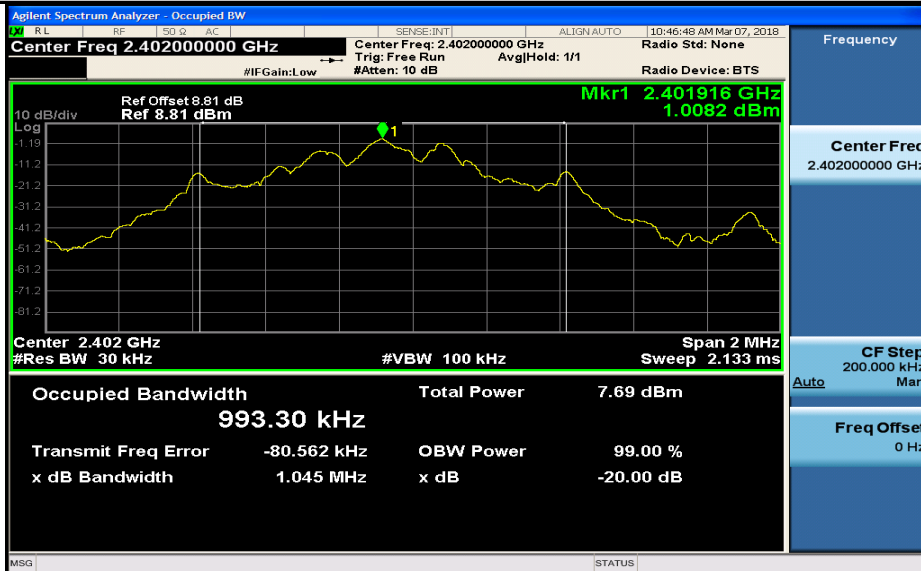


Appendix A for SHEM180200122801

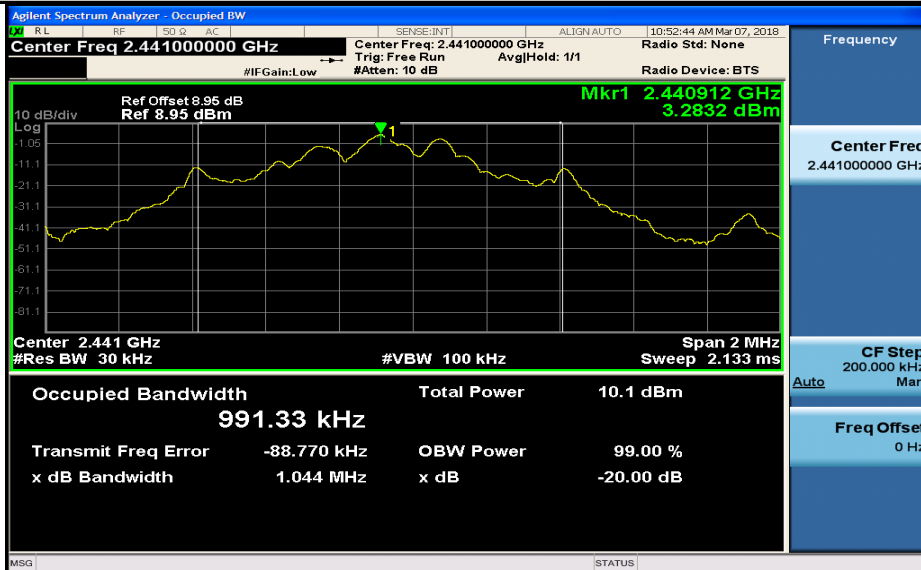
1.20 dB Bandwidth

Test Mode	Test Channel	EBW[MHz]	Limit	Verdict
DH5	2402	1.05	--	PASS
DH5	2441	1.04	--	PASS
DH5	2480	1.04	--	PASS
2DH5	2402	1.17	--	PASS
2DH5	2441	1.17	--	PASS
2DH5	2480	1.16	--	PASS
3DH5	2402	1.18	--	PASS
3DH5	2441	1.17	--	PASS
3DH5	2480	1.18	--	PASS

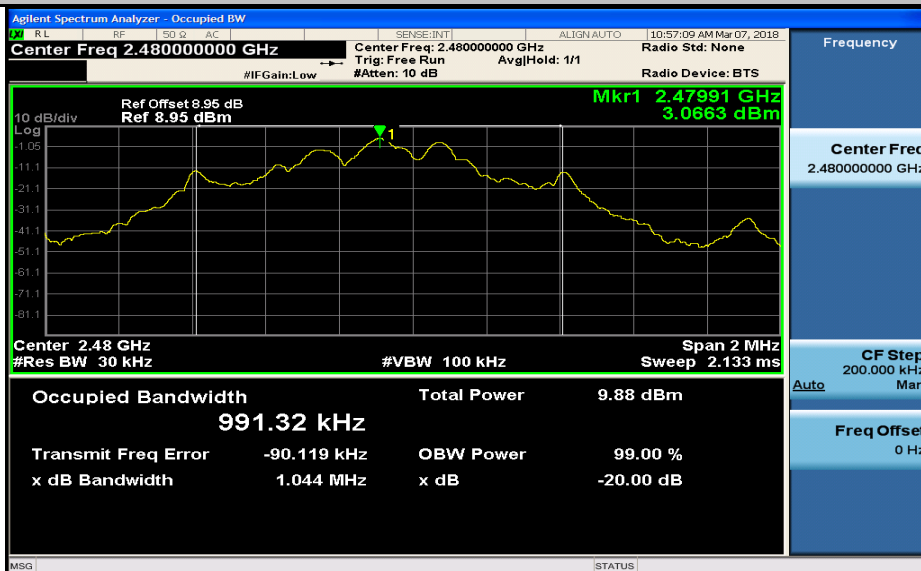
20 dB Bandwidth_DH5_2402



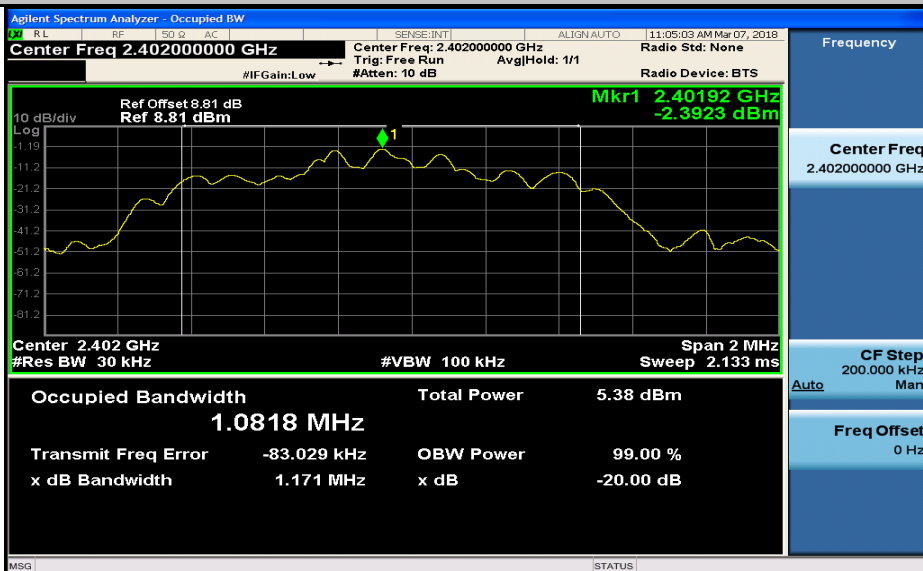
20 dB Bandwidth_DH5_2441



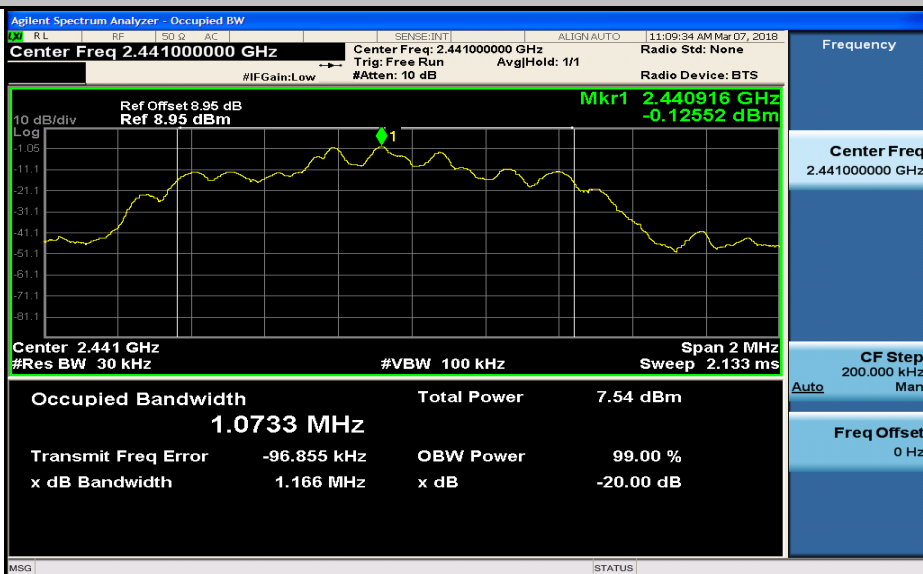
20 dB Bandwidth_DH5_2480



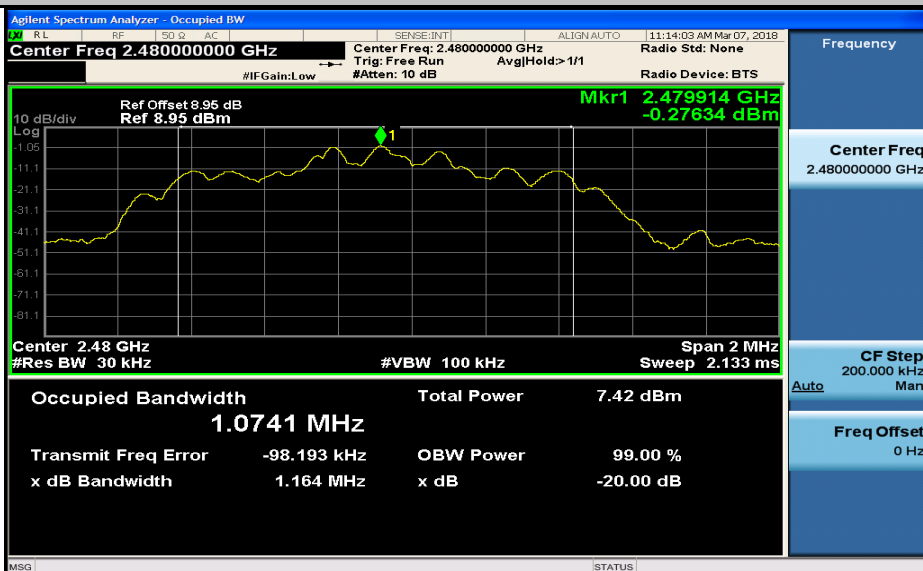
20 dB Bandwidth_2DH5_2402



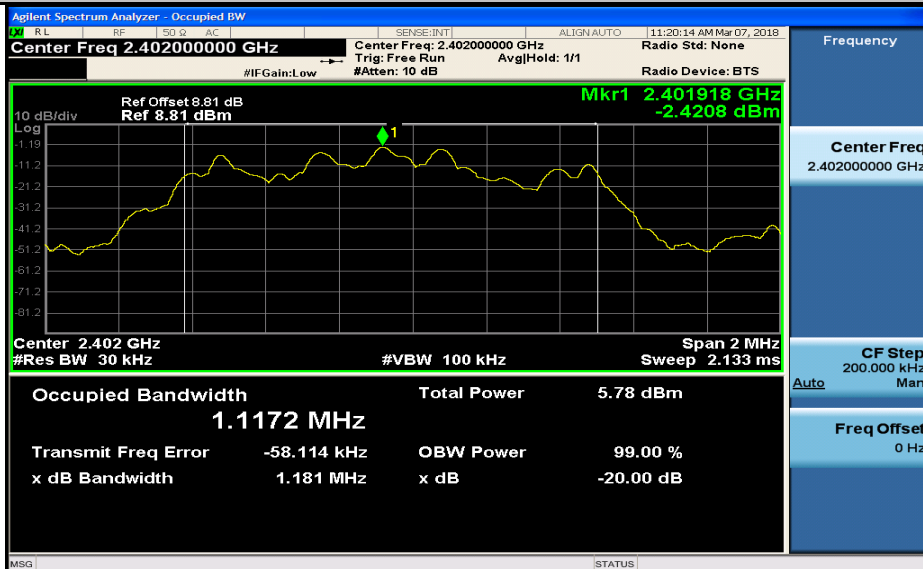
20 dB Bandwidth_2DH5_2441



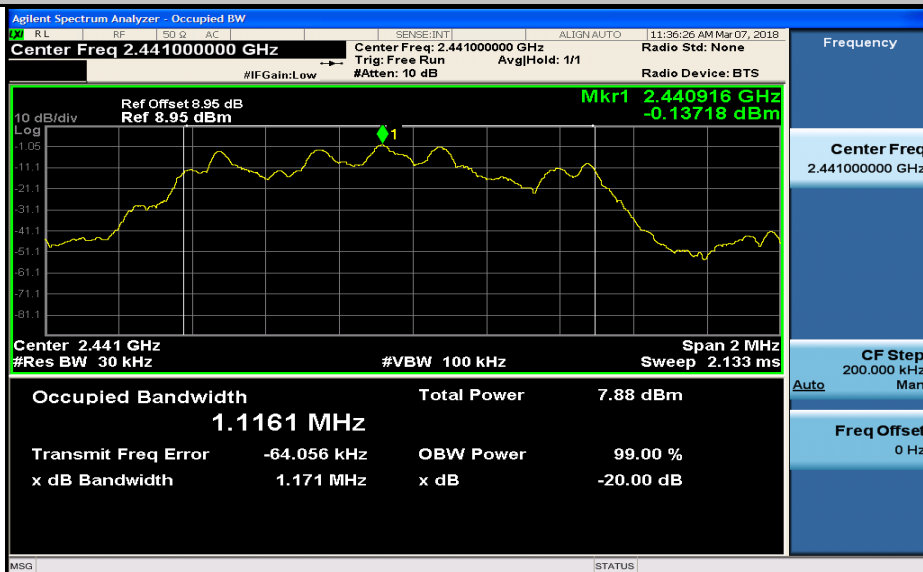
20 dB Bandwidth_2DH5_2480



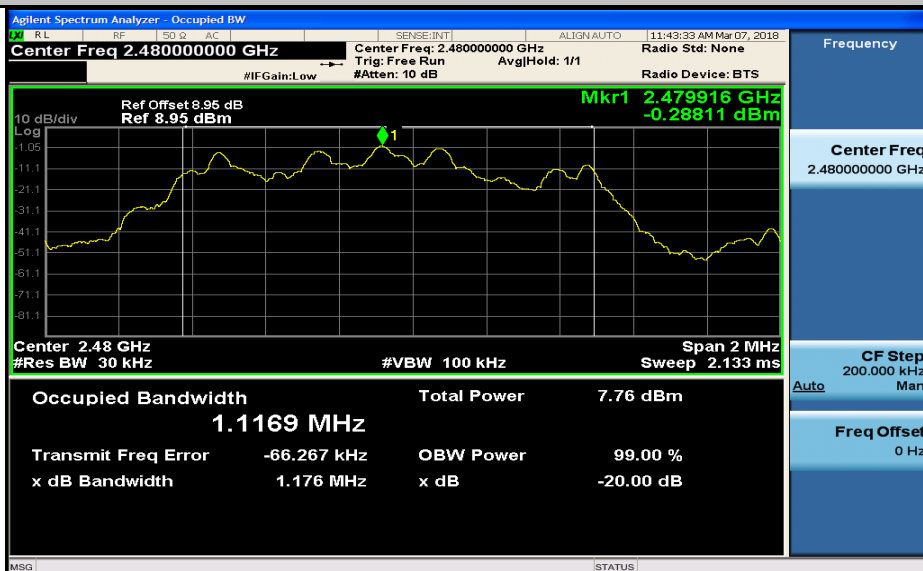
20 dB Bandwidth_3DH5_2402



20 dB Bandwidth_3DH5_2441



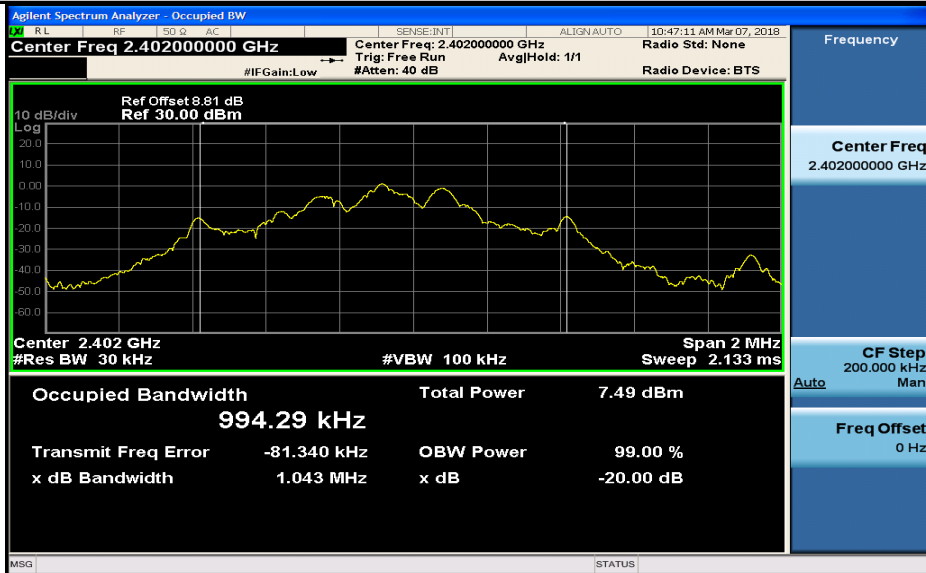
20 dB Bandwidth_3DH5_2480



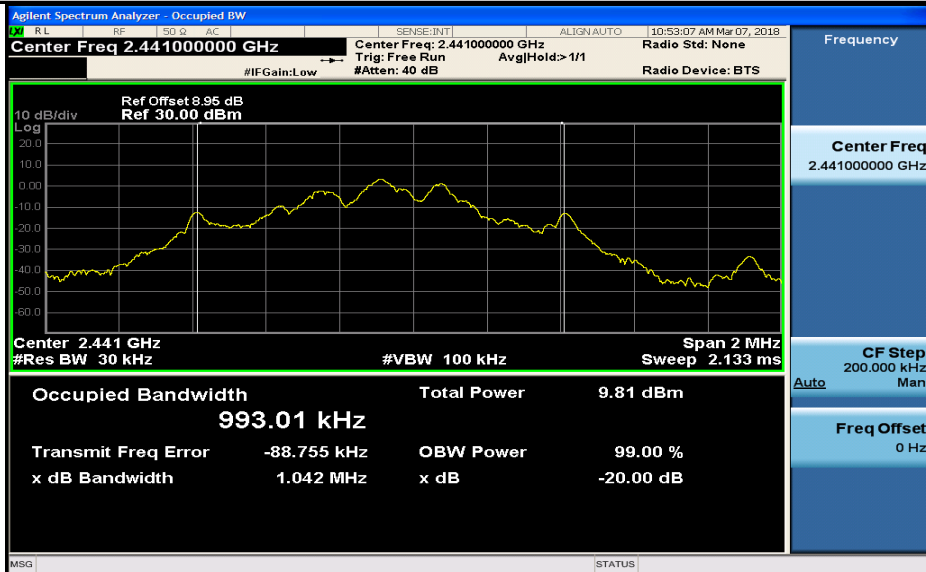
2.Occupied Bandwidth

Test Mode	Test Channel	OBW[MHz]	Limit[MHz]	Verdict
DH5	2402	0.99	---	PASS
DH5	2441	0.99	---	PASS
DH5	2480	0.99	---	PASS
2DH5	2402	1.08	---	PASS
2DH5	2441	1.07	---	PASS
2DH5	2480	1.07	---	PASS
3DH5	2402	1.12	---	PASS
3DH5	2441	1.12	---	PASS
3DH5	2480	1.12	---	PASS

