

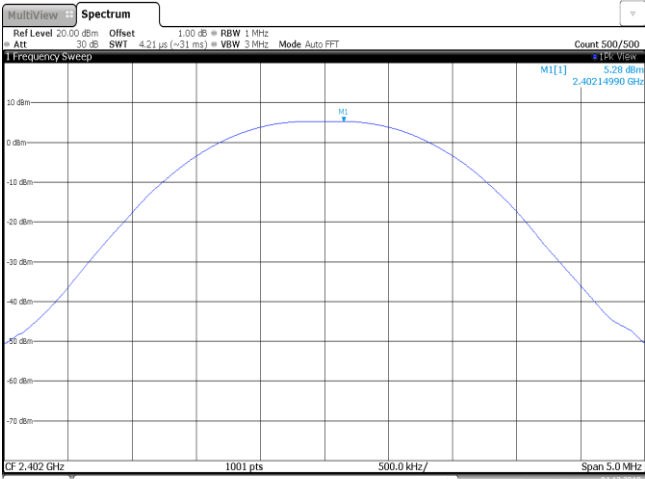
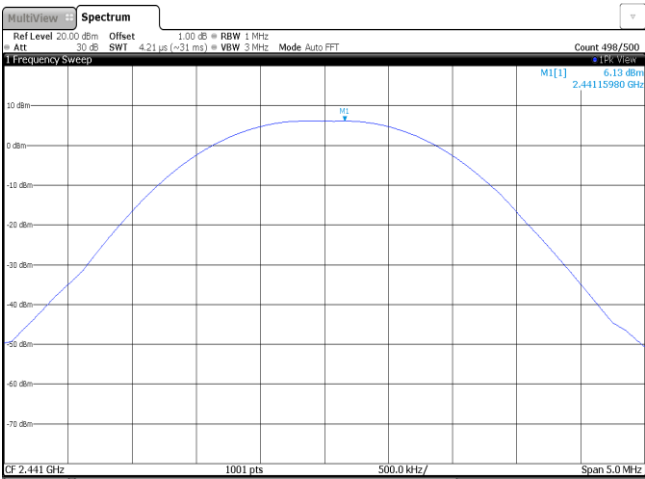
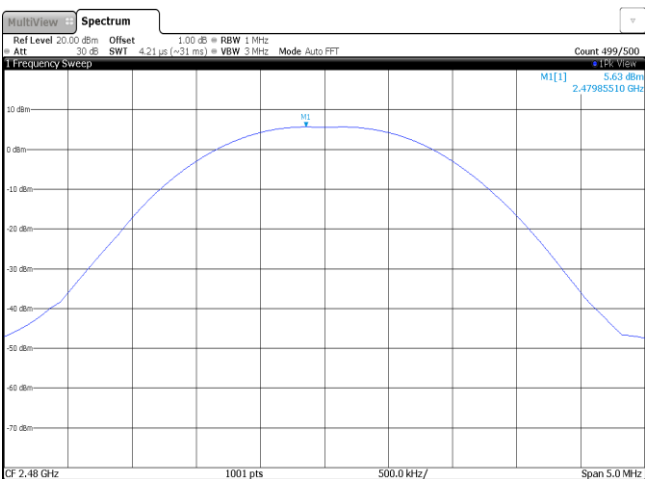
APPENDIX REPORT

Project No.	SHT1911023801EW	Radio Specification	Bluetooth EDR
Test sample No.	YPHT19110238004	Model No.	XO-9860
Start test date	2019/12/4	Finish date	2019/12/4
Temperature	25°C	Humidity	50%
Test Engineer	Jiongsheng.Feng	Auditor	<i>William.wang</i>

