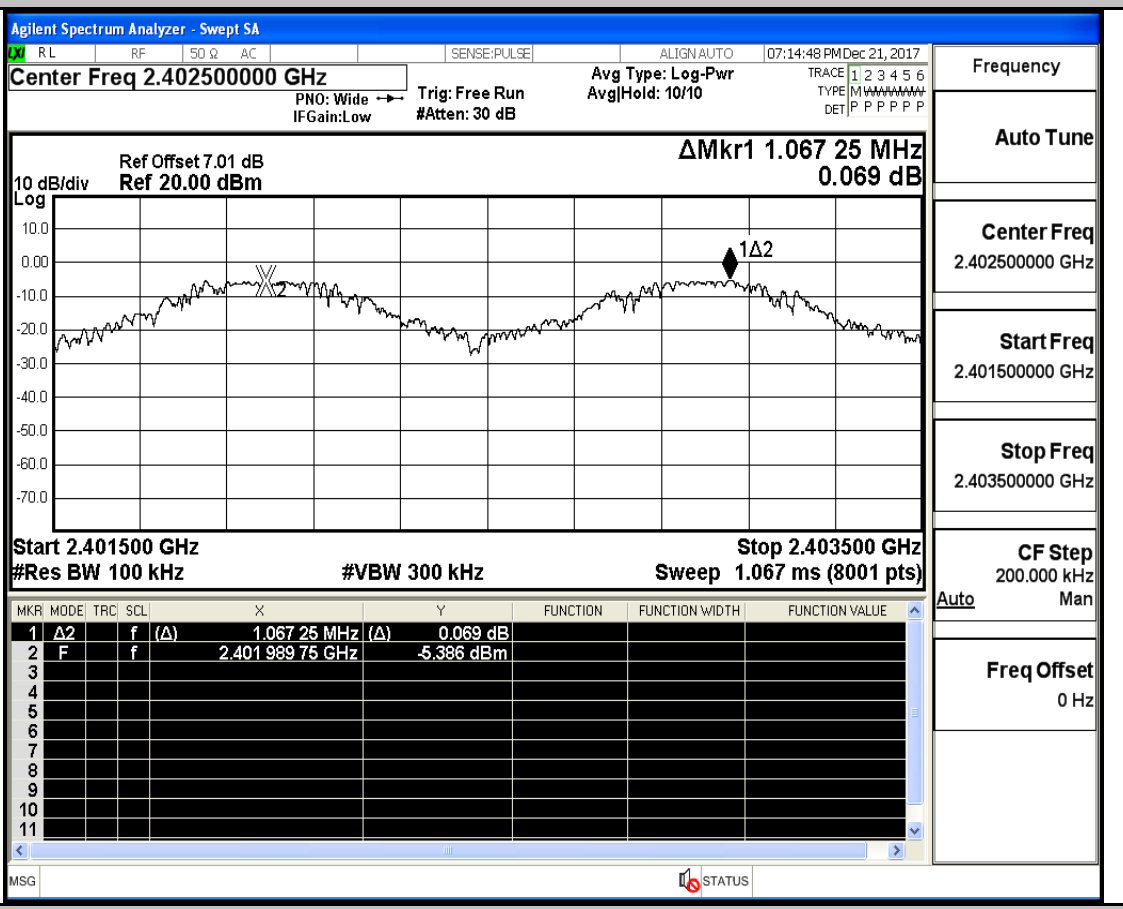
Conducted Peak Output Power_3DH5_2480



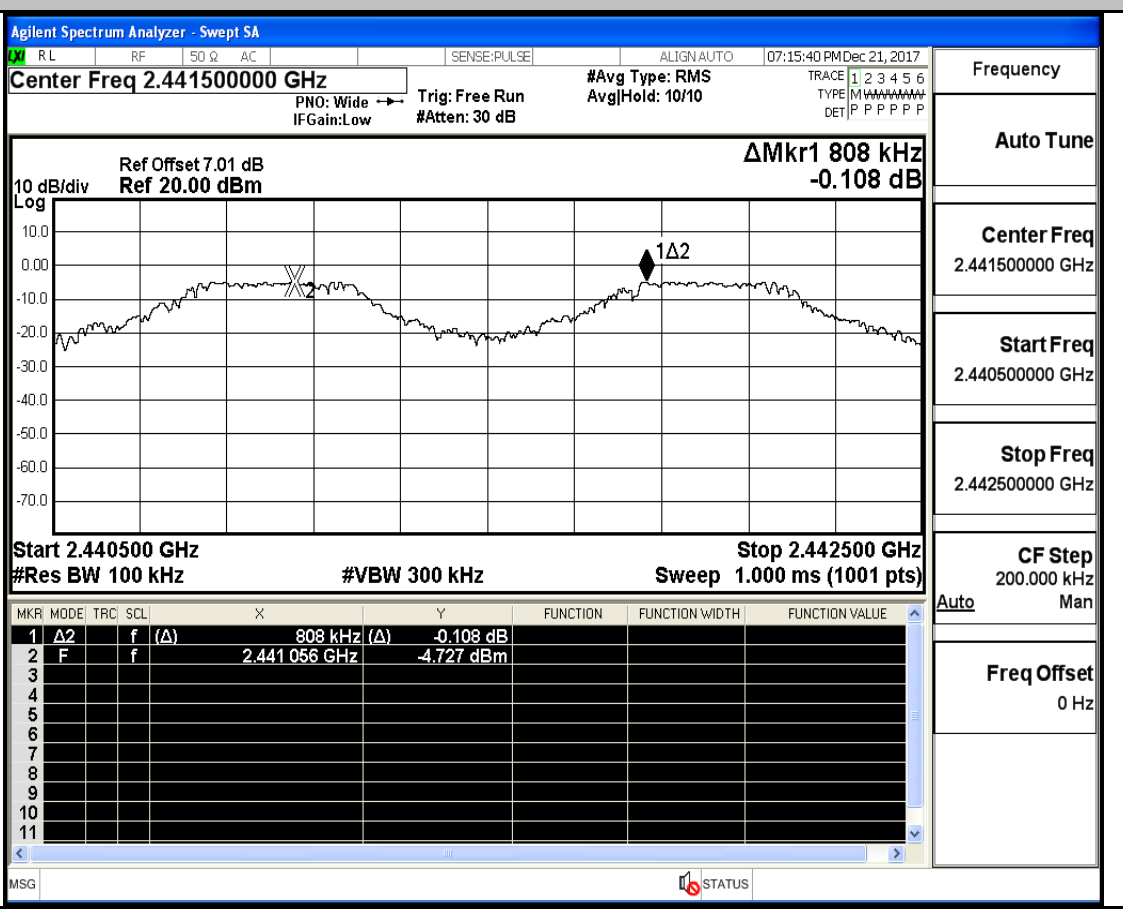
### A.3.Carrier Frequency Separation

| Test Mode | Test Channel | Result[MHz] | Limit[MHz] | Verdict |
|---|---|---|---|---|
| DH5 | 2402 | 1.067 | 0.97 | PASS |
| DH5 | 2441 | 0.808 | 0.65 | PASS |
| DH5 | 2480 | 1.198 | 1.03 | PASS |
| 2DH5 | 2402 | 0.998 | 0.86 | PASS |
| 2DH5 | 2441 | 0.962 | 0.86 | PASS |
| 2DH5 | 2480 | 1.030 | 0.86 | PASS |
| 3DH5 | 2402 | 0.962 | 0.86 | PASS |
| 3DH5 | 2441 | 1.260 | 0.86 | PASS |
| 3DH5 | 2480 | 0.894 | 0.86 | PASS |