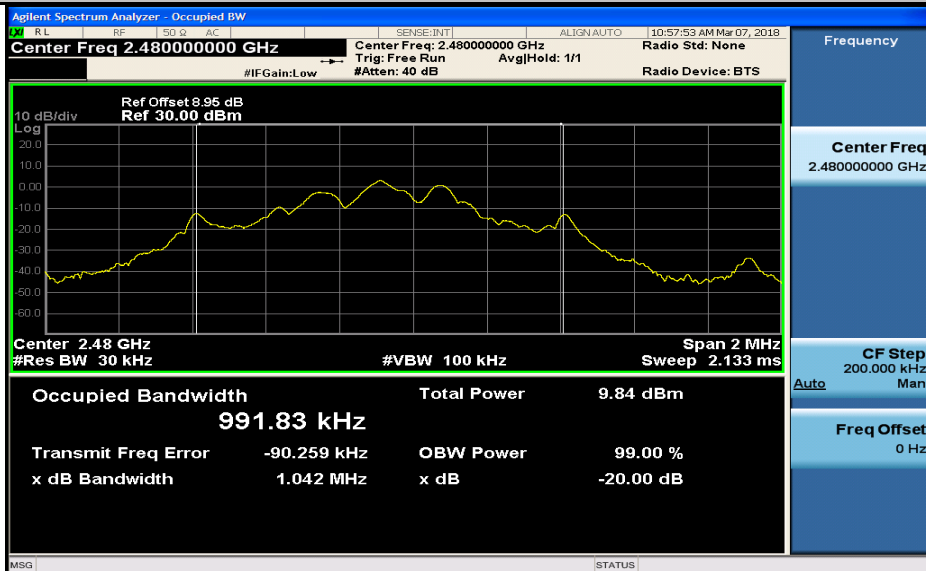
Occupied Bandwidth_DH5_2402



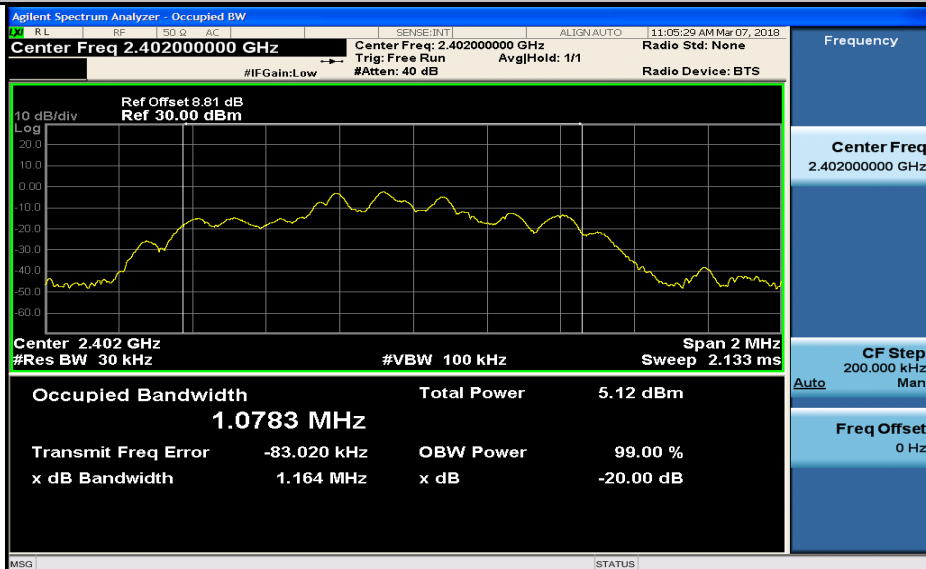
Occupied Bandwidth_DH5_2441



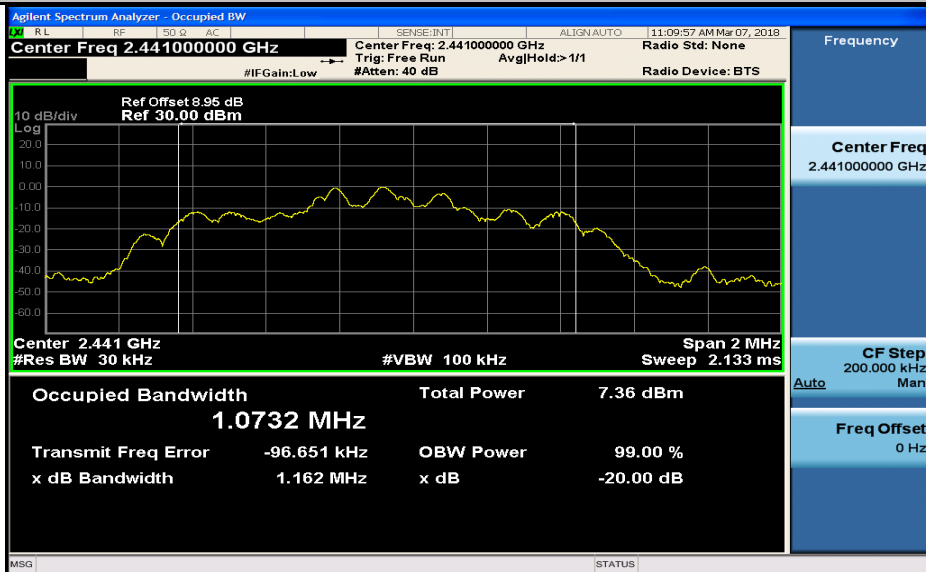
Occupied Bandwidth_DH5_2480



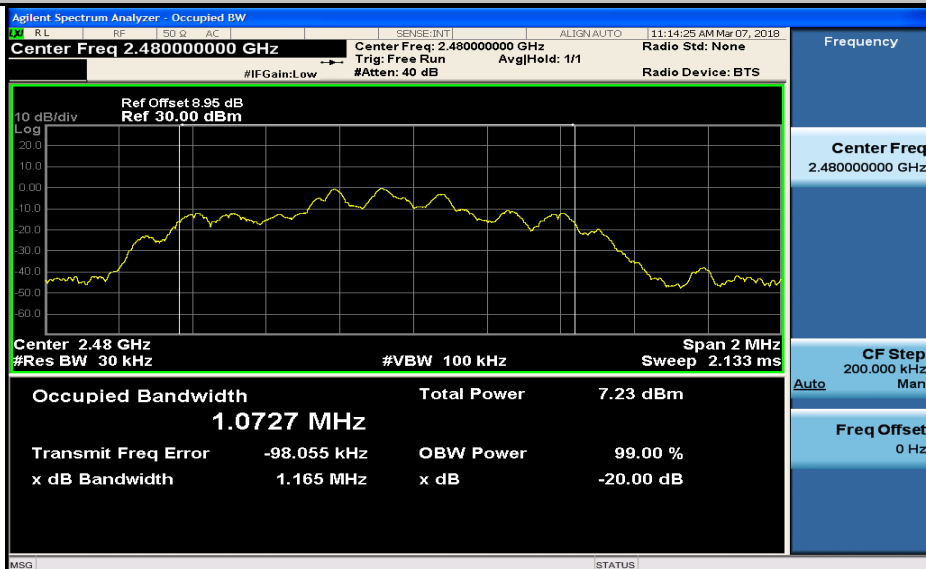
Occupied Bandwidth_2DH5_2402



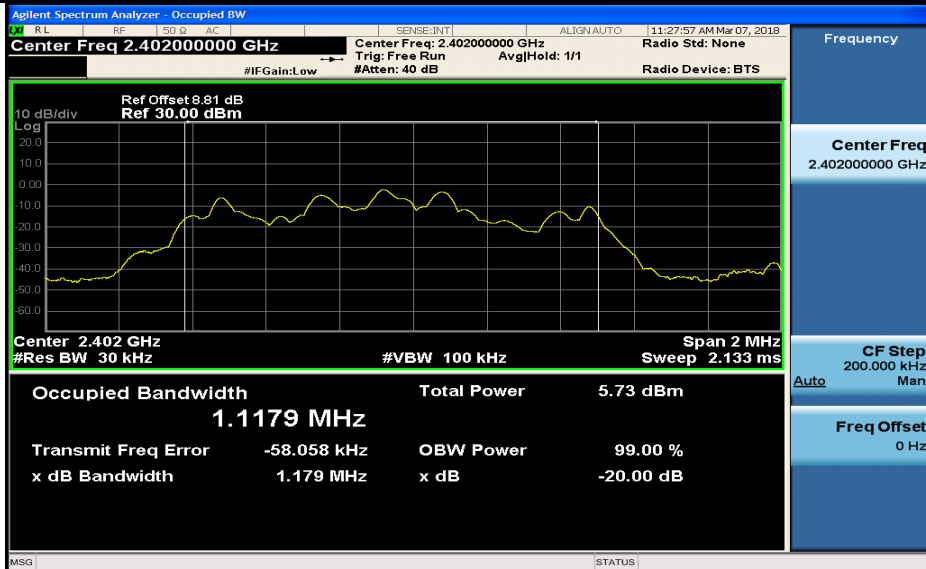
Occupied Bandwidth_2DH5_2441



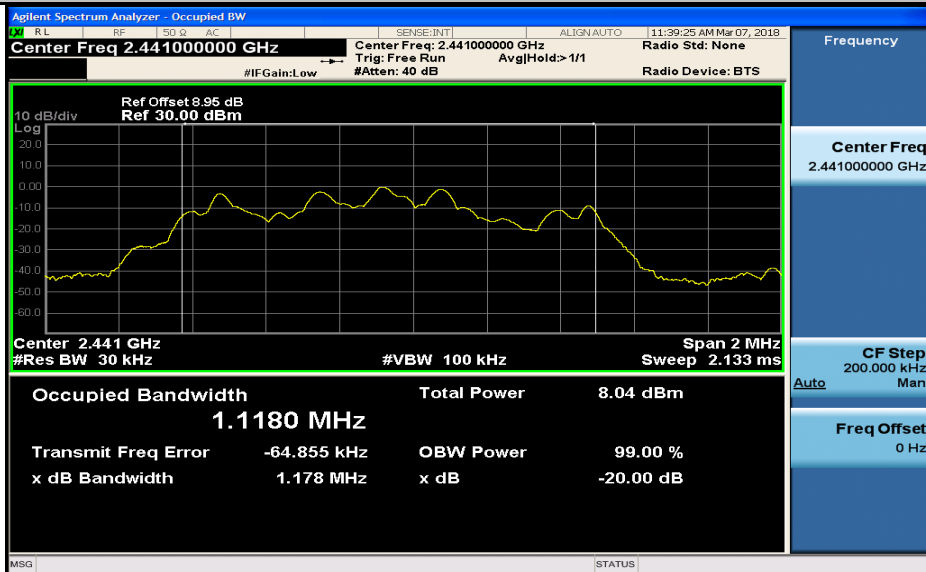
Occupied Bandwidth_2DH5_2480



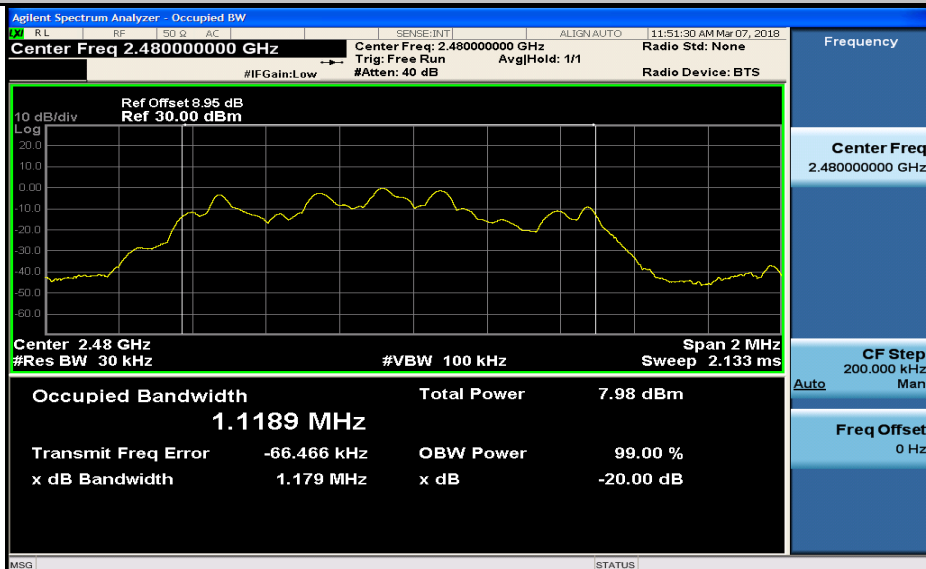
Occupied Bandwidth_3DH5_2402



Occupied Bandwidth_3DH5_2441



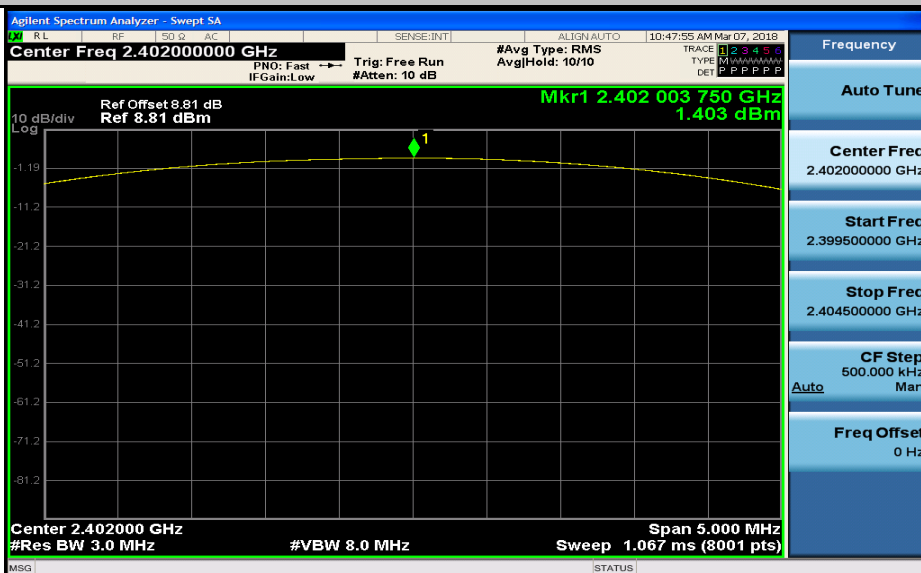
Occupied Bandwidth_3DH5_2480



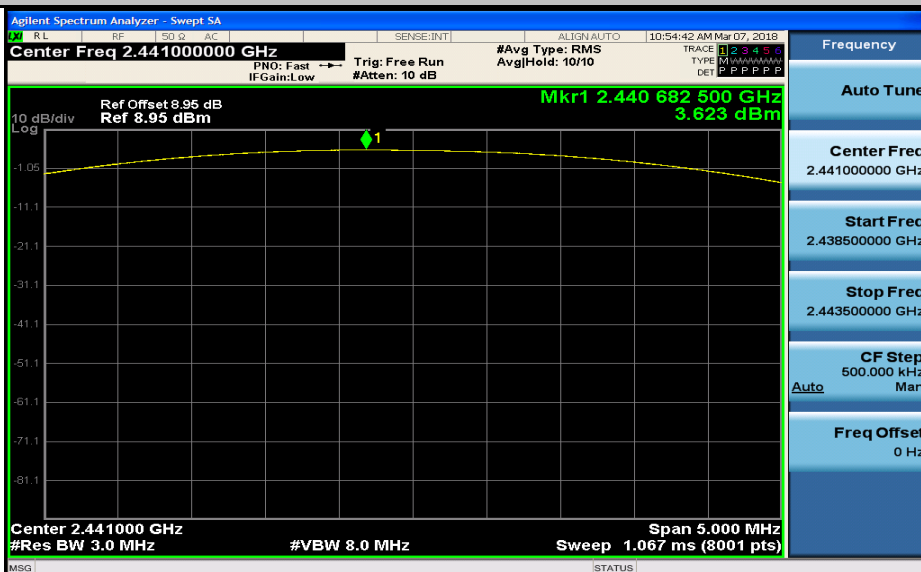
3. Conducted Peak Output Power

Test Mode	Test Channel	Power[dBm]	Limit[dBm]	Verdict
DH5	2402	1.4	21	PASS
DH5	2441	3.62	21	PASS
DH5	2480	3.37	21	PASS
2DH5	2402	-0.7	21	PASS
2DH5	2441	1.66	21	PASS
2DH5	2480	1.49	21	PASS
3DH5	2402	-0.52	21	PASS
3DH5	2441	1.85	21	PASS
3DH5	2480	1.69	21	PASS

