

Appendix A

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

Product Name: Bluetooth Headset

Trade Mark: GoodLark

Test Model: GT100

FCC ID: 2ASKNGT100

Environmental Conditions

Temperature:	22.7 °C
Relative Humidity:	50%
ATM Pressure:	100.0 kPa
Test Engineer:	Gary Qian
Supervised by:	Eden Hu

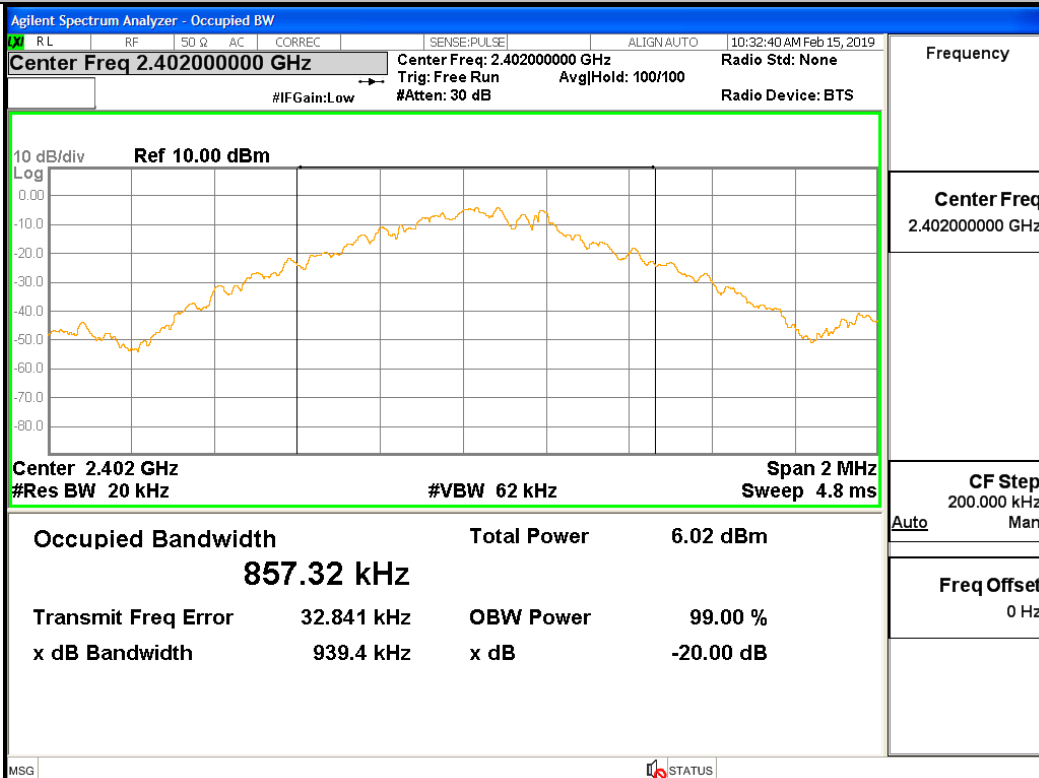
A.1 20 dB Bandwidth

Mode	Channel.	20dB Bandwidth [MHz]	Limit(MHz)	Verdict
GFSK	LCH	0.939	Not Specified	PASS
GFSK	MCH	0.944	Not Specified	PASS
GFSK	HCH	0.939	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.228	Not Specified	PASS
$\pi/4$ DQPSK	MCH	1.227	Not Specified	PASS
$\pi/4$ DQPSK	HCH	1.236	Not Specified	PASS
8DPSK	LCH	1.253	Not Specified	PASS
8DPSK	MCH	1.254	Not Specified	PASS
8DPSK	HCH	1.258	Not Specified	PASS

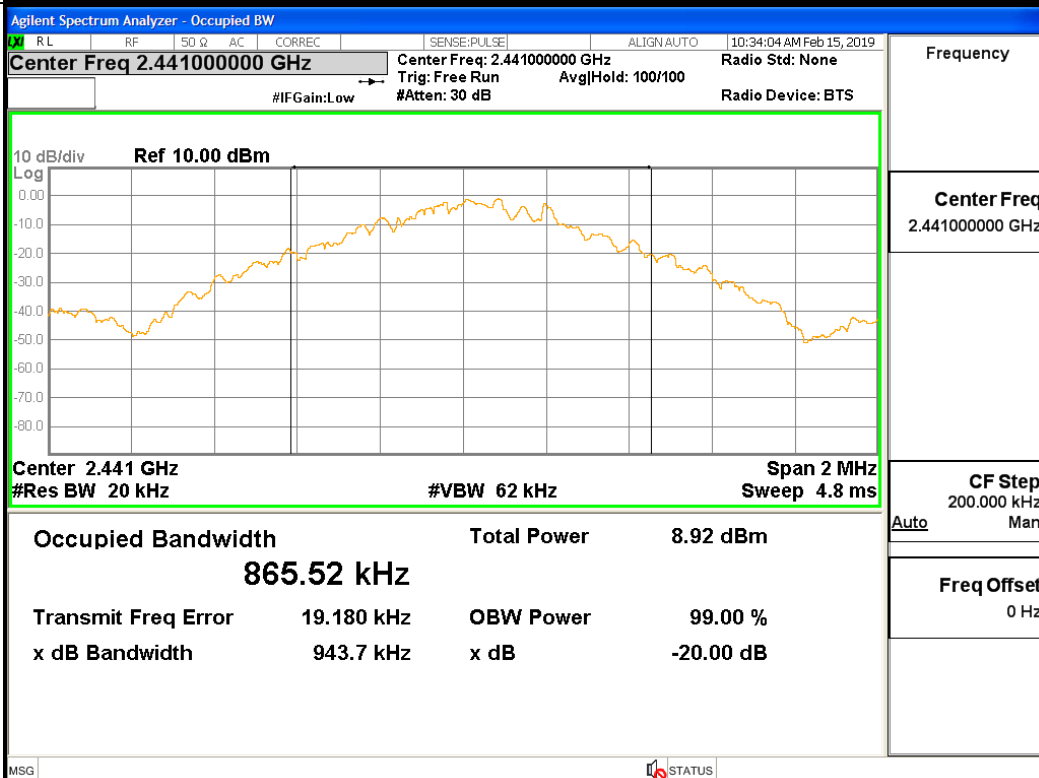
Test Graph

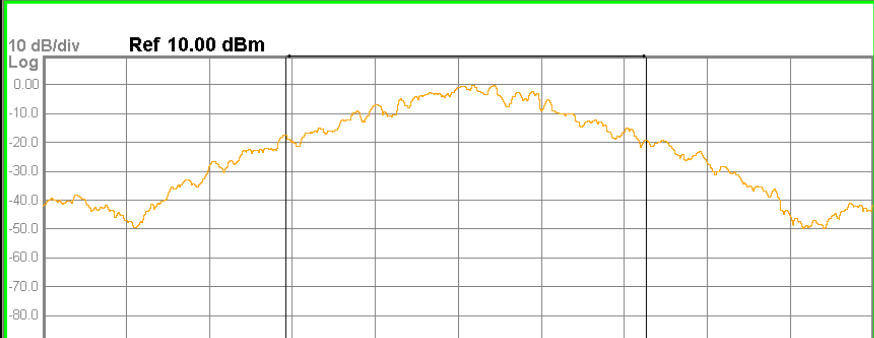
Graphs

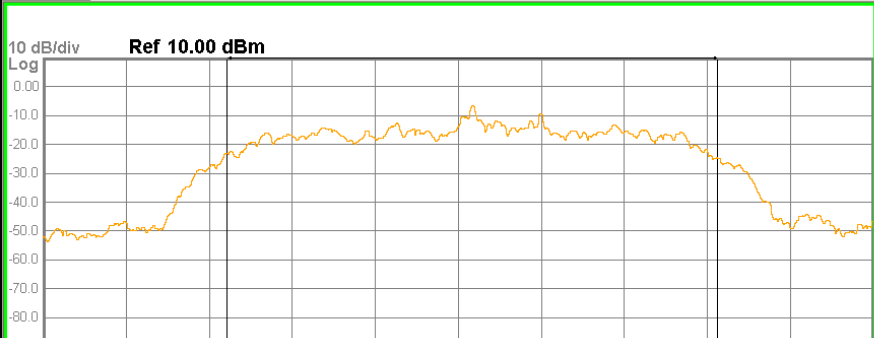
GFSK/LCH

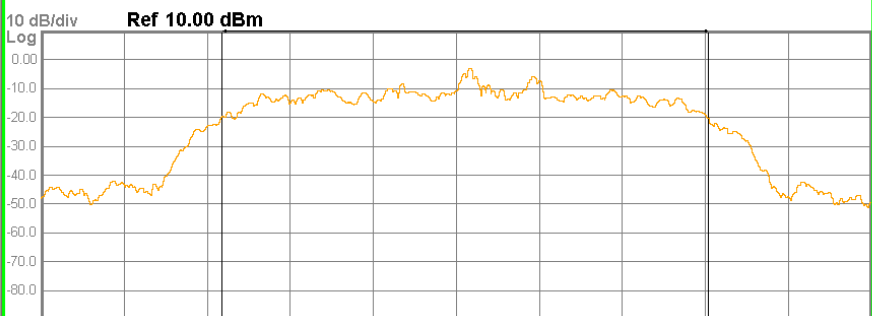
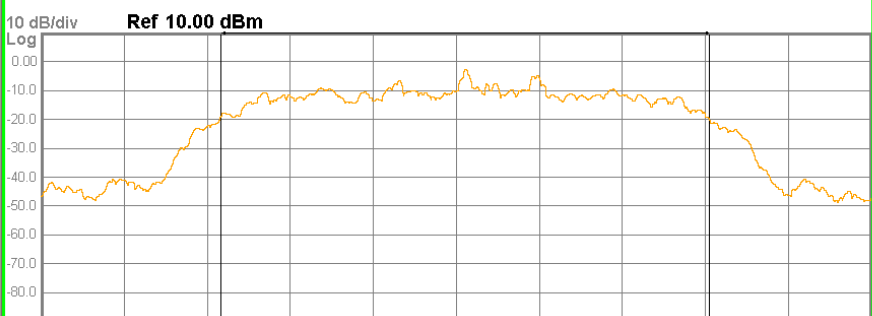


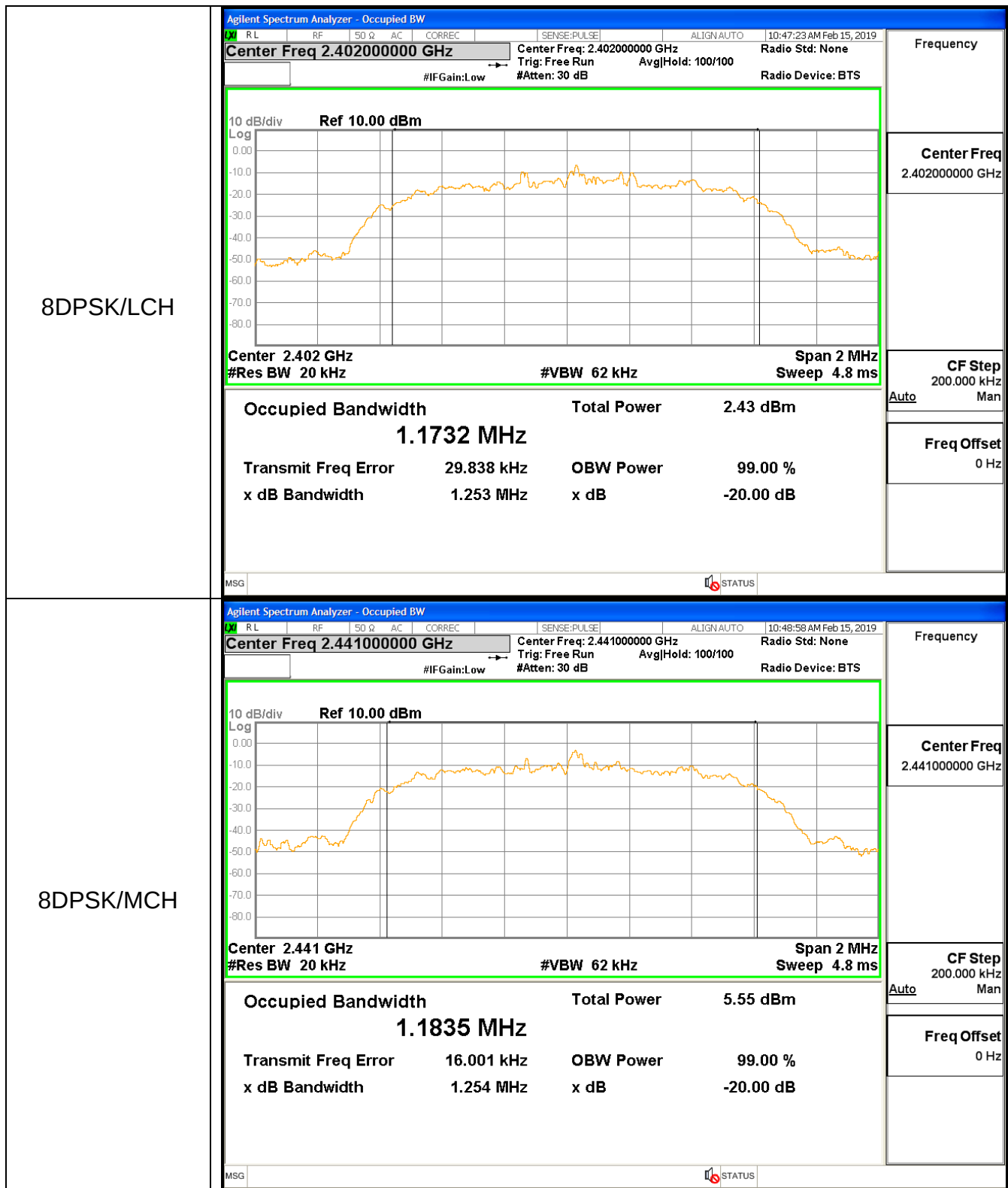
GFSK/MCH



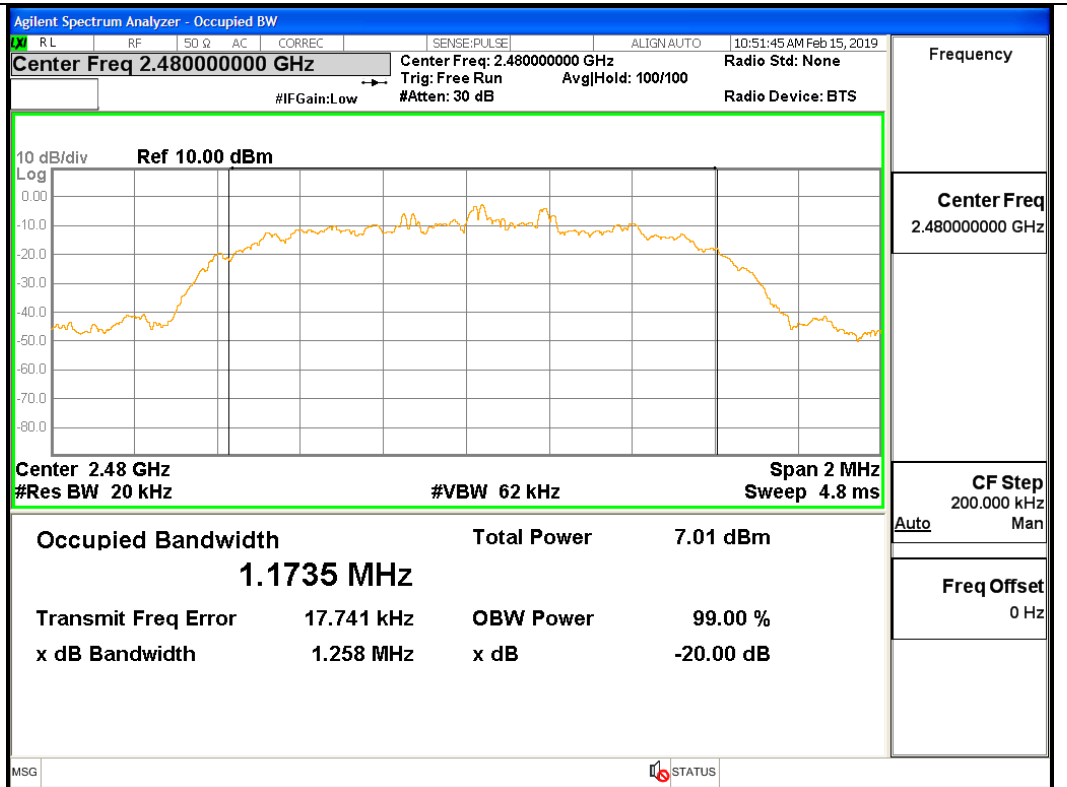
GFSK/HCH	Agilent Spectrum Analyzer - Occupied BW										Frequency	
	Center Freq 2.48000000 GHz Center Freq: 2.480000000 GHz Trig: Free Run #IFGain:Low #Atten: 30 dB Radio Std: None Avg/Hold: 100/100 Radio Device: BTS										Center Freq 2.480000000 GHz	
											CF Step 200.000 kHz Man	
	Center 2.48 GHz #Res BW 20 kHz #VBW 62 kHz Span 2 MHz Sweep 4.8 ms										Auto	
	Occupied Bandwidth 864.28 kHz Total Power 9.81 dBm Transmit Freq Error 20.218 kHz OBW Power 99.00 % x dB Bandwidth 939.1 kHz x dB -20.00 dB										Freq Offset 0 Hz	
MSG										STATUS		

π/4DQPSK/LCH	Agilent Spectrum Analyzer - Occupied BW										Frequency	
	Center Freq 2.40200000 GHz Center Freq: 2.402000000 GHz Trig: Free Run #IFGain:Low #Atten: 30 dB Radio Std: None Avg/Hold: 100/100 Radio Device: BTS										Center Freq 2.402000000 GHz	
											CF Step 200.000 kHz Man	
	Center 2.402 GHz #Res BW 20 kHz #VBW 62 kHz Span 2 MHz Sweep 4.8 ms										Auto	
	Occupied Bandwidth 1.1805 MHz Total Power 2.02 dBm Transmit Freq Error 33.071 kHz OBW Power 99.00 % x dB Bandwidth 1.228 MHz x dB -20.00 dB										Freq Offset 0 Hz	
MSG										STATUS		

π/4DQPSK/MCH	Agilent Spectrum Analyzer - Occupied BW Center Freq 2.441000000 GHz Center Freq: 2.441000000 GHz Trig: Free Run #Gain: Low #Atten: 30 dB Radio Std: None Radio Device: BTS  Ref 10.00 dBm Center 2.441 GHz #Res BW 20 kHz Span 2 MHz Sweep 4.8 ms Occupied Bandwidth 1.1715 MHz Total Power 5.67 dBm Transmit Freq Error 21.112 kHz OBW Power 99.00 % x dB Bandwidth 1.227 MHz x dB -20.00 dB	Frequency Center Freq 2.441000000 GHz CF Step 200.000 kHz Auto Man Freq Offset 0 Hz
	Agilent Spectrum Analyzer - Occupied BW Center Freq 2.480000000 GHz Center Freq: 2.480000000 GHz Trig: Free Run #Gain: Low #Atten: 30 dB Radio Std: None Radio Device: BTS  Ref 10.00 dBm Center 2.48 GHz #Res BW 20 kHz Span 2 MHz Sweep 4.8 ms Occupied Bandwidth 1.1754 MHz Total Power 6.51 dBm Transmit Freq Error 21.552 kHz OBW Power 99.00 % x dB Bandwidth 1.236 MHz x dB -20.00 dB	Frequency Center Freq 2.480000000 GHz CF Step 200.000 kHz Auto Man Freq Offset 0 Hz



