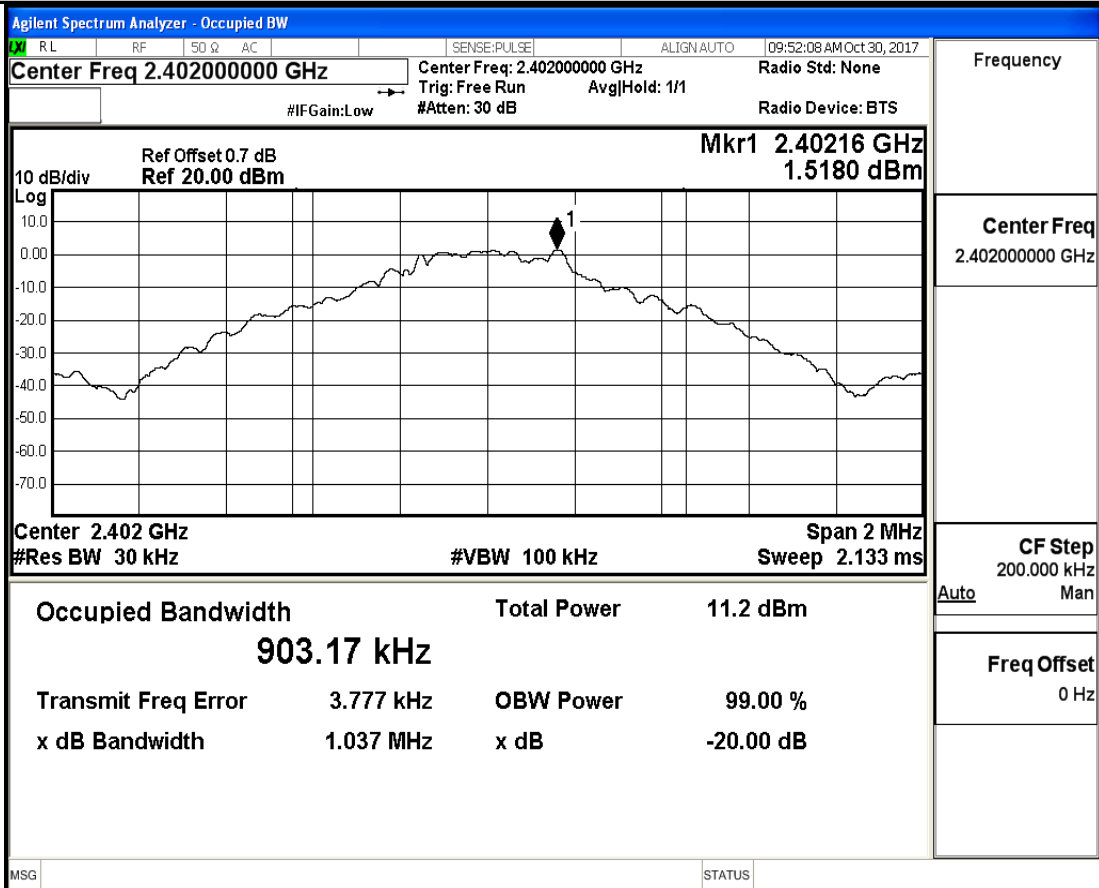


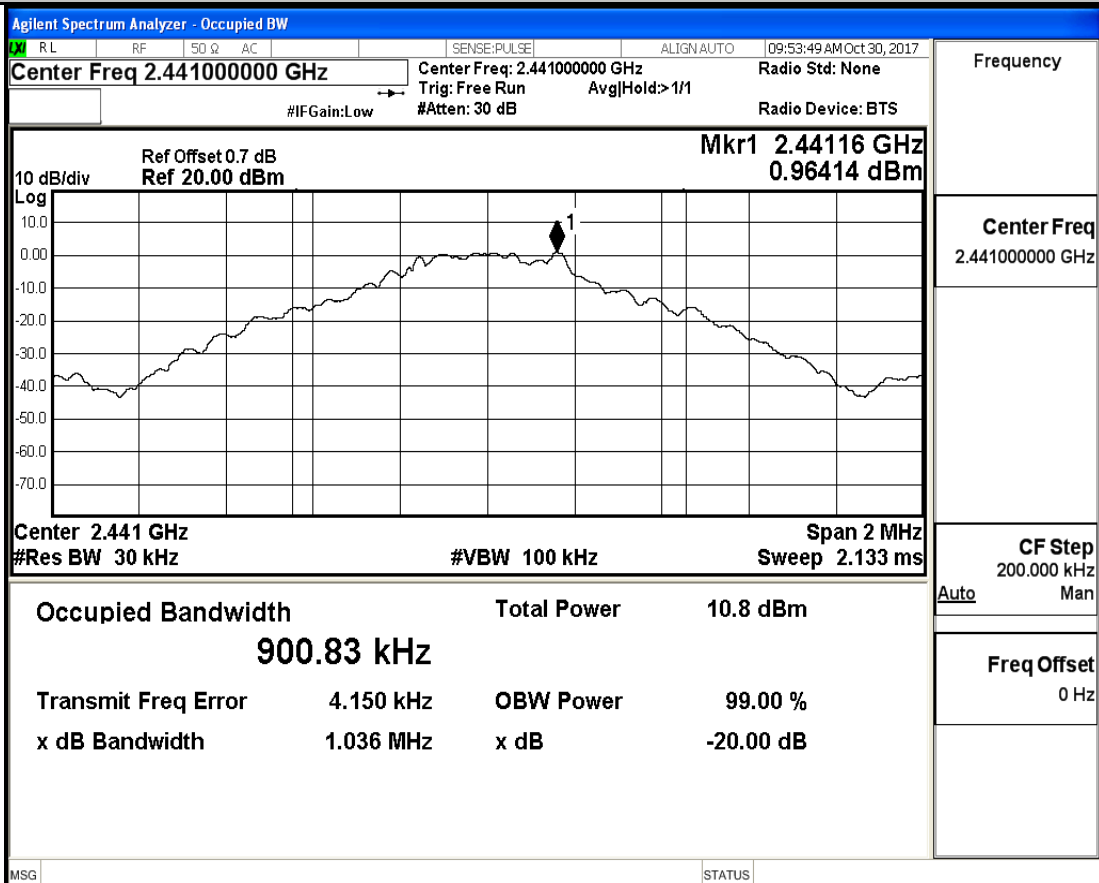
**1.20 dB Bandwidth**

Test Mode	Test Channel	EBW[MHz]	Limit[MHz]	Verdict
DH5	2402	1.037	---	PASS
DH5	2441	1.036	---	PASS
DH5	2480	1.032	---	PASS
2DH5	2402	1.293	---	PASS
2DH5	2441	1.319	---	PASS
2DH5	2480	1.313	---	PASS
3DH5	2402	1.292	---	PASS
3DH5	2441	1.294	---	PASS
3DH5	2480	1.297	---	PASS

