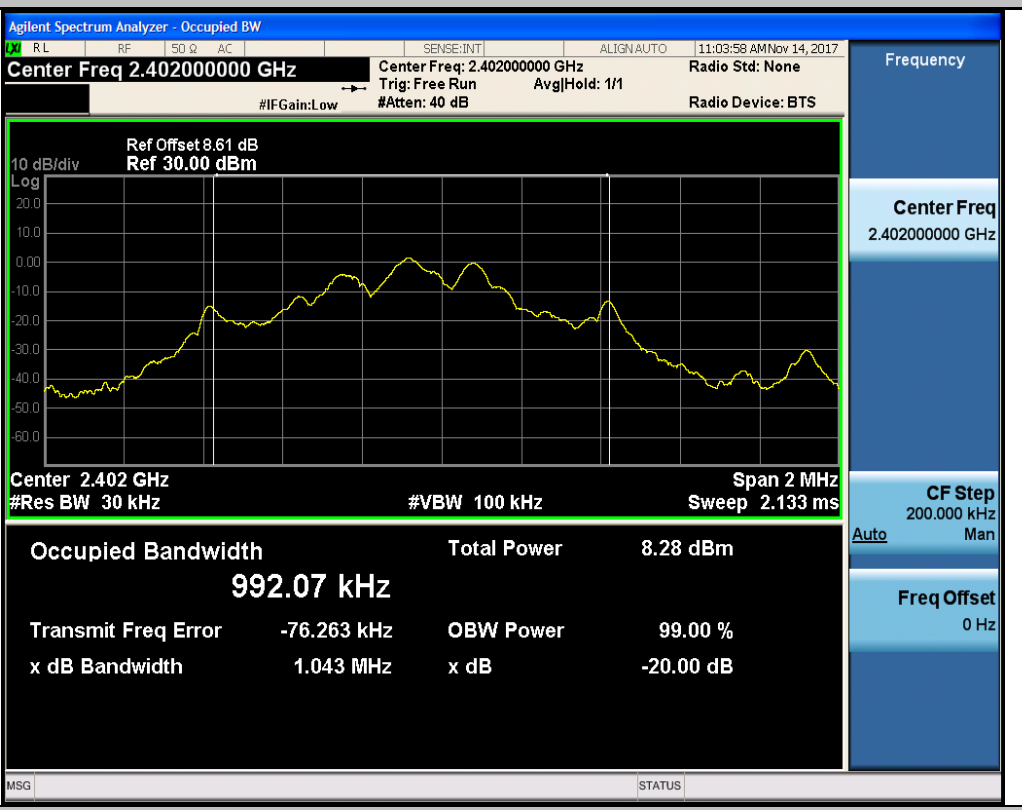
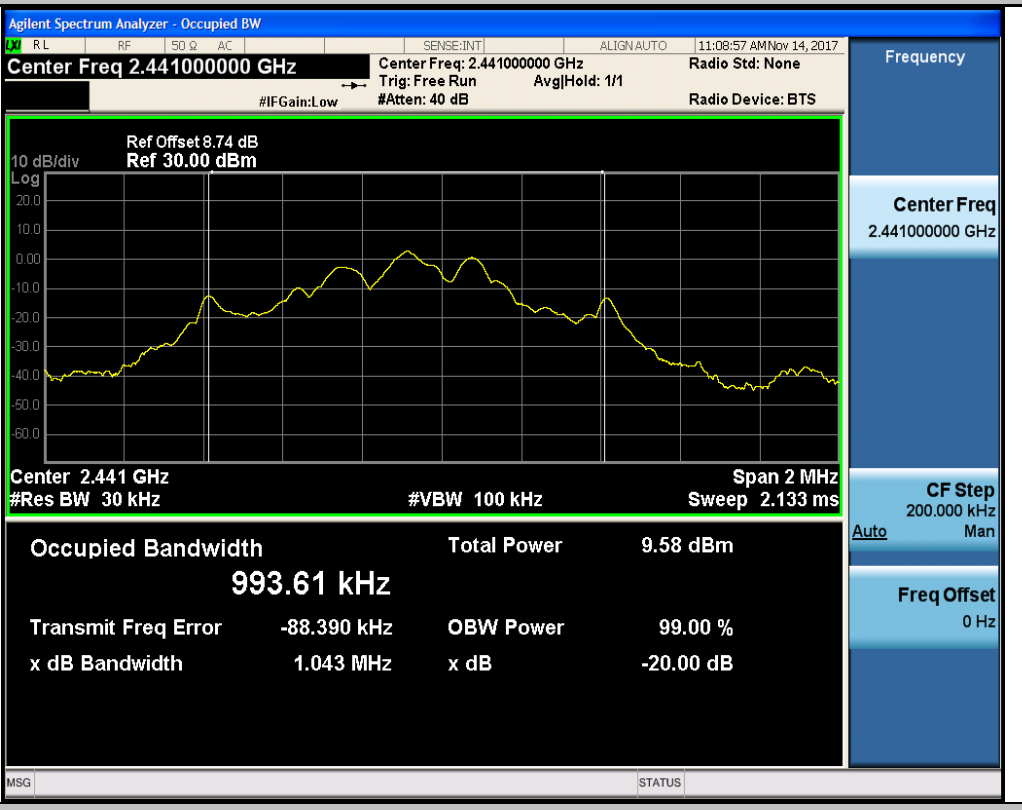
1.20 dB Bandwidth

Test Mode	Test Channel	EBW[MHz]	Limit[MHz]	Verdict
DH5	2402	1.043	---	PASS
DH5	2441	1.043	---	PASS
DH5	2480	1.042	---	PASS
2DH5	2402	1.104	---	PASS
2DH5	2441	1.104	---	PASS
2DH5	2480	1.158	---	PASS
3DH5	2402	1.172	---	PASS
3DH5	2441	1.172	---	PASS
3DH5	2480	1.176	---	PASS

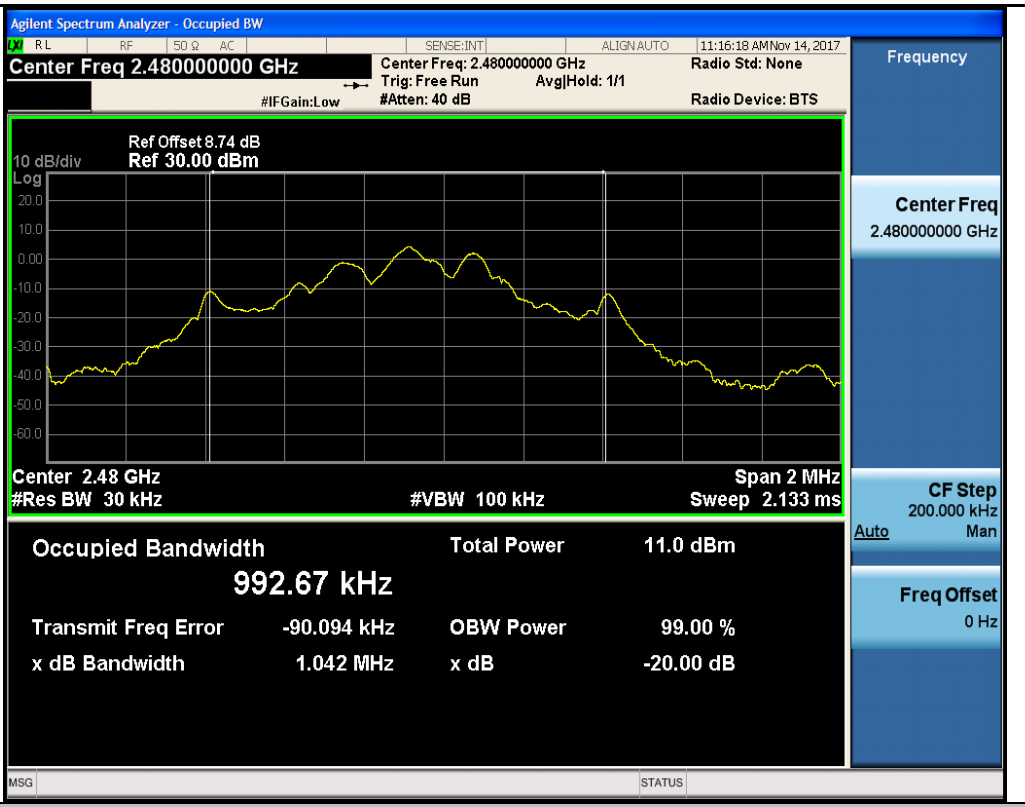
20 dB Bandwidth_DH5_2402



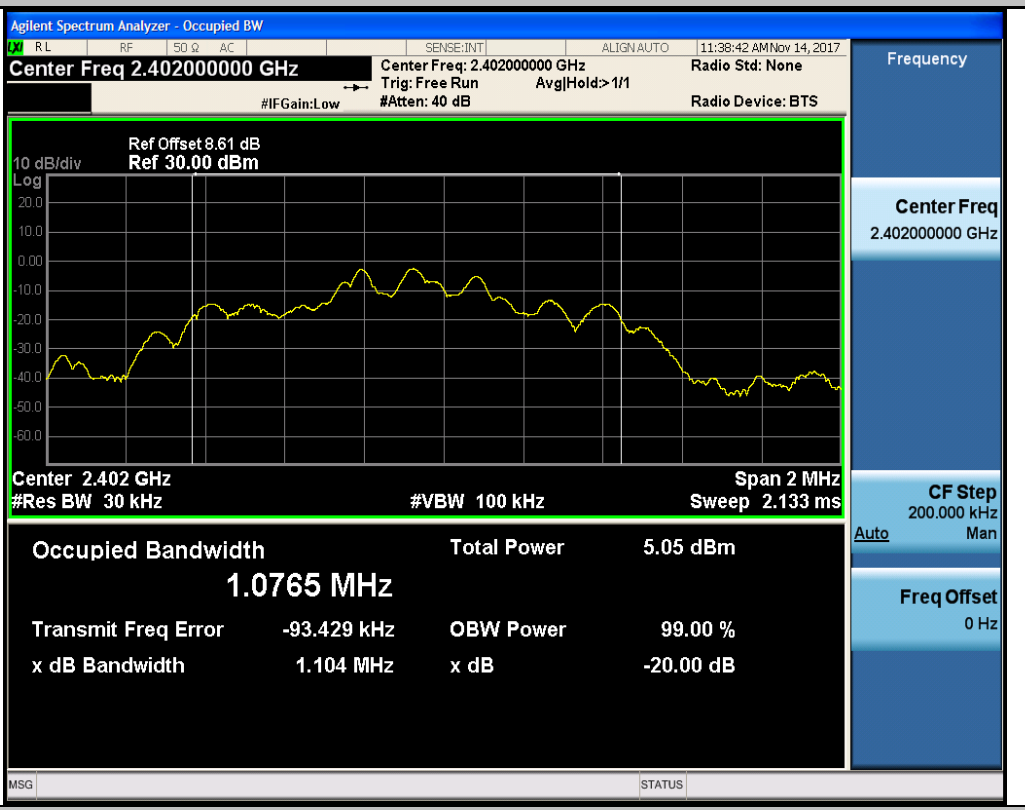
20 dB Bandwidth_DH5_2441



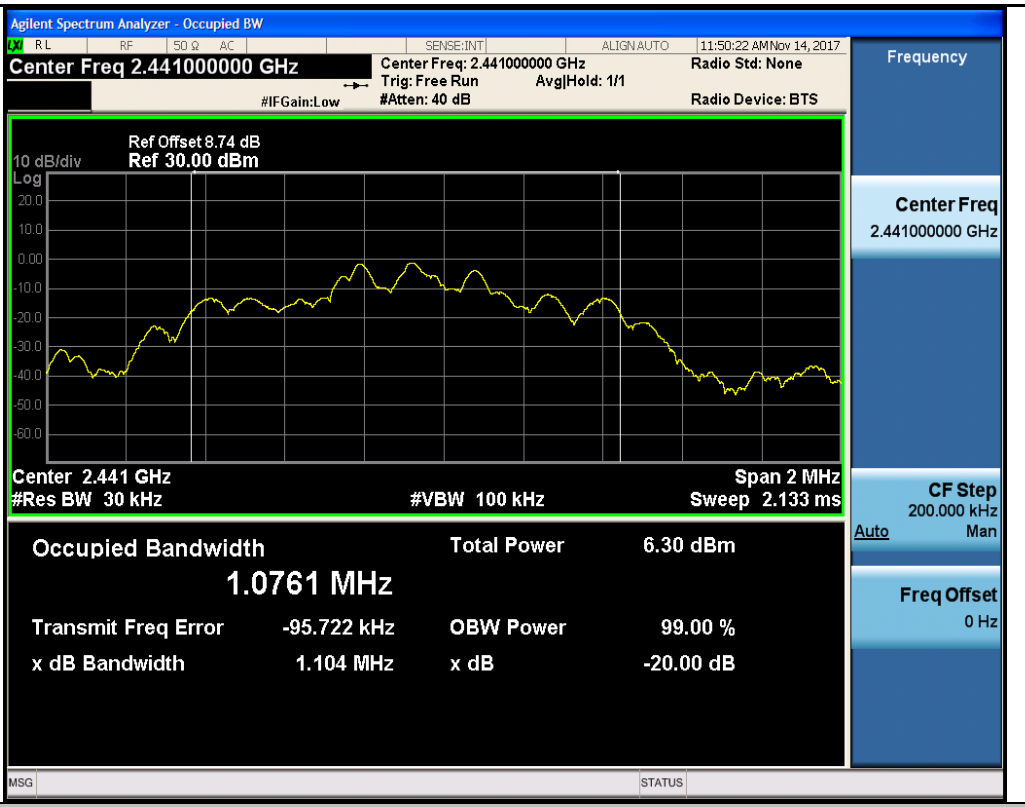
20 dB Bandwidth_DH5_2480



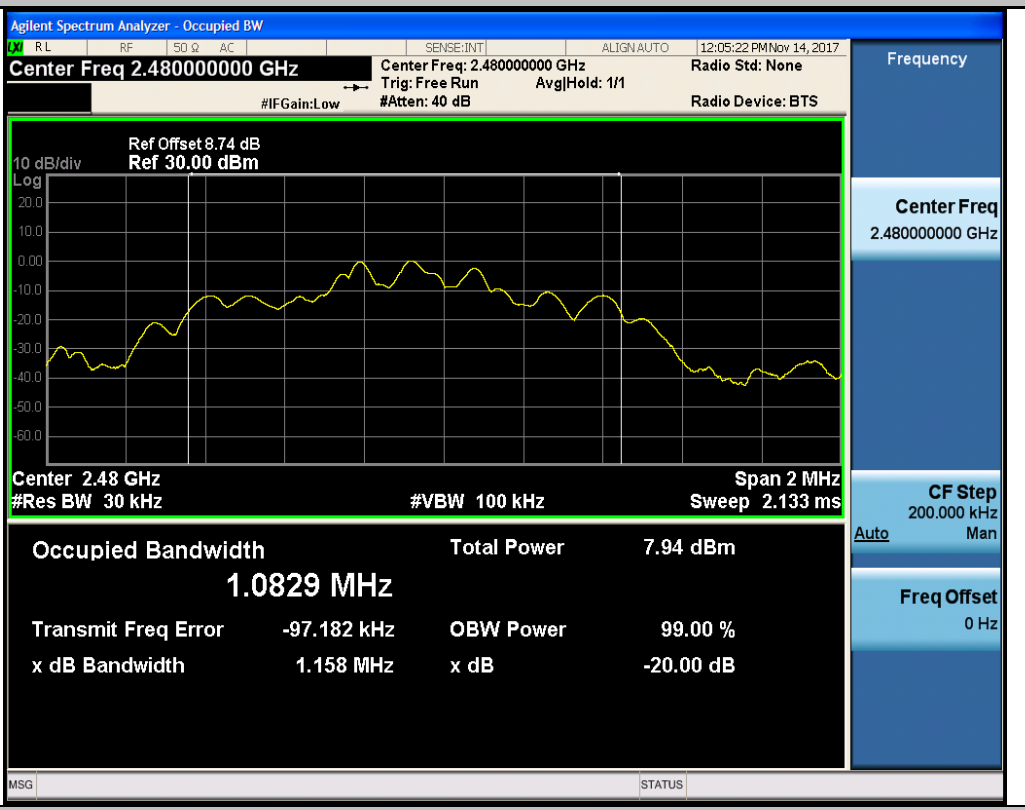
20 dB Bandwidth_2DH5_2402



20 dB Bandwidth_2DH5_2441

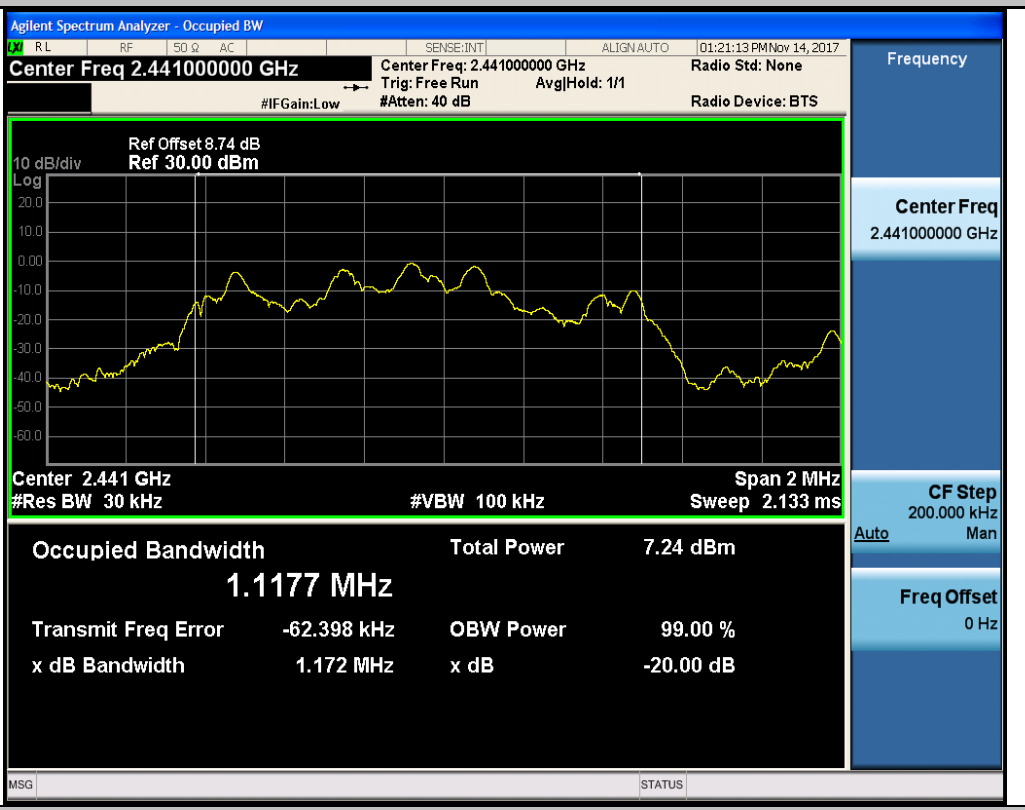


20 dB Bandwidth_2DH5_2480

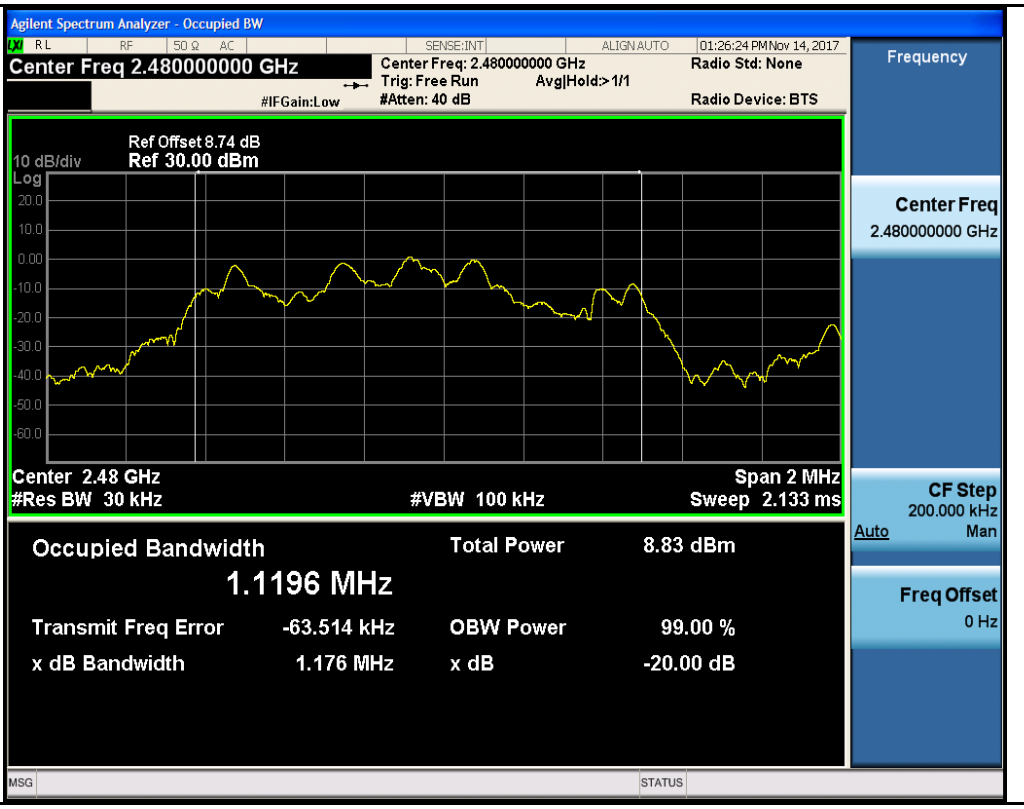


20 dB Bandwidth_3DH5_2402

20 dB Bandwidth_3DH5_2441



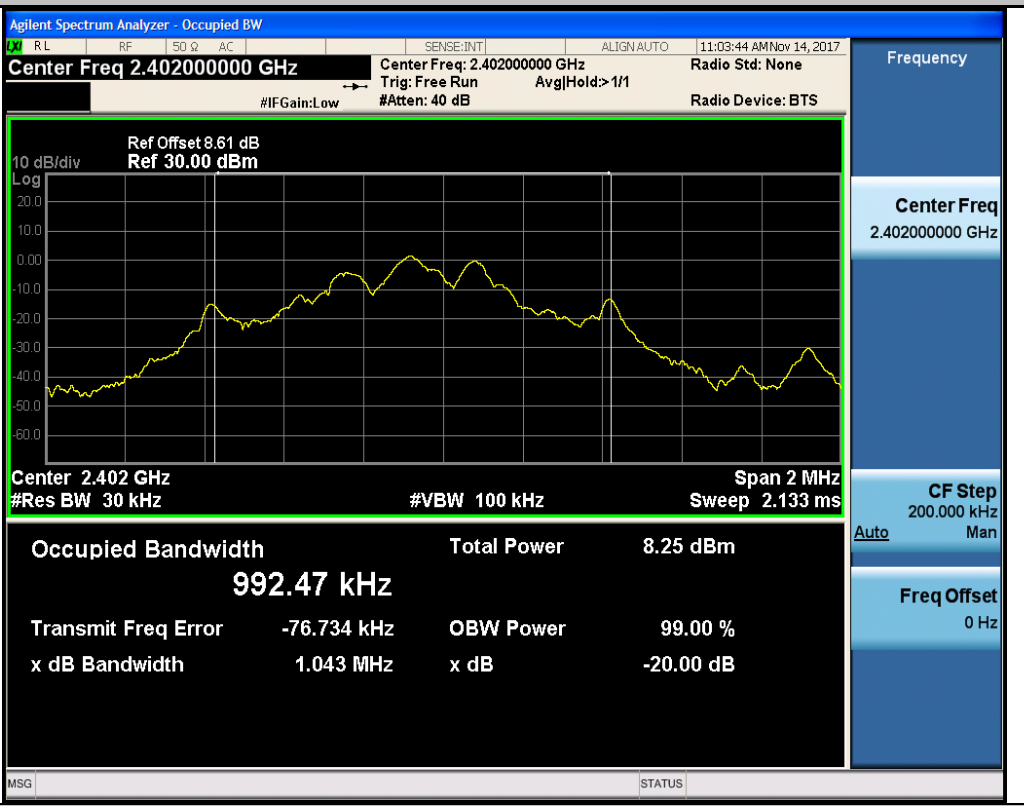
20 dB Bandwidth_3DH5_2480


Agilent Spectrum Analyzer - Occupied BW
RL
RF
50 Ω
AC
SENSE:INT
ALIGN AUTO
01:26:24 PM Nov 14, 2017
Center Freq 2.480000000 GHz
Center Freq: 2.480000000 GHz
Trig: Free Run
Avg|Hold:>1/1
#Atten: 40 dB
#IFGain:Low
Radio Std: None
Radio Device: BTS
Ref Offset 8.74 dB
10 dB/div
Ref 30.00 dBm
Log
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
Center 2.48 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 2 MHz
Sweep 2.133 ms
Occupied Bandwidth
1.1196 MHz
Total Power
8.83 dBm
Transmit Freq Error
-63.514 kHz
OBW Power
99.00 %
x dB Bandwidth
1.176 MHz
x dB
-20.00 dB
MSG
STATUS
Frequency
Center Freq
2.480000000 GHz
CF Step
200.000 kHz
Auto
Man
Freq Offset
0 Hz

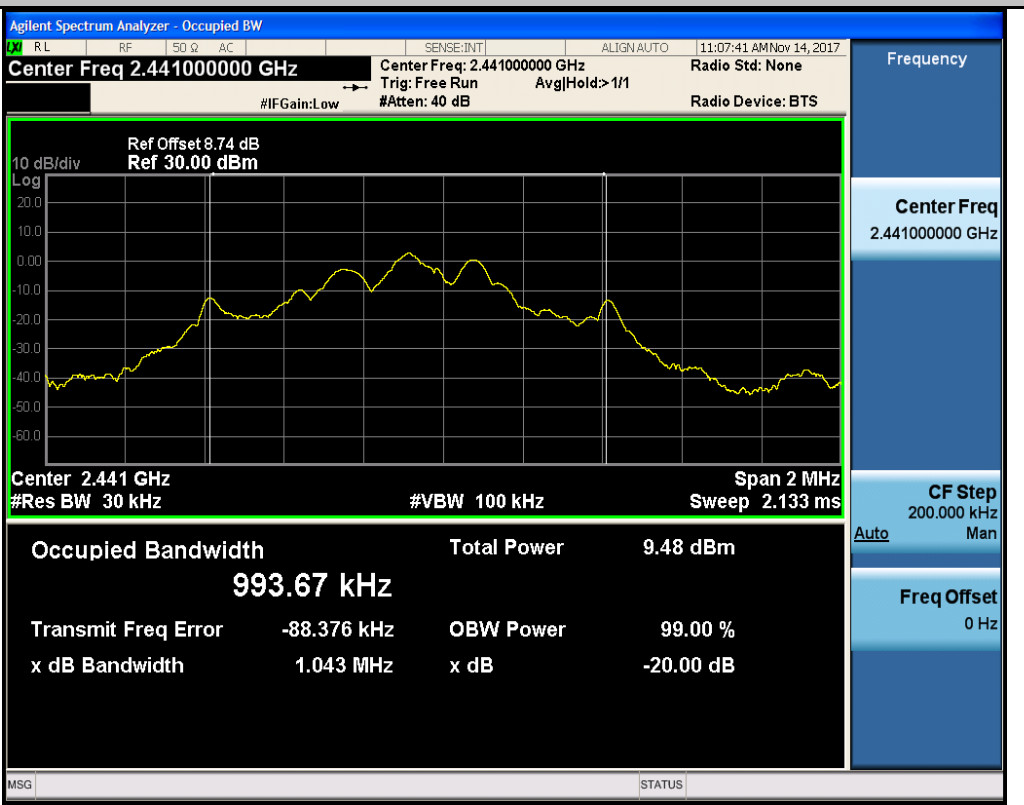
2.99% Occupied Bandwidth

Test Mode	Test Channel	OBW[MHz]	Limit[MHz]	Verdict
DH5	2402	0.99247	---	PASS
DH5	2441	0.99367	---	PASS
DH5	2480	0.99203	---	PASS
2DH5	2402	1.0781	---	PASS
2DH5	2441	1.0771	---	PASS
2DH5	2480	1.0802	---	PASS
3DH5	2402	1.1169	---	PASS
3DH5	2441	1.1179	---	PASS
3DH5	2480	1.1216	---	PASS

