

Environmental Conditions

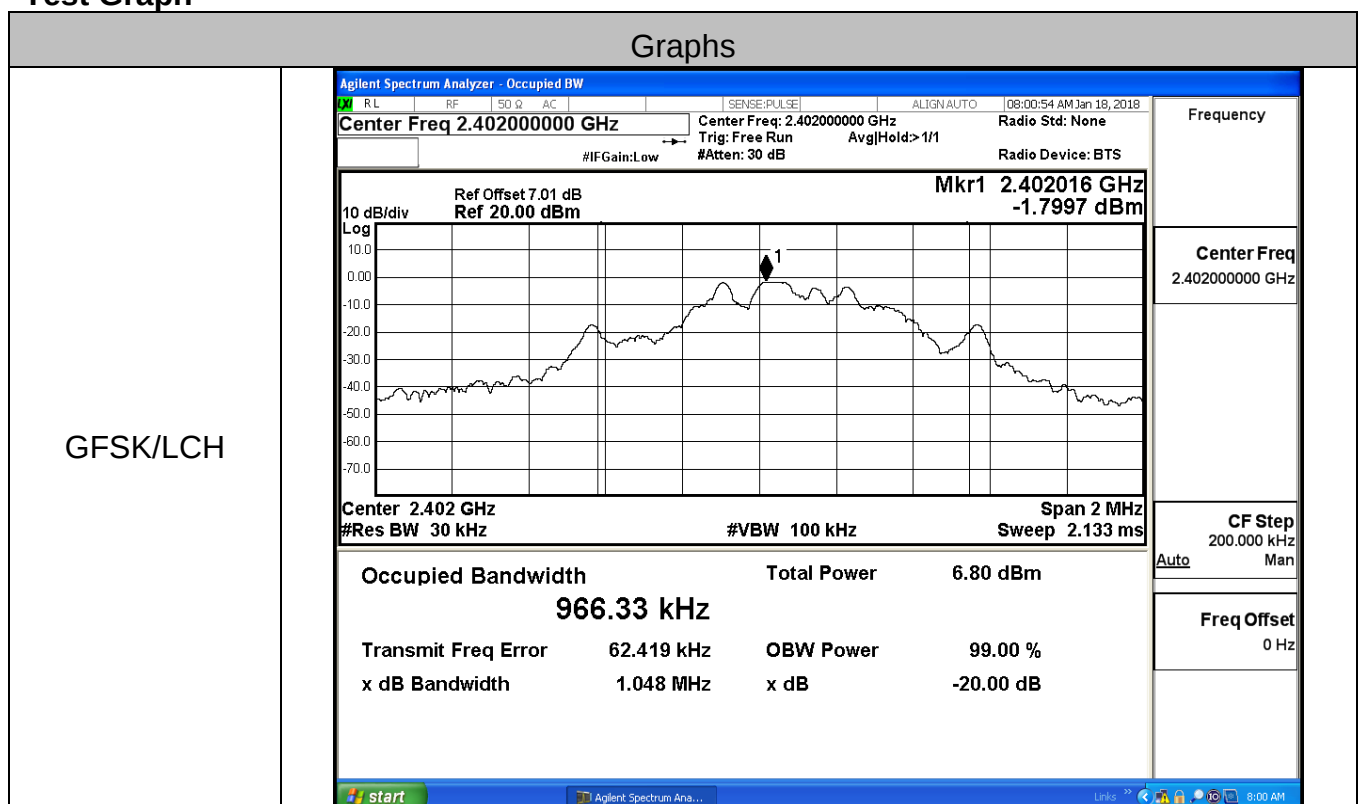
Temperature:	25 ° C
Relative Humidity:	50%
ATM Pressure:	100.0 kPa
Test Engineer:	Mina.xu
Supervised by:	Tom.Liu

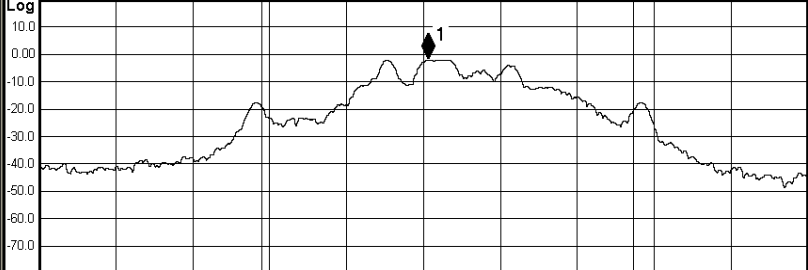
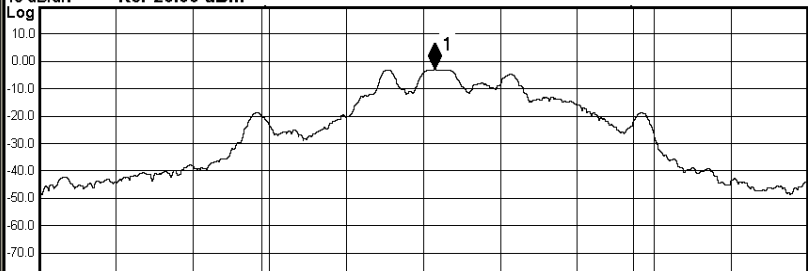
Appendix A): 20dB Bandwidth

Test Result

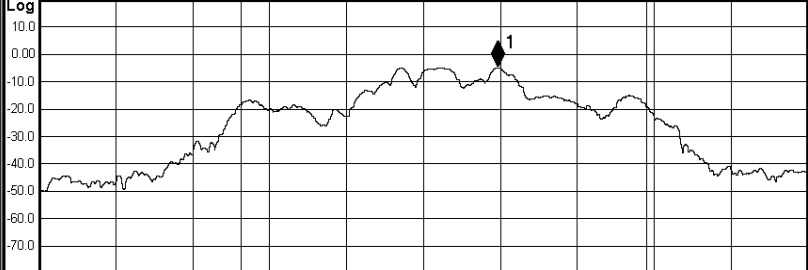
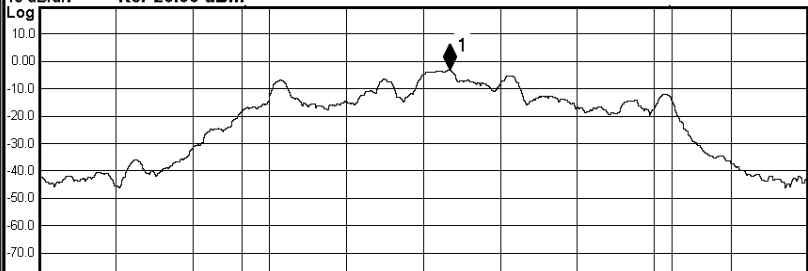
Mode	Channel.	20dB Bandwidth [MHz]	Verdict
GFSK	LCH	1.048	PASS
GFSK	MCH	1.048	PASS
GFSK	HCH	1.047	PASS
$\pi/4$ DQPSK	LCH	1.120	PASS
$\pi/4$ DQPSK	MCH	1.126	PASS
$\pi/4$ DQPSK	HCH	1.136	PASS
8DPSK	LCH	1.175	PASS
8DPSK	MCH	1.174	PASS
8DPSK	HCH	1.183	PASS

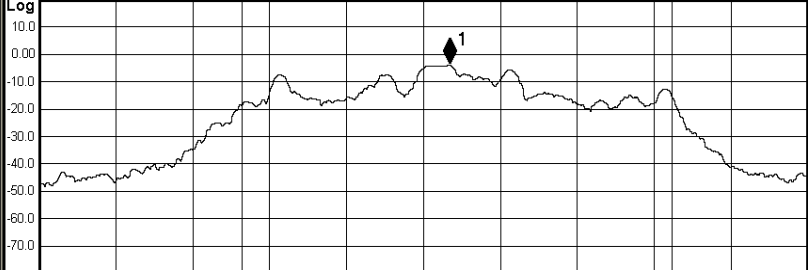
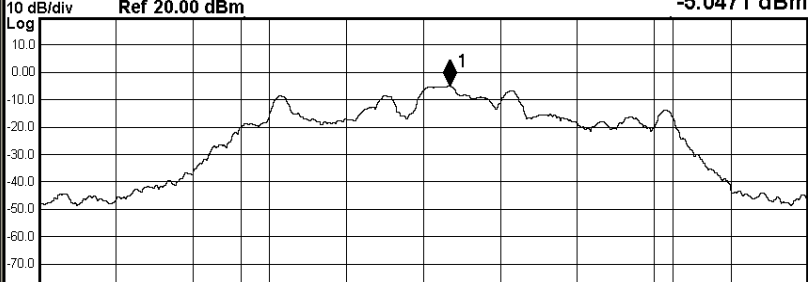
Test Graph



GFSK/MCH	Agilent Spectrum Analyzer - Occupied BW RL RF 50 Ω AC SENSE:PULSE ALIGN:AUTO 08:03:16 AM Jan 18, 2018 Center Freq 2.441000000 GHz Center Freq: 2.441000000 GHz Radio Std: None #IFGain:Low Trig: Free Run Avg/Hold: 1/1 Radio Device: BTS 10 dB/div Ref Offset 7.01 dB Ref 20.00 dBm Mkr1 2.441012 GHz -2.1288 dBm Log  Center 2.441 GHz #Res BW 30 kHz #VBW 100 kHz Span 2 MHz Sweep 2.133 ms Occupied Bandwidth Total Power 6.38 dBm 963.95 kHz Transmit Freq Error 63.520 kHz OBW Power 99.00 % x dB Bandwidth 1.048 MHz x dB -20.00 dB Frequency Center Freq 2.441000000 GHz CF Step 200.000 kHz Auto Man Freq Offset 0 Hz start Agilent Spectrum Ana... Links 8:03 AM
GFSK/HCH	Agilent Spectrum Analyzer - Occupied BW RL RF 50 Ω AC SENSE:PULSE ALIGN:AUTO 08:05:17 AM Jan 18, 2018 Center Freq 2.480000000 GHz Center Freq: 2.480000000 GHz Radio Std: None #IFGain:Low Trig: Free Run Avg/Hold: 1/1 Radio Device: BTS 10 dB/div Ref Offset 7.01 dB Ref 20.00 dBm Mkr1 2.48003 GHz -3.0593 dBm Log  Center 2.48 GHz #Res BW 30 kHz #VBW 100 kHz Span 2 MHz Sweep 2.133 ms Occupied Bandwidth Total Power 5.33 dBm 961.86 kHz Transmit Freq Error 64.167 kHz OBW Power 99.00 % x dB Bandwidth 1.047 MHz x dB -20.00 dB Frequency Center Freq 2.480000000 GHz CF Step 200.000 kHz Auto Man Freq Offset 0 Hz start Agilent Spectrum Ana... Links 8:05 AM

π/4DQPSK/LCH	Agilent Spectrum Analyzer - Occupied BW RL RF 50 Ω AC SENSE:PULSE ALIGN:AUTO 08:07:37 AM Jan 18, 2018 Center Freq 2.402000000 GHz Center Freq: 2.402000000 GHz Trig: Free Run Avg Hold: 1/1 Radio Std: None Radio Device: BTS #IFGain:Low #Atten: 30 dB 10 dB/div Ref Offset 7.01 dB Ref 20.00 dBm Mkr1 2.401942 GHz -3.5621 dBm Log 10.0 0.00 -10.0 -20.0 -30.0 -40.0 -50.0 -60.0 -70.0 Center 2.402 GHz #Res BW 30 kHz #VBW 100 kHz Span 2 MHz Sweep 2.133 ms Occupied Bandwidth Total Power 5.47 dBm 1.0497 MHz Transmit Freq Error 57.007 kHz OBW Power 99.00 % x dB Bandwidth 1.120 MHz x dB -20.00 dB start Agilent Spectrum Ana... Links 8:07 AM Frequency Center Freq 2.402000000 GHz CF Step 200.000 kHz Auto Man Freq Offset 0 Hz
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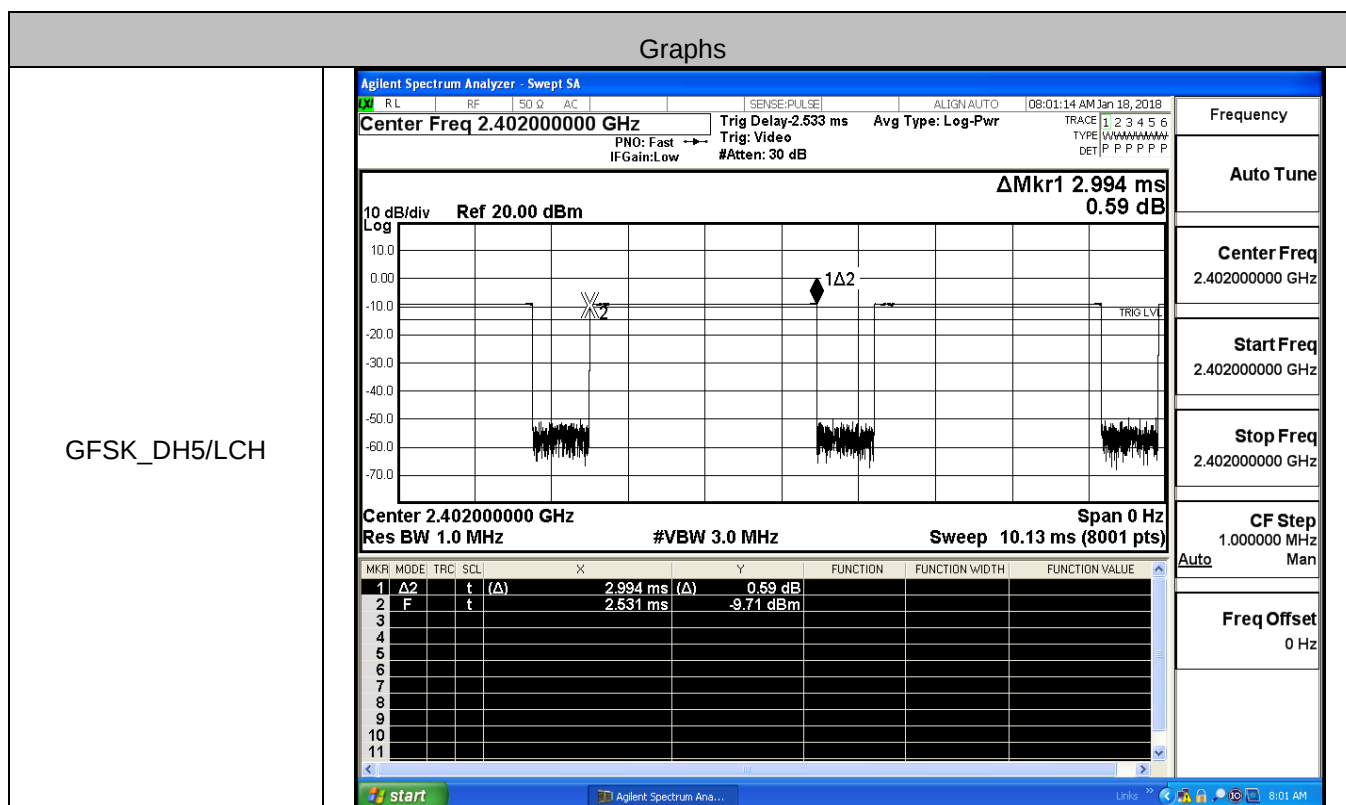
π/4DQPSK/HCH	Agilent Spectrum Analyzer - Occupied BW RL RF 50 Ω AC SENSE:PULSE ALIGN:AUTO 08:11:54 AM Jan 18, 2018 Center Freq 2.480000000 GHz Center Freq: 2.480000000 GHz Trig: Free Run Avg Hold: 1/1 Radio Std: None Radio Device: BTS #IFGain:Low #Atten: 30 dB 10 dB/div Ref Offset 7.01 dB Ref 20.00 dBm Mkr1 2.480192 GHz -4.9655 dBm  Center 2.48 GHz #Res BW 30 kHz #VBW 100 kHz Span 2 MHz Sweep 2.133 ms Occupied Bandwidth Total Power 4.06 dBm 1.0528 MHz Transmit Freq Error 54.285 kHz OBW Power 99.00 % x dB Bandwidth 1.136 MHz x dB -20.00 dB Frequency Center Freq 2.480000000 GHz CF Step 200.000 kHz Auto Man Freq Offset 0 Hz start Agilent Spectrum Ana... Links 8:11 AM
8DPSK/LCH	Agilent Spectrum Analyzer - Occupied BW RL RF 50 Ω AC SENSE:PULSE ALIGN:AUTO 08:17:23 AM Jan 18, 2018 Center Freq 2.402000000 GHz Center Freq: 2.402000000 GHz Trig: Free Run Avg Hold: 1/1 Radio Std: None Radio Device: BTS #IFGain:Low #Atten: 30 dB 10 dB/div Ref Offset 7.01 dB Ref 20.00 dBm Mkr1 2.402068 GHz -3.3294 dBm  Center 2.402 GHz #Res BW 30 kHz #VBW 100 kHz Span 2 MHz Sweep 2.133 ms Occupied Bandwidth Total Power 5.45 dBm 1.1173 MHz Transmit Freq Error 87.199 kHz OBW Power 99.00 % x dB Bandwidth 1.175 MHz x dB -20.00 dB Frequency Center Freq 2.402000000 GHz CF Step 200.000 kHz Auto Man Freq Offset 0 Hz start Agilent Spectrum Ana... Links 8:17 AM

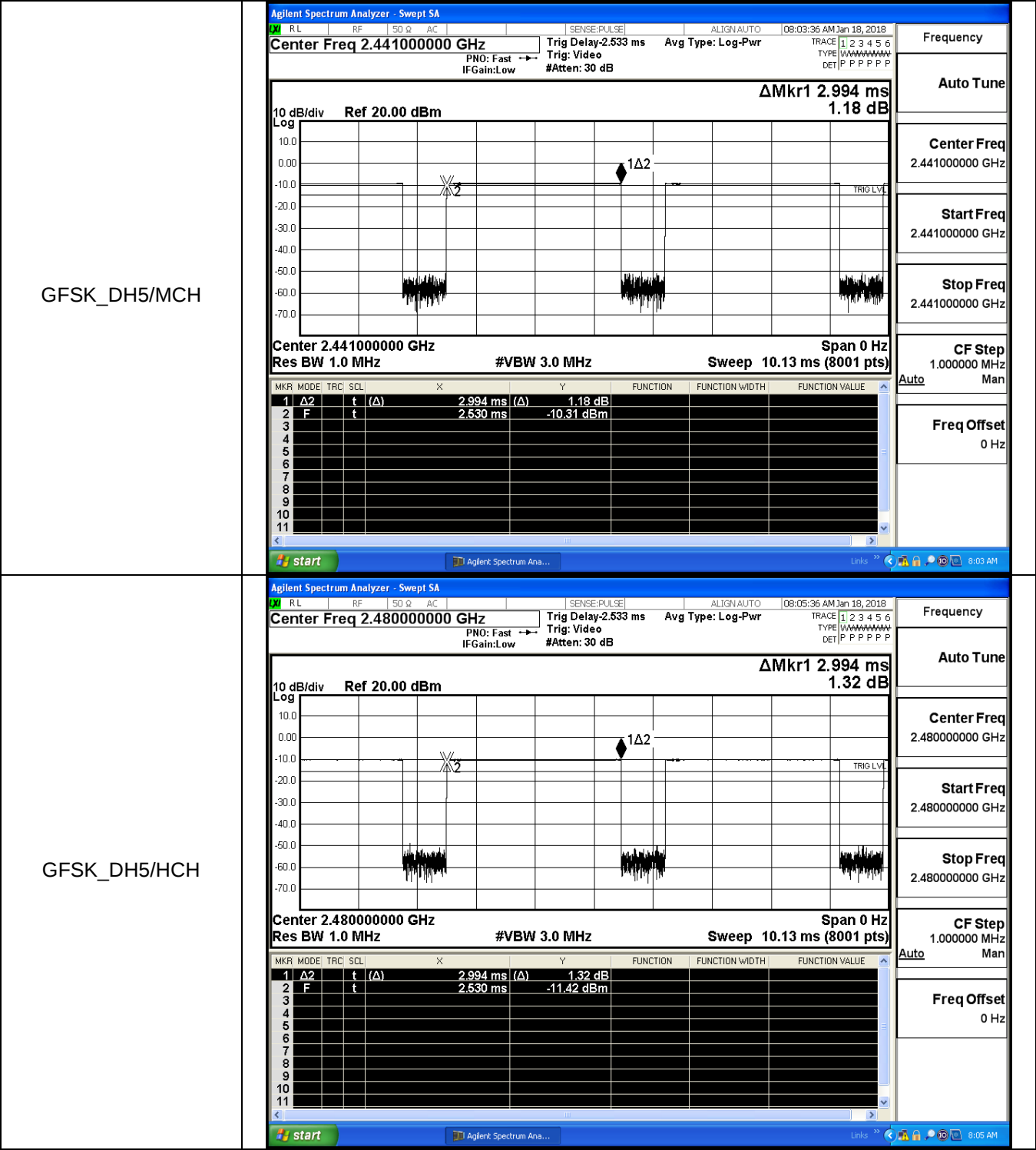
8DPSK/MCH	Agilent Spectrum Analyzer - Occupied BW RL RF 50 Ω AC SENSE:PULSE ALIGN:AUTO 08:19:40 AM Jan 18, 2018 Center Freq 2.441000000 GHz Center Freq: 2.441000000 GHz Trig: Free Run Avg Hold: 1/1 Radio Std: None Radio Device: BTS #IFGain:Low #Atten: 30 dB 10 dB/div Ref Offset 7.01 dB Ref 20.00 dBm Mkr1 2.441068 GHz -3.9335 dBm  Center 2.441 GHz #Res BW 30 kHz #VBW 100 kHz Span 2 MHz Sweep 2.133 ms Occupied Bandwidth 1.1176 MHz Total Power 4.87 dBm Transmit Freq Error 86.838 kHz OBW Power 99.00 % x dB Bandwidth 1.174 MHz x dB -20.00 dB start Agilent Spectrum Ana... Links 8:19 AM Frequency Center Freq 2.441000000 GHz CF Step 200.000 kHz Auto Man Freq Offset 0 Hz
8DPSK/HCH	Agilent Spectrum Analyzer - Occupied BW RL RF 50 Ω AC SENSE:PULSE ALIGN:AUTO 08:21:19 AM Jan 18, 2018 Center Freq 2.480000000 GHz Center Freq: 2.480000000 GHz Trig: Free Run Avg Hold> 1/1 Radio Std: None Radio Device: BTS #IFGain:Low #Atten: 30 dB 10 dB/div Ref Offset 7.01 dB Ref 20.00 dBm Mkr1 2.480068 GHz -5.0471 dBm  Center 2.48 GHz #Res BW 30 kHz #VBW 100 kHz Span 2 MHz Sweep 2.133 ms Occupied Bandwidth 1.1169 MHz Total Power 3.73 dBm Transmit Freq Error 88.979 kHz OBW Power 99.00 % x dB Bandwidth 1.183 MHz x dB -20.00 dB start Agilent Spectrum Ana... Links 8:21 AM Frequency Center Freq 2.480000000 GHz CF Step 200.000 kHz Auto Man Freq Offset 0 Hz

