

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

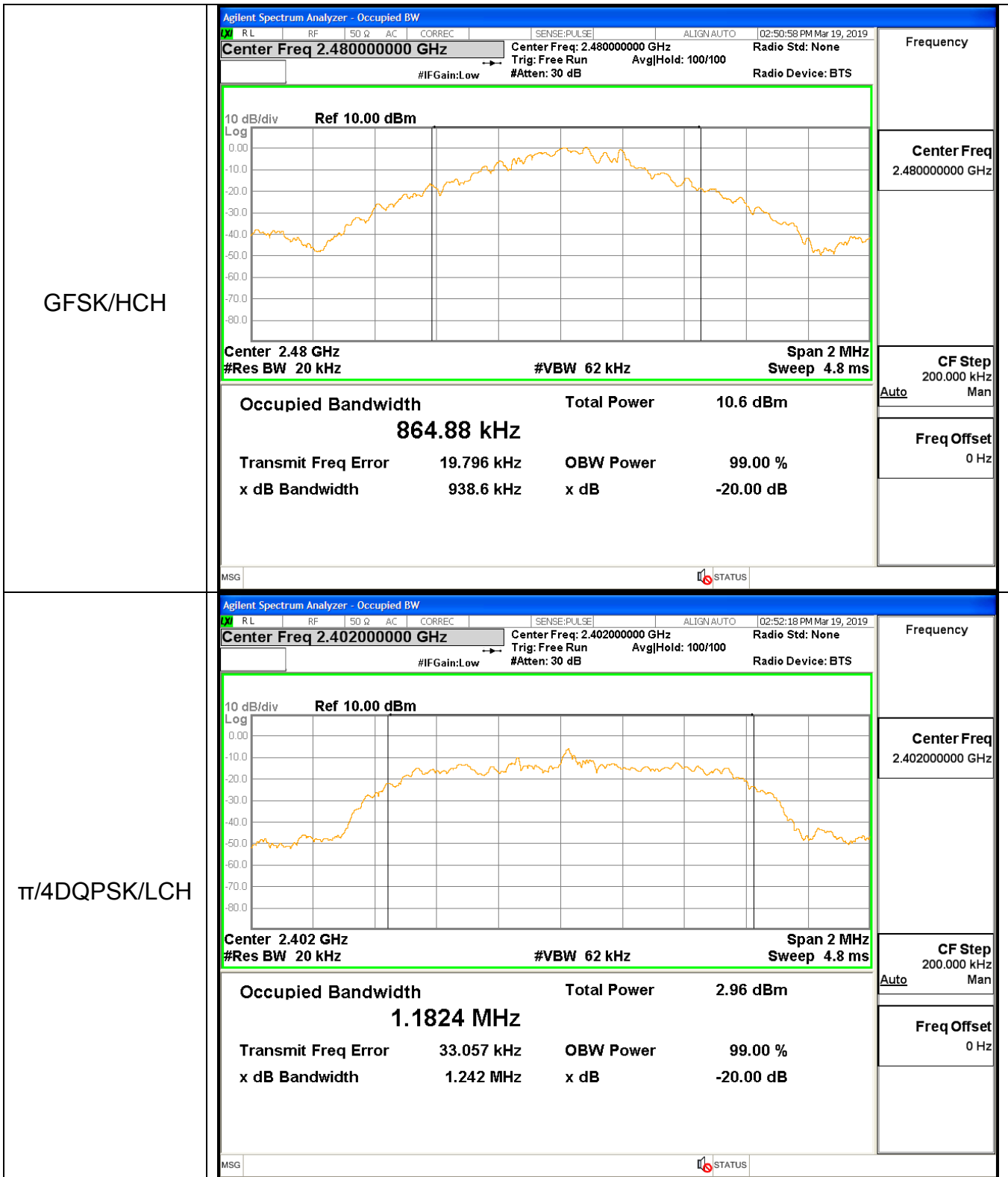
A.1 20 dB Bandwidth

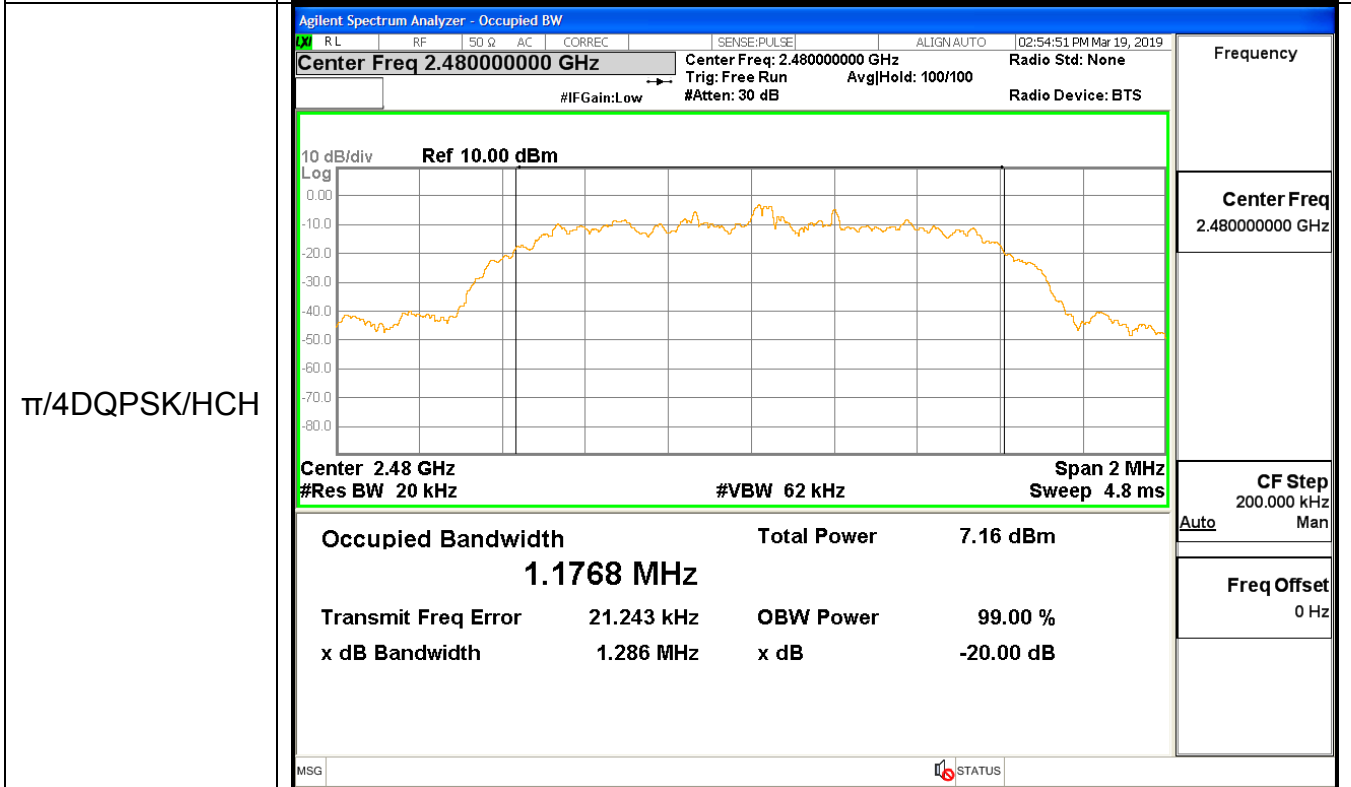
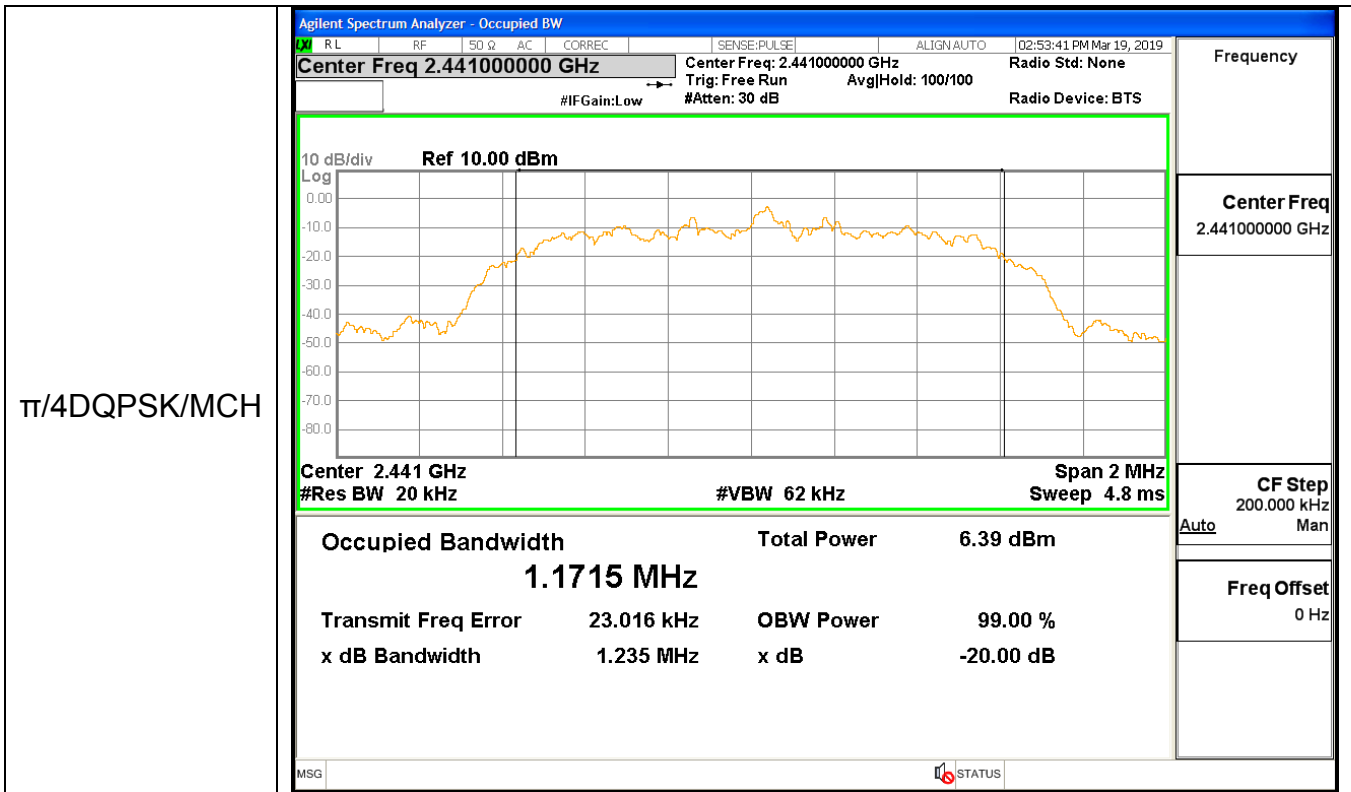
Mode	Channel.	20dB Bandwidth [MHz]	Limit(MHz)	Verdict
GFSK	LCH	0.935	Not Specified	PASS
GFSK	MCH	0.938	Not Specified	PASS
GFSK	HCH	0.939	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.242	Not Specified	PASS
$\pi/4$ DQPSK	MCH	1.235	Not Specified	PASS
$\pi/4$ DQPSK	HCH	1.286	Not Specified	PASS
8DPSK	LCH	1.251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

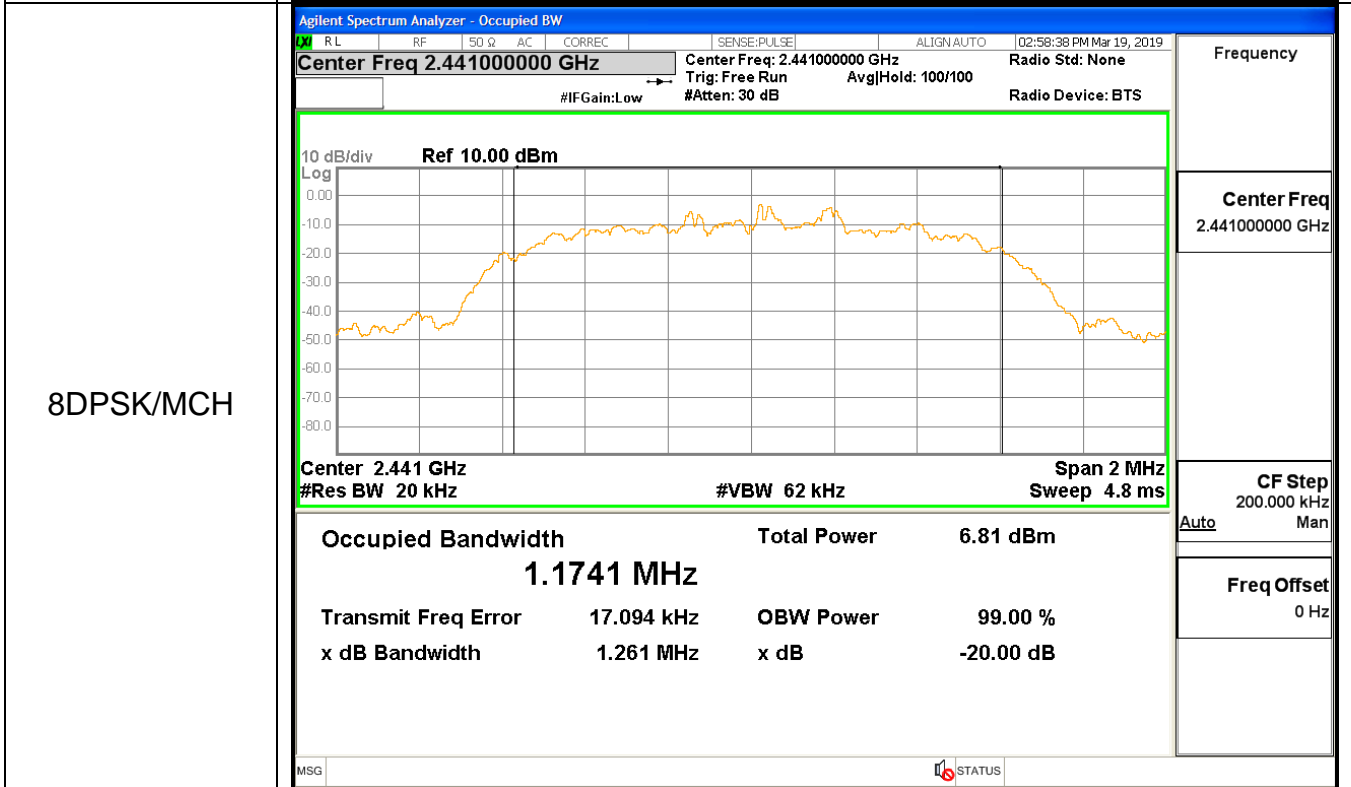
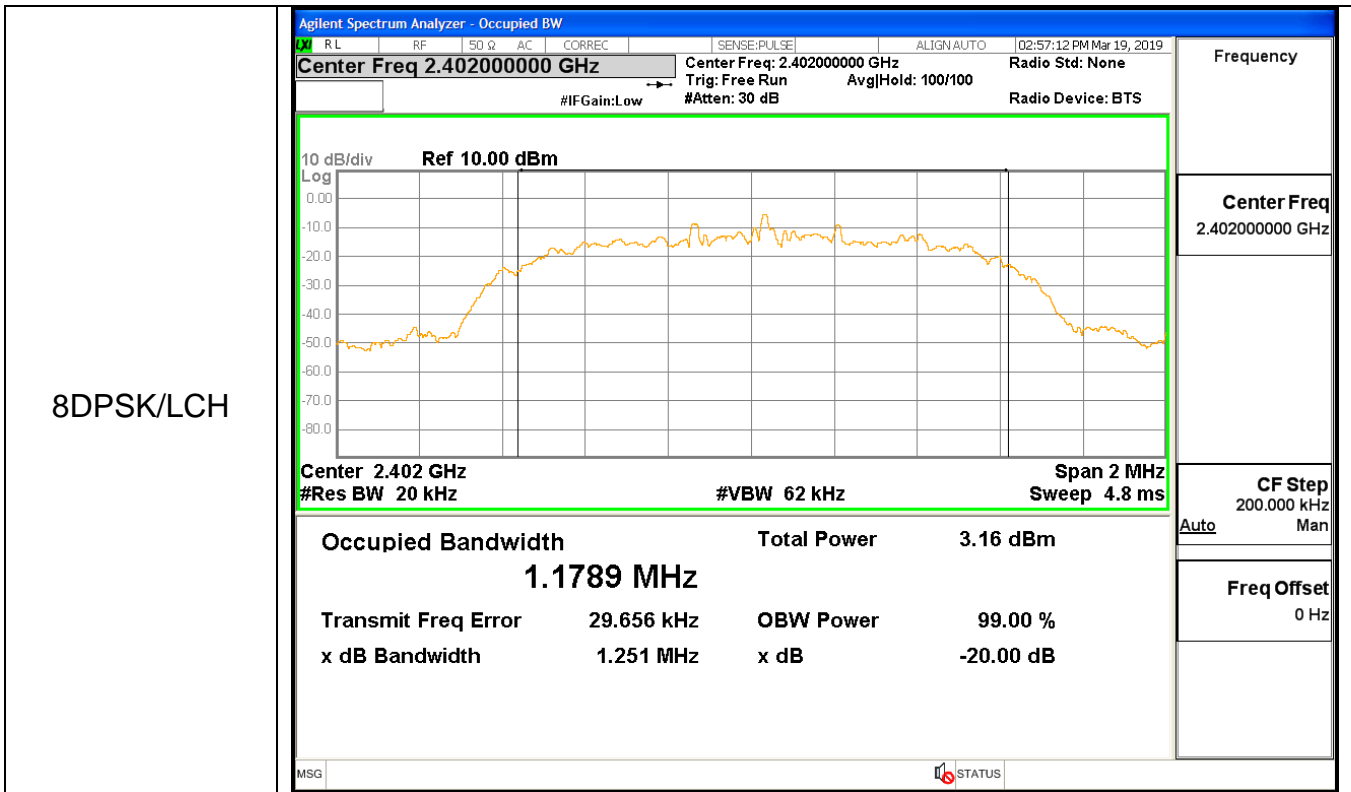
Test Graph