Occupied Bandwidth_DH5_2402

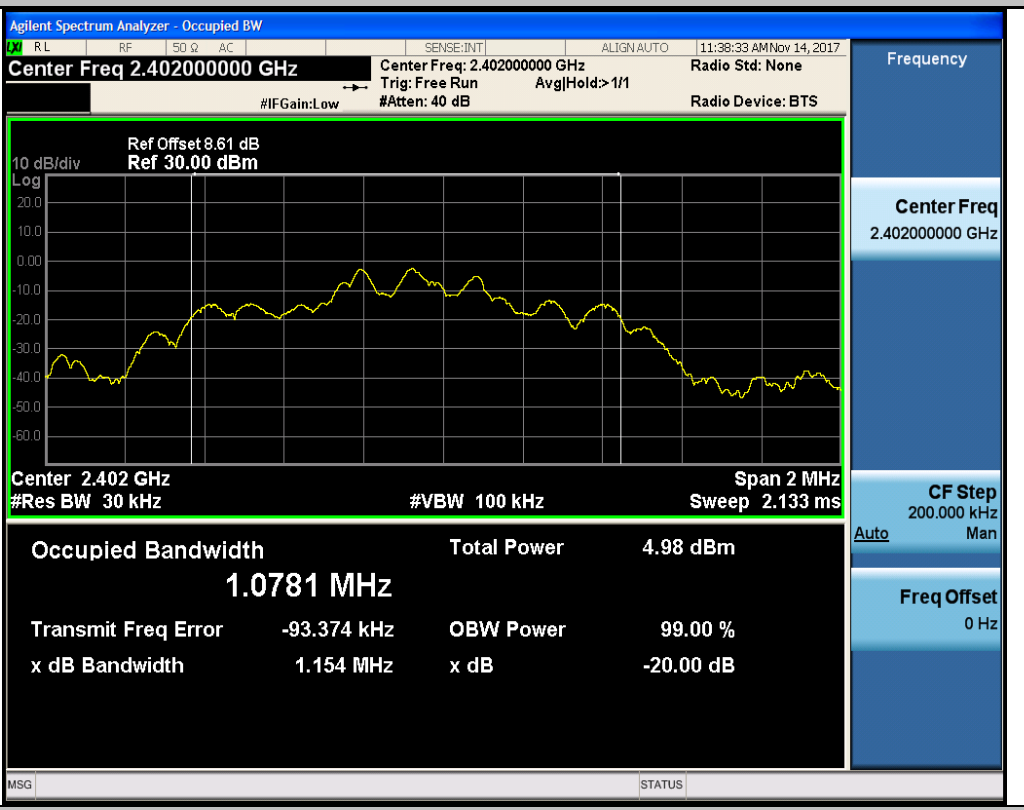


Occupied Bandwidth_DH5_2441

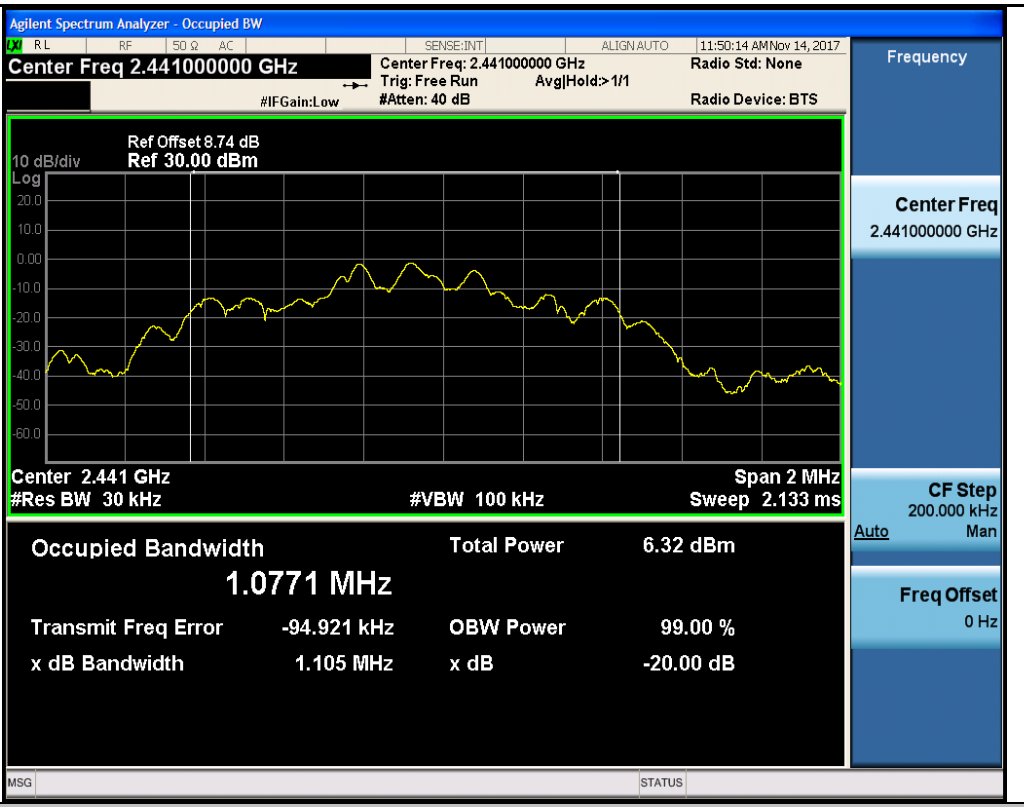


Occupied Bandwidth_DH5_2480

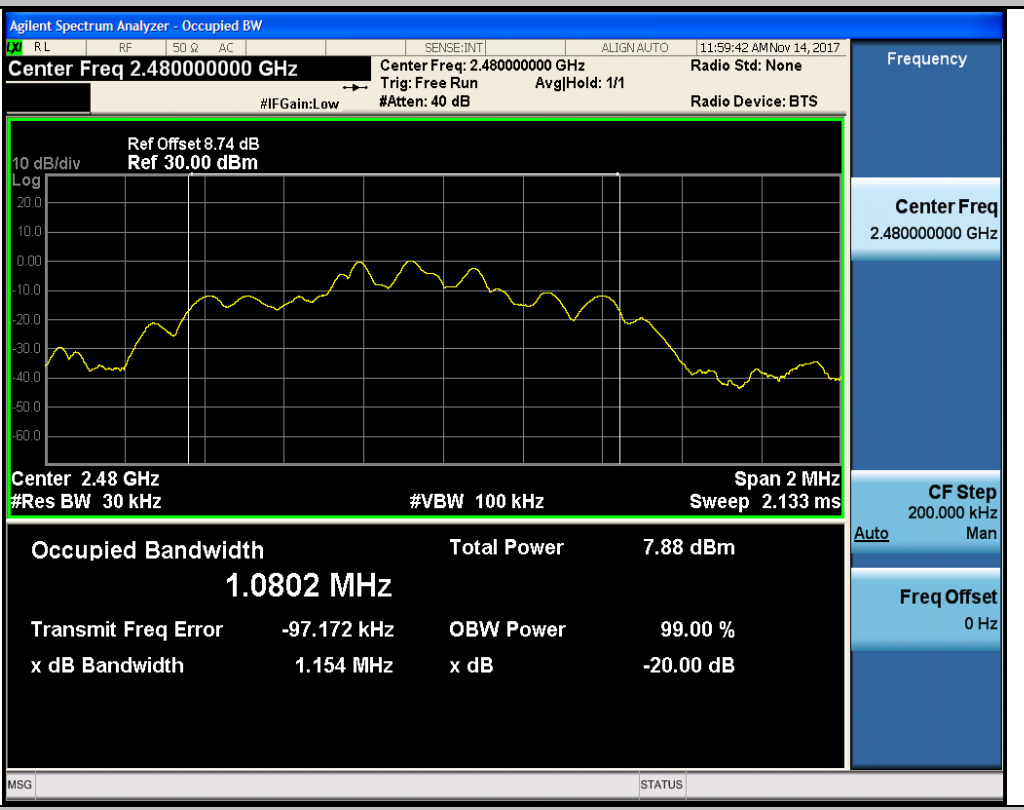
Occupied Bandwidth_2DH5_2402



Occupied Bandwidth_2DH5_2441

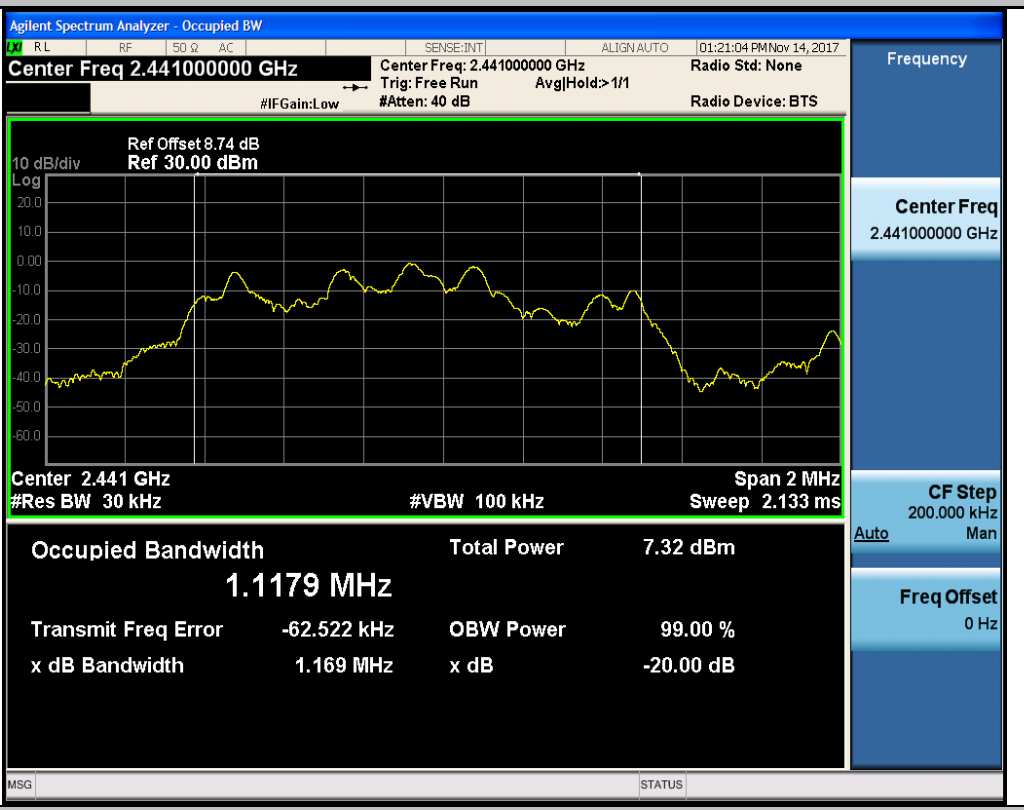


Occupied Bandwidth_2DH5_2480

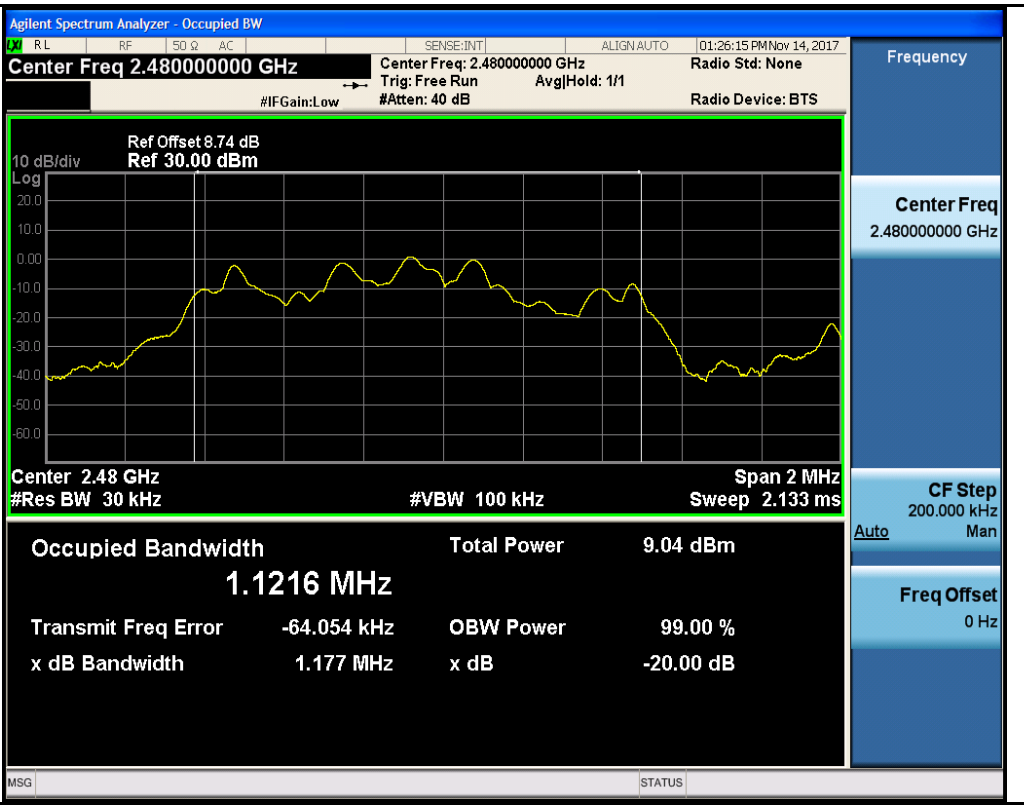


Occupied Bandwidth_3DH5_2402

Occupied Bandwidth_3DH5_2441



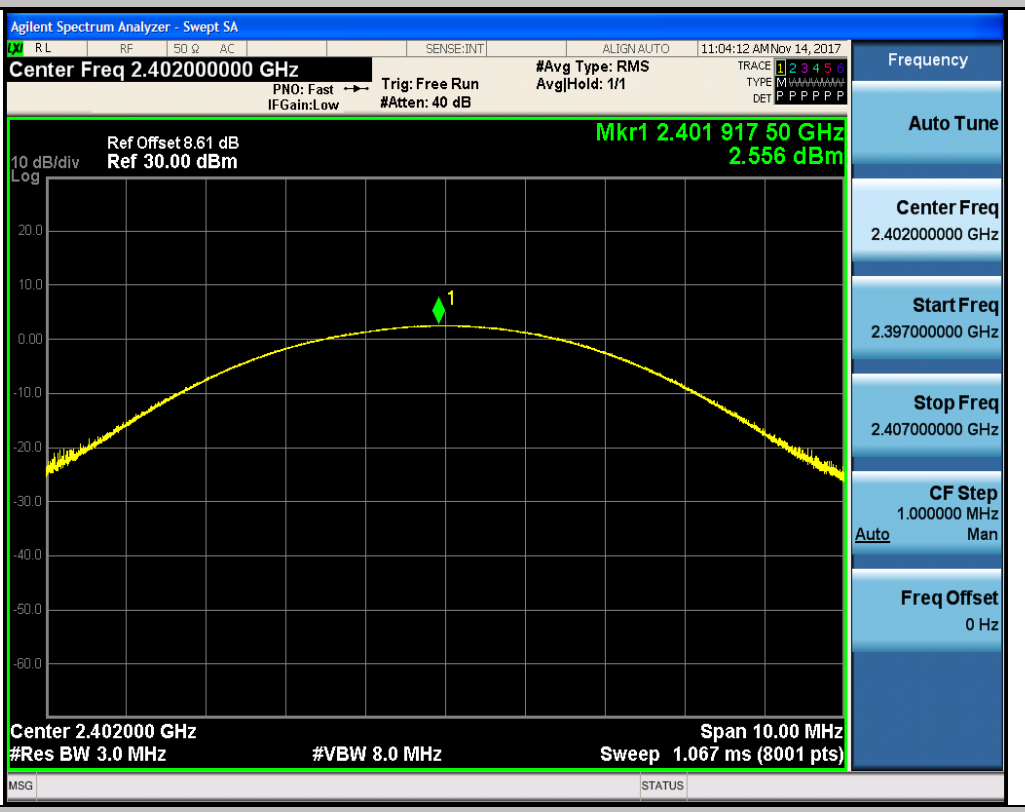
Occupied Bandwidth_3DH5_2480


Agilent Spectrum Analyzer - Occupied BW
RL
RF
50 Ω
AC
SENSE:INT
ALIGN AUTO
01:26:15 PM Nov 14, 2017
Center Freq 2.480000000 GHz
Center Freq: 2.480000000 GHz
Trig: Free Run
Avg|Hold: 1/1
#IFGain:Low
#Atten: 40 dB
Radio Std: None
Radio Device: BTS
Frequency
Ref Offset 8.74 dB
10 dB/div
Ref 30.00 dBm
Log
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
Center Freq
2.480000000 GHz
Center 2.48 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 2 MHz
Sweep 2.133 ms
CF Step
200.000 kHz
Auto
Man
Occupied Bandwidth
1.1216 MHz
Total Power
9.04 dBm
Transmit Freq Error
-64.054 kHz
OBW Power
99.00 %
x dB Bandwidth
1.177 MHz
x dB
-20.00 dB
Freq Offset
0 Hz
MSG
STATUS

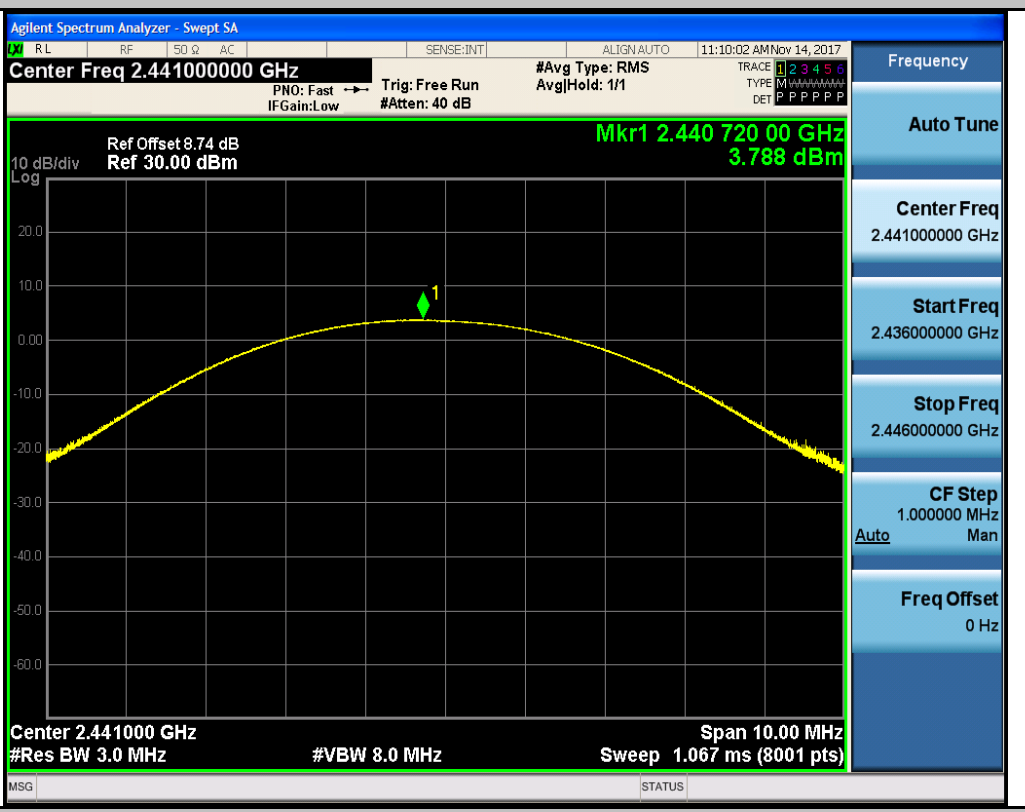
3.Conducted Peak Output Power

Test Mode	Test Channel	Power[dBm]	Limit[dBm]	Verdict
DH5	2402	2.556	30	PASS
DH5	2441	3.788	30	PASS
DH5	2480	5.247	30	PASS
2DH5	2402	-0.608	30	PASS
2DH5	2441	0.62	30	PASS
2DH5	2480	2.167	30	PASS
3DH5	2402	1.473	30	PASS
3DH5	2441	2.336	30	PASS
3DH5	2480	3.841	30	PASS