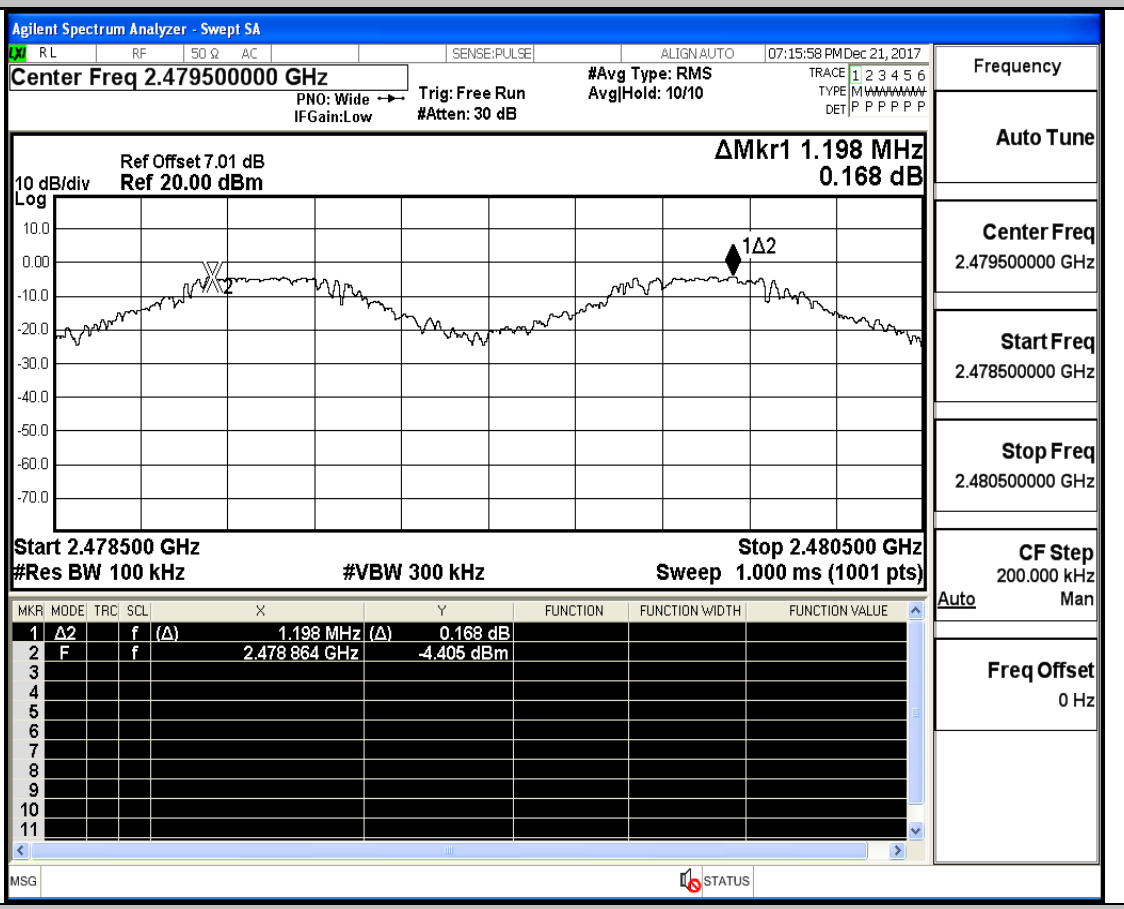
Carrier Frequency Separation_DH5_2402



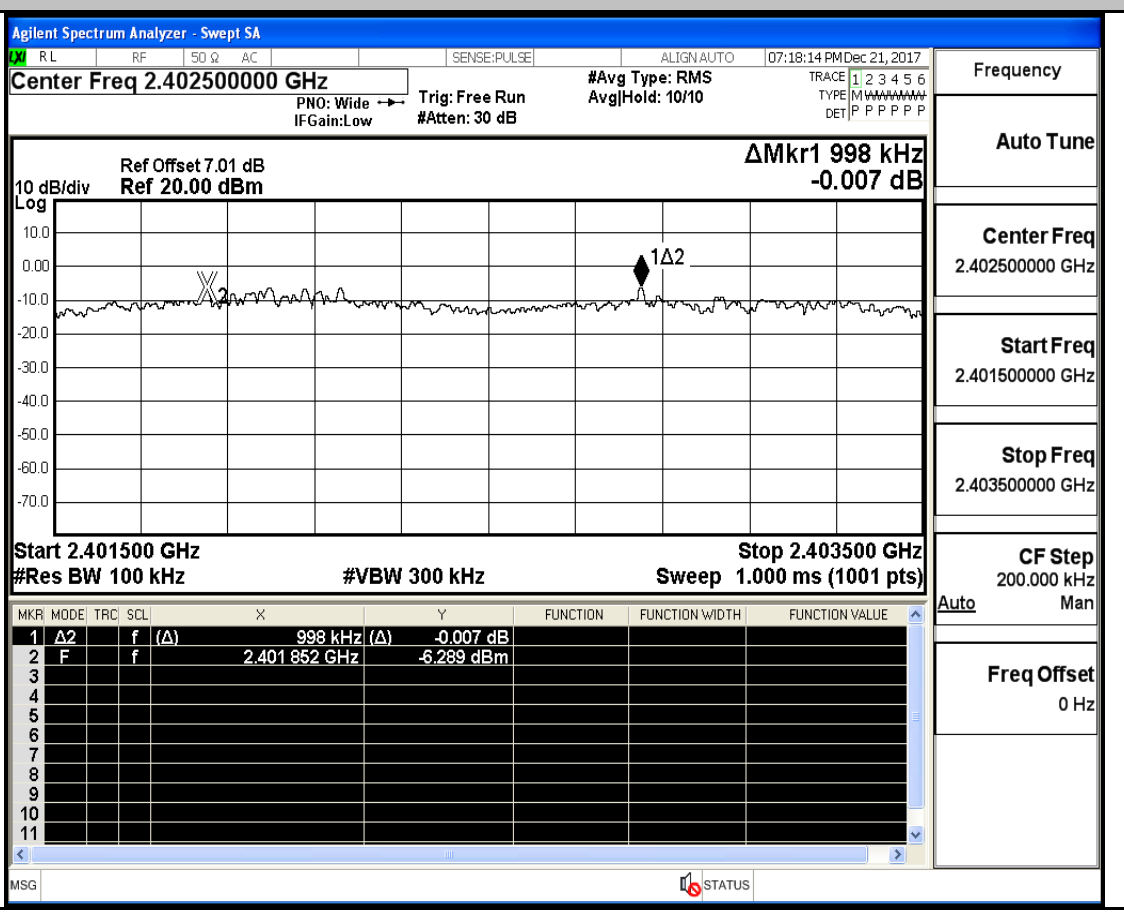

Carrier Frequency Separation_DH5_2441



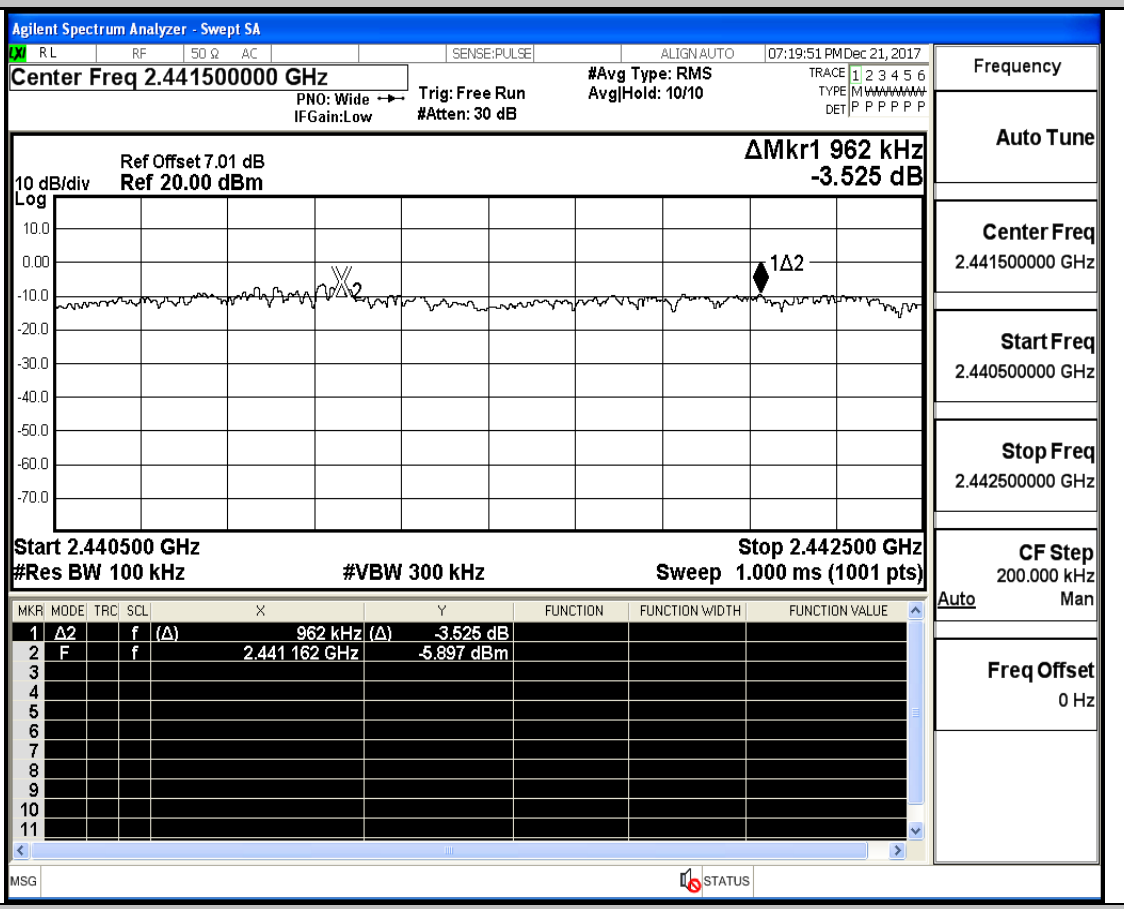
Carrier Frequency Separation_DH5_2480



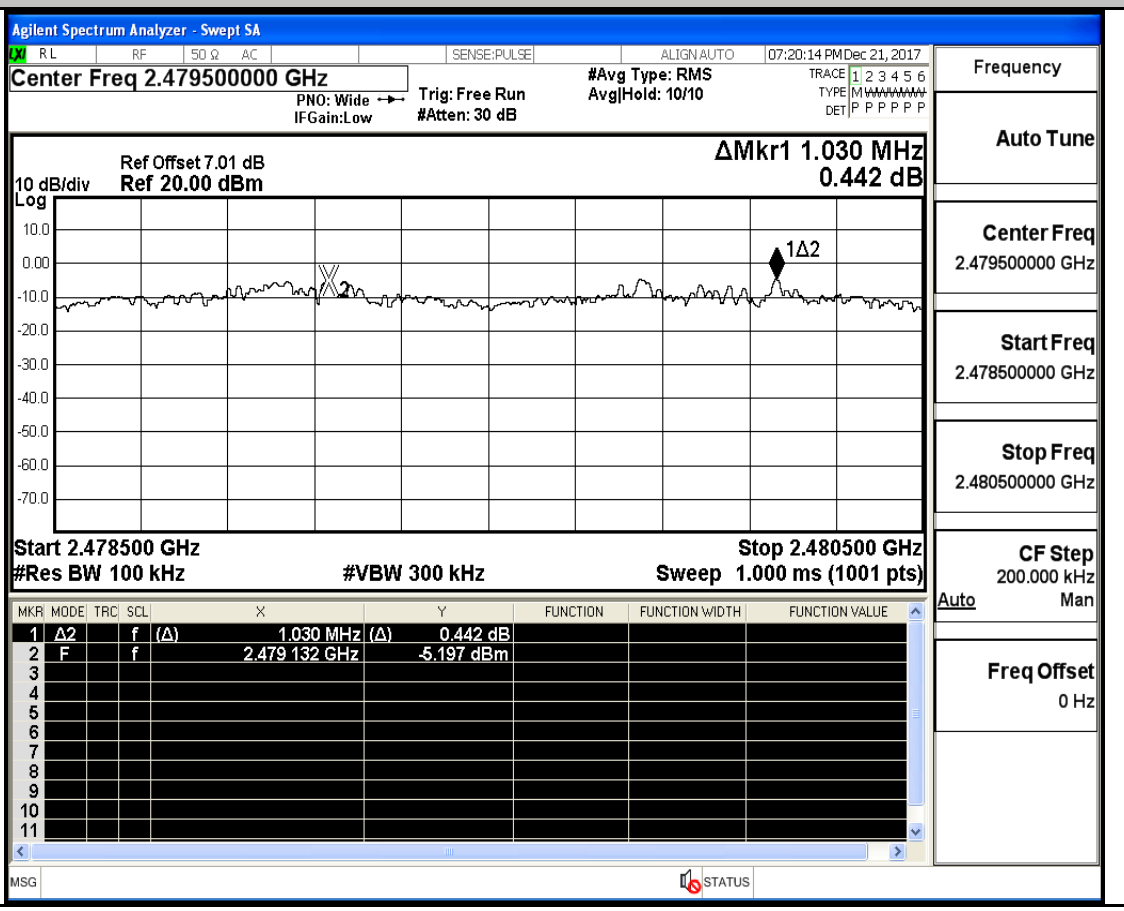

Carrier Frequency Separation_2DH5_2402



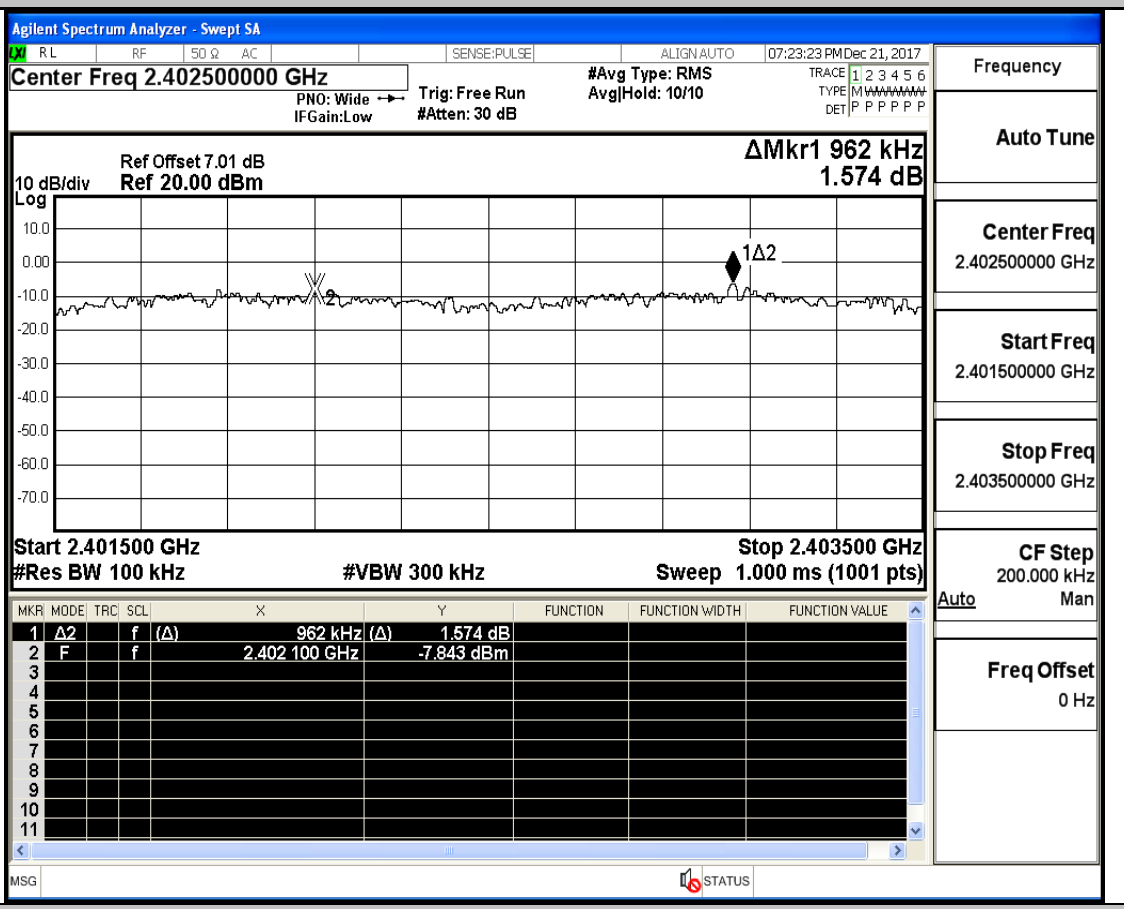
Carrier Frequency Separation_2DH5_2441



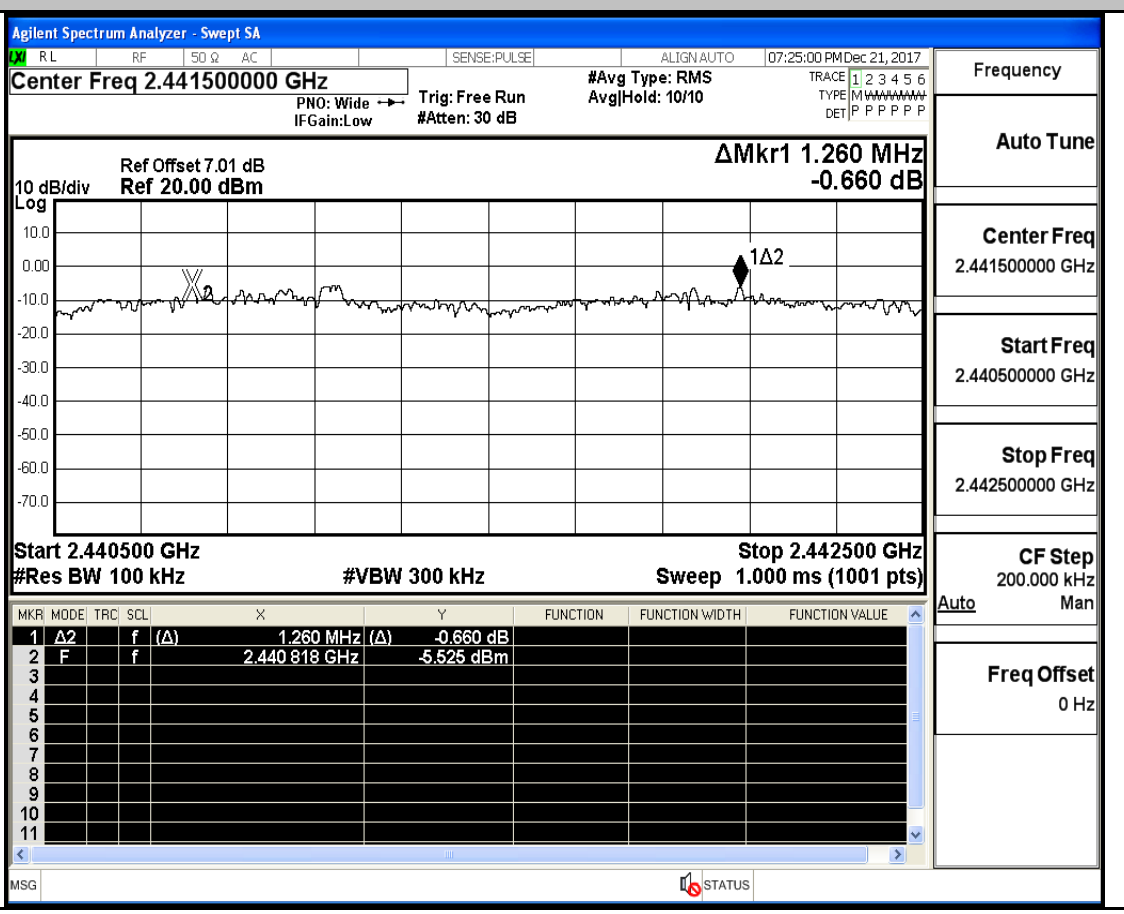

Carrier Frequency Separation_2DH5_2480



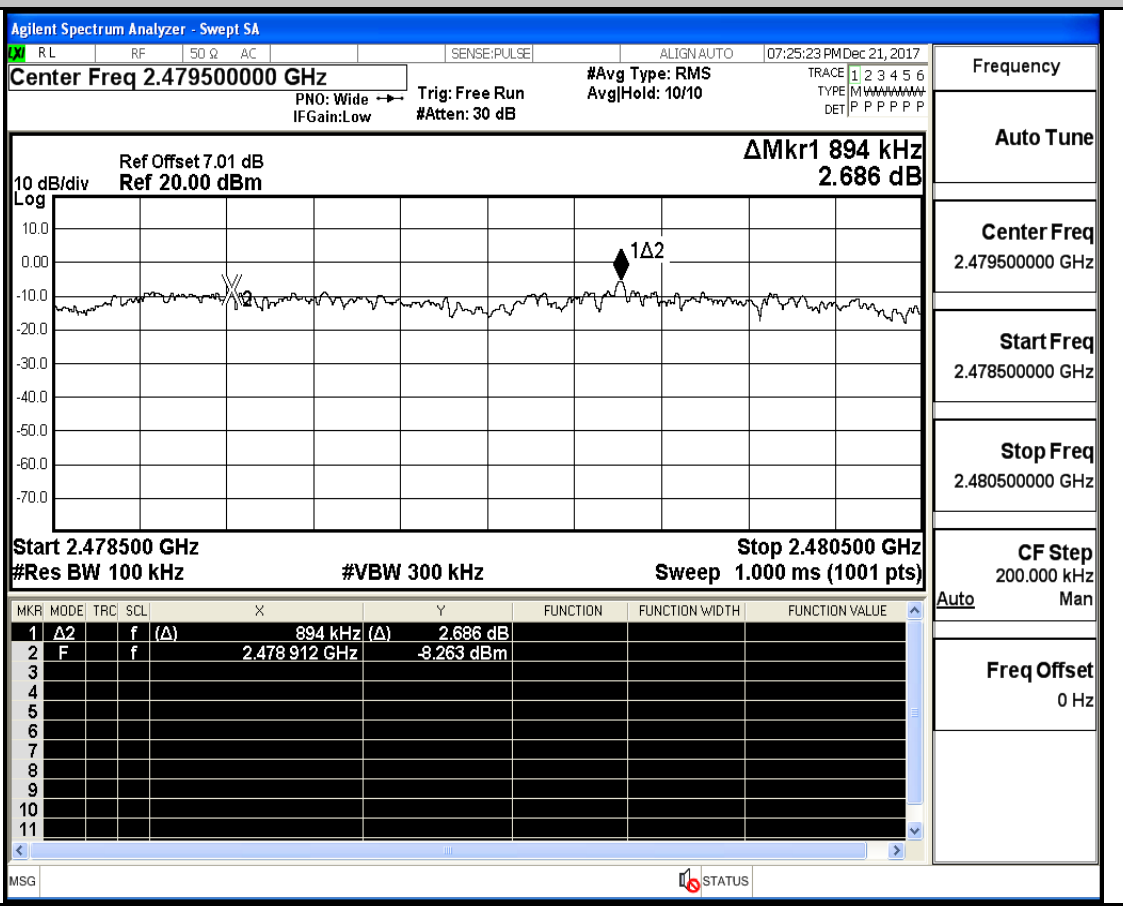
Carrier Frequency Separation_3DH5_2402




Carrier Frequency Separation_3DH5_2441



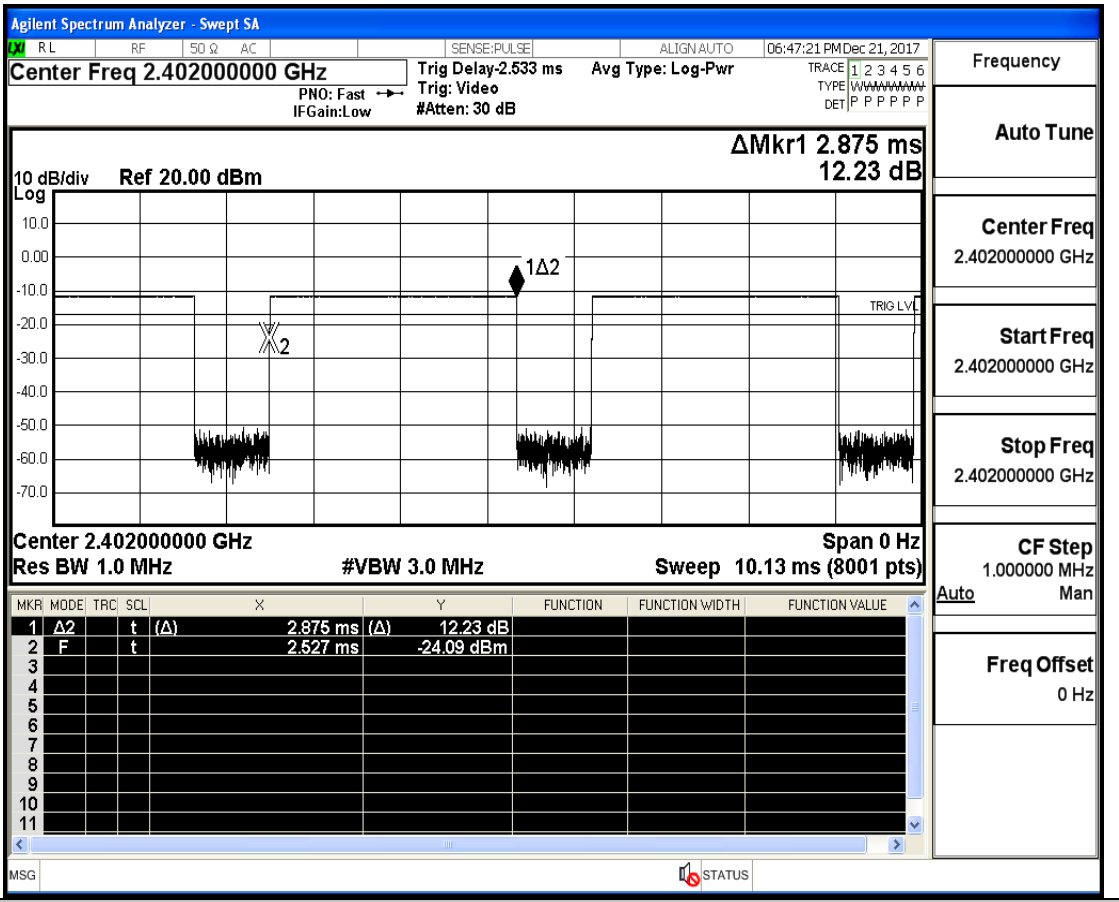
Carrier Frequency Separation_3DH5_2480



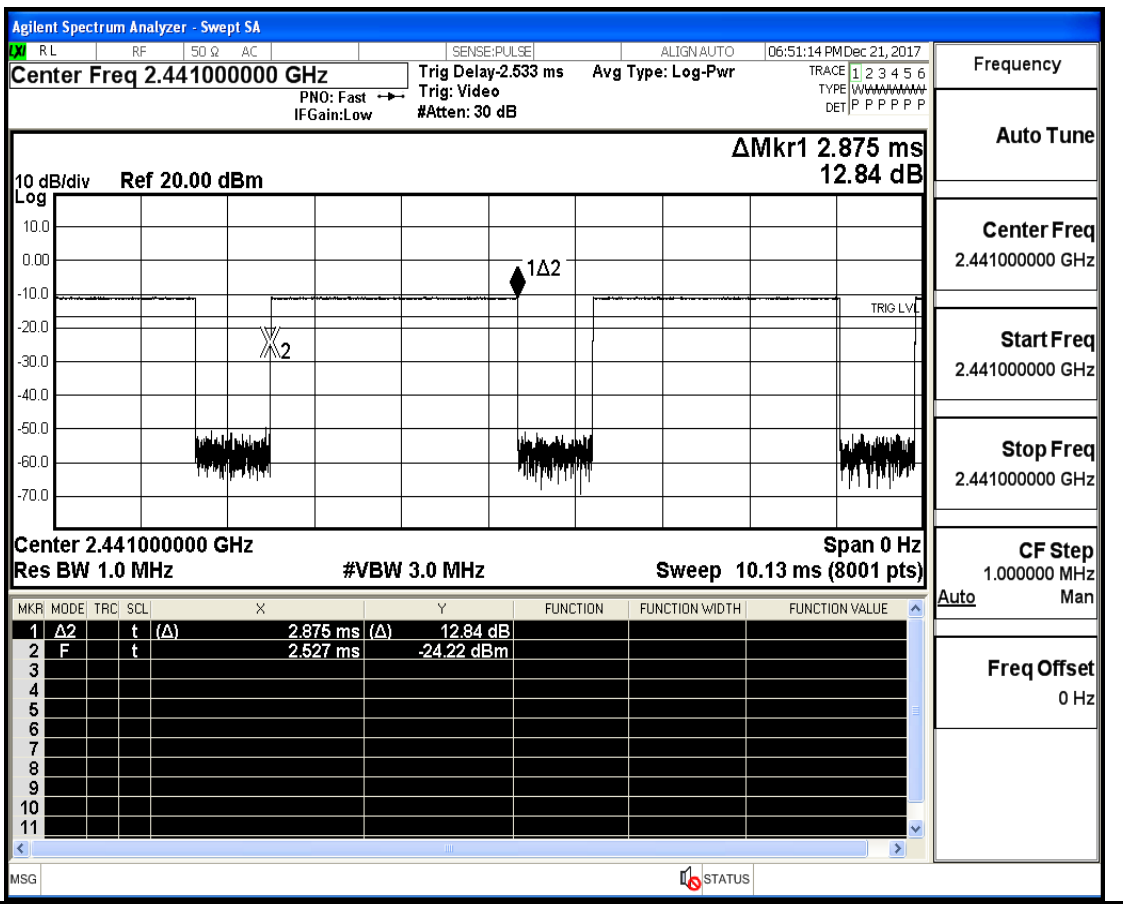
**A.4.Dwell Time**

| Test Mode | Test Channel | Burst Width[ms/hop/ch] | Total Hops[hop*ch] | Dwell Time[s] | Limit[s] | Verdict |
|---|---|---|---|---|---|---|
| DH5 | 2402 | 2.88 | 106.7 | 0.307 | 0.4 | PASS |
| DH5 | 2441 | 2.88 | 106.7 | 0.307 | 0.4 | PASS |
| DH5 | 2480 | 2.87 | 106.7 | 0.306 | 0.4 | PASS |
| 2DH5 | 2402 | 2.88 | 106.7 | 0.307 | 0.4 | PASS |
| 2DH5 | 2441 | 2.88 | 106.7 | 0.307 | 0.4 | PASS |
| 2DH5 | 2480 | 2.88 | 106.7 | 0.307 | 0.4 | PASS |
| 3DH5 | 2402 | 2.88 | 106.7 | 0.307 | 0.4 | PASS |
| 3DH5 | 2441 | 2.88 | 106.7 | 0.307 | 0.4 | PASS |
| 3DH5 | 2480 | 2.88 | 106.7 | 0.307 | 0.4 | PASS |