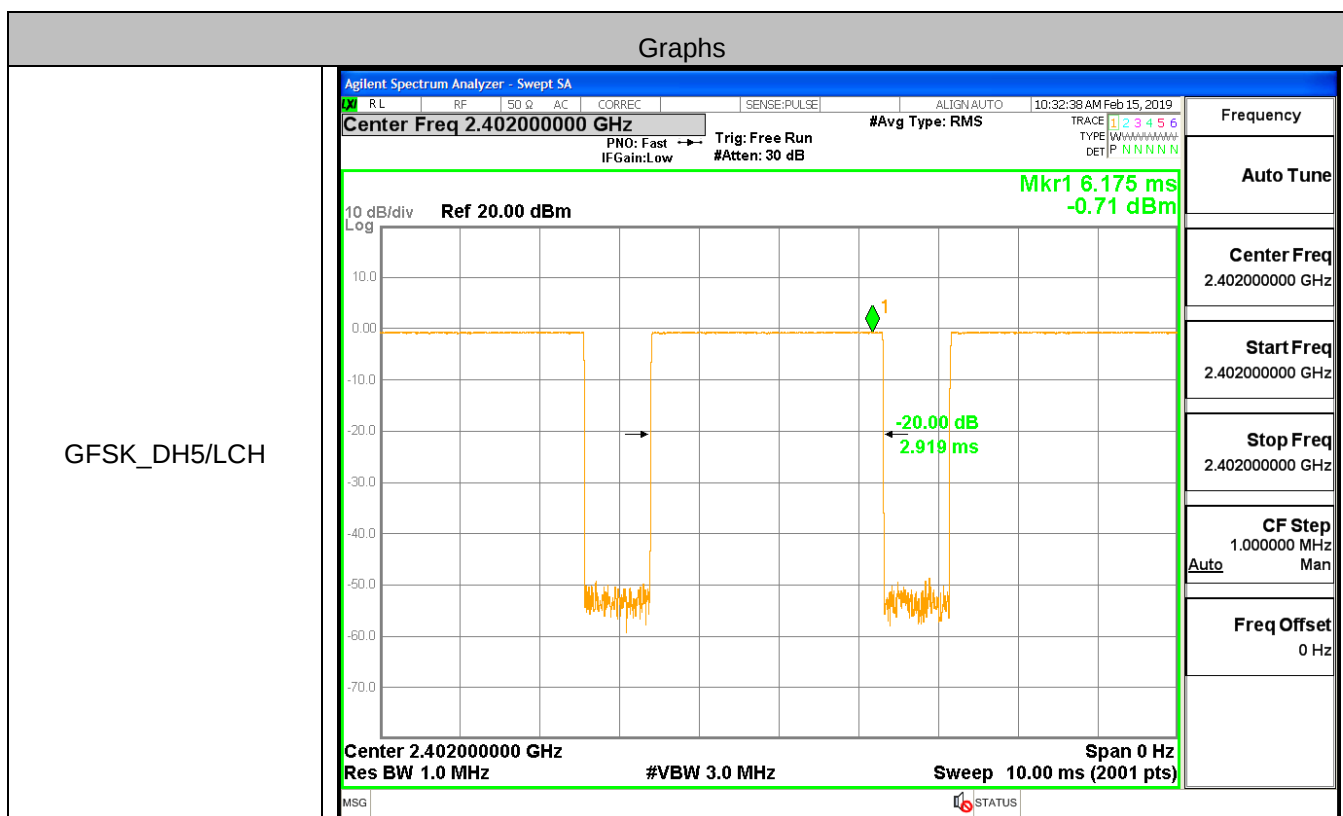
8DPSK/HCH

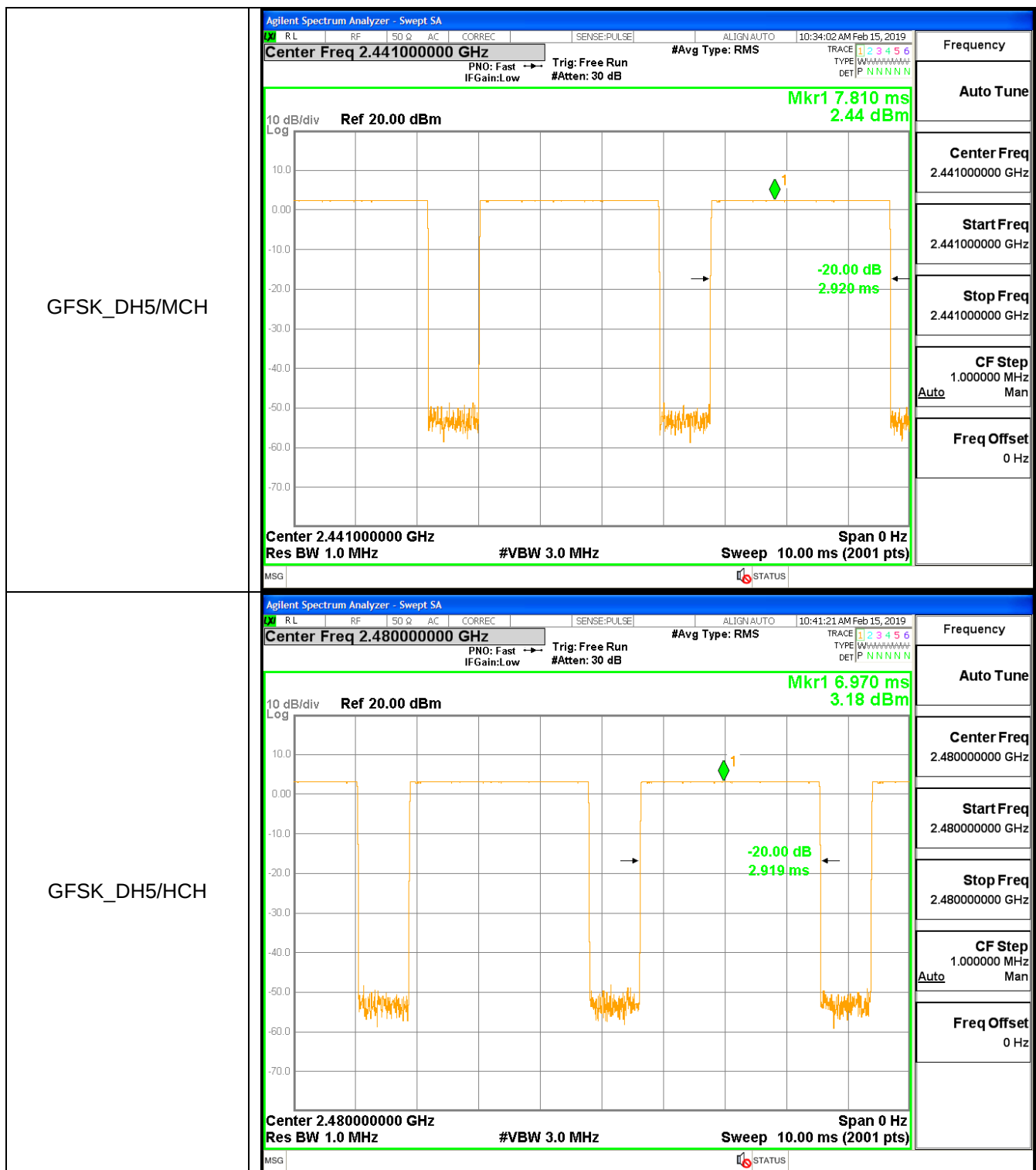


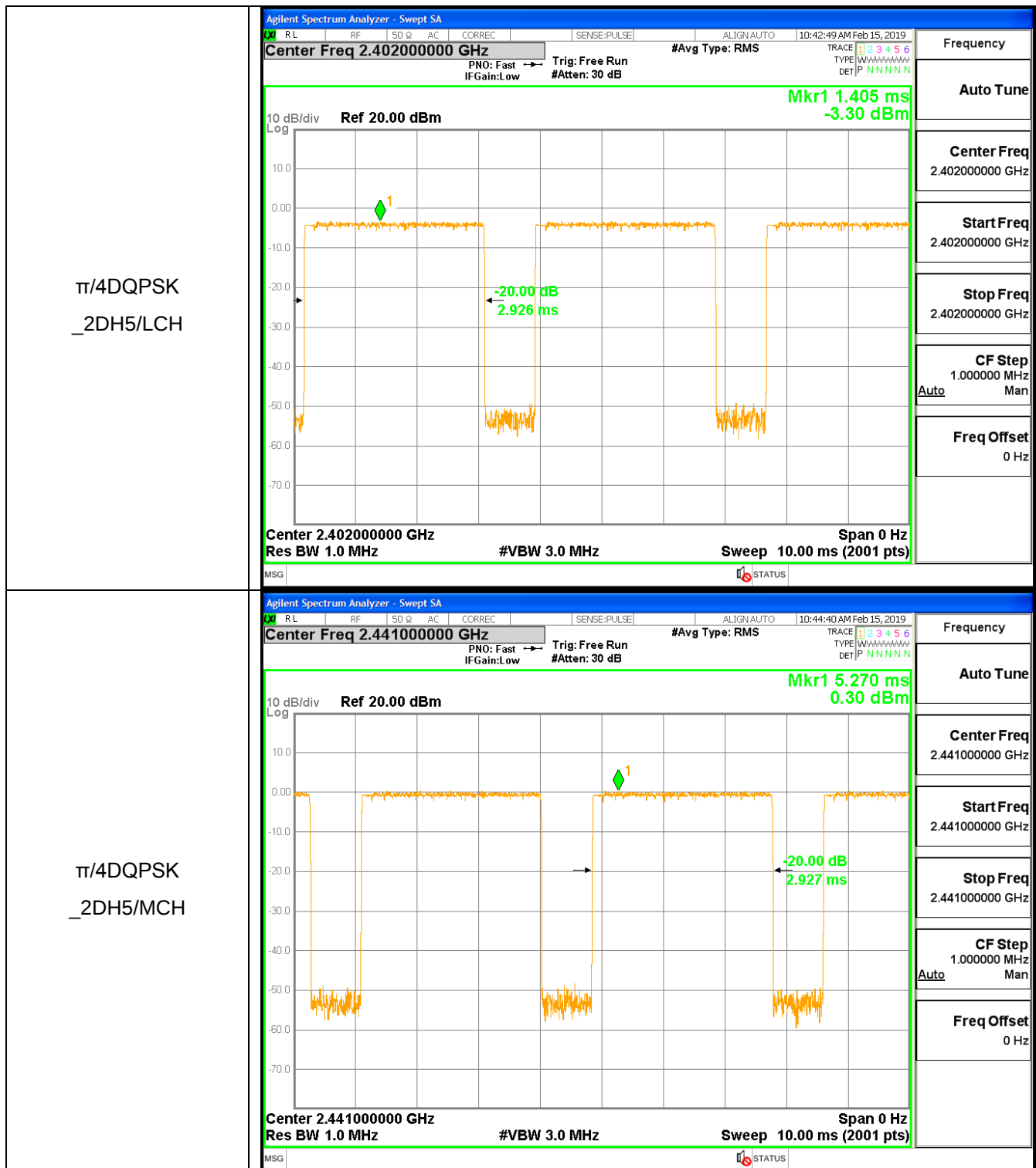
A.2 Dwell Time

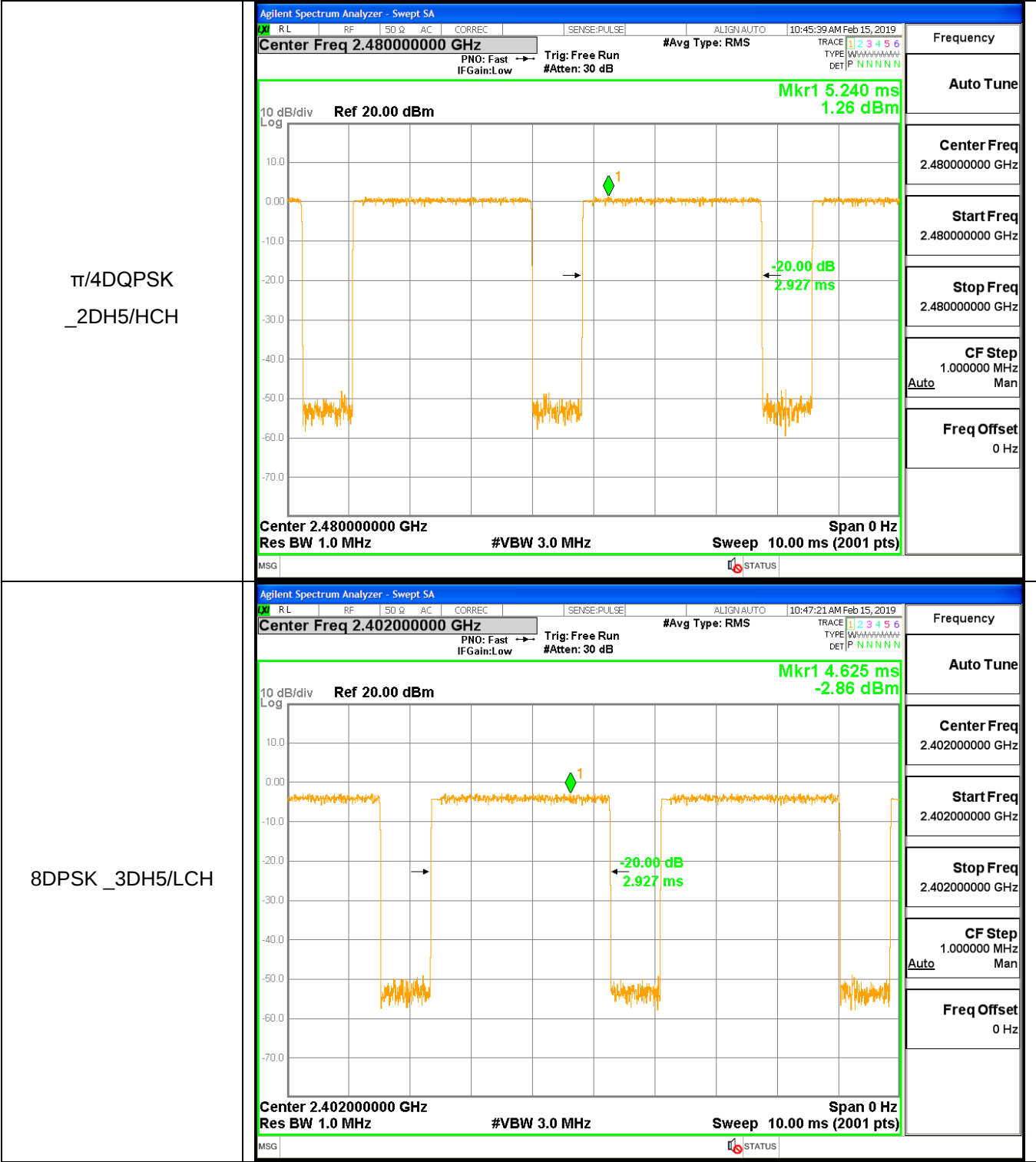
Mode	Packet	Channel	Burst Width [s/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	0.002918506	106.7	0.311404547	0.4	PASS
GFSK	DH5	MCH	0.002920427	106.7	0.311609604	0.4	PASS
GFSK	DH5	HCH	0.002919184	106.7	0.311476948	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	0.002926442	106.7	0.312251389	0.4	PASS
$\pi/4$ DQPSK	2DH5	MCH	0.002927057	106.7	0.312316935	0.4	PASS
$\pi/4$ DQPSK	2DH5	HCH	0.002927068	106.7	0.31231815	0.4	PASS
8DPSK	3DH5	LCH	0.00292731	106.7	0.312344015	0.4	PASS
8DPSK	3DH5	MCH	0.00292755	106.7	0.312369565	0.4	PASS
8DPSK	3DH5	HCH	0.002927053	106.7	0.312316514	0.4	PASS