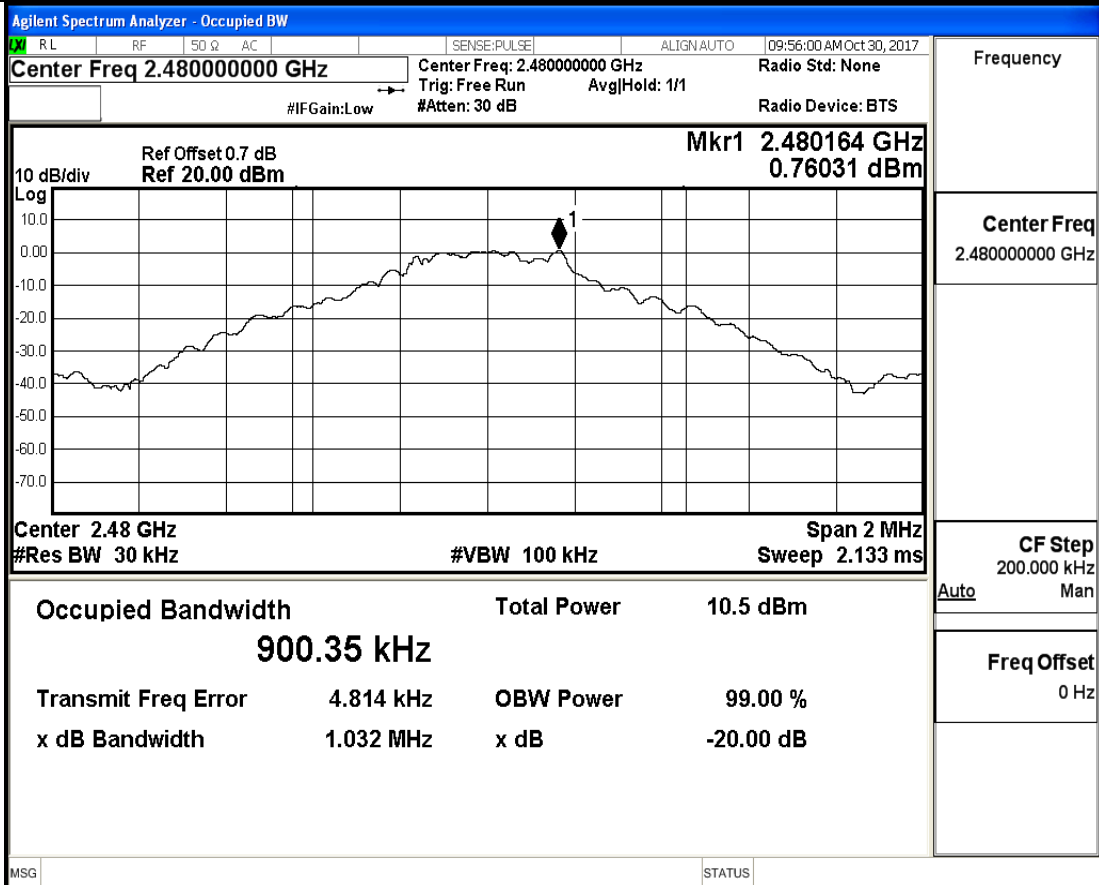
## 20 dB Bandwidth\_DH5\_2402



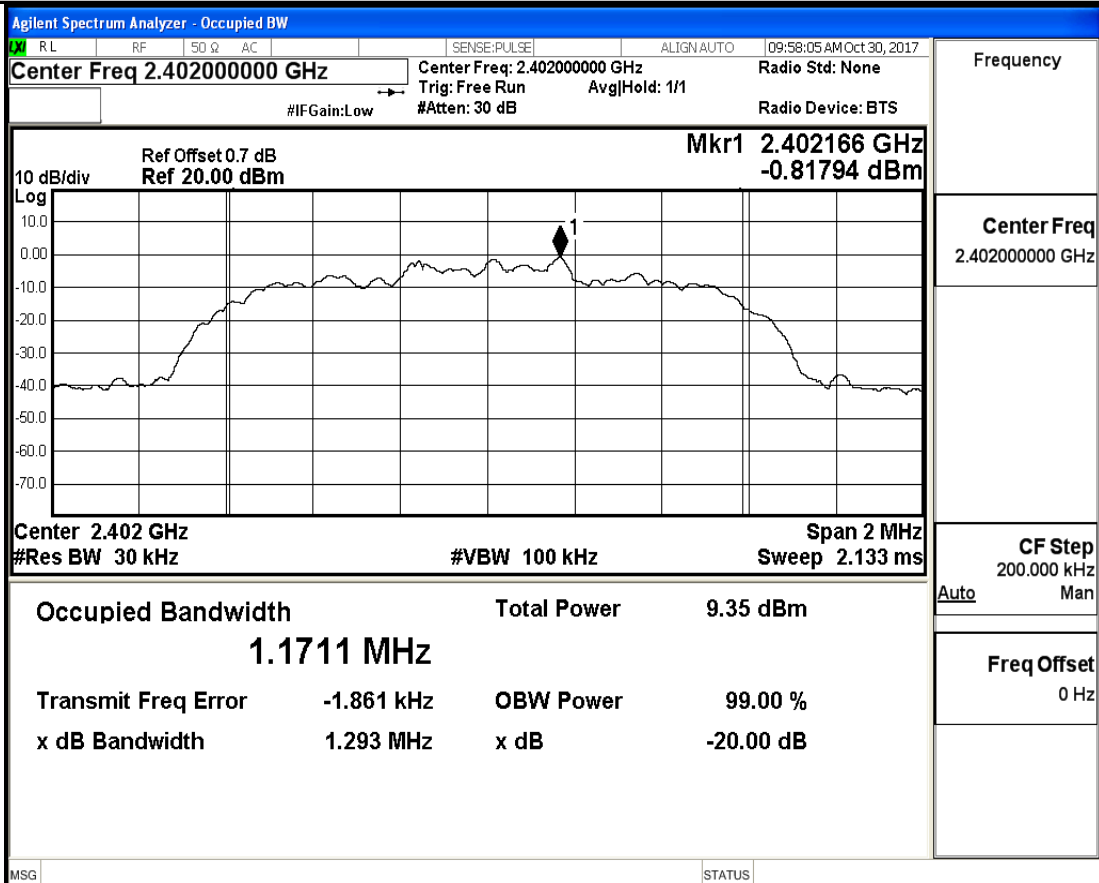
## 20 dB Bandwidth\_DH5\_2441



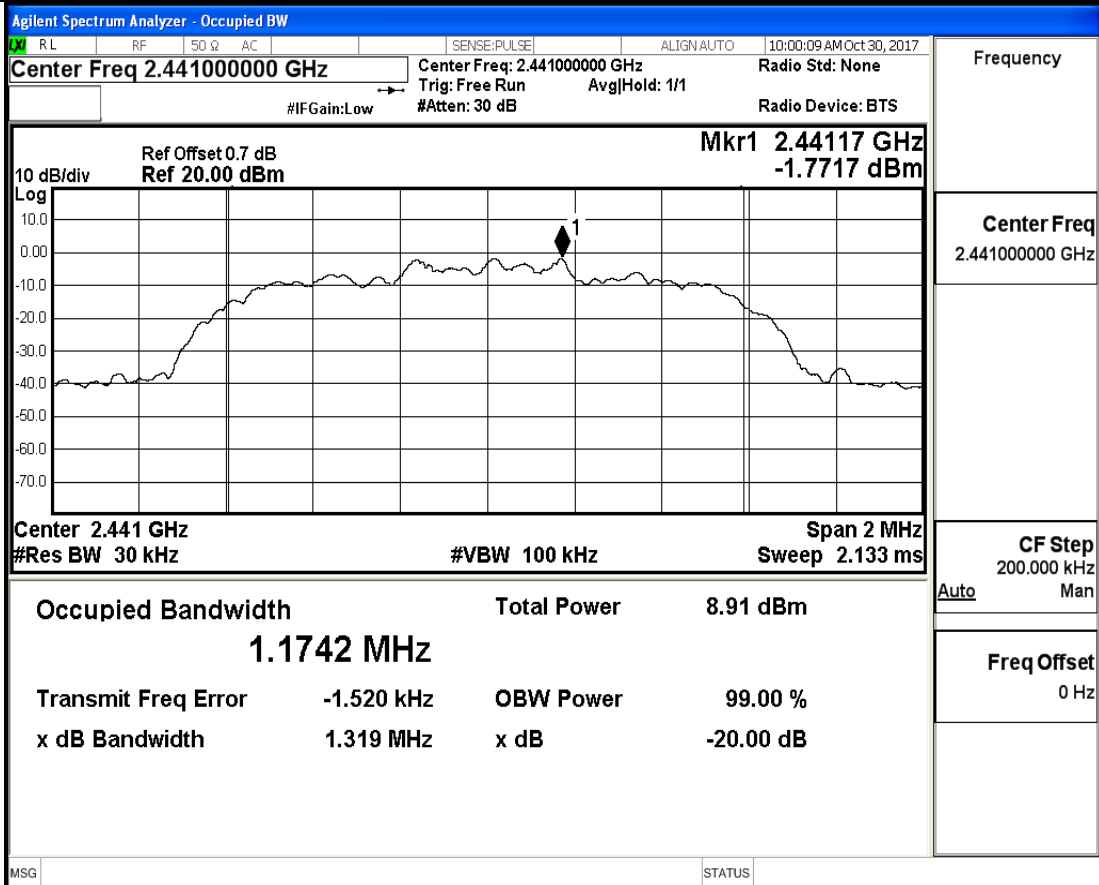
## 20 dB Bandwidth\_DH5\_2480



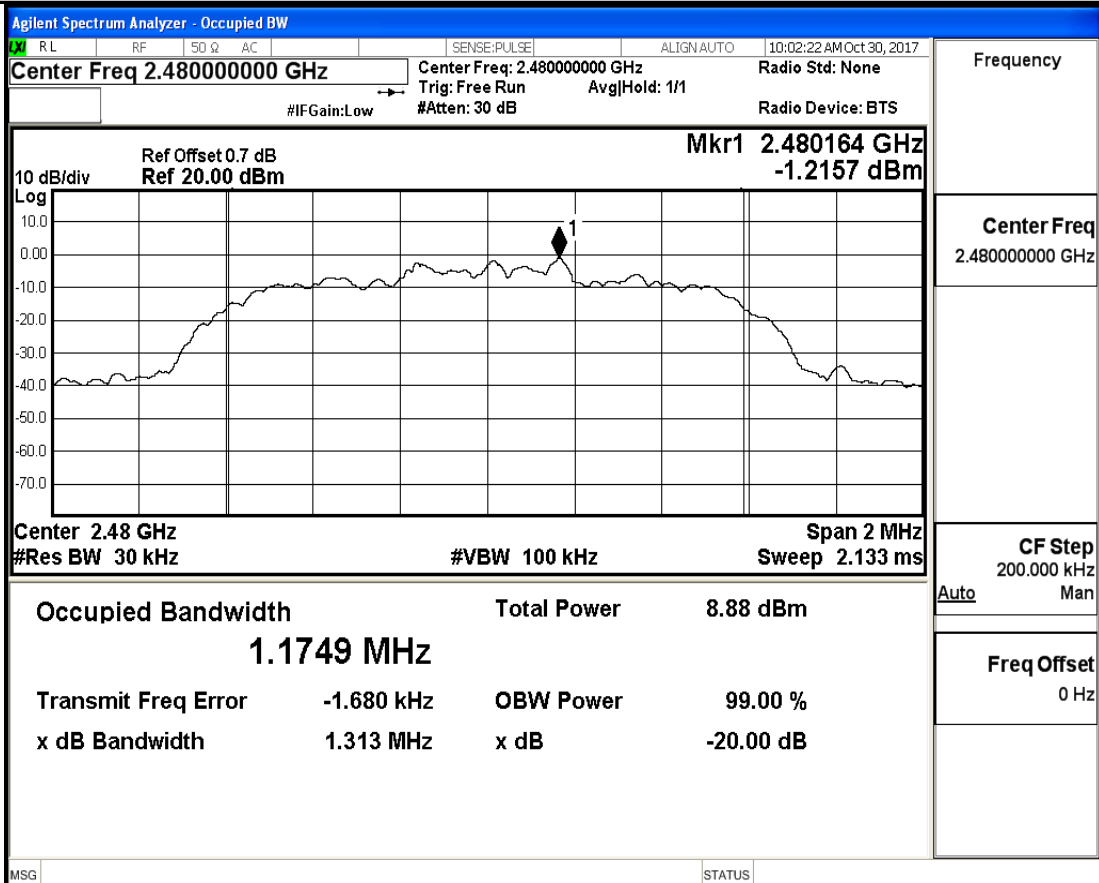
## 20 dB Bandwidth\_2DH5\_2402



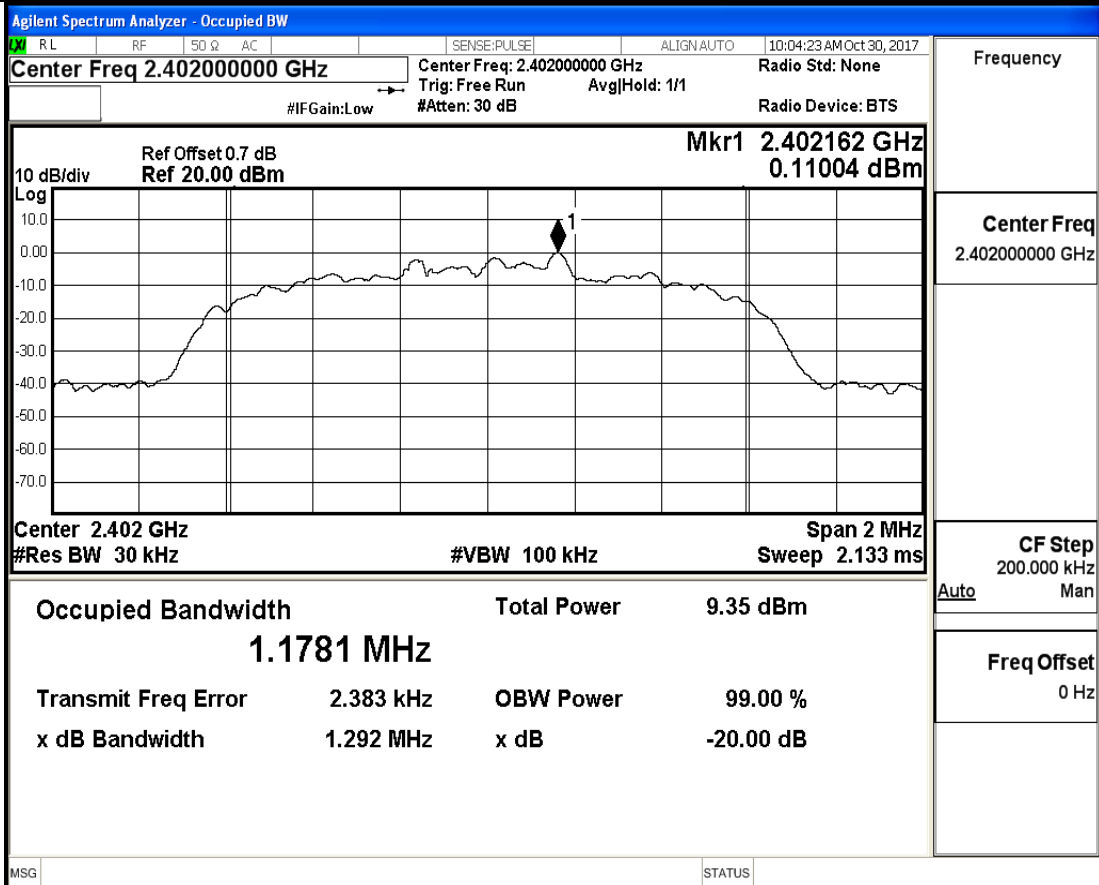
## 20 dB Bandwidth\_2DH5\_2441



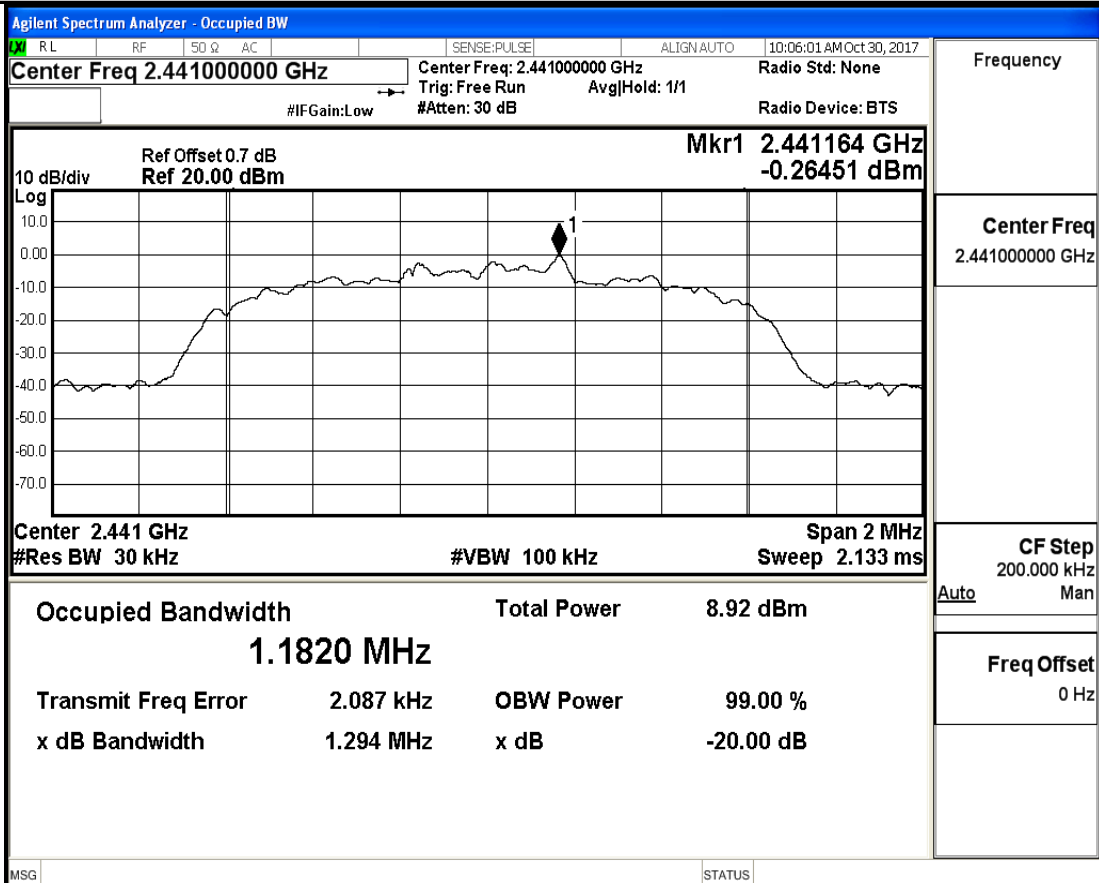
## 20 dB Bandwidth\_2DH5\_2480

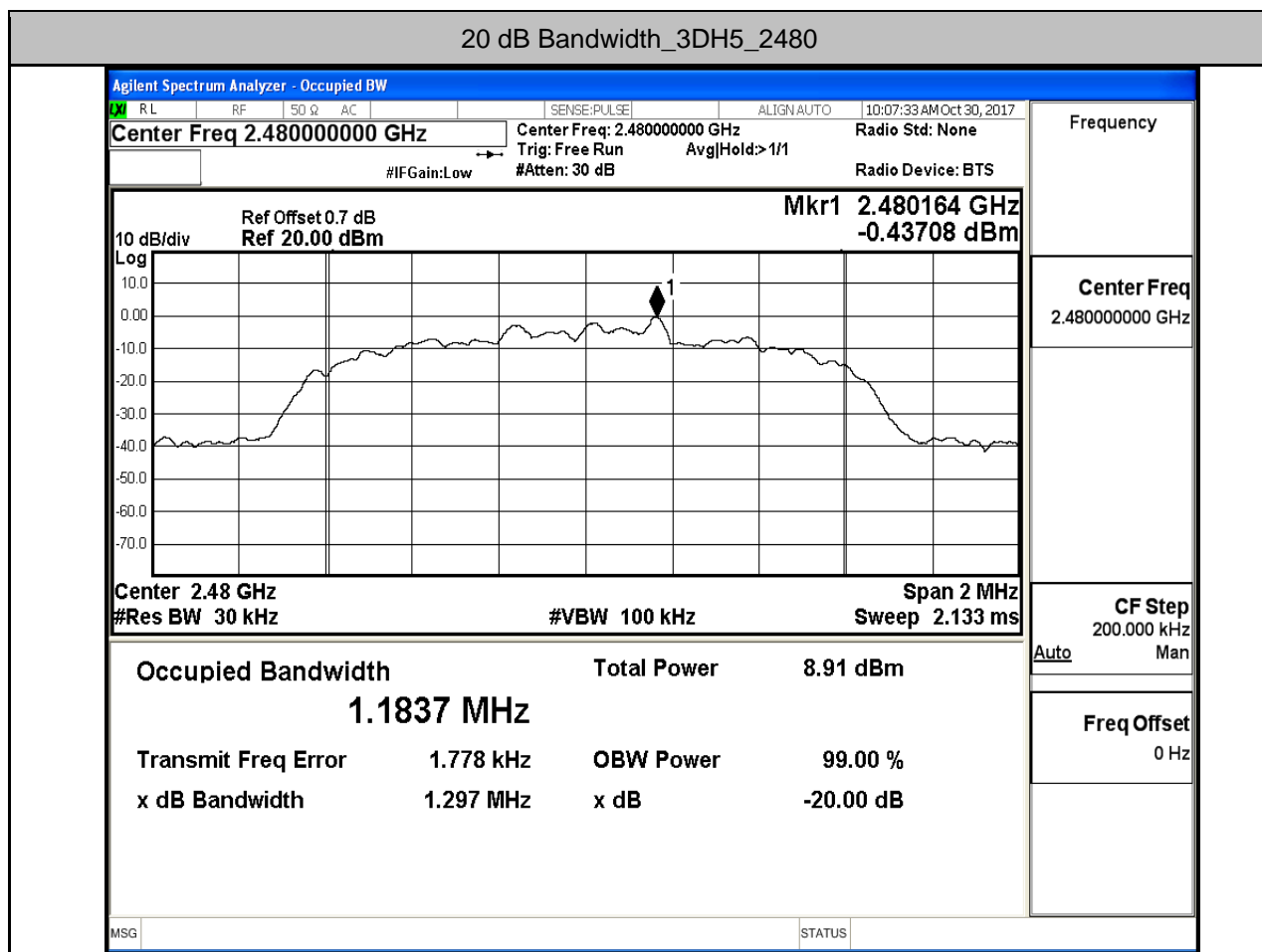


## 20 dB Bandwidth\_3DH5\_2402



## 20 dB Bandwidth\_3DH5\_2441





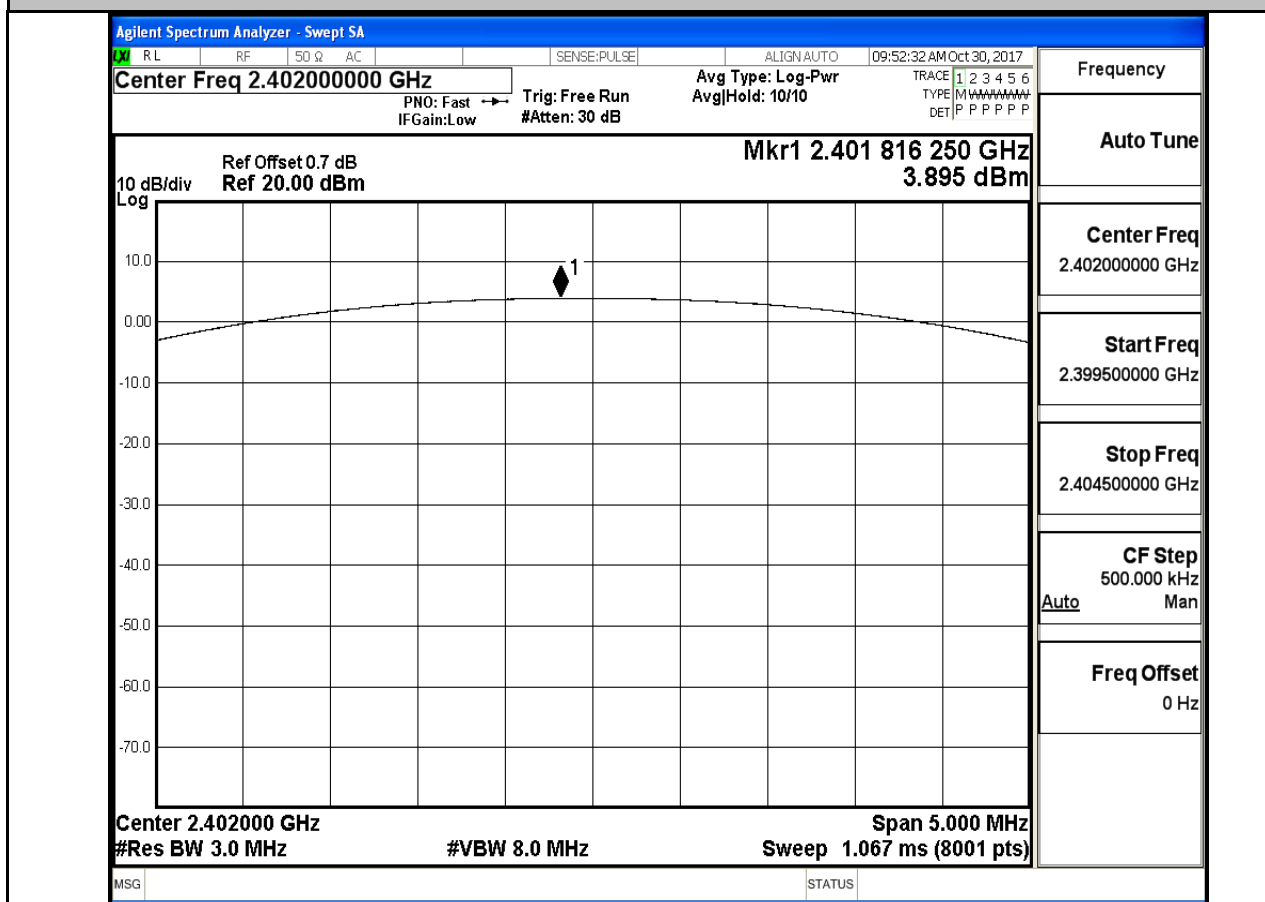
**2.Occupied Bandwidth**

Test Mode	Test Channel	OBW[MHz]	Limit[MHz]	Verdict
-----------	--------------	----------	------------	---------

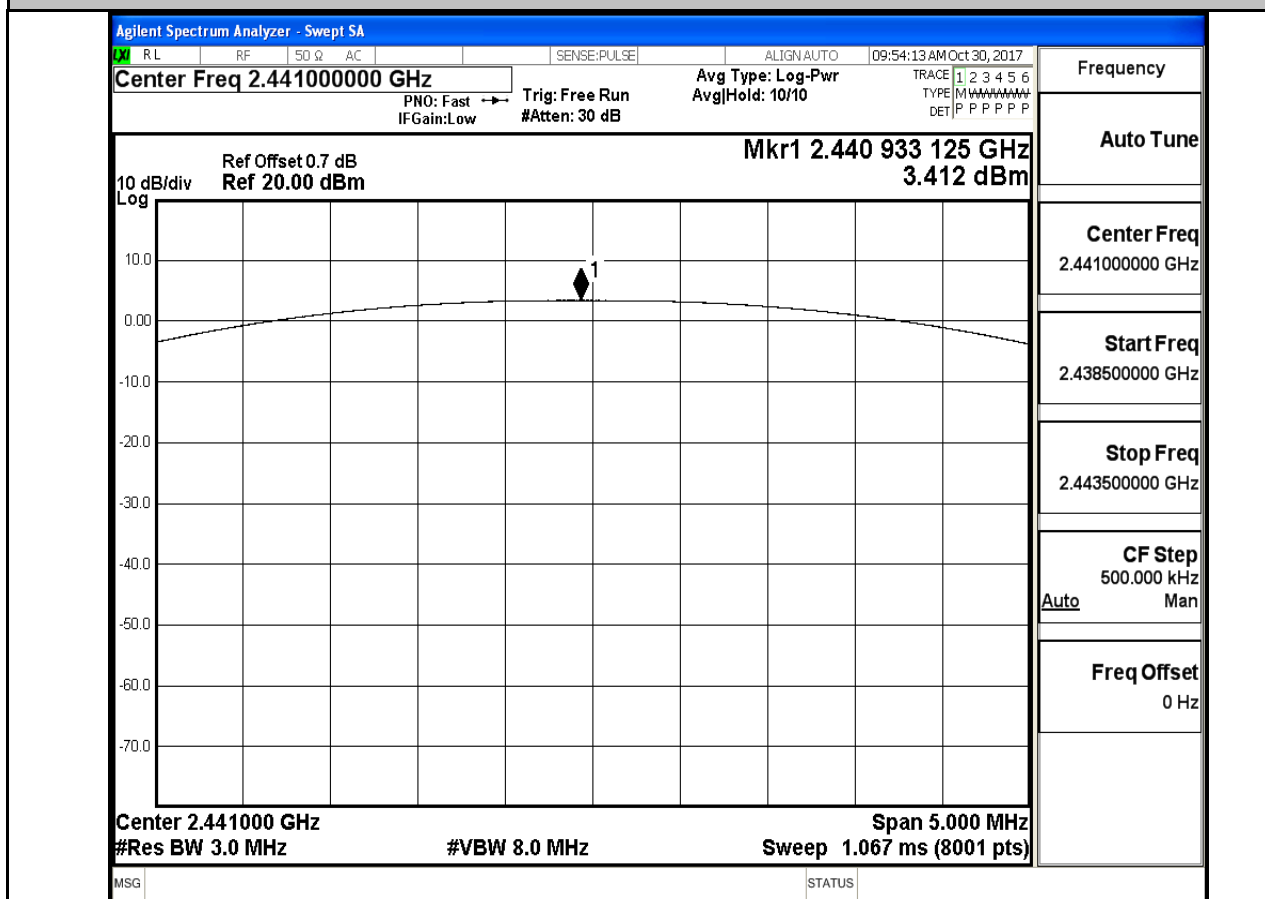
**3.Conducted Peak Output Power**

Test Mode	Test Channel	Power[dBm]	Limit[dBm]	Verdict
DH5	2402	3.895	21	PASS
DH5	2441	3.412	21	PASS
DH5	2480	3.105	21	PASS
2DH5	2402	3.125	21	PASS
2DH5	2441	2.716	21	PASS
2DH5	2480	2.481	21	PASS
3DH5	2402	3.250	21	PASS
3DH5	2441	2.831	21	PASS
3DH5	2480	2.591	21	PASS

## Conducted Peak Output Power\_DH5\_2402

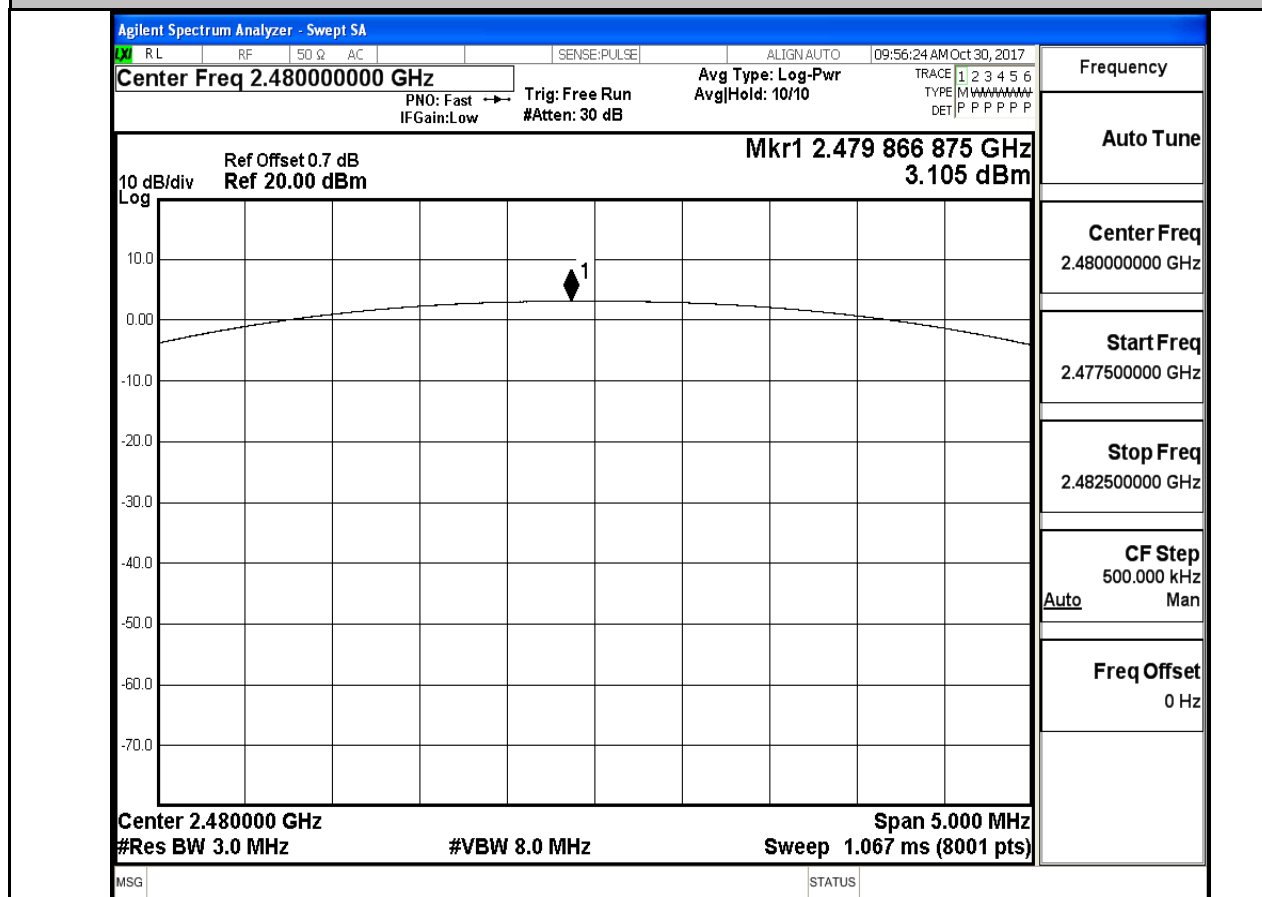


## Conducted Peak Output Power\_DH5\_2441

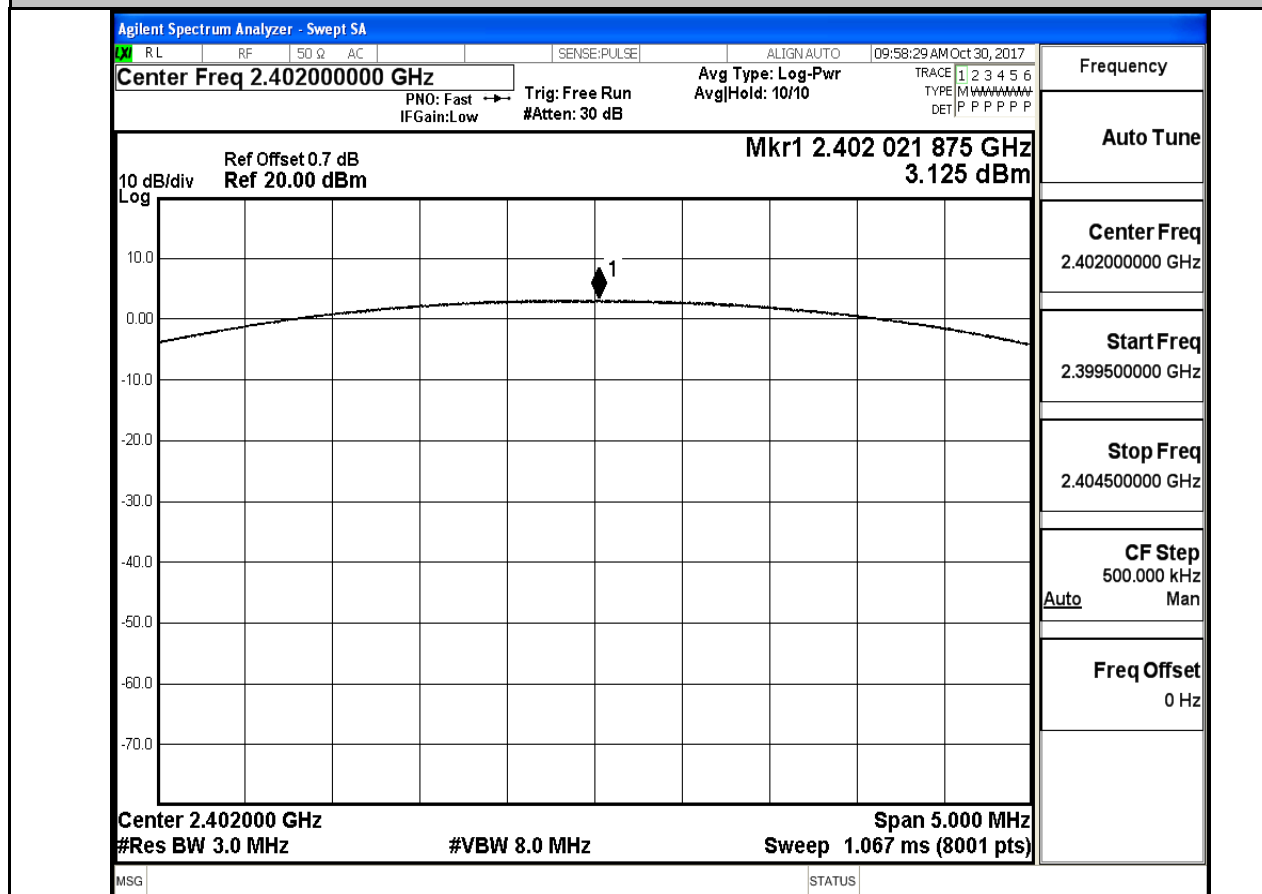




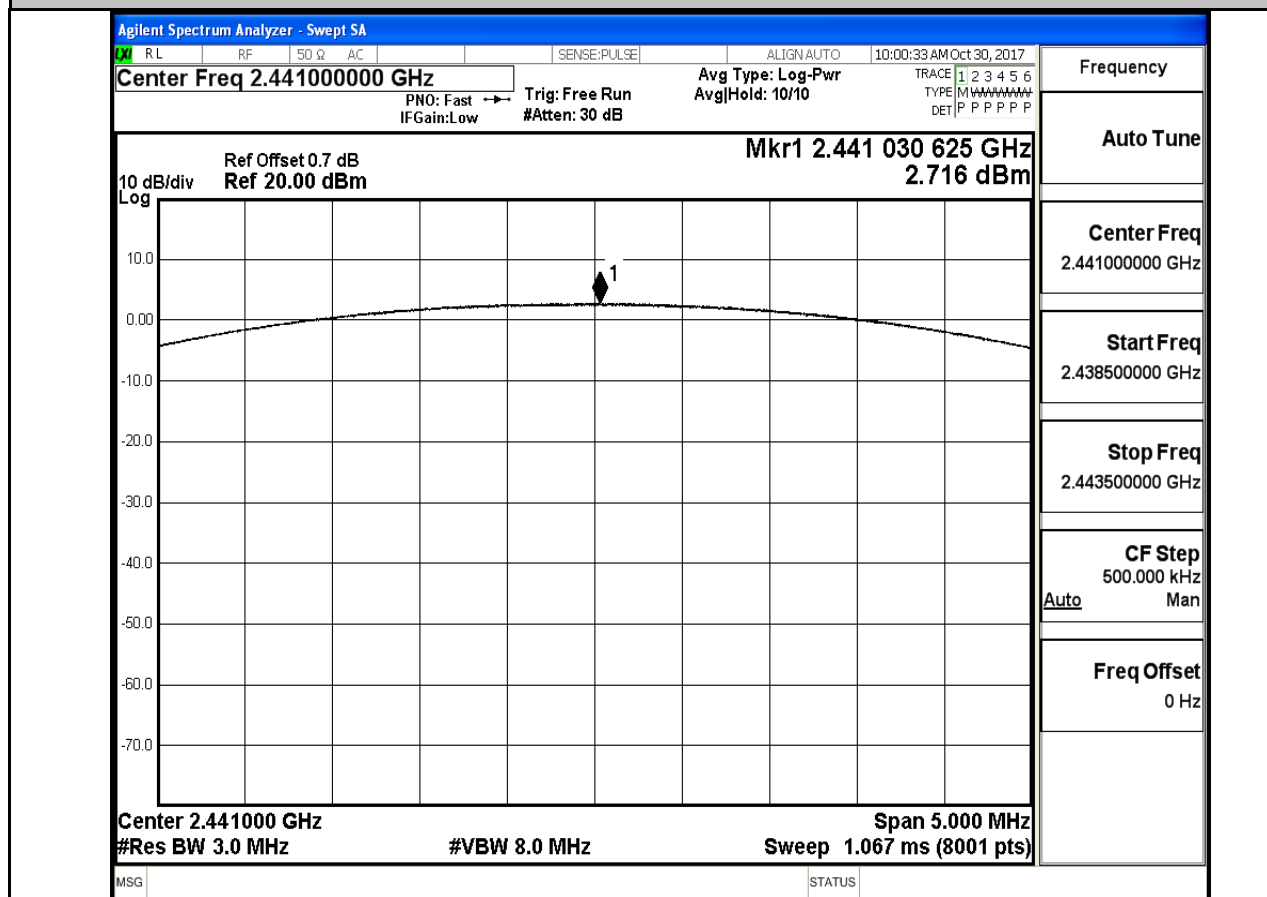
## Conducted Peak Output Power\_DH5\_2480