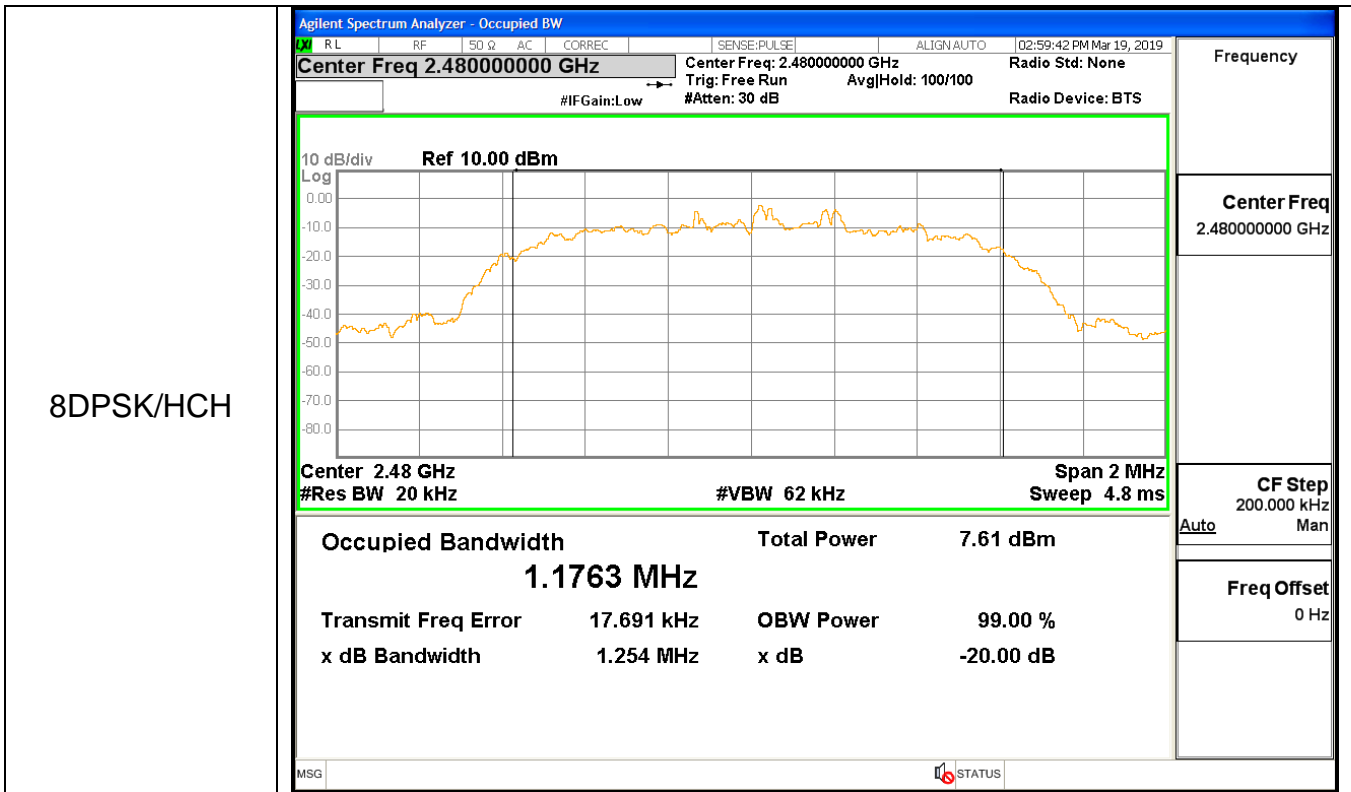
Graphs

GFSK/LCH	<div style="border: 1px solid black; padding: 5px;"> <p style="font-size: small; margin: 0;">Agilent Spectrum Analyzer - Occupied BW</p> <table style="width: 100%; border: none;"> <tr> <td style="border: none;"><input checked="" type="checkbox"/> RL</td> <td style="border: none;">RF</td> <td style="border: none;">50 Ω</td> <td style="border: none;">AC</td> <td style="border: none;">CORREC</td> <td style="border: none;">SENSE: PULSE</td> <td style="border: none;">ALIGN: AUTO</td> <td style="border: none;">02:48:44 PM Mar 19, 2019</td> </tr> </table> <p style="margin: 0;">Center Freq 2.40200000 GHz Center Freq: 2.402000000 GHz Radio Std: None</p> <p style="margin: 0;">Trig: Free Run Avg Hold: 100/100</p> <p style="margin: 0;">#IFGain: Low #Atten: 30 dB Radio Device: BTS</p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p style="font-size: small; margin: 0;">10 dB/div Ref 10.00 dBm</p> <p style="font-size: small; margin: 0;">Center 2.402 GHz Span 2 MHz</p> <p style="font-size: small; margin: 0;">#Res BW 20 kHz #VBW 62 kHz Sweep 4.8 ms</p> </div> <table style="width: 100%; border: none; margin-top: 5px;"> <tr> <td style="width: 33%;">Occupied Bandwidth</td> <td style="width: 33%;">Total Power</td> <td style="width: 33%;">6.78 dBm</td> </tr> <tr> <td style="text-align: center;">869.41 kHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>34.402 kHz</td> <td>OBW Power</td> </tr> <tr> <td></td> <td></td> <td>99.00 %</td> </tr> <tr> <td>x dB Bandwidth</td> <td>935.0 kHz</td> <td>x dB</td> </tr> <tr> <td></td> <td></td> <td>-20.00 dB</td> </tr> </table>	<input checked="" type="checkbox"/> RL	RF	50 Ω	AC	CORREC	SENSE: PULSE	ALIGN: AUTO	02:48:44 PM Mar 19, 2019	Occupied Bandwidth	Total Power	6.78 dBm	869.41 kHz			Transmit Freq Error	34.402 kHz	OBW Power			99.00 %	x dB Bandwidth	935.0 kHz	x dB			-20.00 dB	<p style="font-size: small; margin: 0;">Frequency</p> <p style="margin: 5px 0;">Center Freq 2.40200000 GHz</p> <hr/> <p style="font-size: small; margin: 0;">CF Step 200.000 kHz</p> <p style="font-size: x-small; margin: 0;">Auto Man</p> <hr/> <p style="font-size: small; margin: 0;">Freq Offset 0 Hz</p>
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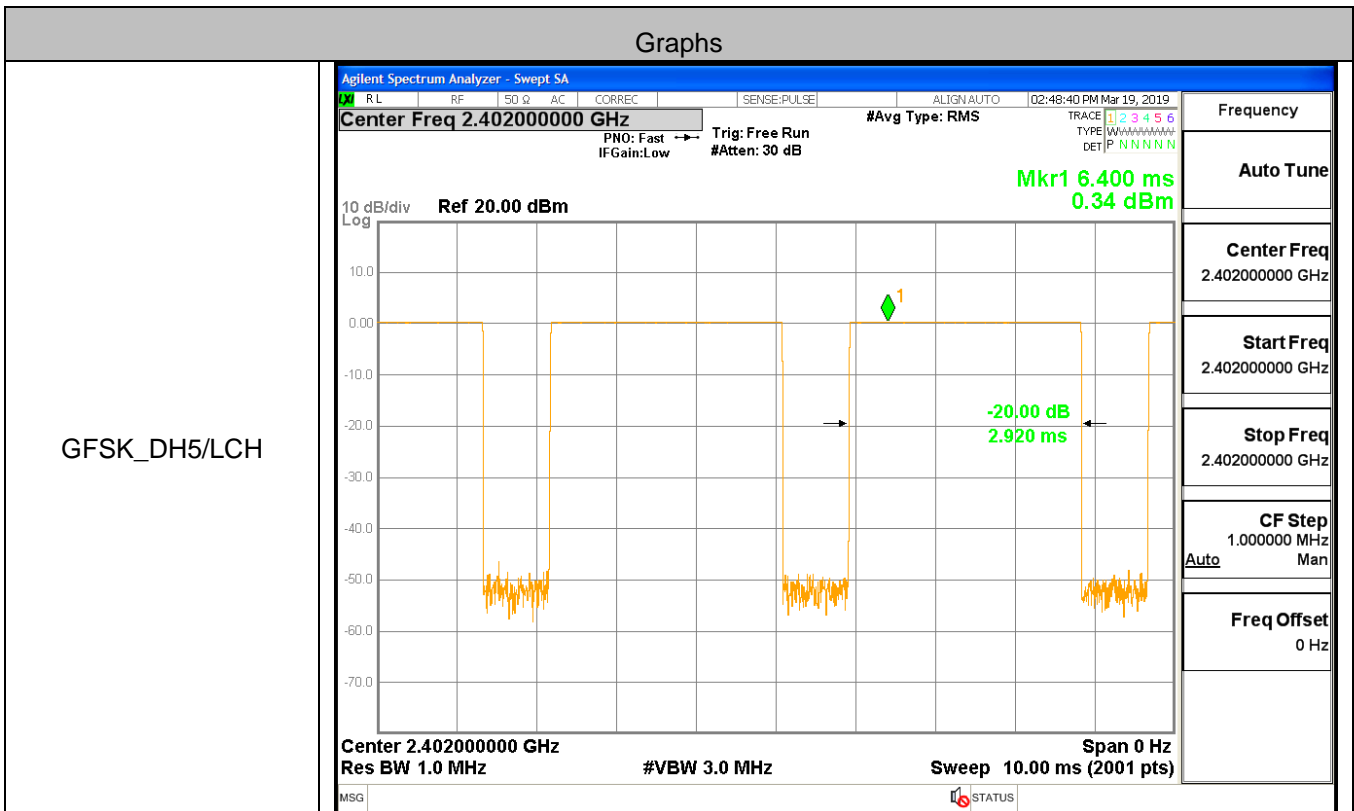


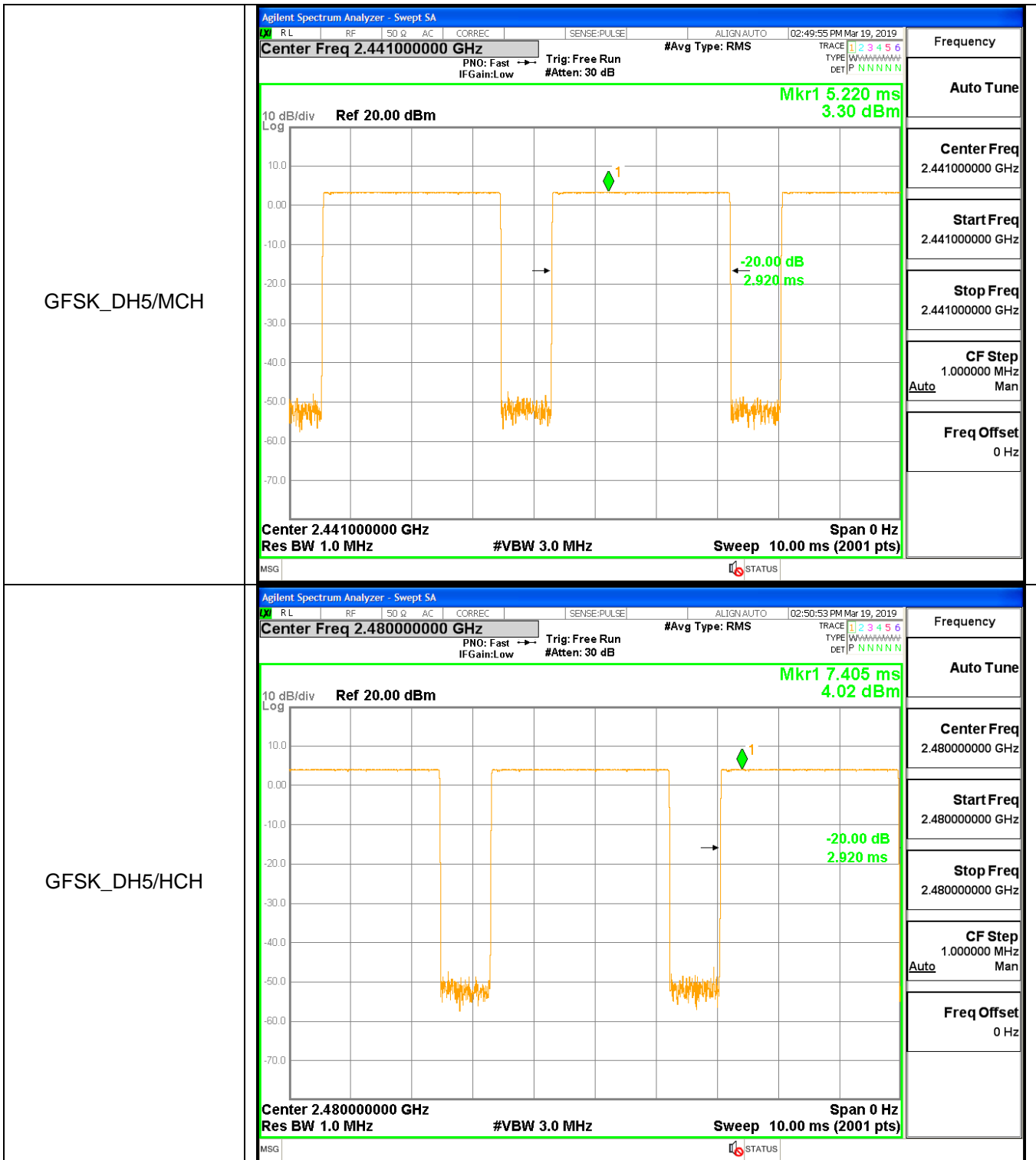


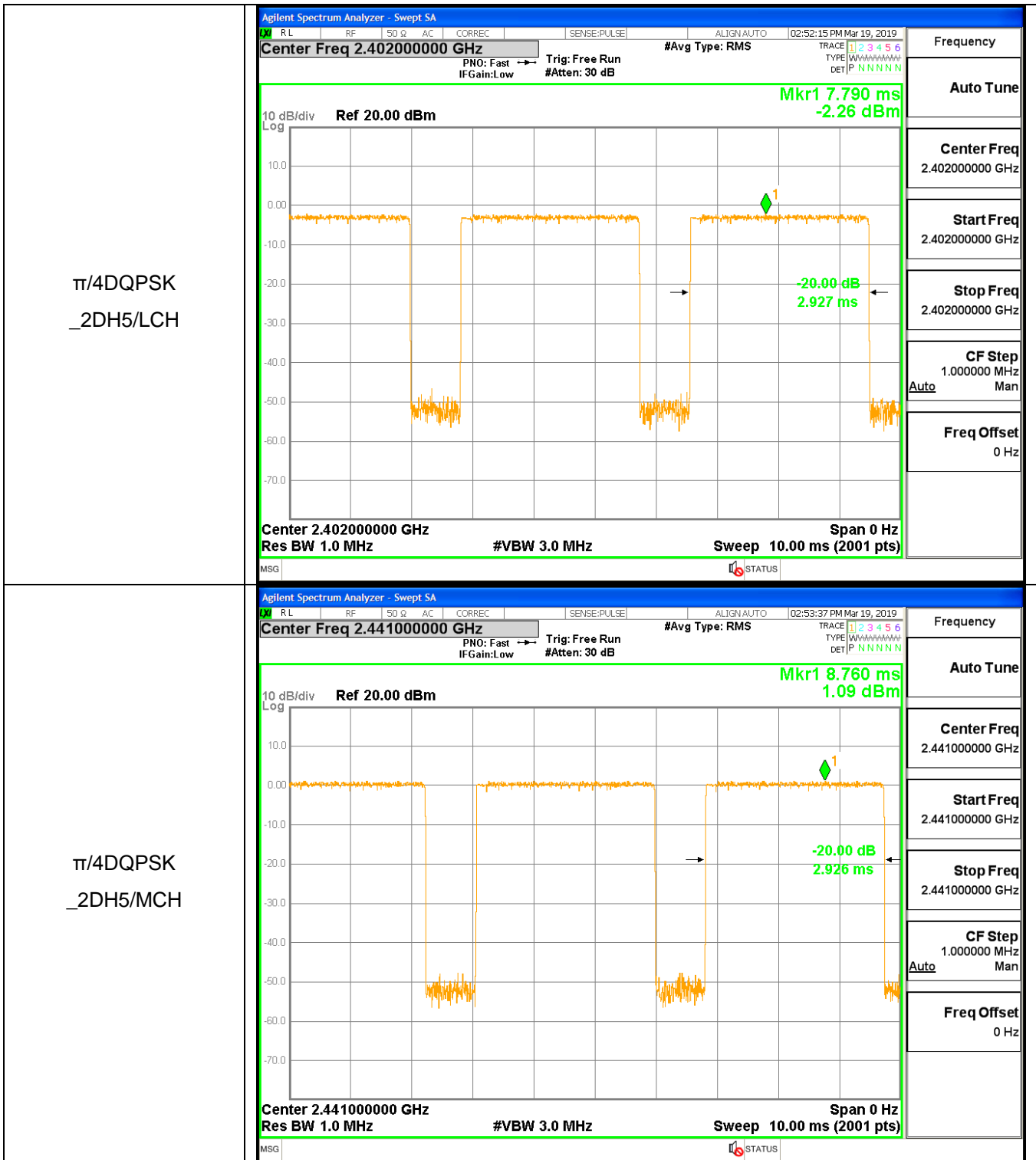
A.2 Dwell Time

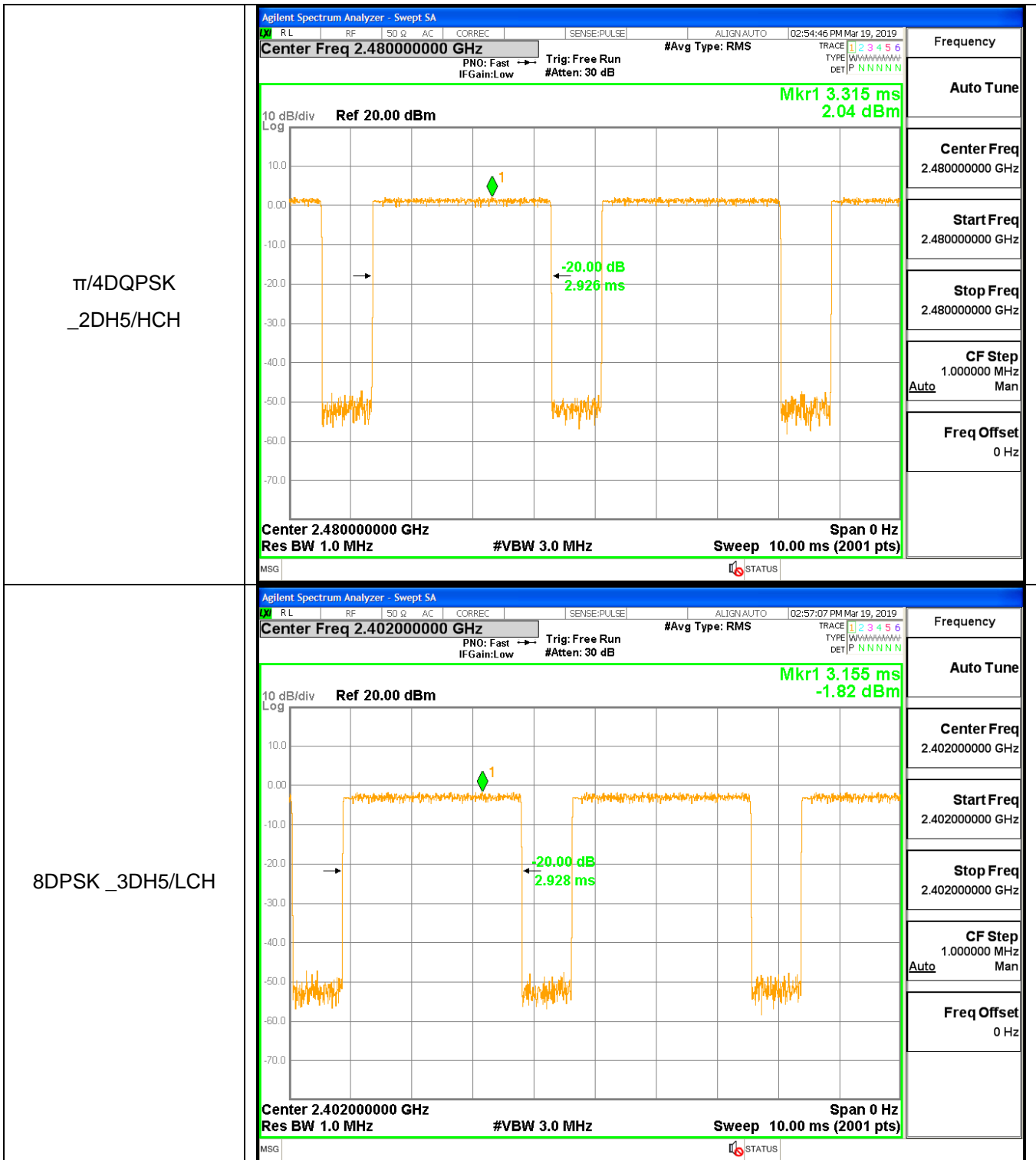
Mode	Packet	Channel	Burst Width [s/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	0.002920	106.7	0.311530	0.4	PASS
GFSK	DH5	MCH	0.002920	106.7	0.311526	0.4	PASS
GFSK	DH5	HCH	0.002920	106.7	0.311525	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	0.002927	106.7	0.312324	0.4	PASS
$\pi/4$ DQPSK	2DH5	MCH	0.002926	106.7	0.312215	0.4	PASS
$\pi/4$ DQPSK	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

