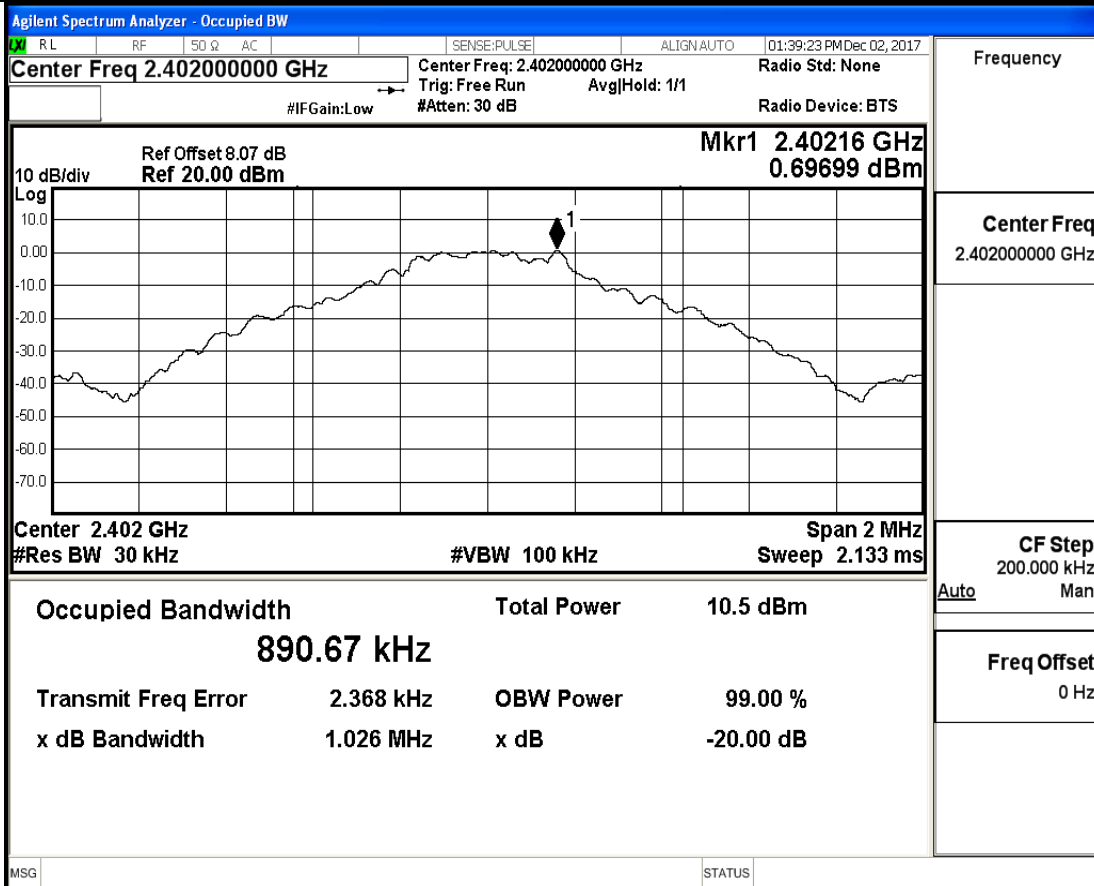


Appendix A RF Test Data for BT V4.2

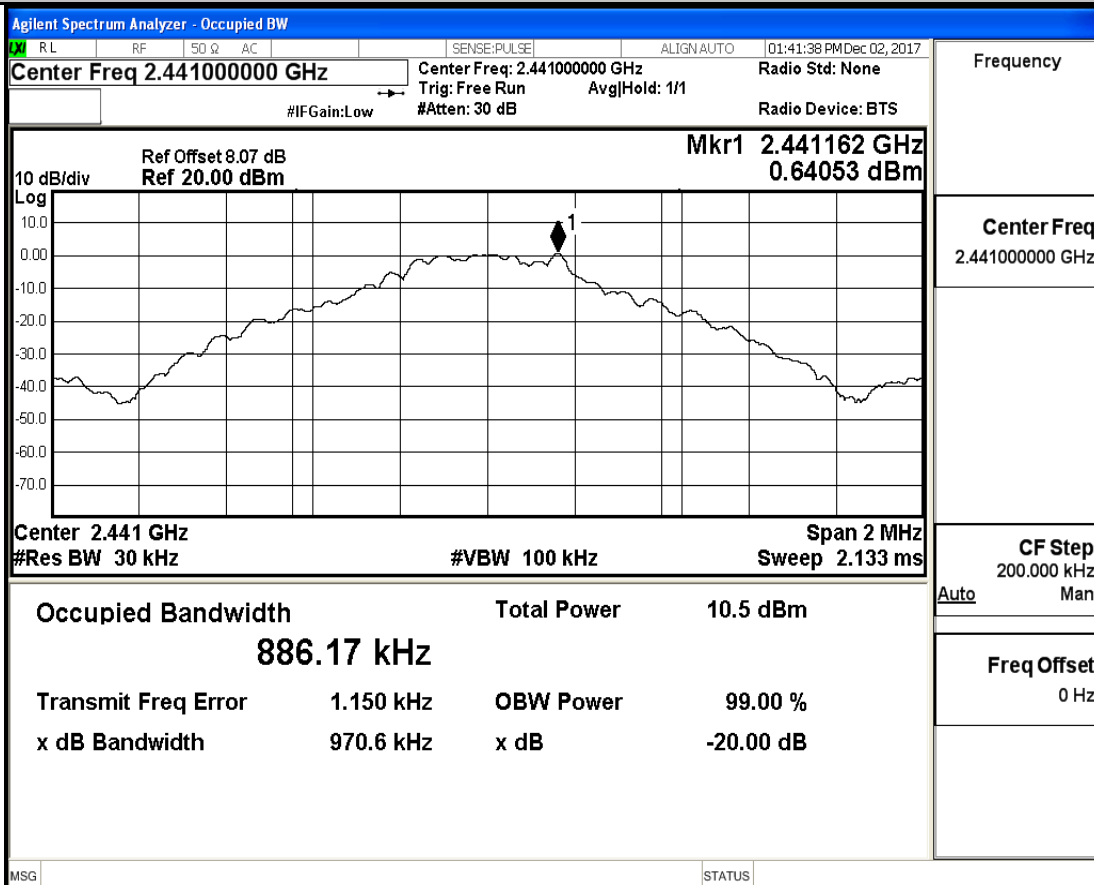
A.1.20 dB Bandwidth

Test Mode	Test Channel	EBW[MHz]	Limit[MHz]	Verdict
DH5	2402	1.026	---	PASS
DH5	2441	0.9706	---	PASS
DH5	2480	1.030	---	PASS
2DH5	2402	1.289	---	PASS
2DH5	2441	1.293	---	PASS
2DH5	2480	1.312	---	PASS
3DH5	2402	1.294	---	PASS
3DH5	2441	1.297	---	PASS
3DH5	2480	1.299	---	PASS