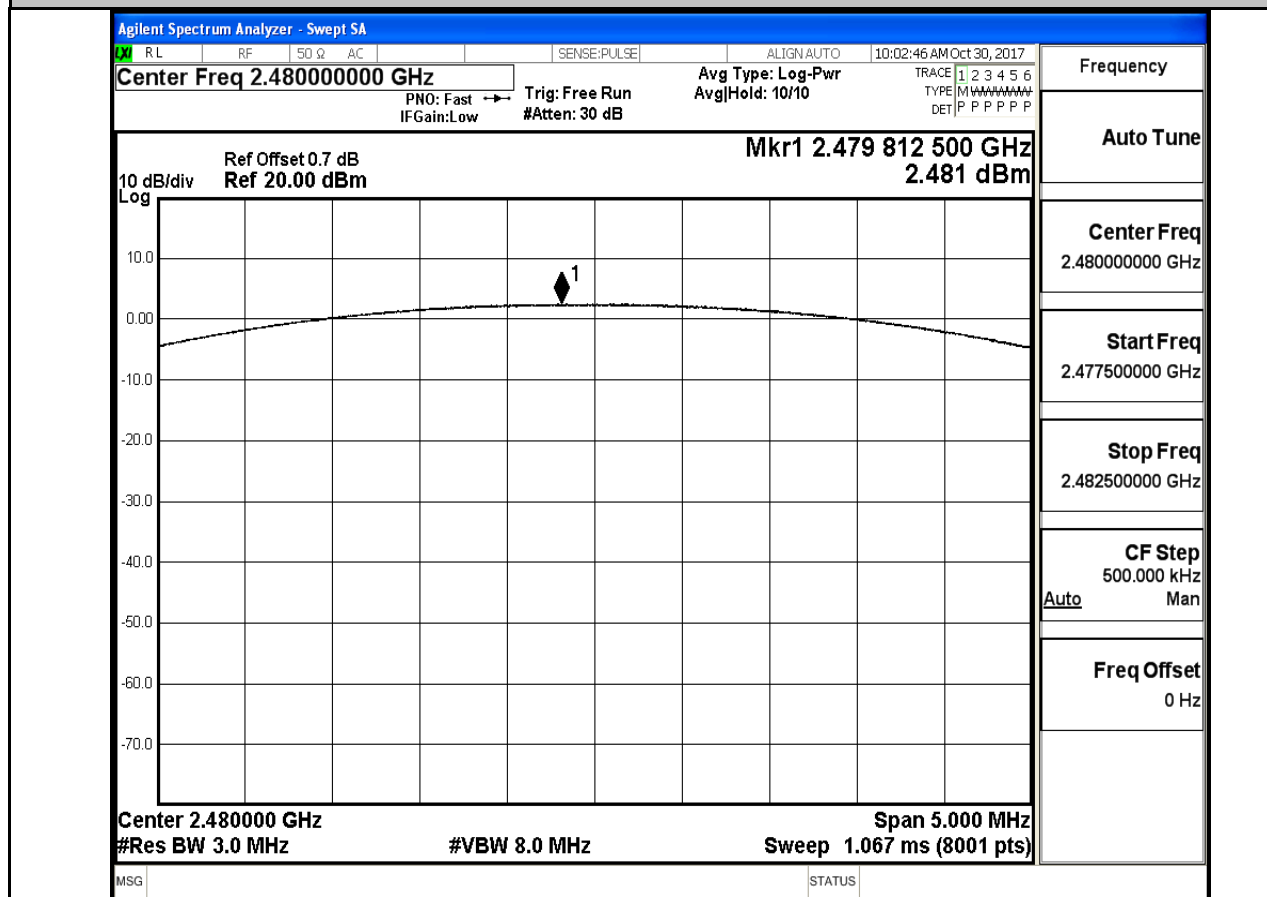
## Conducted Peak Output Power\_2DH5\_2402



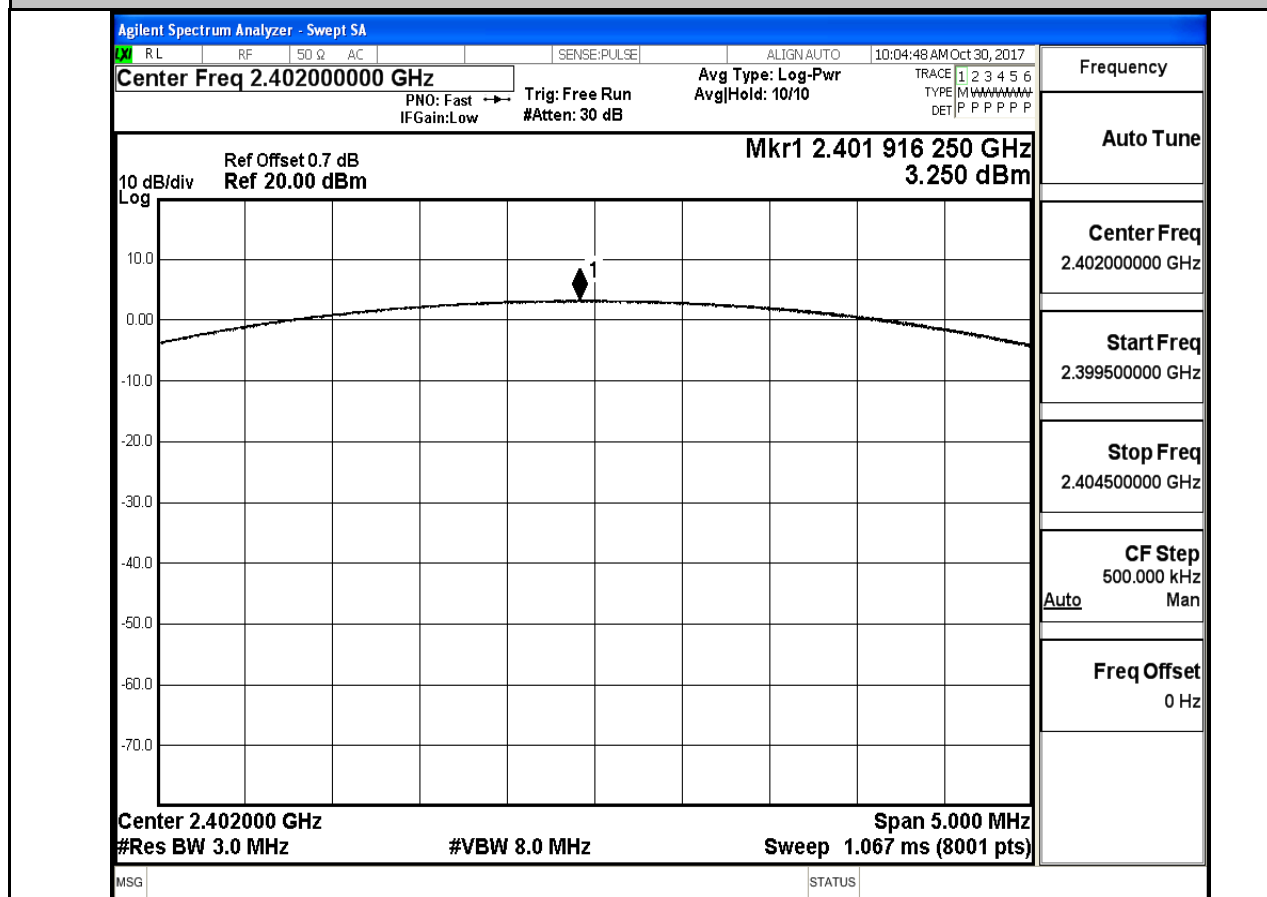
## Conducted Peak Output Power\_2DH5\_2441



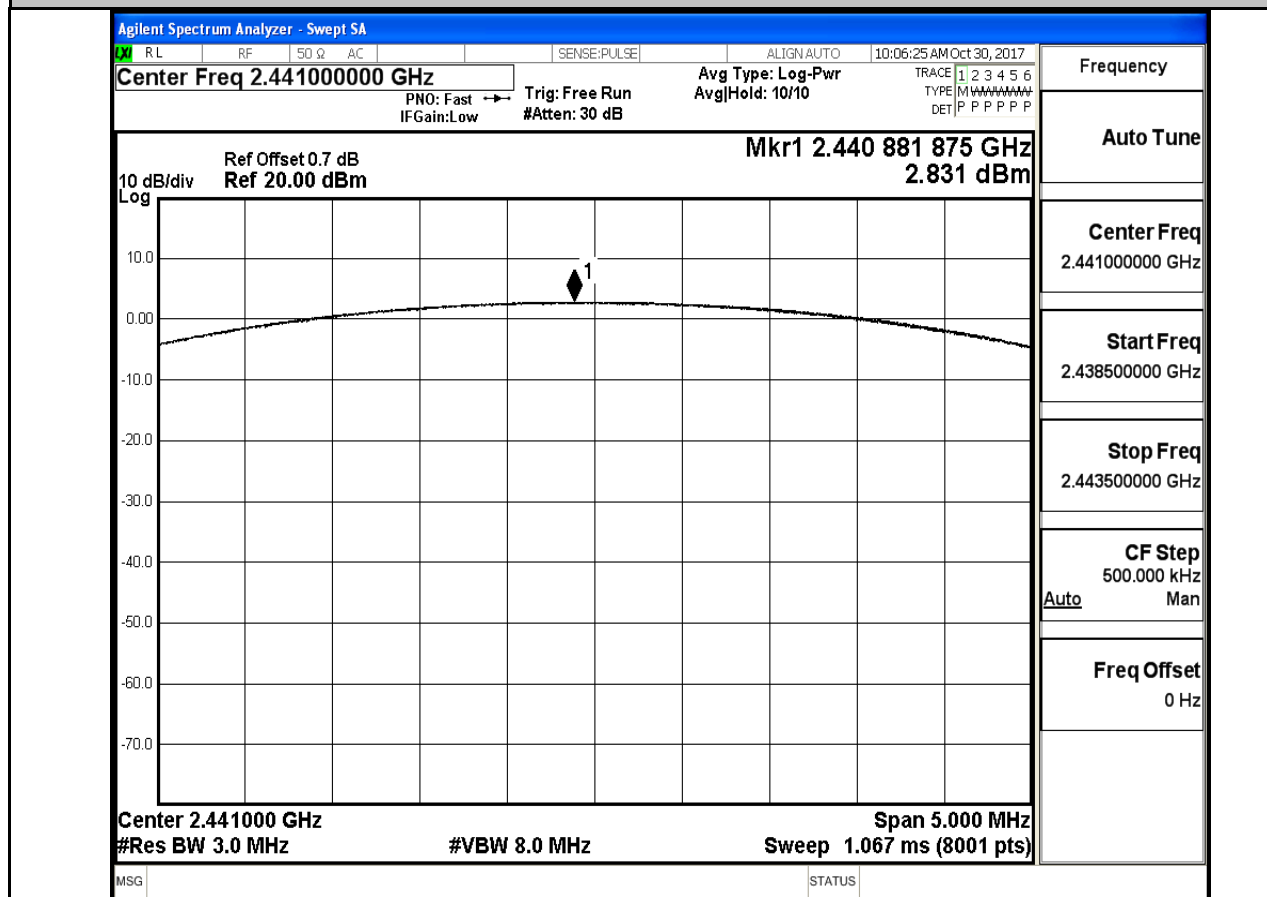
## Conducted Peak Output Power\_2DH5\_2480



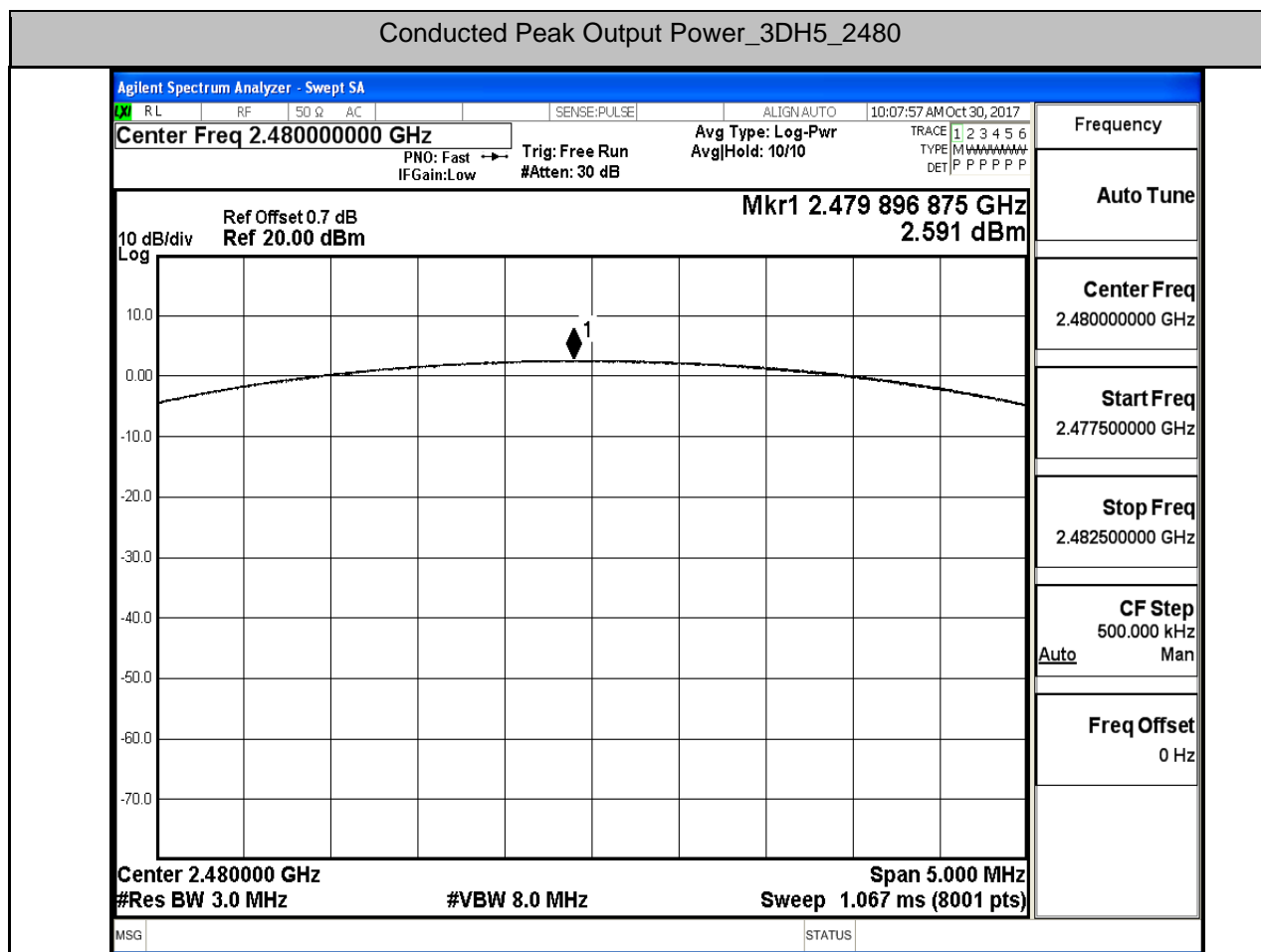
## Conducted Peak Output Power\_3DH5\_2402



## Conducted Peak Output Power\_3DH5\_2441



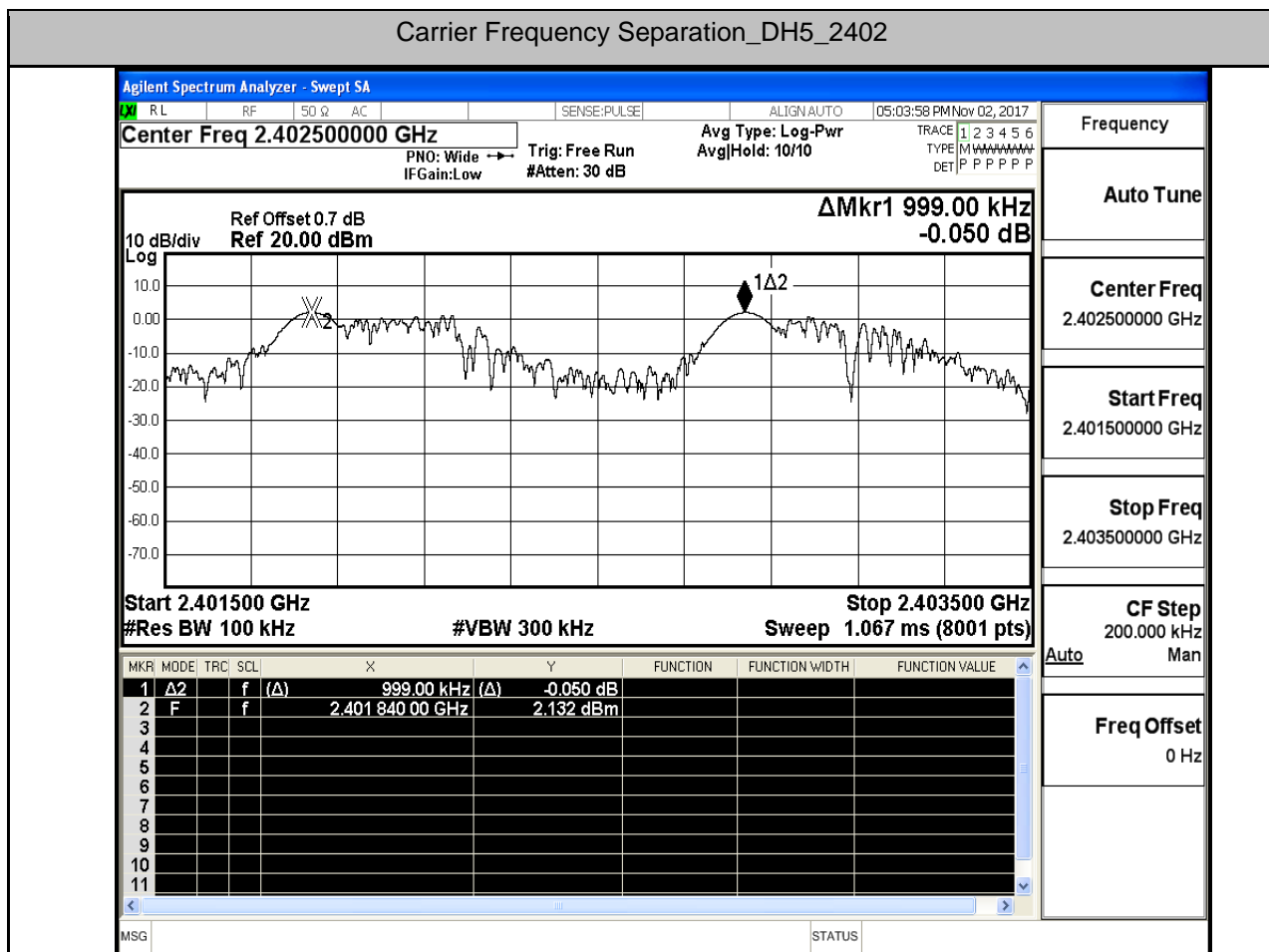
## Conducted Peak Output Power\_3DH5\_2480

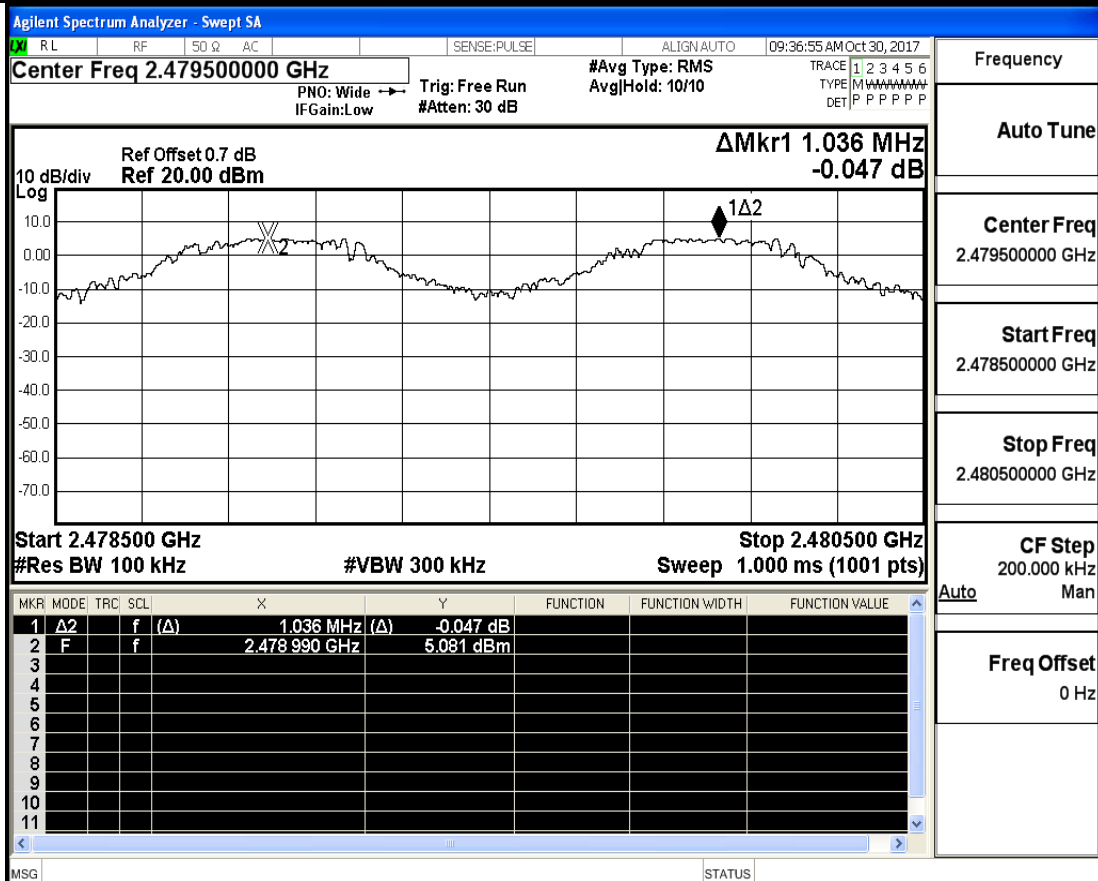


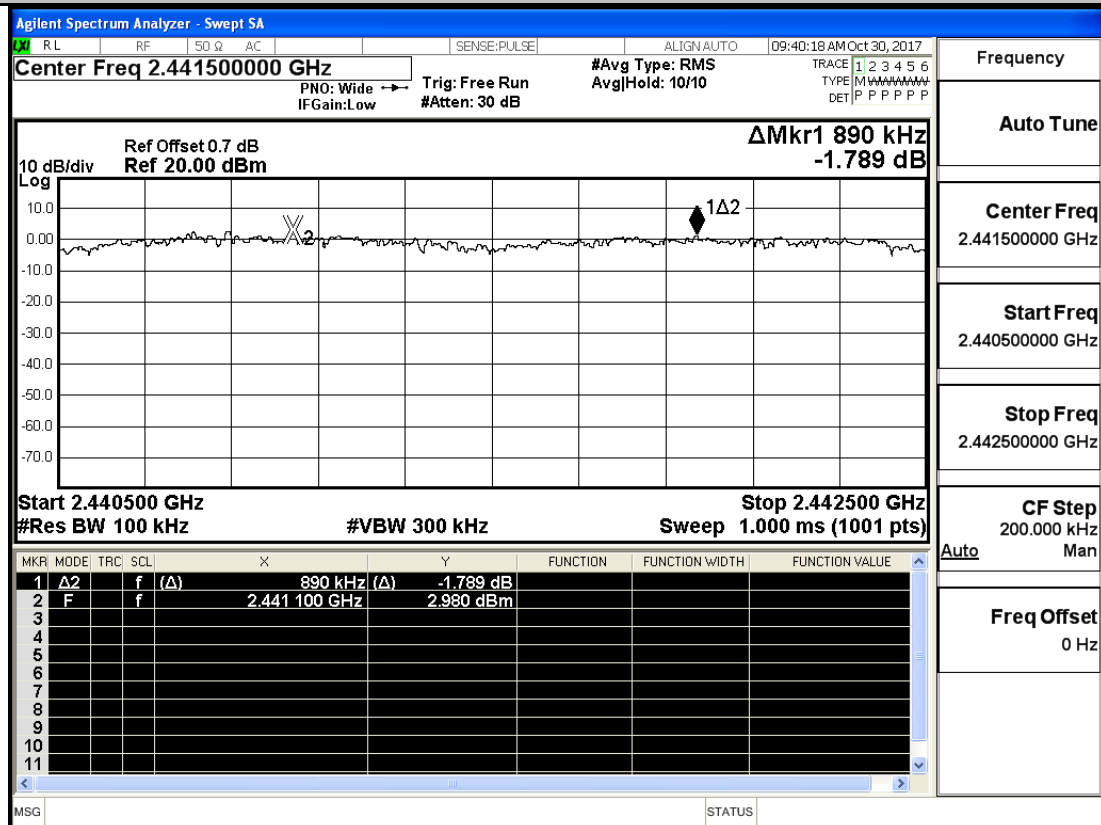
## 4.Carrier Frequency Separation

Test Mode	Test Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	2402	0.999	0.691	PASS
DH5	2441	0.994	0.691	PASS
DH5	2480	1.036	0.688	PASS
2DH5	2402	0.944	0.862	PASS
2DH5	2441	0.890	0.879	PASS
2DH5	2480	1.018	0.875	PASS
3DH5	2402	0.893	0.861	PASS
3DH5	2441	0.881	0.863	PASS
3DH5	2480	0.912	0.865	PASS

