Appendix A
RF Test Data for BT(BDR/EDR) (Conducted Measurement)

Product Name: Wireless Charging Speaker with Time display

Trade Mark: N/A

Test Model: RS06

FCC ID: QIF-RS06

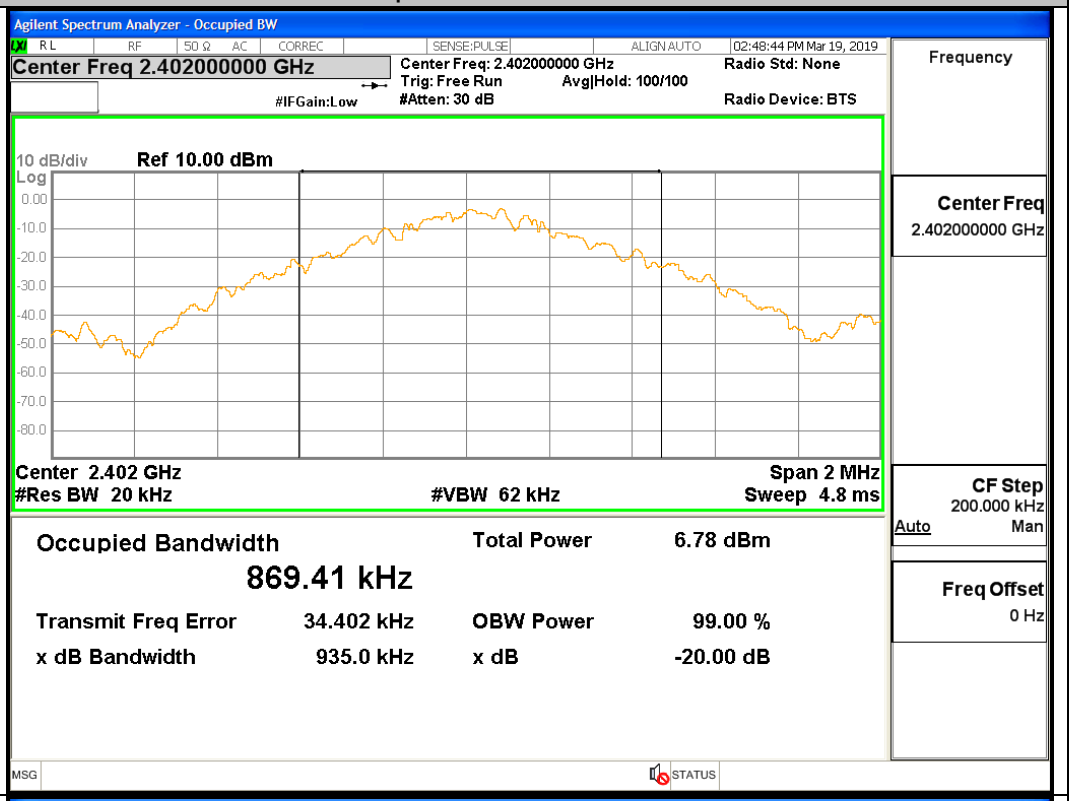
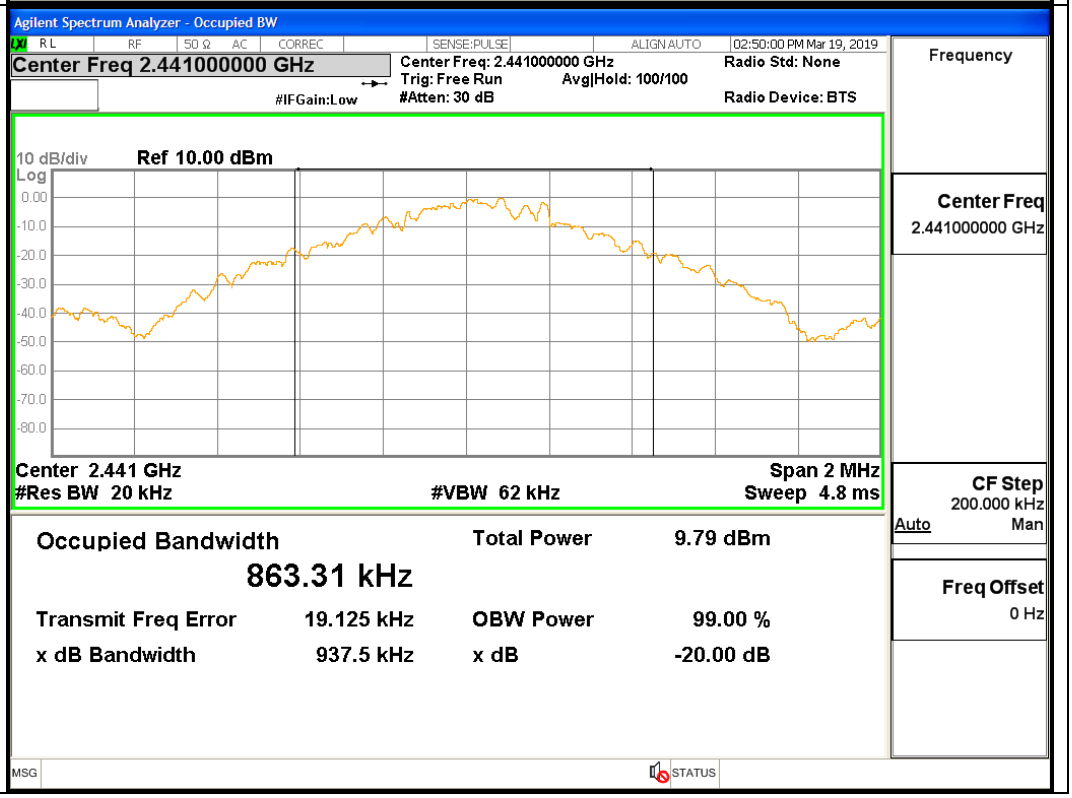
Environmental Conditions

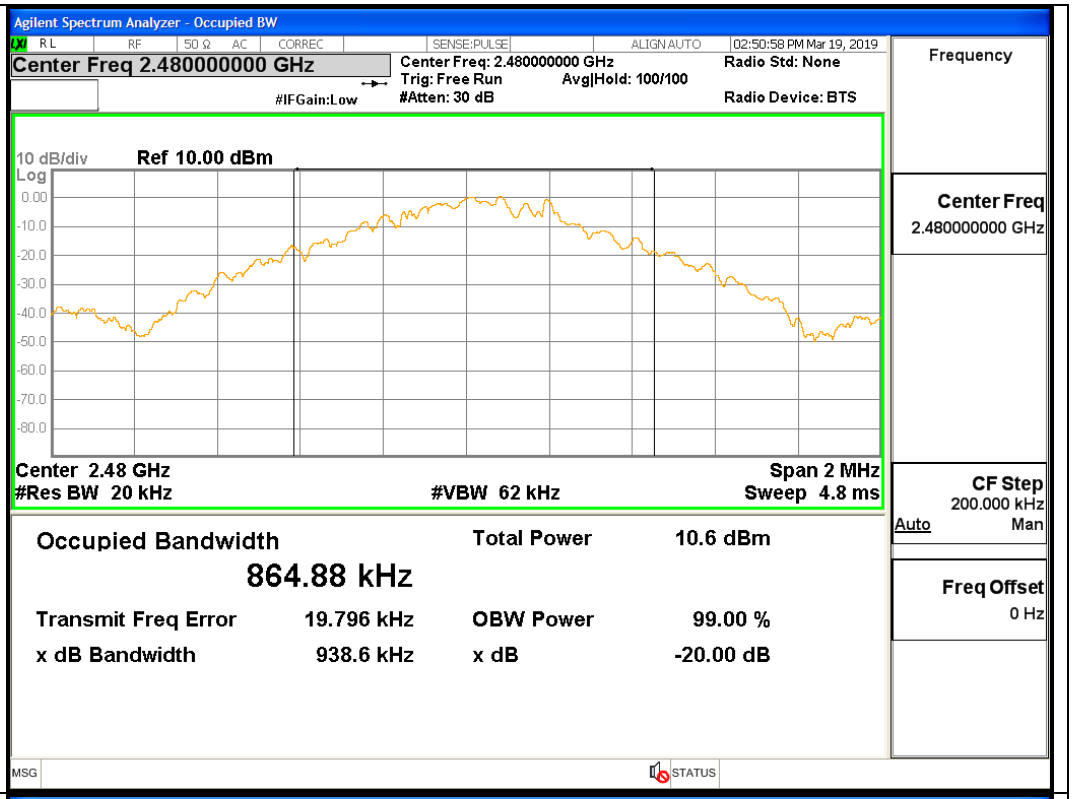
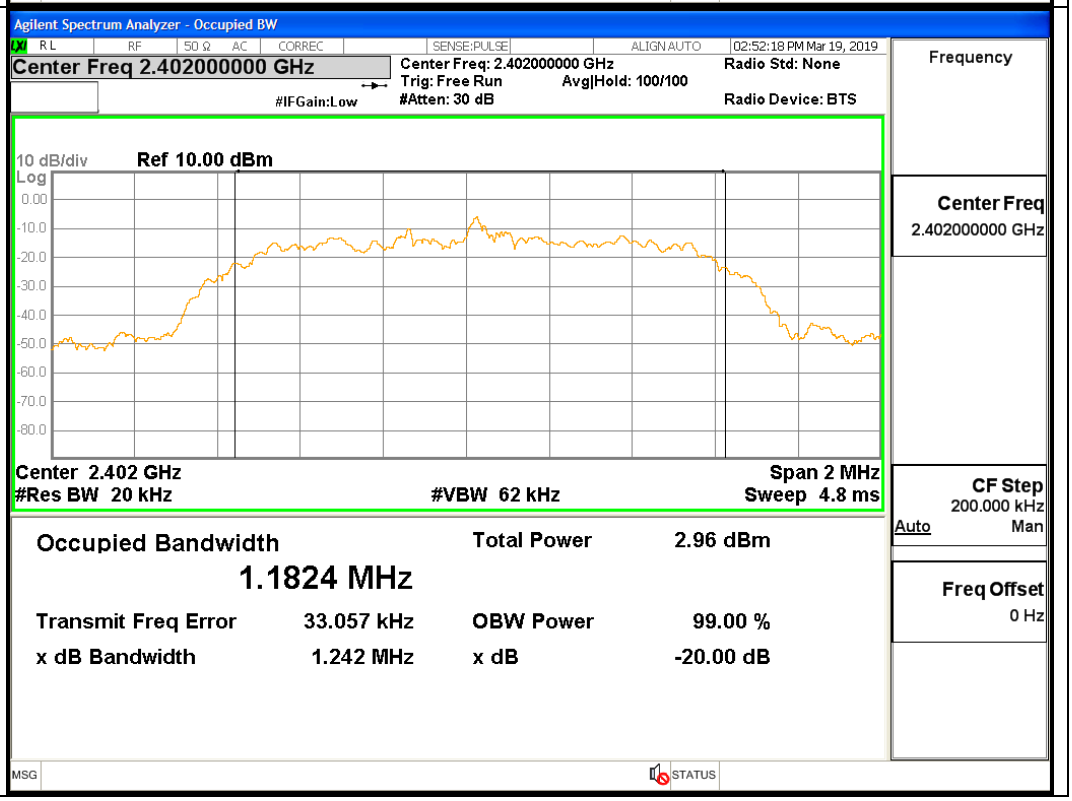
Temperature:	21.3 ° C
Relative Humidity:	50%
ATM Pressure:	100.0 kPa
Test Engineer:	Gary Qian
Supervised by:	Eden Hu

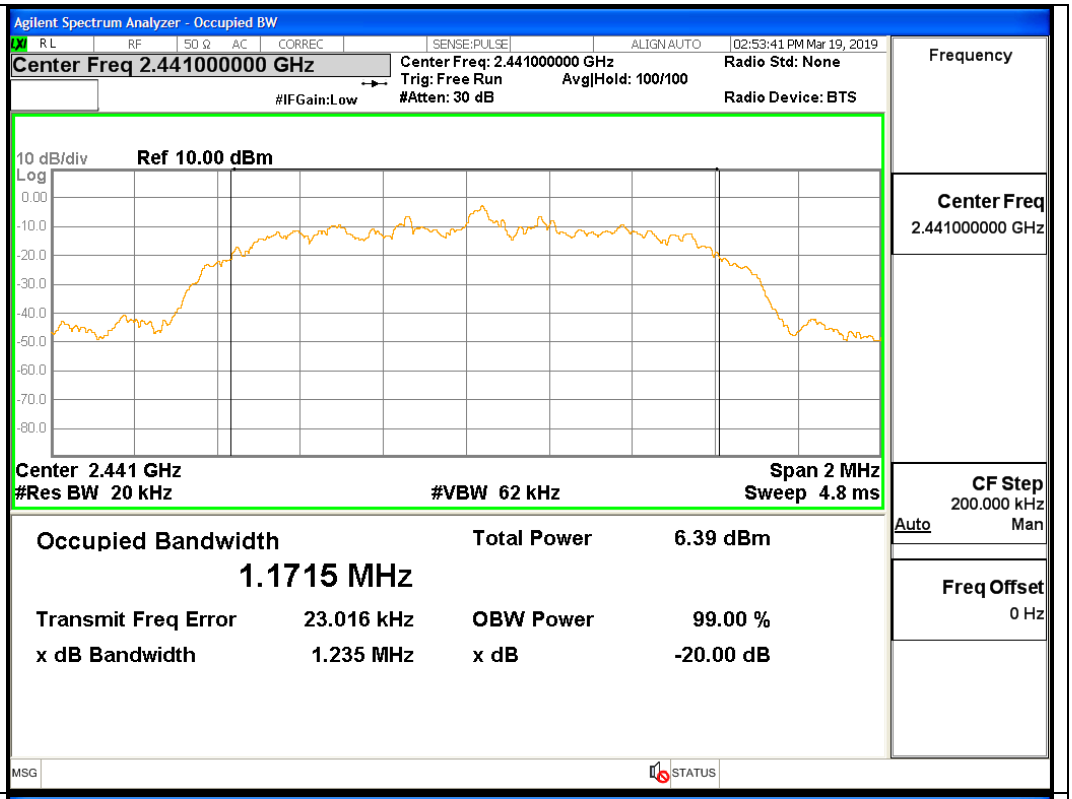
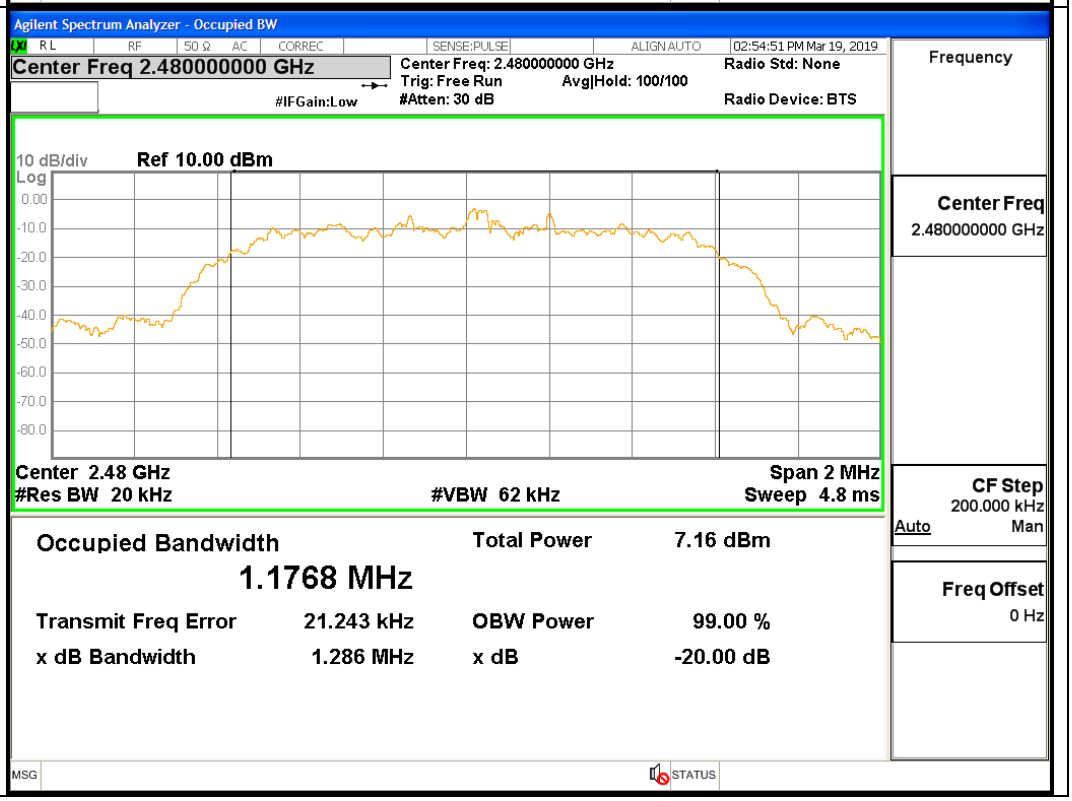
A.1 20 dB Bandwidth

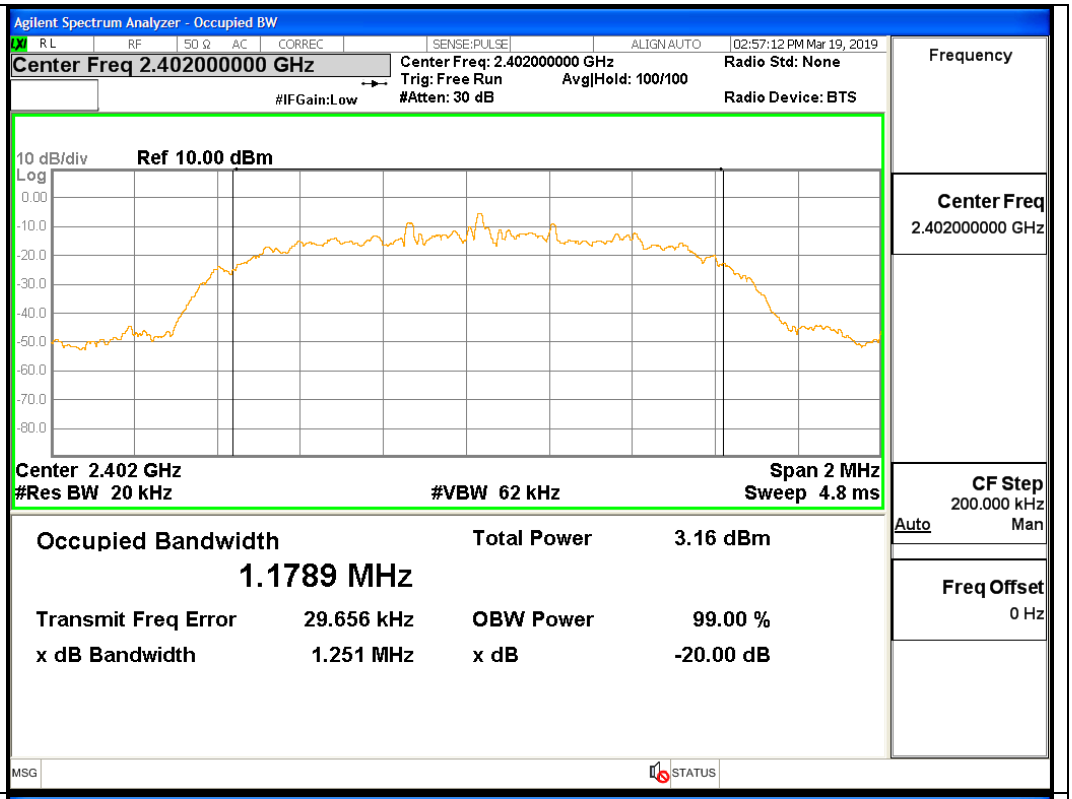
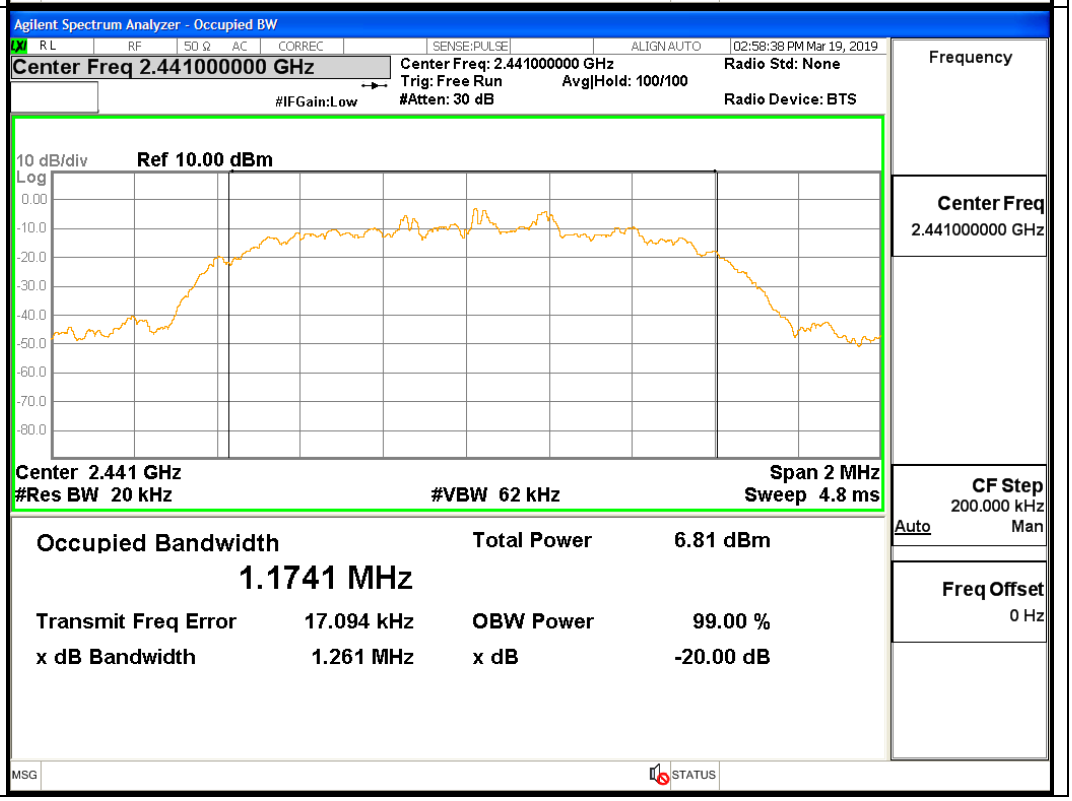
Mode	Channel.	20dB Bandwidth [MHz]	Limit(MHz)	Verdict
GFSK	LCH	0.935	Not Specified	PASS
GFSK	MCH	0.938	Not Specified	PASS
GFSK	HCH	0.939	Not Specified	PASS
π/4DQPSK	LCH	1.242	Not Specified	PASS
π/4DQPSK	MCH	1.235	Not Specified	PASS
π/4DQPSK	HCH	1.286	Not Specified	PASS
8DPSK	LCH	1.251	Not Specified	PASS
8DPSK	MCH	1.261	Not Specified	PASS
8DPSK	HCH	1.254	Not Specified	PASS