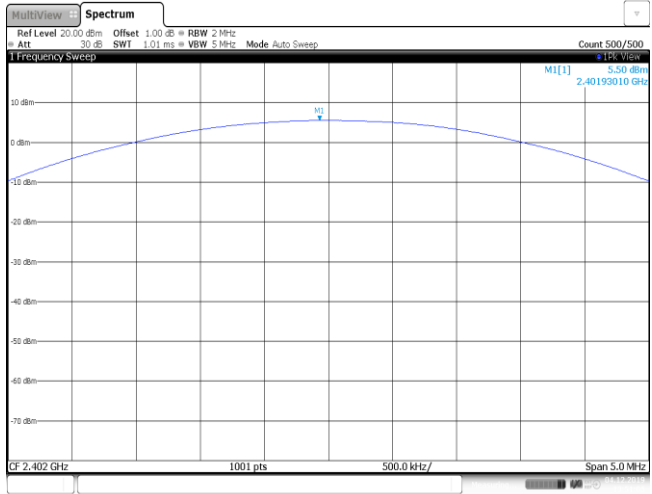
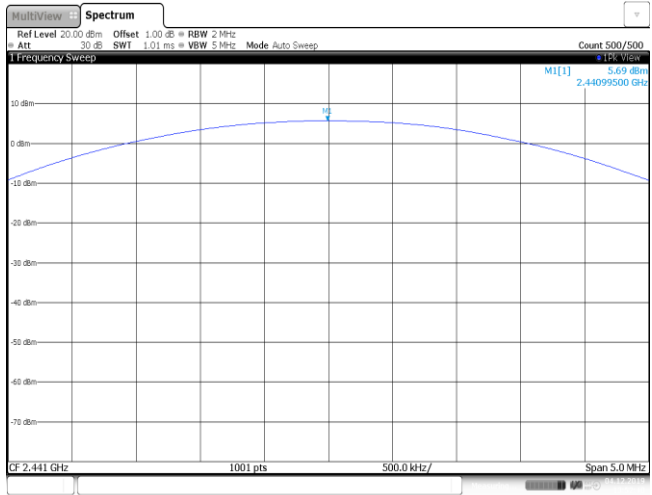
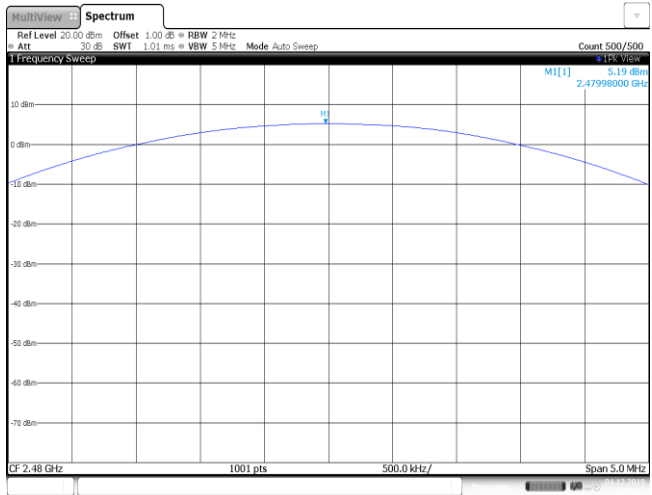
Appendix clause	Test item	Result
A	Peak Output Power	PASS
B	20 dB Bandwidth	PASS
C	99% Occupied Bandwidth	PASS
D	Carrier Frequencies Separation	PASS
E	Hopping Channel Number	PASS
F	Dwell Time	PASS
G	Duty Cycle Correction Factor (DCCF)	PASS
H	Band edge and Spurious Emissions(coducted)	PASS

Appendix A: Peak Output Power

Modulation type	Channel	Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
GFSK	00	5.28	5.18	≤ 30.00	Pass
	39	6.13	6.04		
	78	5.63	5.57		
$\pi/4$ DQPSK	00	5.41	4.78	≤ 21.00	Pass
	39	5.43	4.97		
	78	5.11	4.45		
8DPSK	00	5.50	4.84	≤ 21.00	Pass
	39	5.69	5.04		
	78	5.19	4.53		