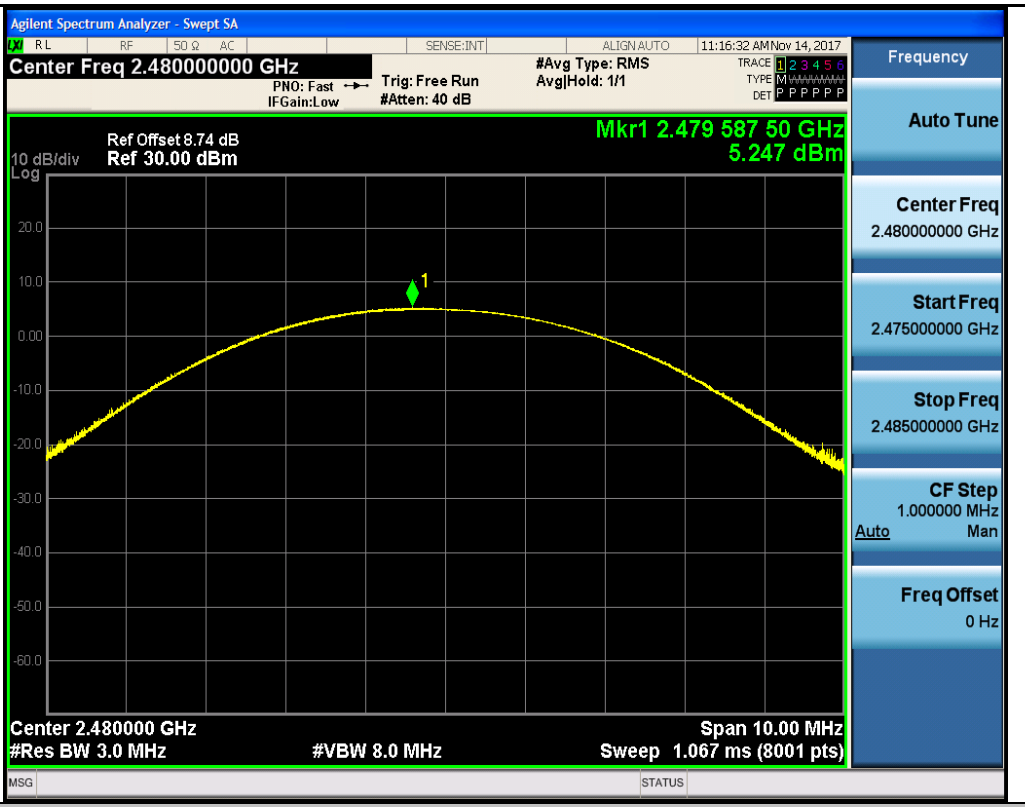
Conducted Peak Output Power_DH5_2402



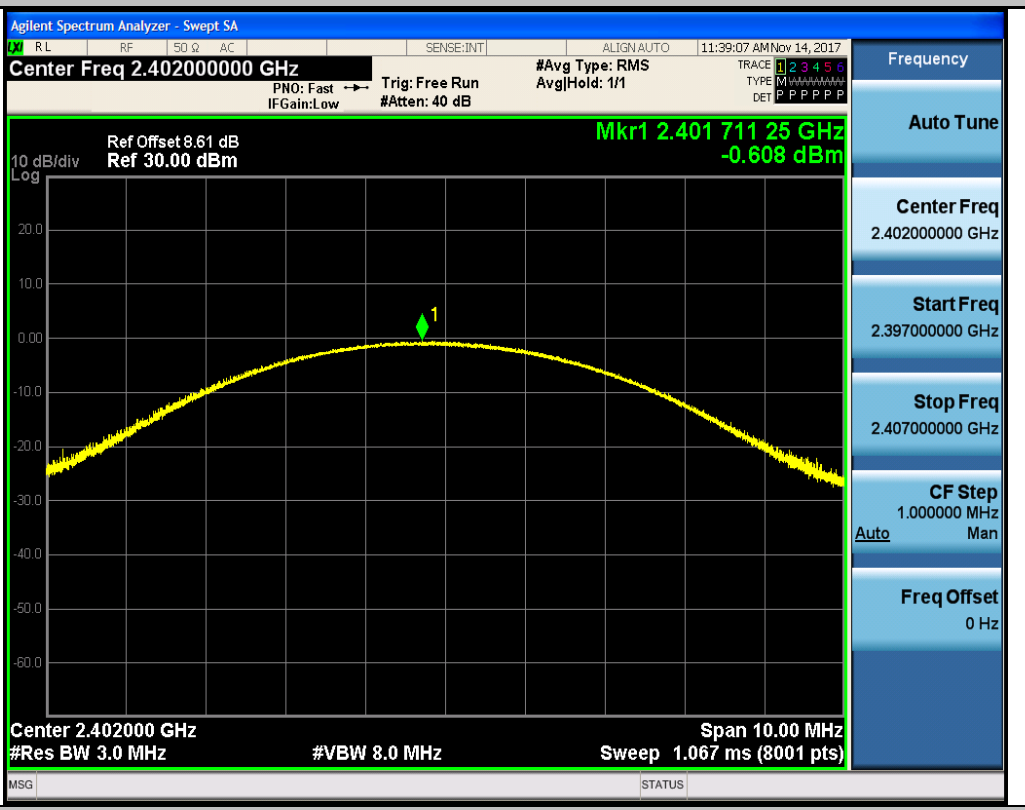
Conducted Peak Output Power_DH5_2441



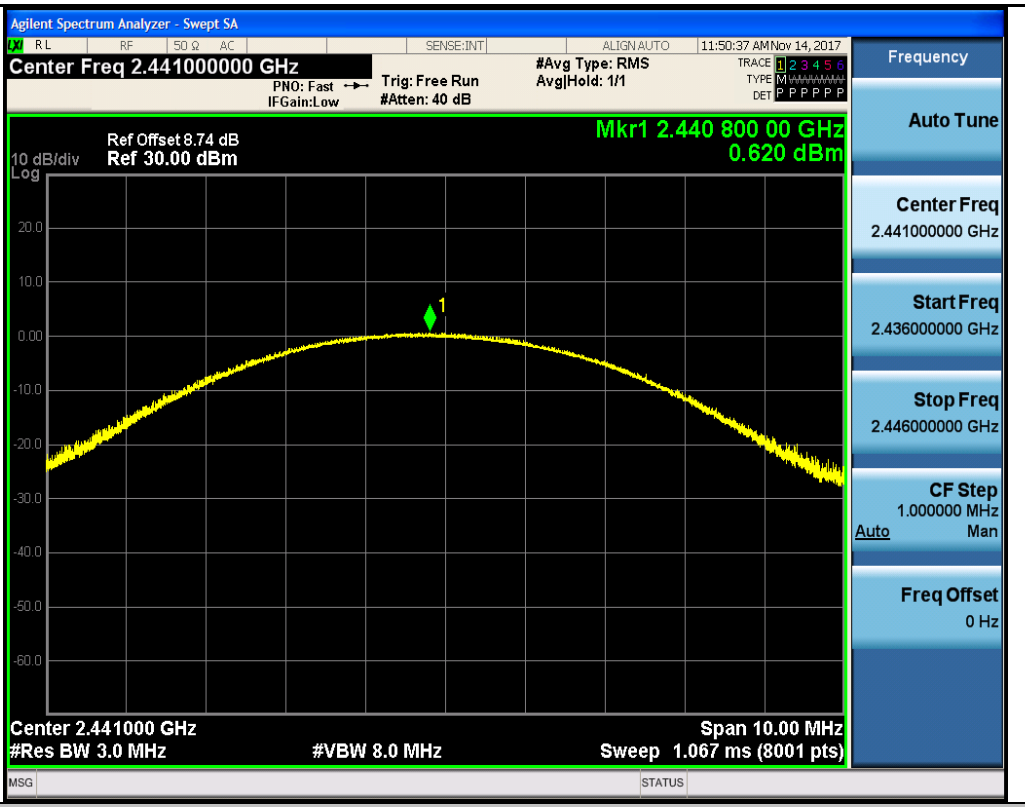
Conducted Peak Output Power_DH5_2480



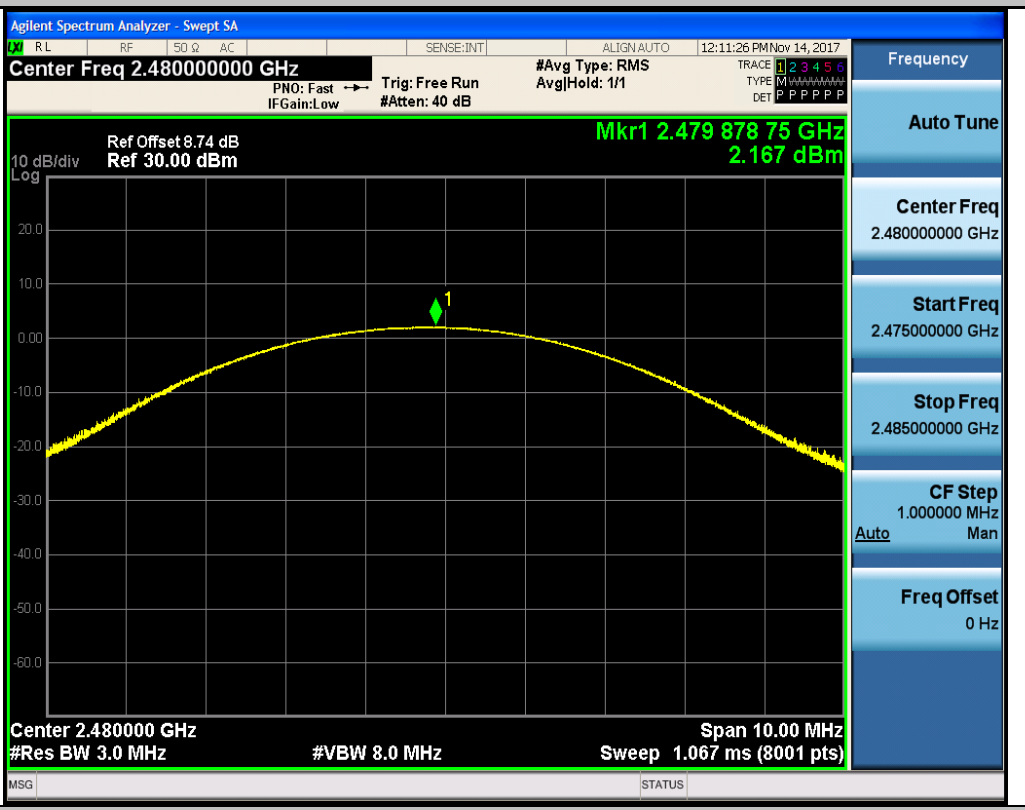
Conducted Peak Output Power_2DH5_2402



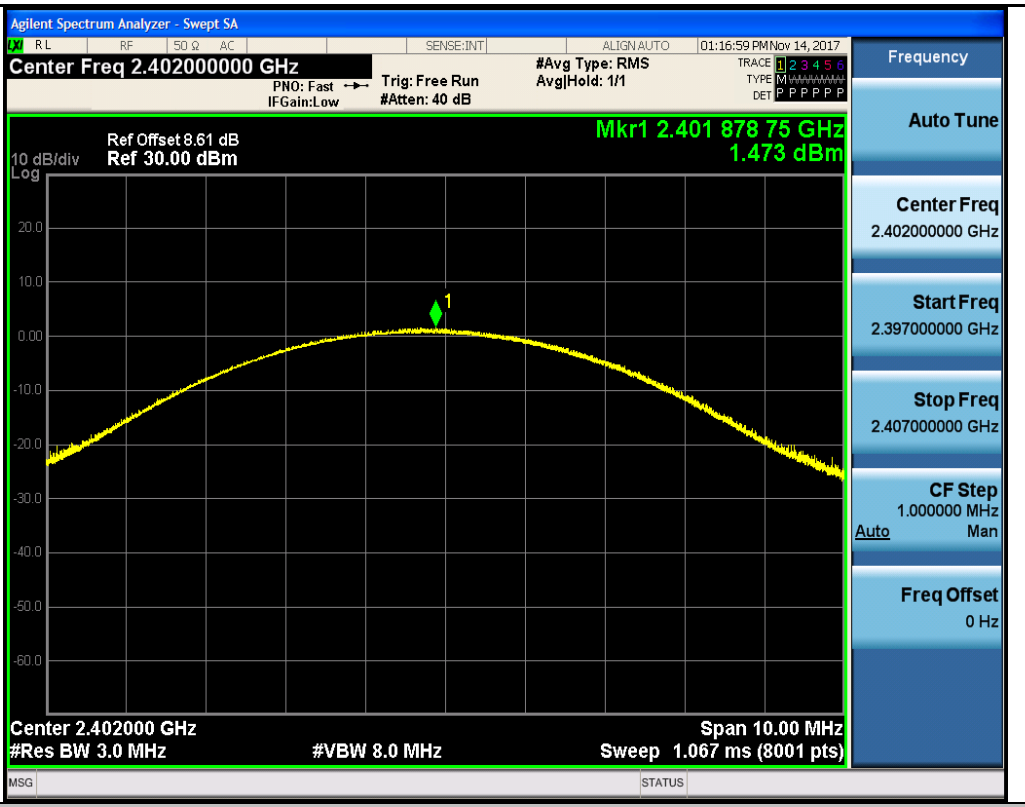
Conducted Peak Output Power_2DH5_2441



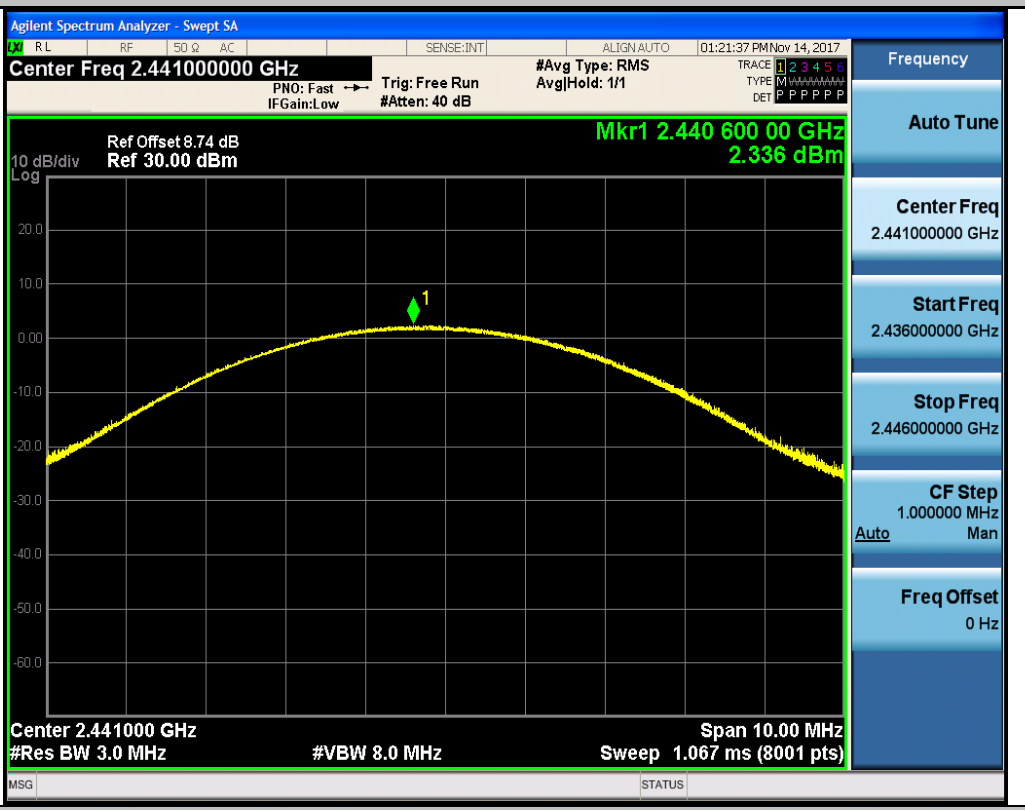
Conducted Peak Output Power_2DH5_2480



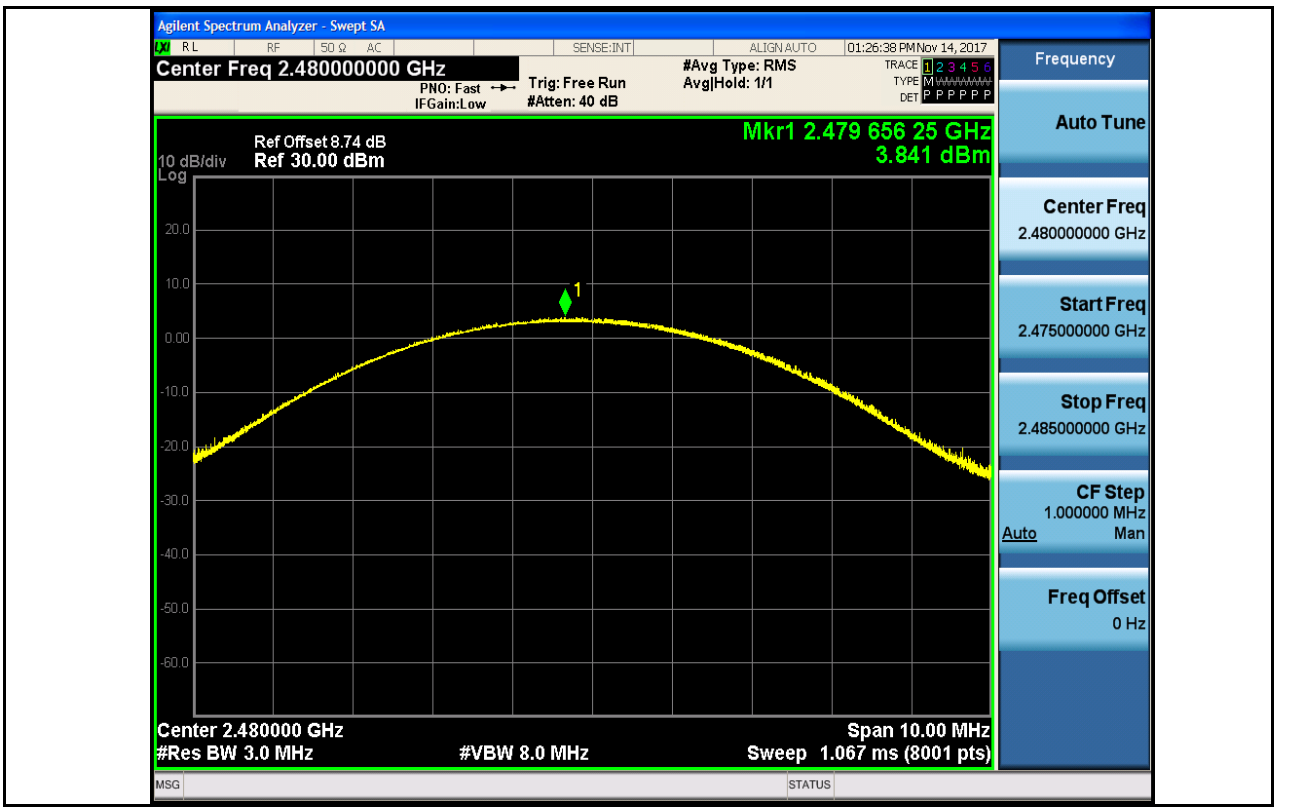
Conducted Peak Output Power_3DH5_2402



Conducted Peak Output Power_3DH5_2441



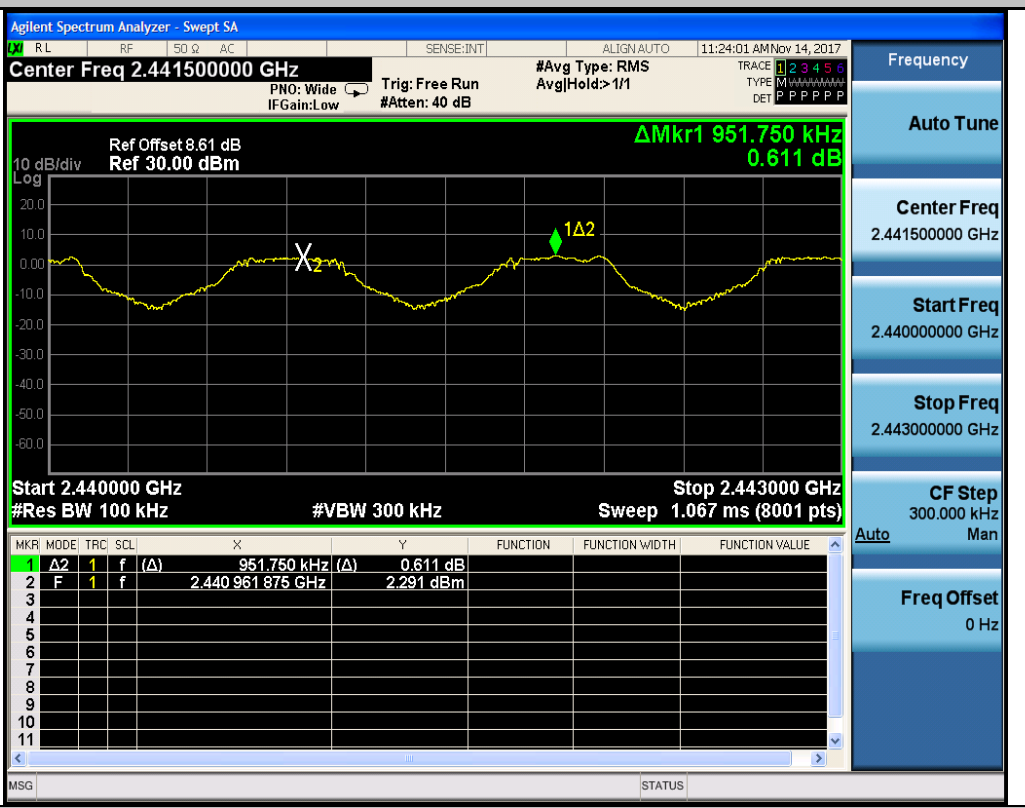
Conducted Peak Output Power_3DH5_2480


Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
01:26:38 PM Nov 14, 2017
Center Freq 2.480000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
#Avg Type: RMS
Avg|Hold: 1/1
TRACE 1 2 3 4 5 6
TYPE M
DET P P P P P
Ref Offset 8.74 dB
10 dB/div
Log
Ref 30.00 dBm
Mkr1 2.479 656 25 GHz
3.841 dBm
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
1
Center 2.480000 GHz
#Res BW 3.0 MHz
#VBW 8.0 MHz
Span 10.00 MHz
Sweep 1.067 ms (8001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.475000000 GHz
Stop Freq
2.485000000 GHz
CF Step
1.000000 MHz
Auto
Man
Freq Offset
0 Hz

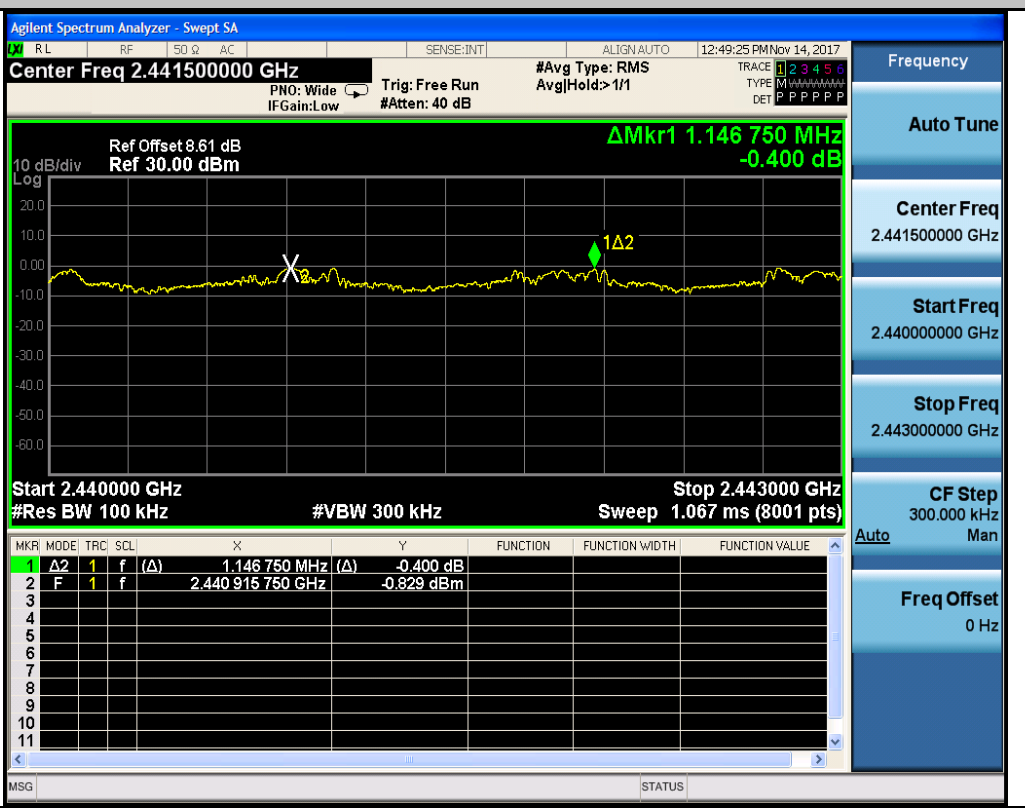
4.Carrier Frequency Separation

Test Mode	Test Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	2402	0.952	0.695	PASS
2DH5	2402	1.147	0.772	PASS
3DH5	2402	1.164	0.784	PASS

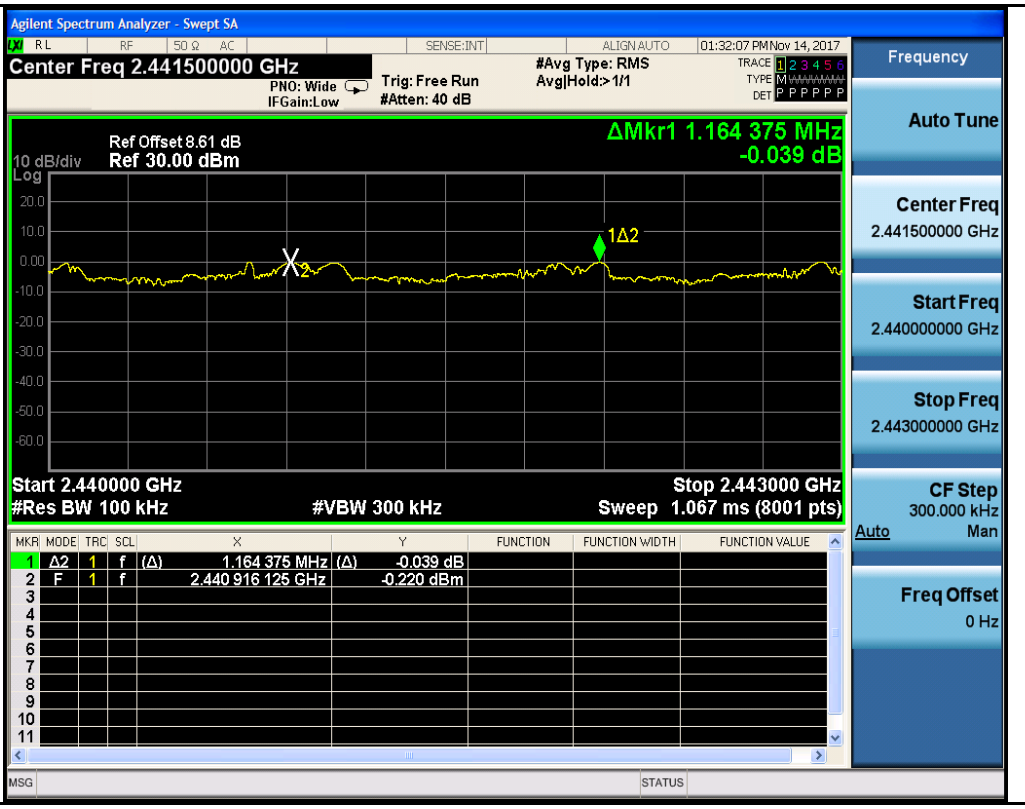
Carrier Frequency Separation_DH5_2402



Carrier Frequency Separation_2DH5_2402



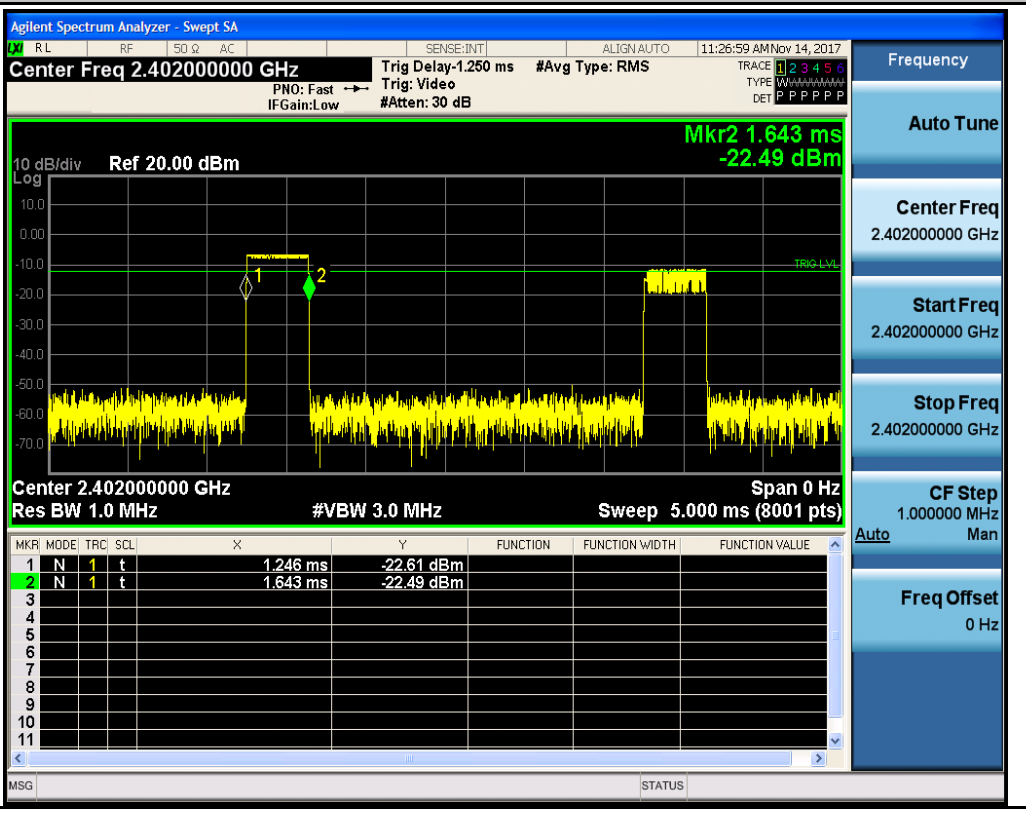
Carrier Frequency Separation_3DH5_2402

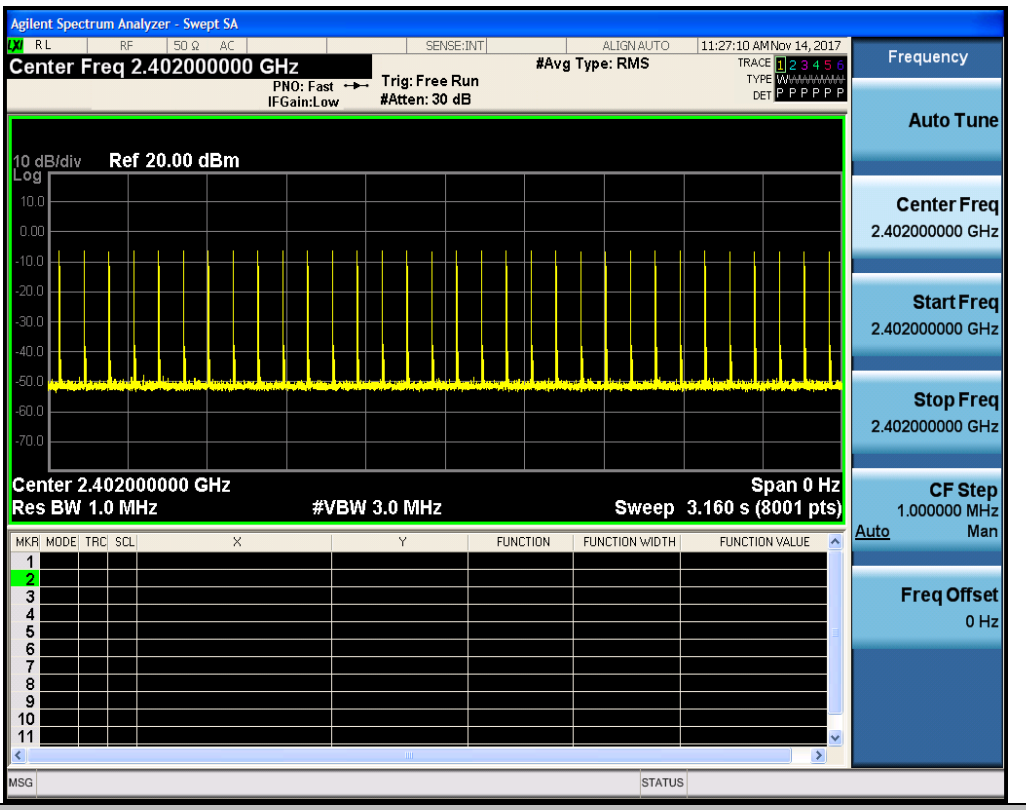

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
01:32:07 PM Nov 14, 2017
Center Freq 2.441500000 GHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 40 dB
#Avg Type: RMS
Avg|Hold:>1/1
TRACE 1 2 3 4 5 6
TYPE M
DET P P P P P
Ref Offset 8.61 dB
10 dB/div
Log
Ref 30.00 dBm
ΔMkr1 1.164 375 MHz
-0.039 dB
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
1Δ2
Start 2.440000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.443000 GHz
Sweep 1.067 ms (8001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 Δ2 1 f (Δ) 1.164 375 MHz (Δ) -0.039 dB
2 F 1 f 2.440 916 125 GHz -0.220 dBm
3
4
5
6
7
8
9
10
11
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.441500000 GHz
Start Freq
2.440000000 GHz
Stop Freq
2.443000000 GHz
CF Step
300.000 kHz
Auto
Man
Freq Offset
0 Hz