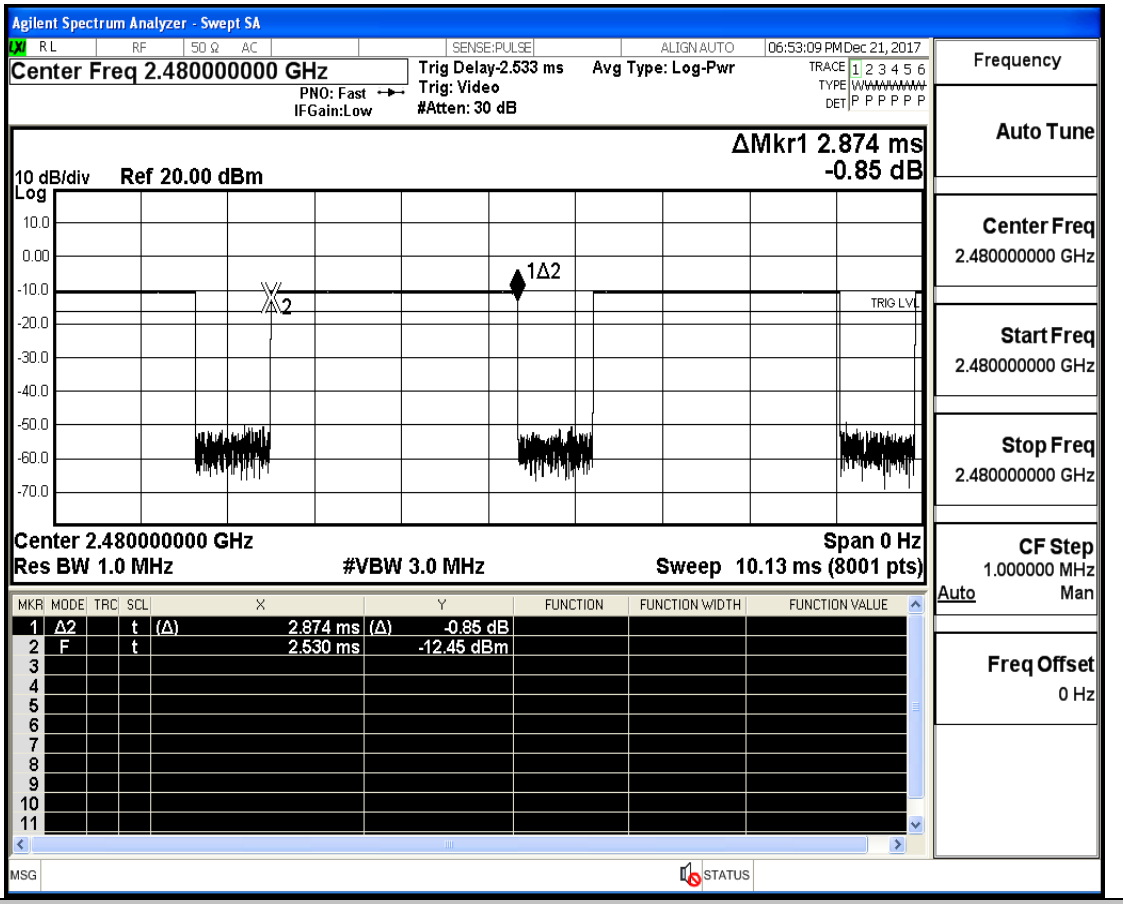
Dwell Time_DH5_2402



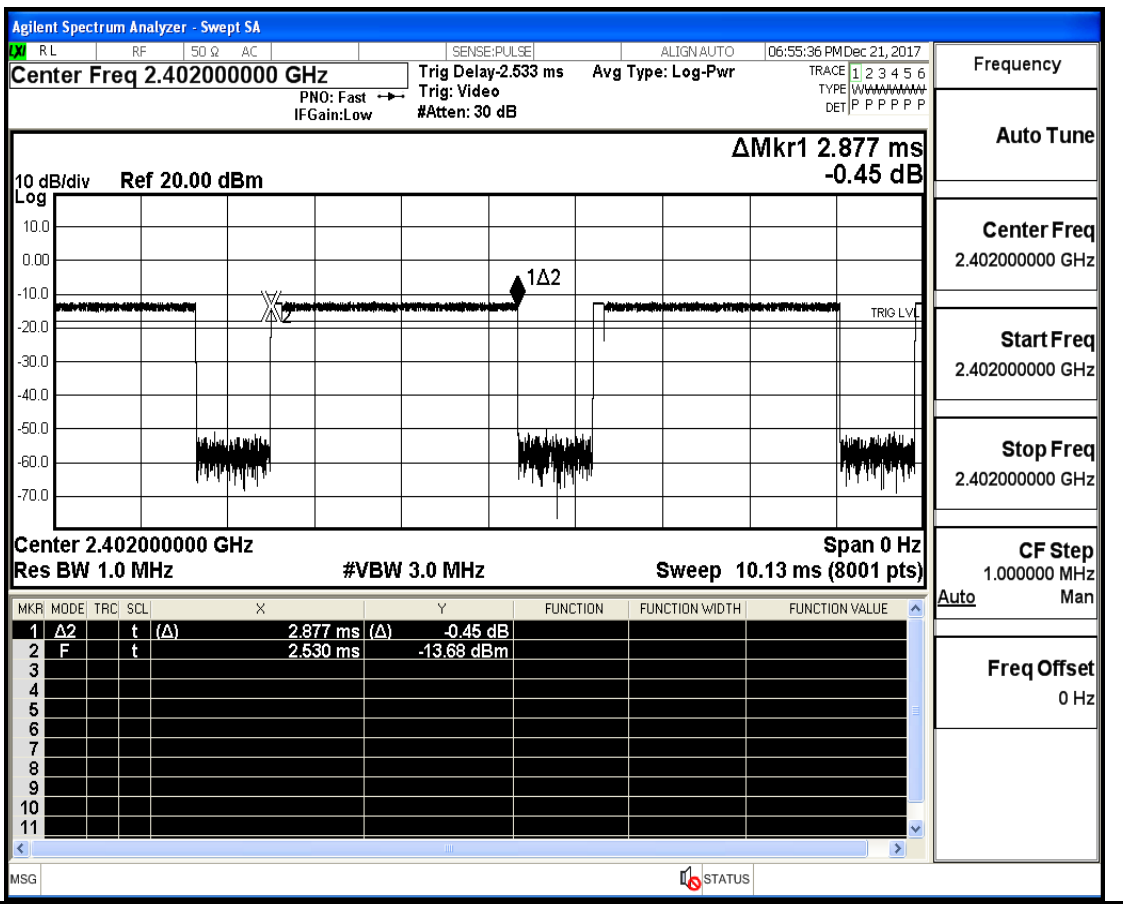

Dwell Time_DH5_2441



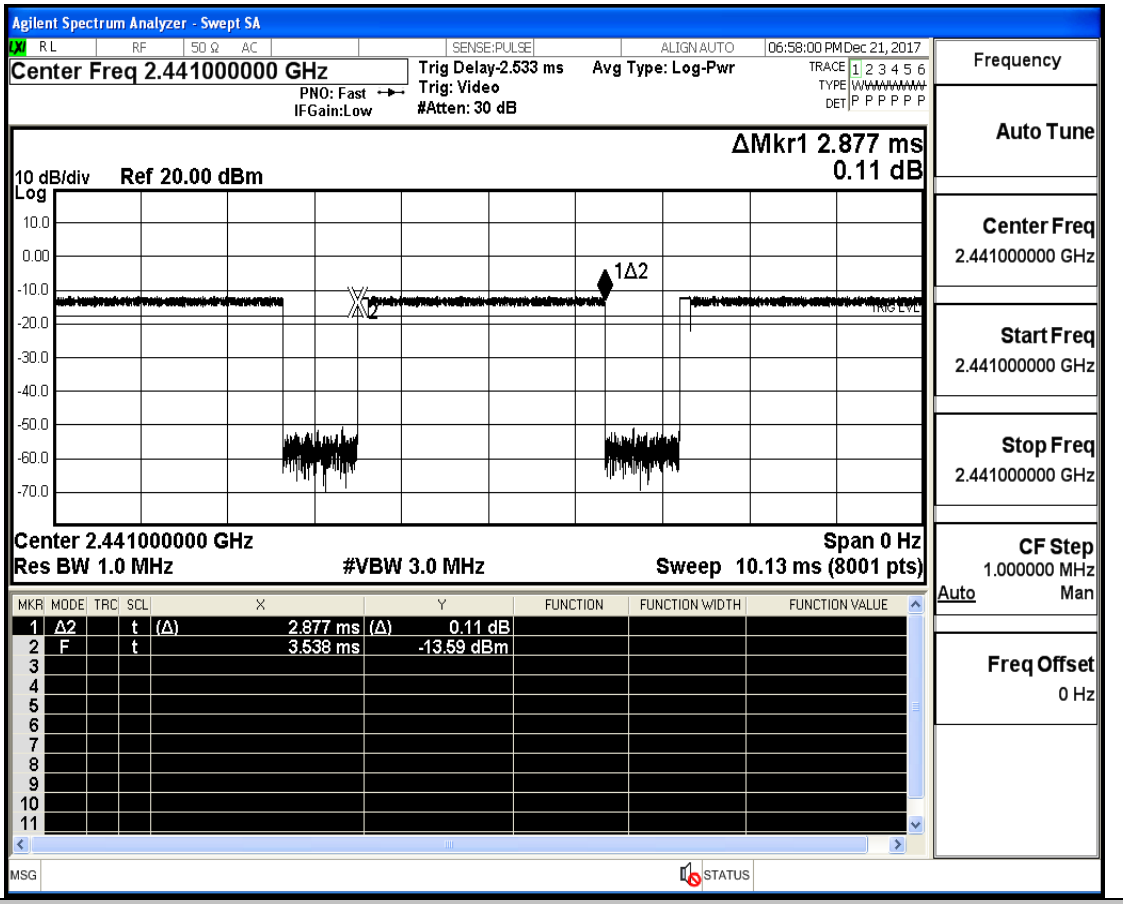
Dwell Time_DH5_2480



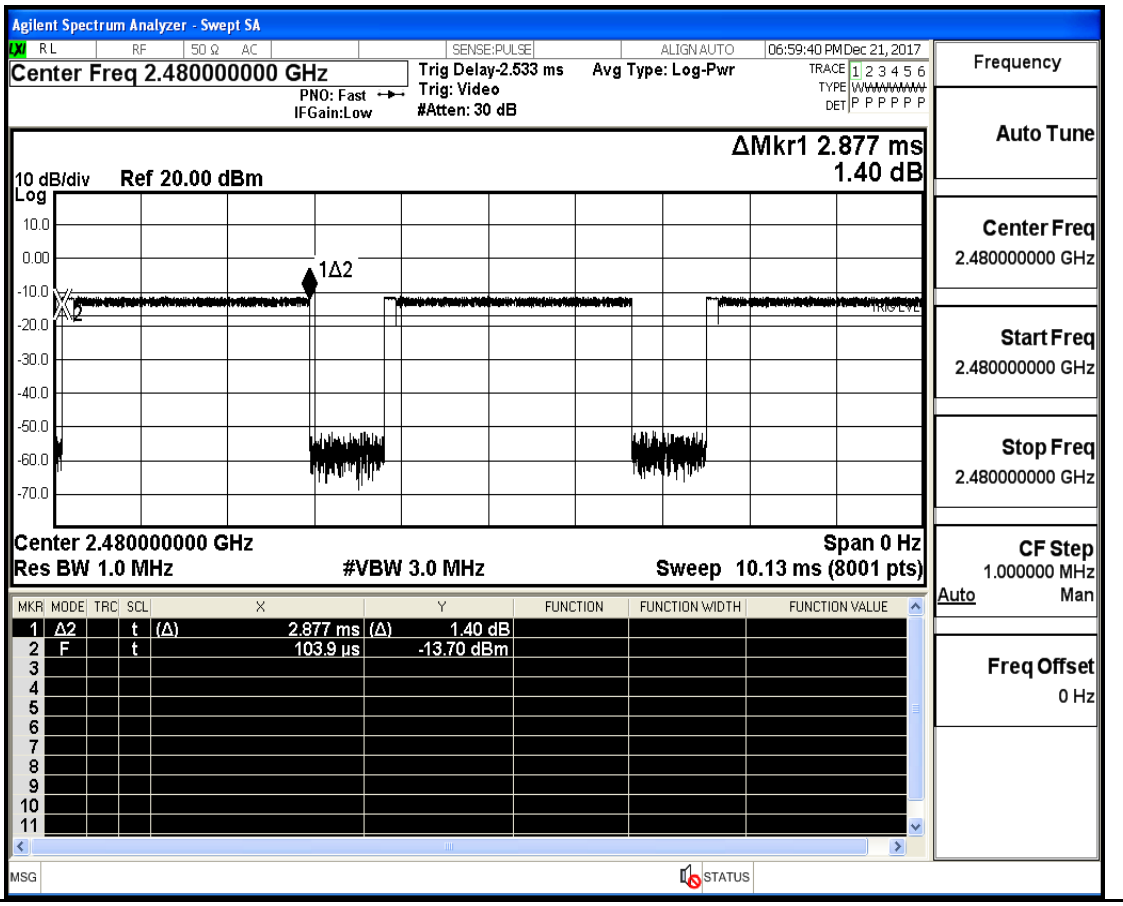

Dwell Time_2DH5_2402



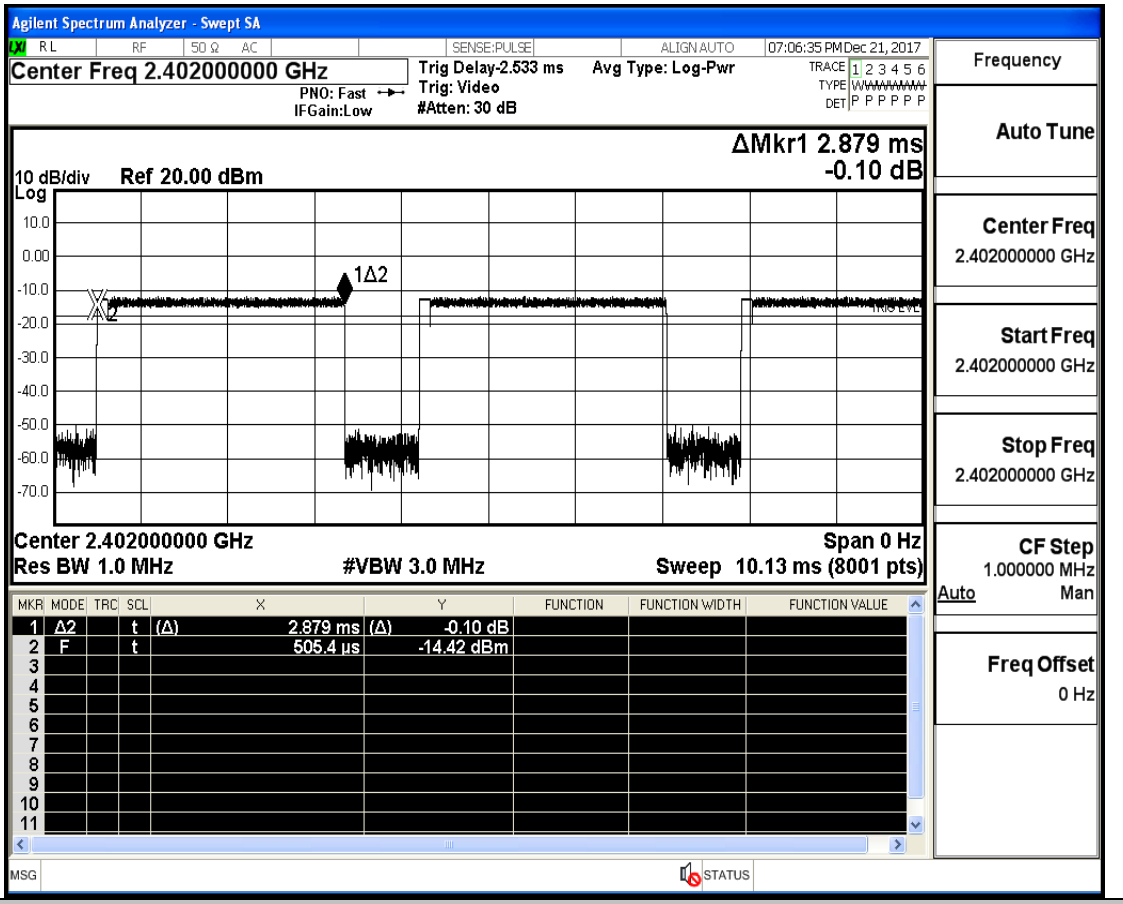
Dwell Time_2DH5_2441



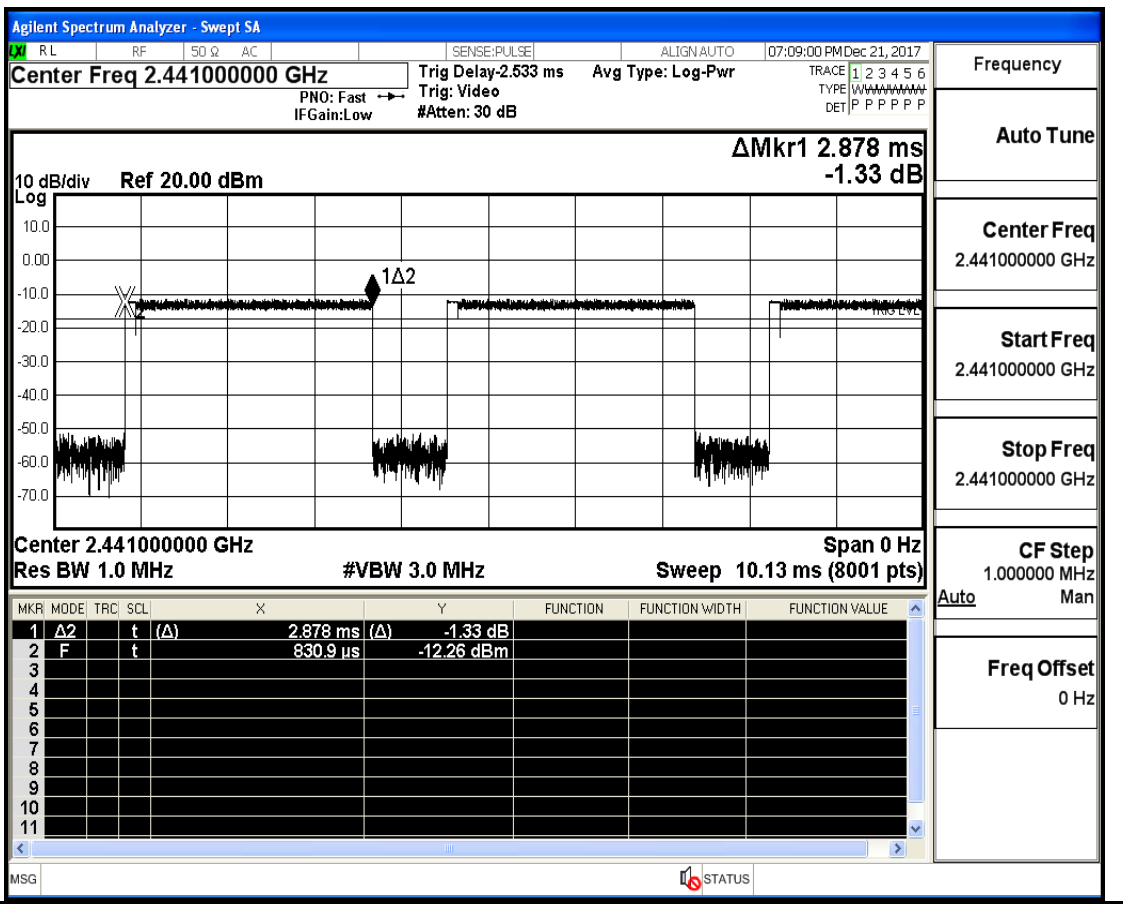

Dwell Time_2DH5_2480



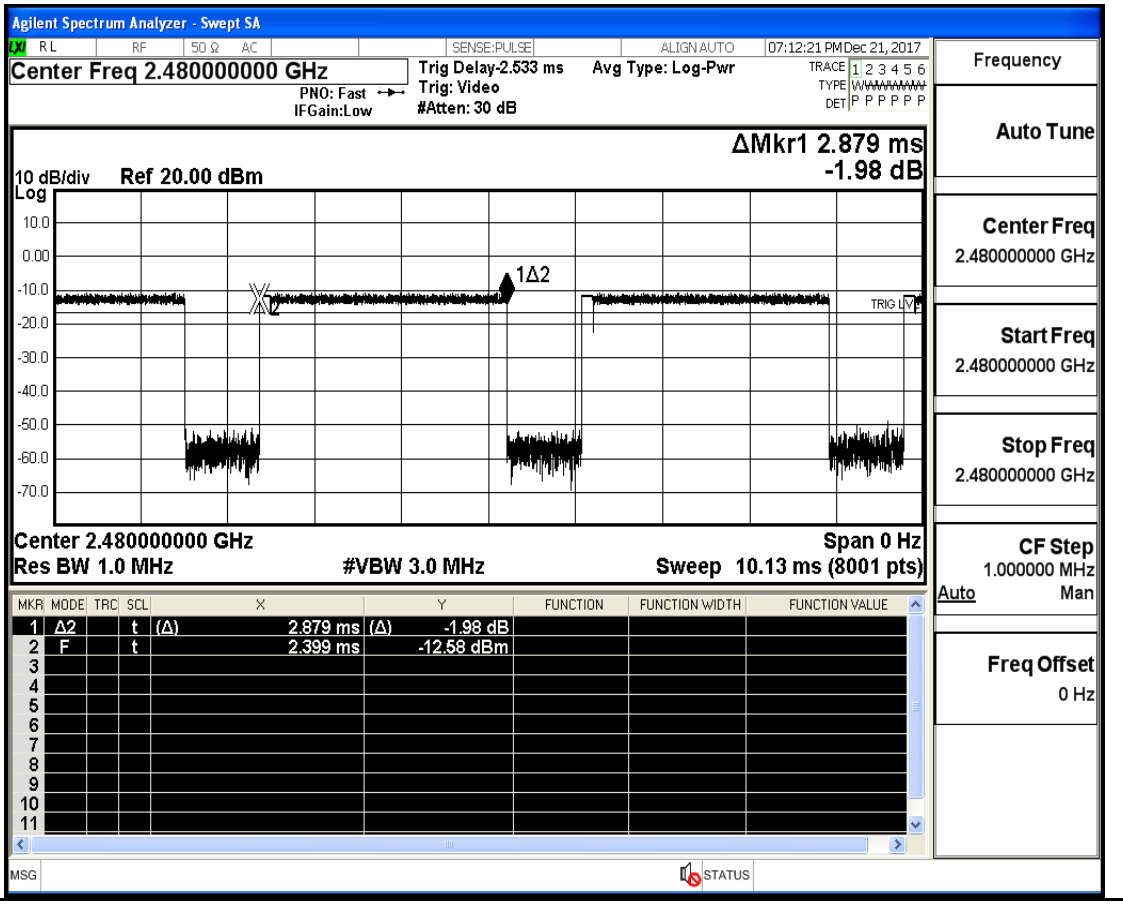
Dwell Time_3DH5_2402




Dwell Time_3DH5_2441



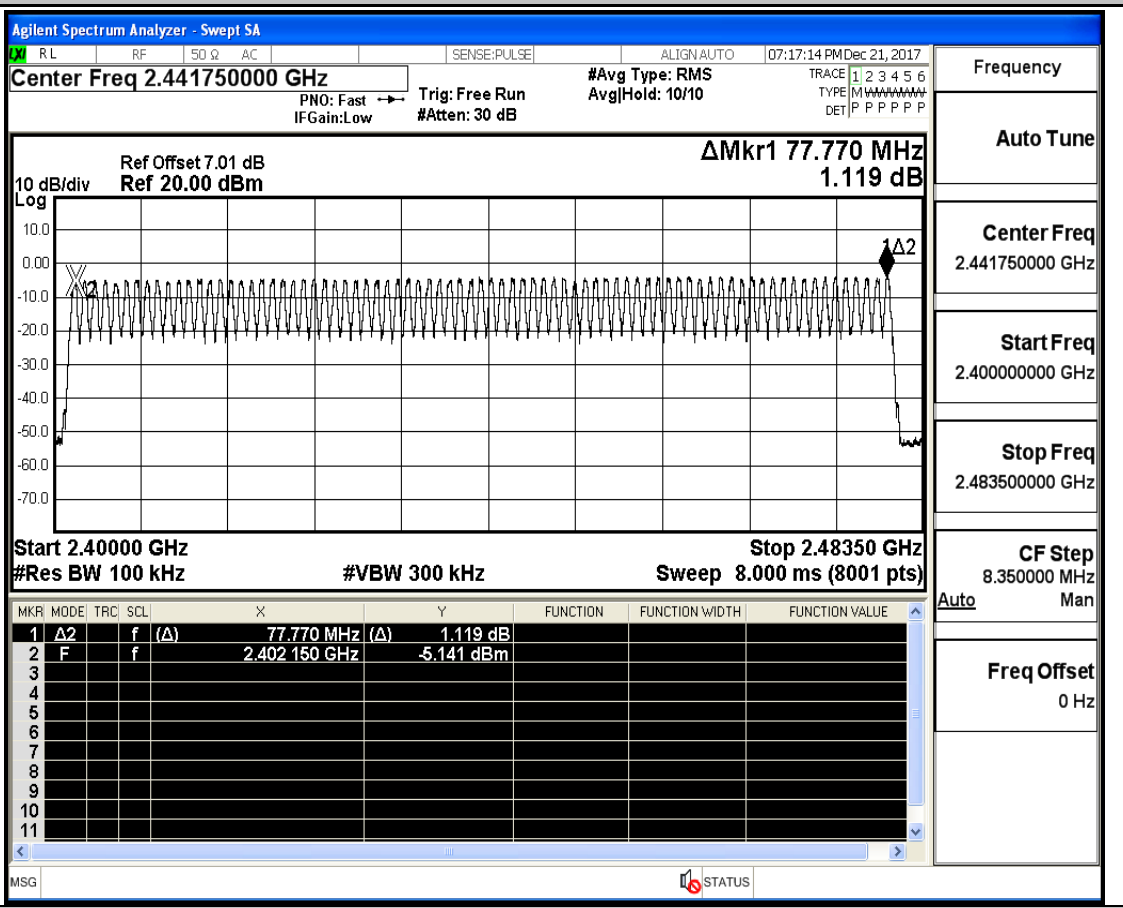
Dwell Time_3DH5_2480



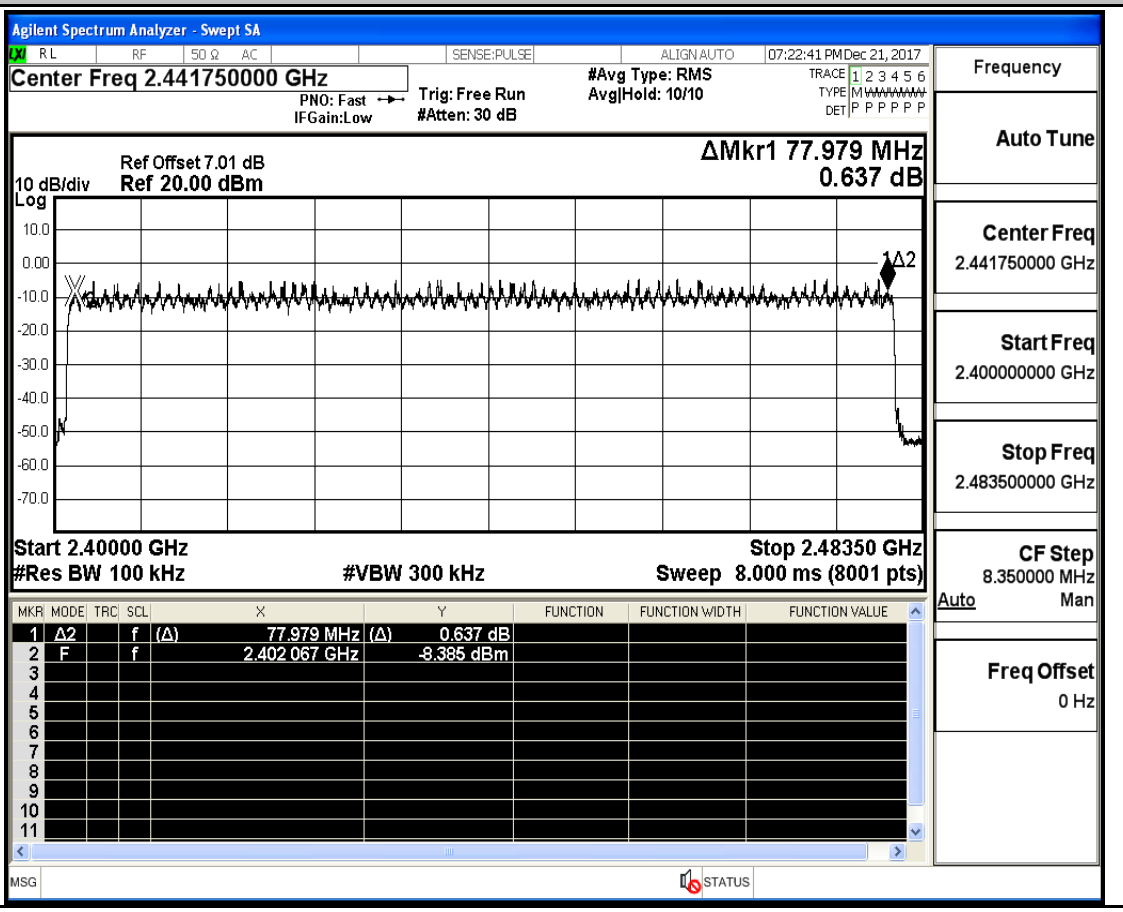
**A.5.Hopping Channel Number**

| Test Mode | Test Channel | Number of Hopping Channel[N] | Limit[N] | Verdict |
|---|---|---|---|---|
| DH5 | 2402 | 79 | >=15 | PASS |
| 2DH5 | 2402 | 79 | >=15 | PASS |
| 3DH5 | 2402 | 79 | >=15 | PASS |

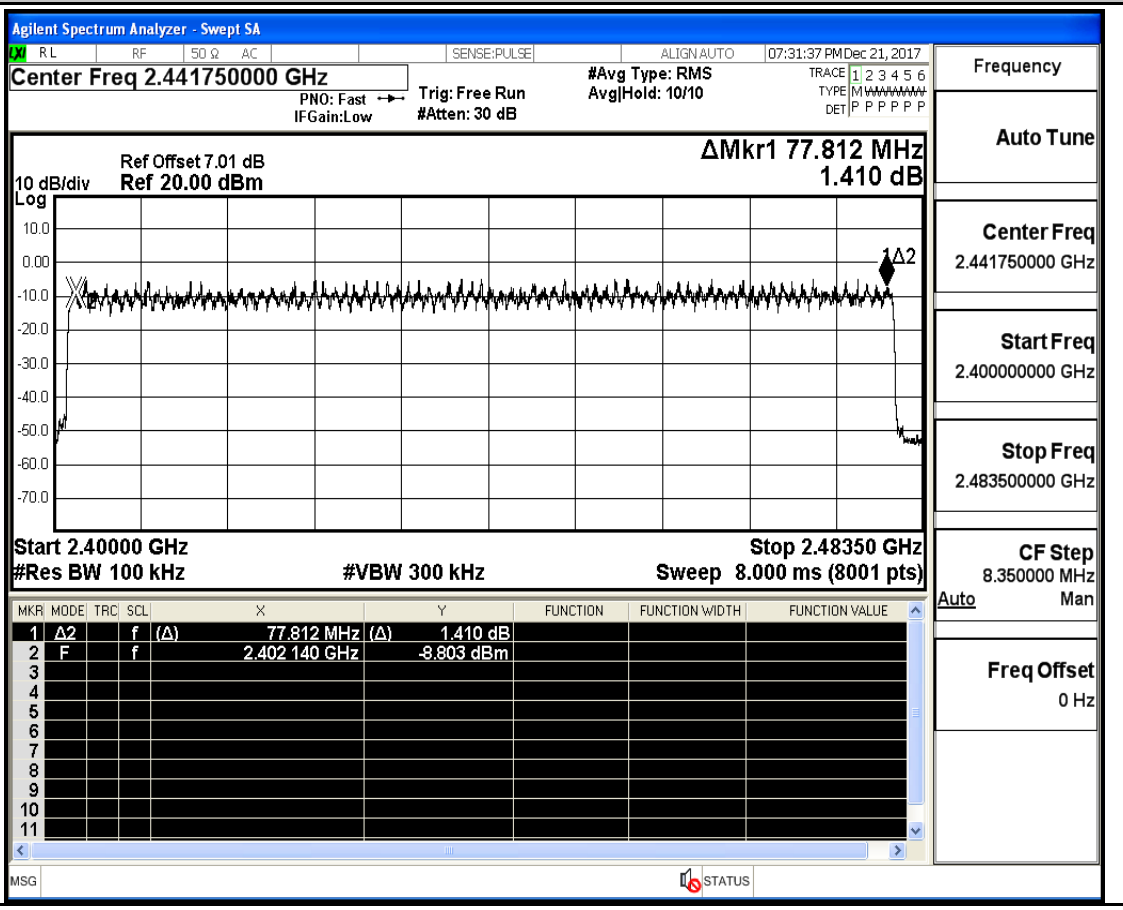
Hopping Channel Number_DH5_2402




Hopping Channel Number_2DH5_2402



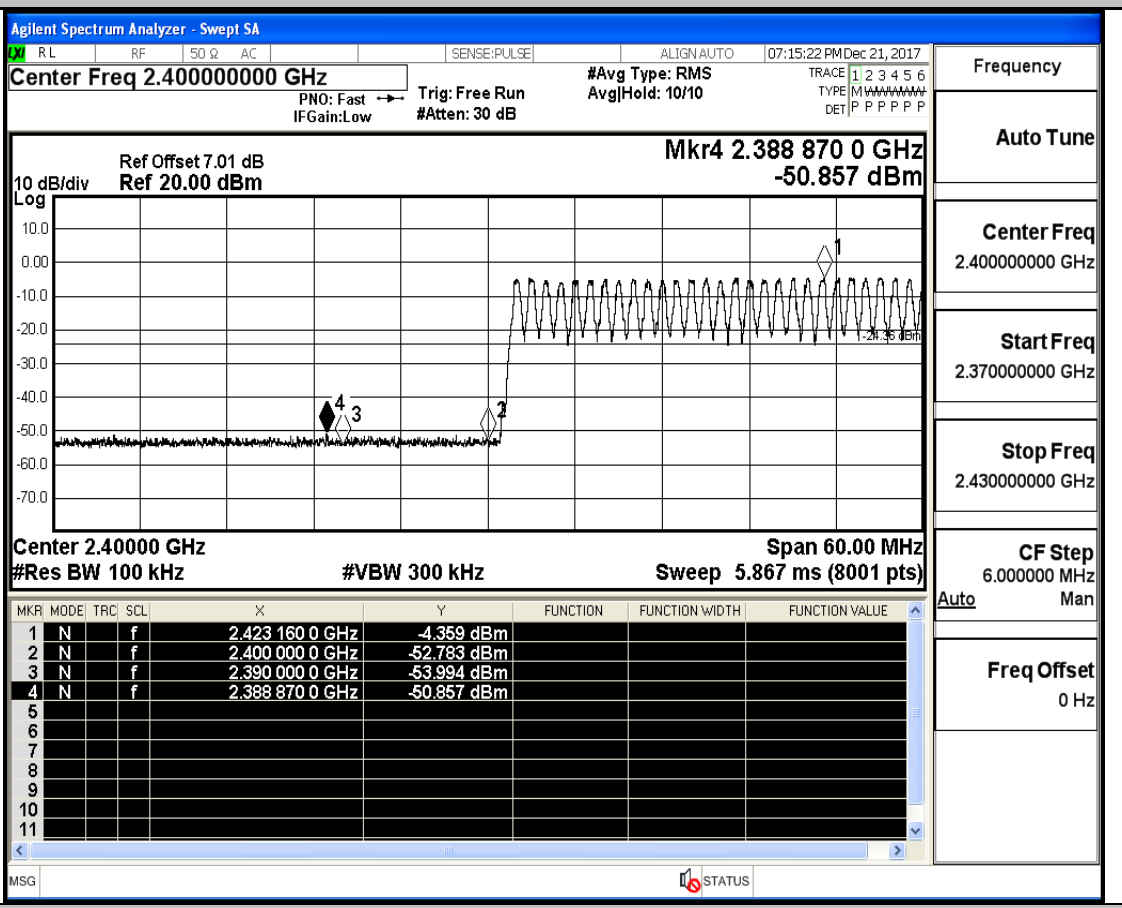
Hopping Channel Number_3DH5_2402



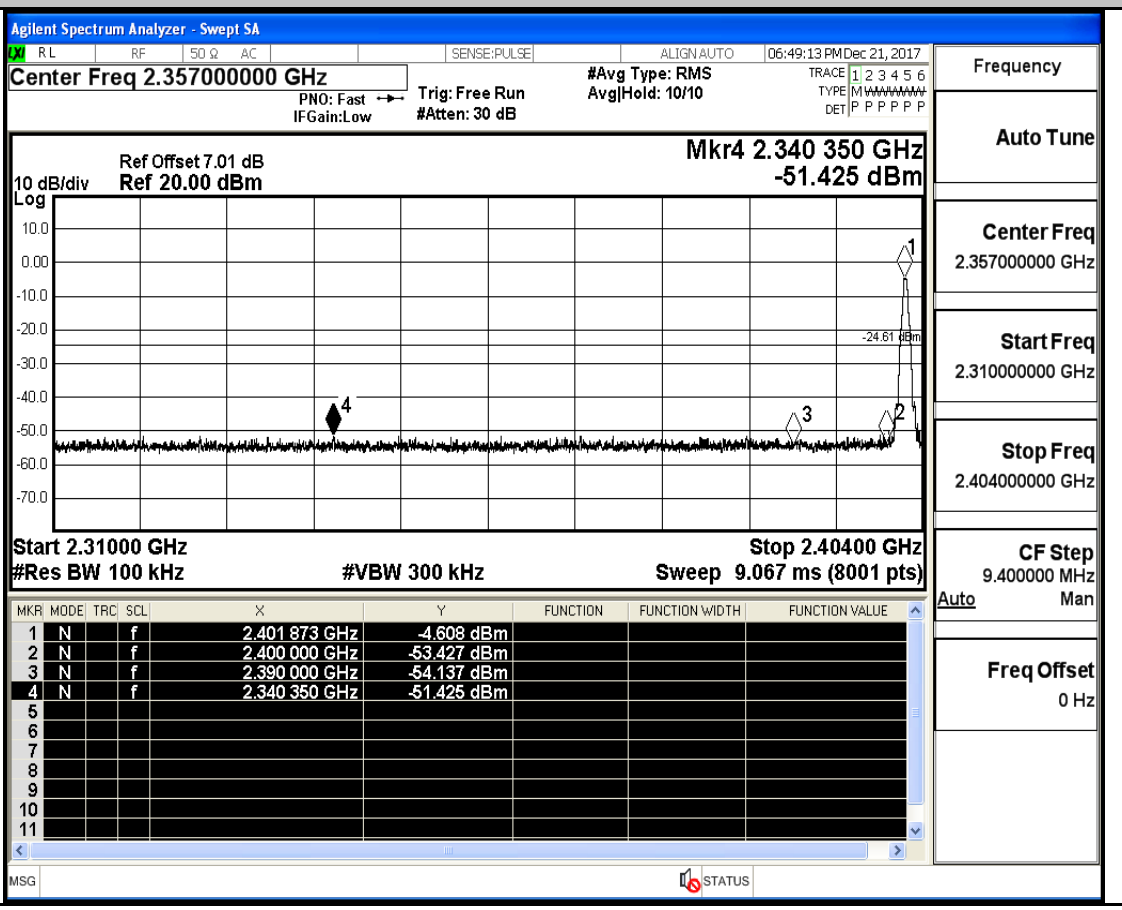
**A.6.Band-edge for RF Conducted Emissions**

| Test Mode | Test Channel | Hopping | Carrier Power[dBm] | Max. Spurious Level [dBm] | Limit[dBm] | Verdict |
|---|---|---|---|---|---|---|
| DH5 | 2402 | On | -4.359 | -50.857 | -24.36 | PASS |
| DH5 | 2402 | Off | -4.608 | -51.425 | -24.61 | PASS |
| DH5 | 2480 | On | -3.760 | -50.468 | -23.76 | PASS |
| DH5 | 2480 | Off | -3.520 | -50.860 | -23.52 | PASS |
| 2DH5 | 2402 | On | -5.253 | -50.723 | -25.25 | PASS |
| 2DH5 | 2402 | Off | -6.047 | -50.502 | -26.05 | PASS |
| 2DH5 | 2480 | On | -4.553 | -50.726 | -24.55 | PASS |
| 2DH5 | 2480 | Off | -4.624 | -50.926 | -24.62 | PASS |
| 3DH5 | 2402 | On | -5.185 | -50.801 | -25.19 | PASS |
| 3DH5 | 2402 | Off | -5.689 | -50.160 | -25.69 | PASS |
| 3DH5 | 2480 | On | -4.647 | -50.816 | -24.65 | PASS |
| 3DH5 | 2480 | Off | -4.983 | -50.930 | -24.98 | PASS |

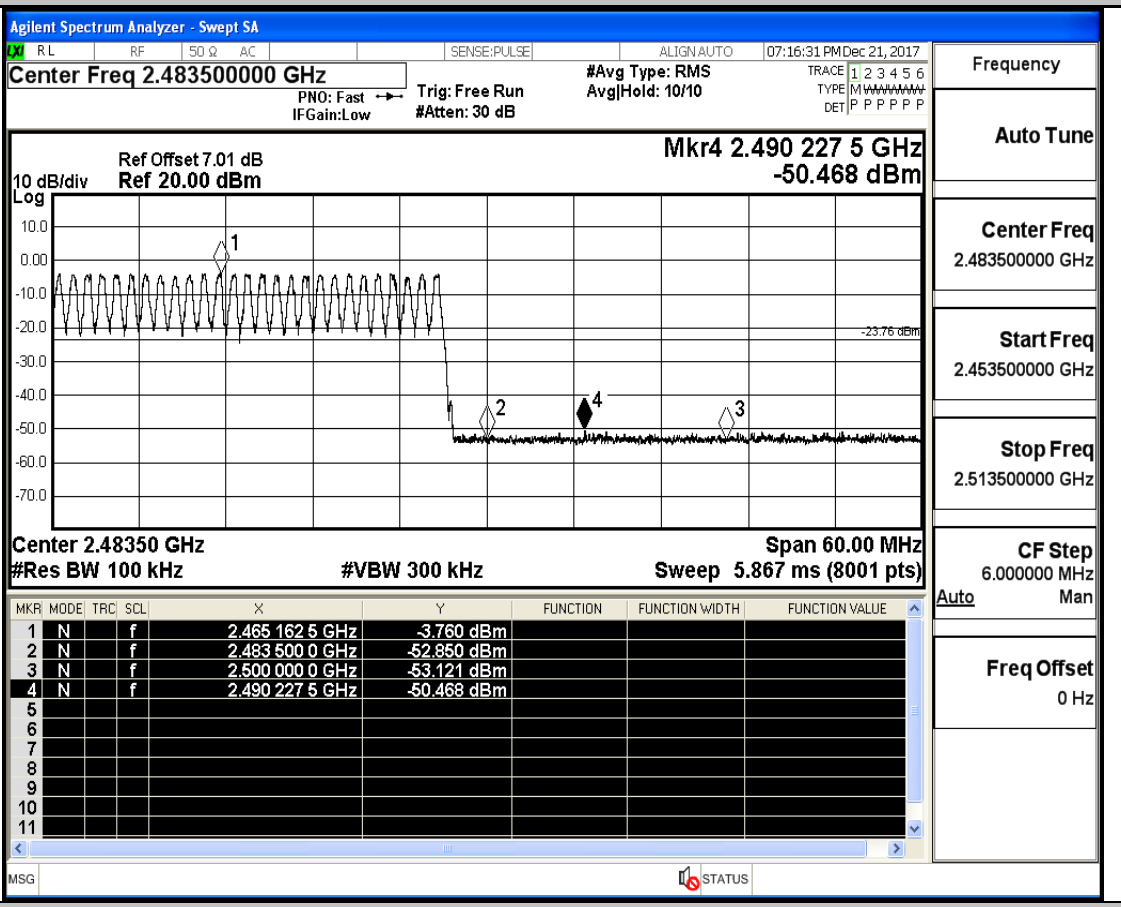
Band-edge for RF Conducted Emissions_DH5_2402_Hopping On