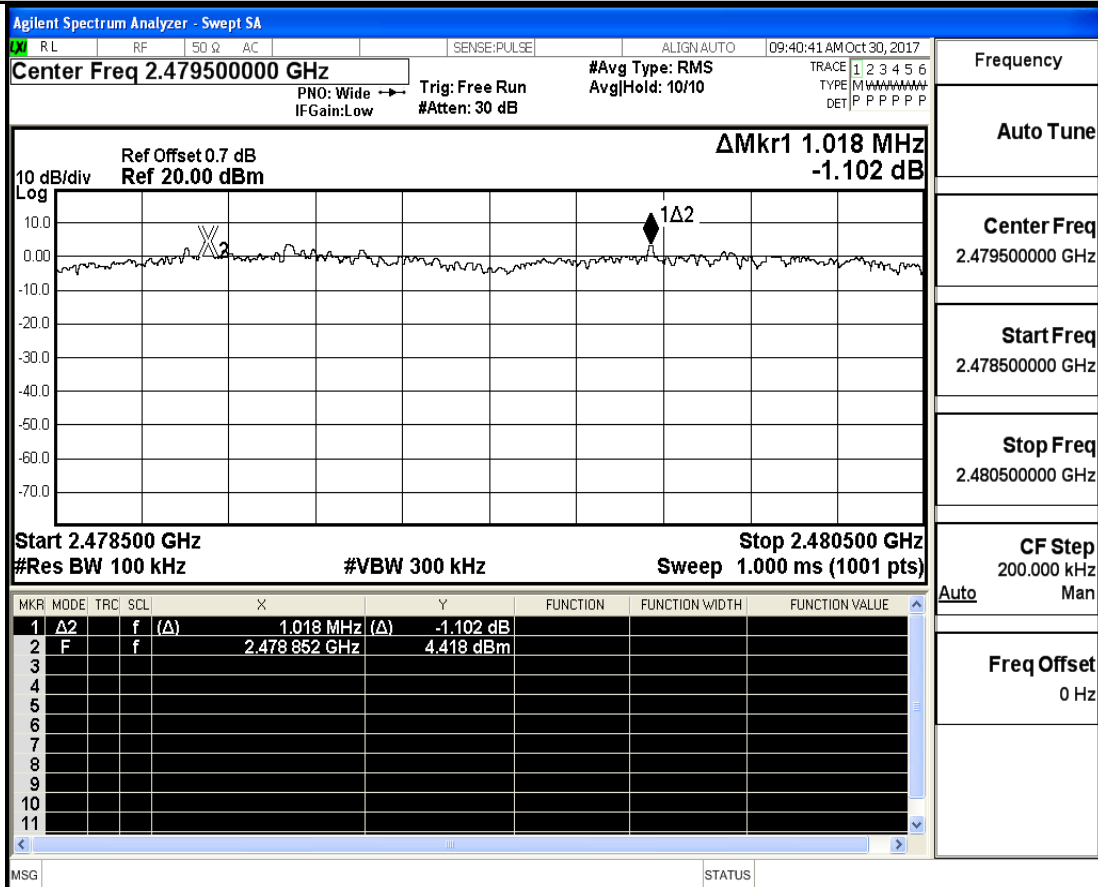
Carrier Frequency Separation\_DH5\_2402



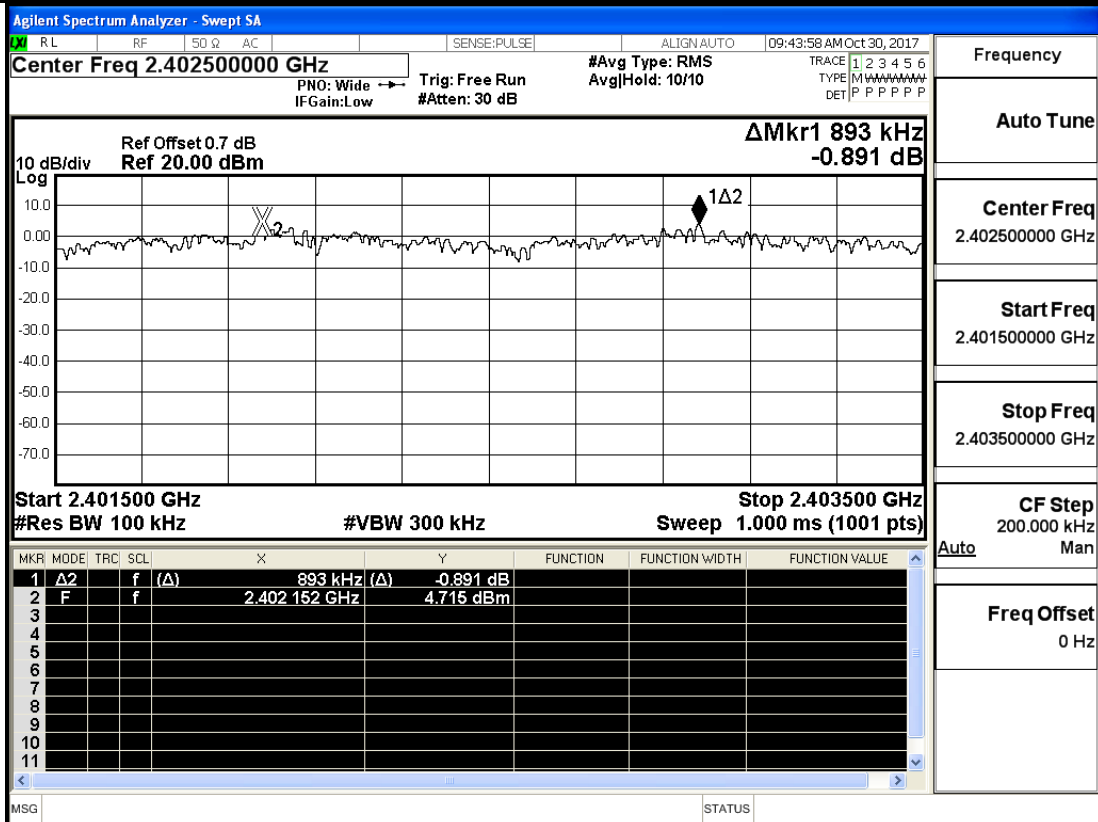




## Carrier Frequency Separation\_2DH5\_2480



## Carrier Frequency Separation\_3DH5\_2402







**5.Dwell Time**

Test Mode	Test Channel	Burst Width[ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit[s]	Verdict
DH5	2402	2.87	106.7	0.306	0.4	PASS
DH5	2441	2.87	106.7	0.306	0.4	PASS
DH5	2480	2.87	106.7	0.306	0.4	PASS
2DH5	2402	2.83	106.7	0.302	0.4	PASS
2DH5	2441	2.83	106.7	0.302	0.4	PASS
2DH5	2480	2.83	106.7	0.302	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

Agilent Spectrum Analyzer - Swept SA

R.L. RF 50 Ω AC SENSE:PULSE ALIGN AUTO 09:52:23 AM Oct 30, 2017

Center Freq 2.40200000 GHz Trig Delay-2.533 ms Avg Type: Log-Pwr TRACE 1 2 3 4 5 6  
PNO: Fast → IF Gain: Low Trig: Video TYPE W P P P P P DET P P P P P P

#Atten: 30 dB

ΔMkr1 2.874 ms -0.07 dB

10 dB/div Ref 20.00 dBm

Log

X2

1Δ2

TRIG LVL

Center 2.40200000 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	A2	t	(Δ)	2.874 ms	(Δ) -0.07 dB			
2	F	t	(Δ)	2.530 ms	1.02 dBm			
3								
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

Center Freq 2.40200000 GHz

Start Freq 2.40200000 GHz

Stop Freq 2.40200000 GHz

CF Step 1.000000 MHz  
Auto Man

Freq Offset 0 Hz

Dwell Time\_DH5\_2441

Agilent Spectrum Analyzer - Swept SA

R.L. RF 50 Ω AC SENSE:PULSE ALIGN AUTO 09:54:04 AM Oct 30, 2017

Center Freq 2.44100000 GHz Trig Delay-2.533 ms Avg Type: Log-Pwr TRACE 1 2 3 4 5 6  
PNO: Fast → IF Gain: Low Trig: Video TYPE W P P P P P DET P P P P P P

#Atten: 30 dB

ΔMkr1 2.873 ms -0.92 dB

10 dB/div Ref 20.00 dBm

Log

X2

1Δ2

TRIG LVL

Center 2.44100000 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	A2	t	(Δ)	2.873 ms	(Δ) -0.92 dB			
2	F	t	(Δ)	2.531 ms	2.38 dBm			
3								
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

Center Freq 2.44100000 GHz

Start Freq 2.44100000 GHz

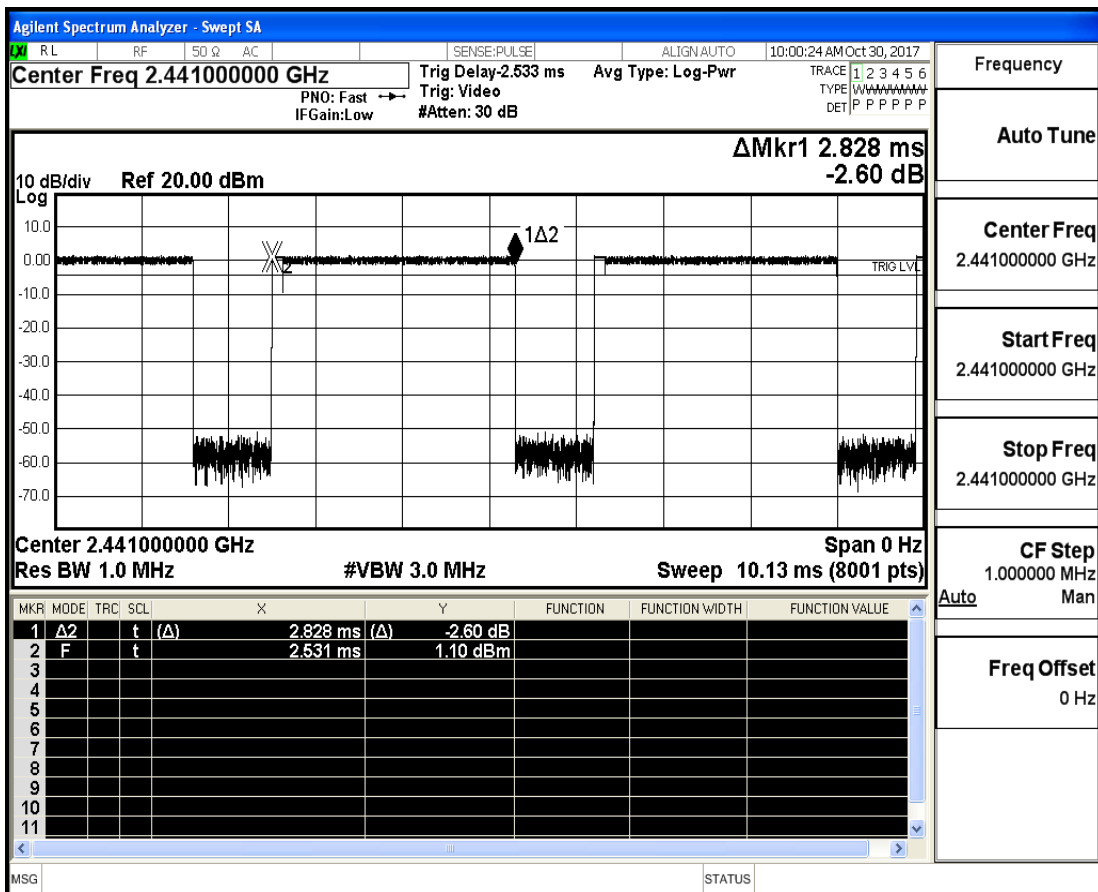
Stop Freq 2.44100000 GHz

CF Step 1.000000 MHz  
Auto Man

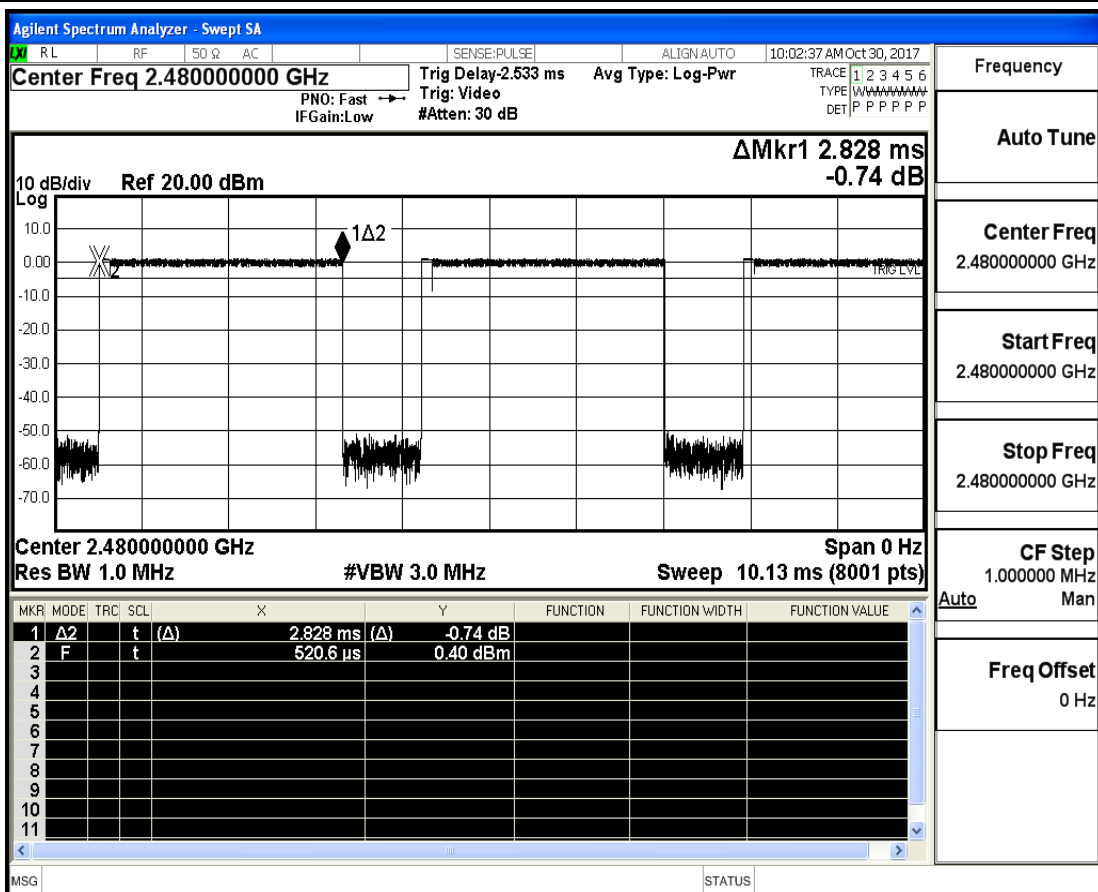
Freq Offset 0 Hz

[illegible]

## Dwell Time\_2DH5\_2441



## Dwell Time\_2DH5\_2480



Dwell Time\_3DH5\_2402

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:PULSE ALIGN AUTO 10:04:37 AM Oct 30, 2017

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

ΔMkr1 2.879 ms  
-1.00 dB

10 dB/div Ref 20.00 dBm Log

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	Δ2	t	(Δ)	2.879 ms	-1.00 dB			
2	F	t		317.9 μs	0.36 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 Man

Freq Offset 0 Hz

Dwell Time\_3DH5\_2441

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE:PULSE ALIGN AUTO 10:06:16 AM Oct 30, 2017

Center Freq 2.441000000 GHz Trig Delay-2.533 ms Avg Type: Log-Pwr  
PNO: Fast → IF Gain: Low #Atten: 30 dB TRACE 1 2 3 4 5 6 TYPE WWWWWWWW DET P P P P P P

ΔMkr1 2.878 ms  
-1.13 dB

Center 2.441000000 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)	2.878 ms	-1.13 dB			
2	F	t		2.399 ms	1.09 dBm			
3								
4								
5								
6								
7								
8								
9								
10								
11								

MSG STATUS

Frequency

Auto Tune

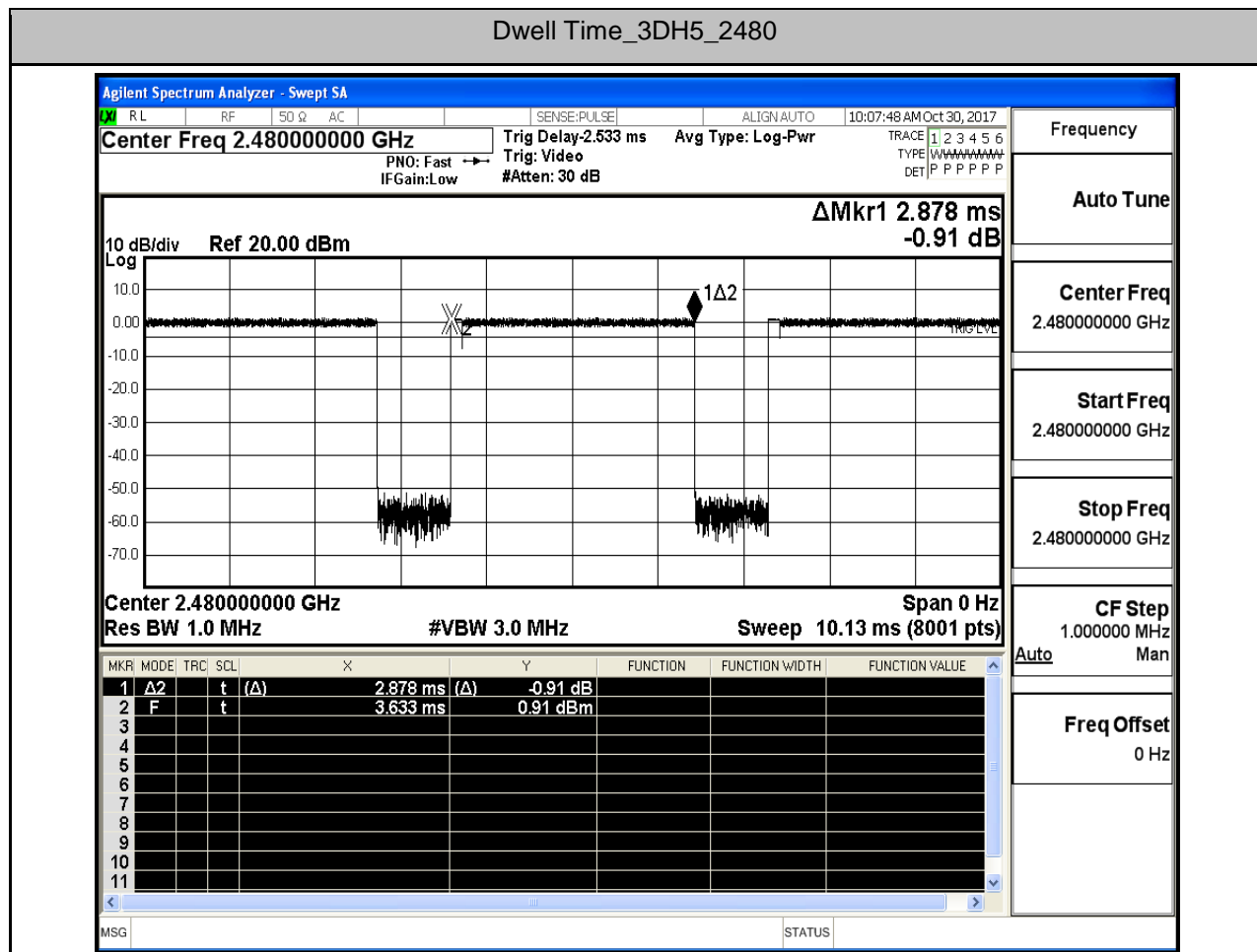
Center Freq 2.441000000 GHz

Start Freq 2.441000000 GHz

Stop Freq 2.441000000 GHz

CF Step 1.000000 MHz Man

Freq Offset 0 Hz

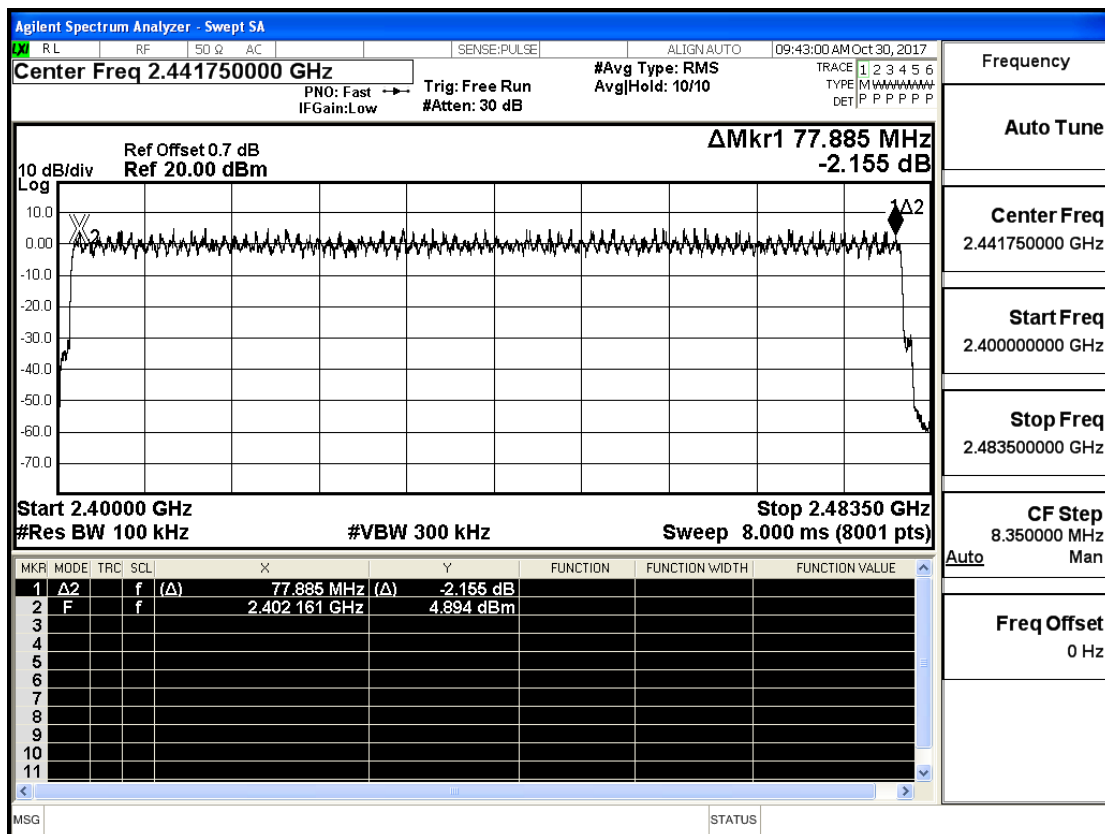


**6.Hopping Channel Number**

Test Mode	Test Channel	Number of Hopping Channel[N]	Limit[N]	Verdict
DH5	2402	79	$\geq 15$	PASS
2DH5	2402	79	$\geq 15$	PASS
3DH5	2402	79	$\geq 15$	PASS



## Hopping Channel Number\_2DH5\_2402



**Agilent Spectrum Analyzer - Swept SA**

RL RF 50 Ω AC SENSE: PULSE ALIGN AUTO 09:48:11 AM Oct 30, 2017

**Center Freq 2.441750000 GHz**

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

TRACE 1 2 3 4 5 6 TYPE [M] W X Y Z DET [P] P P P P P

**ΔMkr1 78.229 MHz 0.043 dB**

Ref Offset 0.7 dB Ref 20.00 dBm

10 dB/div Log

Start 2.40000 GHz Res BW 100 kHz Sweep 8.000 ms (8001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	Δ2	f	(Δ)	78.229 MHz (Δ)	0.043 dB			
2	F	f		2.401837 GHz	4.245 dBm			
3								
4								
5								
6								
7								
8								
9								
10								
11								

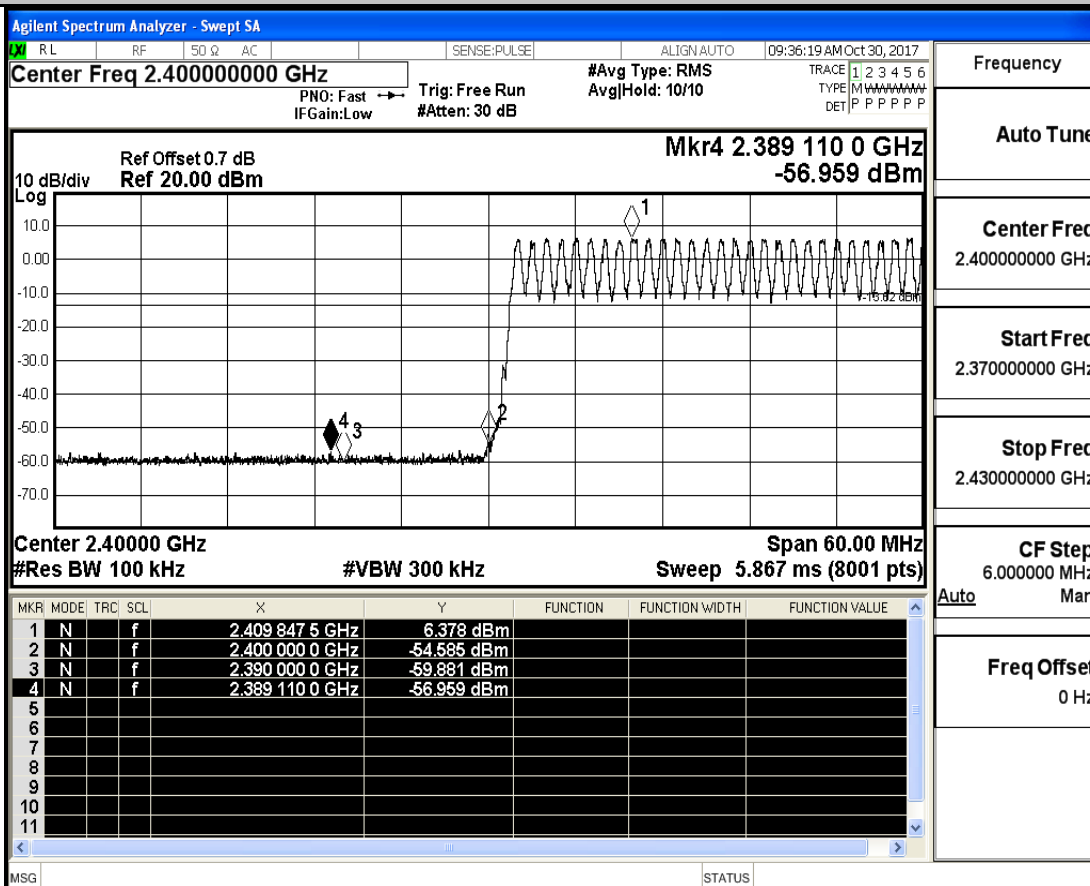
Auto Tune Center Freq 2.441750000 GHz Start Freq 2.400000000 GHz Stop Freq 2.483500000 GHz CF Step 8.350000 MHz Man