5.Dwell Time

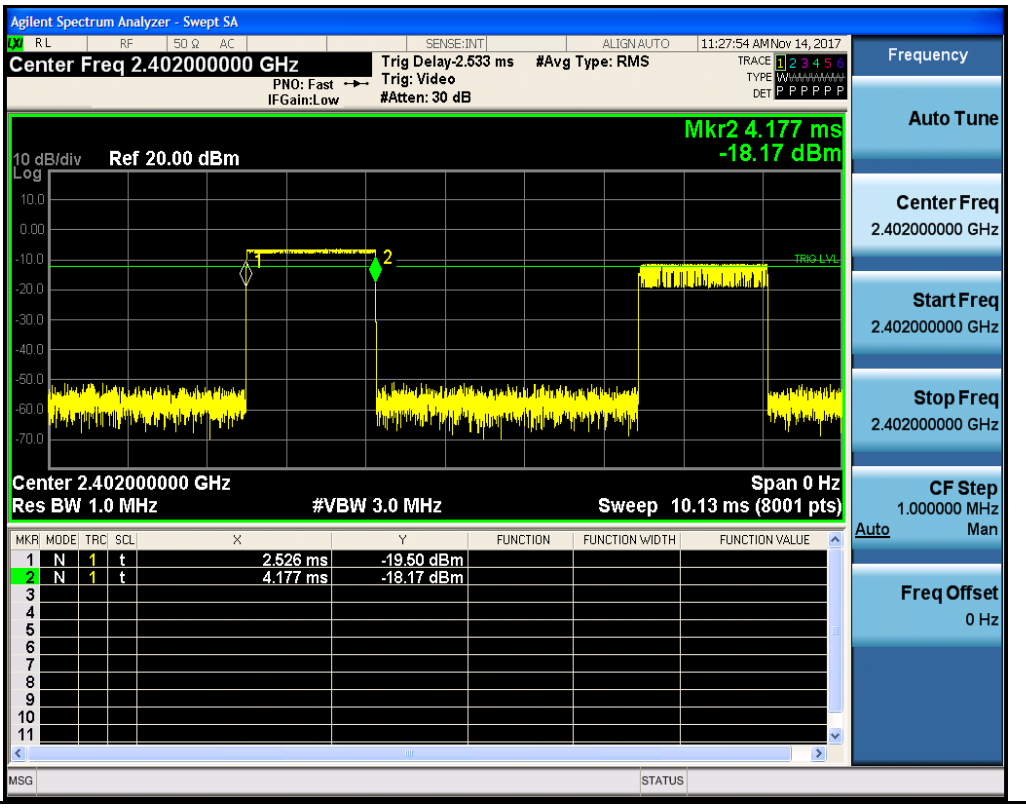
Test Mode	Test Channel	Burst Width[ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit[s]	Verdict
DH1	2402	0.4	320	0.128	0.4	PASS
DH3	2402	1.65	160	0.264	0.4	PASS
DH5	2402	2.9	110	0.319	0.4	PASS
2DH1	2402	0.41	320	0.131	0.4	PASS
2DH3	2402	1.66	160	0.266	0.4	PASS
2DH5	2402	1.71	160	0.274	0.4	PASS
3DH1	2402	0.41	320	0.131	0.4	PASS
3DH3	2402	1.66	160	0.266	0.4	PASS
3DH5	2402	2.91	100	0.291	0.4	PASS