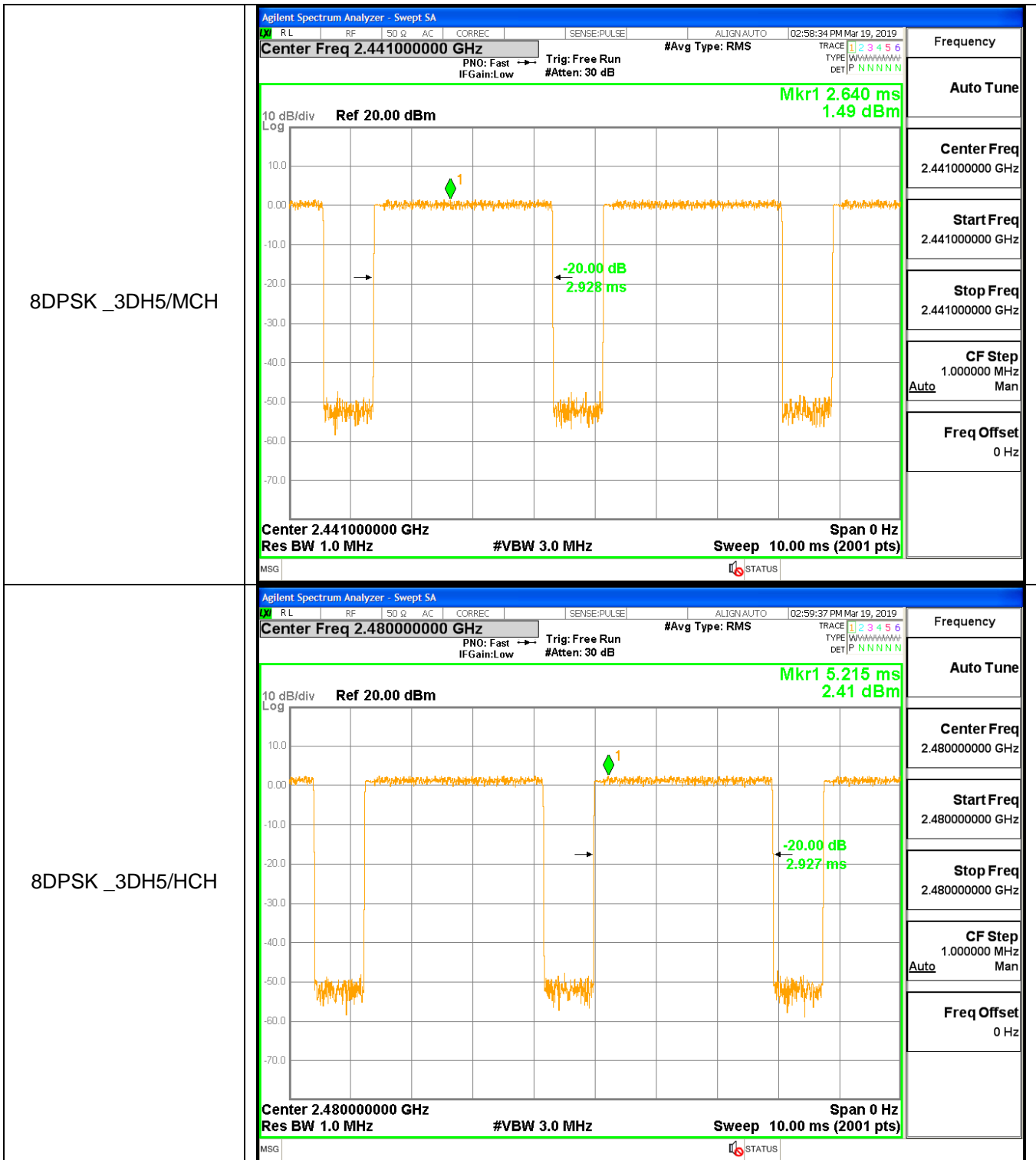
Test Graph







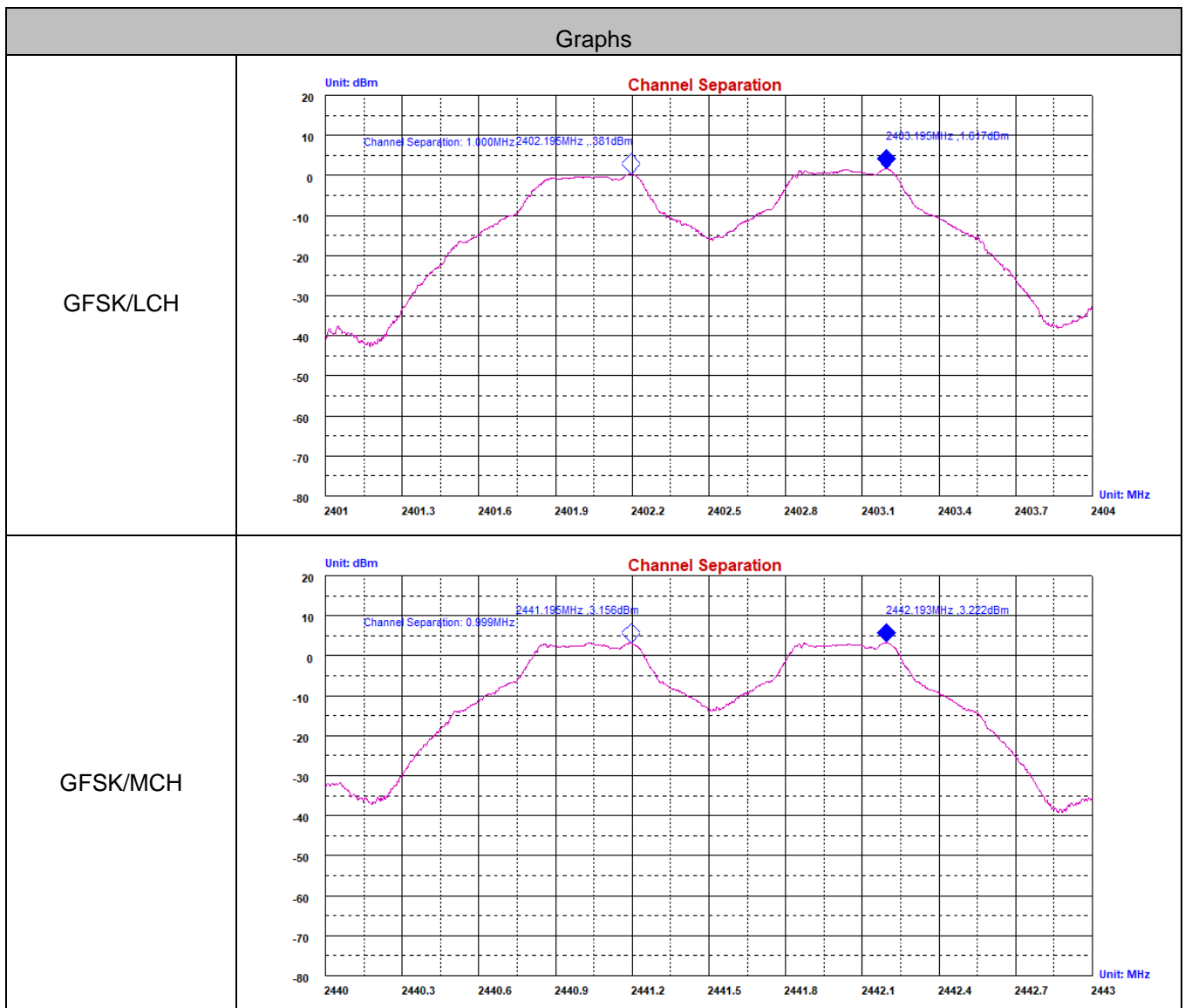


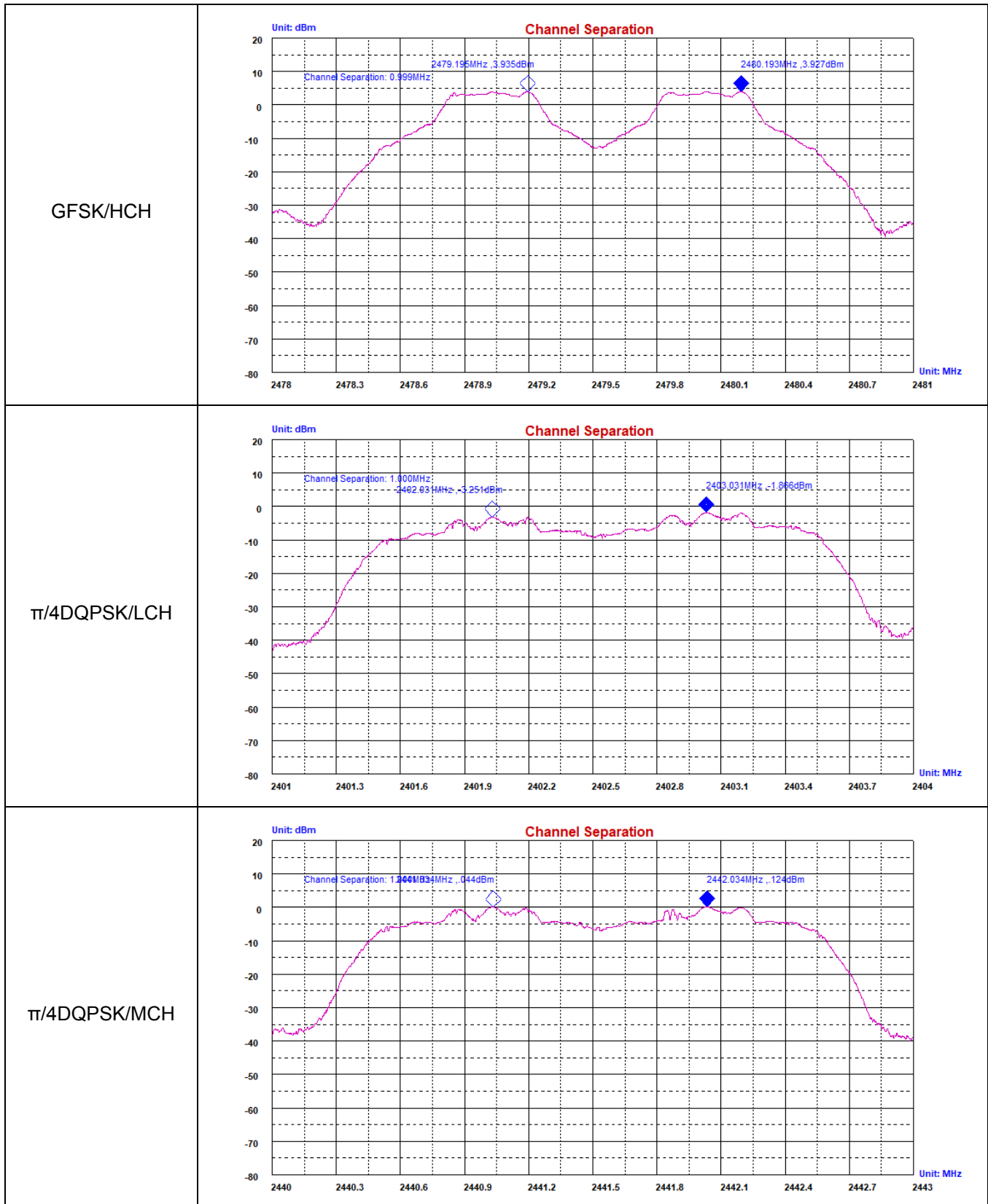


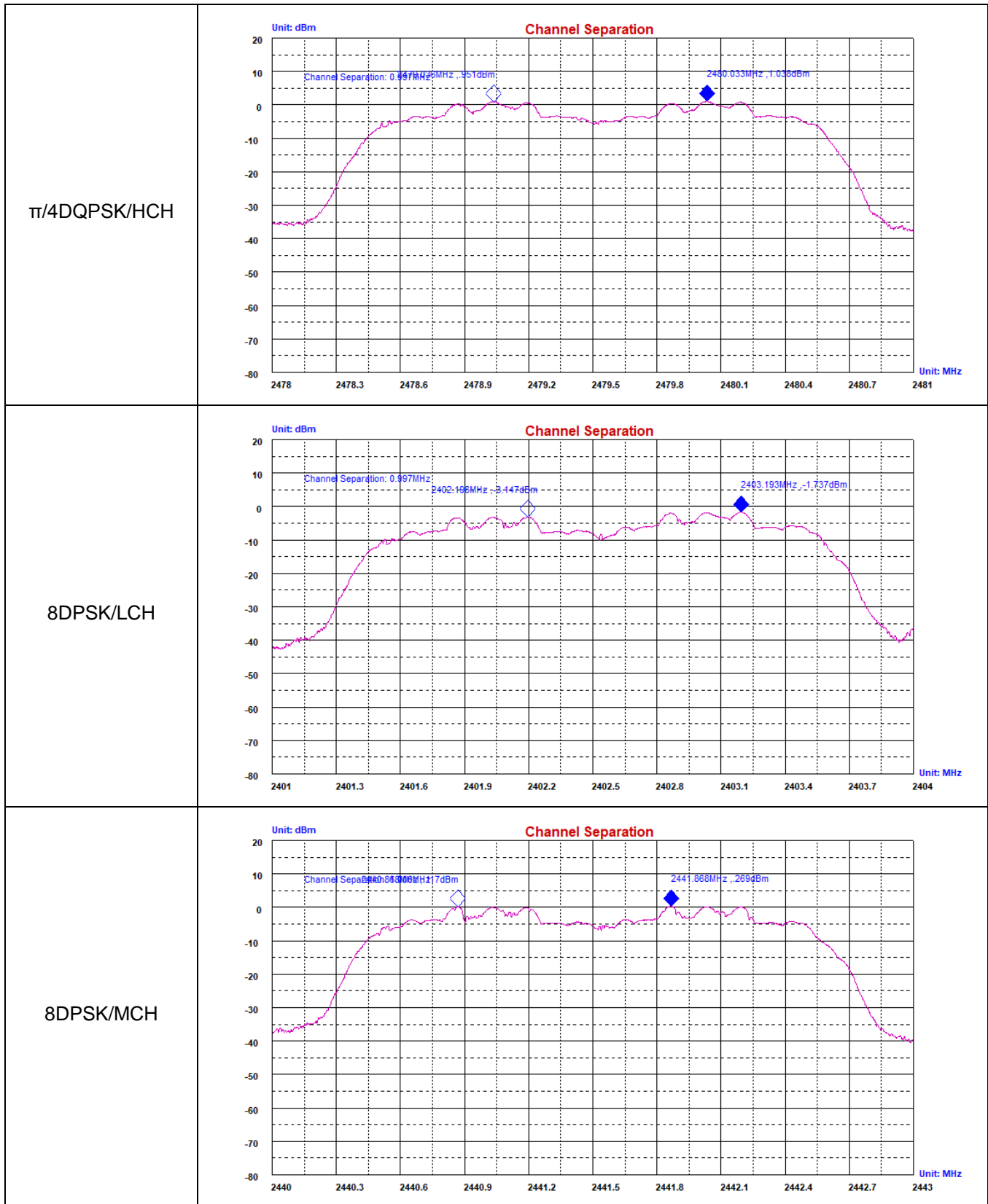
A.3 Carrier Frequency Separation

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
$\pi/4$ DQPSK	LCH	1.000	0.828	PASS
$\pi/4$ DQPSK	MCH	1.000	0.823	PASS
$\pi/4$ DQPSK	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