Freq Offset 0 Hz

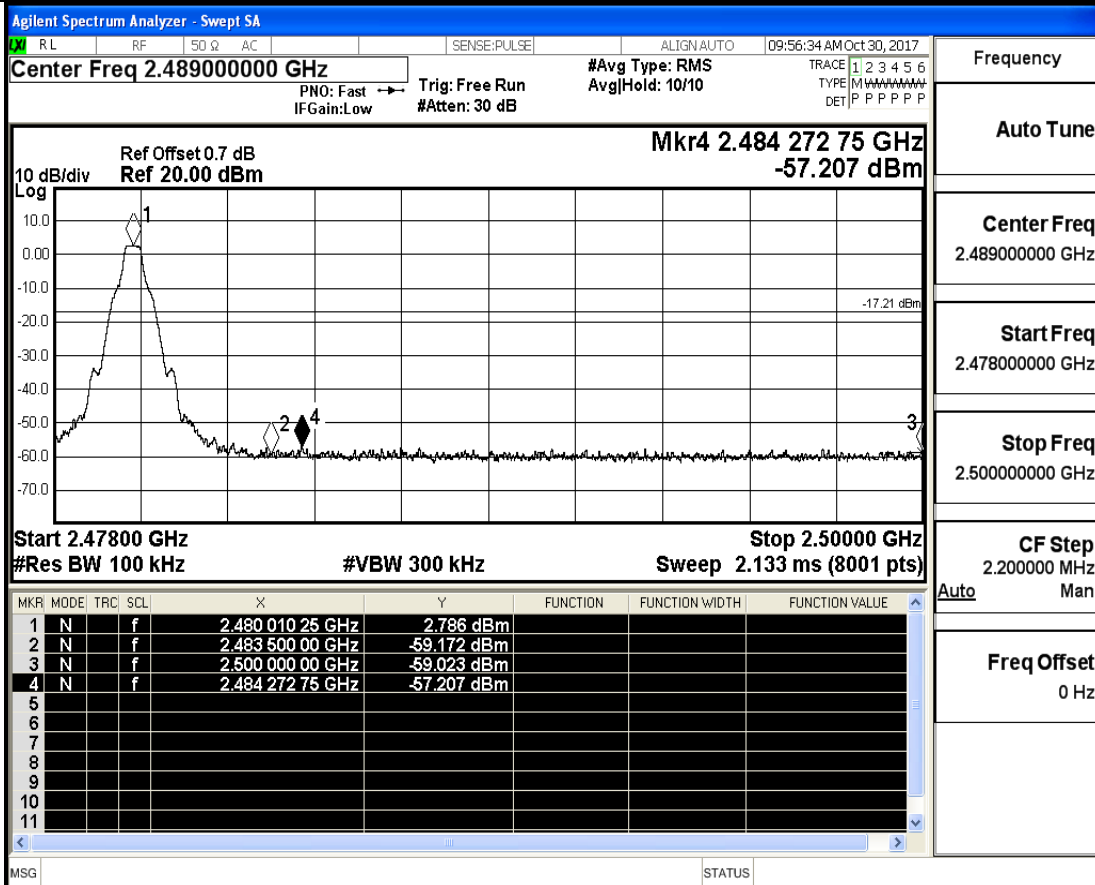
**7.Band-edge for RF Conducted Emissions**

Test Mode	Test Channel	Hopping	Carrier Power[dBm]	Max. Spurious Level [dBm]	Limit[dBm]	Verdict
DH5	2402	Off	3.565	-57.656	-16.44	PASS
DH5	2402	On	6.378	-56.959	-13.62	PASS
DH5	2480	Off	2.786	-57.207	-17.21	PASS
DH5	2480	On	6.228	-56.213	-13.77	PASS
2DH5	2402	Off	2.224	-56.273	-17.78	PASS
2DH5	2402	On	5.081	-57.016	-14.92	PASS
2DH5	2480	Off	1.758	-57.141	-18.24	PASS
2DH5	2480	On	4.932	-56.305	-15.07	PASS
3DH5	2402	Off	2.279	-57.566	-17.72	PASS
3DH5	2402	On	4.859	-56.983	-15.14	PASS
3DH5	2480	Off	1.632	-56.943	-18.37	PASS
3DH5	2480	On	4.923	-56.335	-15.08	PASS

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N		f	2.402 003 GHz	3.565 dBm			
2	N		f	2.400 000 GHz	-55.008 dBm			
3	N		f	2.390 000 GHz	-60.177 dBm			
4	N		f	2.346 707 GHz	-57.656 dBm			
5								
6								
7								
8								
9								
10								
11								



## Band-edge for RF Conducted Emissions\_DH5\_2480\_Hopping Off

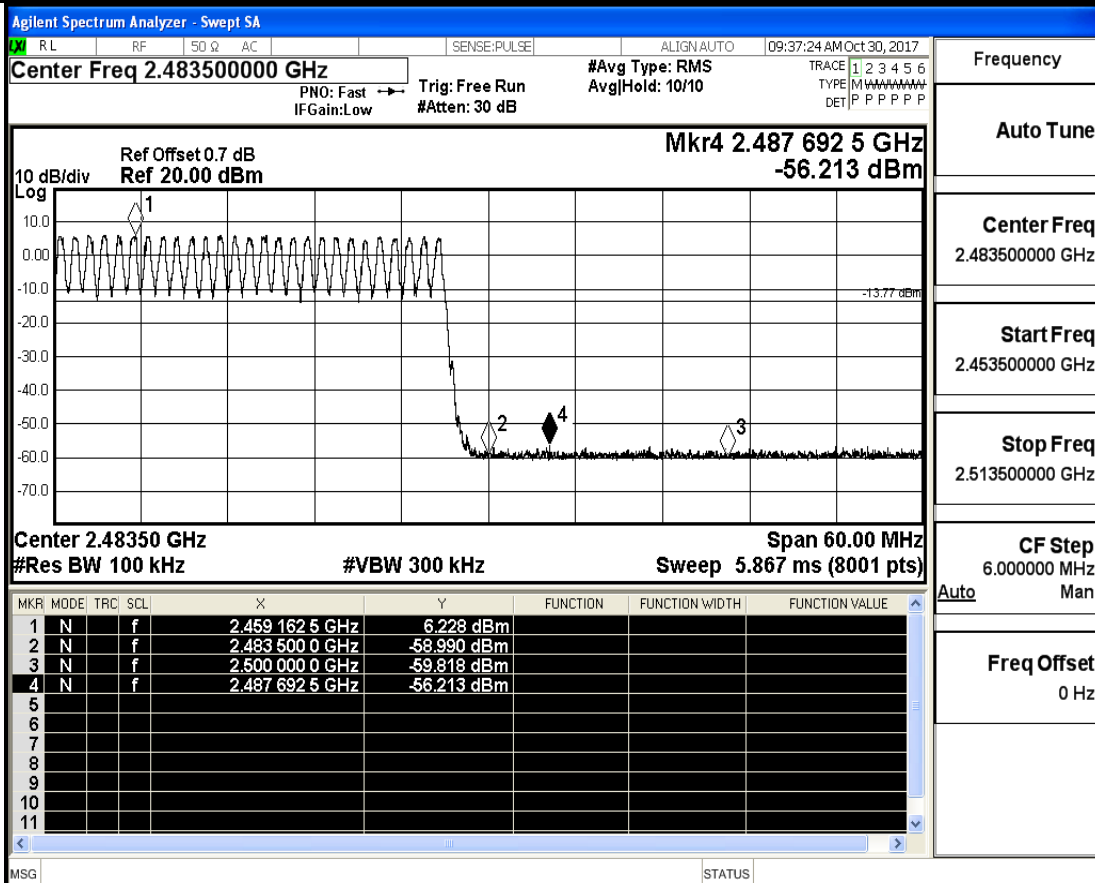


Frequency

Auto Tune

Center Freq  
2.489000000 GHzStart Freq  
2.478000000 GHzStop Freq  
2.500000000 GHzCF Step  
2.200000 MHz  
Auto ManFreq Offset  
0 Hz

## Band-edge for RF Conducted Emissions\_DH5\_2480\_Hopping On



Frequency

Auto Tune

Center Freq  
2.483500000 GHzStart Freq  
2.453500000 GHzStop Freq  
2.513500000 GHzCF Step  
6.000000 MHz  
Auto ManFreq Offset  
0 Hz



## Agilent Spectrum Analyzer - Swept SA

Frequency

### Auto Tune

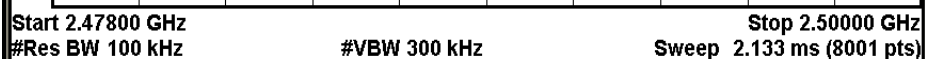
**Center Freq**  
489000000 GHz

**Start Freq**  
2.478000000 GHz

**Stop Freq**  
2.500000000 GHz

**CF Step**  
2.200000 MHz  
Auto Man

**Freq Offset**  
0 Hz



MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N		f	2.479 848 00 GHz	1.758 dBm			
2	N		f	2.483 500 00 GHz	-59.454 dBm			
3	N		f	2.500 000 00 GHz	-60.108 dBm			
4	N		f	2.493 356 00 GHz	-57.141 dBm			
5								
6								
7								
8								
9								
10								
11								

MSG

STATUS
--------

## Agilent Spectrum Analyzer - Swept SA

Frequency

**Auto Tune**

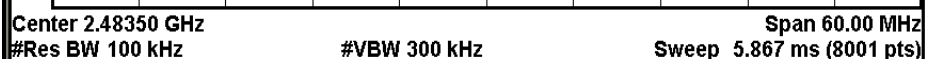
**Center Freq**  
2.483500000 GHz

**Start Freq**  
2.453500000 GHz

**Stop Freq**  
2.51350000 GHz

**CF Step**  
6.000000 MHz  
Auto Man

**Freq Offset**  
0 Hz



MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N		f	2.460 850 0 GHz	4.932 dBm			
2	N		f	2.483 500 0 GHz	-58.975 dBm			
3	N		f	2.500 000 0 GHz	-59.002 dBm			
4	N		f	2.495 297 5 GHz	-56.305 dBm			
5								
6								
7								
8								
9								
10								
11								

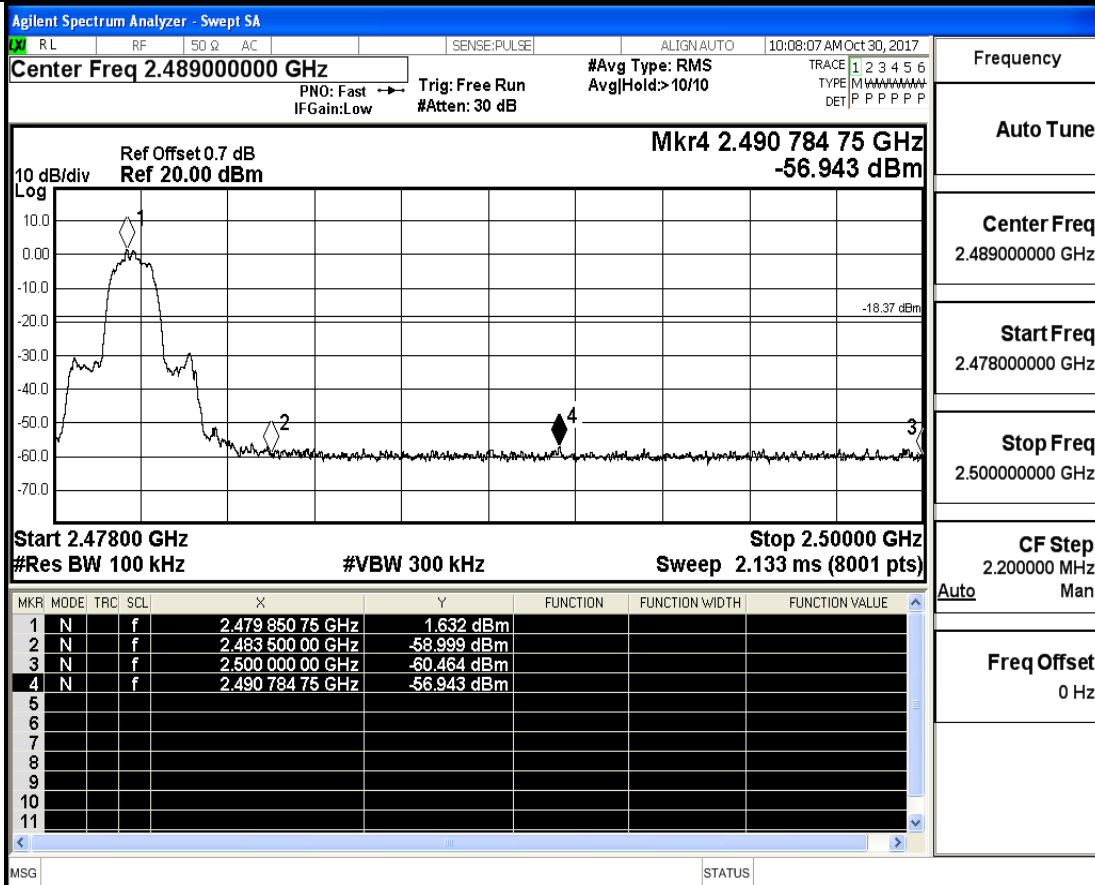
MSG

STATUS
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## Band-edge for RF Conducted Emissions\_3DH5\_2480\_Hopping Off

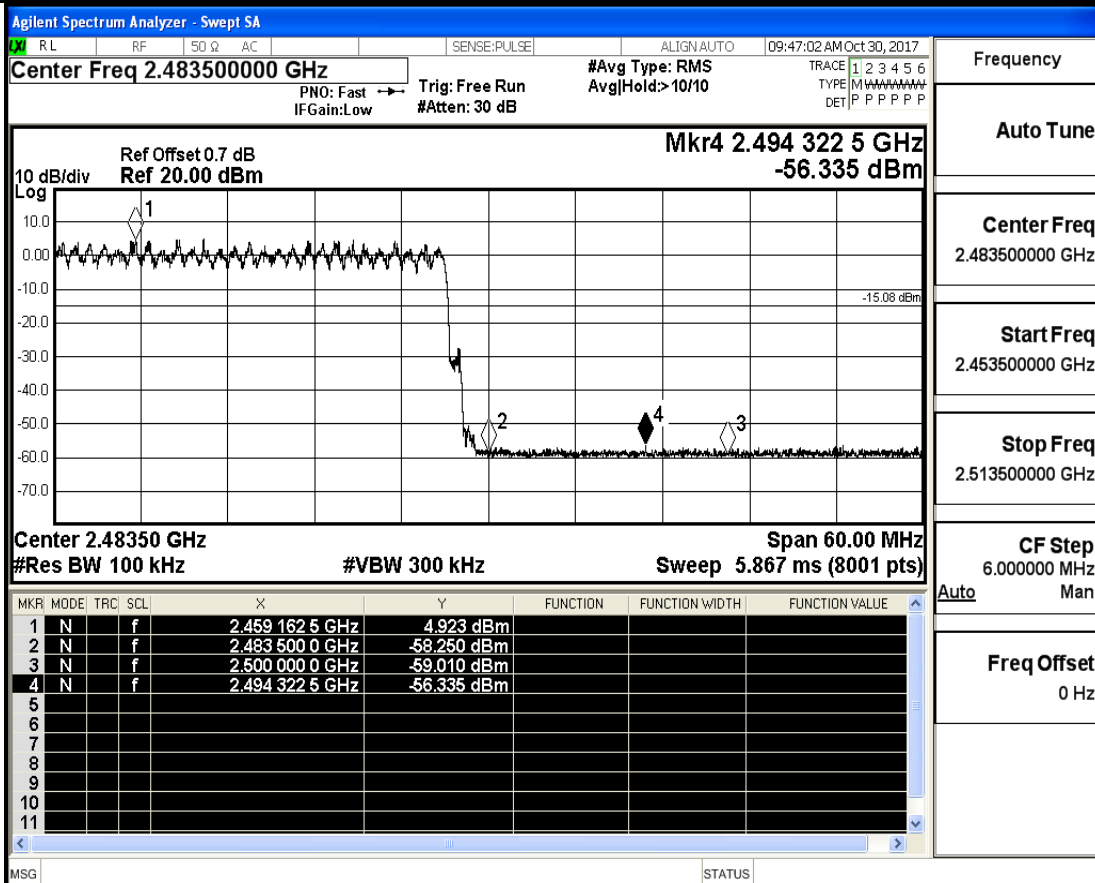


Frequency

Auto Tune

Center Freq  
2.489000000 GHzStart Freq  
2.478000000 GHzStop Freq  
2.500000000 GHzCF Step  
2.200000 MHz  
Auto ManFreq Offset  
0 Hz

## Band-edge for RF Conducted Emissions\_3DH5\_2480\_Hopping On



Frequency

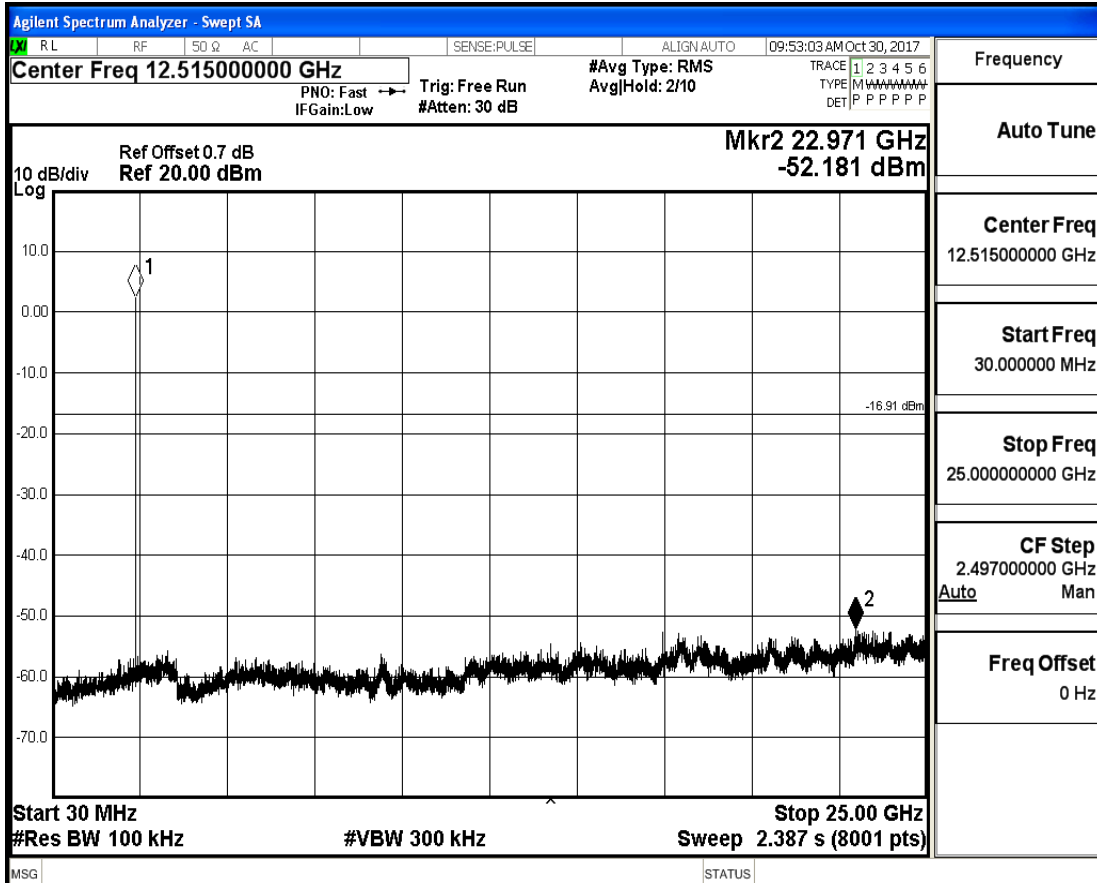
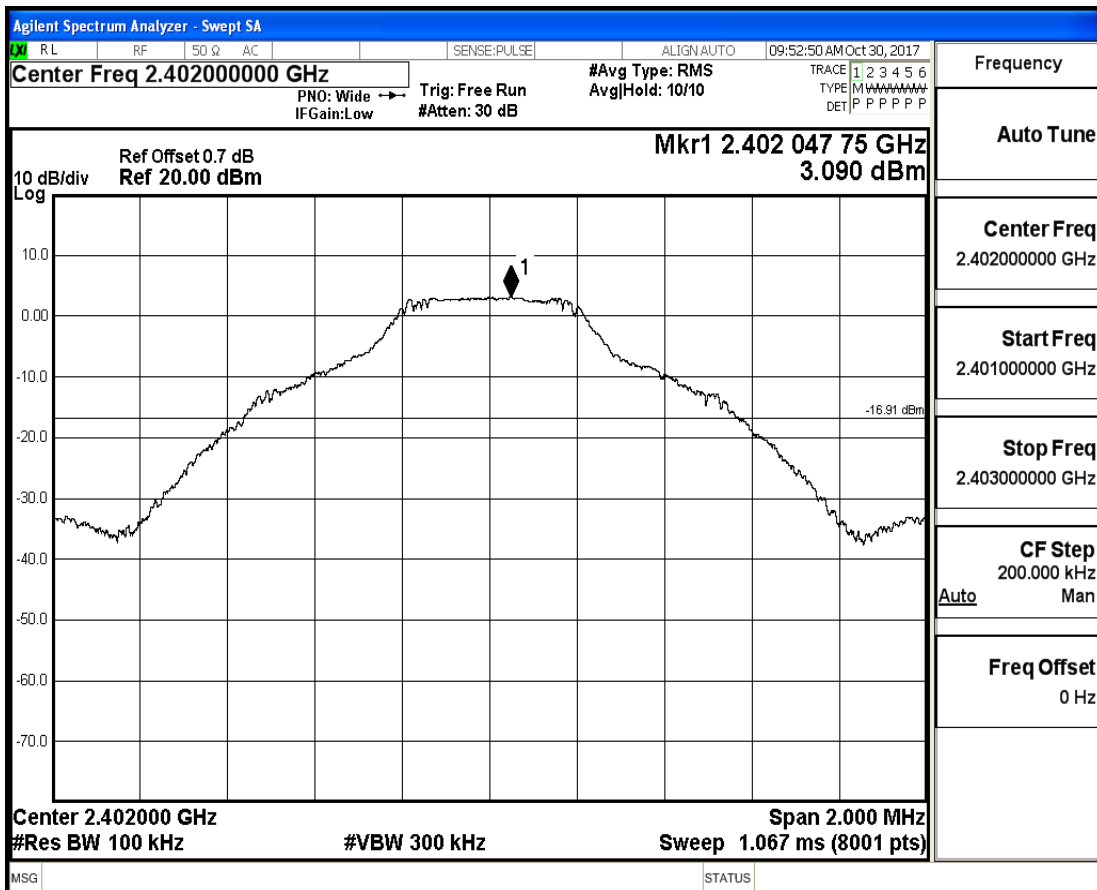
Auto Tune

Center Freq  
2.483500000 GHzStart Freq  
2.453500000 GHzStop Freq  
2.513500000 GHzCF Step  
6.000000 MHz  
Auto ManFreq Offset  
0 Hz