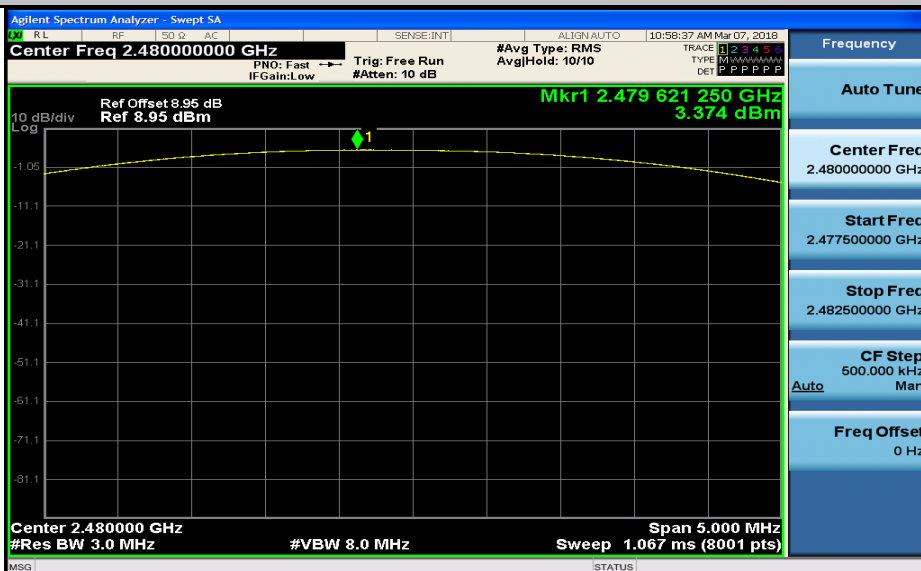
Conducted Peak Output Power_DH5_2402



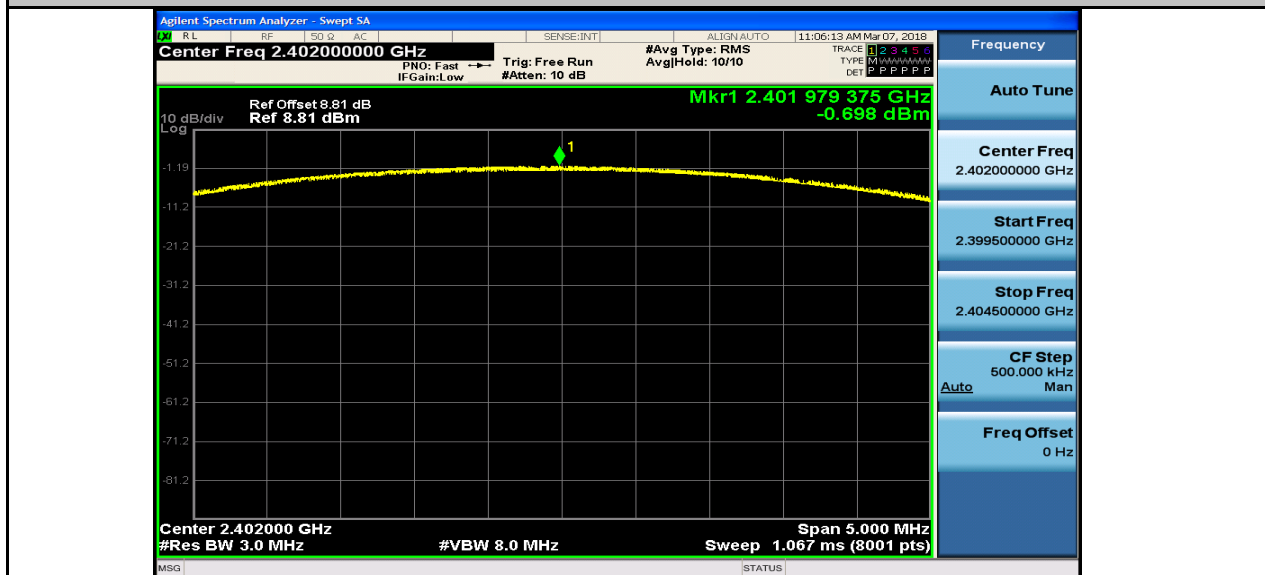
Conducted Peak Output Power_DH5_2441



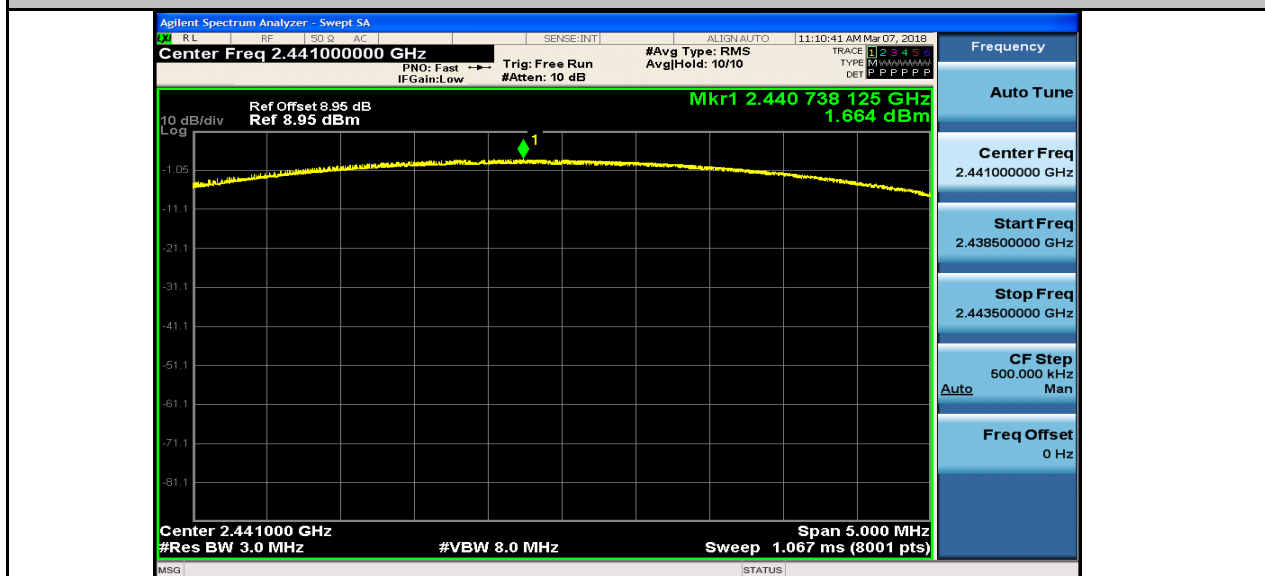
Conducted Peak Output Power_DH5_2480



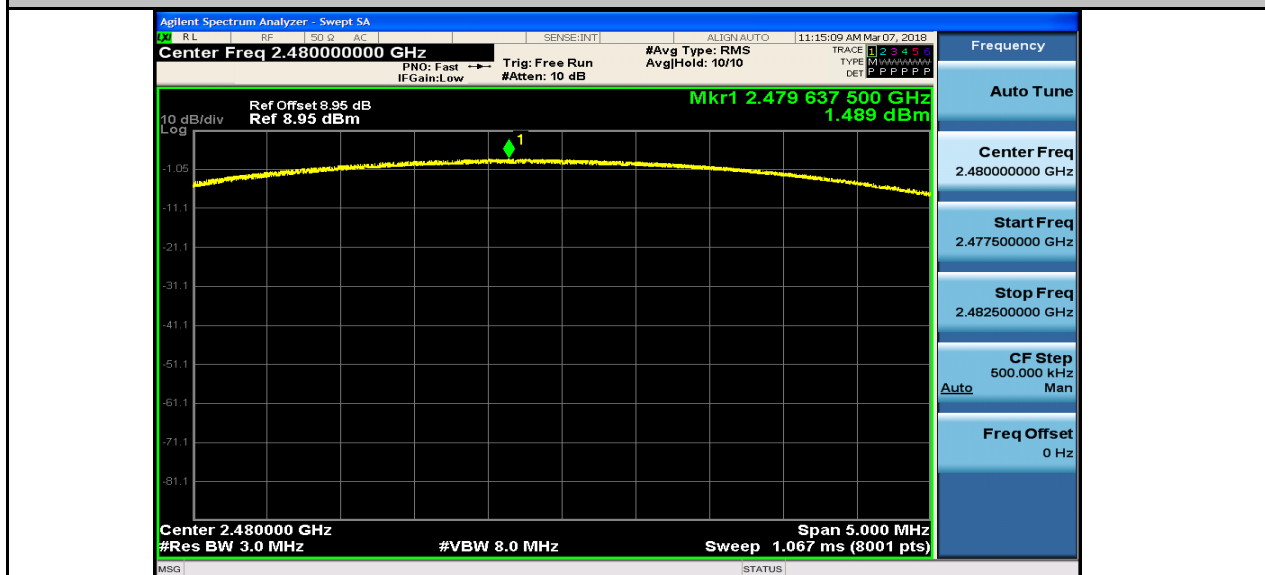
Conducted Peak Output Power_2DH5_2402



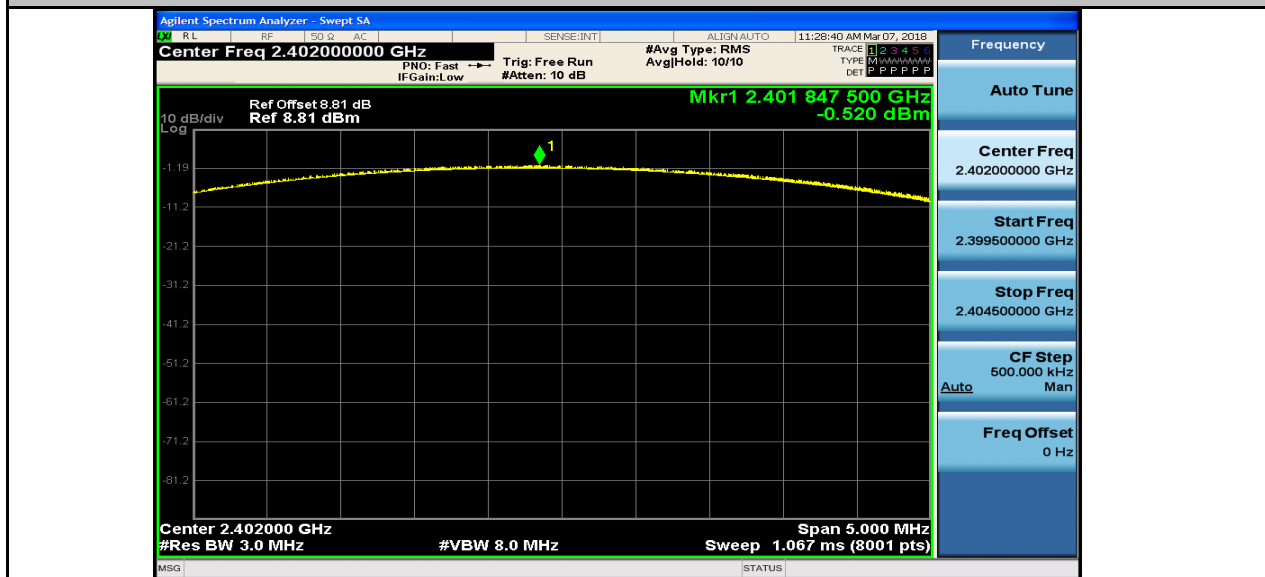
Conducted Peak Output Power_2DH5_2441



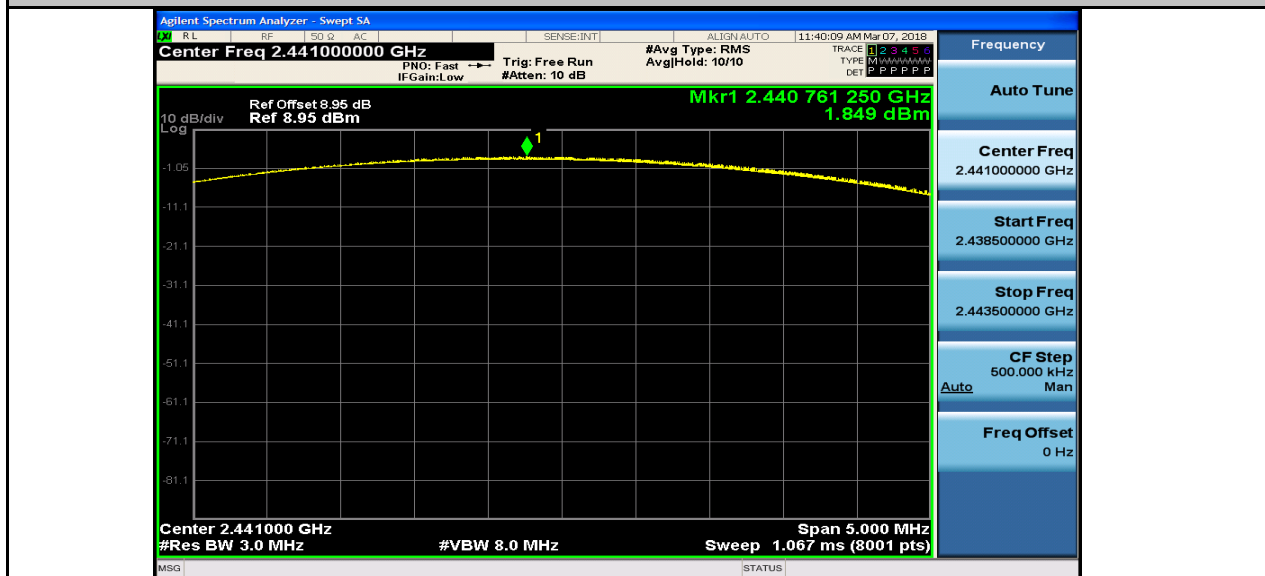
Conducted Peak Output Power_2DH5_2480



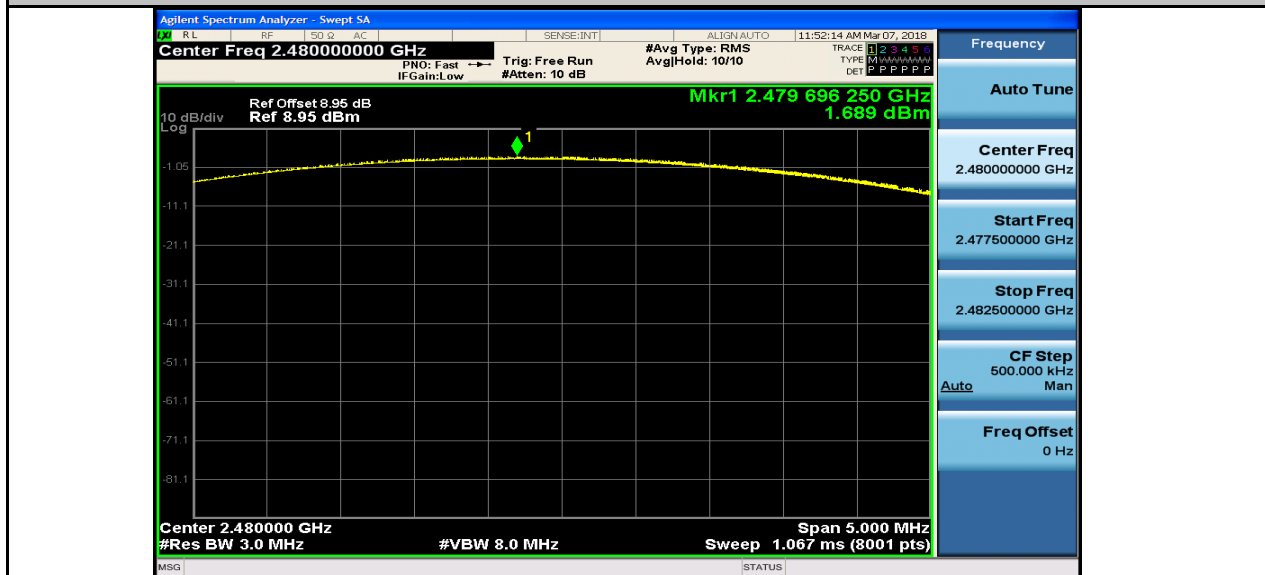
Conducted Peak Output Power_3DH5_2402



Conducted Peak Output Power_3DH5_2441



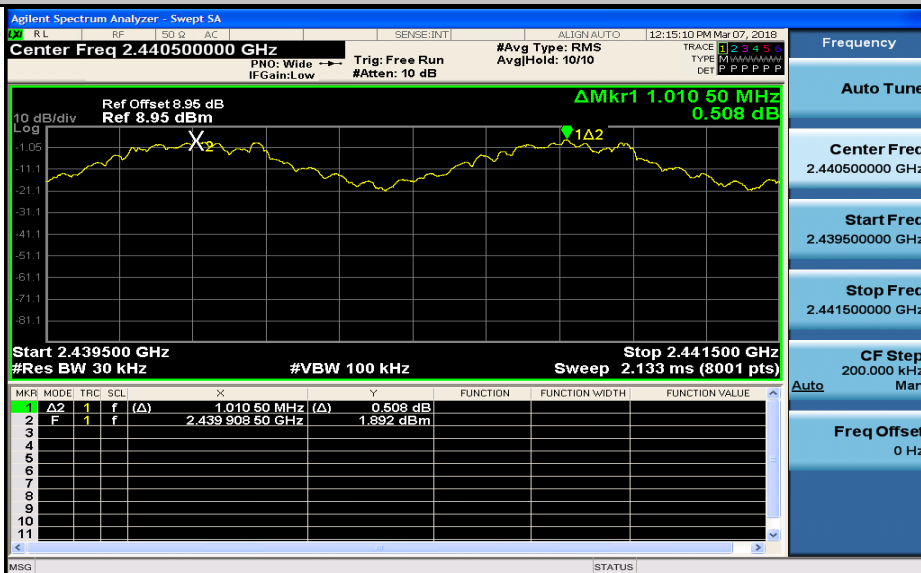
Conducted Peak Output Power_3DH5_2480



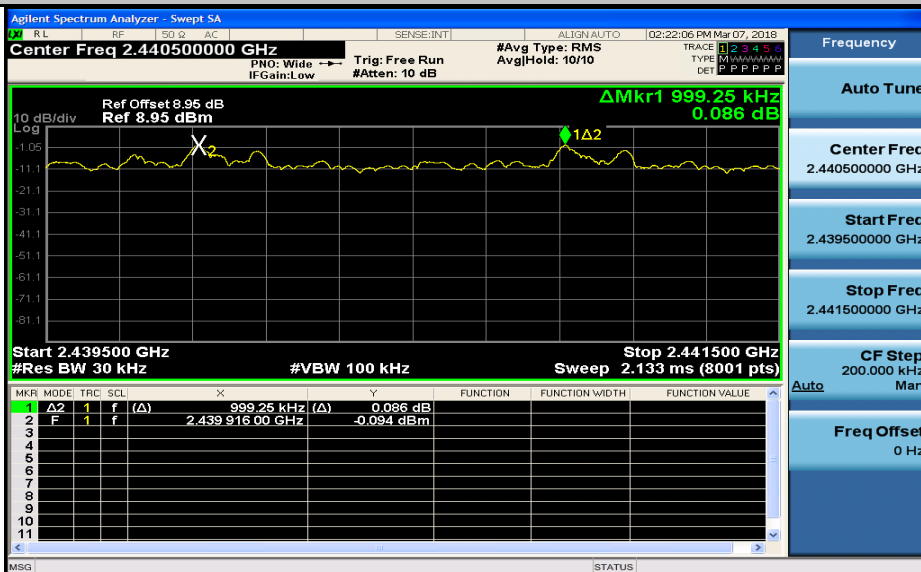
4.Carrier Frequency Separation

Test Mode	Test Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	2441	1.01	0.696	PASS
2DH5	2441	1.00	0.777	PASS
3DH5	2441	1.12	0.781	PASS