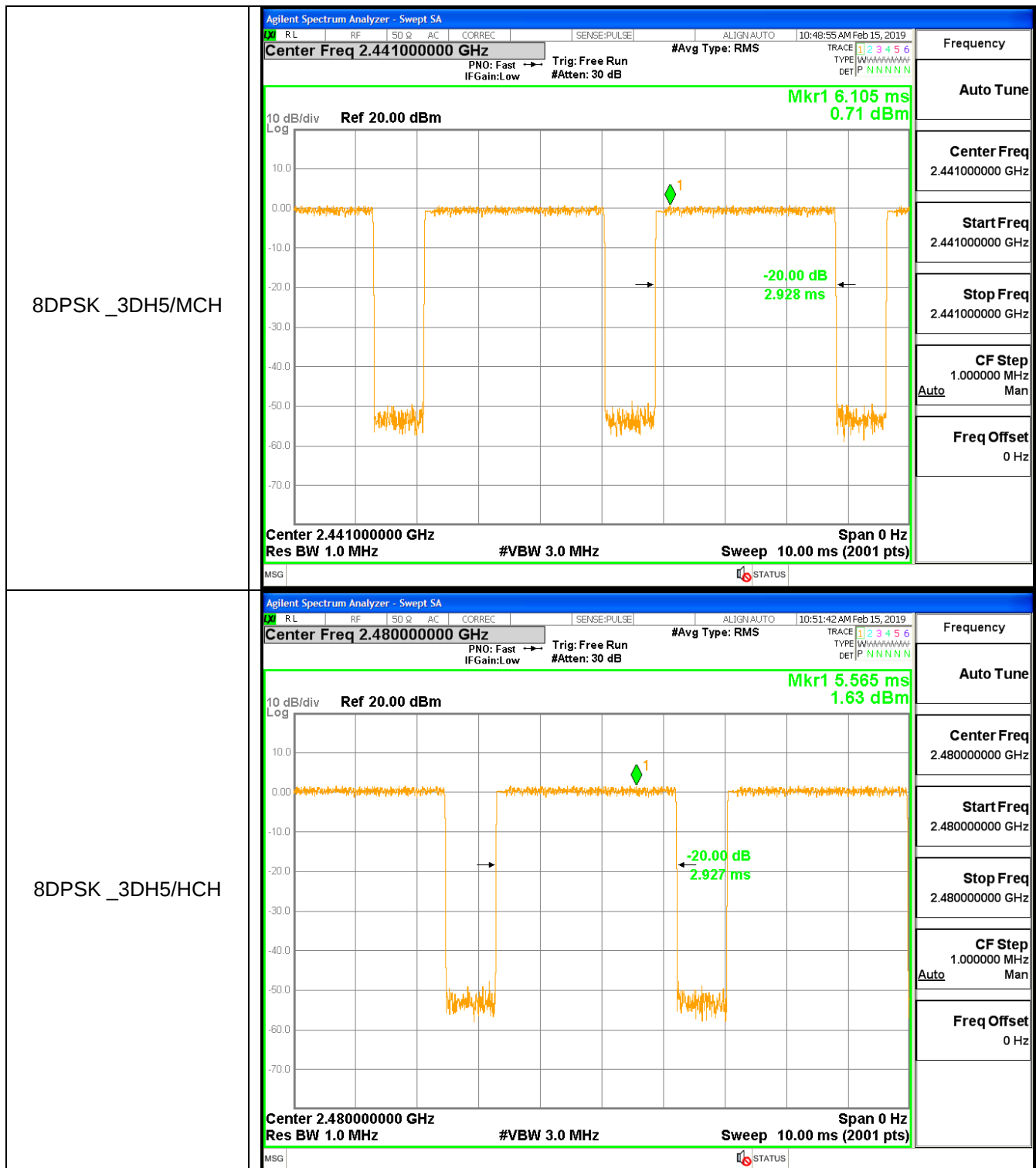
Test Graph







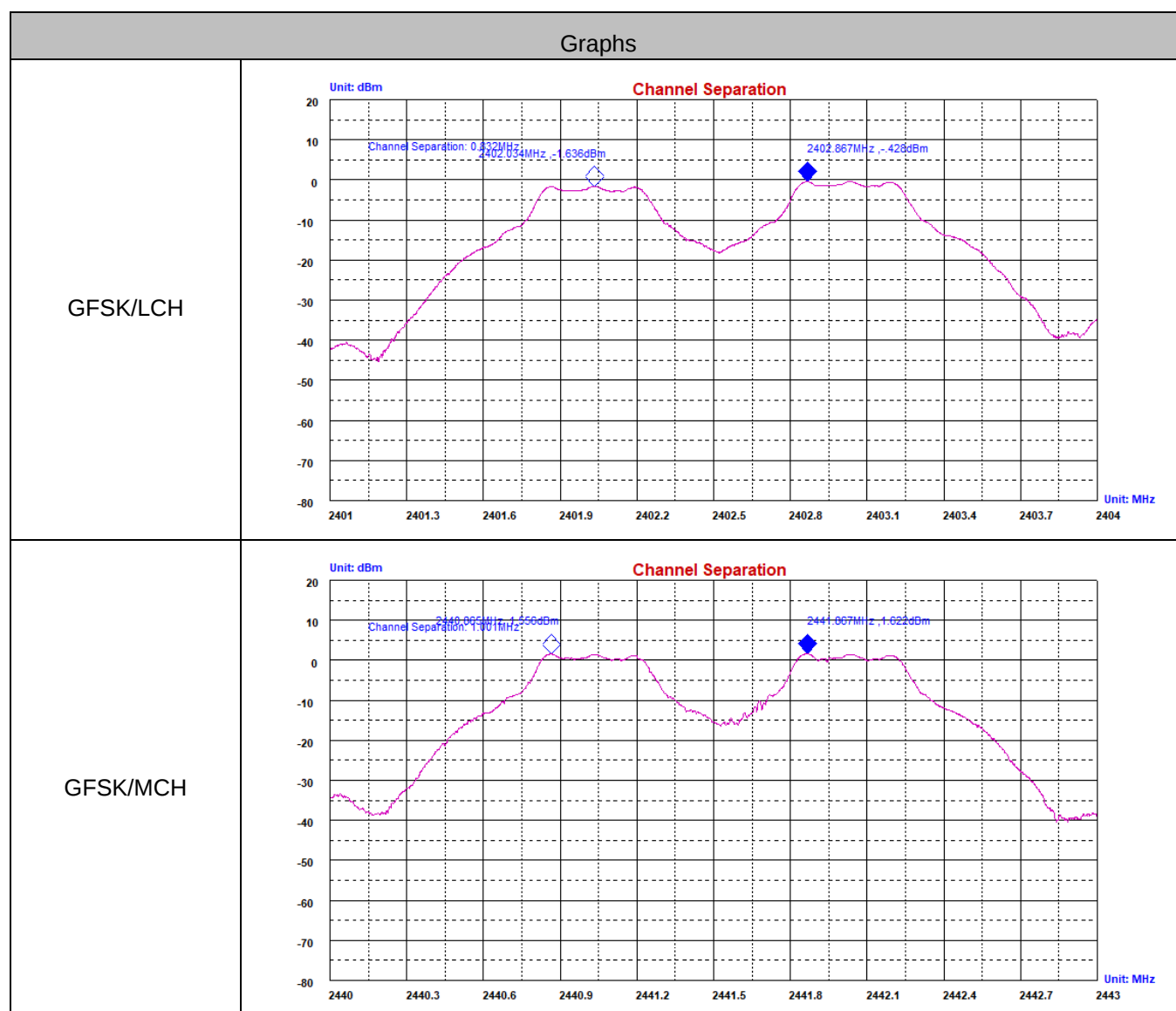


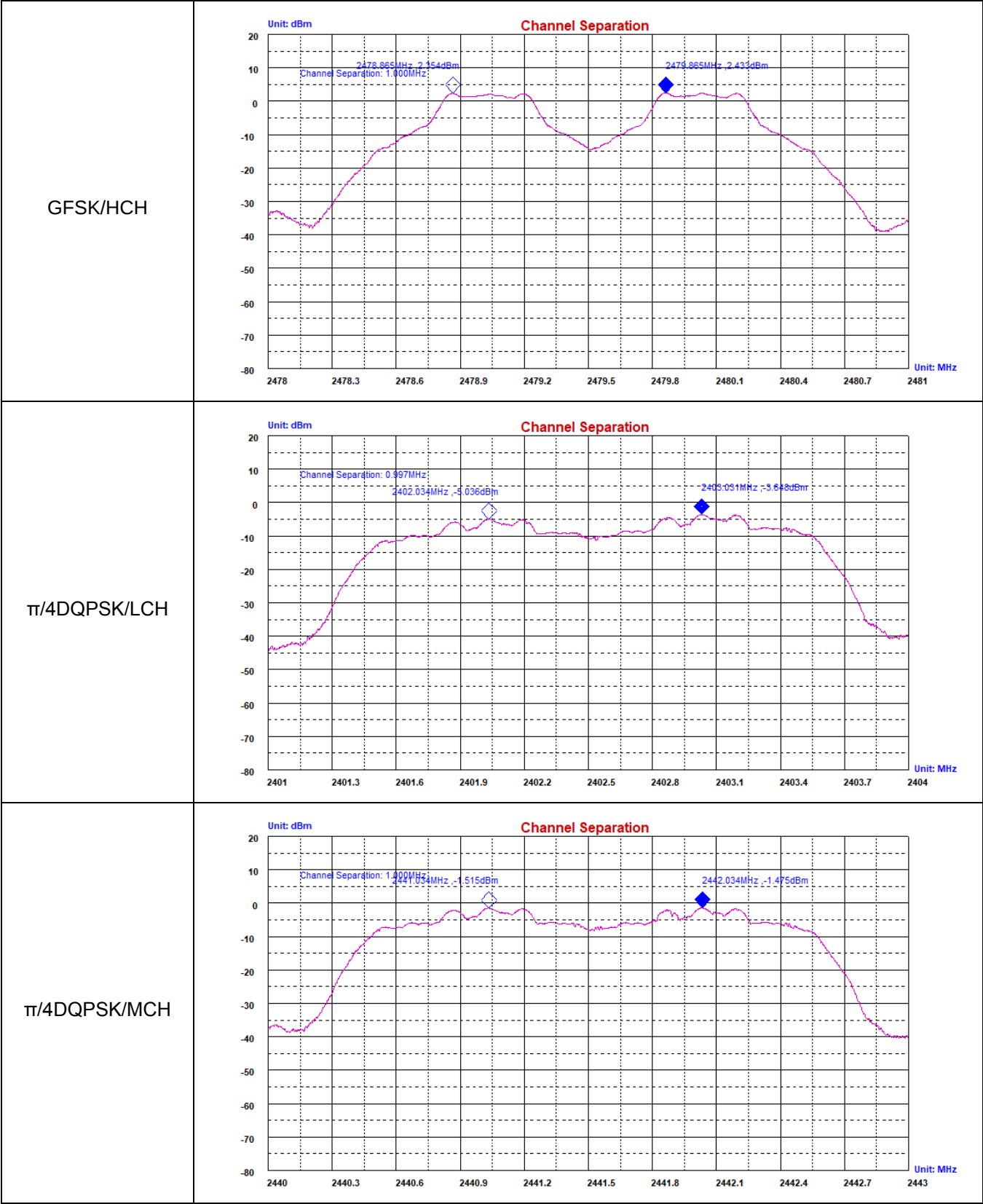


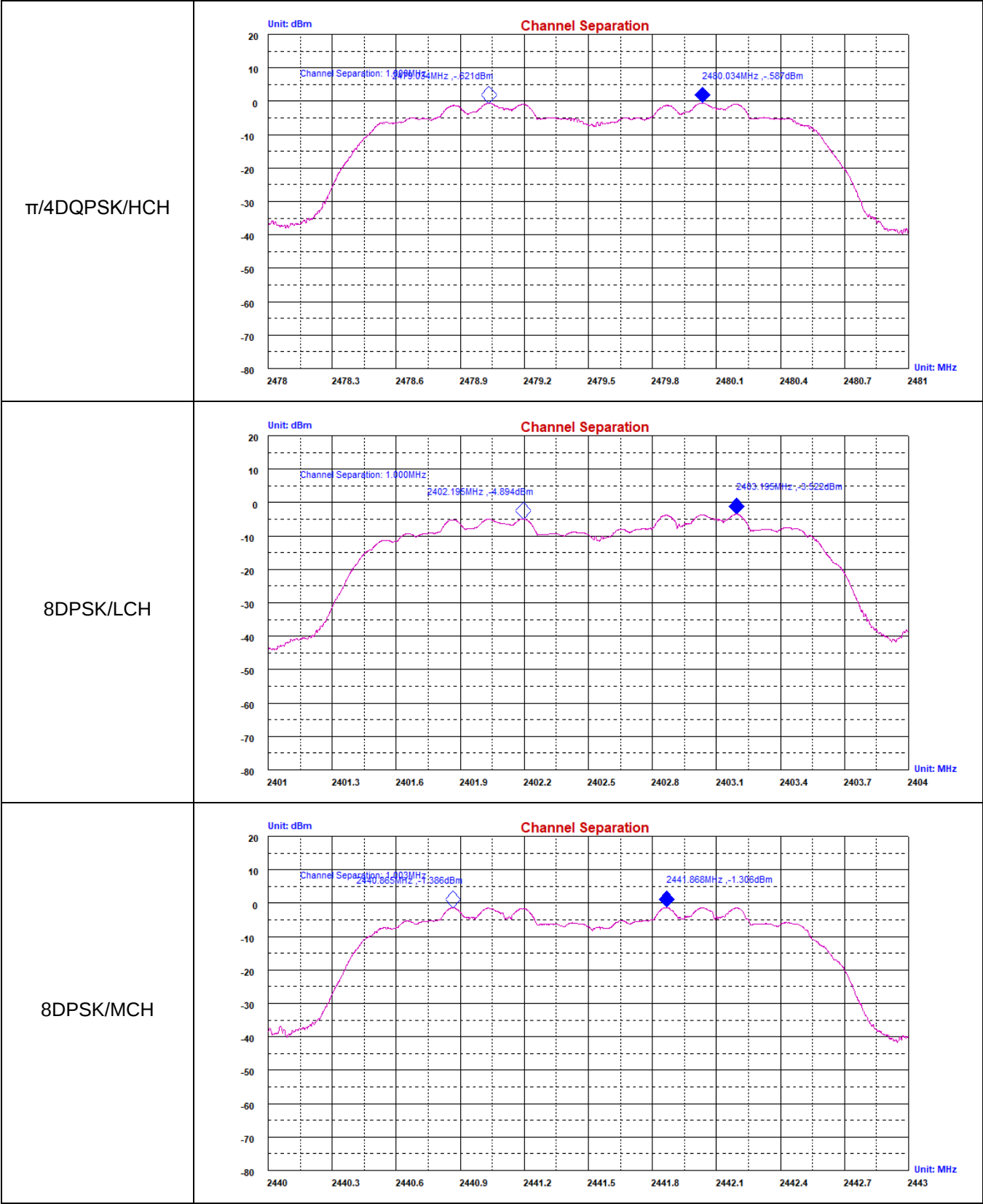
A.3 Carrier Frequency Separation

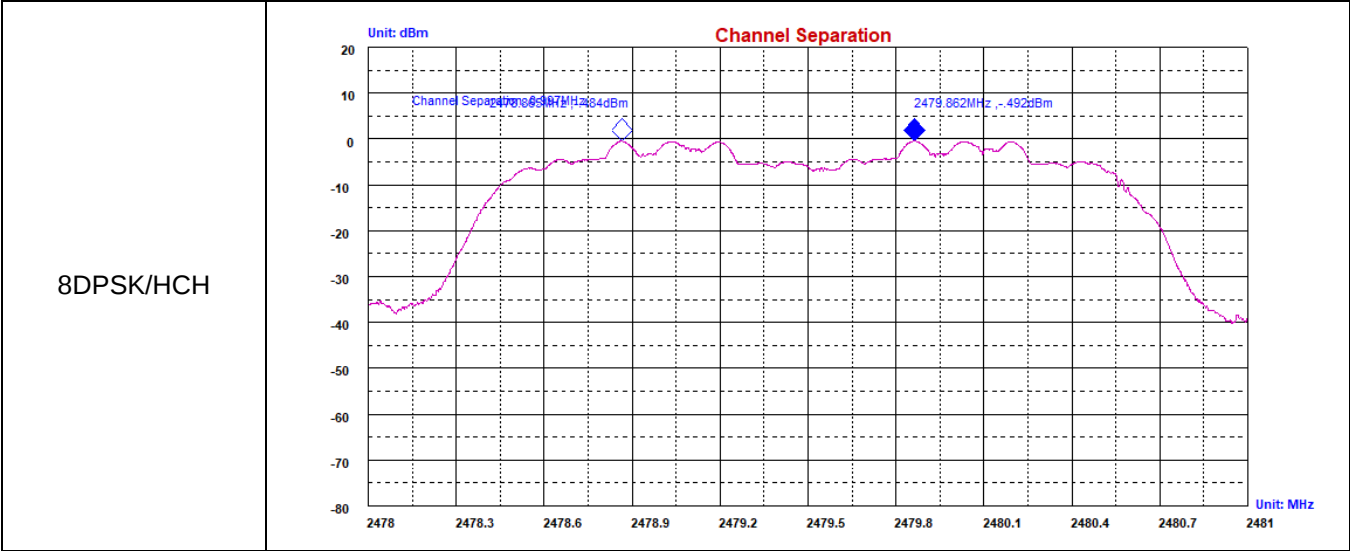
Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.832	0.626	PASS
GFSK	MCH	1.001	0.629	PASS
GFSK	HCH	1.000	0.626	PASS
$\pi/4$ DQPSK	LCH	0.997	0.819	PASS
$\pi/4$ DQPSK	MCH	1.000	0.818	PASS
$\pi/4$ DQPSK	HCH	1.000	0.824	PASS
8DPSK	LCH	1.000	0.835	PASS
8DPSK	MCH	1.003	0.836	PASS
8DPSK	HCH	0.997	0.839	PASS