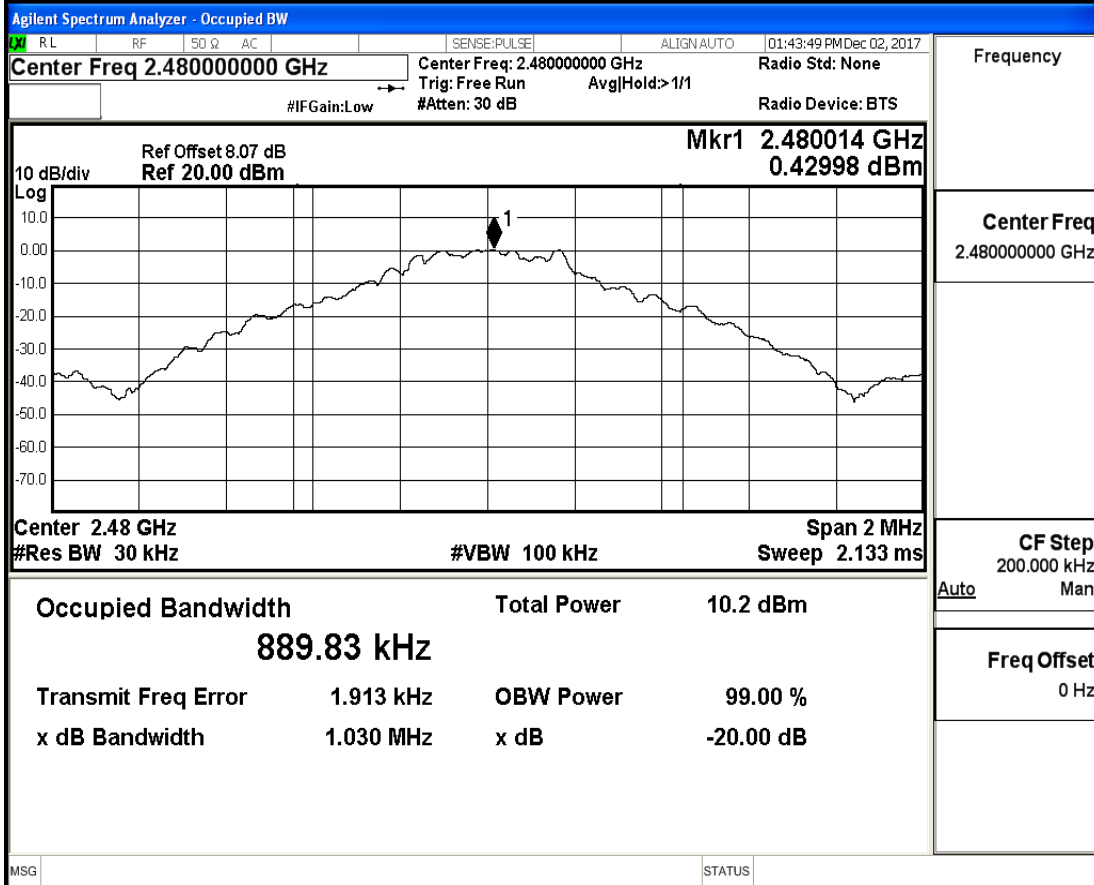
20 dB Bandwidth_DH5_2402



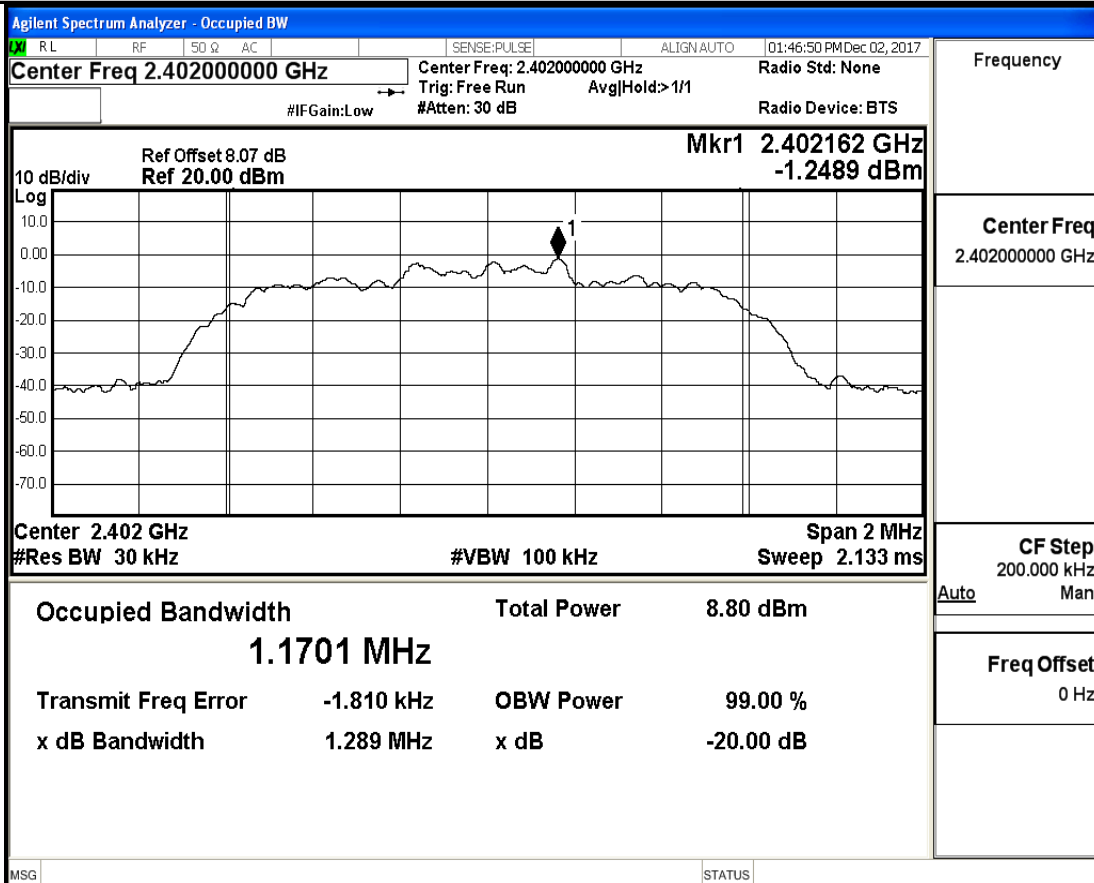
20 dB Bandwidth_DH5_2441



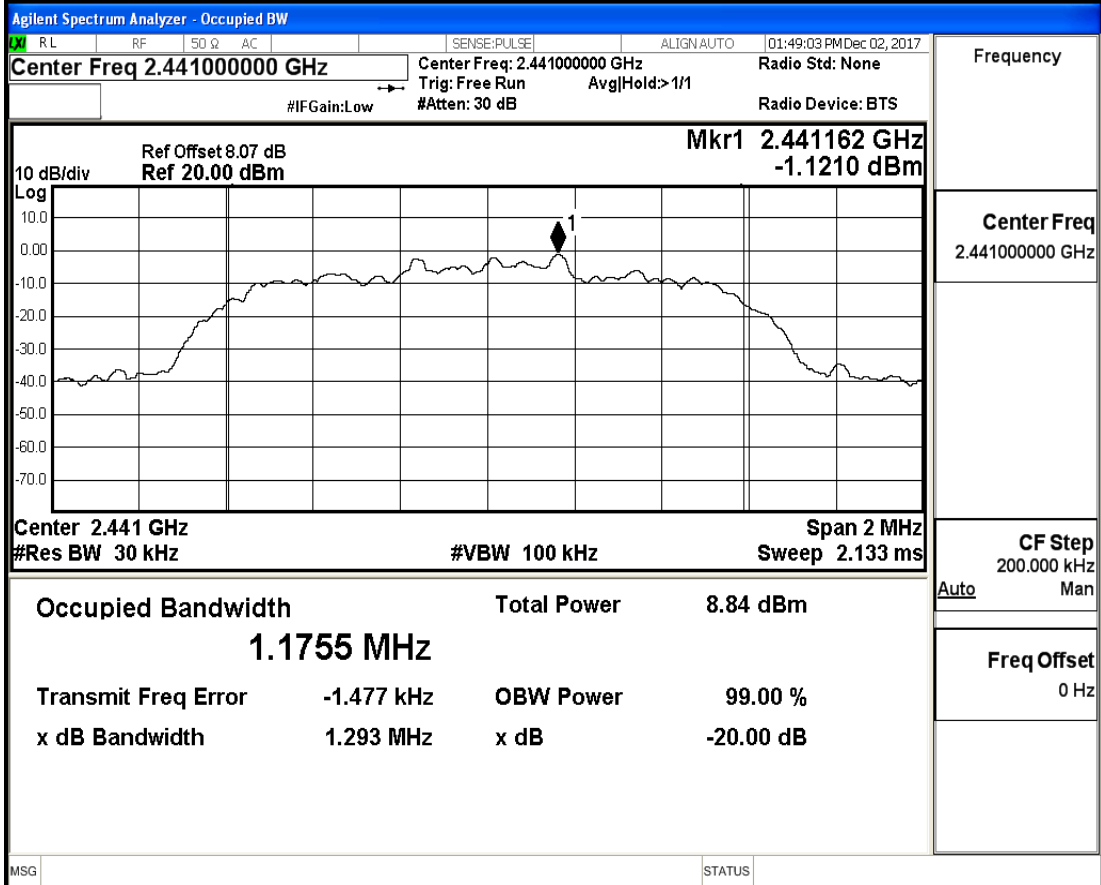
20 dB Bandwidth_DH5_2480



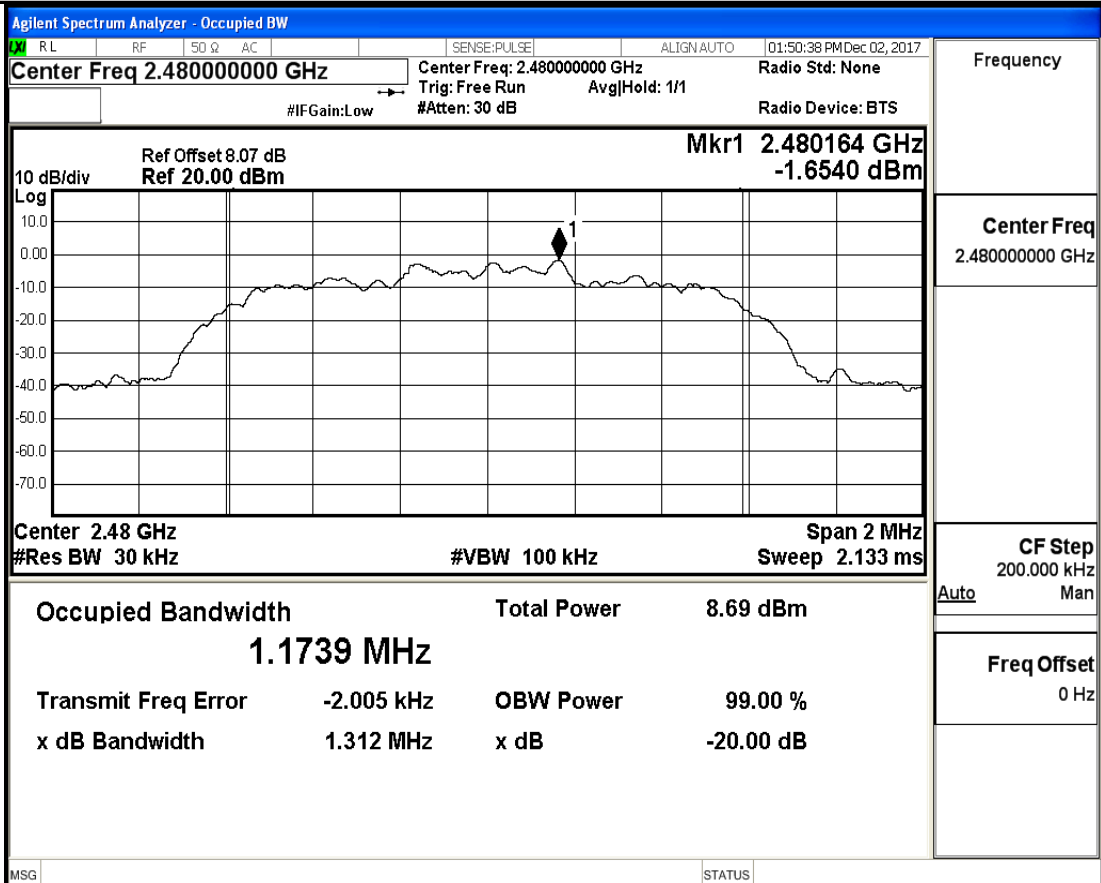
20 dB Bandwidth_2DH5_2402



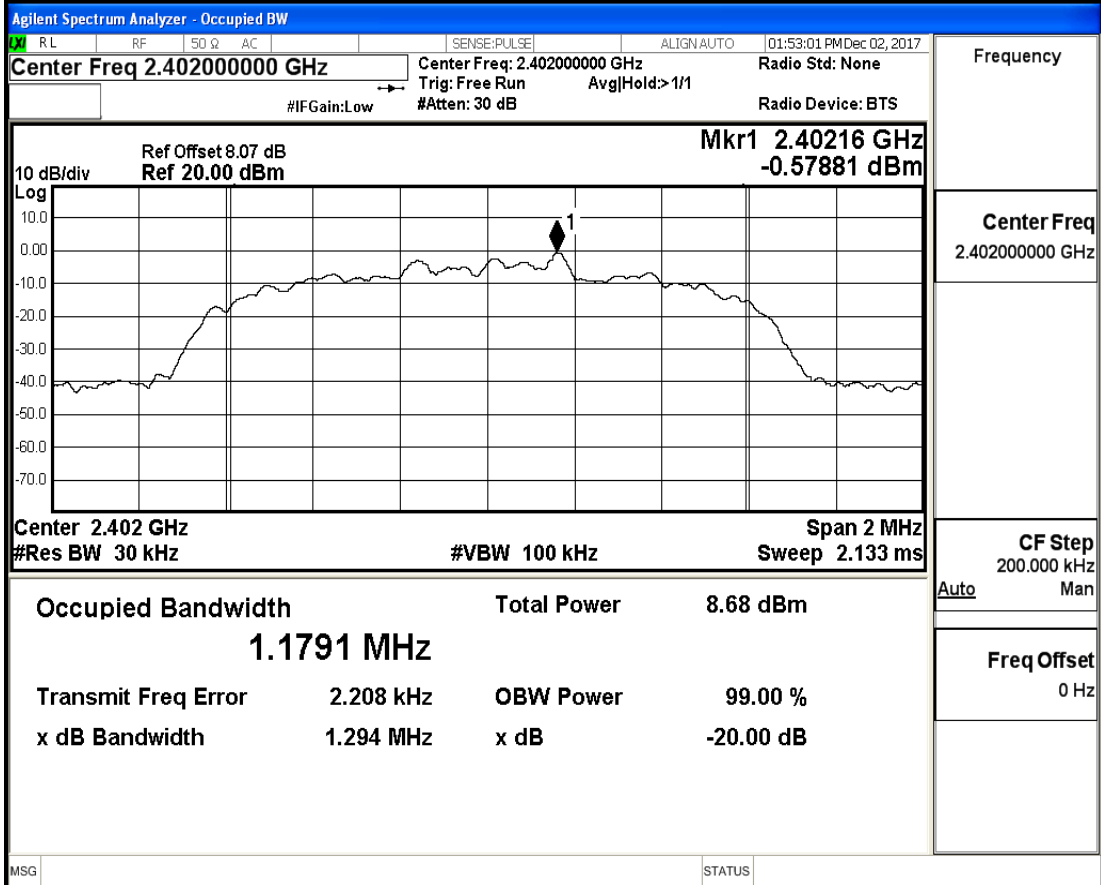
20 dB Bandwidth_2DH5_2441



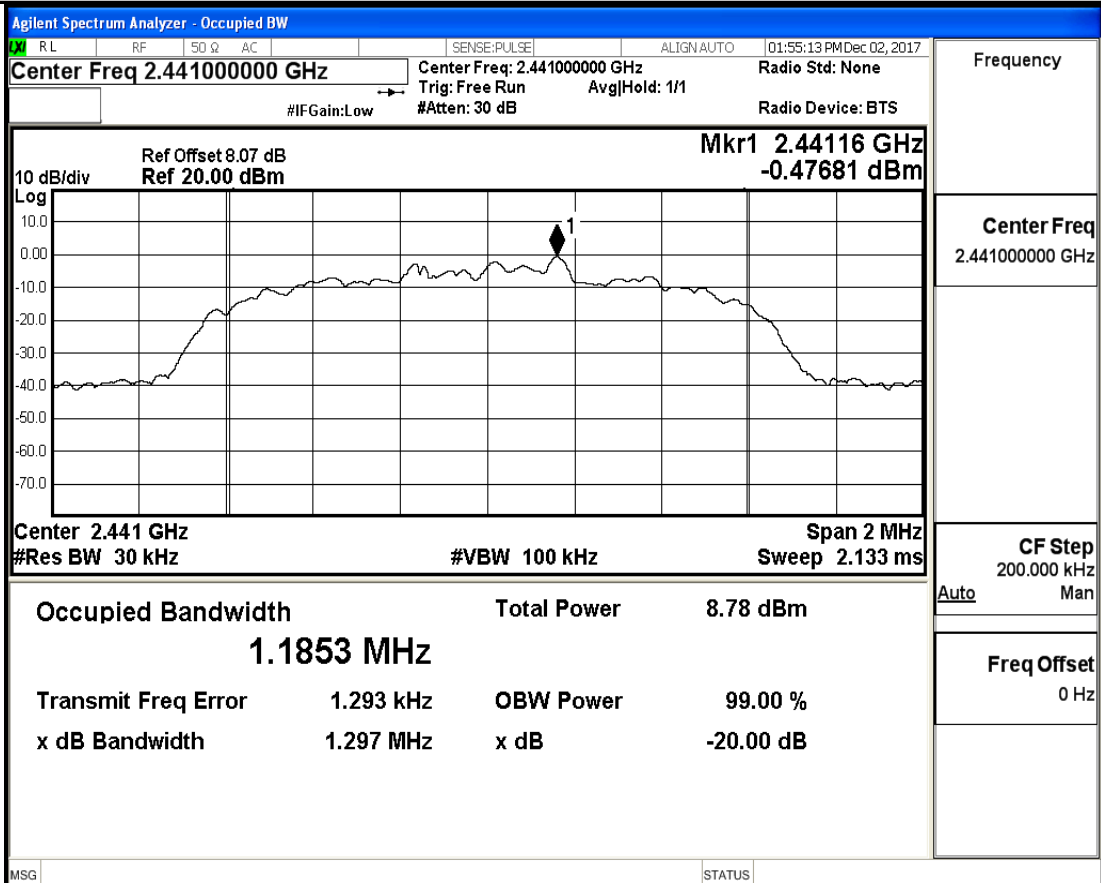
20 dB Bandwidth_2DH5_2480



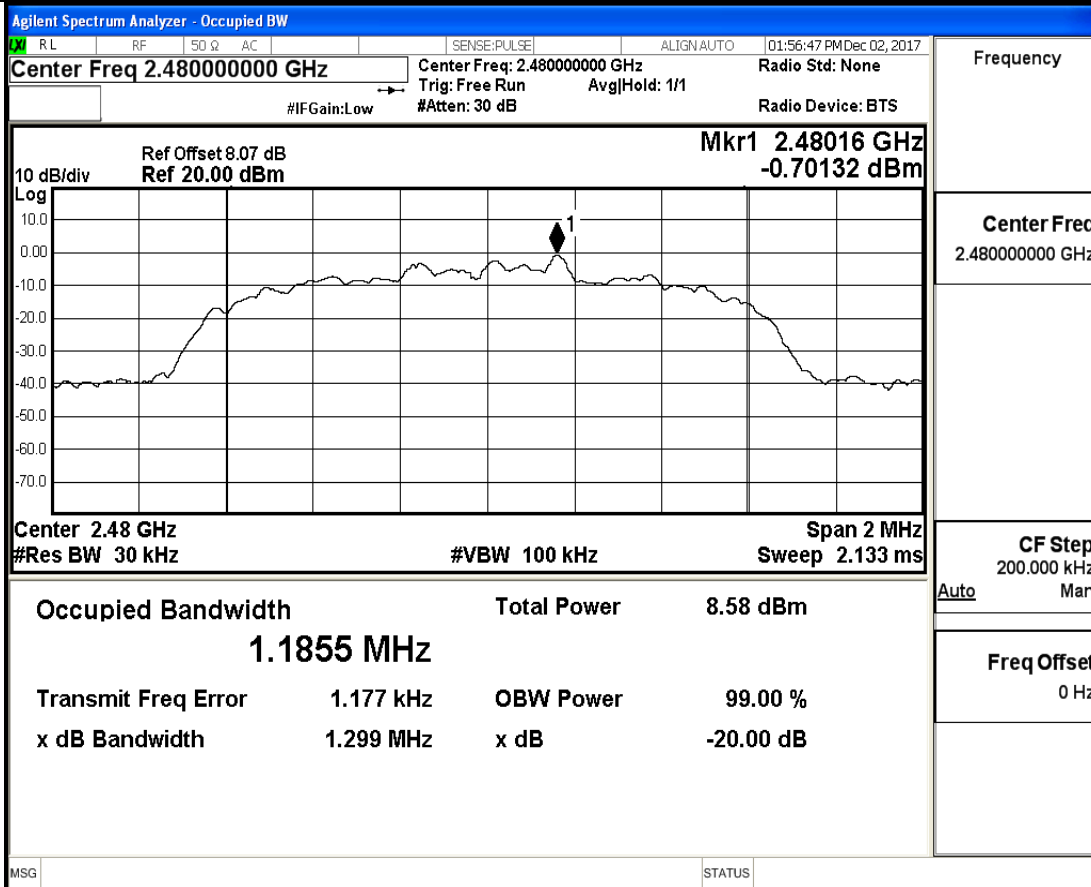
20 dB Bandwidth_3DH5_2402



20 dB Bandwidth_3DH5_2441



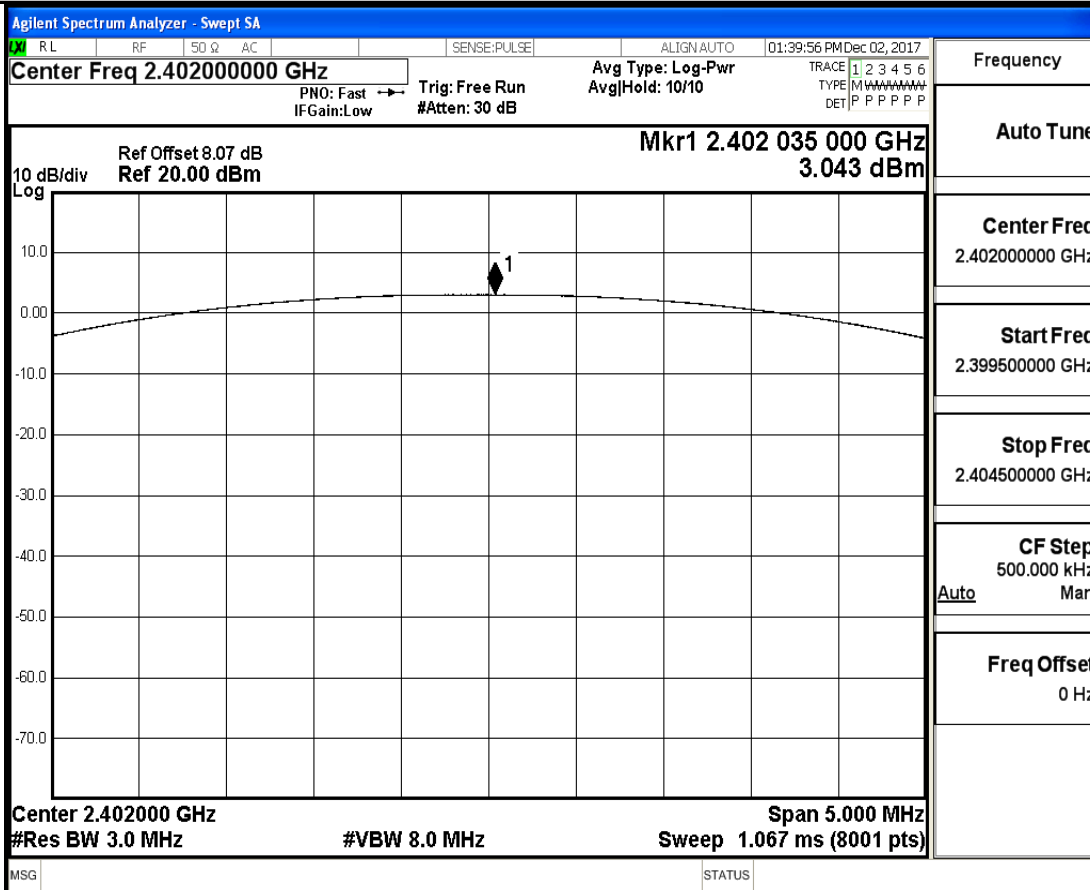
20 dB Bandwidth_3DH5_2480



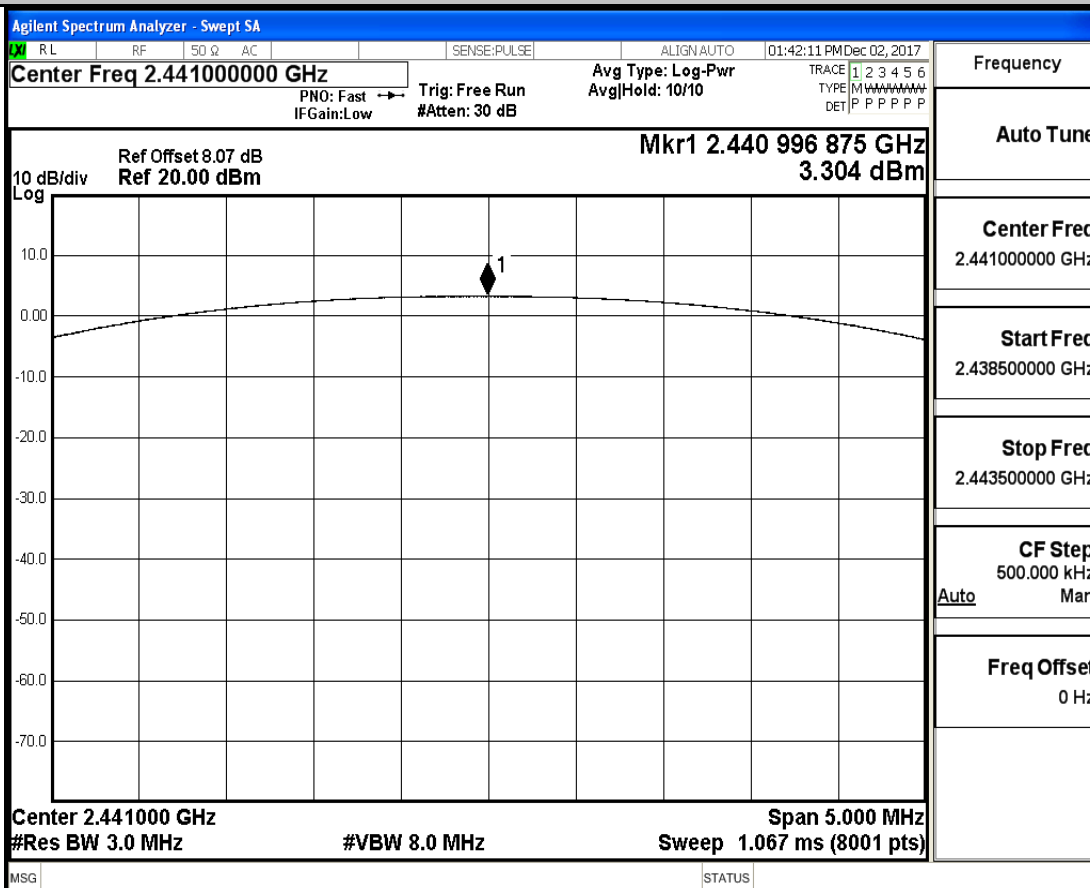
A.2. Conducted Peak Output Power

Test Mode	Test Channel	Power[dBm]	Limit[dBm]	Verdict
DH5	2402	3.043	21	PASS
DH5	2441	3.304	21	PASS
DH5	2480	2.987	21	PASS
2DH5	2402	2.517	21	PASS
2DH5	2441	2.563	21	PASS
2DH5	2480	2.247	21	PASS
3DH5	2402	2.675	21	PASS
3DH5	2441	2.697	21	PASS
3DH5	2480	2.394	21	PASS