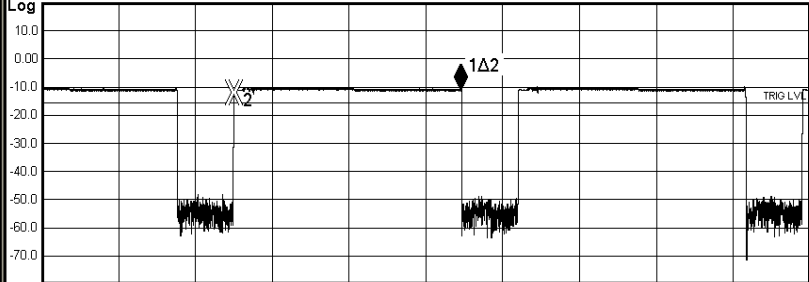
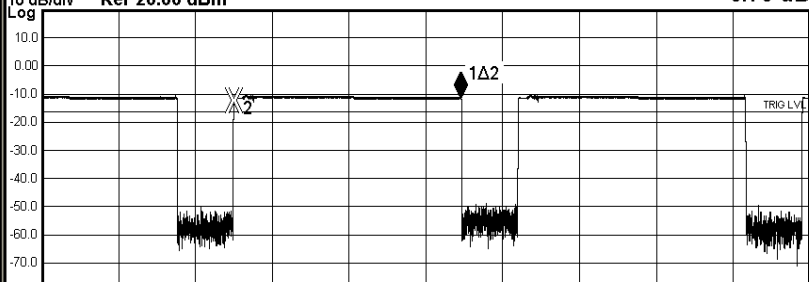
Appendix B): Dwell Time Result Table

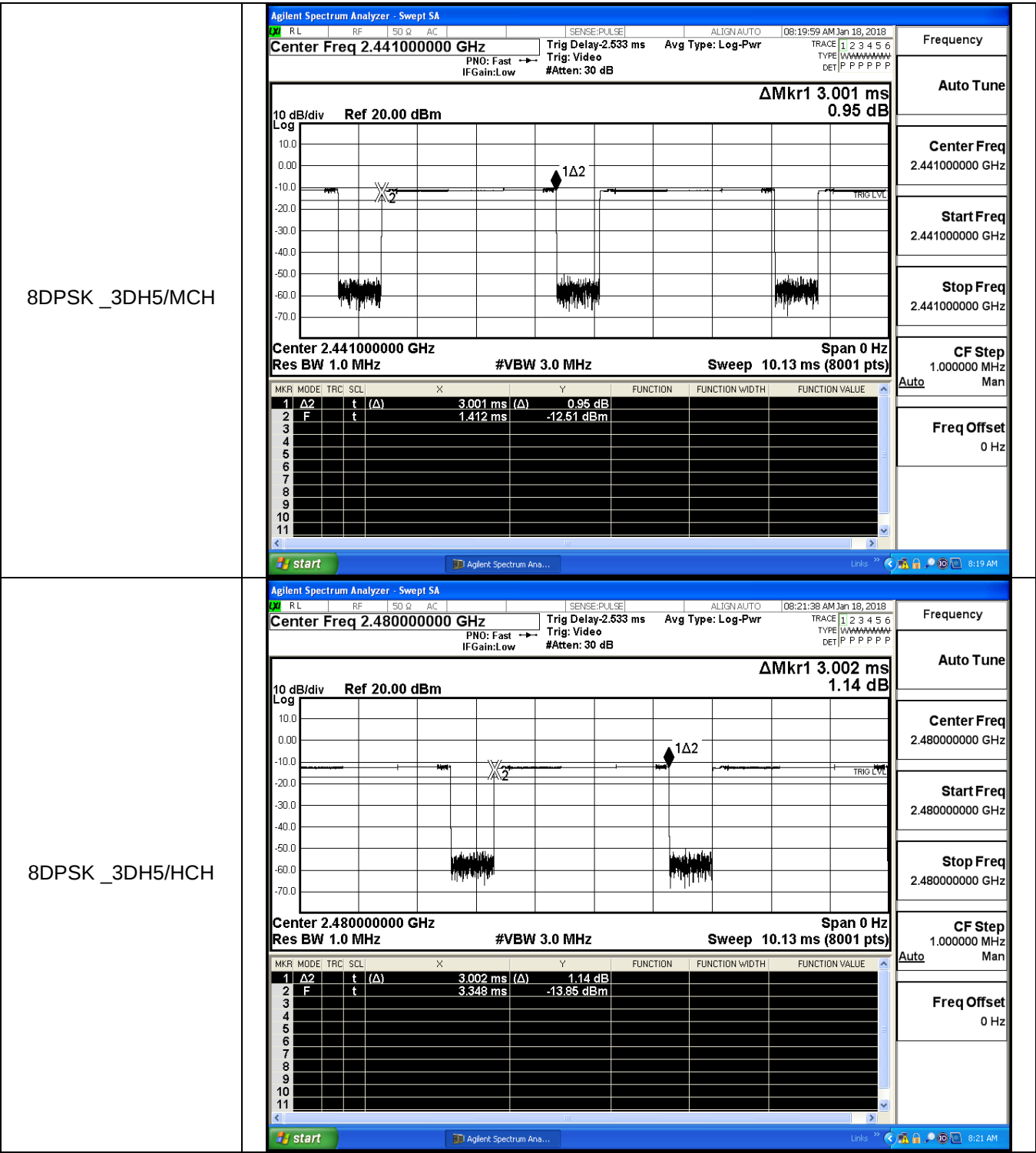
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.99	106.7	0.319	0.4	PASS
GFSK	DH5	MCH	2.99	106.7	0.319	0.4	PASS
GFSK	DH5	HCH	2.99	106.7	0.319	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	3.00	106.7	0.32	0.4	PASS
$\pi/4$ DQPSK	2DH5	MCH	3.00	106.7	0.32	0.4	PASS
$\pi/4$ DQPSK	2DH5	HCH	3.00	106.7	0.32	0.4	PASS
8DPSK	3DH5	LCH	3.00	106.7	0.32	0.4	PASS
8DPSK	3DH5	MCH	3.00	106.7	0.32	0.4	PASS
8DPSK	3DH5	HCH	3.00	106.7	0.32	0.4	PASS

Test Graph





π/4DQPSK _2DH5/LCH	Agilent Spectrum Analyzer - Swept SA RLRF50ΩACSENSE:PULSEALIGN: AUTO08:07:57 AM Jan 18, 2018 Center Freq 2.402000000 GHzTrig Delay: 2.533 msAvg Type: Log-Pwr PNO: FastIFGain: LowTrig: Video#Atten: 30 dB 10 dB/divRef 20.00 dBm ΔMkr1 3.001 ms0.74 dB  Center 2.402000000 GHzSpan 0 Hz Res BW 1.0 MHz#VBW 3.0 MHzSweep 10.13 ms (8001 pts) <table><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SCL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>Δ2</td><td>t</td><td>(Δ)</td><td>3.001 ms</td><td>(Δ)</td><td>0.74 dB</td><td></td><td></td></tr><tr><td>2</td><td>F</td><td>t</td><td></td><td>2.531 ms</td><td></td><td>-11.92 dBm</td><td></td><td></td></tr><tr><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> start Agilent Spectrum Ana... Links 6:07 AM	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	Δ2	t	(Δ)	3.001 ms	(Δ)	0.74 dB			2	F	t		2.531 ms		-11.92 dBm			3									4									5									6									7									8									9									10									11								
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π/4DQPSK _2DH5/MCH	Agilent Spectrum Analyzer - Swept SA RLRF50ΩACSENSE:PULSEALIGN: AUTO08:10:32 AM Jan 18, 2018 Center Freq 2.441000000 GHzTrig Delay: 2.533 msAvg Type: Log-Pwr PNO: FastIFGain: LowTrig: Video#Atten: 30 dB 10 dB/divRef 20.00 dBm ΔMkr1 3.002 ms0.76 dB  Center 2.441000000 GHzSpan 0 Hz Res BW 1.0 MHz#VBW 3.0 MHzSweep 10.13 ms (8001 pts) <table><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SCL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>Δ2</td><td>t</td><td>(Δ)</td><td>3.002 ms</td><td>(Δ)</td><td>0.76 dB</td><td></td><td></td></tr><tr><td>2</td><td>F</td><td>t</td><td></td><td>2.530 ms</td><td></td><td>-12.41 dBm</td><td></td><td></td></tr><tr><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> start Agilent Spectrum Ana... Links 6:10 AM	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	Δ2	t	(Δ)	3.002 ms	(Δ)	0.76 dB			2	F	t		2.530 ms		-12.41 dBm			3									4									5									6									7									8									9									10									11								
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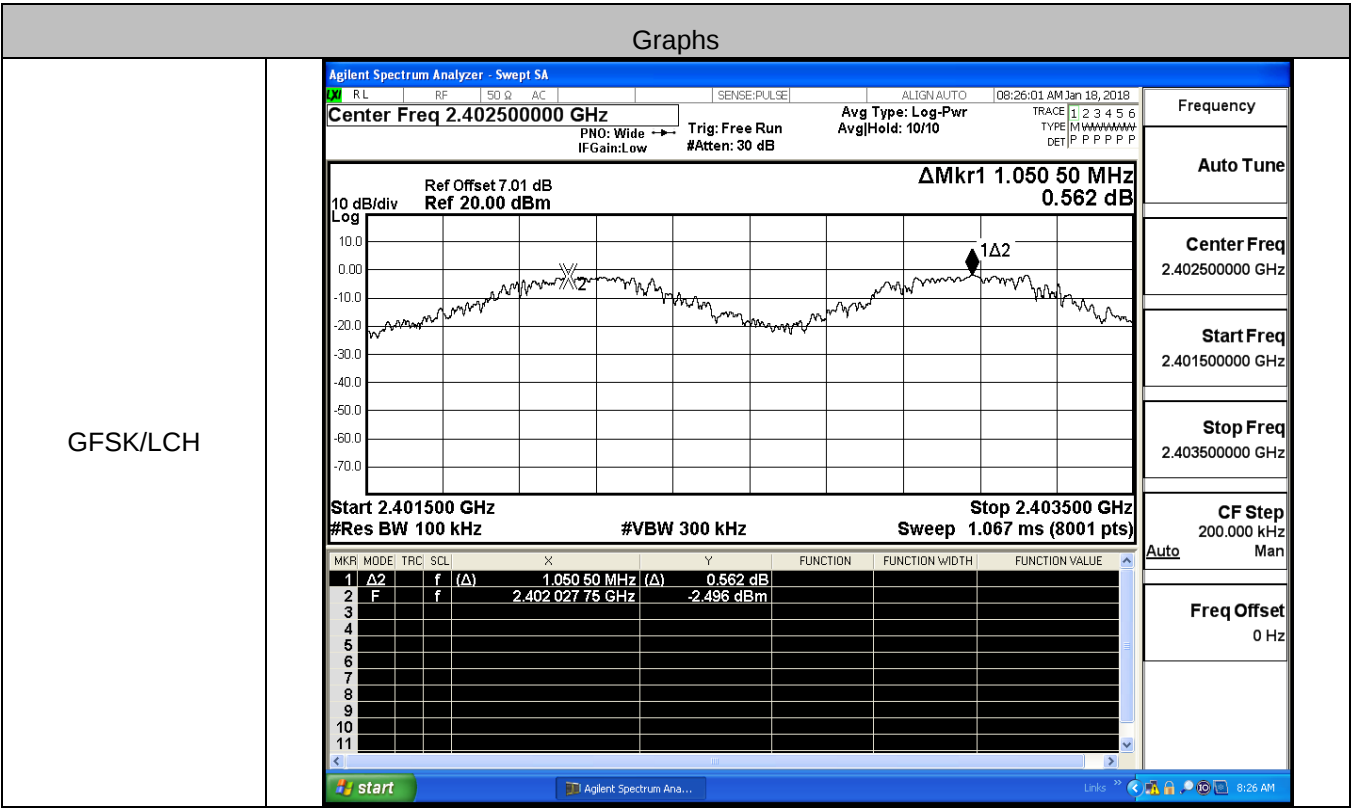


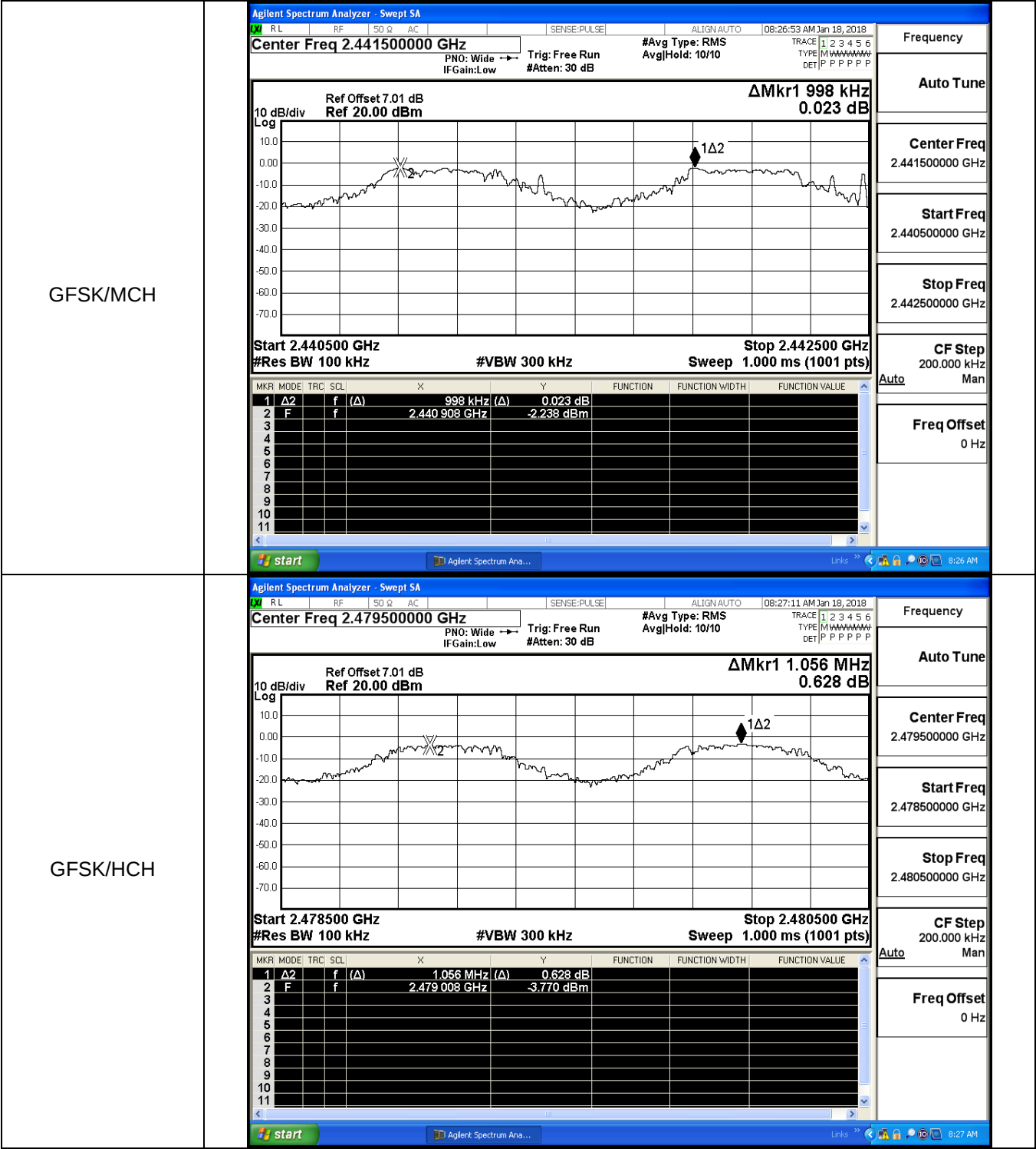
Appendix C): Carrier Frequency Separation

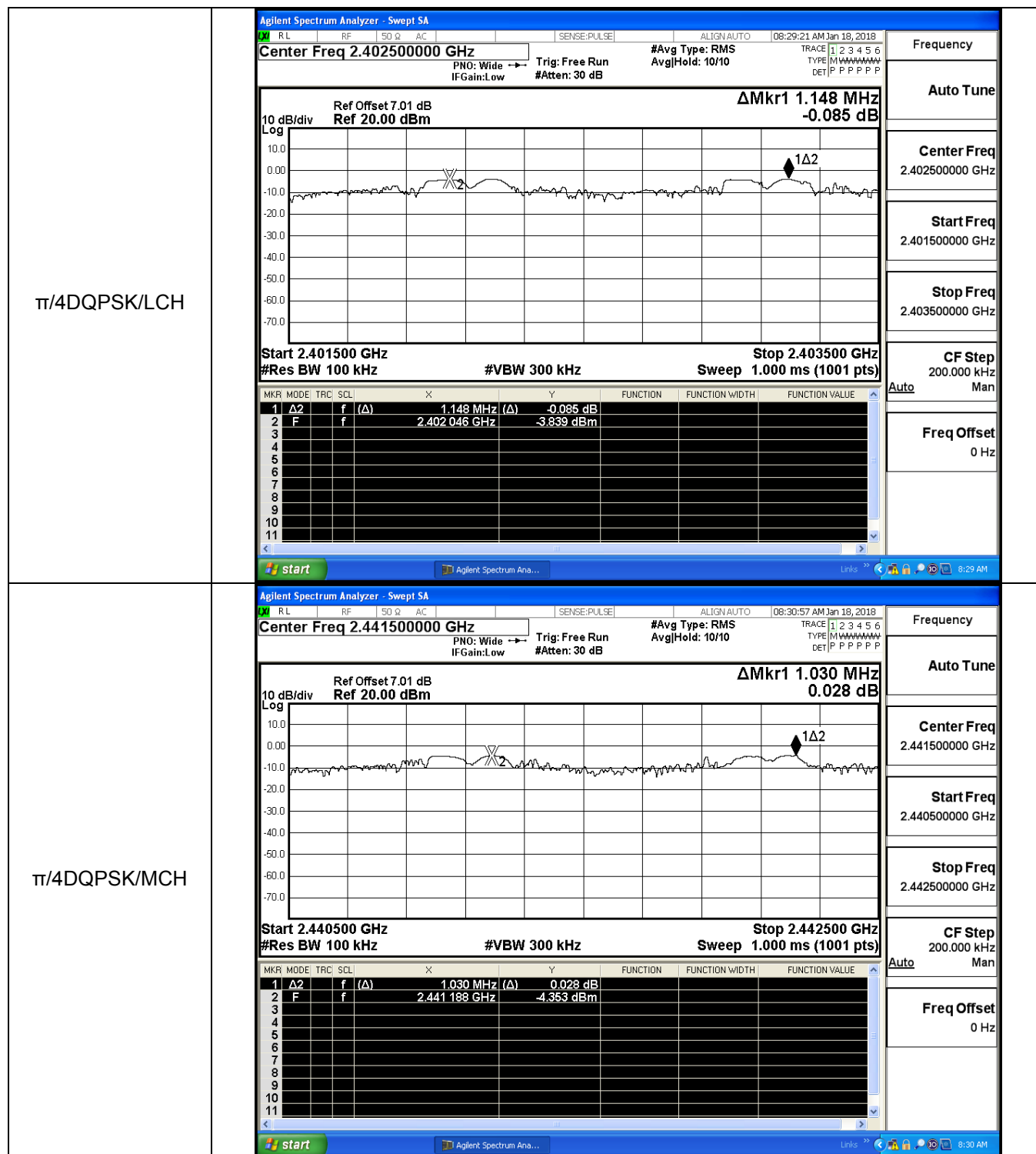
Result Table

Mode	Channel.	Carrier Frequency Separation [MHz]	Verdict
GFSK	LCH	1.050	PASS
GFSK	MCH	0.998	PASS
GFSK	HCH	1.056	PASS
$\pi/4$ DQPSK	LCH	1.148	PASS
$\pi/4$ DQPSK	MCH	1.030	PASS
$\pi/4$ DQPSK	HCH	1.006	PASS
8DPSK	LCH	0.998	PASS
8DPSK	MCH	1.000	PASS
8DPSK	HCH	1.004	PASS