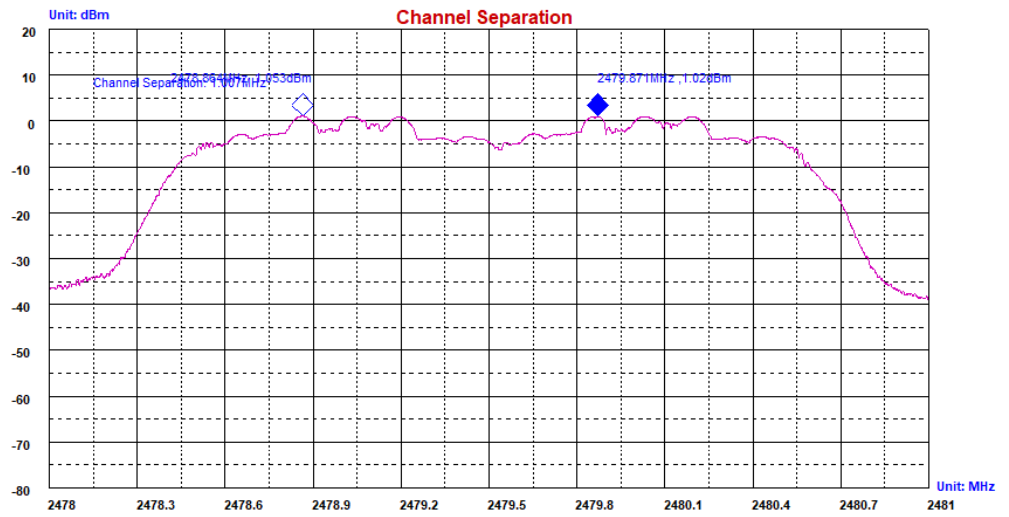
Test Graph







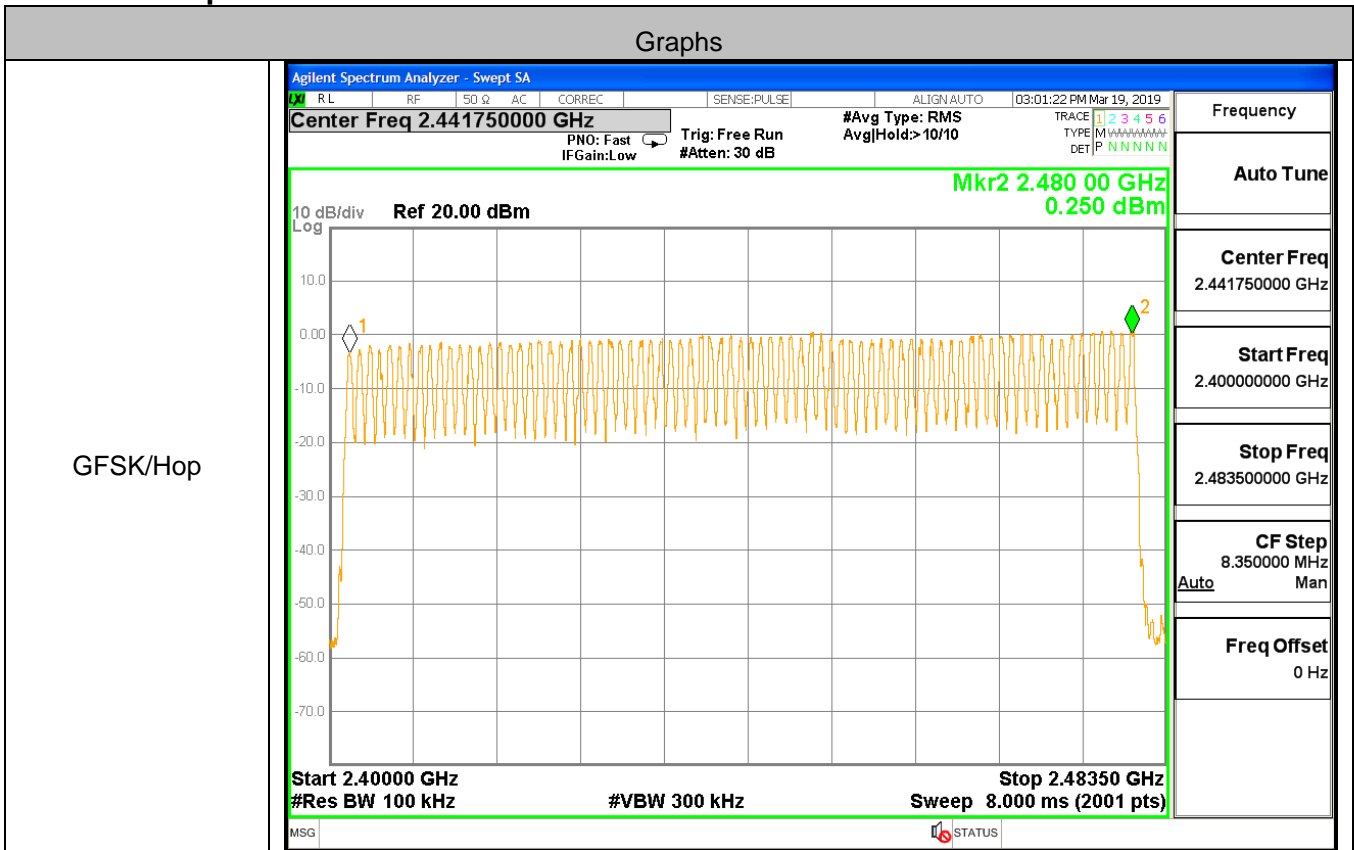
8DPSK/HCH

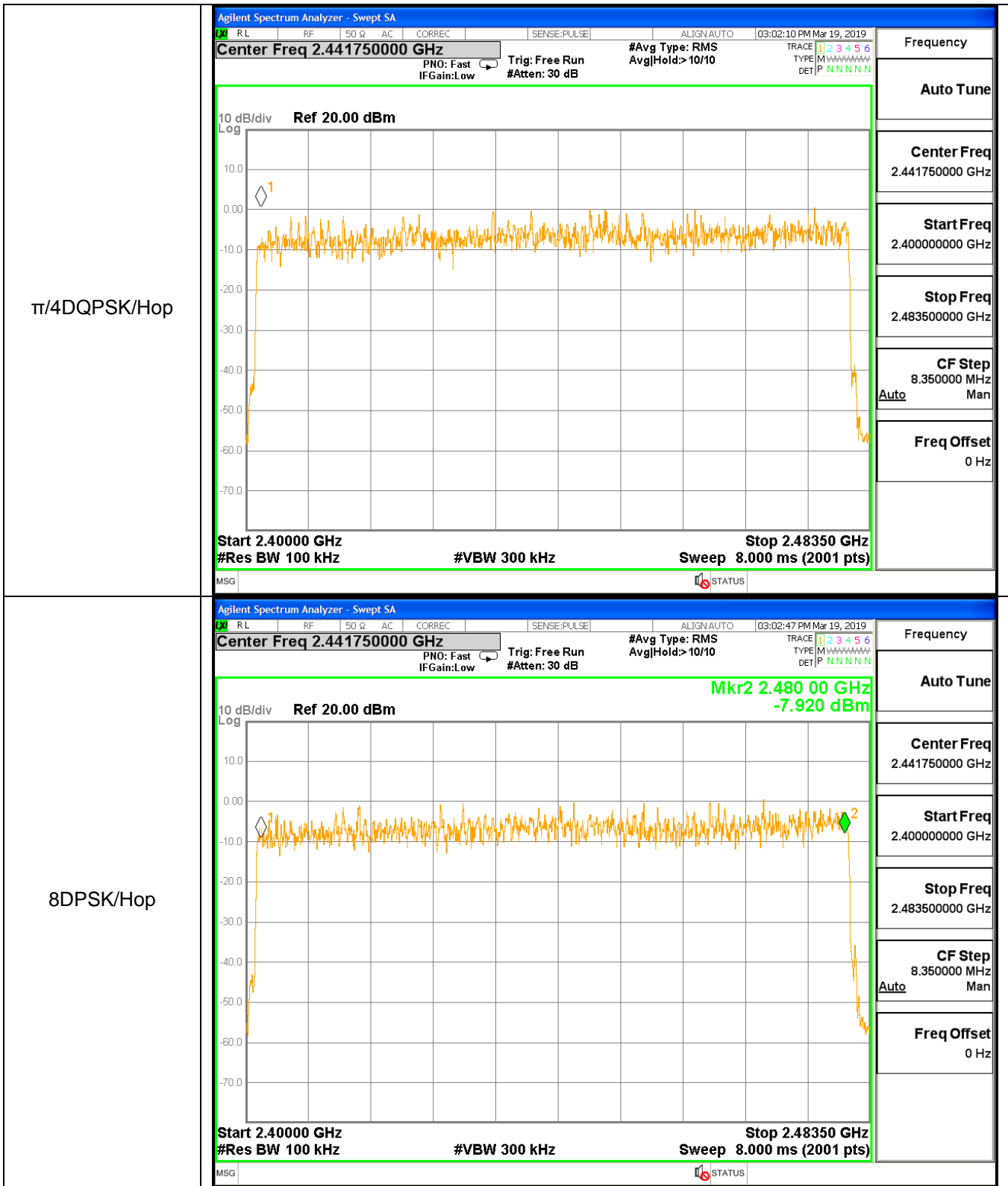


A.4 Hopping Channel Number

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

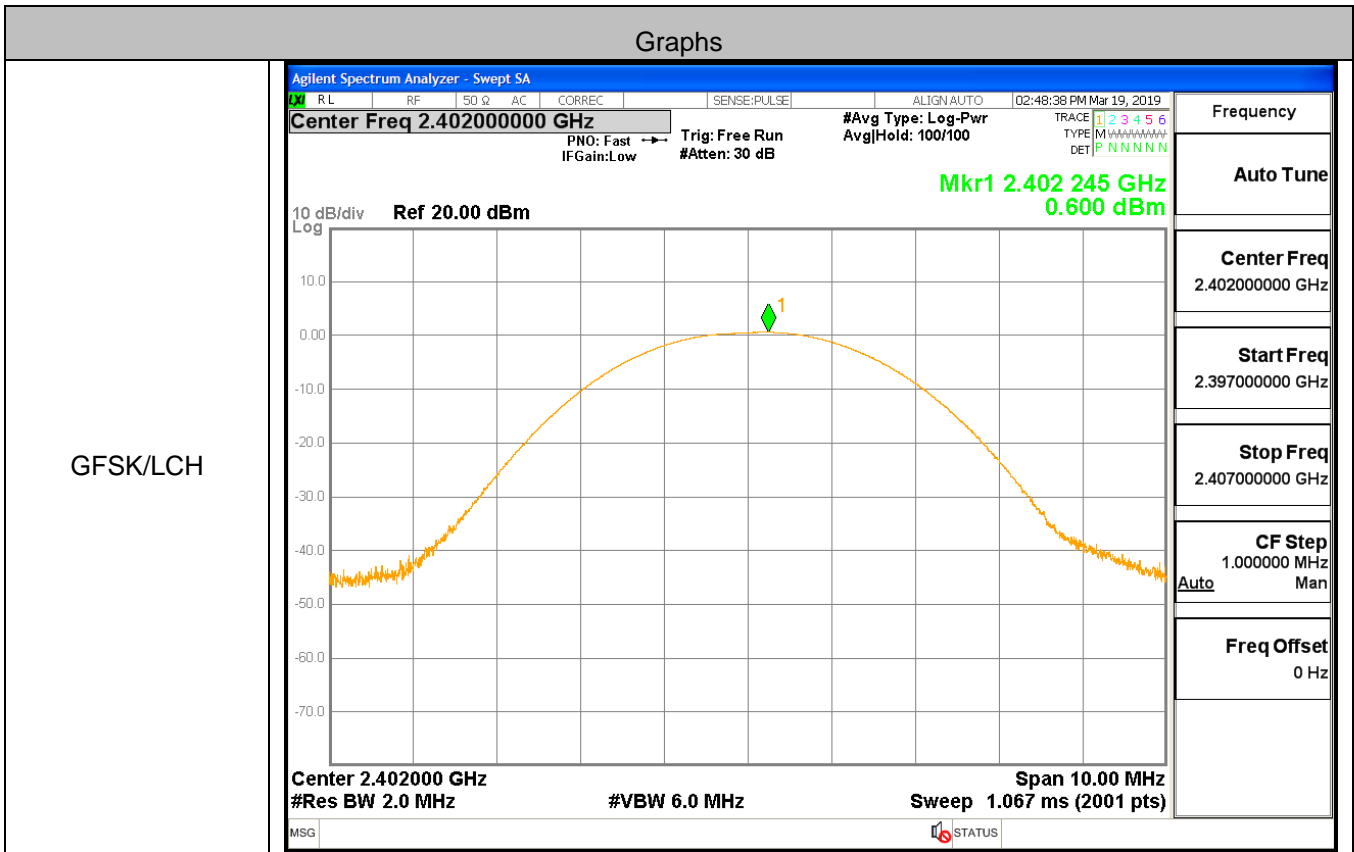


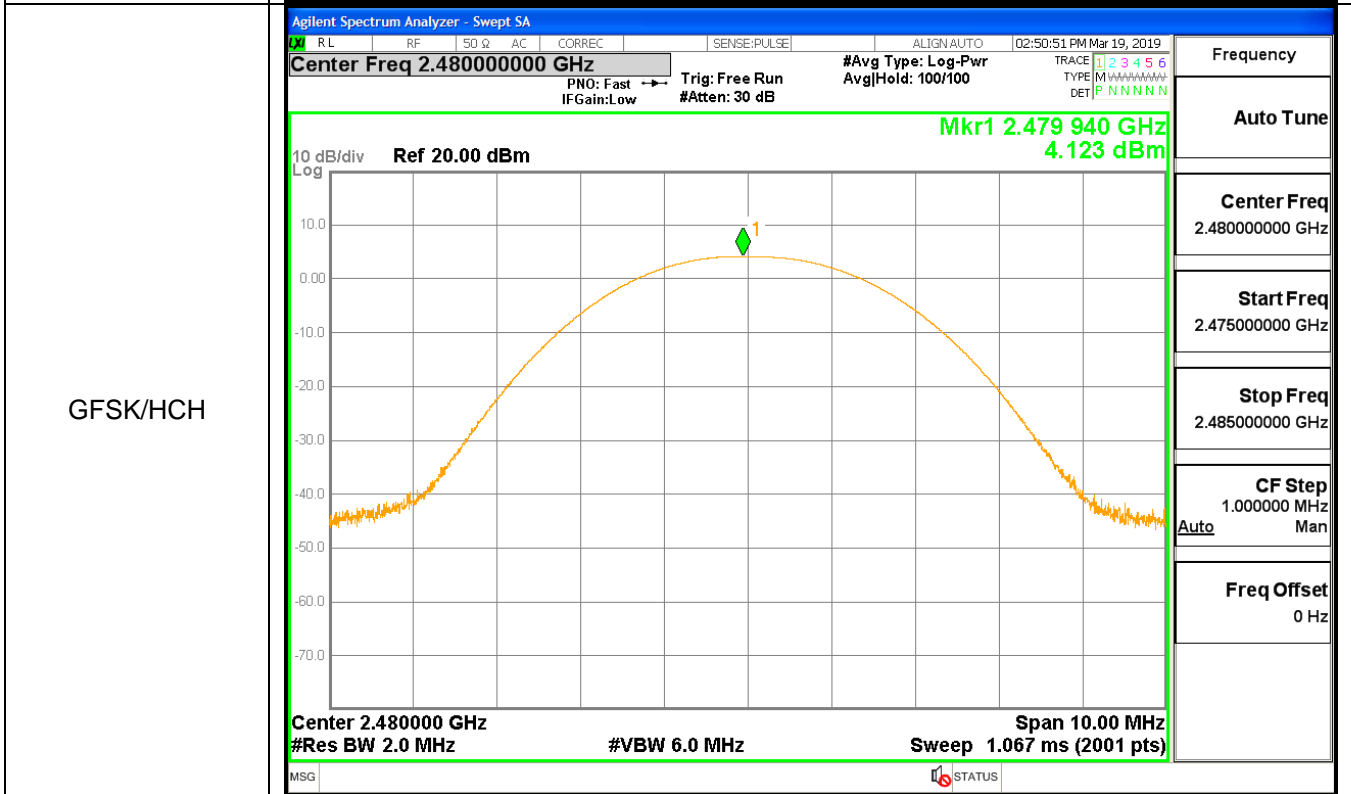
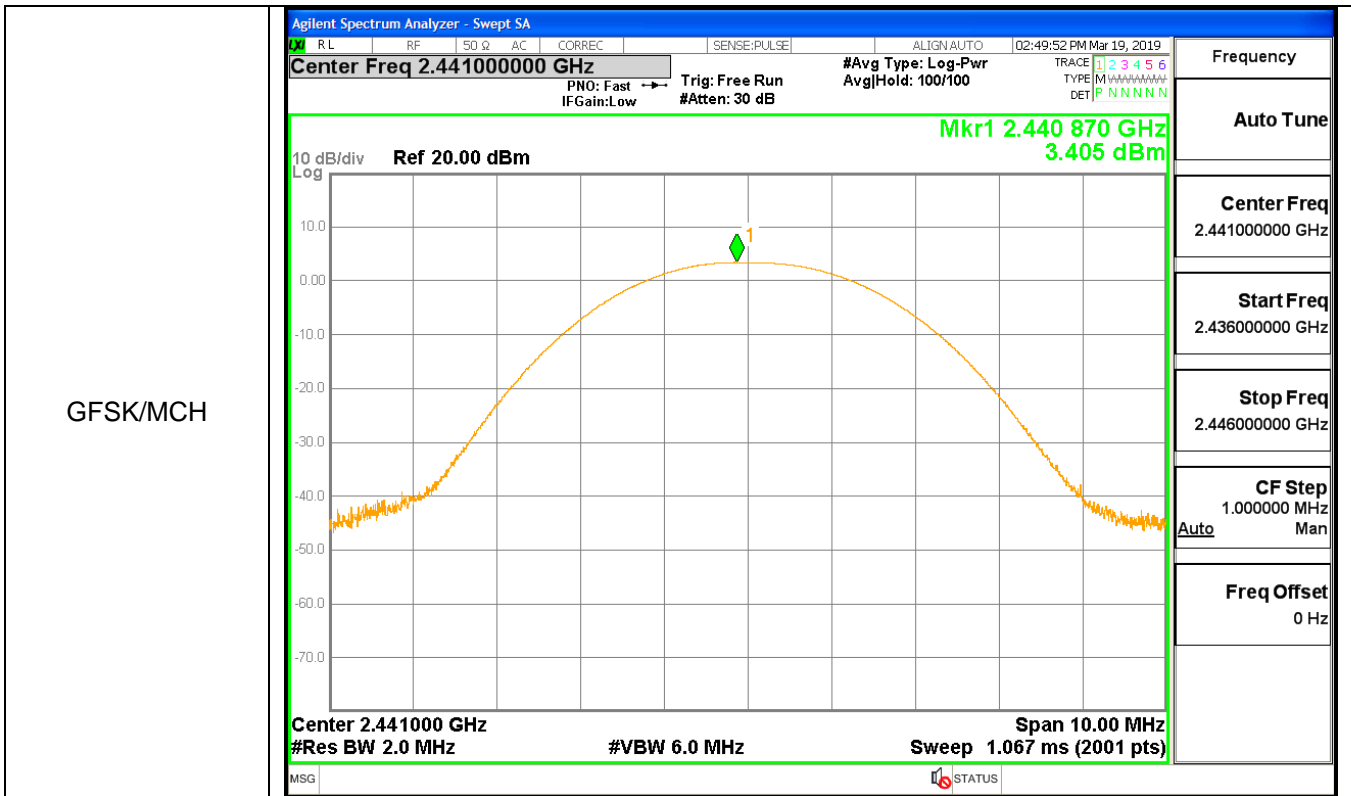


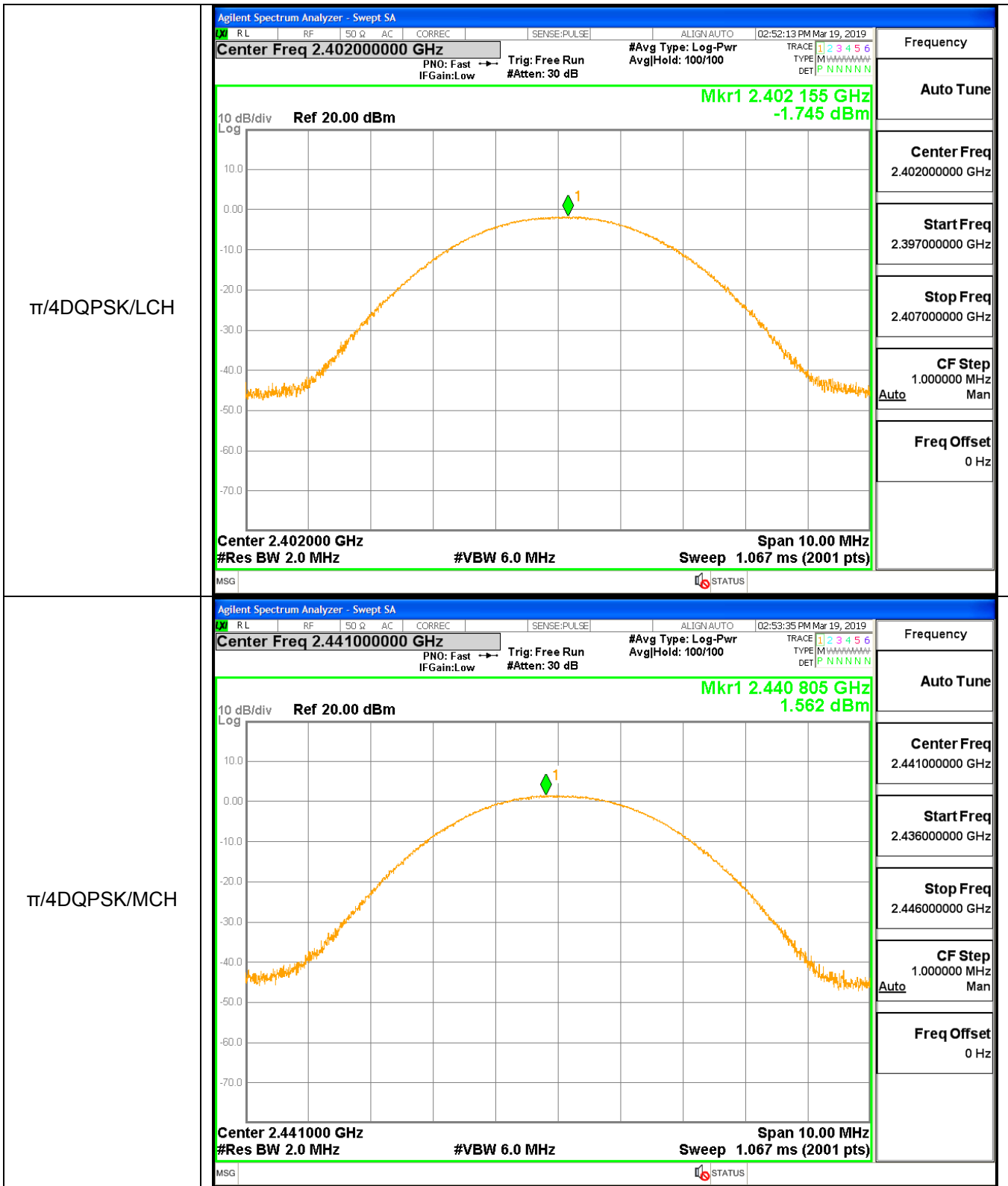
A.5 Conducted Peak Output Power

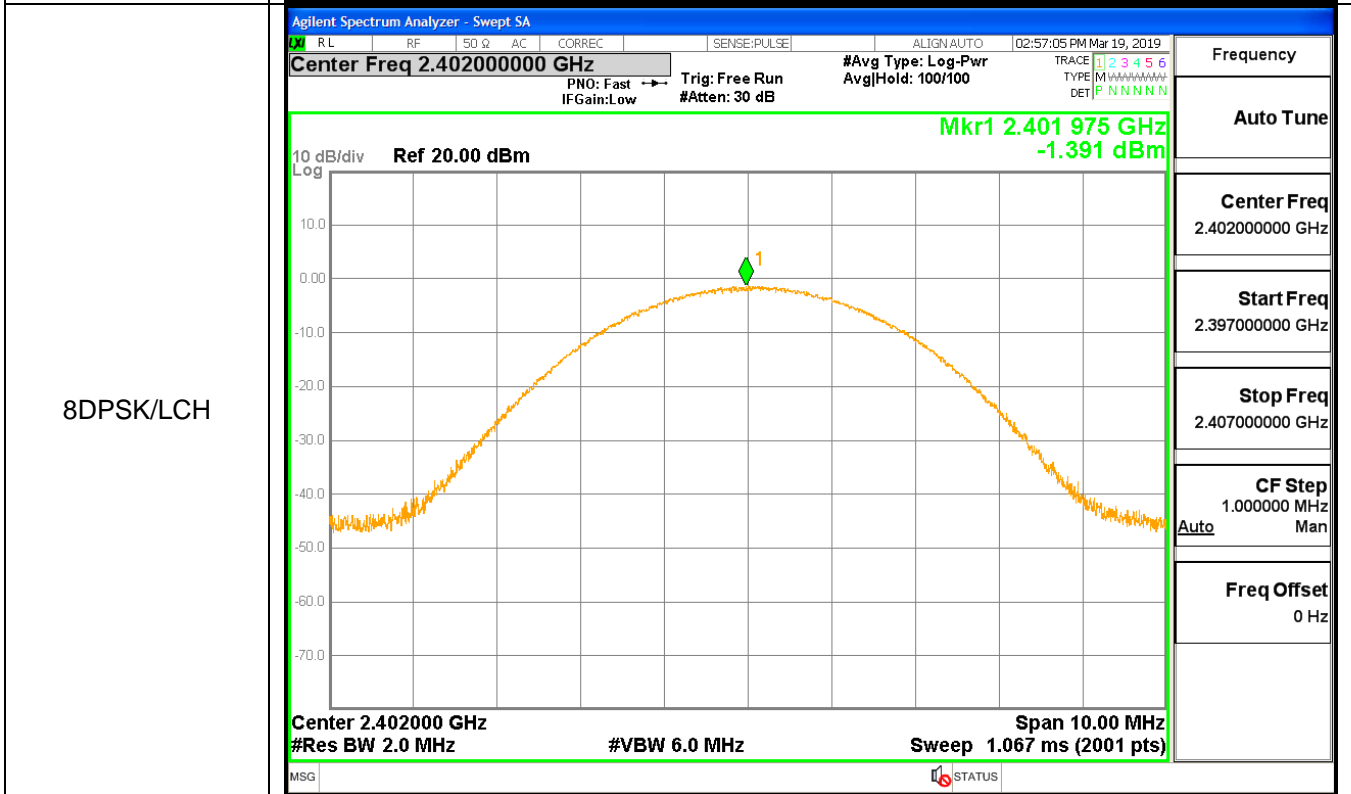
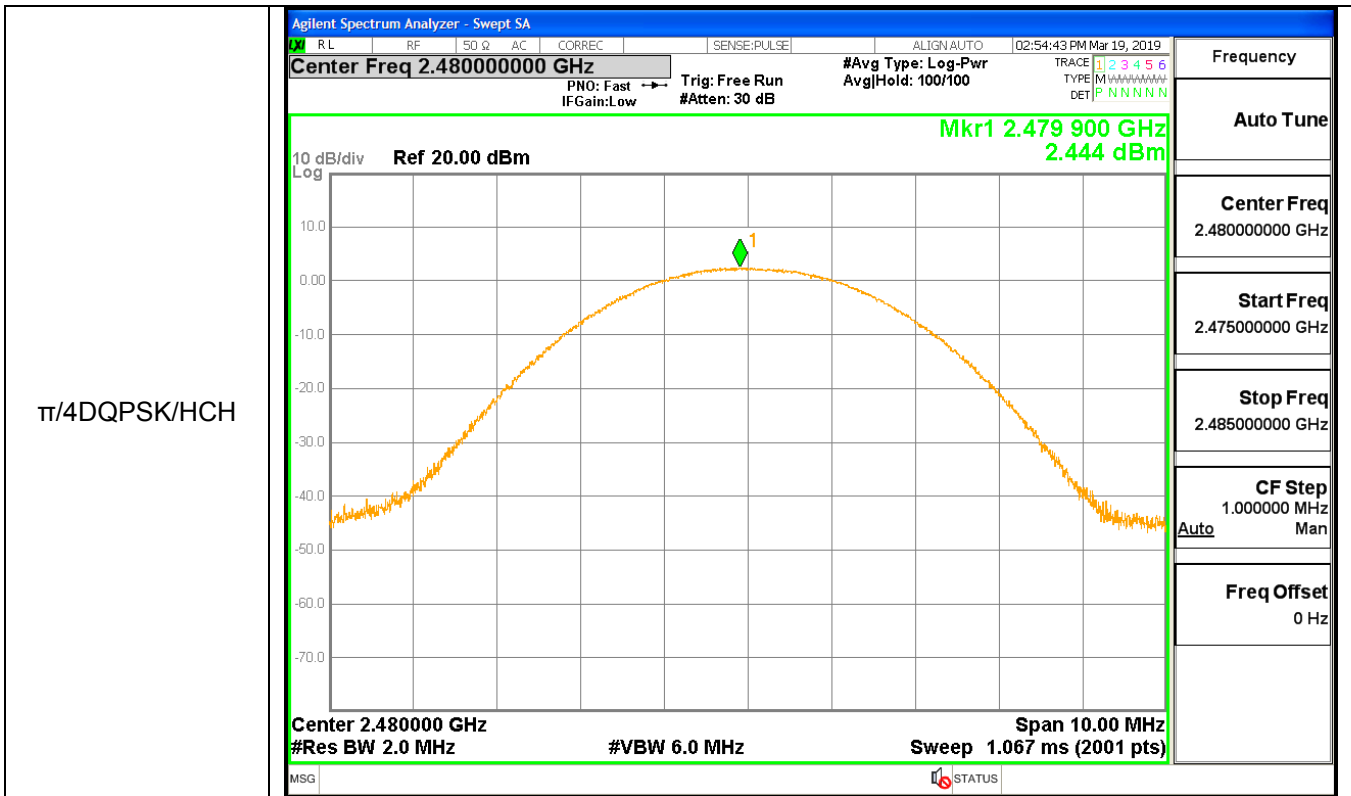
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.600	21	PASS
GFSK	MCH	3.405	21	PASS
GFSK	HCH	4.123	21	PASS
$\pi/4$ DQPSK	LCH	-1.745	21	PASS
$\pi/4$ DQPSK	MCH	1.562	21	PASS
$\pi/4$ DQPSK	HCH	2.444	21	PASS
8DPSK	LCH	-1.391	21	PASS
8DPSK	MCH	1.982	21	PASS
8DPSK	HCH	2.867	21	PASS