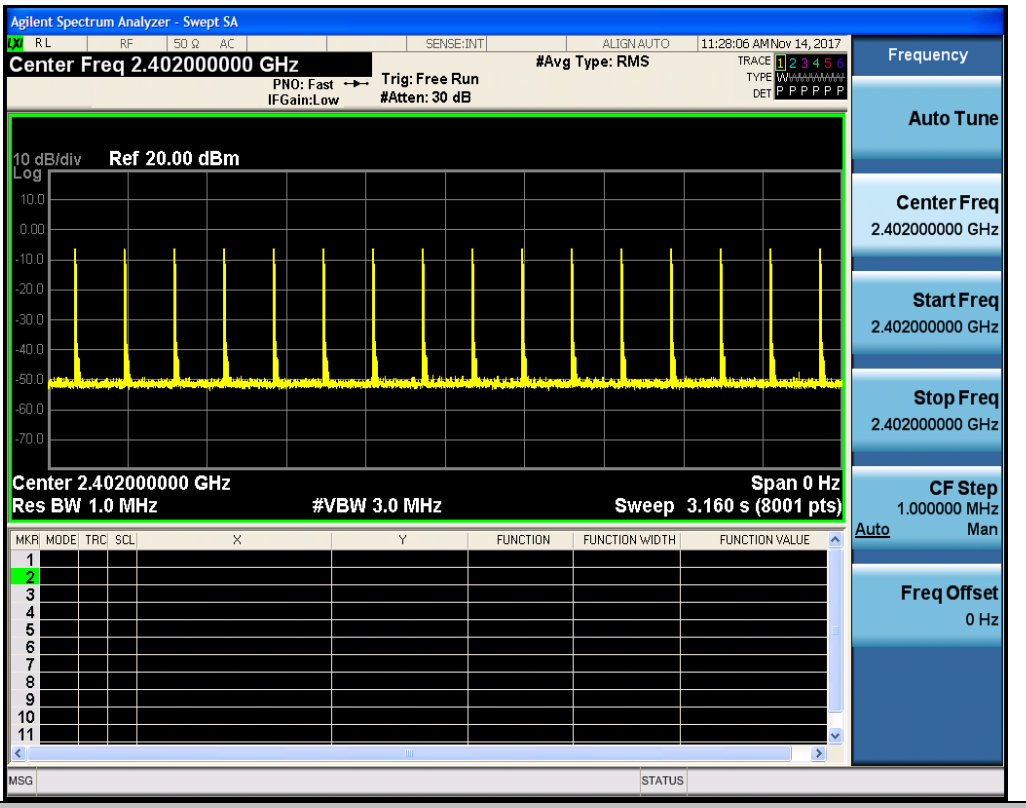
Dwell Time_DH1_2402



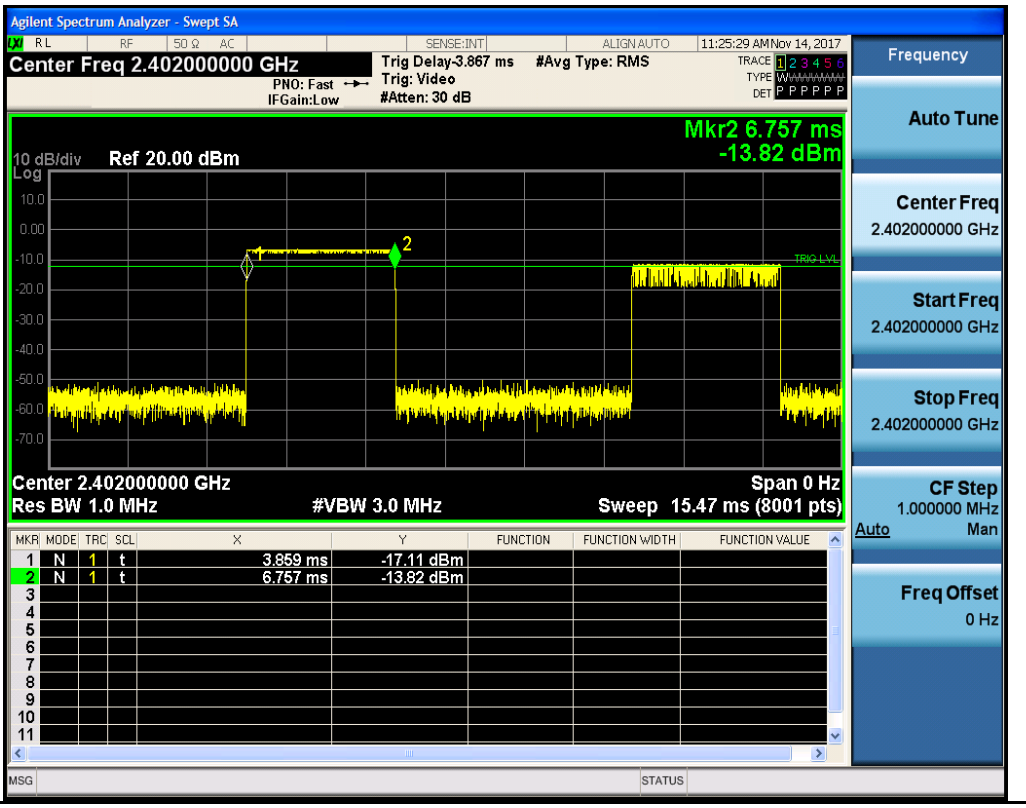


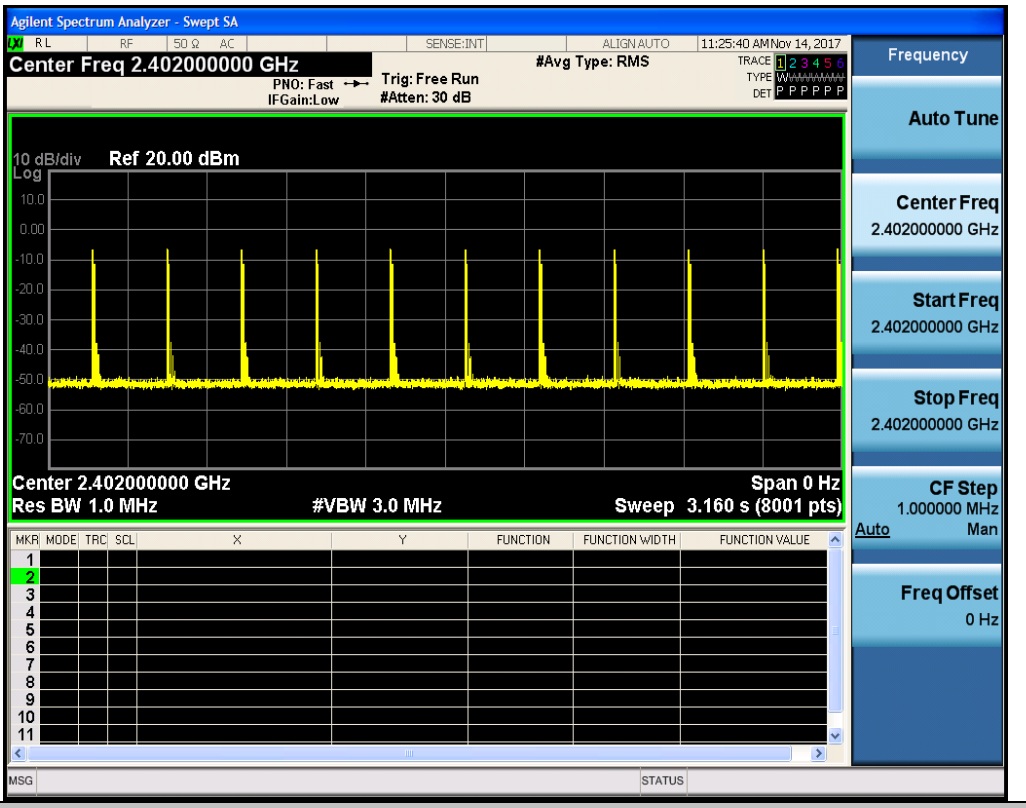
Dwell Time_DH3_2402



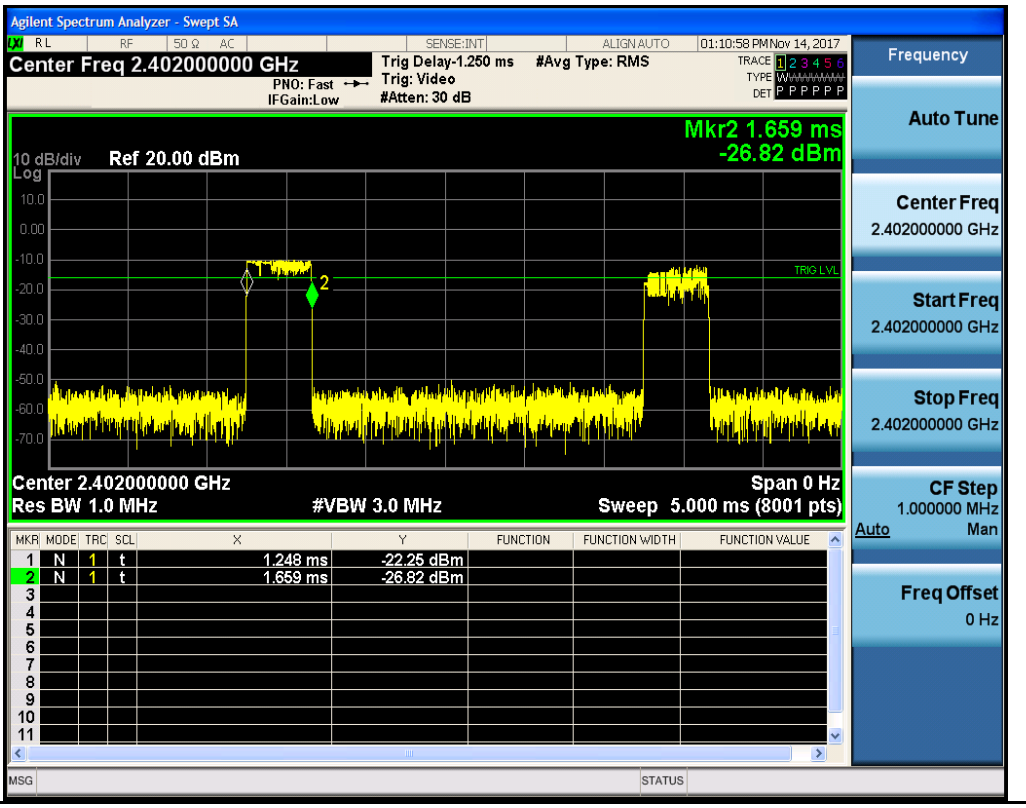


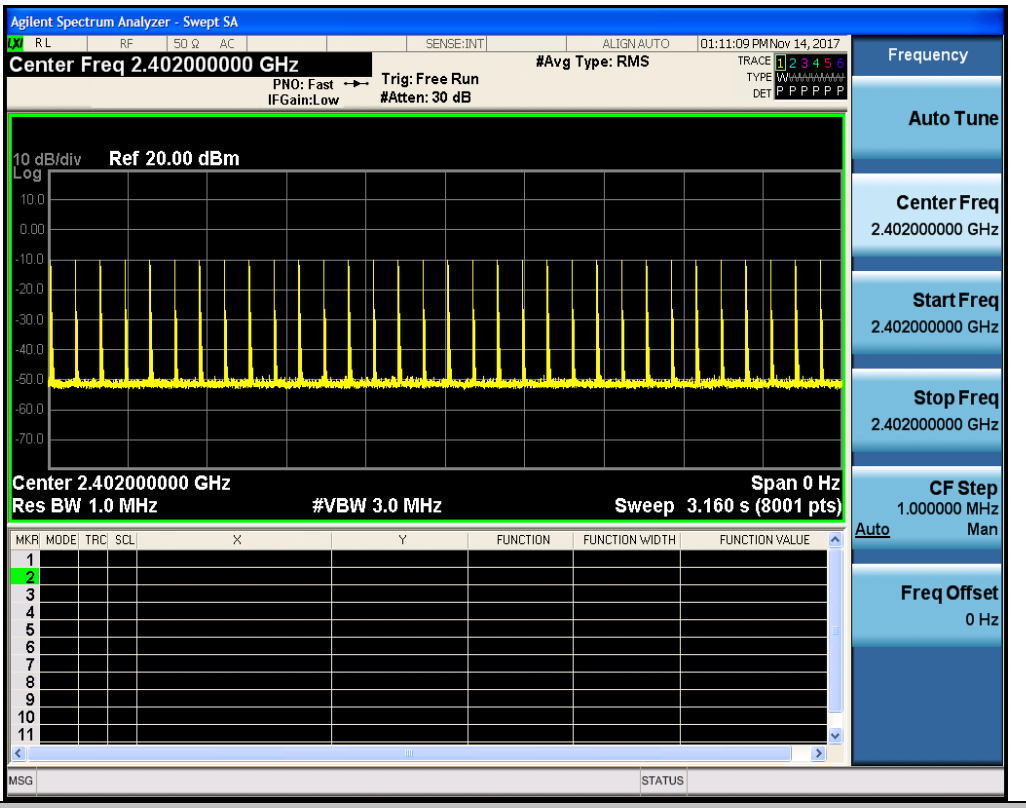
Dwell Time_DH5_2402



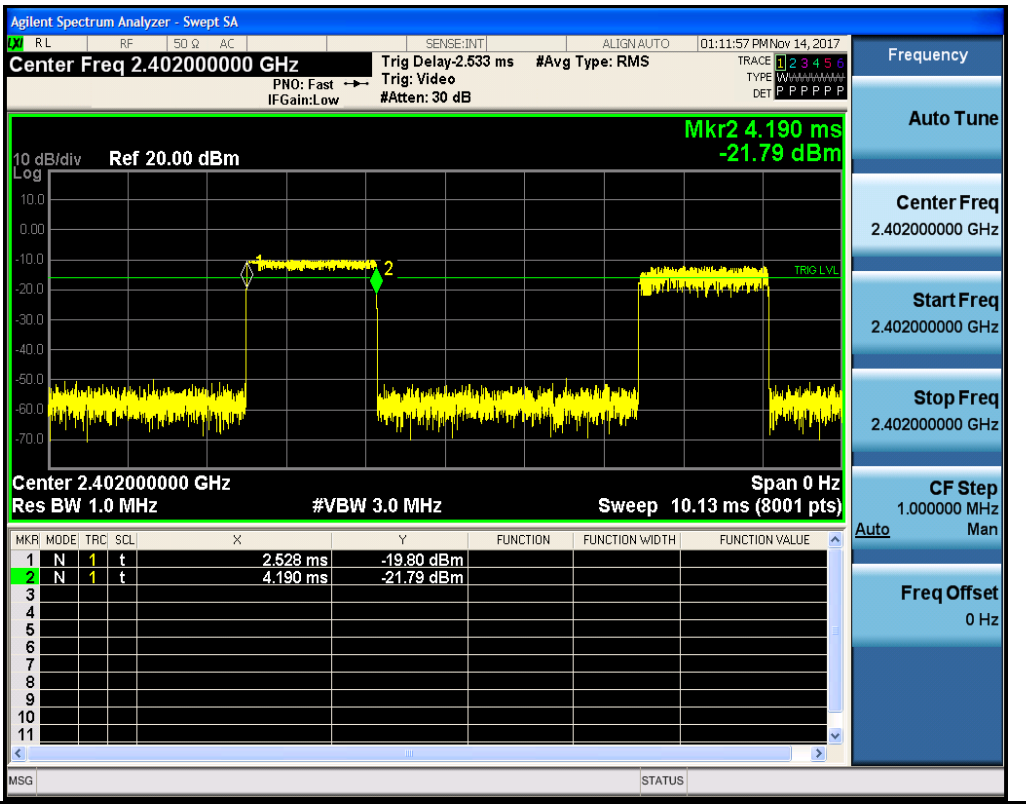


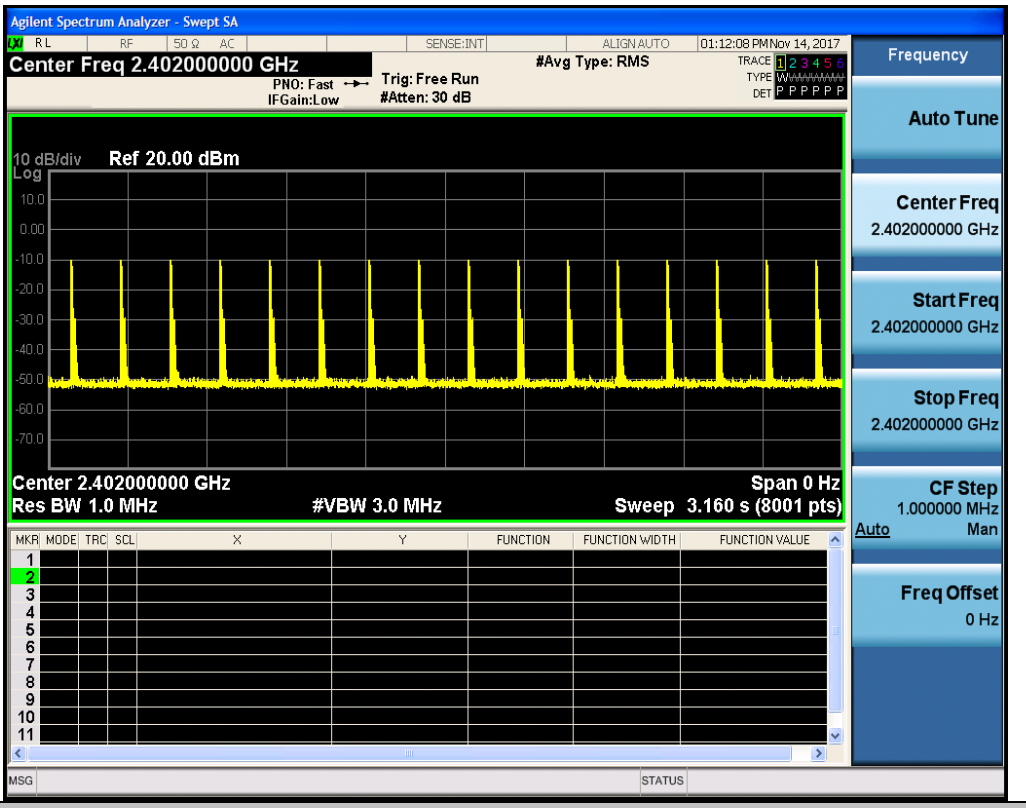
Dwell Time_2DH1_2402



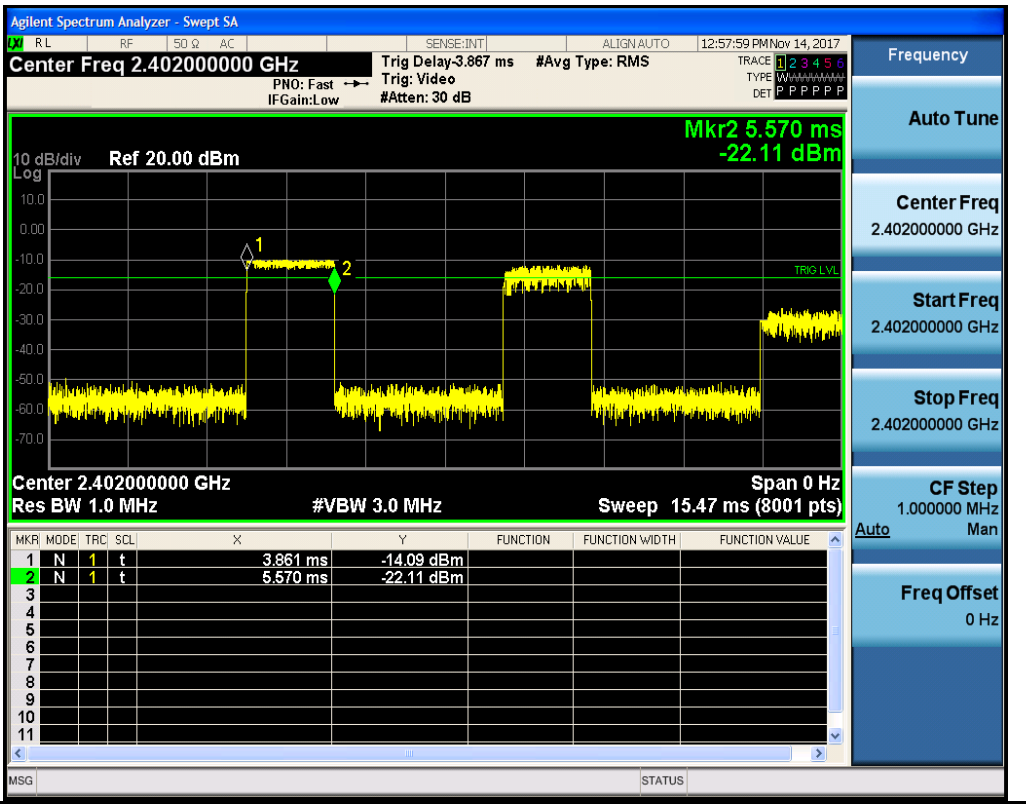


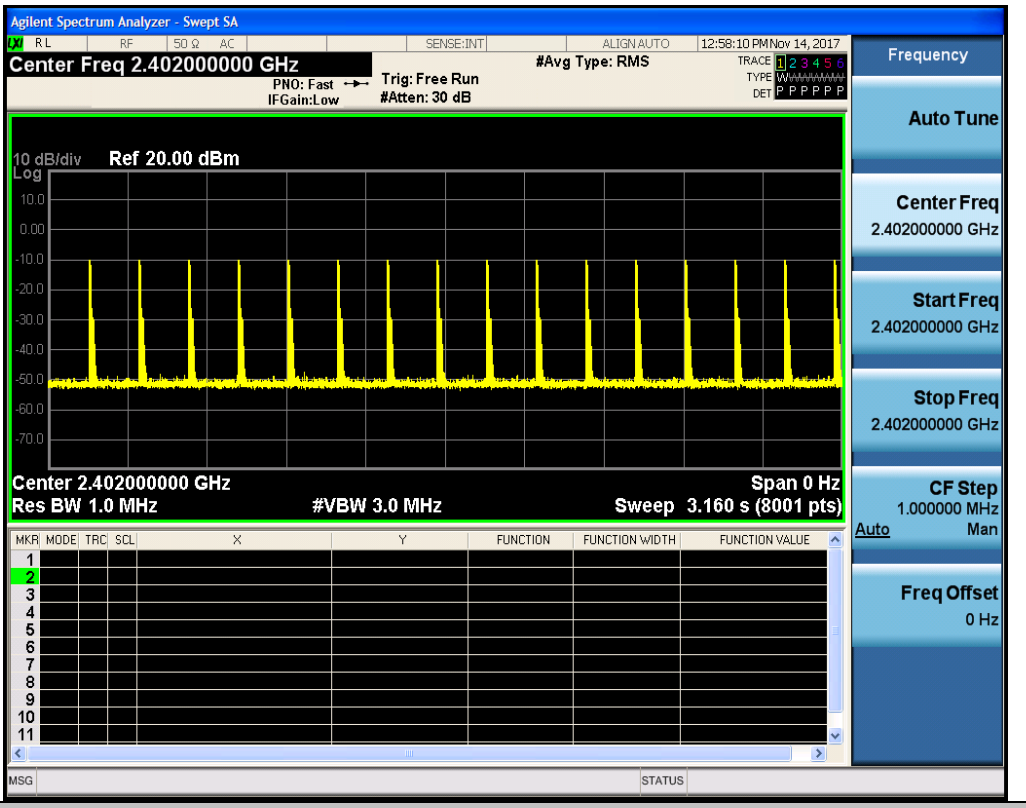
Dwell Time_2DH3_2402



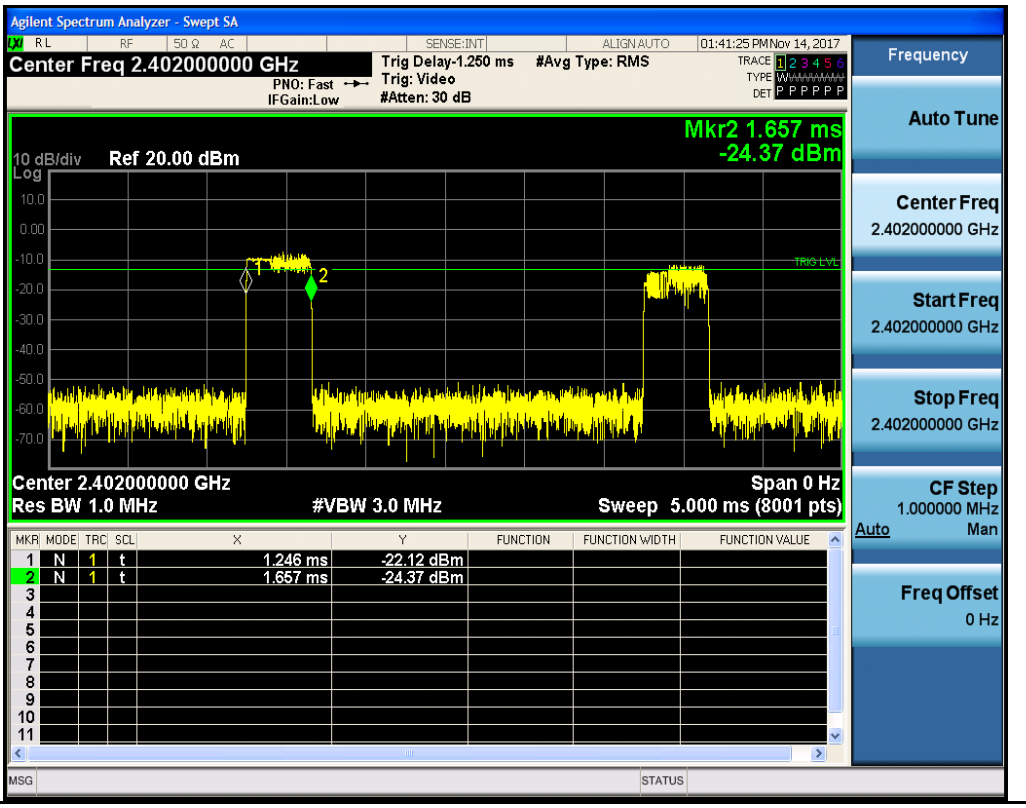


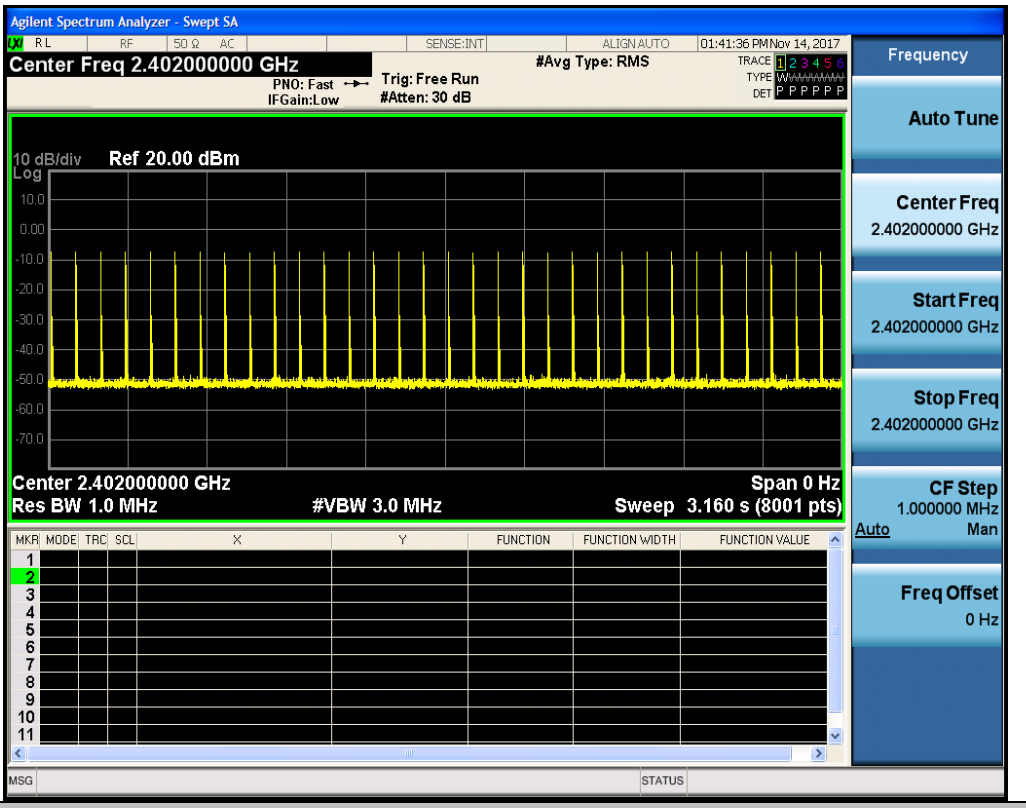
Dwell Time_2DH5_2402



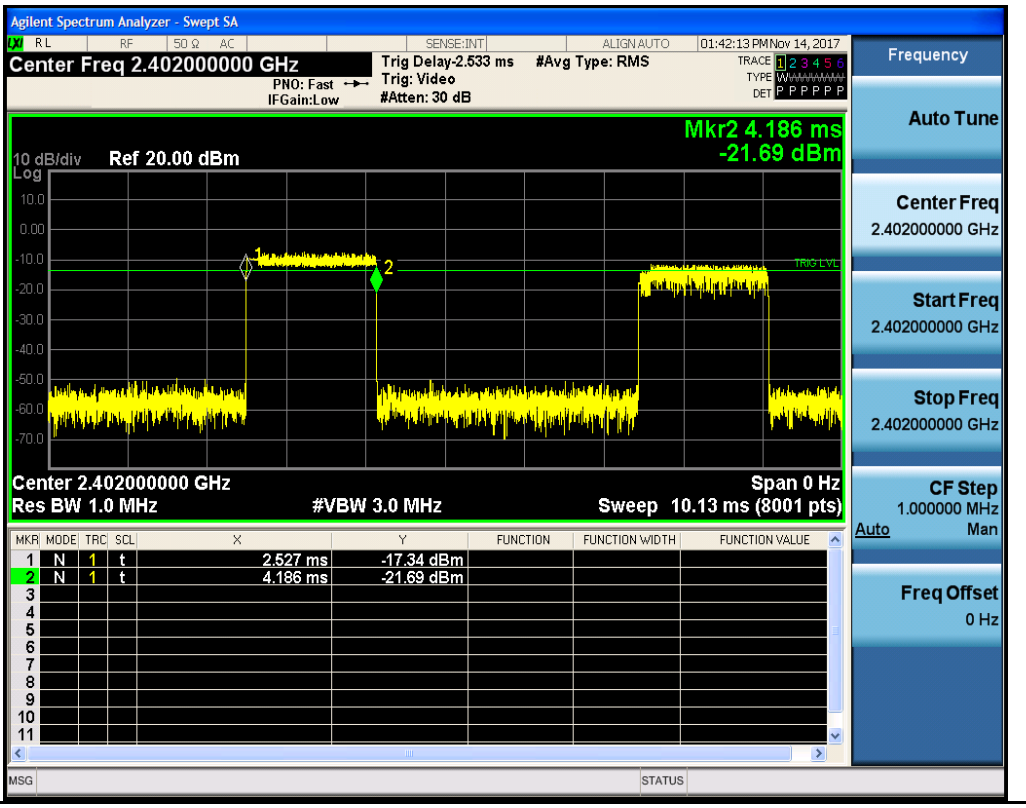


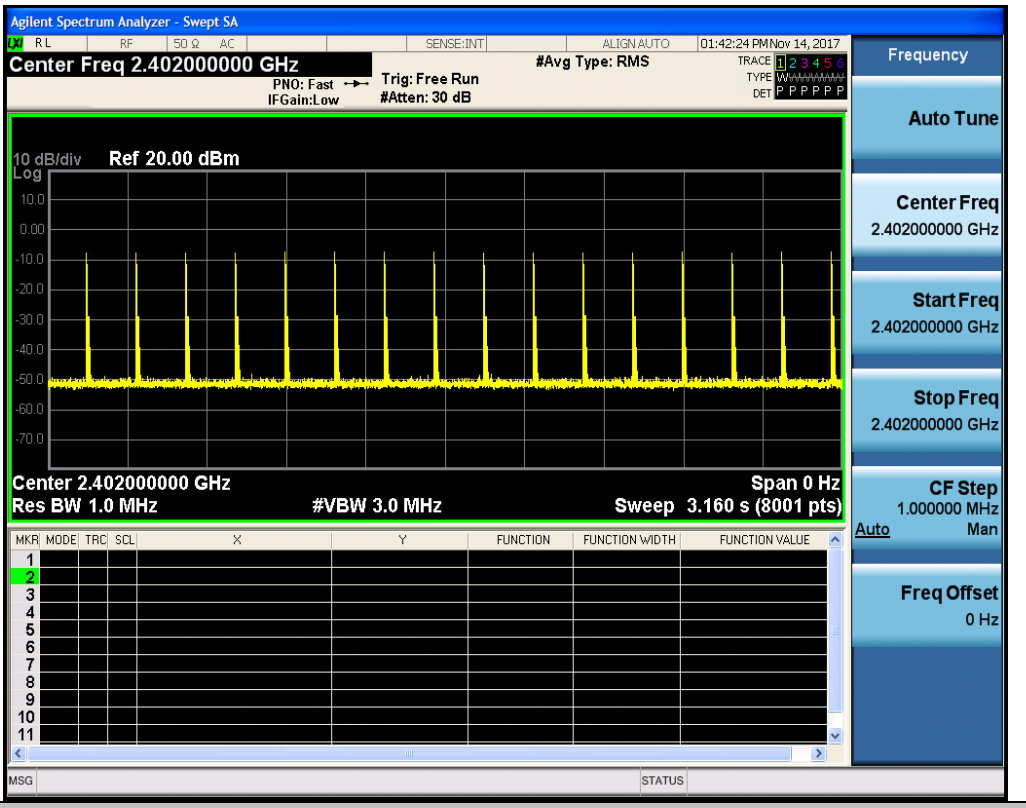
Dwell Time_3DH1_2402



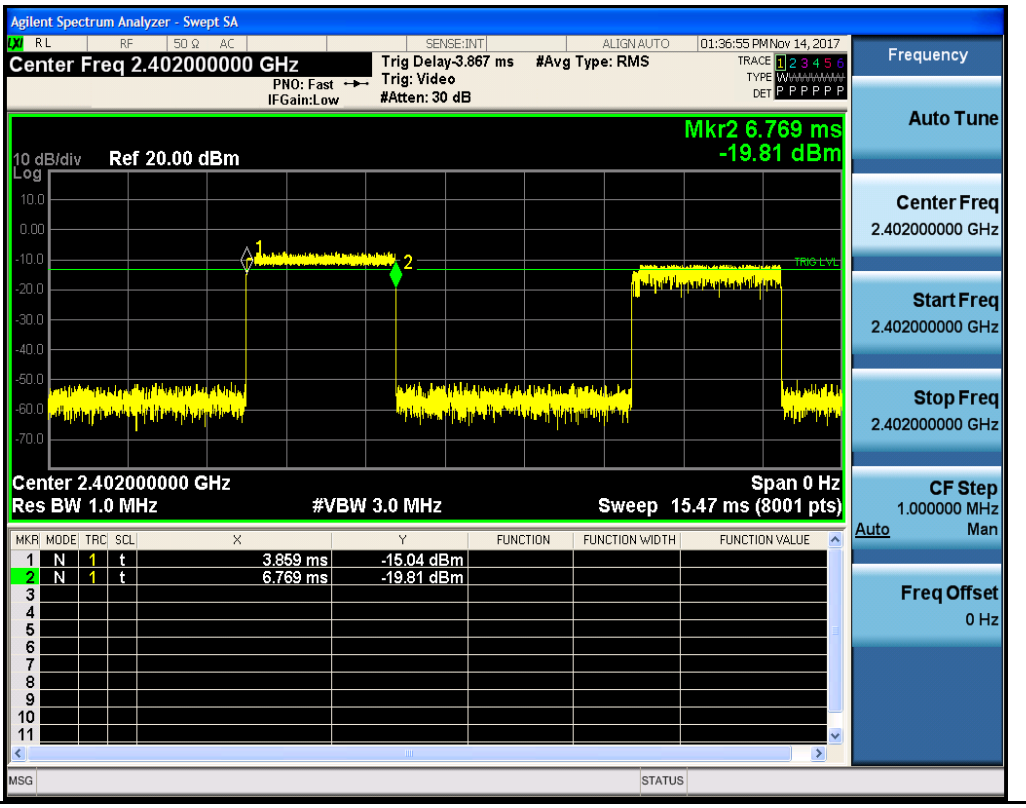


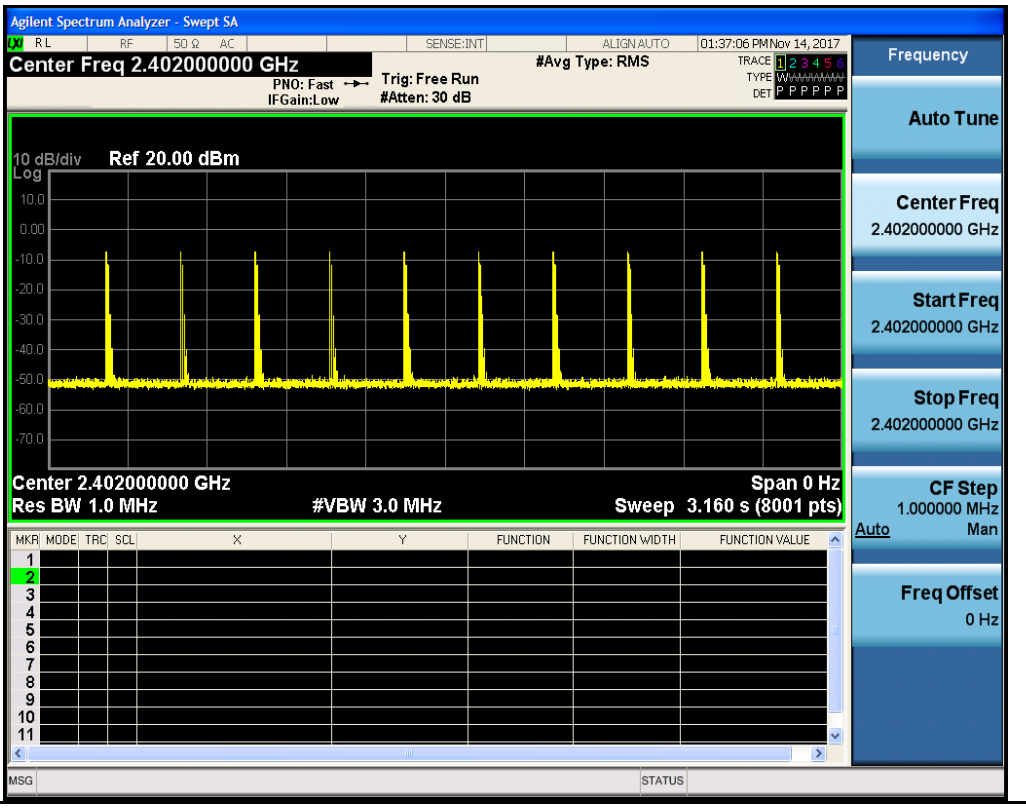
Dwell Time_3DH3_2402





Dwell Time_3DH5_2402

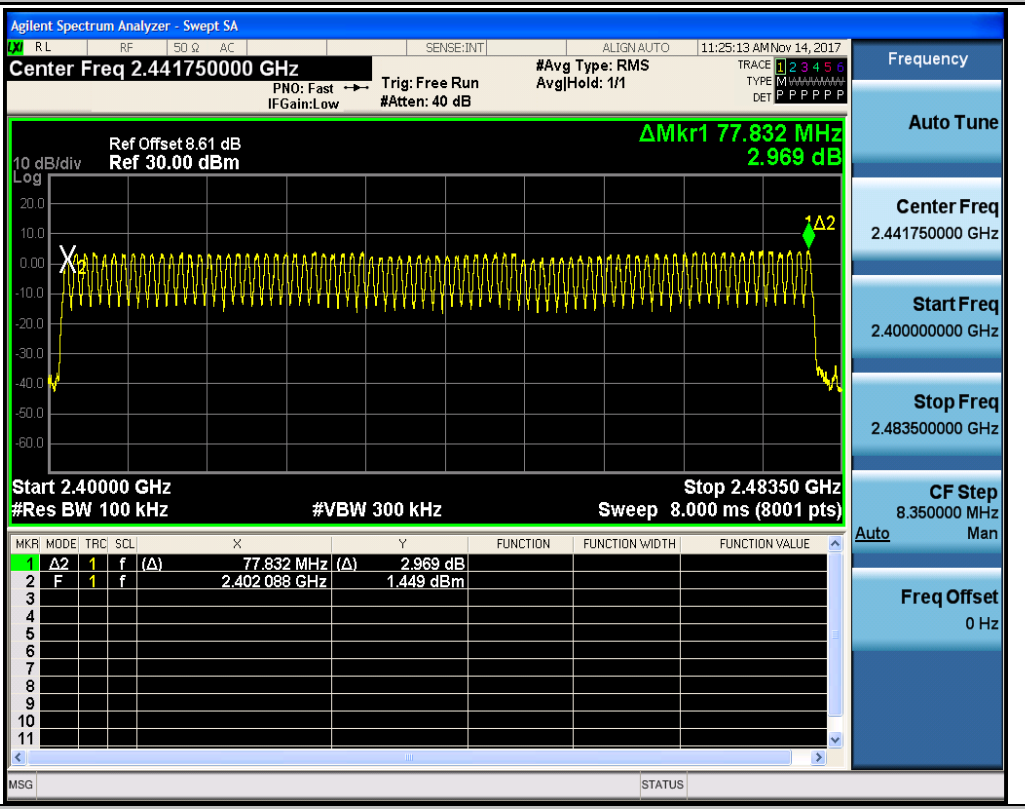

Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
01:36:55 PM Nov 14, 2017
Center Freq 2.402000000 GHz
PNO: Fast
IFGain:Low
Trig Delay-3.867 ms
Trig: Video
#Atten: 30 dB
#Avg Type: RMS
TRACE 1 2 3 4 5 6
TYPE W
DET P P P P P
Mkr2 6.769 ms
-19.81 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
TRIG LVL
Center 2.402000000 GHz
Res BW 1.0 MHz
#VBW 3.0 MHz
Span 0 Hz
Sweep 15.47 ms (8001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 N 1 t 3.859 ms -15.04 dBm
2 N 1 t 6.769 ms -19.81 dBm
3
4
5
6
7
8
9
10
11
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.402000000 GHz
Start Freq
2.402000000 GHz
Stop Freq
2.402000000 GHz
CF Step
1.000000 MHz
Auto
Man
Freq Offset
0 Hz


Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
01:37:06 PM Nov 14, 2017
Center Freq 2.402000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
TRACE 1 2 3 4 5 6
TYPE W
DET P P P P P
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.402000000 GHz
Res BW 1.0 MHz
#VBW 3.0 MHz
Span 0 Hz
Sweep 3.160 s (8001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1
2
3
4
5
6
7
8
9
10
11
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.402000000 GHz
Start Freq
2.402000000 GHz
Stop Freq
2.402000000 GHz
CF Step
1.000000 MHz
Auto
Man
Freq Offset
0 Hz

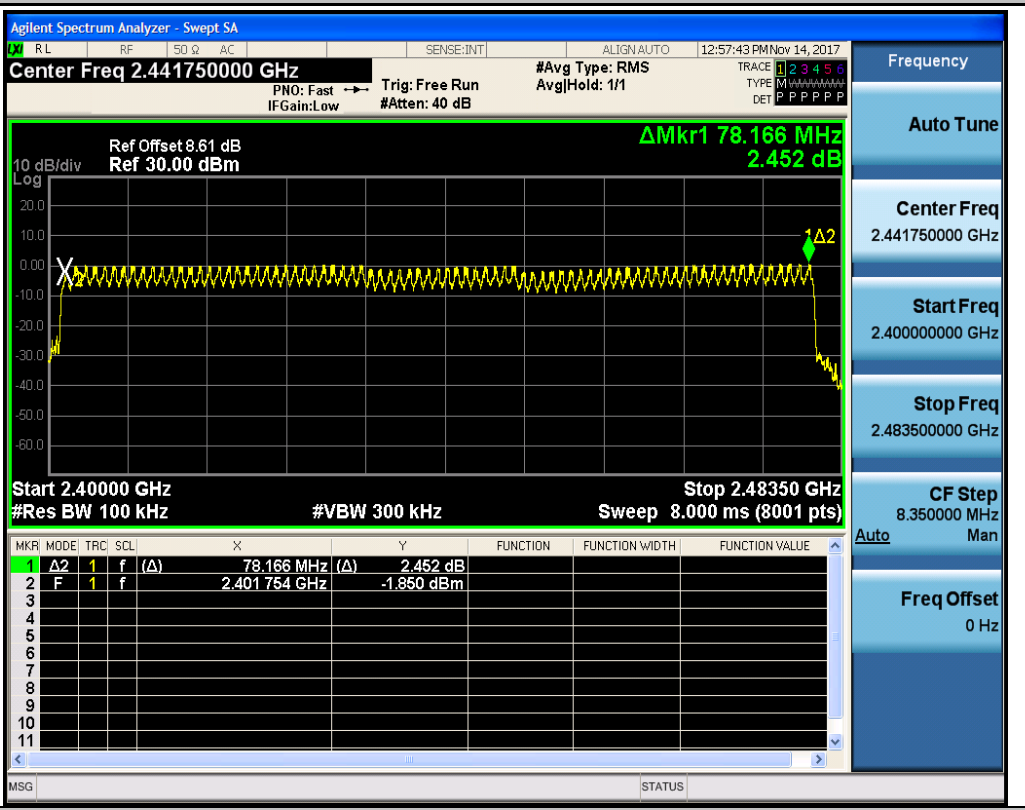
6.Hopping Channel Number

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

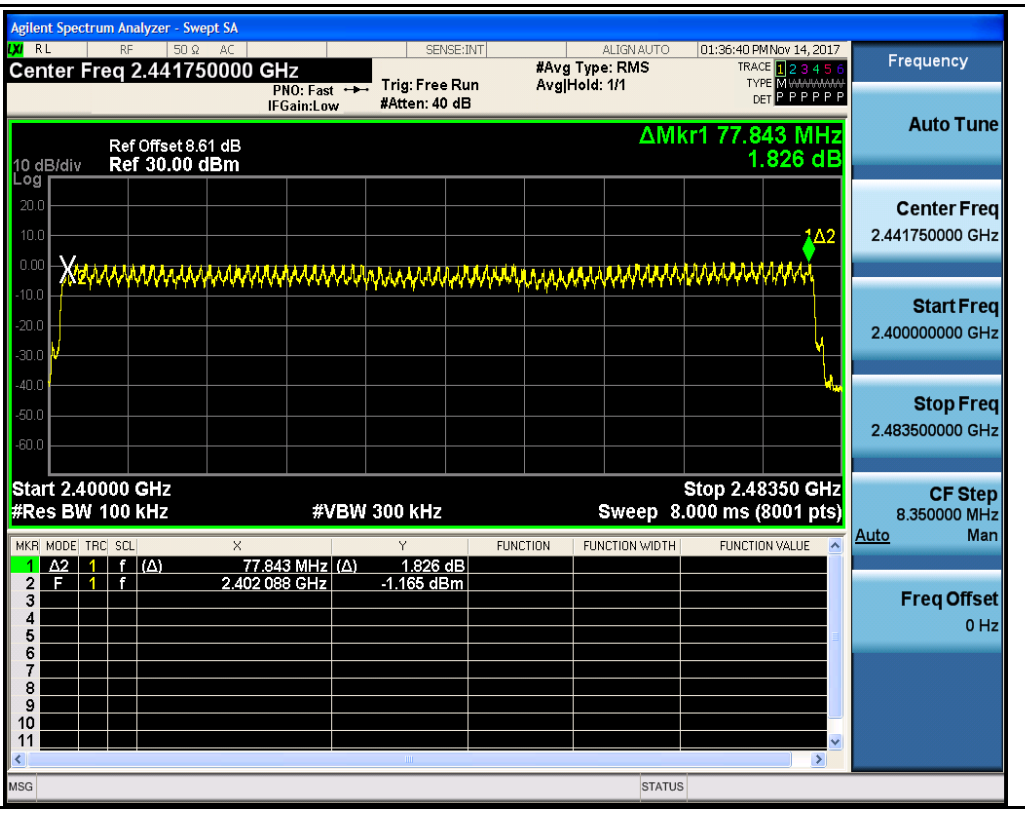
Hopping Channel Number_DH5_2402



Hopping Channel Number_2DH5_2402



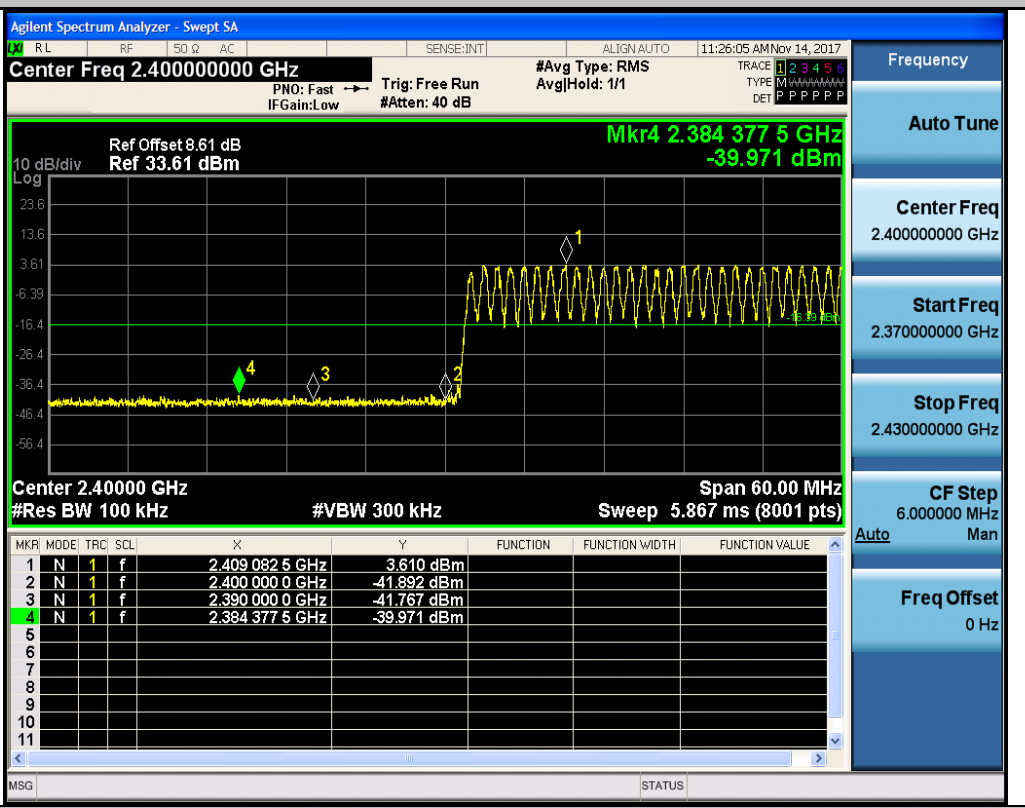
Hopping Channel Number_3DH5_2402


Agilent Spectrum Analyzer - Swept SA
RL
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
01:36:40 PM Nov 14, 2017
Center Freq 2.441750000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
#Avg Type: RMS
Avg|Hold: 1/1
TRACE 1 2 3 4 5 6
TYPE M
DET P P P P P
Ref Offset 8.61 dB
10 dB/div
Log
Ref 30.00 dBm
ΔMkr1 77.843 MHz
1.826 dB
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
1Δ2
Start 2.40000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.48350 GHz
Sweep 8.000 ms (8001 pts)
MKR MODE TRC SCL X Y FUNCTION FUNCTION WIDTH FUNCTION VALUE
1 Δ2 1 f (Δ) 77.843 MHz (Δ) 1.826 dB
2 F 1 f 2.402 088 GHz -1.165 dBm
3
4
5
6
7
8
9
10
11
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.441750000 GHz
Start Freq
2.400000000 GHz
Stop Freq
2.483500000 GHz
CF Step
8.350000 MHz
Auto
Man
Freq Offset
0 Hz