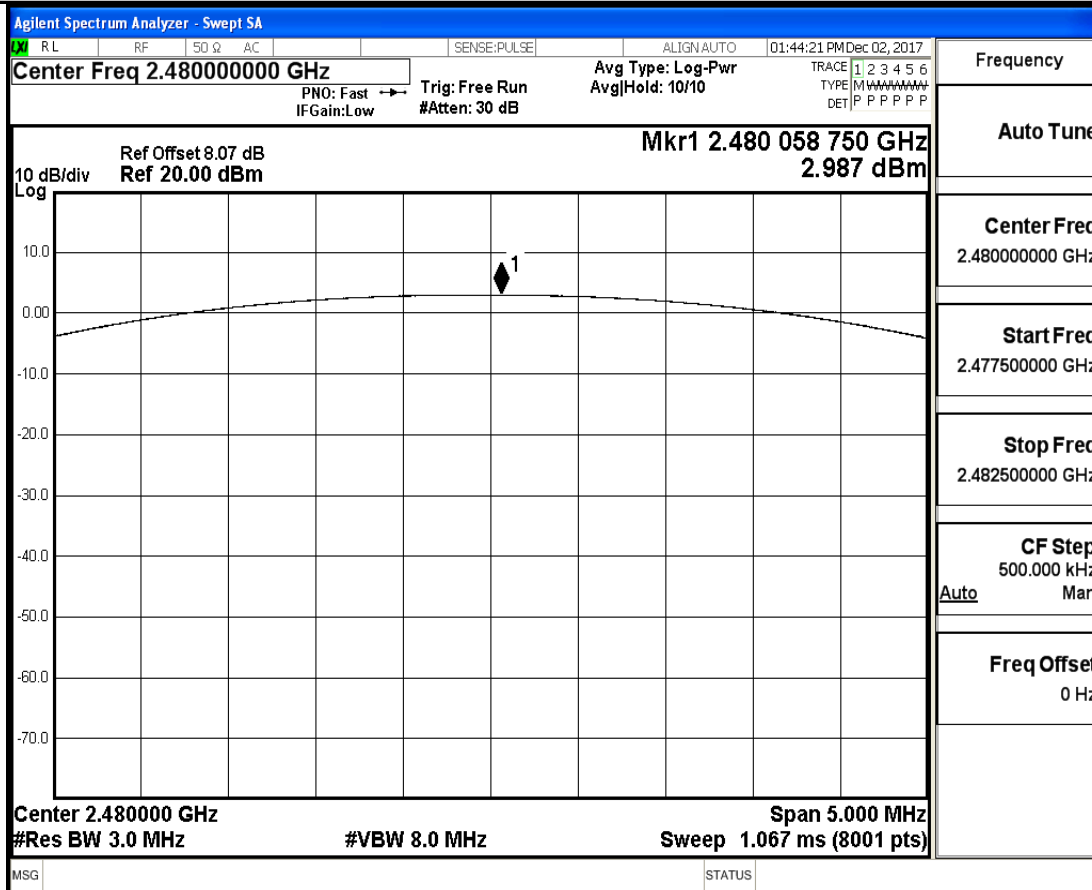
Conducted Peak Output Power_DH5_2402



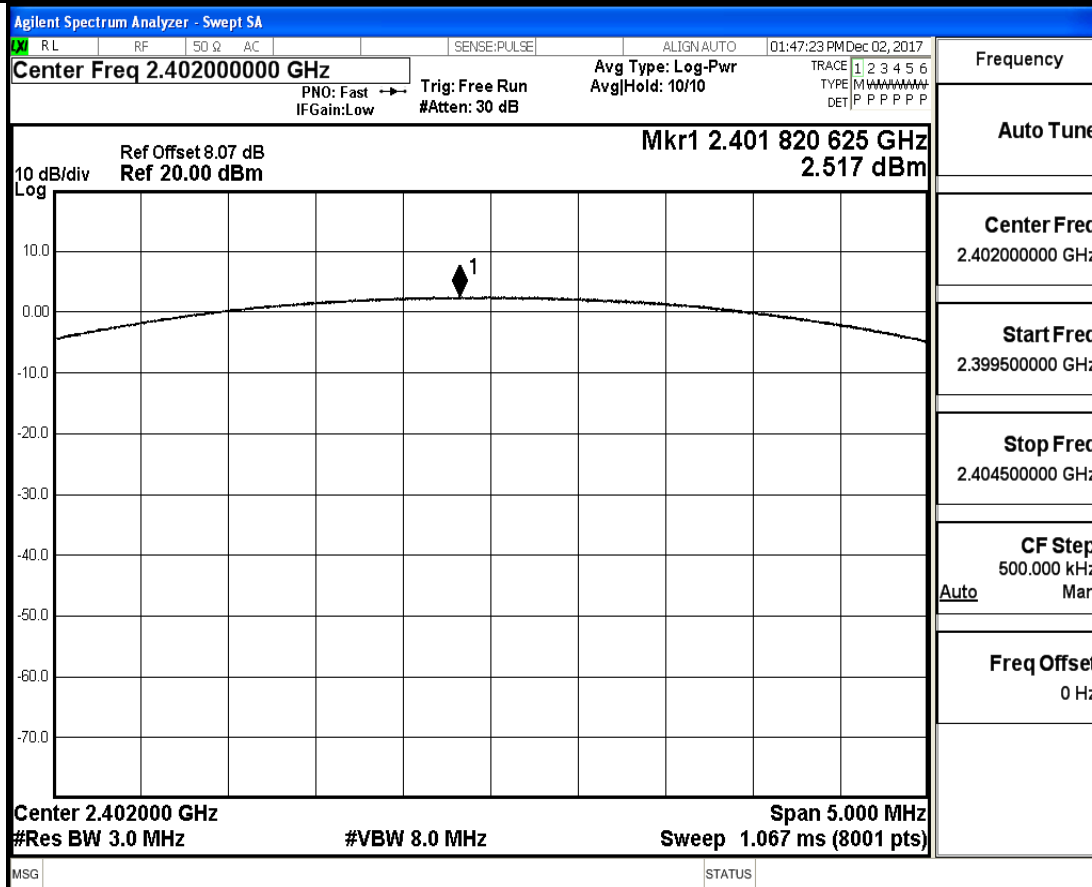
Conducted Peak Output Power_DH5_2441



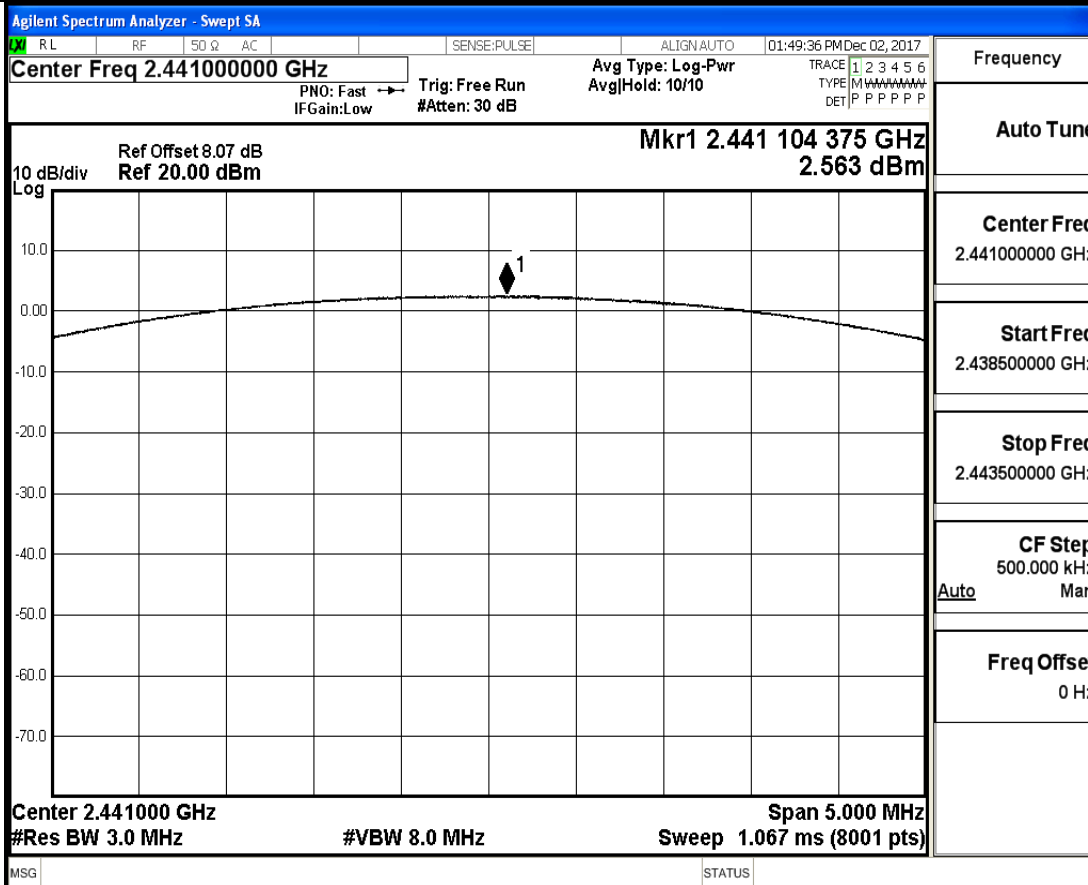
Conducted Peak Output Power_DH5_2480



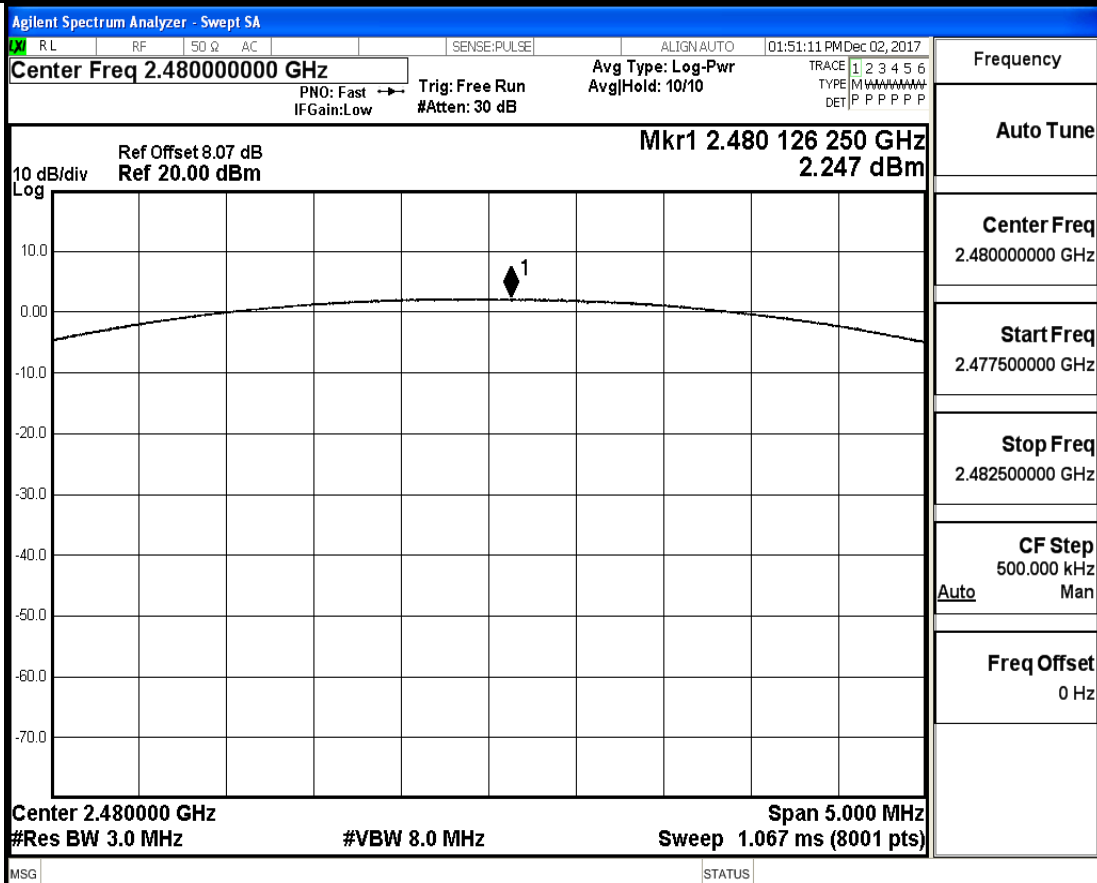
Conducted Peak Output Power_2DH5_2402



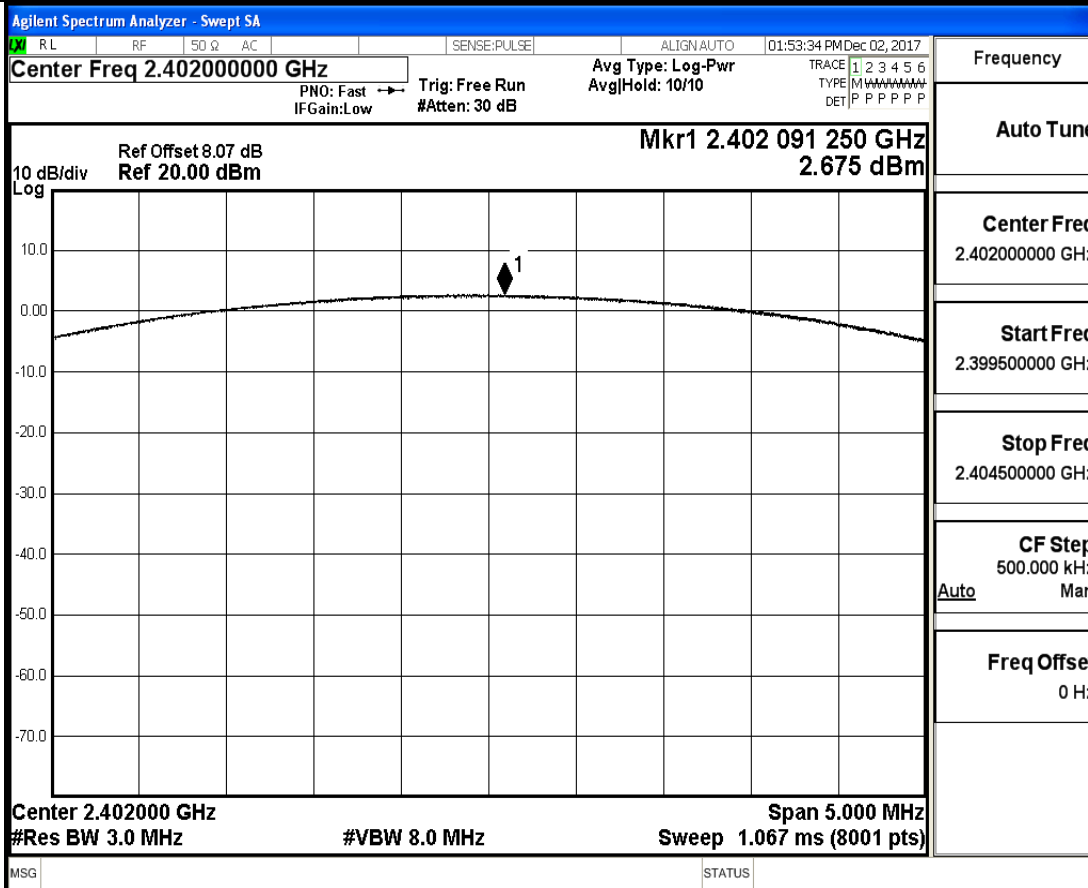
Conducted Peak Output Power_2DH5_2441



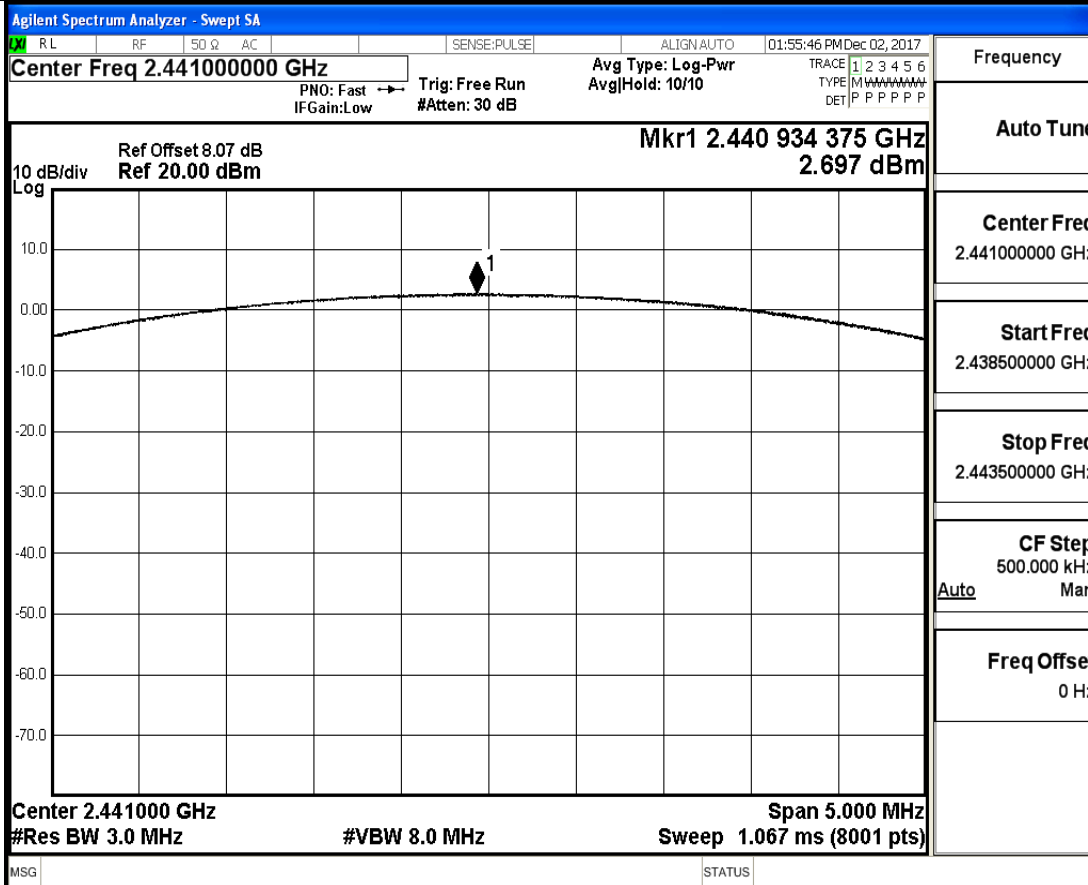
Conducted Peak Output Power_2DH5_2480



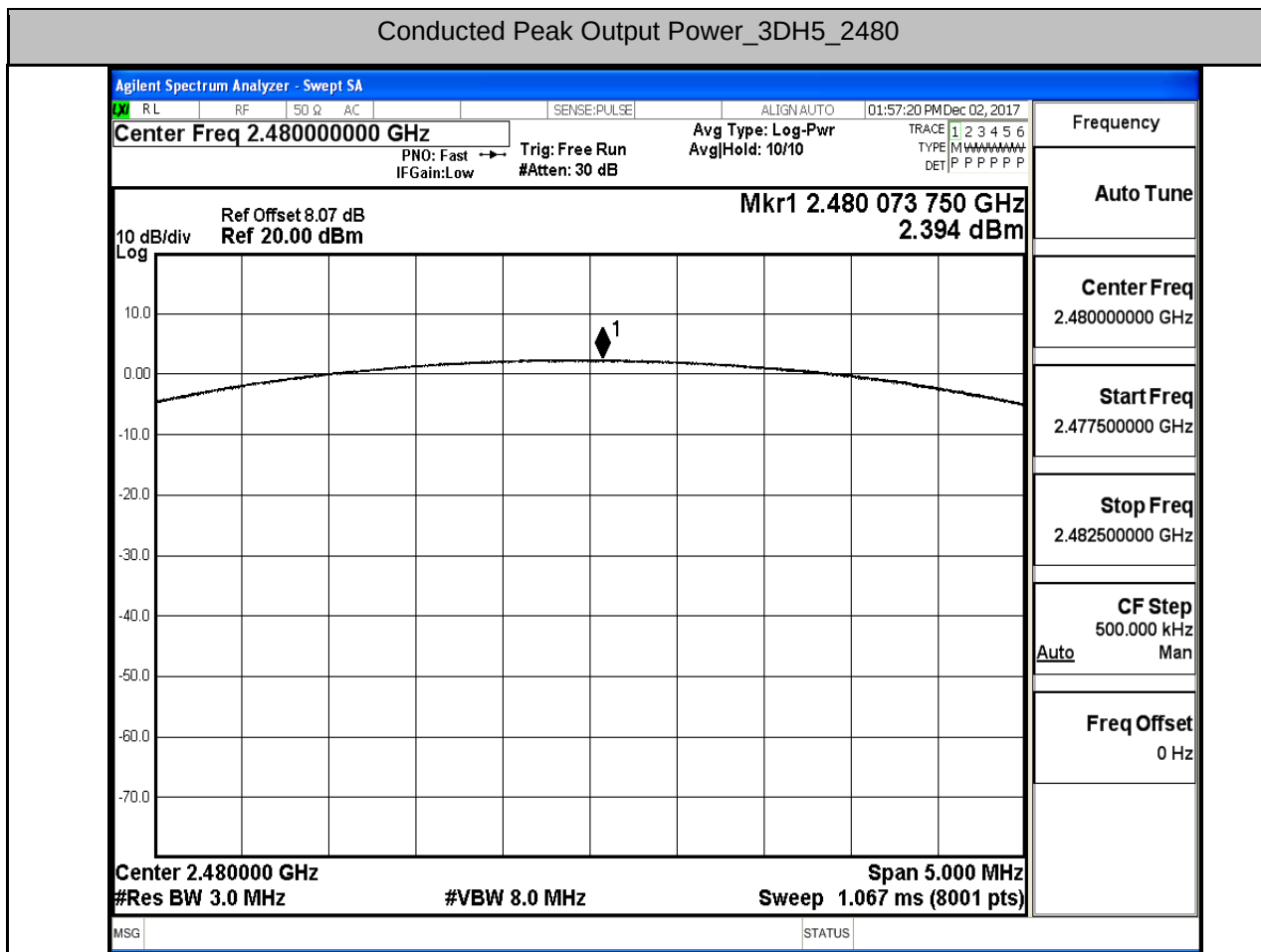
Conducted Peak Output Power_3DH5_2402



Conducted Peak Output Power_3DH5_2441



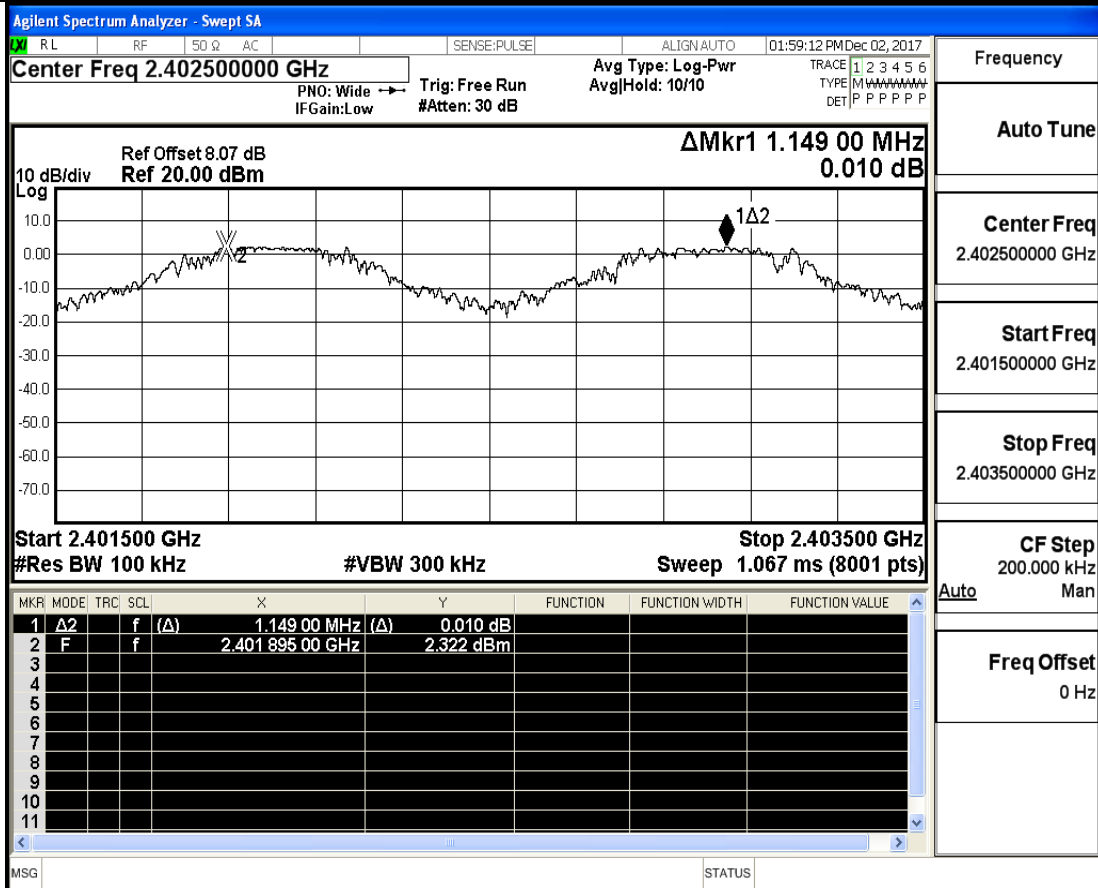
Conducted Peak Output Power_3DH5_2480



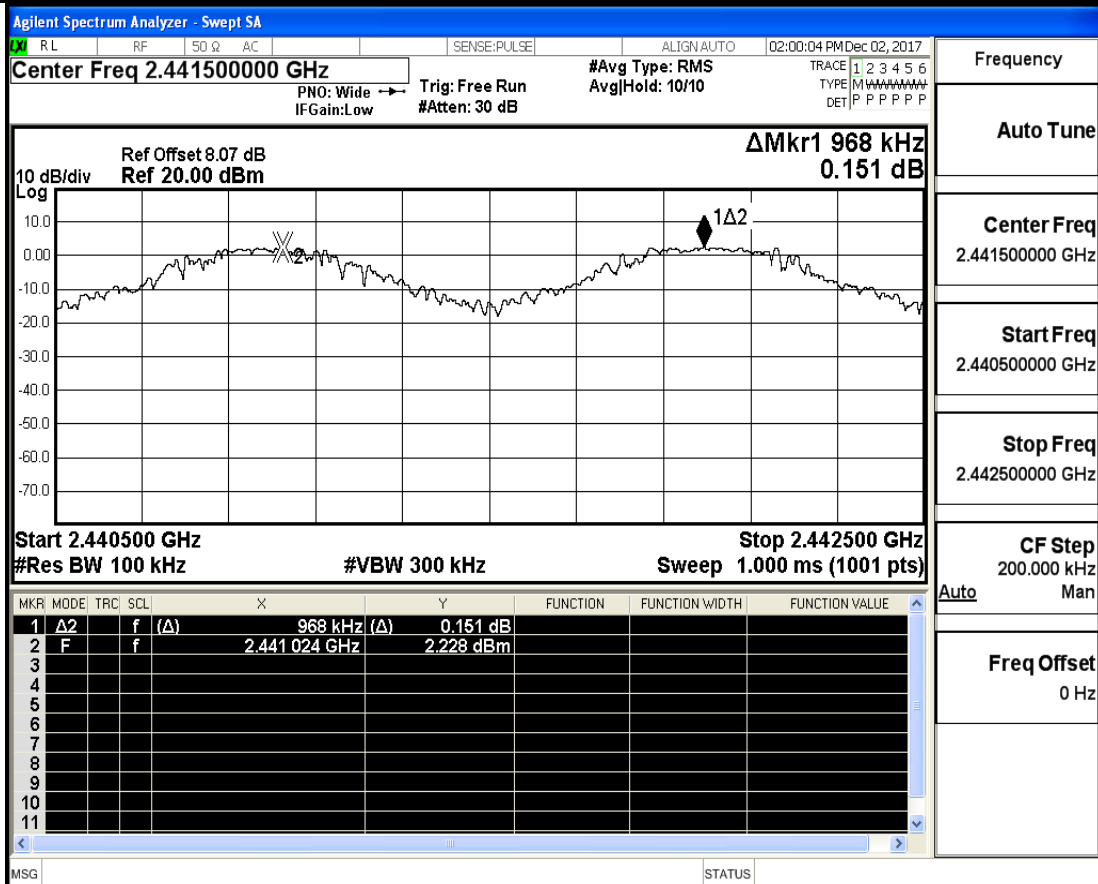
A.3.Carrier Frequency Separation

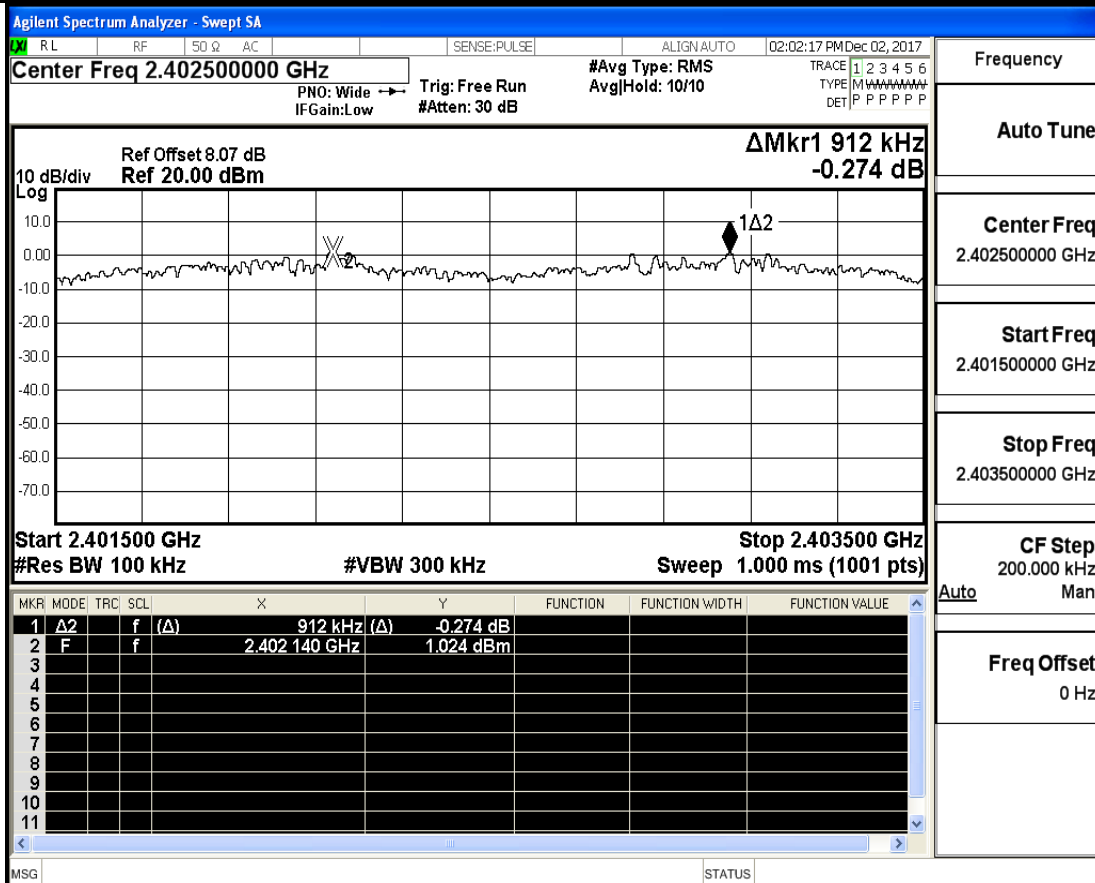
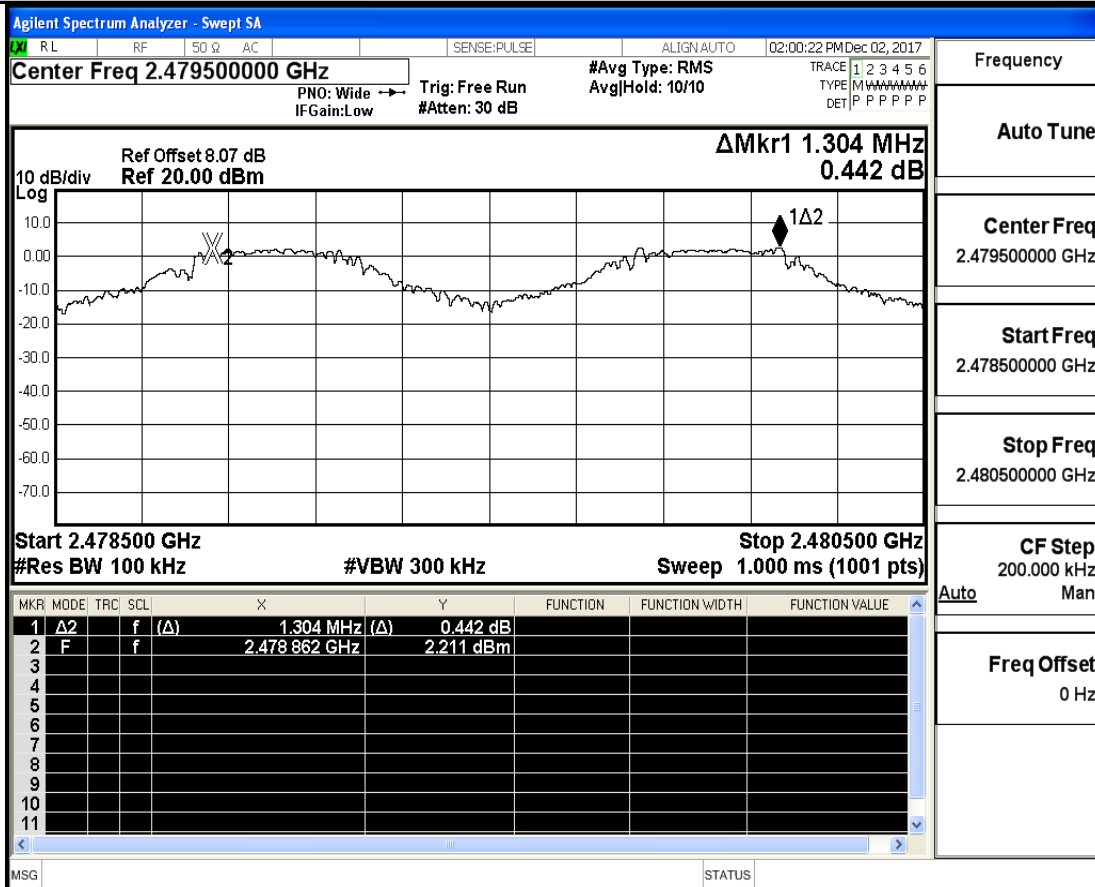
Test Mode	Test Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	2402	1.149	0.68	PASS
DH5	2441	0.968	0.65	PASS
DH5	2480	1.304	0.69	PASS
2DH5	2402	0.912	0.86	PASS
2DH5	2441	1.016	0.86	PASS
2DH5	2480	1.022	0.87	PASS
3DH5	2402	0.948	0.86	PASS
3DH5	2441	1.514	0.86	PASS
3DH5	2480	1.034	0.87	PASS

Carrier Frequency Separation_DH5_2402

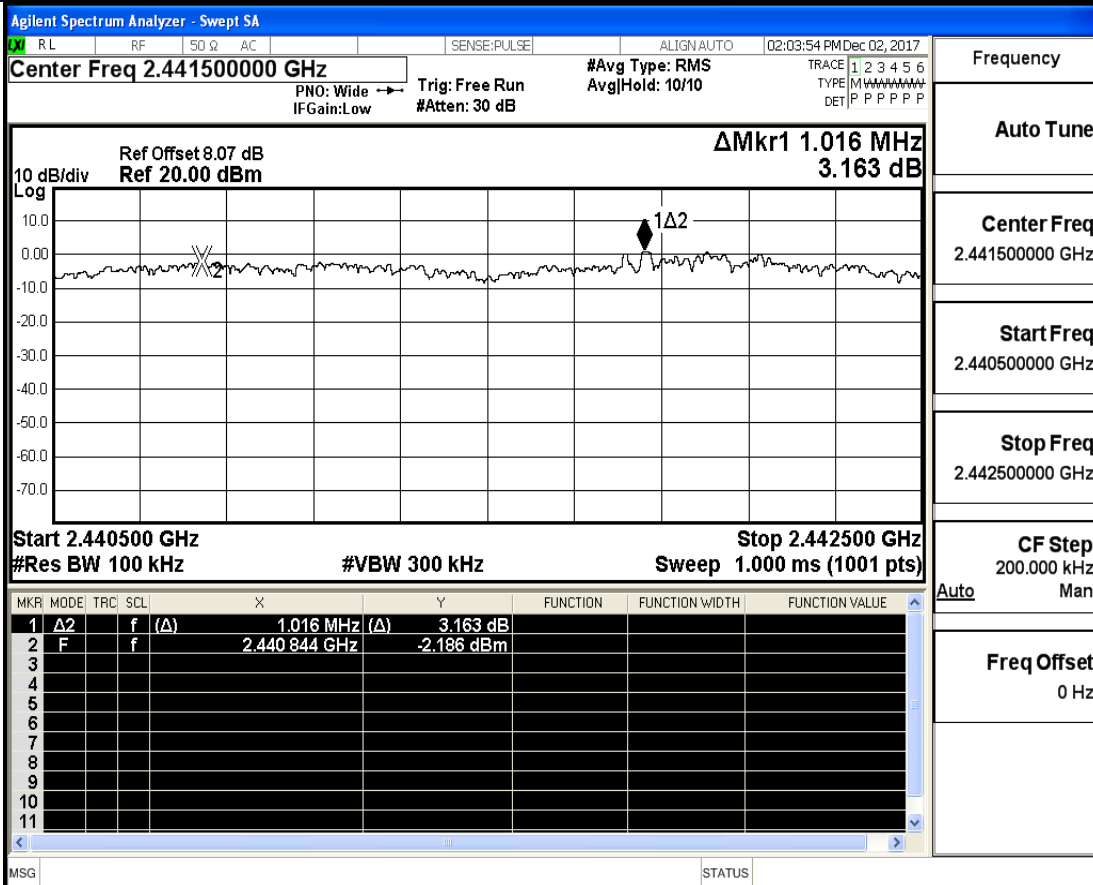


Carrier Frequency Separation_DH5_2441

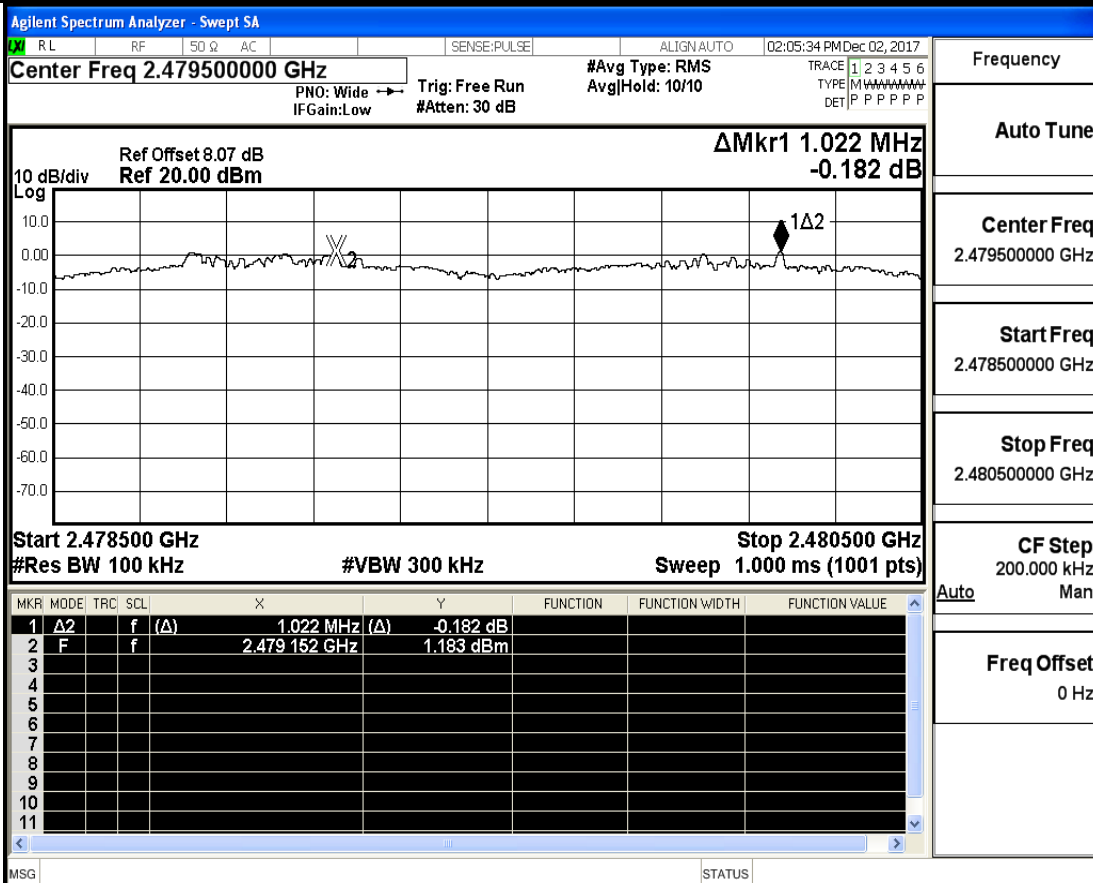




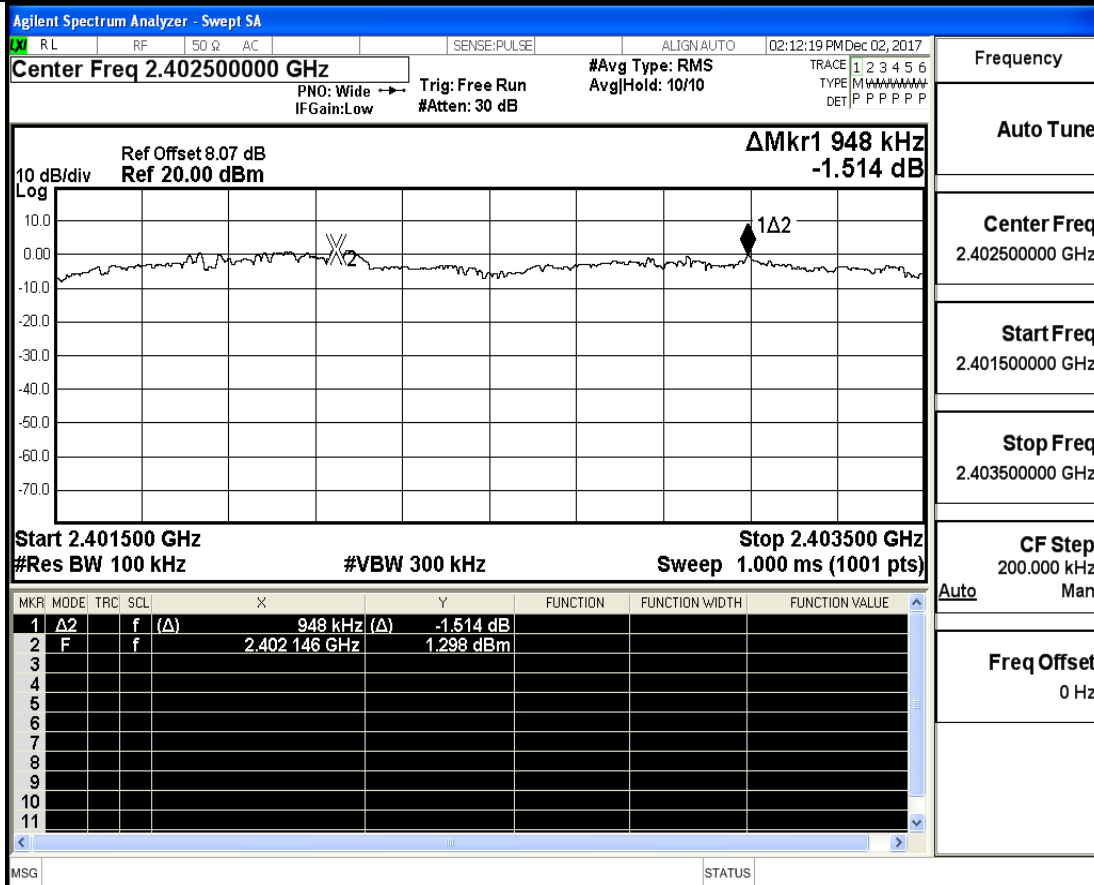
Carrier Frequency Separation_2DH5_2441



Carrier Frequency Separation_2DH5_2480



Carrier Frequency Separation_3DH5_2402



Frequency

Auto Tune

Center Freq
2.402500000 GHz

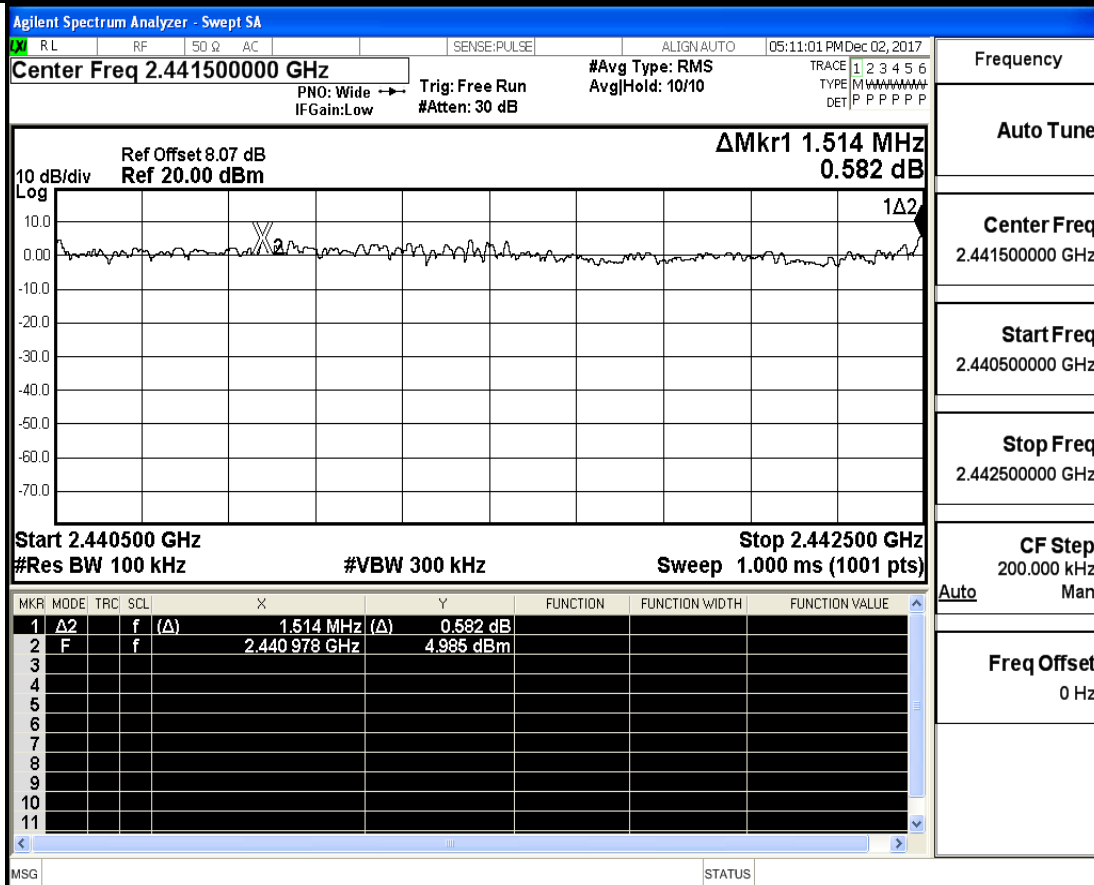
Start Freq
2.401500000 GHz

Stop Freq
2.403500000 GHz

CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz

Carrier Frequency Separation_3DH5_2441



Frequency

Auto Tune

Center Freq
2.441500000 GHz

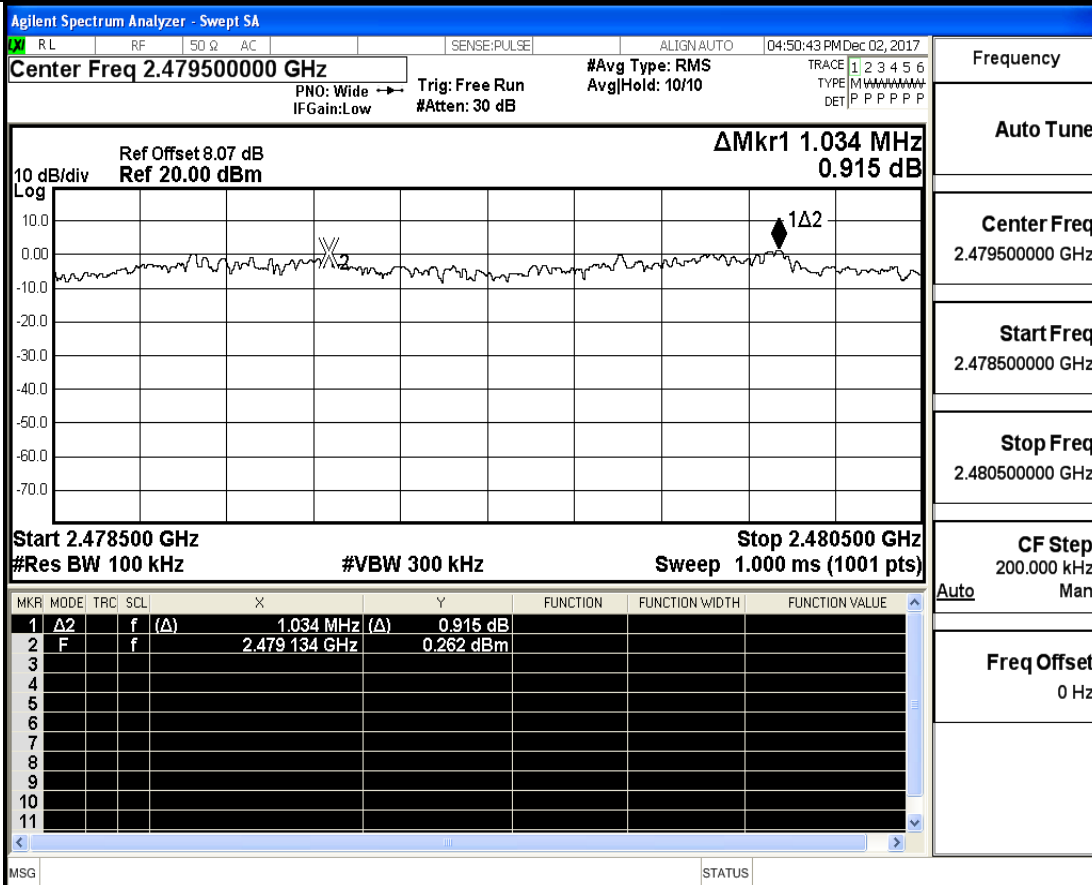
Start Freq
2.440500000 GHz

Stop Freq
2.442500000 GHz

CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz

Carrier Frequency Separation_3DH5_2480



Frequency

Auto Tune

Center Freq
2.479500000 GHz

Start Freq
2.478500000 GHz

Stop Freq
2.480500000 GHz

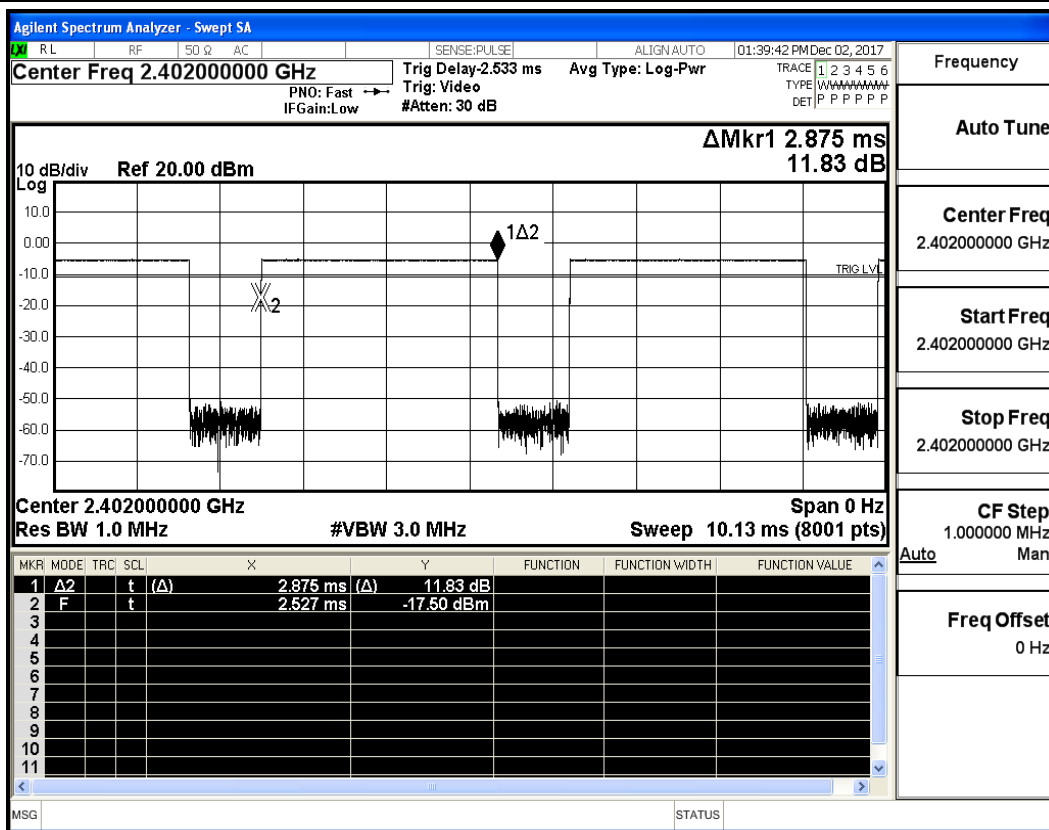
CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz