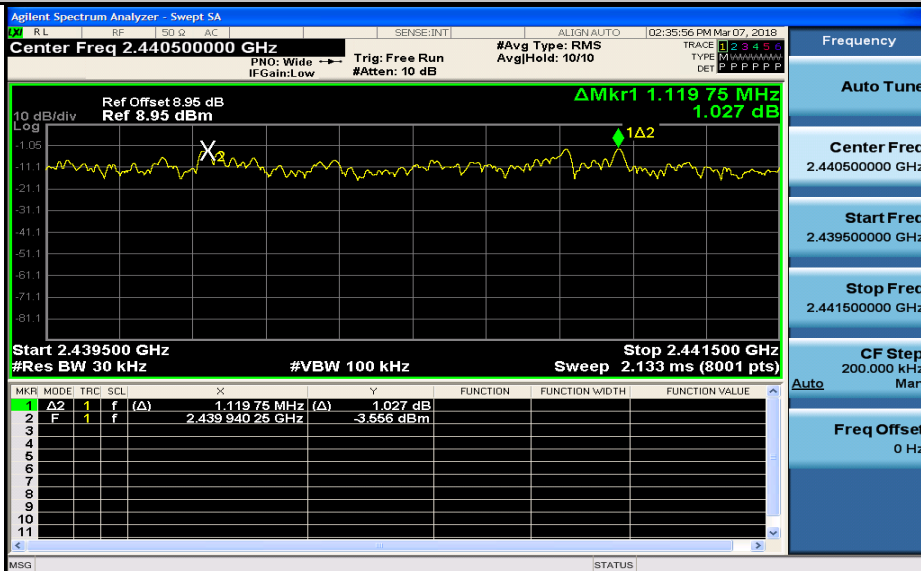
Carrier Frequency Separation_DH5_2441



Carrier Frequency Separation_2DH5_2441



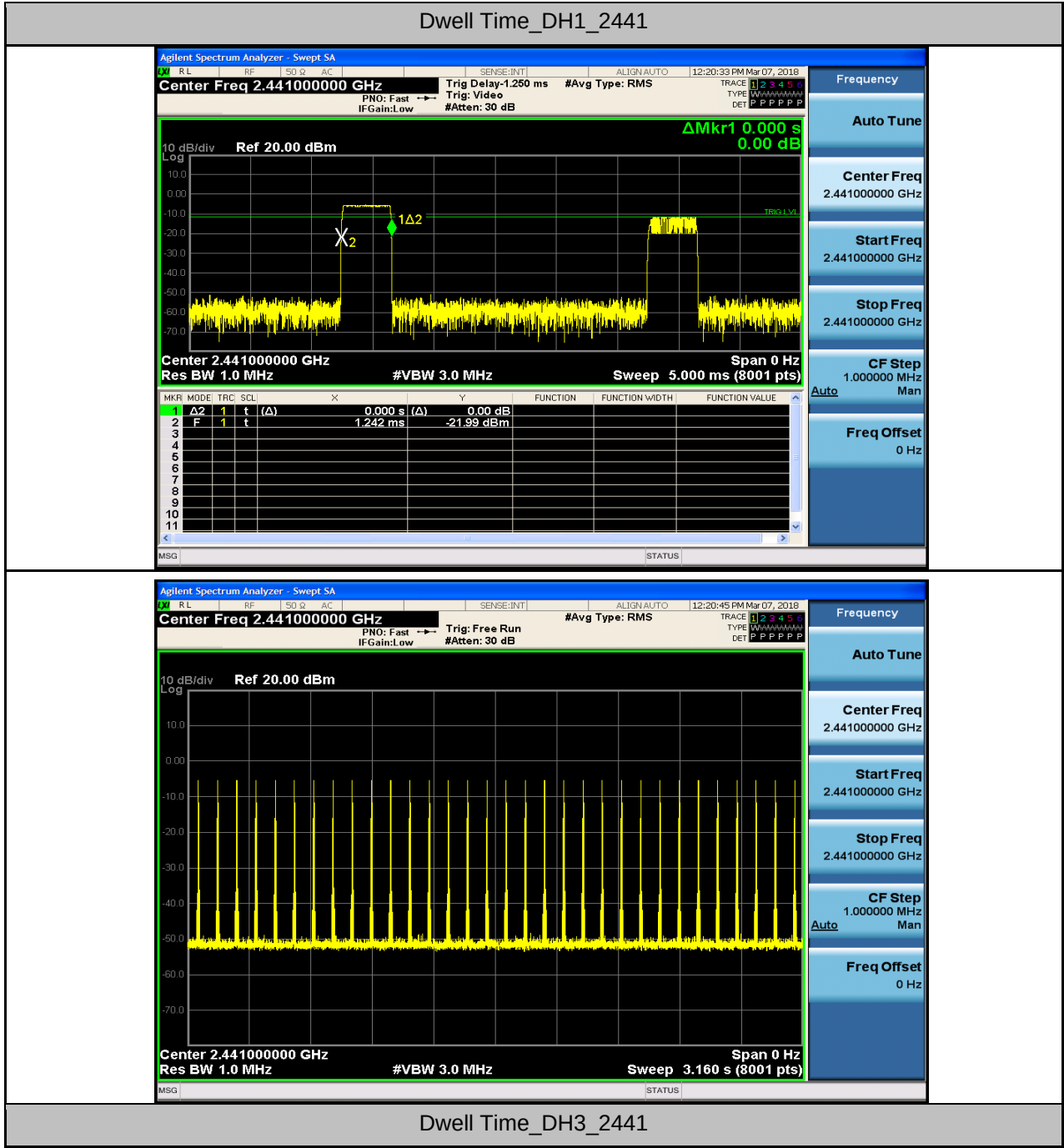
Carrier Frequency Separation_3DH5_2441

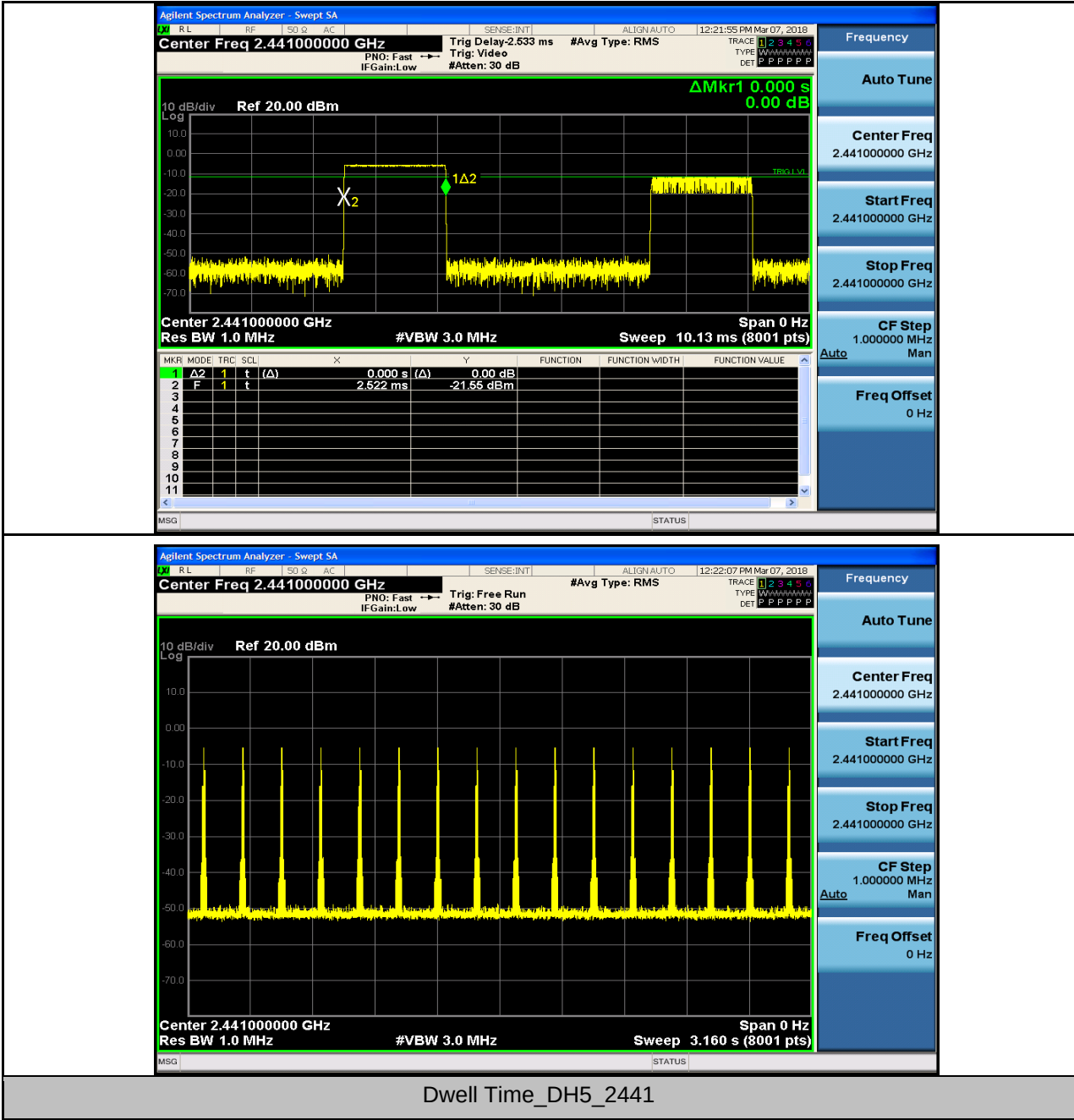


5.Dwell Time

Test Mode	Test Channel	Burst Width[ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit[s]	Verdict
DH1	2441	0.41	320	0.13	0.4	PASS
DH3	2441	1.67	160	0.27	0.4	PASS
DH5	2441	2.91	110	0.32	0.4	PASS
2DH1	2441	0.42	320	0.13	0.4	PASS
2DH3	2441	1.67	160	0.27	0.4	PASS
2DH5	2441	1.72	160	0.28	0.4	PASS
3DH1	2441	0.42	320	0.13	0.4	PASS
3DH3	2441	1.67	160	0.27	0.4	PASS
3DH5	2441	2.92	110	0.32	0.4	PASS

Dwell Time_DH1_2441





Agilent Spectrum Analyzer - Swept SA

Center Freq 2.441000000 GHz

Trig: Free Run #Avg Type: RMS

PN0: Fast IFGain: Low #Atten: 30 dB

12:22:07 PM Mar 07, 2018

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

10 dB/div Ref 20.00 dBm

Center 2.441000000 GHz Span 0 Hz

Res BW 1.0 MHz #VBW 3.0 MHz Sweep 3.160 s (8001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq 2.441000000 GHz

Start Freq 2.441000000 GHz

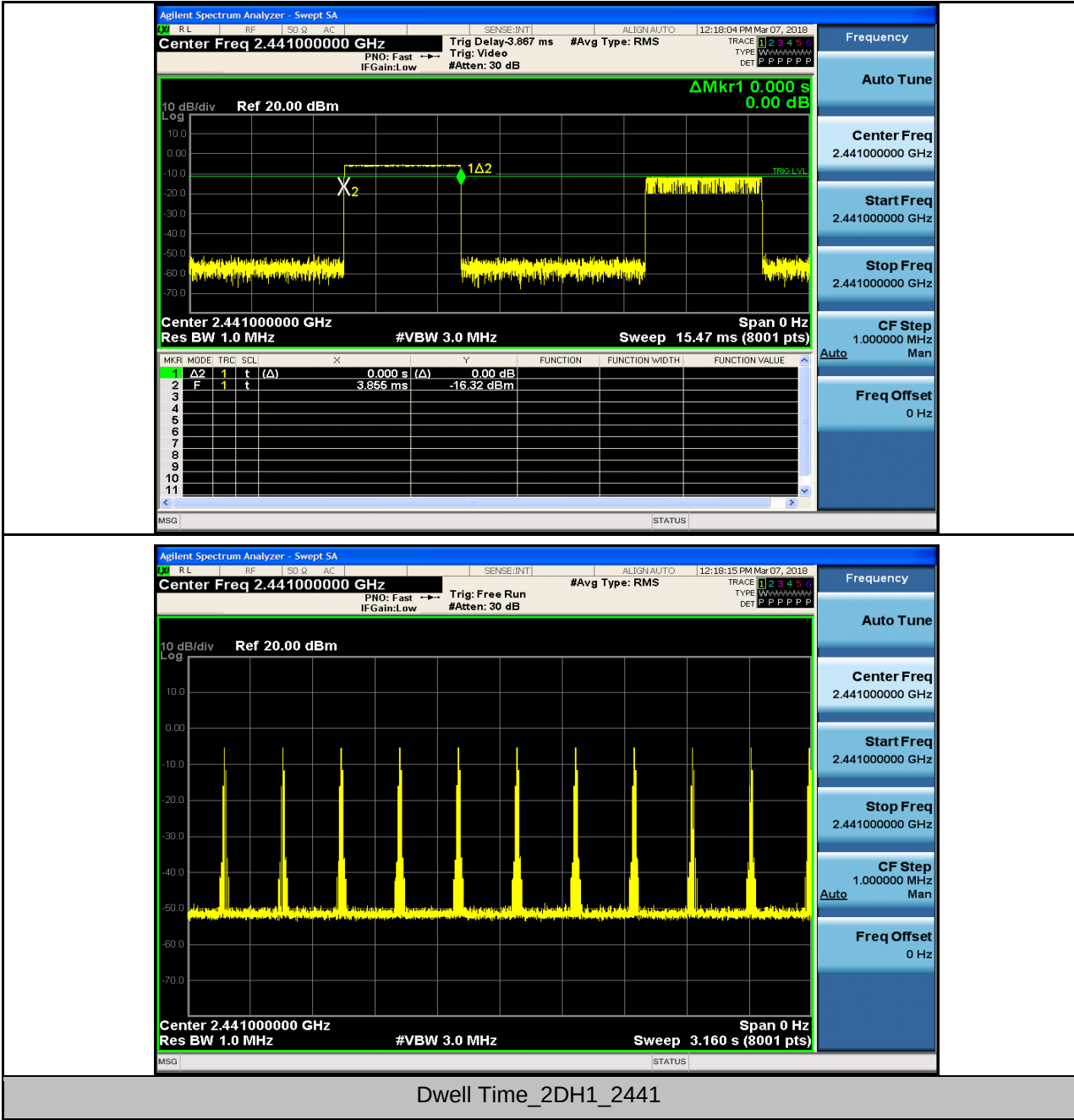
Stop Freq 2.441000000 GHz

CF Step 1.000000 MHz

Auto Man

Freq Offset 0 Hz

Dwell Time_DH5_2441



Agilent Spectrum Analyzer - Swept SA

Center Freq 2.441000000 GHz

Trig: Free Run #Avg Type: RMS

PN0: Fast IFGain: Low #Atten: 30 dB

12:18:15 PM Mar 07, 2018

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

10 dB/div Ref 20.00 dBm

Center 2.441000000 GHz Span 0 Hz
Res BW 1.0 MHz #VBW 3.0 MHz Sweep 3.160 s (8001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.441000000 GHz