Test Graph





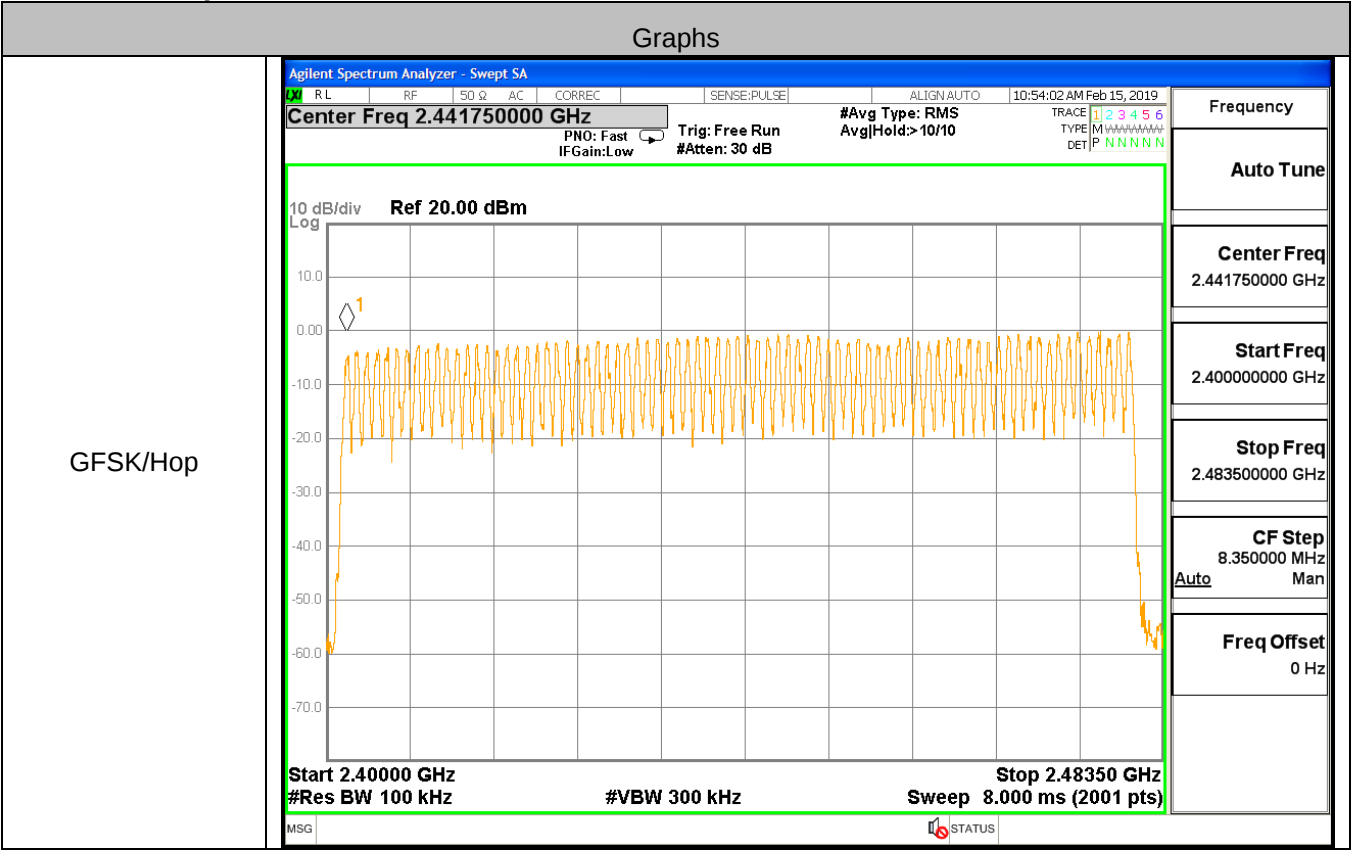


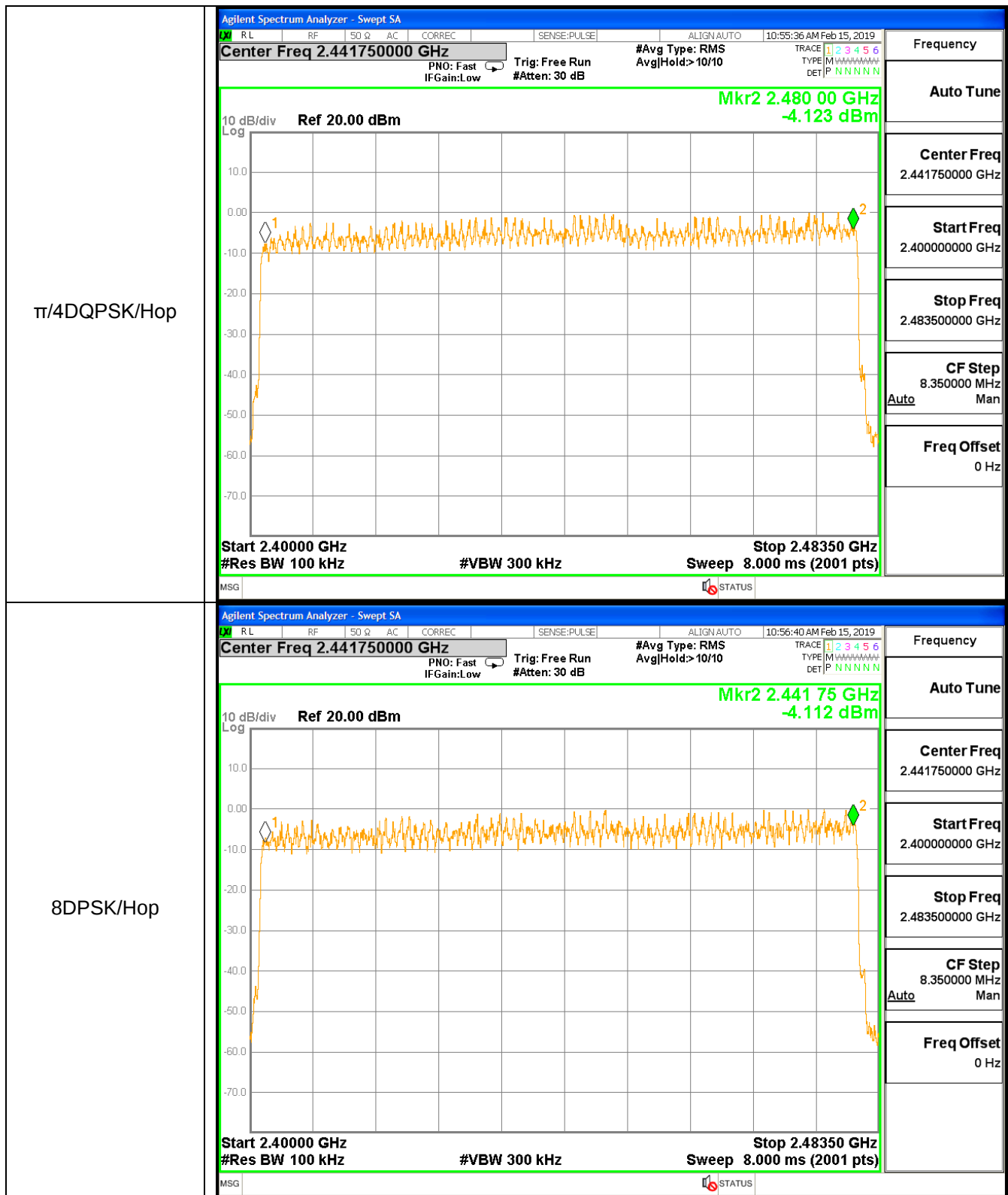


A.4 Hopping Channel Number

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

Test Graph



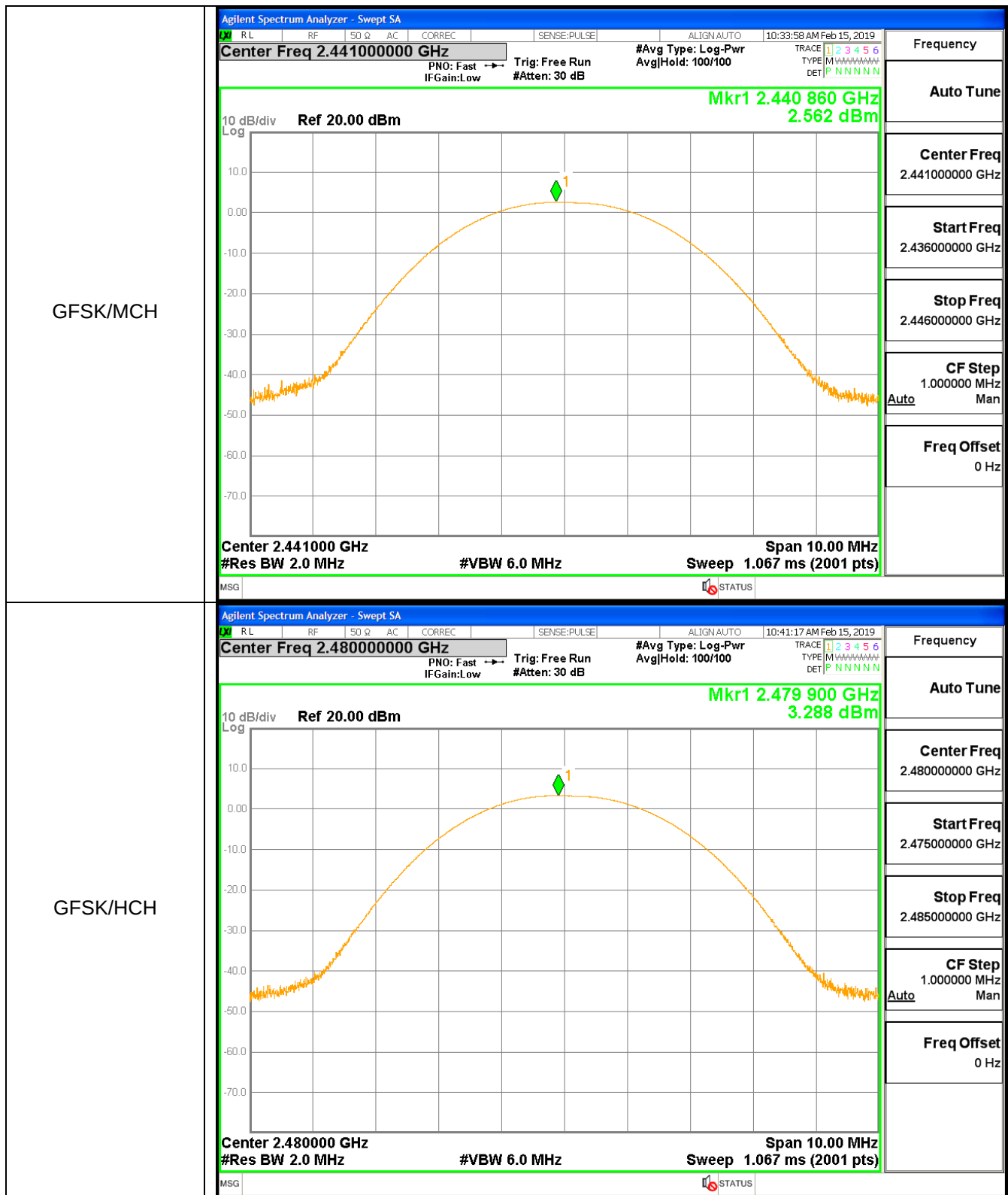


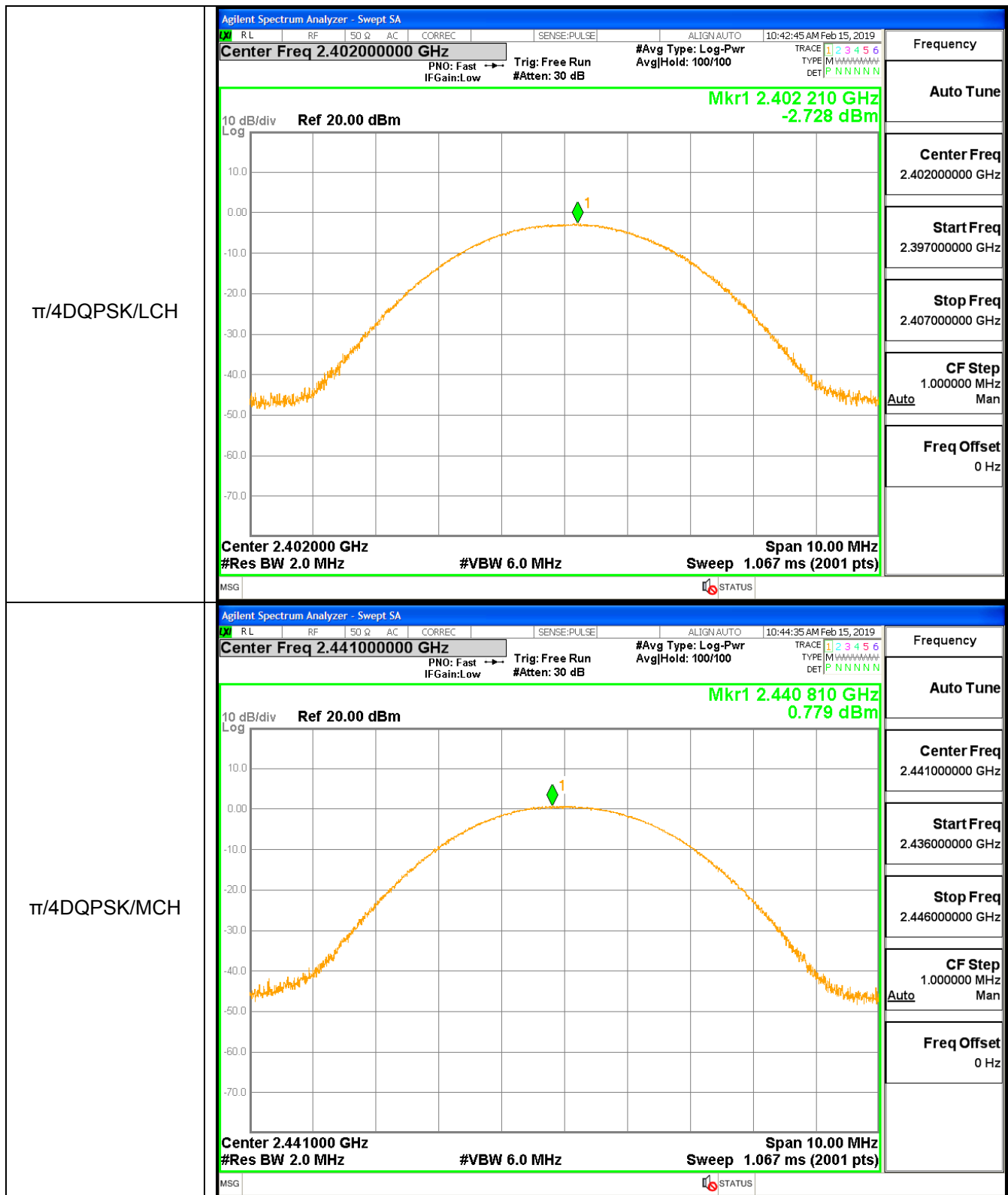
A.5 Conducted Peak Output Power

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-0.464	21	PASS
GFSK	MCH	2.562	21	PASS
GFSK	HCH	3.288	21	PASS
$\pi/4$ DQPSK	LCH	-2.728	21	PASS
$\pi/4$ DQPSK	MCH	0.779	21	PASS
$\pi/4$ DQPSK	HCH	1.678	21	PASS
8DPSK	LCH	-2.458	21	PASS
8DPSK	MCH	1.159	21	PASS
8DPSK	HCH	2.083	21	PASS

Test Graph







Frequency

Auto Tune

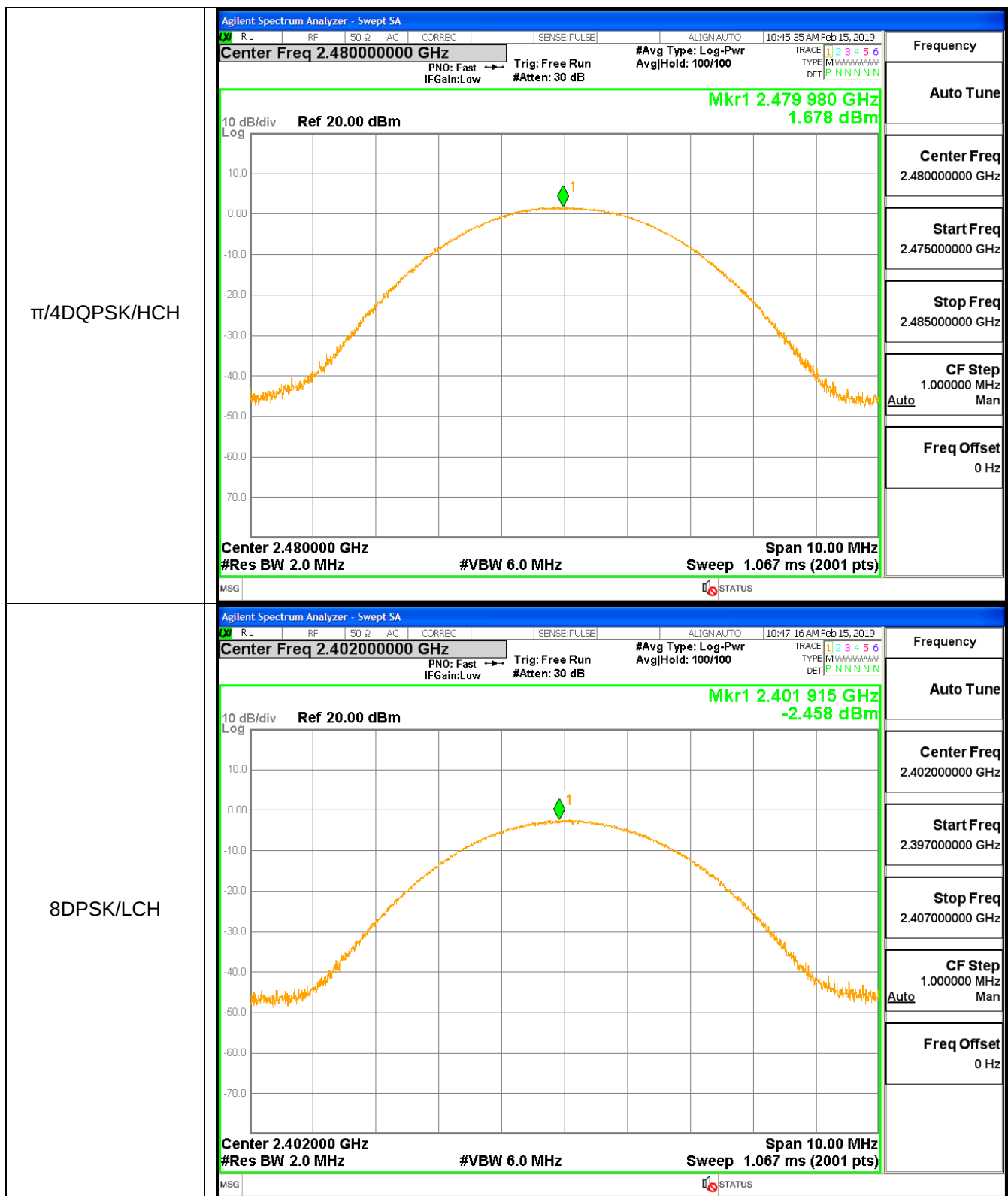
Center Freq
2.402000000 GHz

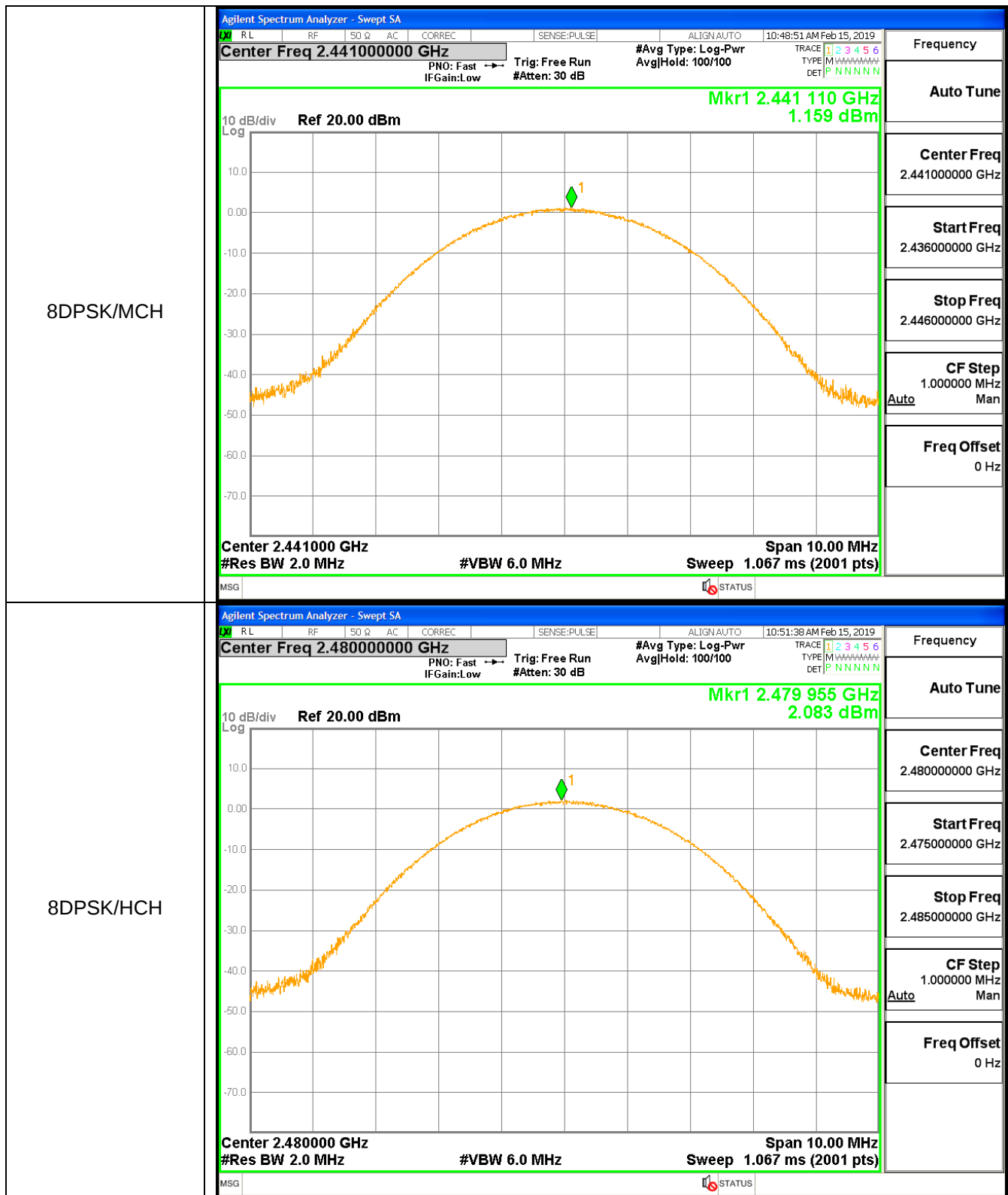
Start Freq
2.397000000 GHz

Stop Freq
2.407000000 GHz

CF Step
1.000000 MHz
Auto Man

Freq Offset
0 Hz





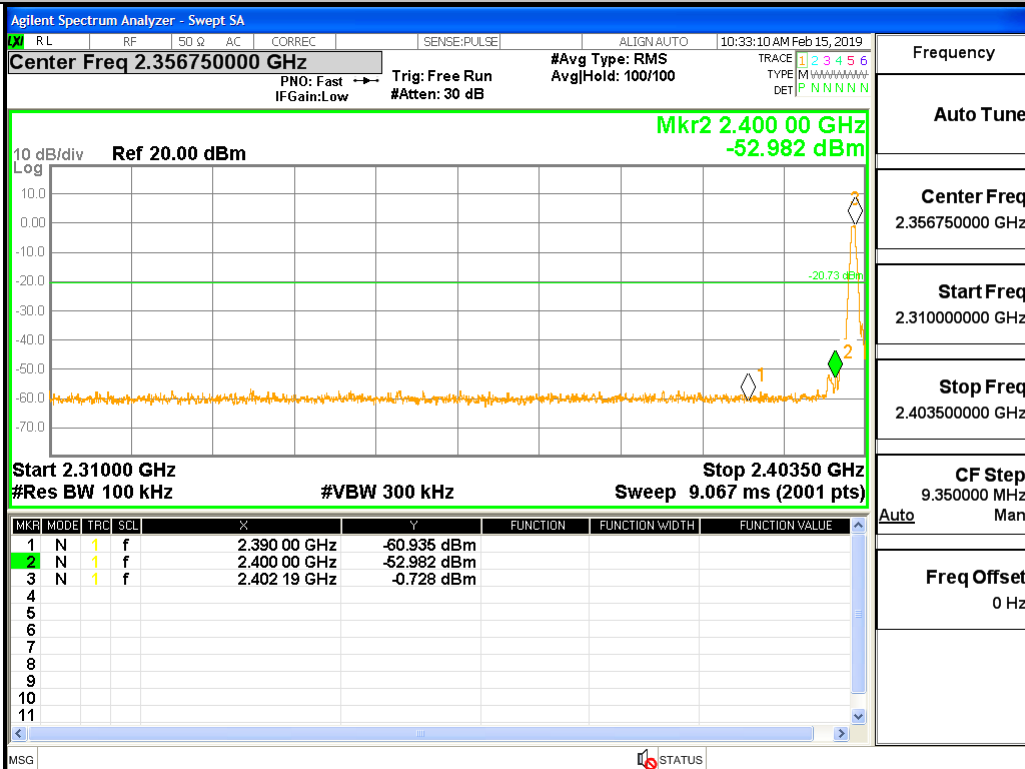
A.6 Band-edge for RF Conducted Emissions

Type	Carrier Frequency(MHz)	Frequency(MHz)	Carrier Frequency Power [dBm]	Bandedge Peak(dBm)	Upper limit(dBm)	Conclusion
1DH5	2402	2390	-0.73	-60.94	-20.73	Pass
1DH5	2402	2400	-0.73	-52.98	-20.73	Pass
1DH5-Hopping	2402	2390	-2.15	-58.34	-22.15	Pass
1DH5-Hopping	2402	2400	-2.15	-59.49	-22.15	Pass
1DH5	2480	2483.5	2.55	-59.16	-17.45	Pass
1DH5	2480	2500	2.55	-57.69	-17.45	Pass
1DH5-Hopping	2480	2483.5	0.05	-58.75	-19.95	Pass
1DH5-Hopping	2480	2500	0.05	-54.25	-19.95	Pass
2DH5	2402	2390	-6.89	-61.78	-26.89	Pass
2DH5	2402	2400	-6.89	-56.47	-26.89	Pass
2DH5-Hopping	2480	2483.5	-0.65	-58.16	-20.65	Pass
2DH5-Hopping	2480	2500	-0.65	-58.41	-20.65	Pass
2DH5	2480	2483.5	-2.51	-58.33	-22.51	Pass
2DH5	2480	2500	-2.51	-59.95	-22.51	Pass
2DH5-Hopping	2402	2390	-1.51	-58.66	-21.51	Pass
2DH5-Hopping	2402	2400	-1.51	-58.55	-21.51	Pass
3DH5	2402	2390	-4.15	-58.9	-24.15	Pass
3DH5	2402	2400	-4.15	-56.94	-24.15	Pass
3DH5-Hopping	2402	2390	-1.39	-59.09	-21.39	Pass
3DH5-Hopping	2402	2400	-1.39	-58.9	-21.39	Pass
3DH5	2480	2483.5	0.12	-59.3	-19.88	Pass
3DH5	2480	2500	0.12	-58.59	-19.88	Pass
3DH5-Hopping	2480	2483.5	0.09	-57.96	-19.91	Pass
3DH5-Hopping	2480	2500	0.09	-55.21	-19.91	Pass