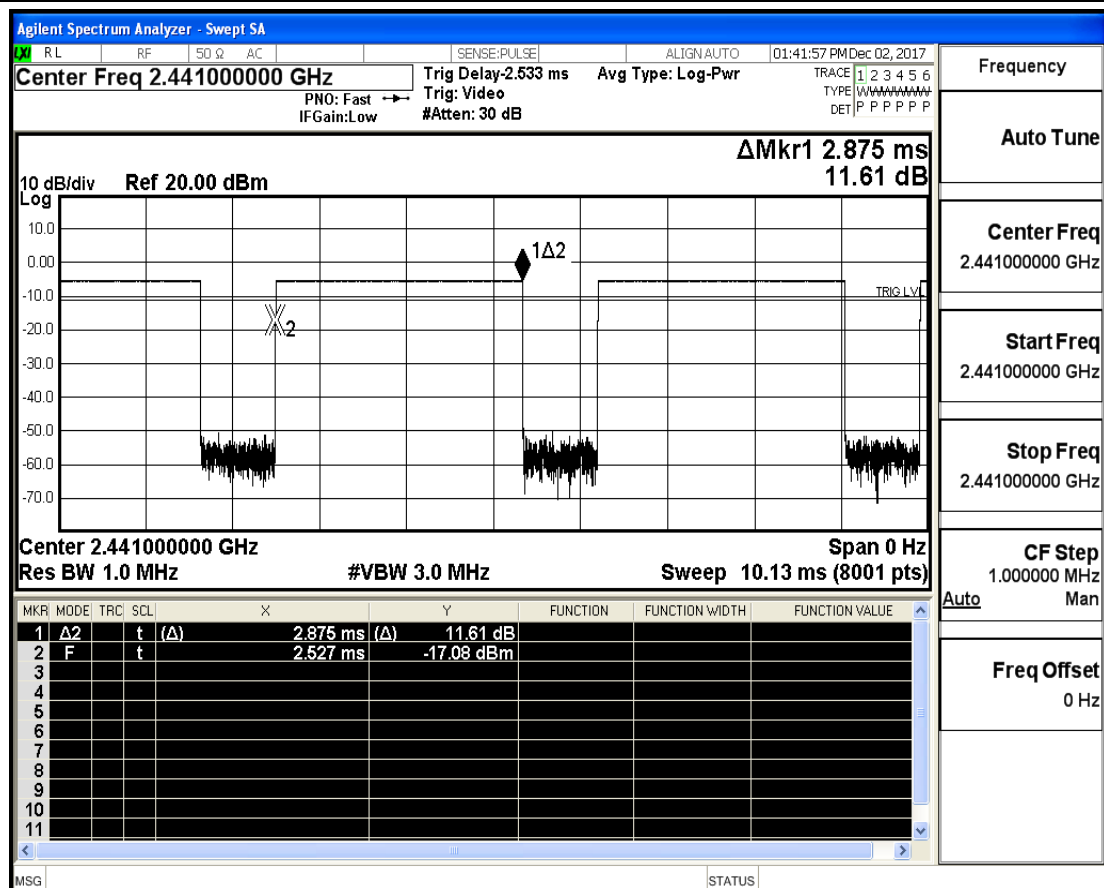
A.4.Dwell Time

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	2.88	106.7	0.307	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



Agilent Spectrum Analyzer - Swept SA

R/L	RF	50 Ω	AC	SENSE:PULSE	ALIGN AUTO	01:44:08 PM Dec 02, 2017
-----	----	------	----	-------------	------------	--------------------------

Center Freq 2.480000000 GHz Trig Delay: 2.533 ms Avg Type: Log-Pwr
PNO: Fast → Trig: Video TRACE 1 2 3 4 5 6
IF Gain: Low #Atten: 30 dB TYPE WWWWWWWW
DET P P P P P P

ΔMkr1 2.877 ms
10.81 dB

10 dB/div Ref 20.00 dBm

Center 2.480000000 GHz Span 0 Hz
Res BW 1.0 MHz #VBW 3.0 MHz Sweep 10.13 ms (8001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	Δ2	t	(Δ)	2.877 ms	(Δ) 10.81 dB			
2	F	t		2.527 ms	-16.67 dBm			
3								
4								
5								
6								
7								
8								
9								
10								
11								

Frequency
Auto Tune
Center Freq 2.480000000 GHz
Start Freq 2.480000000 GHz
Stop Freq 2.480000000 GHz
CF Step 1.000000 MHz
Man
Freq Offset 0 Hz

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:PULSE ALIGN AUTO 01:47:10 PM Dec 02, 2017

Center Freq 2.402000000 GHz Trig Delay: 2.533 ms Avg Type: Log-Pwr PNO: Fast IF Gain: Low Trig: Video #Atten: 30 dB TRACE 1 2 3 4 5 6 TYPE P P P P P P DET

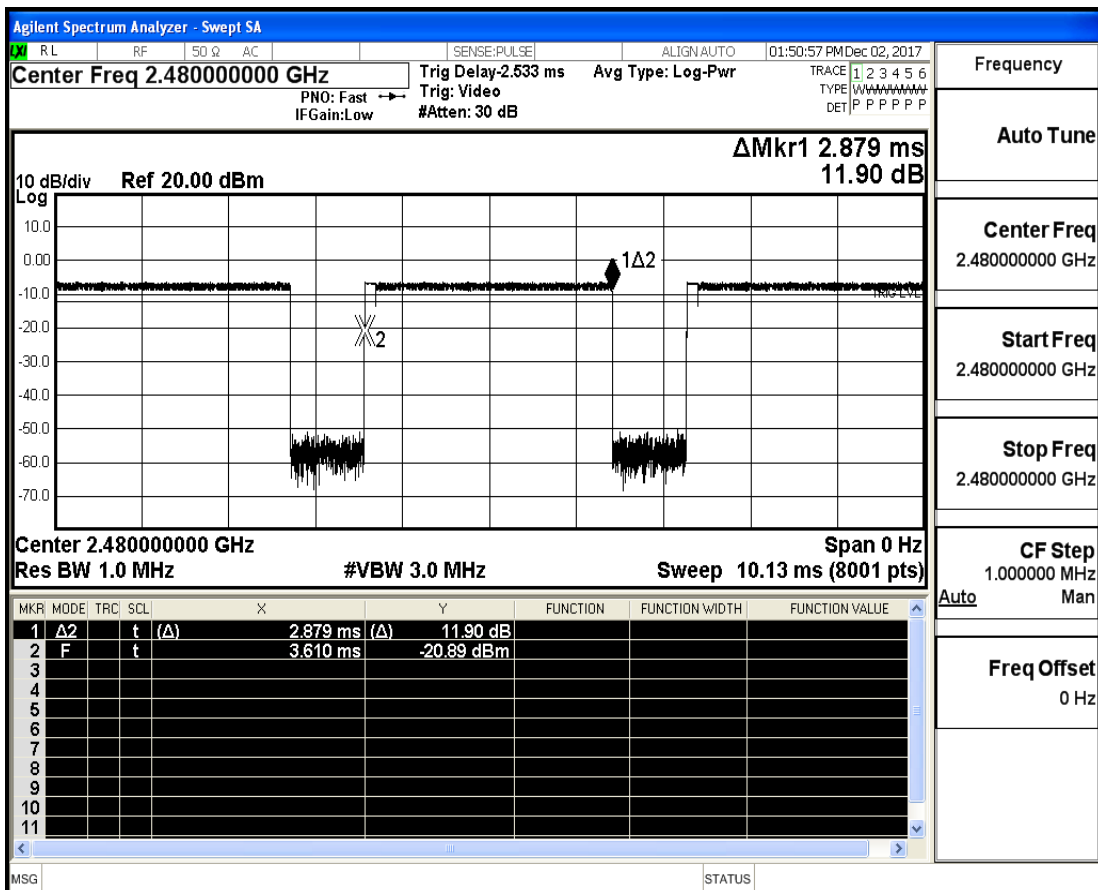
10 dB/div Ref 20.00 dBm Δ Mkr1 2.879 ms 12.68 dB

Center 2.402000000 GHz Span 0 Hz
Res BW 1.0 MHz #VBW 3.0 MHz Sweep 10.13 ms (8001 pts)

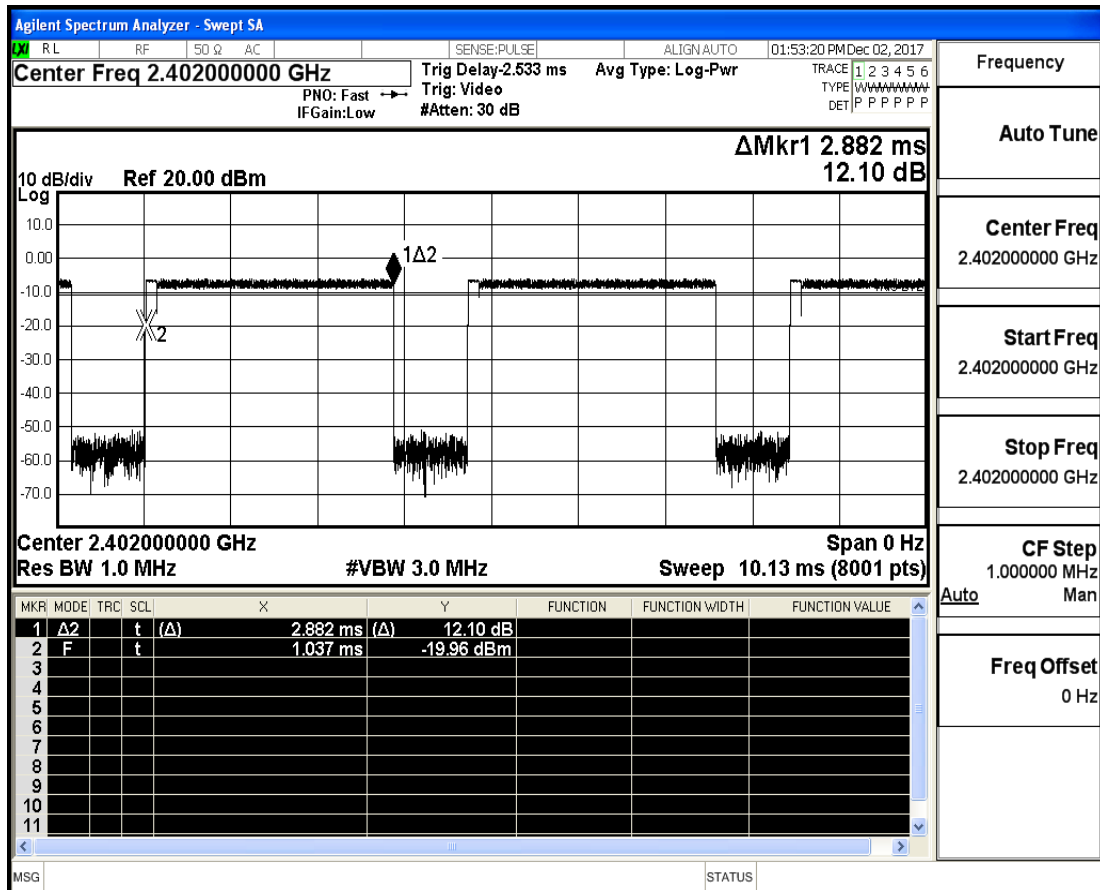
MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	Δ 2	t	(Δ)	2.879 ms	12.68 dB			
2	F	t		210.3 μ s	-21.07 dBm			
3								
4								
5								
6								
7								
8								
9								
10								
11								

Frequency Auto Tune Center Freq 2.402000000 GHz Start Freq 2.402000000 GHz Stop Freq 2.402000000 GHz CF Step 1.000000 MHz Auto Freq Offset 0 Hz

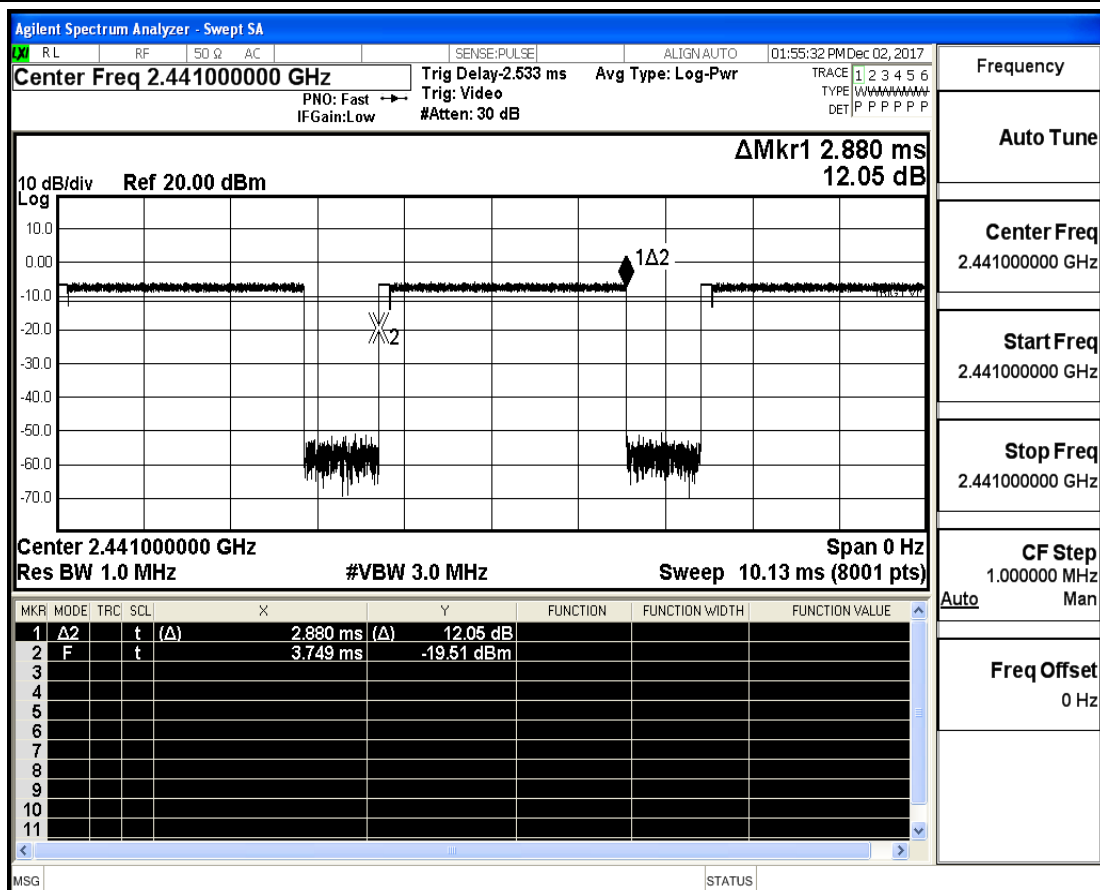
MSG STATUS



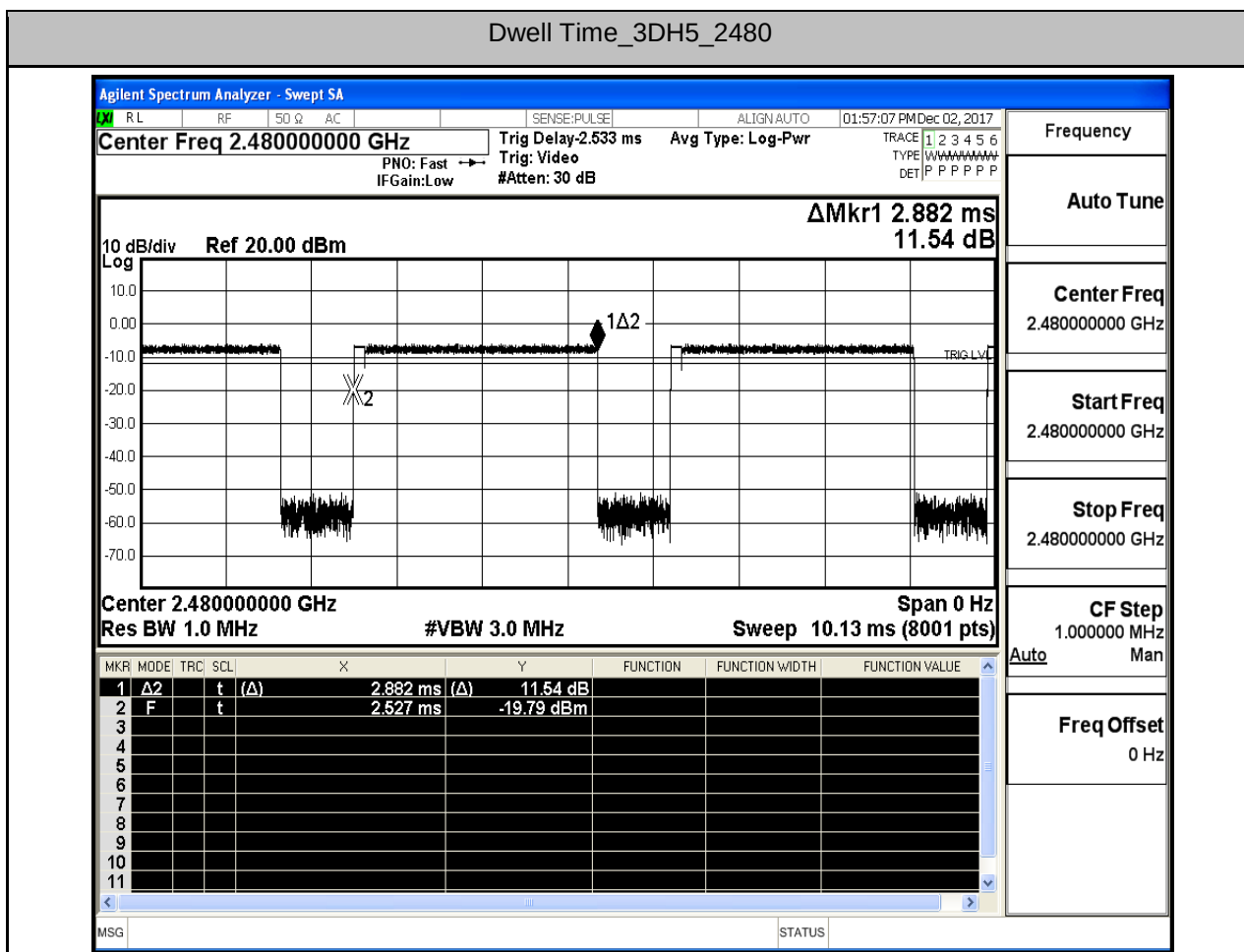
Dwell Time_3DH5_2402



Dwell Time_3DH5_2441



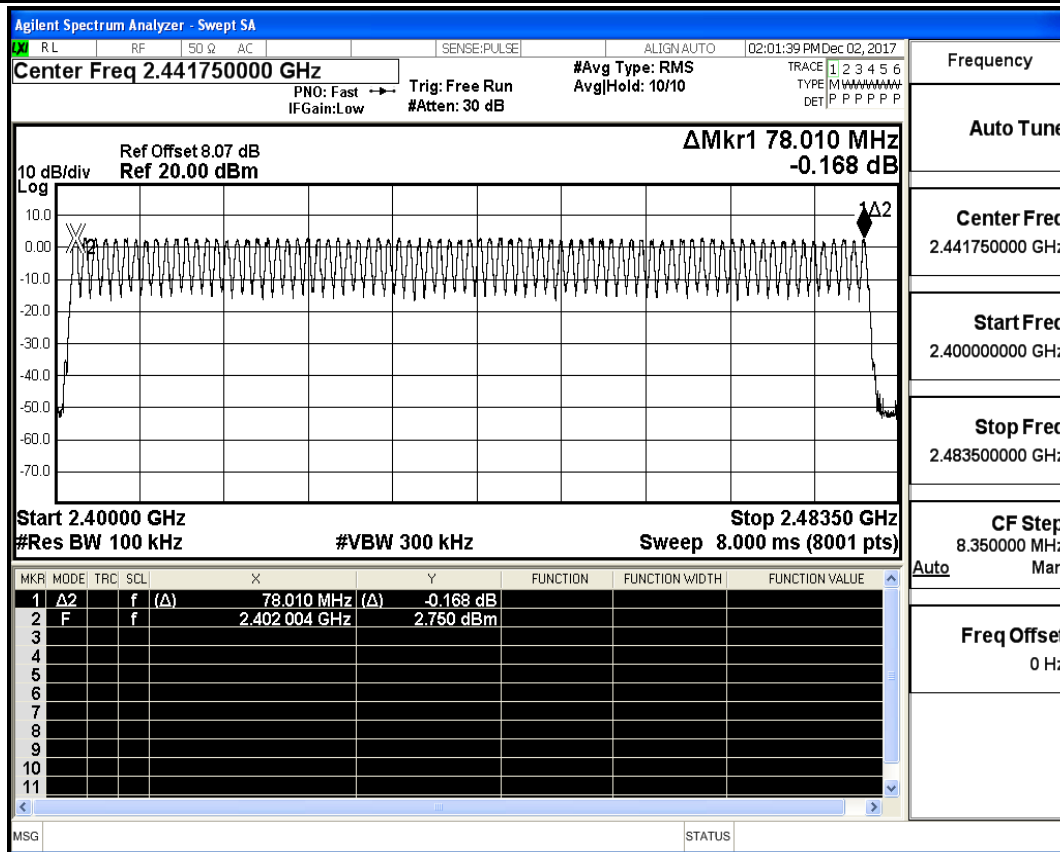
Dwell Time_3DH5_2480



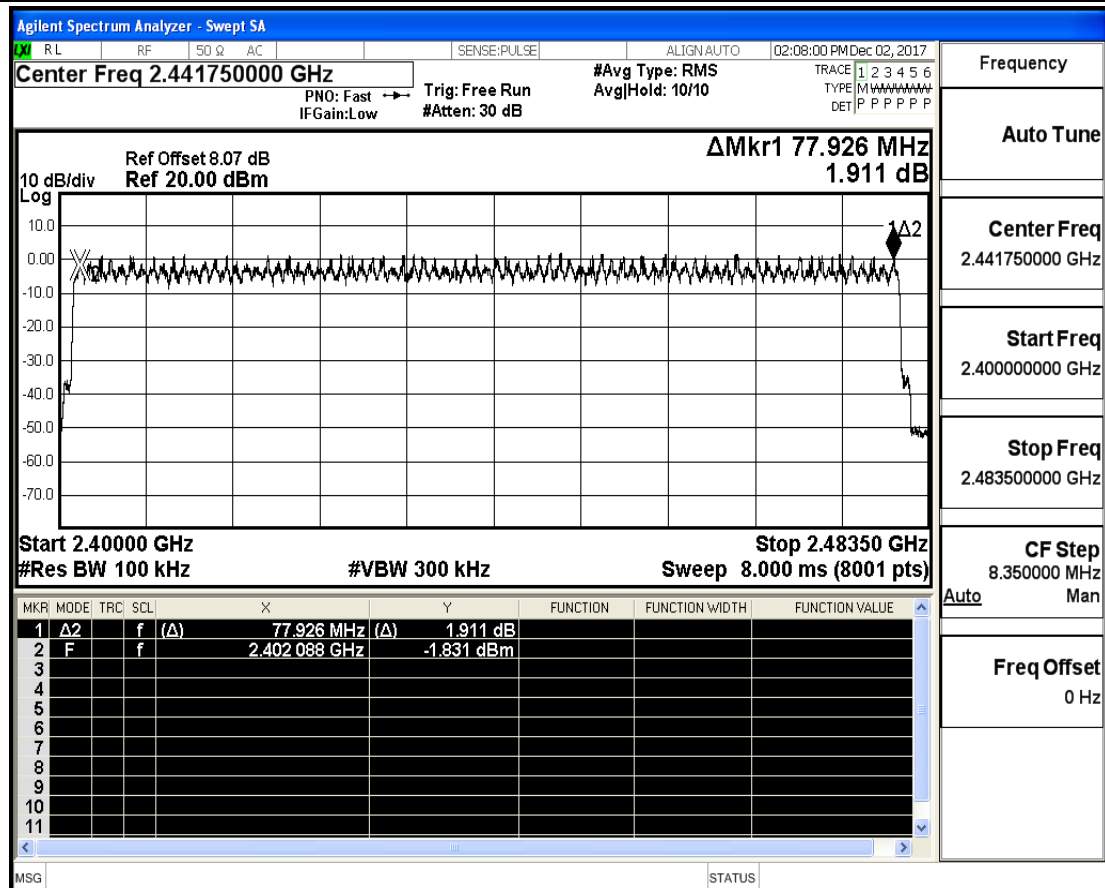
A.5.Hopping Channel Number

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

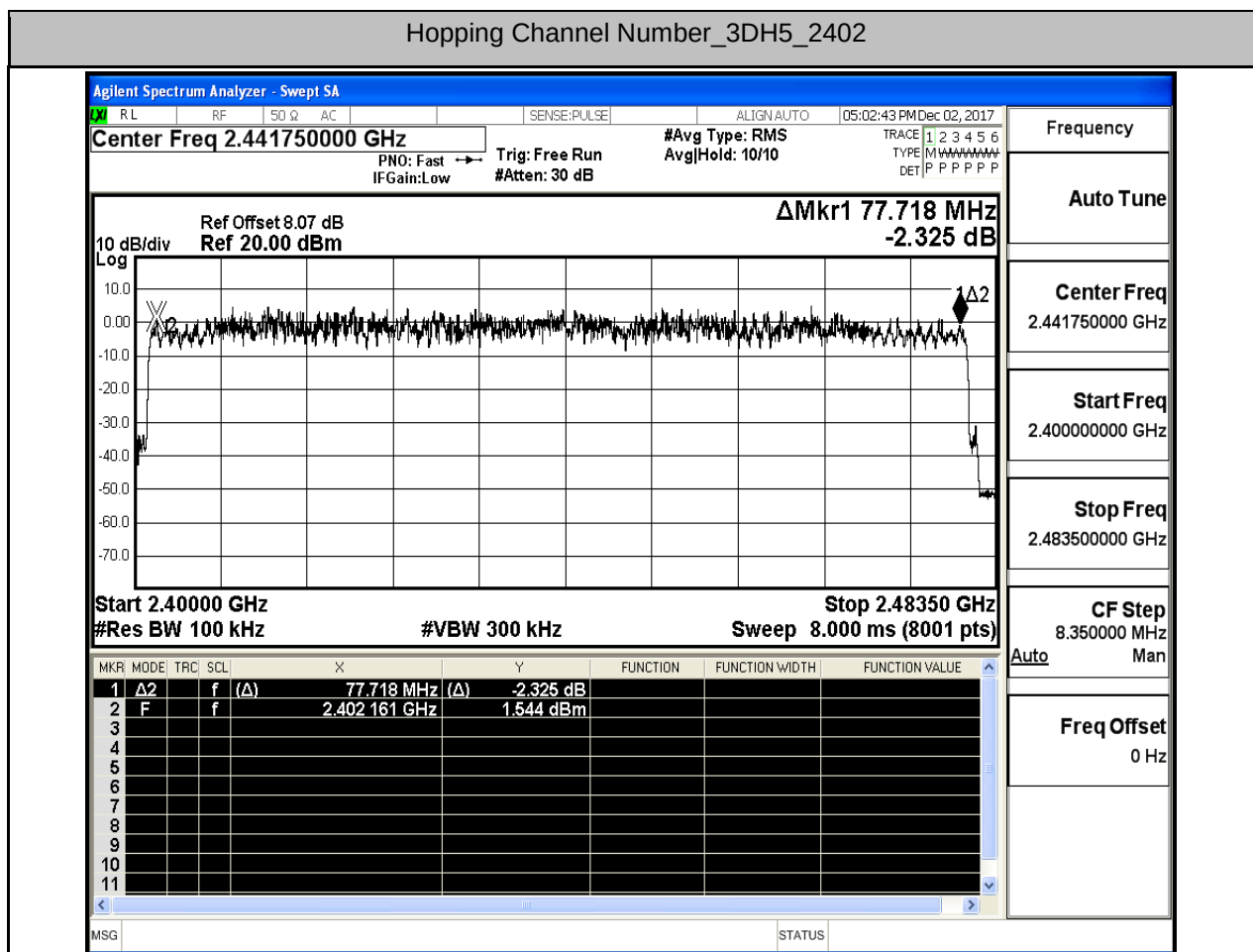
Hopping Channel Number_DH5_2402



Hopping Channel Number_2DH5_2402



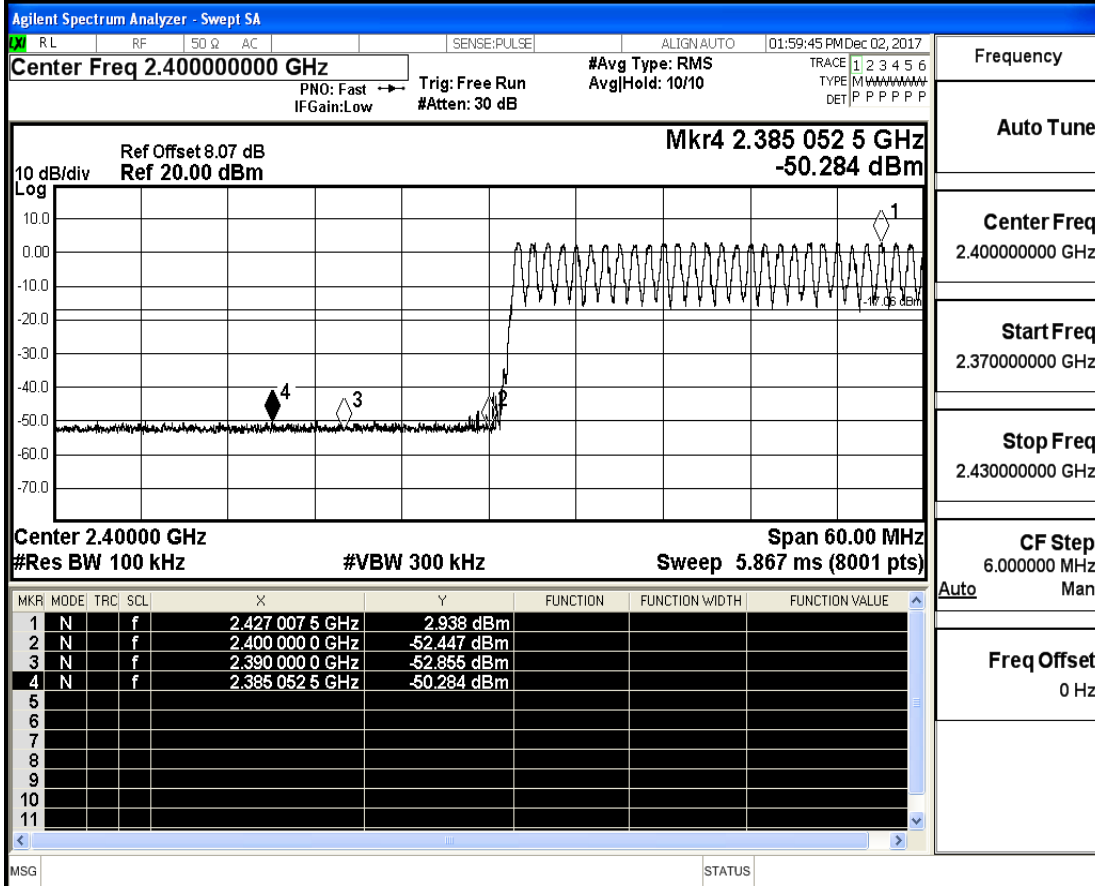
Hopping Channel Number_3DH5_2402



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	2.938	-50.284	-17.06	PASS
DH5	2402	Off	2.987	-49.839	-17.01	PASS
DH5	2480	On	2.872	-48.100	-17.13	PASS
DH5	2480	Off	2.669	-46.608	-17.33	PASS
2DH5	2402	On	1.640	-48.478	-18.36	PASS
2DH5	2402	Off	1.612	-49.558	-18.39	PASS
2DH5	2480	On	1.497	-49.277	-18.5	PASS
2DH5	2480	Off	1.448	-49.597	-18.55	PASS
3DH5	2402	On	1.518	-49.559	-18.48	PASS
3DH5	2402	Off	1.467	-49.173	-18.53	PASS
3DH5	2480	On	3.369	-35.643	-15.58	PASS
3DH5	2480	Off	1.452	-47.491	-18.55	PASS