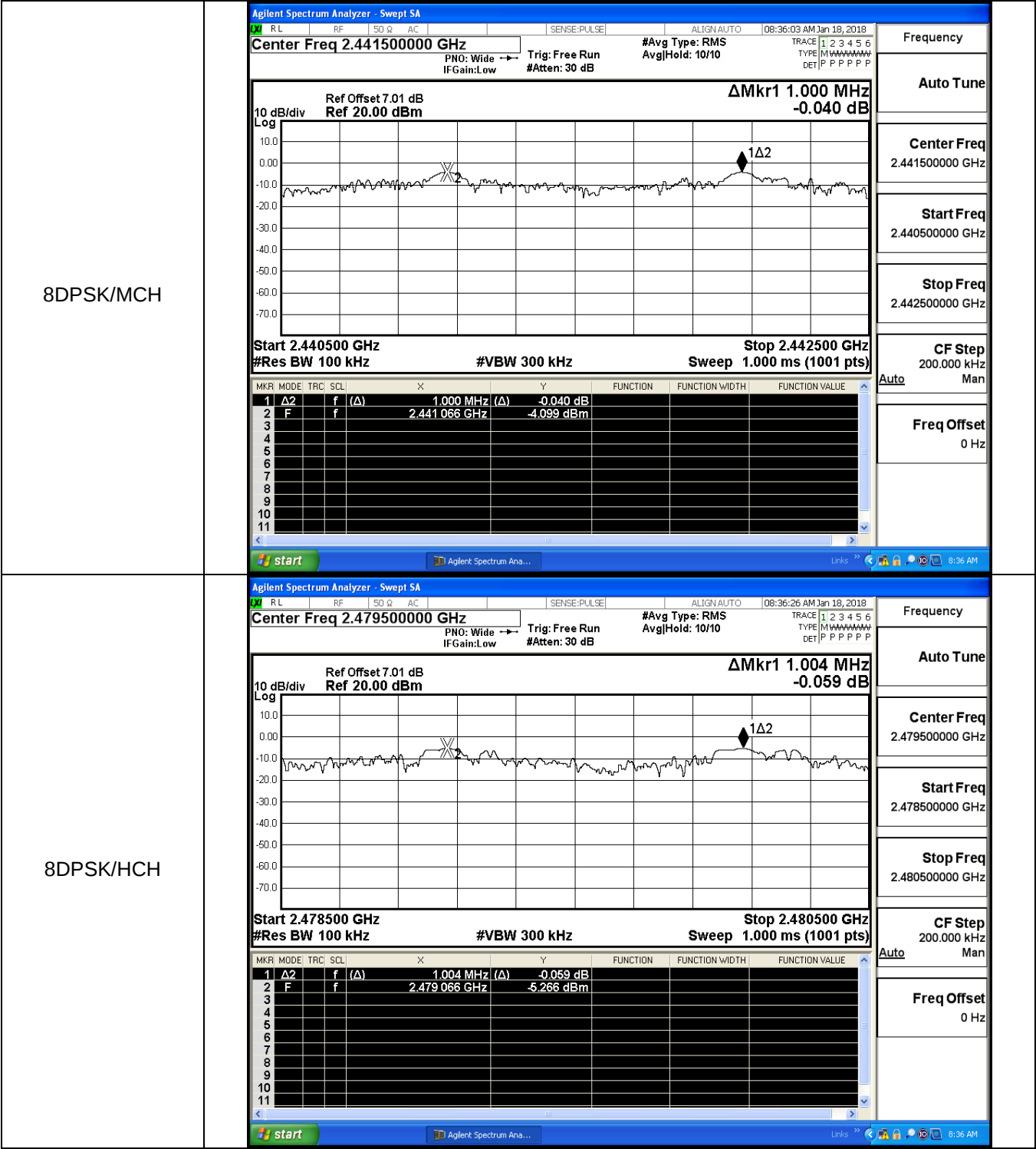
Test Graph







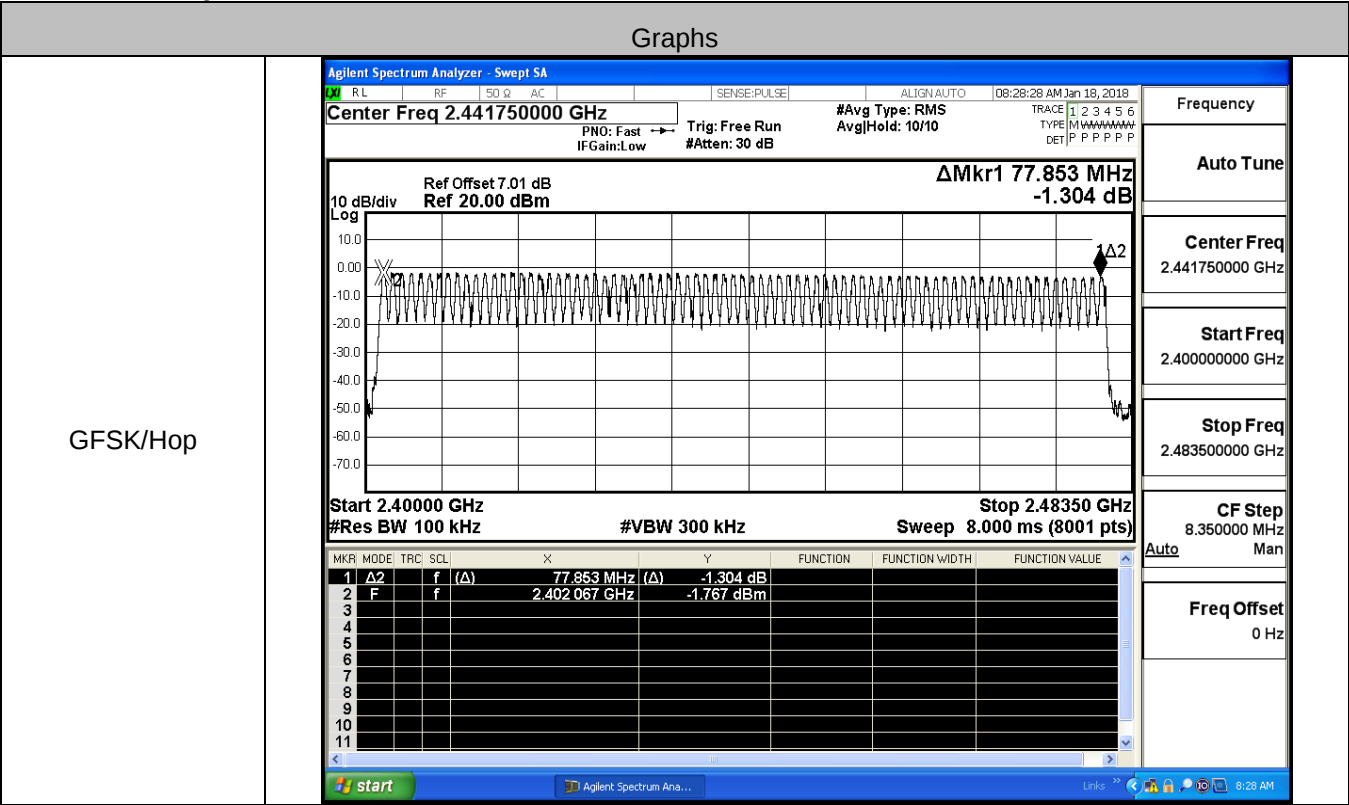
π /4DQPSK/HCH	Agilent Spectrum Analyzer - Swept SA RL RF 50 Q AC SENSE:PULSE ALIGN:AUTO 08:31:20 AM Jan 18, 2018 Center Freq 2.479500000 GHz PN0: Wide $\rightarrow$ IFGain:Low Trig: Free Run #Atten: 30 dB #Avg Type: RMS AvgHld: 10/10 TRACE 1 2 3 4 5 6 TYPE M W M M M M M M M M DET P P P P P P P P Frequency Auto Tune Center Freq 2.479500000 GHz Start Freq 2.478500000 GHz Stop Freq 2.480500000 GHz CF Step 200.000 kHz Man Freq Offset 0 Hz 10 dB/div Ref Offset 7.01 dB Ref 20.00 dBm ΔMkr1 1.006 MHz -0.013 dB Start 2.478500 GHz #Res BW 100 kHz #VBW 300 kHz Stop 2.480500 GHz Sweep 1.000 ms (1001 pts) <table><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SCL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>Δ2</td><td></td><td>f</td><td>(Δ)</td><td>1.006 MHz</td><td>(Δ)</td><td></td><td>-0.013 dB</td></tr><tr><td>2</td><td>F</td><td></td><td>f</td><td></td><td>2.479 190 GHz</td><td></td><td></td><td>-5.584 dBm</td></tr><tr><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> start Agilent Spectrum Ana... Links 8:31 AM	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	Δ 2		f	(Δ)	1.006 MHz	(Δ)		-0.013 dB	2	F		f		2.479 190 GHz			-5.584 dBm	3									4									5									6									7									8									9									10									11								
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8DPSK/LCH	Agilent Spectrum Analyzer - Swept SA RL RF 50 Q AC SENSE:PULSE ALIGN:AUTO 08:34:26 AM Jan 18, 2018 Center Freq 2.402500000 GHz PN0: Wide $\rightarrow$ IFGain:Low Trig: Free Run #Atten: 30 dB #Avg Type: RMS AvgHld: 10/10 TRACE 1 2 3 4 5 6 TYPE M W M M M M M M M M DET P P P P P P P P Frequency Auto Tune Center Freq 2.402500000 GHz Start Freq 2.401500000 GHz Stop Freq 2.403500000 GHz CF Step 200.000 kHz Man Freq Offset 0 Hz 10 dB/div Ref Offset 7.01 dB Ref 20.00 dBm ΔMkr1 998 kHz -0.049 dB Start 2.401500 GHz #Res BW 100 kHz #VBW 300 kHz Stop 2.403500 GHz Sweep 1.000 ms (1001 pts) <table><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SCL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>Δ2</td><td></td><td>f</td><td>(Δ)</td><td>998 kHz</td><td>(Δ)</td><td></td><td>-0.049 dB</td></tr><tr><td>2</td><td>F</td><td></td><td>f</td><td></td><td>2.402 064 GHz</td><td></td><td></td><td>-3.454 dBm</td></tr><tr><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> start Agilent Spectrum Ana... Links 8:34 AM	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	Δ 2		f	(Δ)	998 kHz	(Δ)		-0.049 dB	2	F		f		2.402 064 GHz			-3.454 dBm	3									4									5									6									7									8									9									10									11								
	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																																																																																																				
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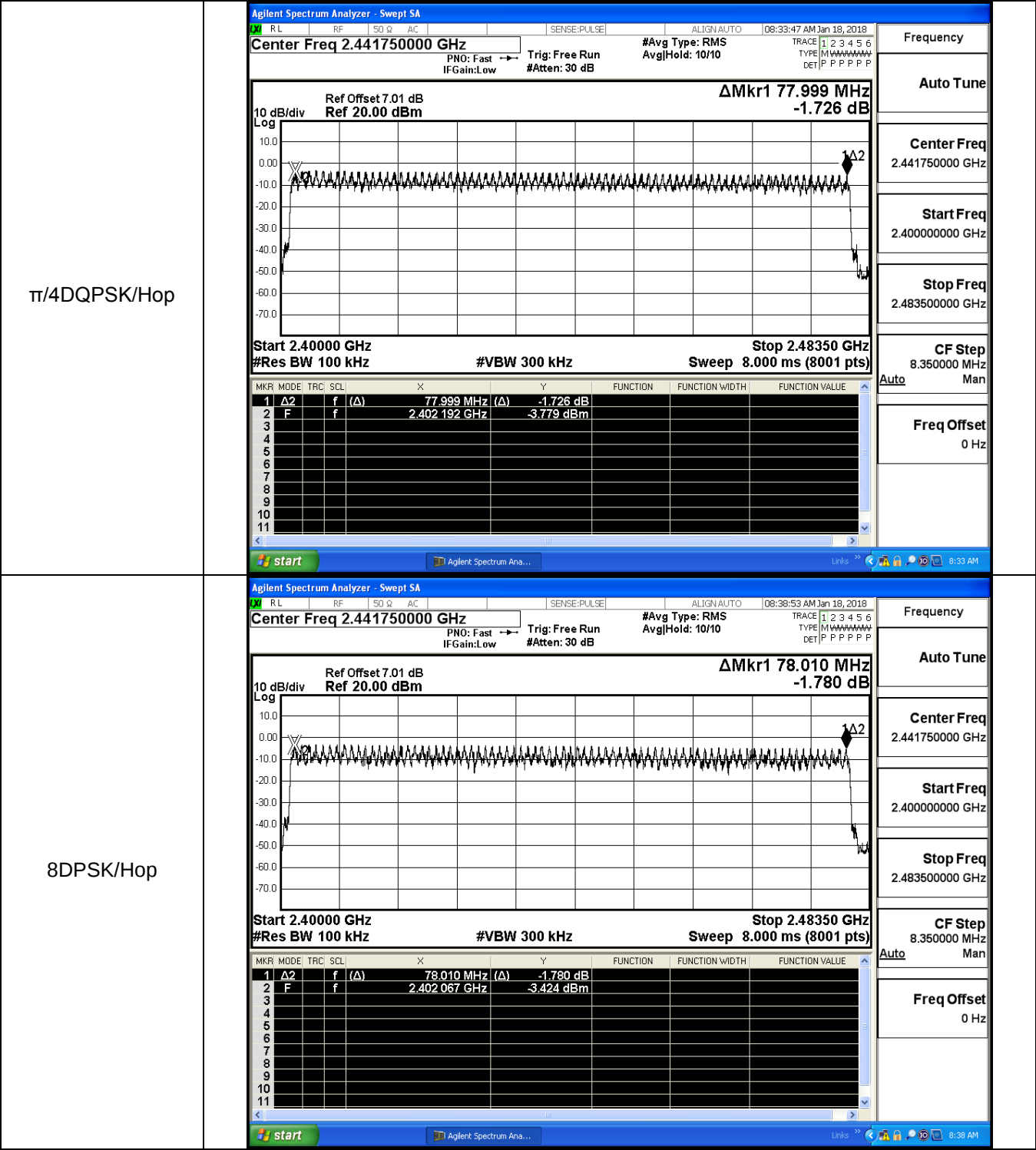


Appendix D): Hopping Channel Number
Result Table

Mode	Channel.	Number of Hopping Channel	Verdict
GFSK	Hop	79	PASS
$\pi/4$ DQPSK	Hop	79	PASS
8DPSK	Hop	79	PASS

Test Graph

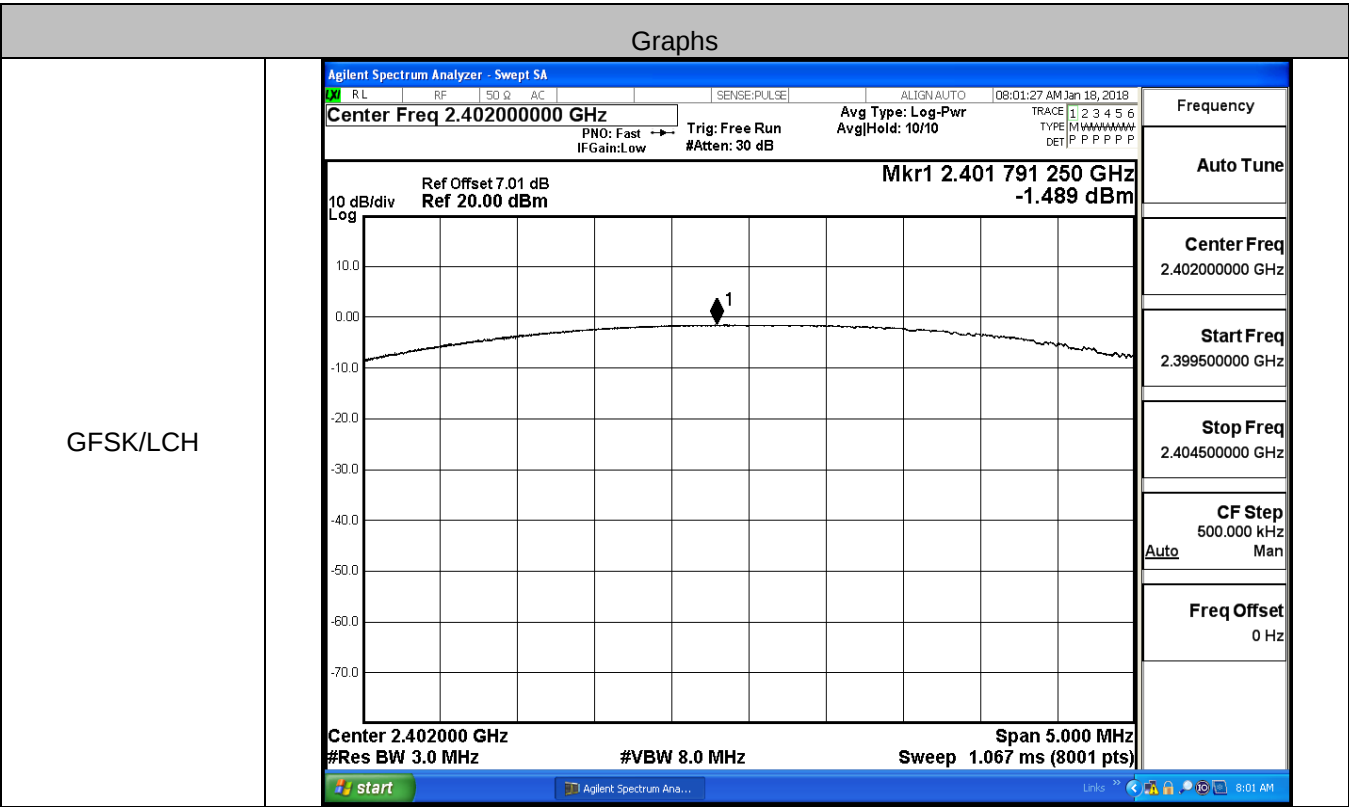




Appendix E): Conducted Peak Output Power
Result Table

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit[dBm]	Verdict
GFSK	LCH	-1.489	30	PASS
GFSK	MCH	-1.602	30	PASS
GFSK	HCH	-2.692	30	PASS
$\pi/4$ DQPSK	LCH	-1.931	21	PASS
$\pi/4$ DQPSK	MCH	-2.410	21	PASS
$\pi/4$ DQPSK	HCH	-3.369	21	PASS
8DPSK	LCH	-1.787	21	PASS
8DPSK	MCH	-2.214	21	PASS
8DPSK	HCH	-3.356	21	PASS