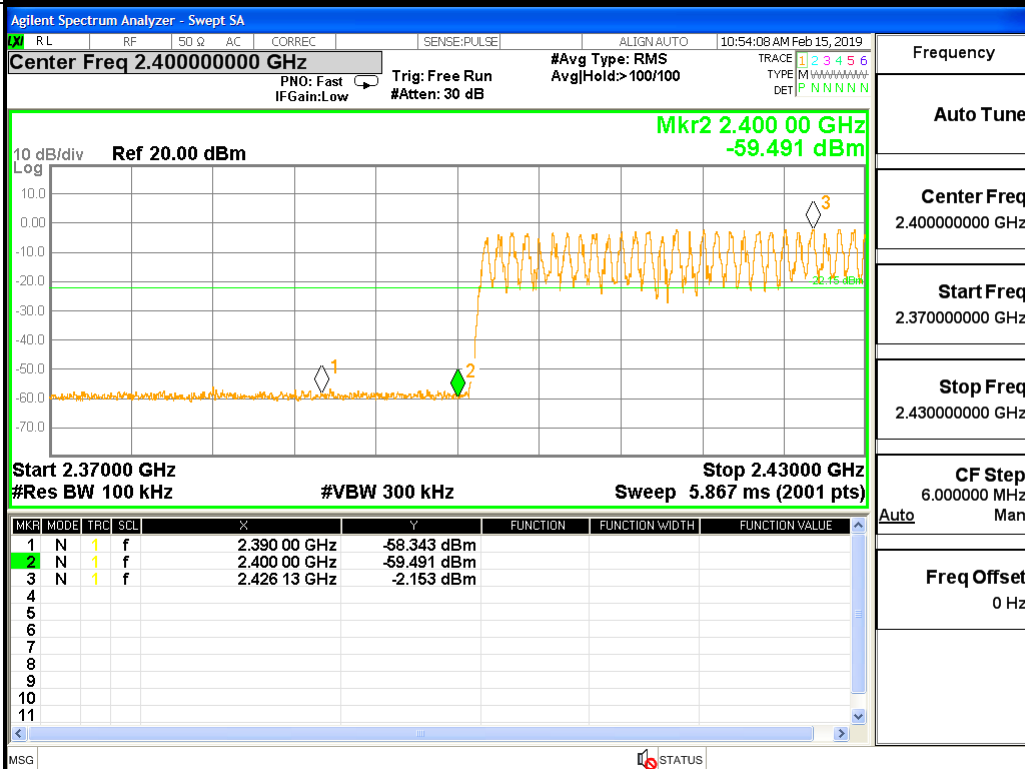
Test Graph

Graphs

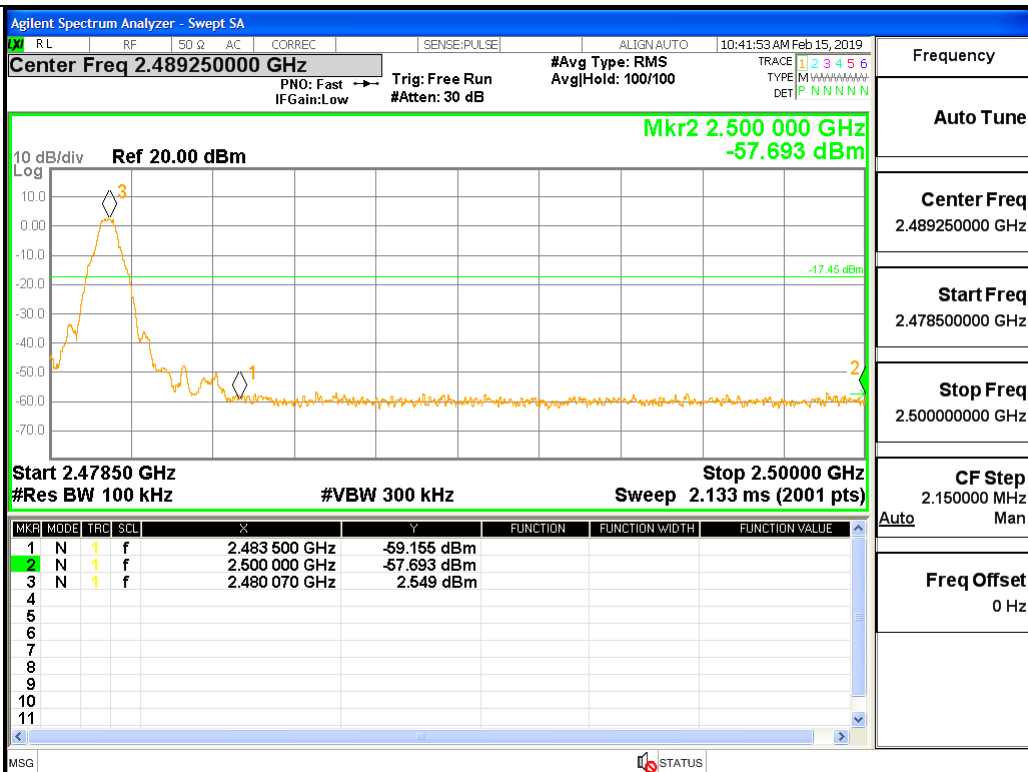
GFSK/LCH/No Hop



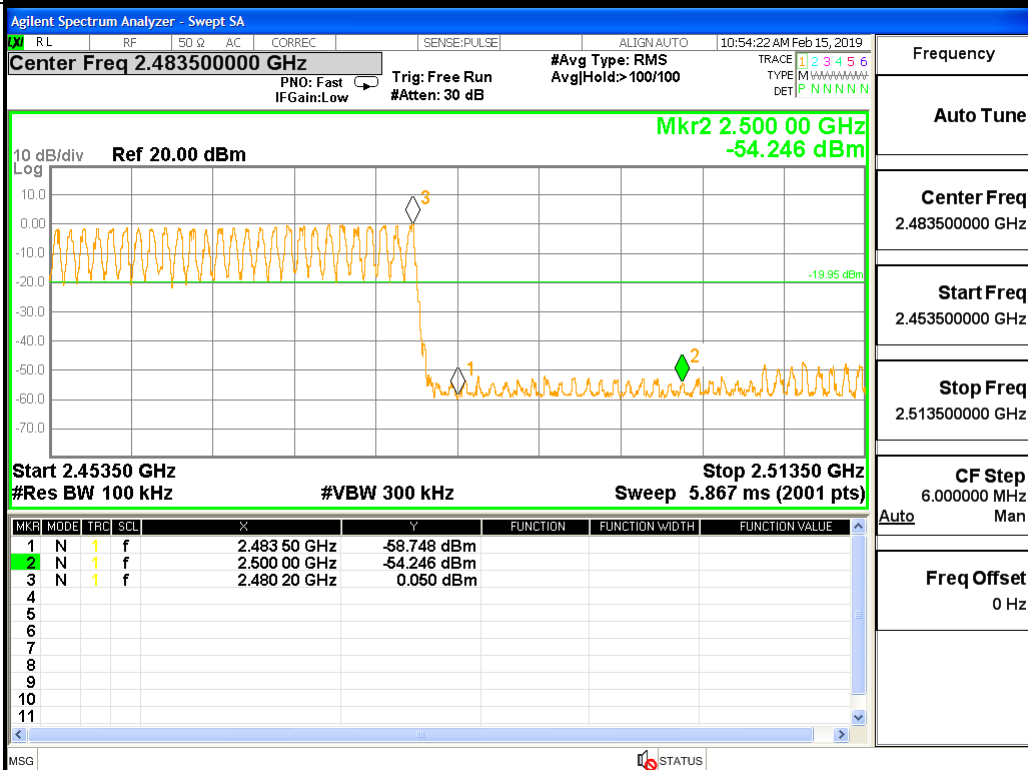
GFSK/LCH/Hop



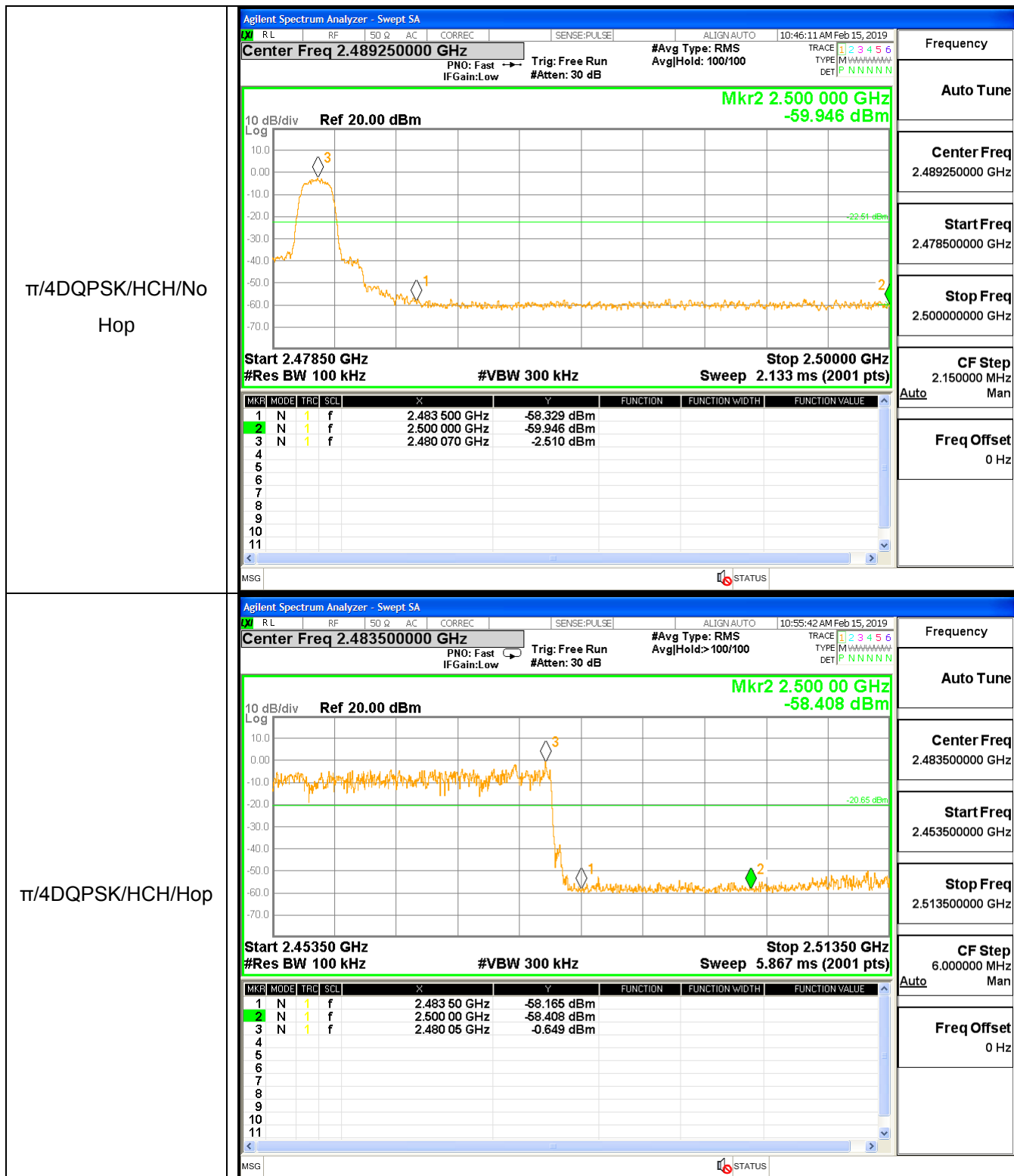
GFSK/HCH/No Hop

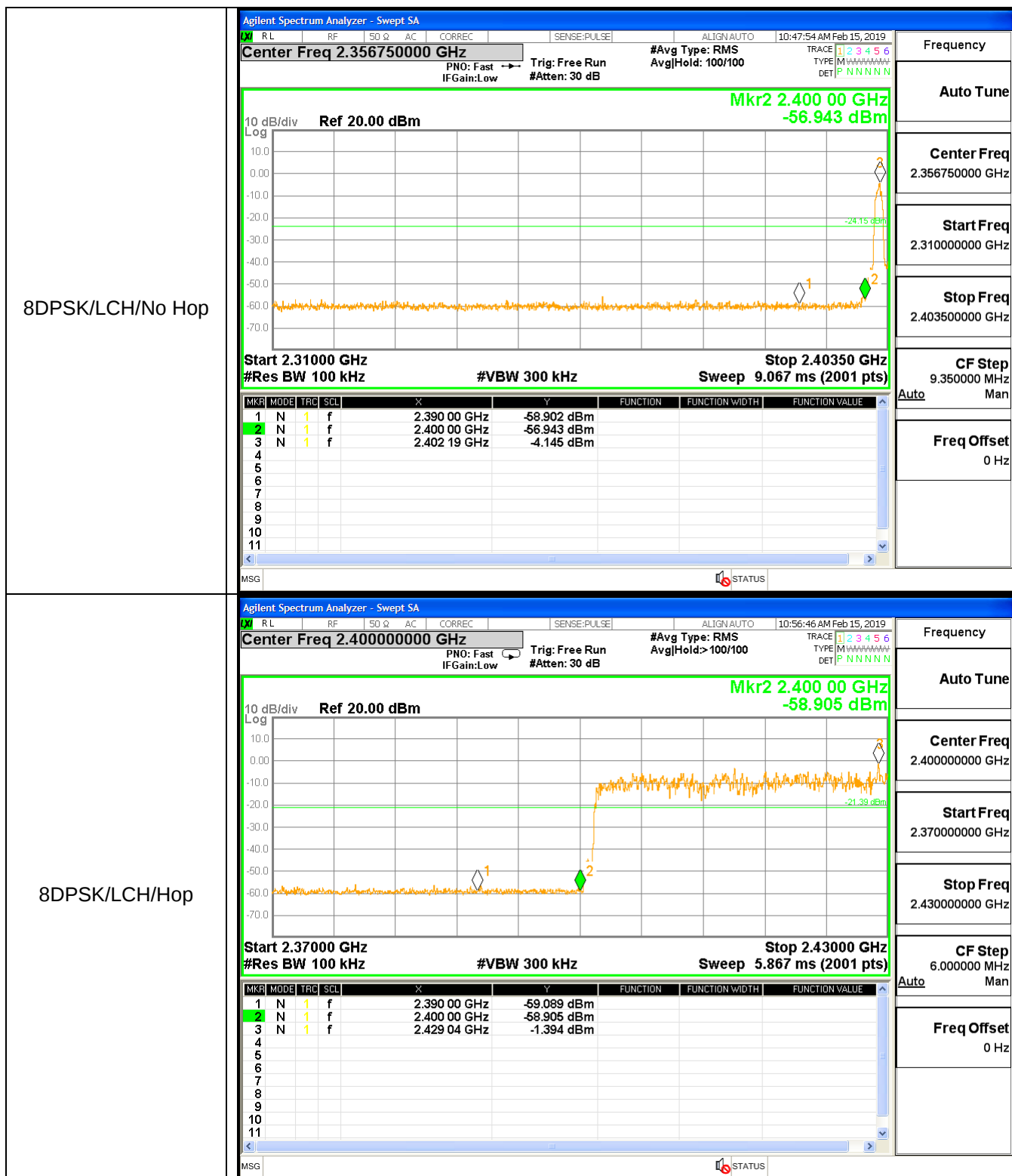


GFSK/HCH/Hop

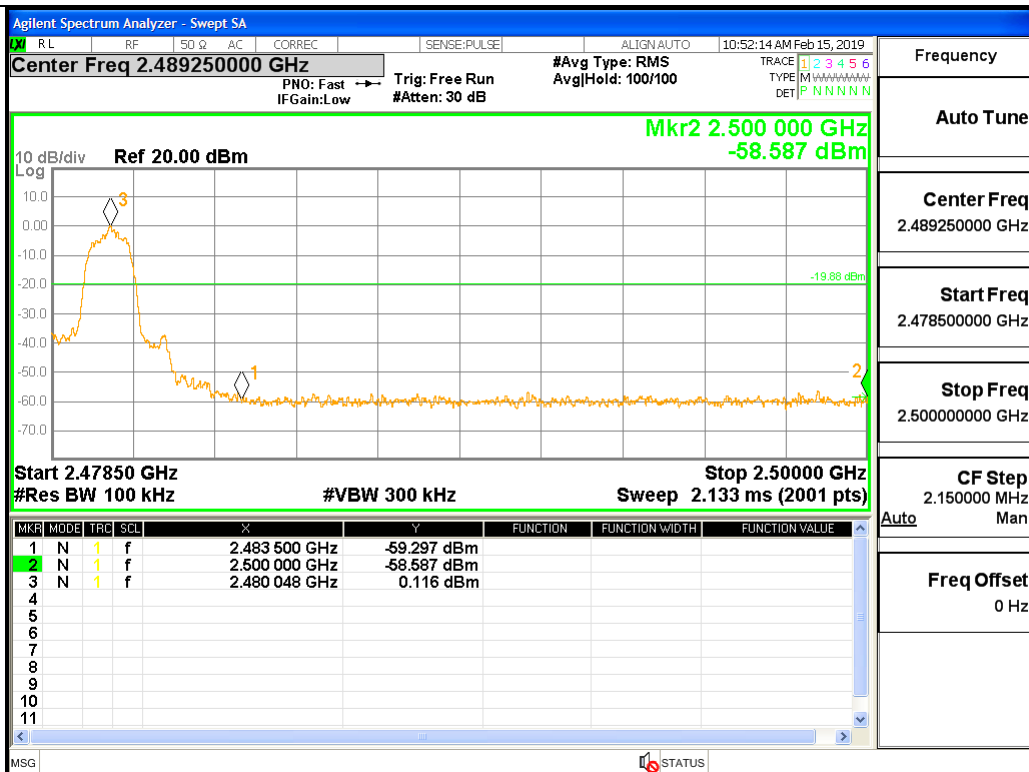




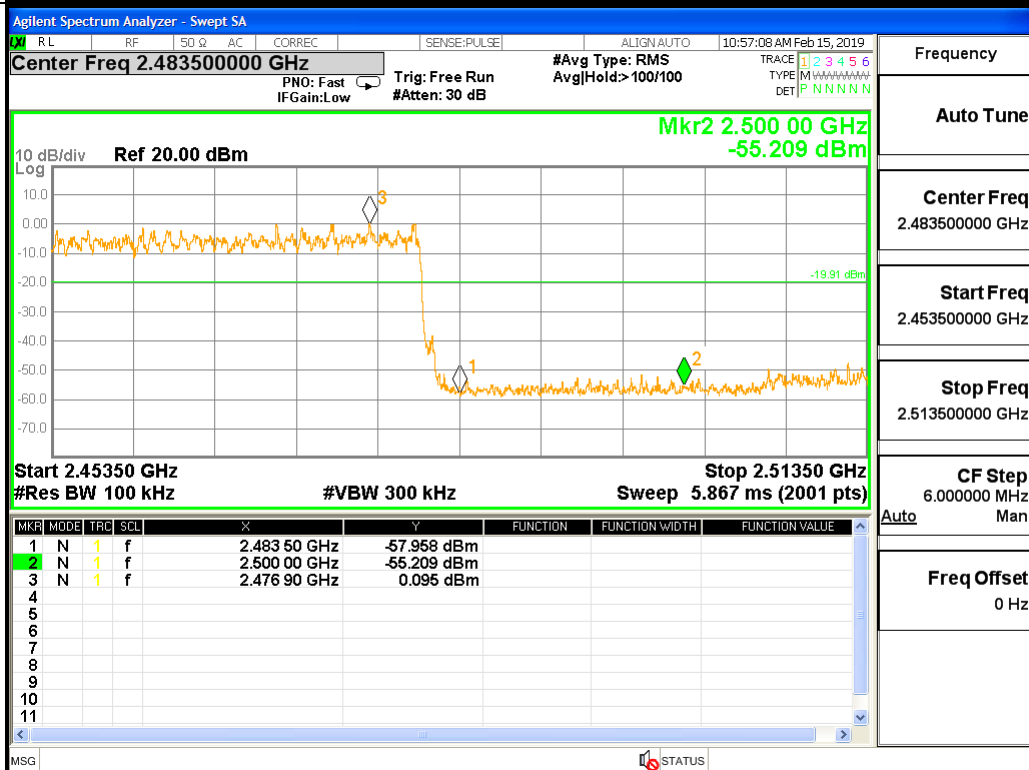




8DPSK/HCH/No Hop

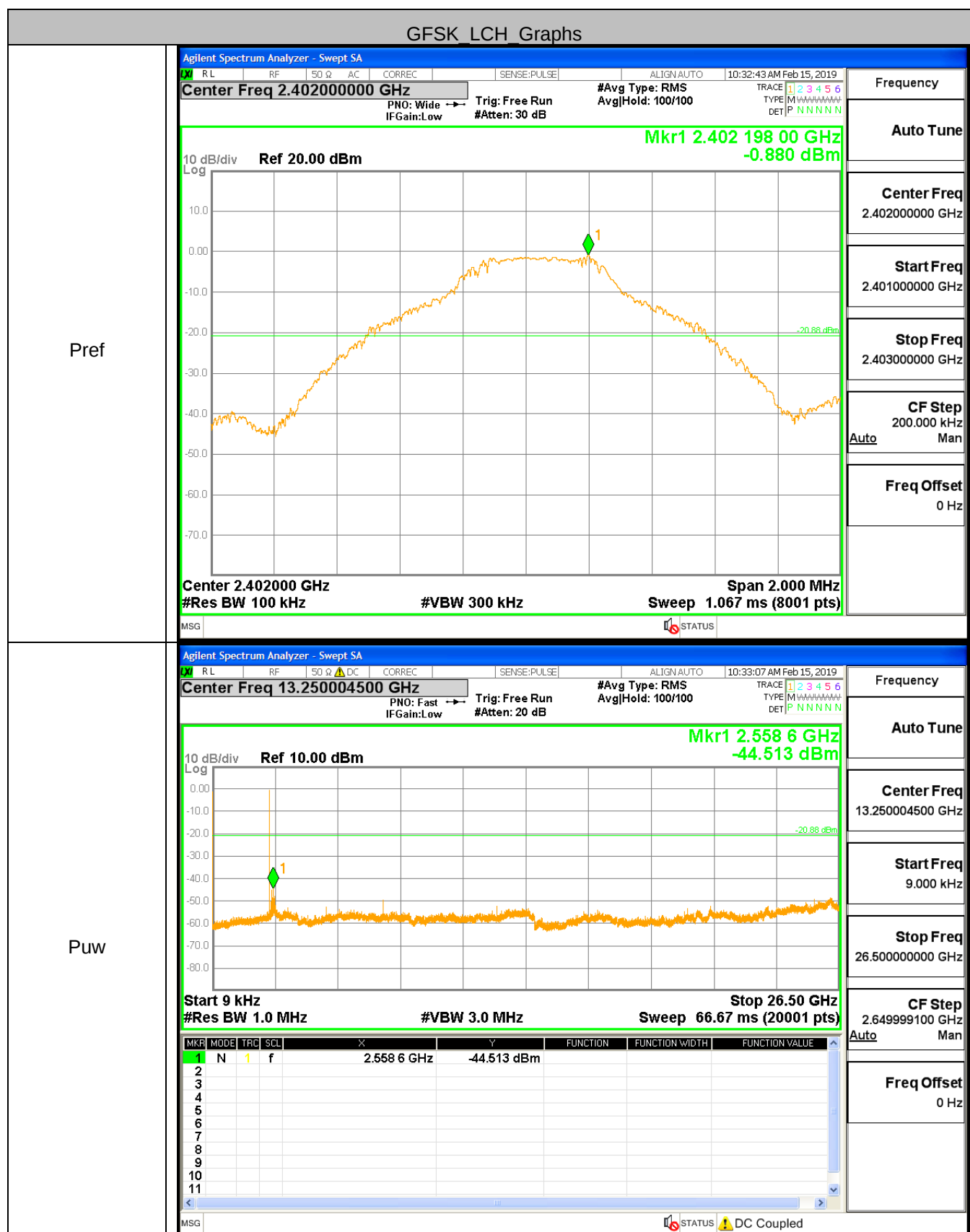


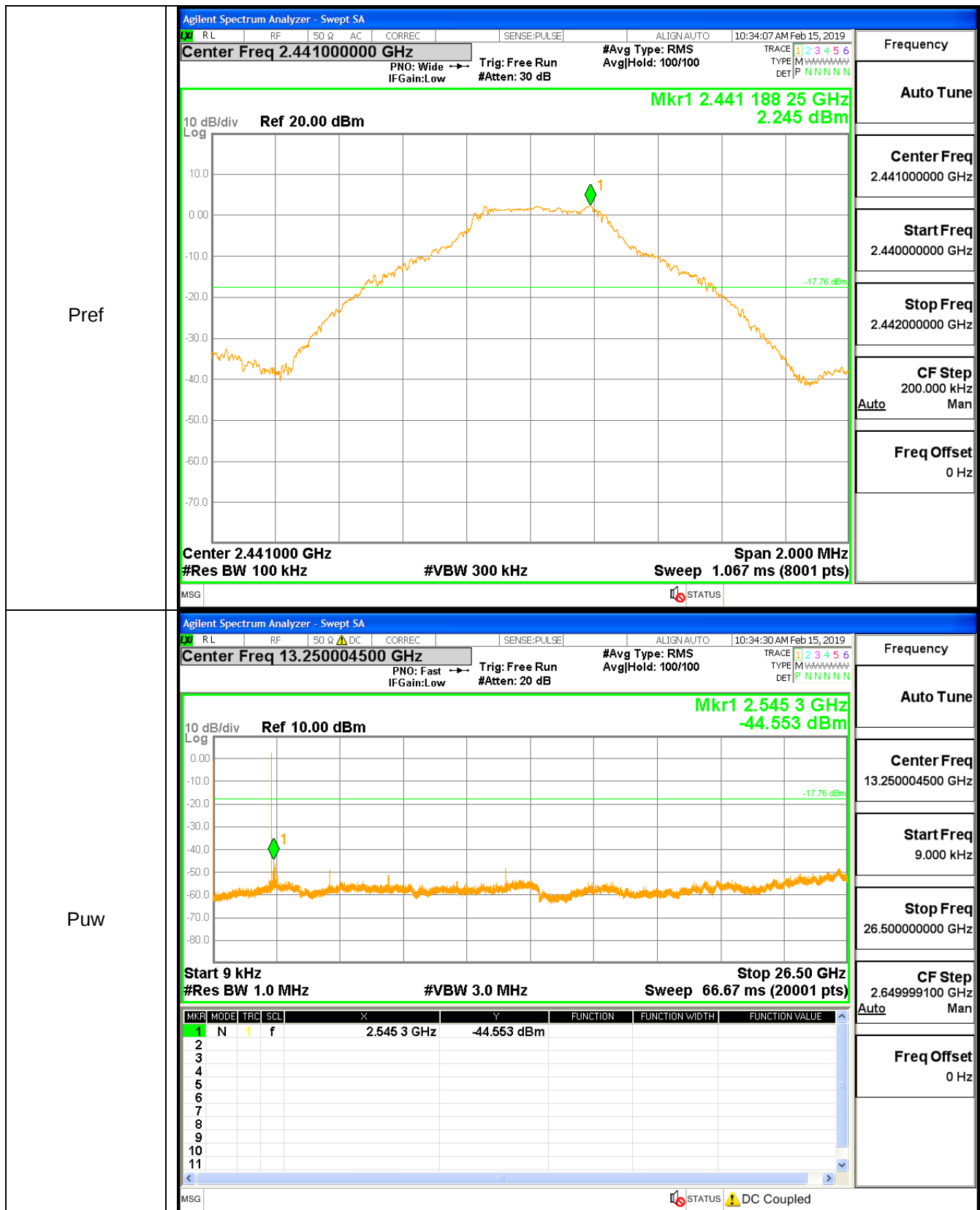
8DPSK/HCH/Hop



A.7 RF Conducted Spurious Emissions