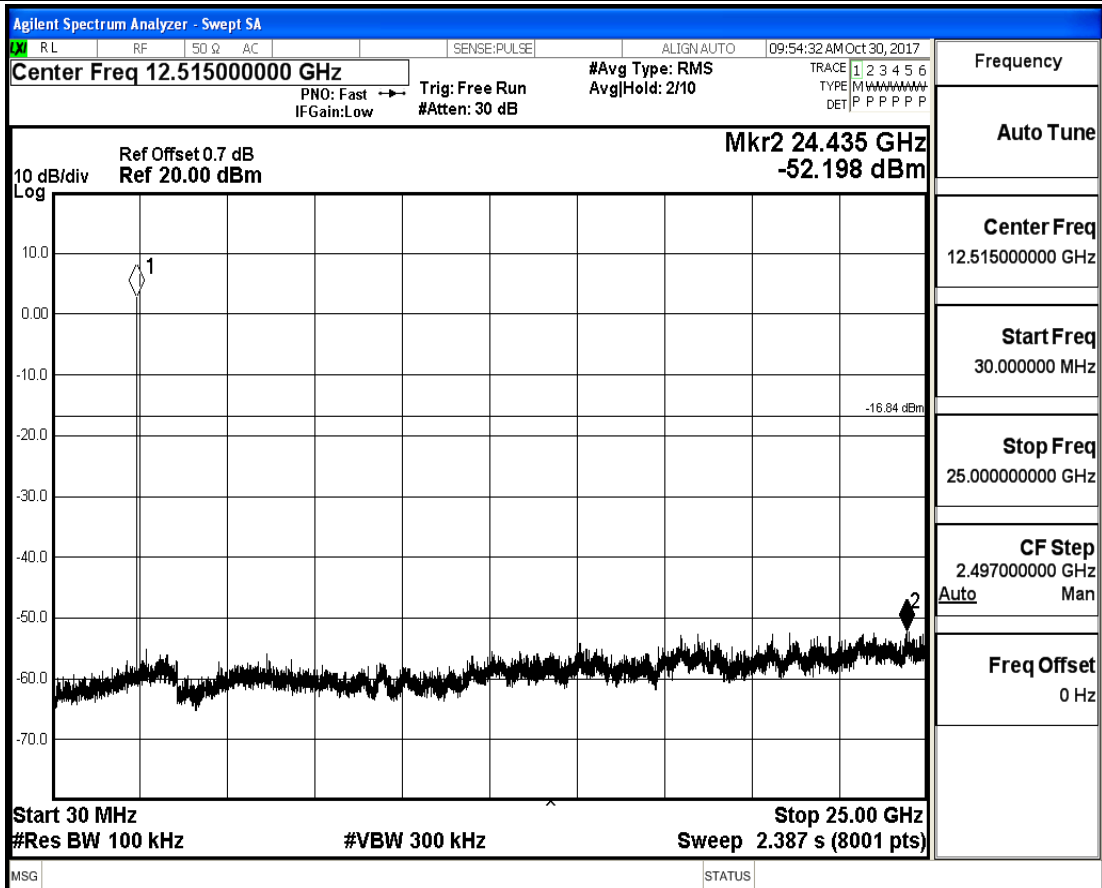
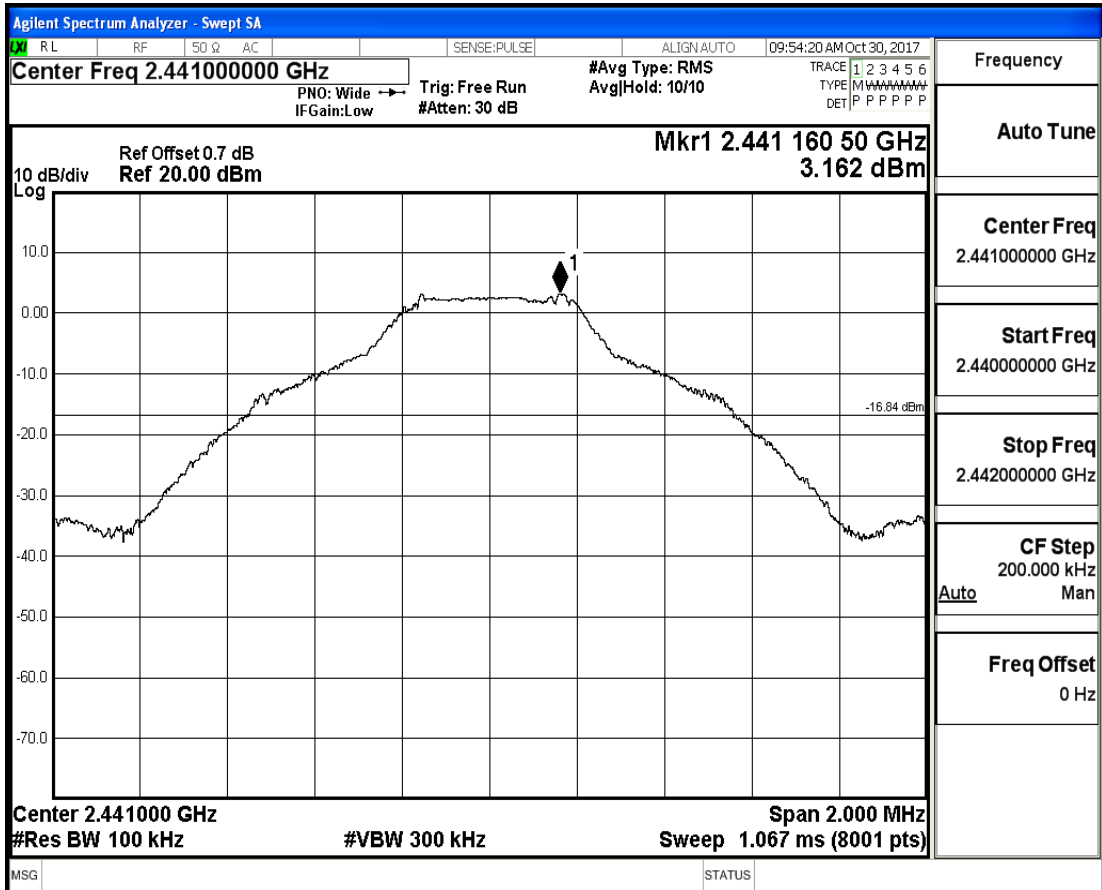
**8.RF Conducted Spurious Emissions**

Test Mode	Test Channel	StartFre [MHz]	StopFre [MHz]	RBW [kHz]	VBW [kHz]	Pref[dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
DH5	2402	30	25000	100	300	3.09	-52.181	<-16.91	PASS
DH5	2441	30	25000	100	300	3.162	-52.198	<-16.838	PASS
DH5	2480	30	25000	100	300	2.745	-51.792	<-17.255	PASS
2DH5	2402	30	25000	100	300	1.463	-51.433	<-18.537	PASS
2DH5	2441	30	25000	100	300	1.655	-51.776	<-18.345	PASS
2DH5	2480	30	25000	100	300	1.003	-51.085	<-18.997	PASS
3DH5	2402	30	25000	100	300	2.147	-52.292	<-17.853	PASS
3DH5	2441	30	25000	100	300	0.91	-51.284	<-19.09	PASS
3DH5	2480	30	25000	100	300	0.956	-51.605	<-19.044	PASS

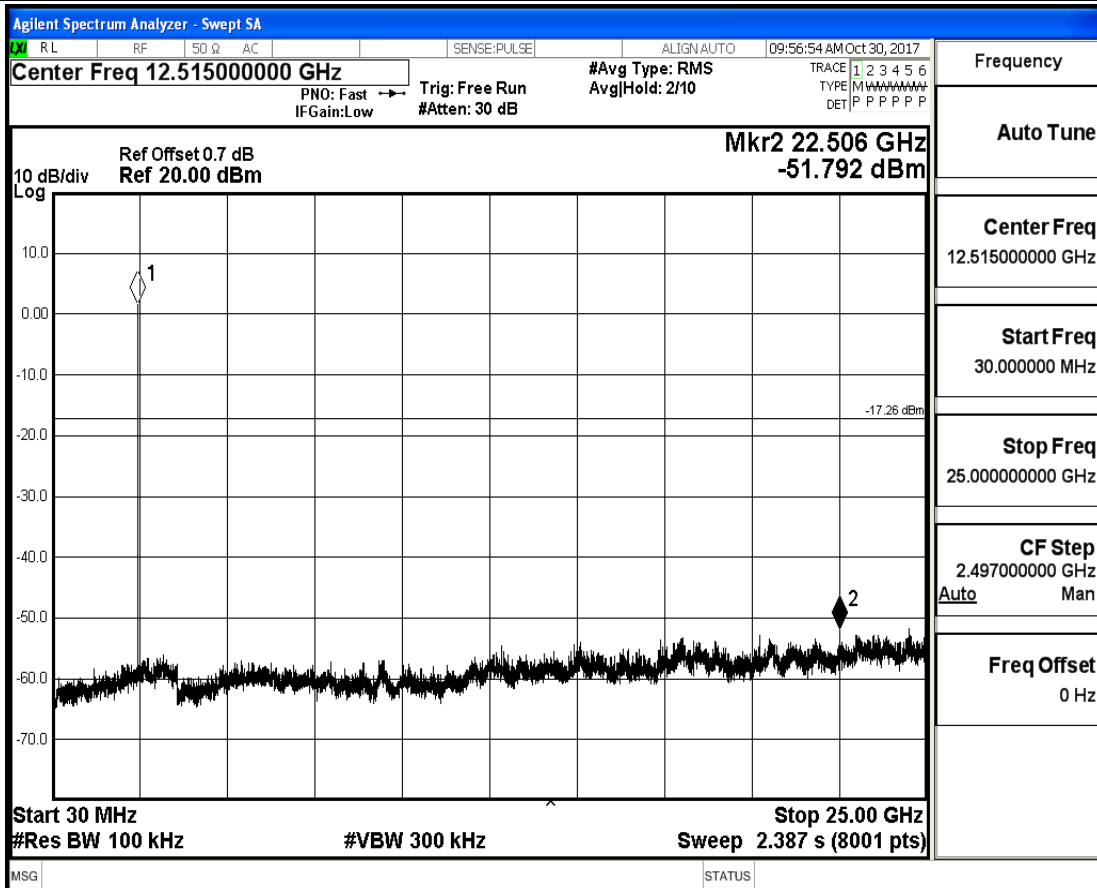
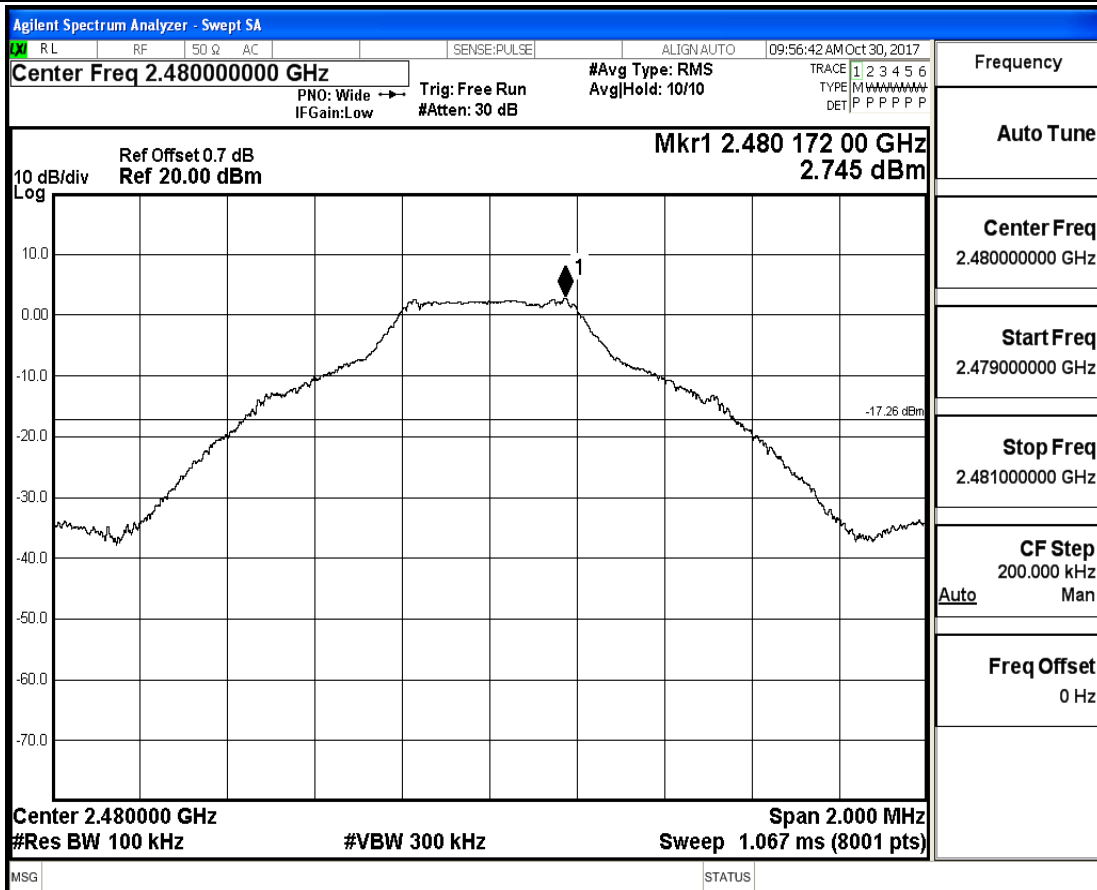
## RF Conducted Spurious Emissions\_DH5\_2402



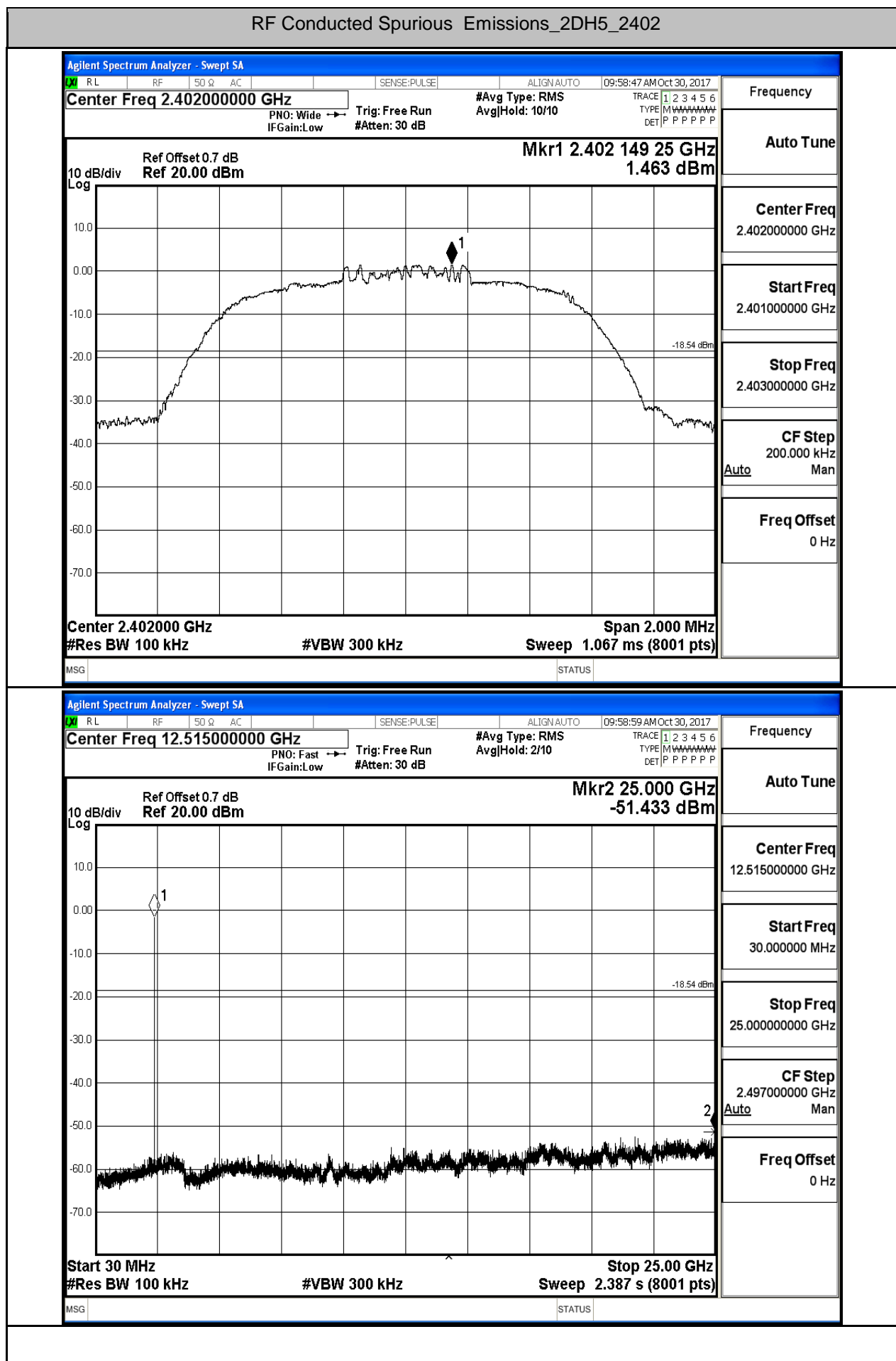
## RF Conducted Spurious Emissions\_DH5\_2441



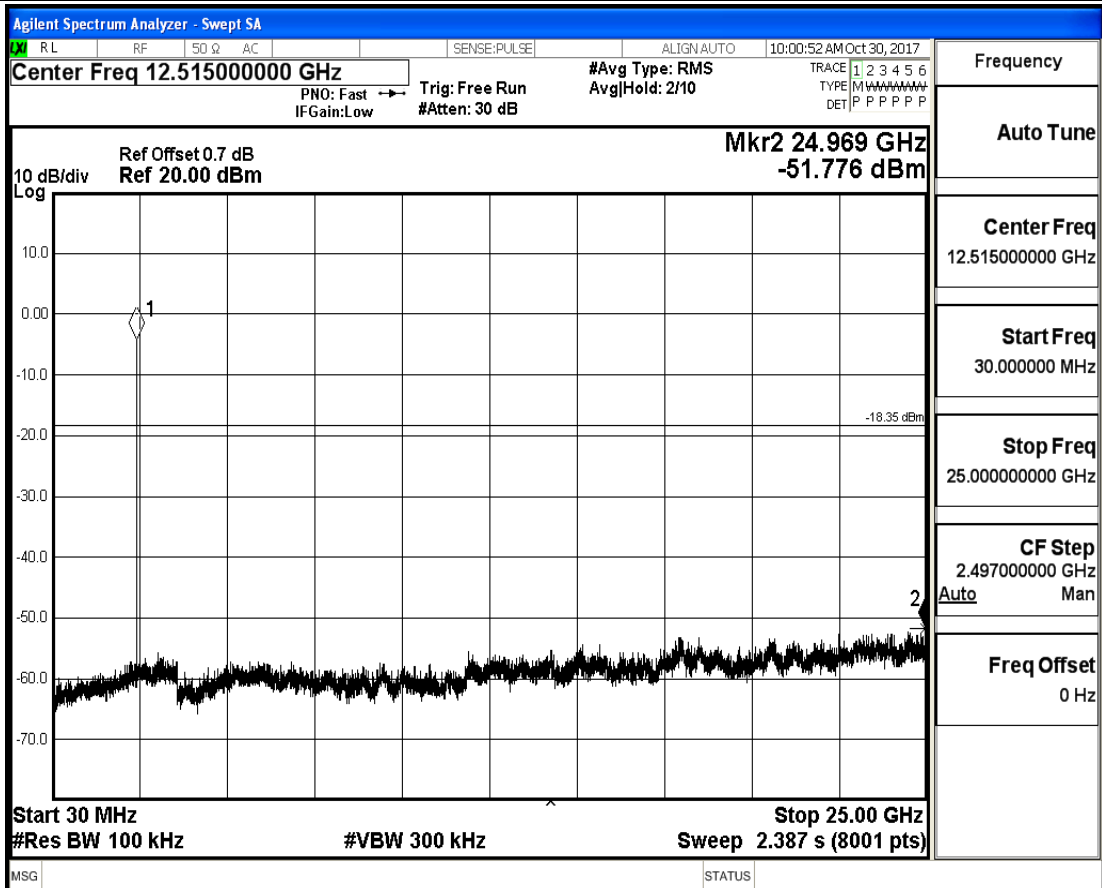
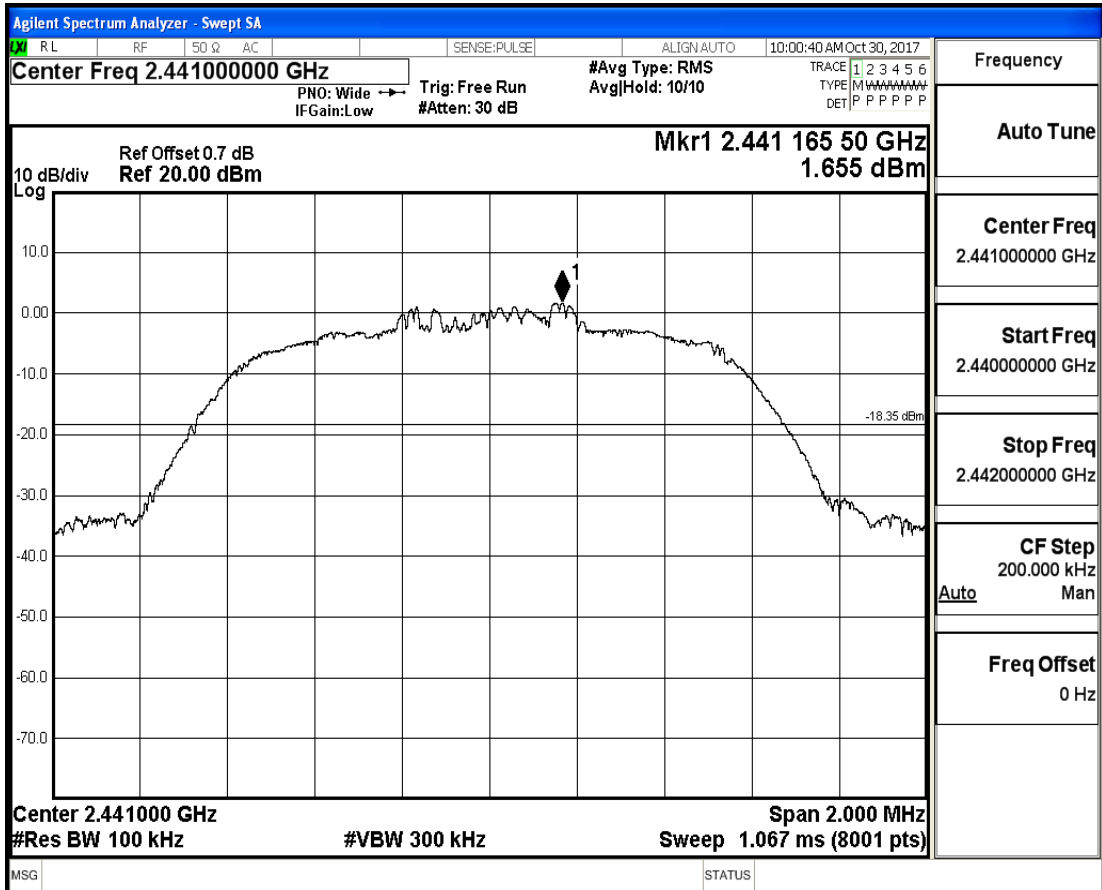
## RF Conducted Spurious Emissions\_DH5\_2480