Band-edge for RF Conducted Emissions_DH5_2402_Hopping On



Frequency

Auto Tune

Center Freq
2.40000000 GHz

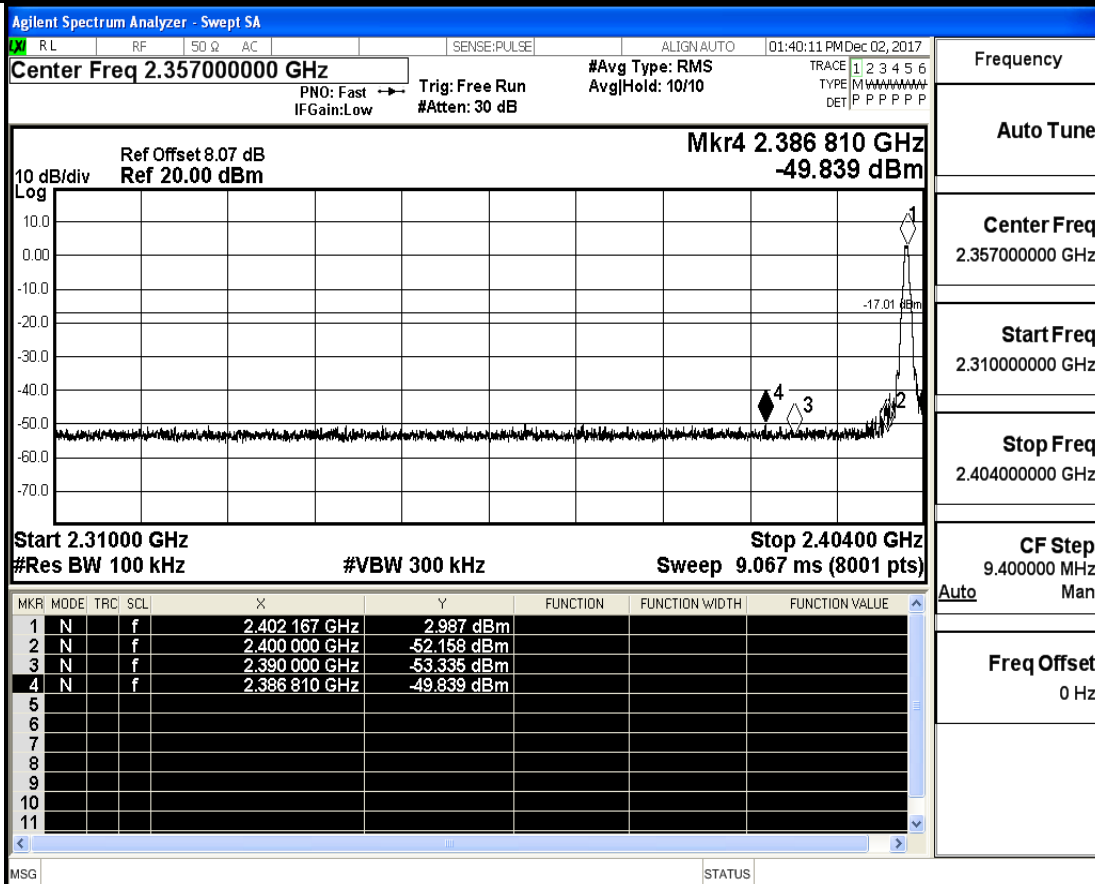
Start Freq
2.37000000 GHz

Stop Freq
2.43000000 GHz

CF Step
6.000000 MHz
Auto Man

Freq Offset
0 Hz

Band-edge for RF Conducted Emissions_DH5_2402_Hopping Off



Frequency

Auto Tune

Center Freq
2.35700000 GHz

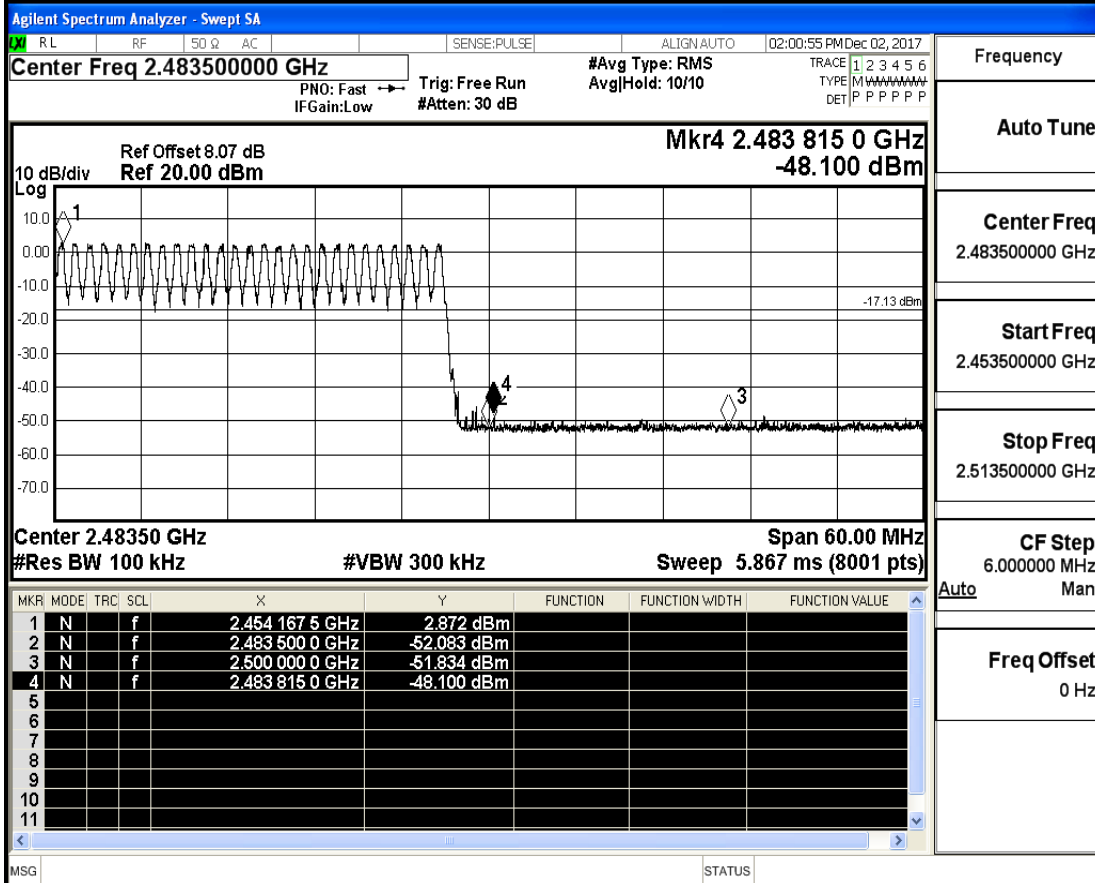
Start Freq
2.31000000 GHz

Stop Freq
2.40400000 GHz

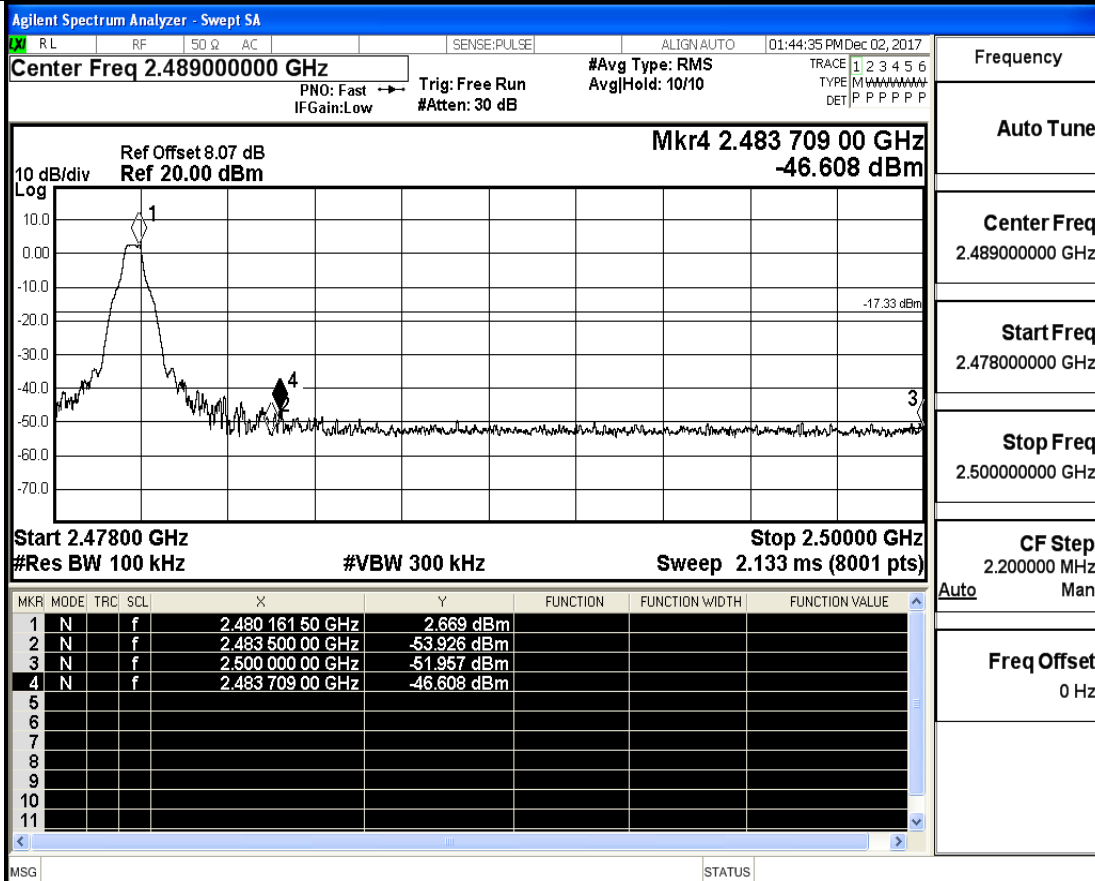
CF Step
9.400000 MHz
Auto Man

Freq Offset
0 Hz

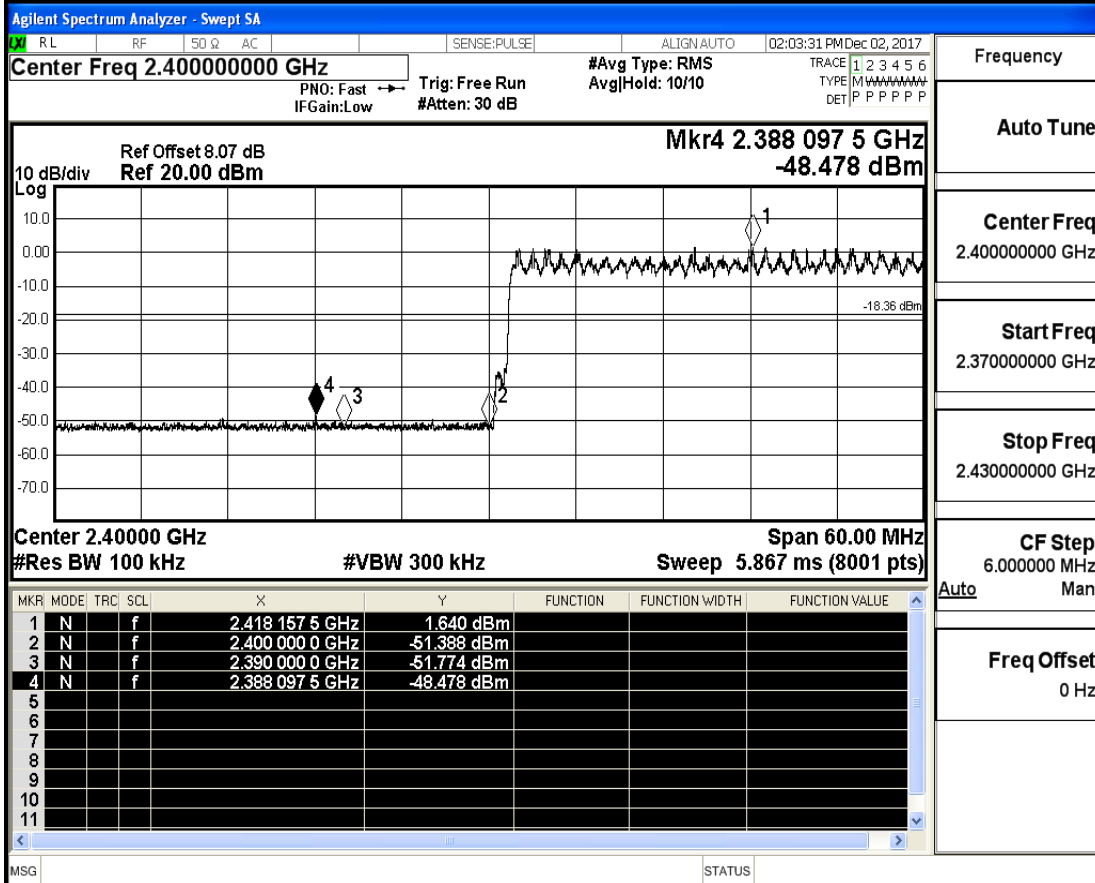
Band-edge for RF Conducted Emissions_DH5_2480_Hopping On



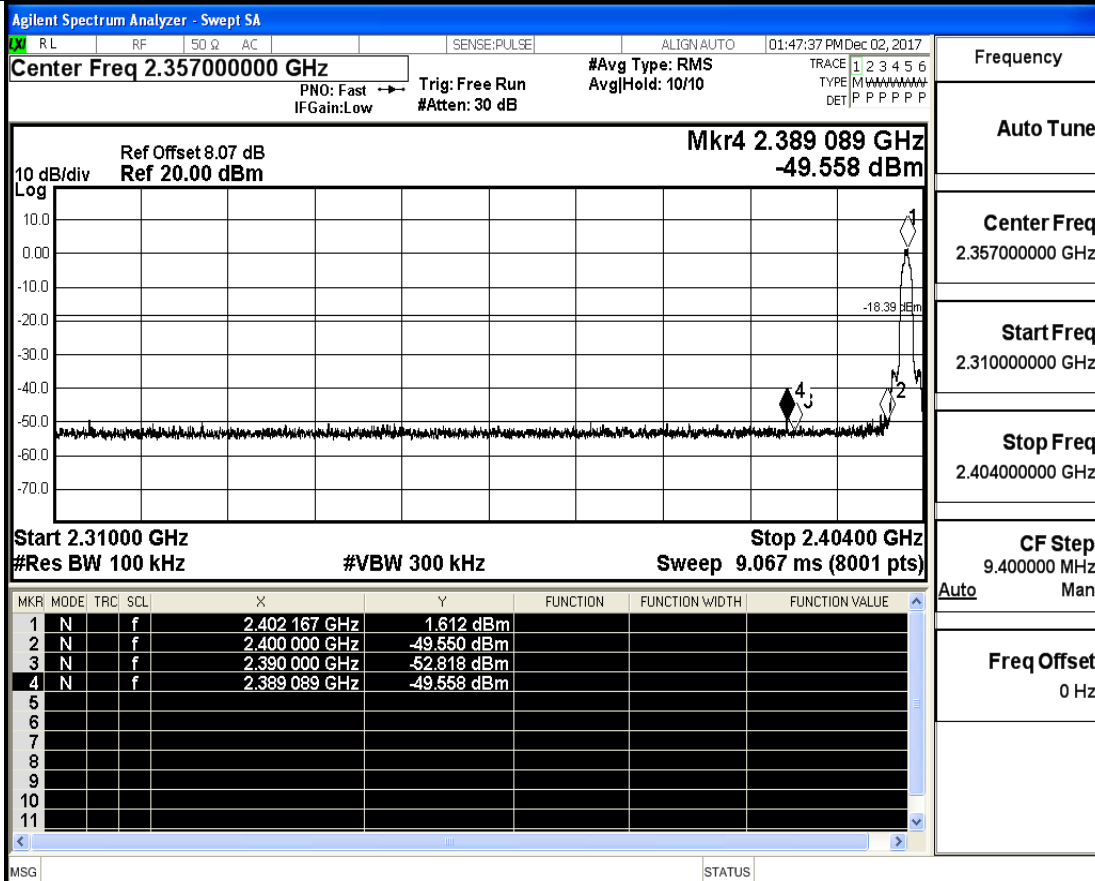
Band-edge for RF Conducted Emissions_DH5_2480_Hopping Off



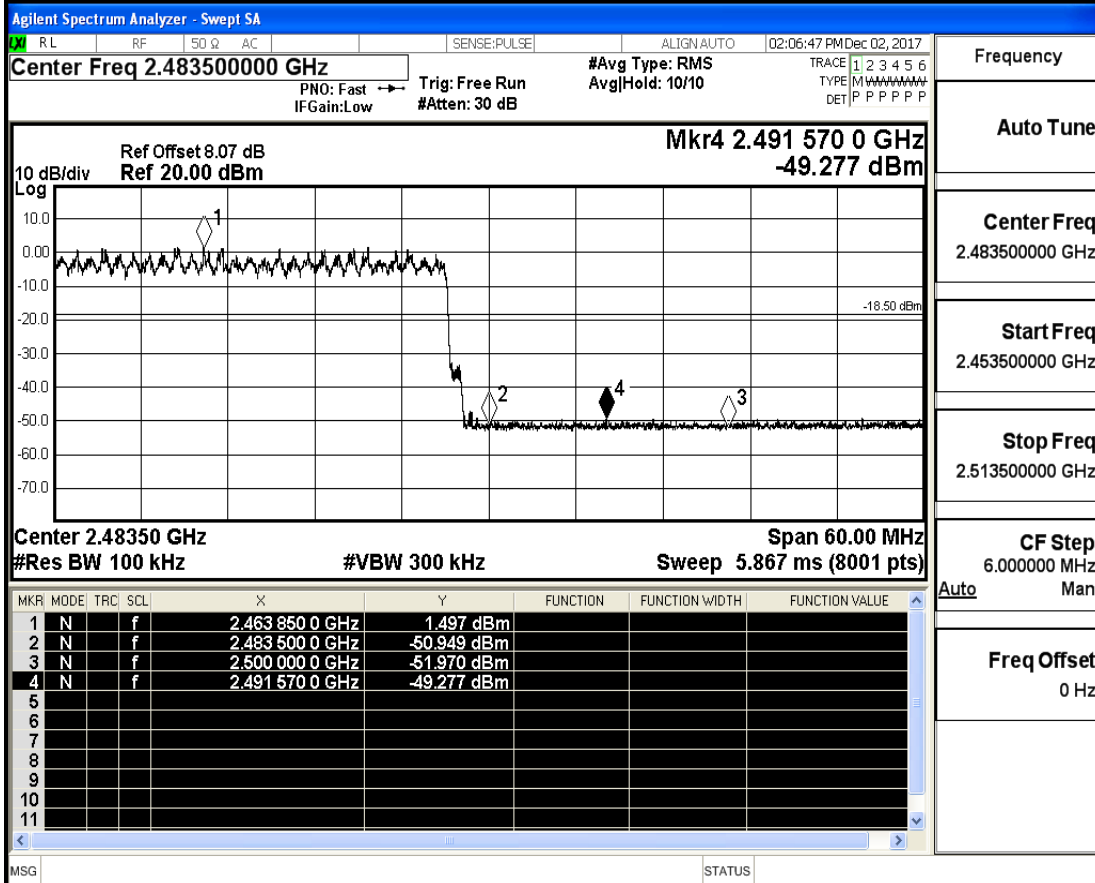
Band-edge for RF Conducted Emissions_2DH5_2402_Hopping On