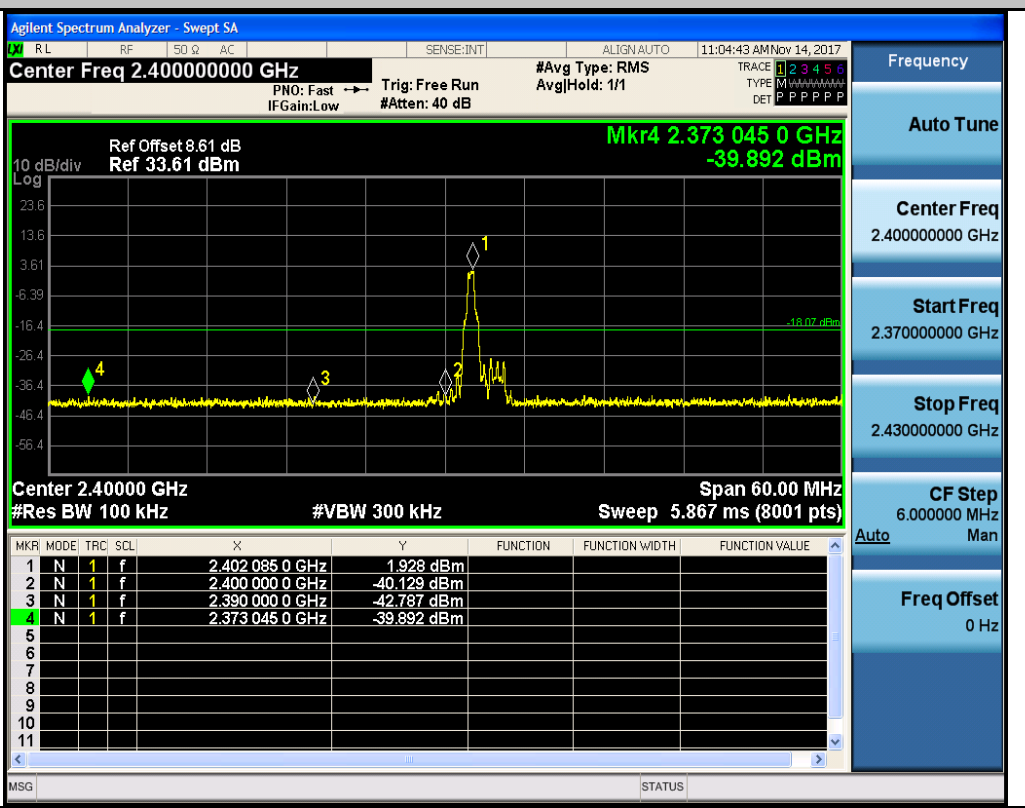
7.Band-edge for RF Conducted Emissions

Test Mode	Test Channel	Hopping	Carrier Power[dBm]	Max. Spurious Level [dBm]	Limit[dBm]	Verdict
DH5	2402	On	3.610	-39.971	-16.39	PASS
DH5	2402	Off	1.928	-39.892	-18.07	PASS
DH5	2480	On	4.388	-39.770	-15.61	PASS
DH5	2480	Off	4.617	-38.771	-15.38	PASS
2DH5	2402	On	0.192	-39.328	-19.81	PASS
2DH5	2402	Off	-1.887	-39.662	-21.89	PASS
2DH5	2480	On	0.846	-38.414	-19.15	PASS
2DH5	2480	Off	0.699	-38.884	-19.3	PASS
3DH5	2402	On	0.386	-39.369	-19.61	PASS
3DH5	2402	Off	-0.811	-39.839	-20.81	PASS
3DH5	2480	On	1.552	-38.971	-18.45	PASS
3DH5	2480	Off	1.648	-39.249	-18.35	PASS

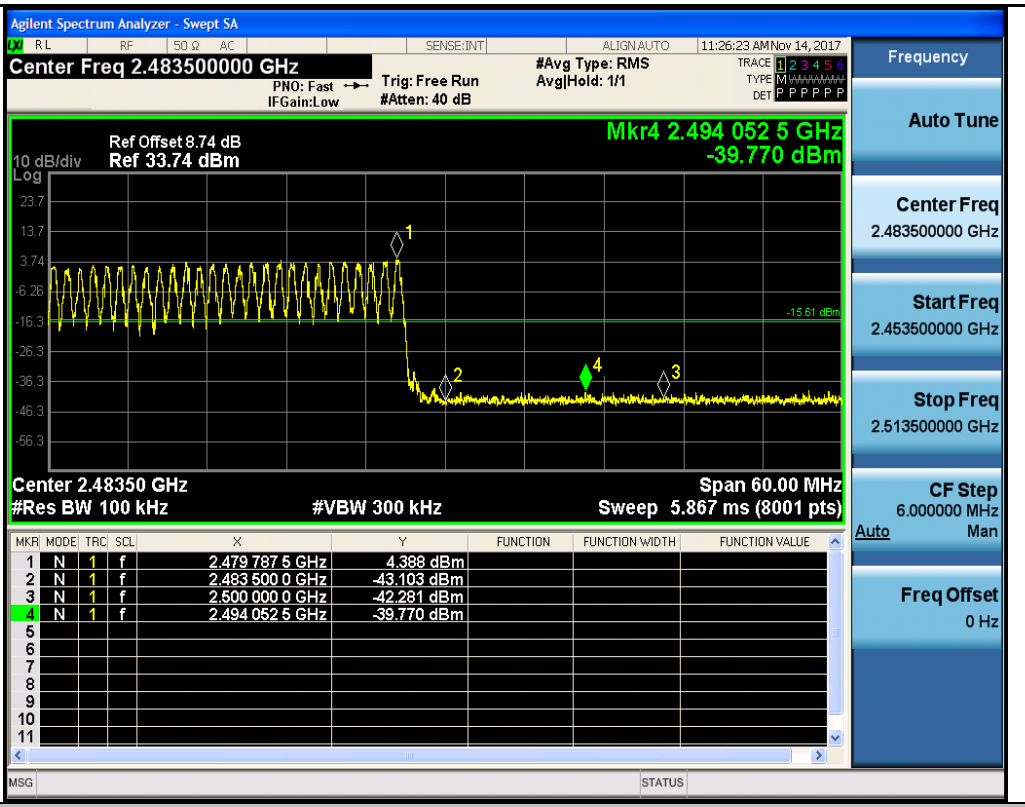
Band-edge for RF Conducted Emissions_DH5_2402_Hopping On



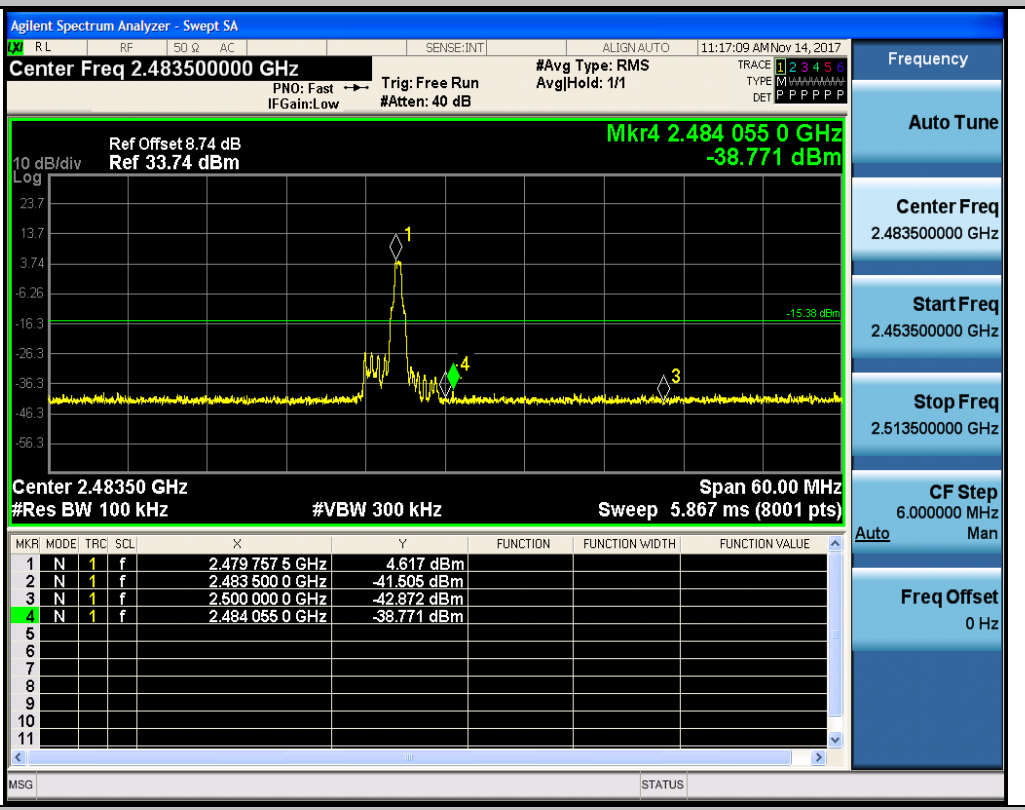
Band-edge for RF Conducted Emissions_DH5_2402_Hopping Off



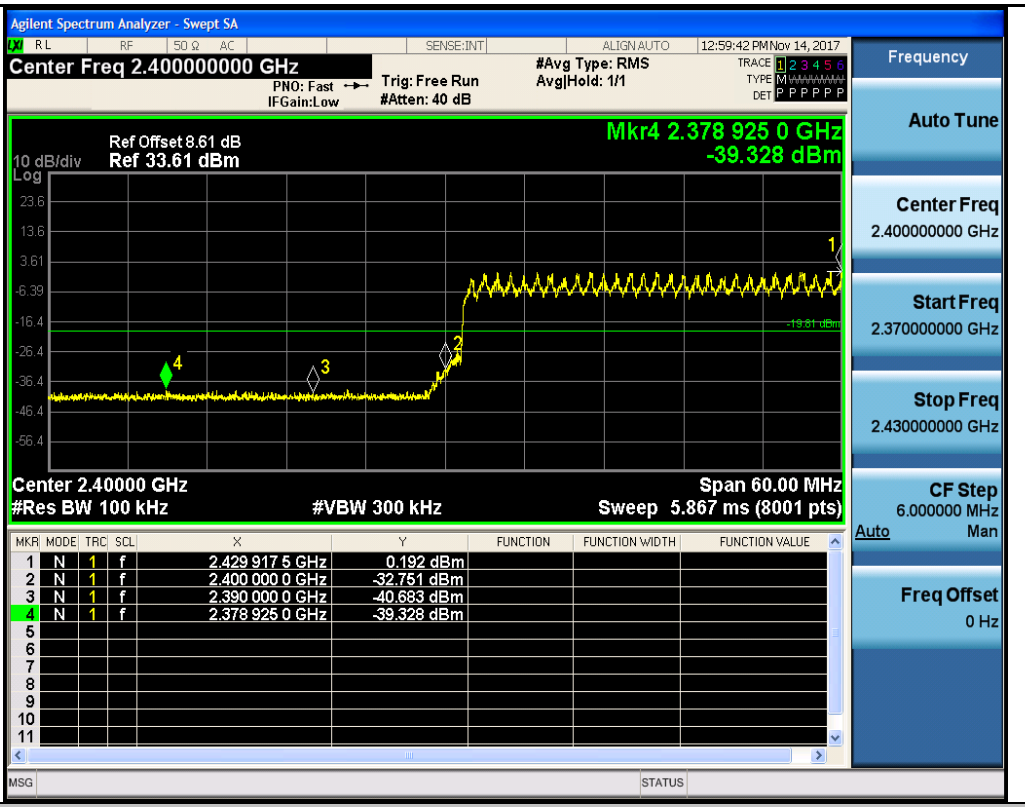
Band-edge for RF Conducted Emissions_DH5_2480_Hopping On



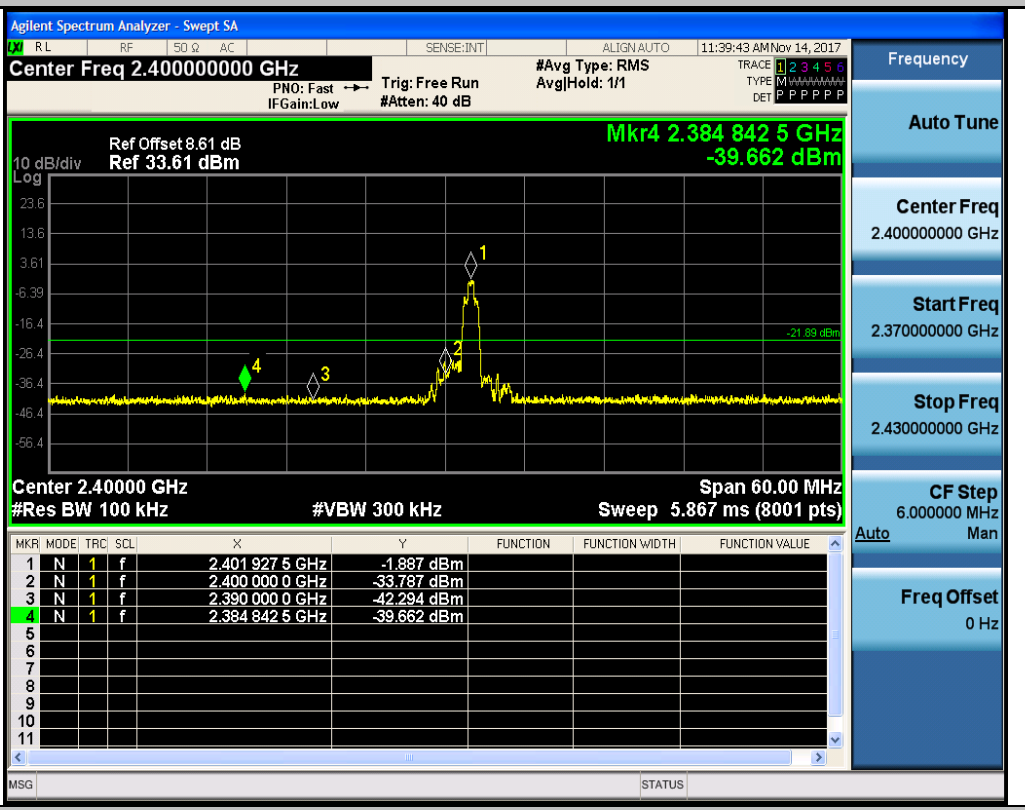
Band-edge for RF Conducted Emissions_DH5_2480_Hopping Off



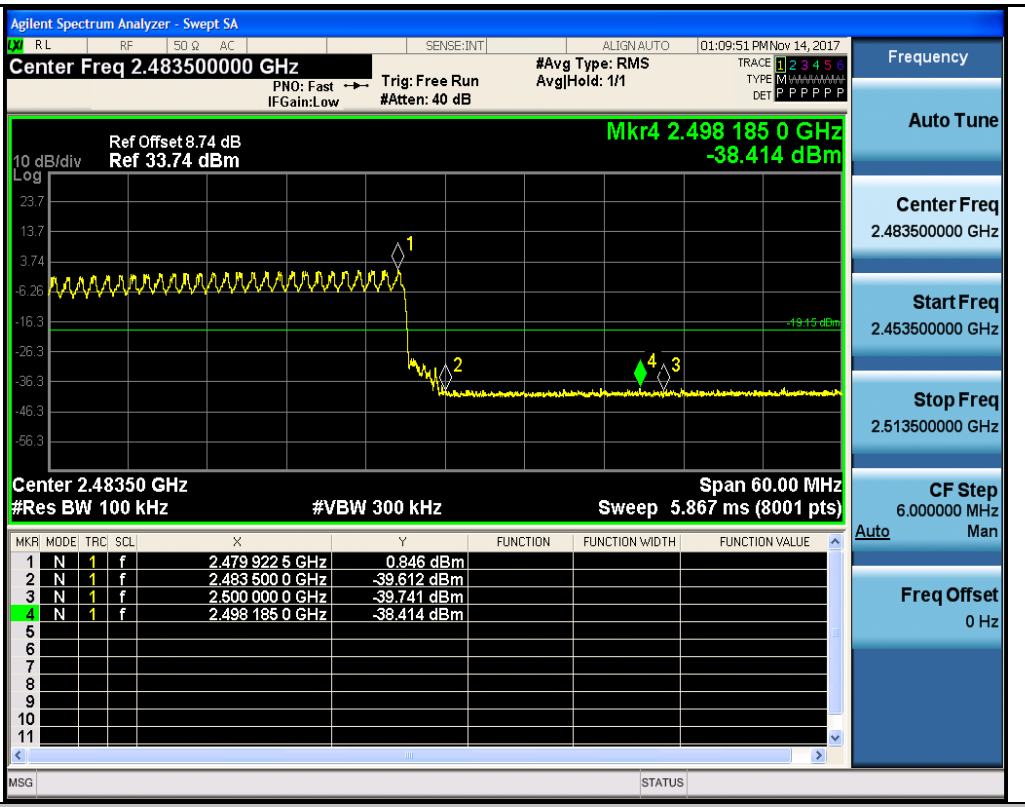
Band-edge for RF Conducted Emissions_2DH5_2402_Hopping On



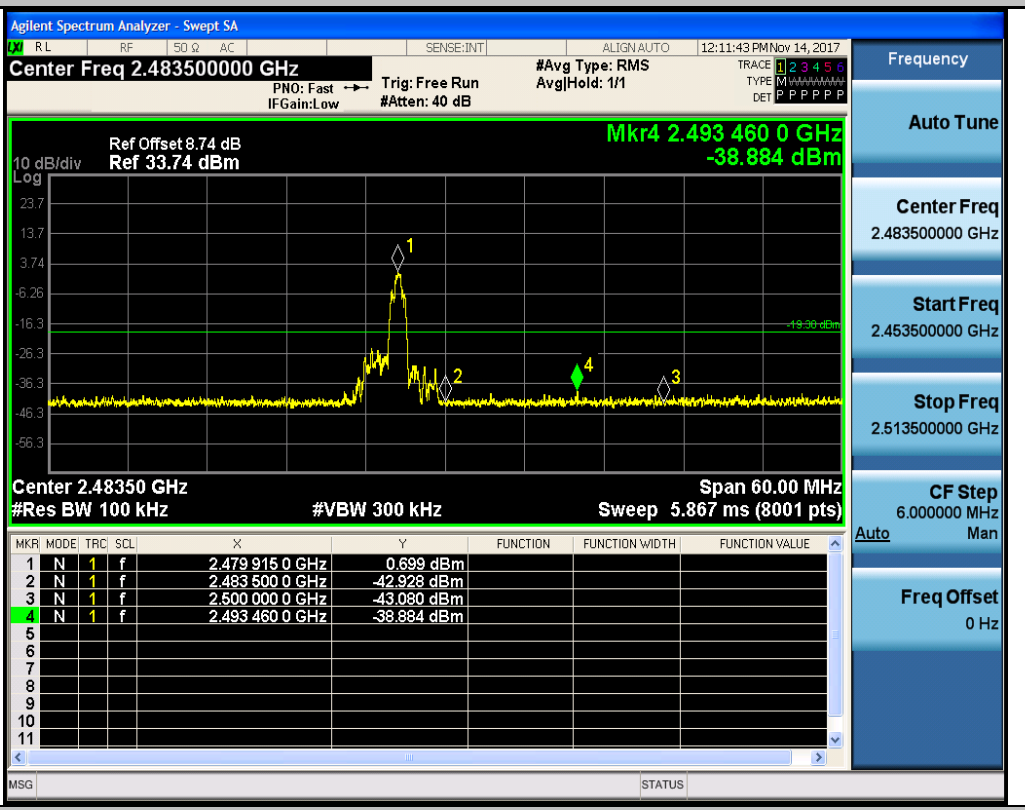
Band-edge for RF Conducted Emissions_2DH5_2402_Hopping Off



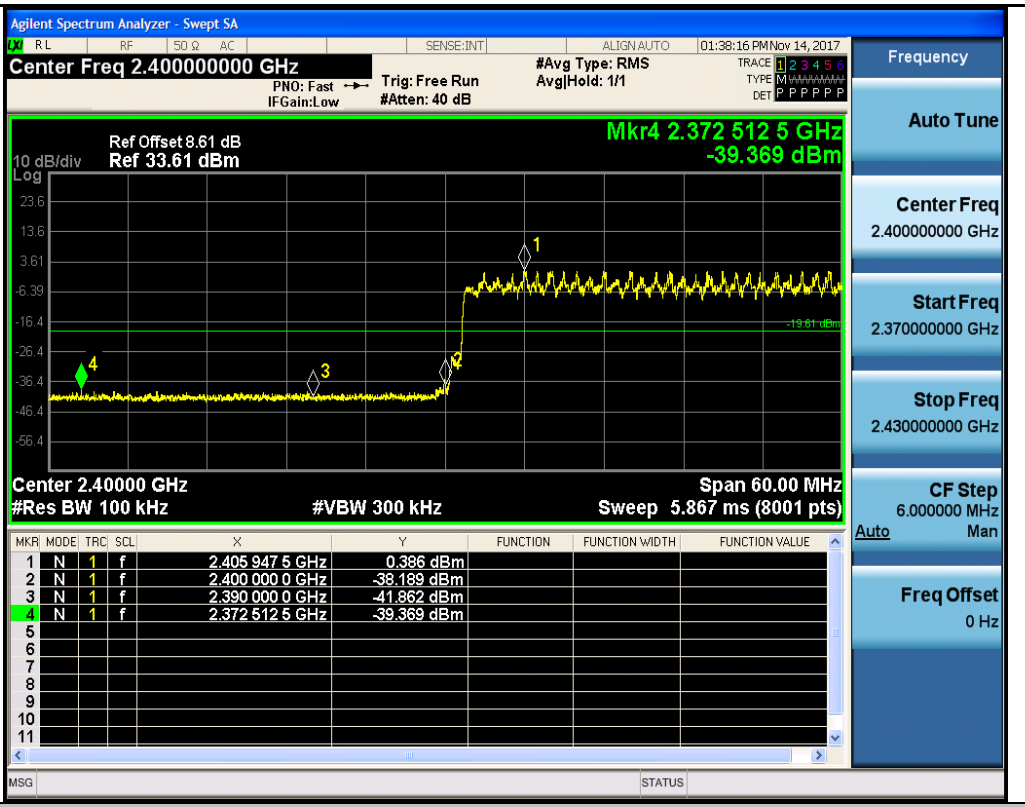
Band-edge for RF Conducted Emissions_2DH5_2480_Hopping On



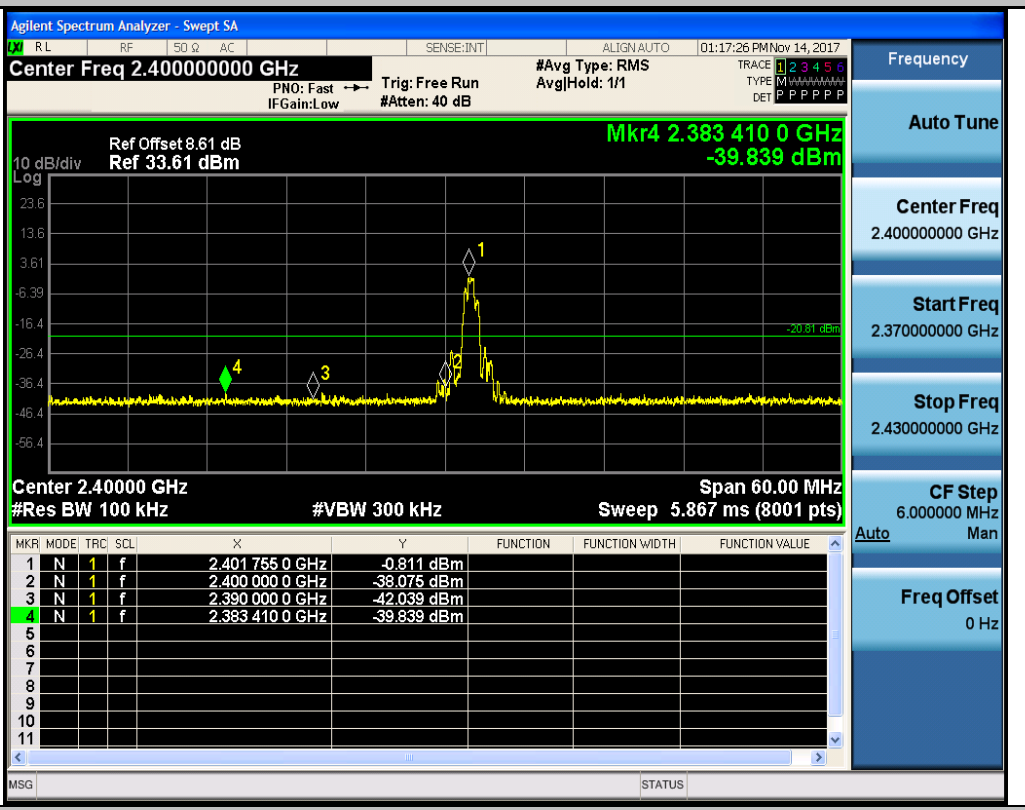
Band-edge for RF Conducted Emissions_2DH5_2480_Hopping Off



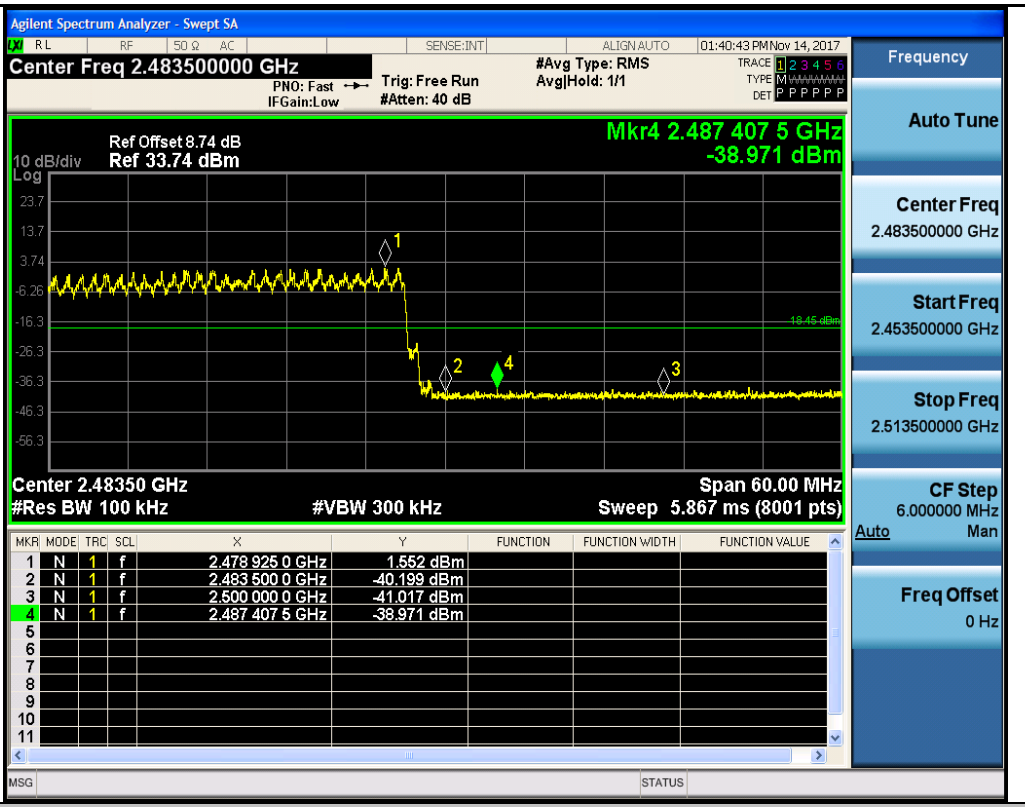
Band-edge for RF Conducted Emissions_3DH5_2402_Hopping On