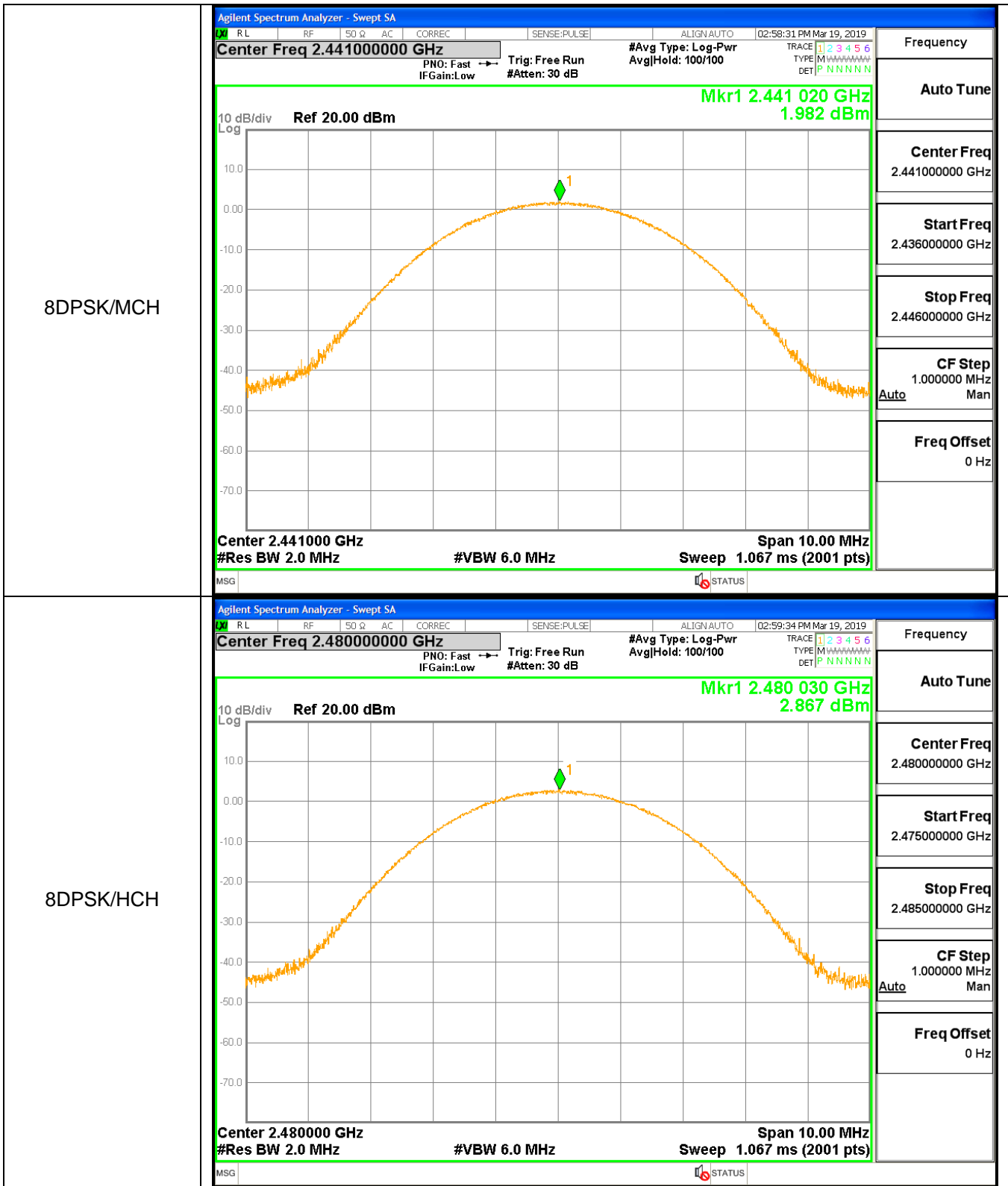
Test Graph









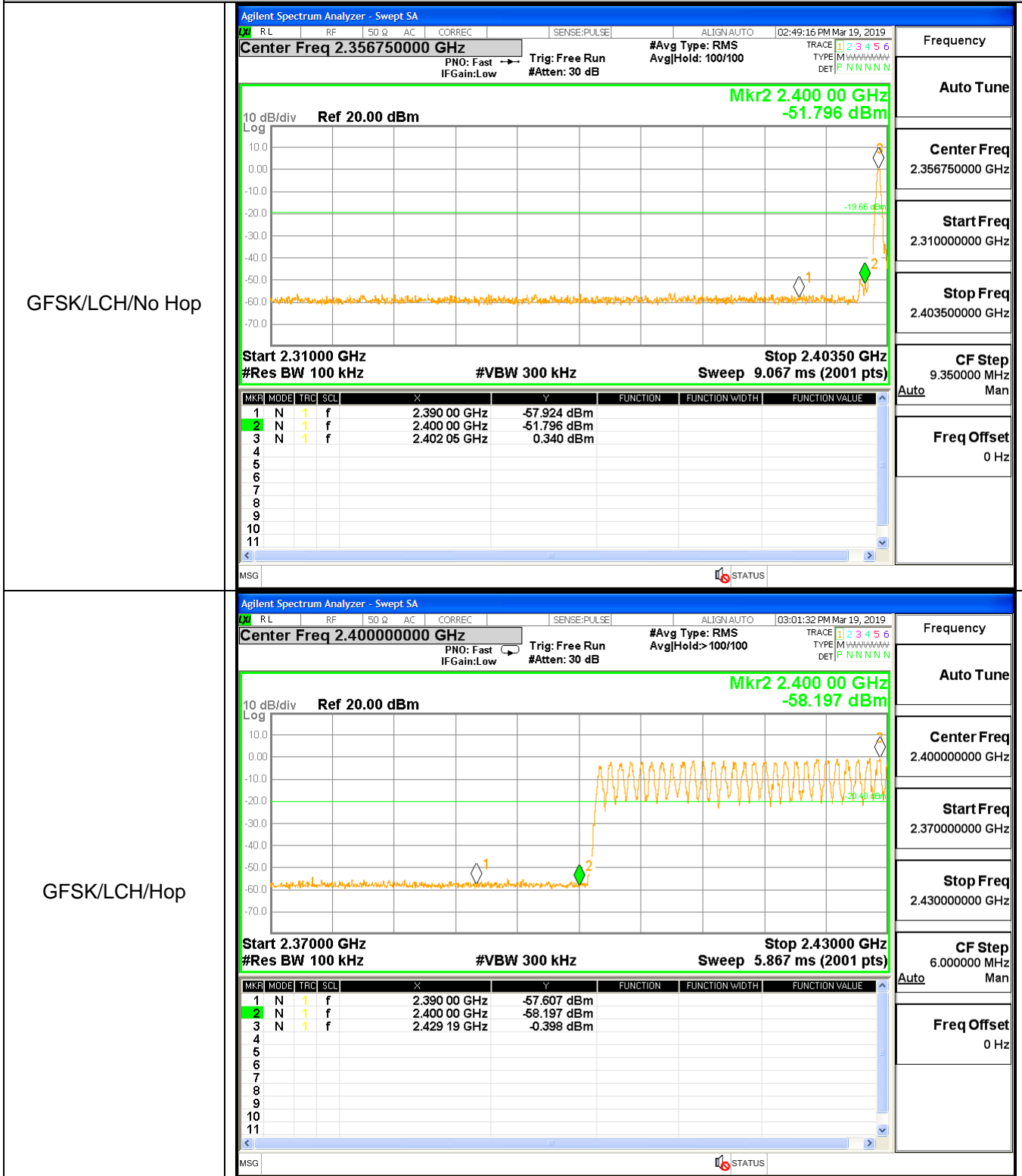


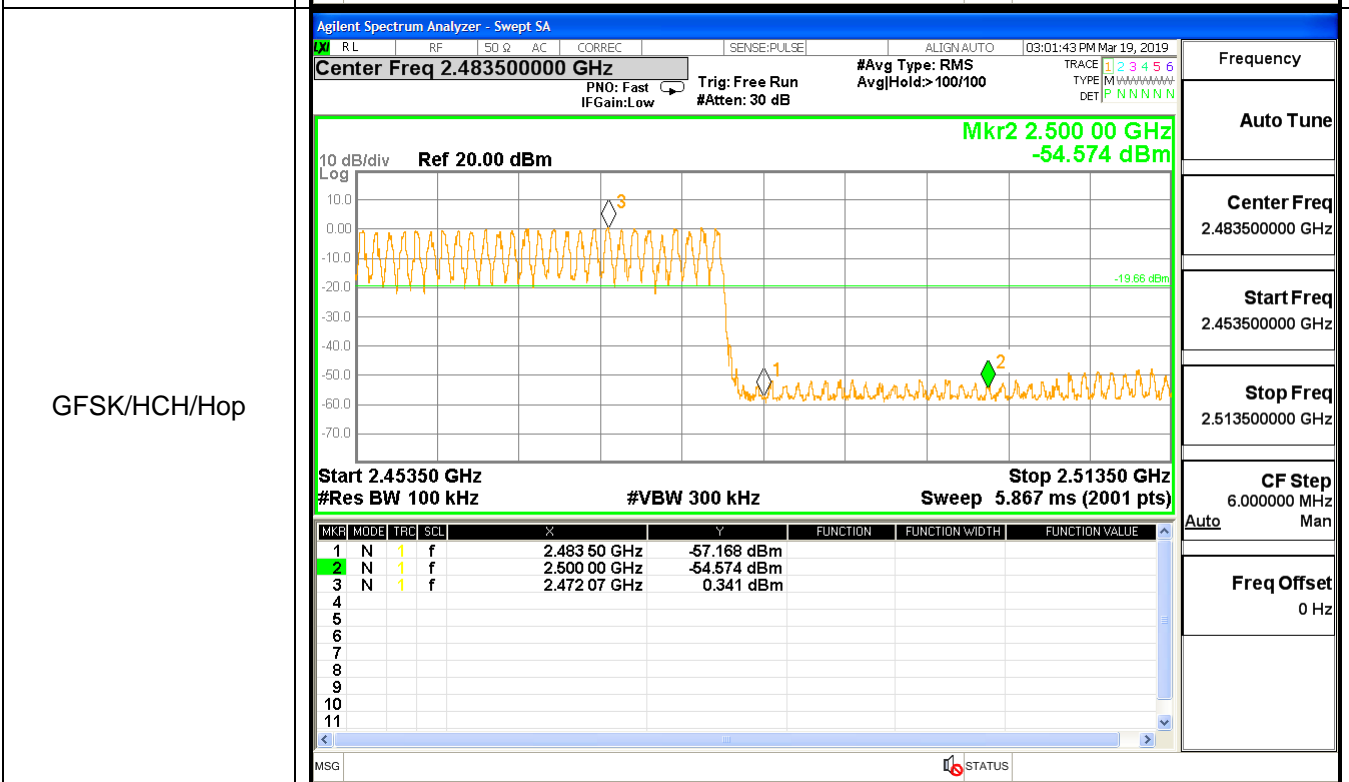
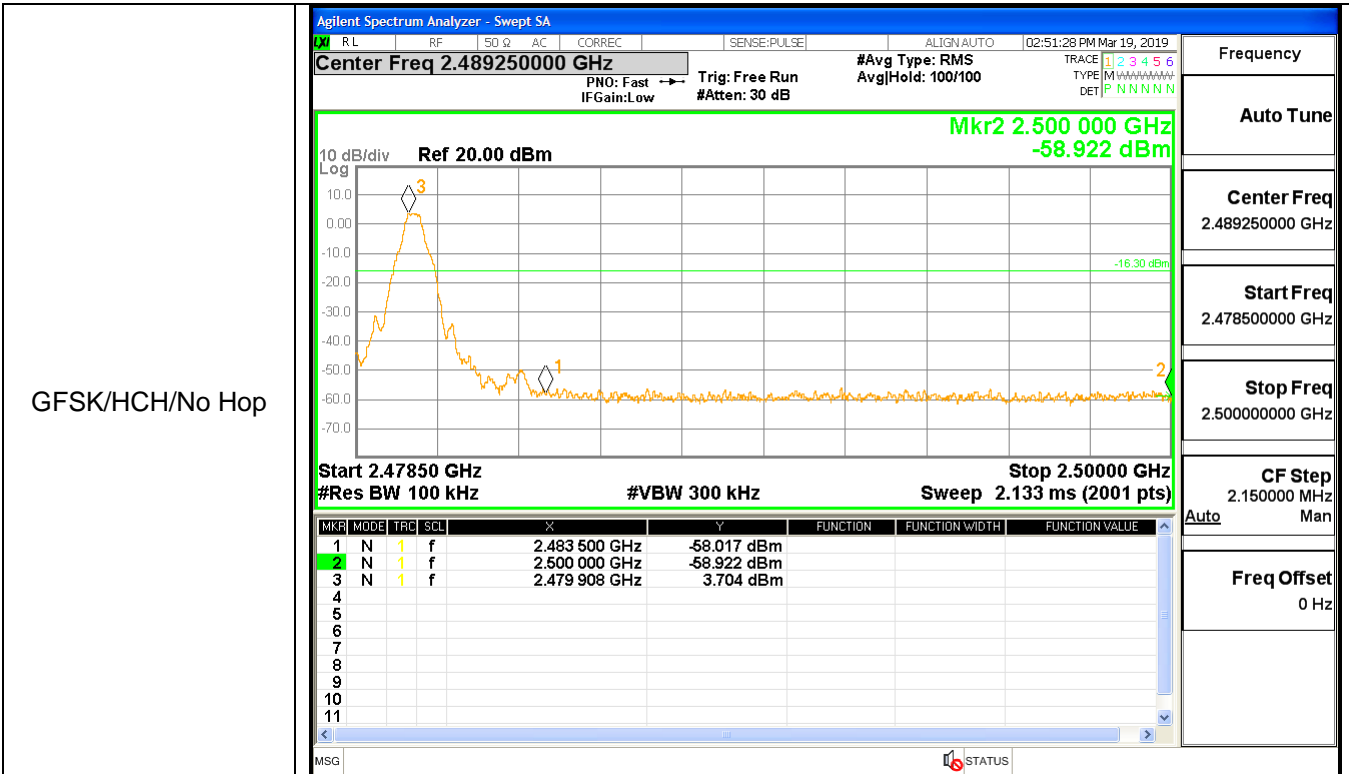
A.6 Band-edge for RF Conducted Emissions

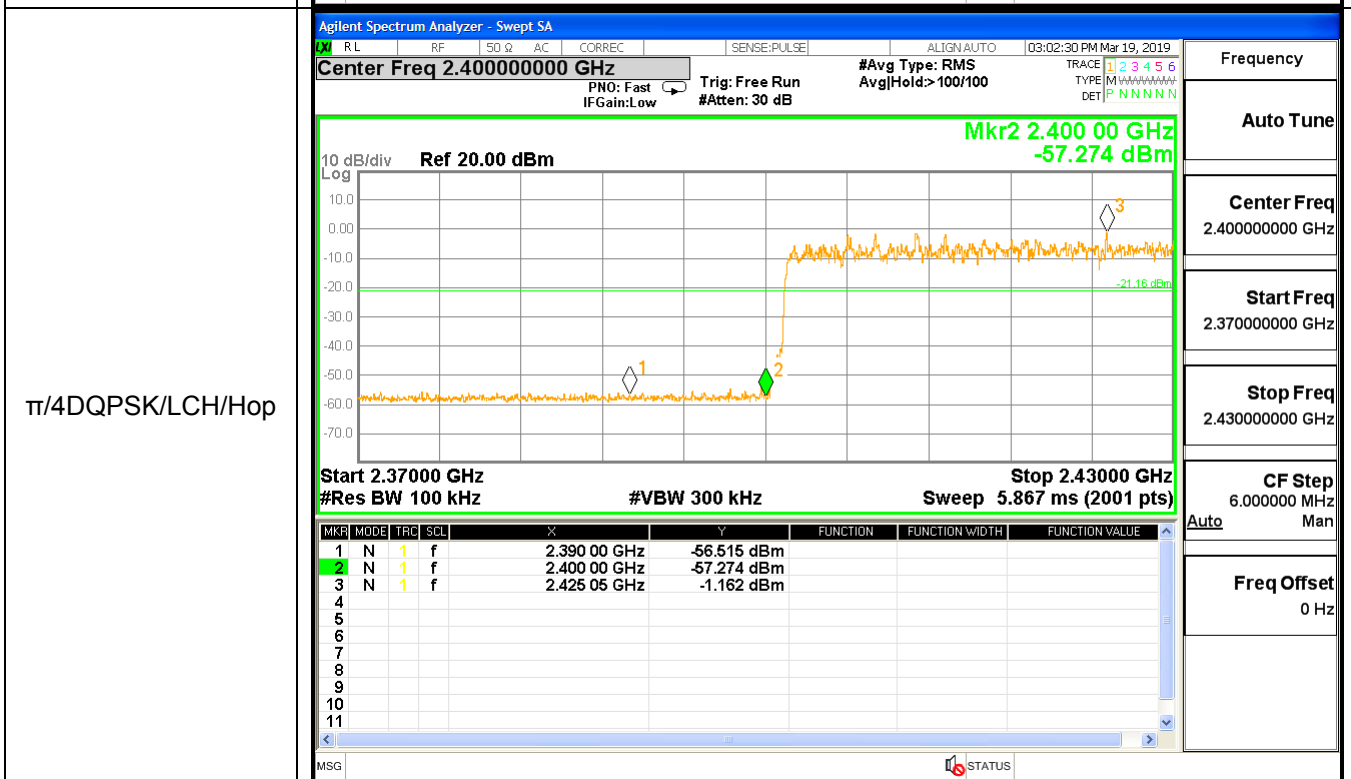
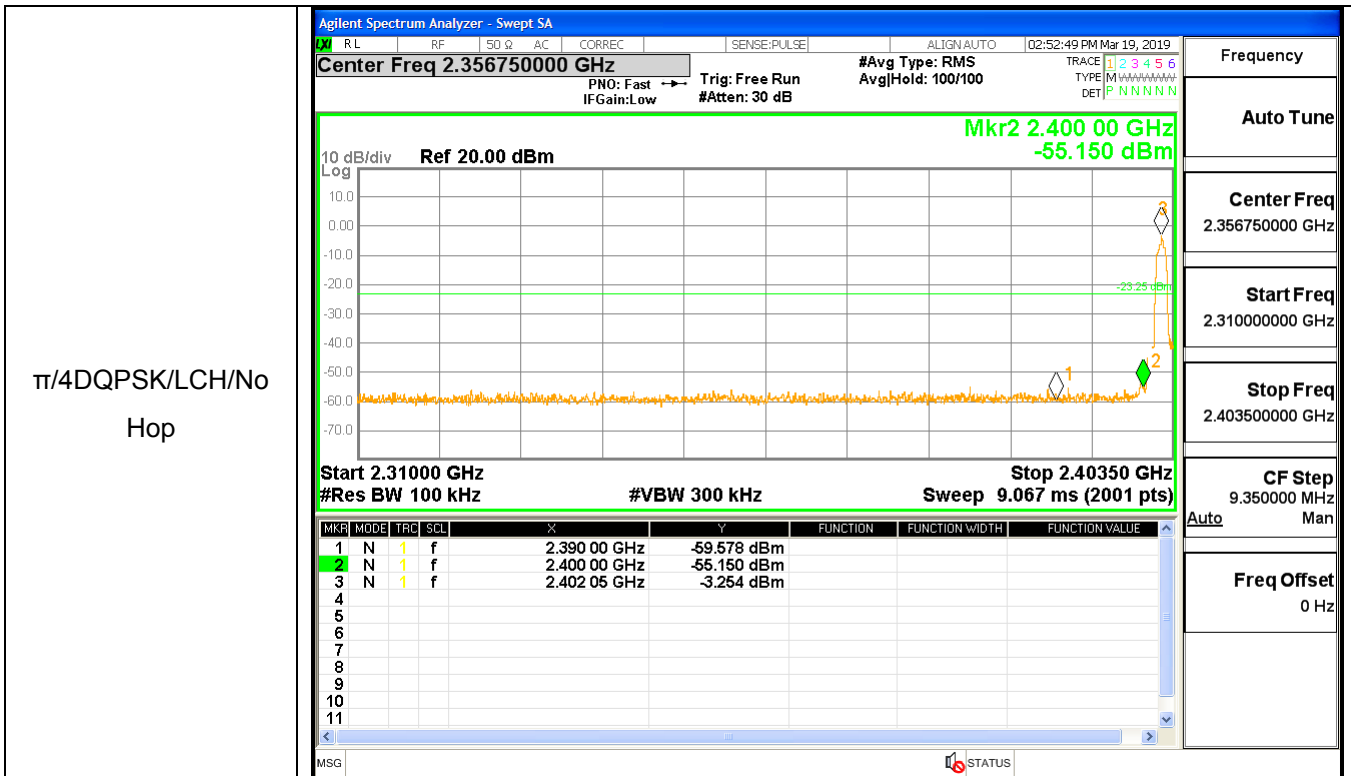
Type	Carrier Frequency(MHz)	Frequency(MHz)	Carrier Frequency Power [dBm]	Bandedge Peak(dBm)	Upper limit(dBm)	Conclusion
1DH5	2402	2390	0.340	-57.92	-19.660	Pass
1DH5	2402	2400	0.340	-51.80	-19.660	Pass
1DH5-Hopping	2402	2390	-0.398	-57.61	-20.398	Pass
1DH5-Hopping	2402	2400	-0.398	-58.20	-20.398	Pass
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

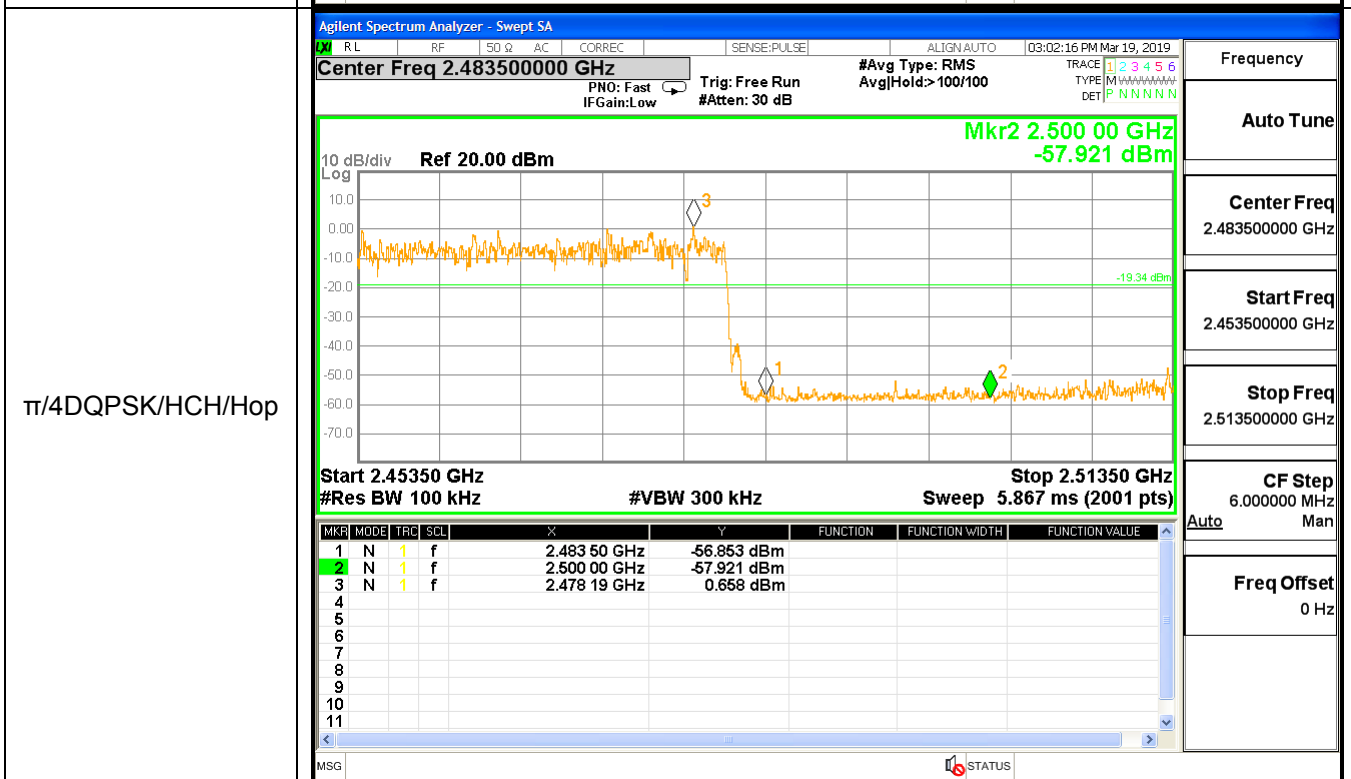
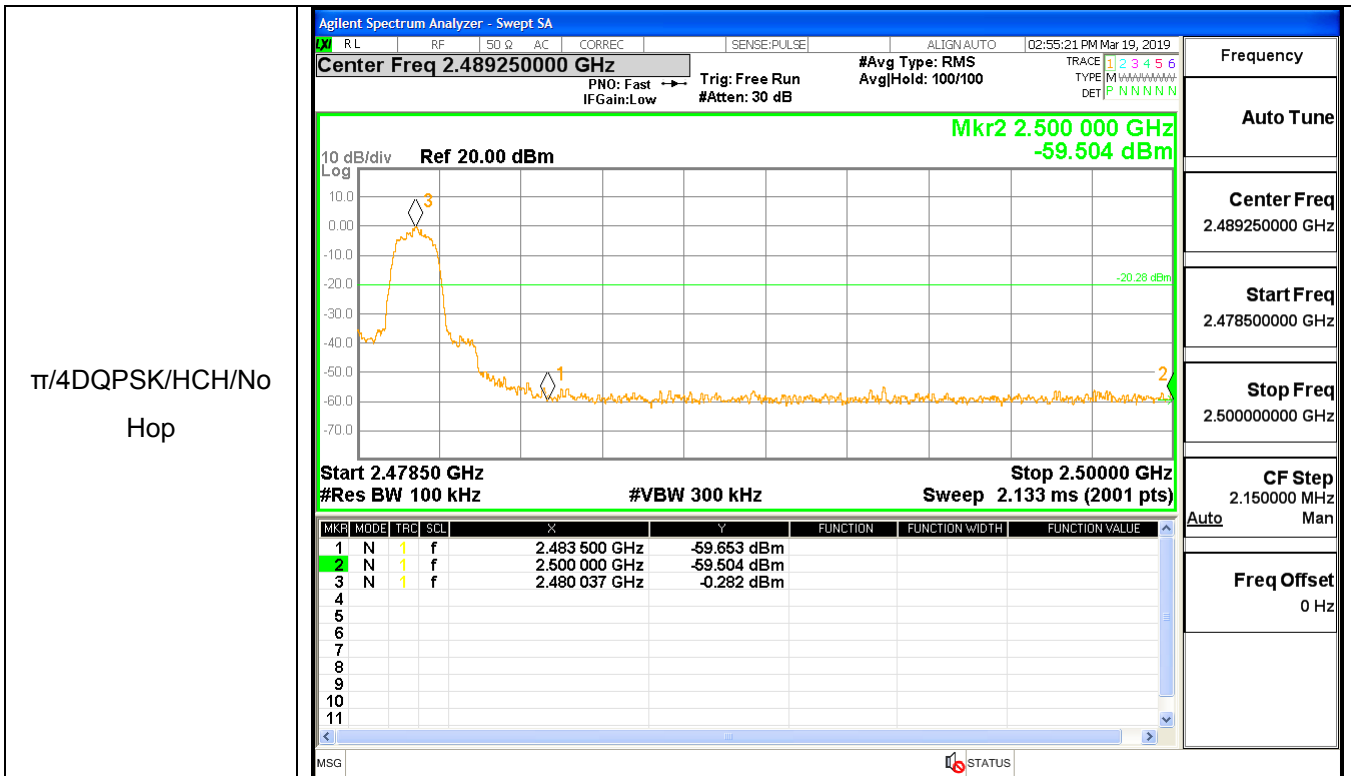
Test Graph

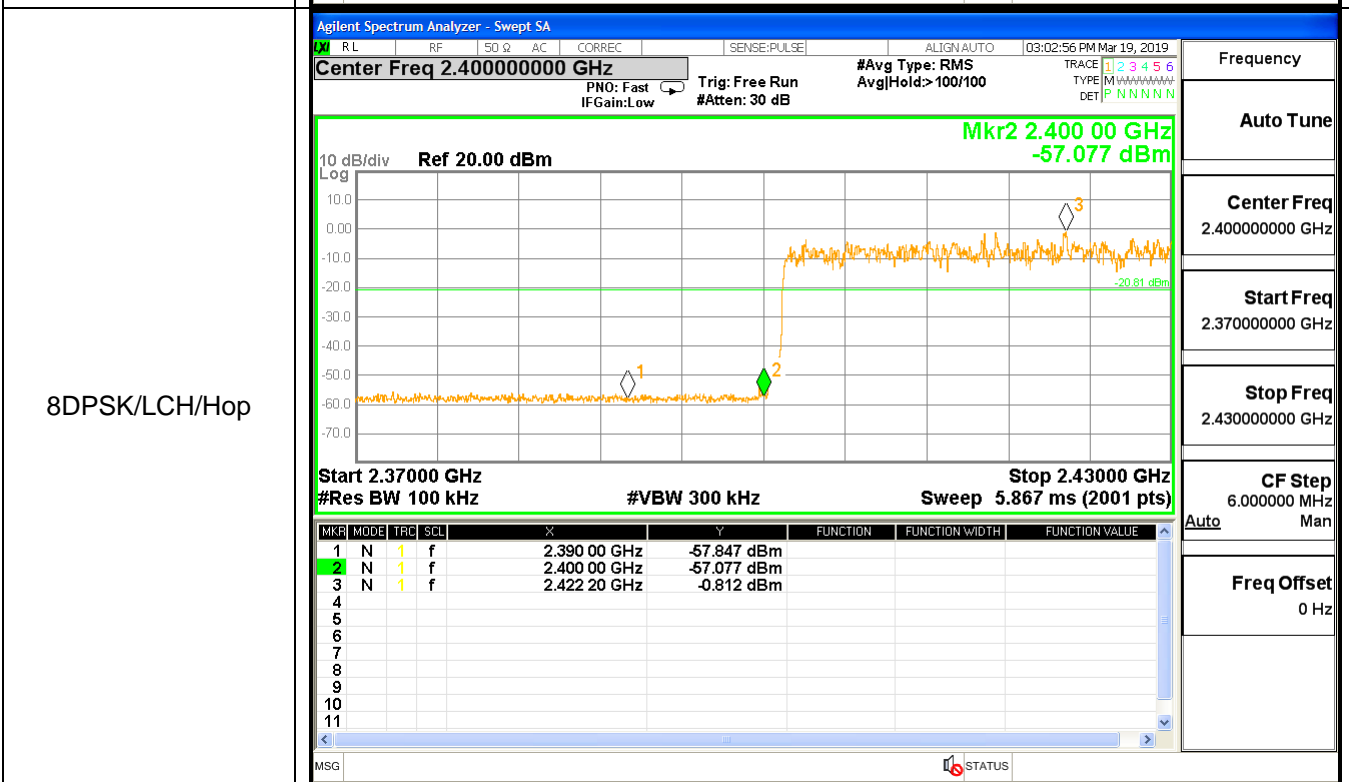
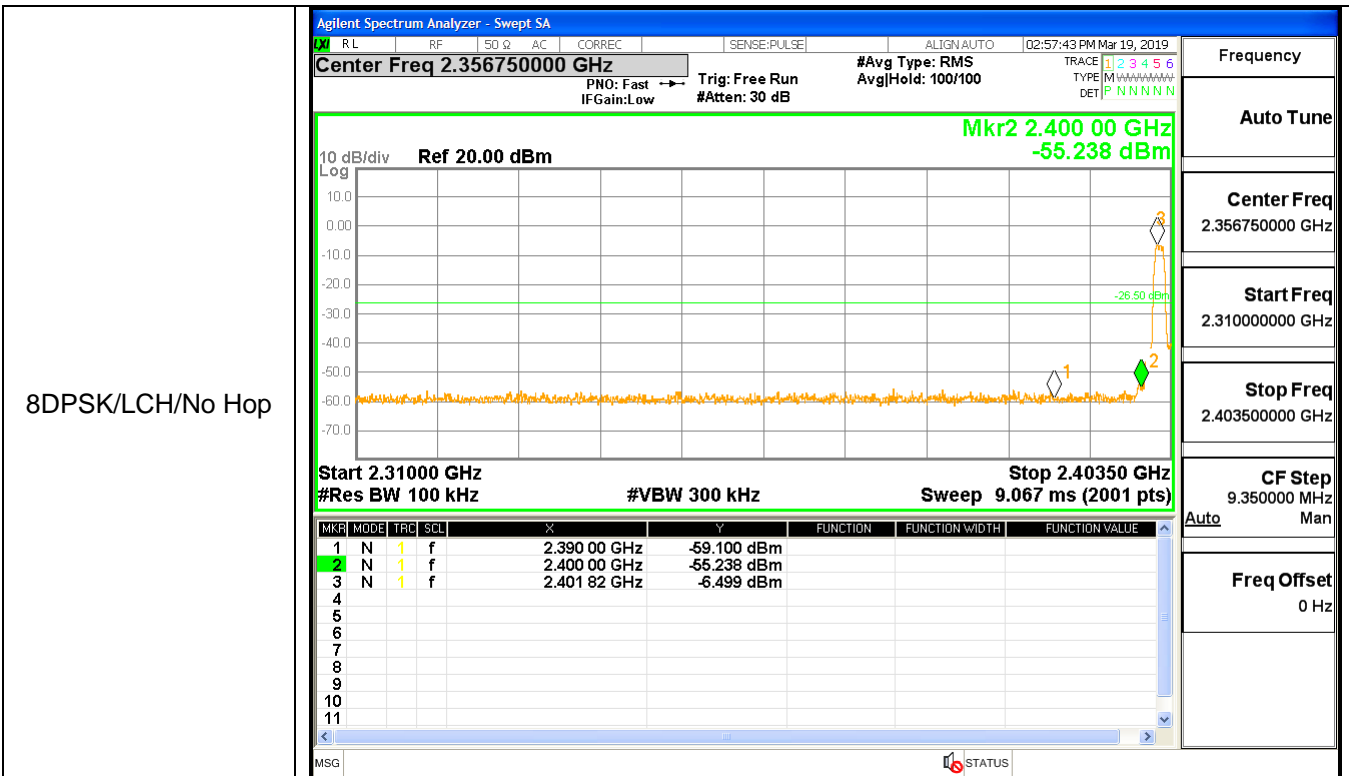
Graphs