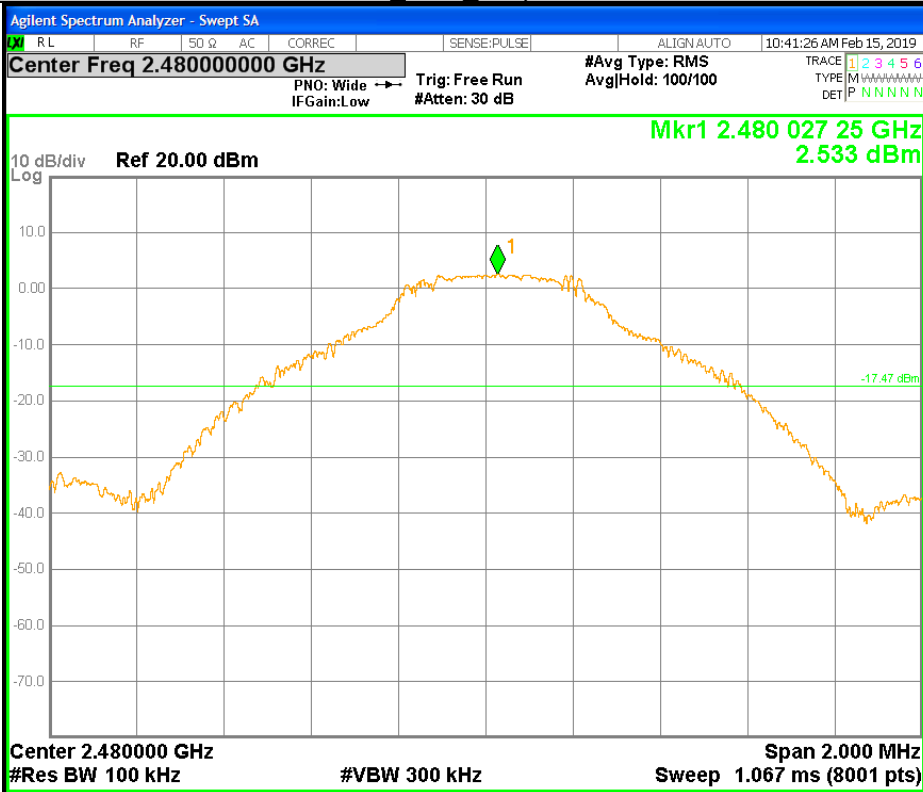
Test Graph



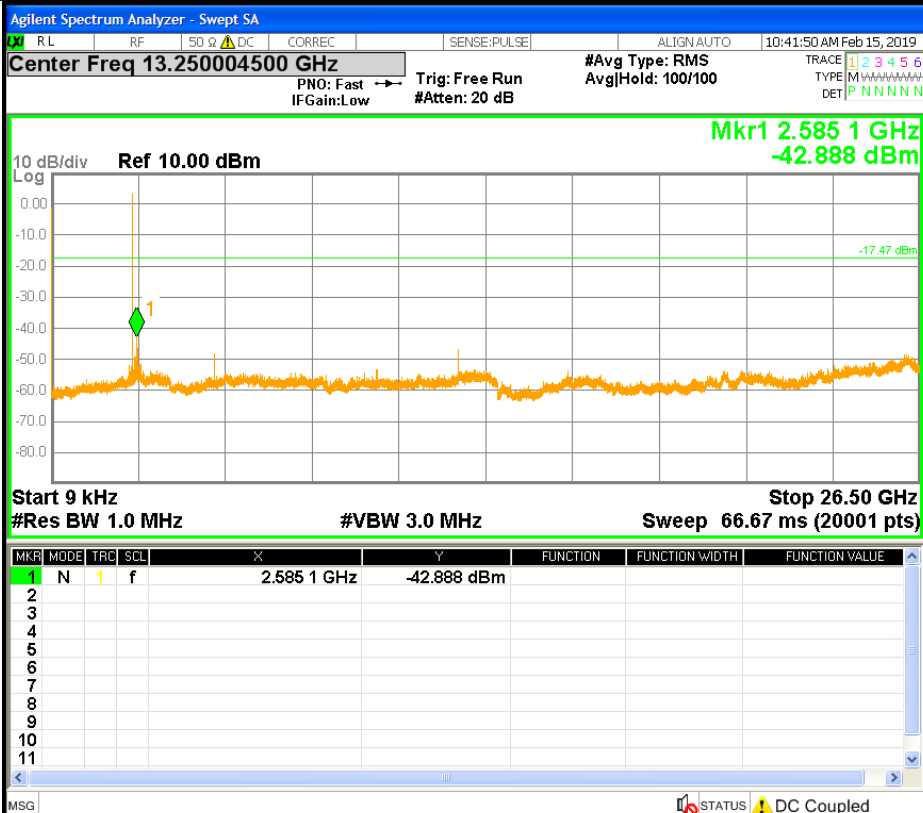


GFSK HCH Graphs

Pref

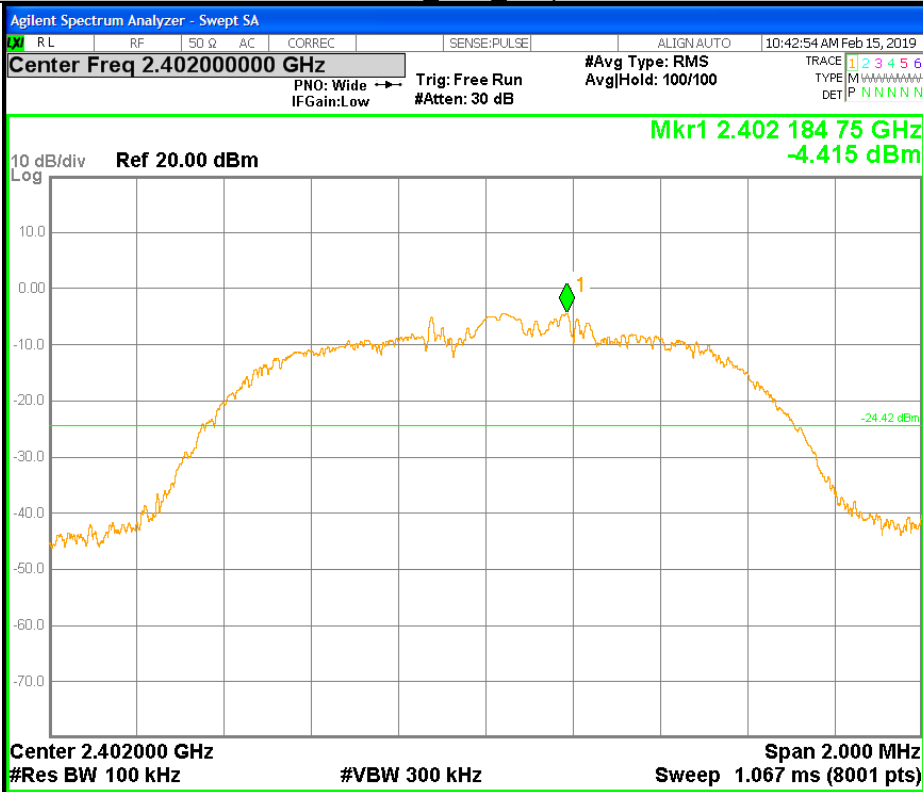


Puw

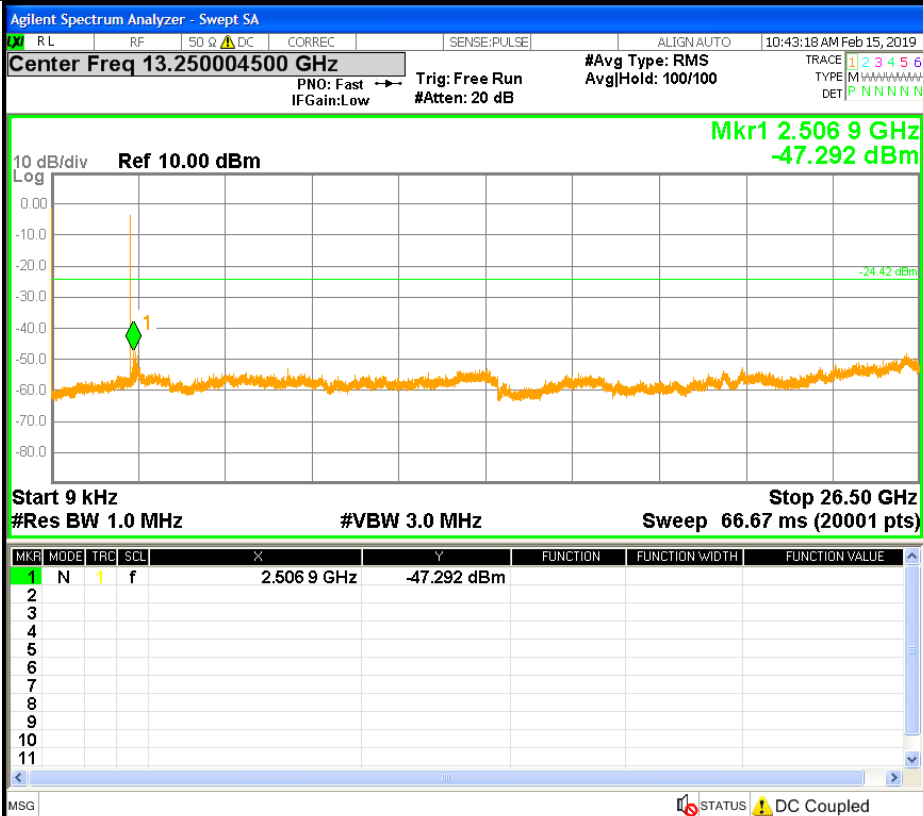


$\pi/4$ DQPSK LCH Graphs

Pref

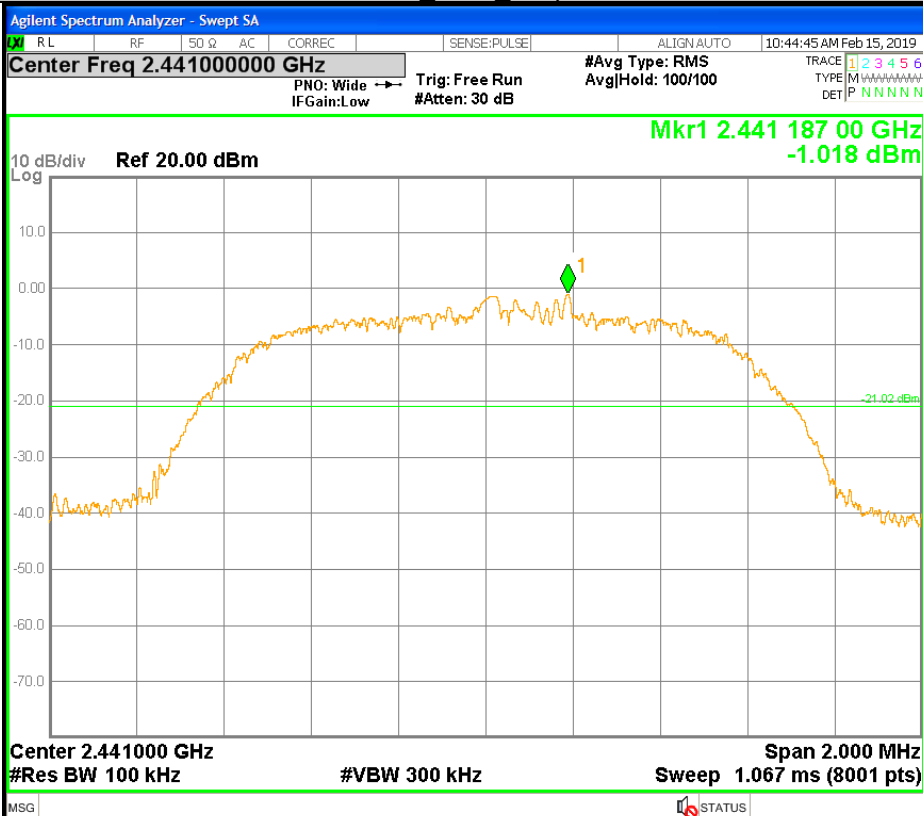


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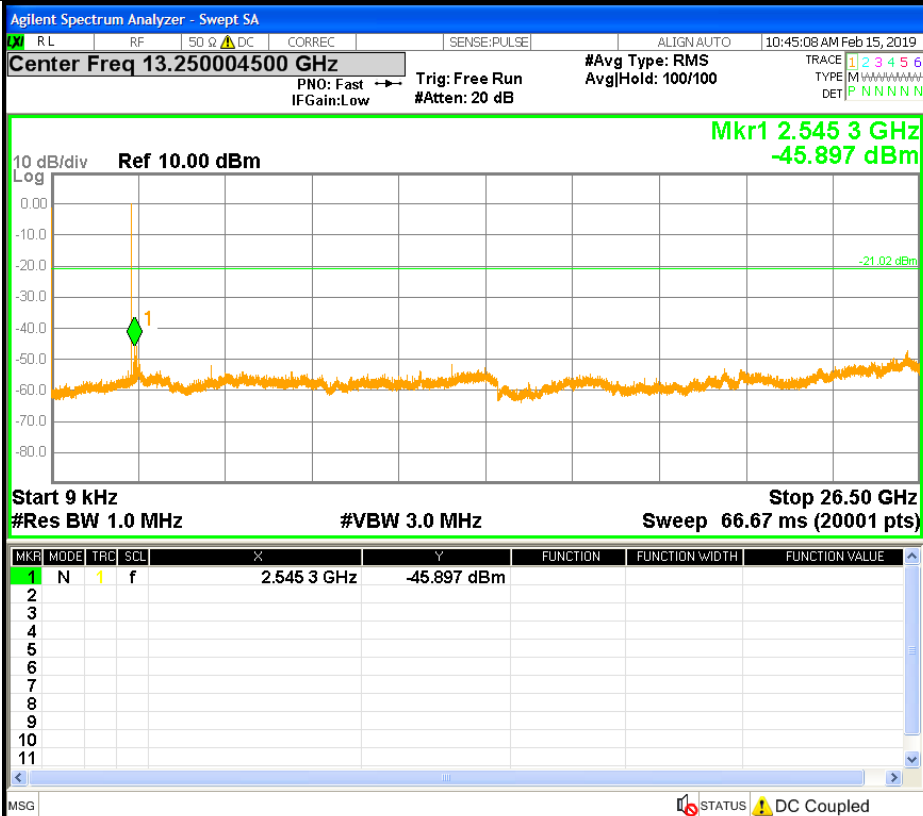


$\pi/4$ DQPSK MCH Graphs

Pref

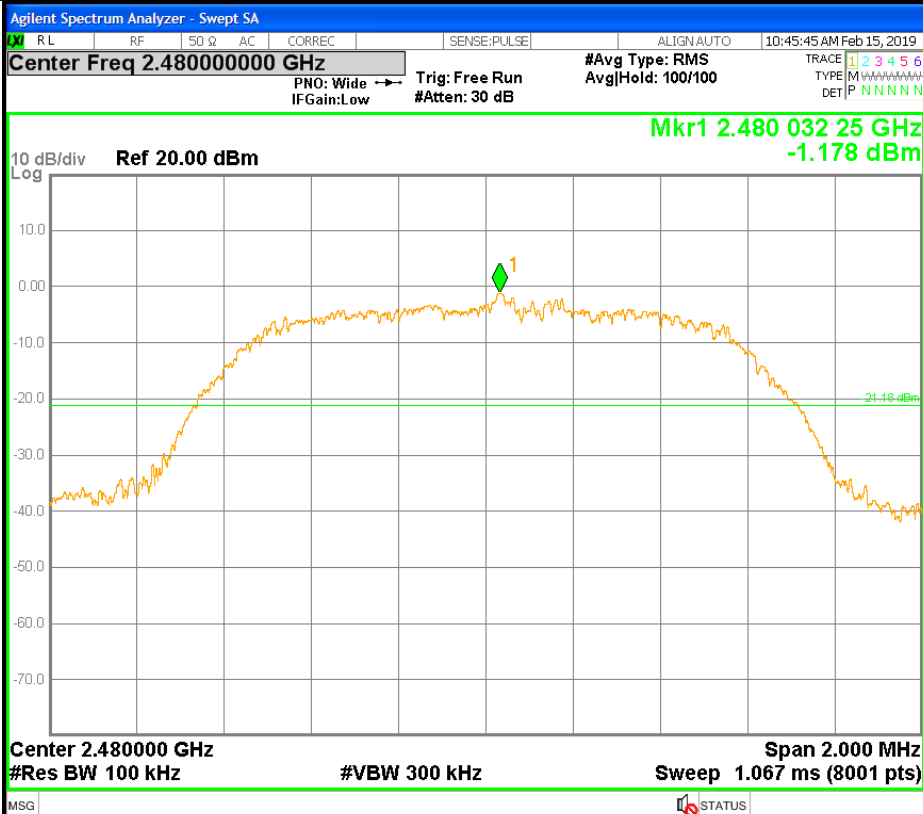


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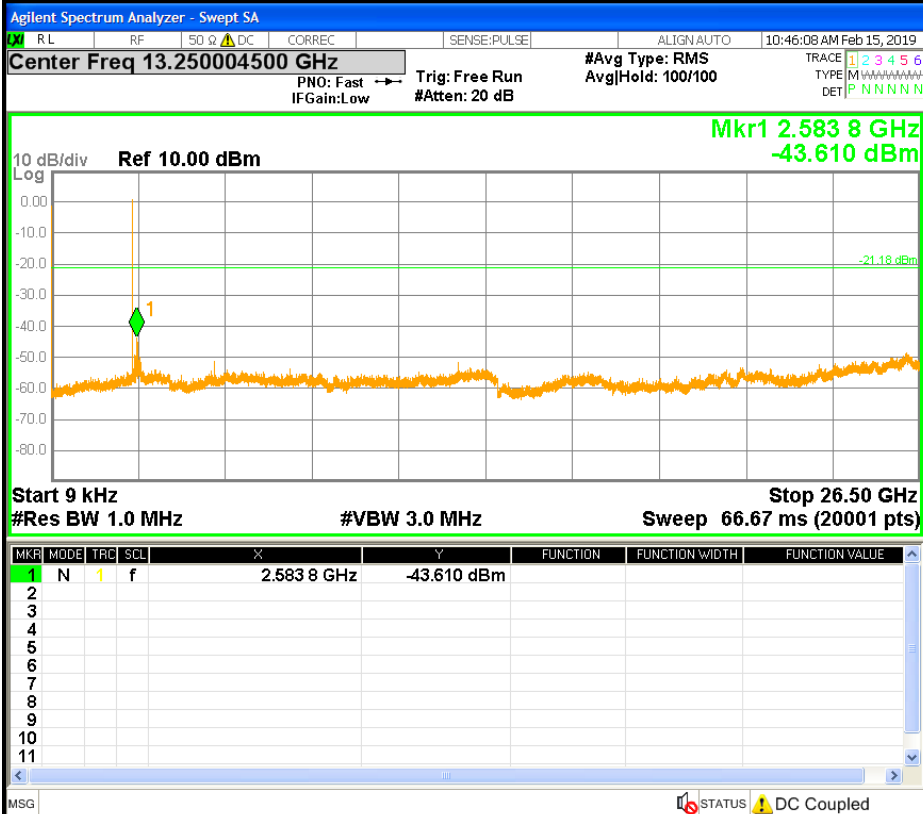