Test Graph

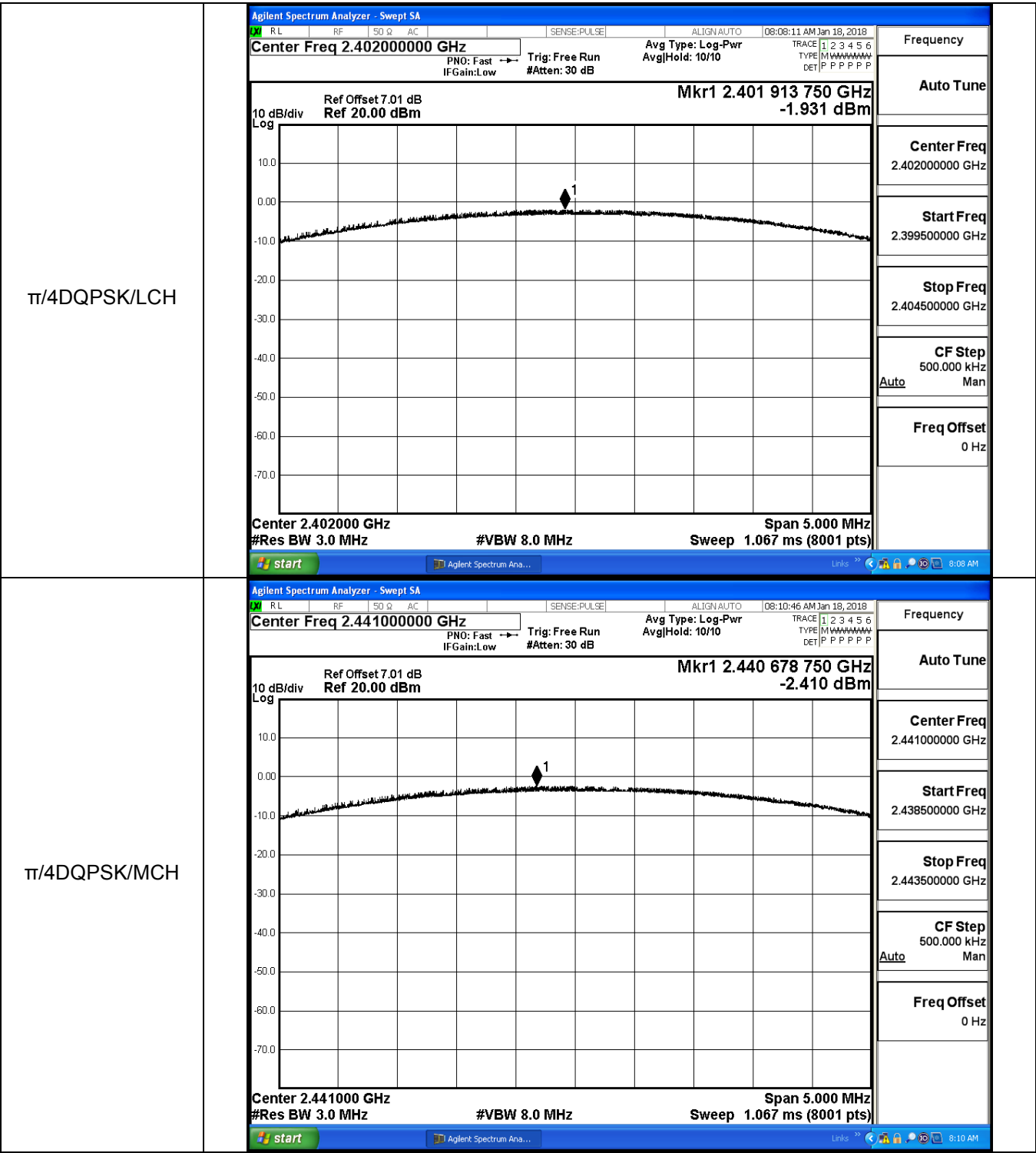


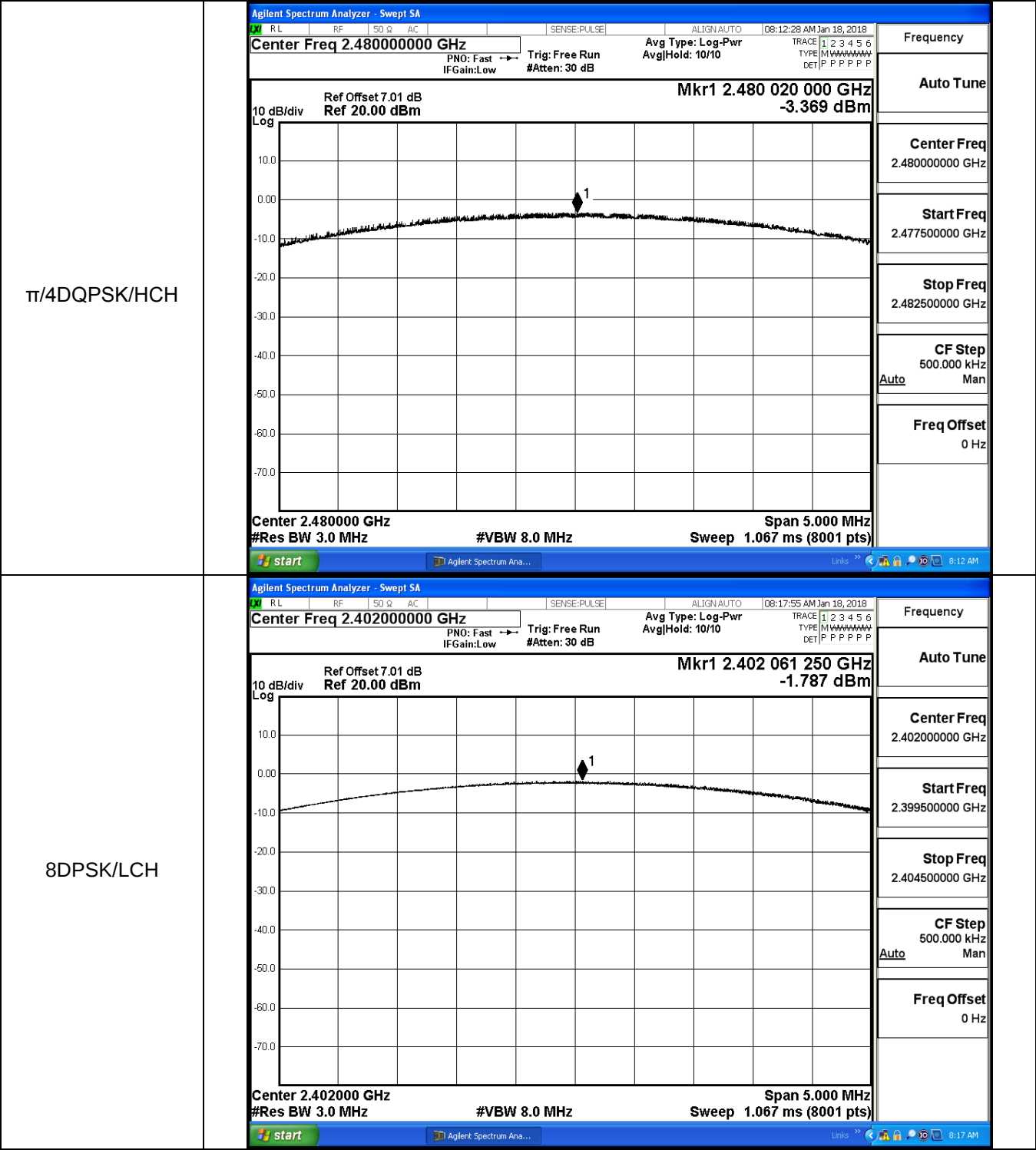
GFSK/MCH

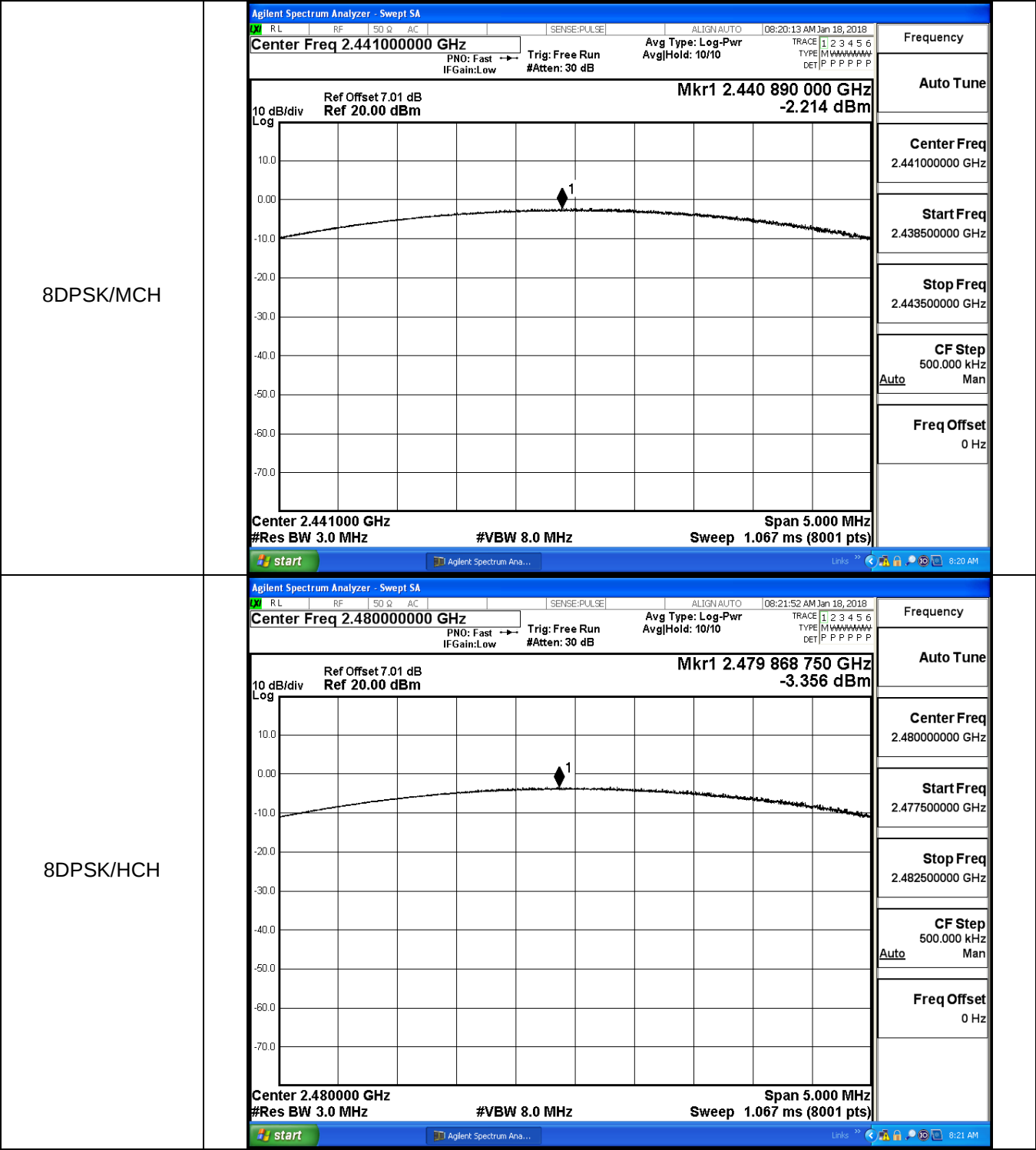
GFSK/HCH

The figure displays two screenshots of an Agilent Spectrum Analyzer interface, showing the results of a GFSK signal analysis. The top screenshot is for the MCH (Modulation Class H) signal, and the bottom screenshot is for the HCH (Modulation Class L) signal. Both screenshots show a similar signal profile with a peak at 2.44 GHz and 2.48 GHz respectively. The interface includes various controls like Center Freq, Span, Res BW, and a table on the right with parameters like Frequency, Auto Tune, Center Freq, Start Freq, Stop Freq, CF Step, and Freq Offset.

Parameter	MCH (Top Screenshot)	HCH (Bottom Screenshot)
Center Freq	2.441000000 GHz	2.480000000 GHz
Start Freq	2.438500000 GHz	2.477500000 GHz
Stop Freq	2.443500000 GHz	2.482500000 GHz
CF Step	500.000 kHz	500.000 kHz
Freq Offset	0 Hz	0 Hz





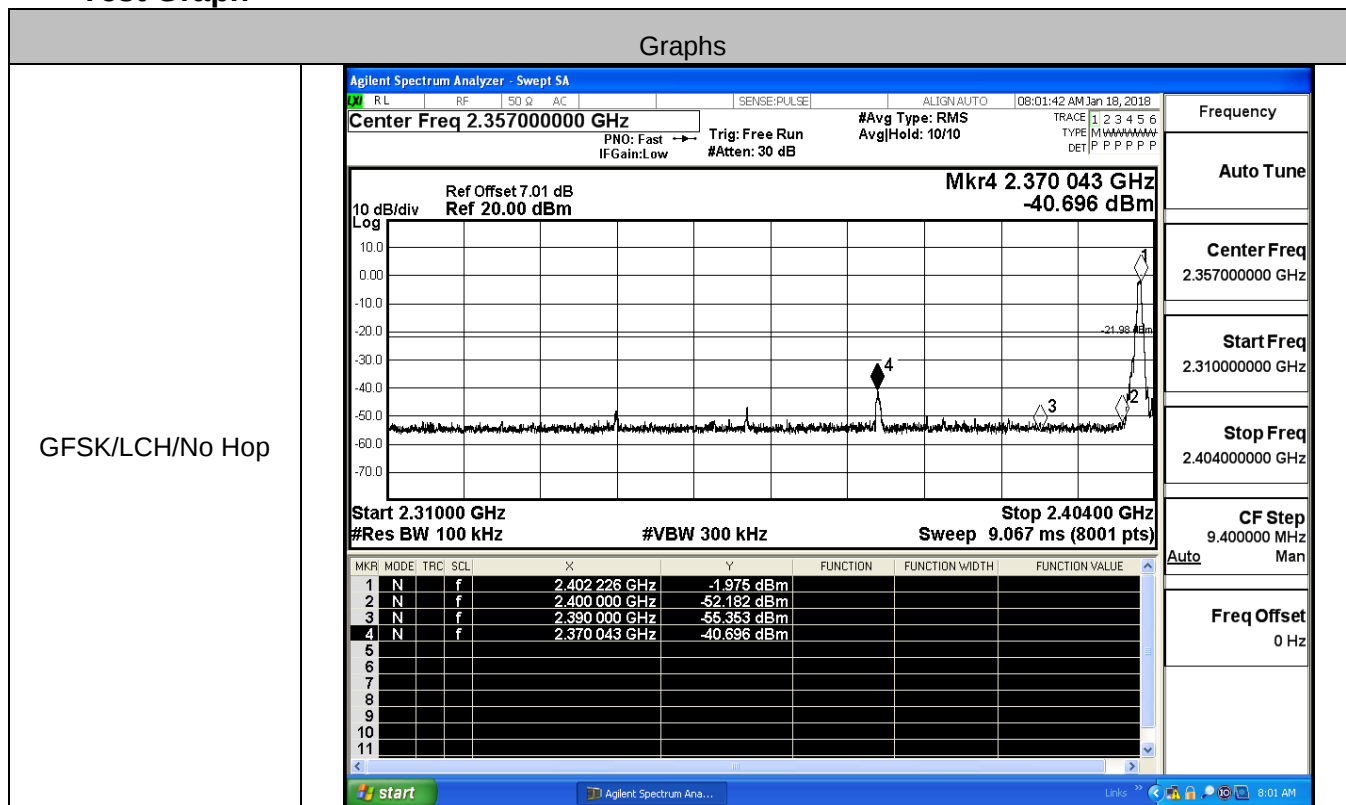


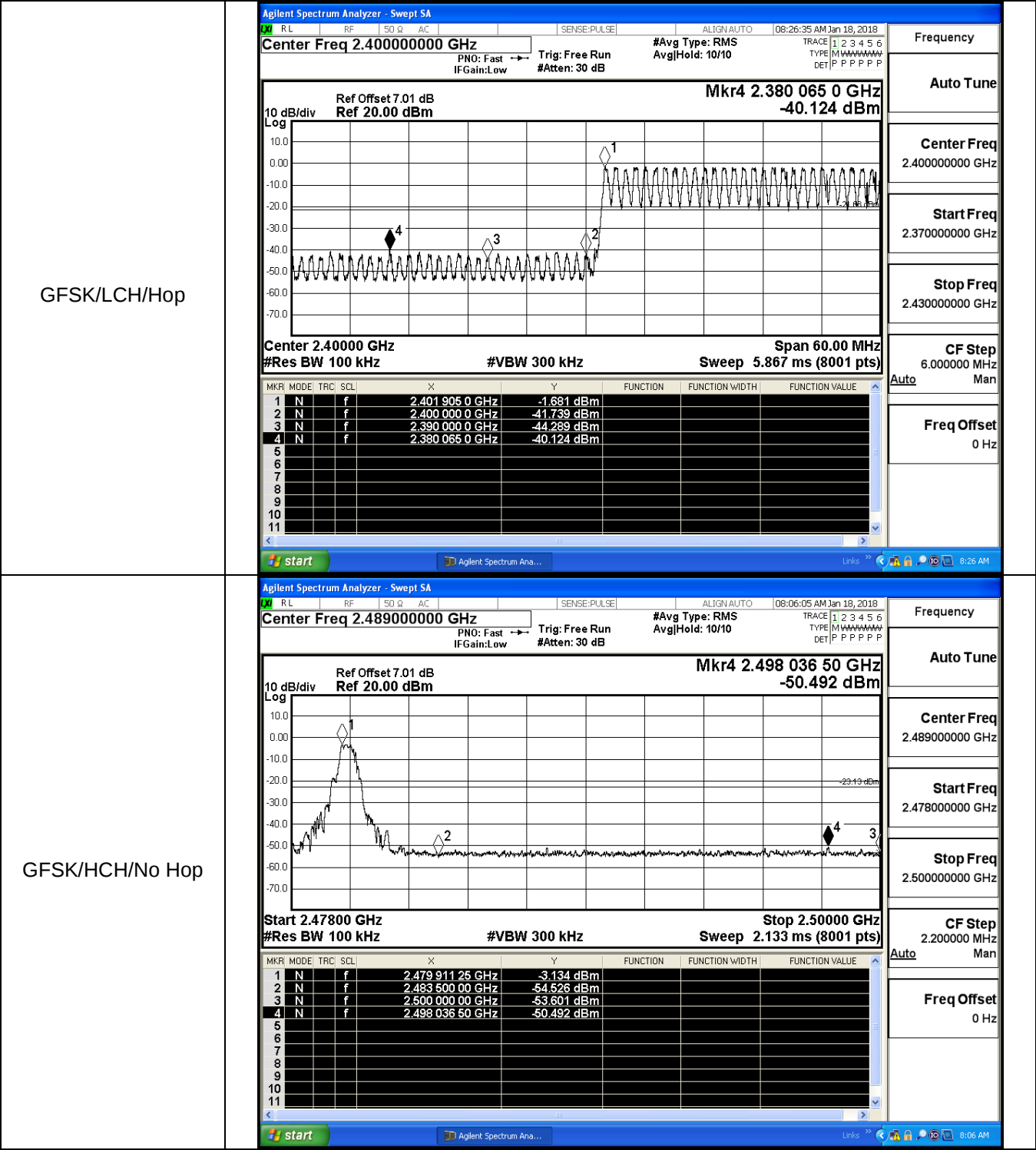
Appendix F): Band-edge for RF Conducted Emissions

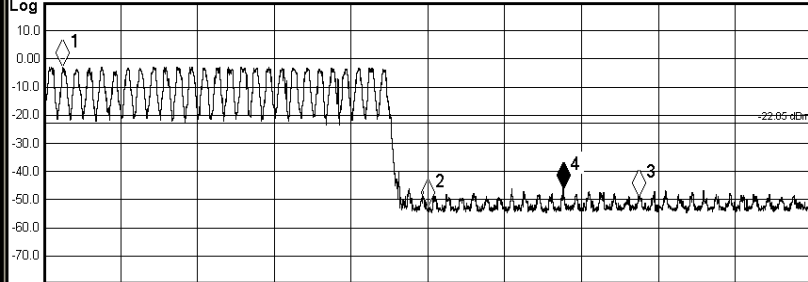
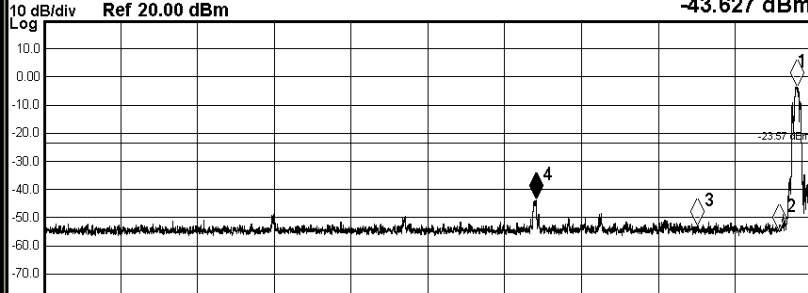
Result Table

Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	-1.975	Off	-40.696	-21.98	PASS
			-1.681	On	-40.124	-21.68	PASS
GFSK	HCH	2480	-3.134	Off	-50.492	-23.13	PASS
			-2.846	On	-46.227	-22.85	PASS
$\pi/4$ DQPSK	LCH	2402	-3.574	Off	-43.627	-23.57	PASS
			-3.477	On	-42.773	-23.48	PASS
$\pi/4$ DQPSK	HCH	2480	-4.850	Off	-50.412	-24.85	PASS
			-4.807	On	-45.859	-24.81	PASS
8DPSK	LCH	2402	-3.470	Off	-42.404	-23.47	PASS
			-3.305	On	-42.257	-23.31	PASS
8DPSK	HCH	2480	-4.997	Off	-50.483	-25	PASS
			-4.499	On	-46.755	-24.5	PASS

Test Graph





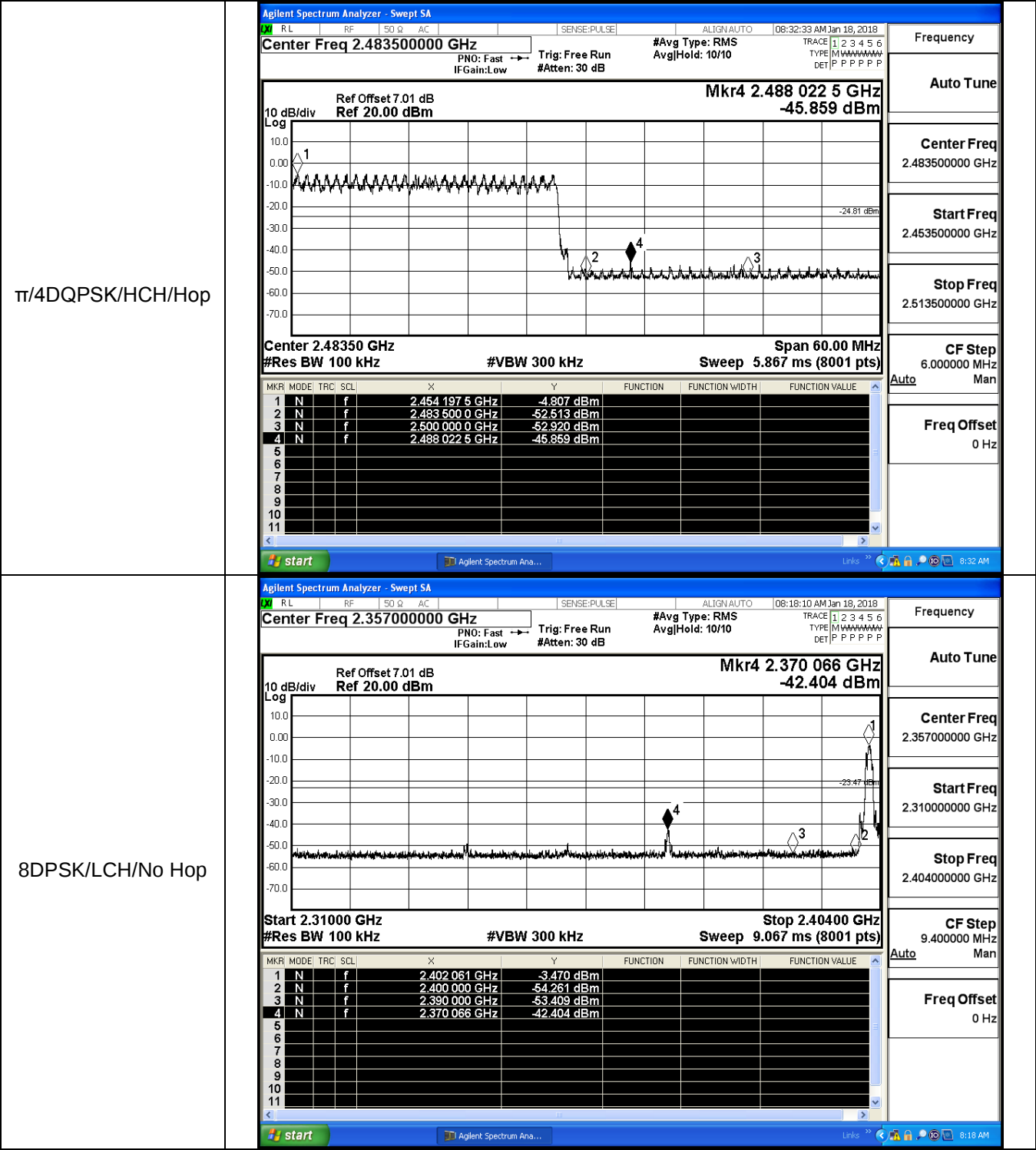
GFSK/HCH/Hop	Agilent Spectrum Analyzer - Swept SA Center Freq 2.483500000 GHz Ref Offset 7.01 dB Ref 20.00 dBm 10 dB/div Log  Center 2.48350 GHz #Res BW 100 kHz #VBW 300 kHz Span 60.00 MHz Sweep 5.867 ms (8001 pts) <table><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SCL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>f</td><td></td><td>2.454 985 0 GHz</td><td>-2.846 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>f</td><td></td><td>2.483 500 0 GHz</td><td>-52.541 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>f</td><td></td><td>2.500 000 0 GHz</td><td>-49.151 dBm</td><td></td><td></td><td></td></tr><tr><td>4</td><td>N</td><td>f</td><td></td><td>2.494 060 0 GHz</td><td>-46.227 dBm</td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> start Agilent Spectrum Ana... Links 8:27 AM Frequency Auto Tune Center Freq 2.483500000 GHz Start Freq 2.453500000 GHz Stop Freq 2.513500000 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		2.454 985 0 GHz	-2.846 dBm				2	N	f		2.483 500 0 GHz	-52.541 dBm				3	N	f		2.500 000 0 GHz	-49.151 dBm				4	N	f		2.494 060 0 GHz	-46.227 dBm				5									6									7									8									9									10									11								
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π /4DQPSK/LCH/No Hop	Agilent Spectrum Analyzer - Swept SA Center Freq 2.357000000 GHz Ref Offset 7.01 dB Ref 20.00 dBm 10 dB/div Log  Start 2.31000 GHz #Res BW 100 kHz #VBW 300 kHz Stop 2.40400 GHz Sweep 9.067 ms (8001 pts) <table><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SCL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>f</td><td></td><td>2.402 191 GHz</td><td>-3.574 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>f</td><td></td><td>2.400 000 GHz</td><td>-54.748 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td>N</td><td>f</td><td></td><td>2.390 000 GHz</td><td>-52.798 dBm</td><td></td><td></td><td></td></tr><tr><td>4</td><td>N</td><td>f</td><td></td><td>2.370 231 GHz</td><td>-43.627 dBm</td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> start Agilent Spectrum Ana... Links 8:08 AM Frequency Auto Tune Center Freq 2.357000000 GHz Start Freq 2.310000000 GHz Stop Freq 2.404000000 GHz CF Step 9.400000 MHz Auto Man Freq Offset 0 Hz	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	f		2.402 191 GHz	-3.574 dBm				2	N	f		2.400 000 GHz	-54.748 dBm				3	N	f		2.390 000 GHz	-52.798 dBm				4	N	f		2.370 231 GHz	-43.627 dBm				5									6									7									8									9									10									11								
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	3	N	f		2.390 000 GHz	-52.798 dBm																																																																																																							
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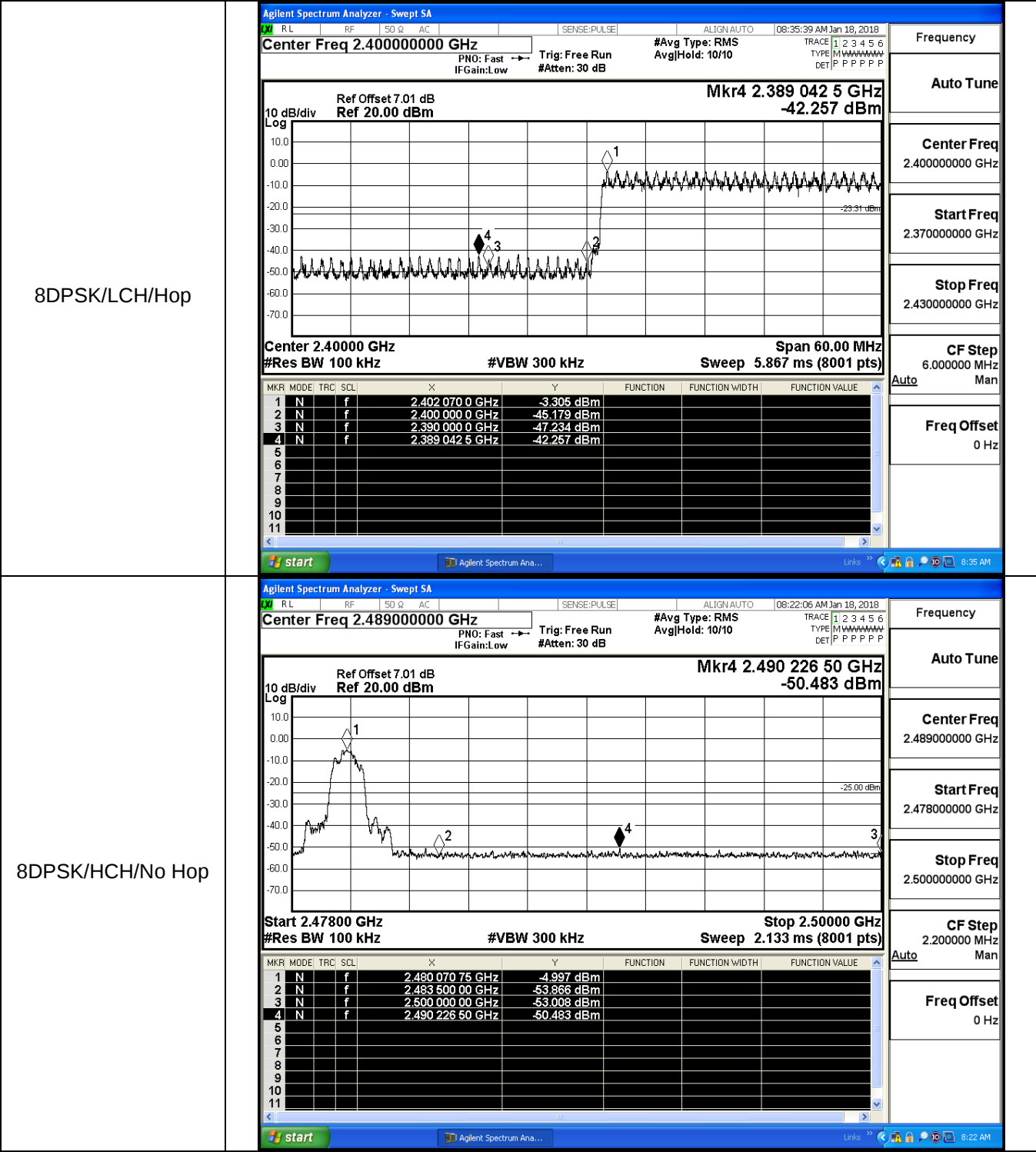
$\pi/4$ DQPSK/LCH/Hop