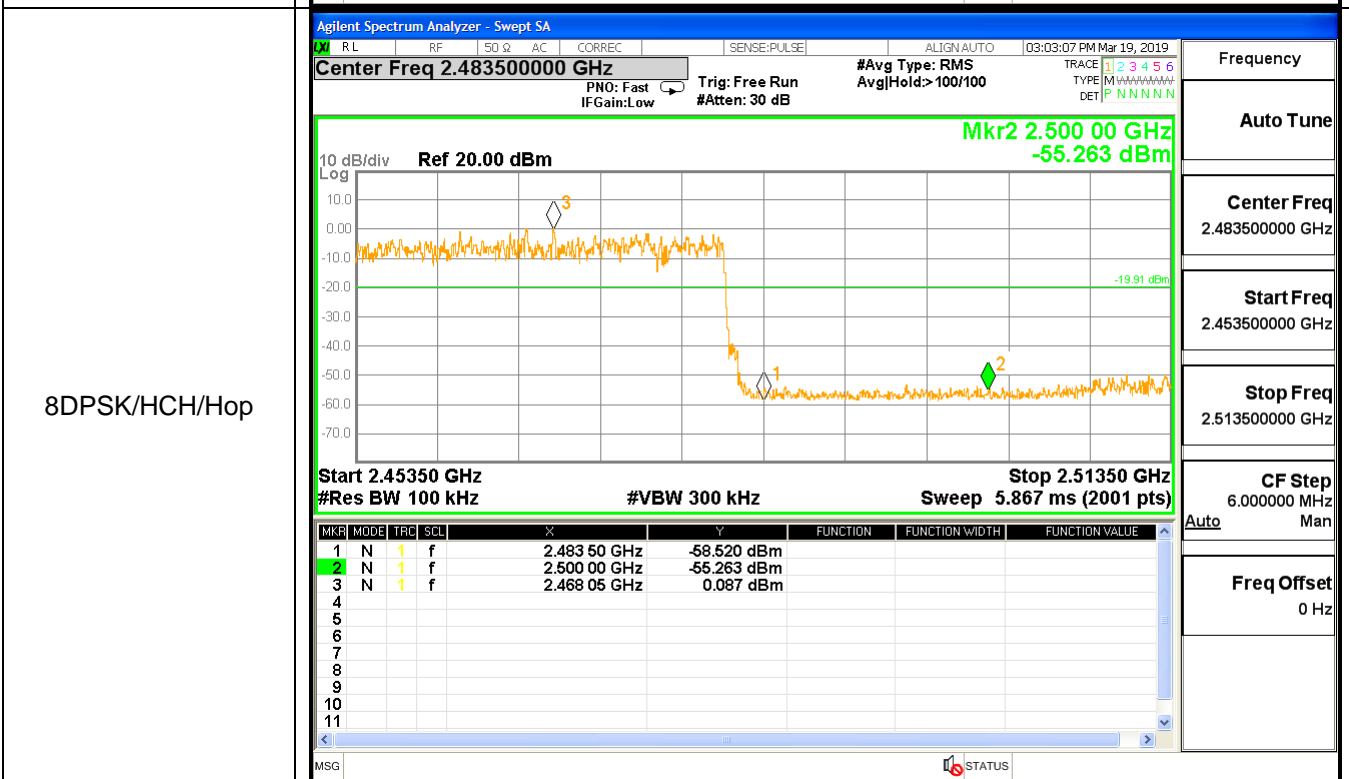
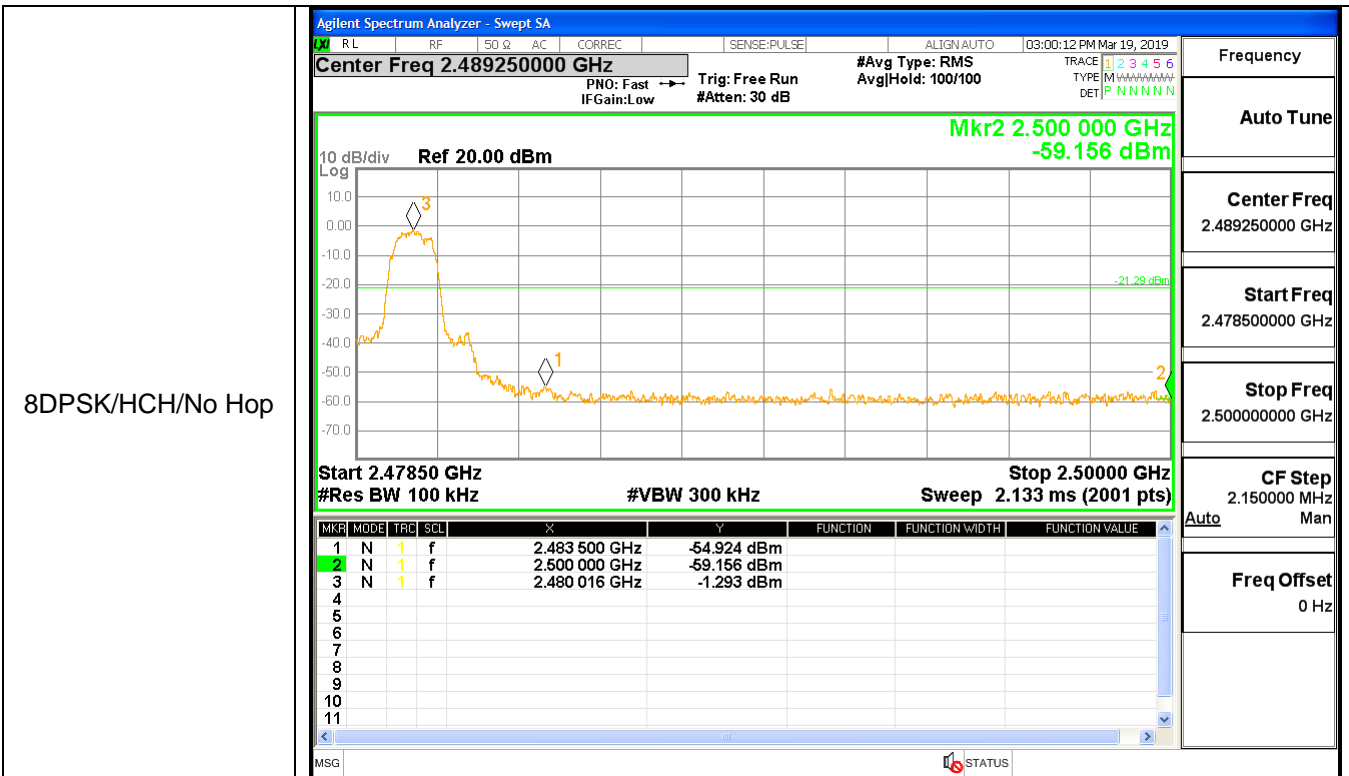




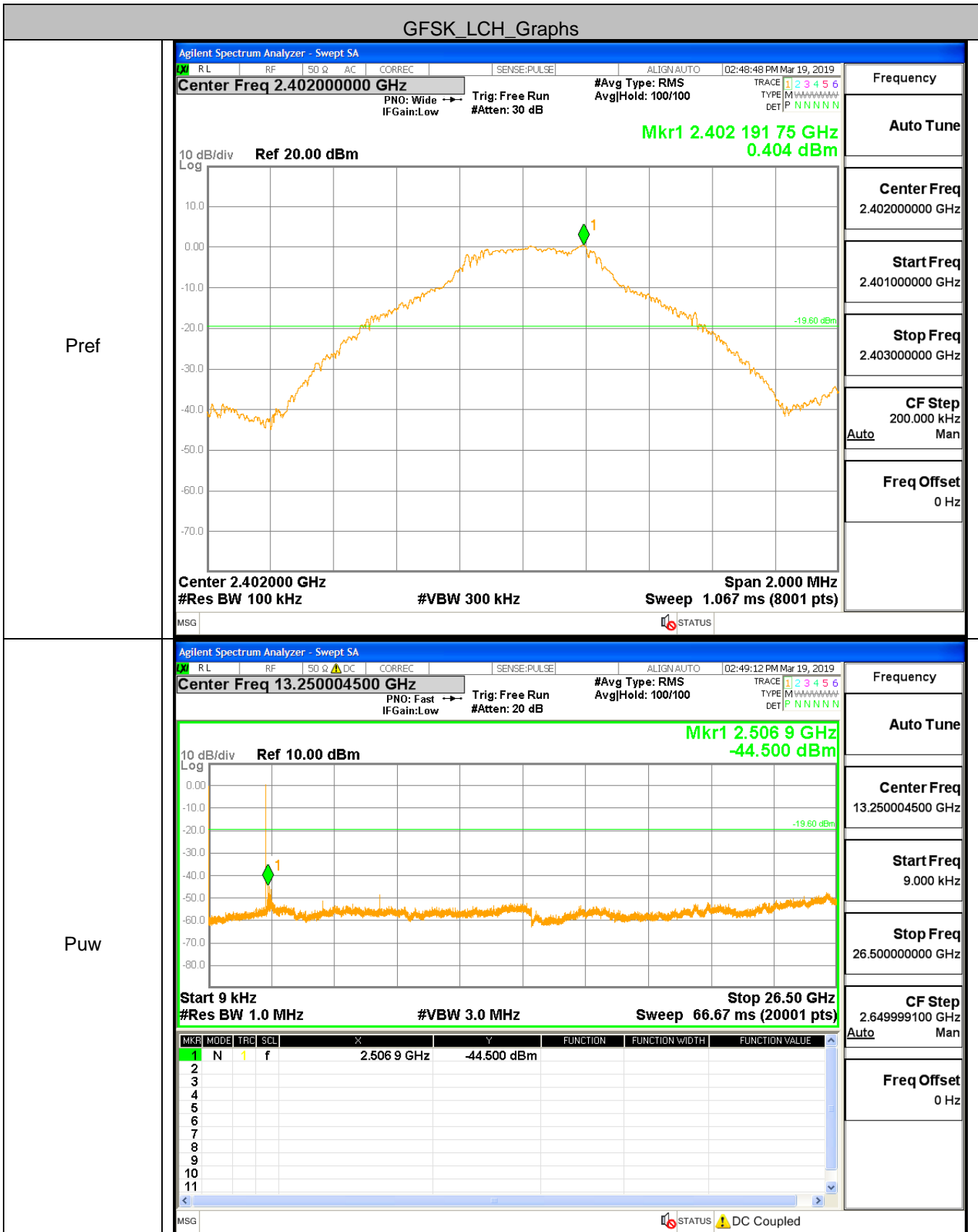




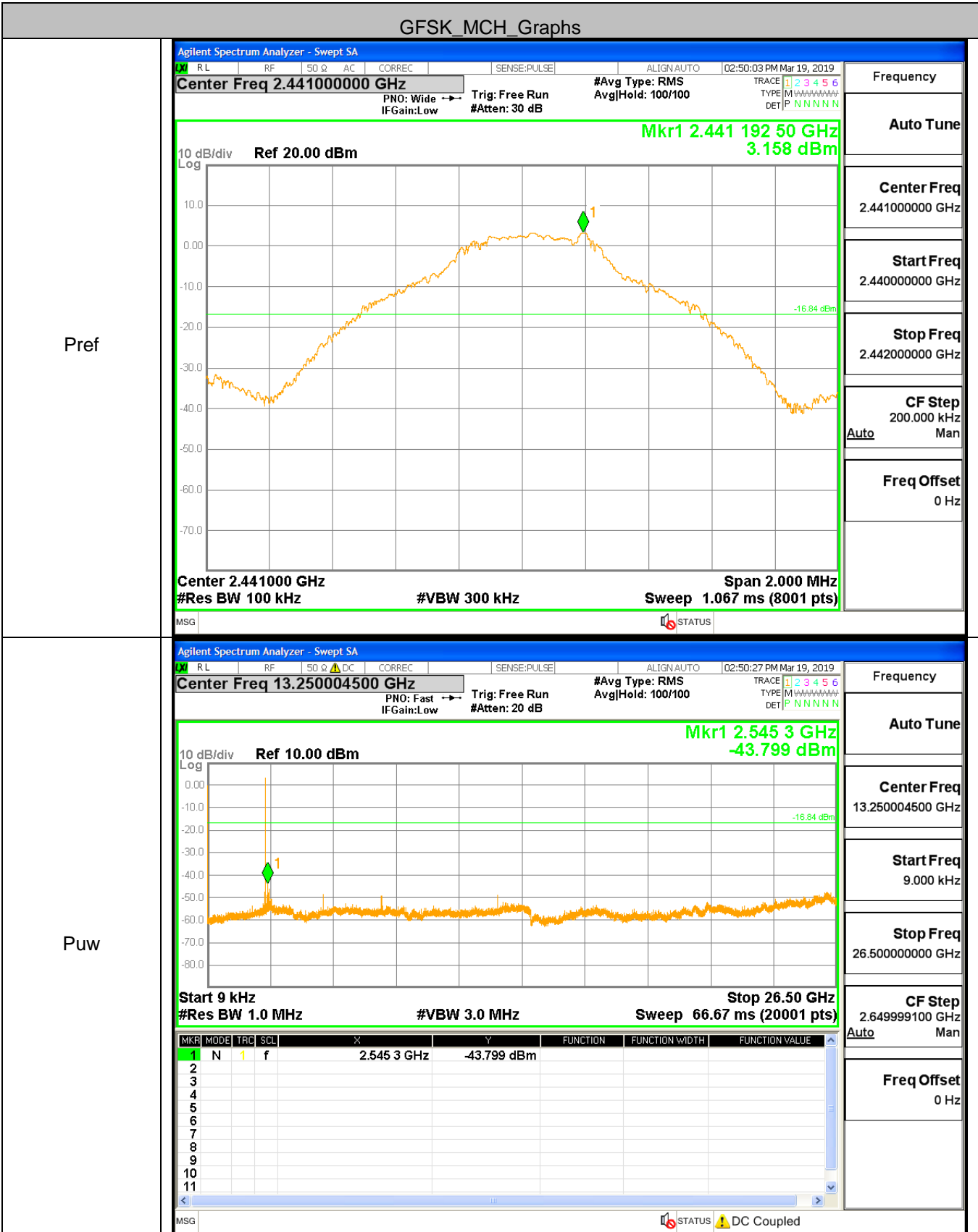




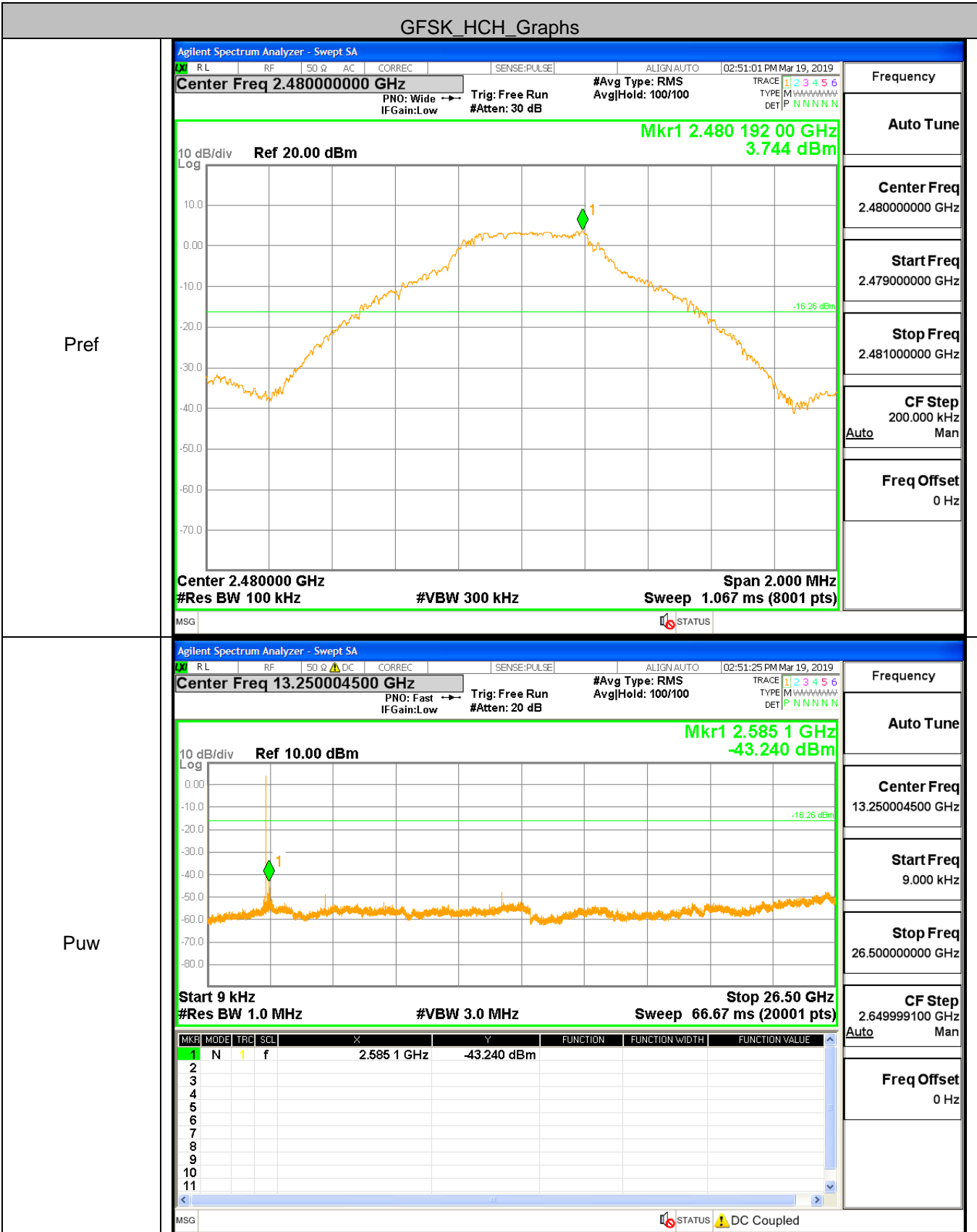
A.7 RF Conducted Spurious Emissions Test Graph