Band-edge for RF Conducted Emissions_2DH5_2402_Hopping Off



Band-edge for RF Conducted Emissions_2DH5_2480_Hopping On



Frequency

Auto Tune

Center Freq
2.483500000 GHz

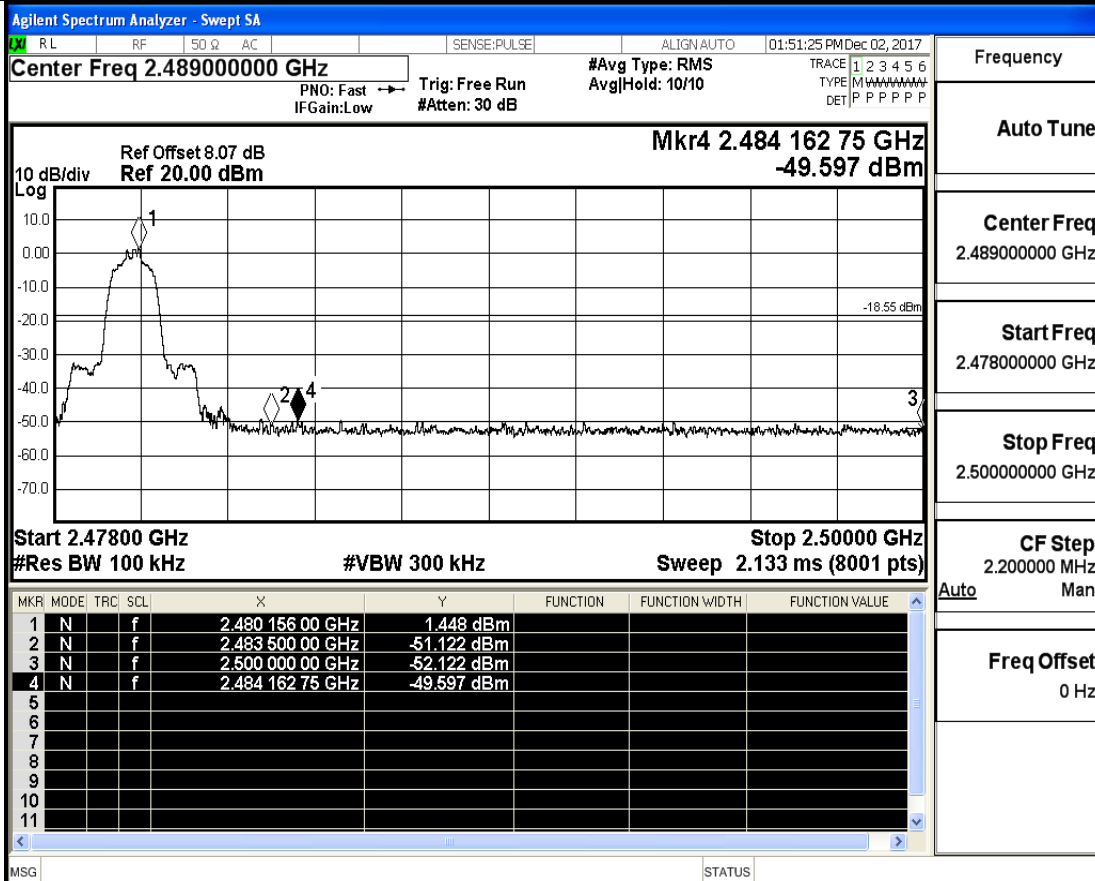
Start Freq
2.453500000 GHz

Stop Freq
2.513500000 GHz

CF Step
6.000000 MHz
Auto Man

Freq Offset
0 Hz

Band-edge for RF Conducted Emissions_2DH5_2480_Hopping Off



Frequency

Auto Tune

Center Freq
2.489000000 GHz

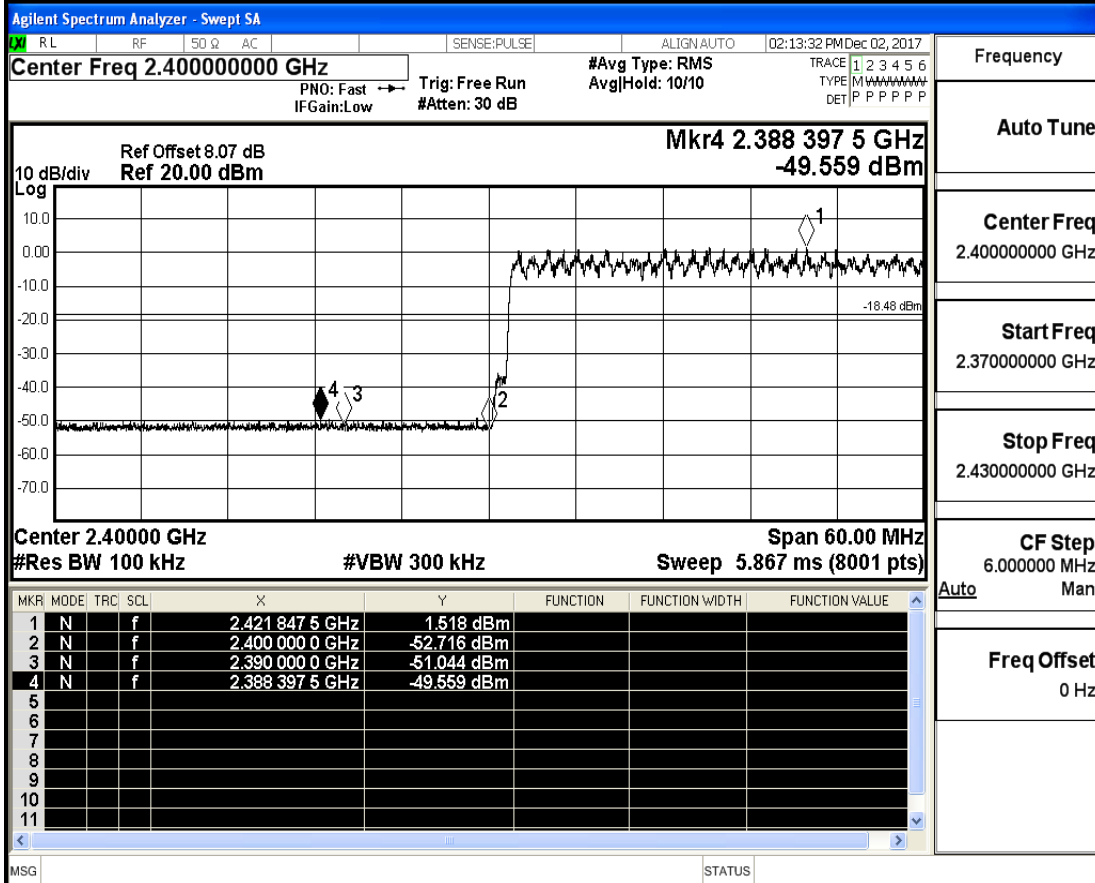
Start Freq
2.478000000 GHz

Stop Freq
2.500000000 GHz

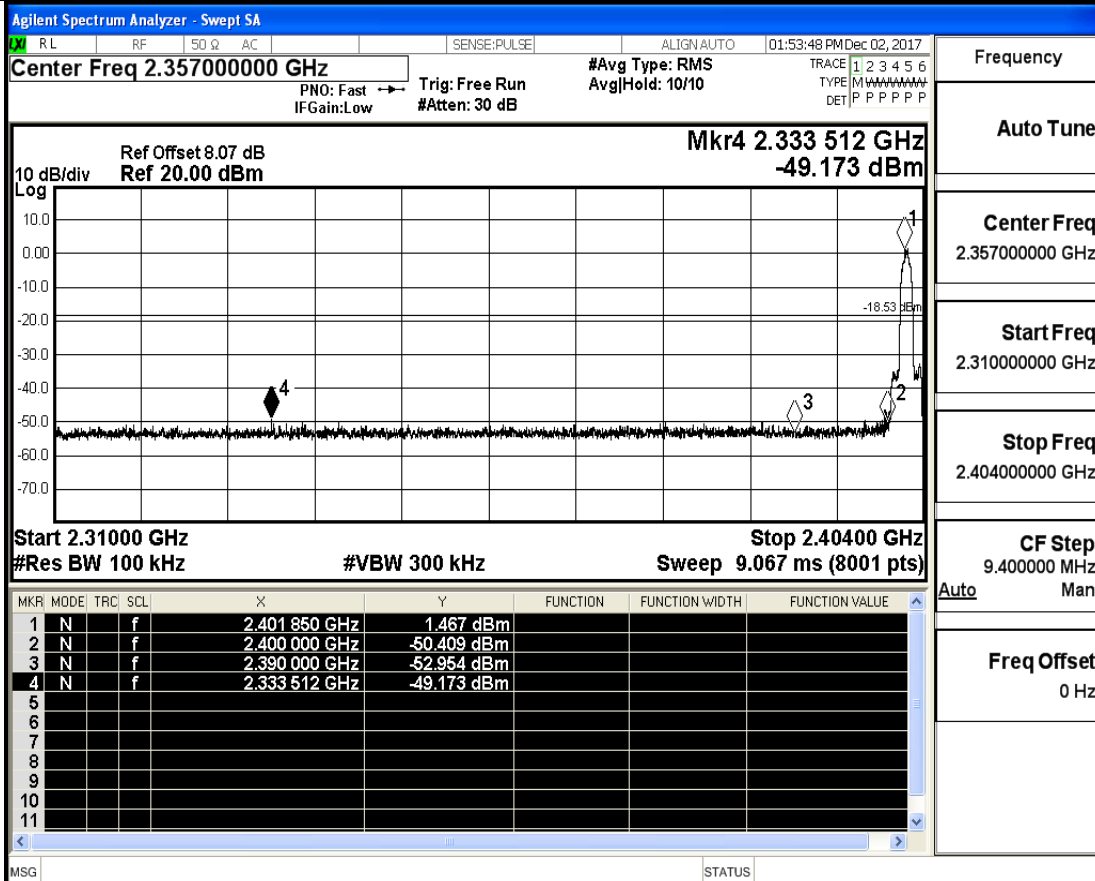
CF Step
2.200000 MHz
Auto Man

Freq Offset
0 Hz

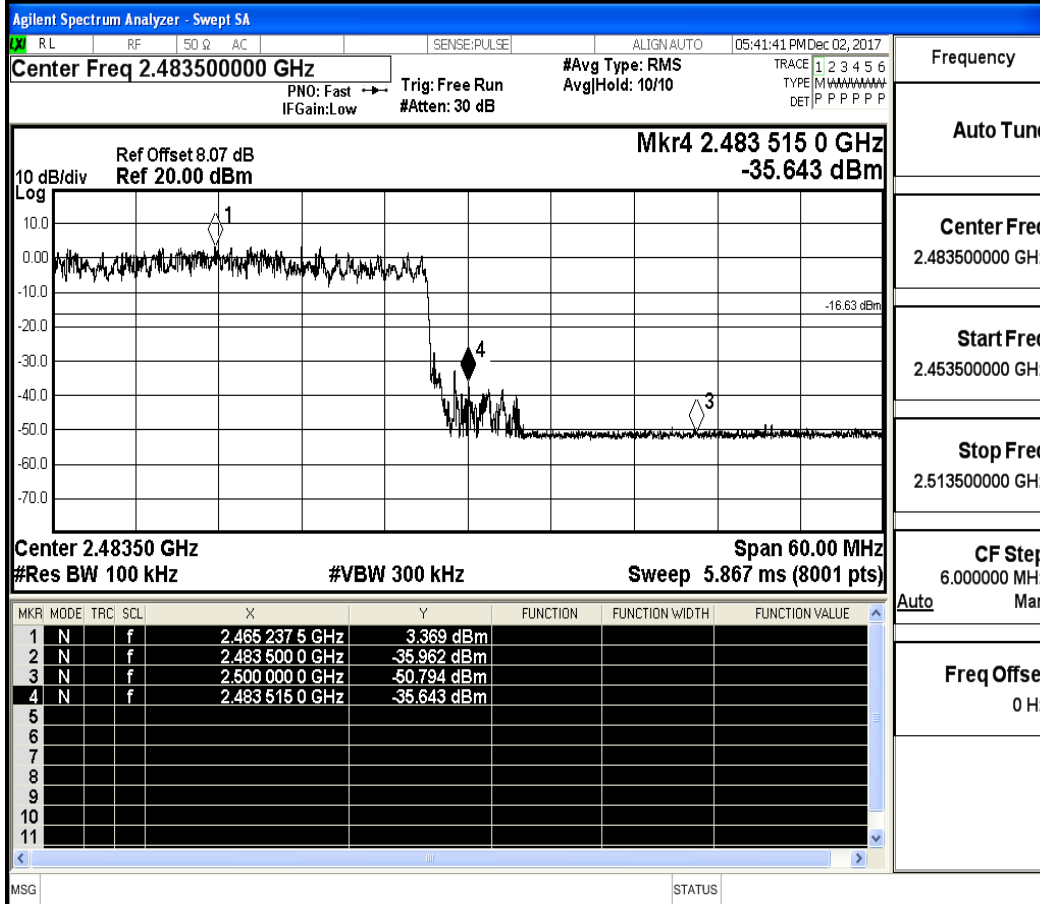
Band-edge for RF Conducted Emissions_3DH5_2402_Hopping On



Band-edge for RF Conducted Emissions_3DH5_2402_Hopping Off



Band-edge for RF Conducted Emissions_3DH5_2480_Hopping On



Frequency

Auto Tune

Center Freq
2.483500000 GHz

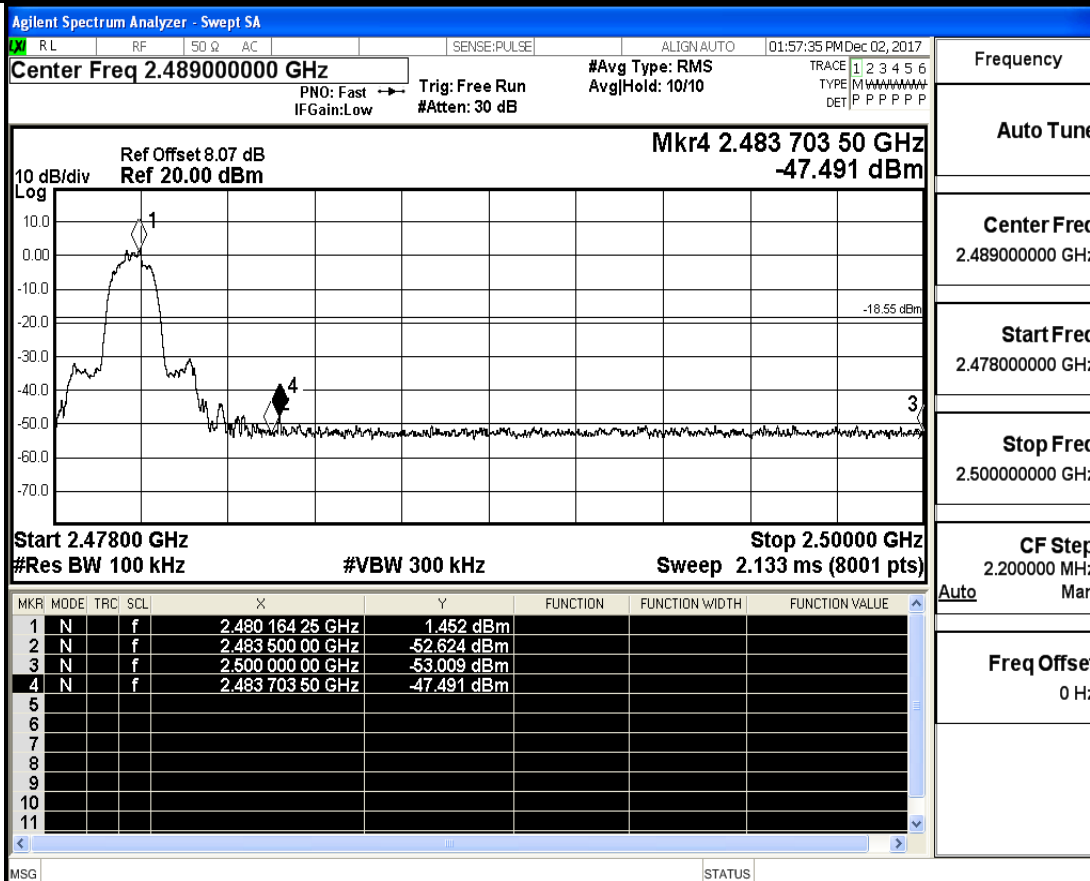
Start Freq
2.453500000 GHz

Stop Freq
2.513500000 GHz

CF Step
6.000000 MHz
Auto Man

Freq Offset
0 Hz

Band-edge for RF Conducted Emissions_3DH5_2480_Hopping Off



Frequency

Auto Tune

Center Freq
2.489000000 GHz

Start Freq
2.478000000 GHz

Stop Freq
2.500000000 GHz

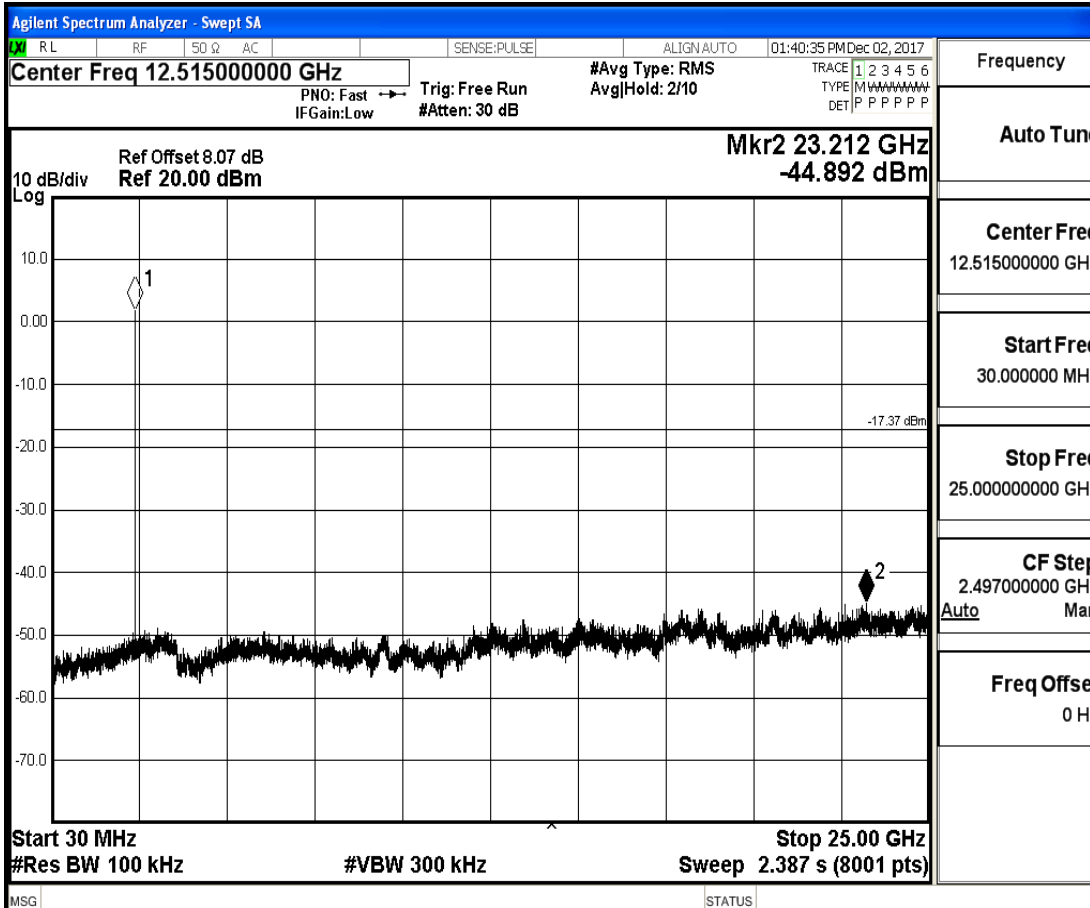
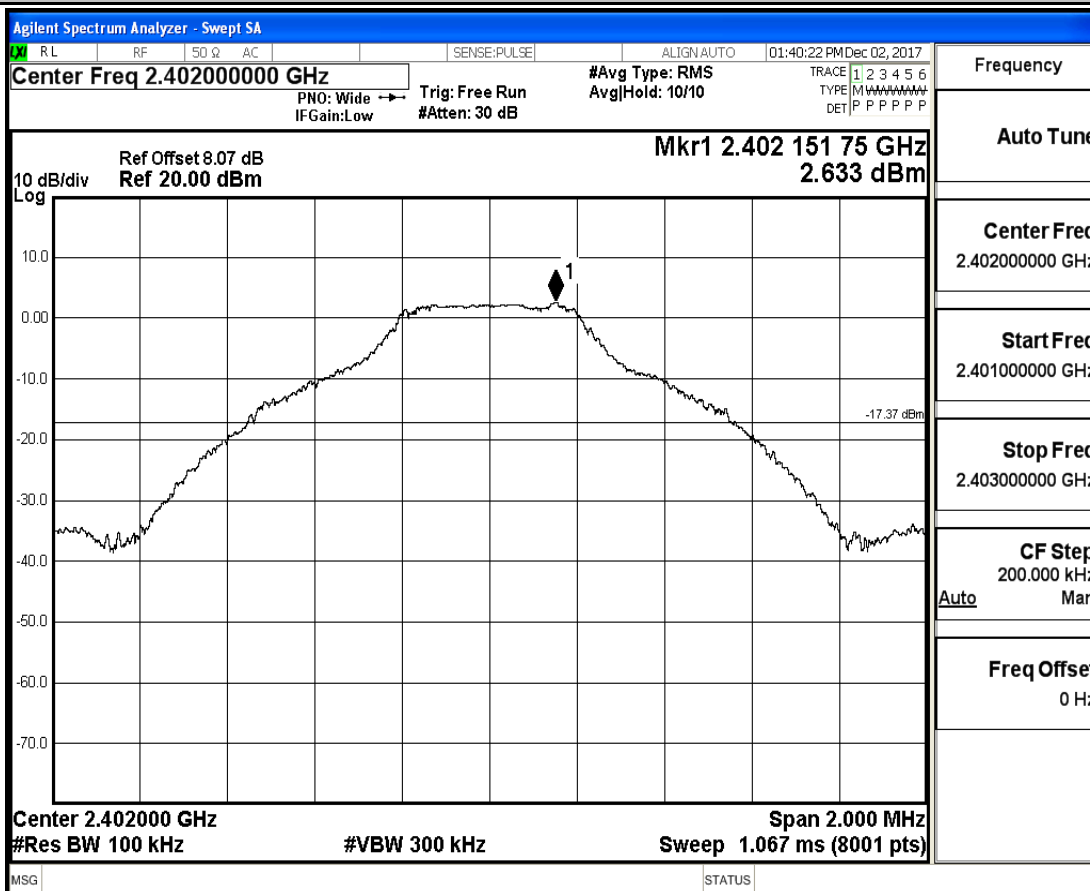
CF Step
2.200000 MHz
Auto Man

Freq Offset
0 Hz

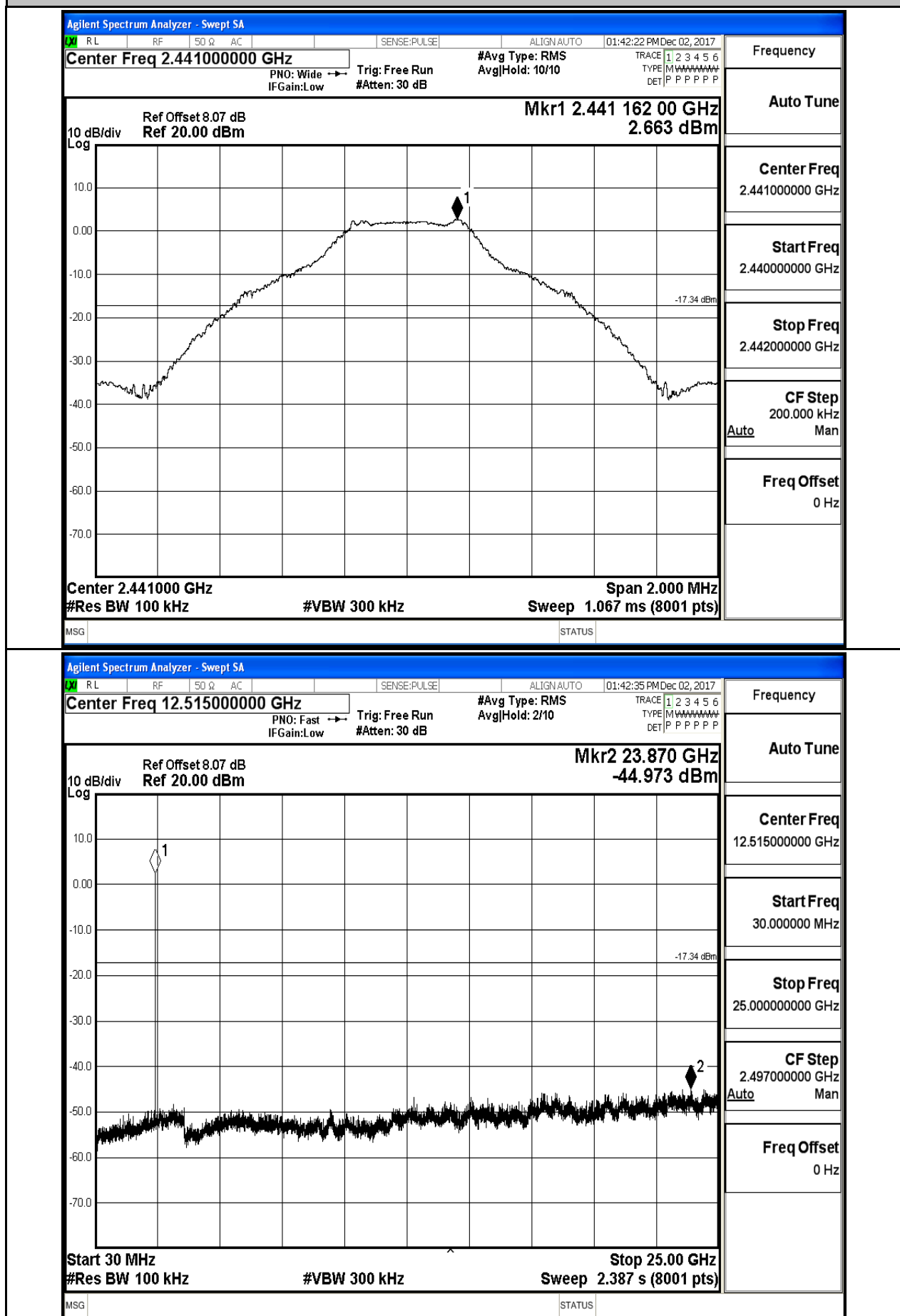
A.7.RF Conducted Spurious Emissions

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	2.633	-44.892	<-17.367	PASS
DH5	2441	30	25000	100	300	2.663	-44.973	<-17.337	PASS
DH5	2480	30	25000	100	300	2.715	-44.561	<-17.285	PASS
2DH5	2402	30	25000	100	300	1.529	-45.024	<-18.471	PASS
2DH5	2441	30	25000	100	300	1.175	-44.872	<-18.825	PASS
2DH5	2480	30	25000	100	300	0.912	-45.096	<-19.088	PASS
3DH5	2402	30	25000	100	300	1.286	-40.599	<-18.714	PASS
3DH5	2441	30	25000	100	300	1.631	-44.539	<-18.369	PASS
3DH5	2480	30	25000	100	300	1.37	-44.290	<-18.63	PASS

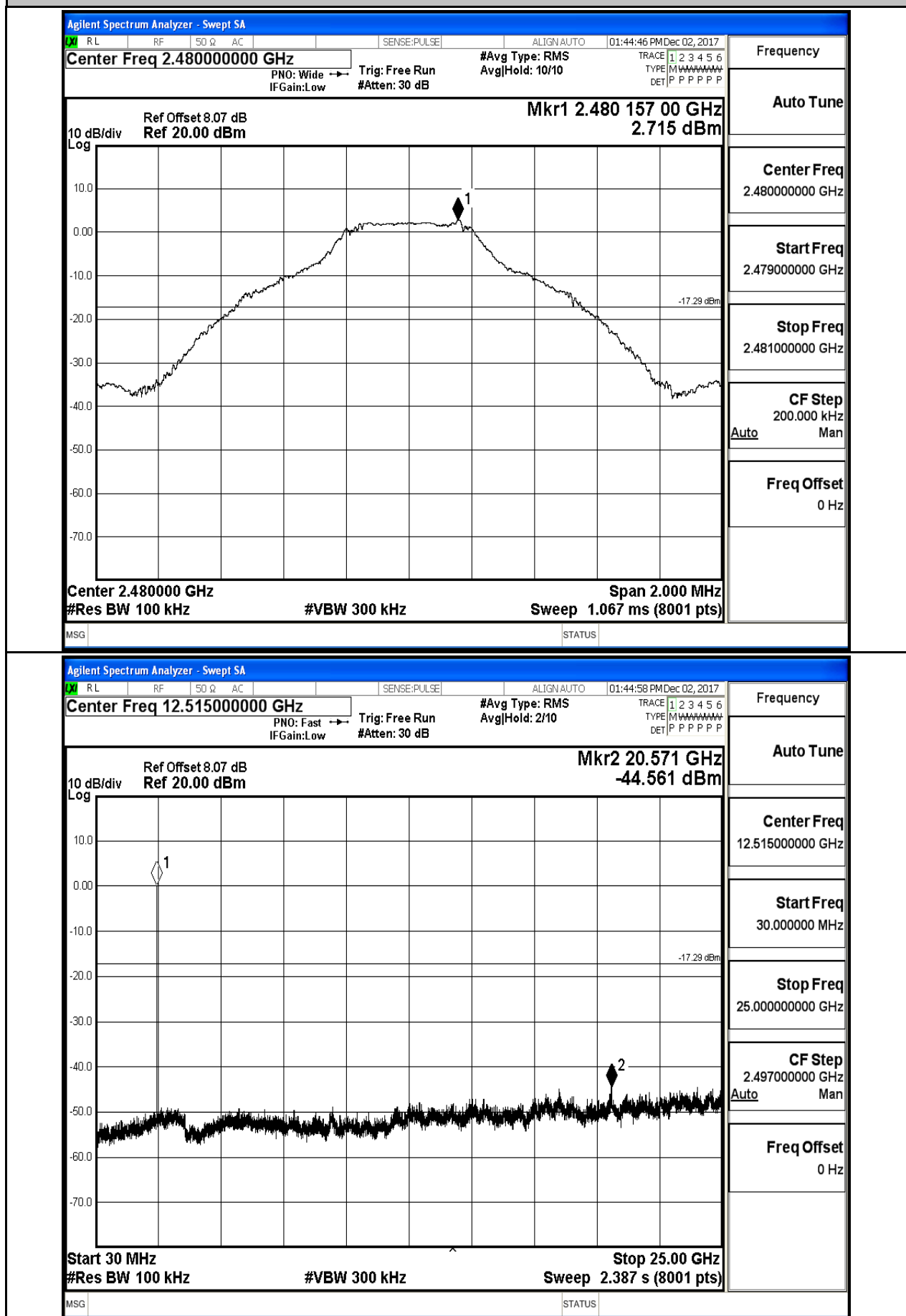
RF Conducted Spurious Emissions_DH5_2402



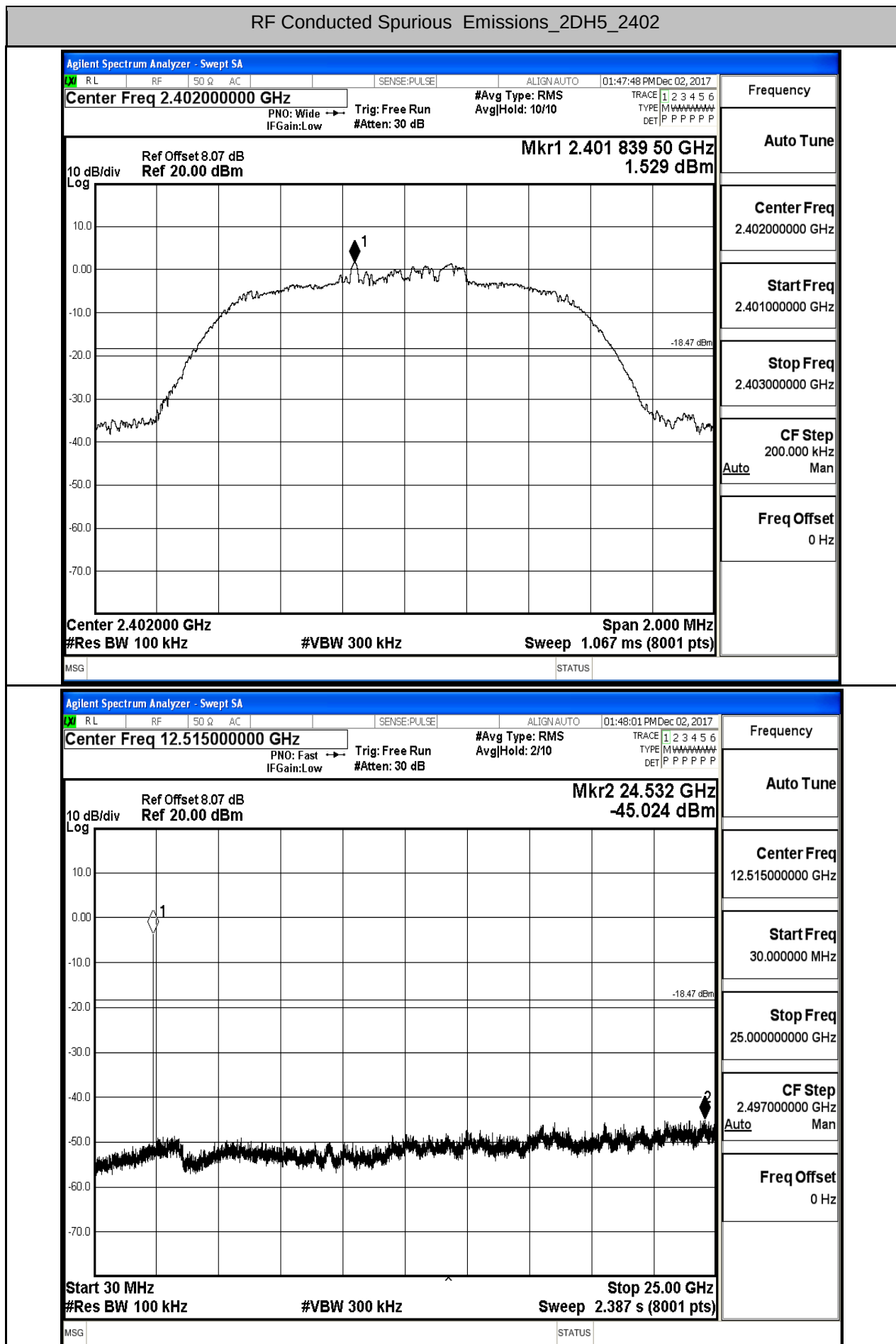
RF Conducted Spurious Emissions_DH5_2441