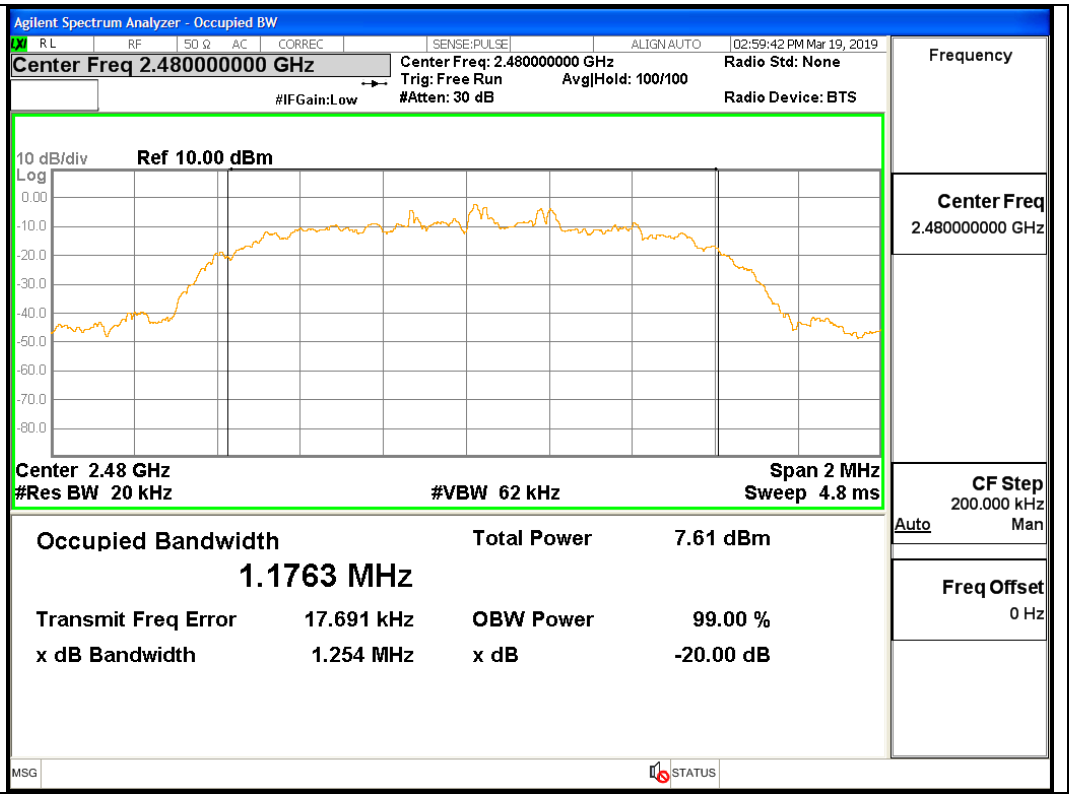
Test Graph

Graphs	
GFSK/LCH	
GFSK/MCH	

GFSK/HCH	
π/4DQPSK/LCH	

π/4DQPSK/MCH	
π/4DQPSK/HCH	

8DPSK/LCH	
8DPSK/MCH	

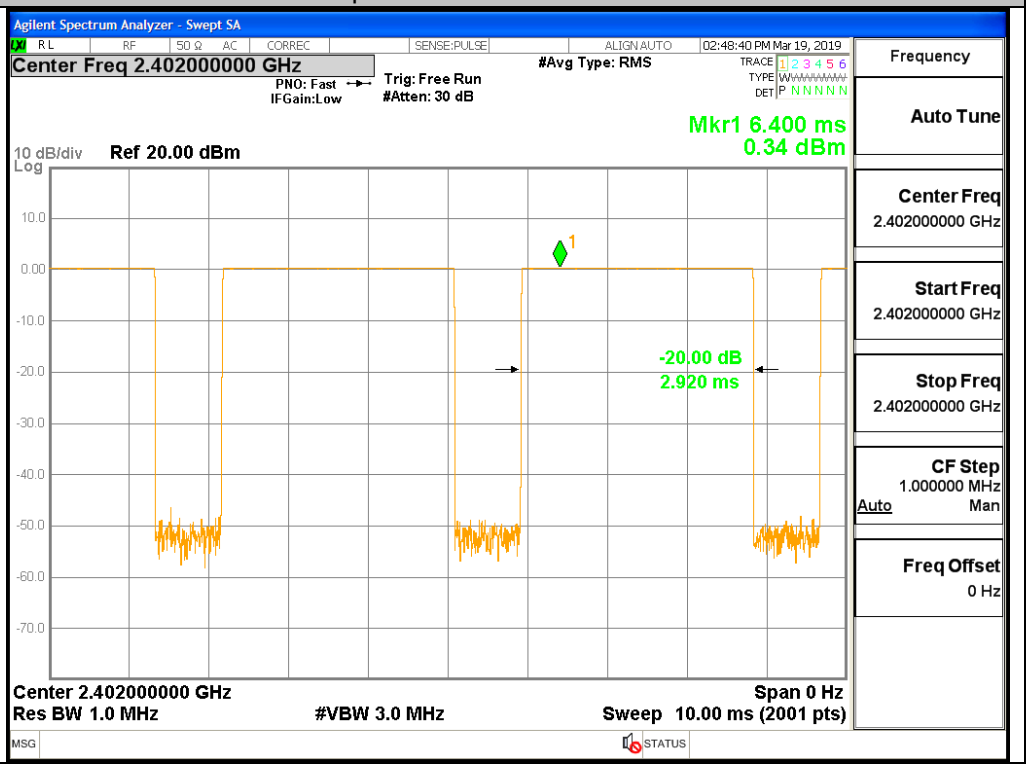
8DPSK/HCH	

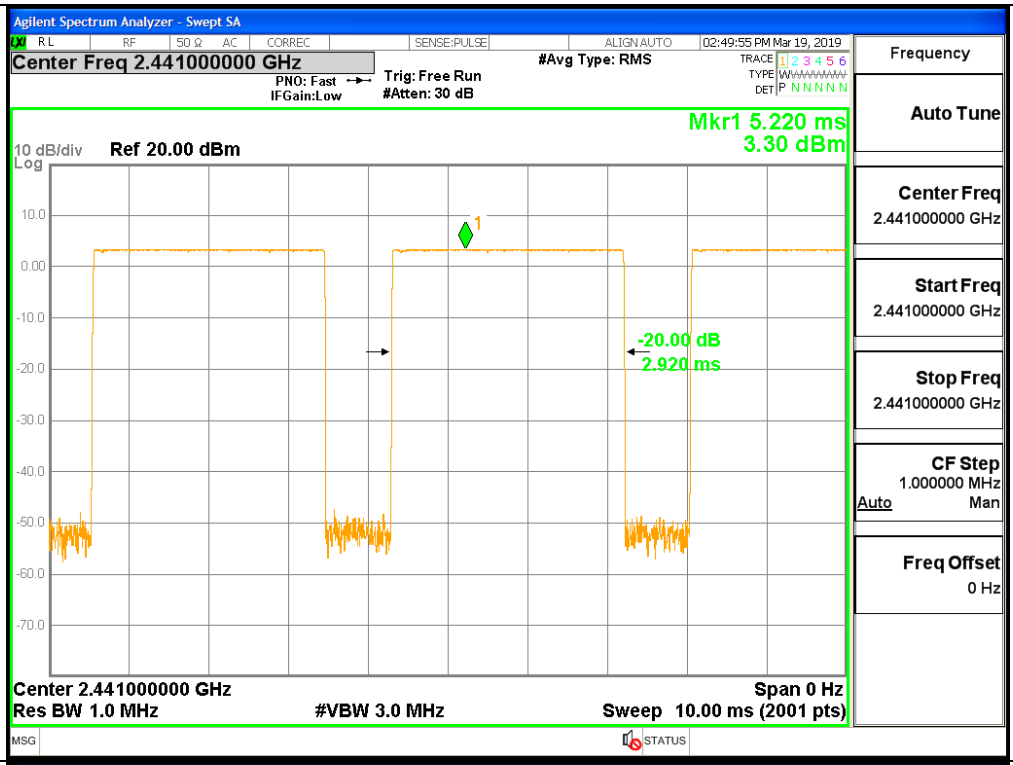
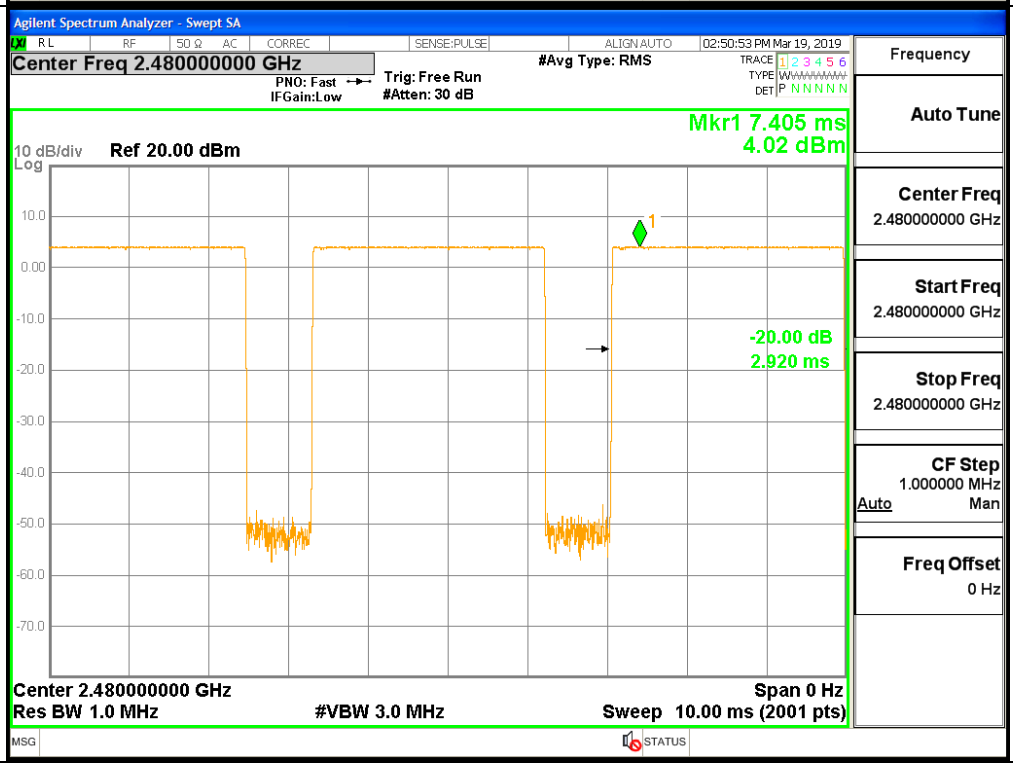
Agilent Spectrum Analyzer - Occupied BW
RL
RF
50 Ω AC
CORREC
SENSE:PULSE
ALIGN AUTO
02:59:42 PM Mar 19, 2019
Center Freq 2.480000000 GHz
Center Freq: 2.480000000 GHz
Trig: Free Run
Avg|Hold: 100/100
#IFGain:Low
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center Freq
2.480000000 GHz
Center 2.48 GHz
#Res BW 20 kHz
#VBW 62 kHz
Span 2 MHz
Sweep 4.8 ms
CF Step
200.000 kHz
Auto
Man
Occupied Bandwidth
1.1763 MHz
Total Power
7.61 dBm
Transmit Freq Error
17.691 kHz
OBW Power
99.00 %
x dB Bandwidth
1.254 MHz
x dB
-20.00 dB
Freq Offset
0 Hz
MSG
STATUS

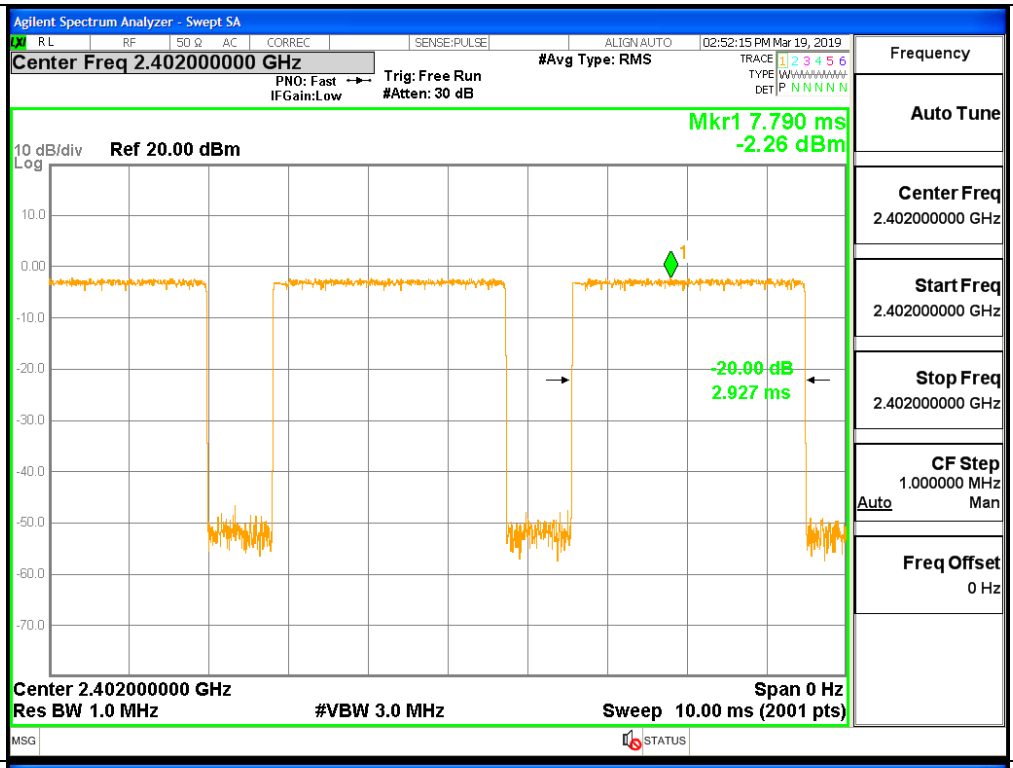
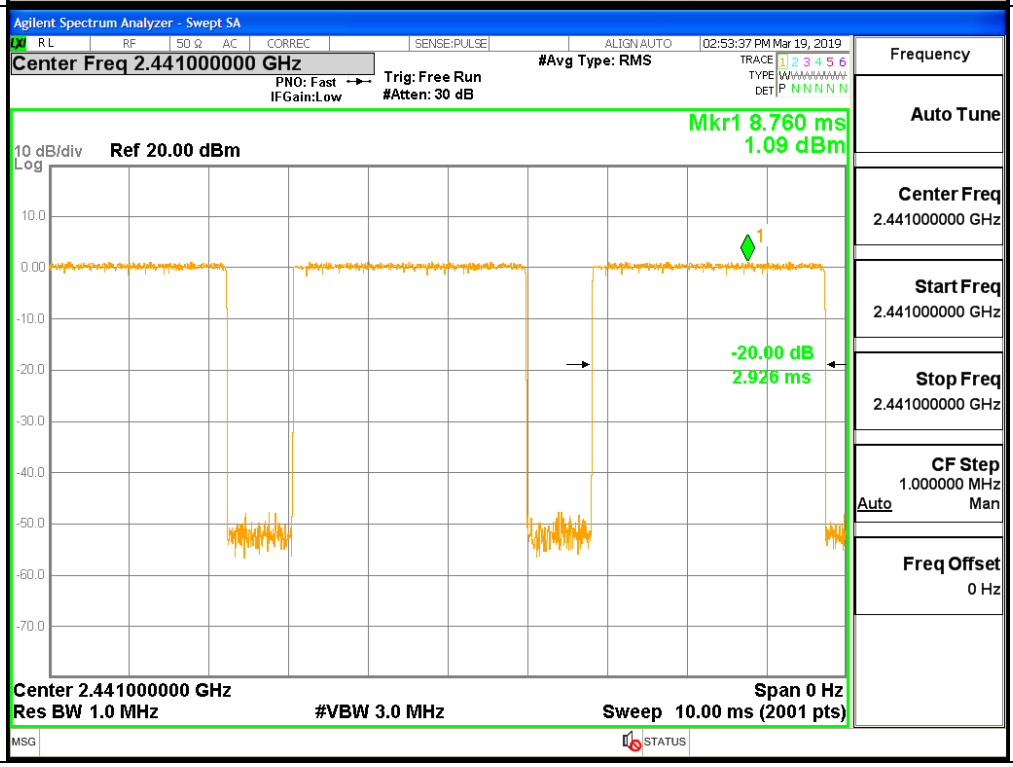
A.2 Dwell Time

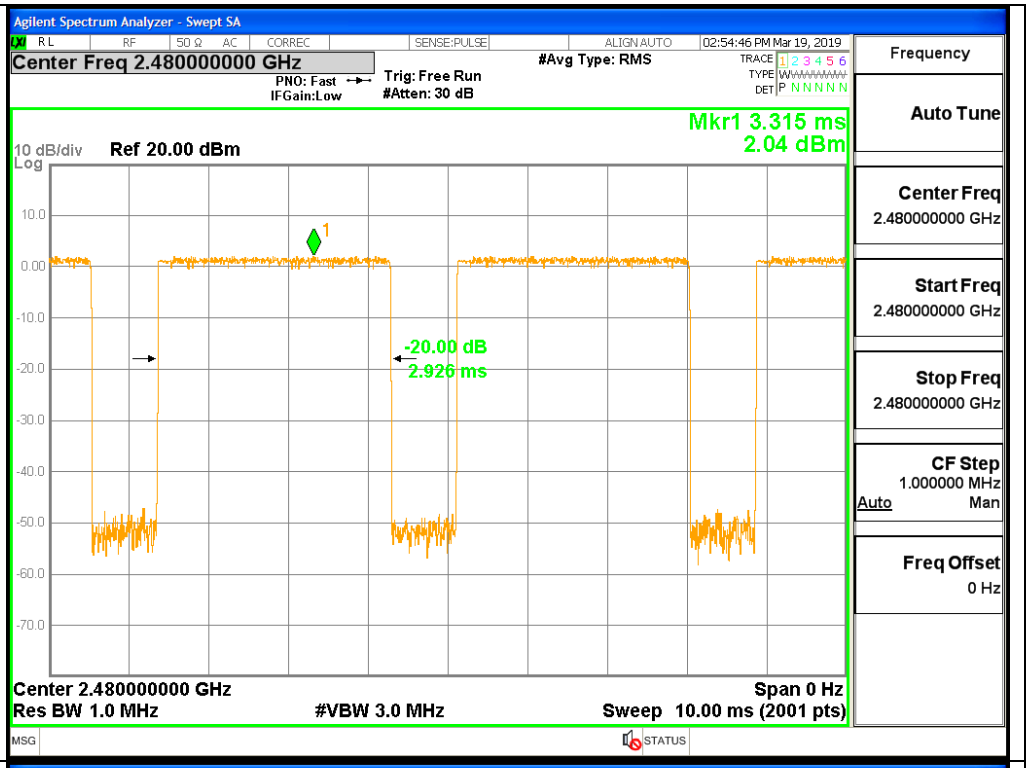
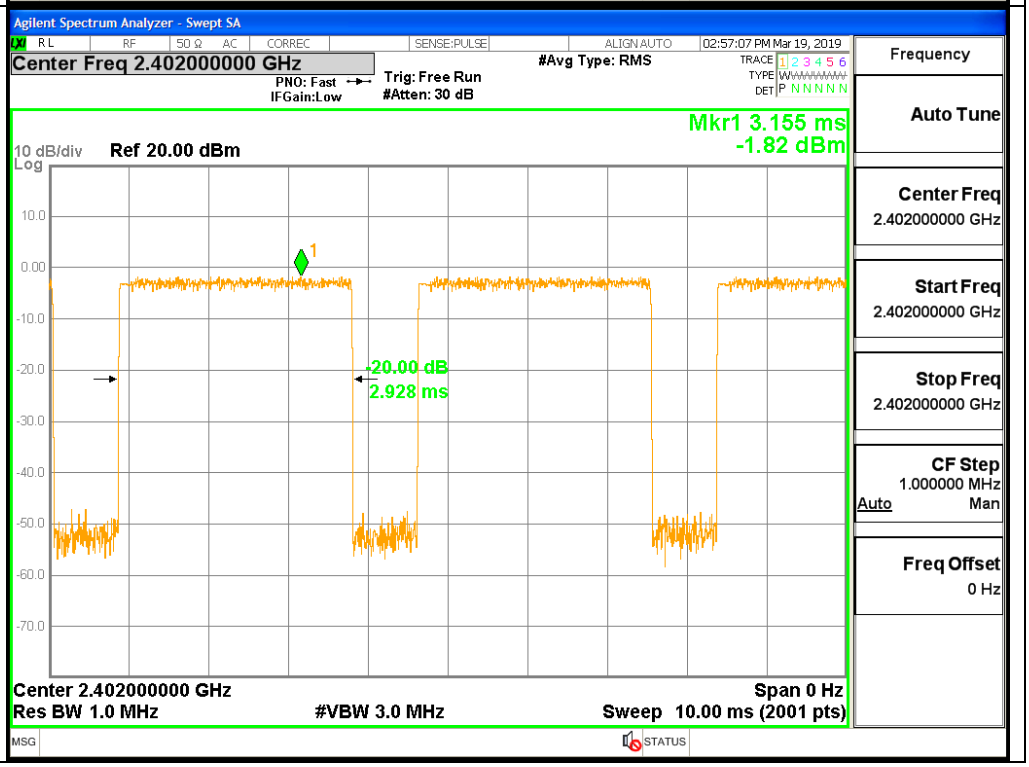
Mode	Packet	Channel	Burst Width [s/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	0.002920	106.7	0.311530	0.4	PASS
GFSK	DH5	MCH	0.002920	106.7	0.311526	0.4	PASS
GFSK	DH5	HCH	0.002920	106.7	0.311525	0.4	PASS
π/4DQPSK	2DH5	LCH	0.002927	106.7	0.312324	0.4	PASS
π/4DQPSK	2DH5	MCH	0.002926	106.7	0.312215	0.4	PASS
π/4DQPSK	2DH5	HCH	0.002926	106.7	0.312202	0.4	PASS
8DPSK	3DH5	LCH	0.002928	106.7	0.312394	0.4	PASS
8DPSK	3DH5	MCH	0.002928	106.7	0.312385	0.4	PASS
8DPSK	3DH5	HCH	0.002927	106.7	0.312329	0.4	PASS

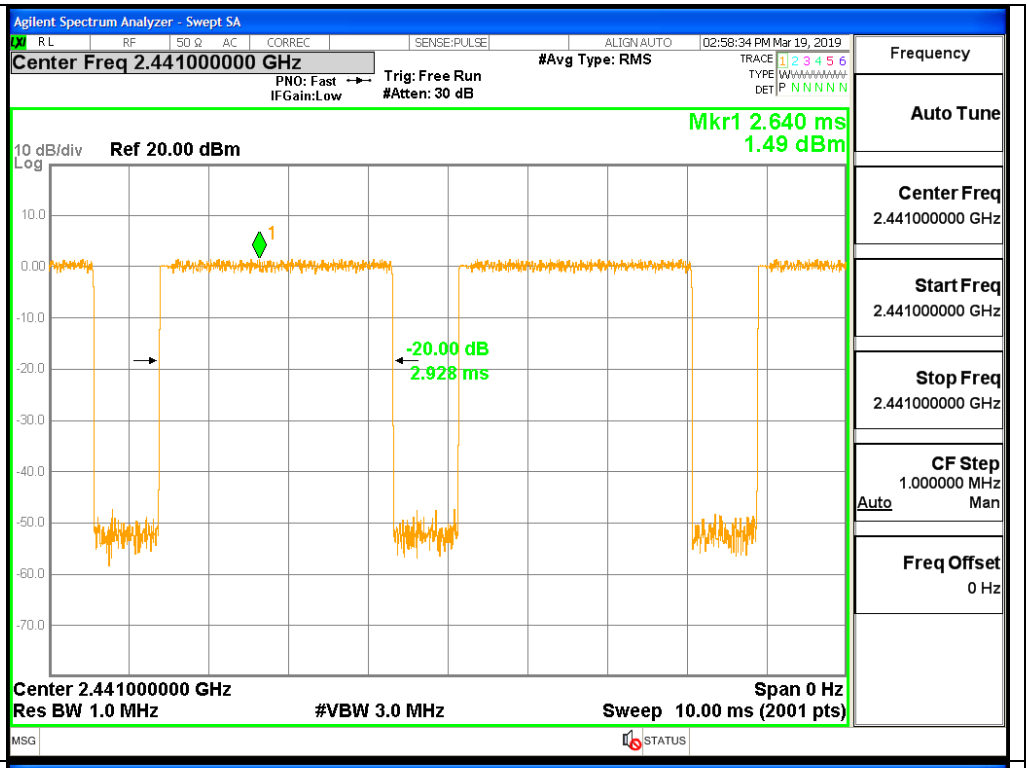
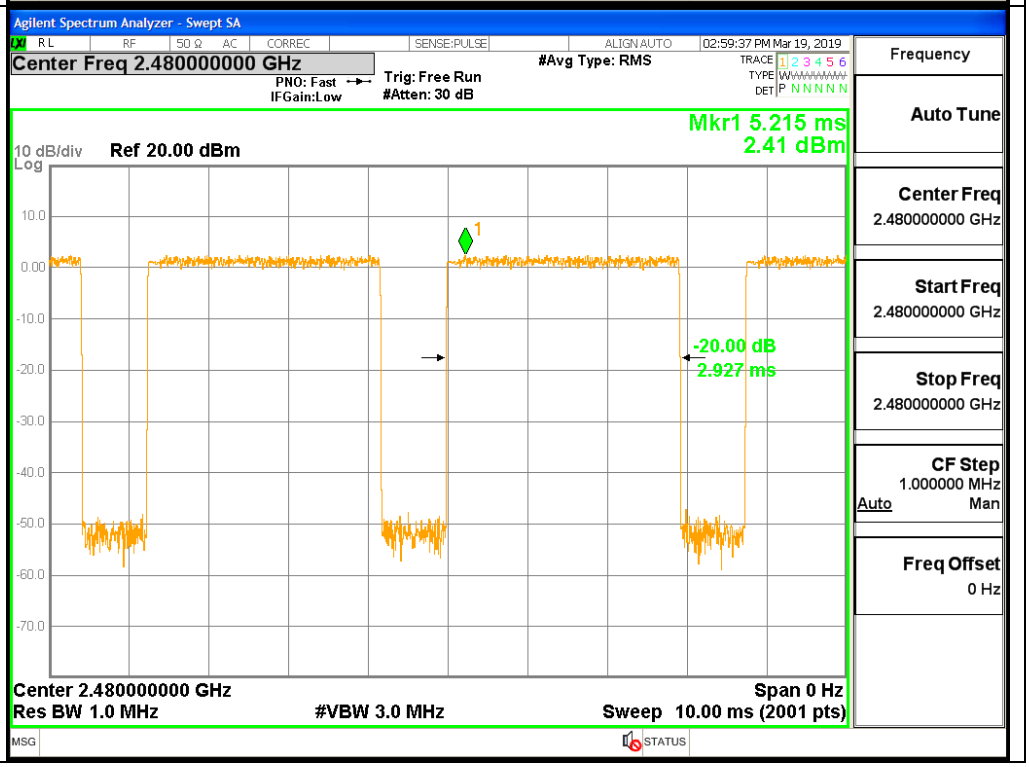
Test Graph

Graphs	
GFSK_DH5/LCH	

GFSK_DH5/MCH	
GFSK_DH5/HCH	

π/4DQPSK _2DH5/LCH	
π/4DQPSK _2DH5/MCH	

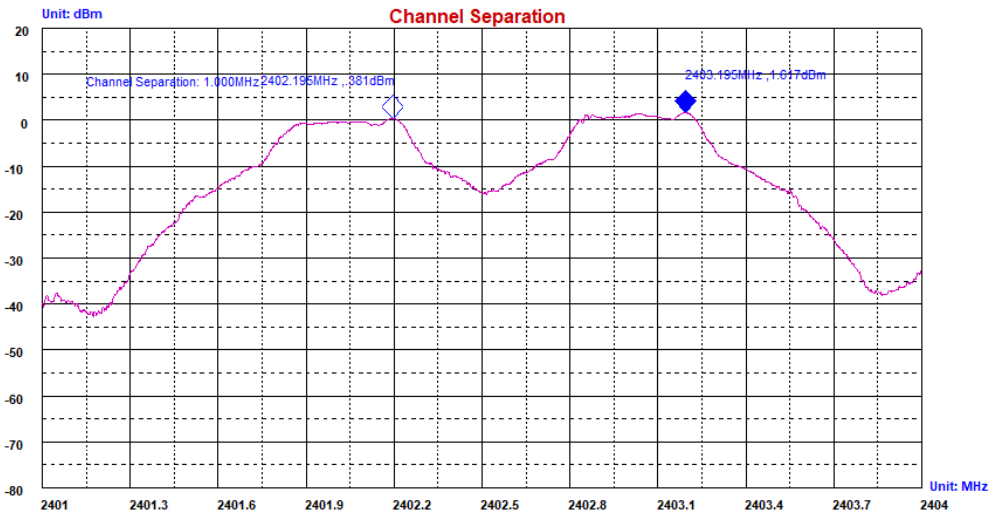
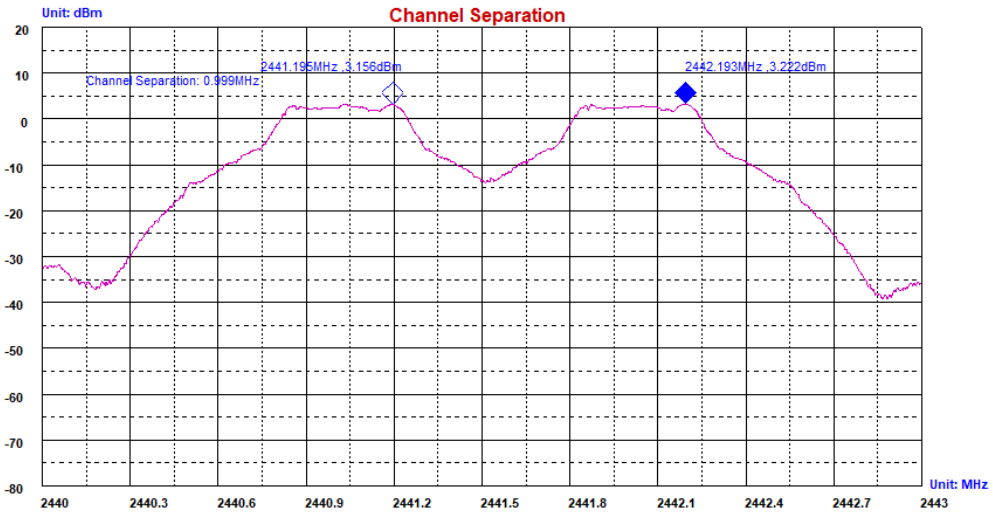
π/4DQPSK _2DH5/HCH	
8DPSK _3DH5/LCH	