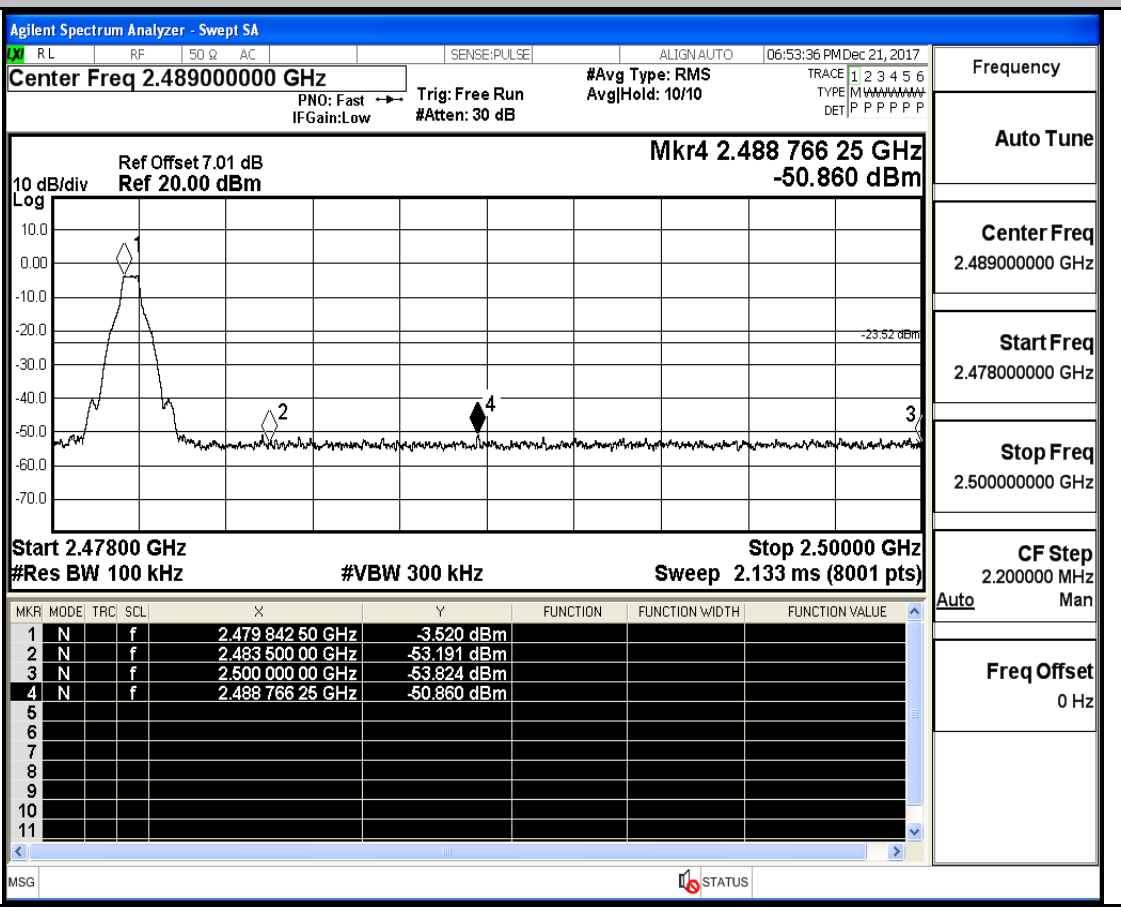

Band-edge for RF Conducted Emissions_DH5_2402_Hopping Off



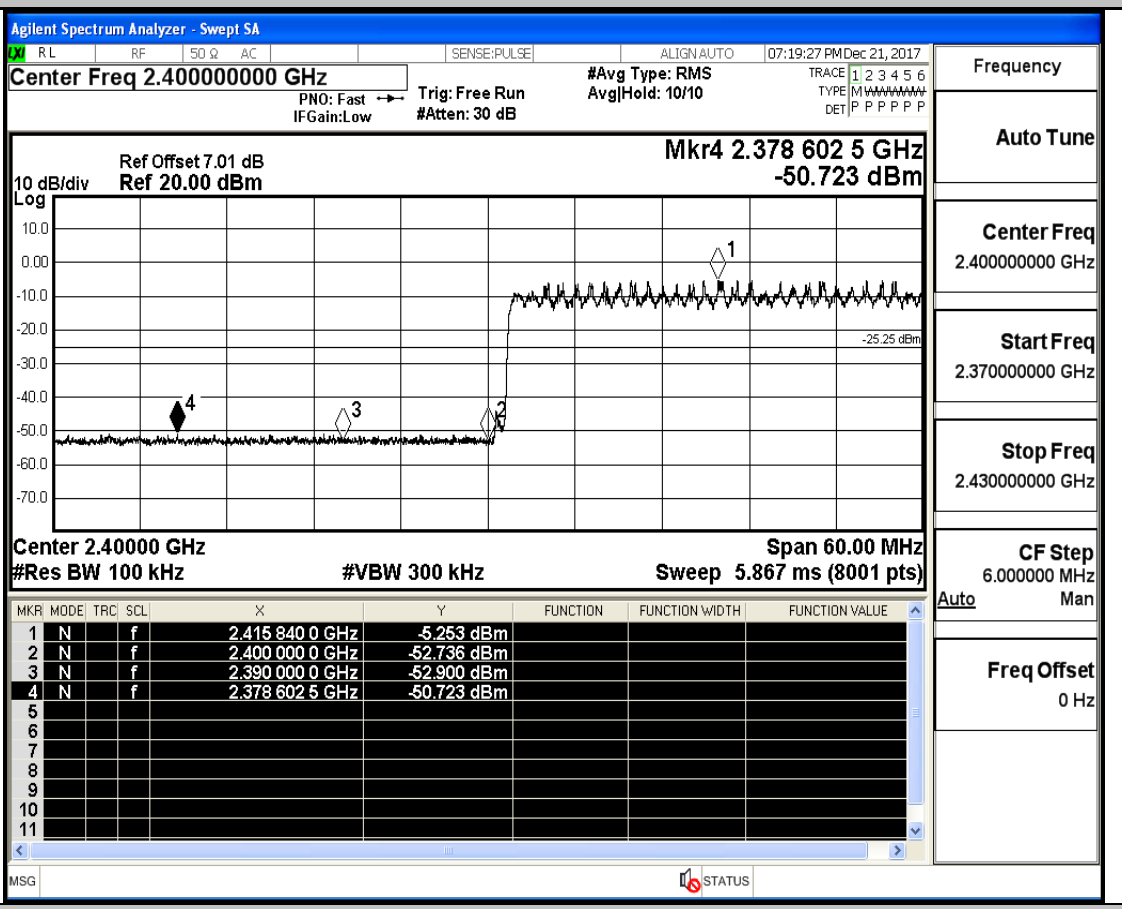
Band-edge for RF Conducted Emissions_DH5_2480_Hopping On



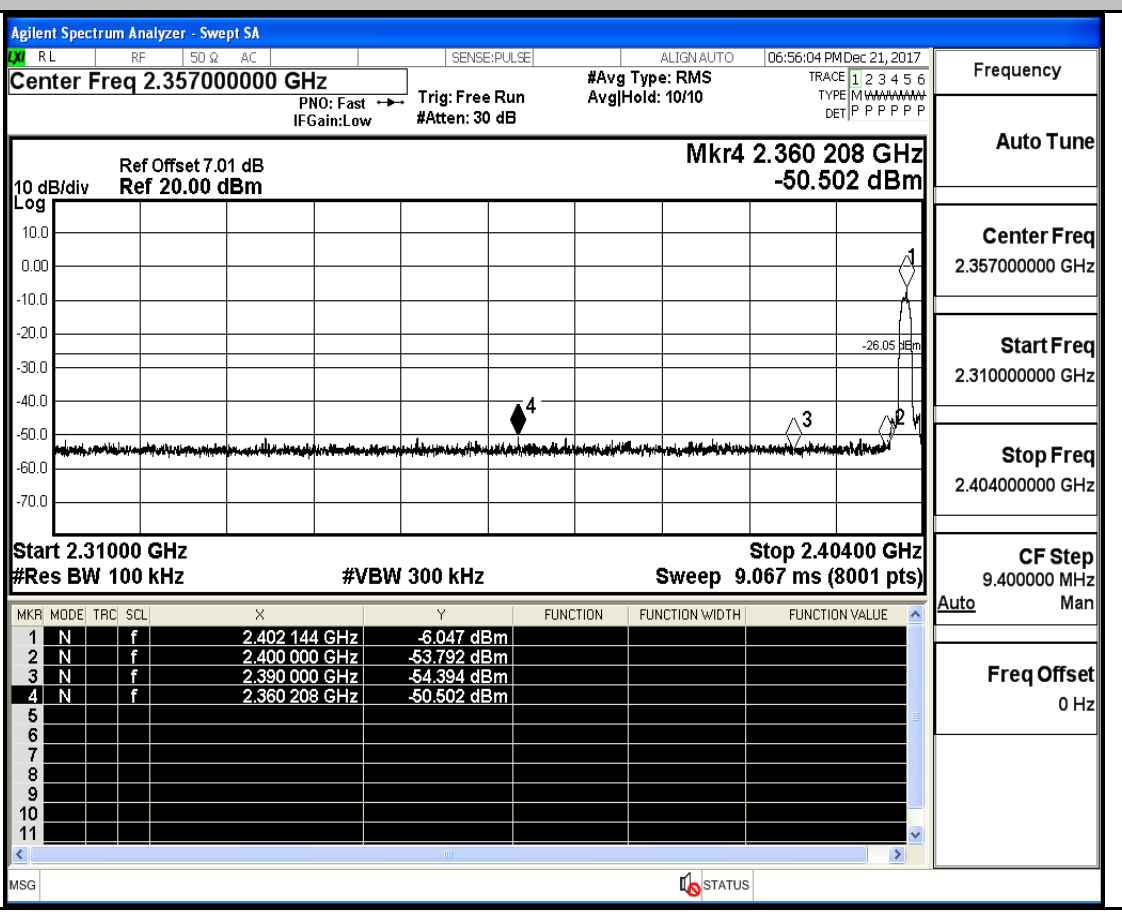

Band-edge for RF Conducted Emissions_DH5_2480_Hopping Off



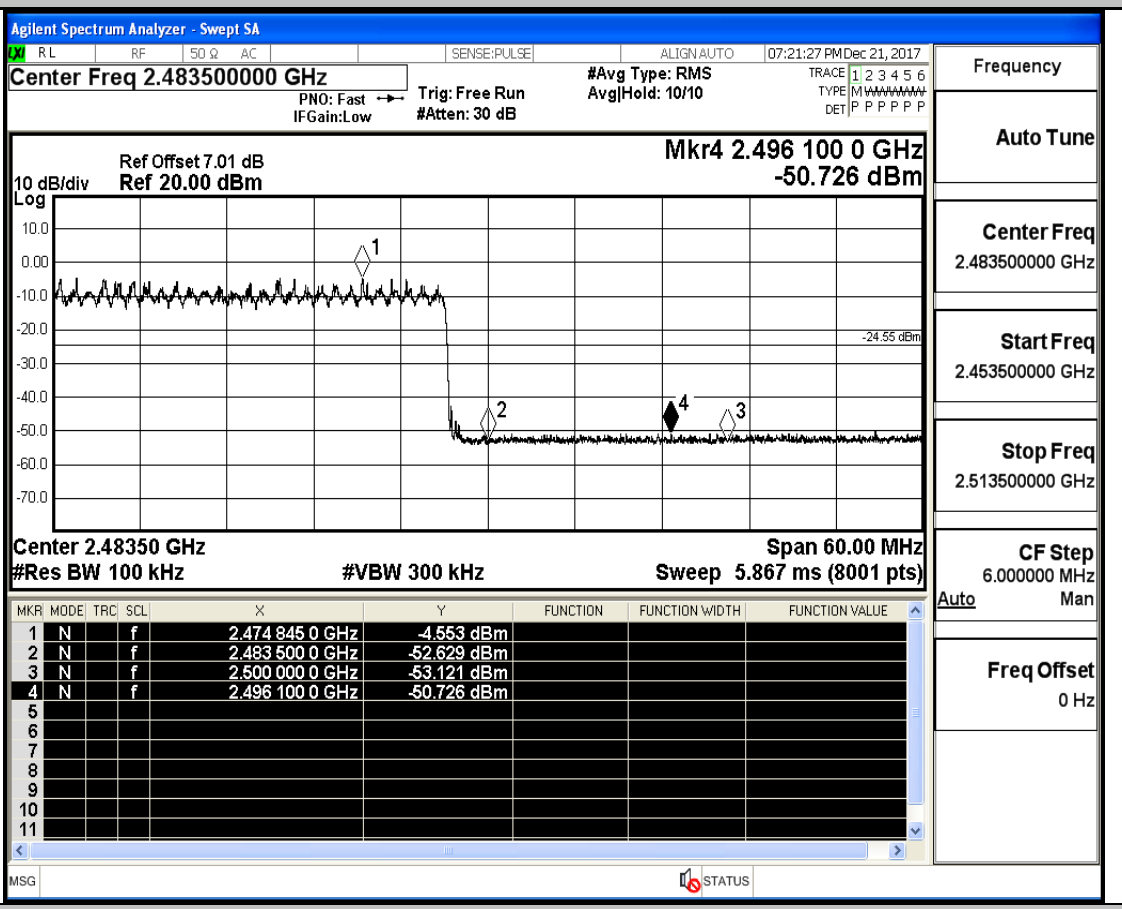
Band-edge for RF Conducted Emissions_2DH5_2402_Hopping On



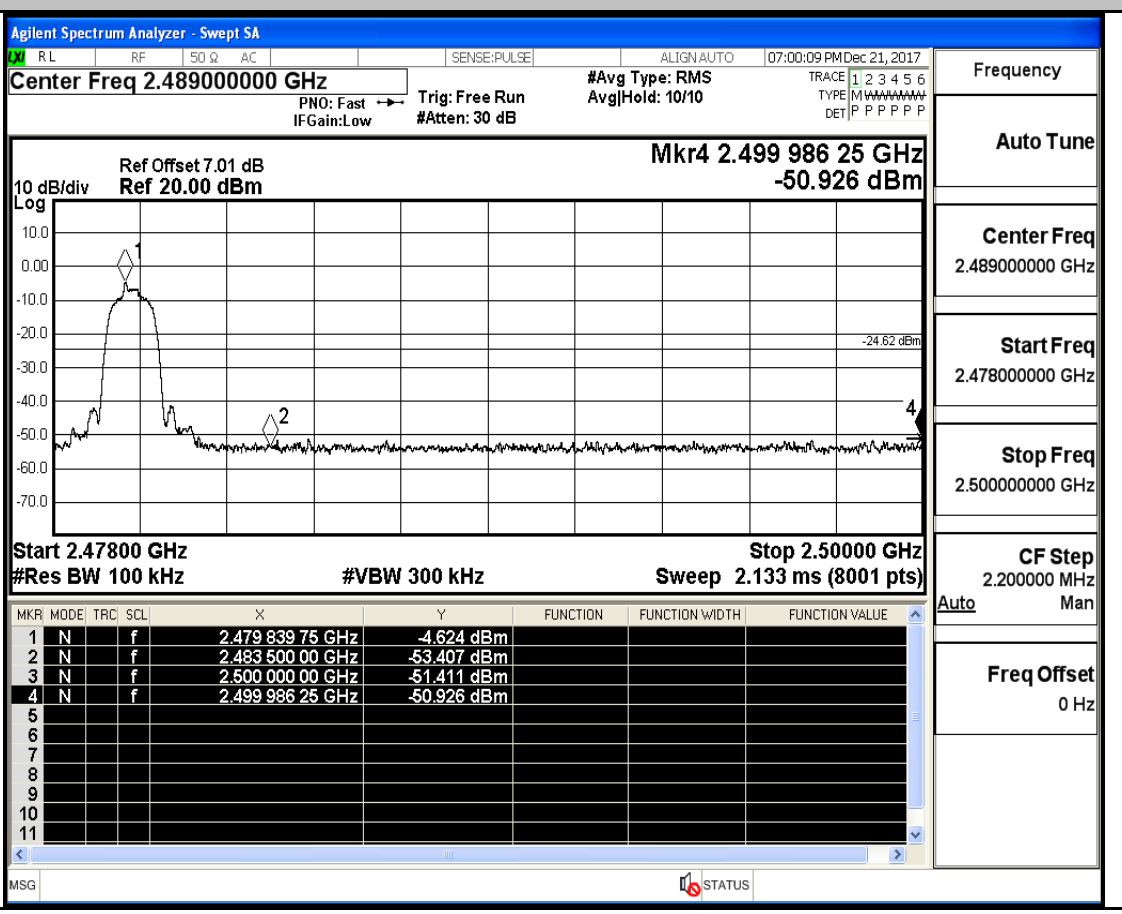

Band-edge for RF Conducted Emissions_2DH5_2402_Hopping Off



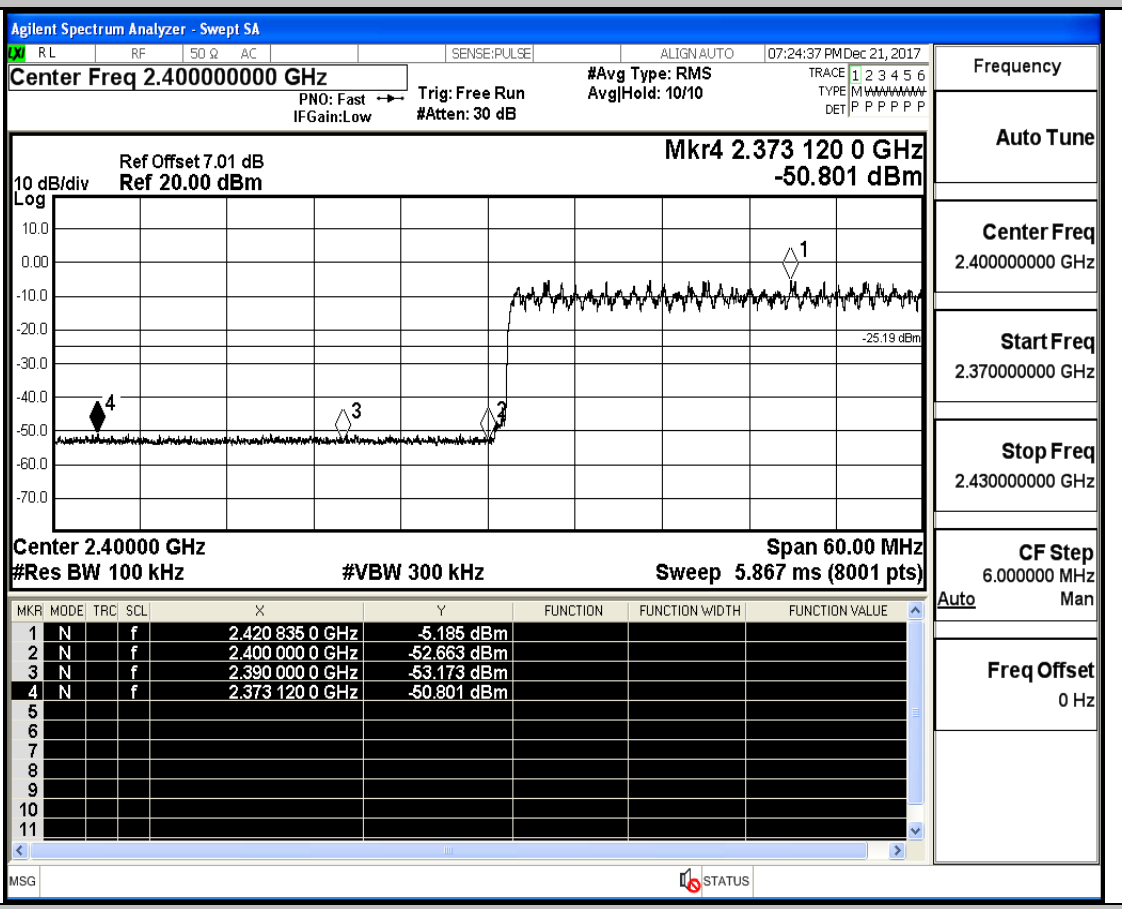
Band-edge for RF Conducted Emissions_2DH5_2480_Hopping On



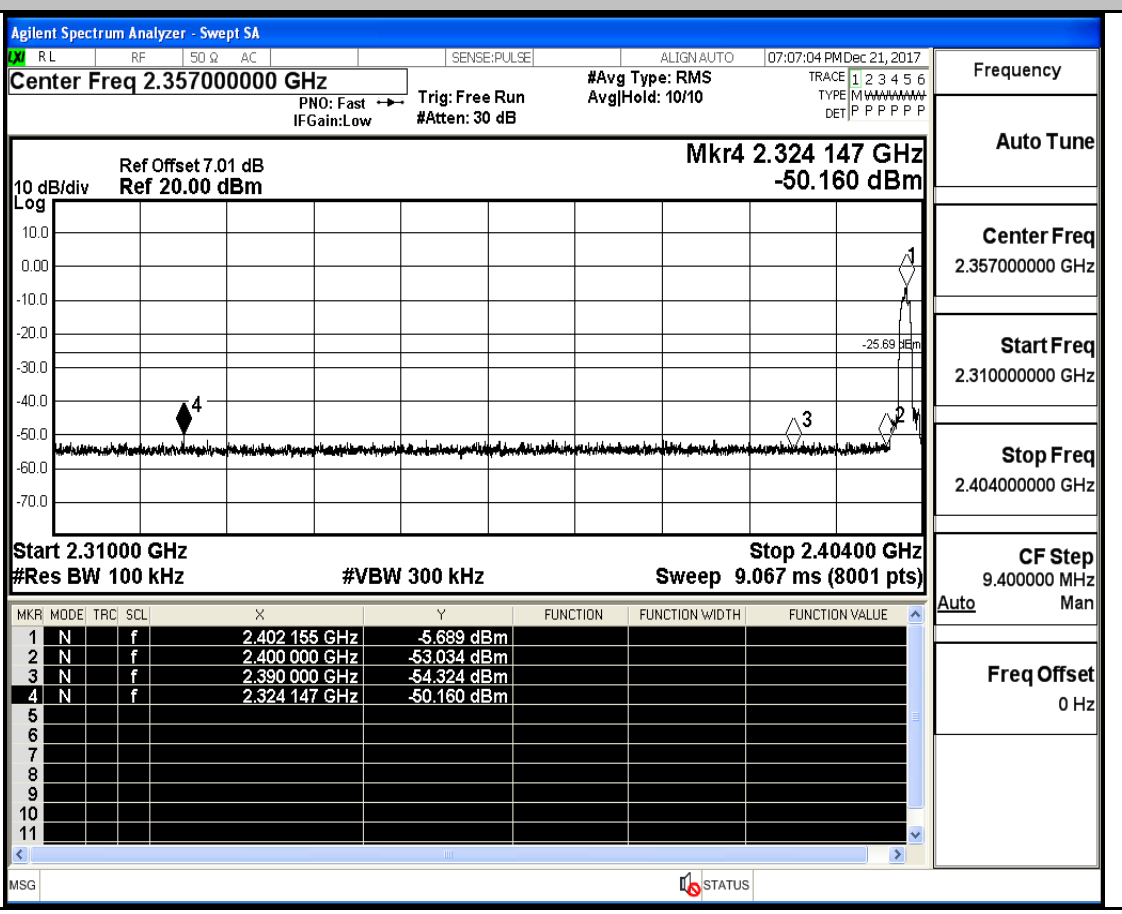

Band-edge for RF Conducted Emissions_2DH5_2480_Hopping Off



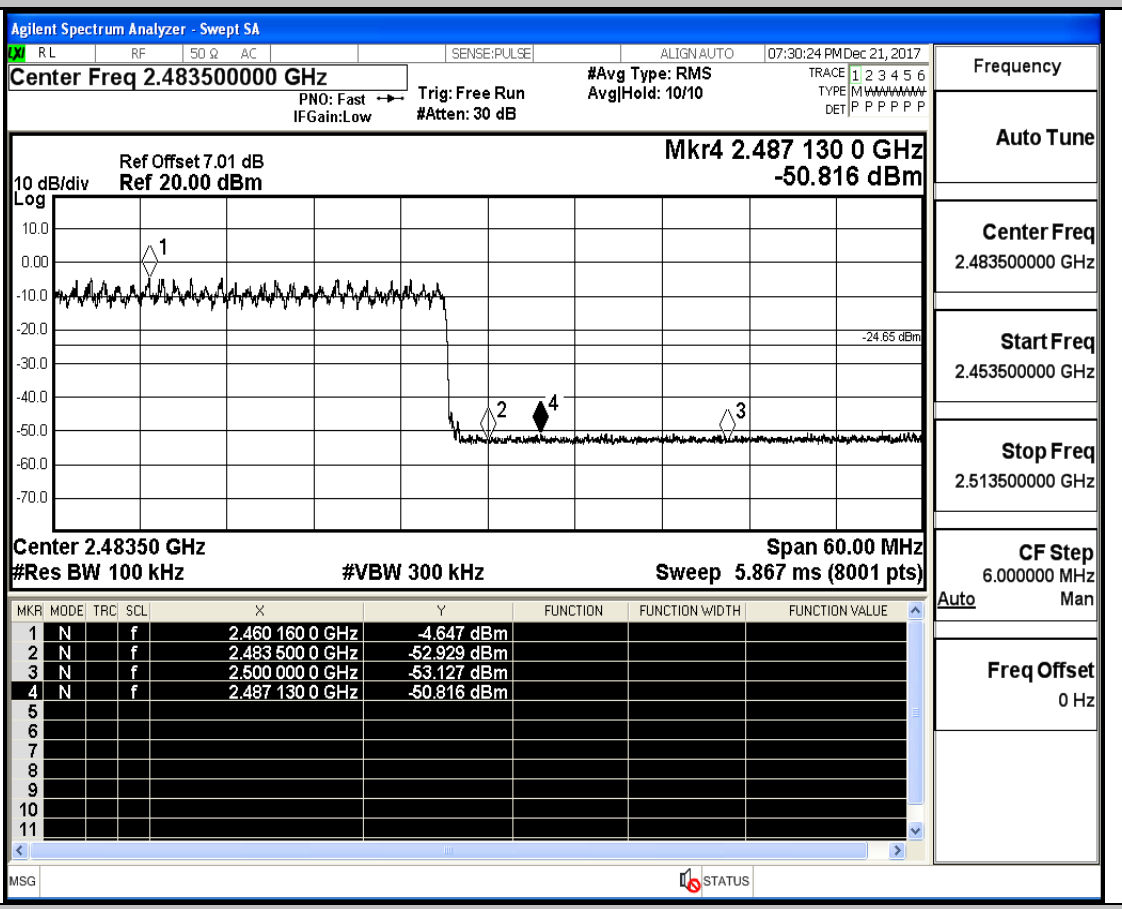
Band-edge for RF Conducted Emissions_3DH5_2402_Hopping On