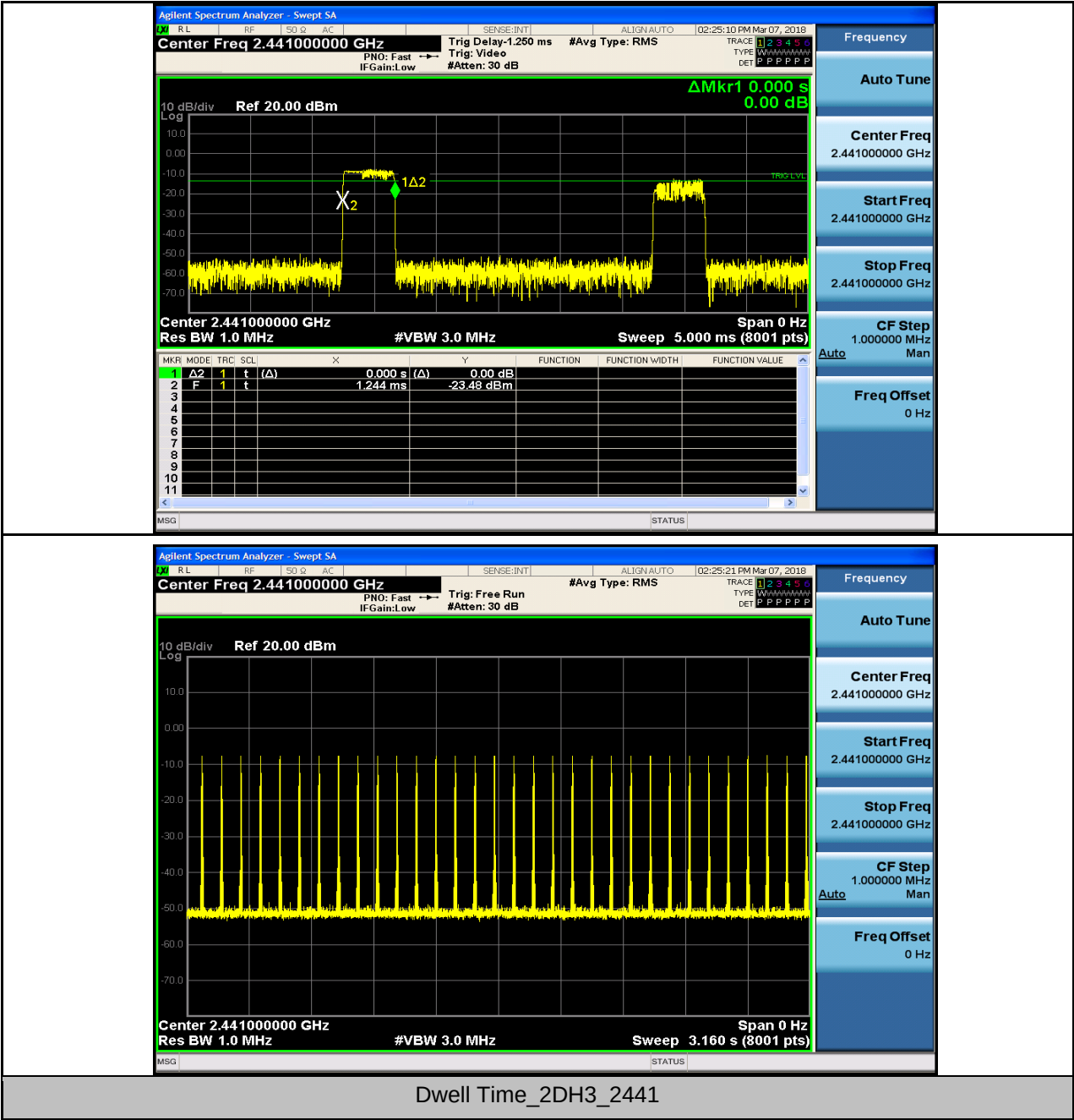
Start Freq
2.441000000 GHz

Stop Freq
2.441000000 GHz

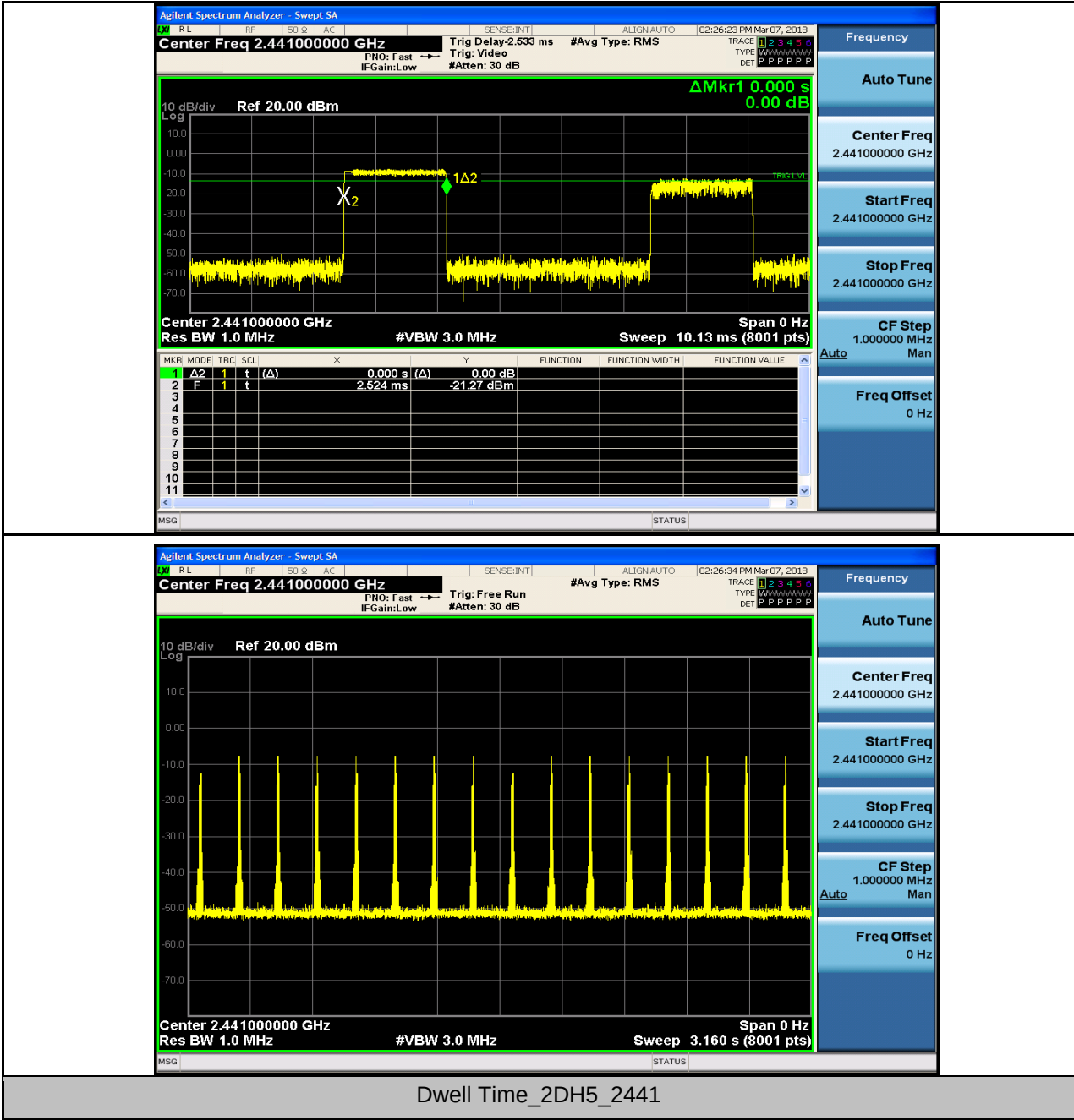
CF Step
1.000000 MHz
Auto Man

Freq Offset
0 Hz

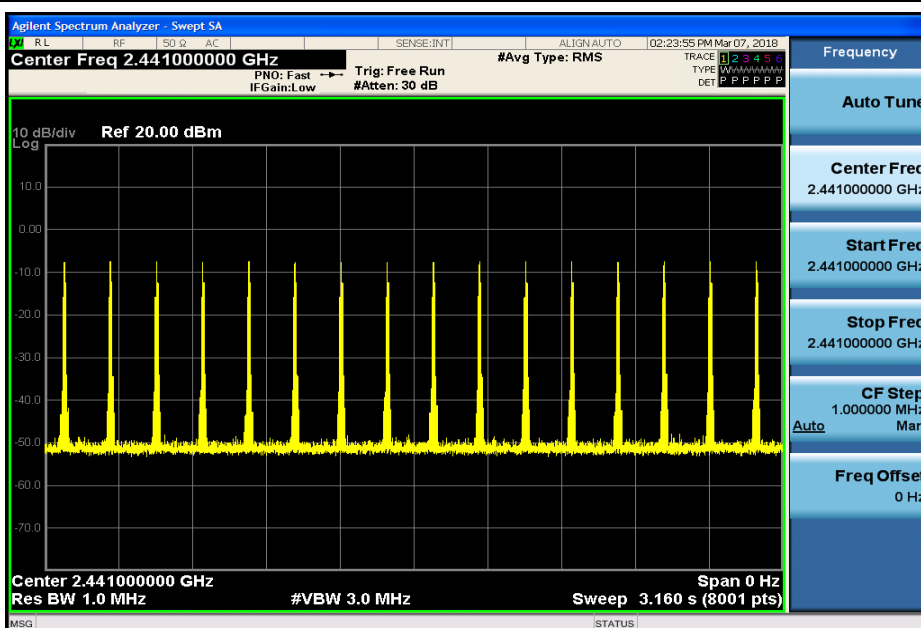
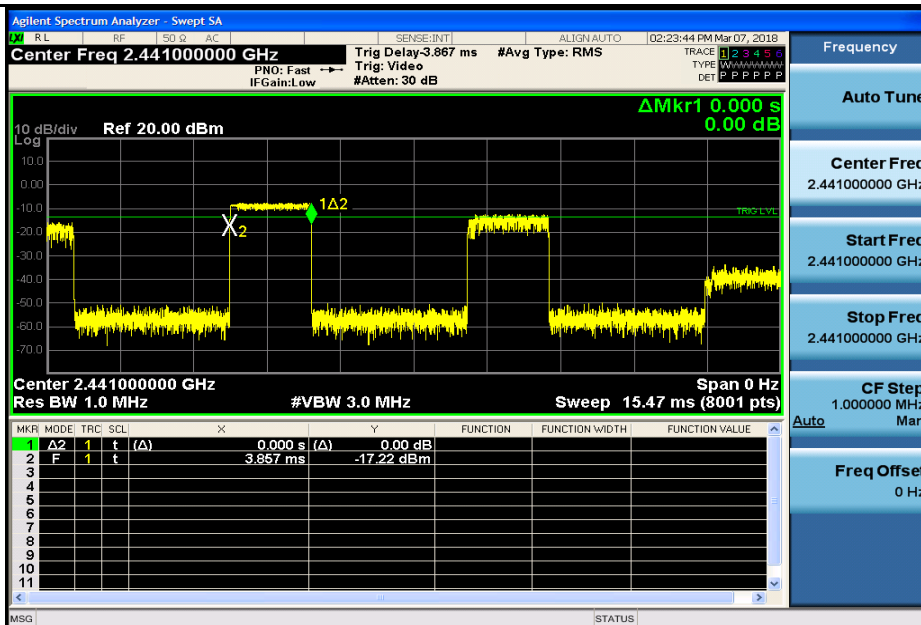
Dwell Time_2DH1_2441



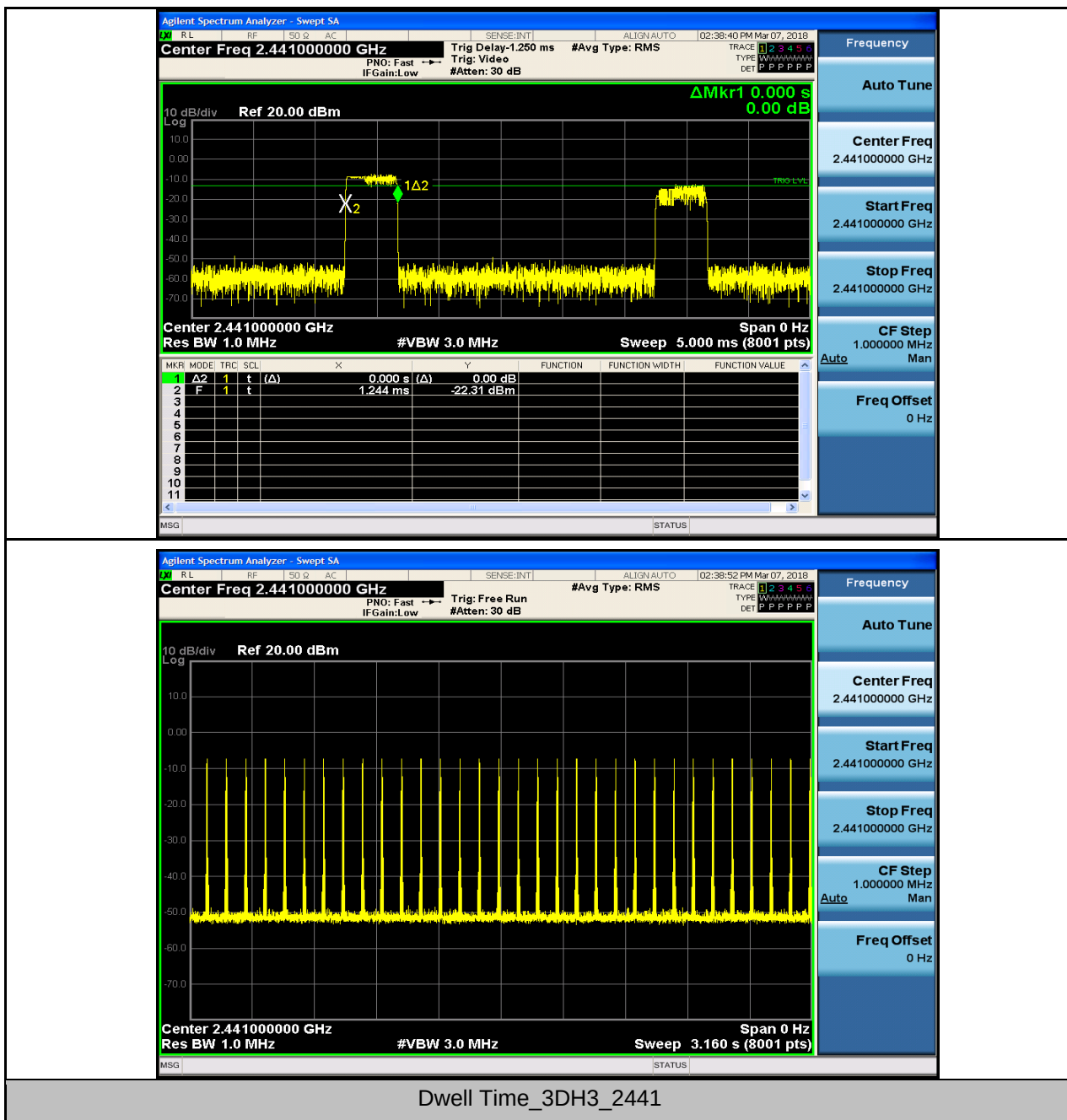
Dwell Time_2DH3_2441



Dwell Time_2DH5_2441



Dwell Time_3DH1_2441



Agilent Spectrum Analyzer - Swept SA

Center Freq 2.441000000 GHz

Trig: Free Run #Avg Type: RMS

PN0: Fast IFGain: Low #Atten: 30 dB

02:38:52 PM Mar 07, 2018

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

10 dB/div Ref 20.00 dBm

Log

Center 2.441000000 GHz Span 0 Hz

Res BW 1.0 MHz #VBW 3.0 MHz Sweep 3.160 s (8001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq
2.441000000 GHz

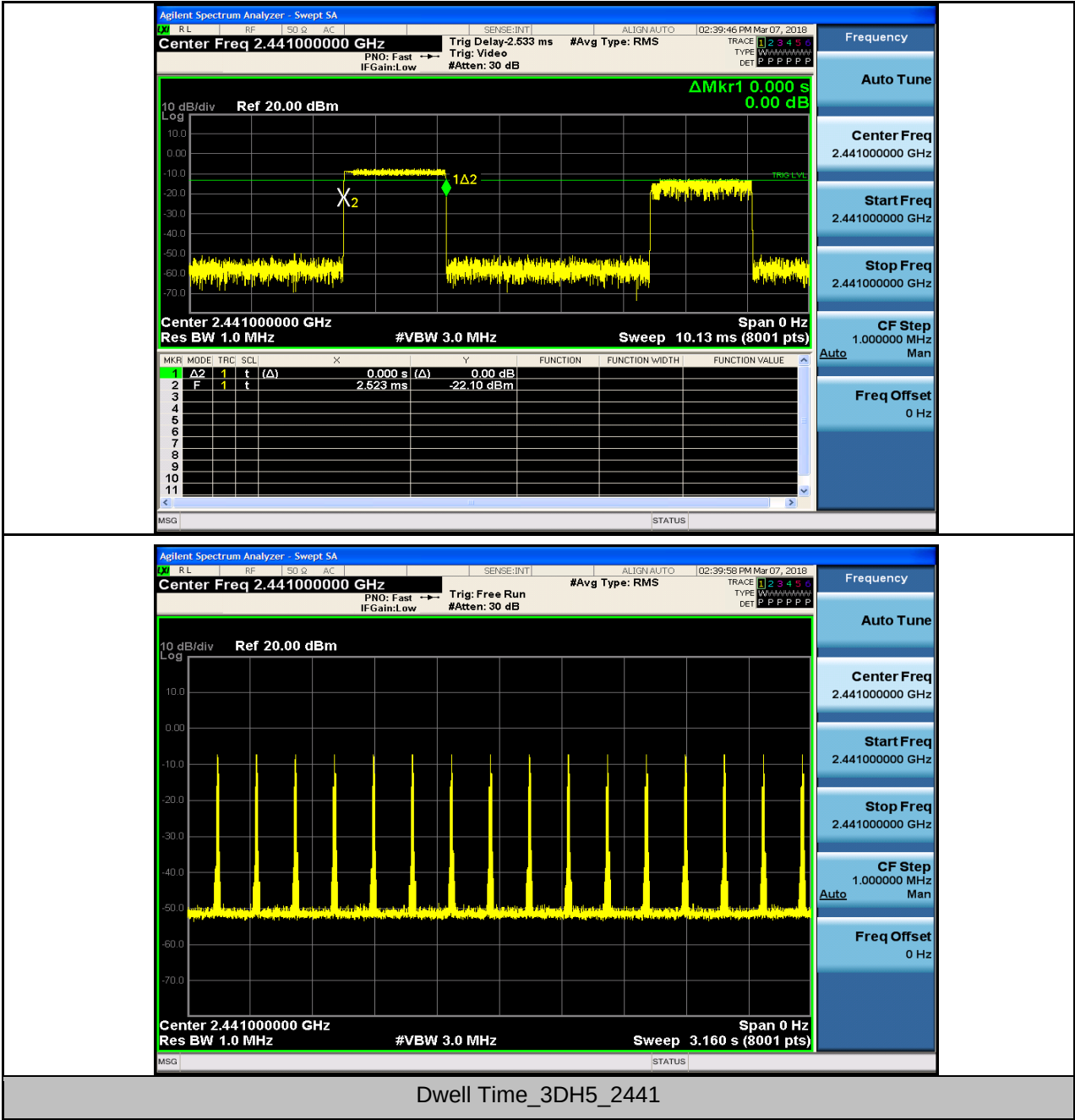
Start Freq
2.441000000 GHz

Stop Freq
2.441000000 GHz

CF Step
1.000000 MHz
Auto Man

Freq Offset
0 Hz

Dwell Time_3DH3_2441



Agilent Spectrum Analyzer - Swept SA

Center Freq 2.441000000 GHz

Trig: Free Run #Avg Type: RMS

PN0: Fast IFGain: Low #Atten: 30 dB

02:39:58 PM Mar 07, 2018

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

10 dB/div Ref 20.00 dBm

Log

Center 2.441000000 GHz Span 0 Hz

Res BW 1.0 MHz #VBW 3.0 MHz Sweep 3.160 s (8001 pts)