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N		f	2.410 065 0 GHz	-3.477 dBm			
2	N		f	2.400 000 0 GHz	-44.592 dBm			
3	N		f	2.390 000 0 GHz	-44.774 dBm			
4	N		f	2.376 967 5 GHz	-42.773 dBm			

$\pi/4$ DQPSK/HCH/No Hop

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N		f	2.480 073 50 GHz	-4.850 dBm			
2	N		f	2.483 500 00 GHz	-53.266 dBm			
3	N		f	2.500 000 00 GHz	-54.000 dBm			
4	N		f	2.484 300 25 GHz	-50.412 dBm			



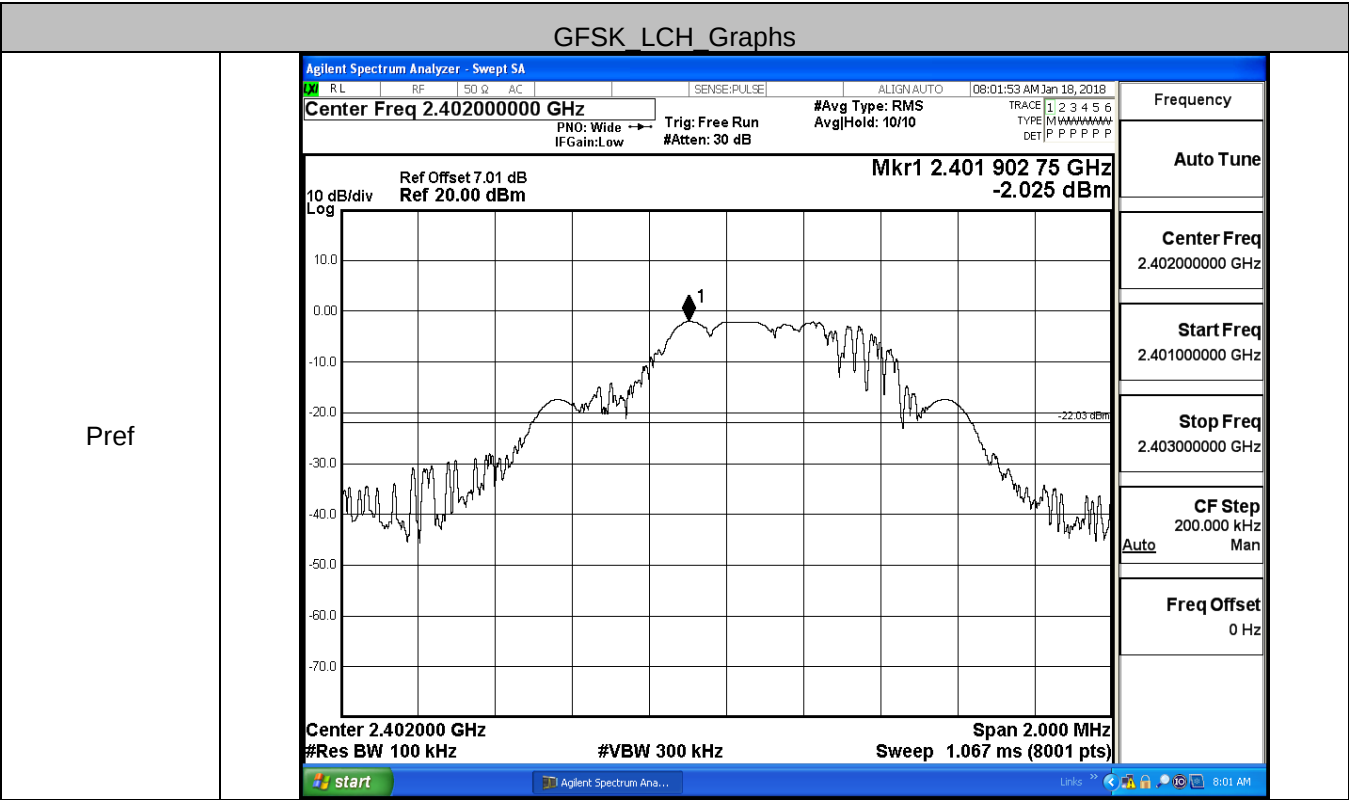


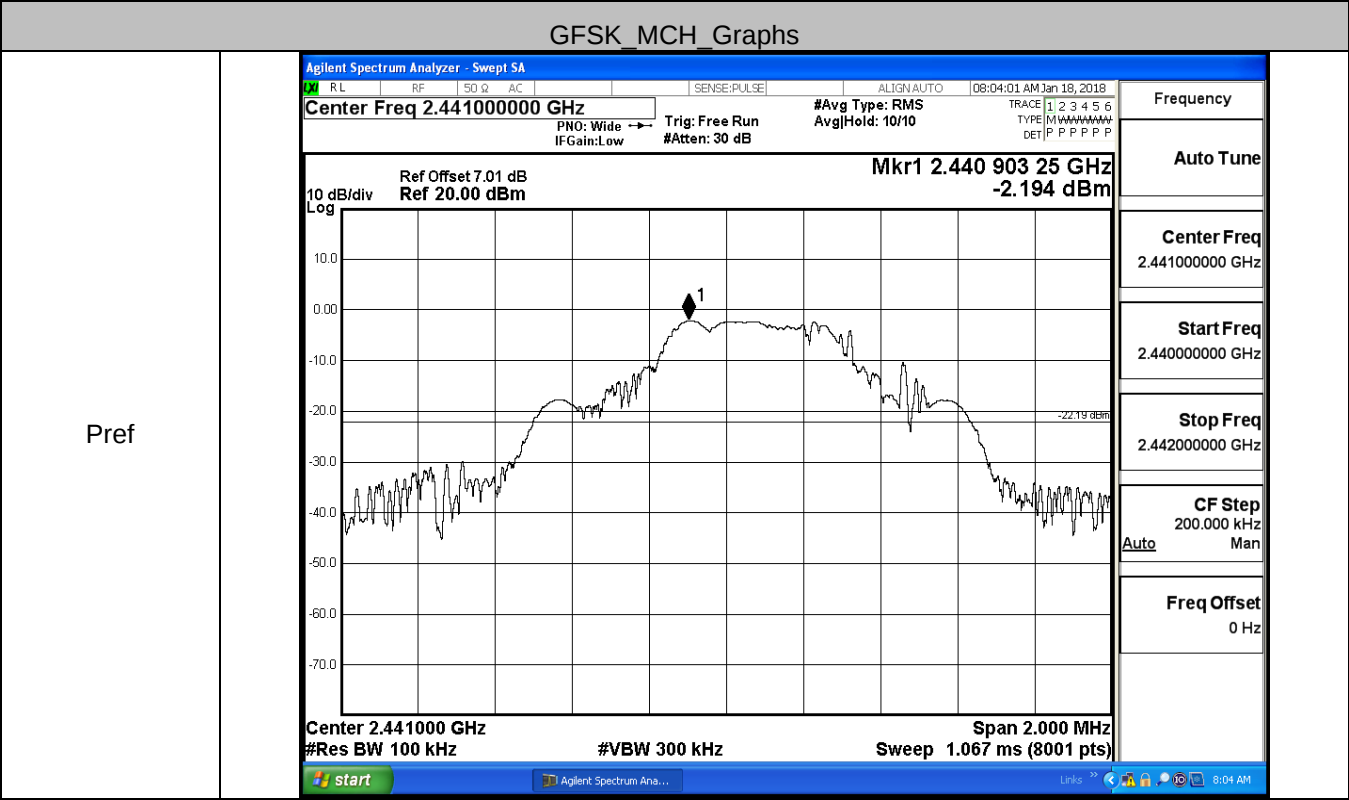
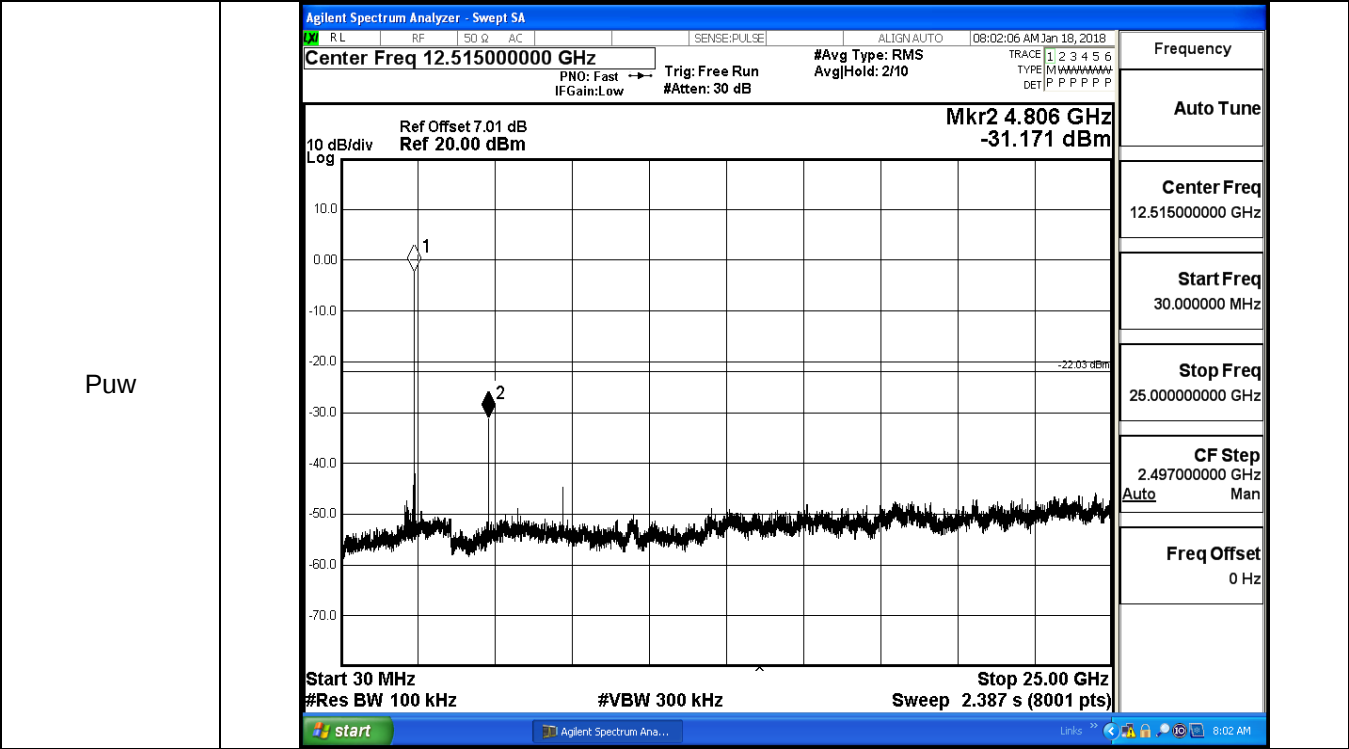
Appendix G): RF Conducted Spurious Emissions

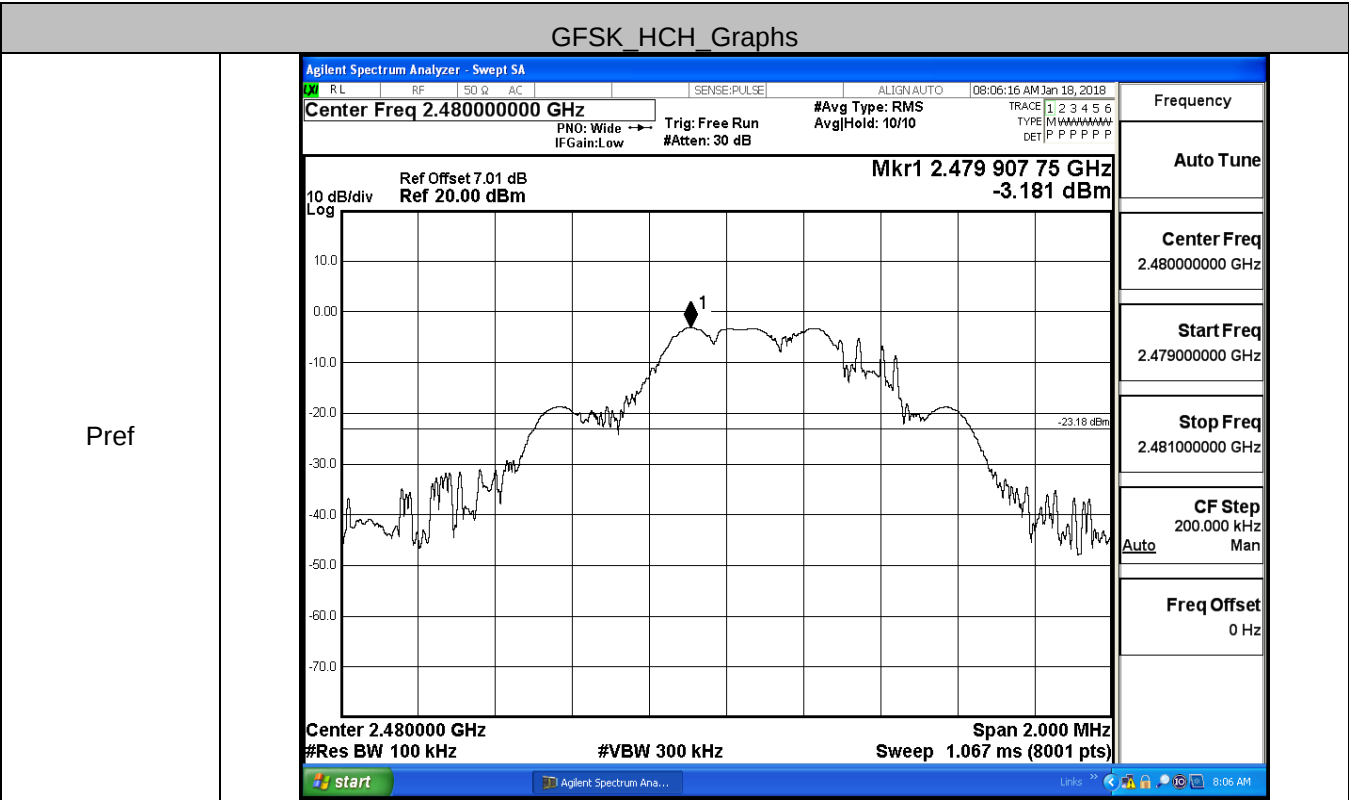
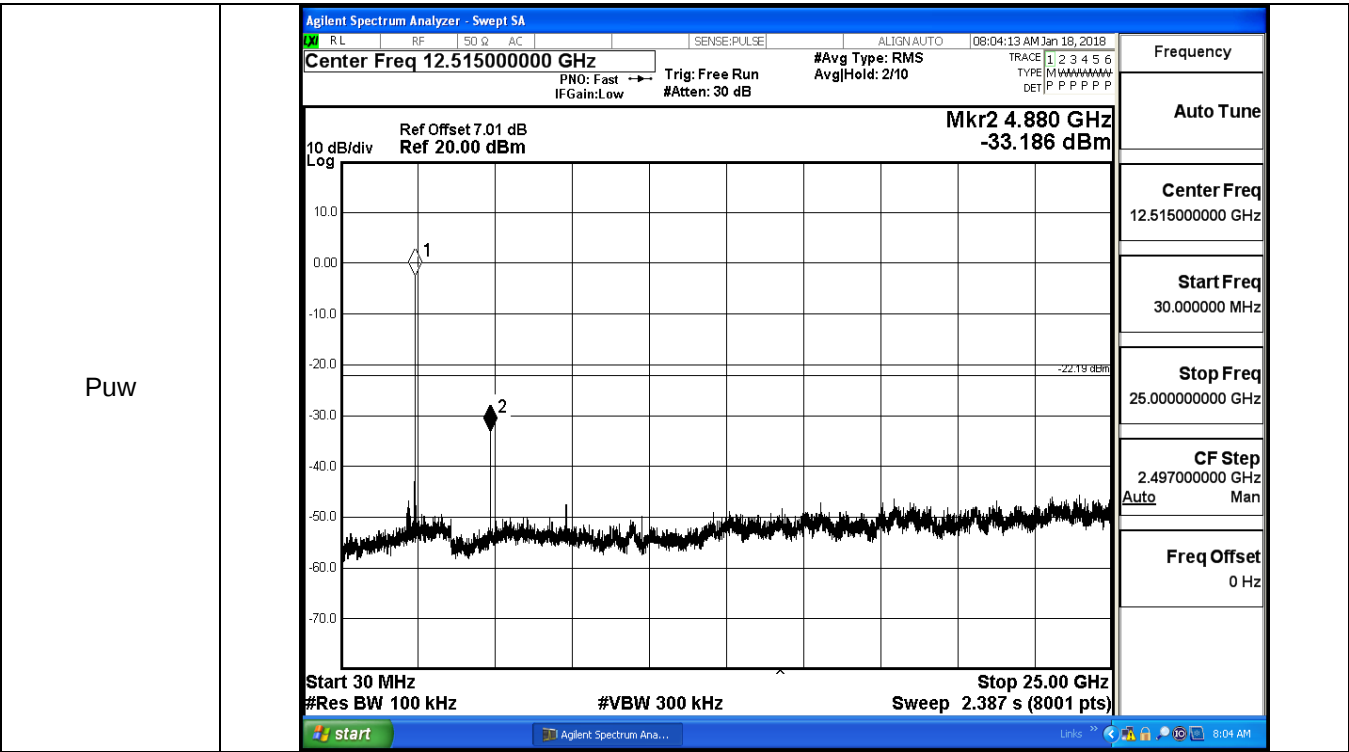
Result Table

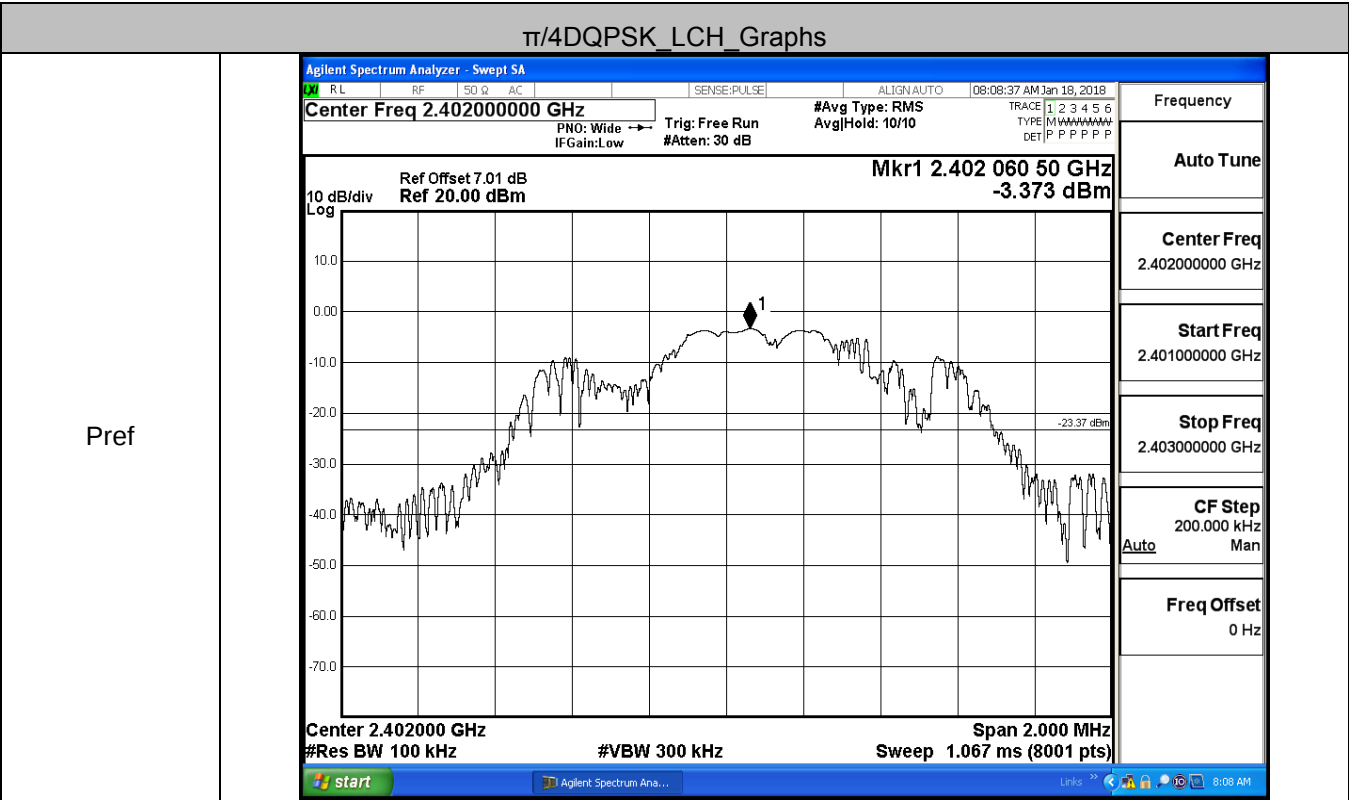
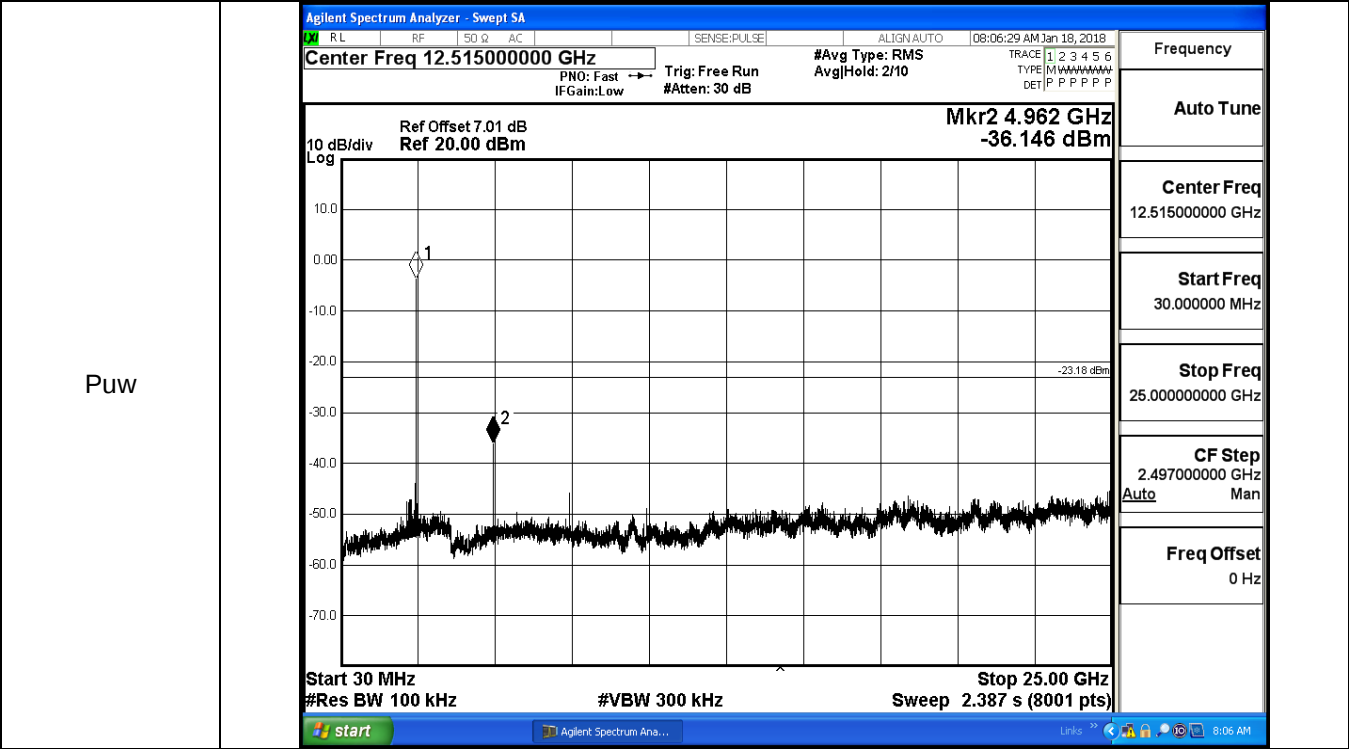
Mode	Channel	Pref [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-2.025	<-22.03	PASS
GFSK	MCH	-2.194	<-22.19	PASS
GFSK	HCH	-3.181	<-23.18	PASS
$\pi/4$ DQPSK	LCH	-3.373	<-23.37	PASS
$\pi/4$ DQPSK	MCH	-4.157	<-24.16	PASS
$\pi/4$ DQPSK	HCH	-4.923	<-24.92	PASS
8DPSK	LCH	-3.557	<-23.56	PASS
8DPSK	MCH	-3.977	<-23.98	PASS
8DPSK	HCH	-5.14	<-25.14	PASS