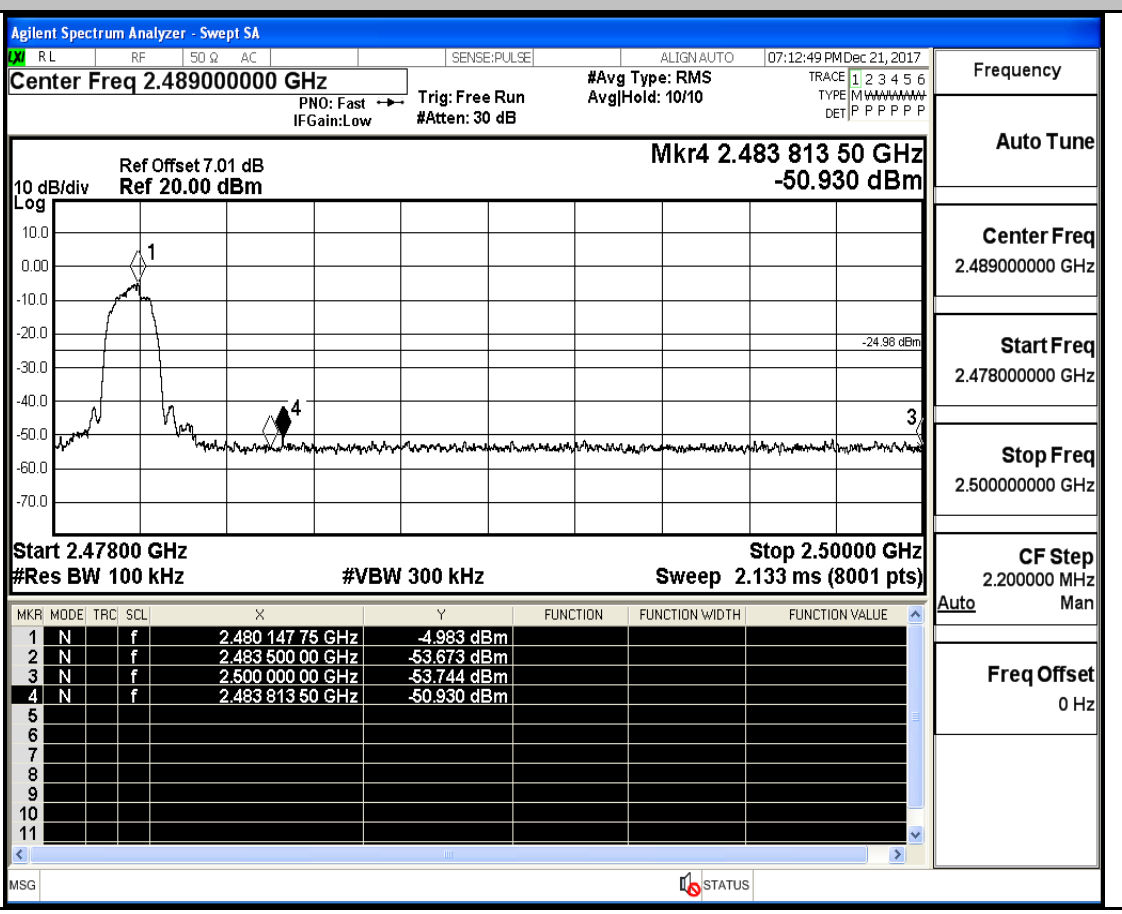

Band-edge for RF Conducted Emissions_3DH5_2402_Hopping Off



Band-edge for RF Conducted Emissions_3DH5_2480_Hopping On



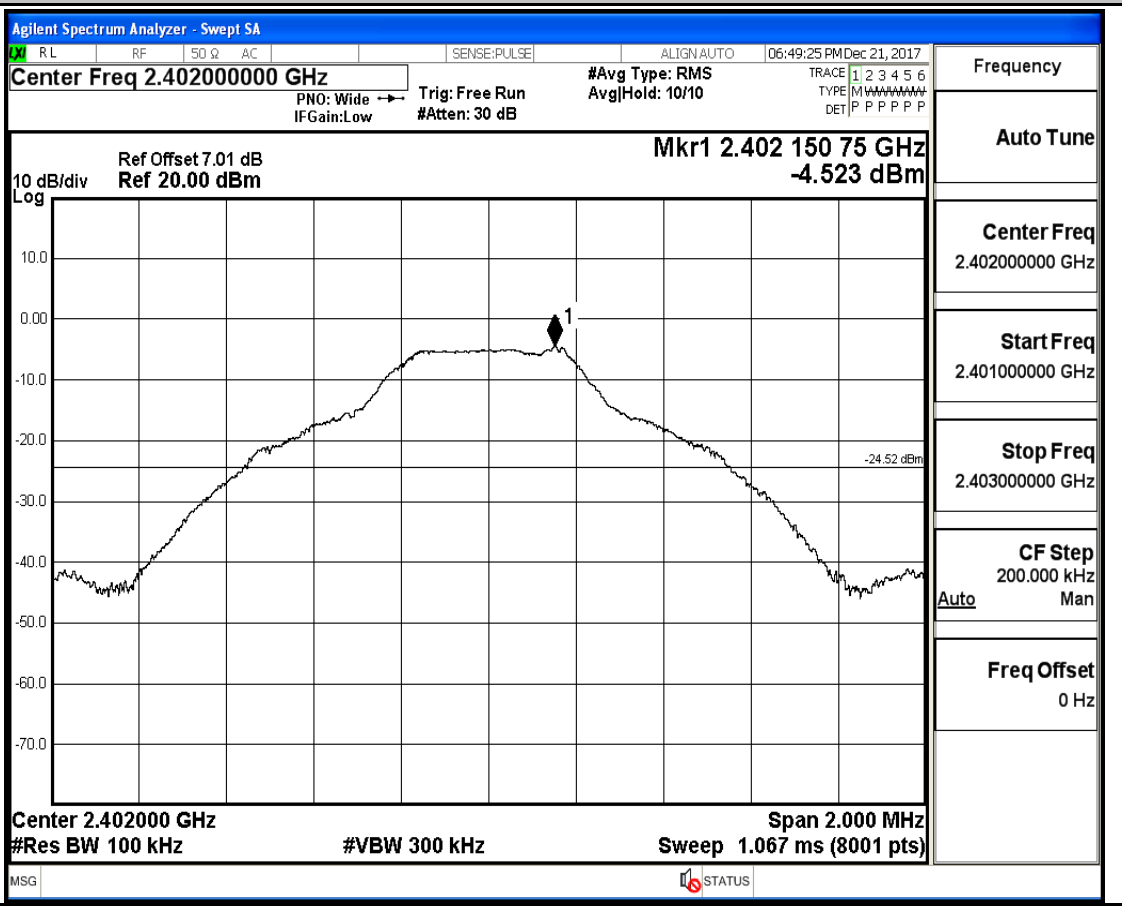

Band-edge for RF Conducted Emissions_3DH5_2480_Hopping Off

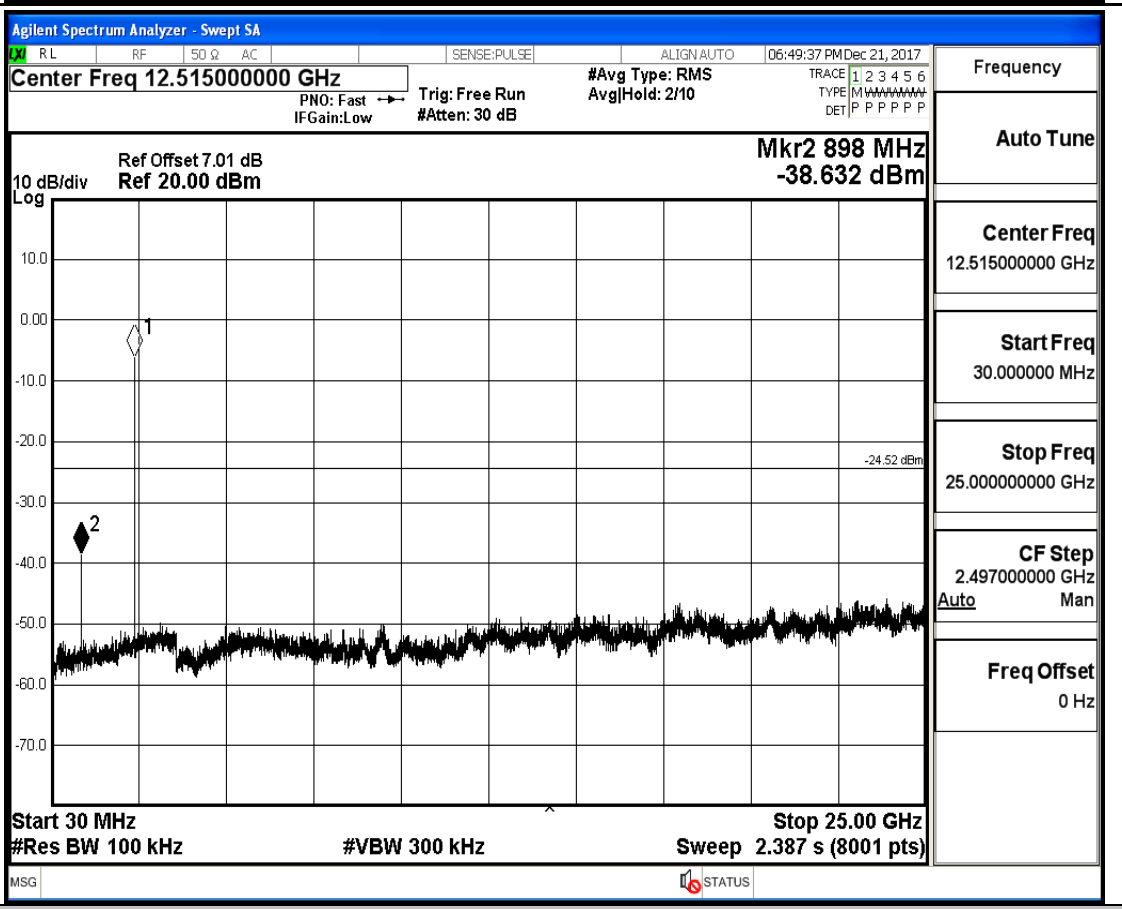


**A.7.RF Conducted Spurious Emissions**

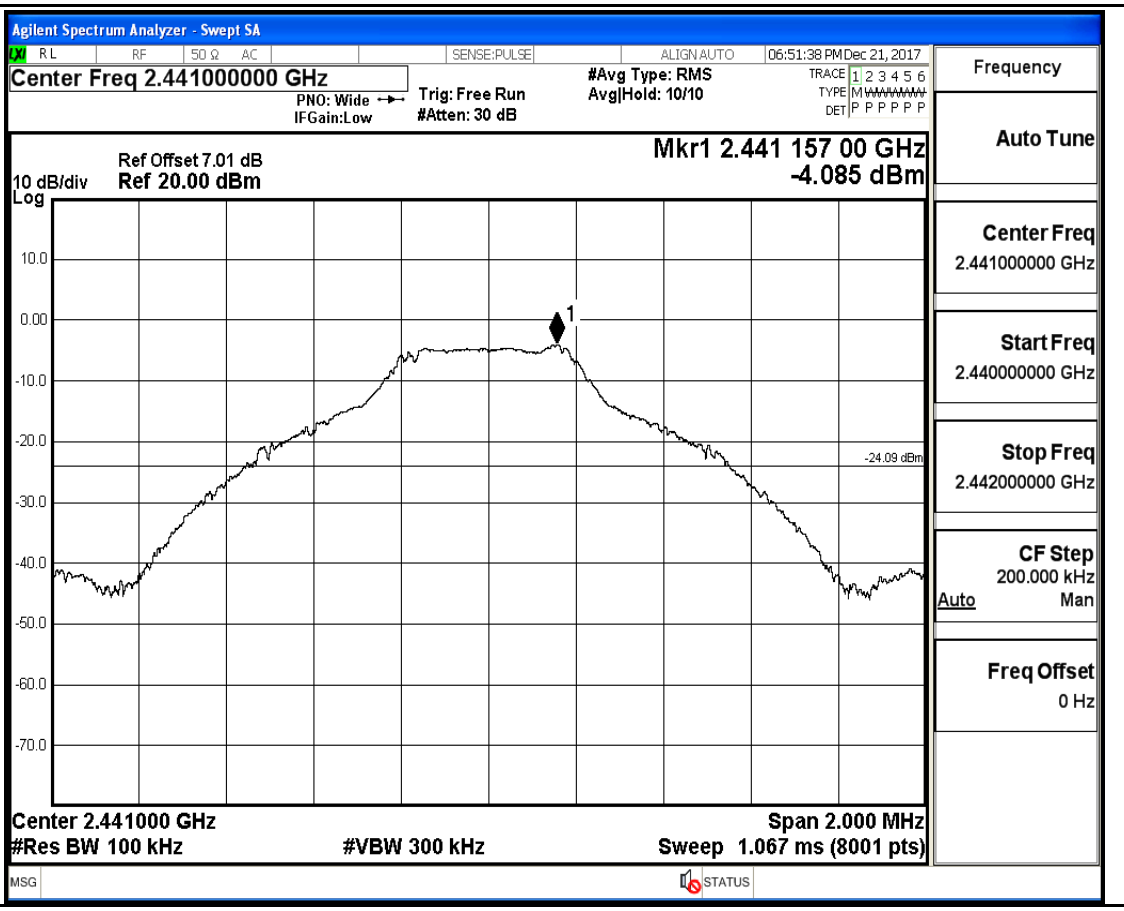
| Test Mode | Test Channel | StartFre [MHz] | StopFre [MHz] | RBW [kHz] | VBW [kHz] | Pref[dBm] | Max. Level [dBm] | Limit [dBm] | Verdict |
|---|---|---|---|---|---|---|---|---|---|
| DH5 | 2402 | 30 | 25000 | 100 | 300 | -4.523 | -38.632 | <-24.523 | PASS |
| DH5 | 2441 | 30 | 25000 | 100 | 300 | -4.085 | -46.111 | <-24.085 | PASS |
| DH5 | 2480 | 30 | 25000 | 100 | 300 | -3.585 | -46.147 | <-23.585 | PASS |
| 2DH5 | 2402 | 30 | 25000 | 100 | 300 | -5.73 | -45.598 | <-25.73 | PASS |
| 2DH5 | 2441 | 30 | 25000 | 100 | 300 | -5.216 | -44.850 | <-25.216 | PASS |
| 2DH5 | 2480 | 30 | 25000 | 100 | 300 | -4.788 | -45.202 | <-24.788 | PASS |
| 3DH5 | 2402 | 30 | 25000 | 100 | 300 | -5.767 | -45.480 | <-25.767 | PASS |
| 3DH5 | 2441 | 30 | 25000 | 100 | 300 | -5.162 | -45.505 | <-25.162 | PASS |
| 3DH5 | 2480 | 30 | 25000 | 100 | 300 | -4.606 | -45.283 | <-24.606 | PASS |

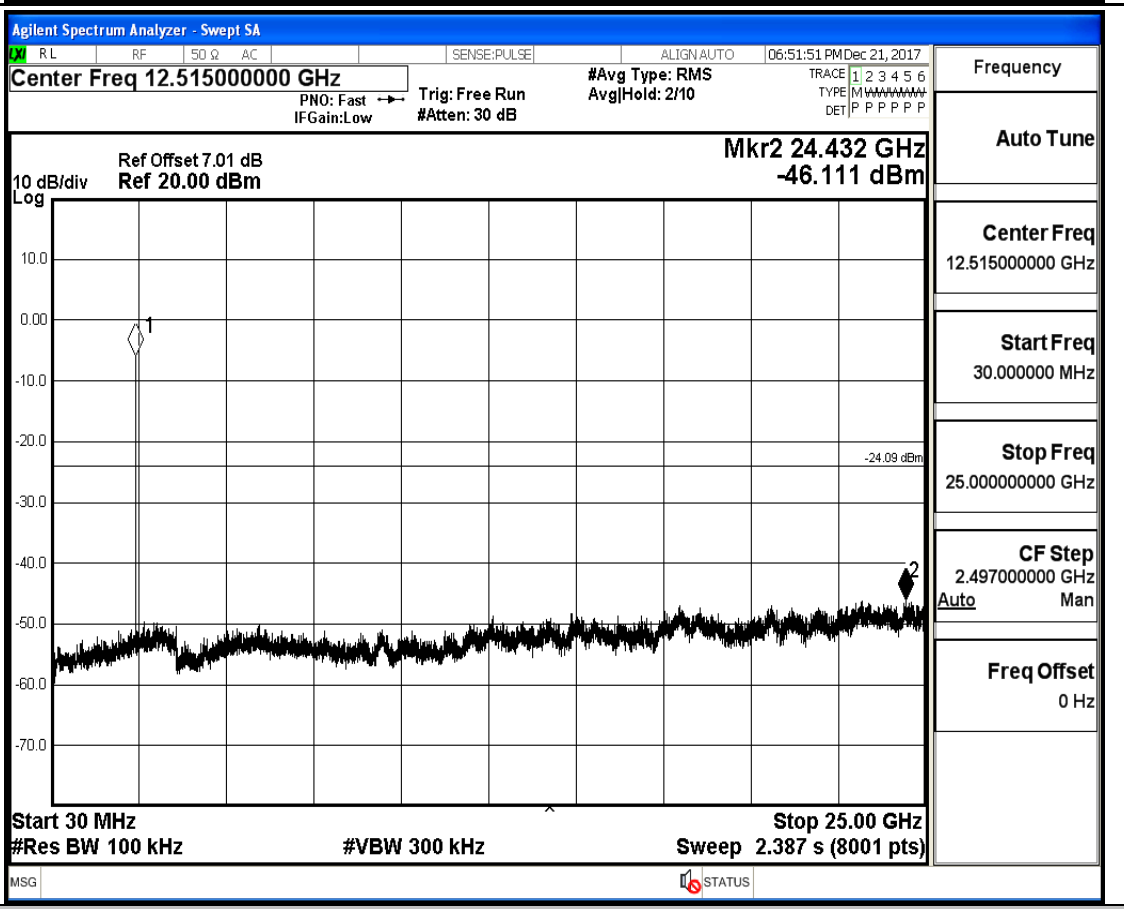
RF Conducted Spurious Emissions_DH5_2402