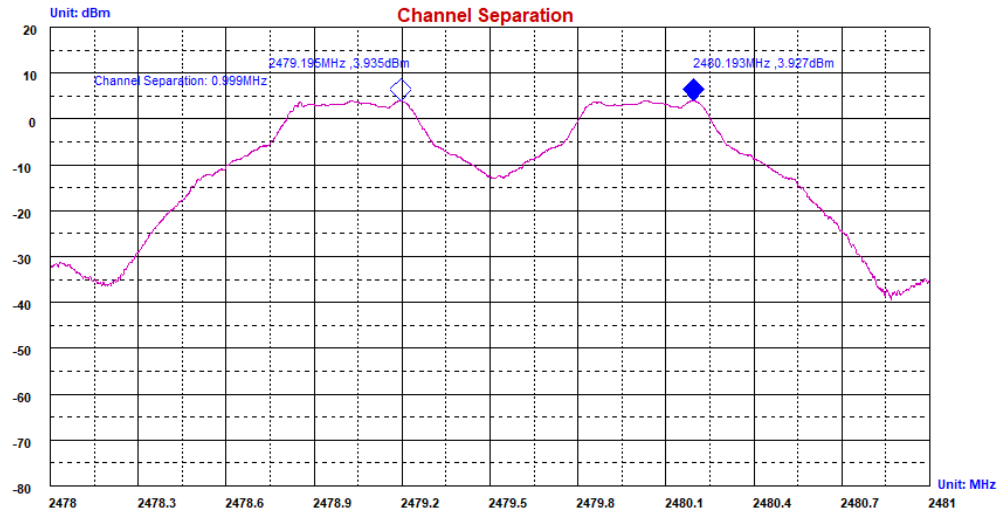
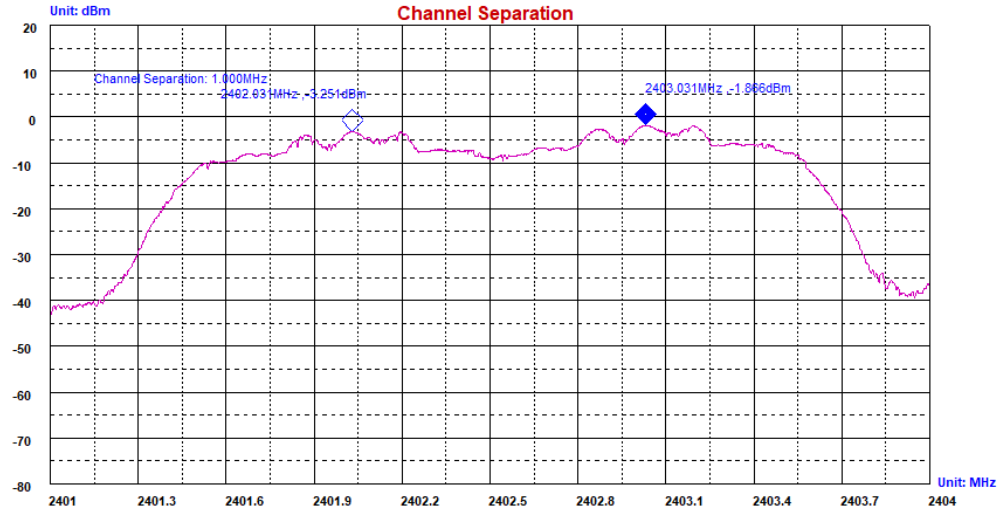
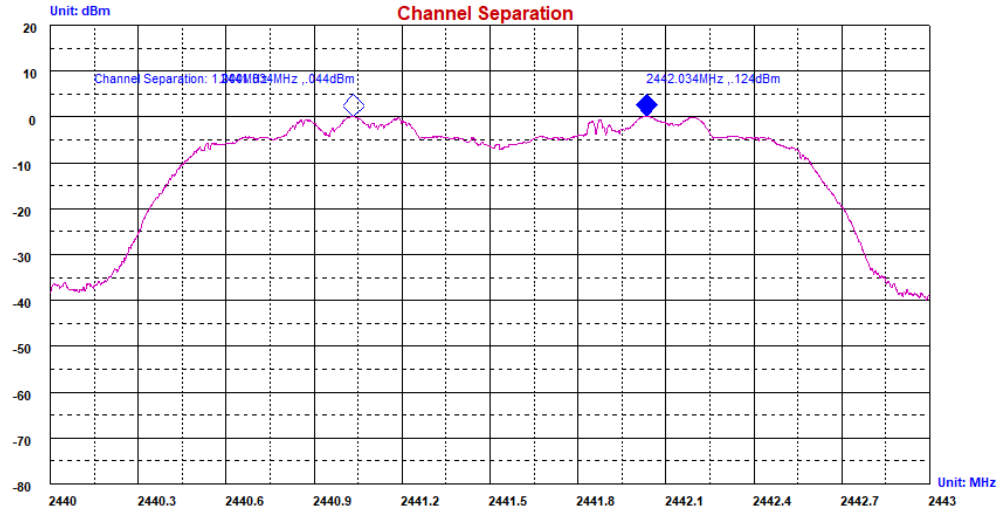
8DPSK _3DH5/MCH	
8DPSK _3DH5/HCH	

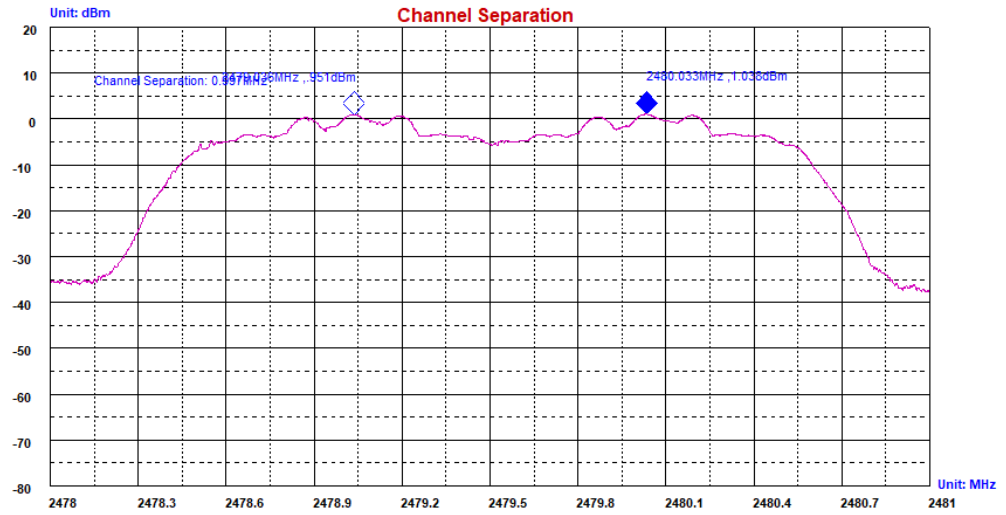
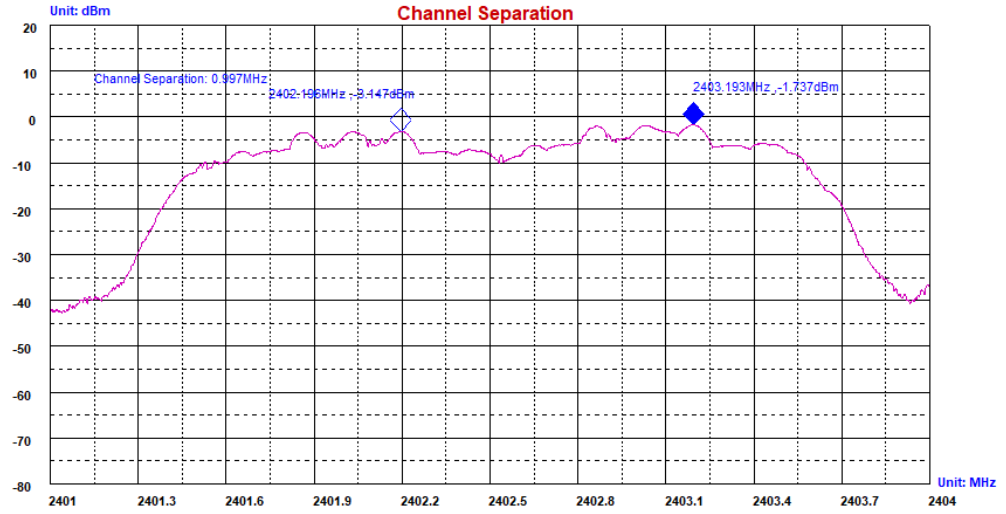
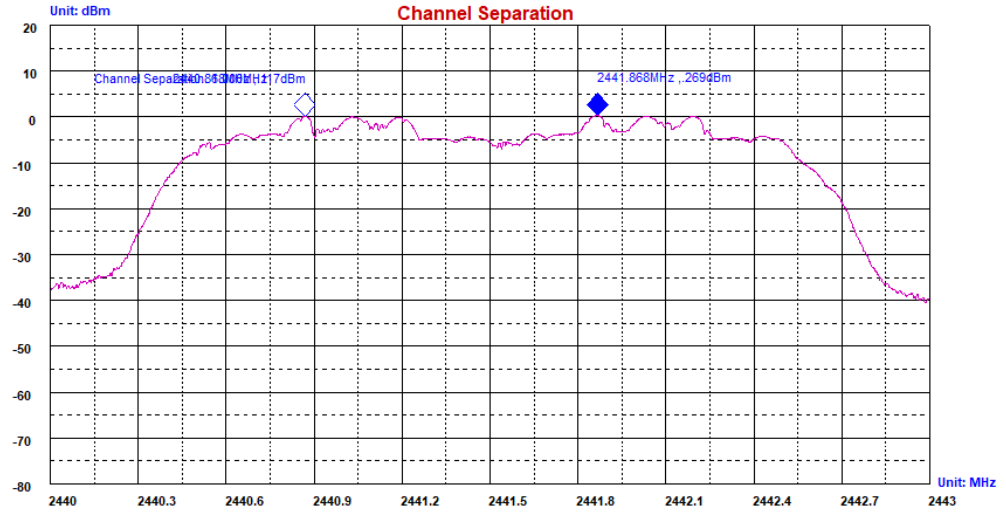
A.3 Carrier Frequency Separation

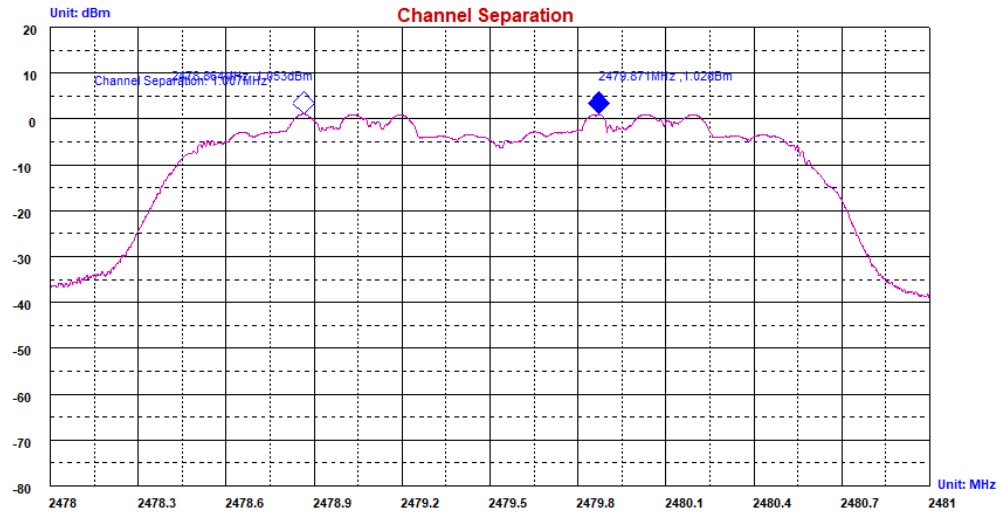
Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.000	0.623	PASS
GFSK	MCH	0.999	0.625	PASS
GFSK	HCH	0.999	0.626	PASS
π/4DQPSK	LCH	1.000	0.828	PASS
π/4DQPSK	MCH	1.000	0.823	PASS
π/4DQPSK	HCH	0.997	0.857	PASS
8DPSK	LCH	0.997	0.834	PASS
8DPSK	MCH	1.000	0.841	PASS
8DPSK	HCH	1.007	0.836	PASS

Test Graph

Graphs	
GFSK/LCH	
GFSK/MCH	

GFSK/HCH	
π/4DQPSK/LCH	
π/4DQPSK/MCH	

π/4DQPSK/HCH	
8DPSK/LCH	
8DPSK/MCH	

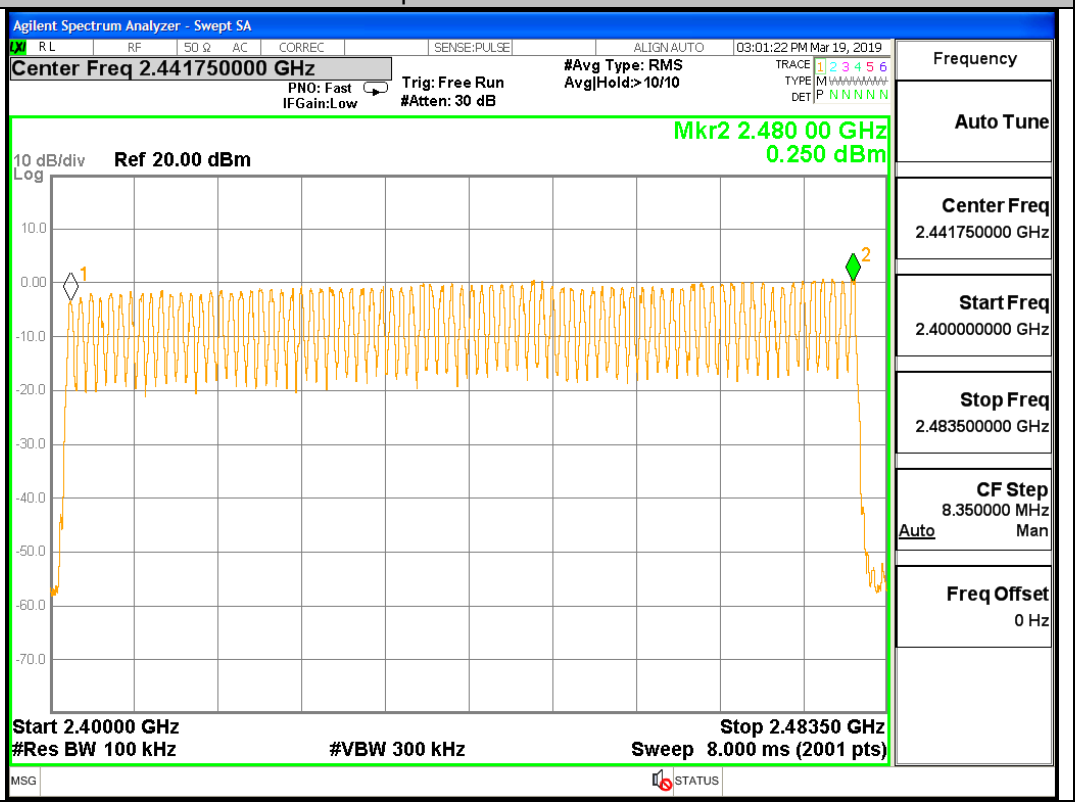
8DPSK/HCH	

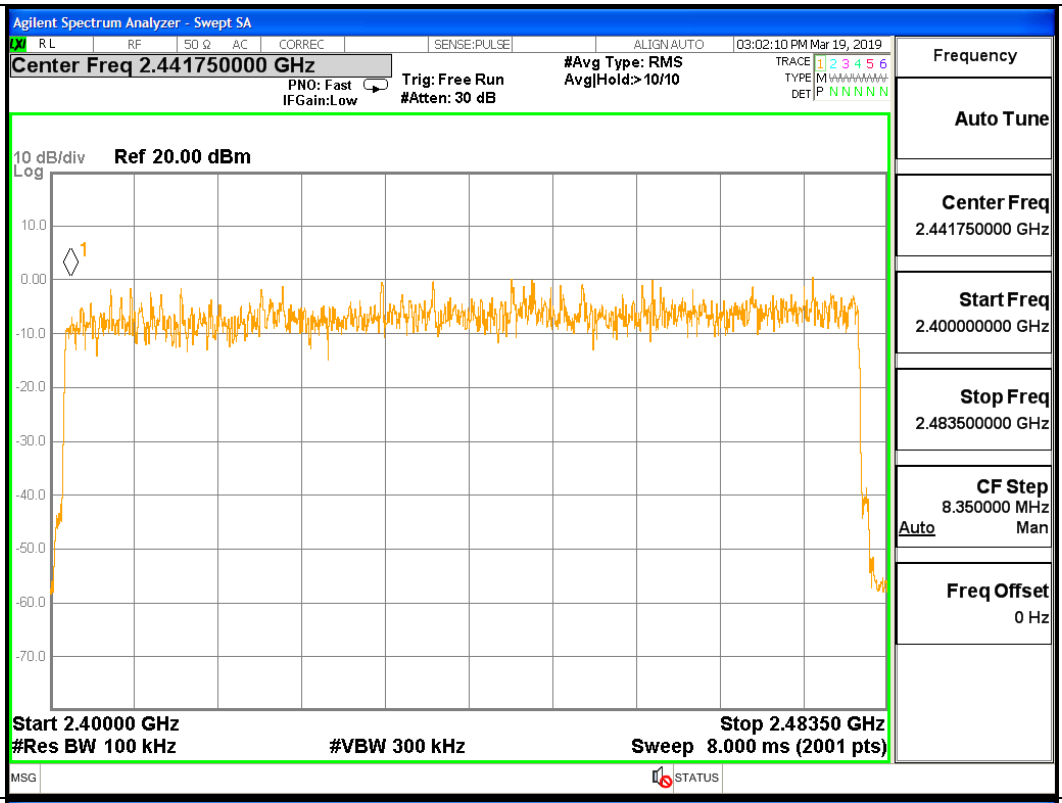
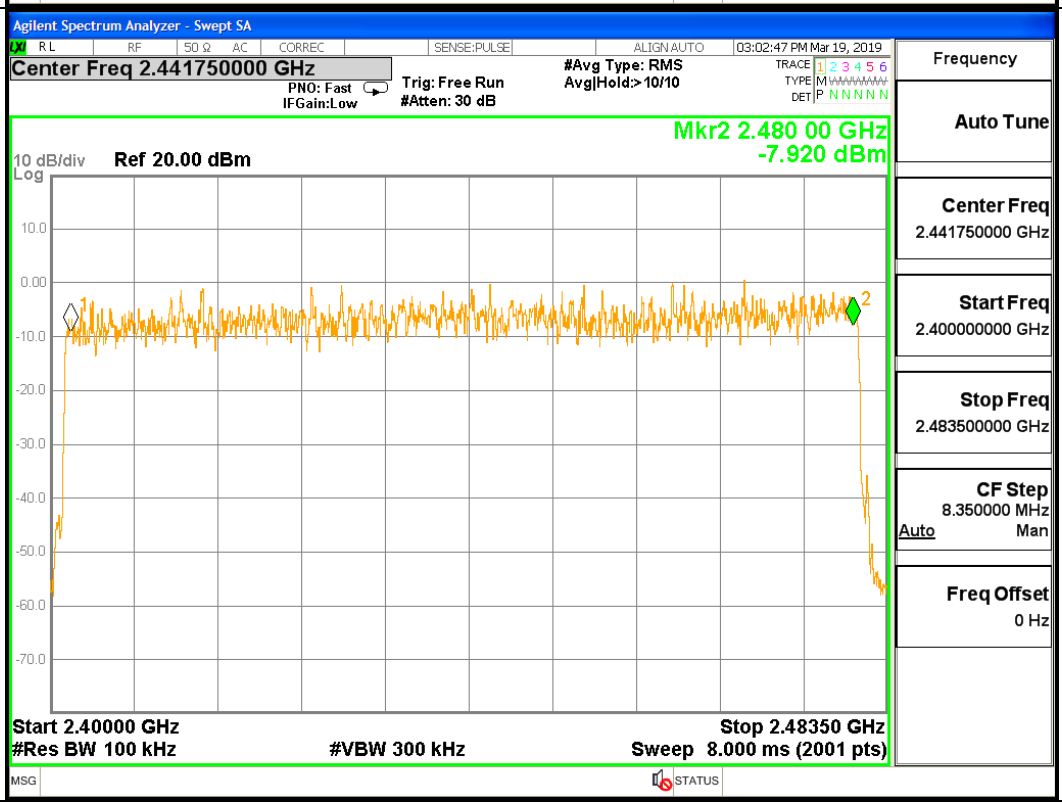
Channel Separation
Unit: dBm
Unit: MHz
Channel Separation: 1.007MHz
2479.871MHz , 1.028dBm
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
2478
2478.3
2478.6
2478.9
2479.2
2479.5
2479.8
2480.1
2480.4
2480.7
2481

A.4 Hopping Channel Number

Mode	Channel.	Number of Hopping Channel[N]	Limit[N]	Verdict
GFSK	Hop	79	>=15	PASS
π/4DQPSK	Hop	79	>=15	PASS
8DPSK	Hop	79	>=15	PASS

Test Graph

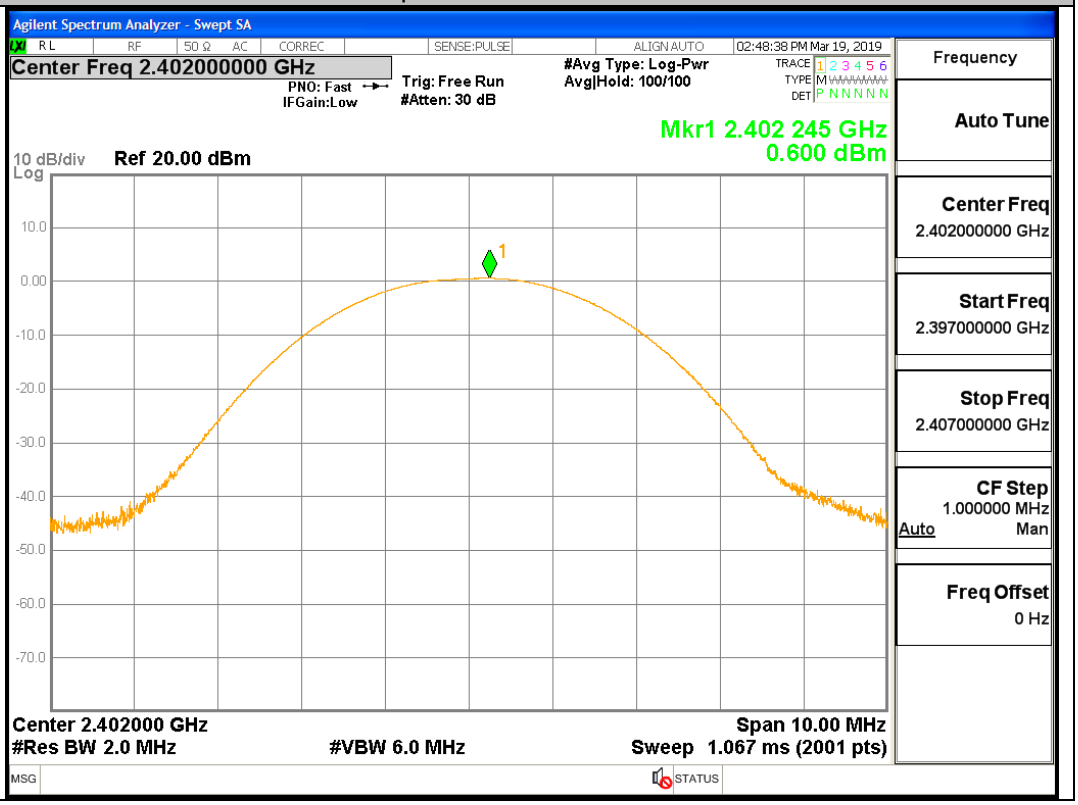
Graphs	
GFSK/Hop	

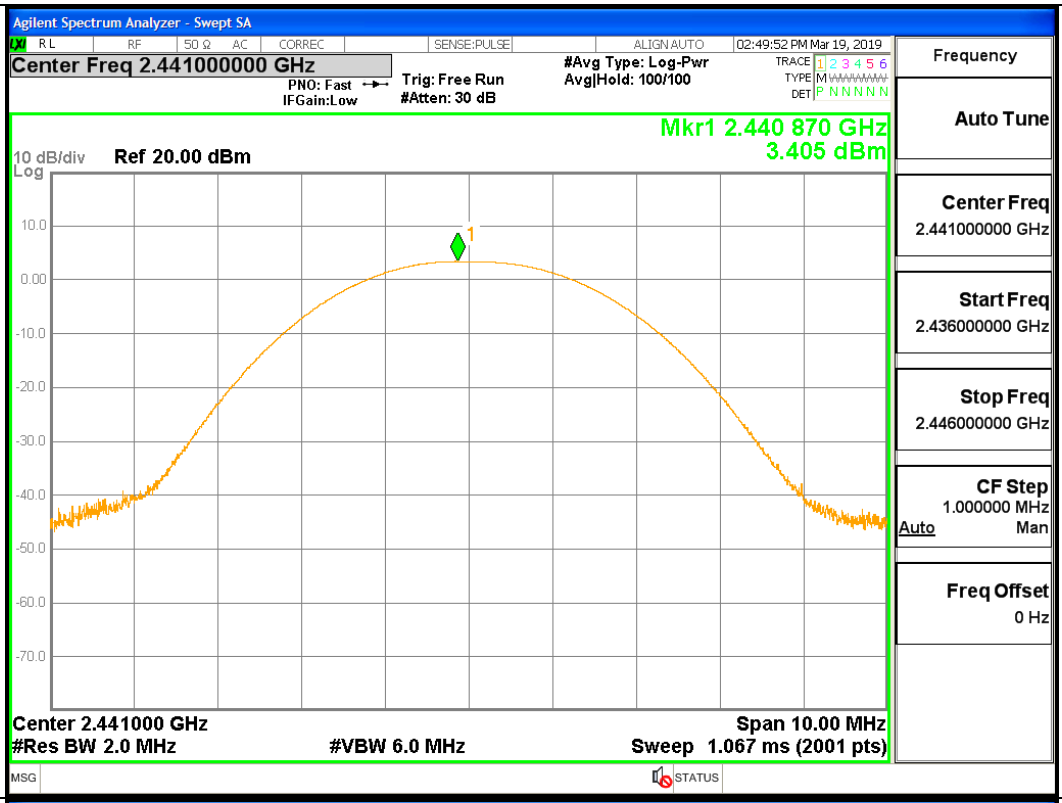
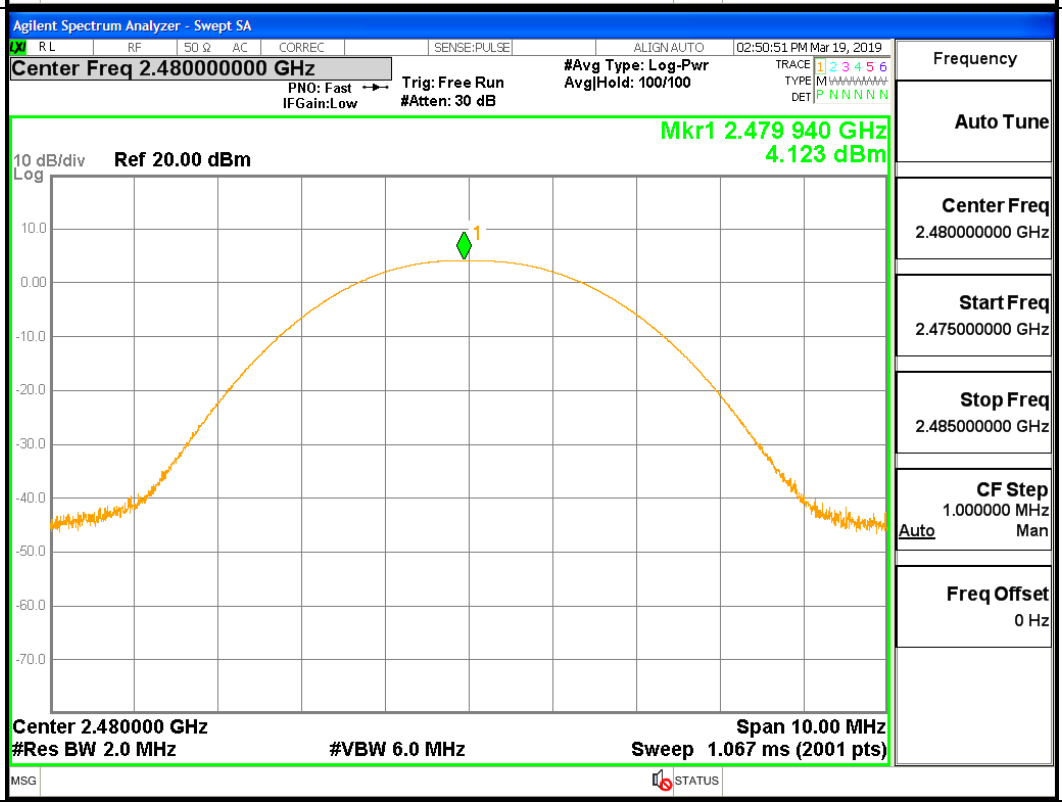
π/4DQPSK/Hop	
8DPSK/Hop	