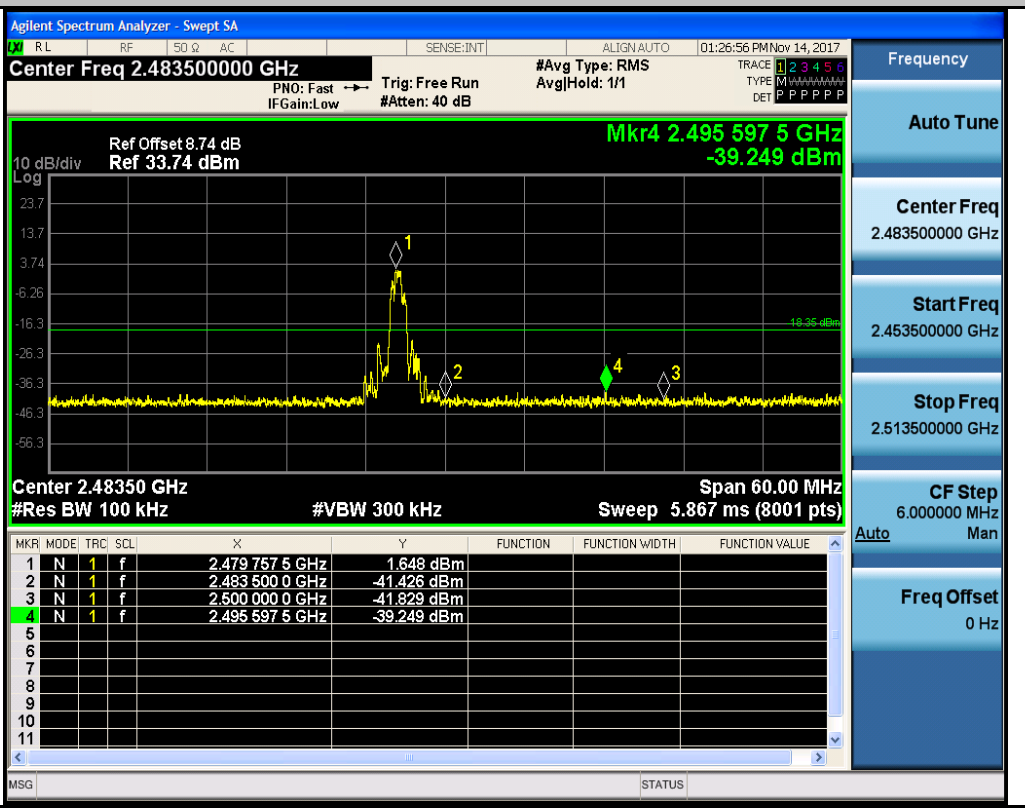
Band-edge for RF Conducted Emissions_3DH5_2402_Hopping Off



Band-edge for RF Conducted Emissions_3DH5_2480_Hopping On



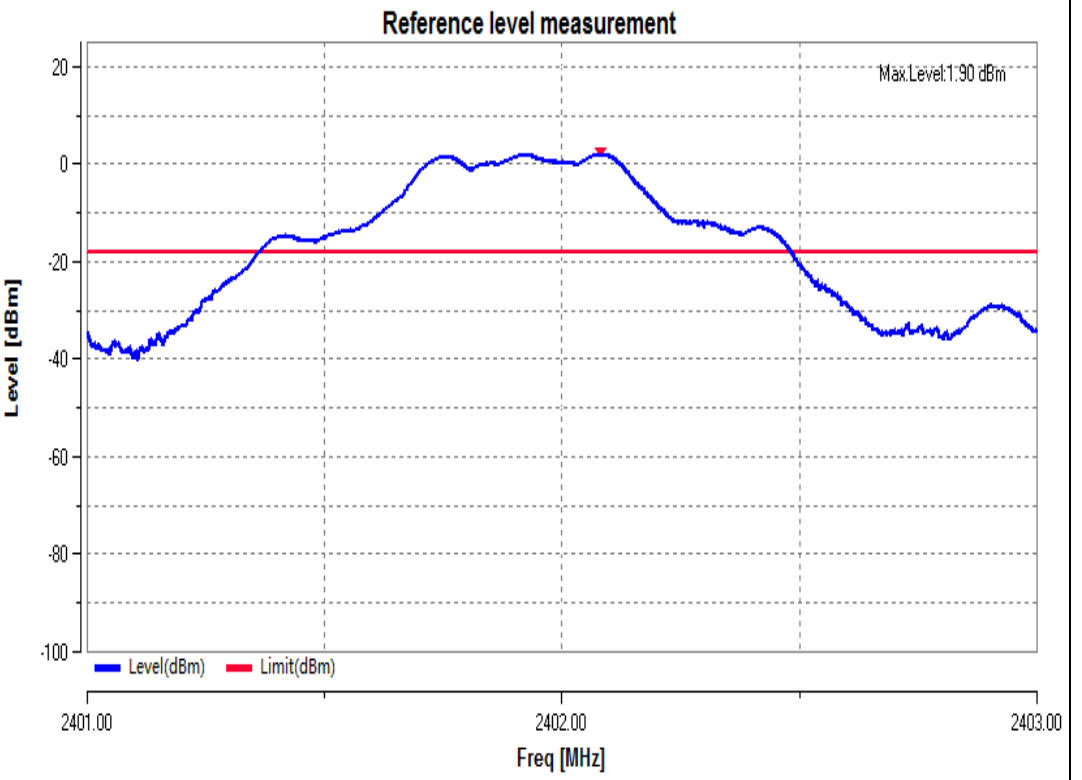
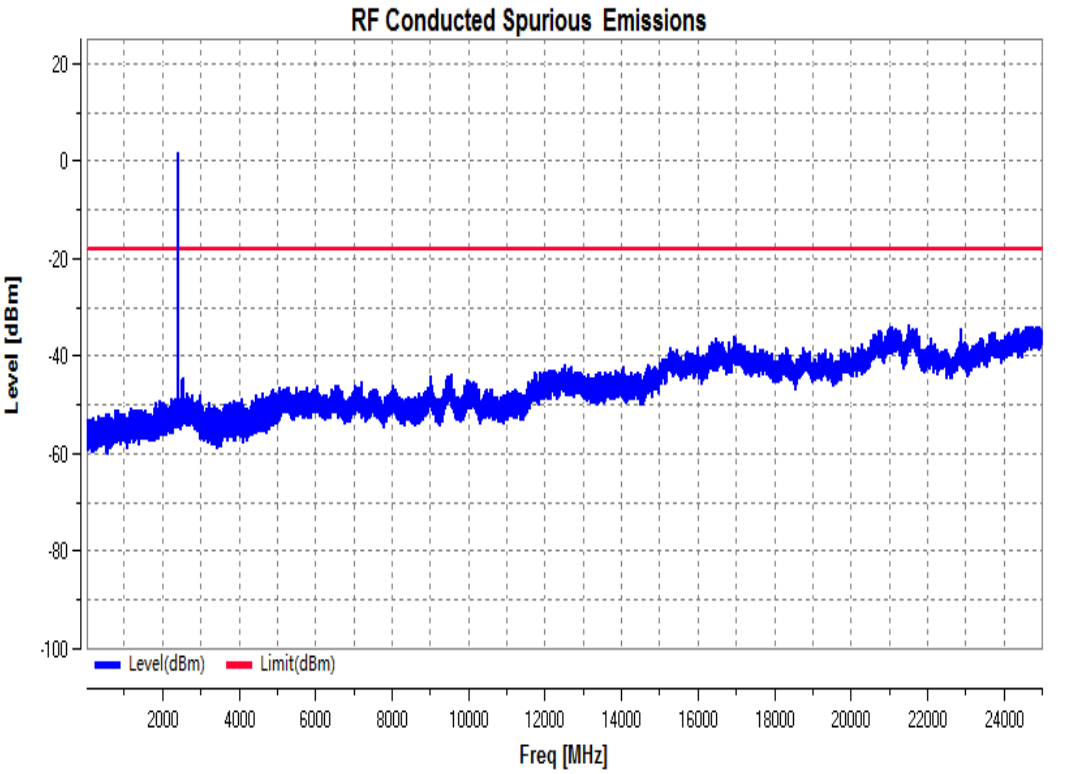
Band-edge for RF Conducted Emissions_3DH5_2480_Hopping Off

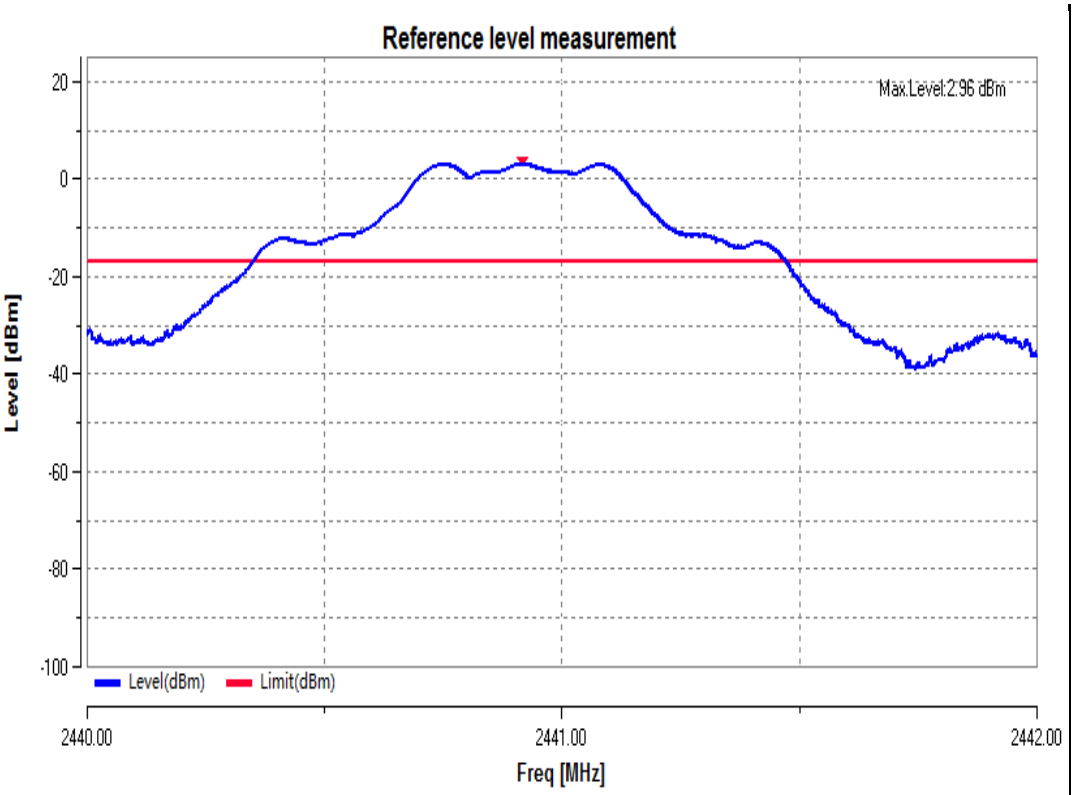
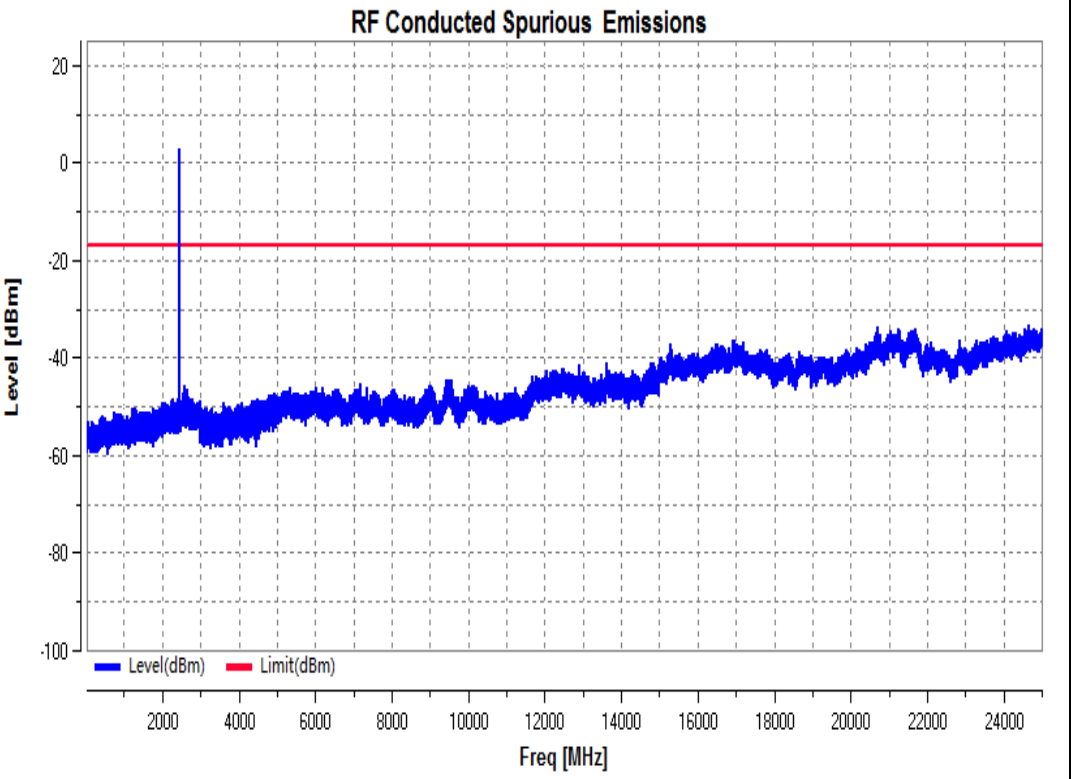


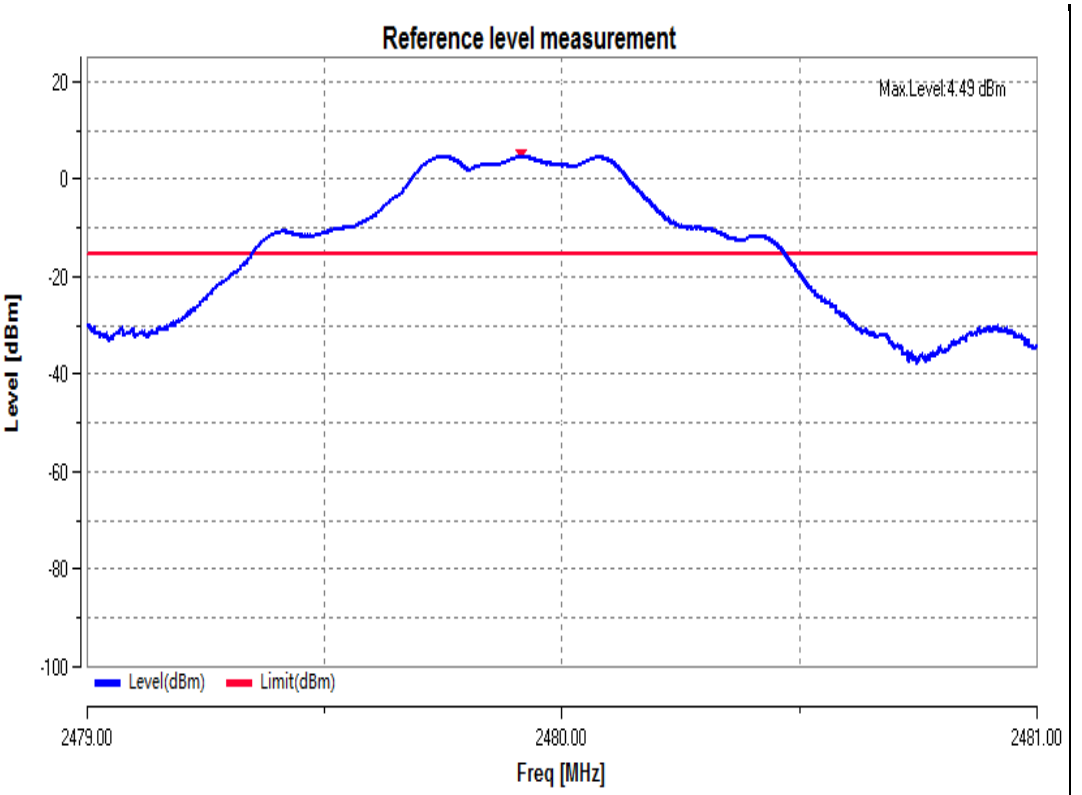
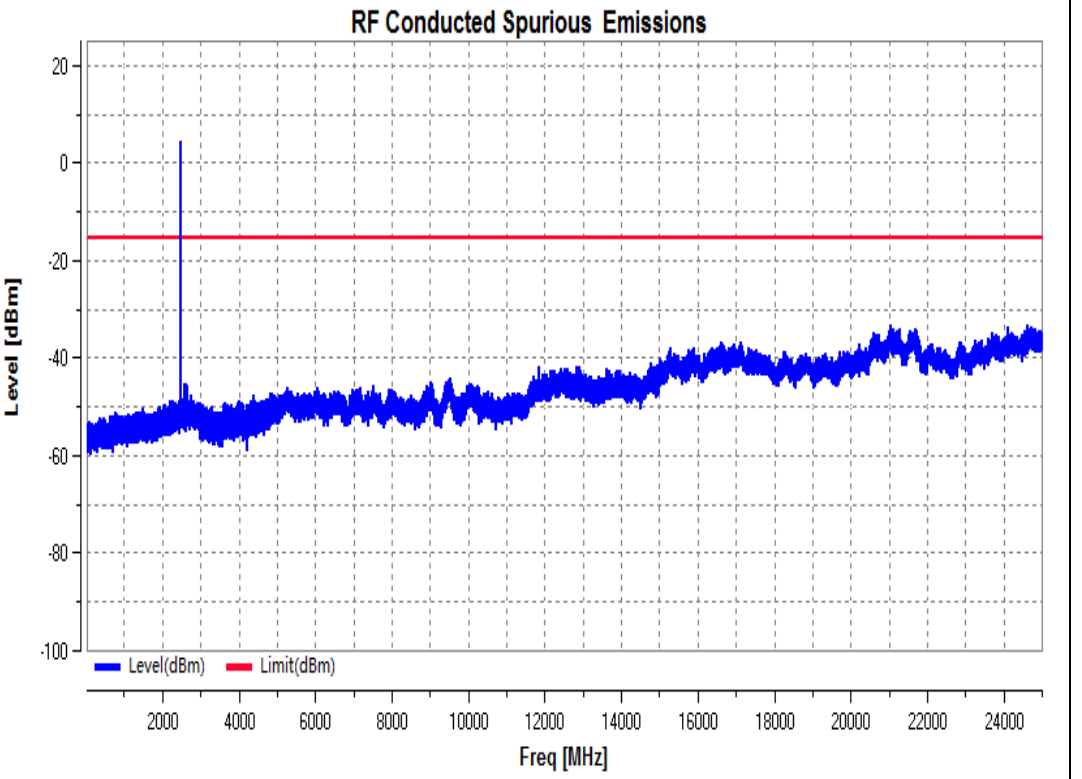
8.RF Conducted Spurious Emissions

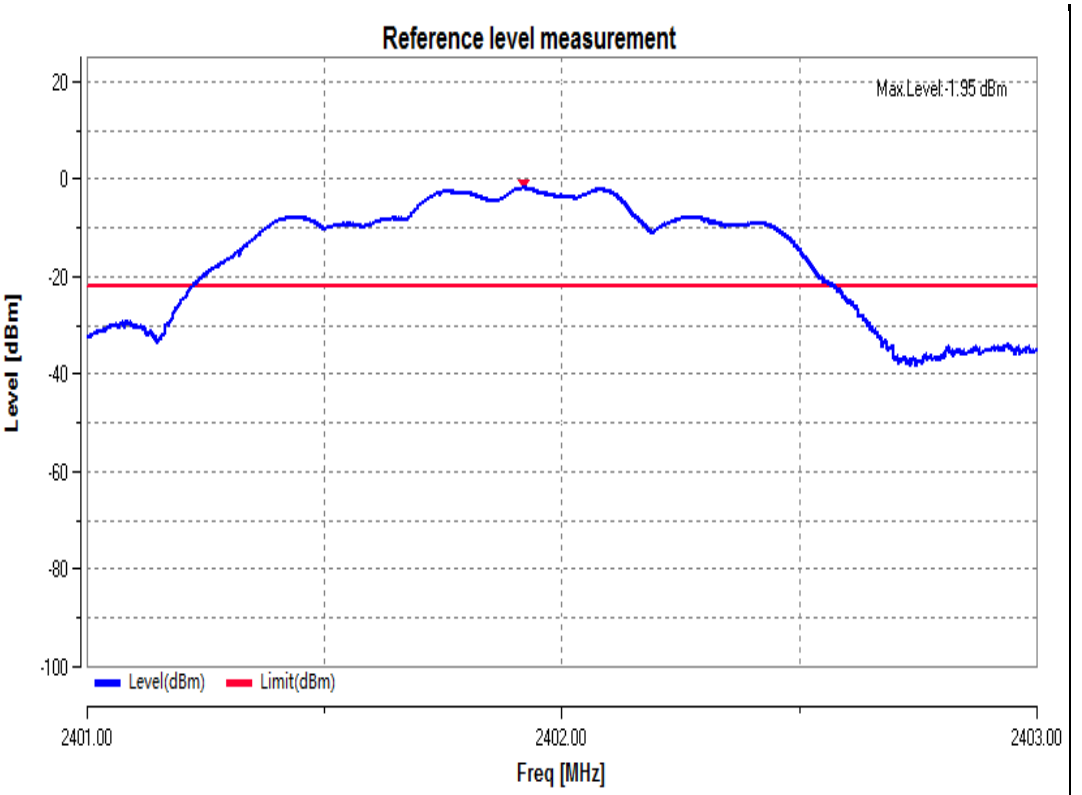
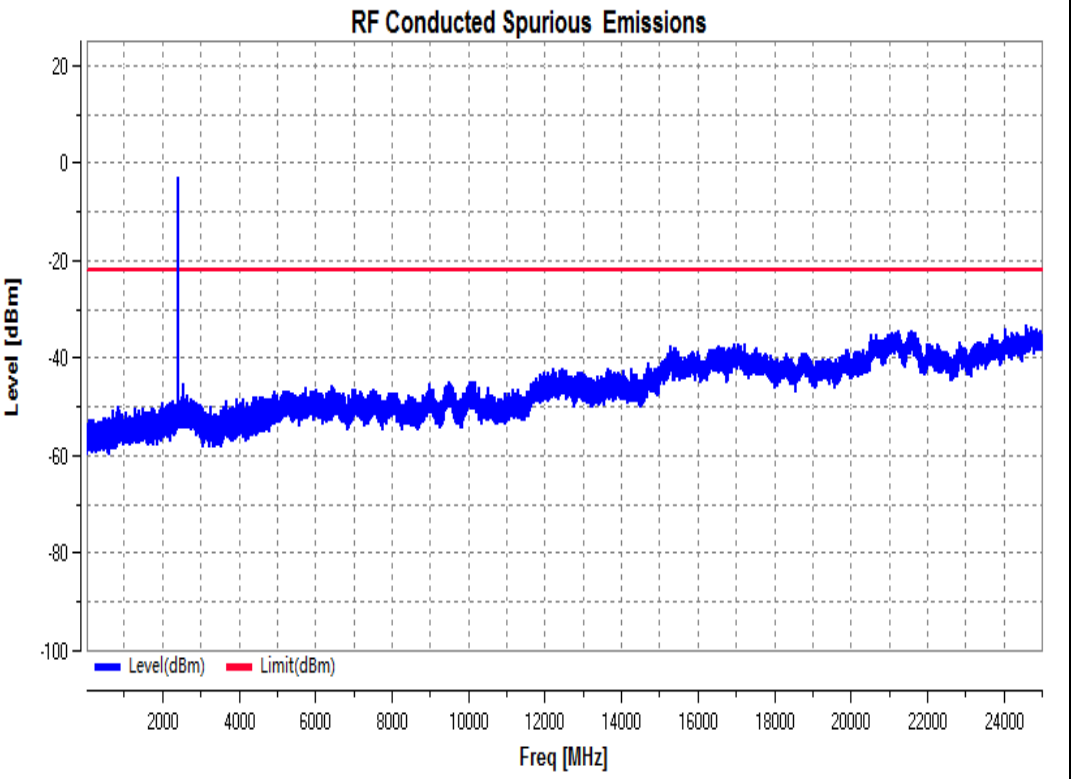
Test Mode	Test Channel	StartFre [MHz]	StopFre [MHz]	RBW [kHz]	VBW [kHz]	Pref[dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
DH5	2402	30	3000	100	300	1.9	-44.650	-18.1	PASS
DH5	2402	3000	5000	100	300	1.9	-46.923	-18.1	PASS
DH5	2402	5000	10000	100	300	1.9	-43.889	-18.1	PASS
DH5	2402	10000	15000	100	300	1.9	-41.755	-18.1	PASS
DH5	2402	15000	25000	100	300	1.9	-33.449	-18.1	PASS
DH5	2441	30	3000	100	300	2.962	-45.562	-17.038	PASS
DH5	2441	3000	5000	100	300	2.962	-47.105	-17.038	PASS
DH5	2441	5000	10000	100	300	2.962	-44.430	-17.038	PASS
DH5	2441	10000	15000	100	300	2.962	-40.872	-17.038	PASS
DH5	2441	15000	25000	100	300	2.962	-33.116	-17.038	PASS
DH5	2480	30	3000	100	300	4.486	-45.127	-15.514	PASS
DH5	2480	3000	5000	100	300	4.486	-47.235	-15.514	PASS
DH5	2480	5000	10000	100	300	4.486	-44.121	-15.514	PASS
DH5	2480	10000	15000	100	300	4.486	-40.934	-15.514	PASS
DH5	2480	15000	25000	100	300	4.486	-33.133	-15.514	PASS
2DH5	2402	30	3000	100	300	-1.95	-45.106	-21.95	PASS
2DH5	2402	3000	5000	100	300	-1.95	-46.863	-21.95	PASS
2DH5	2402	5000	10000	100	300	-1.95	-45.069	-21.95	PASS
2DH5	2402	10000	15000	100	300	-1.95	-40.867	-21.95	PASS
2DH5	2402	15000	25000	100	300	-1.95	-33.308	-21.95	PASS
2DH5	2441	30	3000	100	300	-0.642	-46.627	-20.642	PASS
2DH5	2441	3000	5000	100	300	-0.642	-47.006	-20.642	PASS
2DH5	2441	5000	10000	100	300	-0.642	-43.316	-20.642	PASS
2DH5	2441	10000	15000	100	300	-0.642	-41.221	-20.642	PASS
2DH5	2441	15000	25000	100	300	-0.642	-32.533	-20.642	PASS
2DH5	2480	30	3000	100	300	0.751	-46.248	-19.249	PASS
2DH5	2480	3000	5000	100	300	0.751	-46.646	-19.249	PASS
2DH5	2480	5000	10000	100	300	0.751	-43.964	-19.249	PASS
2DH5	2480	10000	15000	100	300	0.751	-41.567	-19.249	PASS
2DH5	2480	15000	25000	100	300	0.751	-33.424	-19.249	PASS
3DH5	2402	30	3000	100	300	-0.847	-47.811	-20.847	PASS
3DH5	2402	3000	5000	100	300	-0.847	-46.324	-20.847	PASS
3DH5	2402	5000	10000	100	300	-0.847	-43.857	-20.847	PASS
3DH5	2402	10000	15000	100	300	-0.847	-40.889	-20.847	PASS
3DH5	2402	15000	25000	100	300	-0.847	-33.430	-20.847	PASS