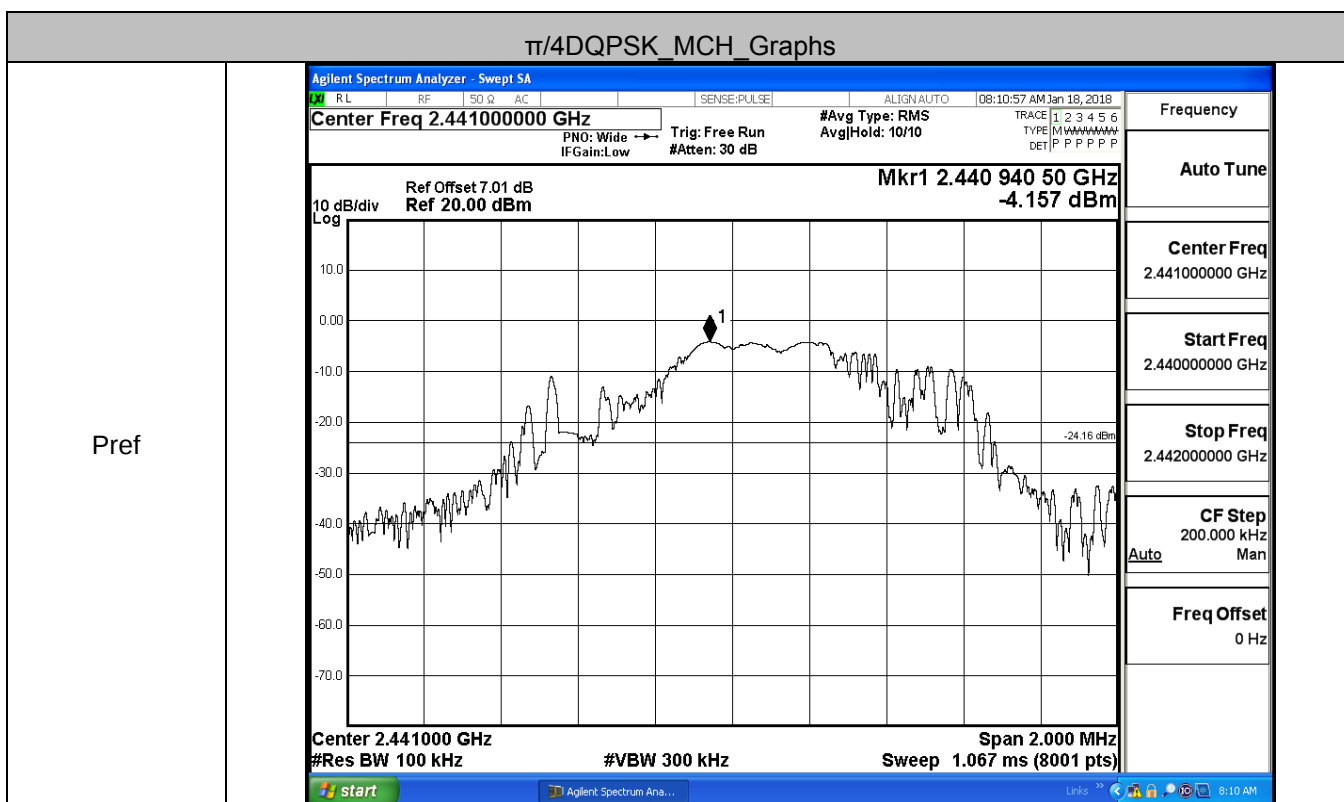
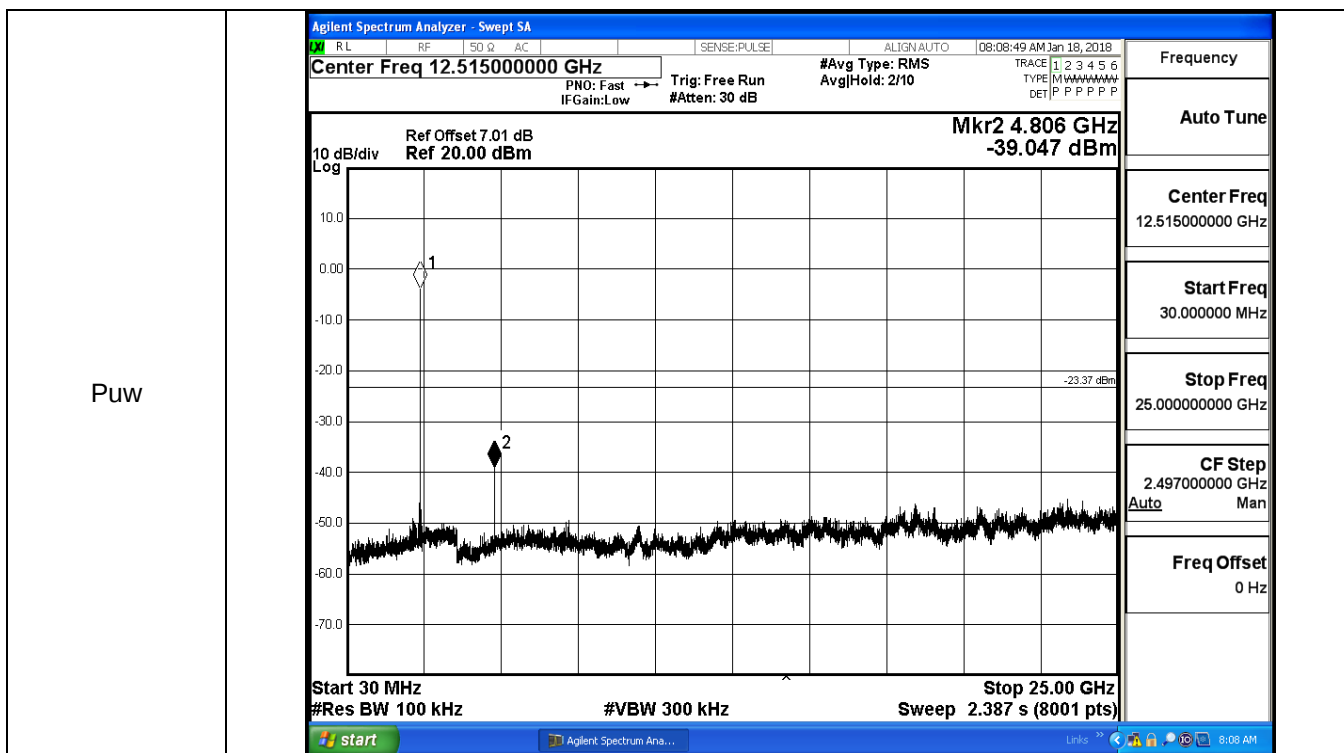
Test Graph

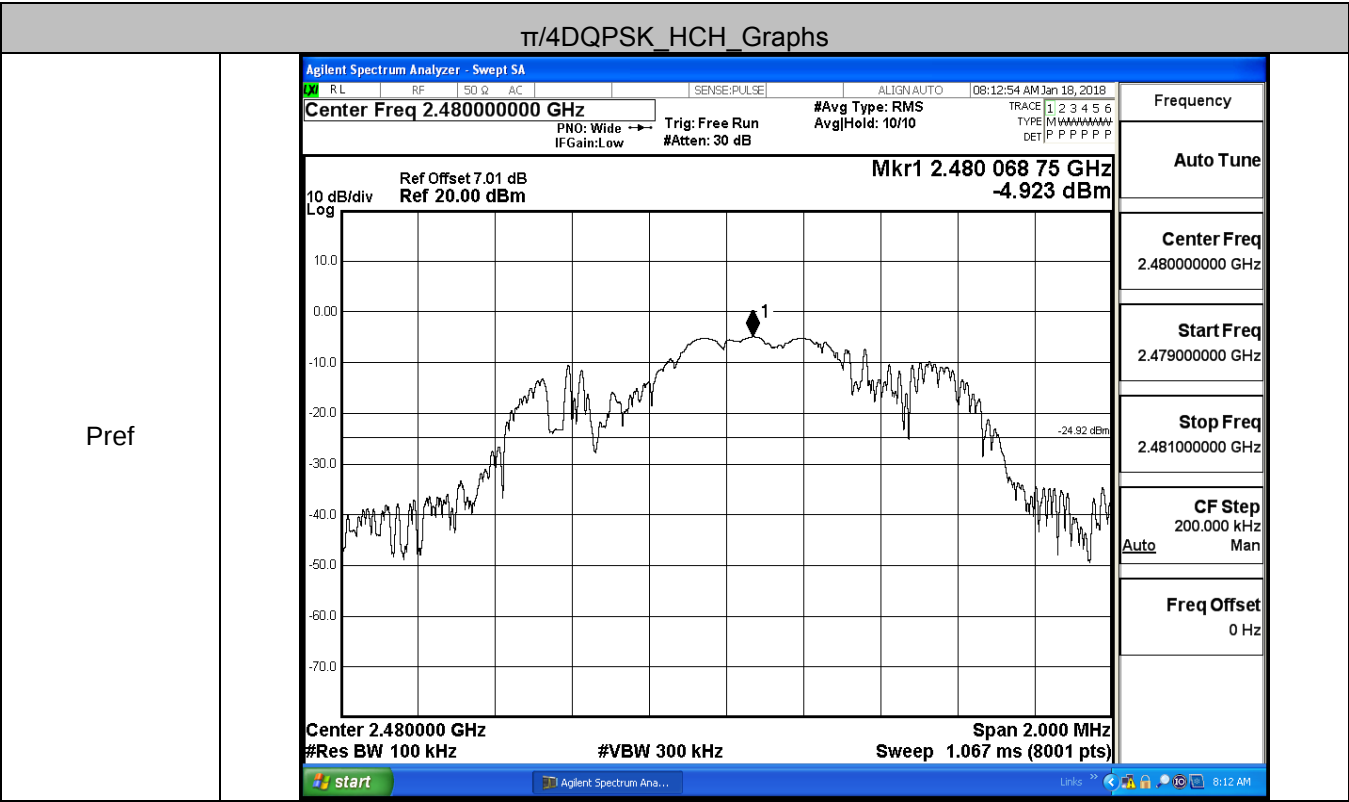
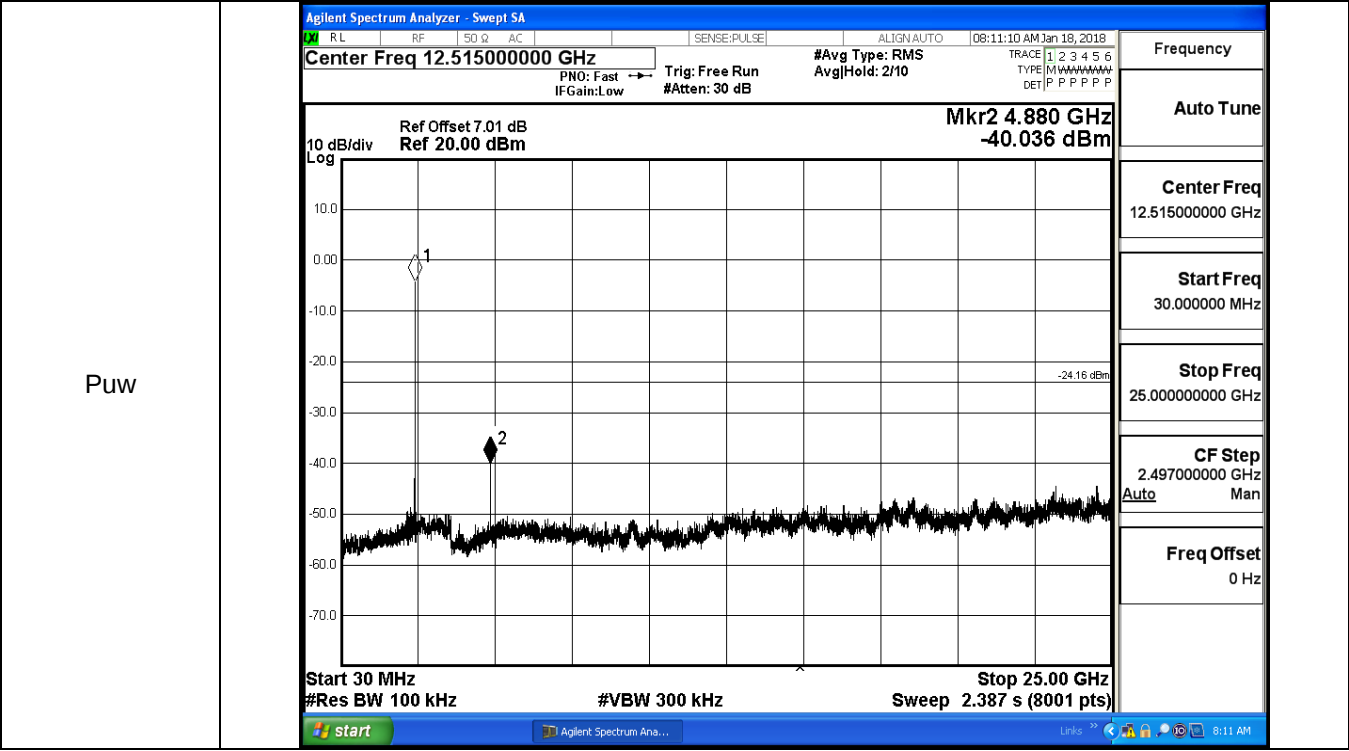


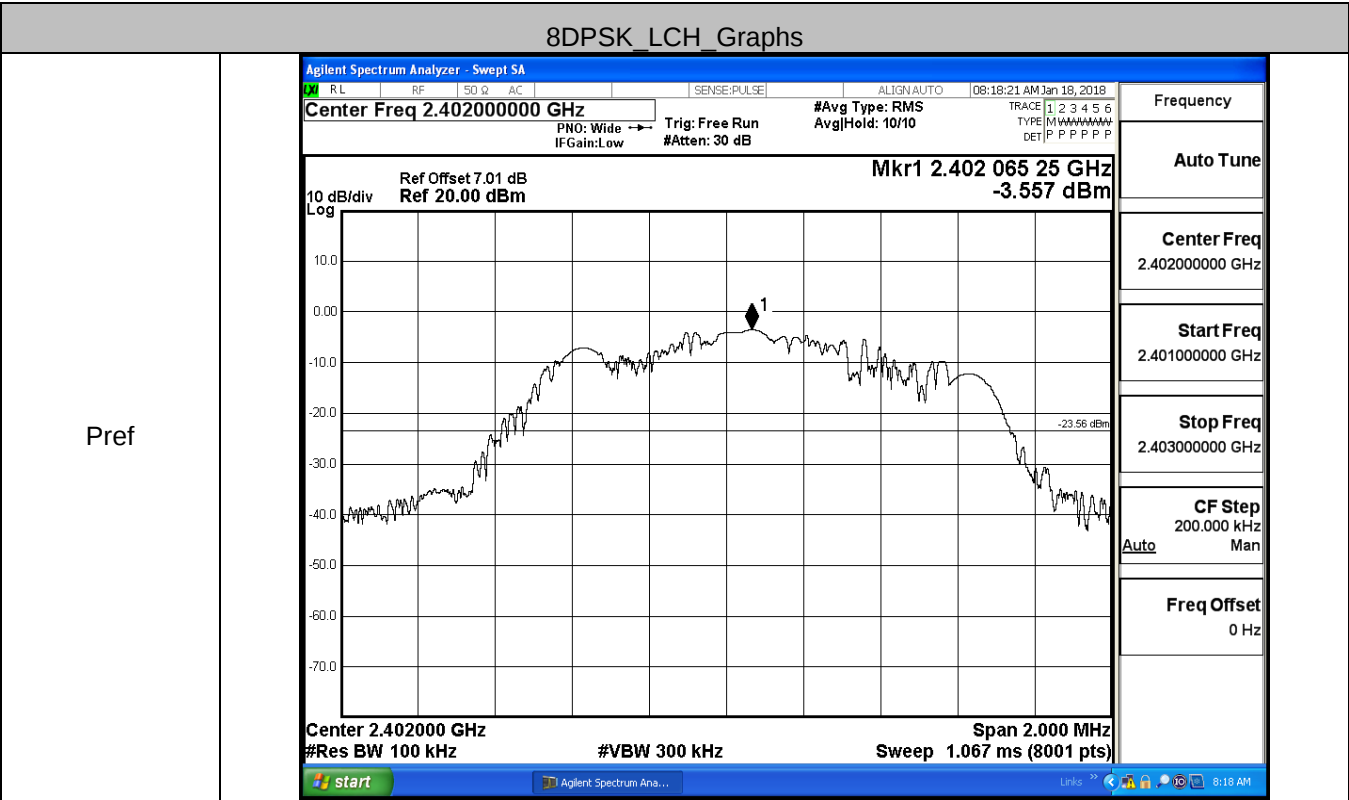
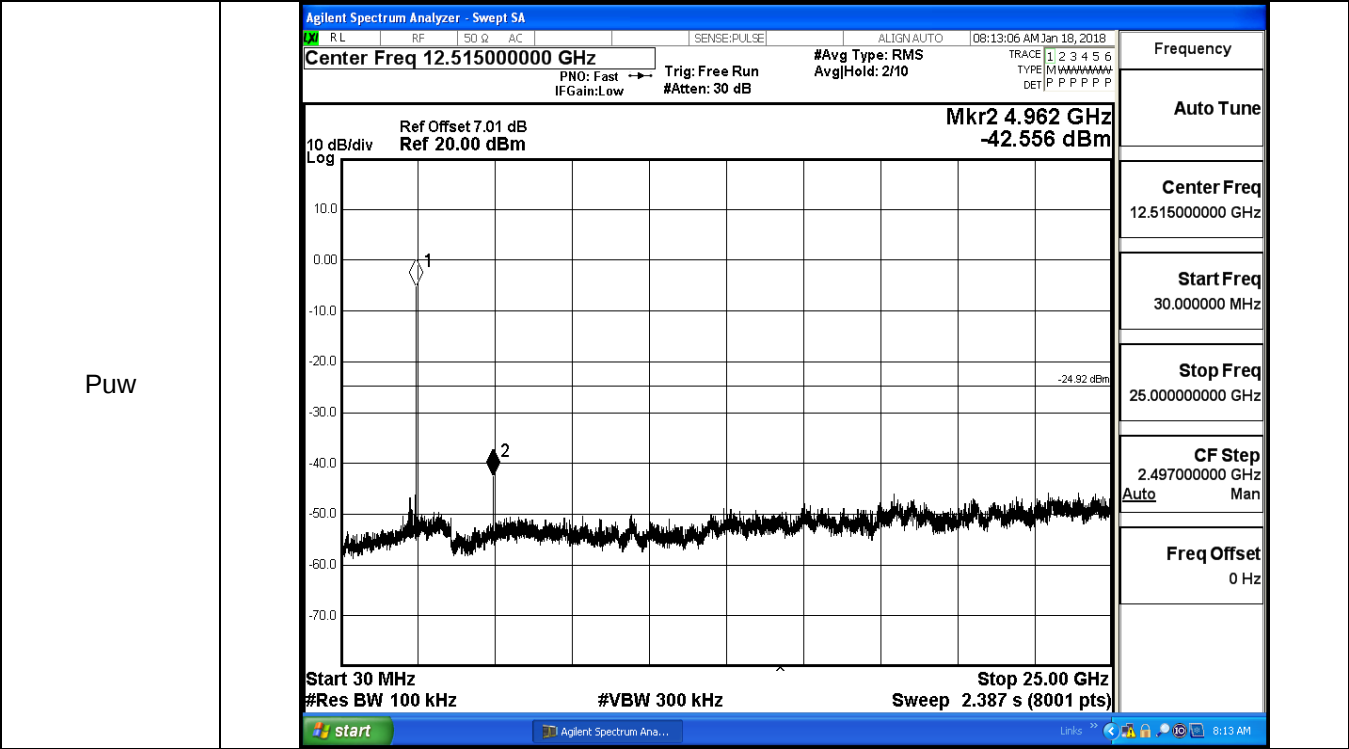