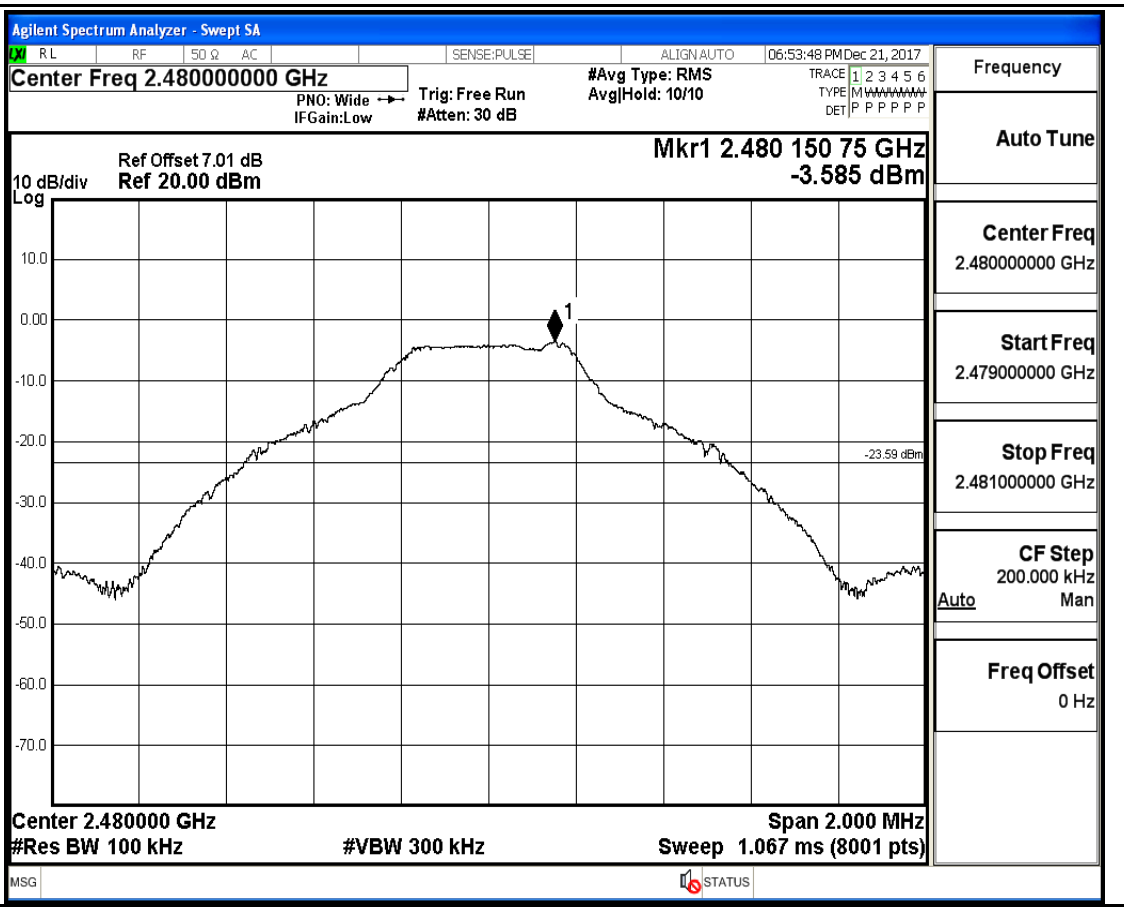



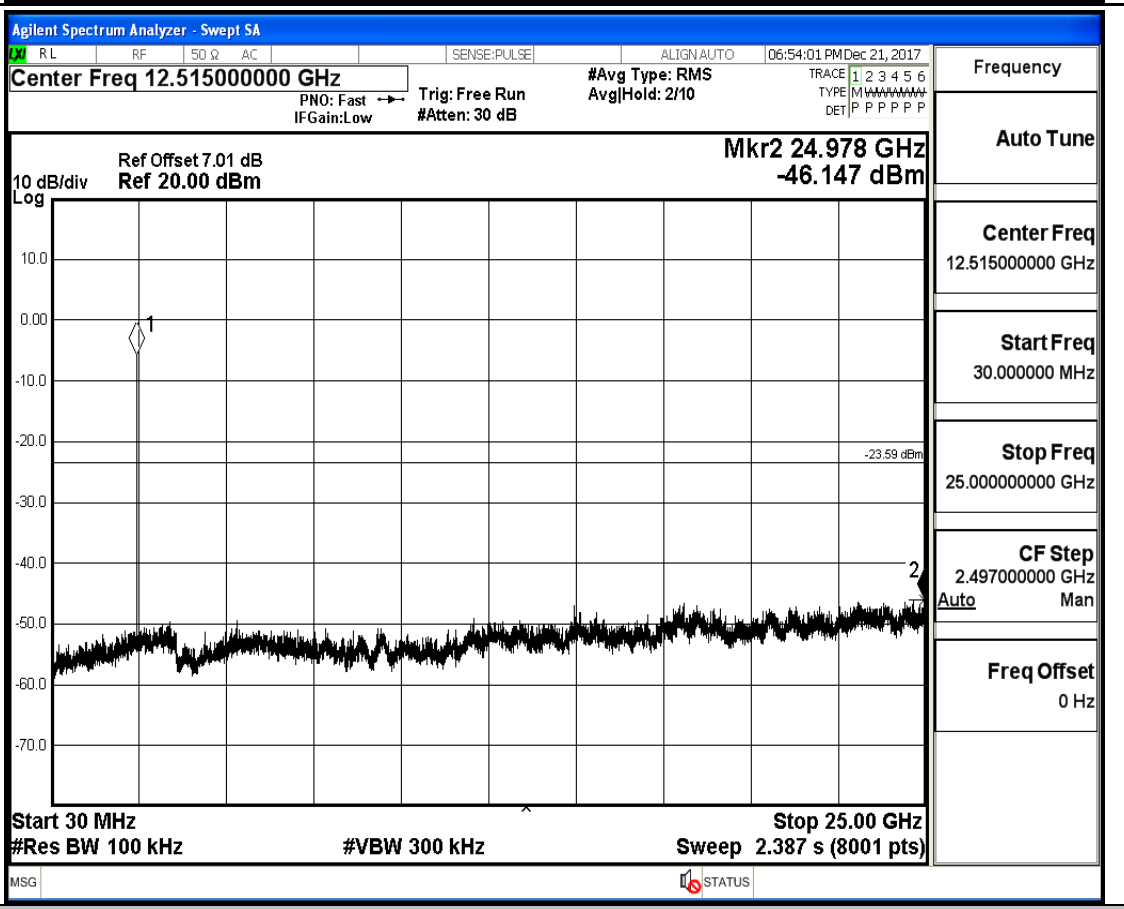

RF Conducted Spurious Emissions_DH5_2441



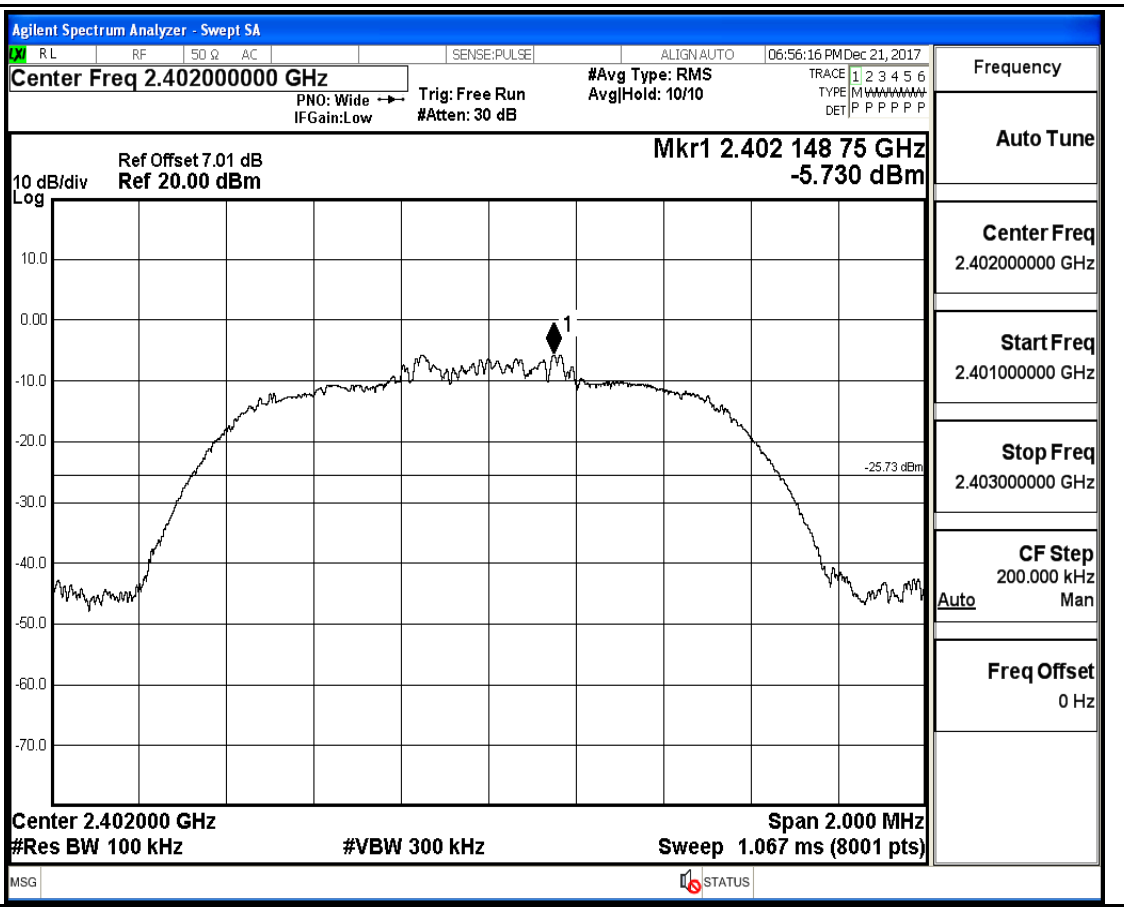



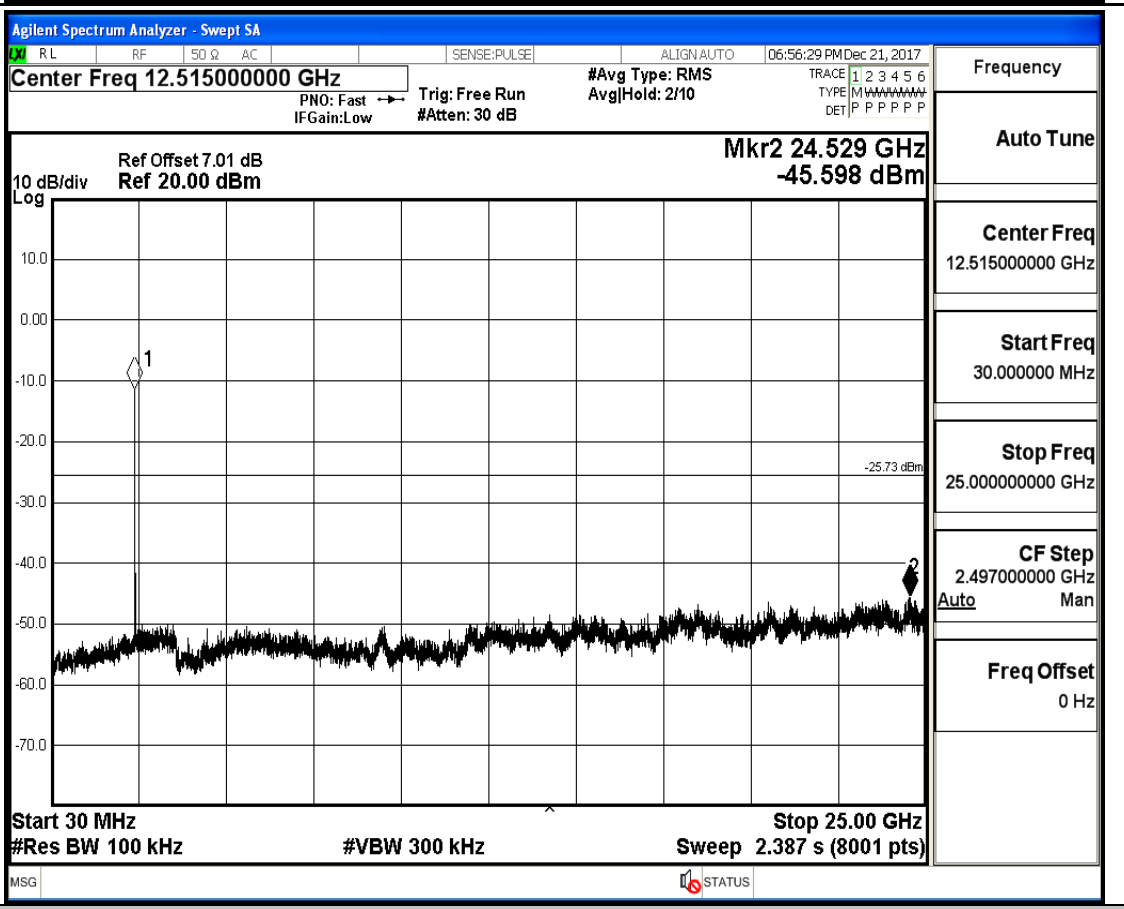

RF Conducted Spurious Emissions_DH5_2480



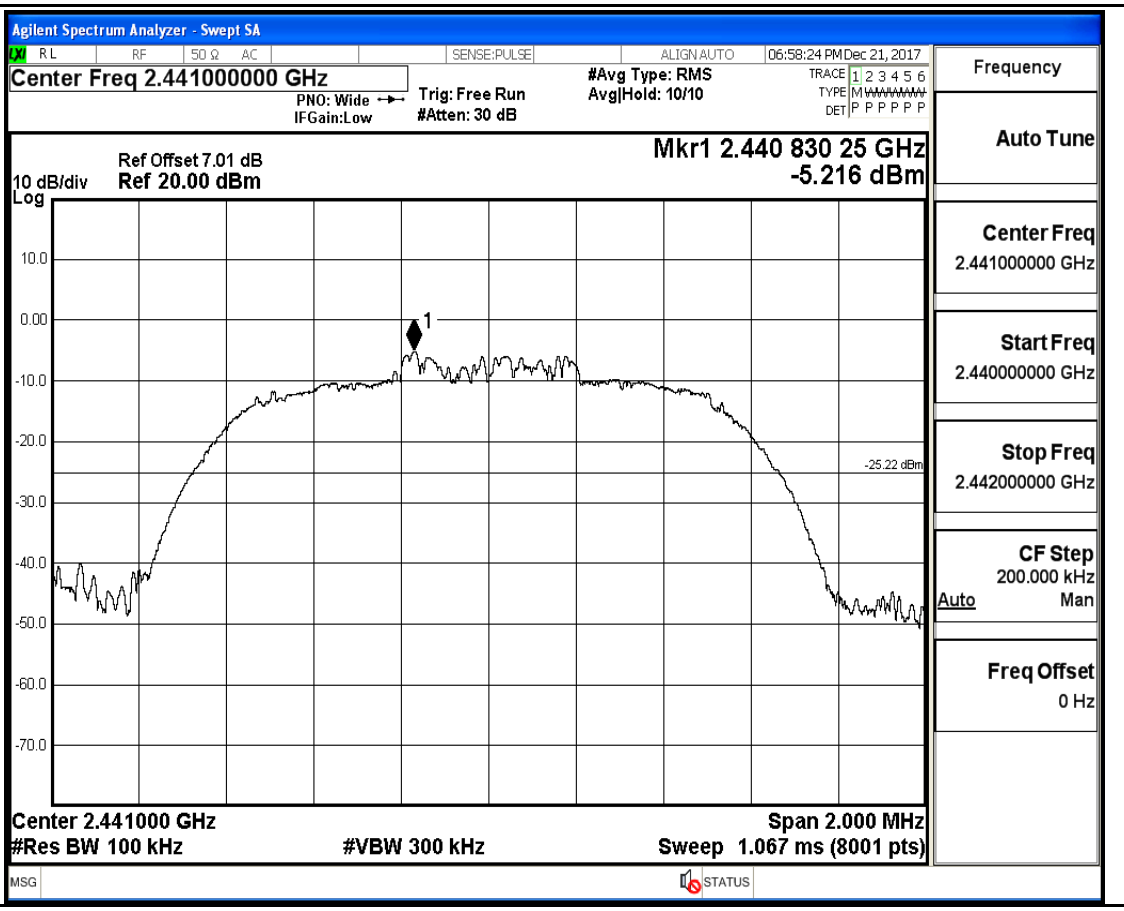



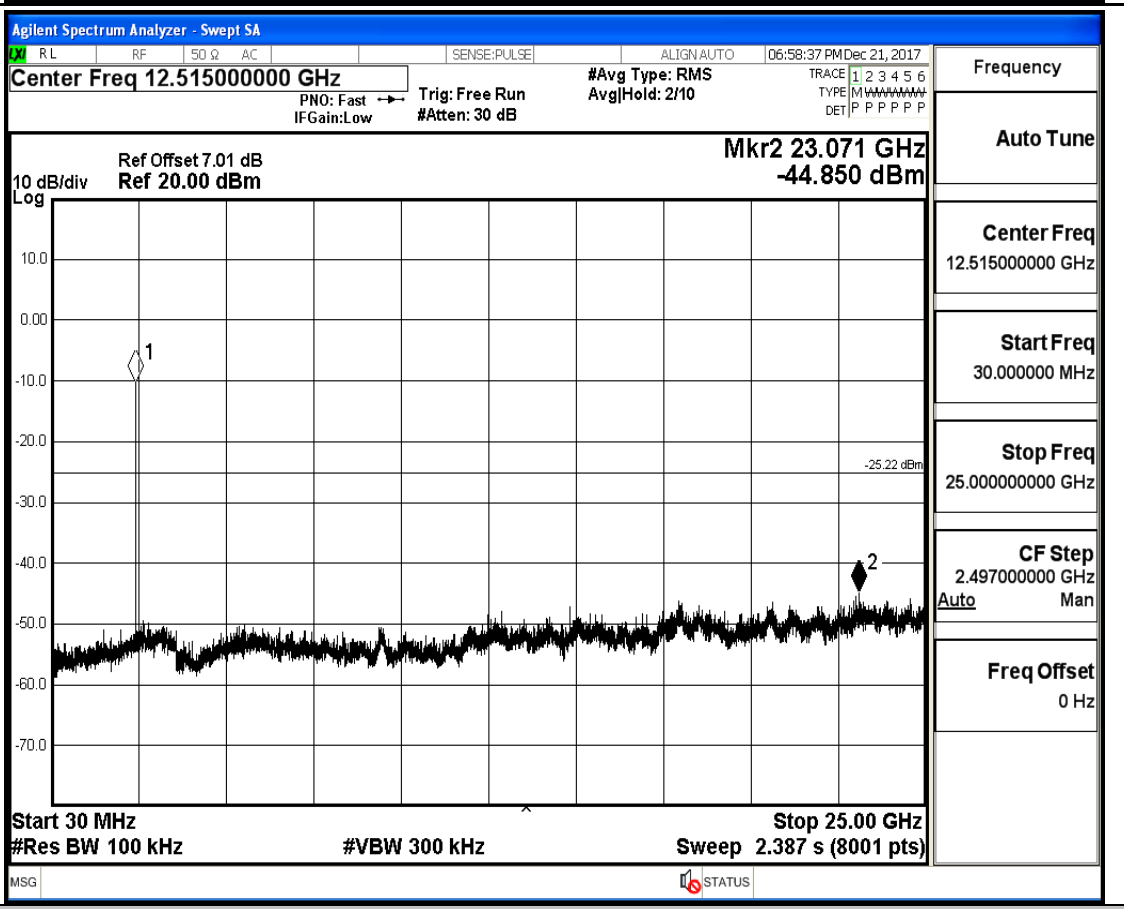

RF Conducted Spurious Emissions_2DH5_2402



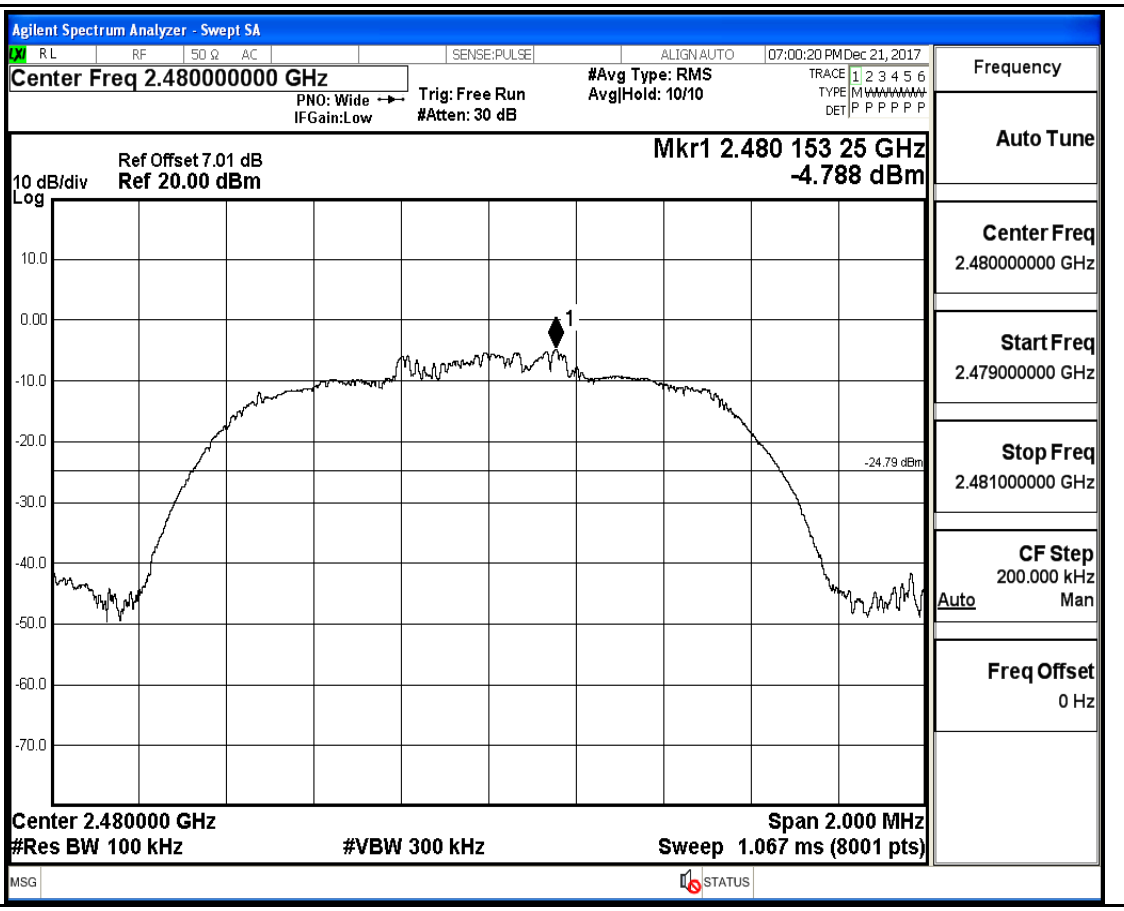



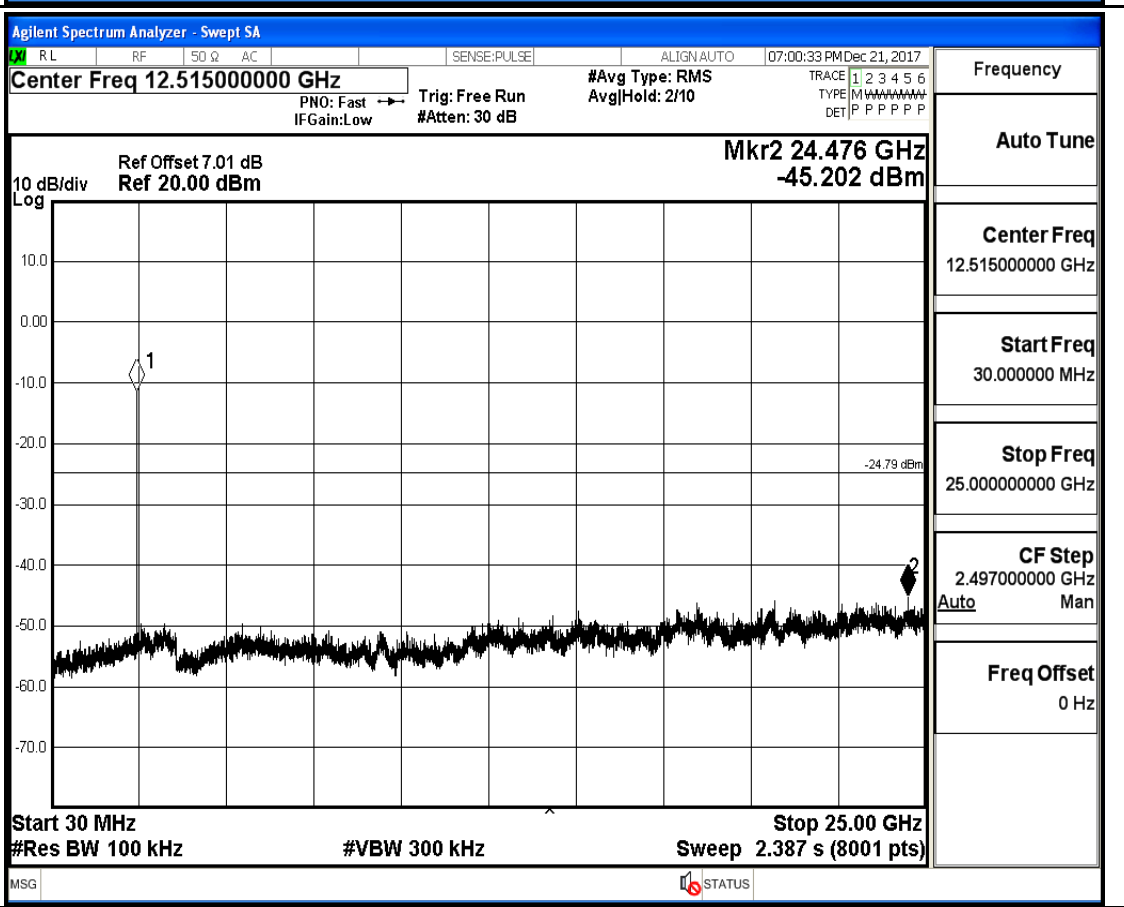

RF Conducted Spurious Emissions_2DH5_2441



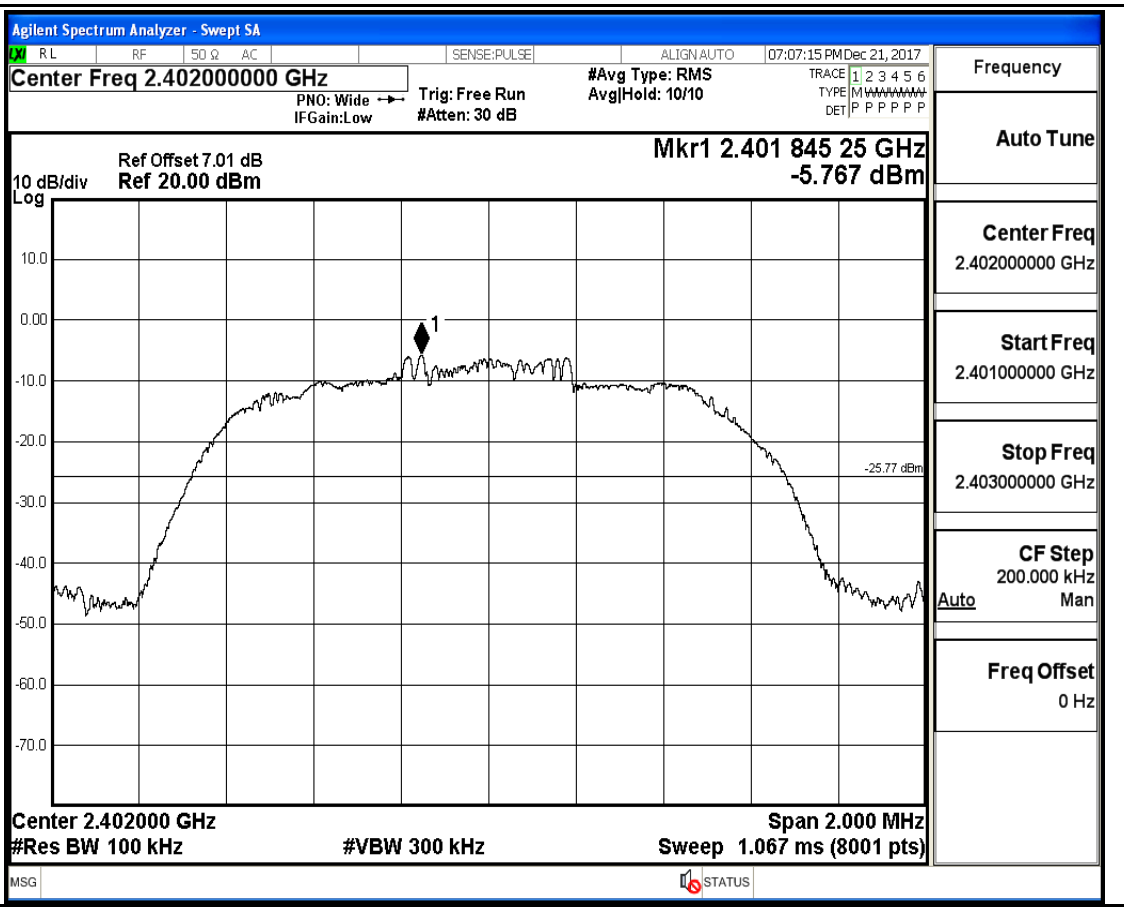



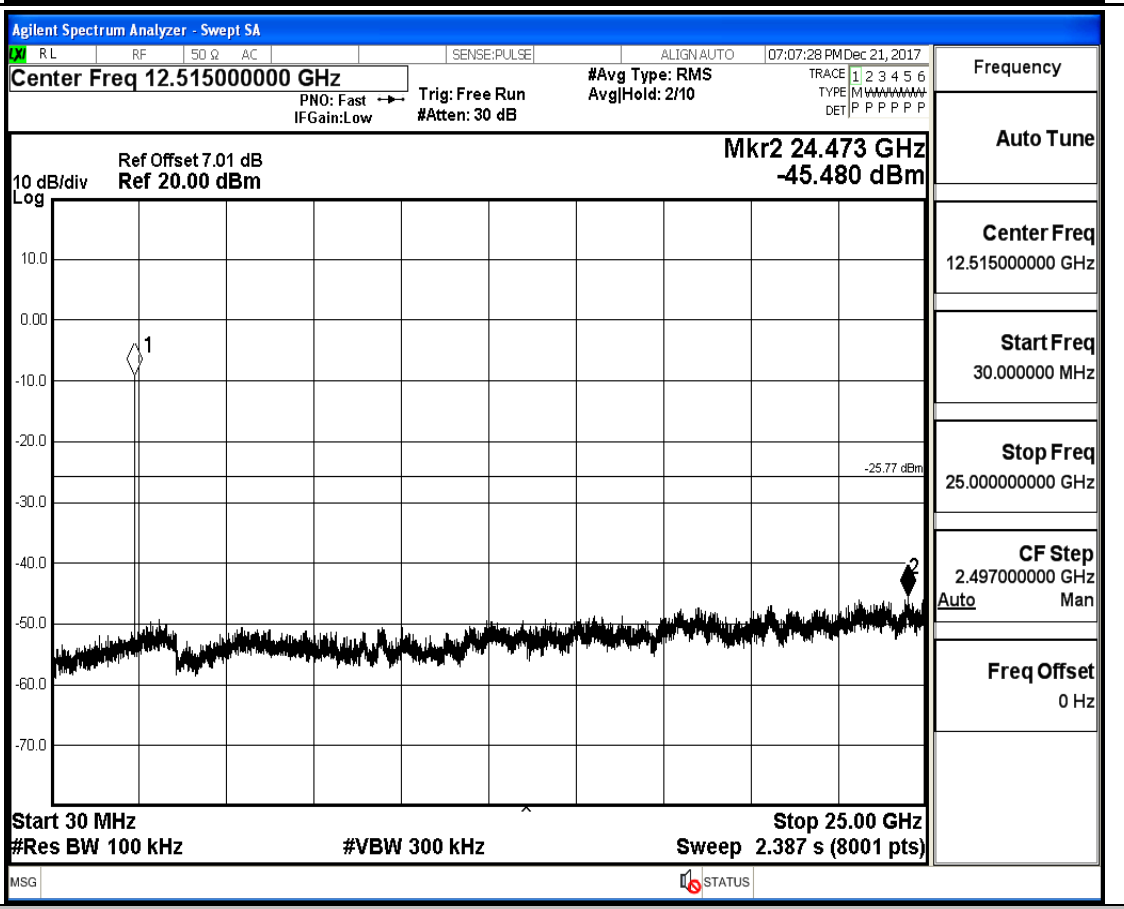

RF Conducted Spurious Emissions_2DH5_2480



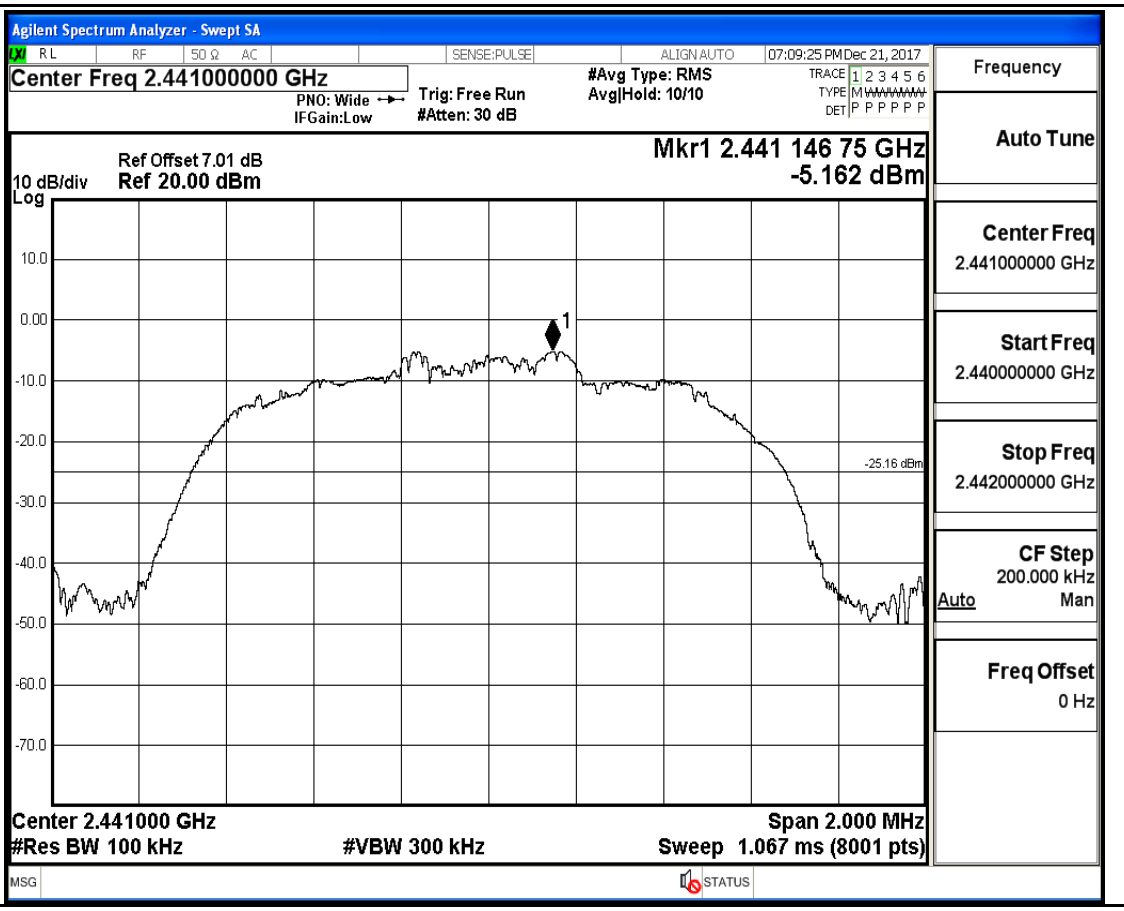



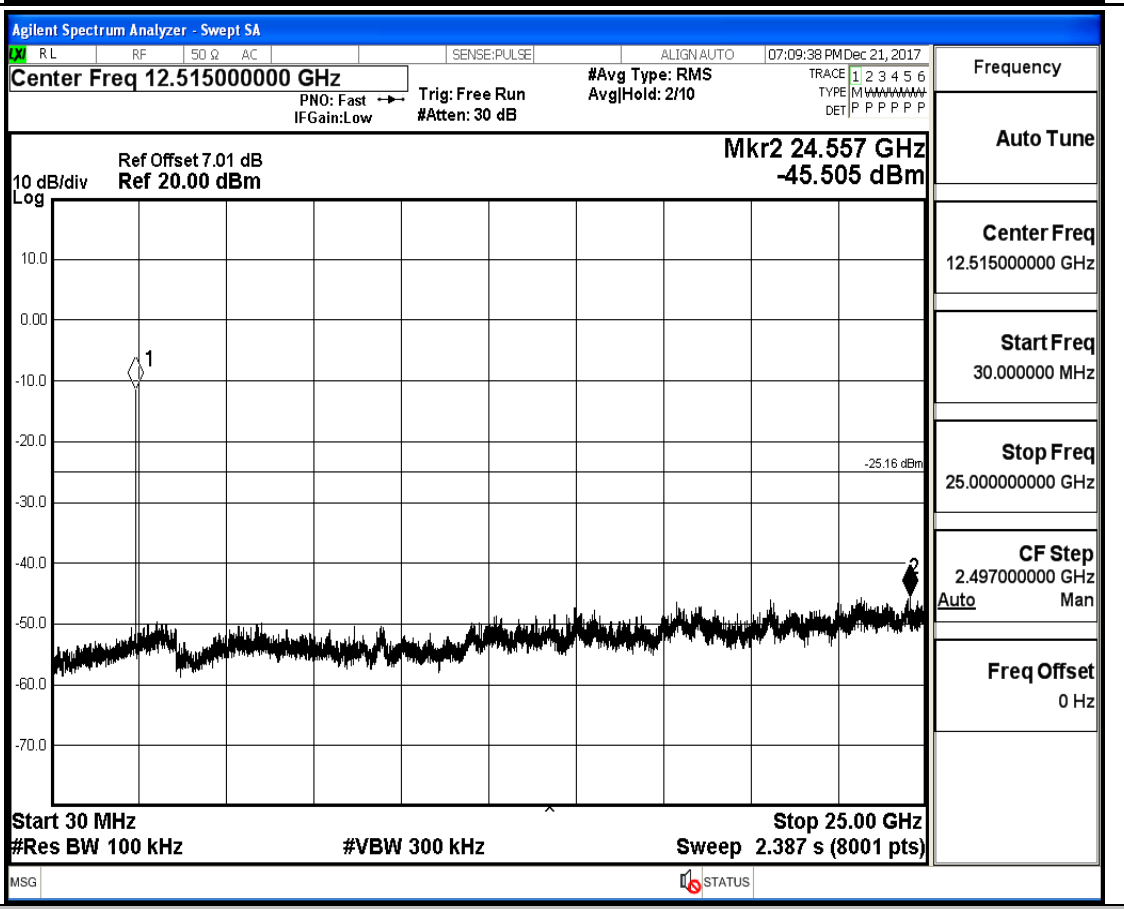

RF Conducted Spurious Emissions_3DH5_2402



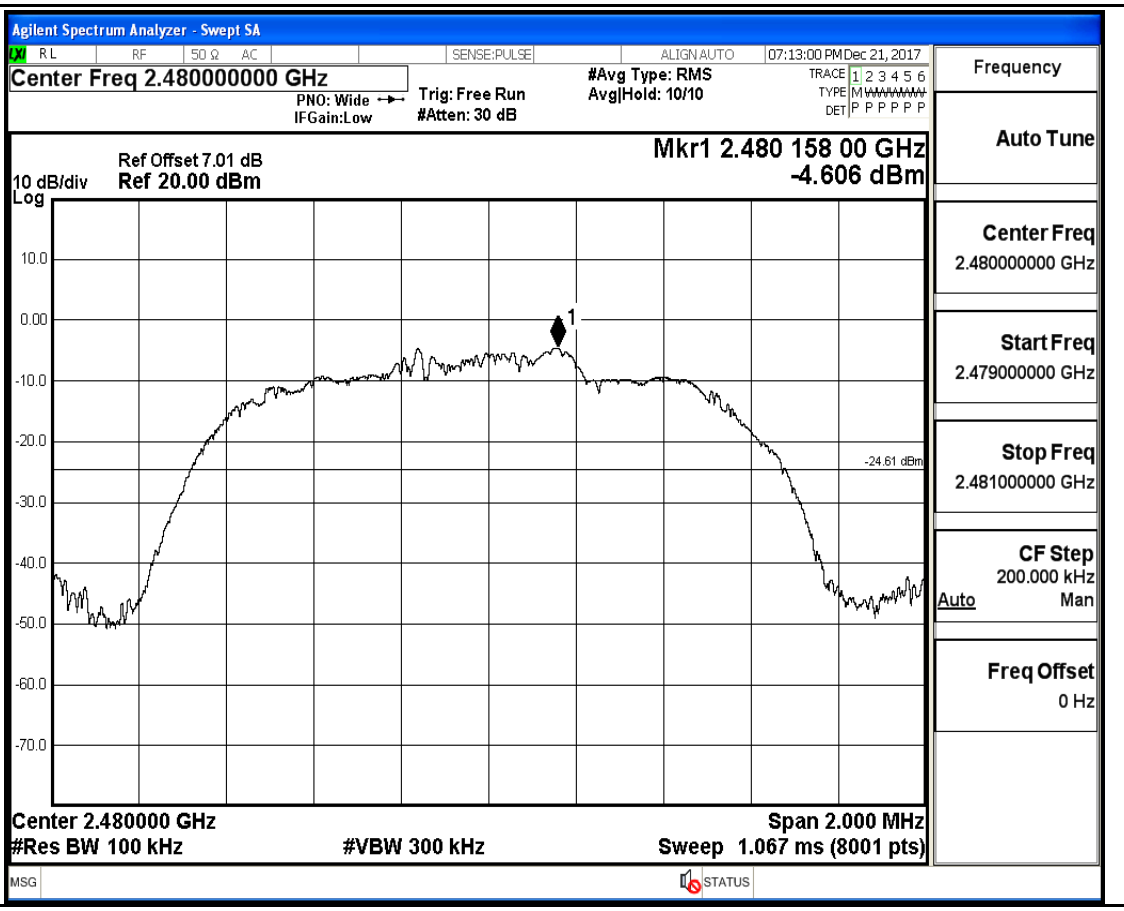



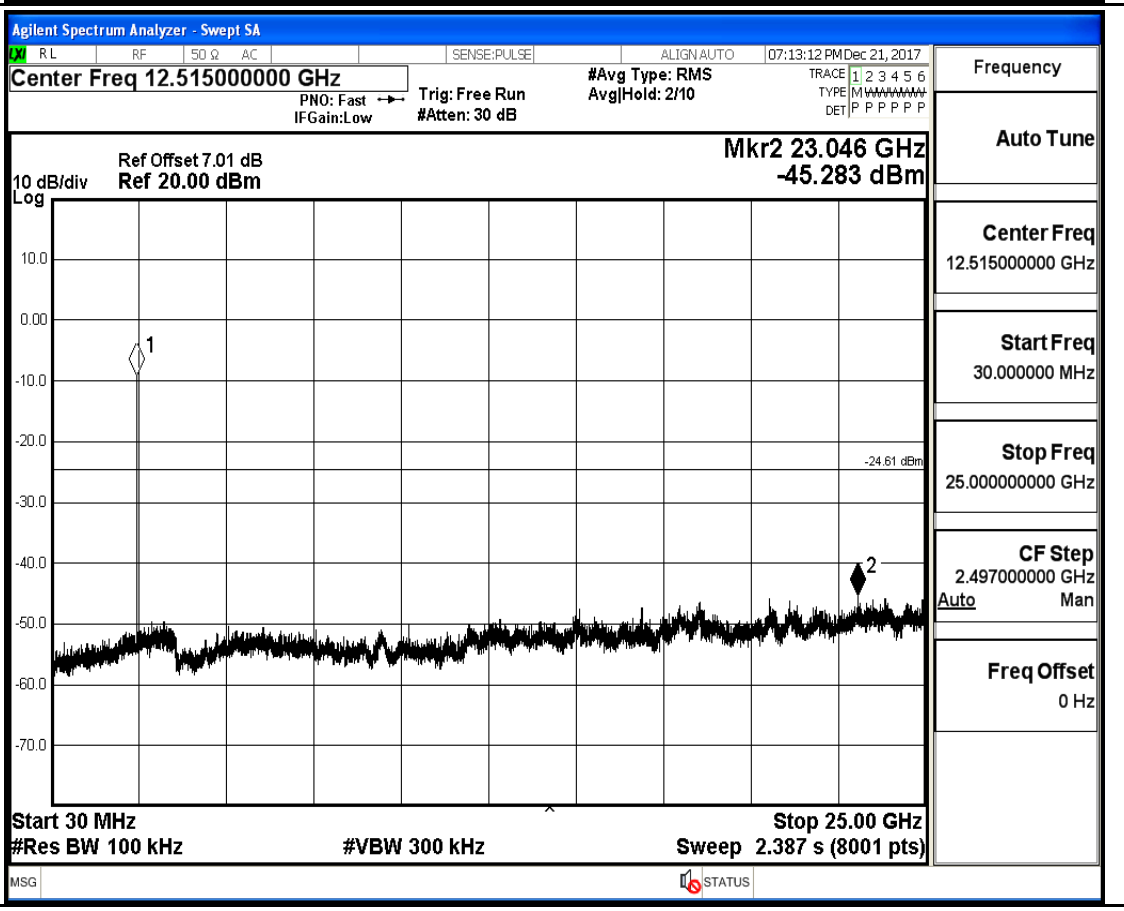

RF Conducted Spurious Emissions_3DH5_2441




RF Conducted Spurious Emissions_3DH5_2480

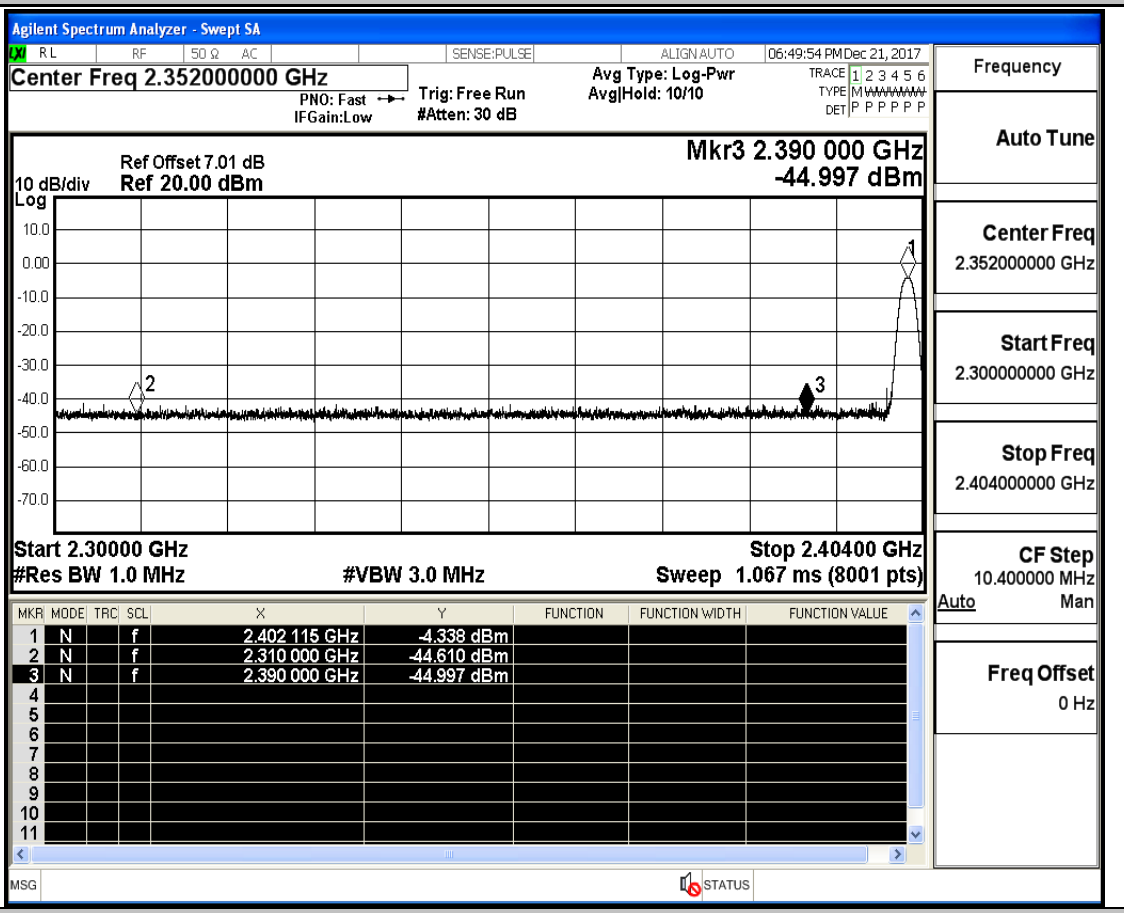

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:PULSE
ALIGN AUTO
07:13:00 PM Dec 21, 2017
Center Freq 2.480000000 GHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 10/10
TRACE 1 2 3 4 5 6
TYPE M
DET P P P P P
Ref Offset 7.01 dB
10 dB/div
Log
Ref 20.00 dBm
Mkr1 2.480 158 00 GHz
-4.606 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-24.61 dBm
Center 2.480000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 2.000 MHz
Sweep 1.067 ms (8001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.479000000 GHz
Stop Freq
2.481000000 GHz
CF Step
200.000 kHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:PULSE
ALIGN AUTO
07:13:12 PM Dec 21, 2017
Center Freq 12.515000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 2/10
TRACE 1 2 3 4 5 6
TYPE M
DET P P P P P
Ref Offset 7.01 dB
10 dB/div
Log
Ref 20.00 dBm
Mkr2 23.046 GHz
-45.283 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-24.61 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 25.00 GHz
Sweep 2.387 s (8001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