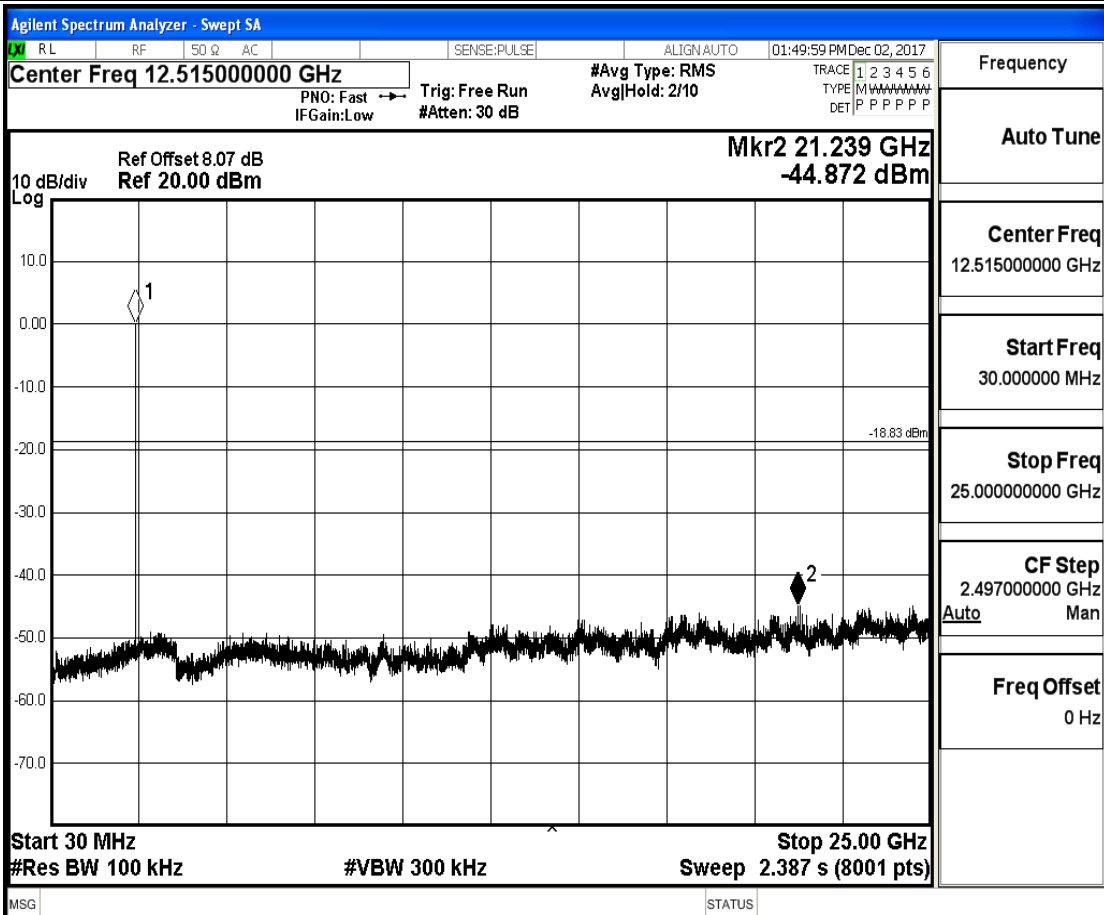
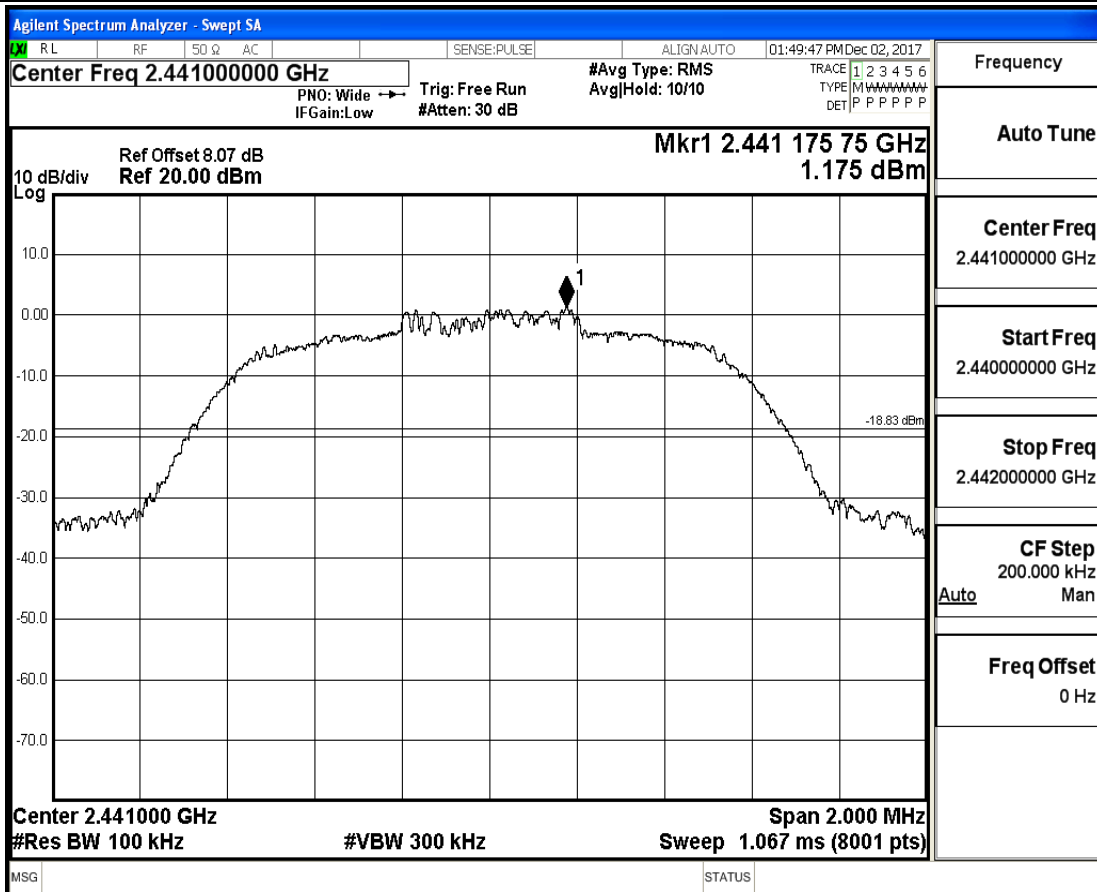
RF Conducted Spurious Emissions_DH5_2480



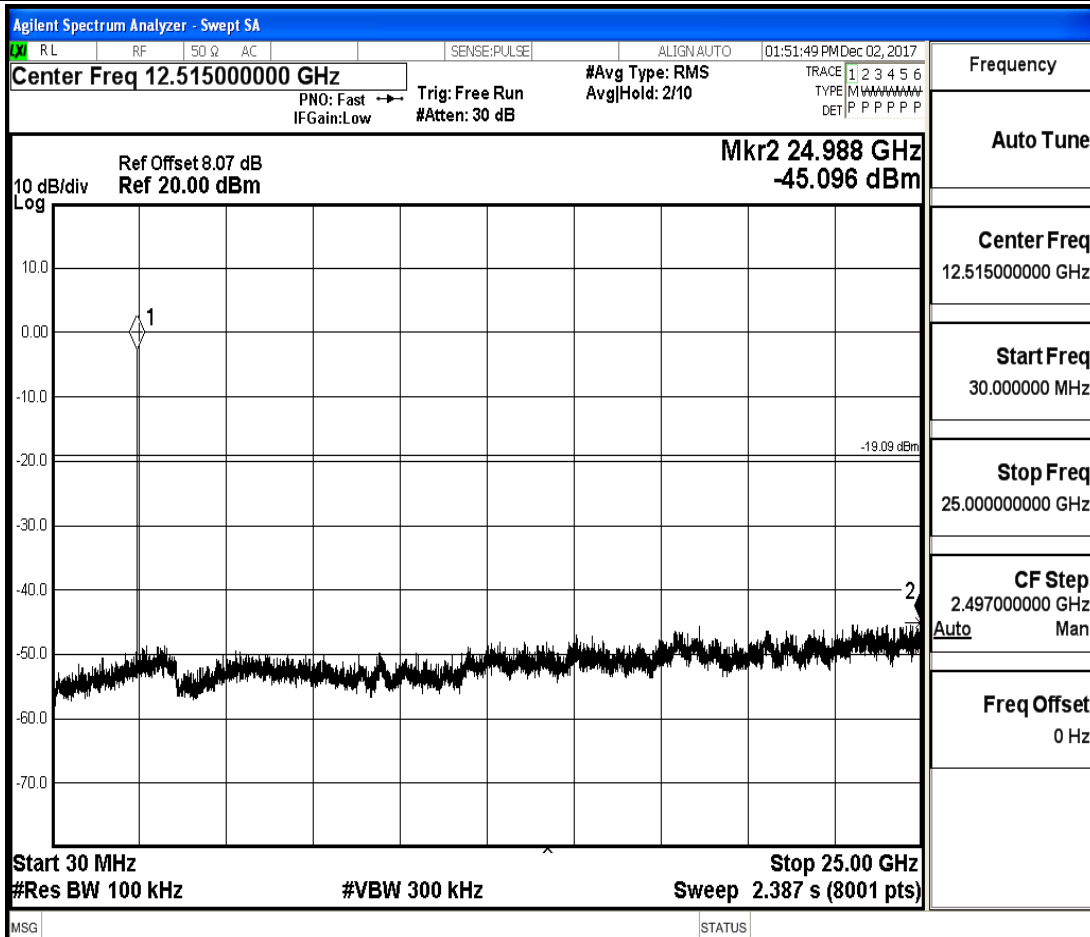
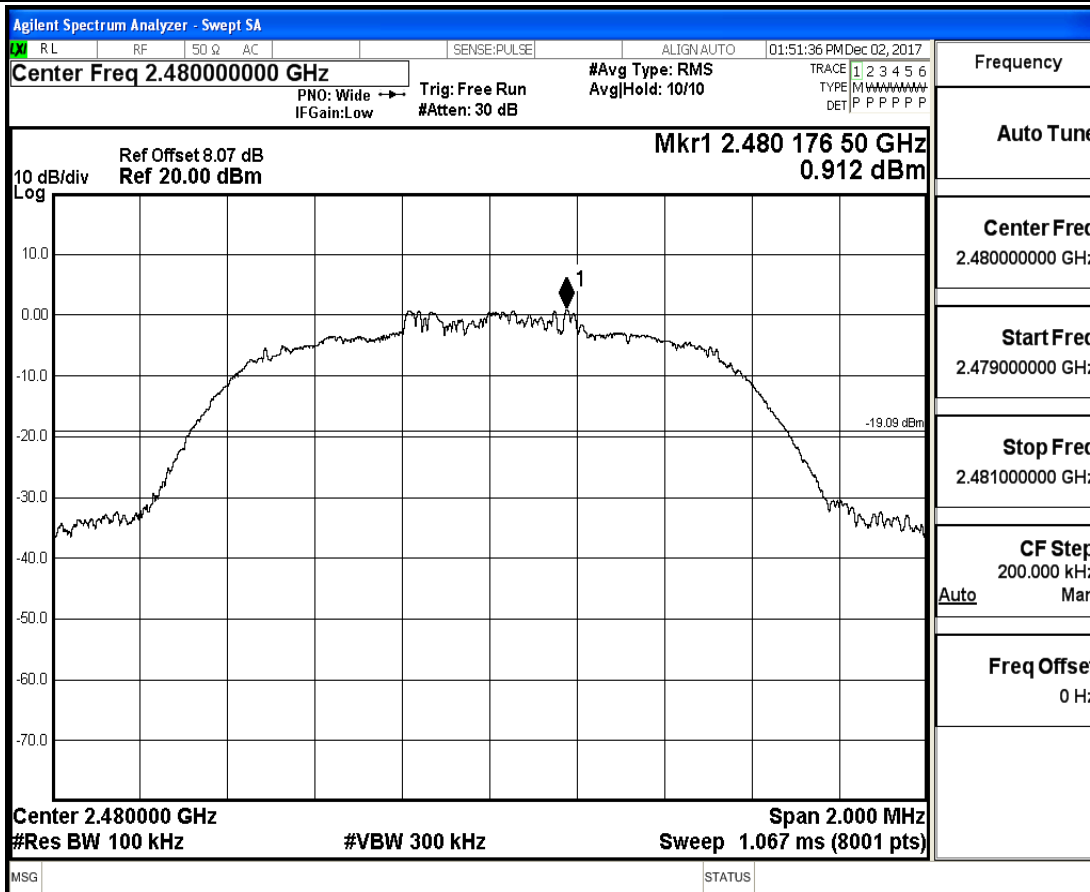
RF Conducted Spurious Emissions_2DH5_2402



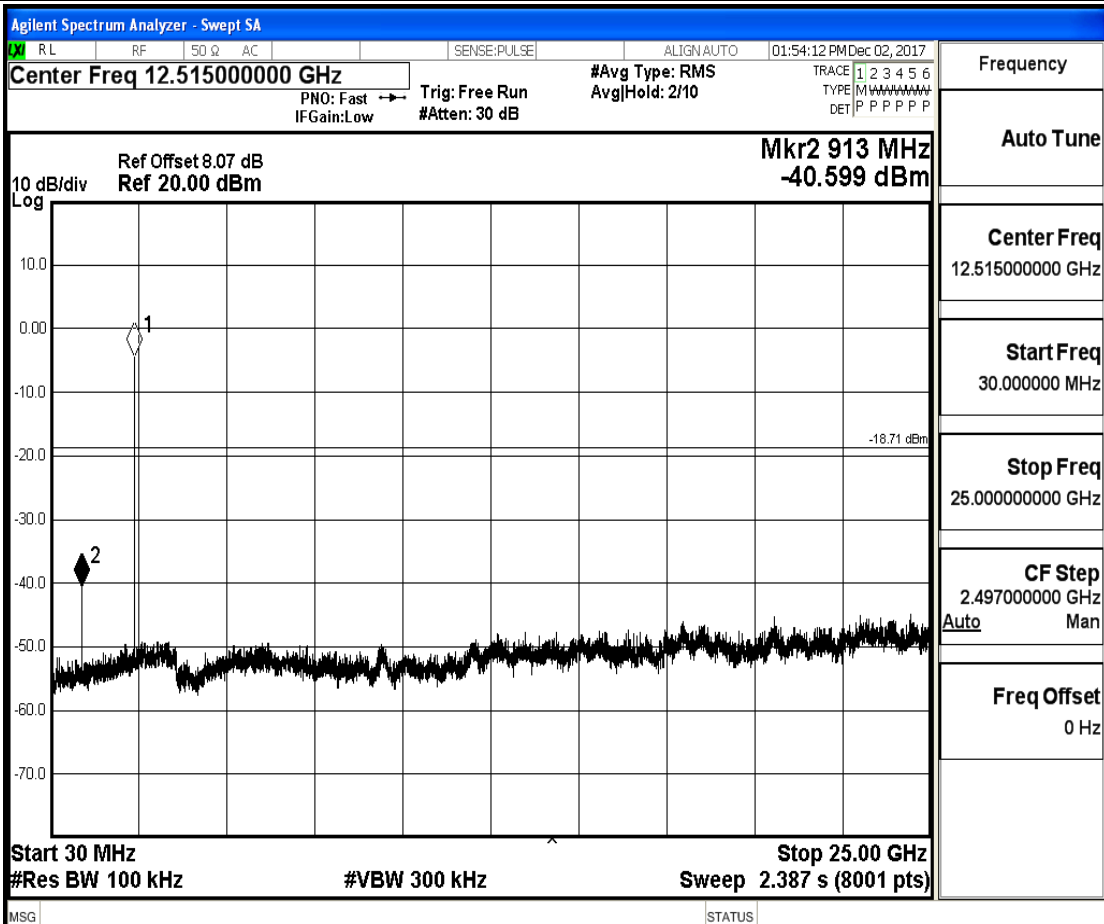
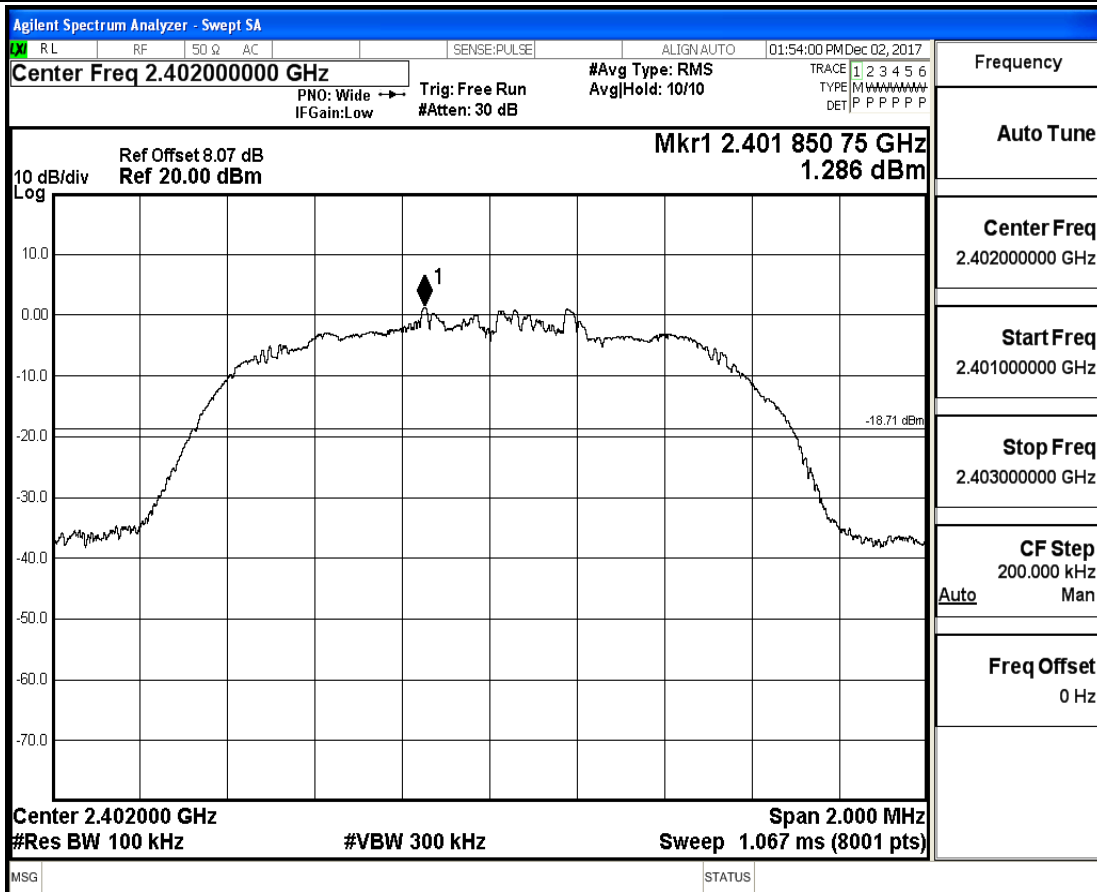
RF Conducted Spurious Emissions_2DH5_2441



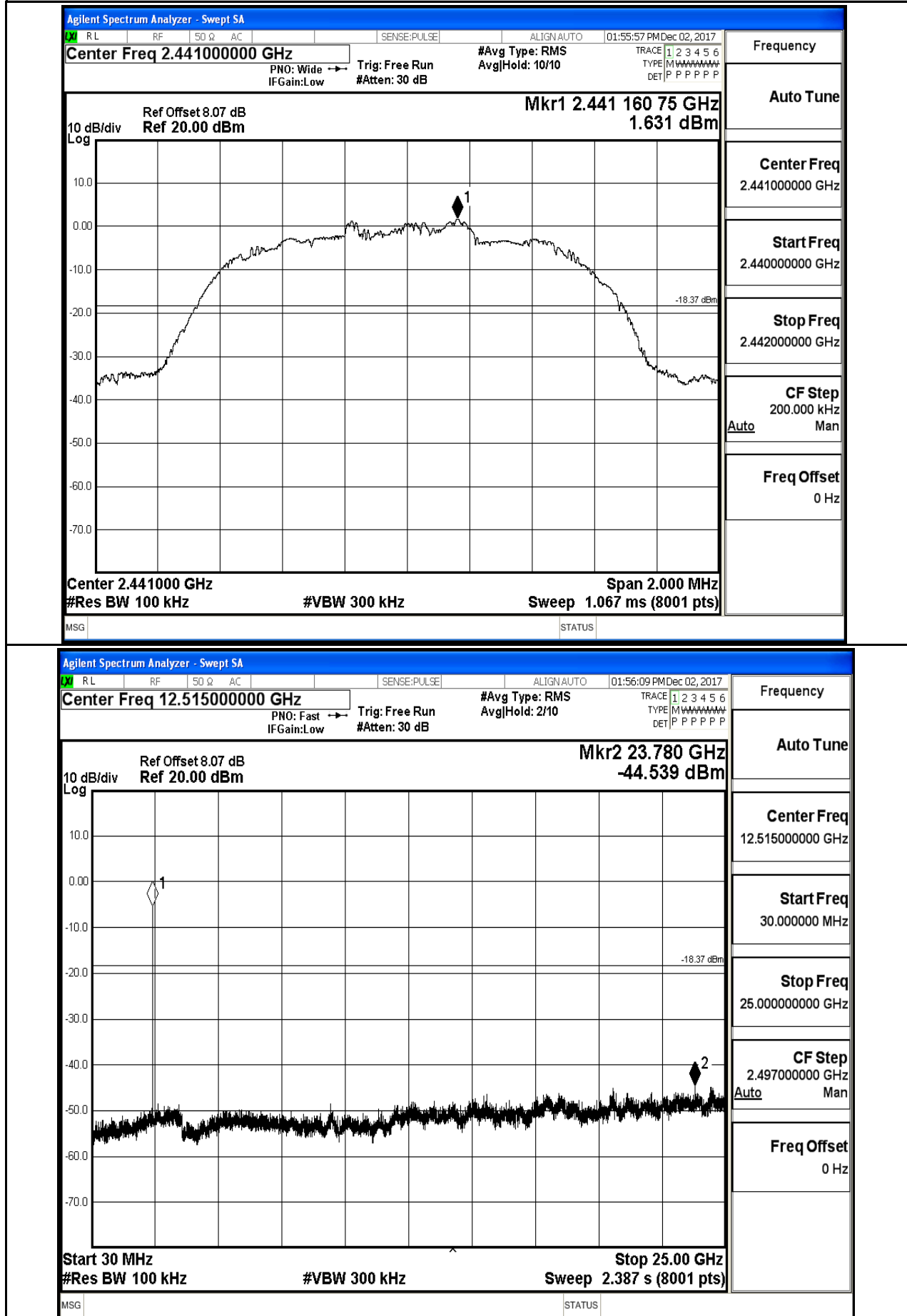
RF Conducted Spurious Emissions_2DH5_2480



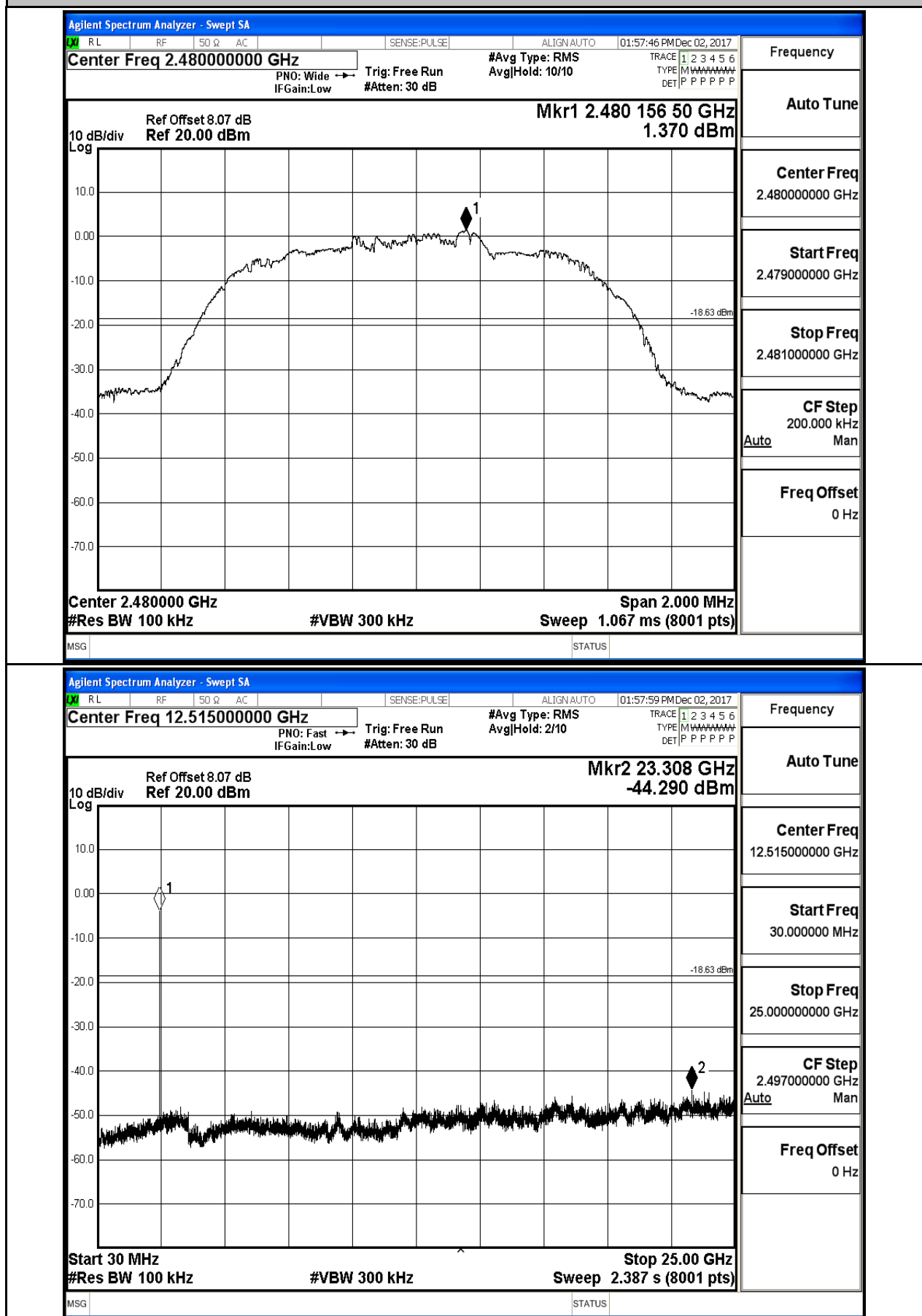
RF Conducted Spurious Emissions_3DH5_2402



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 01:57:59 PM Dec 02, 2017

Center Freq 12.51500000 GHz

PNO: Fast IF Gain: Low Trig: Free Run #Atten: 30 dB #Avg Type: RMS Avg Hold: 2/10

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET P P P P P P P

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

10 dB/div
Log

Ref Offset 8.07 dB
Ref 20.00 dBm

Mkr2 23.308 GHz
-44.290 dBm

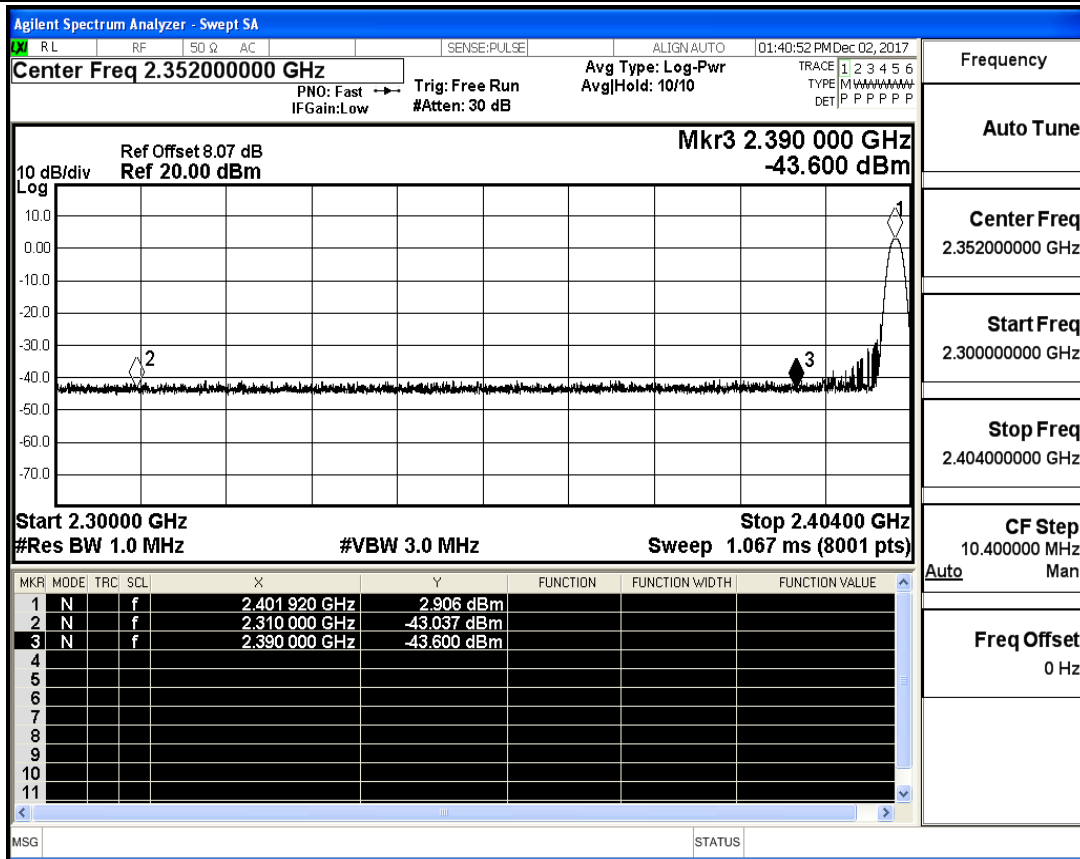
Start 30 MHz Stop 25.00 GHz
#Res BW 100 kHz #VBW 300 kHz Sweep 2.387 s (8001 pts)