Modulation Type:	GFSK
CH00	 The spectrum plot for CH00 shows a GFSK signal centered at 2.402 GHz. The y-axis represents power in dBm, ranging from -80 to 10. The x-axis represents frequency in GHz, ranging from 2.402 to 2.407. The signal is a smooth, bell-shaped curve peaking at approximately 5.28 dBm. The plot includes a 1001 pts resolution and a 500.0 kHz span. The date is 4.DEC.2019 13:36:38.
CH39	 The spectrum plot for CH39 shows a GFSK signal centered at 2.441 GHz. The y-axis represents power in dBm, ranging from -80 to 10. The x-axis represents frequency in GHz, ranging from 2.441 to 2.446. The signal is a smooth, bell-shaped curve peaking at approximately 6.13 dBm. The plot includes a 1001 pts resolution and a 500.0 kHz span. The date is 4.DEC.2019 13:38:11.
CH78	 The spectrum plot for CH78 shows a GFSK signal centered at 2.48 GHz. The y-axis represents power in dBm, ranging from -80 to 10. The x-axis represents frequency in GHz, ranging from 2.48 to 2.485. The signal is a smooth, bell-shaped curve peaking at approximately 5.63 dBm. The plot includes a 1001 pts resolution and a 500.0 kHz span. The date is 4.DEC.2019 13:40:31.

Modulation Type:		π /4DQPSK
CH00	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 2 MHz Att 30 dB SWT 1.01 ms VBW 5 MHz Mode Auto Sweep Count 500/500 1 Frequency Sweep M1[1] 5.41 dBm 2.40209990 GHz CF 2.402 GHz 1001 pts 500.0 kHz/ Span 5.0 MHz Date: 4 DEC 2019 13:46:30	
CH39	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 2 MHz Att 30 dB SWT 1.01 ms VBW 5 MHz Mode Auto Sweep Count 500/500 1 Frequency Sweep M1[1] 5.43 dBm 2.44109990 GHz CF 2.441 GHz 1001 pts 500.0 kHz/ Span 5.0 MHz Date: 4 DEC 2019 13:48:05	
CH78	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 2 MHz Att 30 dB SWT 1.01 ms VBW 5 MHz Mode Auto Sweep Count 500/500 1 Frequency Sweep M1[1] 5.11 dBm 2.48009990 GHz CF 2.48 GHz 1001 pts 500.0 kHz/ Span 5.0 MHz Date: 4 DEC 2019 13:49:24	

Modulation Type:	8DPSK
CH00	 The spectrum plot for CH00 shows a single peak at 2.40193010 GHz with a level of 5.50 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 2 MHz, Att 30 dB, SWI 1.01 ms, VBW 5 MHz, Mode Auto Sweep, Count 500/500. The x-axis is frequency in GHz, ranging from 2.401 to 2.403. The y-axis is power in dBm, ranging from -10 to 10. The plot shows a peak at 2.40193010 GHz with a level of 5.50 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 2 MHz, Att 30 dB, SWI 1.01 ms, VBW 5 MHz, Mode Auto Sweep, Count 500/500. The x-axis is frequency in GHz, ranging from 2.401 to 2.403. The y-axis is power in dBm, ranging from -10 to 10. The plot shows a peak at 2.40193010 GHz with a level of 5.50 dBm.
CH39	 The spectrum plot for CH39 shows a single peak at 2.44099500 GHz with a level of 5.69 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 2 MHz, Att 30 dB, SWI 1.01 ms, VBW 5 MHz, Mode Auto Sweep, Count 500/500. The x-axis is frequency in GHz, ranging from 2.441 to 2.443. The y-axis is power in dBm, ranging from -10 to 10. The plot shows a peak at 2.44099500 GHz with a level of 5.69 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 2 MHz, Att 30 dB, SWI 1.01 ms, VBW 5 MHz, Mode Auto Sweep, Count 500/500. The x-axis is frequency in GHz, ranging from 2.441 to 2.443. The y-axis is power in dBm, ranging from -10 to 10. The plot shows a peak at 2.44099500 GHz with a level of 5.69 dBm.
CH78	 The spectrum plot for CH78 shows a single peak at 2.47998000 GHz with a level of 5.19 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 2 MHz, Att 30 dB, SWI 1.01 ms, VBW 5 MHz, Mode Auto Sweep, Count 500/500. The x-axis is frequency in GHz, ranging from 2.480 to 2.482. The y-axis is power in dBm, ranging from -10 to 10. The plot shows a peak at 2.47998000 GHz with a level of 5.19 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 2 MHz, Att 30 dB, SWI 1.01 ms, VBW 5 MHz, Mode Auto Sweep, Count 500/500. The x-axis is frequency in GHz, ranging from 2.480 to 2.482. The y-axis is power in dBm, ranging from -10 to 10. The plot shows a peak at 2.47998000 GHz with a level of 5.19 dBm.