12.515000000 GHz
Start Freq
30.000000 MHz
Stop Freq
25.000000000 GHz
CF Step
2.497000000 GHz
Auto
Man
Freq Offset
0 Hz

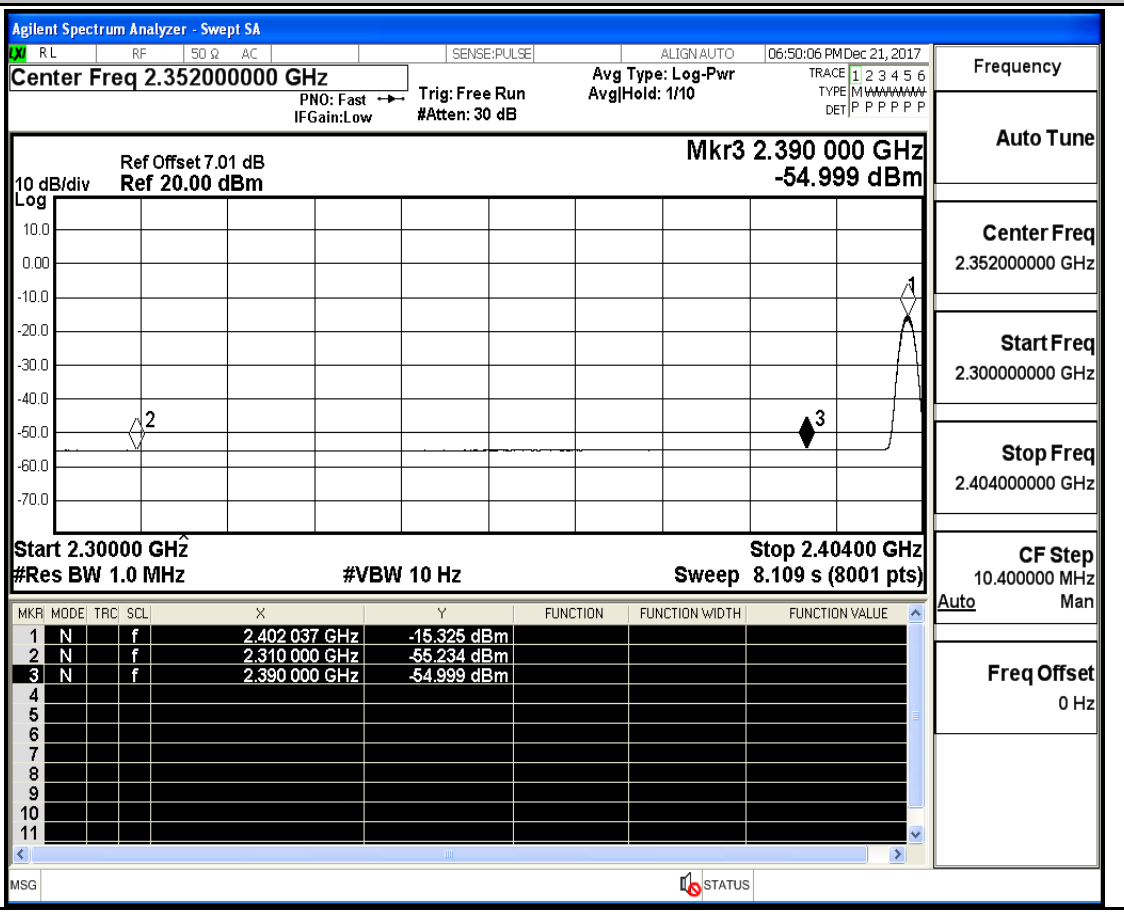
**A.8.Restrict-band band-edge measurements**

| Test Mode | Hopping | Freq. | Power [dBm] | Gain | Ground Factor | E [dBuV/m] | Detector | Limit [dBuV/m] | Verdict |
|---|---|---|---|---|---|---|---|---|---|
| DH5 | On | 2310.0 | -44.61 | 2 | 0 | 52.65 | PEAK | 74 | PASS |
| DH5 | On | 2310.0 | -55.23 | 2 | 0 | 42.02 | AV | 54 | PASS |
| DH5 | On | 2390.0 | -45.00 | 2 | 0 | 52.26 | PEAK | 74 | PASS |
| DH5 | On | 2390.0 | -55.00 | 2 | 0 | 42.26 | AV | 54 | PASS |
| DH5 | On | 2483.5 | -44.67 | 2 | 0 | 52.59 | PEAK | 74 | PASS |
| DH5 | On | 2483.5 | -54.75 | 2 | 0 | 42.51 | AV | 54 | PASS |
| DH5 | On | 2500.0 | -45.00 | 2 | 0 | 52.25 | PEAK | 74 | PASS |
| DH5 | On | 2500.0 | -54.62 | 2 | 0 | 42.64 | AV | 54 | PASS |
| 2DH5 | On | 2310.0 | -44.60 | 2 | 0 | 52.65 | PEAK | 74 | PASS |
| 2DH5 | On | 2310.0 | -55.22 | 2 | 0 | 42.04 | AV | 54 | PASS |
| 2DH5 | On | 2390.0 | -44.19 | 2 | 0 | 53.07 | PEAK | 74 | PASS |
| 2DH5 | On | 2390.0 | -54.96 | 2 | 0 | 42.30 | AV | 54 | PASS |
| 2DH5 | On | 2483.5 | -43.11 | 2 | 0 | 54.15 | PEAK | 74 | PASS |
| 2DH5 | On | 2483.5 | -54.74 | 2 | 0 | 42.52 | AV | 54 | PASS |
| 2DH5 | On | 2500.0 | -44.15 | 2 | 0 | 53.11 | PEAK | 74 | PASS |
| 2DH5 | On | 2500.0 | -54.65 | 2 | 0 | 42.61 | AV | 54 | PASS |
| 3DH5 | On | 2310.0 | -45.32 | 2 | 0 | 51.94 | PEAK | 74 | PASS |
| 3DH5 | On | 2310.0 | -55.22 | 2 | 0 | 42.04 | AV | 54 | PASS |
| 3DH5 | On | 2390.0 | -43.72 | 2 | 0 | 53.54 | PEAK | 74 | PASS |
| 3DH5 | On | 2390.0 | -55.00 | 2 | 0 | 42.26 | AV | 54 | PASS |
| 3DH5 | On | 2483.5 | -43.93 | 2 | 0 | 53.33 | PEAK | 74 | PASS |
| 3DH5 | On | 2483.5 | -54.77 | 2 | 0 | 42.49 | AV | 54 | PASS |
| 3DH5 | On | 2500.0 | -44.58 | 2 | 0 | 52.68 | PEAK | 74 | PASS |
| 3DH5 | On | 2500.0 | -54.63 | 2 | 0 | 42.63 | AV | 54 | PASS |

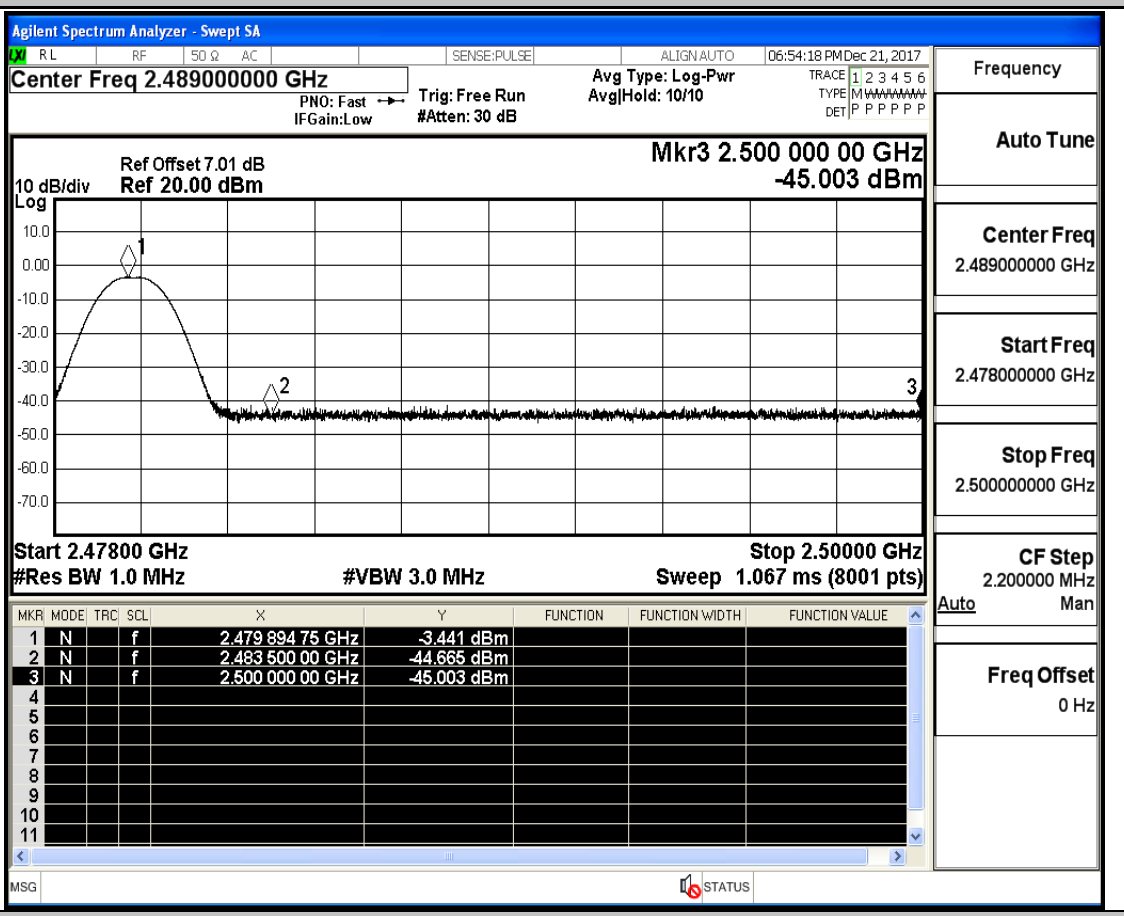
Restrict-band band-edge measurements_2402_PEAK