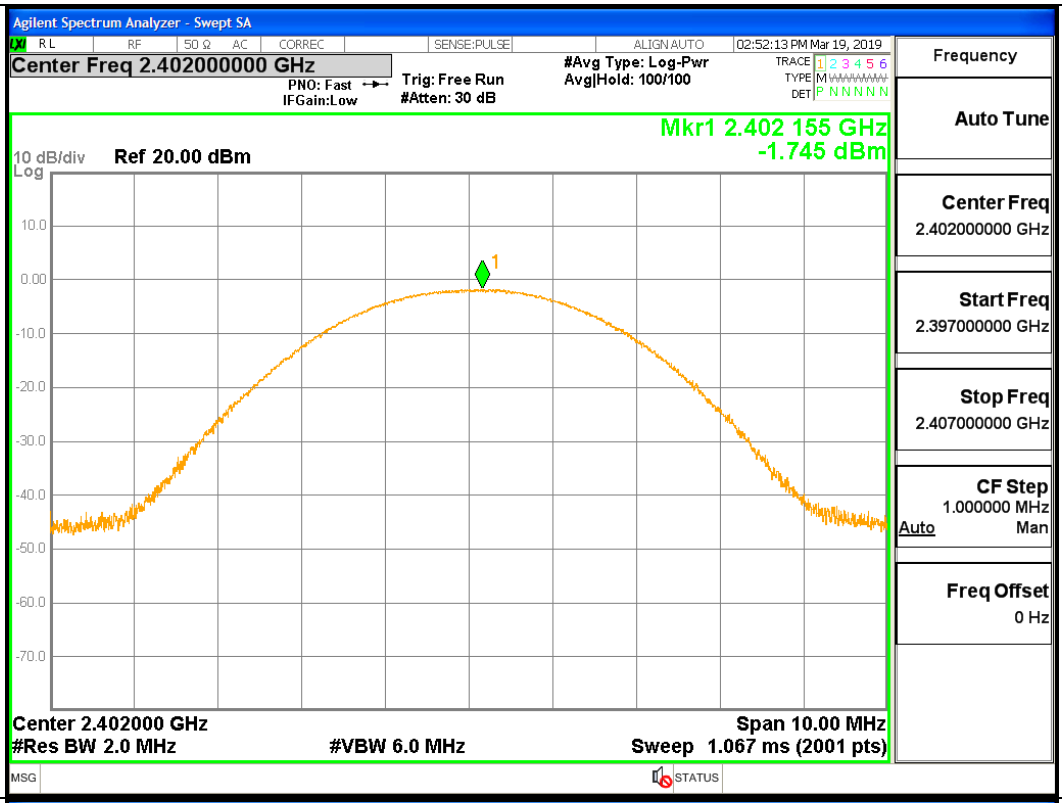
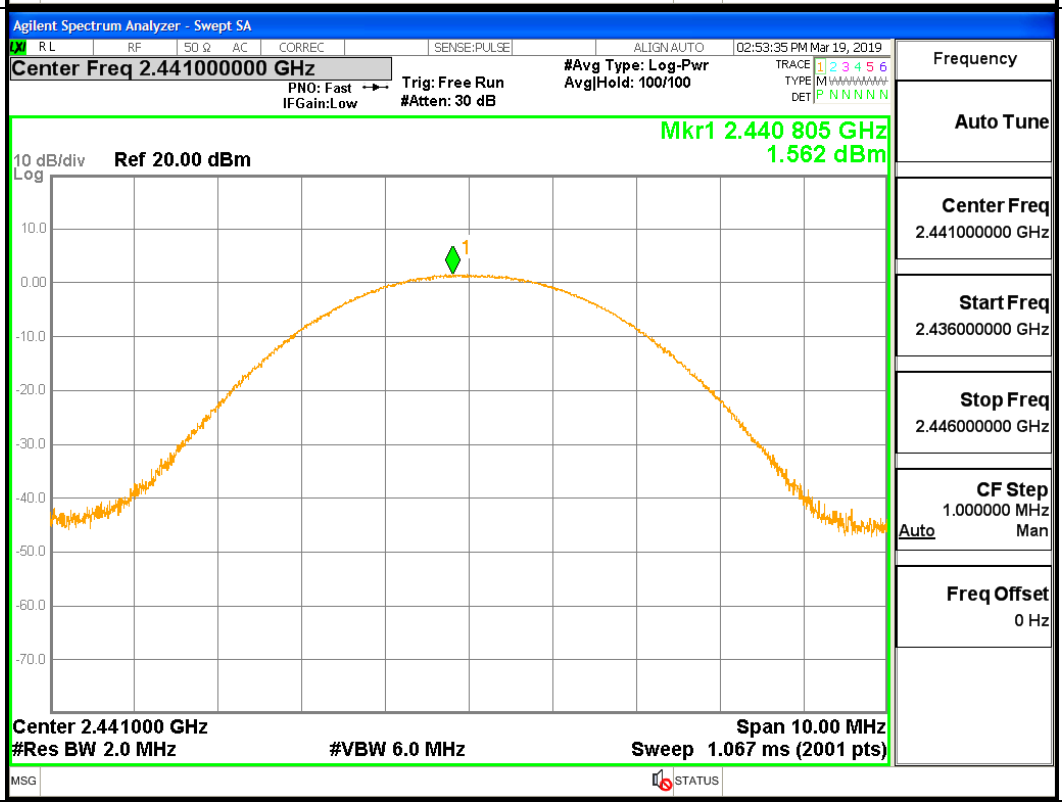
A.5 Conducted Peak Output Power

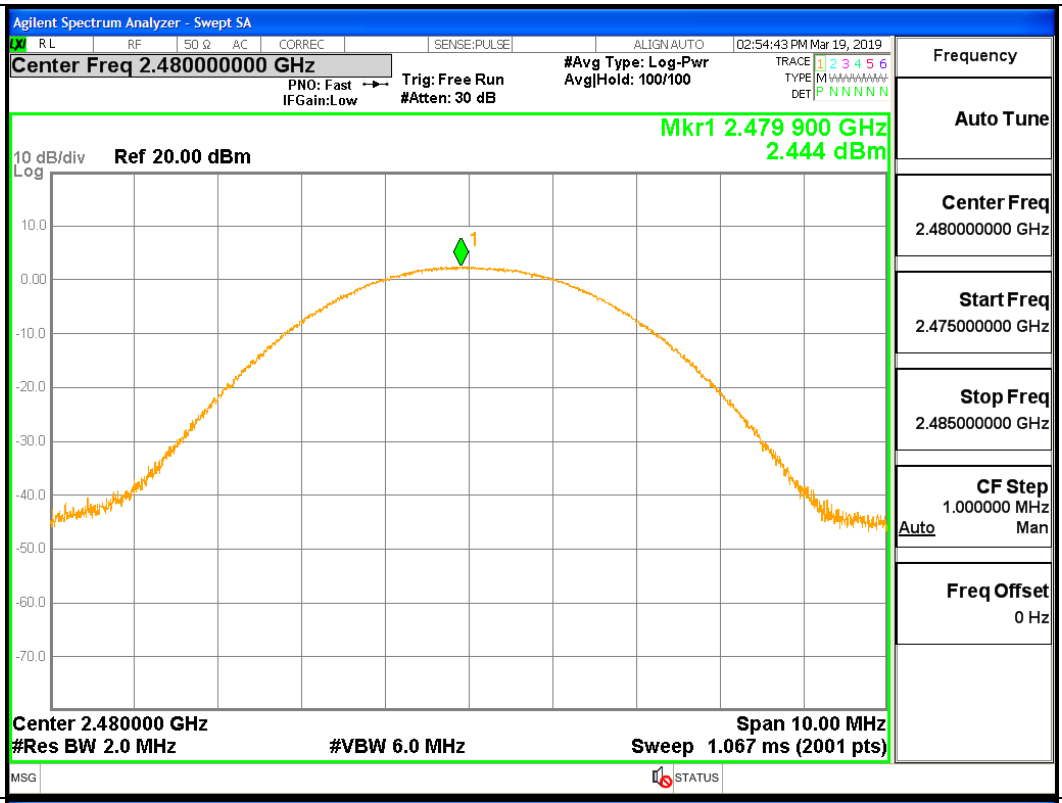
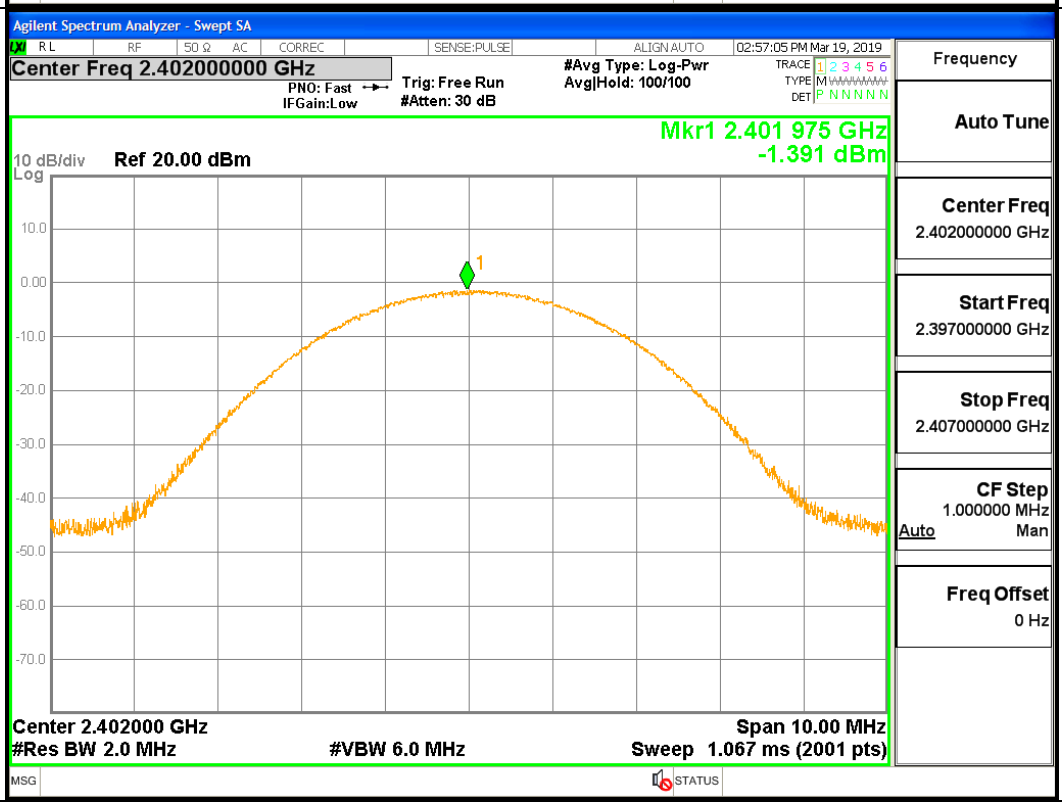
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.600	21	PASS
GFSK	MCH	3.405	21	PASS
GFSK	HCH	4.123	21	PASS
π/4DQPSK	LCH	-1.745	21	PASS
π/4DQPSK	MCH	1.562	21	PASS
π/4DQPSK	HCH	2.444	21	PASS
8DPSK	LCH	-1.391	21	PASS
8DPSK	MCH	1.982	21	PASS
8DPSK	HCH	2.867	21	PASS

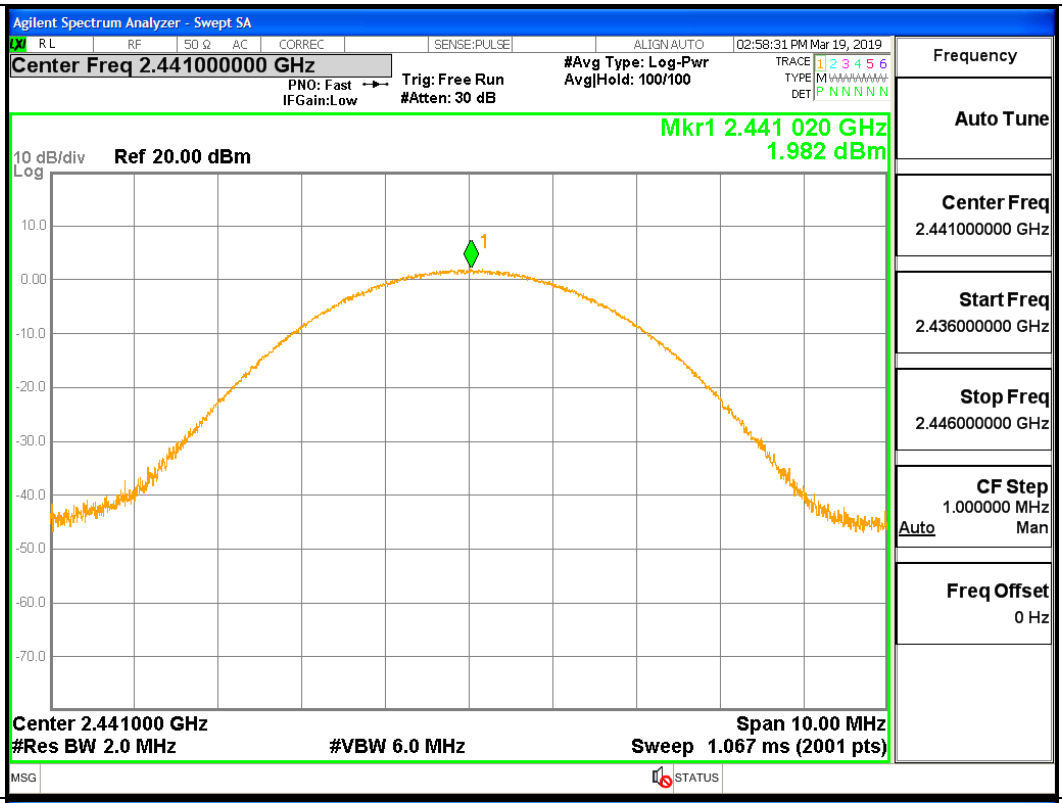
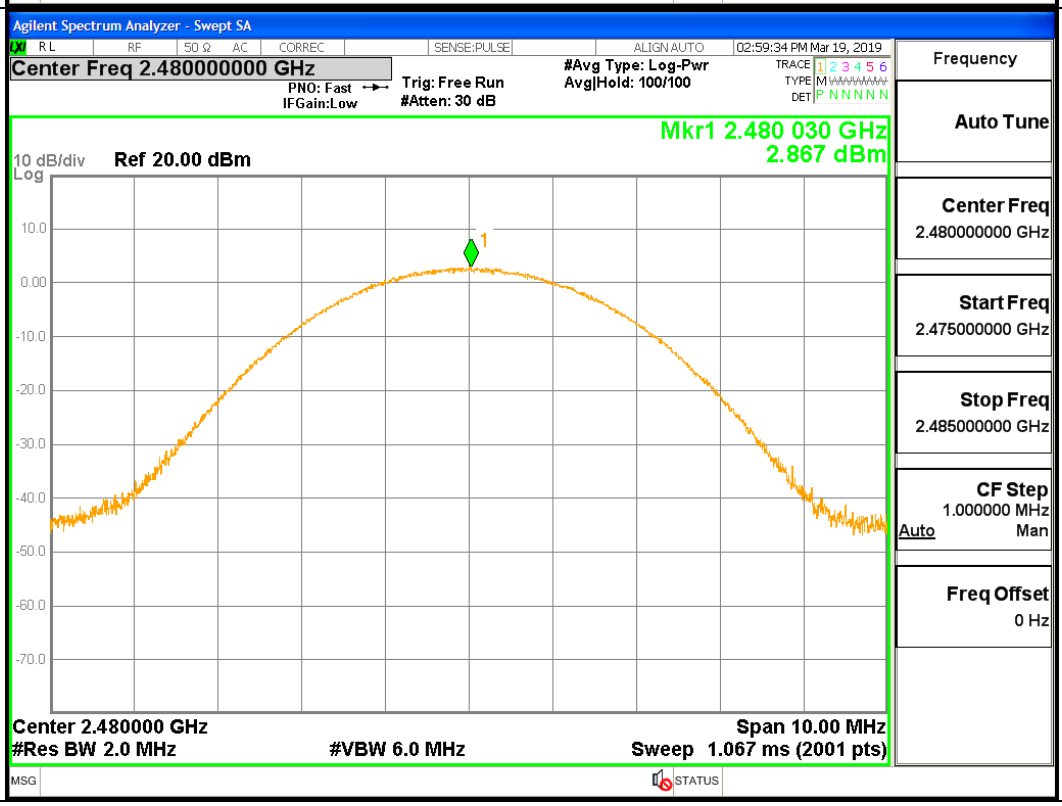
Test Graph

Graphs	
GFSK/LCH	

GFSK/MCH	
GFSK/HCH	

π/4DQPSK/LCH	
π/4DQPSK/MCH	

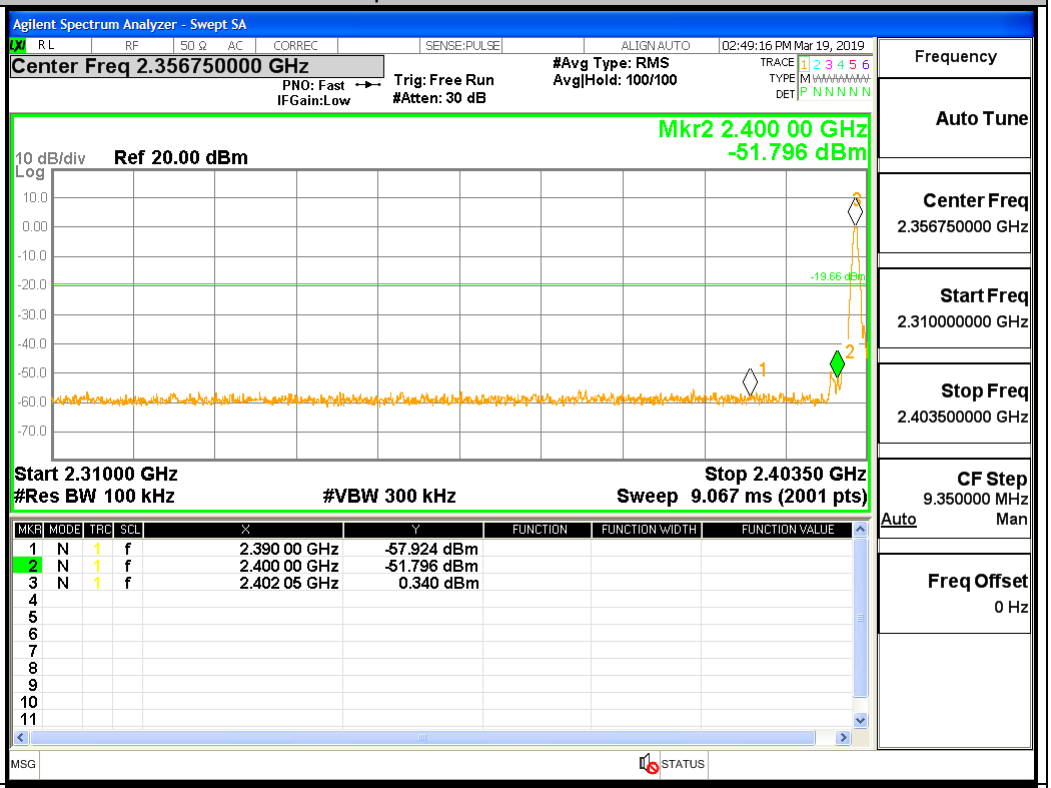
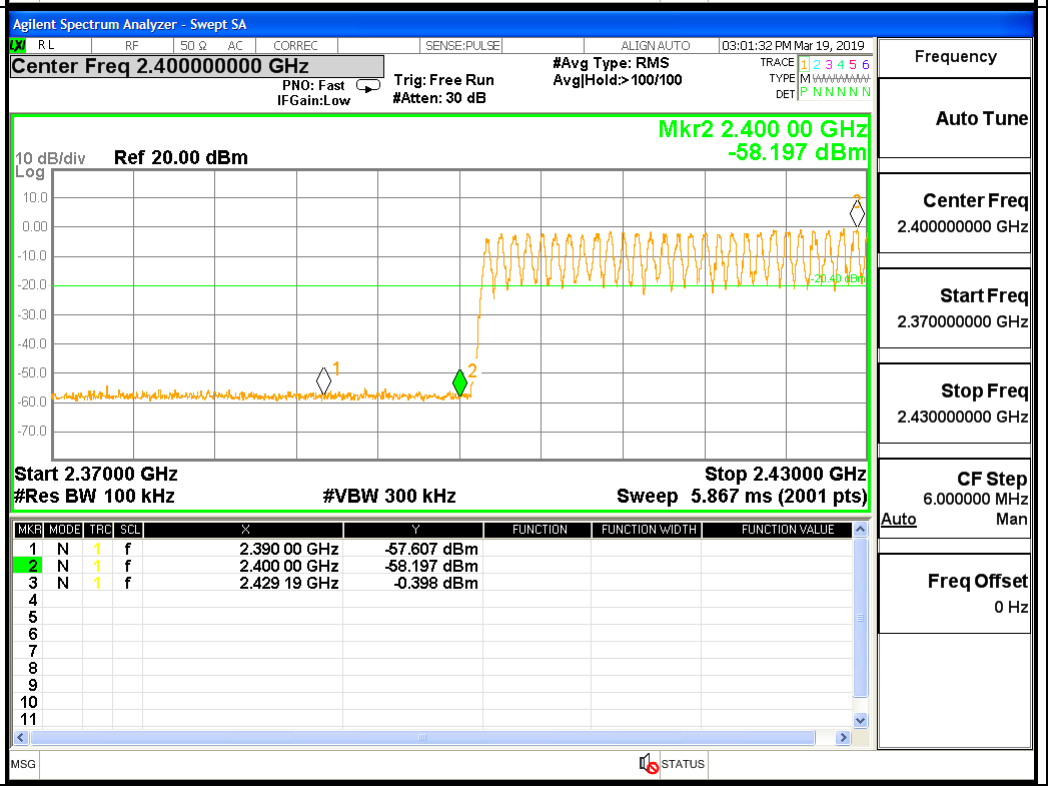
π/4DQPSK/HCH	
8DPSK/LCH	

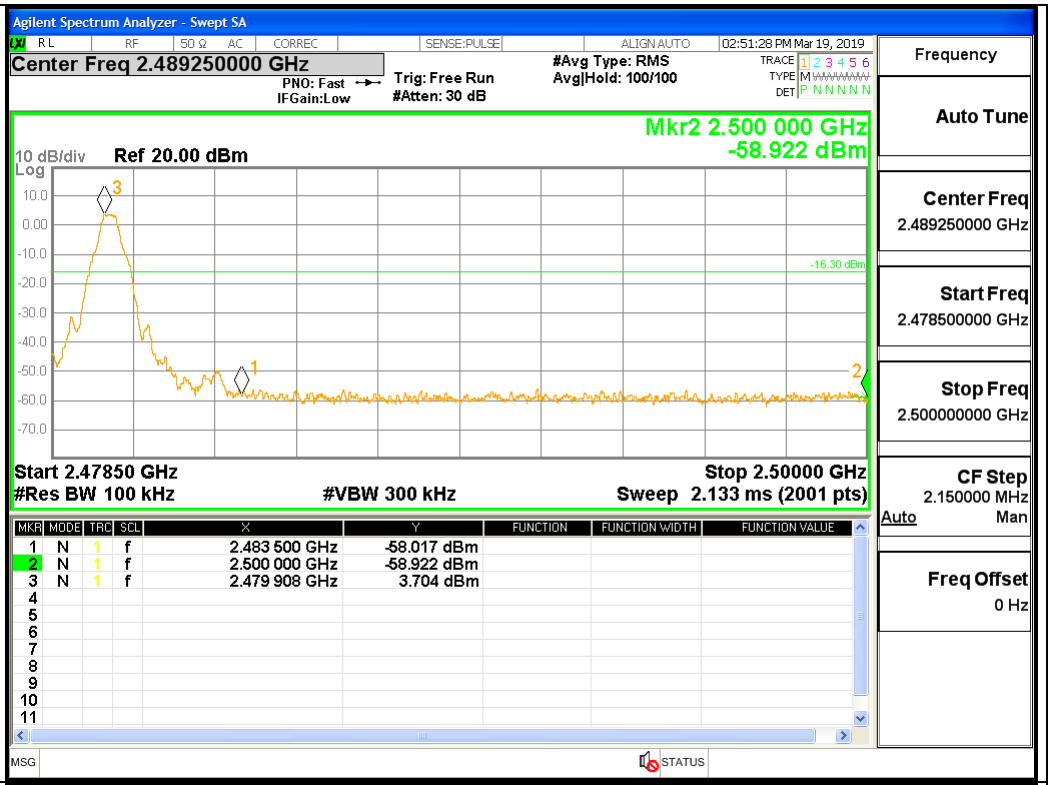
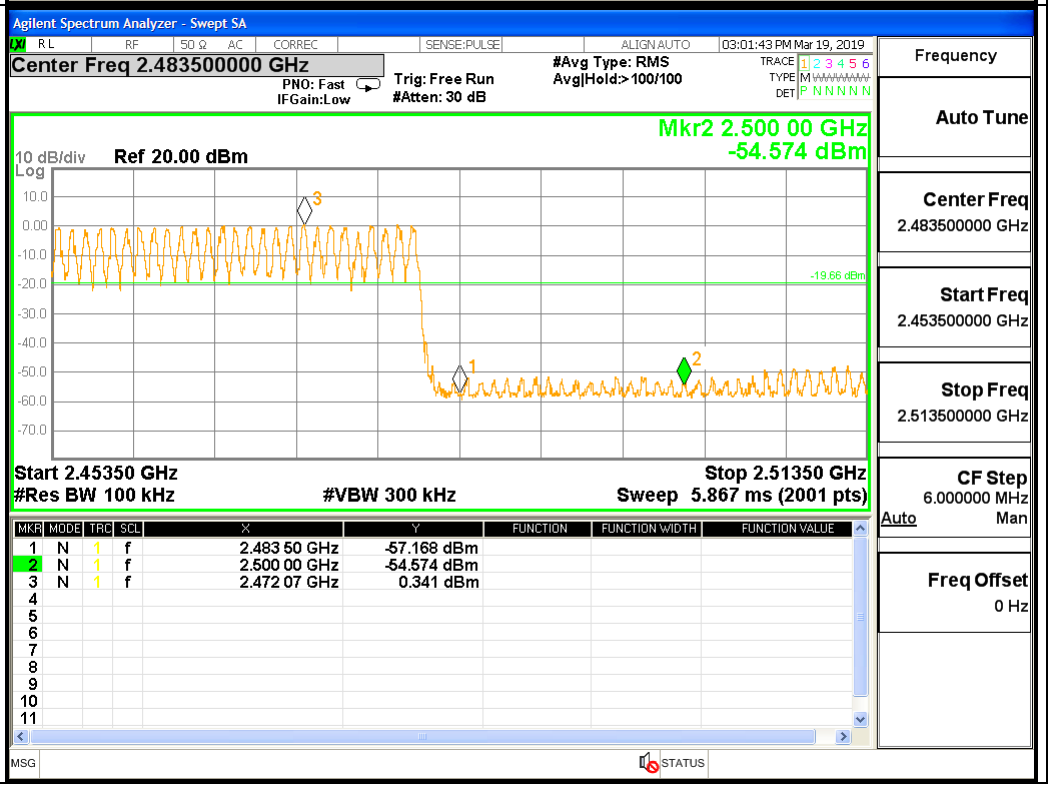
8DPSK/MCH	
8DPSK/HCH	