MSG STATUS

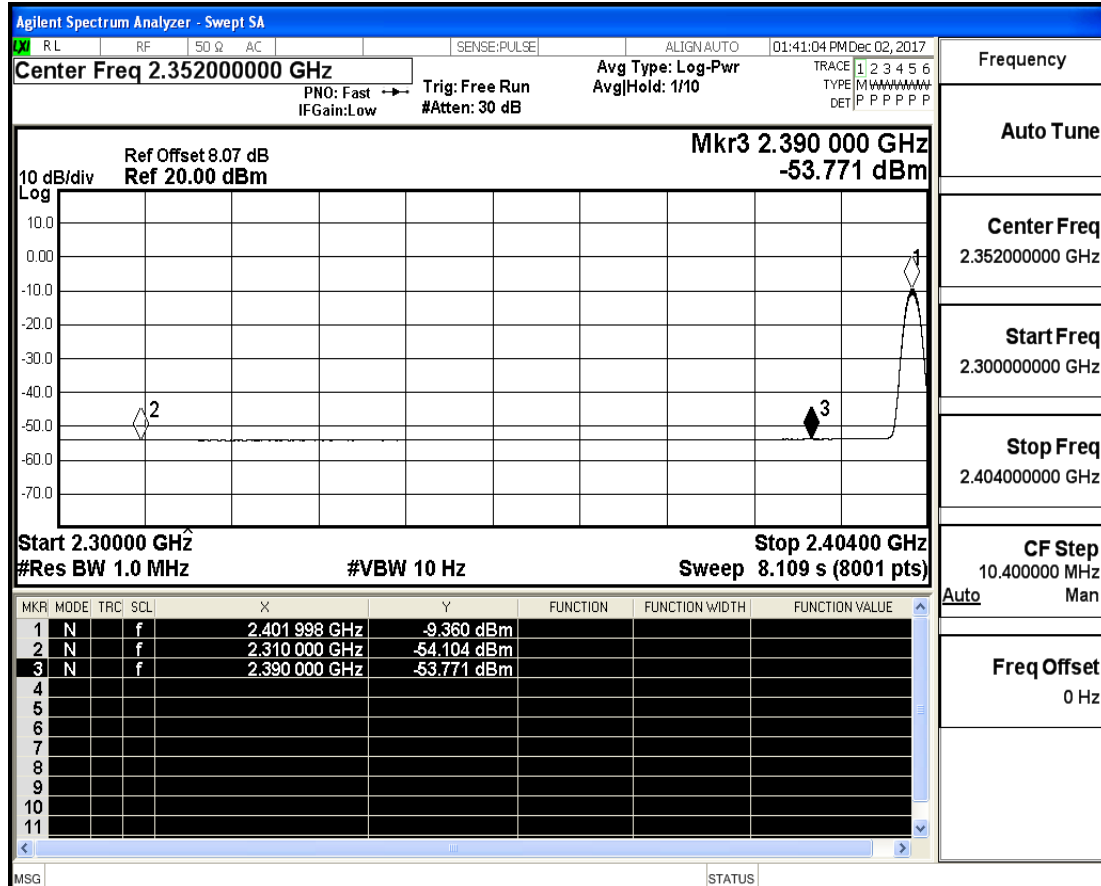
A.8.Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
DH5	Off	2310.0	-43.04	2	0	54.16	PEAK	74	PASS
DH5	Off	2310.0	-54.10	2	0	43.10	AV	54	PASS
DH5	Off	2390.0	-43.60	2	0	53.60	PEAK	74	PASS
DH5	Off	2390.0	-53.77	2	0	43.43	AV	54	PASS
DH5	Off	2483.5	-35.26	2	0	61.94	PEAK	74	PASS
DH5	Off	2483.5	-53.46	2	0	43.74	AV	54	PASS
DH5	Off	2500.0	-42.11	2	0	55.09	PEAK	74	PASS
DH5	Off	2500.0	-53.48	2	0	43.72	AV	54	PASS
2DH5	Off	2310.0	-43.45	2	0	53.75	PEAK	74	PASS
2DH5	Off	2310.0	-54.04	2	0	43.16	AV	54	PASS
2DH5	Off	2390.0	-43.35	2	0	53.85	PEAK	74	PASS
2DH5	Off	2390.0	-53.76	2	0	43.44	AV	54	PASS
2DH5	Off	2483.5	-43.20	2	0	54.00	PEAK	74	PASS
2DH5	Off	2483.5	-53.35	2	0	43.85	AV	54	PASS
2DH5	Off	2500.0	-44.06	2	0	53.14	PEAK	74	PASS
2DH5	Off	2500.0	-53.42	2	0	43.78	AV	54	PASS
3DH5	Off	2310.0	-42.55	2	0	54.65	PEAK	74	PASS
3DH5	Off	2310.0	-54.05	2	0	43.15	AV	54	PASS
3DH5	Off	2390.0	-43.34	2	0	53.86	PEAK	74	PASS
3DH5	Off	2390.0	-53.74	2	0	43.46	AV	54	PASS
3DH5	Off	2483.5	-42.90	2	0	54.30	PEAK	74	PASS
3DH5	Off	2483.5	-53.34	2	0	43.86	AV	54	PASS
3DH5	Off	2500.0	-43.74	2	0	53.46	PEAK	74	PASS
3DH5	Off	2500.0	-53.42	2	0	43.78	AV	54	PASS

Restrict-band band-edge measurements_2402_PEAK



Restrict-band band-edge measurements_2402_AV



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Q AC SENSE:PULSE ALIGN AUTO 01:45:15 PM Dec 02, 2017

Center Freq 2.489000000 GHz

PNO: Fast Trig: Free Run Avg Type: Log-Pwr
IF Gain: Low #Atten: 30 dB Avg/Hold: 10/10

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET P P P P P P P

Ref Offset 8.07 dB
Ref 20.00 dBm

Mkr3 2.500 000 00 GHz
-42.111 dBm

10 dB/div
Log

Start 2.47800 GHz Stop 2.50000 GHz
#Res BW 1.0 MHz #VBW 3.0 MHz Sweep 1.067 ms (8001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	f		2.480 134 00 GHz	2.871 dBm			
2	N	f		2.483 500 00 GHz	-35.257 dBm			
3	N	f		2.500 000 00 GHz	-42.111 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

Center Freq
2.489000000 GHz

Start Freq
2.478000000 GHz

Stop Freq
2.500000000 GHz

CF Step
2.200000 MHz

Freq Offset
0 Hz

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:PULSE ALIGN AUTO 01:45:27 PM Dec 02, 2017

Center Freq 2.489000000 GHz PNO: Fast Trig: Free Run Avg Type: Log-Pwr Mkr3 2.500 000 00 GHz
IFGain:Low #Atten: 30 dB Avg/Hold: 5/10 TYPE: M DET: P P P P P

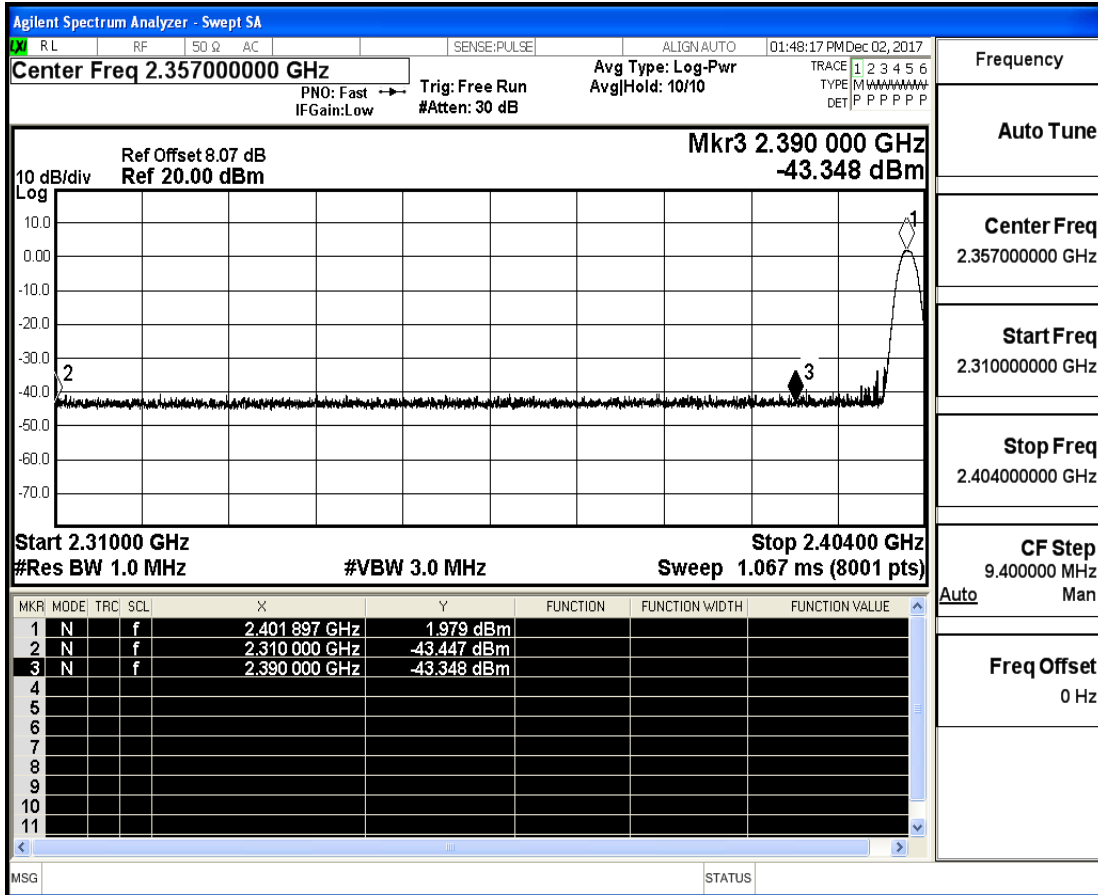
Ref Offset 8.07 dB Ref 20.00 dBm 10 dB/div Log

Start 2.47800 GHz Stop 2.50000 GHz
#Res BW 1.0 MHz #VBW 10 Hz Sweep 1.716 s (8001 pts)

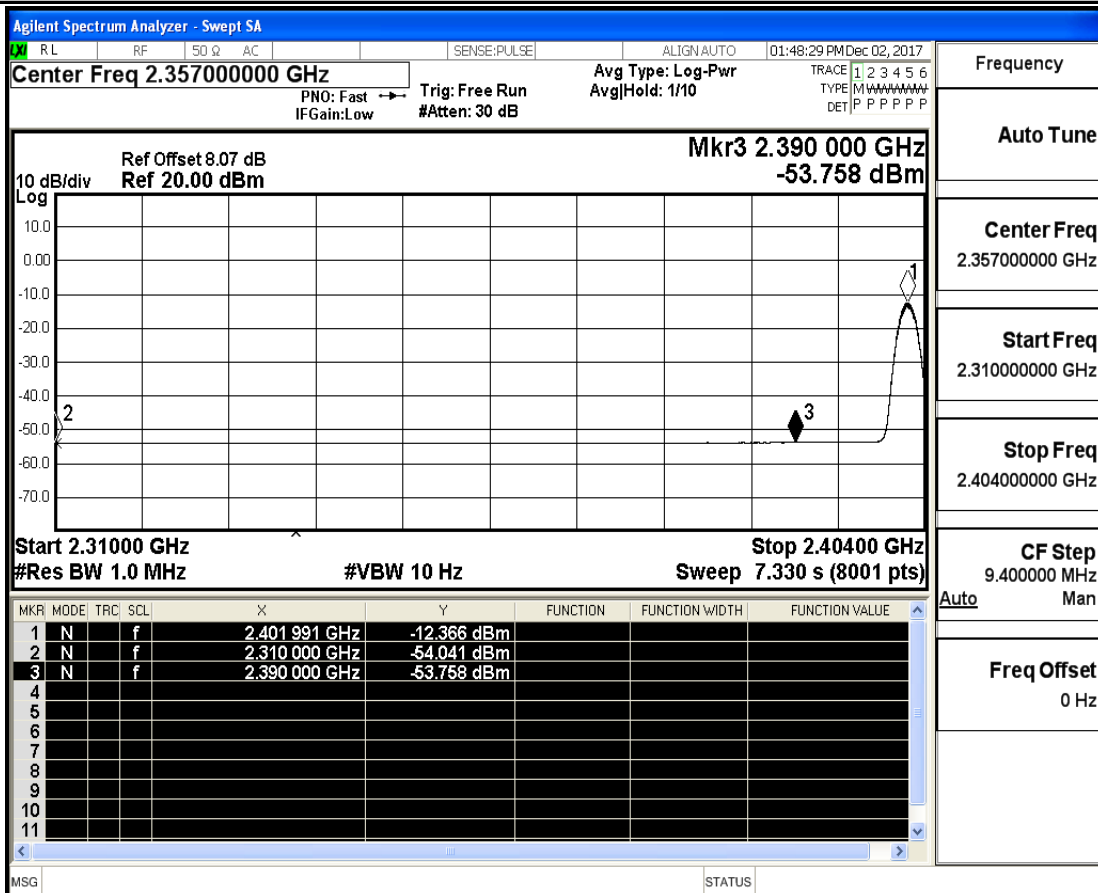
MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N		f	2.480 046 00 GHz	-9.312 dBm			
2	N		f	2.483 500 00 GHz	-53.460 dBm			
3	N		f	2.500 000 00 GHz	-53.482 dBm			
4								
5								
6								
7								
8								
9								
10								
11								

Frequency Auto Tune Center Freq 2.489000000 GHz Start Freq 2.478000000 GHz Stop Freq 2.500000000 GHz CF Step 2.200000 MHz Freq Offset 0 Hz

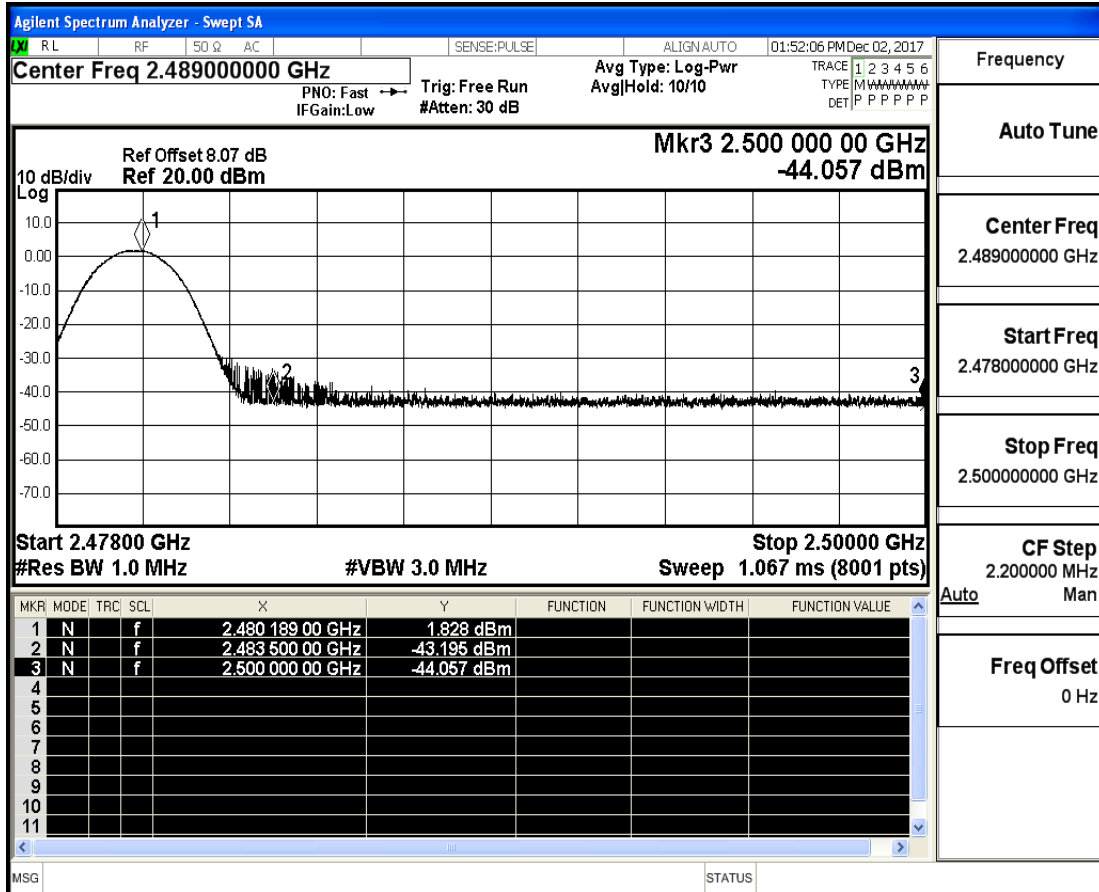
Restrict-band band-edge measurements_2402_PEAK



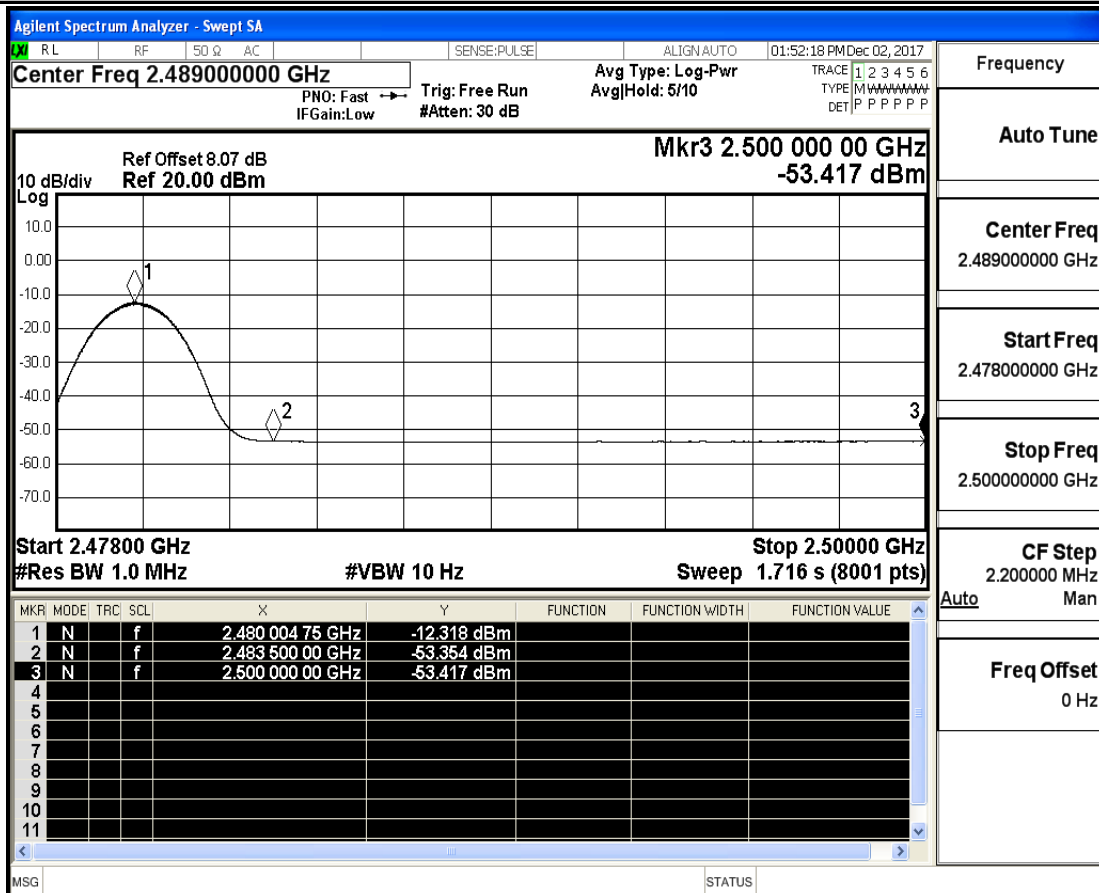
Restrict-band band-edge measurements_2402_AV



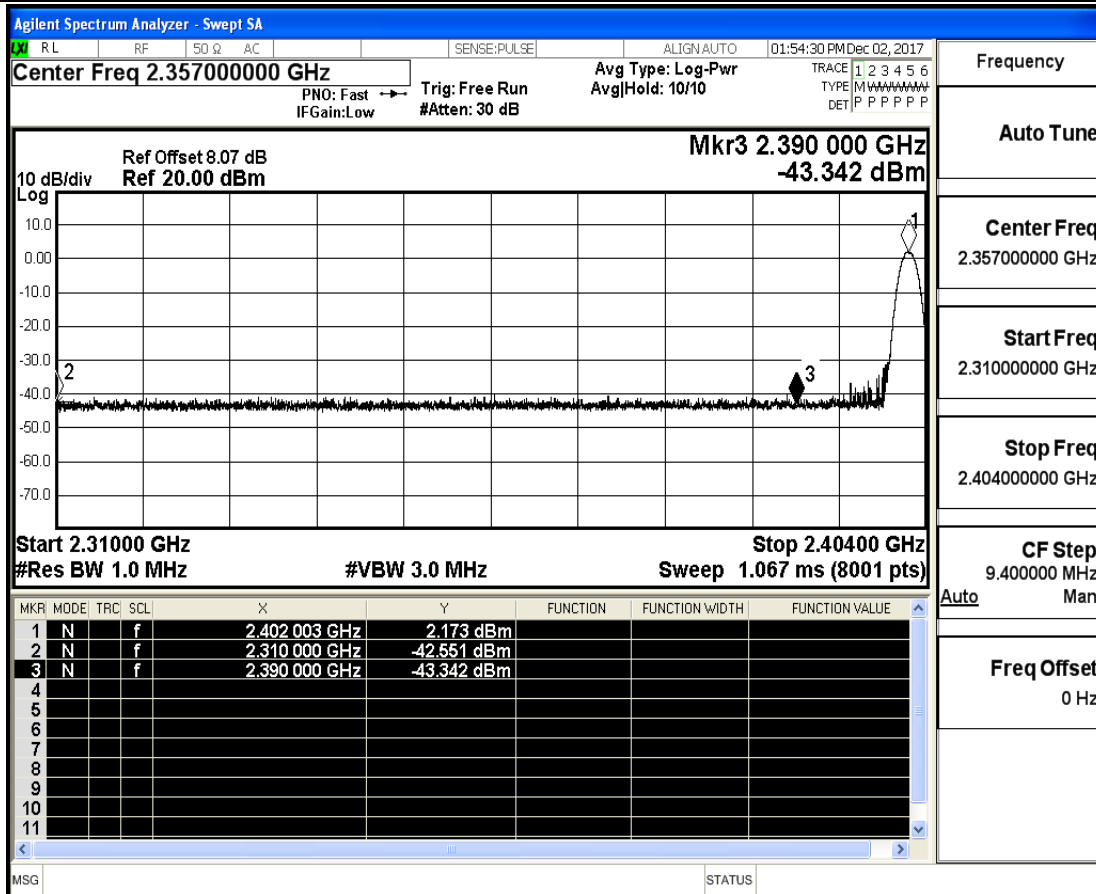
Restrict-band band-edge measurements_2480_PEAK



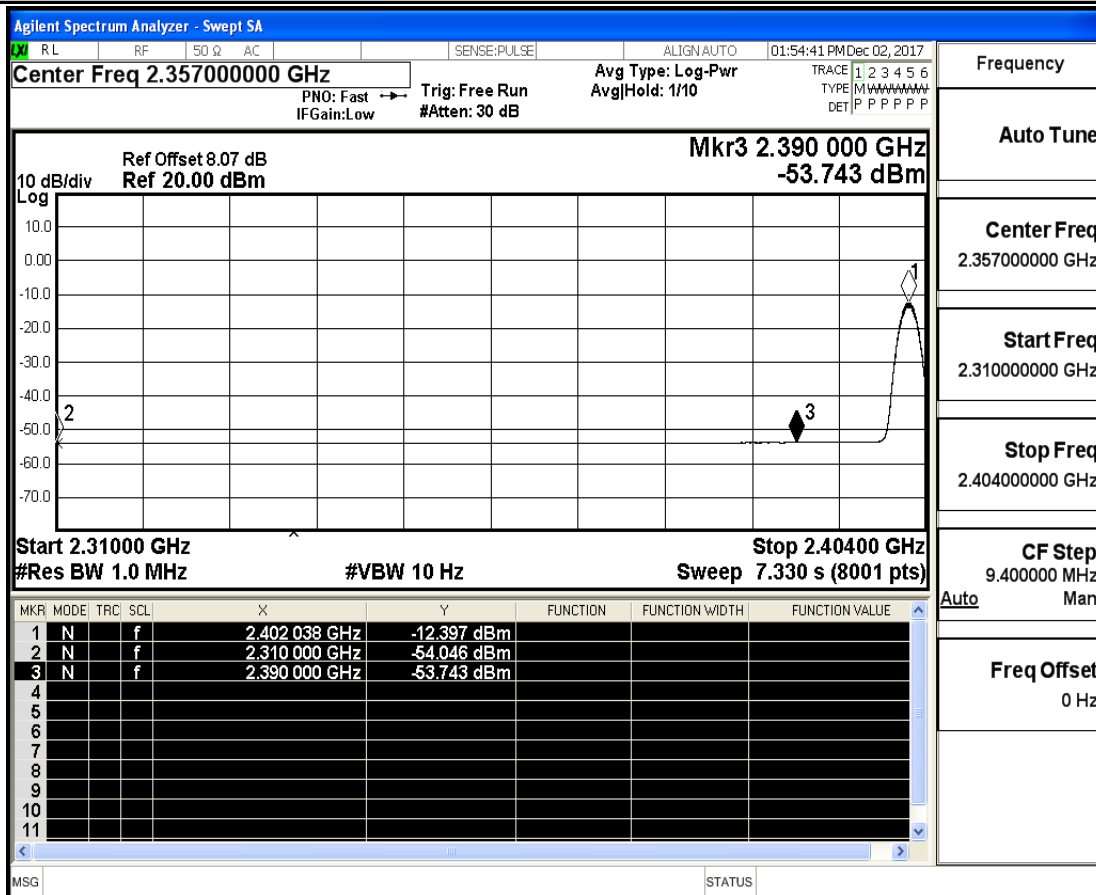
Restrict-band band-edge measurements_2480_AV



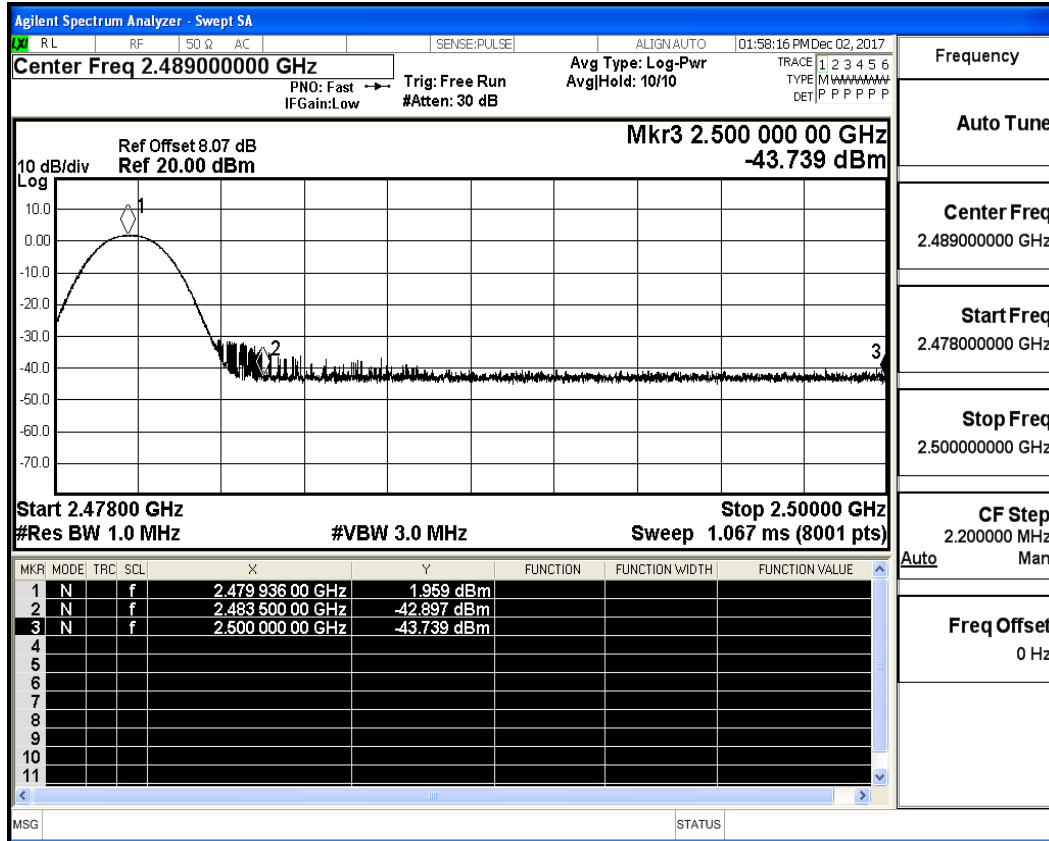
Restrict-band band-edge measurements_2402_PEAK



Restrict-band band-edge measurements_2402_AV



Restrict-band band-edge measurements_2480_PEAK



Restrict-band band-edge measurements_2480_AV