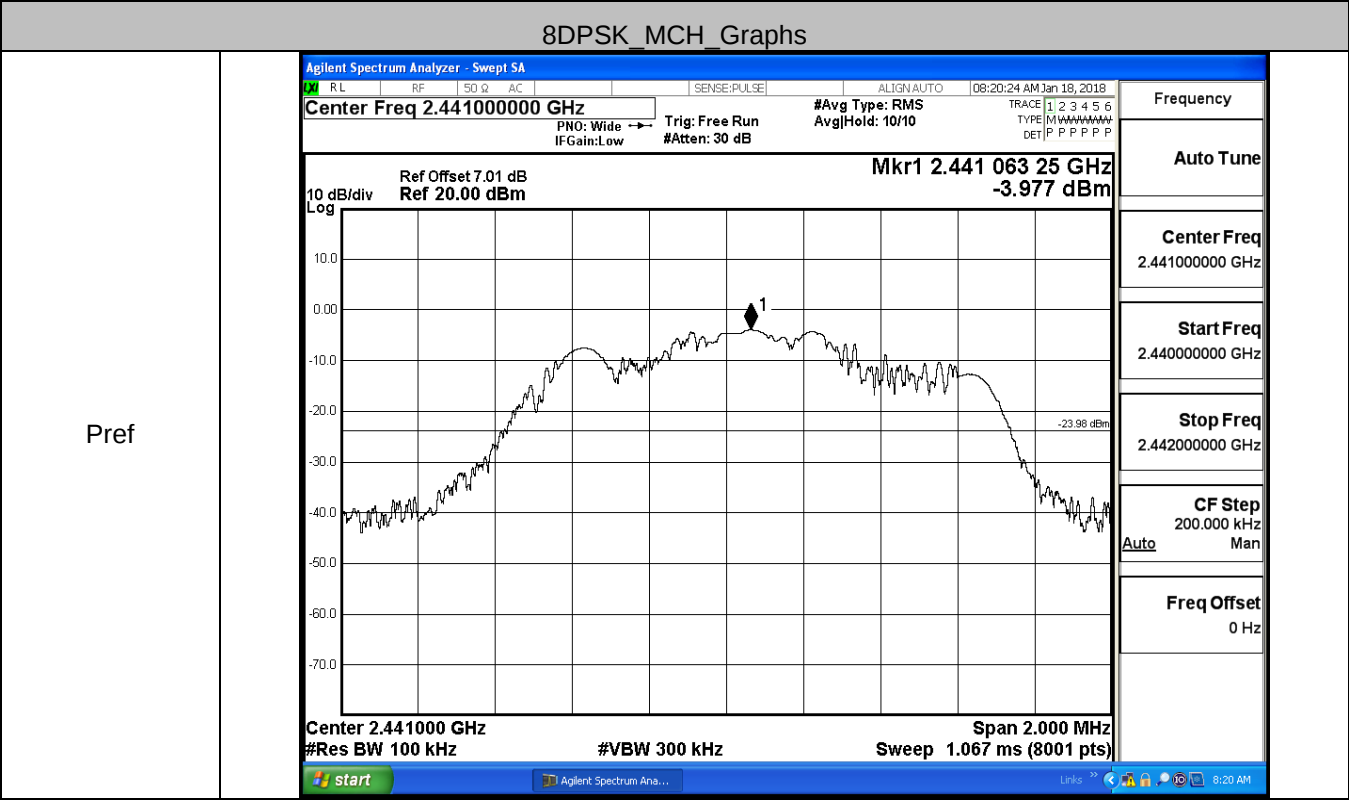
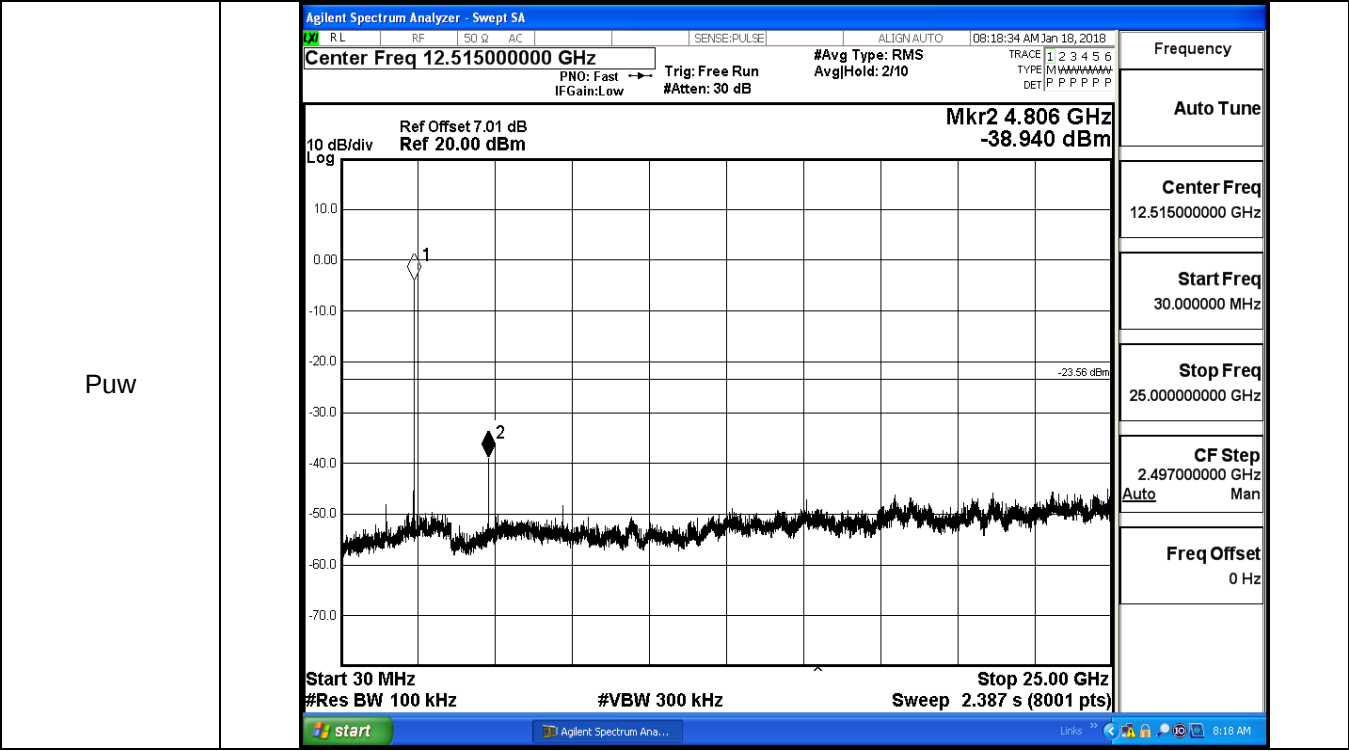


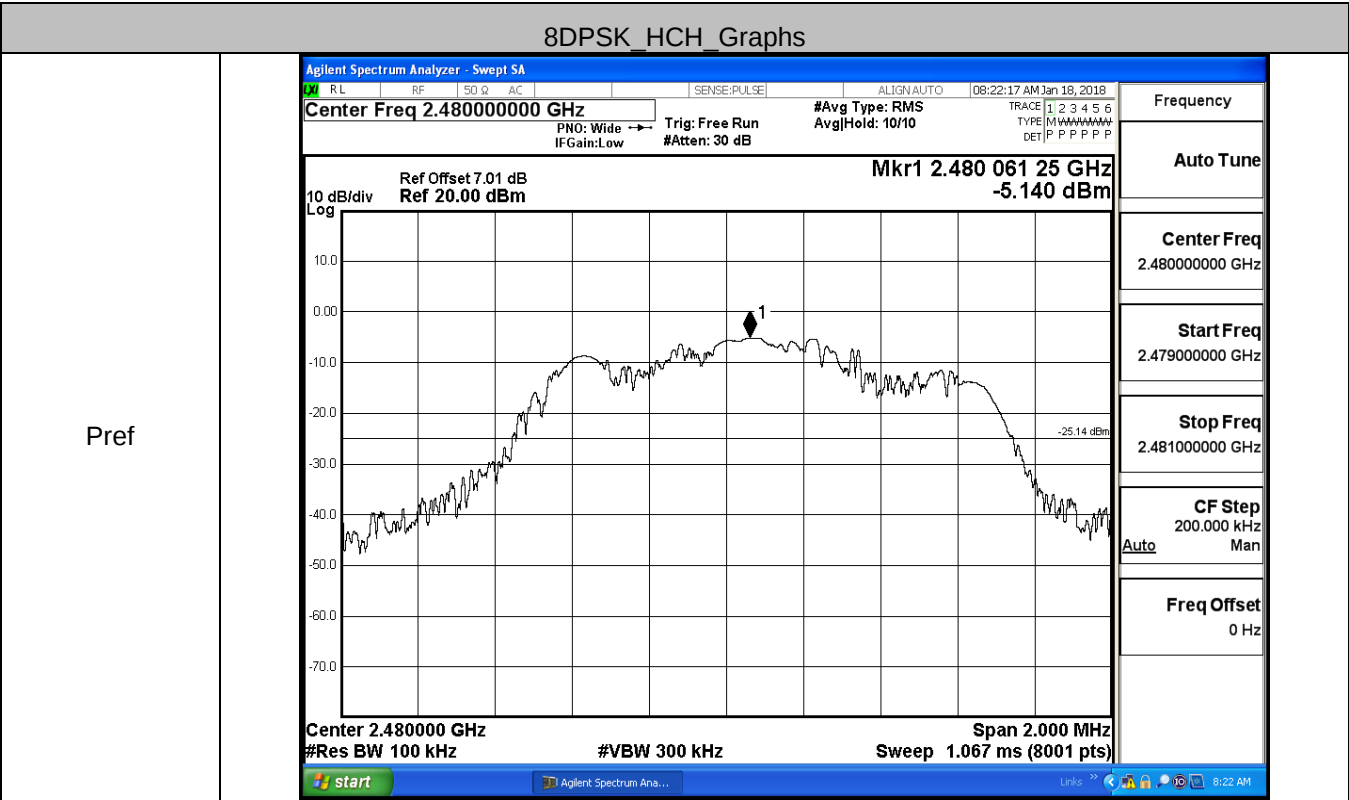
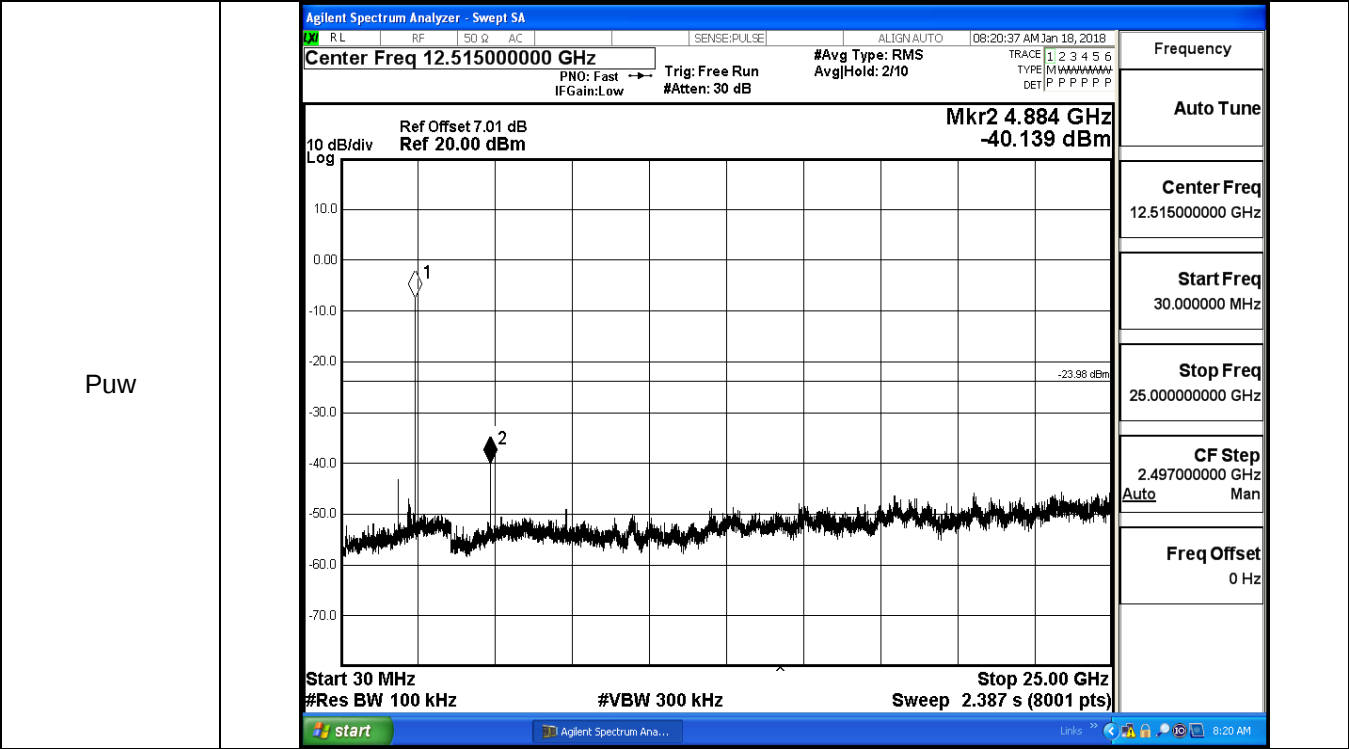


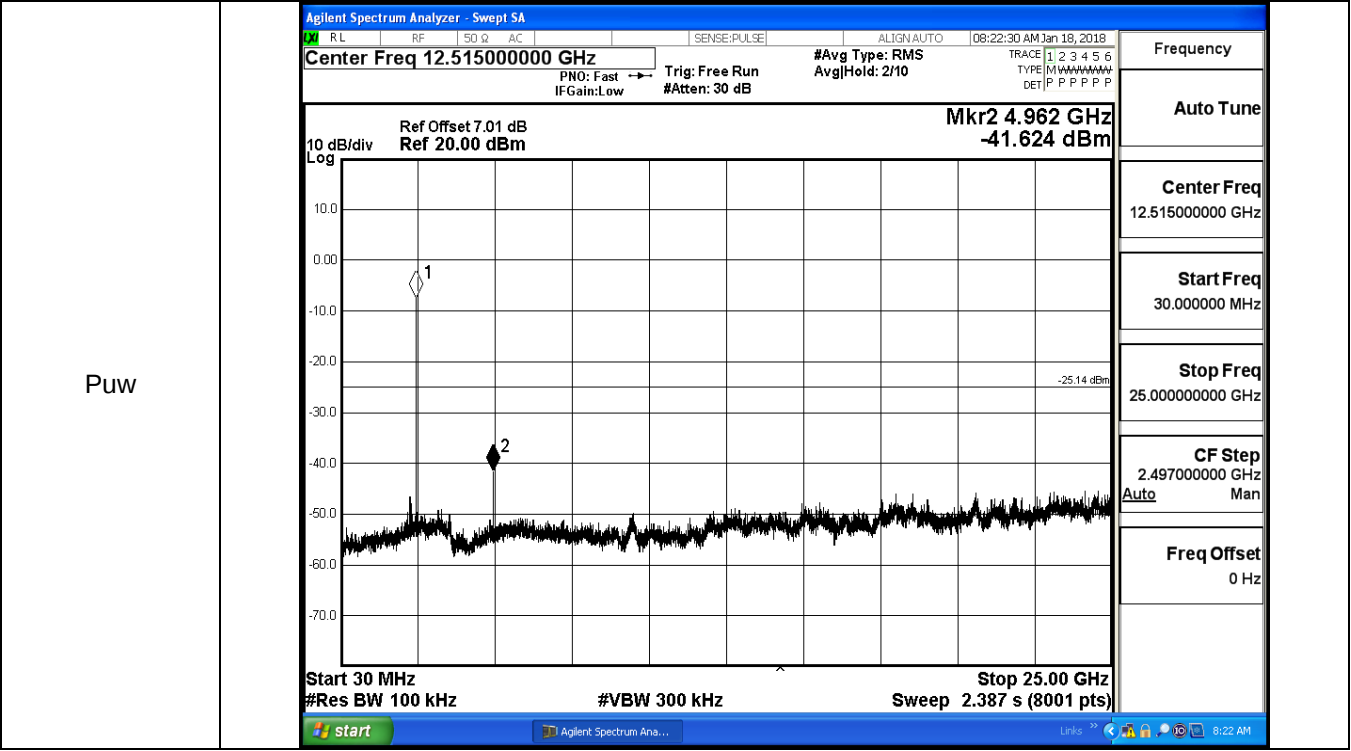












. Appendix H):Restrict-band band-edge measurements

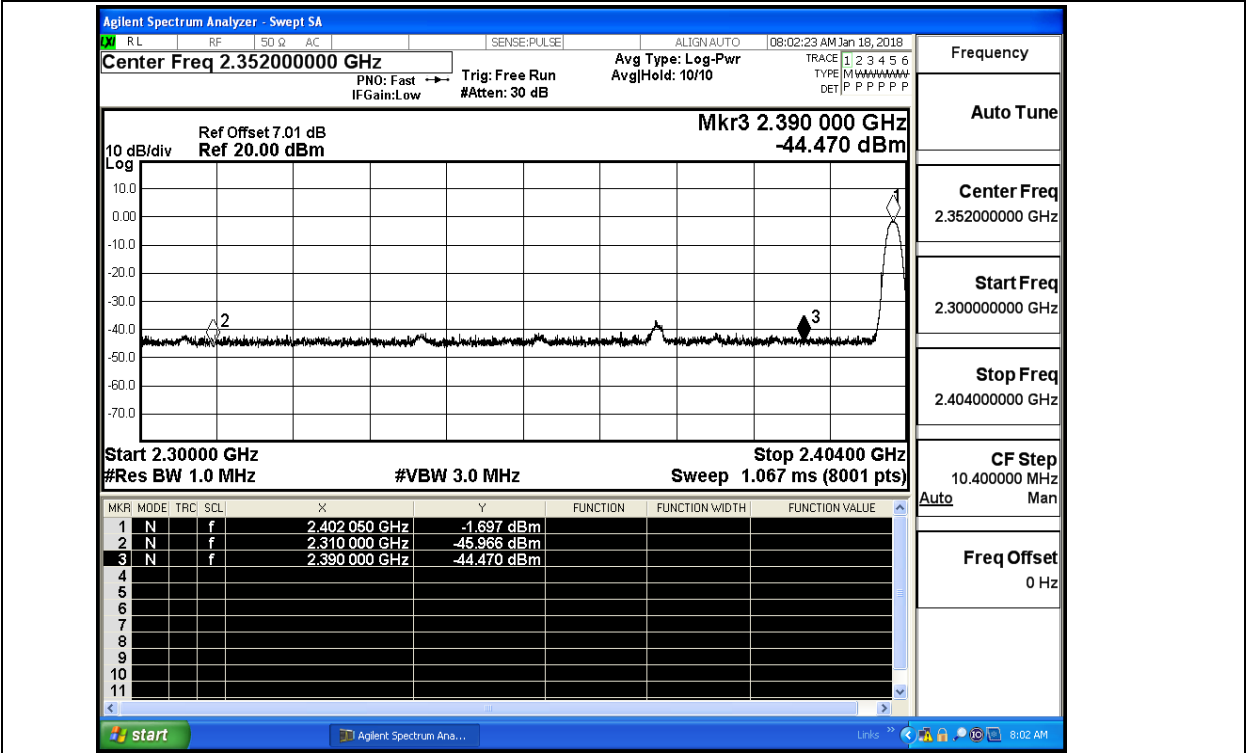
Result Table

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK_DH5	On	2310.0	-45.97	2	0	51.29	PEAK	74	PASS
GFSK_DH5	On	2310.0	-54.81	2	0	42.45	AV	54	PASS
GFSK_DH5	On	2390.0	-44.47	2	0	52.79	PEAK	74	PASS
GFSK_DH5	On	2390.0	-54.62	2	0	42.63	AV	54	PASS
GFSK_DH5	On	2483.5	-44.45	2	0	52.81	PEAK	74	PASS
GFSK_DH5	On	2483.5	-54.29	2	0	42.97	AV	54	PASS
GFSK_DH5	On	2500.0	-44.06	2	0	53.20	PEAK	74	PASS
GFSK_DH5	On	2500.0	-54.19	2	0	43.07	AV	54	PASS
$\pi/4$ DQPSK_2DH5	On	2310.0	-44.25	2	0	53.01	PEAK	74	PASS
$\pi/4$ DQPSK_2DH5	On	2310.0	-54.80	2	0	42.46	AV	54	PASS
$\pi/4$ DQPSK_2DH5	On	2390.0	-44.54	2	0	52.72	PEAK	74	PASS
$\pi/4$ DQPSK_2DH5	On	2390.0	-54.58	2	0	42.68	AV	54	PASS
$\pi/4$ DQPSK_2DH5	On	2483.5	-42.82	2	0	54.44	PEAK	74	PASS
$\pi/4$ DQPSK_2DH5	On	2483.5	-54.36	2	0	42.90	AV	54	PASS

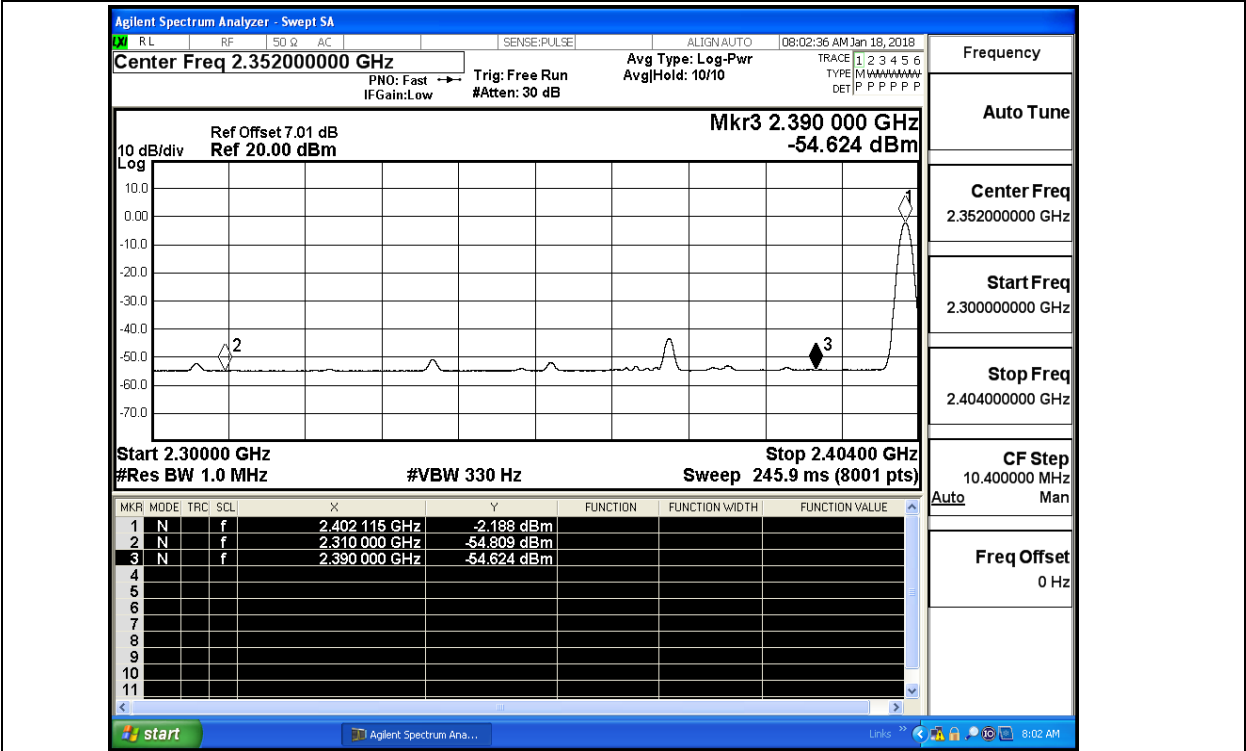
$\pi/4$ DQPSK_2DH5	On	2500.0	-44.50	2	0	52.76	PEAK	74	PAS S
$\pi/4$ DQPSK_2DH5	On	2500.0	-54.27	2	0	42.99	AV	54	PAS S
8DPSK_3DH5	On	2310.0	-44.41	2	0	52.85	PEAK	74	PAS S
8DPSK_3DH5	On	2310.0	-54.84	2	0	42.41	AV	54	PAS S
8DPSK_3DH5	On	2390.0	-44.73	2	0	52.53	PEAK	74	PAS S
8DPSK_3DH5	On	2390.0	-54.46	2	0	42.80	AV	54	PAS S
8DPSK_3DH5	On	2483.5	-43.70	2	0	53.56	PEAK	74	PAS S
8DPSK_3DH5	On	2483.5	-54.23	2	0	43.03	AV	54	PAS S
8DPSK_3DH5	On	2500.0	-44.10	2	0	53.16	PEAK	74	PAS S
8DPSK_3DH5	On	2500.0	-54.15	2	0	43.10	AV	54	PAS S