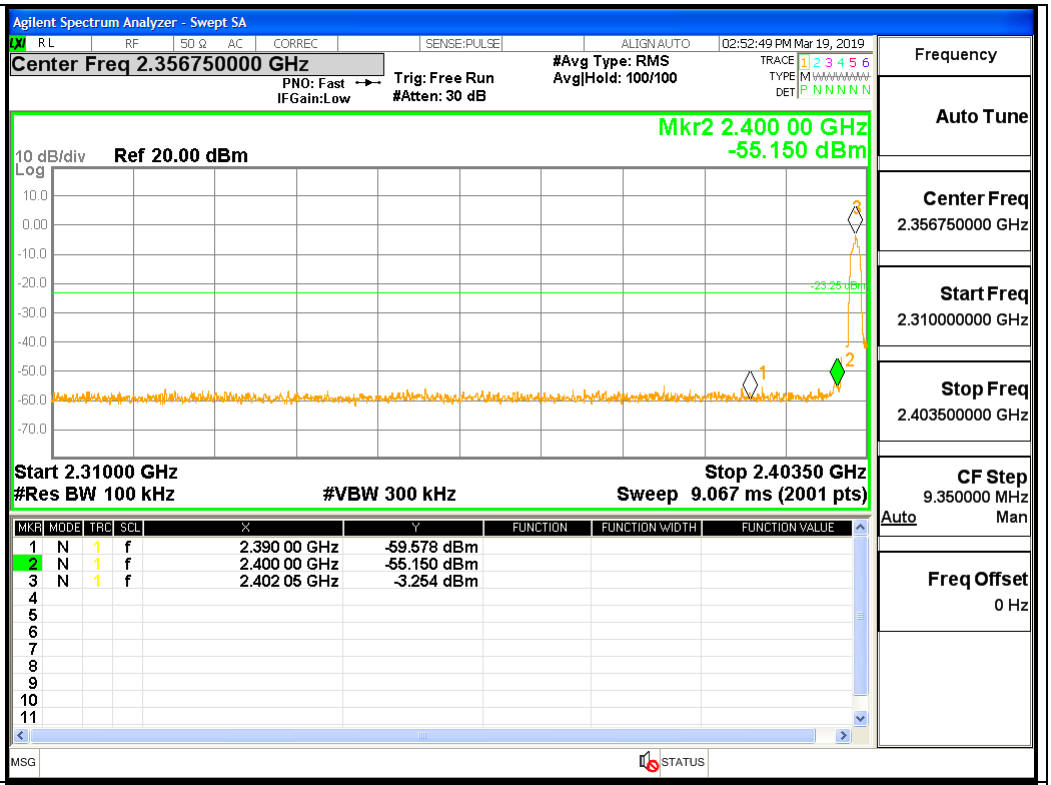
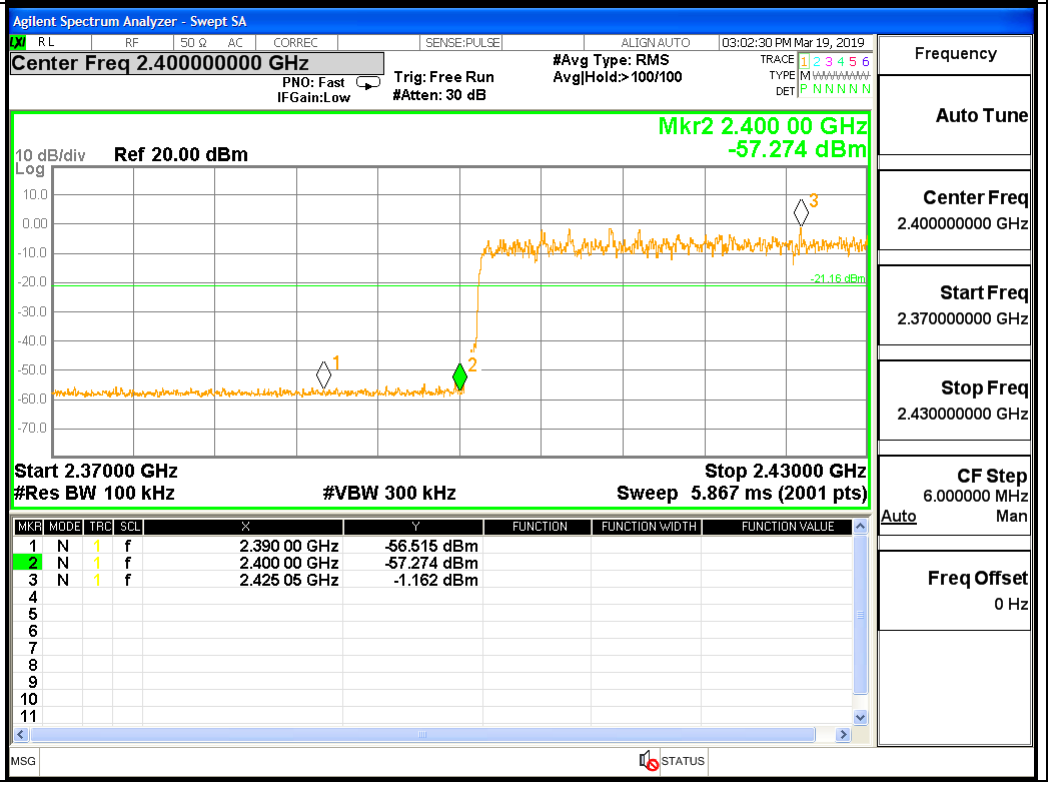
A.6 Band-edge for RF Conducted Emissions

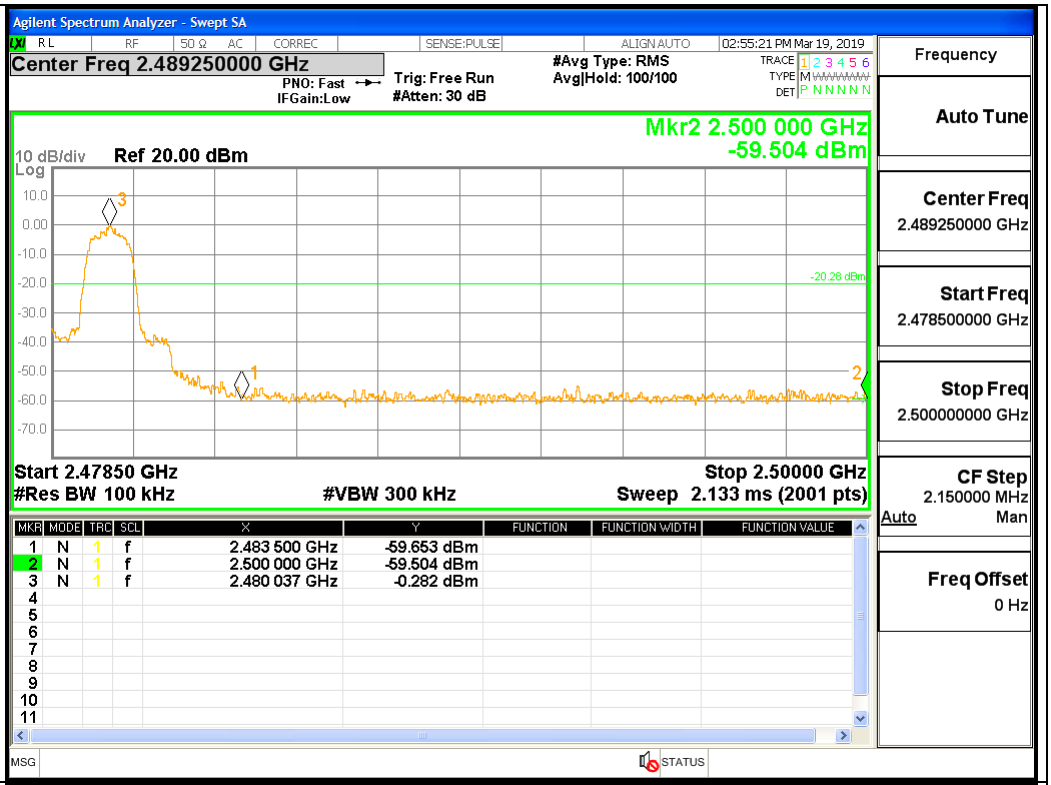
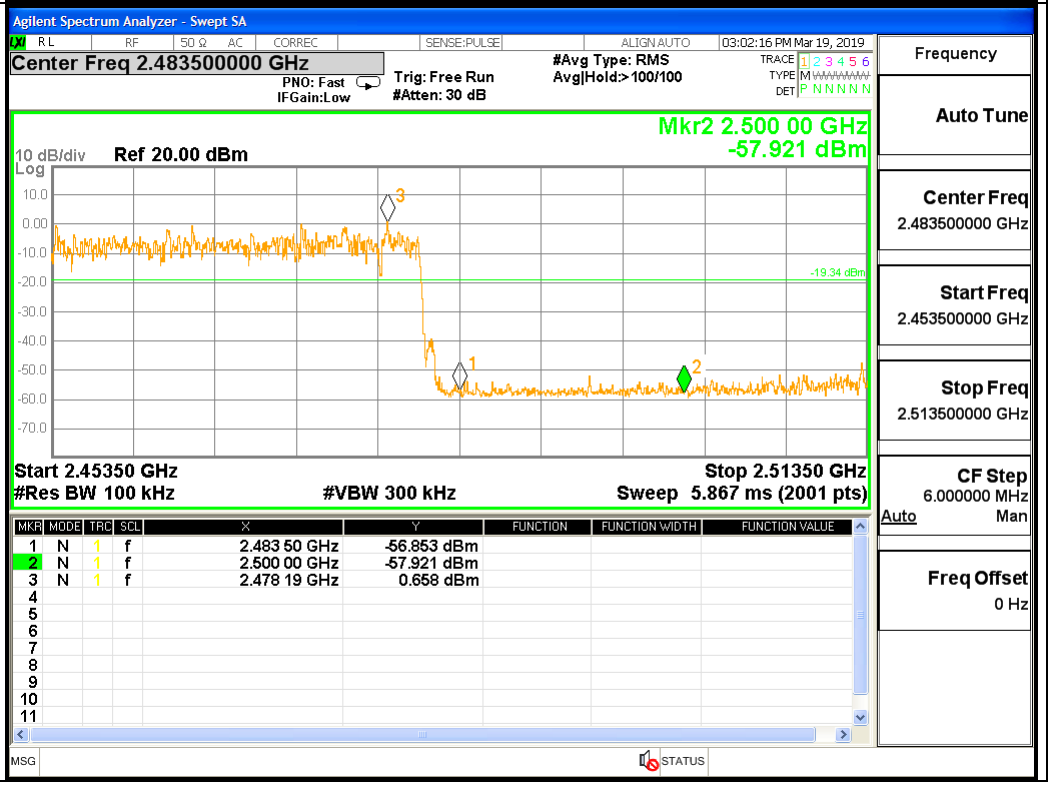
Type	Carrier Frequency(MHz)	Frequency(MHz)	Carrier Frequency Power [dBm]	Bandedge Peak(dBm)	Upper limit(dBm)	Conclusion
1DH5	2402	2390	0.340	-57.92	-19.660	Pass
1DH5	2402	2400	0.340	-51.80	-19.660	Pass
1DH5-Hopping	2402	2390	-0.398	-57.61	-20.398	Pass
1DH5-Hopping	2402	2400	-0.398	-58.20	-20.398	Pass
1DH5	2480	2483.5	3.704	-58.02	-16.296	Pass
1DH5	2480	2500	3.704	-58.92	-16.296	Pass
1DH5-Hopping	2480	2483.5	0.341	-57.17	-19.659	Pass
1DH5-Hopping	2480	2500	0.341	-54.57	-19.659	Pass
2DH5	2402	2390	-3.254	-59.58	-23.254	Pass
2DH5	2402	2400	-3.254	-55.15	-23.254	Pass
2DH5-Hopping	2480	2483.5	0.658	-56.85	-19.342	Pass
2DH5-Hopping	2480	2500	0.658	-57.92	-19.342	Pass
2DH5	2480	2483.5	-0.282	-59.65	-20.282	Pass
2DH5	2480	2500	-0.282	-59.50	-20.282	Pass
2DH5-Hopping	2402	2390	-1.162	-56.52	-21.162	Pass
2DH5-Hopping	2402	2400	-1.162	-57.27	-21.162	Pass
3DH5	2402	2390	-6.499	-59.10	-26.499	Pass
3DH5	2402	2400	-6.499	-55.24	-26.499	Pass
3DH5-Hopping	2402	2390	-0.812	-58.32	-20.812	Pass
3DH5-Hopping	2402	2400	-0.812	-57.08	-20.812	Pass
3DH5	2480	2483.5	-1.293	-54.92	-21.293	Pass
3DH5	2480	2500	-1.293	-59.16	-21.293	Pass
3DH5-Hopping	2480	2483.5	0.087	-58.55	-19.913	Pass
3DH5-Hopping	2480	2500	0.087	-55.26	-19.913	Pass

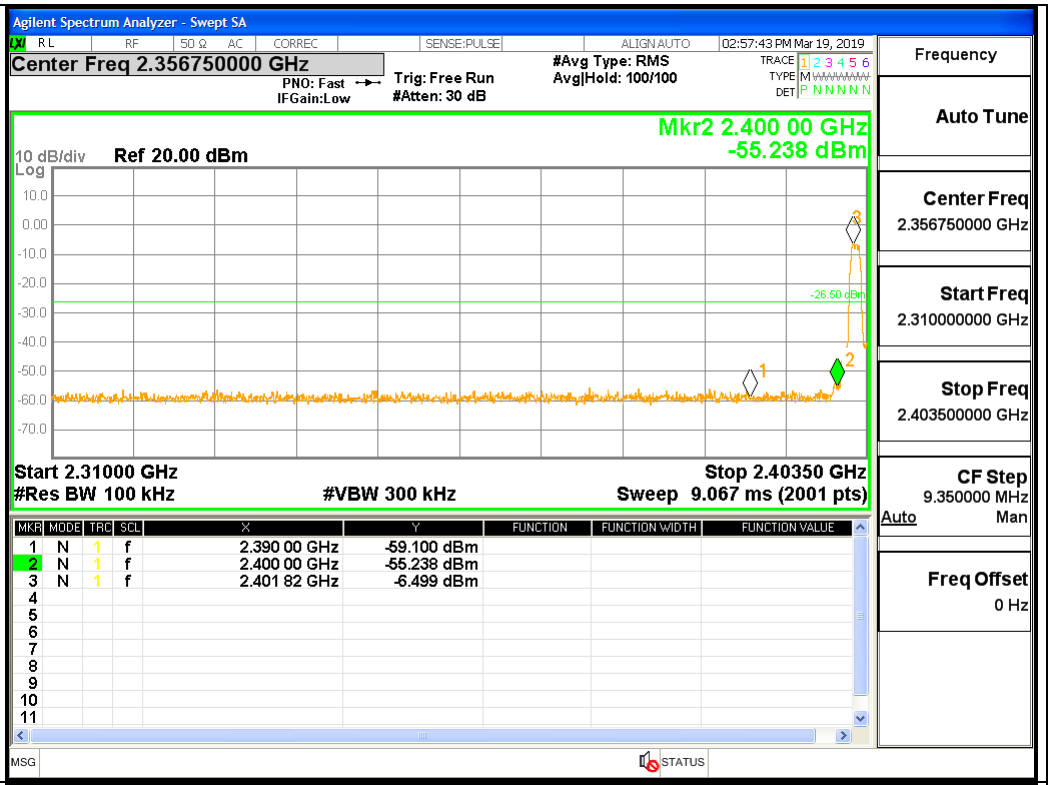
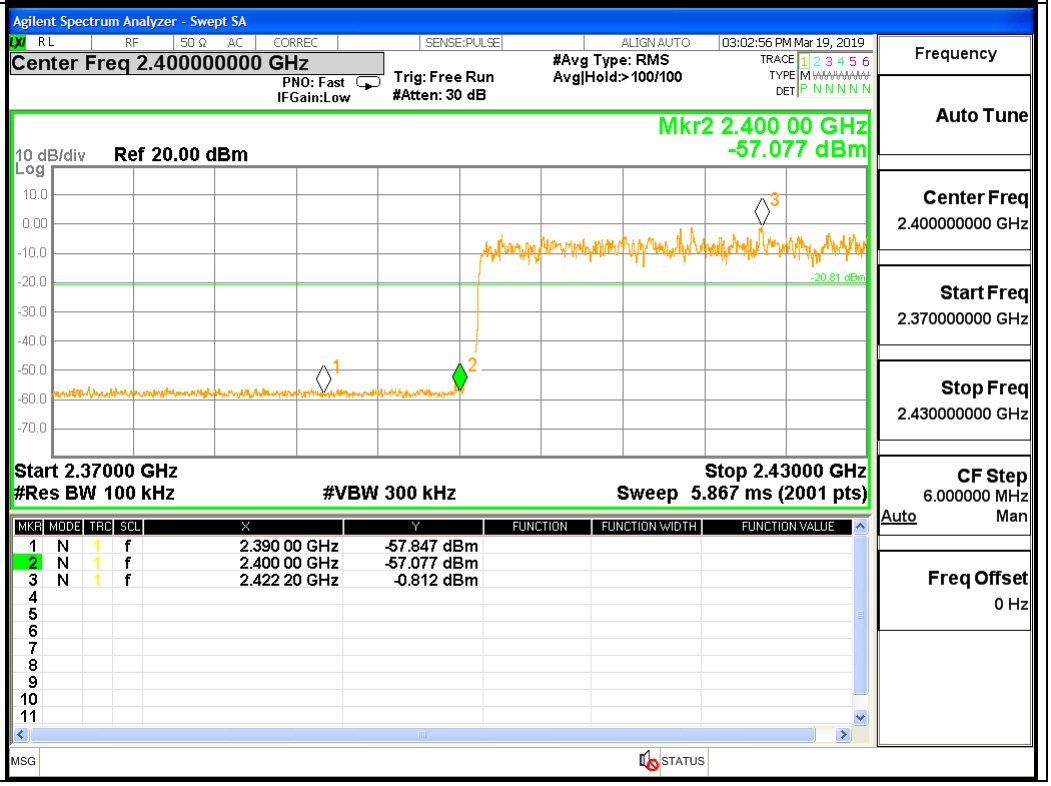
Test Graph

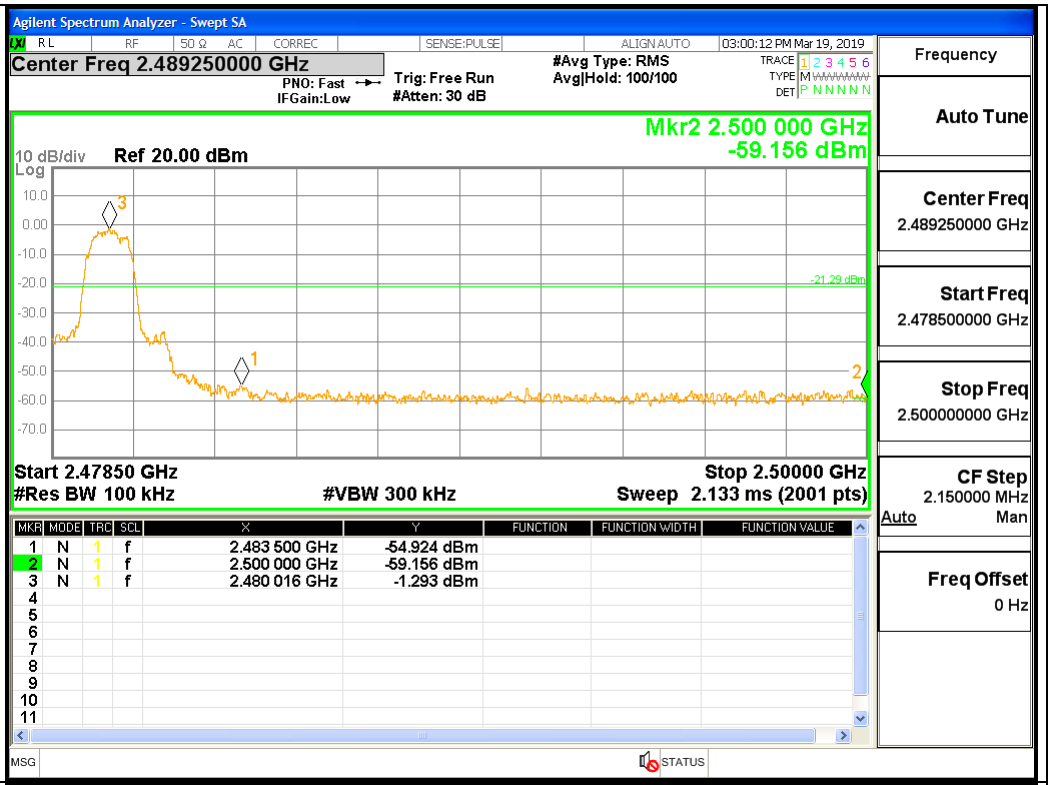
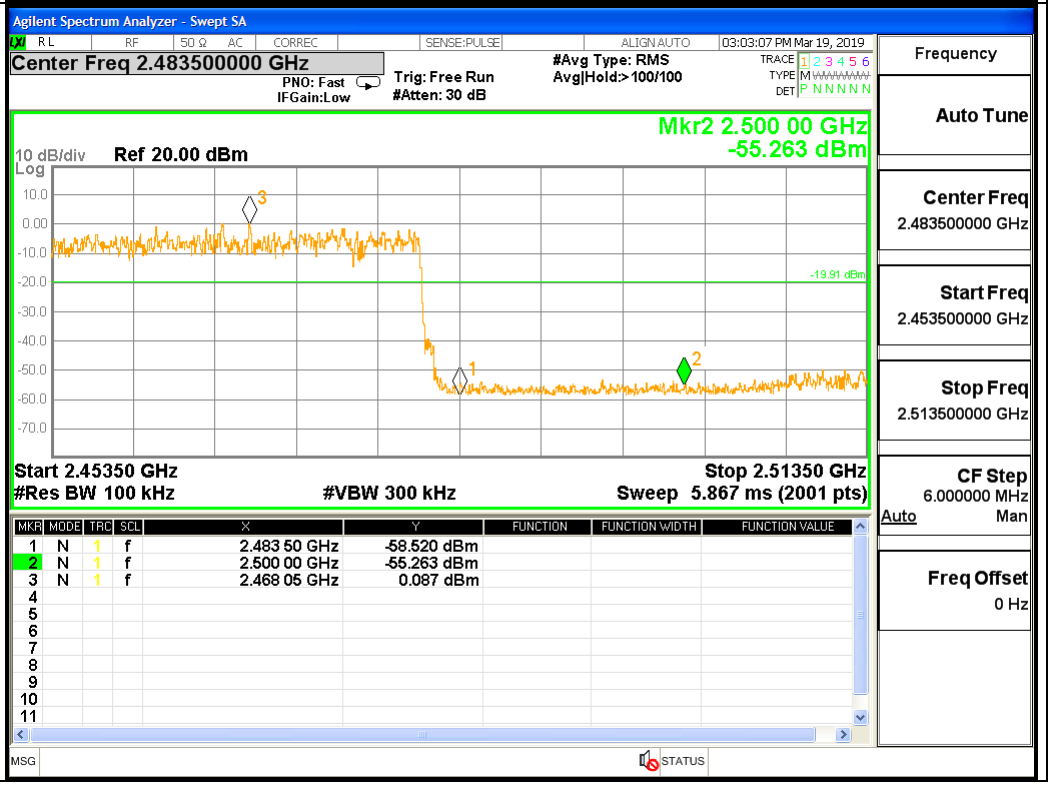
Graphs	
GFSK/LCH/No Hop	
GFSK/LCH/Hop	