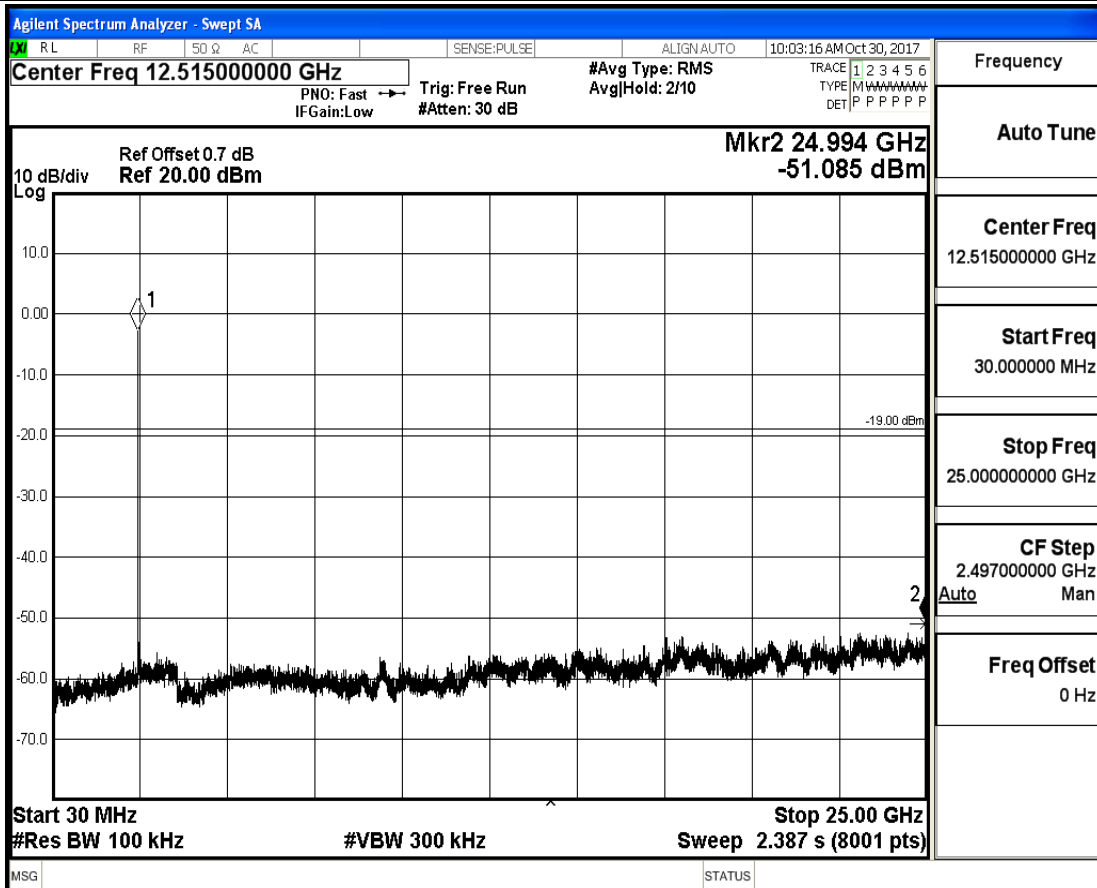
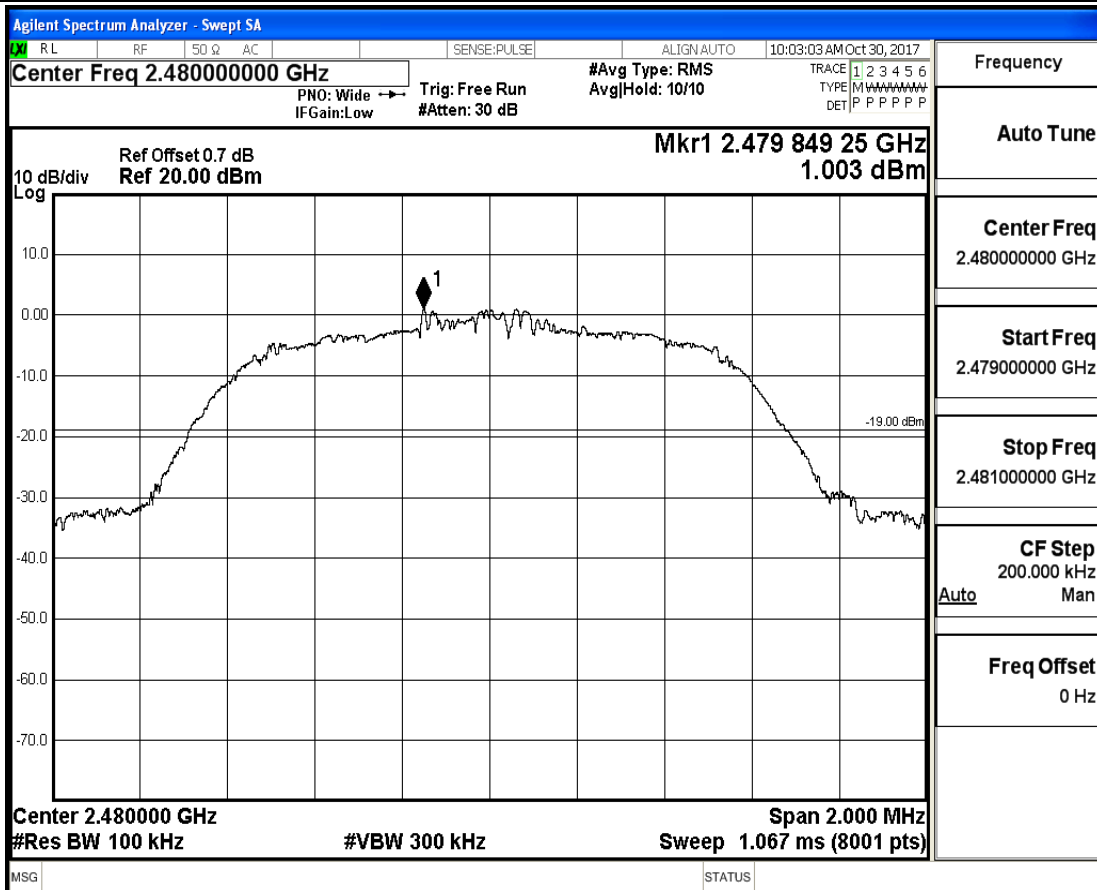
## RF Conducted Spurious Emissions\_2DH5\_2402



## RF Conducted Spurious Emissions\_2DH5\_2441

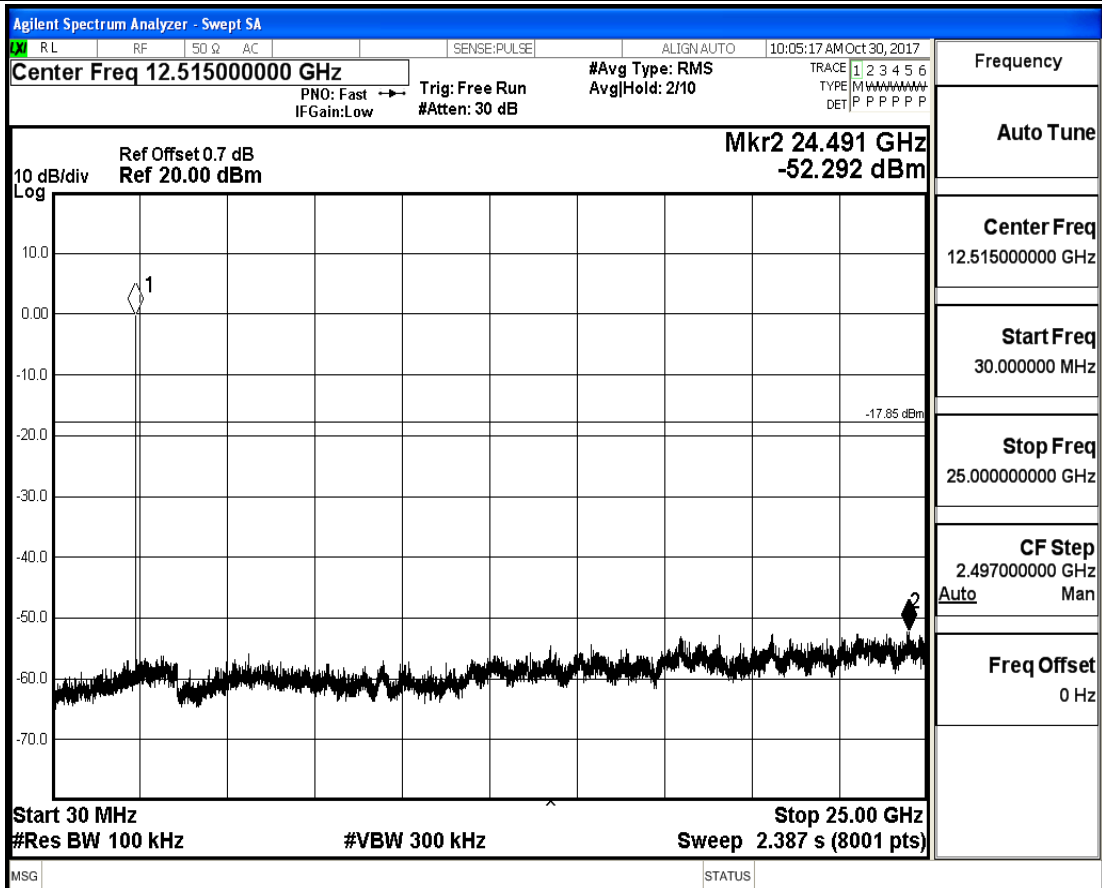
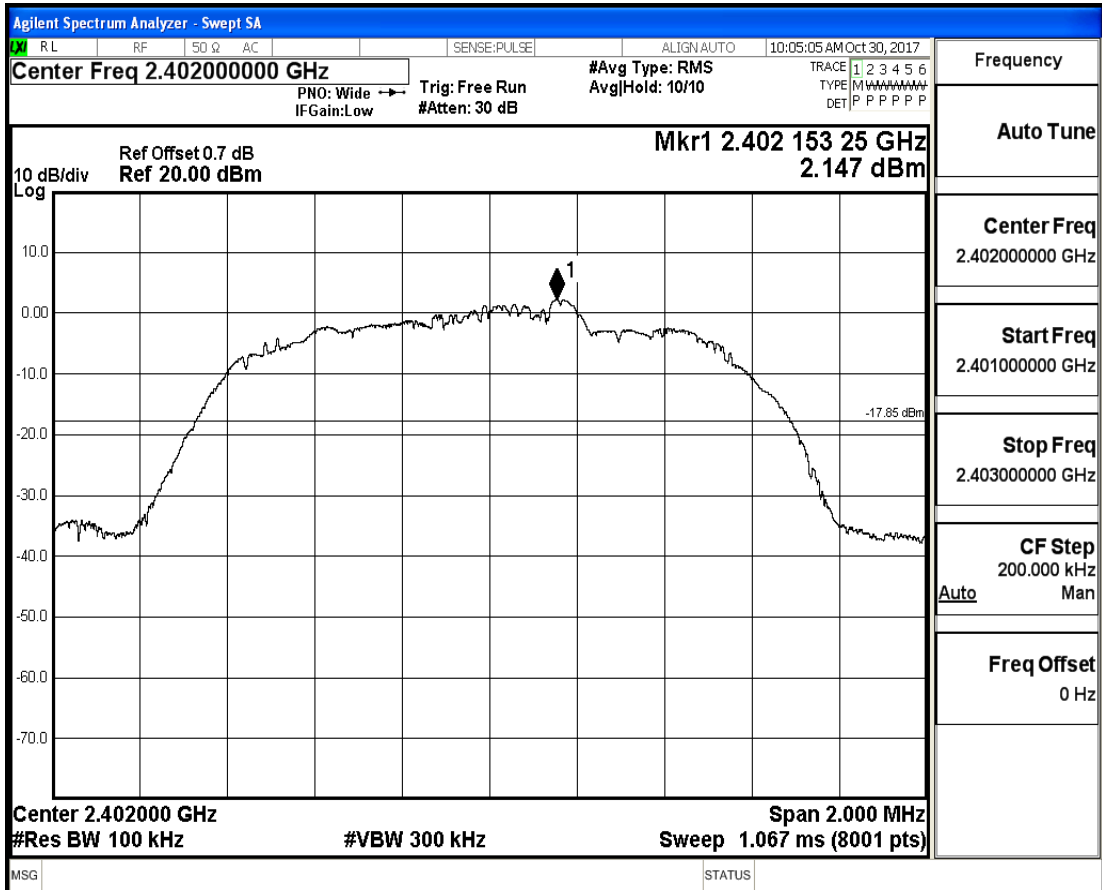


## RF Conducted Spurious Emissions\_2DH5\_2480

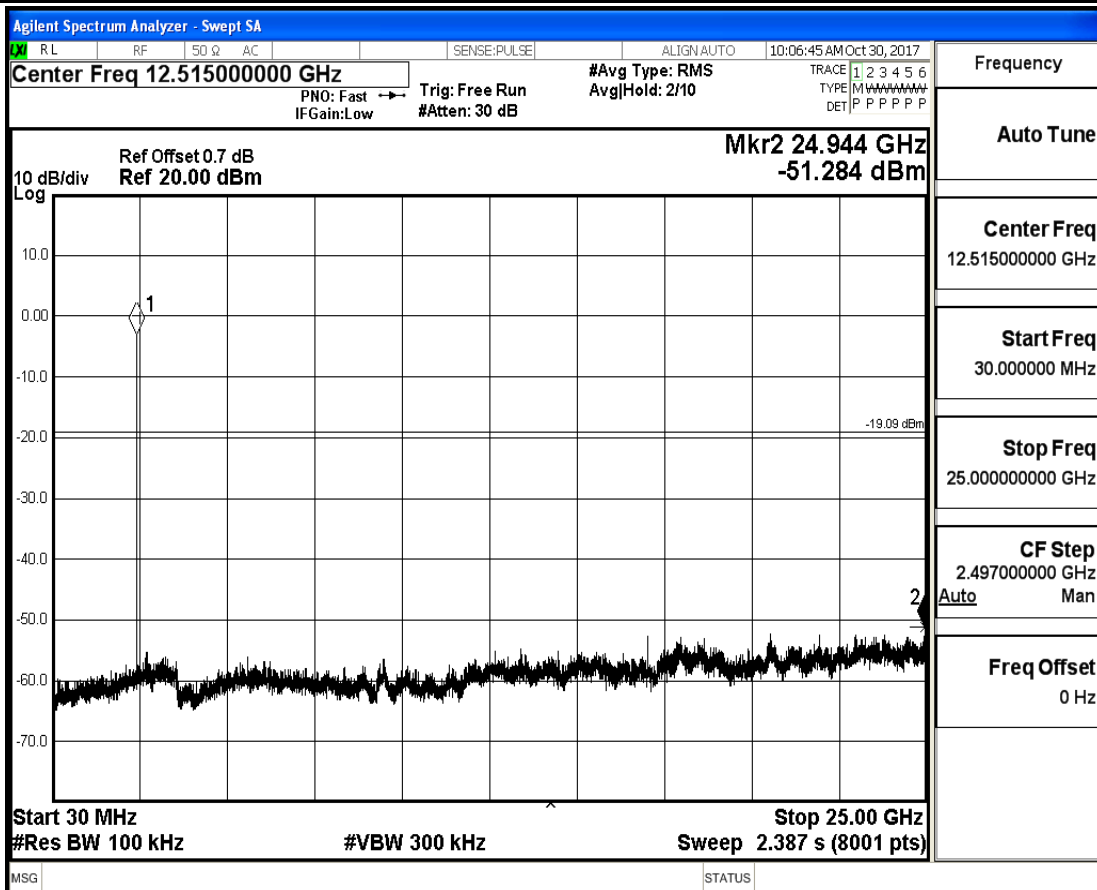
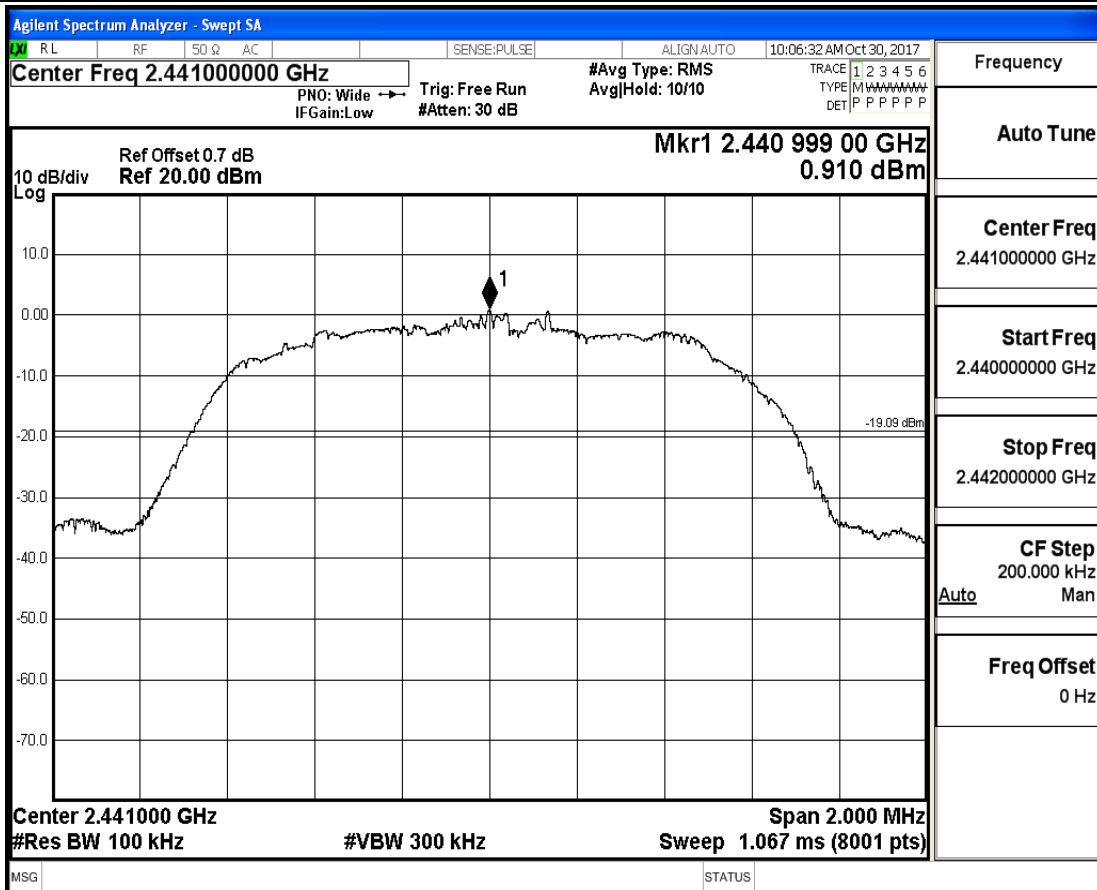




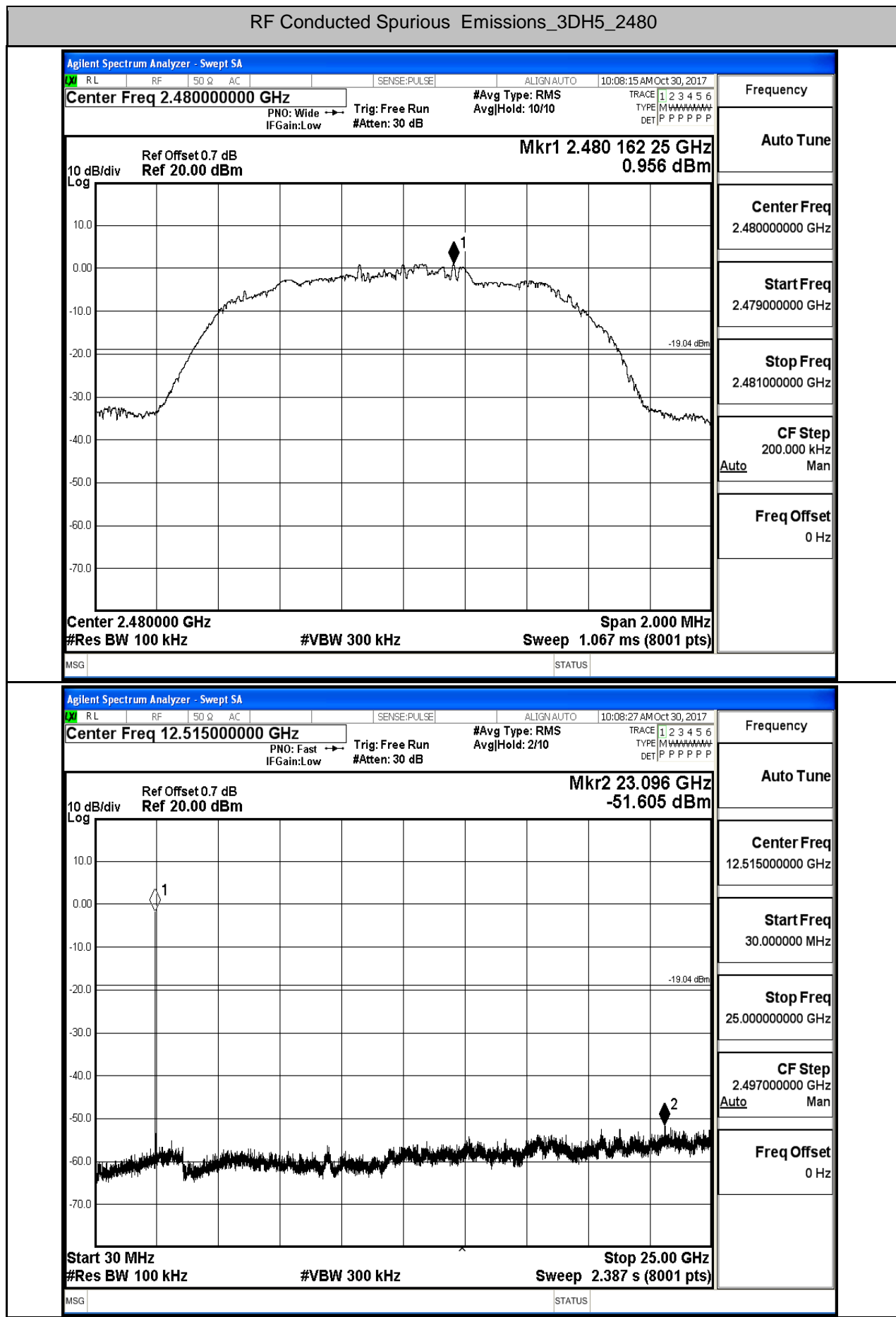
## RF Conducted Spurious Emissions\_3DH5\_2402



## RF Conducted Spurious Emissions\_3DH5\_2441



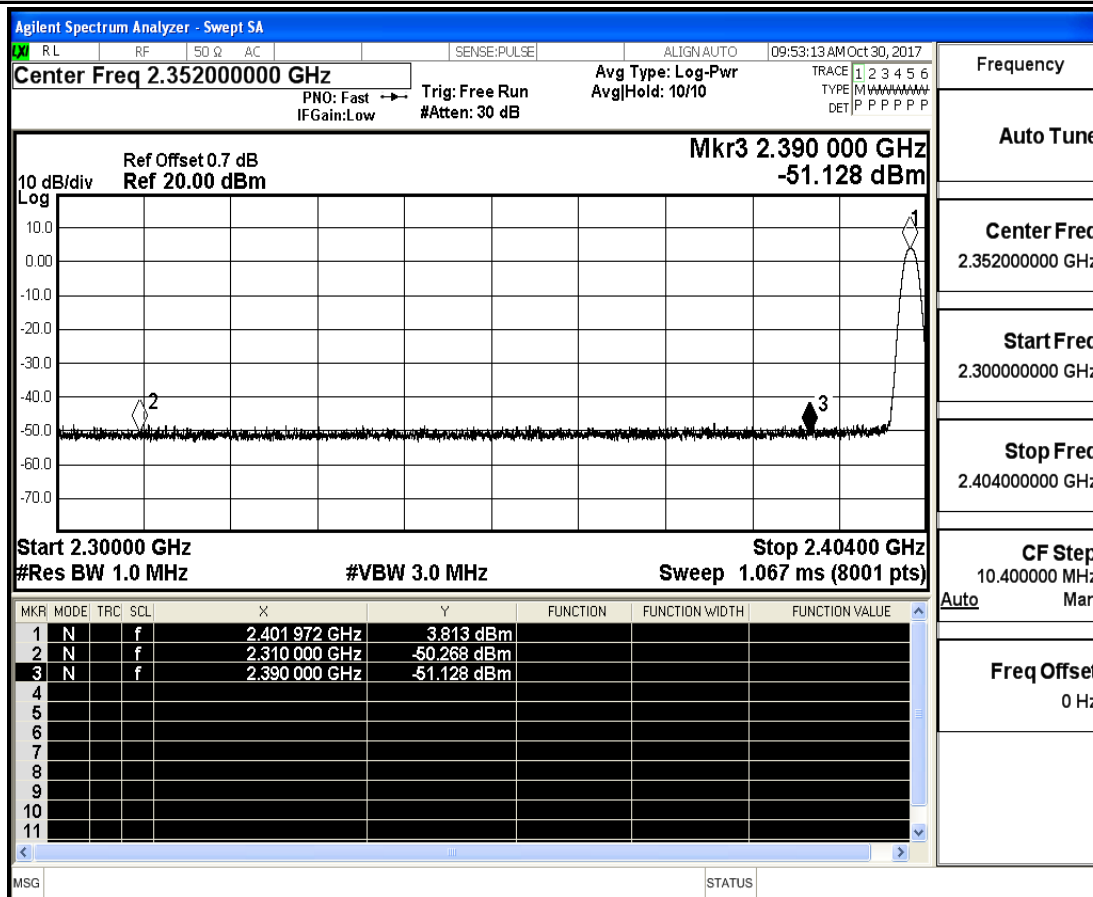
## RF Conducted Spurious Emissions\_3DH5\_2480