Test Graph

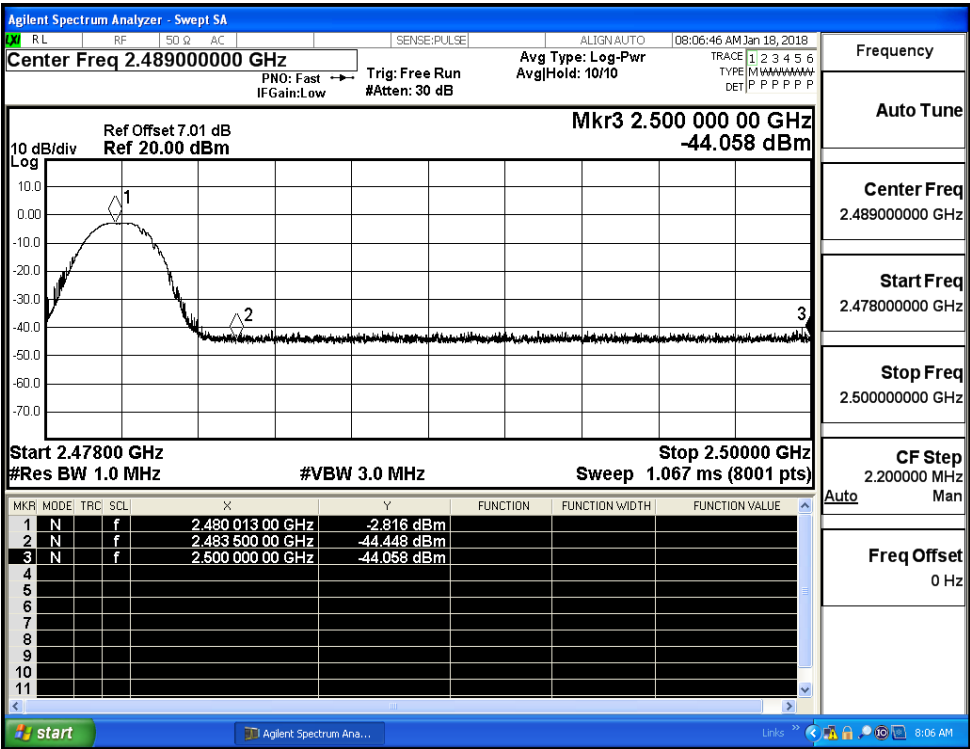
Restrict-band band-edge measurements_2402_PEAK_DH5



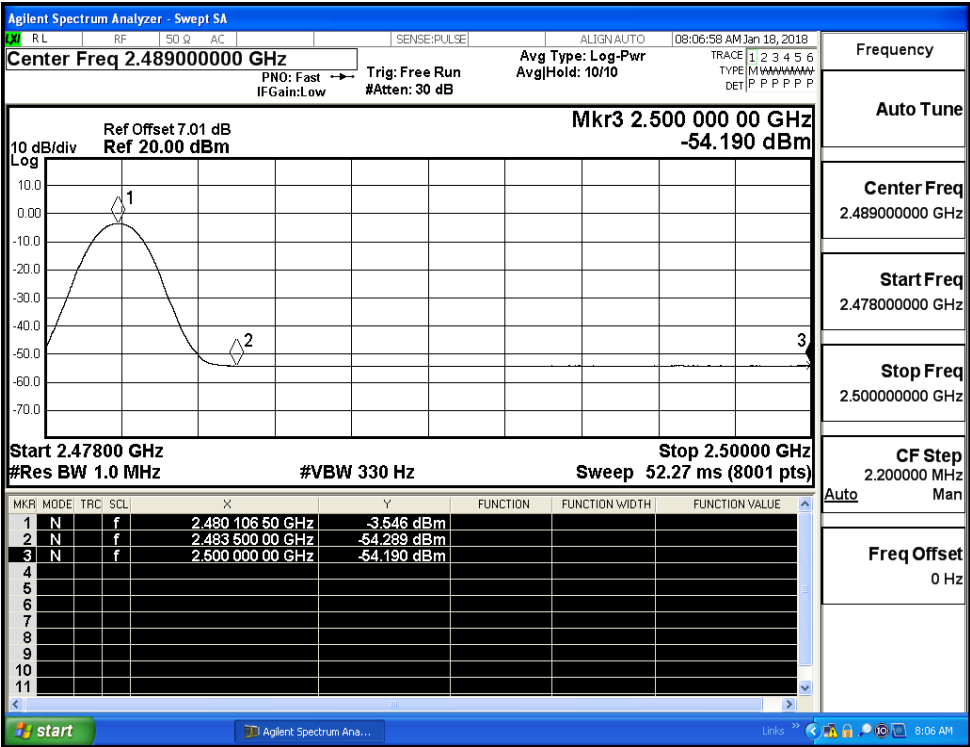
Restrict-band band-edge measurements_2402_AV_DH5



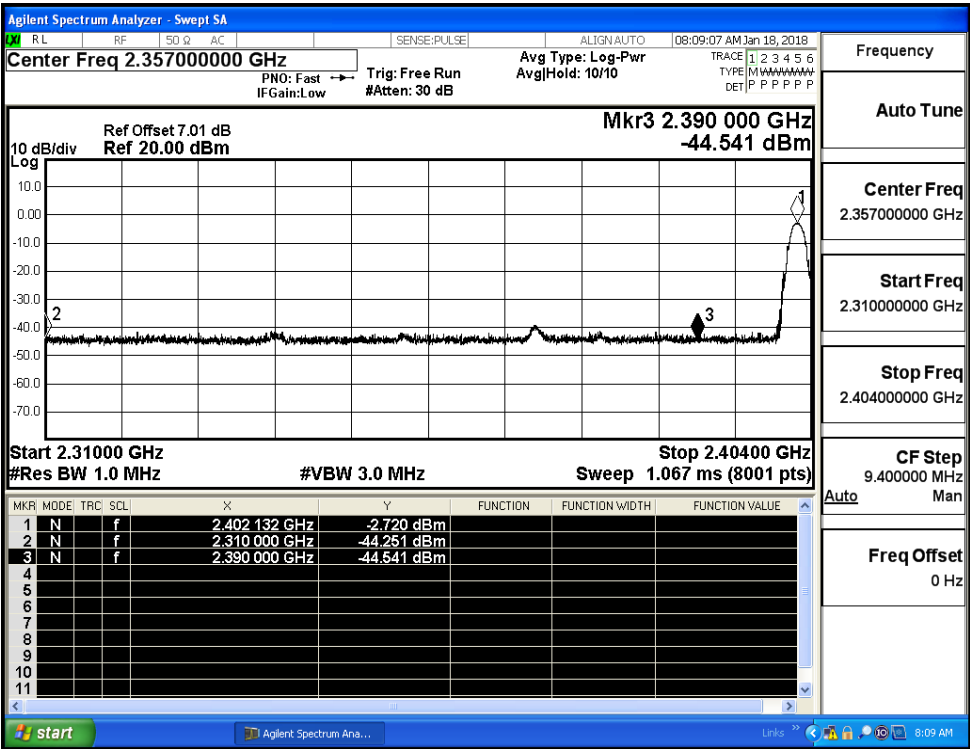
Restrict-band band-edge measurements_2480_PEAK_DH5



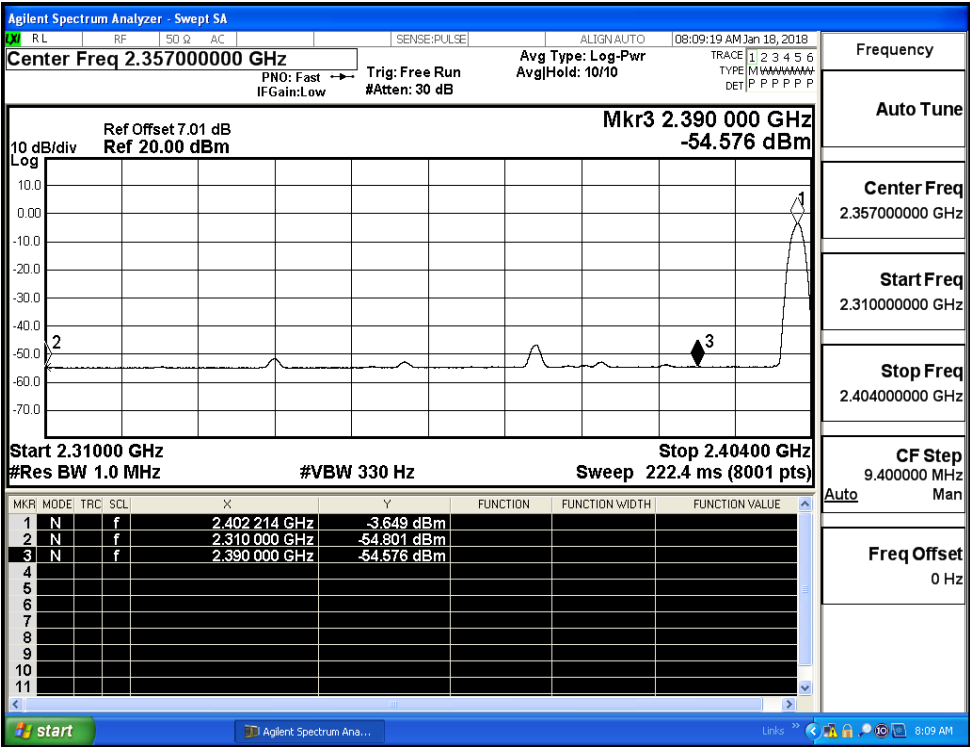
Restrict-band band-edge measurements_2480_AV_DH5



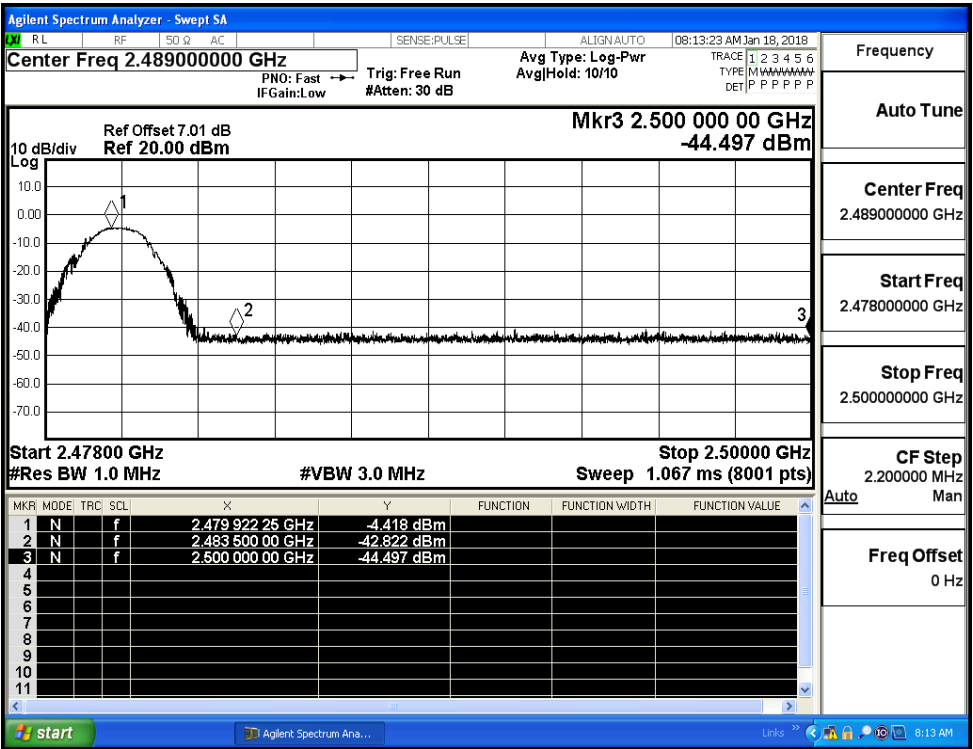
Restrict-band band-edge measurements_2402_PEAK_2DH5



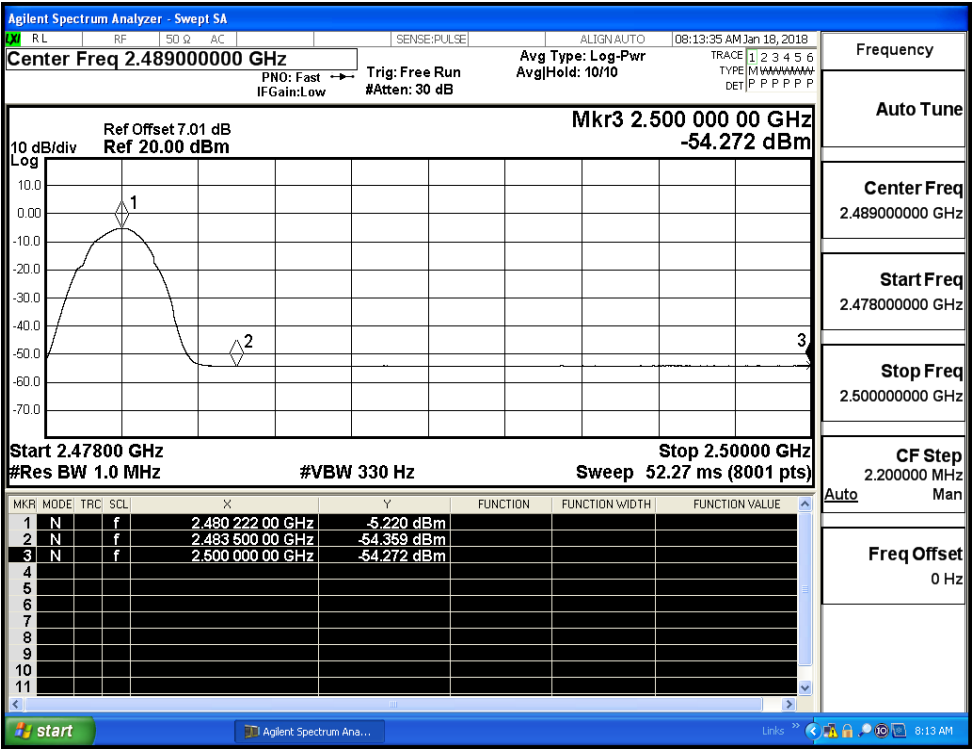
Restrict-band band-edge measurements_2402_AV_2DH5



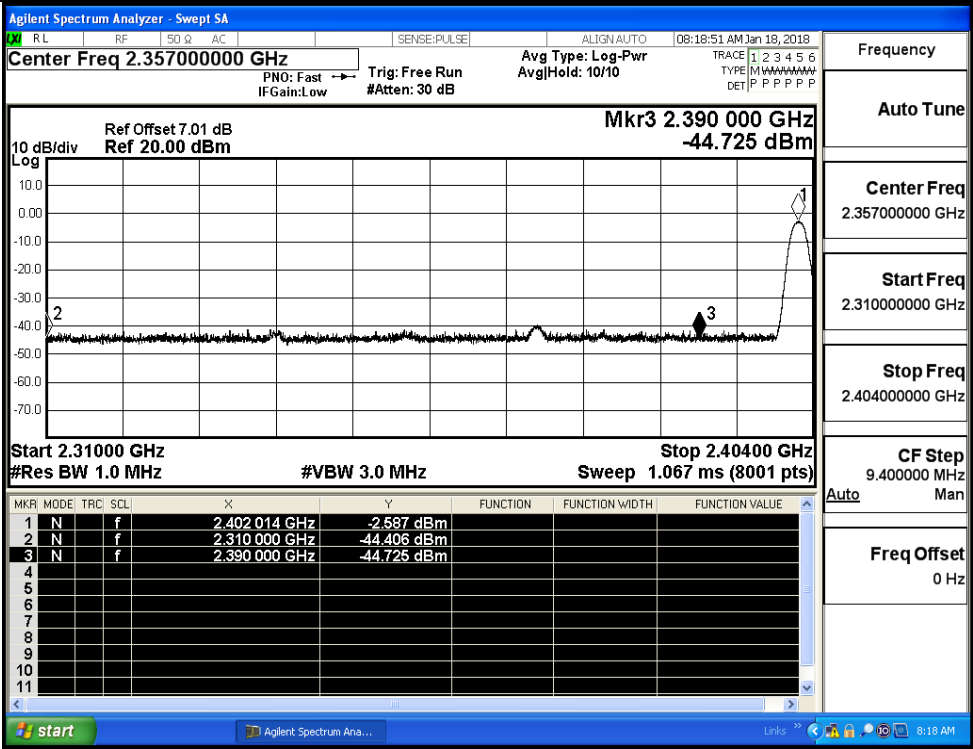
Restrict-band band-edge measurements_2480_PEAK_2DH5



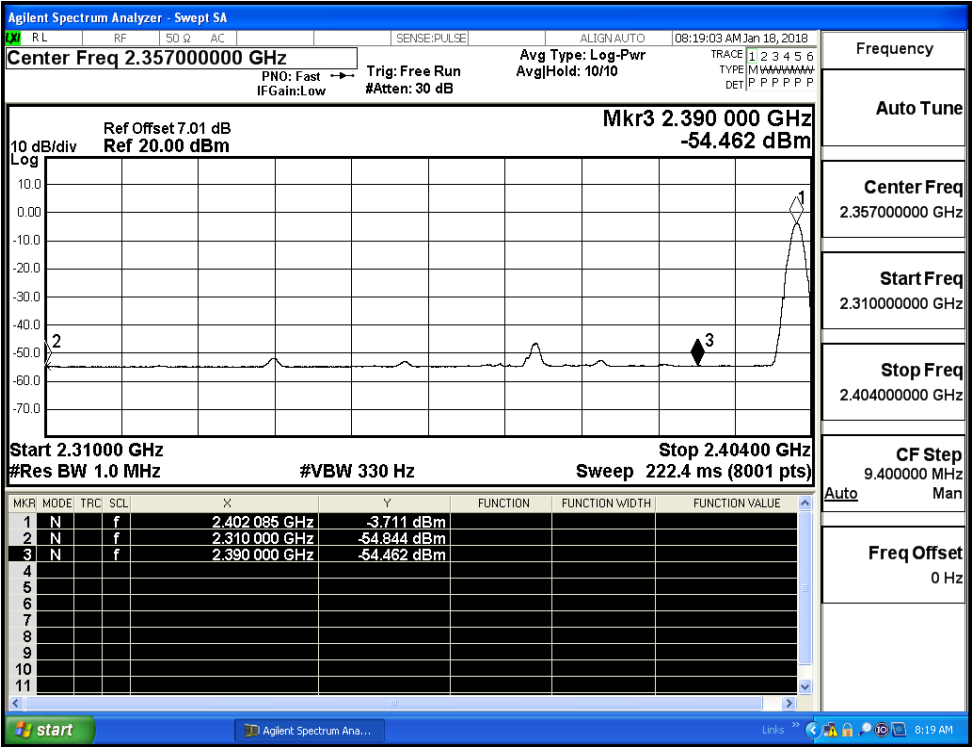
Restrict-band band-edge measurements_2480_AV_2DH5



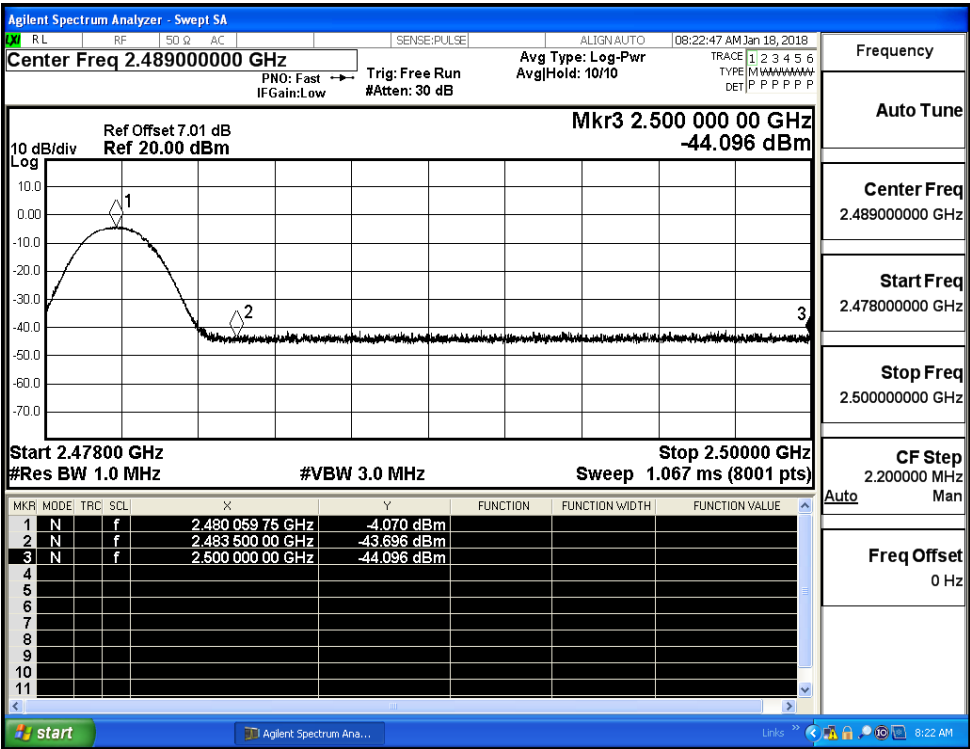
Restrict-band band-edge measurements_2402_PEAK_3DH5



Restrict-band band-edge measurements_2402_AV_3DH5



Restrict-band band-edge measurements_2480_PEAK_3DH5



Restrict-band band-edge measurements_2480_AV_3DH5