GFSK/HCH/No Hop	
GFSK/HCH/Hop	

π/4DQPSK/LCH/No Hop	
π/4DQPSK/LCH/Hop	

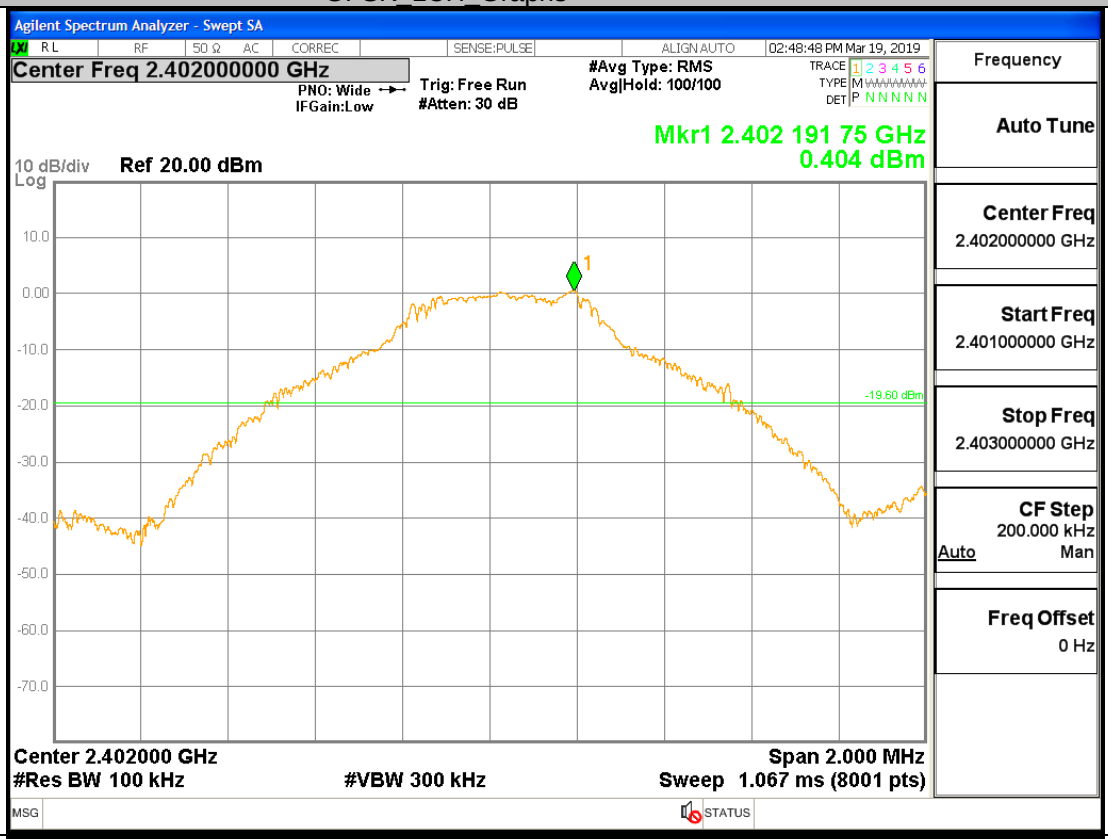
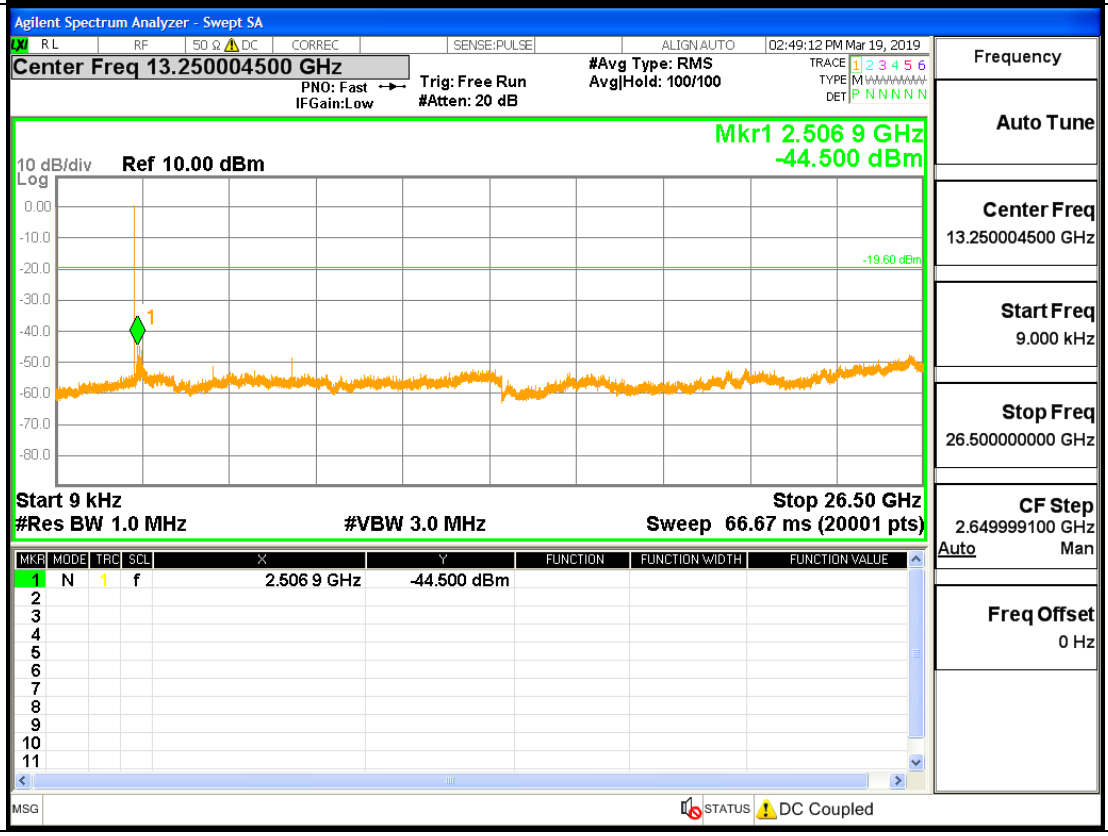
π/4DQPSK/HCH/No Hop	
π/4DQPSK/HCH/Hop	

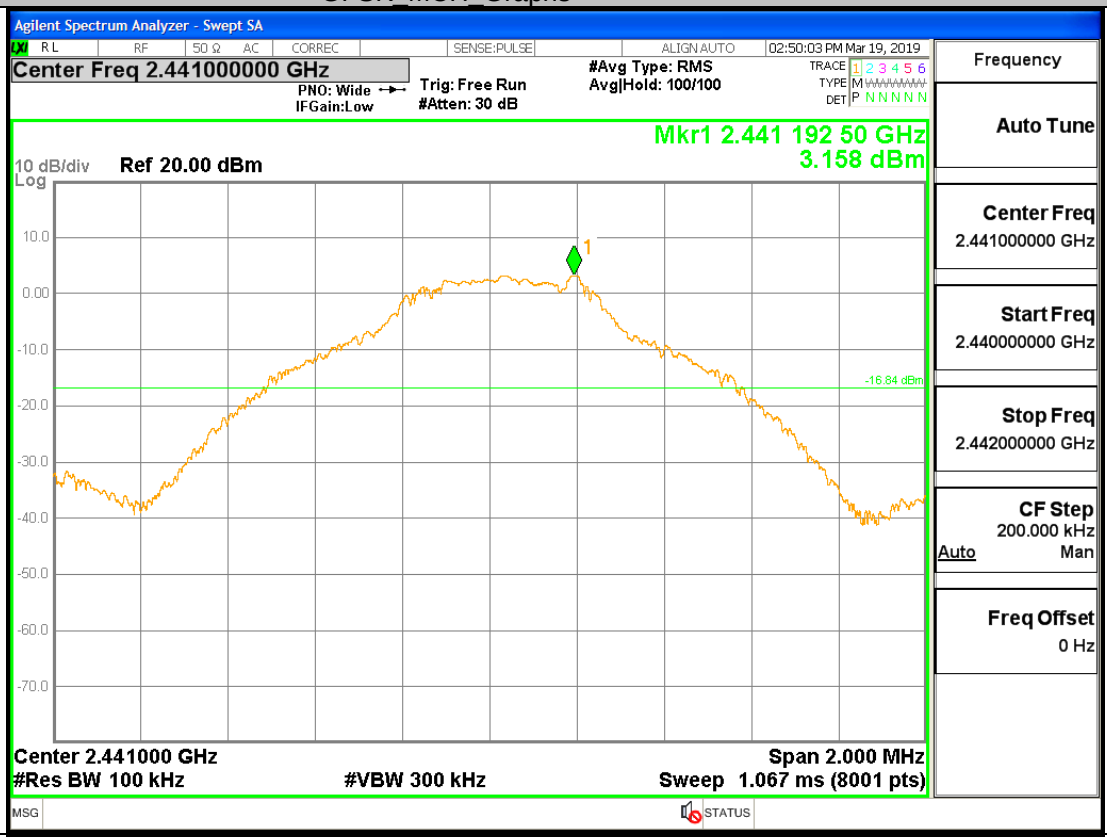
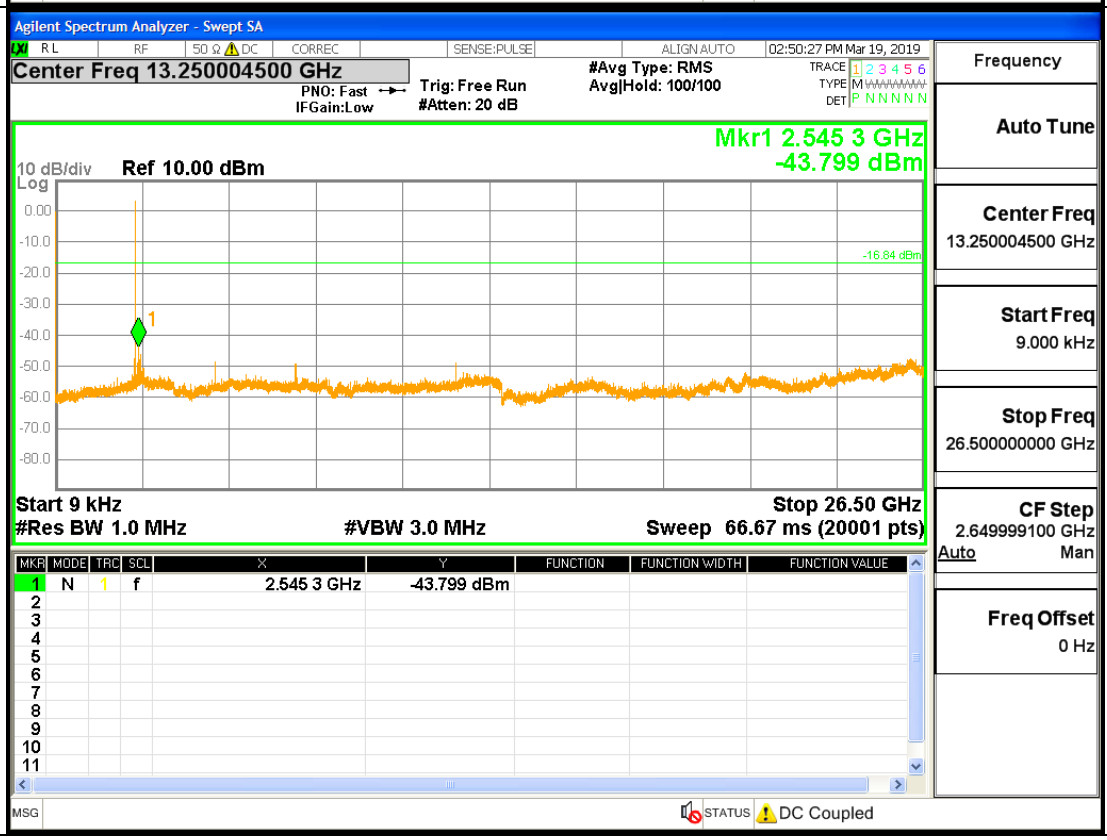
8DPSK/LCH/No Hop	
8DPSK/LCH/Hop	

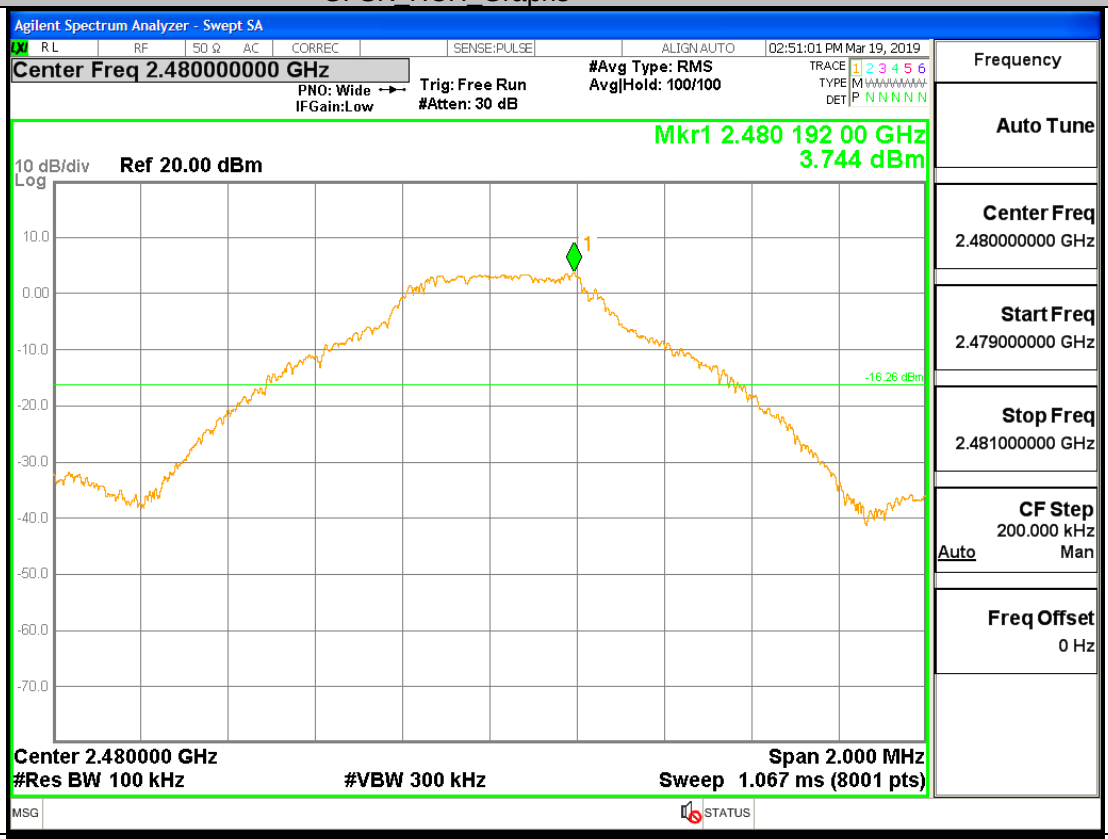
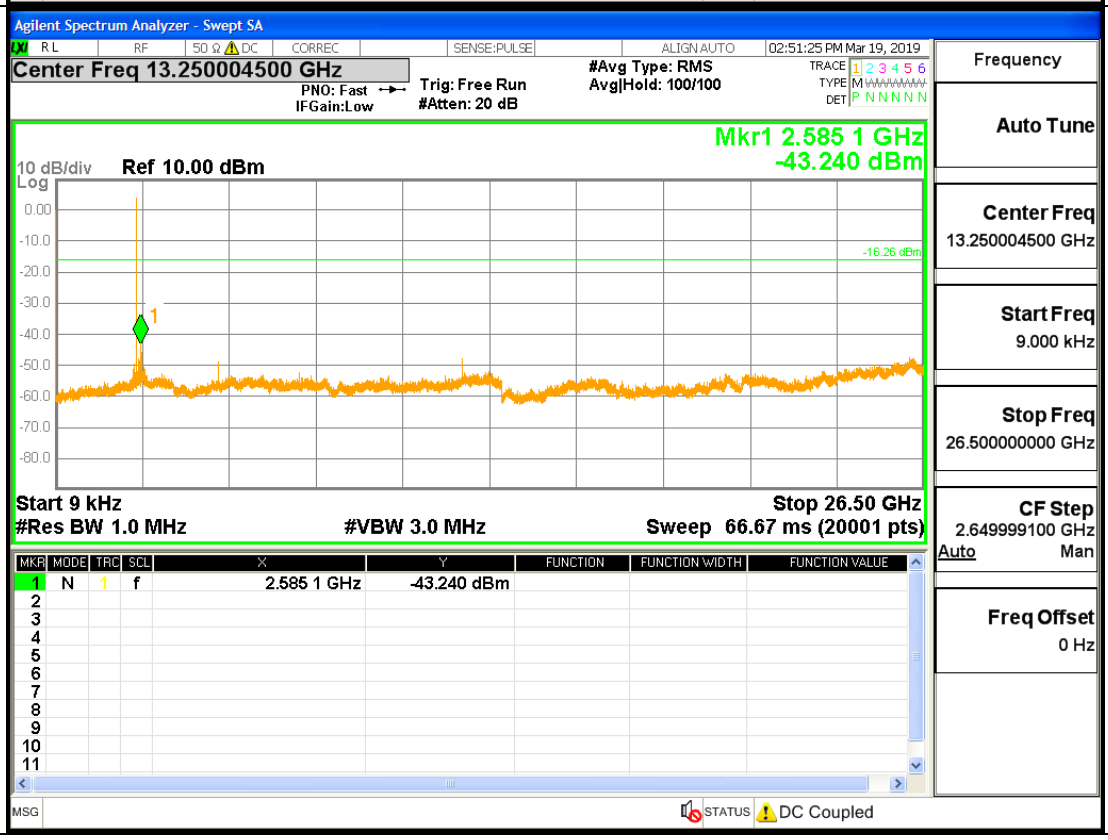
8DPSK/HCH/No Hop	
8DPSK/HCH/Hop	

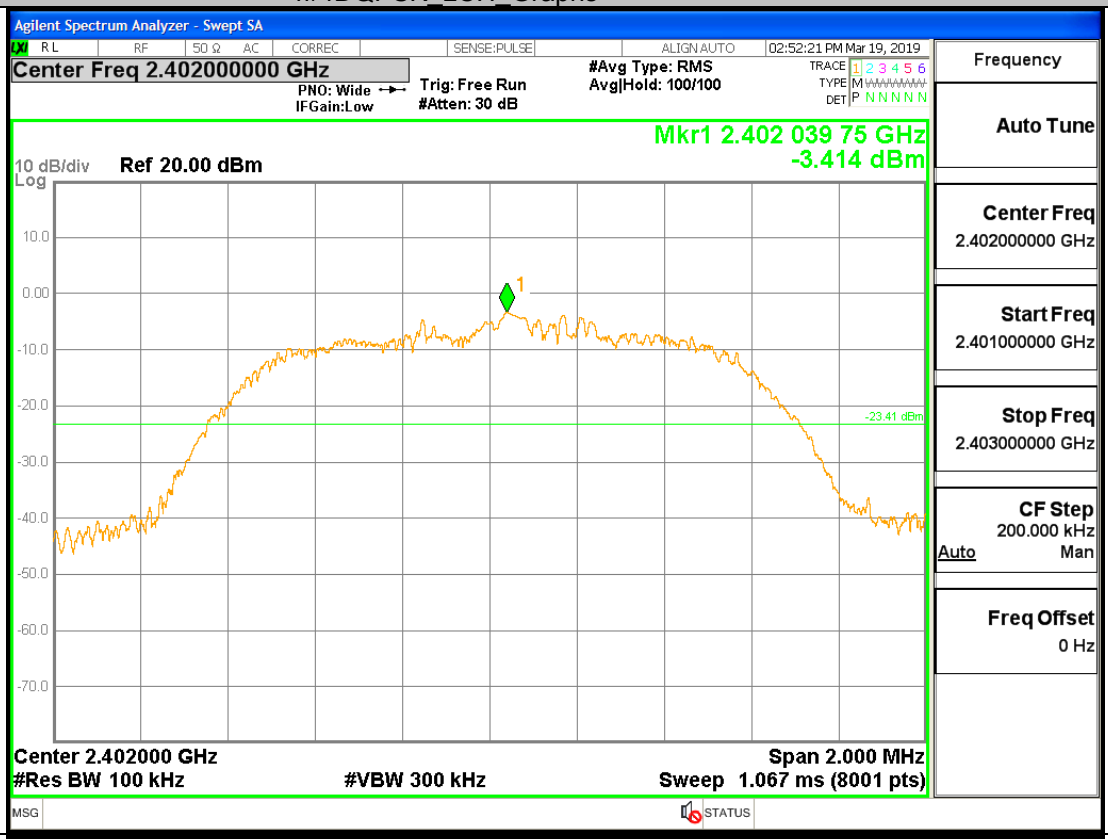
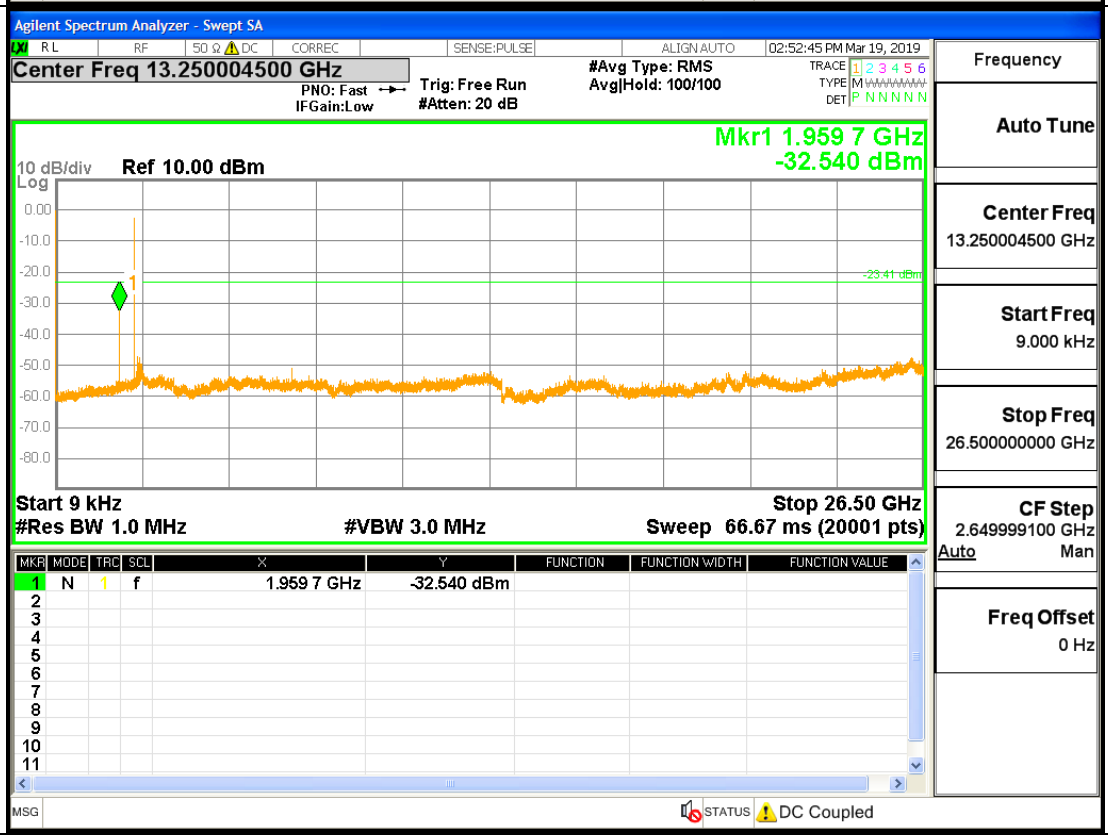
A.7 RF Conducted Spurious Emissions

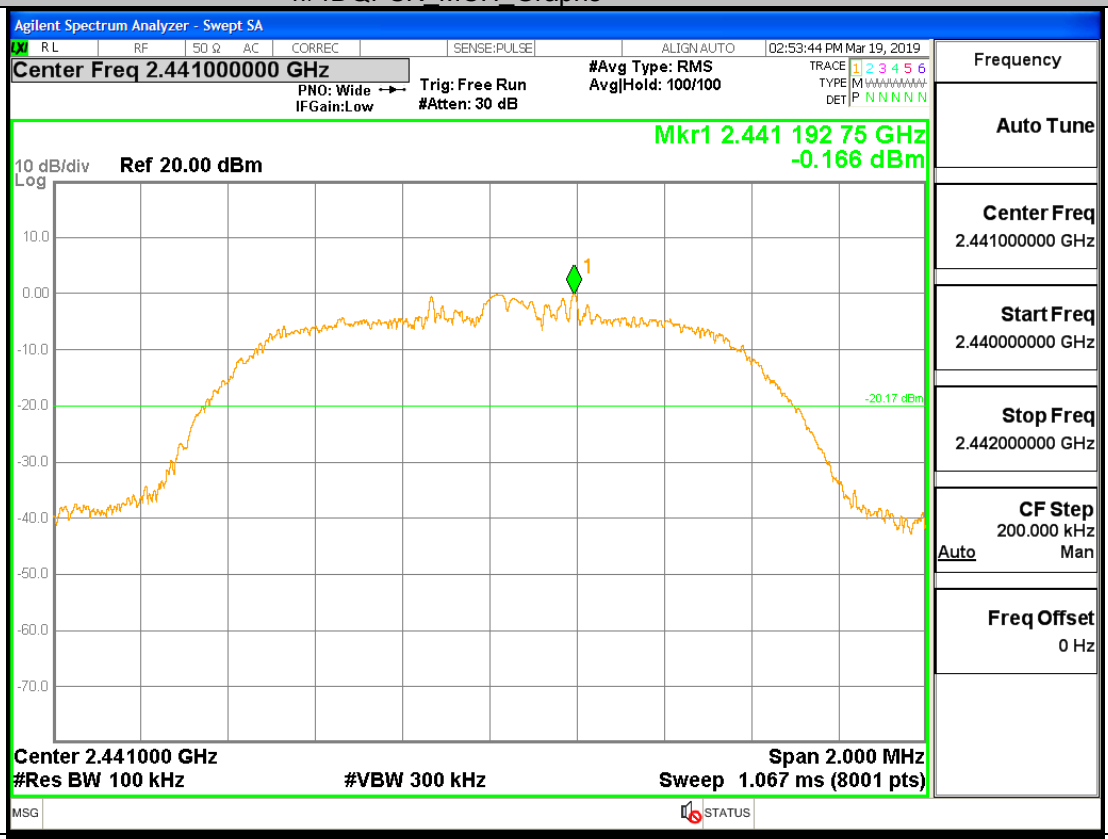
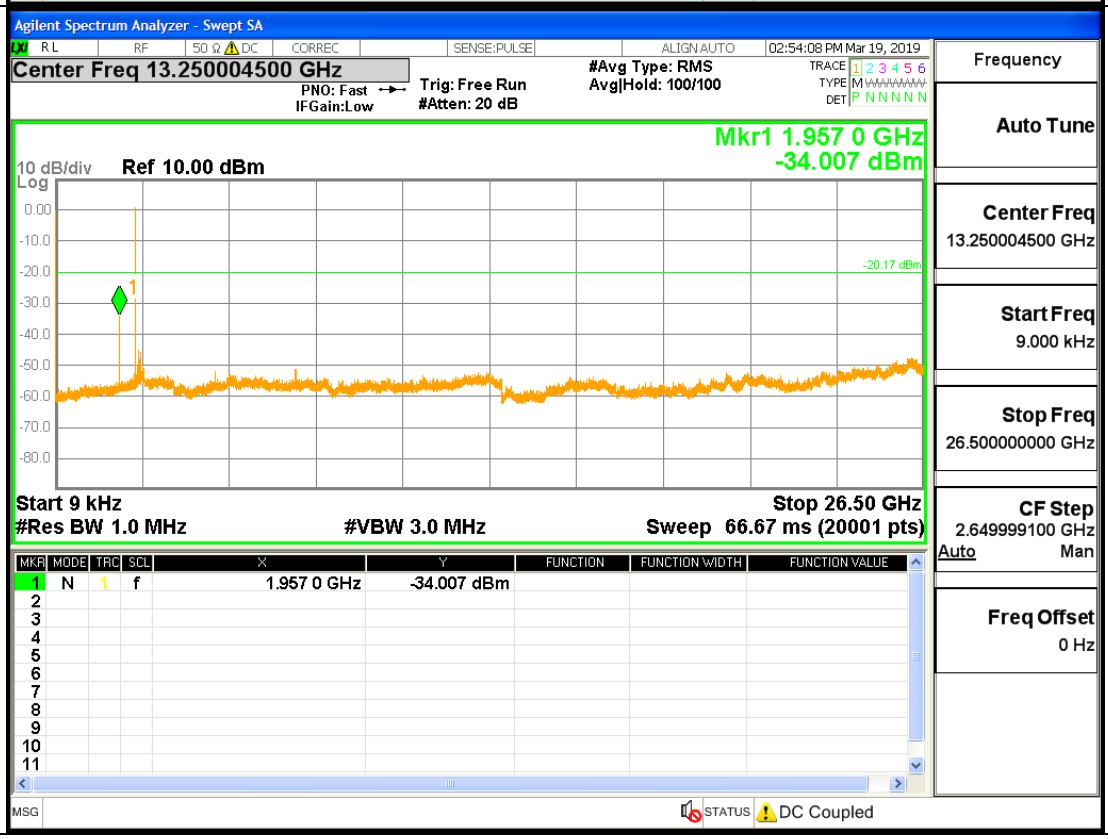
Test Graph