MSG STATUS

Frequency

Auto Tune

Center Freq 2.441000000 GHz

Start Freq 2.441000000 GHz

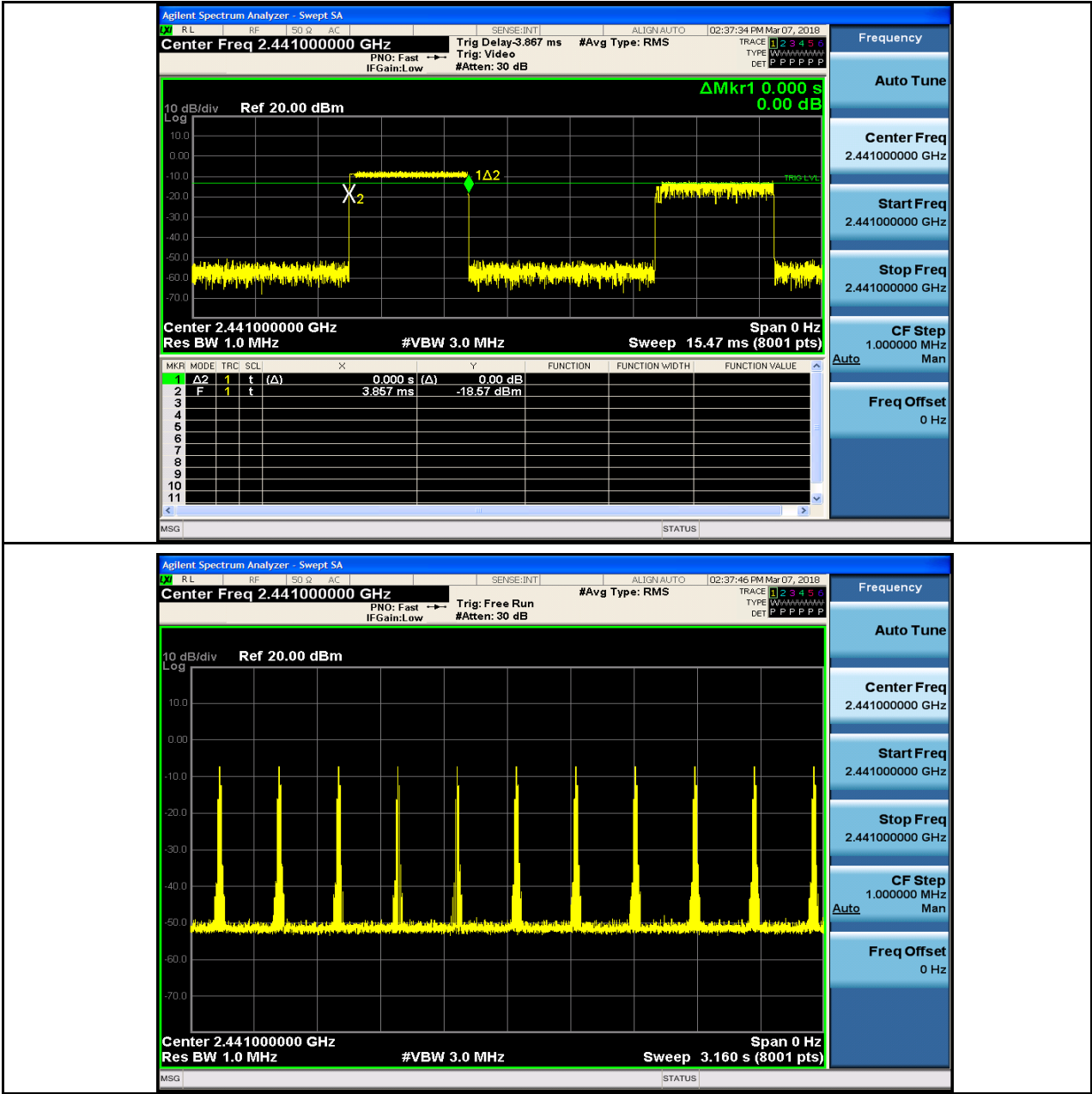
Stop Freq 2.441000000 GHz

CF Step 1.000000 MHz

Auto Man

Freq Offset 0 Hz

Dwell Time_3DH5_2441

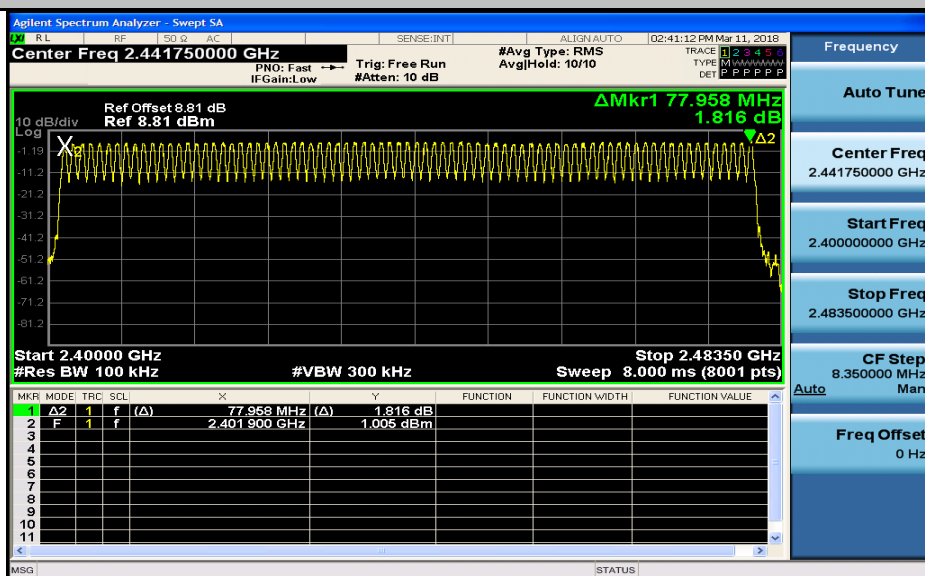




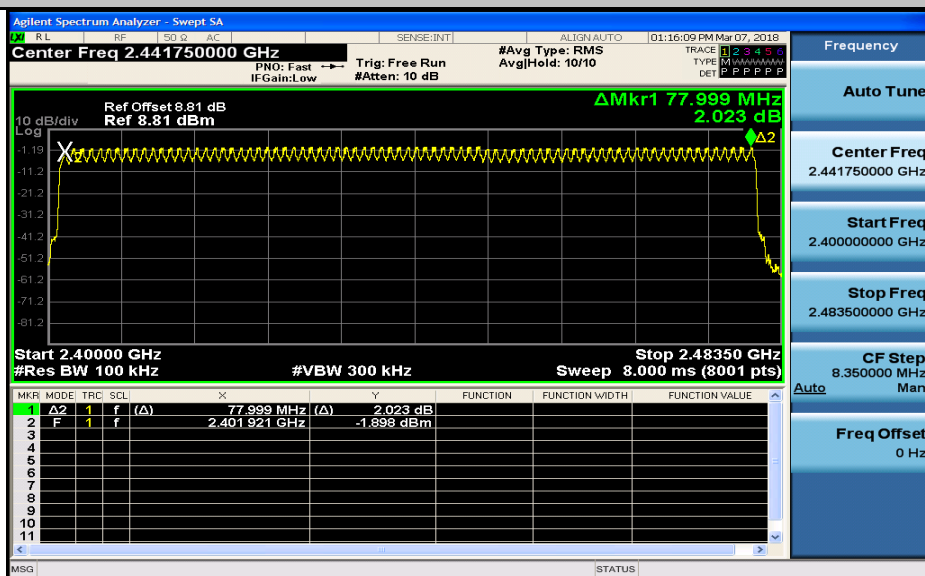
6.Hopping Channel Number

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

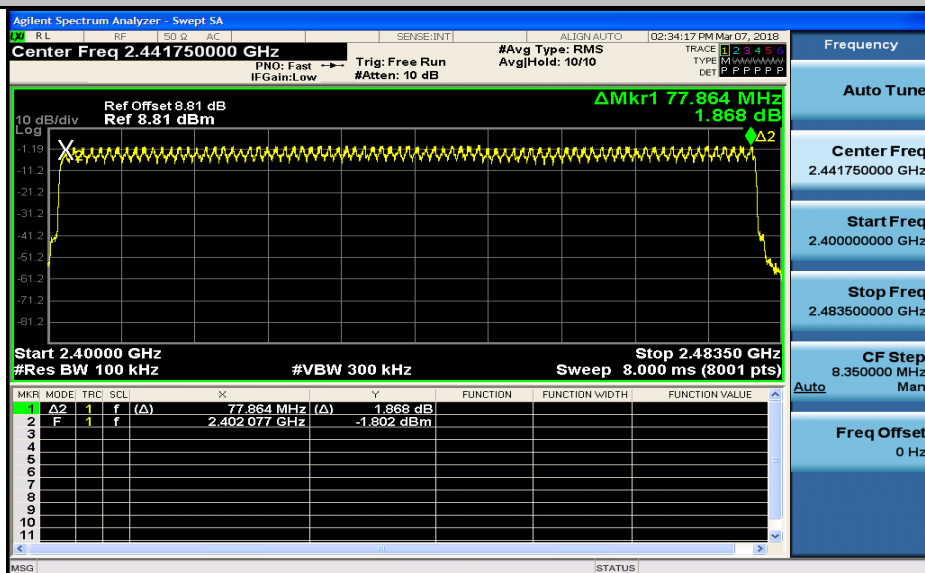
Hopping Channel Number_DH5



Hopping Channel Number_2DH5



Hopping Channel Number_3DH5



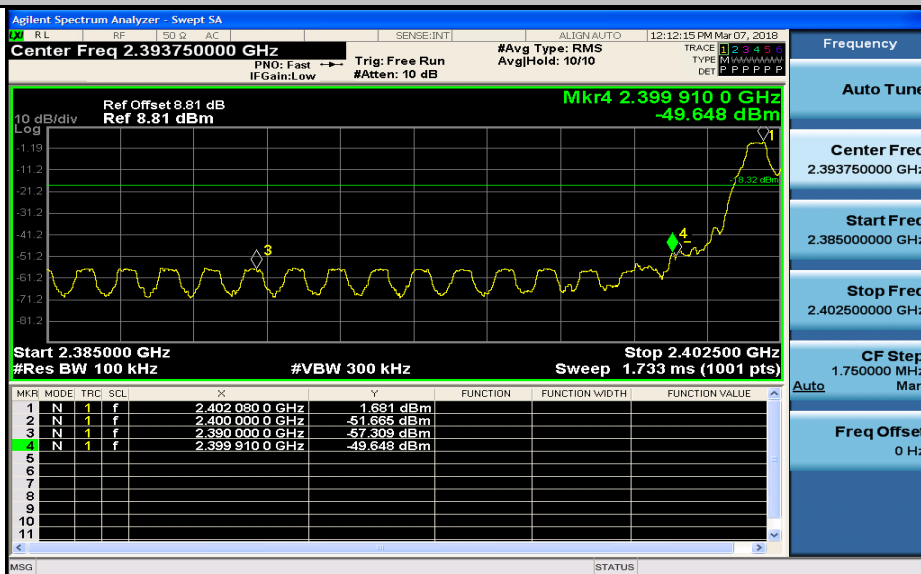
7.Band-edge for RF Conducted Emissions

Test Mode	Test Channel	Hopping	Carrier Power[dBm]	Max. Spurious Level [dBm]	Limit[dBm]	Verdict
DH5	2402	Off	1.38	-49.40	-18.62	PASS
DH5	2402	On	1.681	-49.648	-18.32	PASS
DH5	2480	Off	3.26	-58.39	-16.74	PASS
DH5	2480	On	3.265	-51.859	-16.74	PASS
2DH5	2402	Off	0.34	-49.79	-19.66	PASS
2DH5	2402	On	-2.148	-53.289	-22.15	PASS
2DH5	2480	Off	0.21	-62.13	-19.79	PASS
2DH5	2480	On	0.304	-53.698	-19.7	PASS
3DH5	2402	Off	-2.11	-52.44	-22.11	PASS
3DH5	2402	On	-1.966	-53.706	-21.97	PASS
3DH5	2480	Off	0.29	-61.50	-19.72	PASS
3DH5	2480	On	0.197	-54.048	-19.8	PASS

Band-edge for RF Conducted Emissions_DH5_2402_Hopping Off



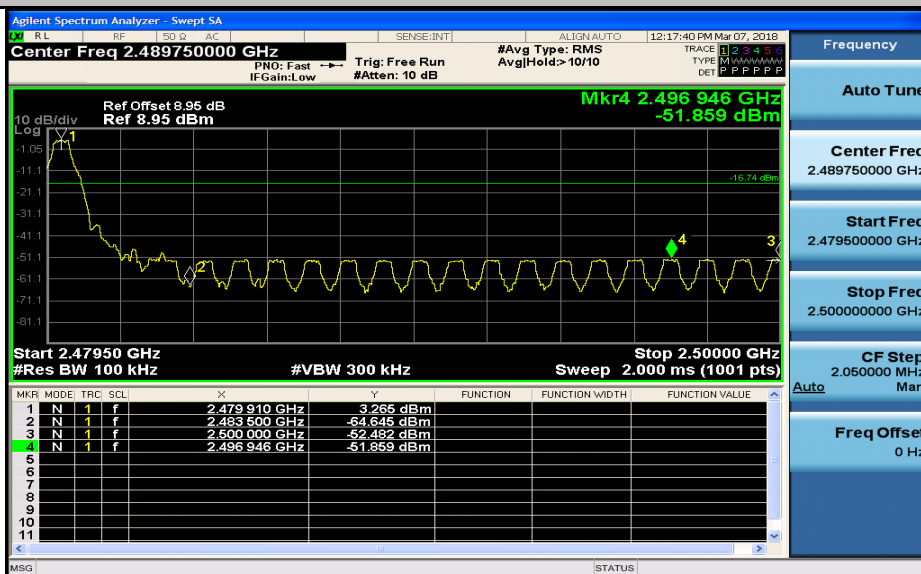
Band-edge for RF Conducted Emissions_DH5_2402_Hopping On



Band-edge for RF Conducted Emissions_DH5_2480_Hopping Off



Band-edge for RF Conducted Emissions_DH5_2480_Hopping On



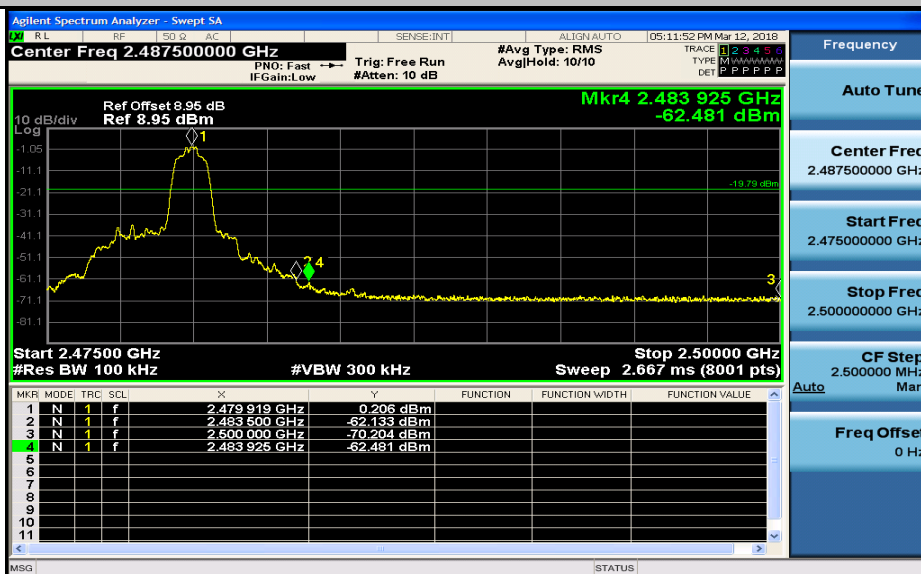
Band-edge for RF Conducted Emissions_2DH5_2402_Hopping Off



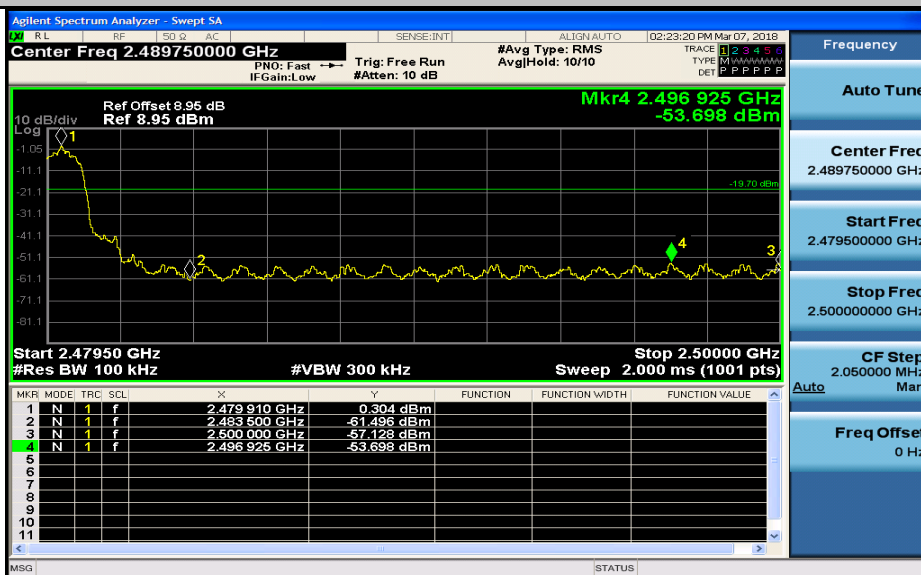
Band-edge for RF Conducted Emissions_2DH5_2402_Hopping On



Band-edge for RF Conducted Emissions_2DH5_2480_Hopping Off



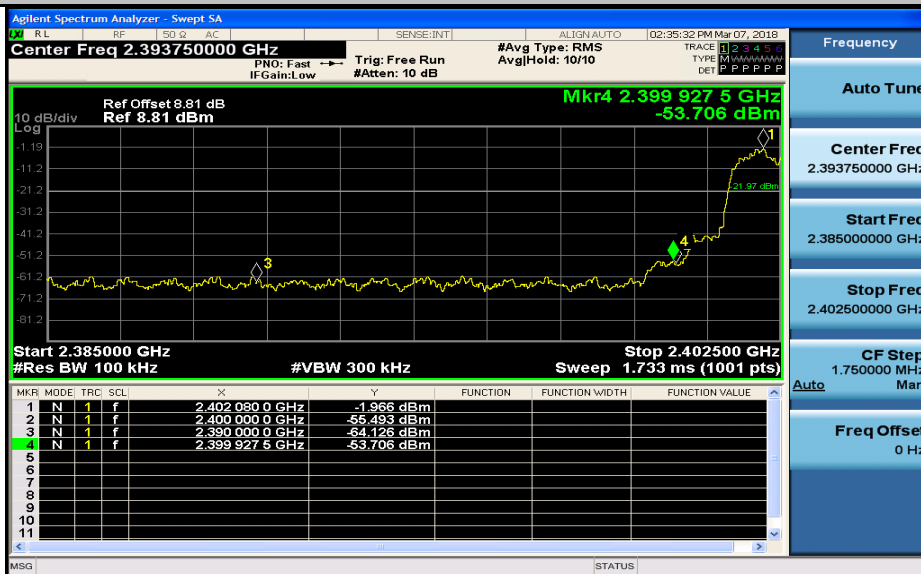
Band-edge for RF Conducted Emissions_2DH5_2480_Hopping On