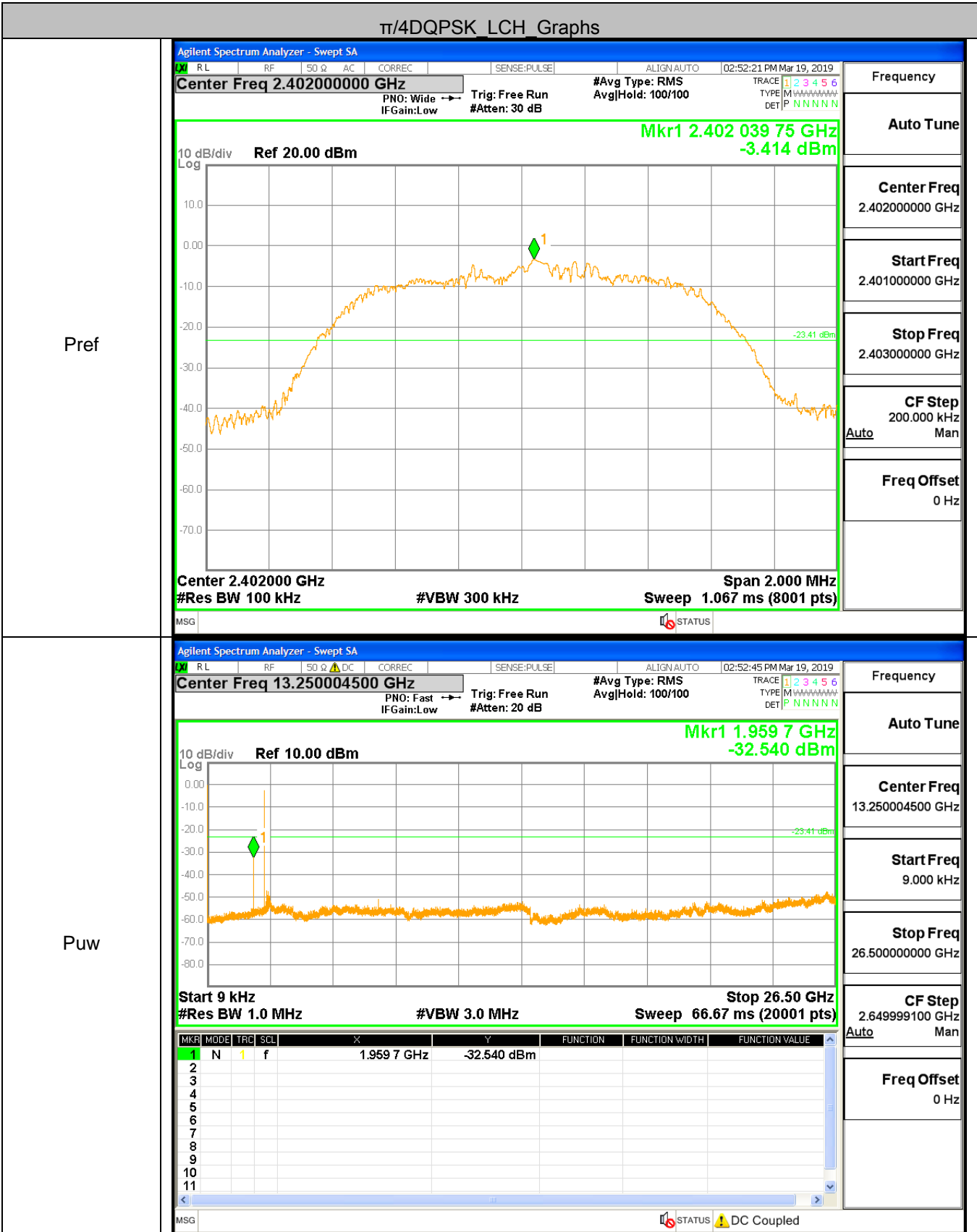
GFSK_MCH_Graphs



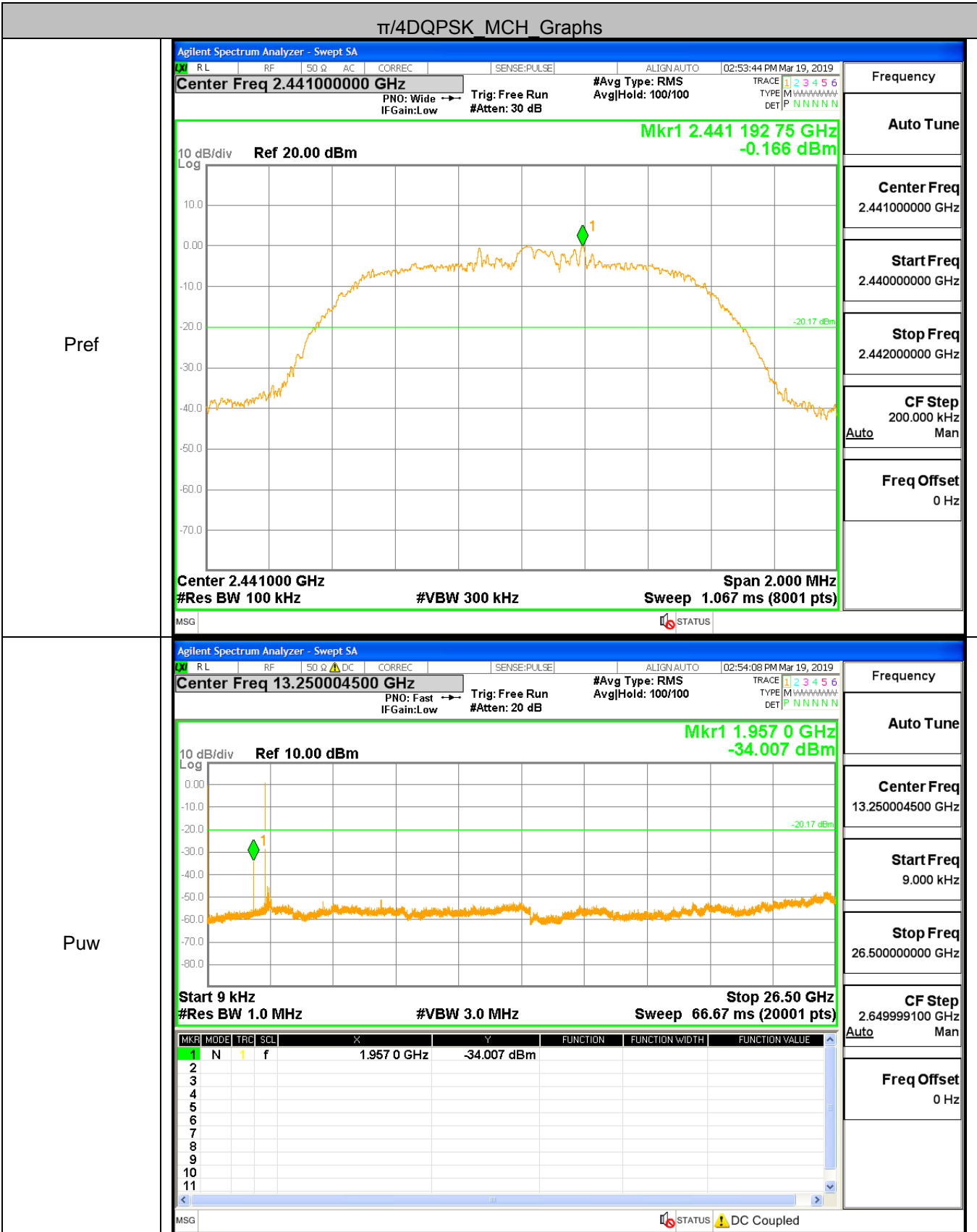
GFSK_HCH_Graphs



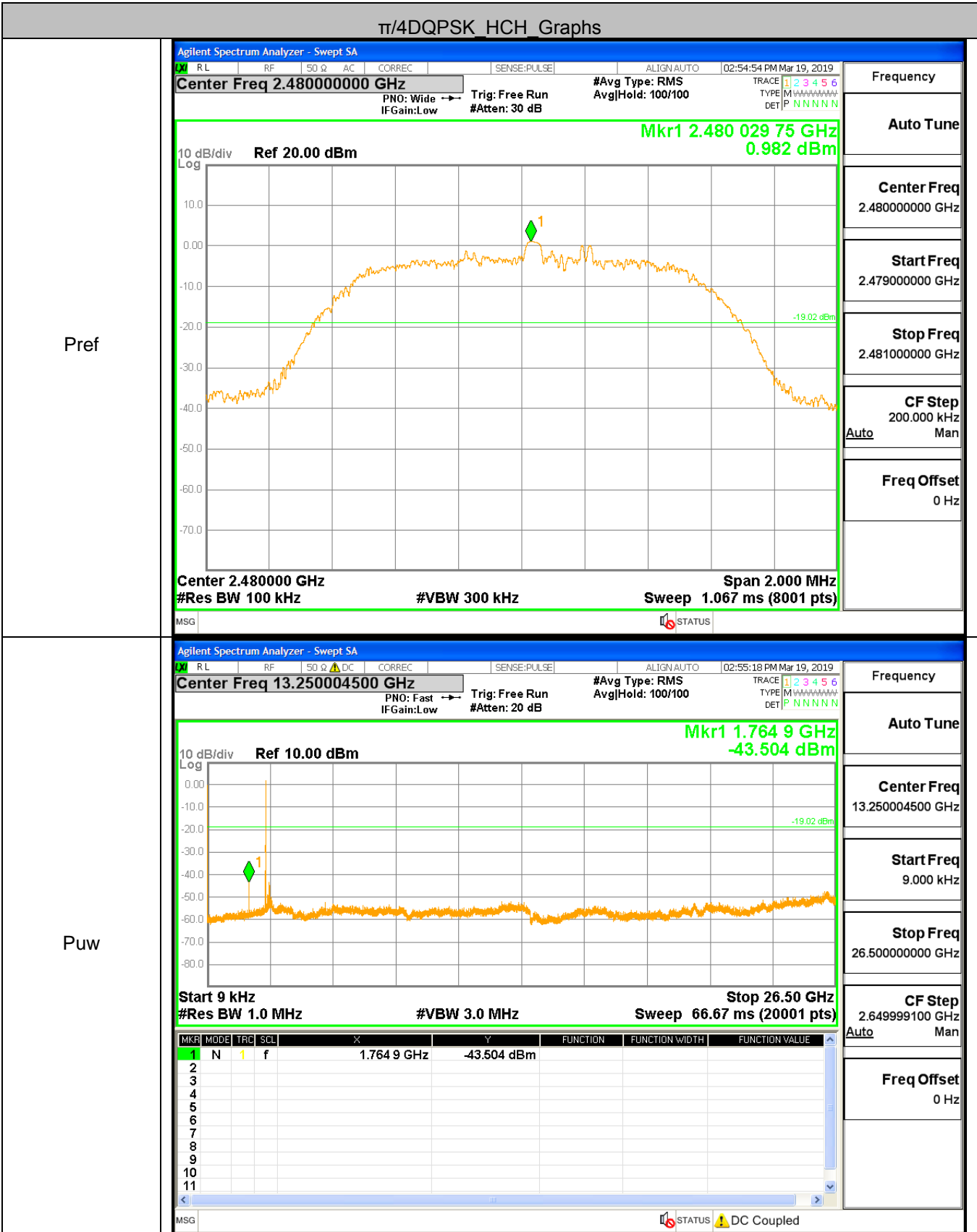
$\pi/4$ DQPSK LCH Graphs



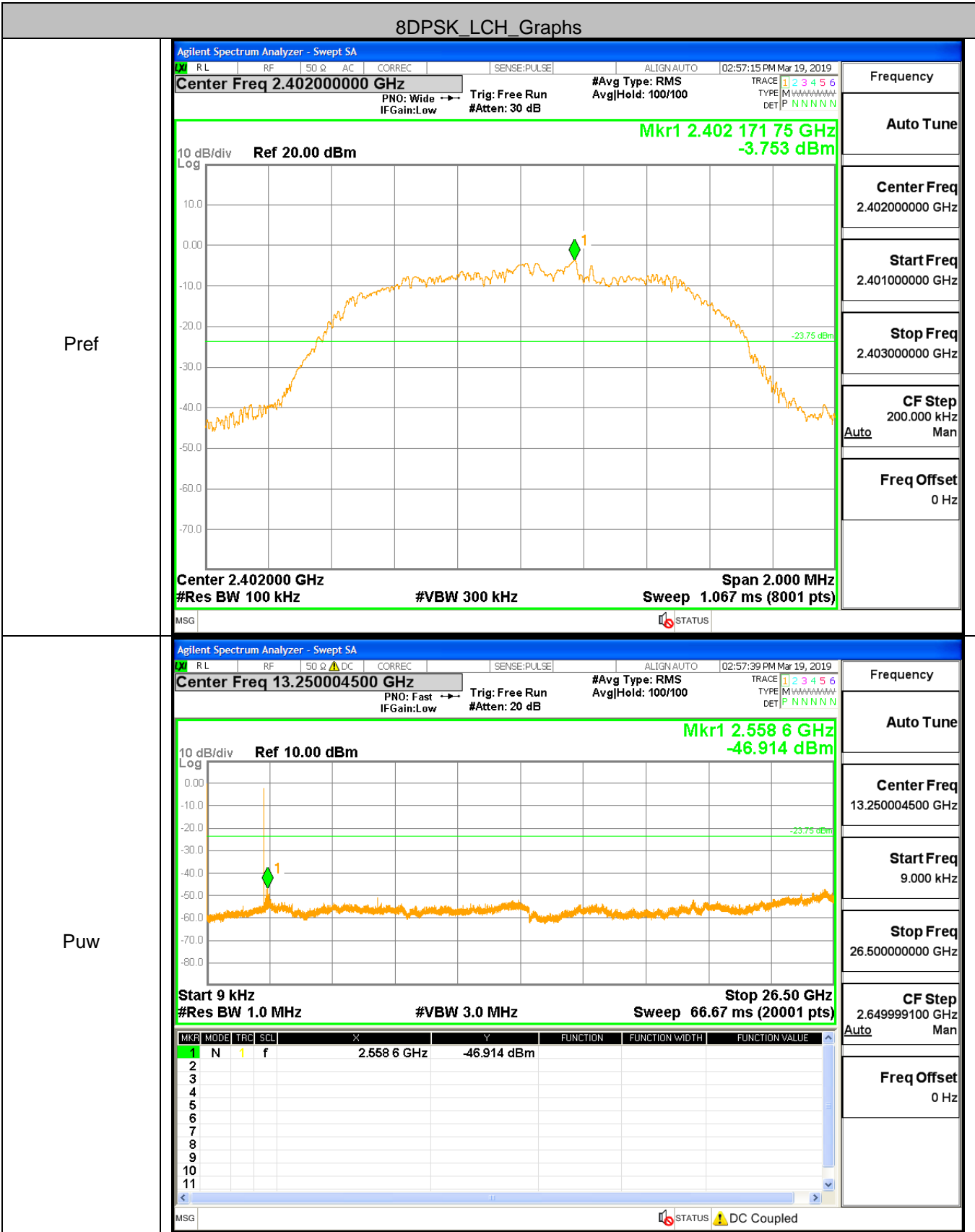
$\pi/4$ DQPSK MCH Graphs



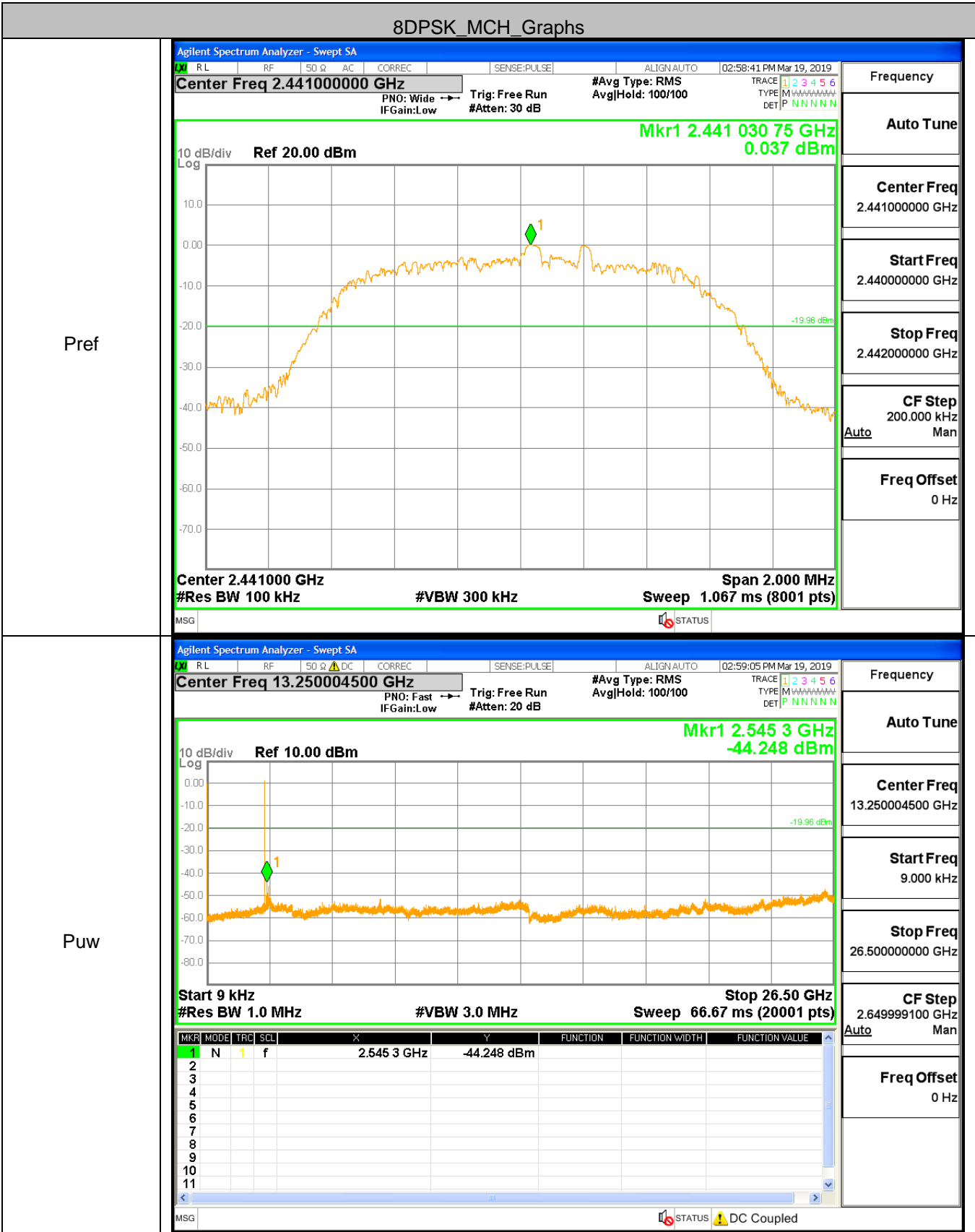
$\pi/4$ DQPSK HCH Graphs



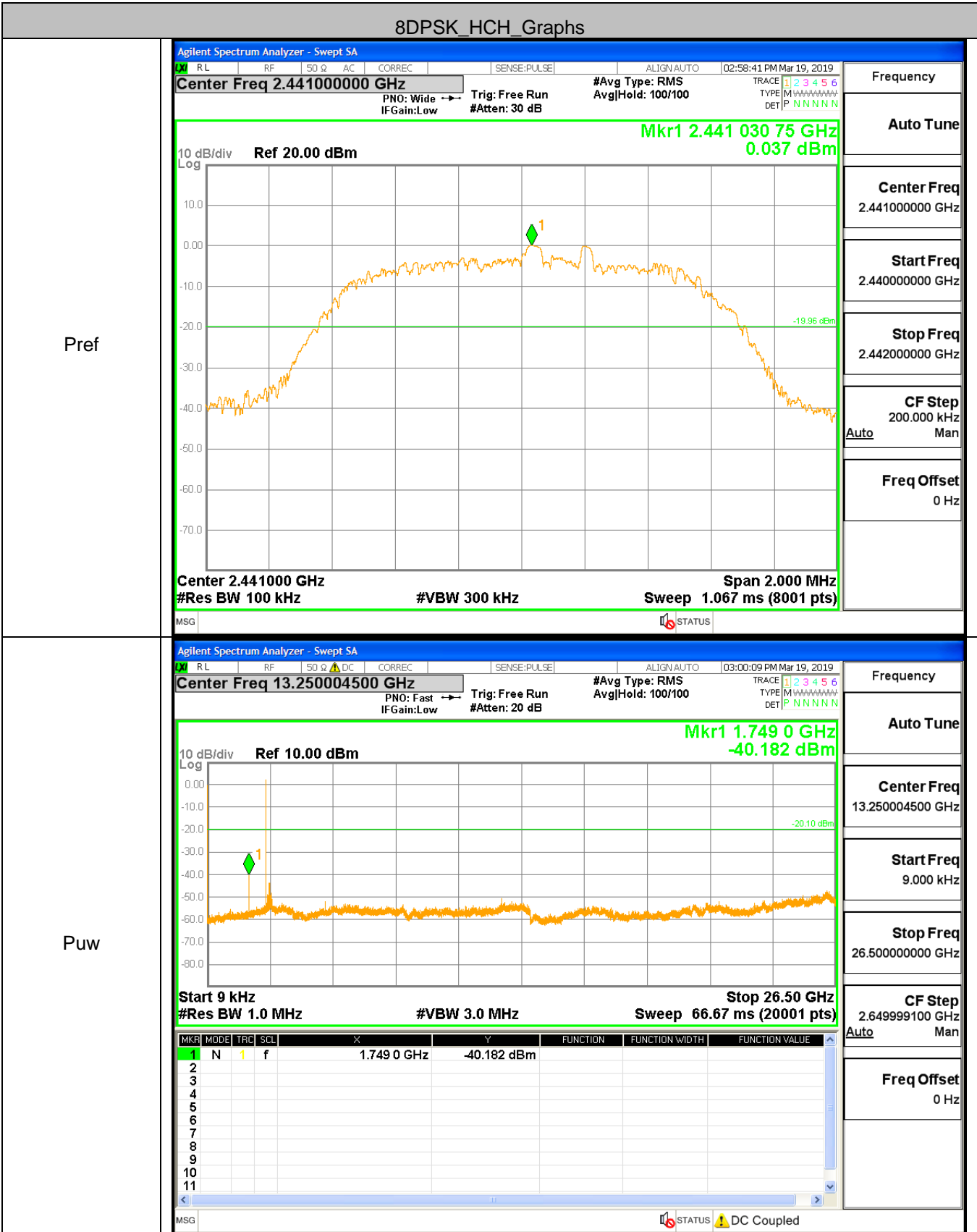
8DPSK_LCH_Graphs



8DPSK_MCH_Graphs



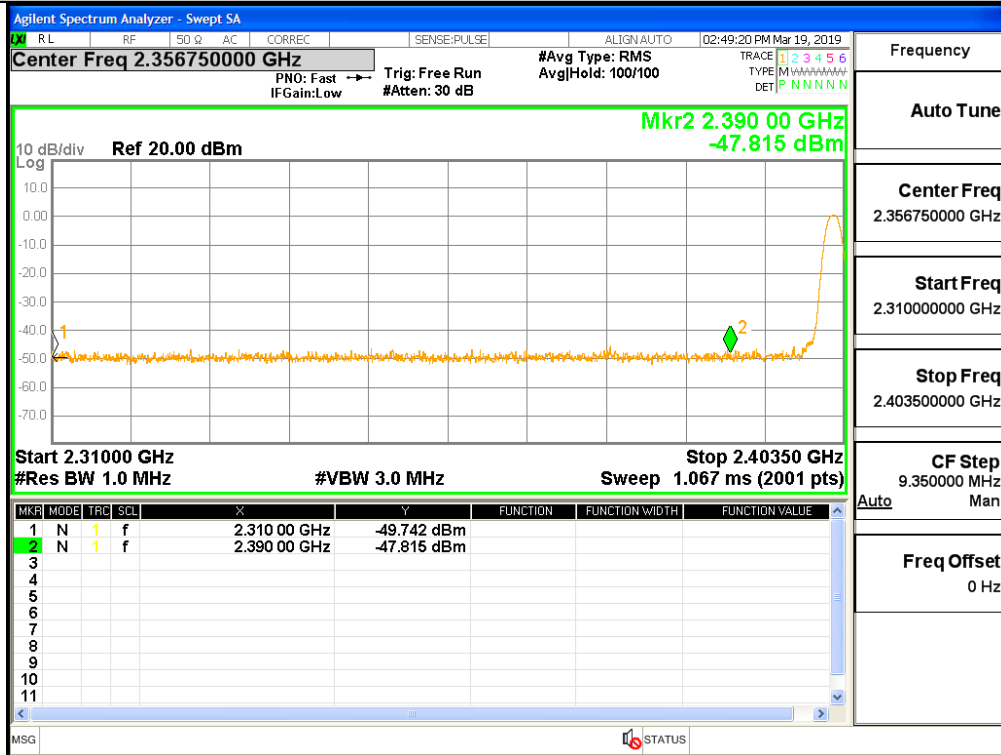
8DPSK_HCH_Graphs



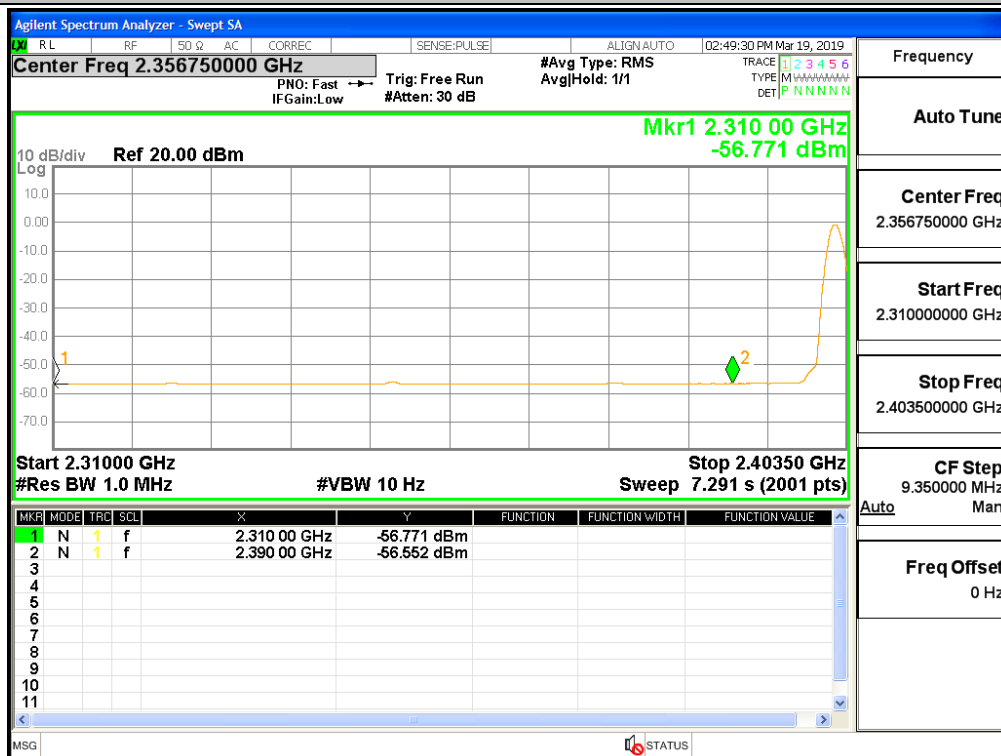
A.8 Restrict-band band-edge measurements