$\pi/4$ DQPSK HCH Graphs

Pref

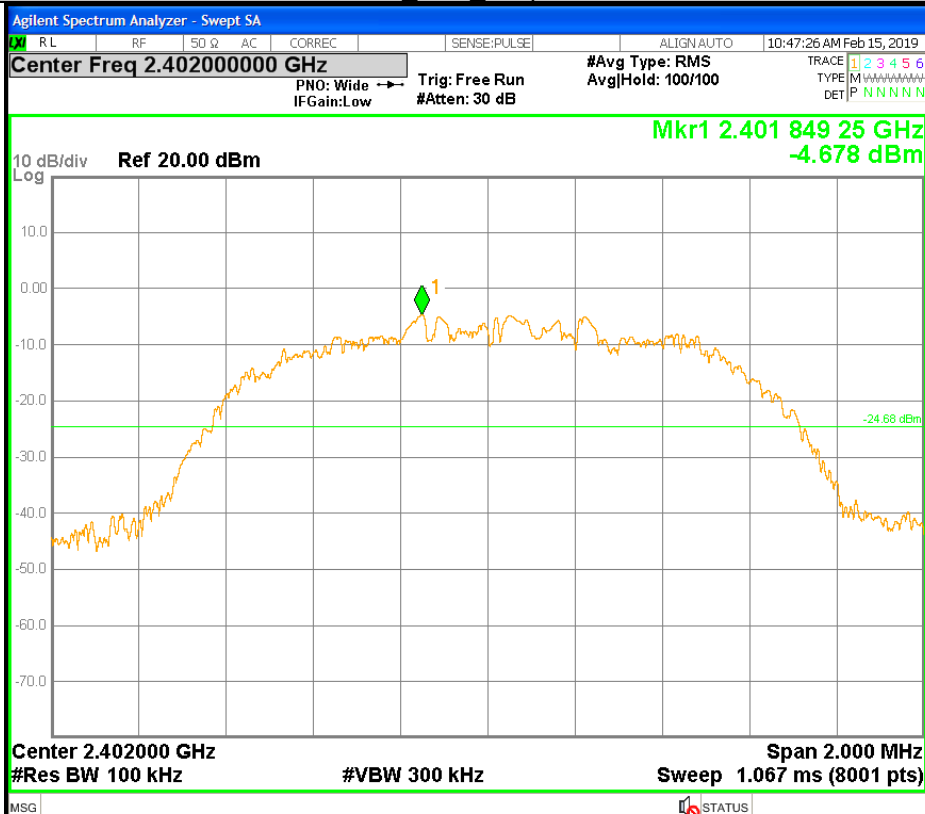


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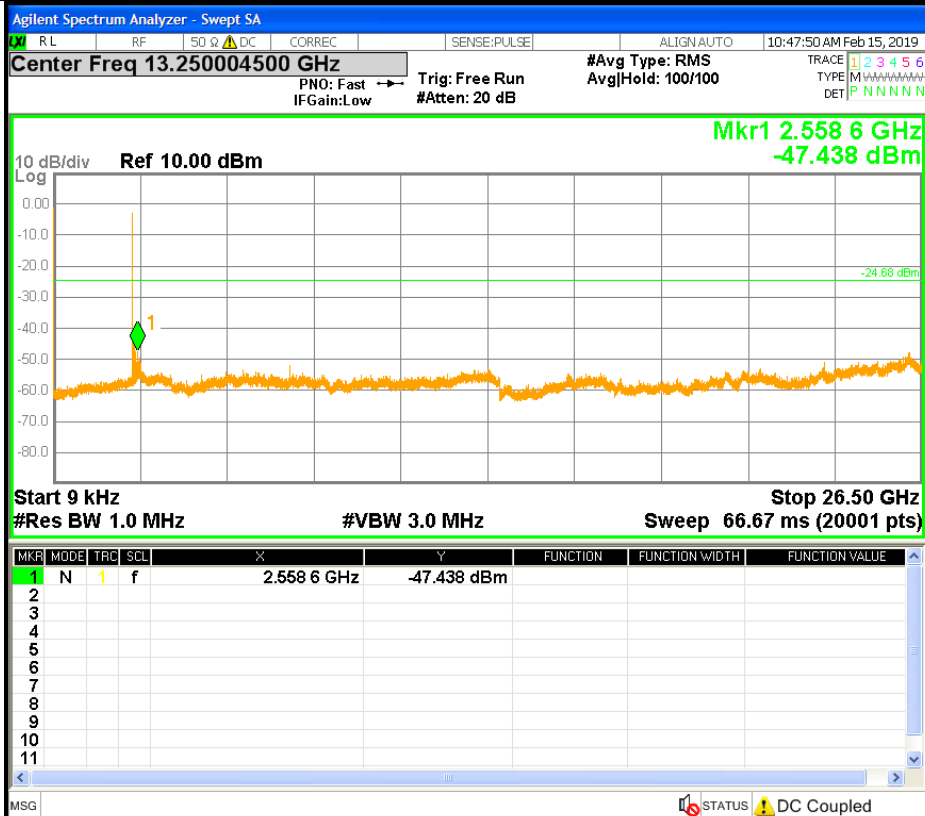


8DPSK LCH Graphs

Pref

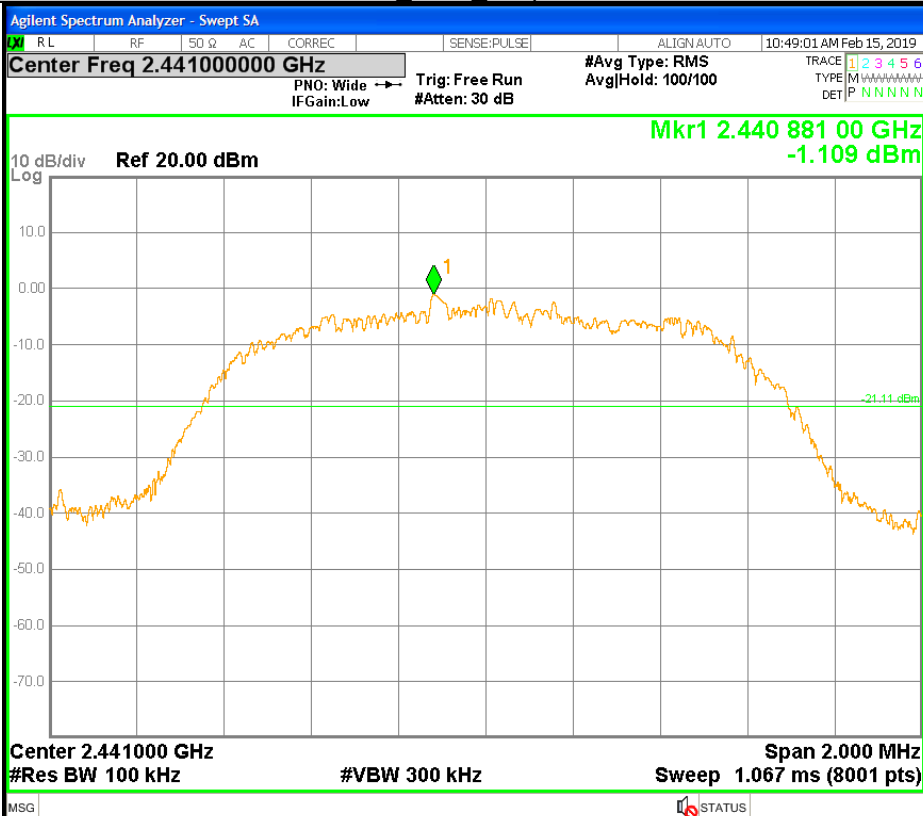


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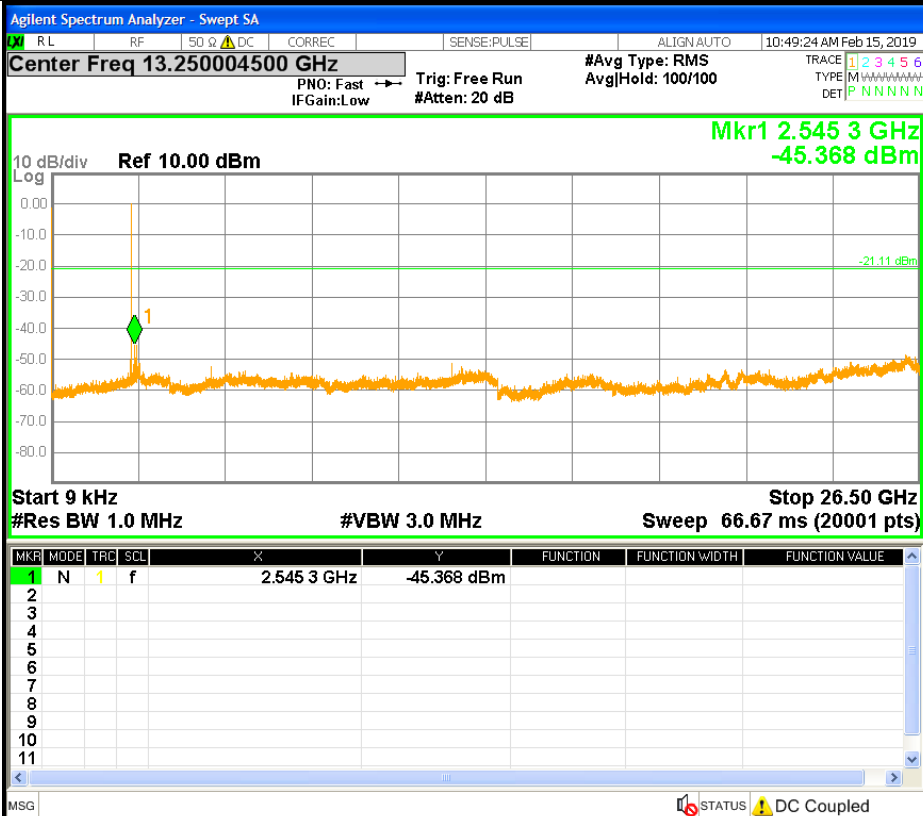


8DPSK MCH Graphs

Pref

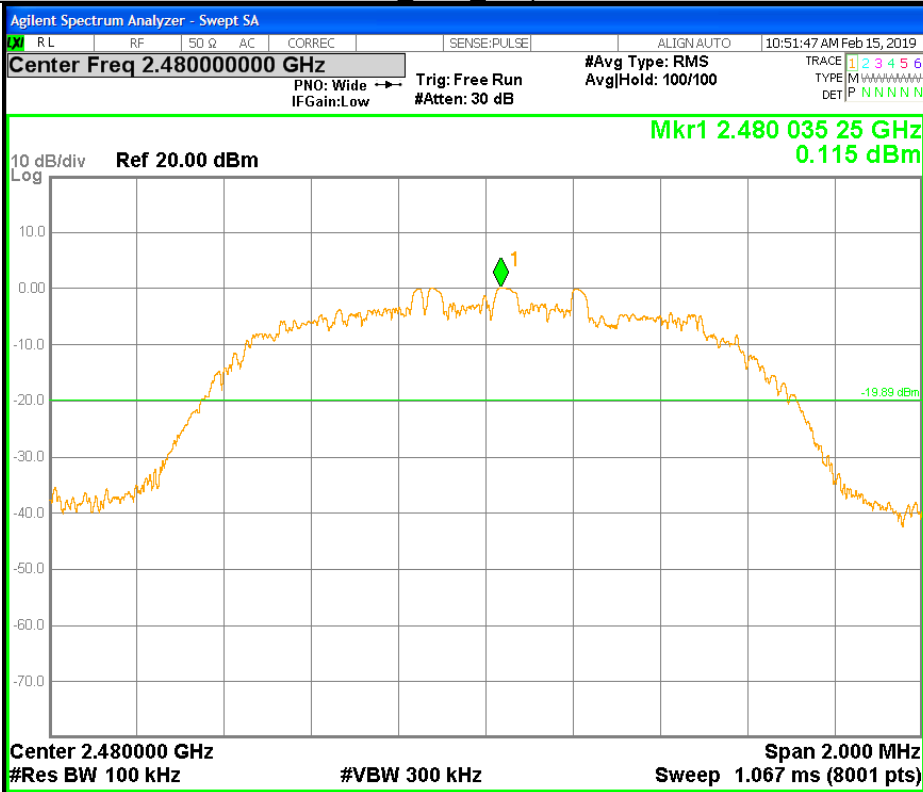


Puw

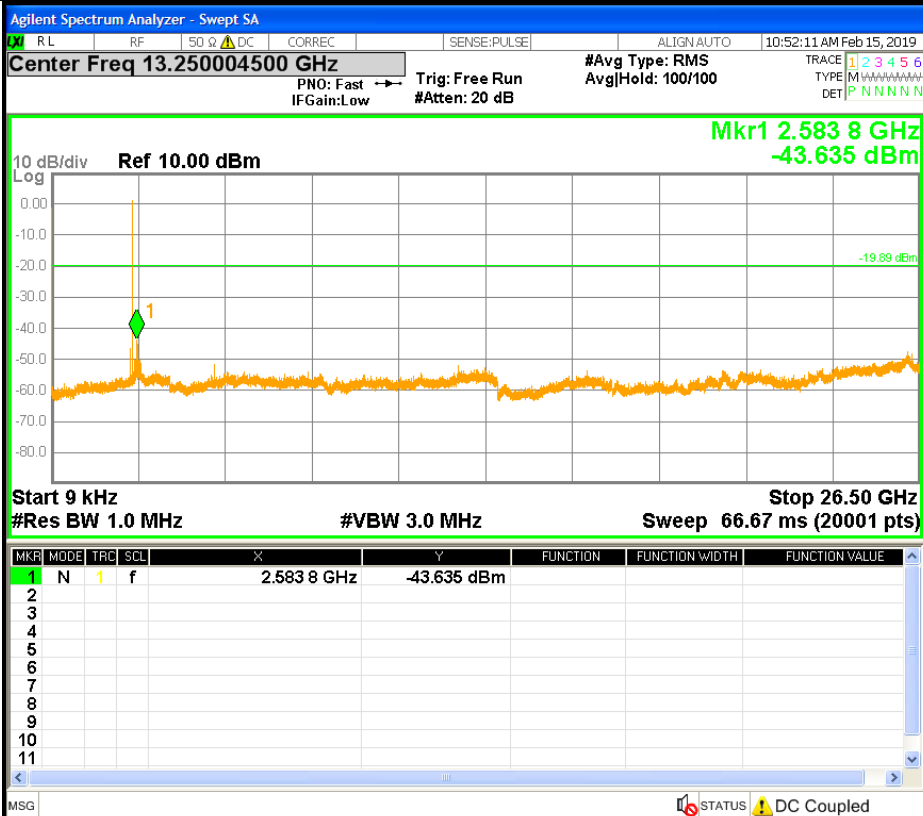


8DPSK HCH Graphs

Pref



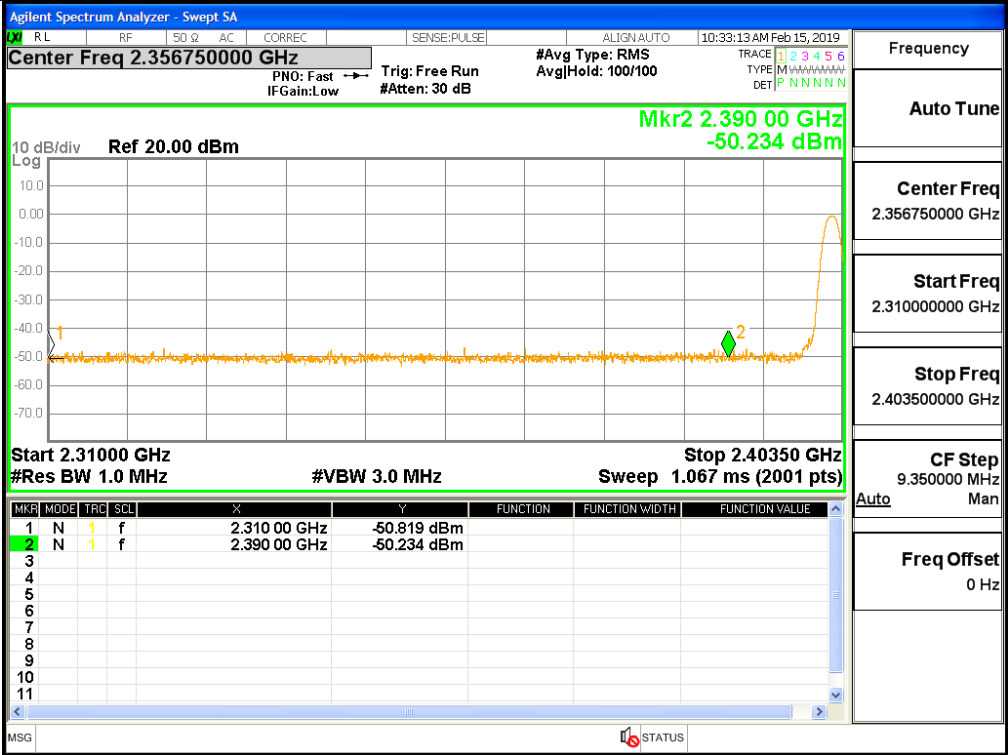
Puw



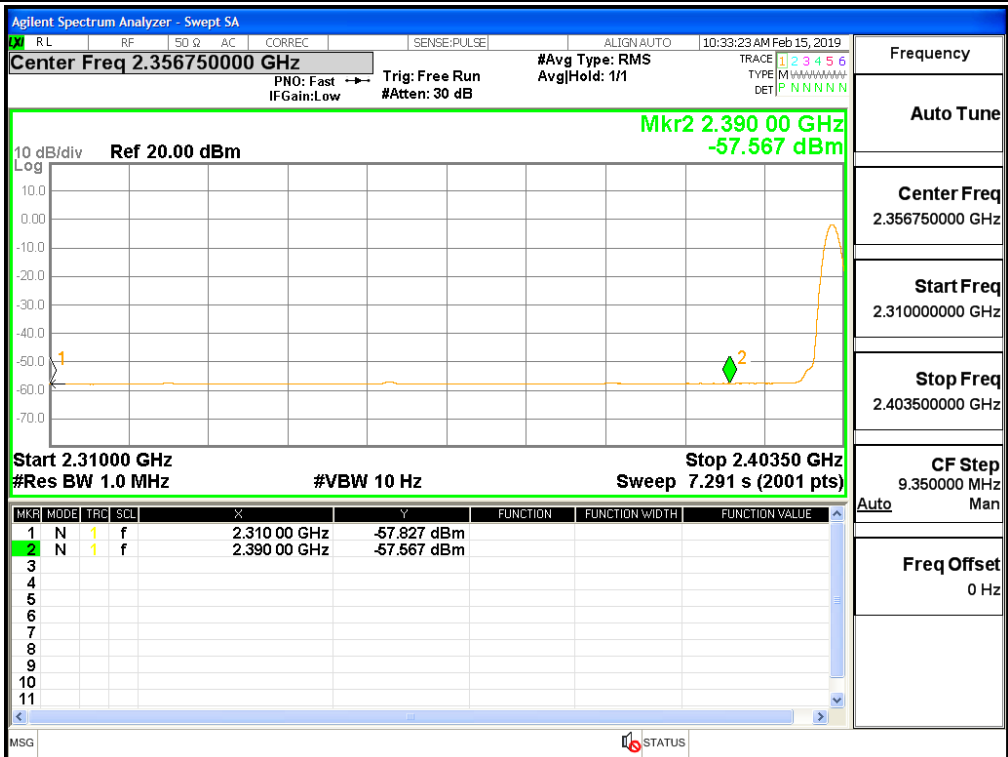
A.8 Restrict-band band-edge measurements

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	-50.82	46.98	74.00	-57.83	38.66	54	Pass
1DH5	2402	2390	2.00	0.00	-50.23	44.88	74.00	-57.57	38.7	54	Pass
1DH5	2480	2483.5	2.00	0.00	-47.20	52.06	74.00	-53.34	46.7	54	Pass
1DH5	2480	2500	2.00	0.00	-51.52	46.34	74.00	-57.00	39.22	54	Pass
2DH5	2402	2310	2.00	0.00	-50.45	45.46	74.00	-57.91	38.42	54	Pass
2DH5	2402	2390	2.00	0.00	-48.17	46.04	74.00	-57.60	38.65	54	Pass
2DH5	2480	2483.5	2.00	0.00	-48.37	48.40	74.00	-54.35	42.92	54	Pass
2DH5	2480	2500	2.00	0.00	-49.79	46.82	74.00	-57.02	39.18	54	Pass
3DH5	2402	2310	2.00	0.00	-50.75	43.97	74.00	-57.87	38.39	54	Pass
3DH5	2402	2390	2.00	0.00	-50.60	45.69	74.00	-57.56	38.63	54	Pass
3DH5	2480	2483.5	2.00	0.00	-46.95	49.62	74.00	-54.42	43.04	54	Pass
3DH5	2480	2500	2.00	0.00	-49.26	46.38	74.00	-57.03	39.15	54	Pass