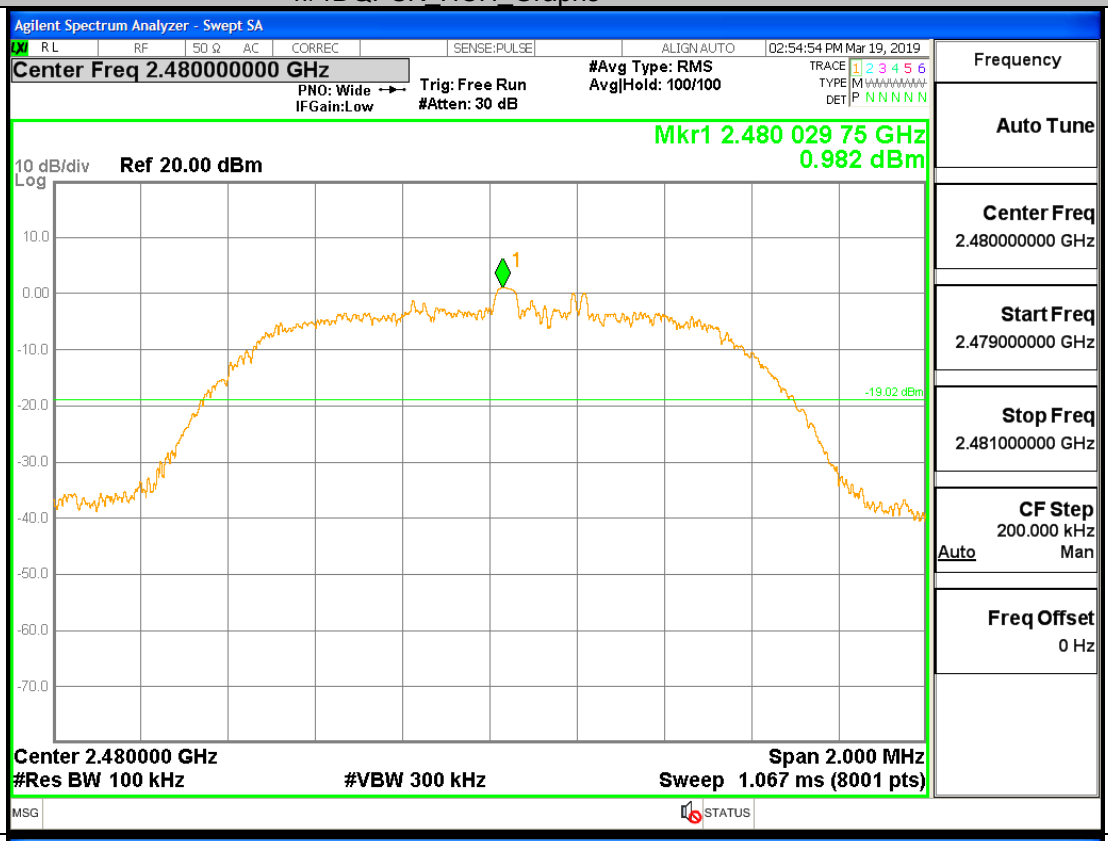
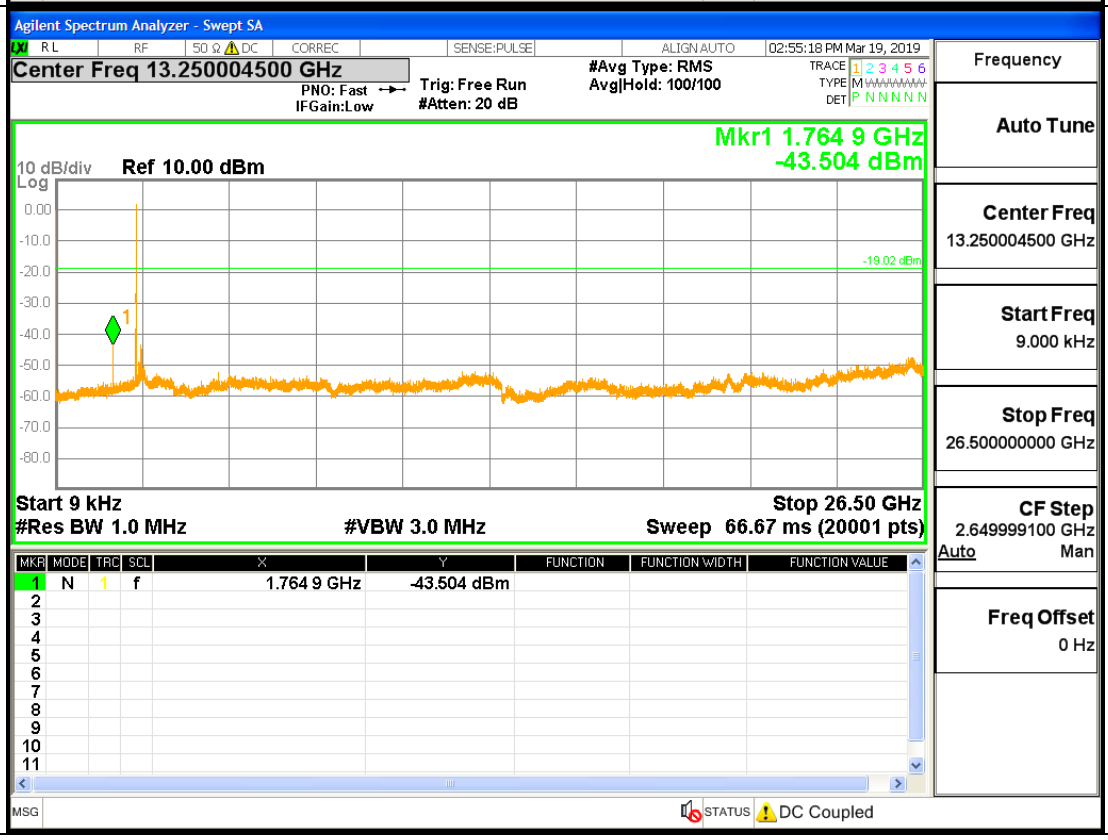
GFSK_LCH_Graphs	
Pref	
Puw	

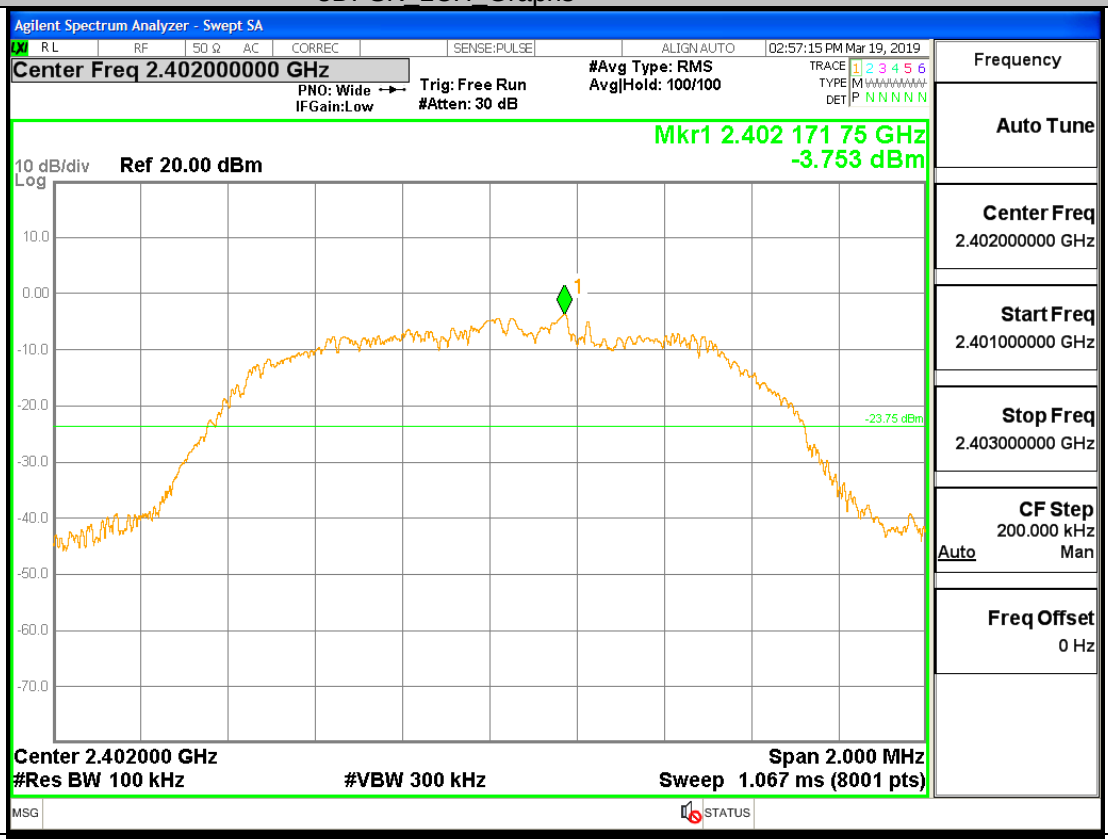
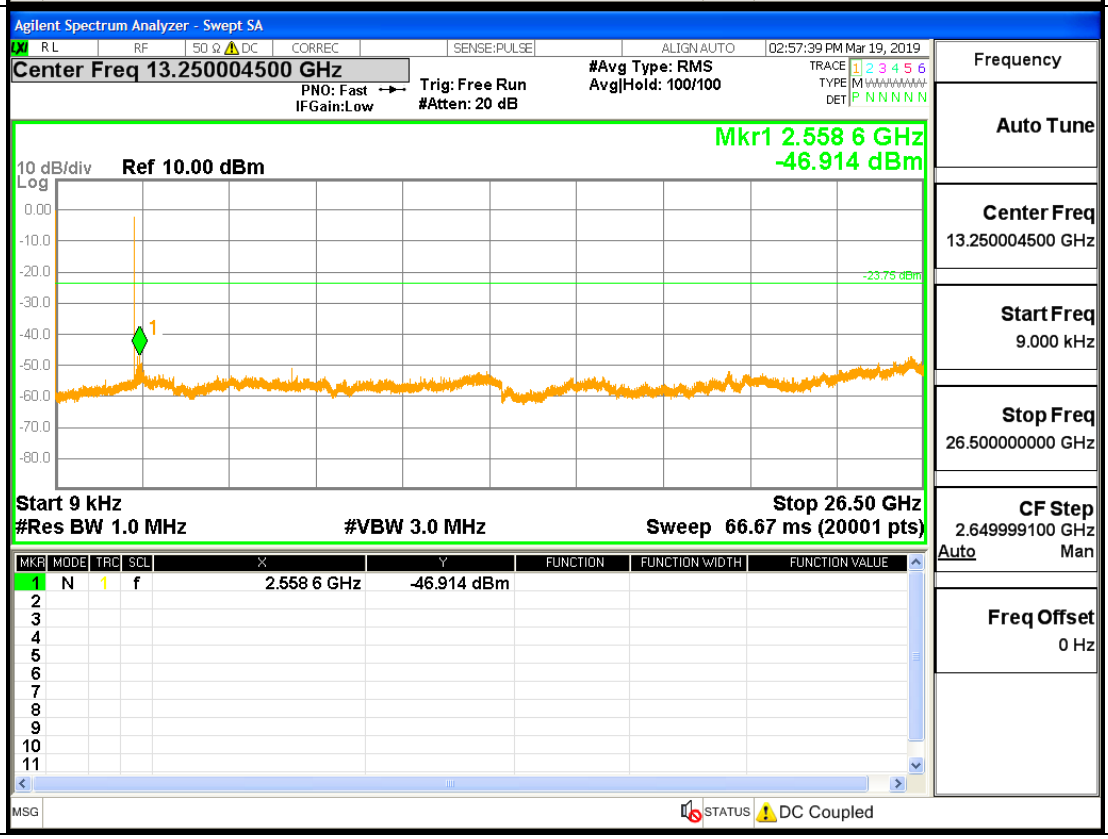
GFSK_MCH_Graphs	
Pref	
Puw	

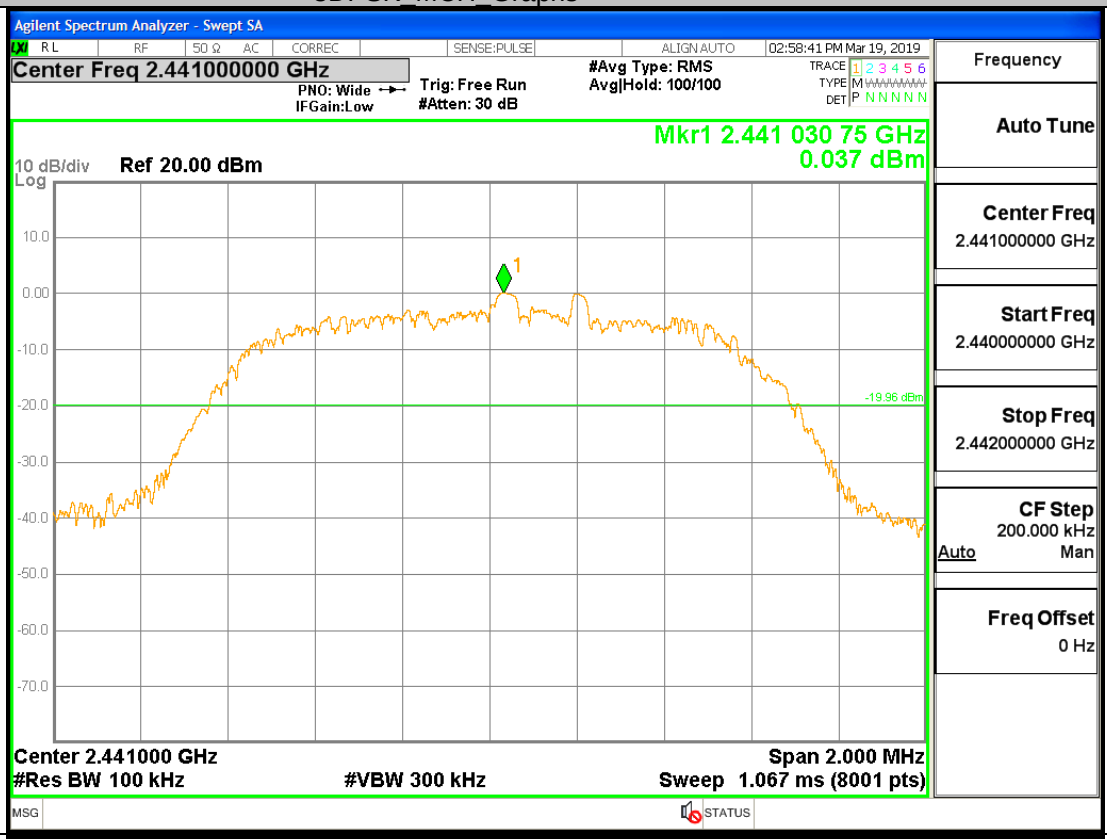
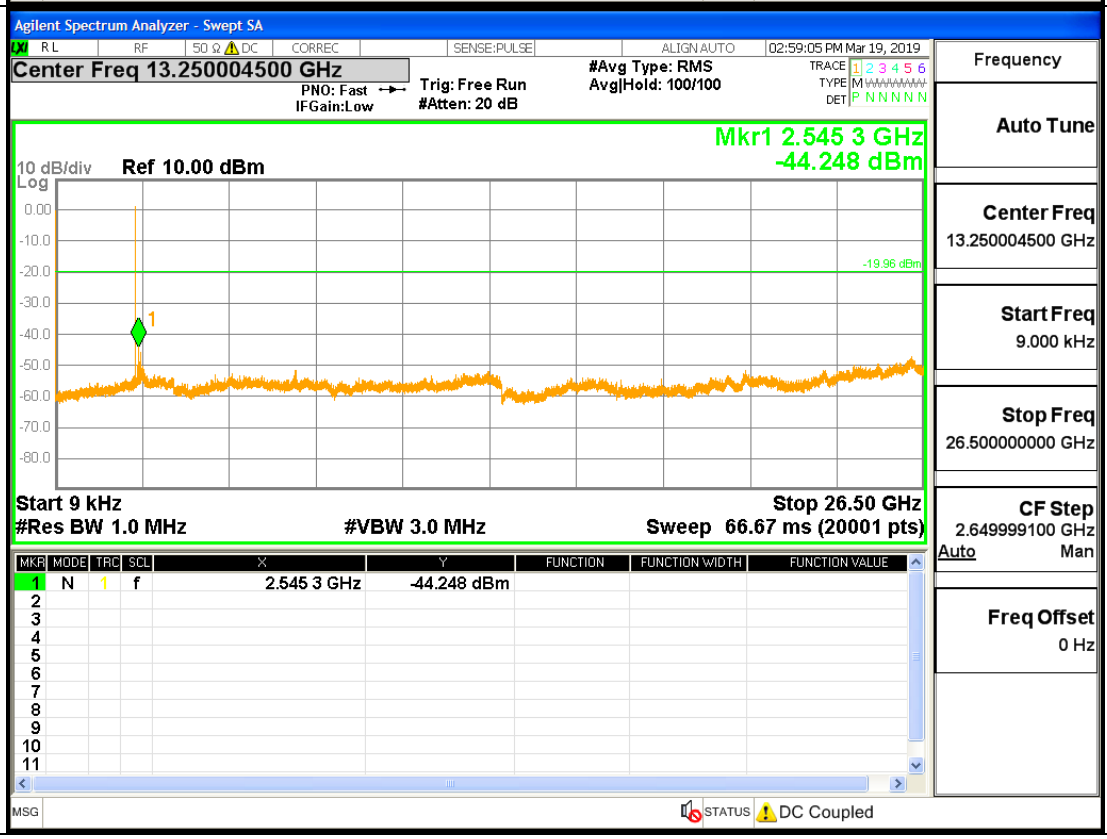
GFSK_HCH_Graphs	
Pref	
Puw	

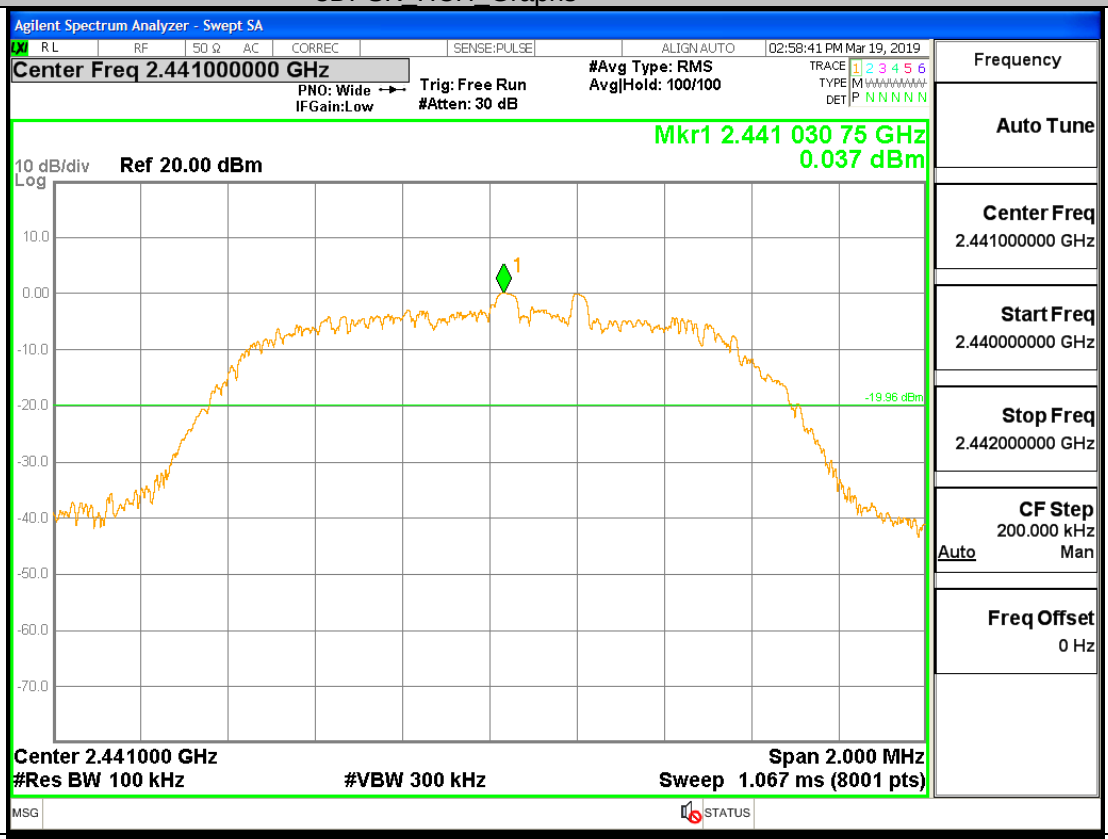
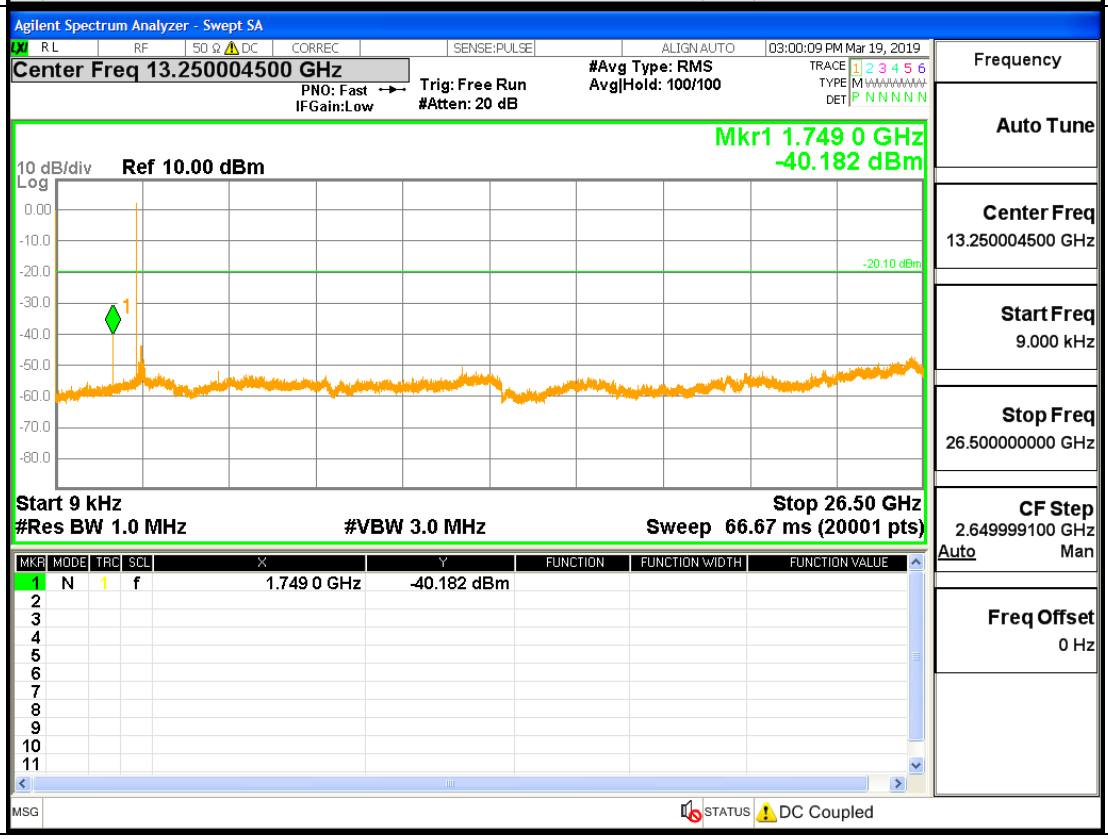
π/4DQPSK_LCH_Graphs	
Pref	
Puw	

π/4DQPSK_MCH_Graphs	
Pref	
Puw	

π/4DQPSK_HCH_Graphs	
Pref	
Puw	

8DPSK_LCH_Graphs	
Pref	
Puw	

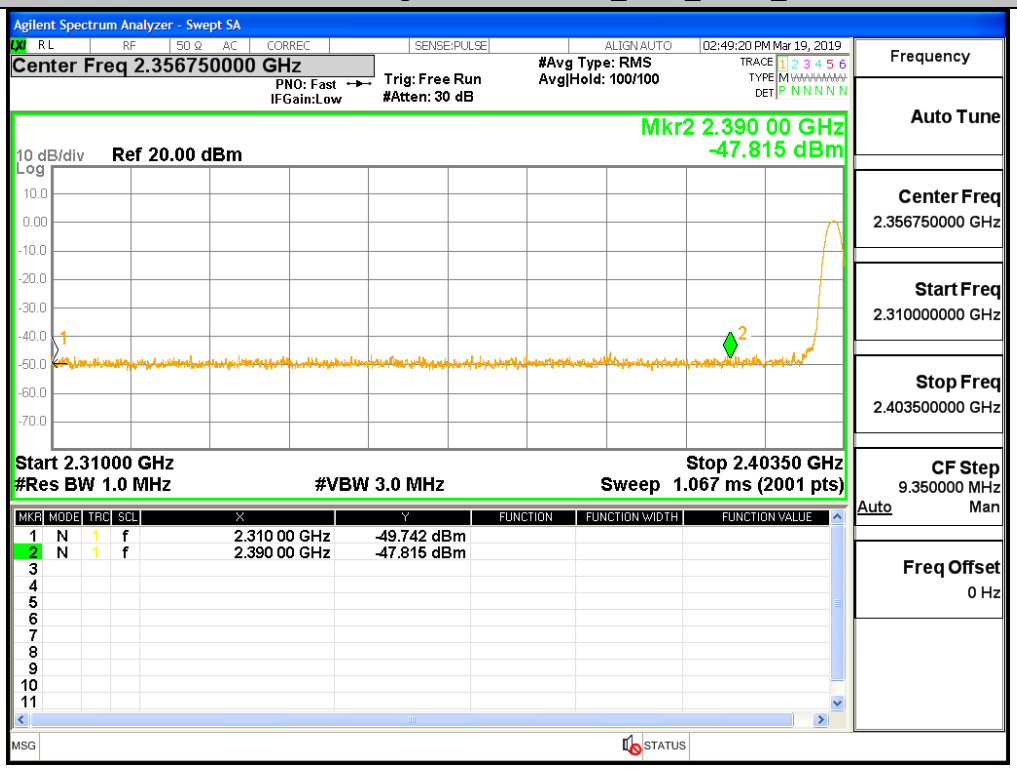
8DPSK_MCH_Graphs	
Pref	
Puw	

8DPSK_HCH_Graphs	
Pref	
Puw	

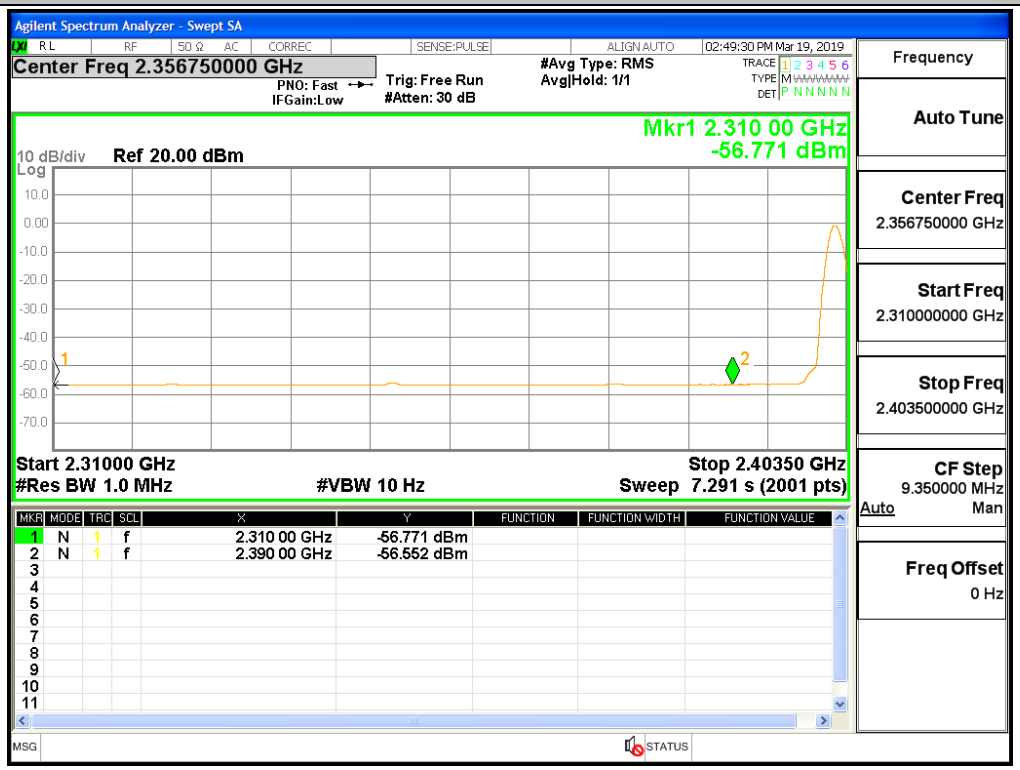
A.8 Restrict-band band-edge measurements