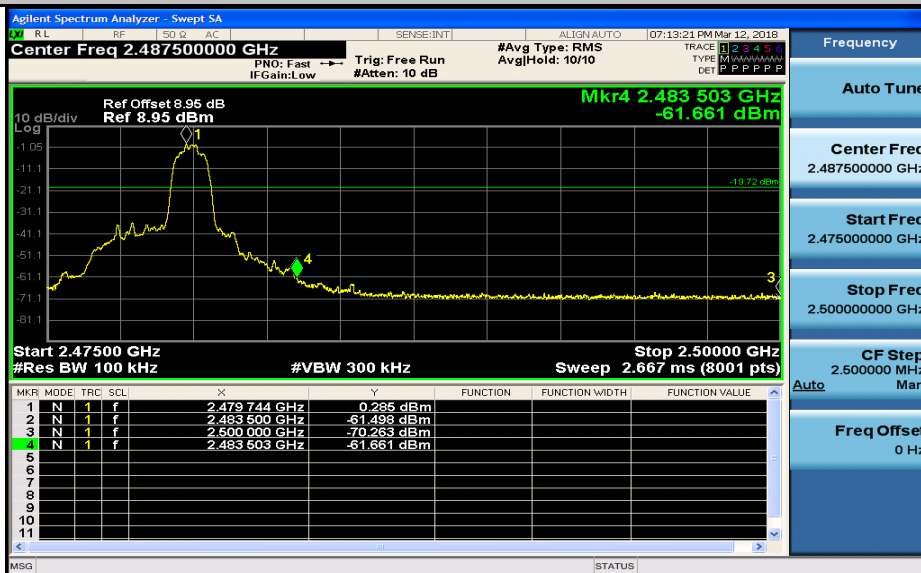
Band-edge for RF Conducted Emissions_3DH5_2402_Hopping Off



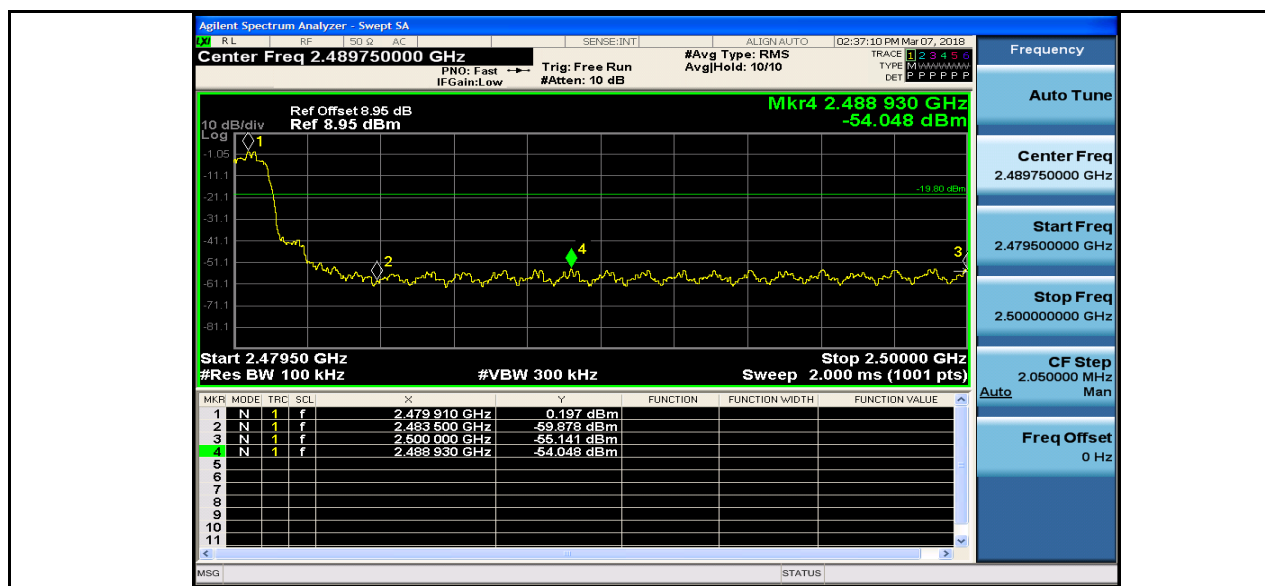
Band-edge for RF Conducted Emissions_3DH5_2402_Hopping On



Band-edge for RF Conducted Emissions_3DH5_2480_Hopping Off



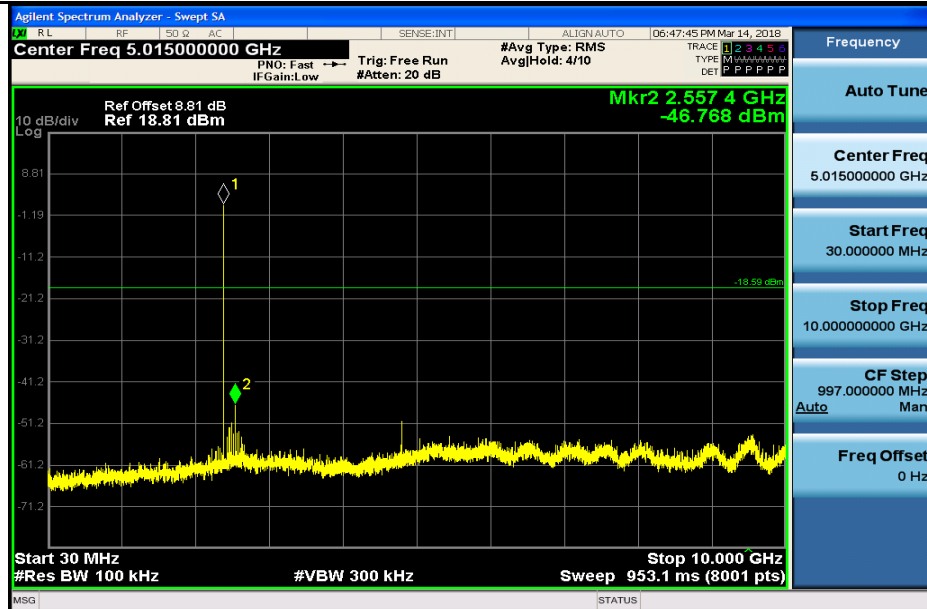
Band-edge for RF Conducted Emissions_3DH5_2480_Hopping On

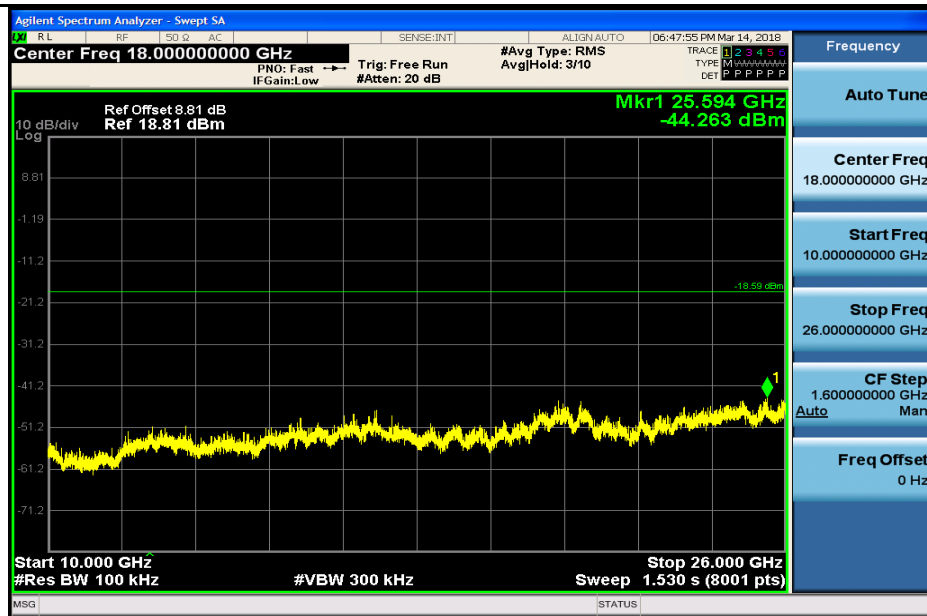


8.RF Conducted Spurious Emissions

Test Mode	Test Channel	StartFre [MHz]	StopFre [MHz]	RBW [kHz]	VBW [kHz]	Pref[dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
DH5	2402	30	10000	100	300	1.41	-46.77	<-18.59	PASS
DH5	2402	10000	26000	100	300	1.411	-44.263	<-18.589	PASS
DH5	2441	30	10000	100	300	3.28	-49.29	<-16.72	PASS
DH5	2441	10000	26000	100	300	3.276	-43.305	<-16.724	PASS
DH5	2480	30	10000	100	300	3.15	-48.35	<-16.85	PASS
DH5	2480	10000	26000	100	300	3.152	-43.949	<-16.848	PASS
2DH5	2402	30	10000	100	300	0.34	-48.12	<-19.66	PASS
2DH5	2402	10000	26000	100	300	0.342	-43.481	<-19.658	PASS
2DH5	2441	30	10000	100	300	2.25	-49.68	<-17.75	PASS
2DH5	2441	10000	26000	100	300	2.247	-43.662	<-17.753	PASS
2DH5	2480	30	10000	100	300	2.30	-48.83	<-17.70	PASS
2DH5	2480	10000	26000	100	300	2.296	-43.775	<-17.704	PASS
3DH5	2402	30	10000	100	300	0.42	-51.07	<-19.59	PASS
3DH5	2402	10000	26000	100	300	0.415	-43.899	<-19.585	PASS
3DH5	2441	30	10000	100	300	2.34	-52.68	<-17.66	PASS
3DH5	2441	10000	26000	100	300	2.337	-43.755	<-17.663	PASS
3DH5	2480	30	10000	100	300	2.37	-51.41	<-17.63	PASS
3DH5	2480	10000	26000	100	300	2.372	-43.717	<-17.628	PASS

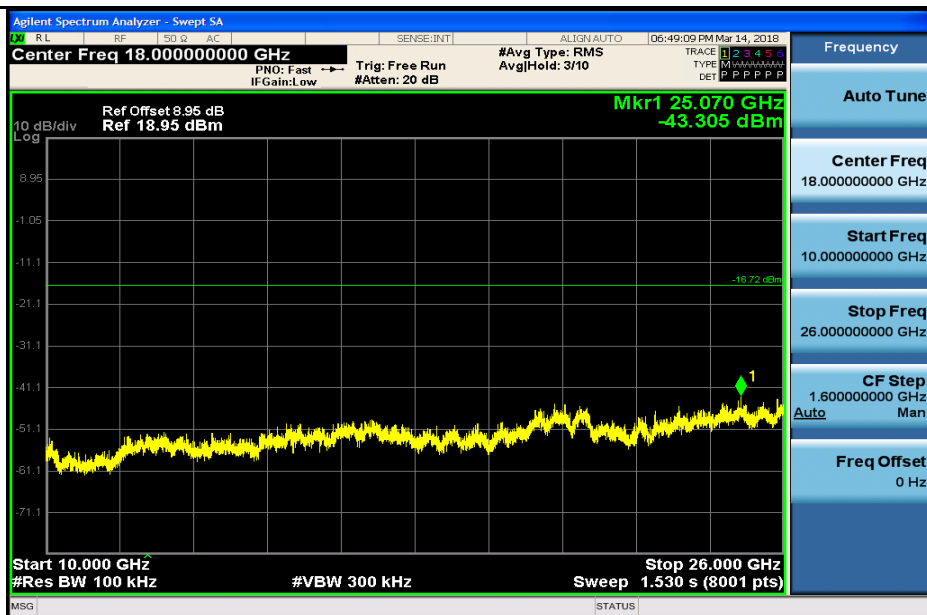
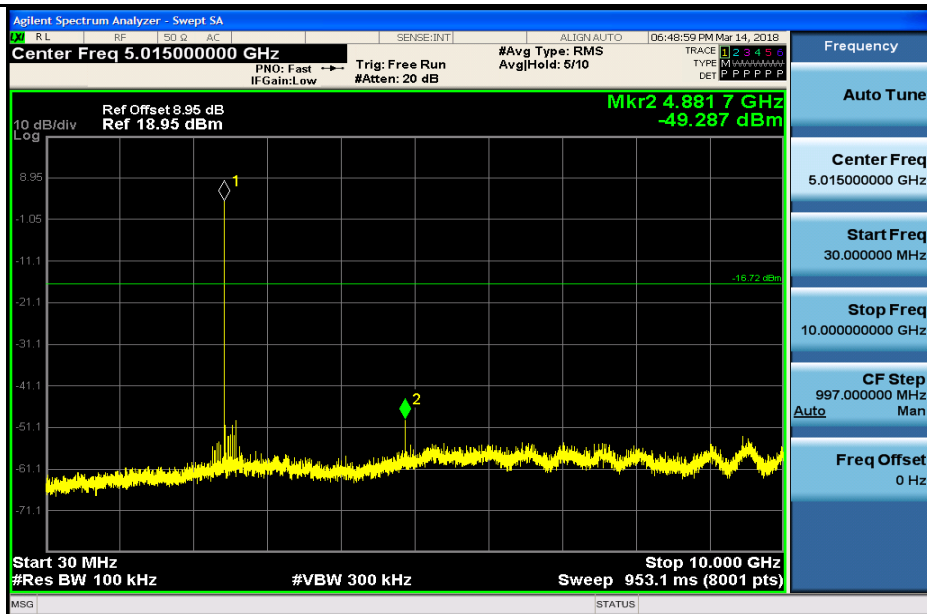
RF Conducted Spurious Emissions_DH5_2402



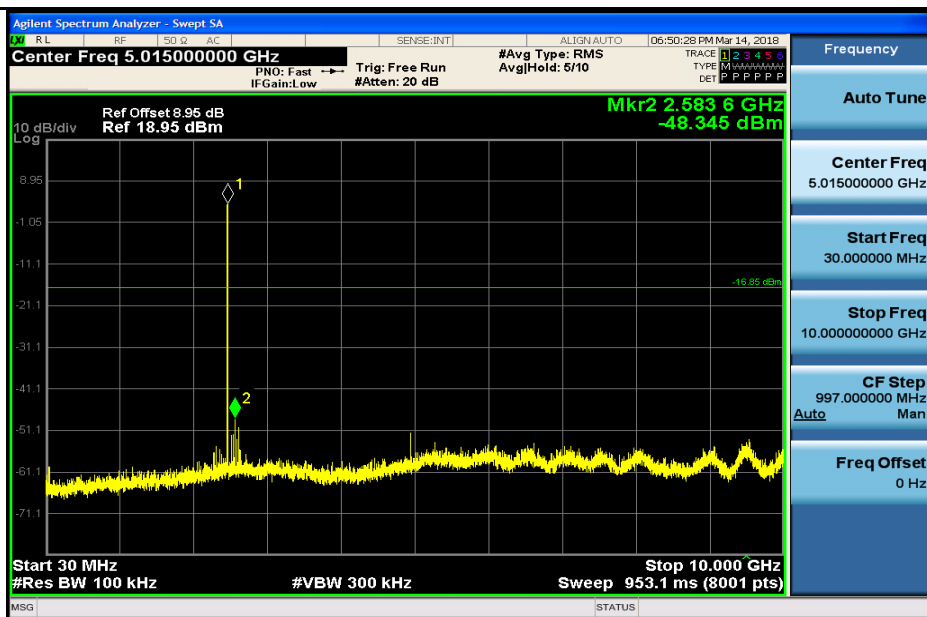


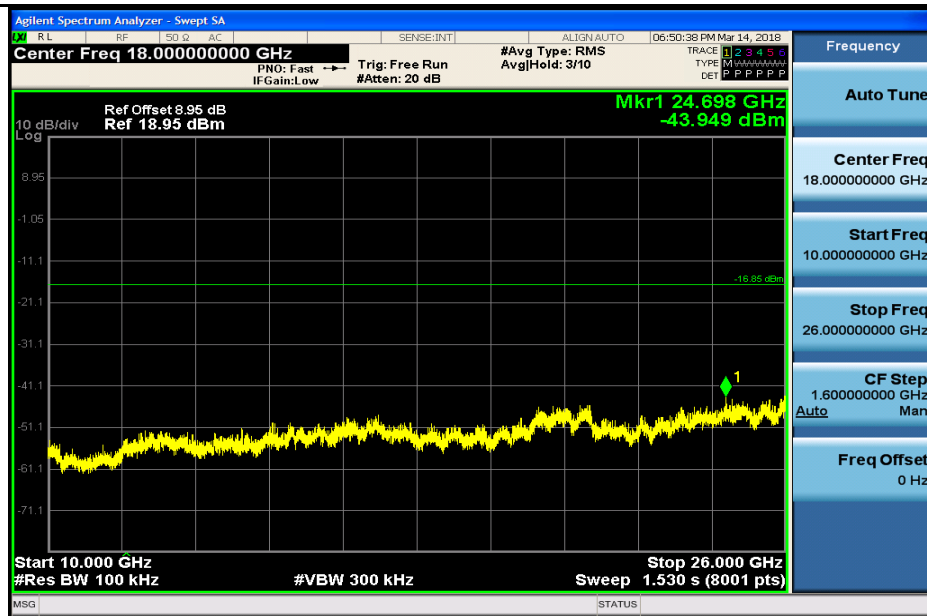
RF Conducted Spurious Emissions_DH5_2441