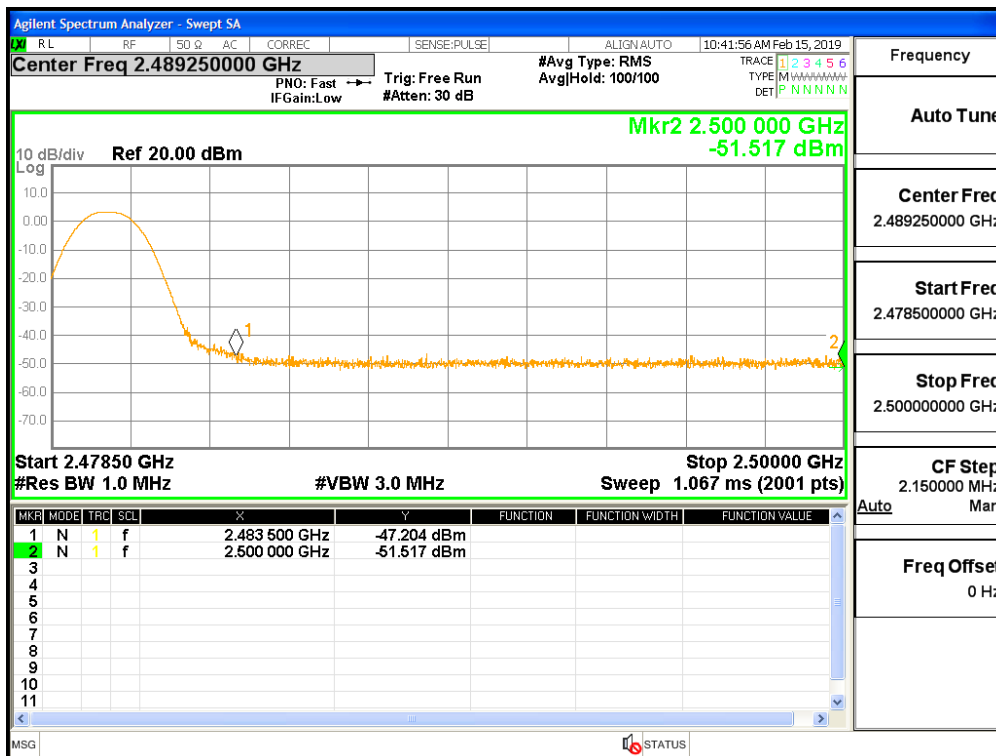
Restrict-band band-edge measurements_2402_PEAK_DH5



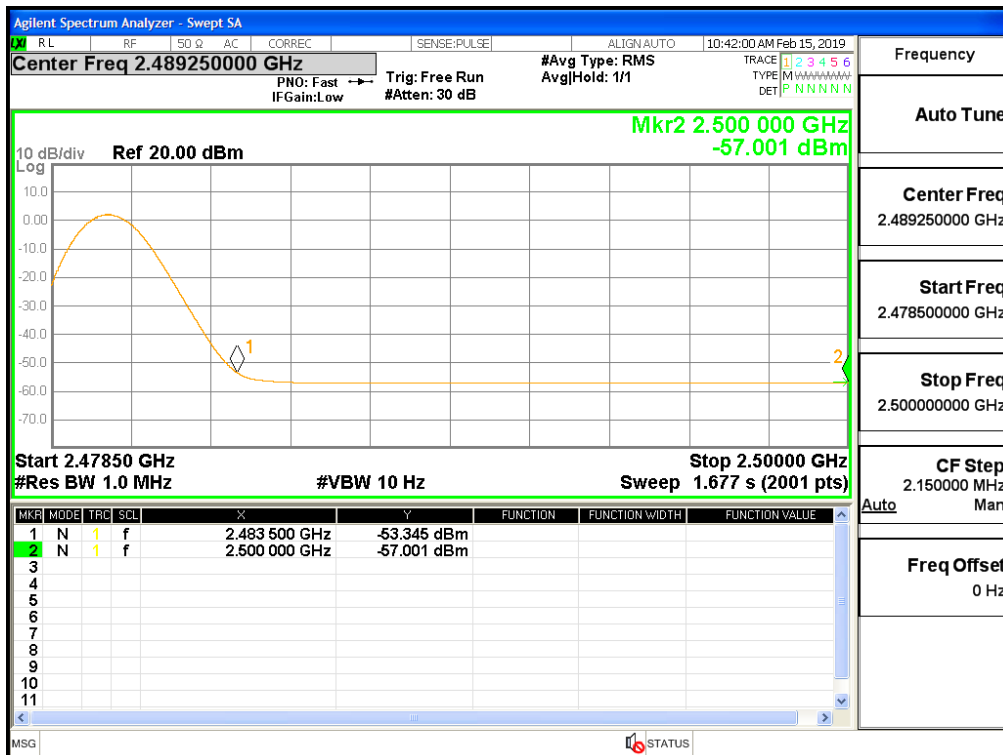
Restrict-band band-edge measurements_2402_AV_DH5



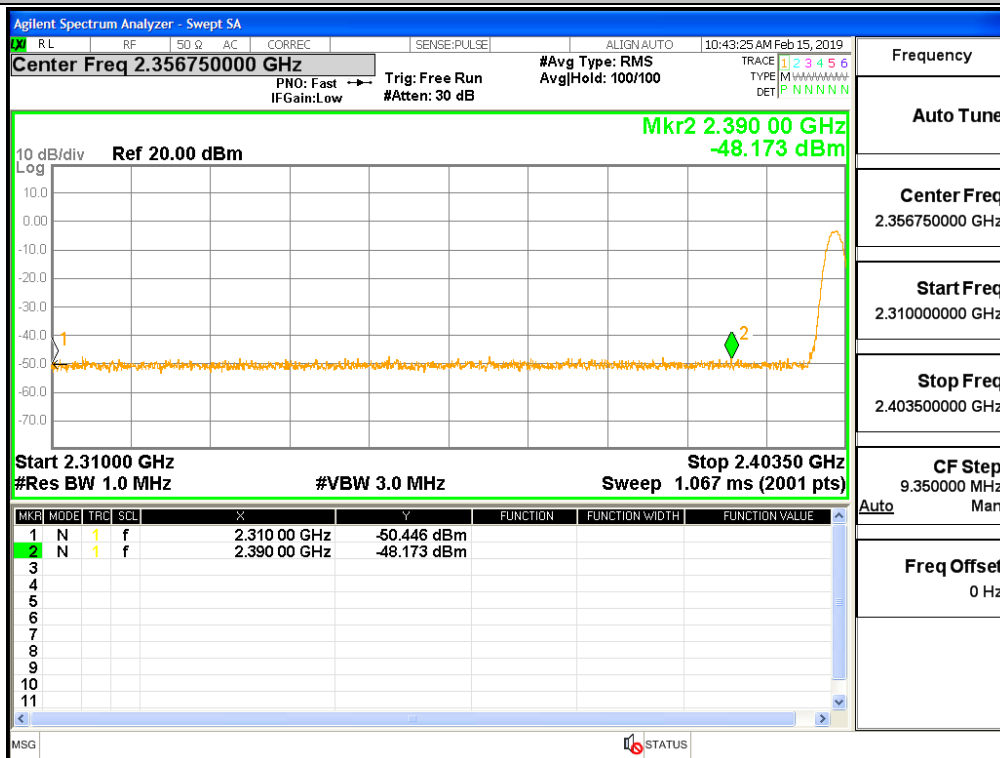
Restrict-band band-edge measurements_2480_PEAK_DH5



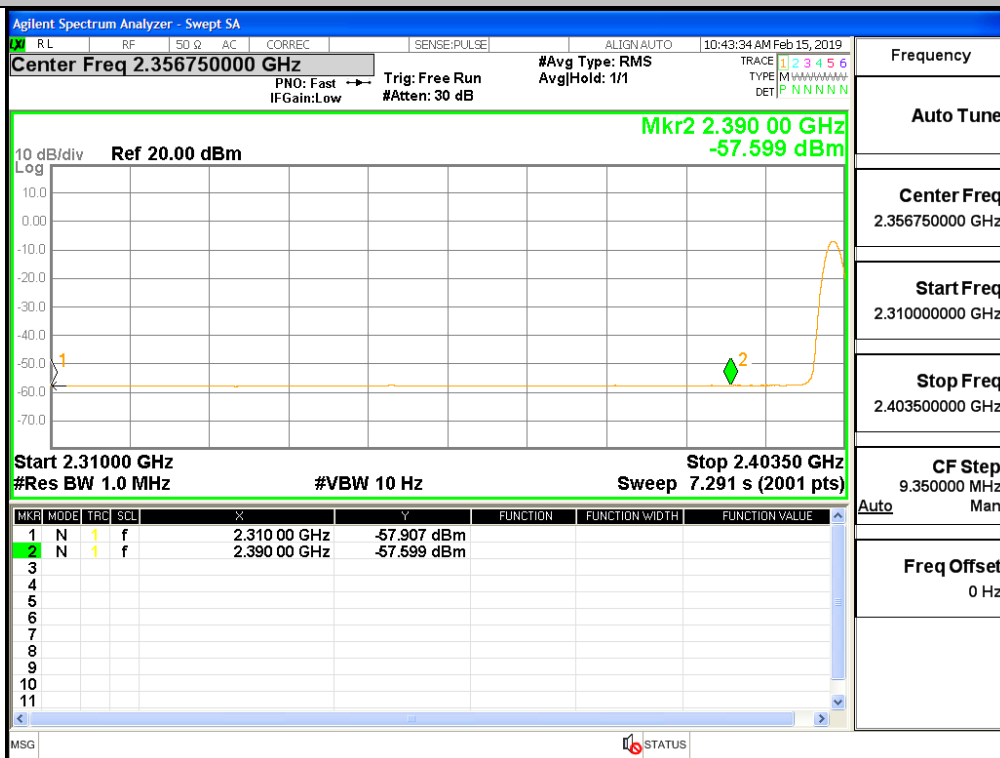
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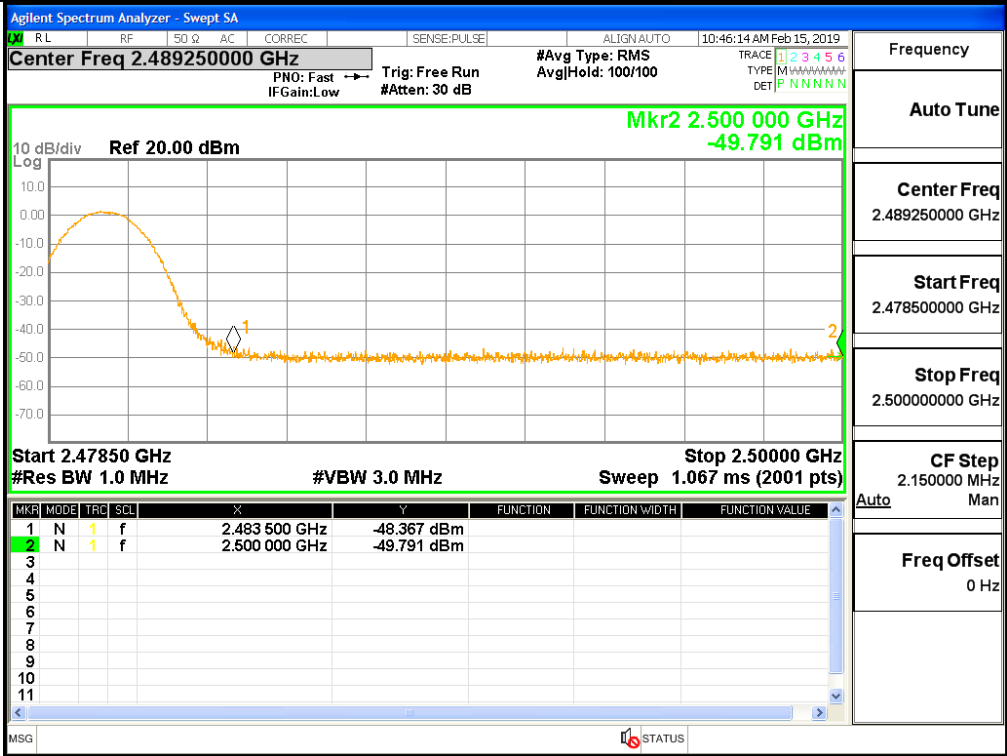
Restrict-band band-edge measurements_2402_PEAK_2DH5



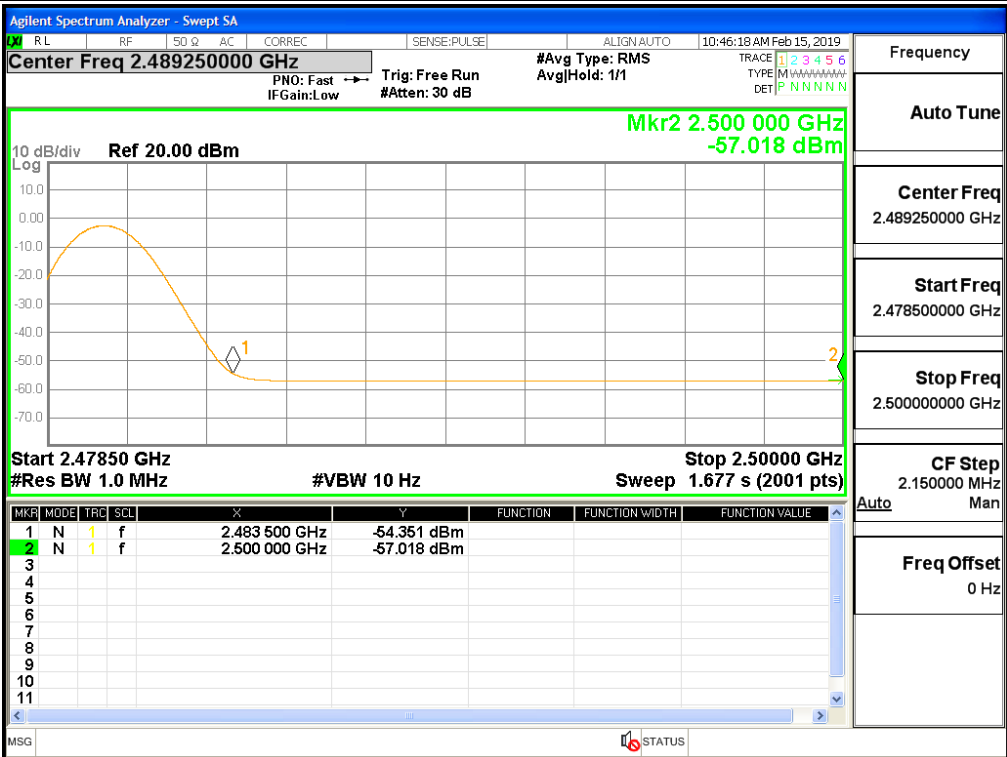
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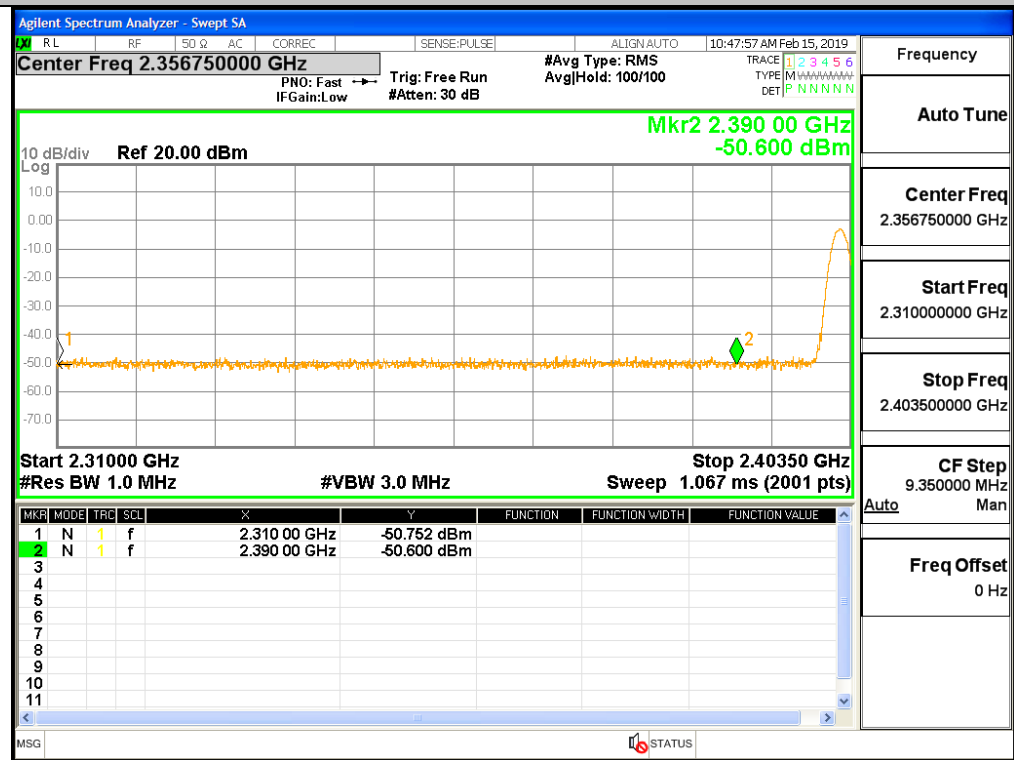
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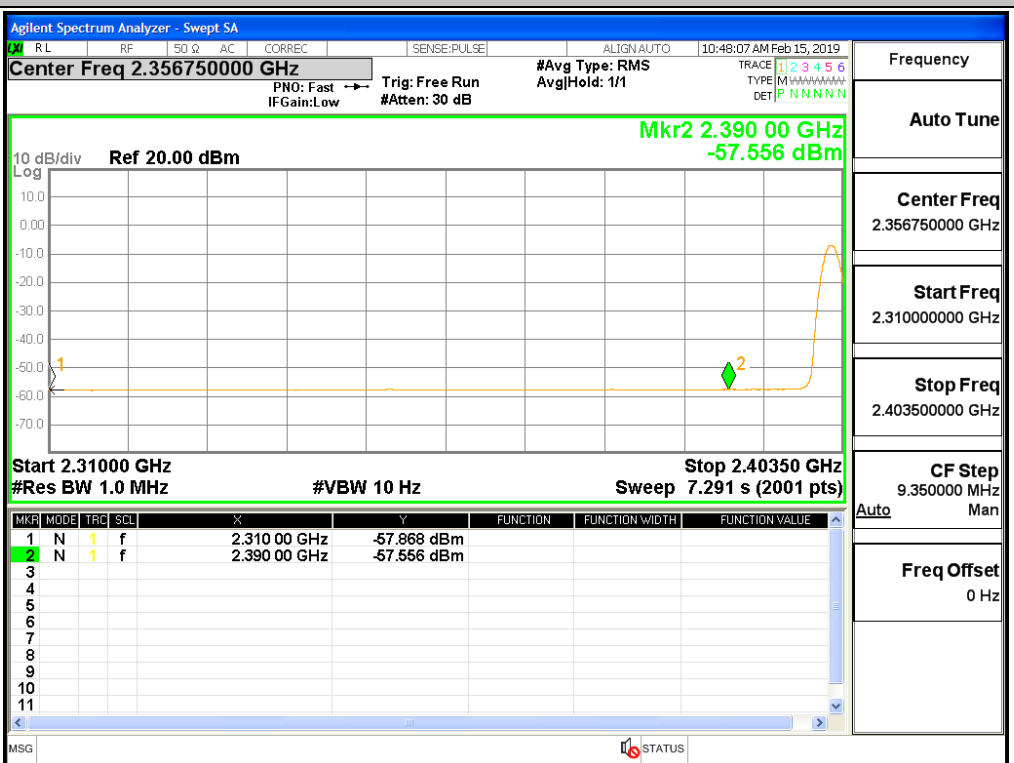
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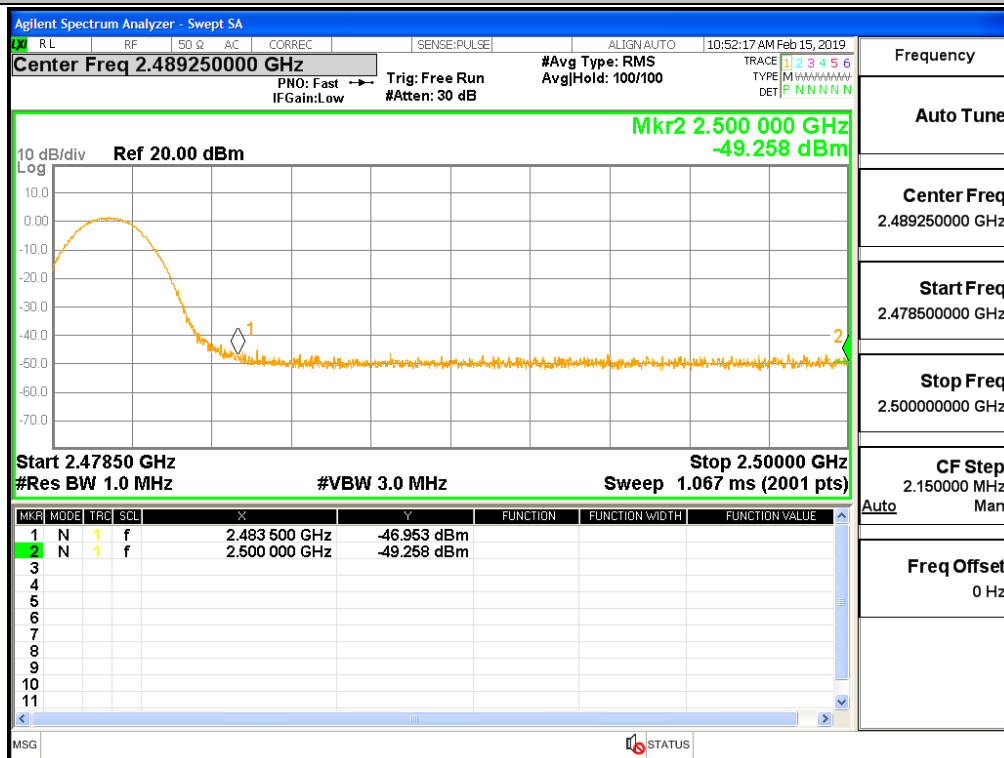
Restrict-band band-edge measurements_2402_PEAK_3DH5



Restrict-band band-edge measurements_2402_AV_3DH5



Restrict-band band-edge measurements_2480_PEAK_3DH5



Restrict-band band-edge measurements_2480_AV_3DH5