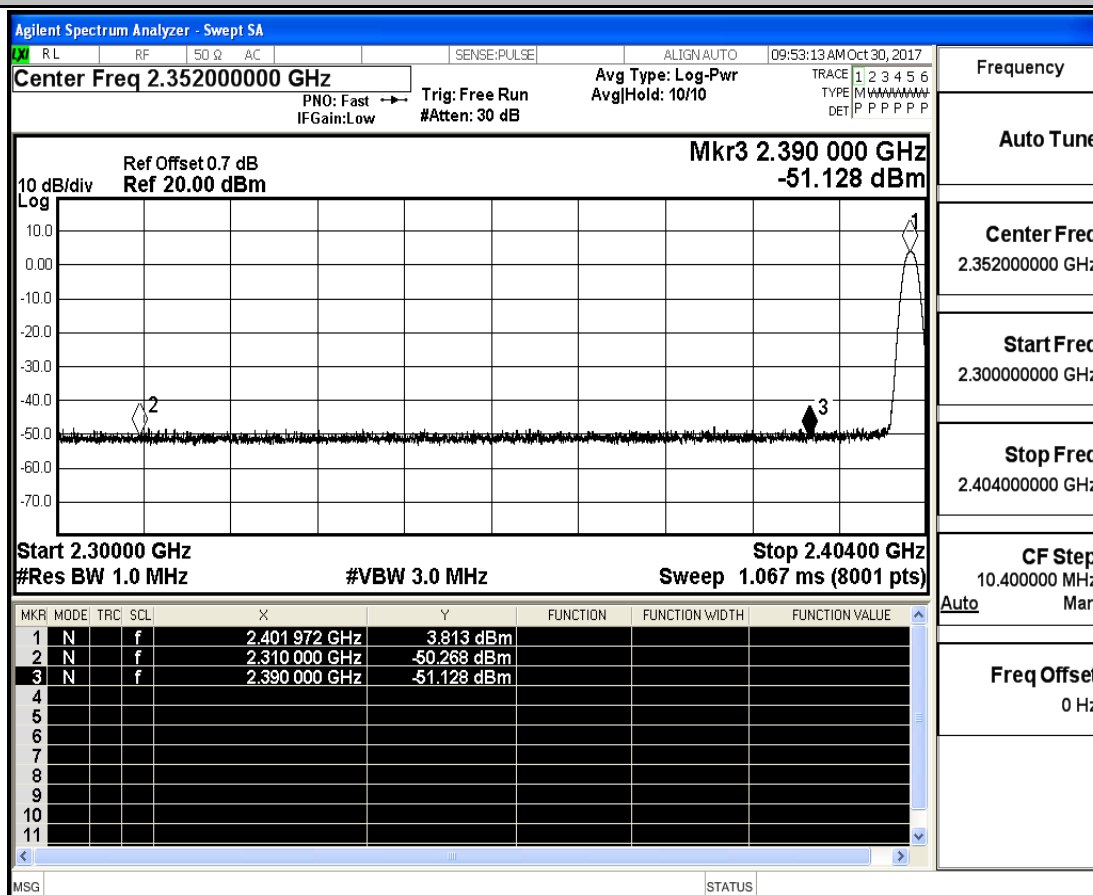
**9.Restrict-band band-edge measurements**

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
DH5	On	2310.0	-50.27	0	0	44.99	PEAK	74	PASS
DH5	On	2390.0	-51.13	0	0	44.13	PEAK	74	PASS
DH5	On	2483.5	-49.50	0	0	45.76	PEAK	74	PASS
DH5	On	2500.0	-50.71	0	0	44.55	PEAK	74	PASS
2DH5	On	2310.0	-51.40	0	0	43.86	PEAK	74	PASS
2DH5	On	2390.0	-50.19	0	0	45.06	PEAK	74	PASS
2DH5	On	2483.5	-49.39	0	0	45.86	PEAK	74	PASS
2DH5	On	2500.0	-50.98	0	0	44.28	PEAK	74	PASS
3DH5	On	2310.0	-51.64	0	0	43.62	PEAK	74	PASS
3DH5	On	2390.0	-48.98	0	0	46.28	PEAK	74	PASS
3DH5	On	2483.5	-50.01	0	0	45.25	PEAK	74	PASS
3DH5	On	2500.0	-49.98	0	0	45.28	PEAK	74	PASS

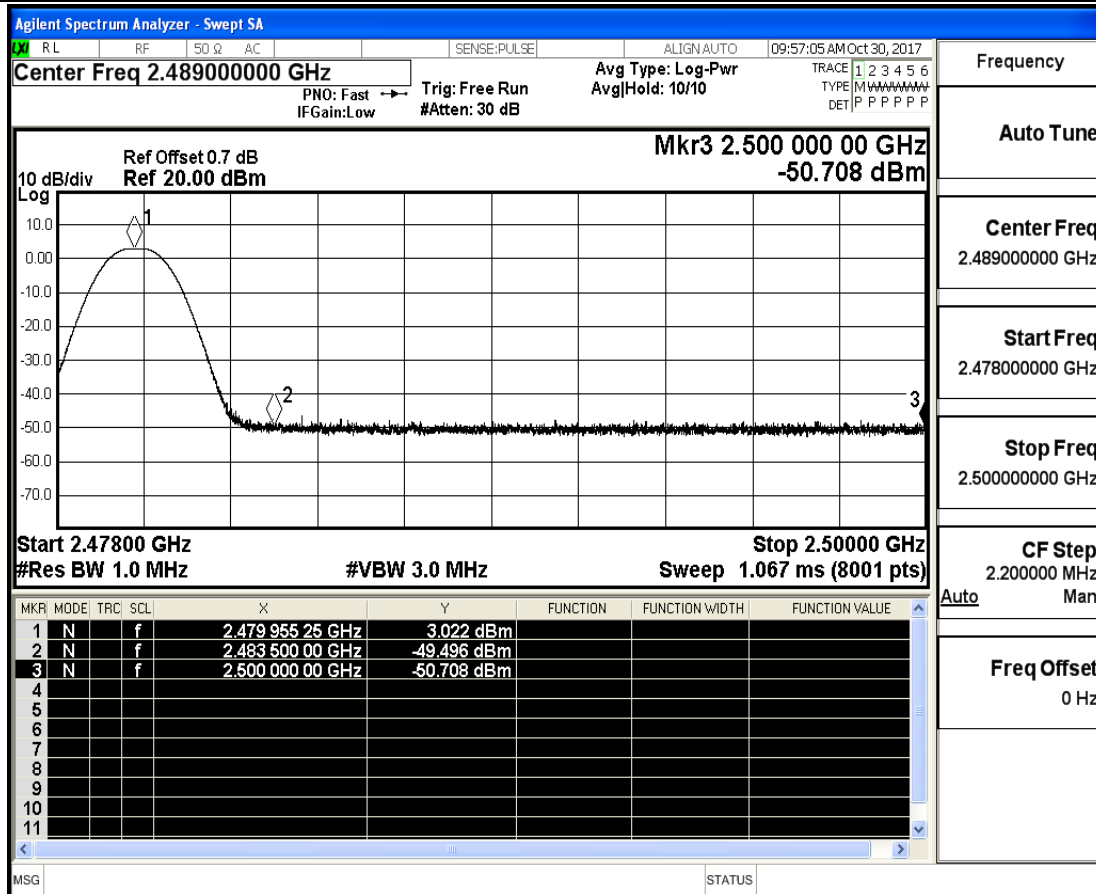
## Restrict-band band-edge measurements\_ PEAK



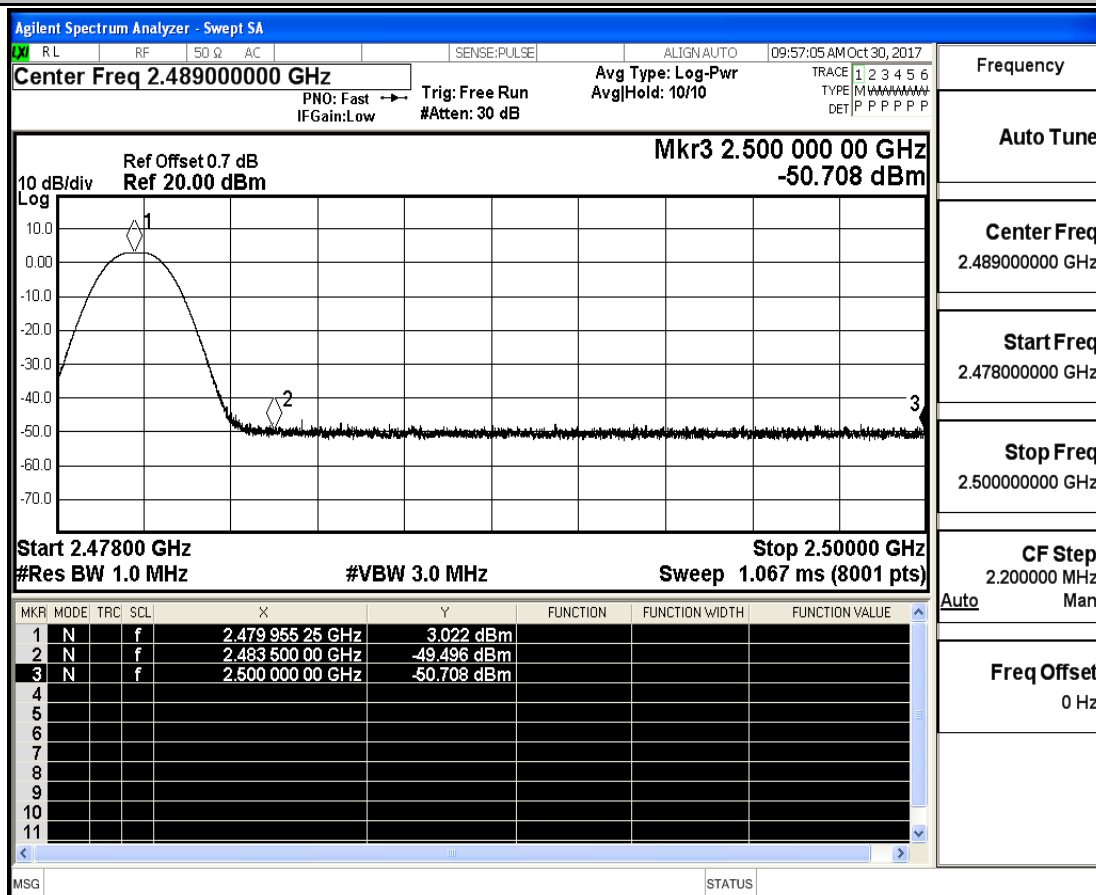
## Restrict-band band-edge measurements\_ PEAK



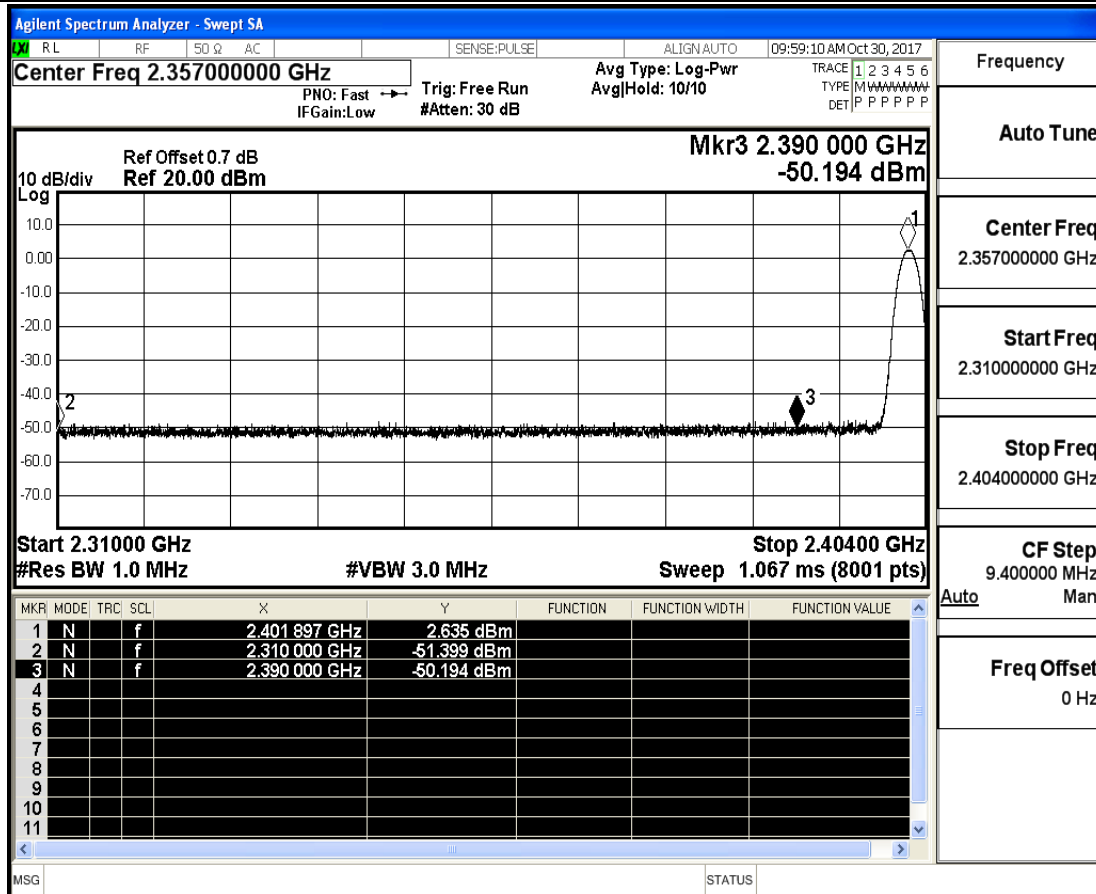
## Restrict-band band-edge measurements\_ PEAK



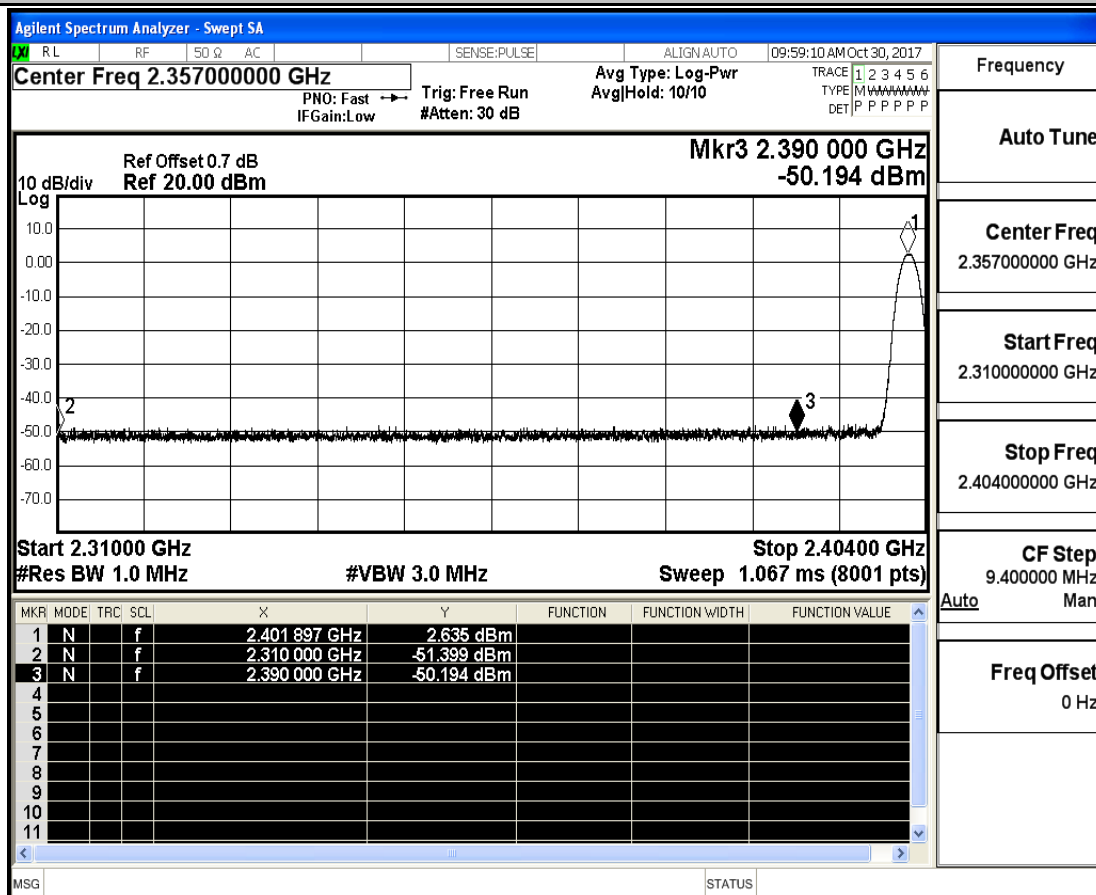
## Restrict-band band-edge measurements\_ PEAK



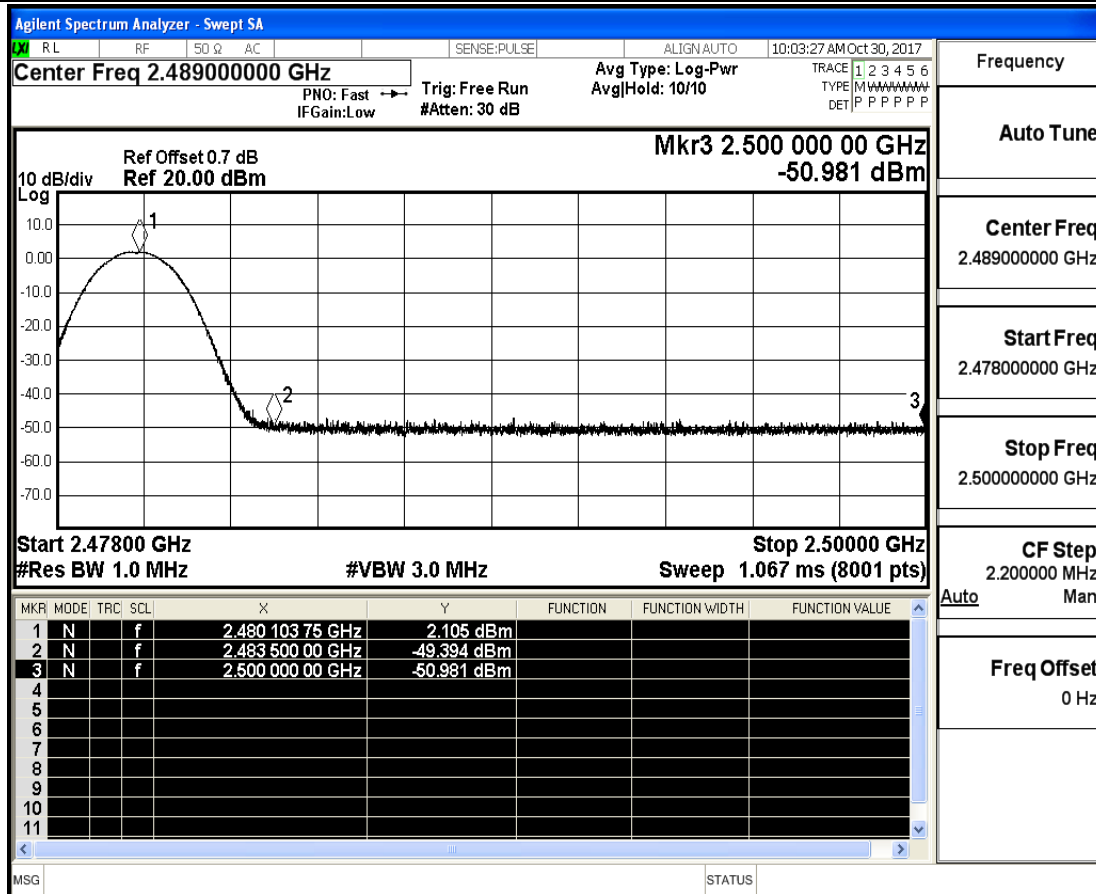
## Restrict-band band-edge measurements\_ PEAK



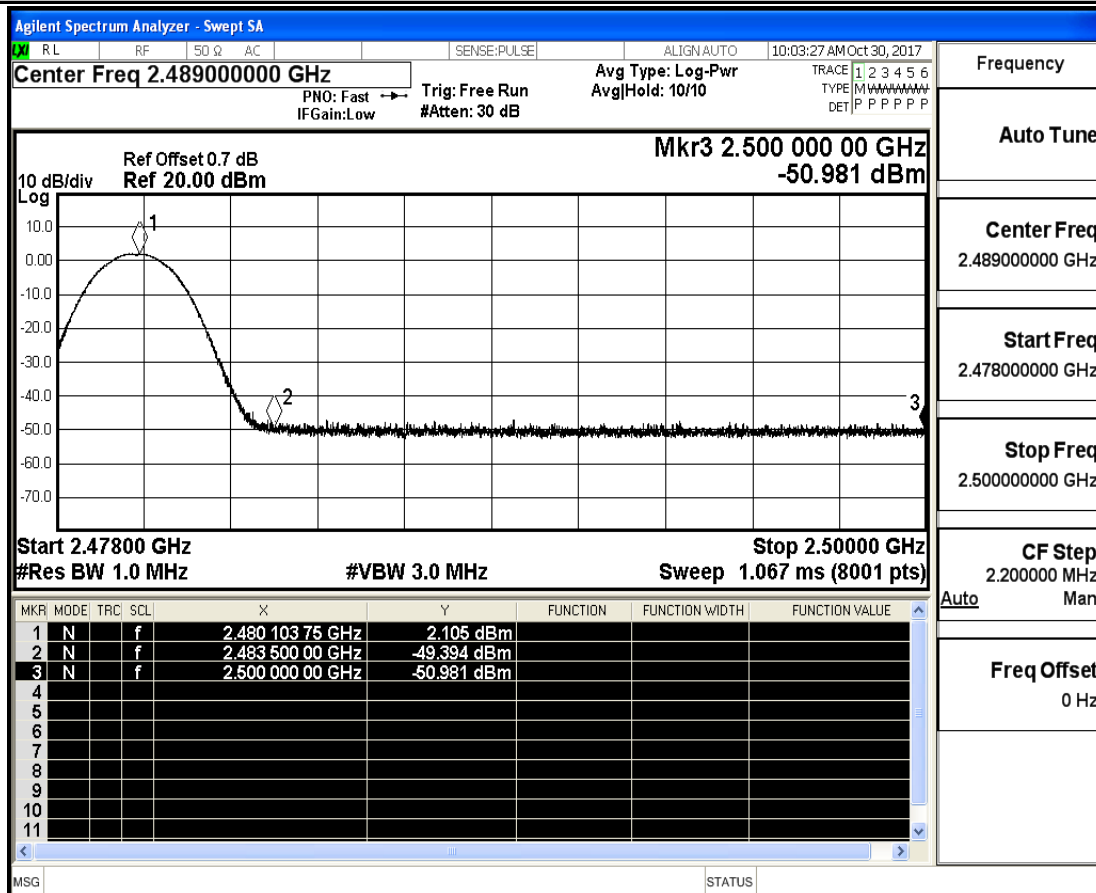
## Restrict-band band-edge measurements\_ PEAK



## Restrict-band band-edge measurements\_ PEAK

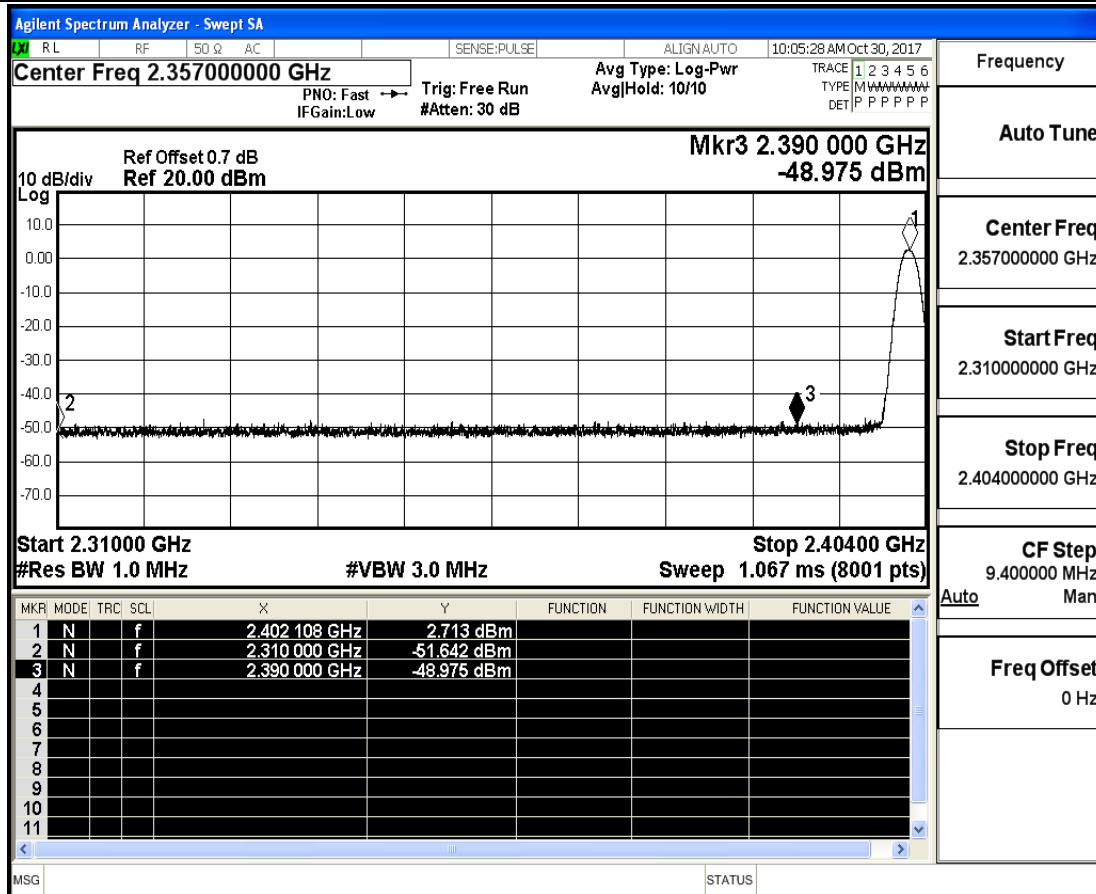


## Restrict-band band-edge measurements\_ PEAK





## Restrict-band band-edge measurements\_ PEAK



## Restrict-band band-edge measurements\_ PEAK