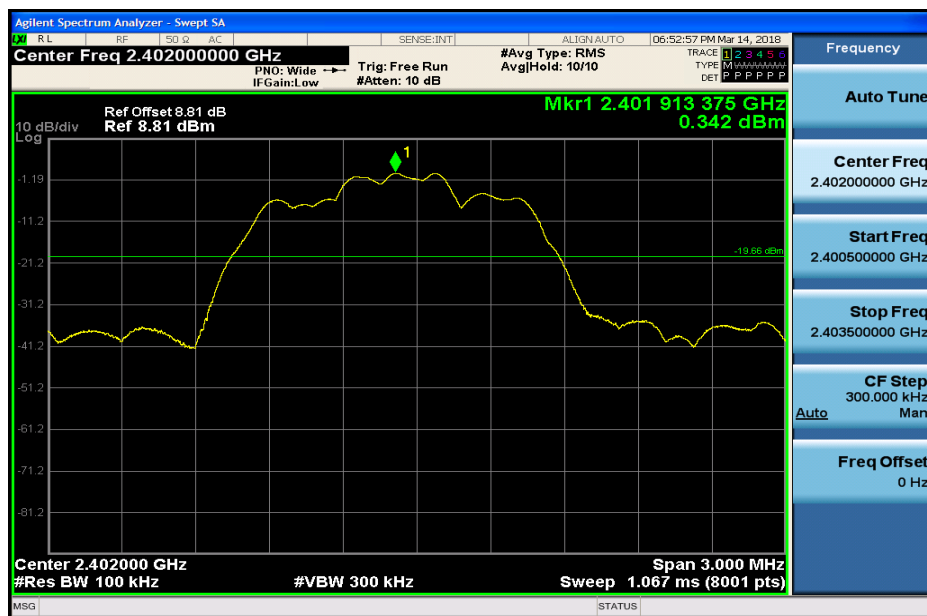


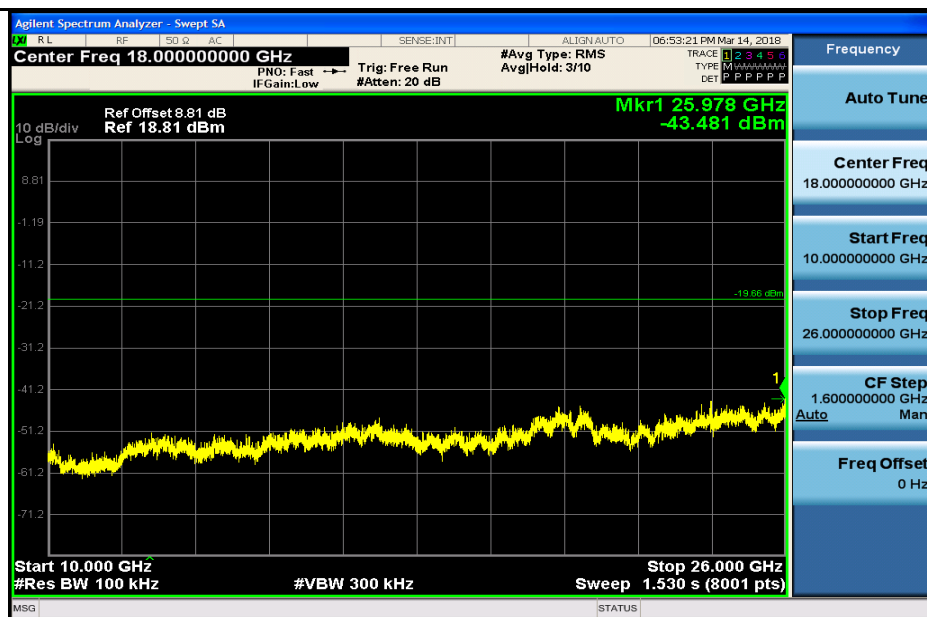
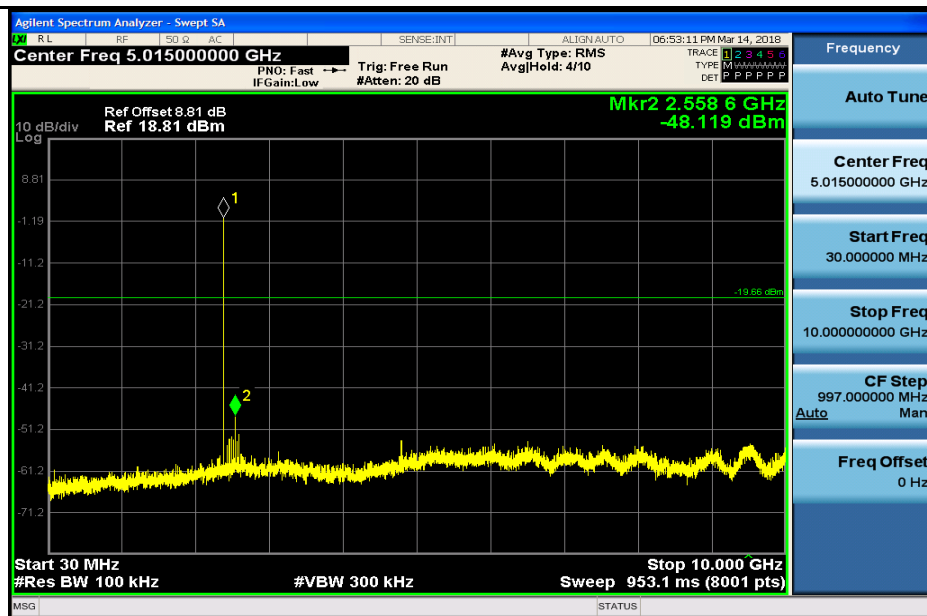
RF Conducted Spurious Emissions_DH5_2480



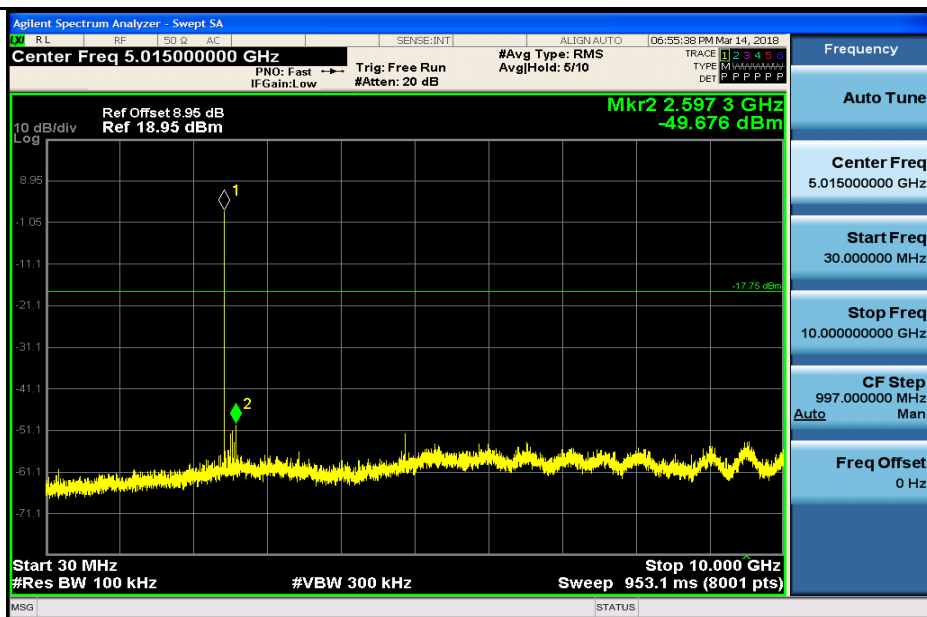


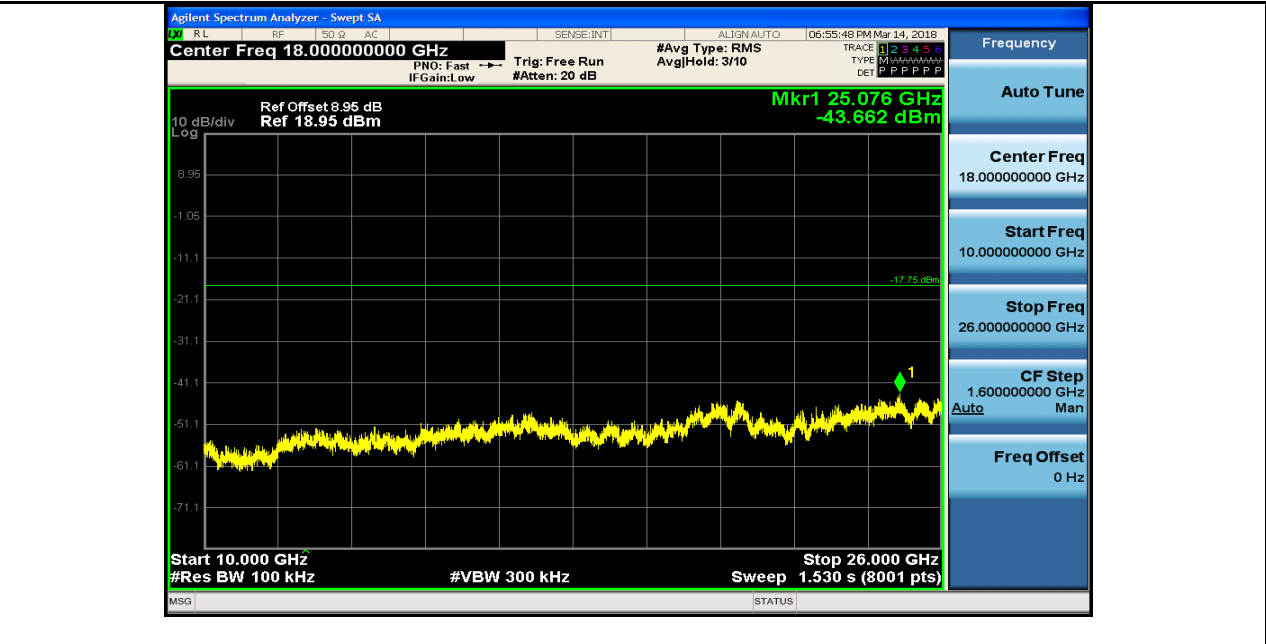
RF Conducted Spurious Emissions_2DH5_2402



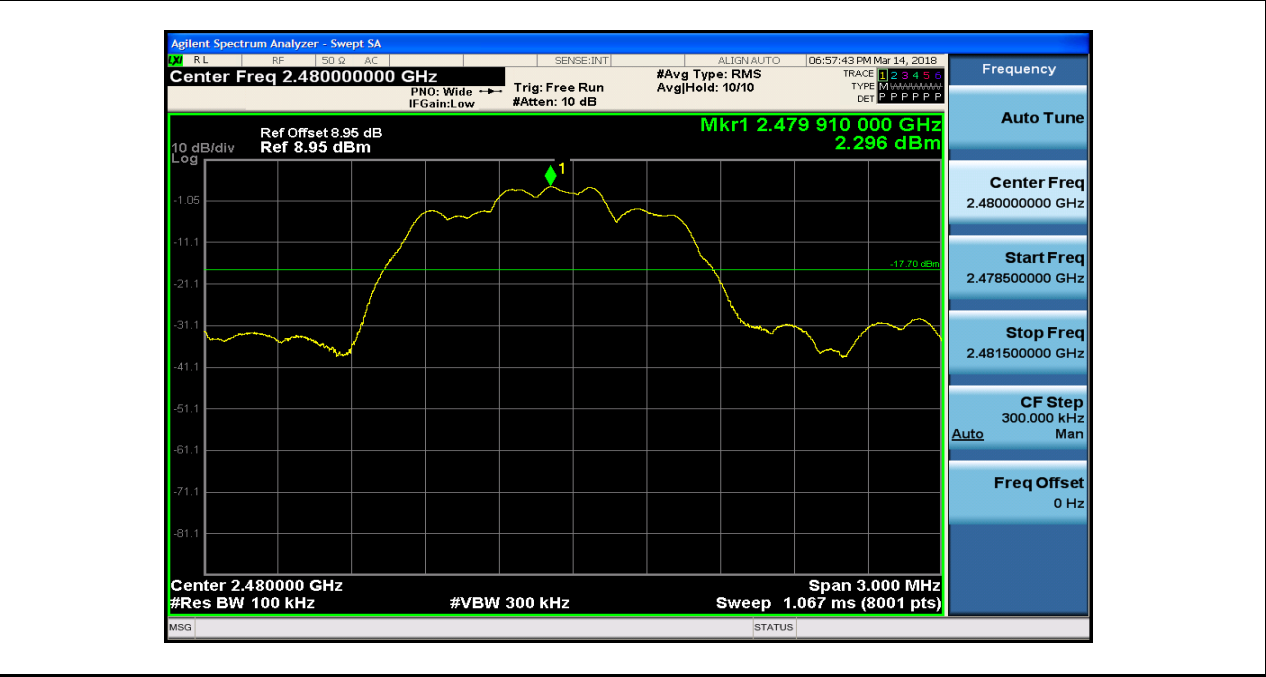


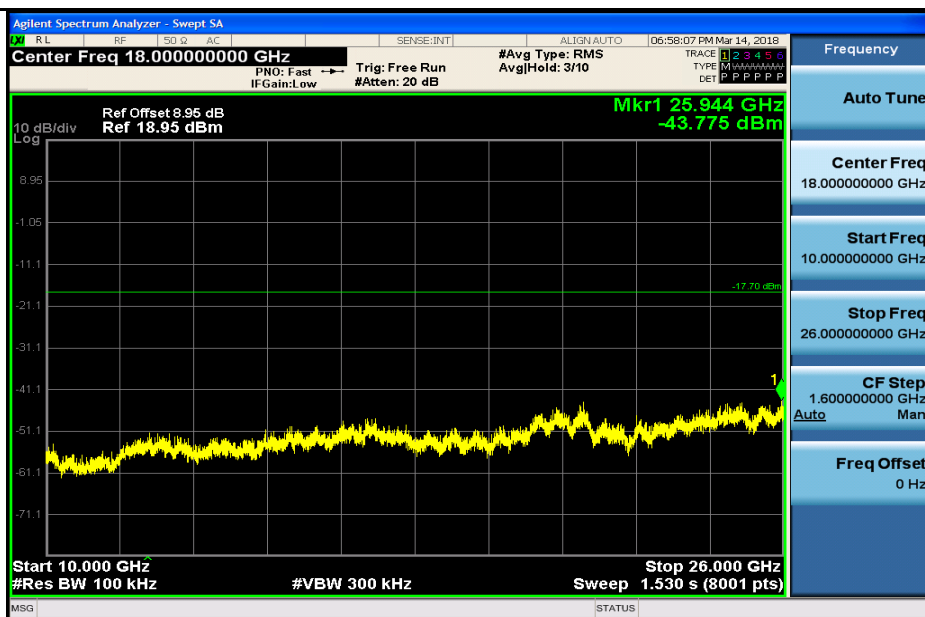
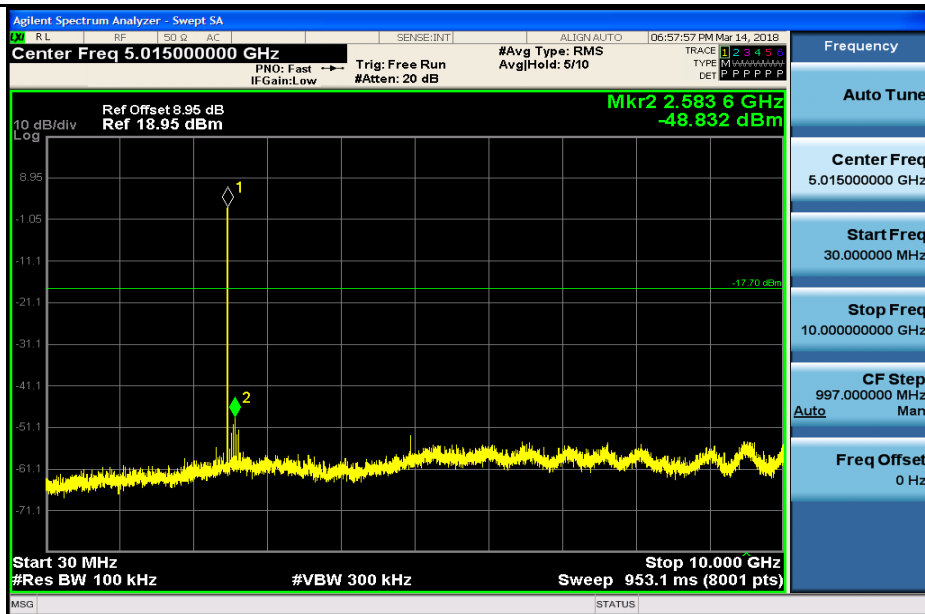
RF Conducted Spurious Emissions_2DH5_2441

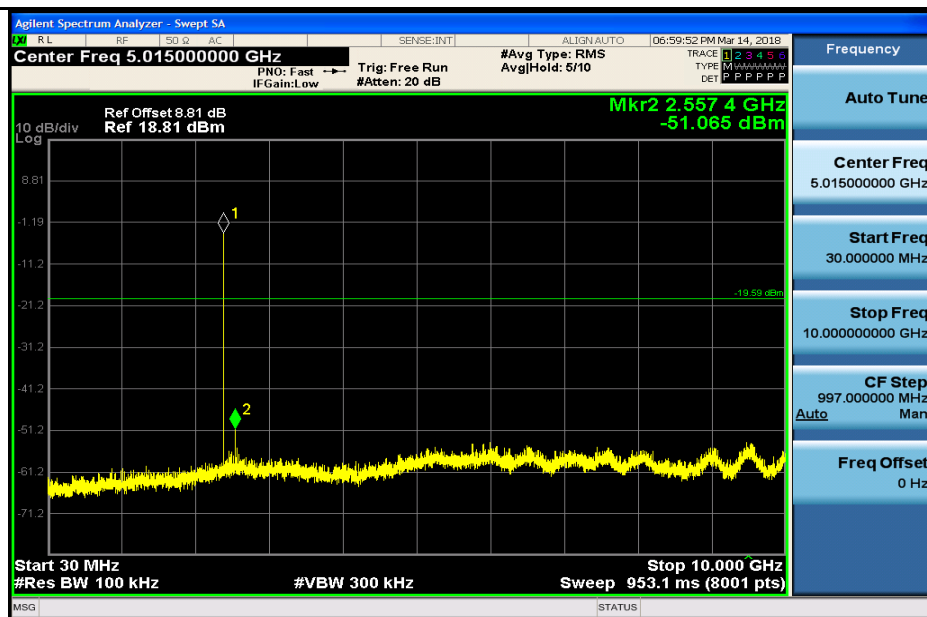


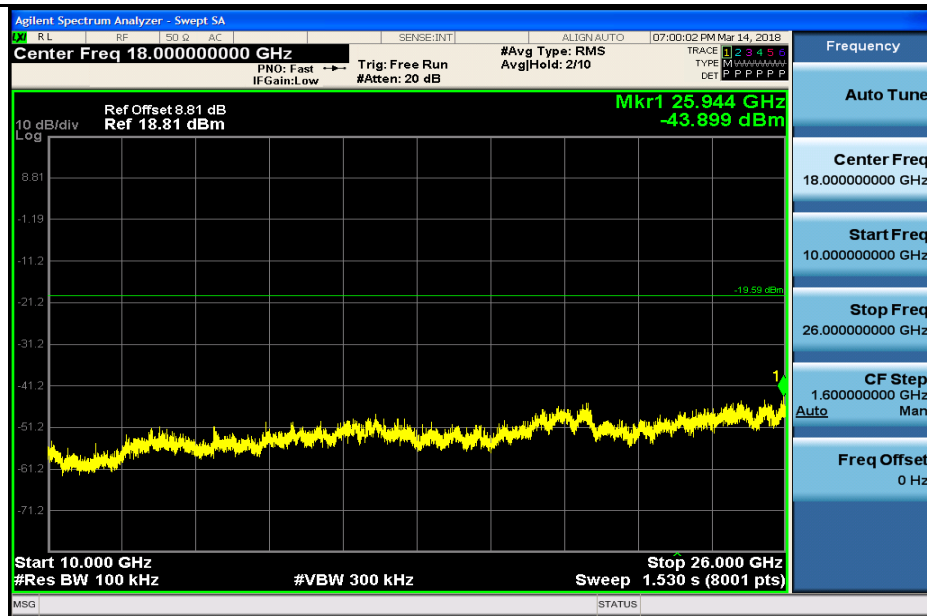


RF Conducted Spurious Emissions_2DH5_2480









RF Conducted Spurious Emissions_3DH5_2441