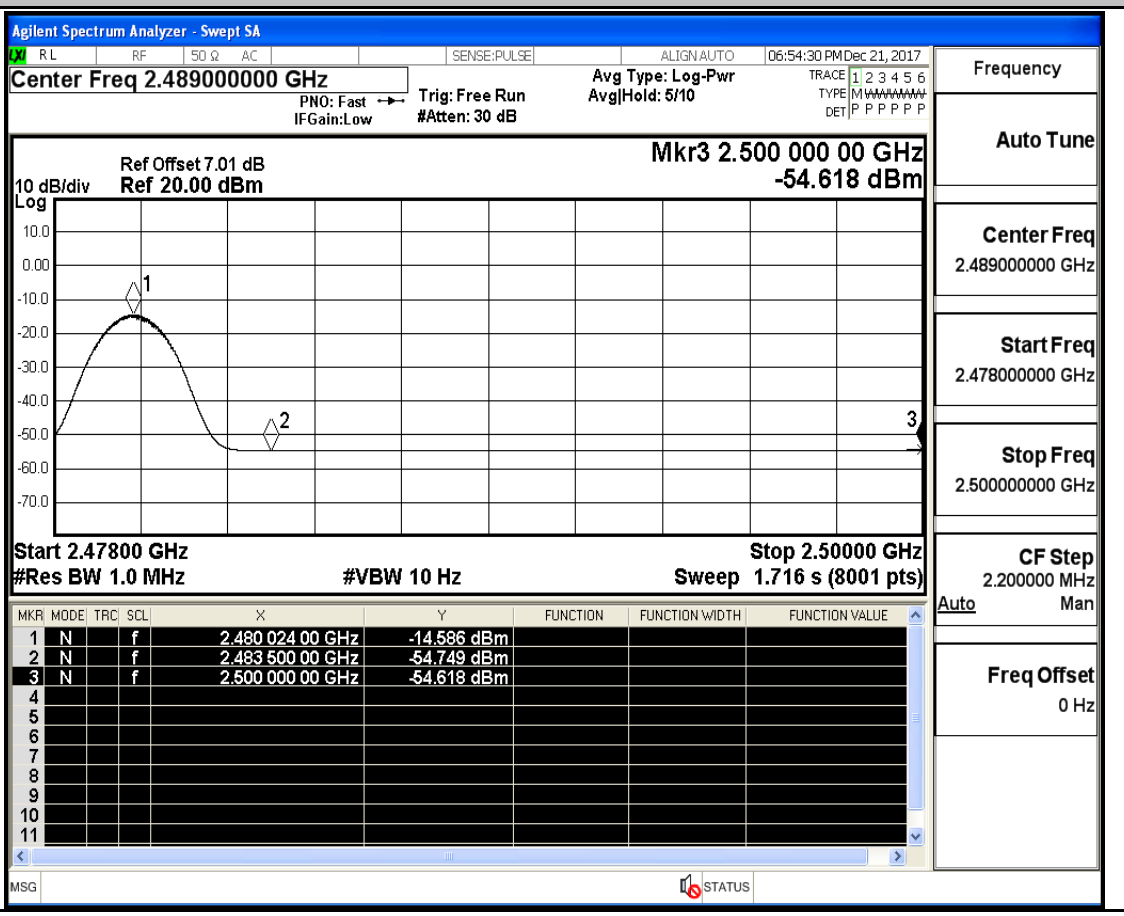

Restrict-band band-edge measurements_2402_AV



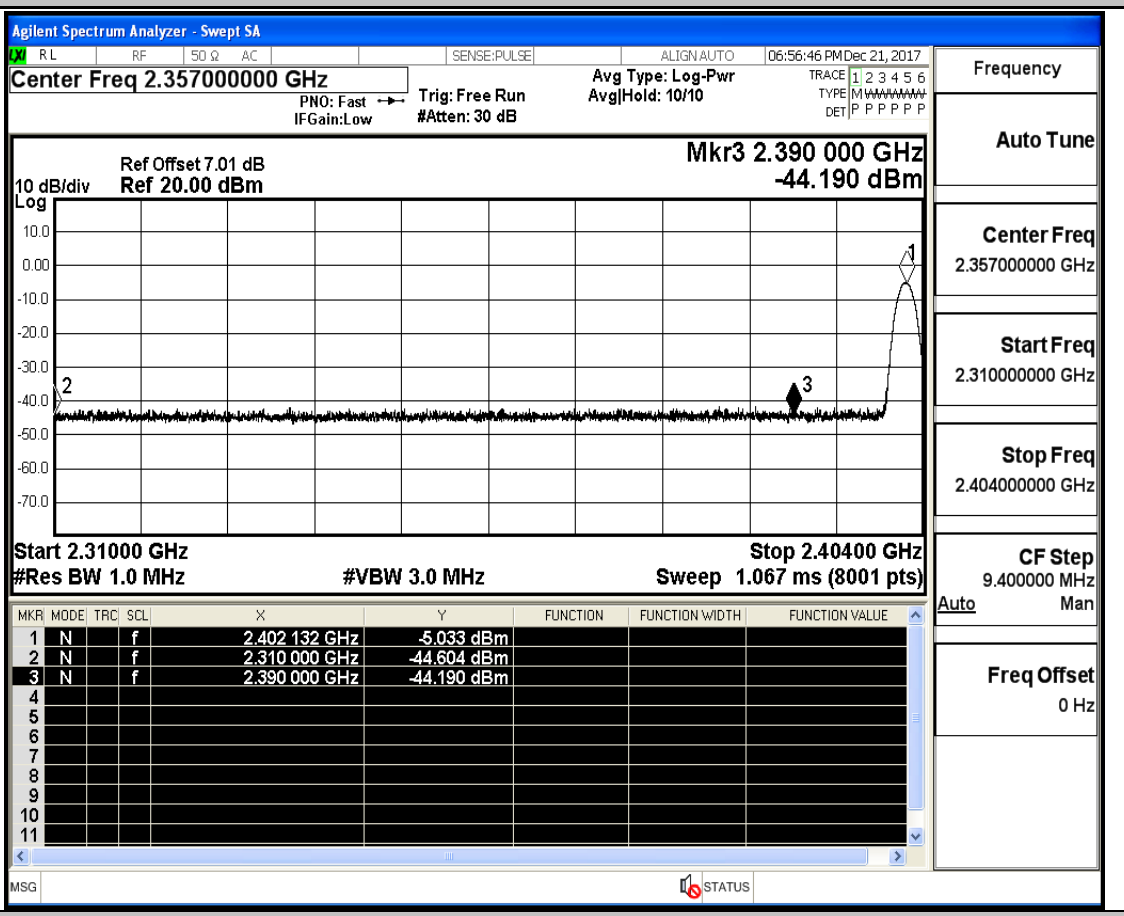
Restrict-band band-edge measurements_2480_PEAK



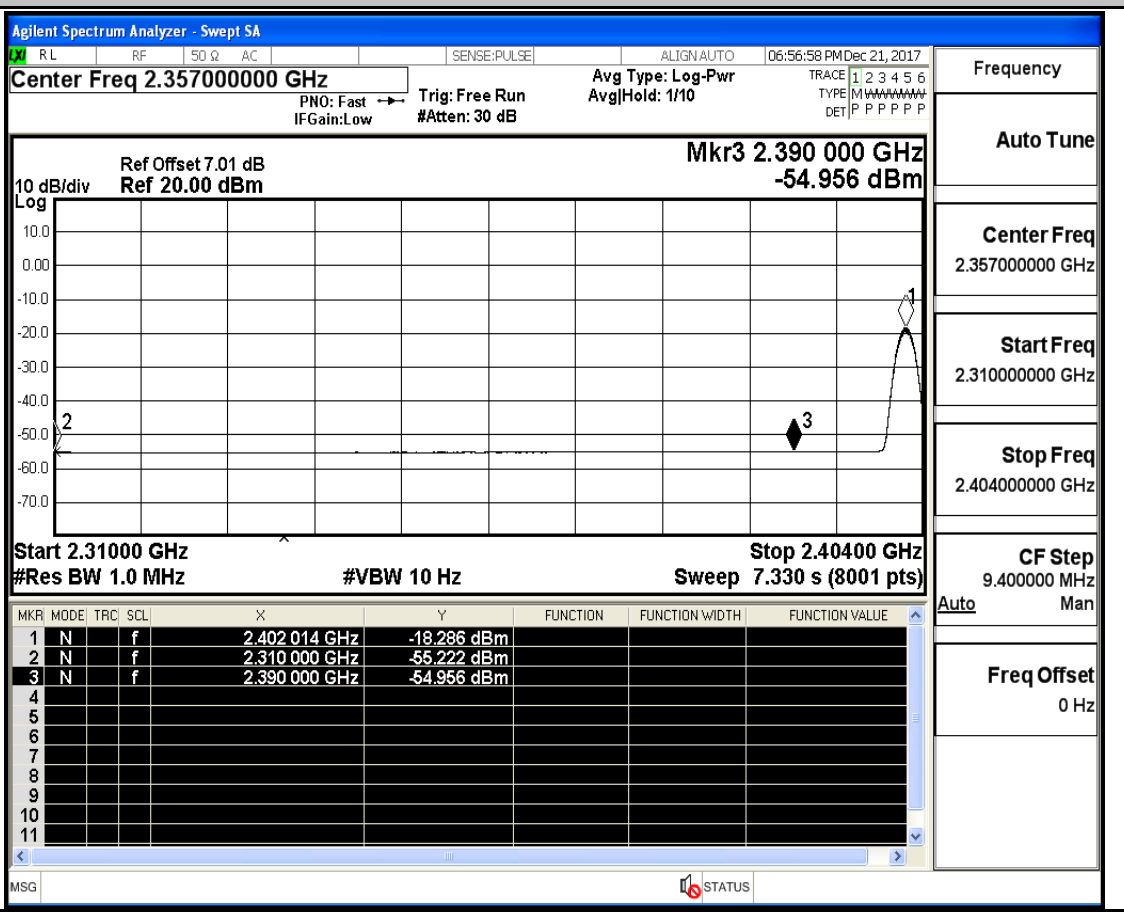

Restrict-band band-edge measurements_2480_AV



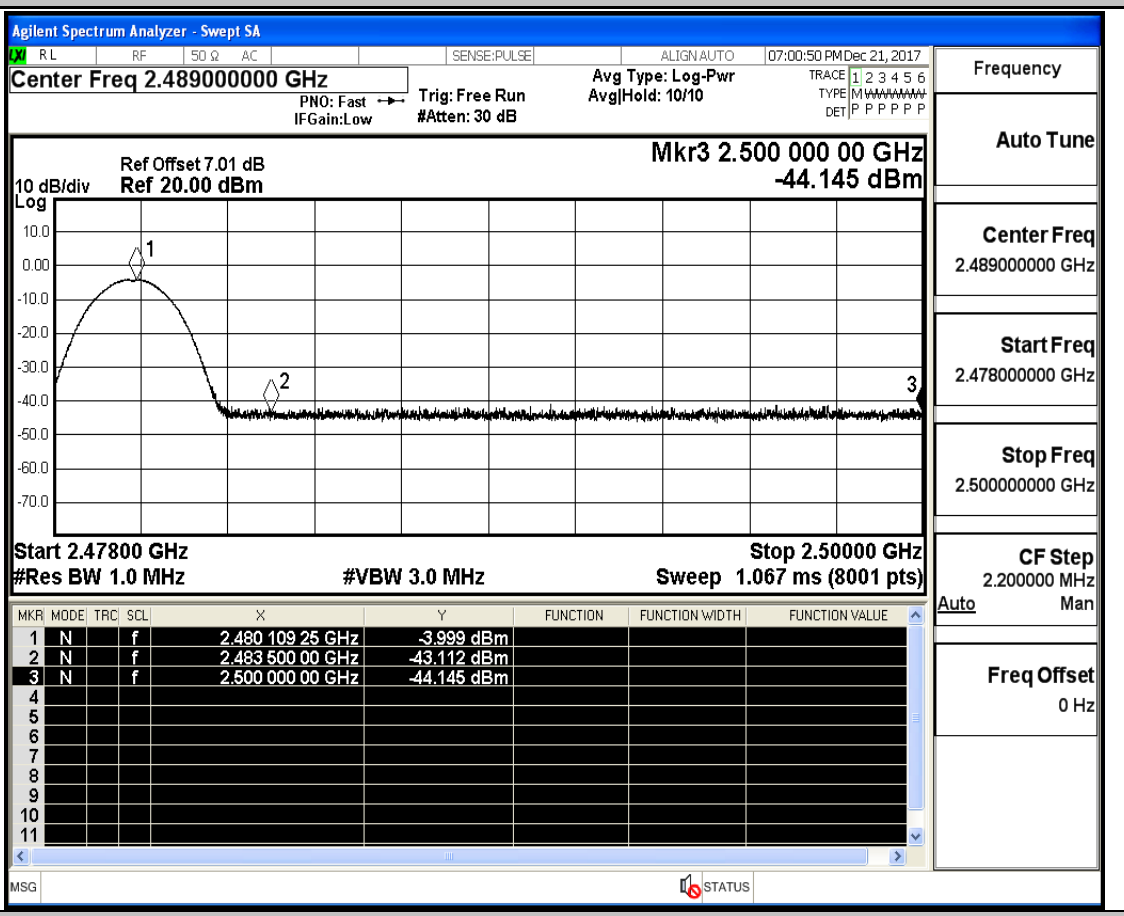
Restrict-band band-edge measurements_2402_PEAK



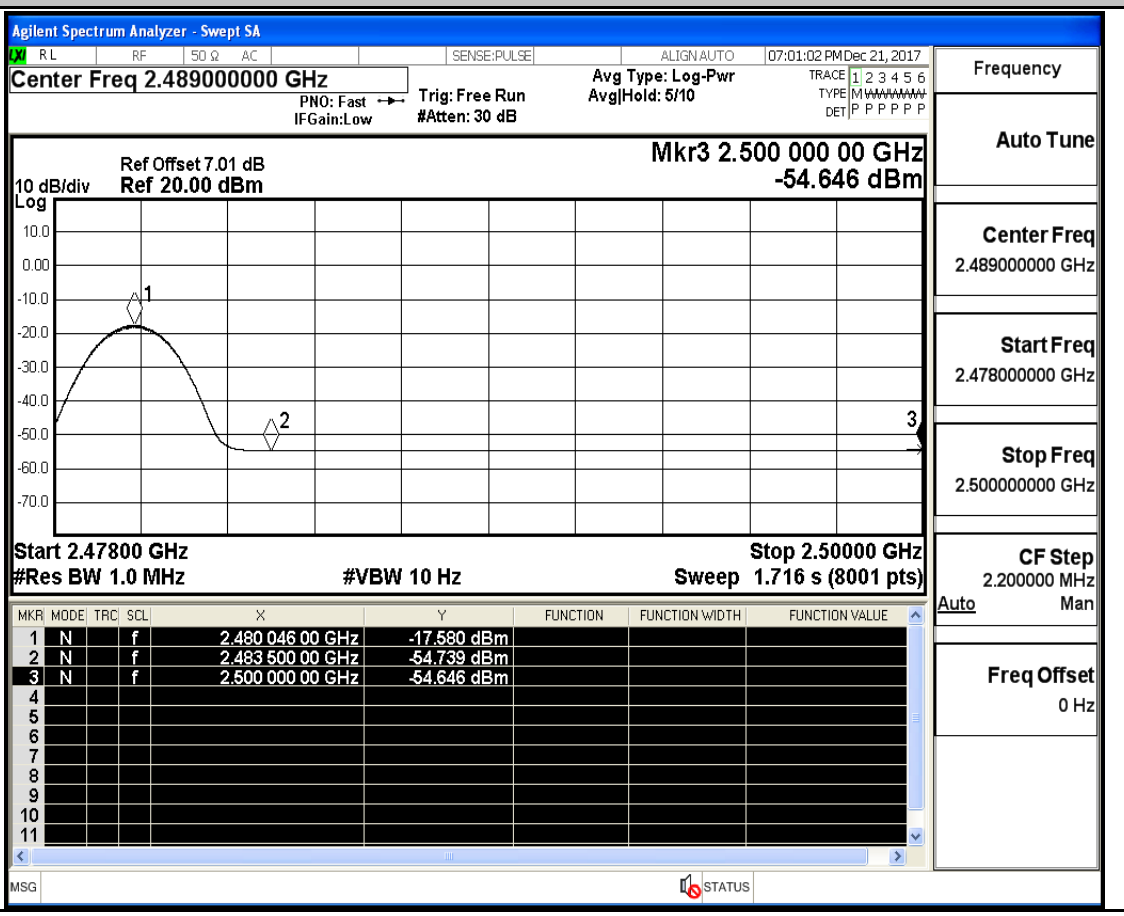

Restrict-band band-edge measurements_2402_AV



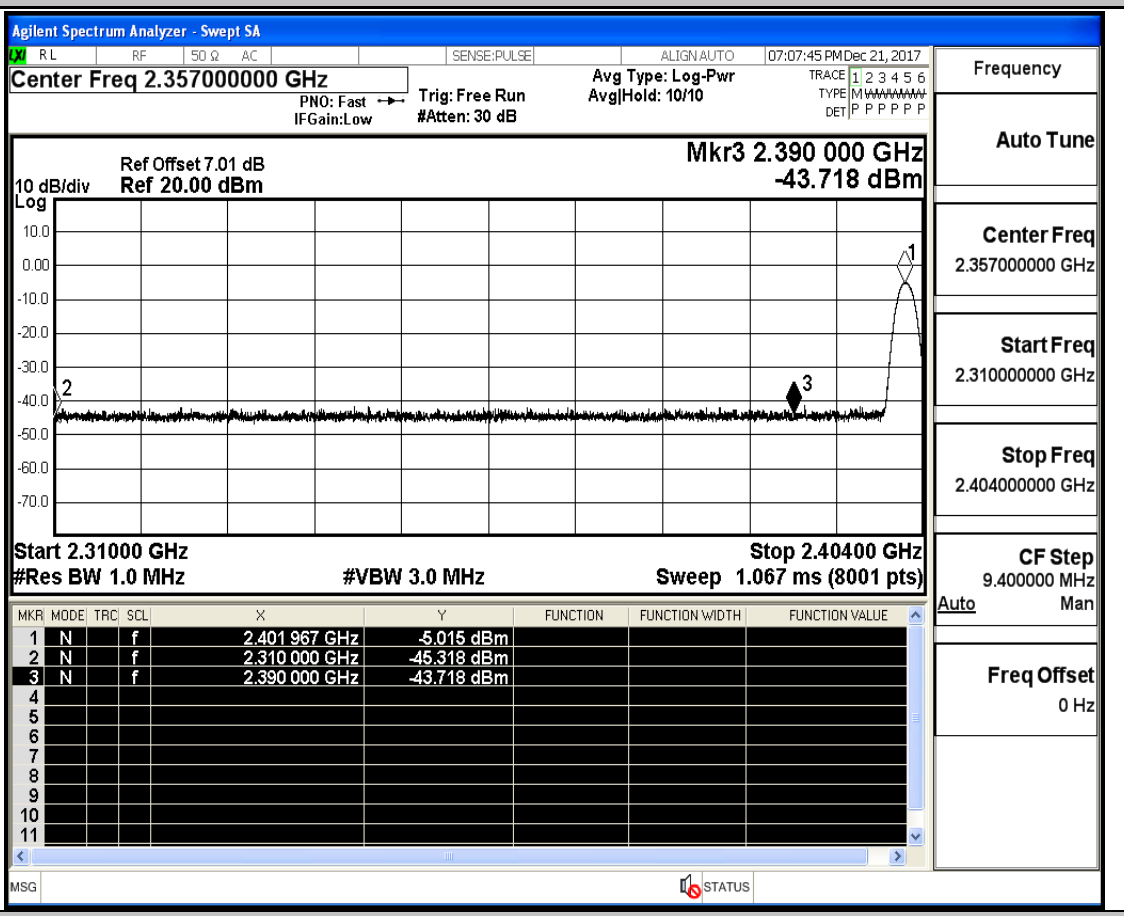
Restrict-band band-edge measurements_2480_PEAK



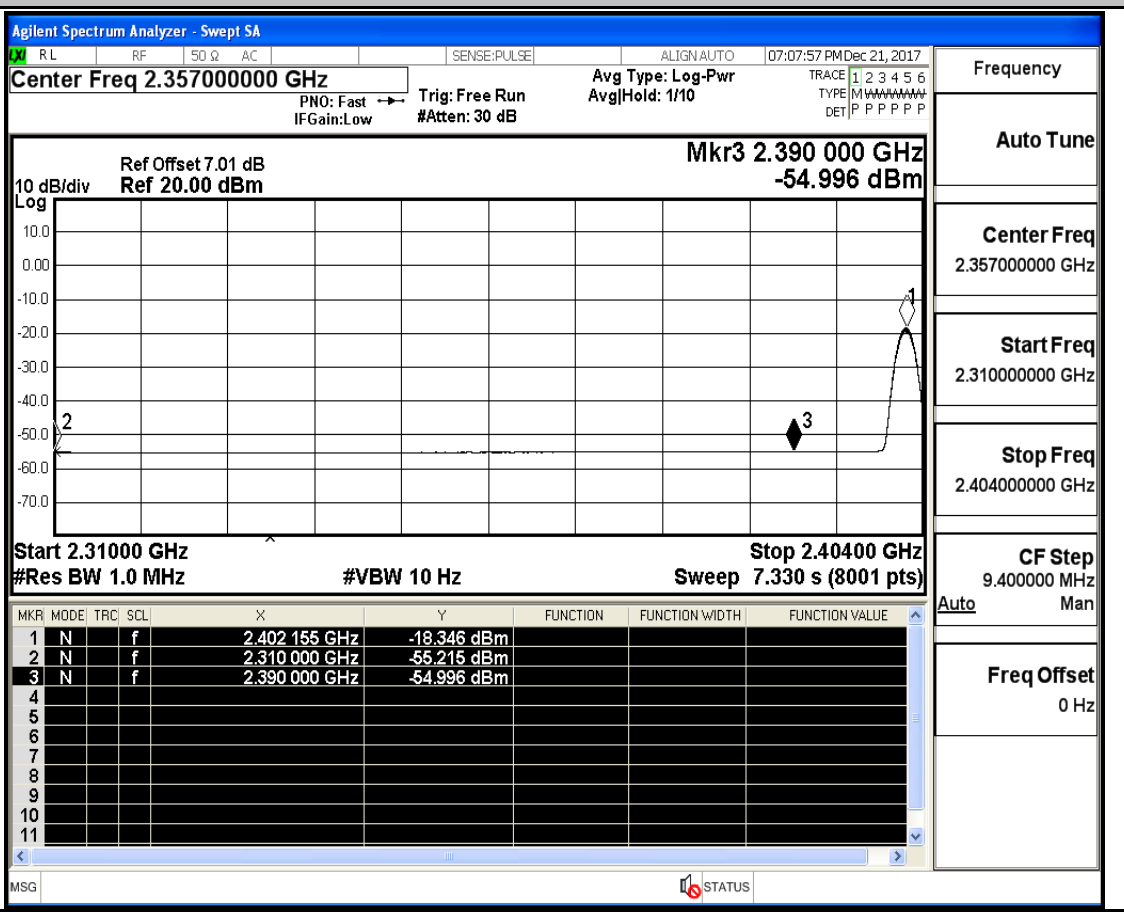

Restrict-band band-edge measurements_2480_AV



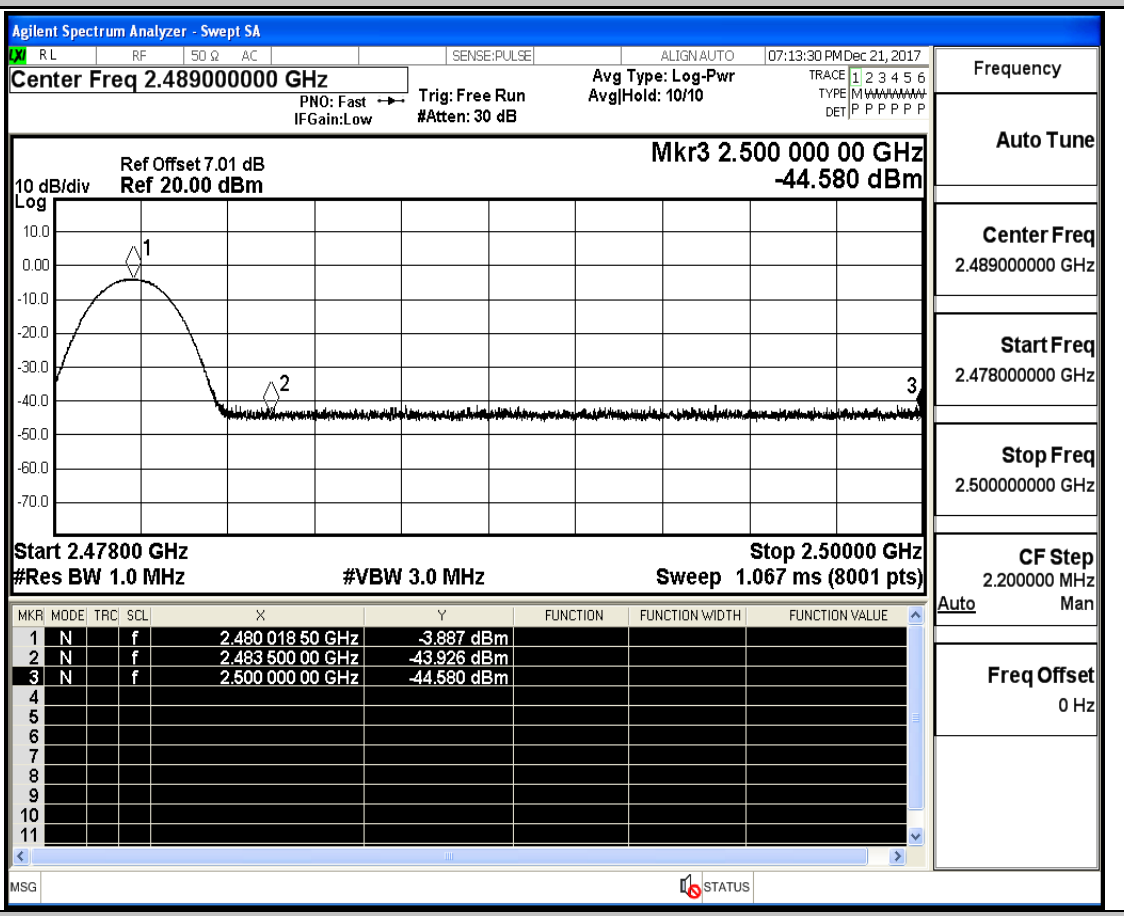
Restrict-band band-edge measurements_2402_PEAK

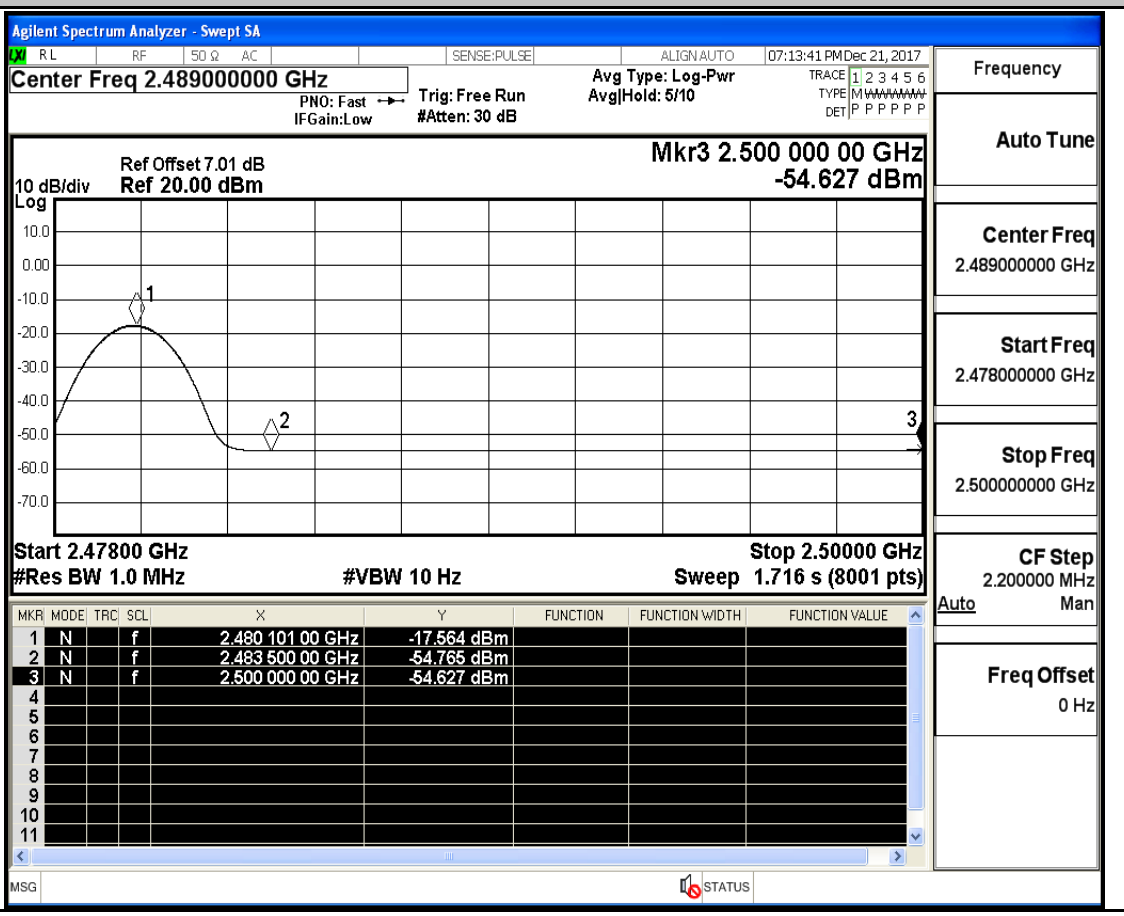



Restrict-band band-edge measurements_2402_AV



Restrict-band band-edge measurements_2480_PEAK




Restrict-band band-edge measurements_2480_AV