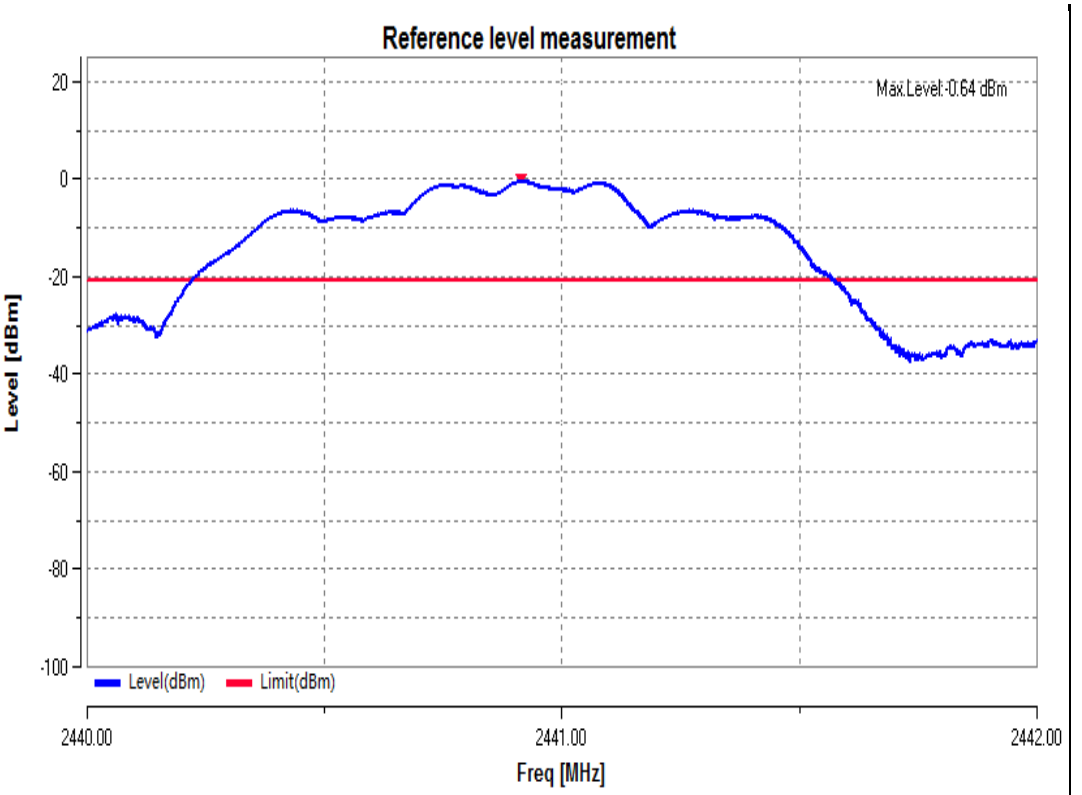
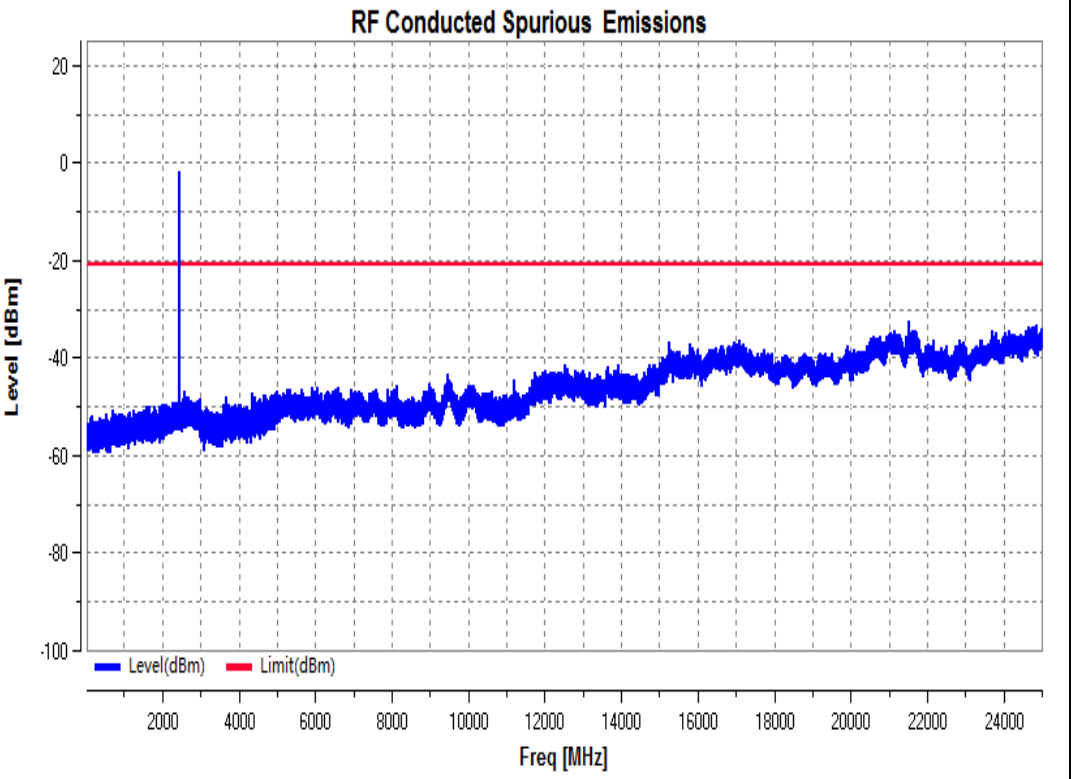
3DH5	2441	30	3000	100	300	0.113	-46.976	-19.887	PASS
3DH5	2441	3000	5000	100	300	0.113	-47.027	-19.887	PASS
3DH5	2441	5000	10000	100	300	0.113	-44.597	-19.887	PASS
3DH5	2441	10000	15000	100	300	0.113	-40.702	-19.887	PASS
3DH5	2441	15000	25000	100	300	0.113	-31.959	-19.887	PASS
3DH5	2480	30	3000	100	300	1.639	-47.692	-18.361	PASS
3DH5	2480	3000	5000	100	300	1.639	-46.698	-18.361	PASS
3DH5	2480	5000	10000	100	300	1.639	-44.184	-18.361	PASS
3DH5	2480	10000	15000	100	300	1.639	-40.792	-18.361	PASS
3DH5	2480	15000	25000	100	300	1.639	-33.114	-18.361	PASS

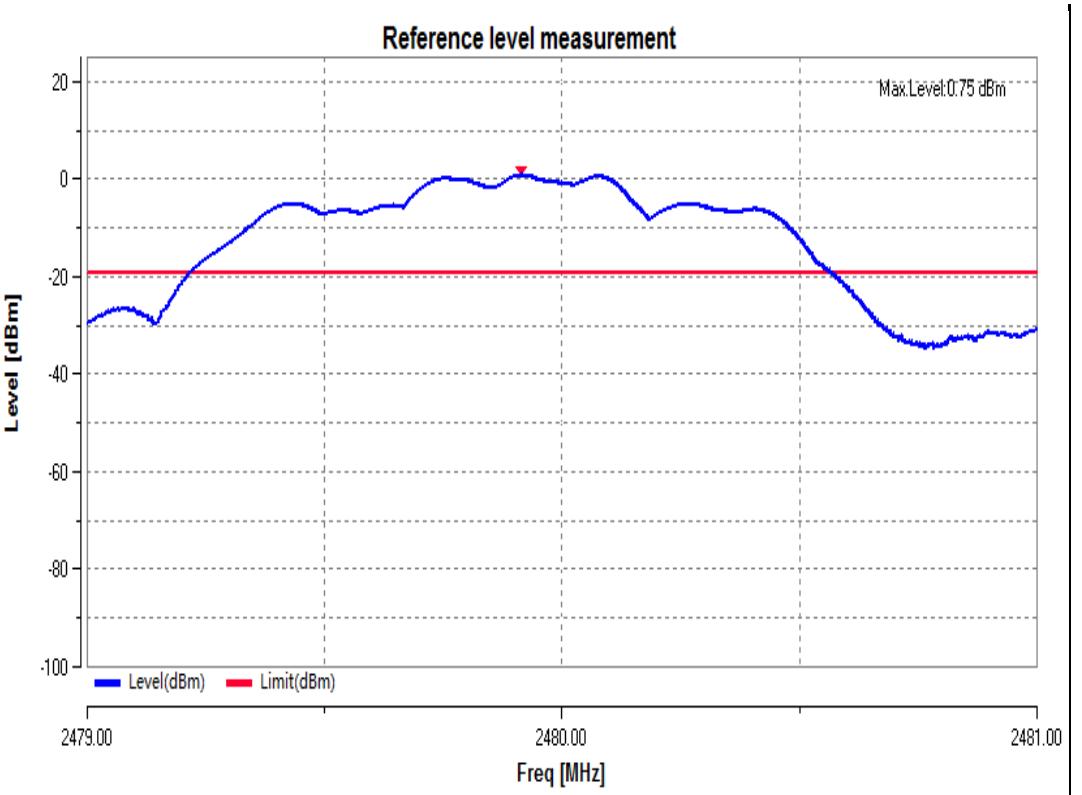
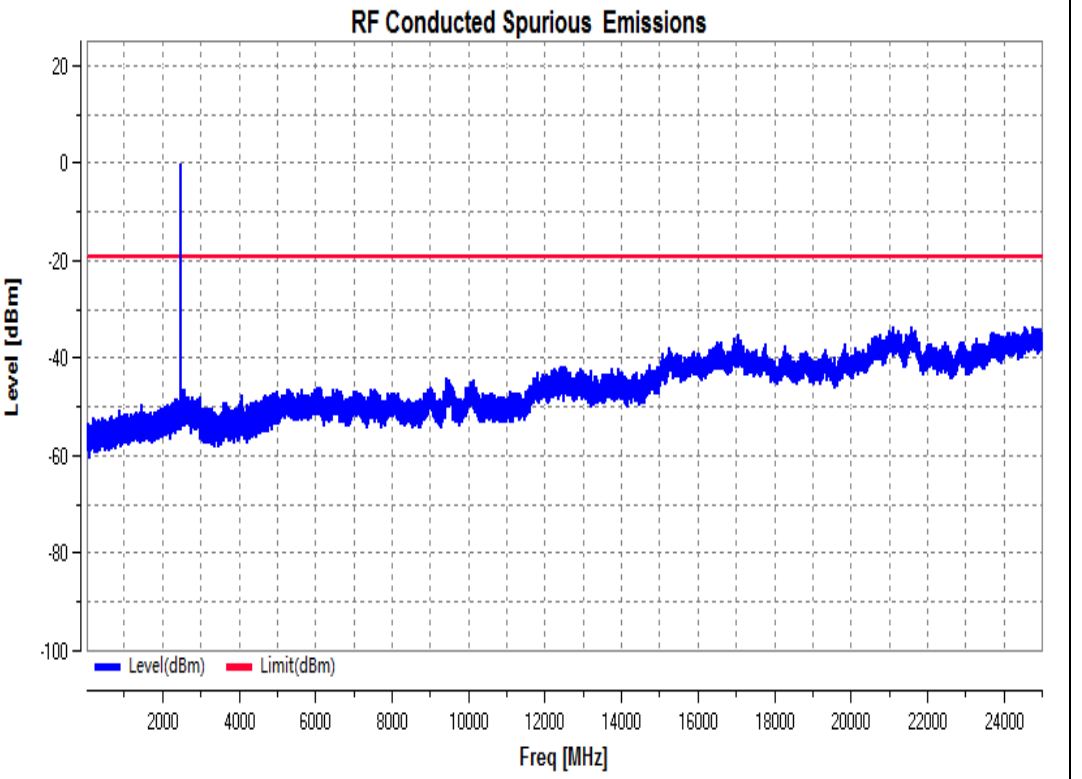
TEST PLOT	
RF Conducted Spurious Emissions_DH5_2402	
Pref	
CSE_1	
RF Conducted Spurious Emissions_DH5_2441	

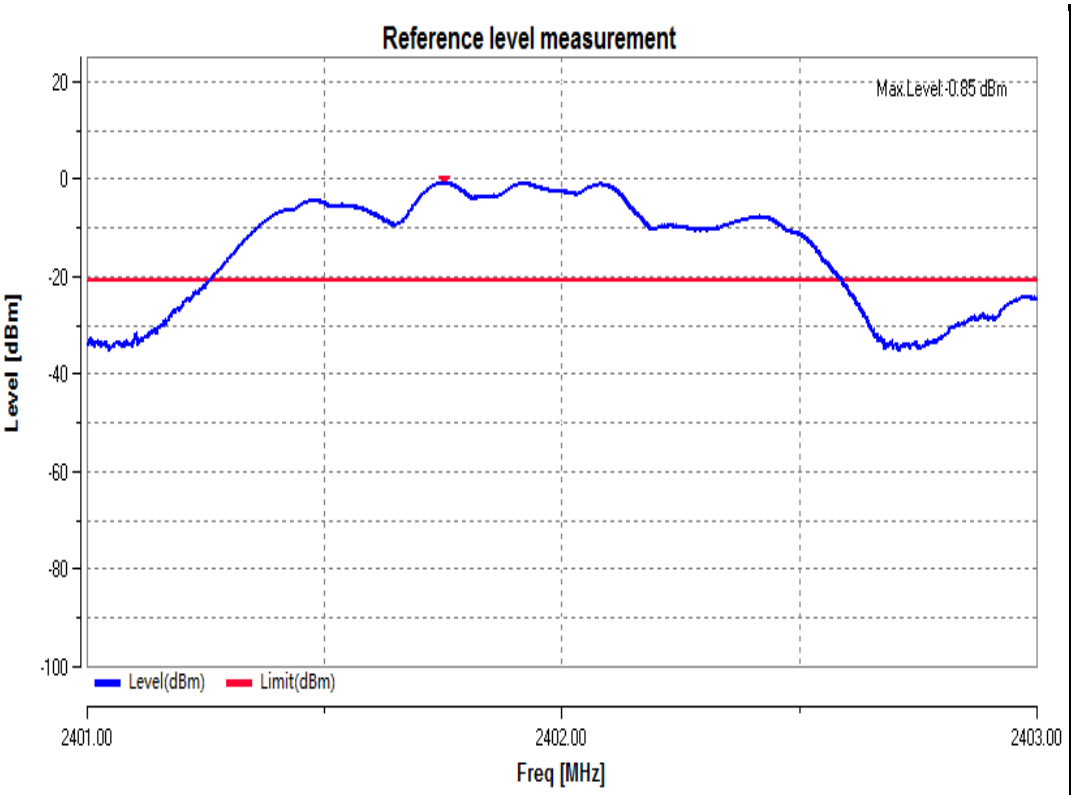
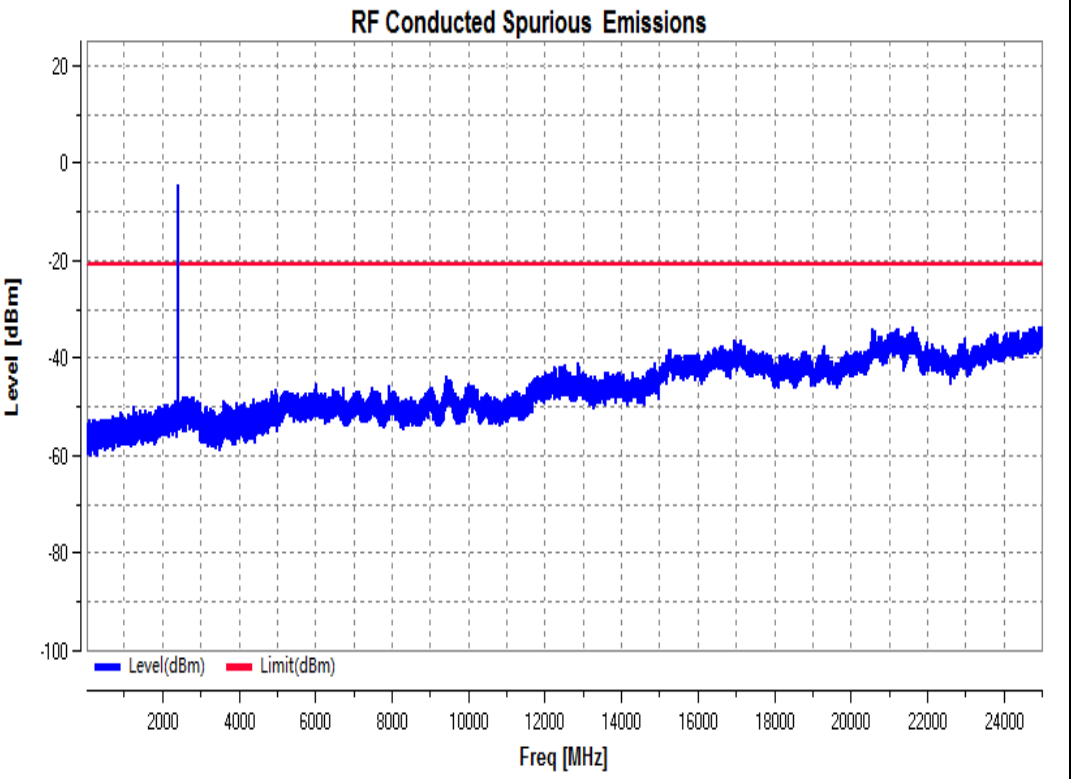
Pref	
CSE_1	
RF Conducted Spurious Emissions_DH5_2480	

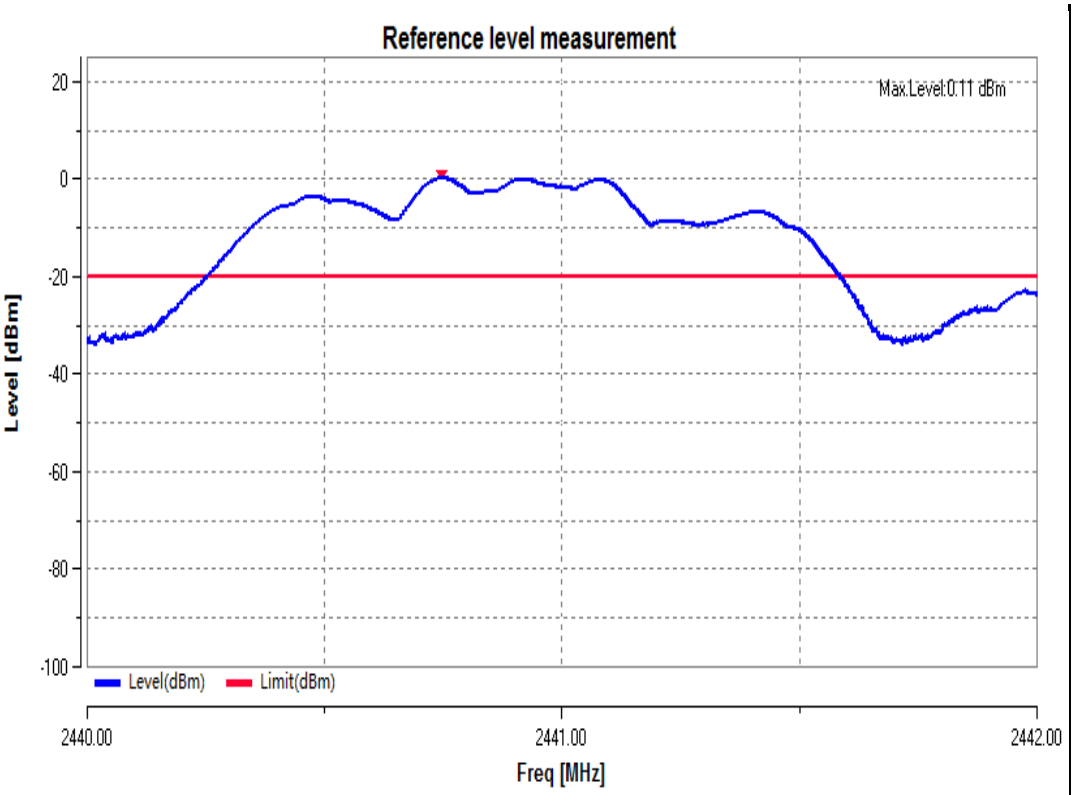
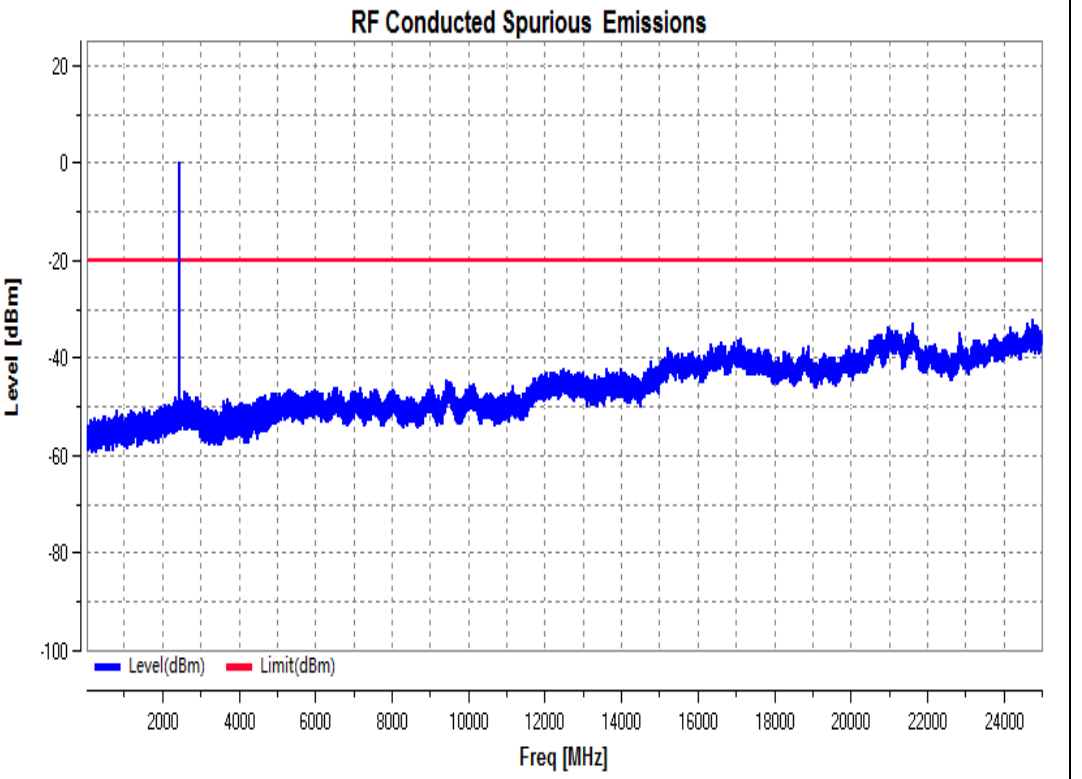
Pref	
CSE_1	
RF Conducted Spurious Emissions_2DH5_2402	

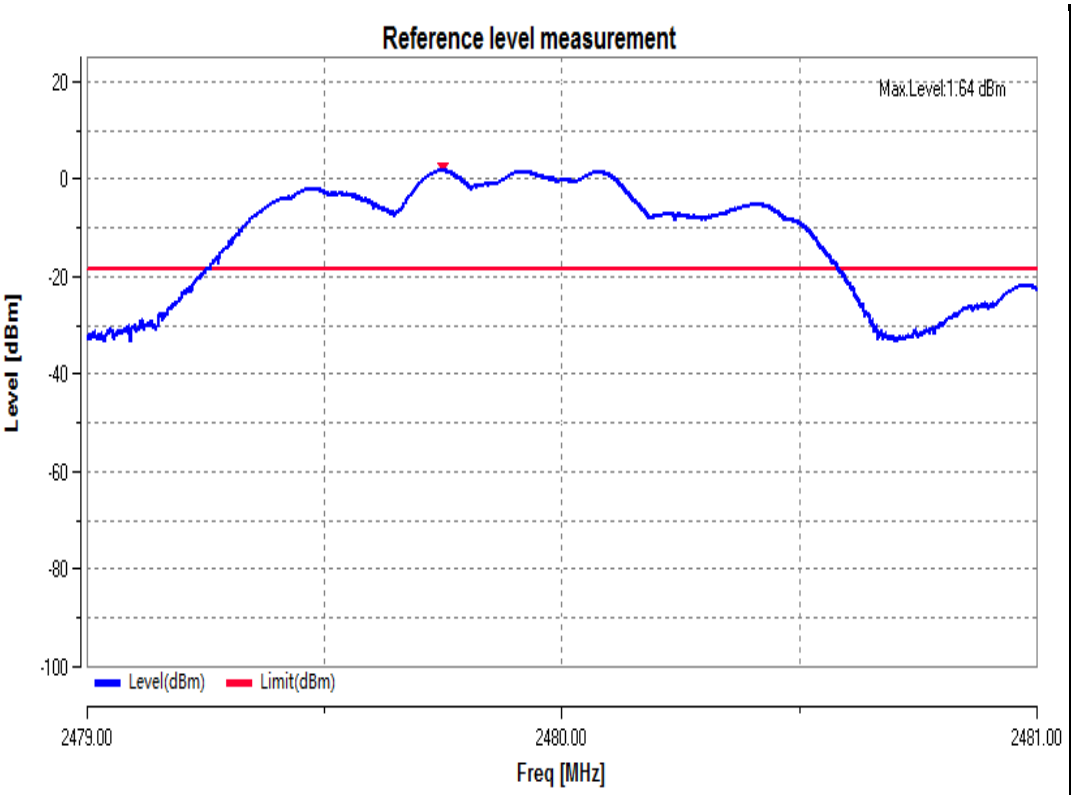
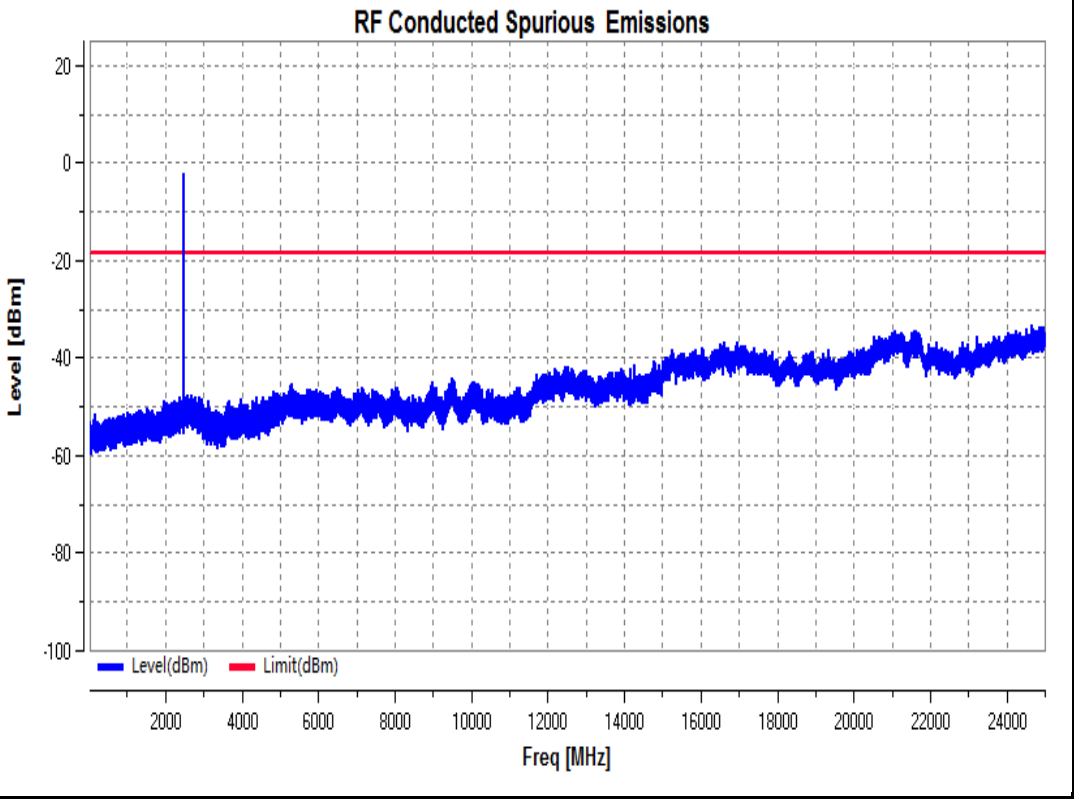
Pref	
CSE_1	
RF Conducted Spurious Emissions_2DH5_2441	

Pref	
CSE_1	
RF Conducted Spurious Emissions_2DH5_2480	

Pref	
CSE_1	
RF Conducted Spurious Emissions_3DH5_2402	

Pref	
CSE_1	
RF Conducted Spurious Emissions_3DH5_2441	

Pref	
CSE_1	
RF Conducted Spurious Emissions_3DH5_2480	

Pref	 Reference level measurement Max.Level:1.64 dBm Level [dBm] 20 0 -20 -40 -60 -80 -100 Level(dBm) Limit(dBm) 2479.00 2480.00 2481.00 Freq [MHz]
CSE_1	 RF Conducted Spurious Emissions Level [dBm] 20 0 -20 -40 -60 -80 -100 Level(dBm) Limit(dBm) 2000 4000 6000 8000 10000 12000 14000 16000 18000 20000 22000 24000 Freq [MHz]