Type	Carrier Frequency (MHz)	Frequency(MHz)	Gain	Ground Factor	Peak Value(dBm)	E [dBuV/m]	Limit [dBuV/m]	Average Value(dBm)	E [dBuV/m]	Limit [dBuV/m]	Conclusion
1DH5	2402	2310	2.00	0.00	-49.74	47.46	74	-56.77	40.43	54	Pass
1DH5	2402	2390	2.00	0.00	-47.82	49.38	74	-56.55	40.65	54	Pass
1DH5	2480	2483.5	2.00	0.00	-46.90	50.30	74	-52.34	44.86	54	Pass
1DH5	2480	2500	2.00	0.00	-49.12	48.08	74	-55.96	41.24	54	Pass
2DH5	2402	2310	2.00	0.00	-49.72	47.48	74	-56.79	40.41	54	Pass
2DH5	2402	2390	2.00	0.00	-50.16	47.04	74	-56.54	40.66	54	Pass
2DH5	2480	2483.5	2.00	0.00	-46.58	50.62	74	-53.33	43.87	54	Pass
2DH5	2480	2500	2.00	0.00	-48.72	48.48	74	-56.00	41.20	54	Pass
3DH5	2402	2310	2.00	0.00	-51.22	45.98	74	-56.83	40.37	54	Pass
3DH5	2402	2390	2.00	0.00	-50.39	46.81	74	-56.55	40.65	54	Pass
3DH5	2480	2483.5	2.00	0.00	-44.32	52.88	74	-53.26	43.94	54	Pass
3DH5	2480	2500	2.00	0.00	-48.97	48.23	74	-55.98	41.22	54	Pass

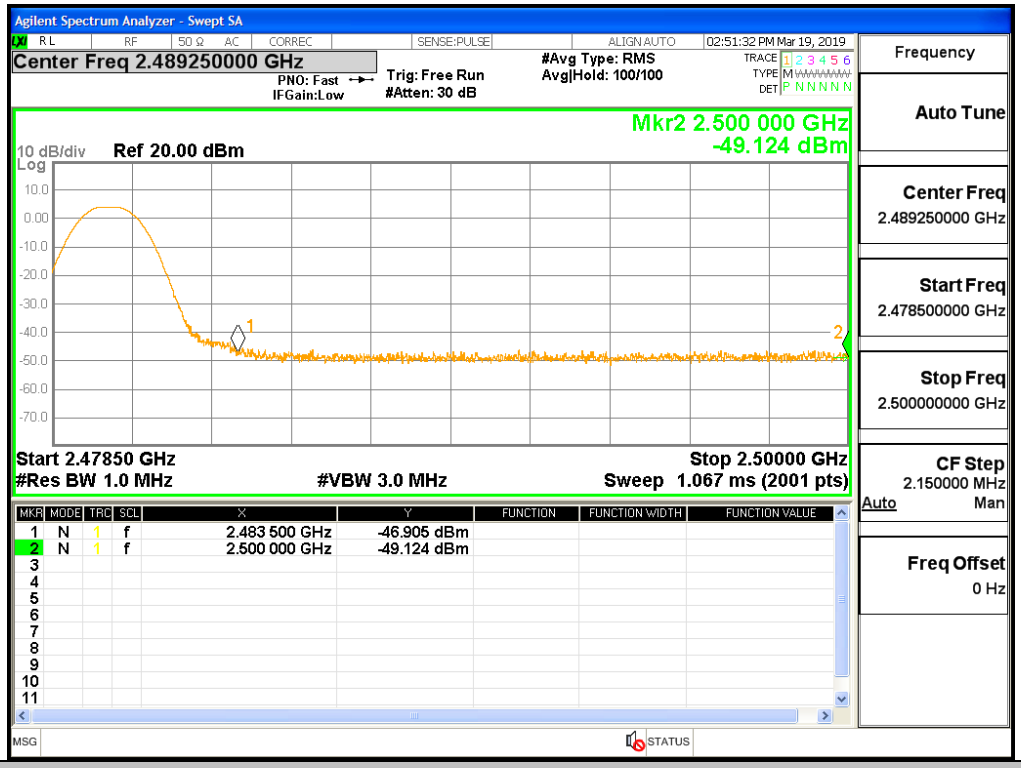
Restrict-band band-edge measurements_2402_PEAK_DH5



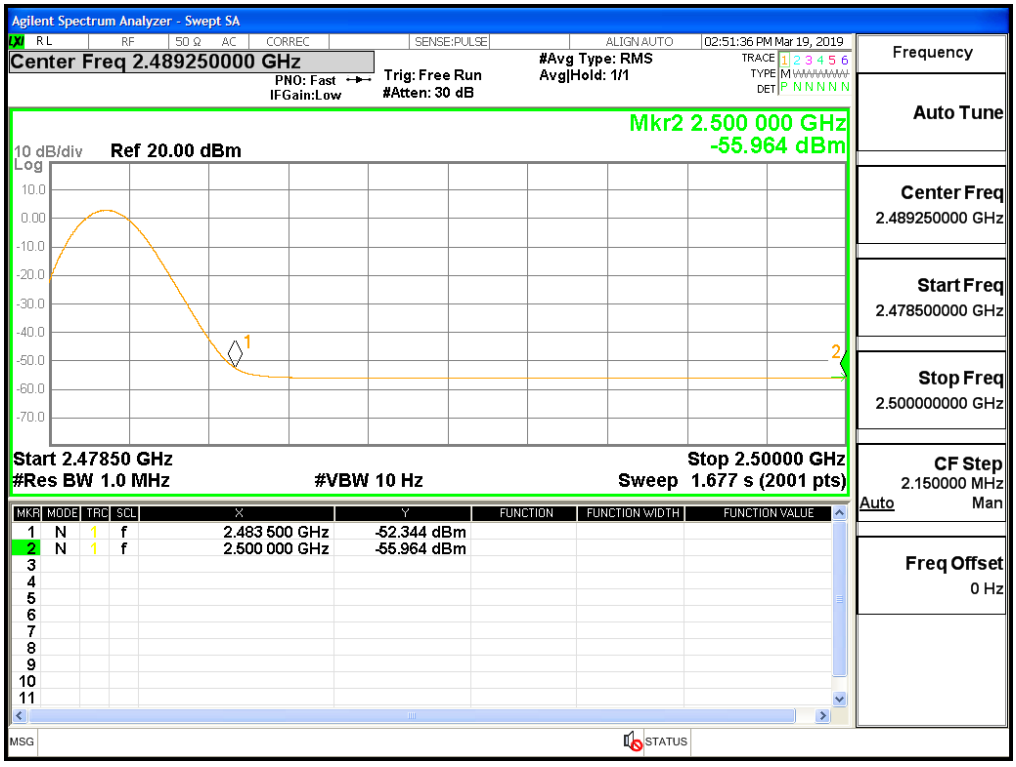
Restrict-band band-edge measurements_2402_AV_DH5



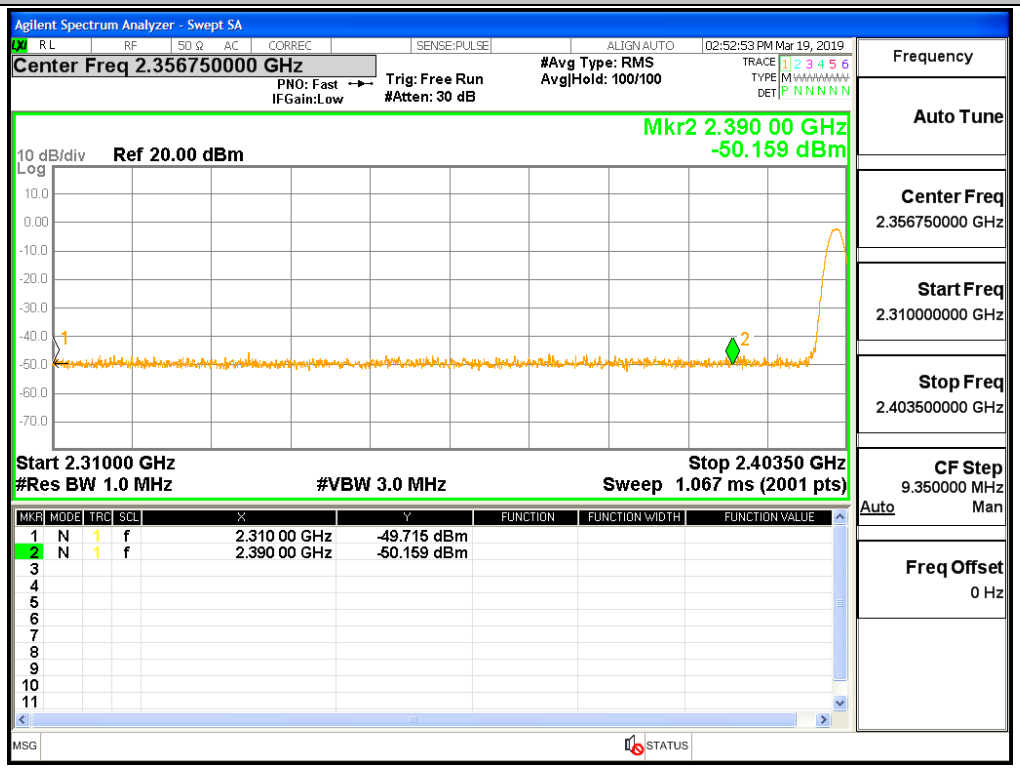
Restrict-band band-edge measurements_2480_PEAK_DH5



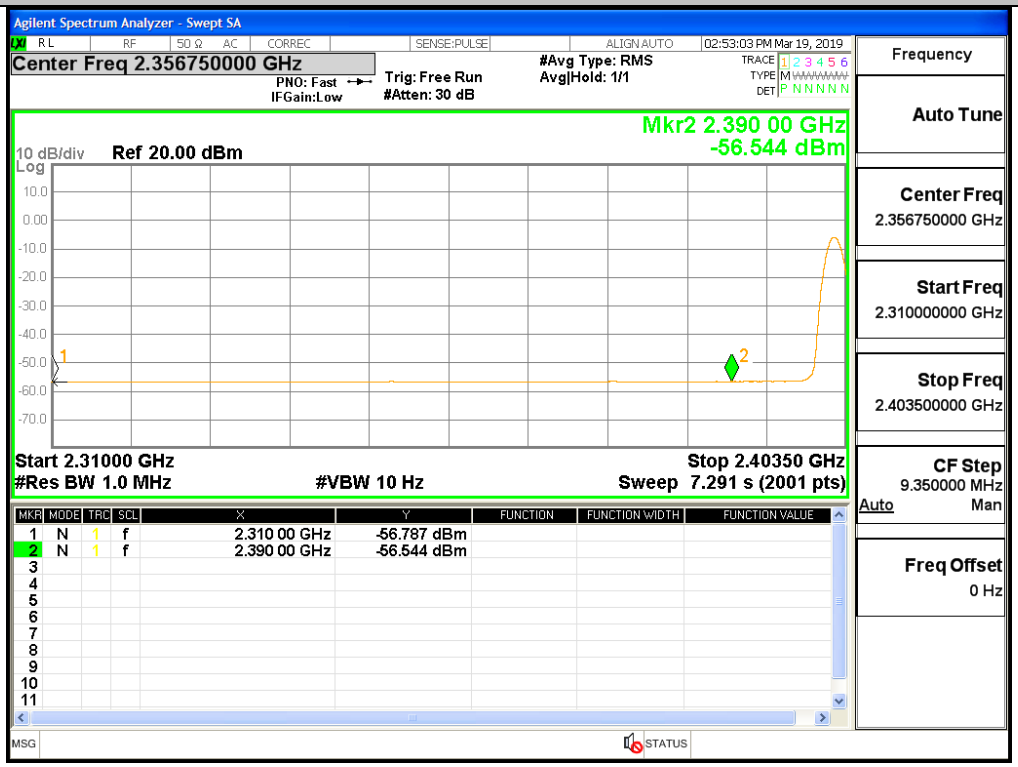
Restrict-band band-edge measurements_2480_AV_DH5



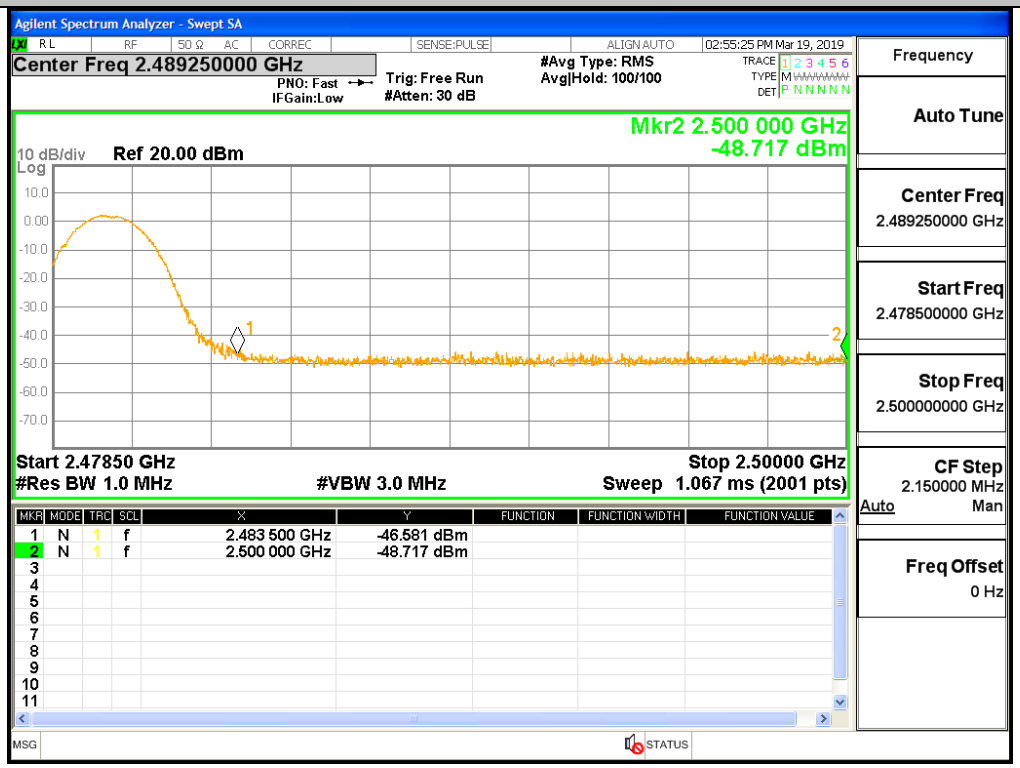
Restrict-band band-edge measurements_2402_PEAK_2DH5



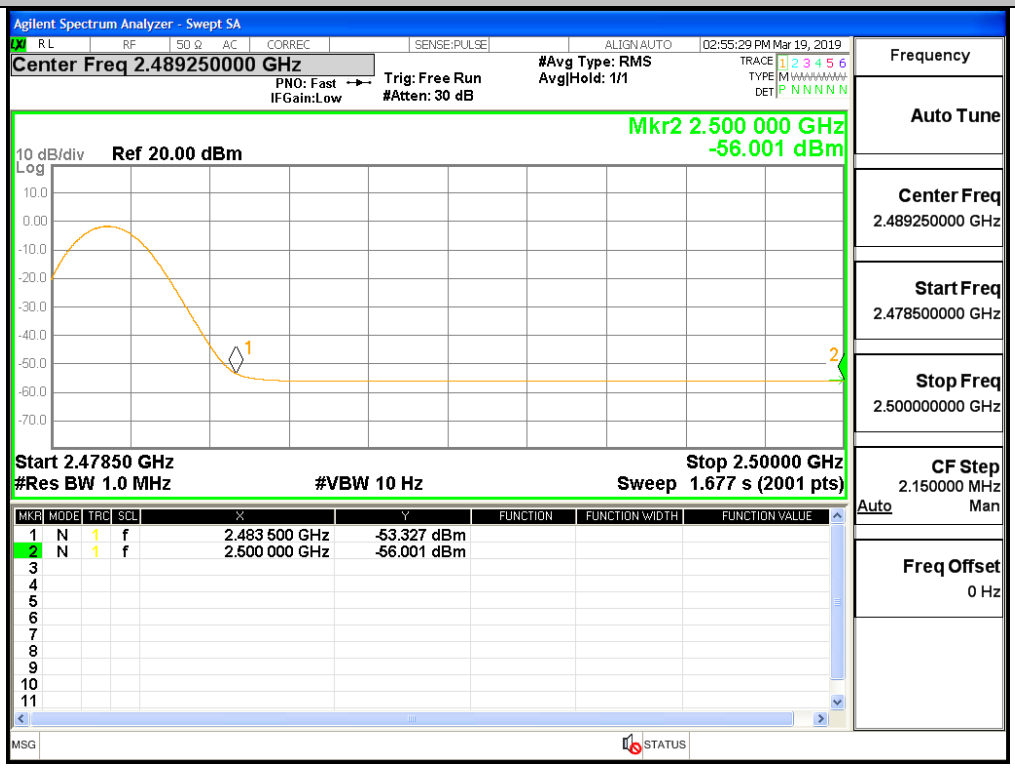
Restrict-band band-edge measurements_2402_AV_2DH5



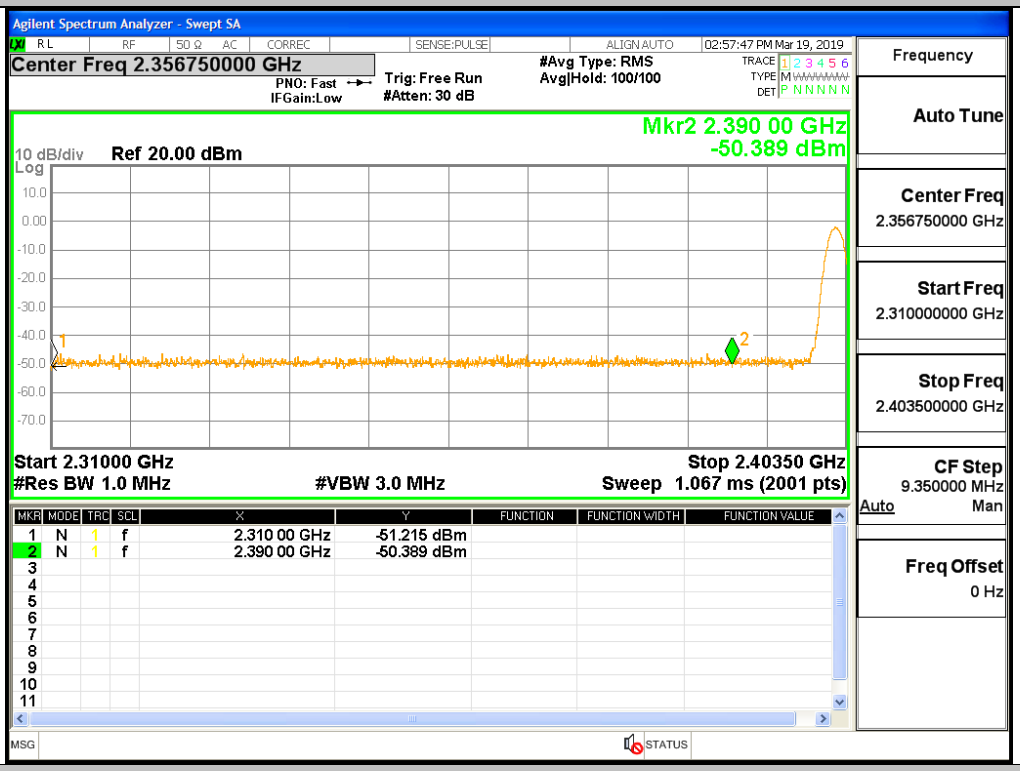
Restrict-band band-edge measurements_2480_PEAK_2DH5



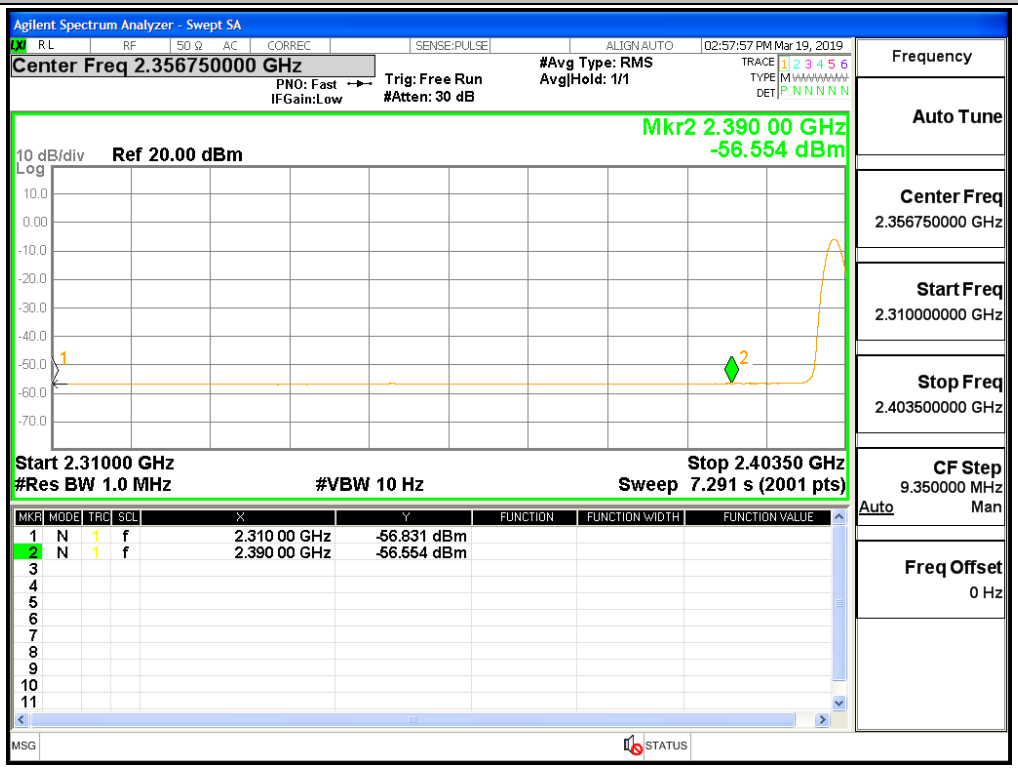
Restrict-band band-edge measurements_2480_AV_2DH5



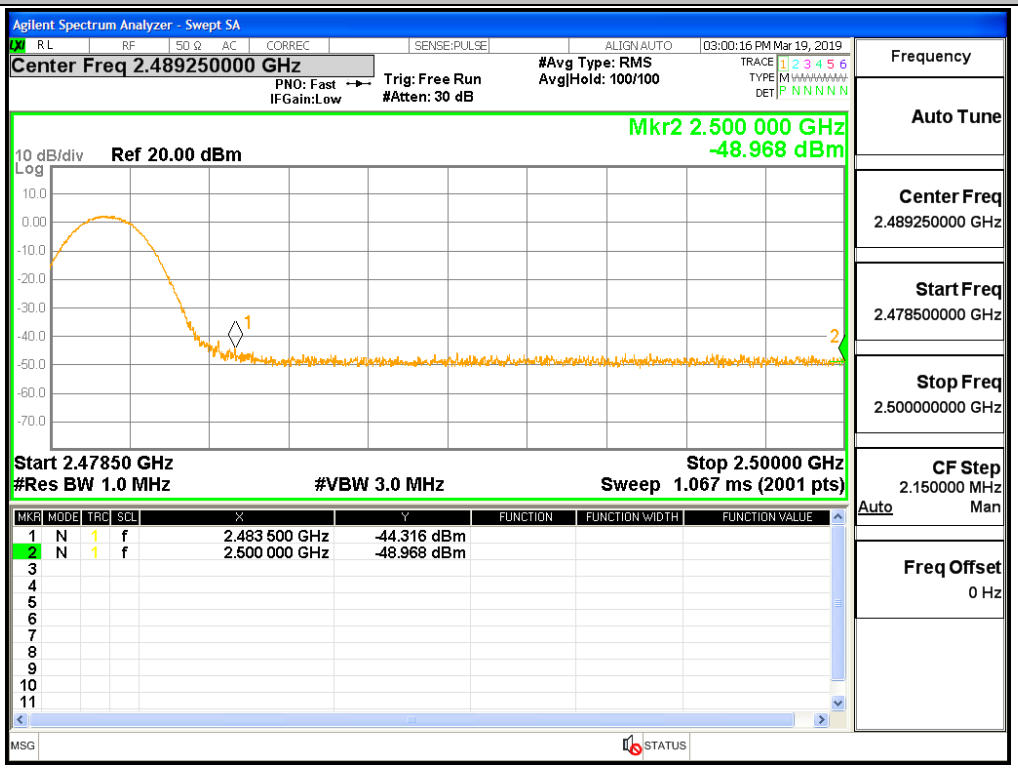
Restrict-band band-edge measurements_2402_PEAK_3DH5



Restrict-band band-edge measurements_2402_AV_3DH5



Restrict-band band-edge measurements_2480_PEAK_3DH5



Restrict-band band-edge measurements_2480_AV_3DH5