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

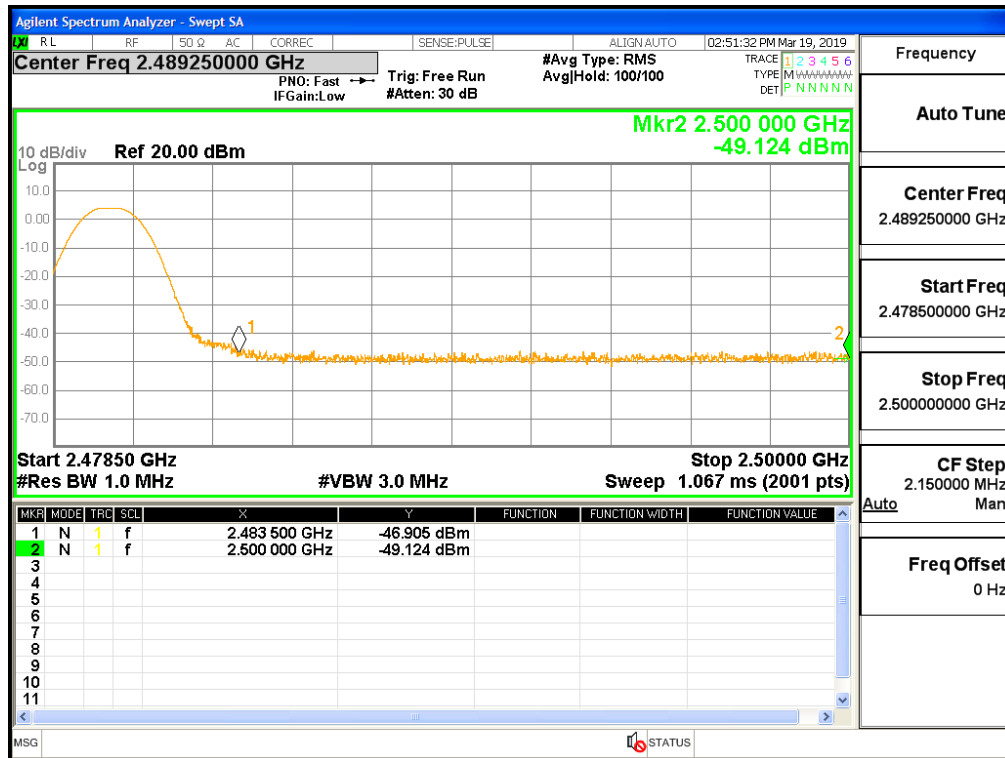
Restrict-band band-edge measurements_2402_PEAK_DH5



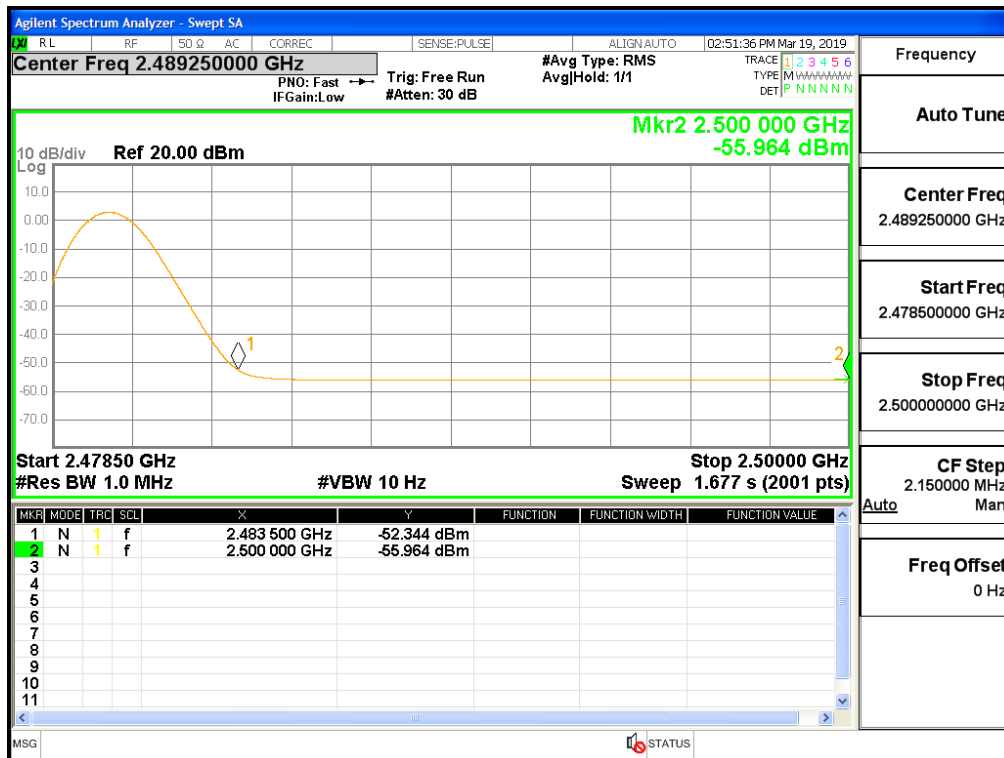
Restrict-band band-edge measurements_2402_AV_DH5



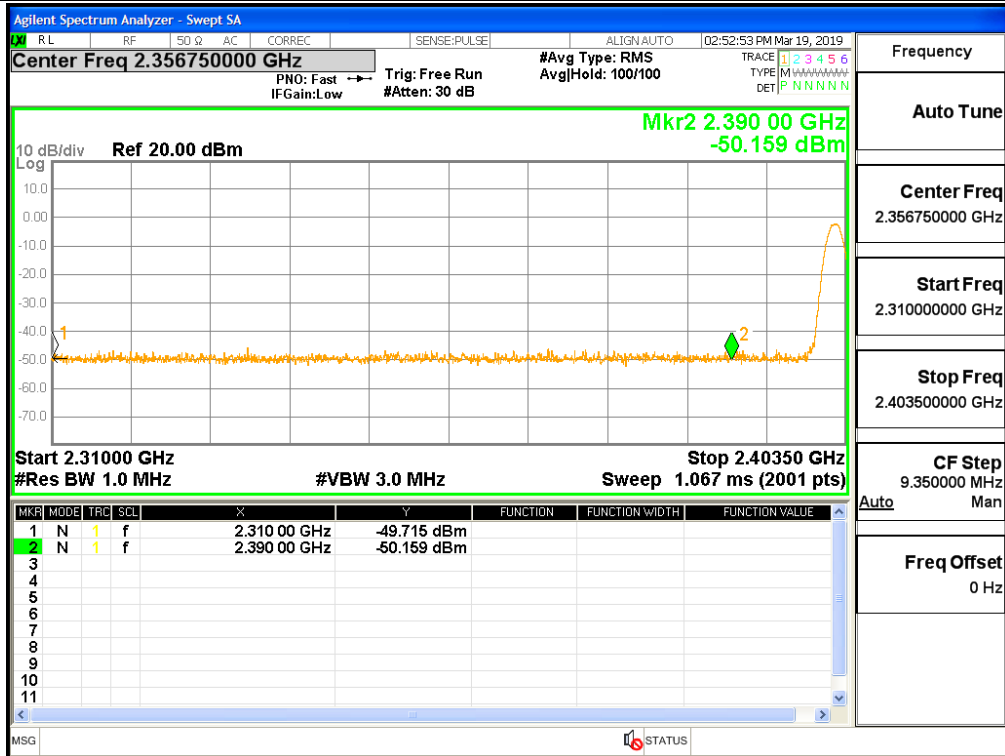
Restrict-band band-edge measurements_2480_PEAK_DH5



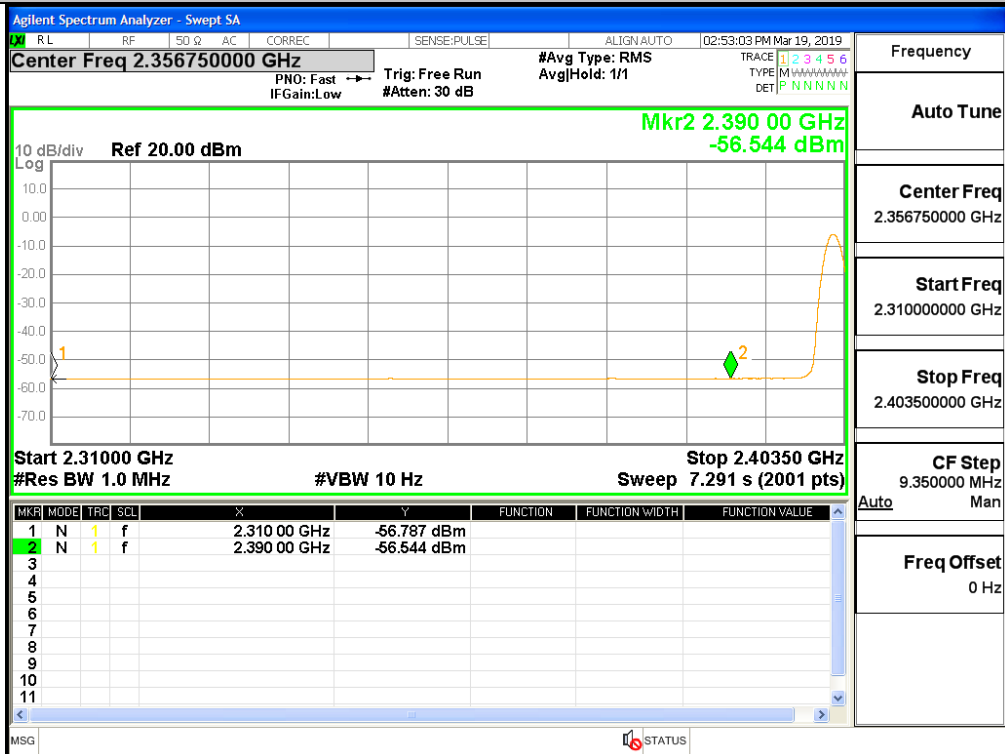
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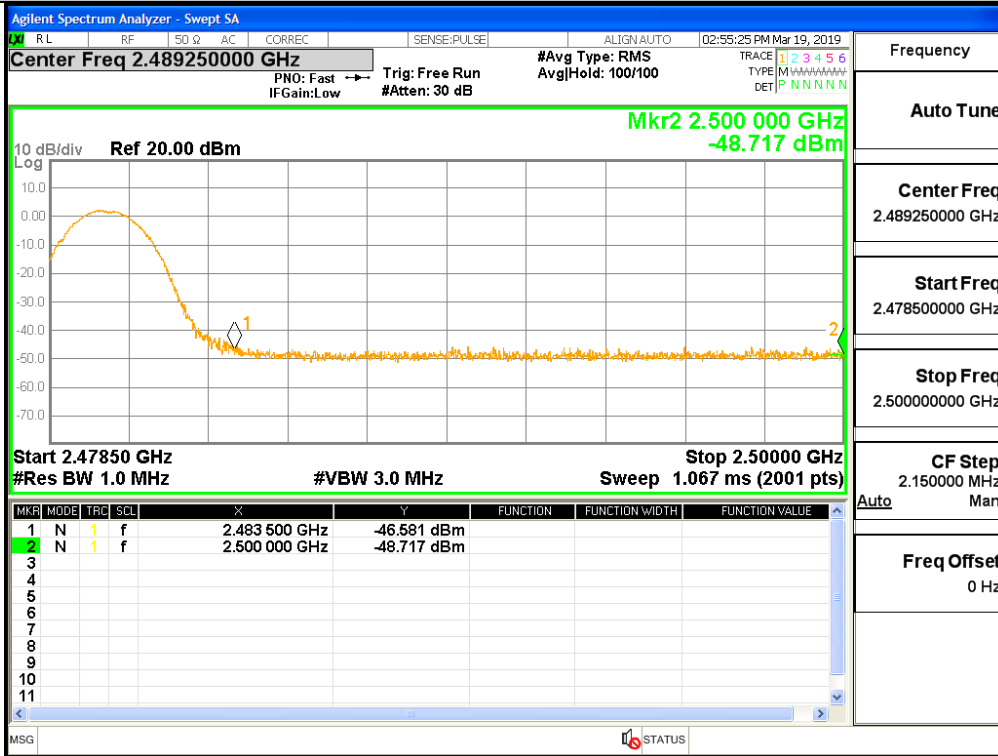
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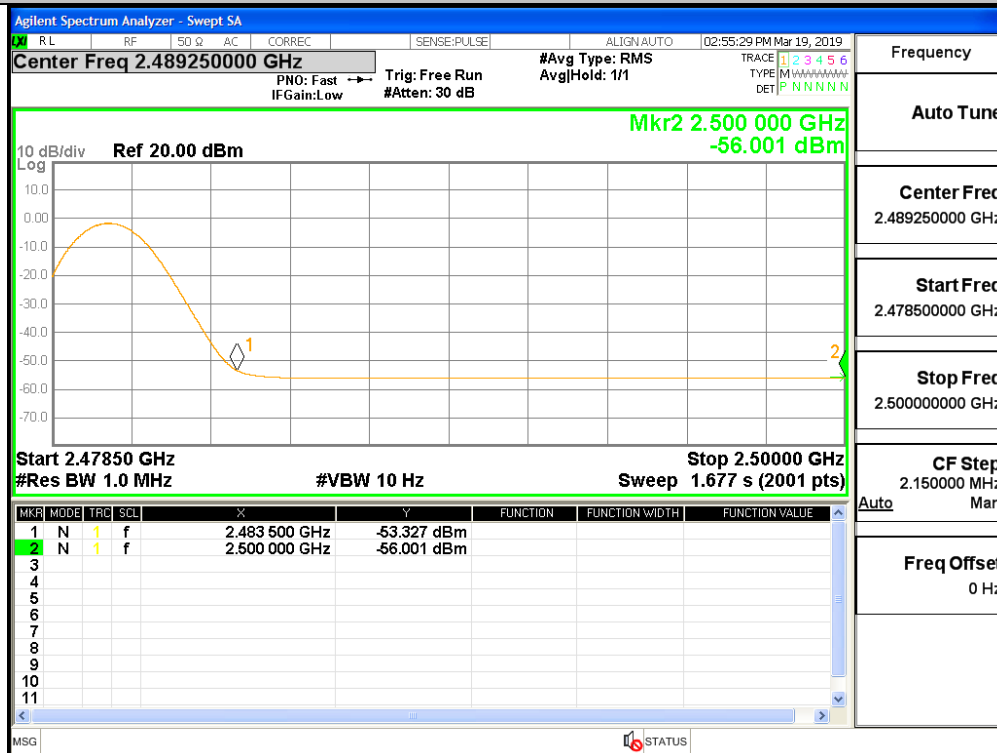
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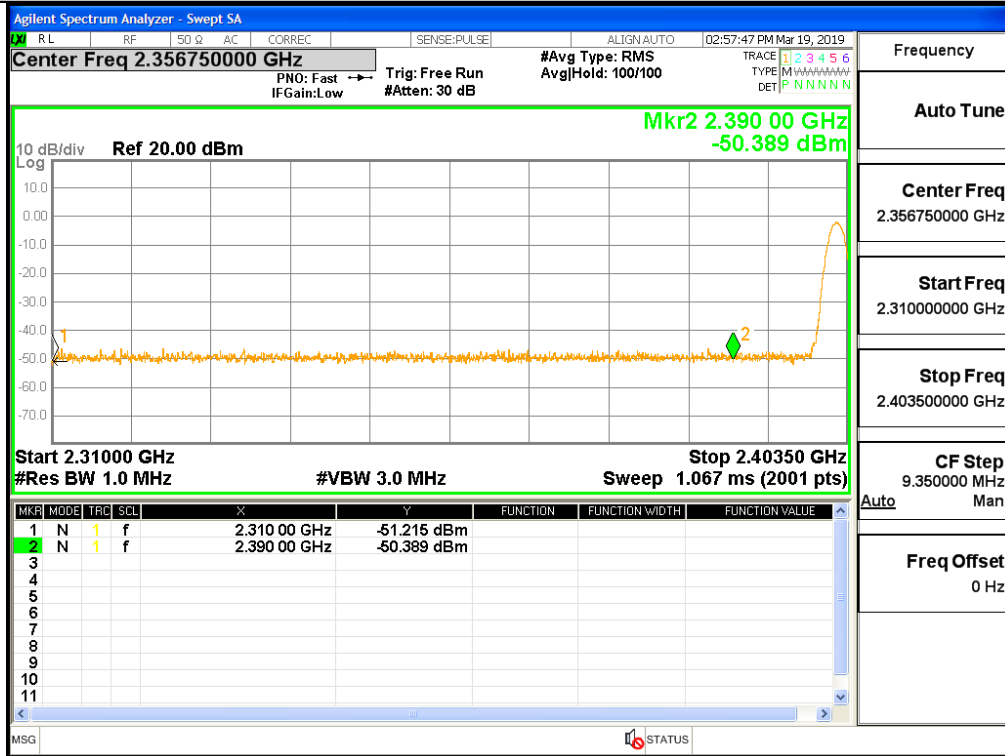
Restrict-band band-edge measurements_2480_PEAK_2DH5



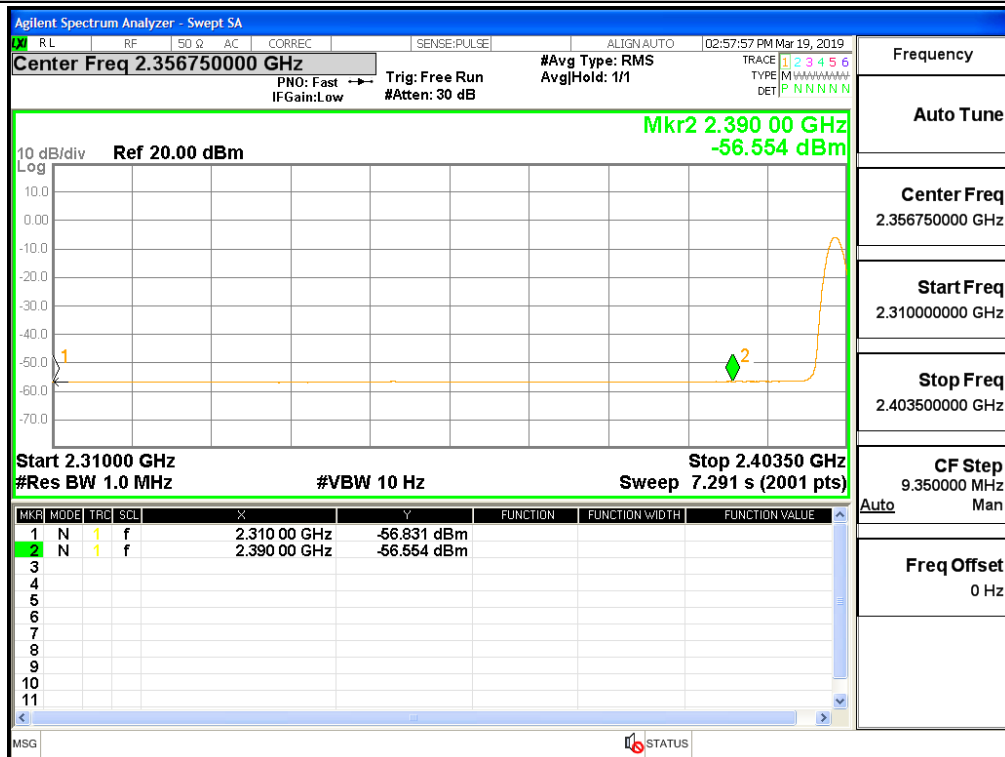
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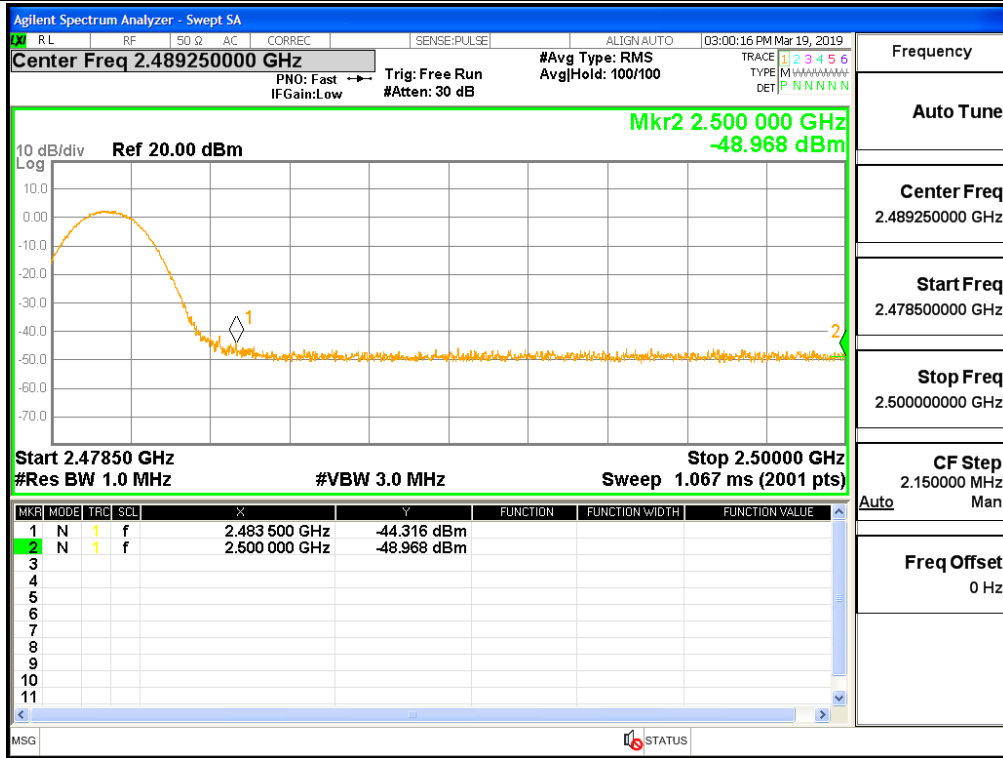
Restrict-band band-edge measurements_2402_PEAK_3DH5



Restrict-band band-edge measurements_2402_AV_3DH5



Restrict-band band-edge measurements_2480_PEAK_3DH5



Restrict-band band-edge measurements_2480_AV_3DH5