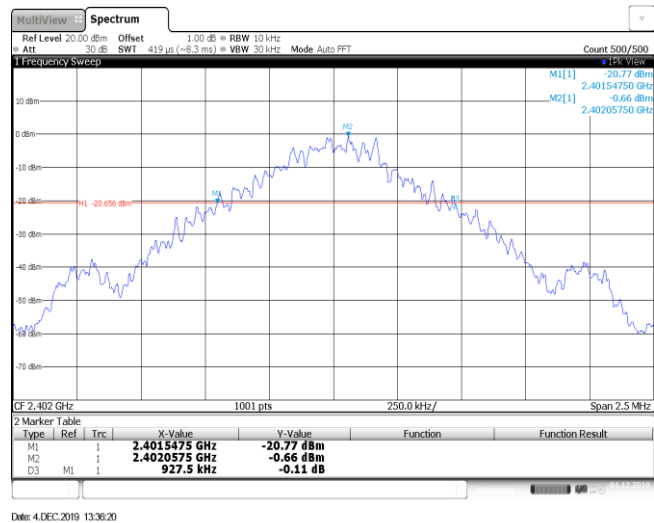
Appendix B : 20 dB Bandwidth

Modulation type	Channel	20 dB Bandwidth (kHz)	Limit (kHz)	Result
GFSK	00	928.00	-	Pass
	39	928.00		
	78	928.00		
$\pi/4$ DQPSK	00	1288.00	-	Pass
	39	1308.00		
	78	1300.00		
8DPSK	00	1305.00	-	Pass
	39	1310.00		
	78	1298.00		

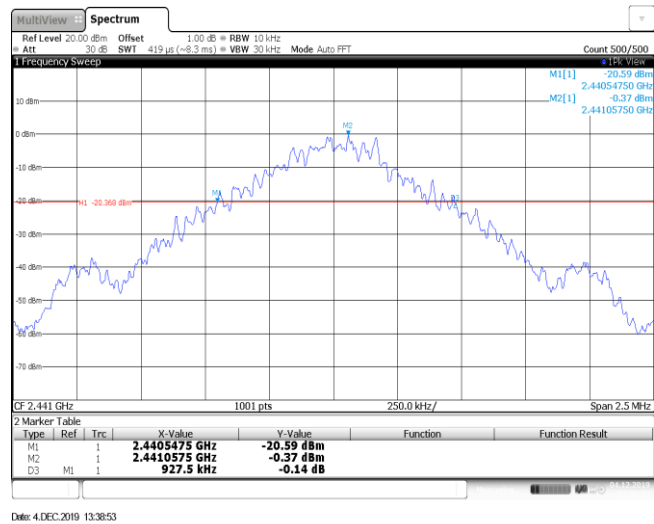
Modulation Type:

GFSK

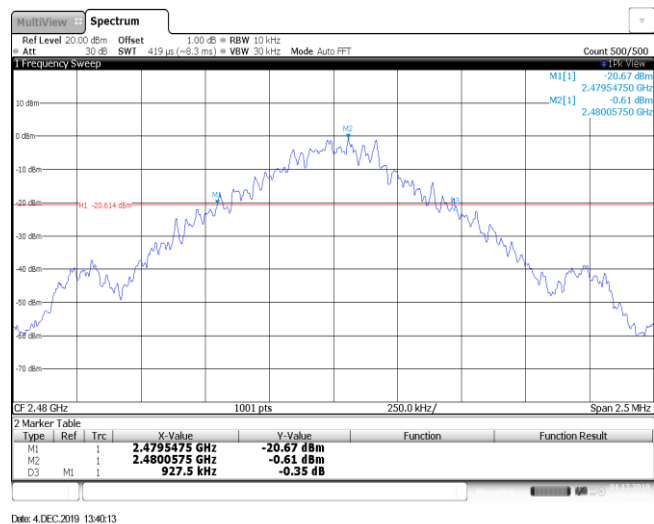
CH00



CH39



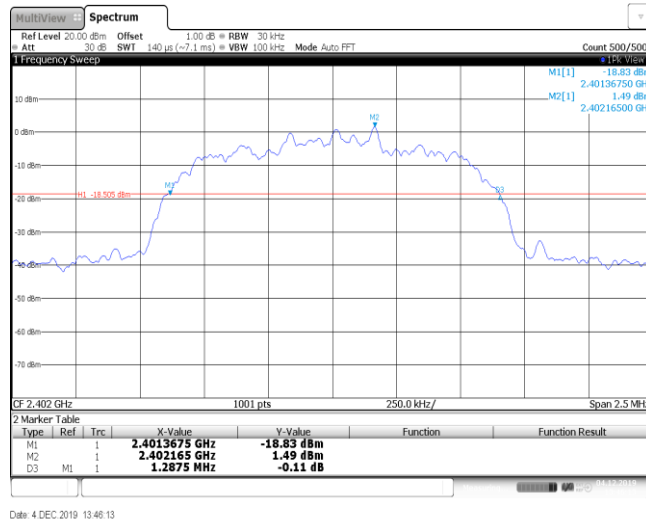
CH78



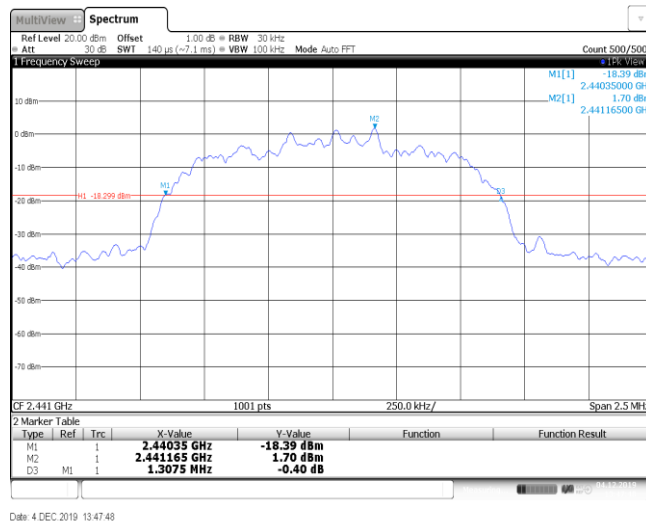
Modulation Type:

 $\pi/4$ DQPSK

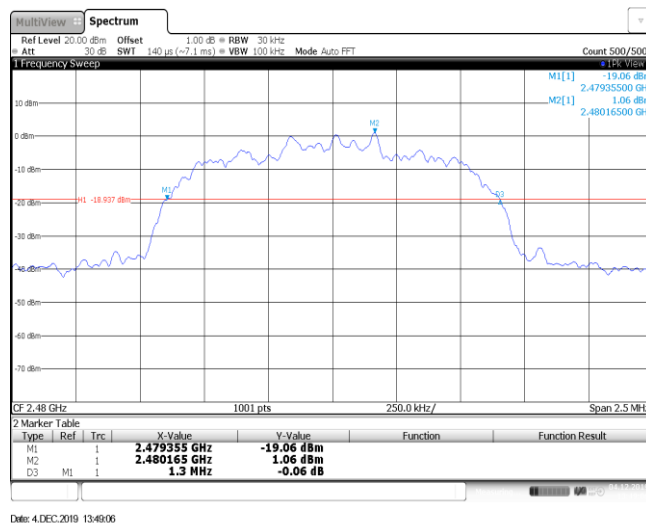
CH00



CH39



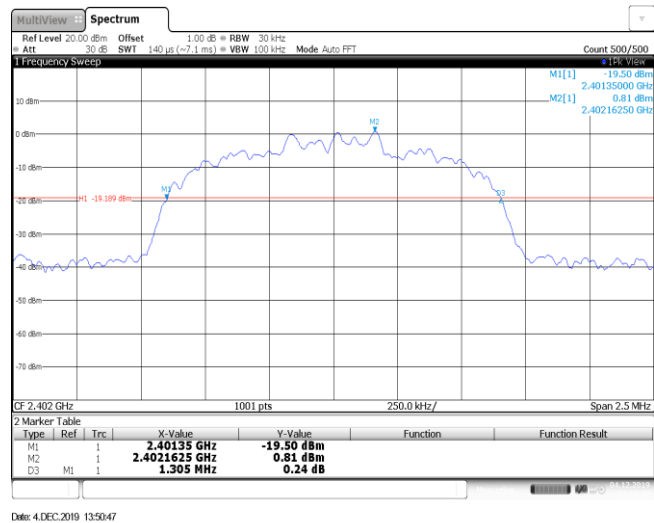
CH78



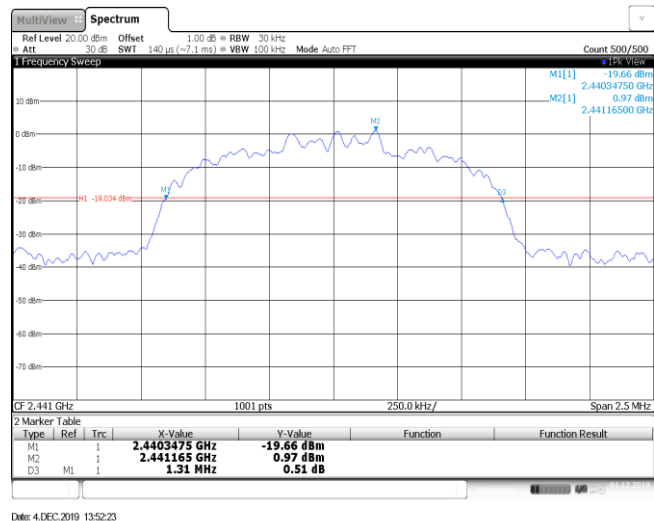
Modulation Type:

8DPSK

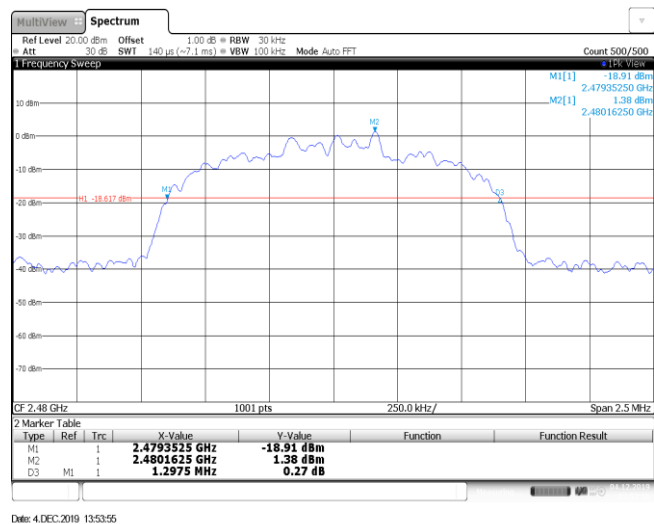
CH00



CH39

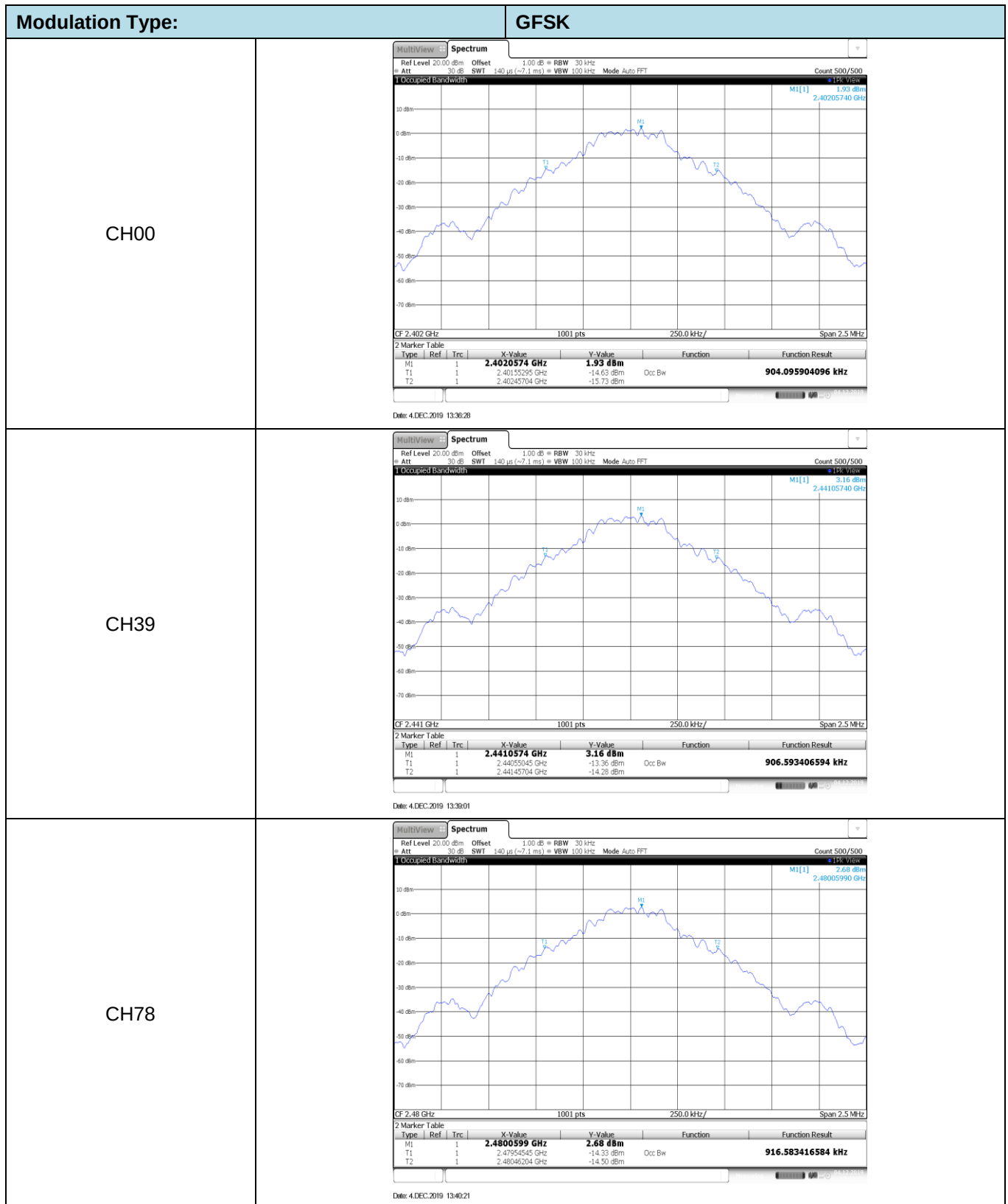


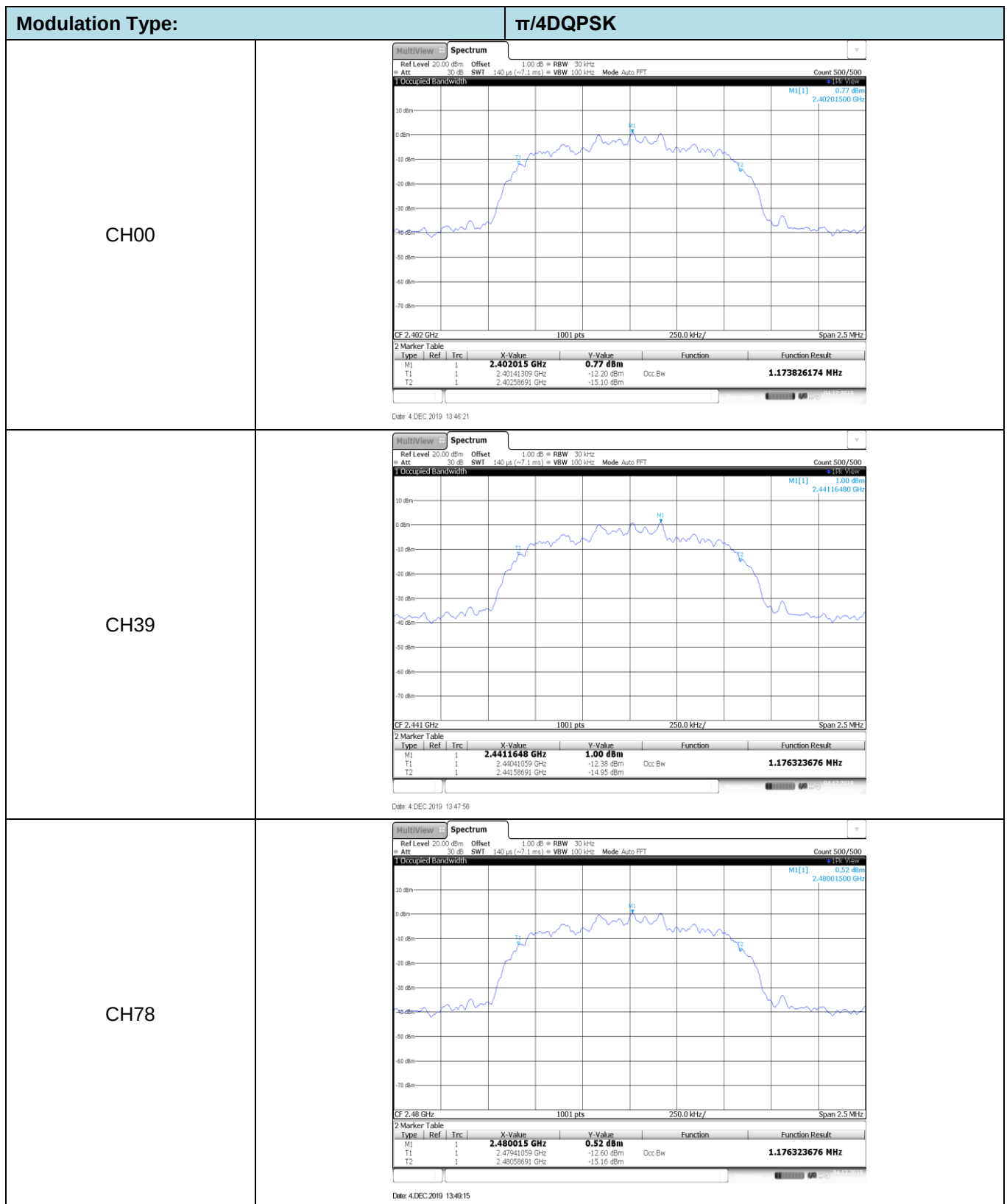
CH78

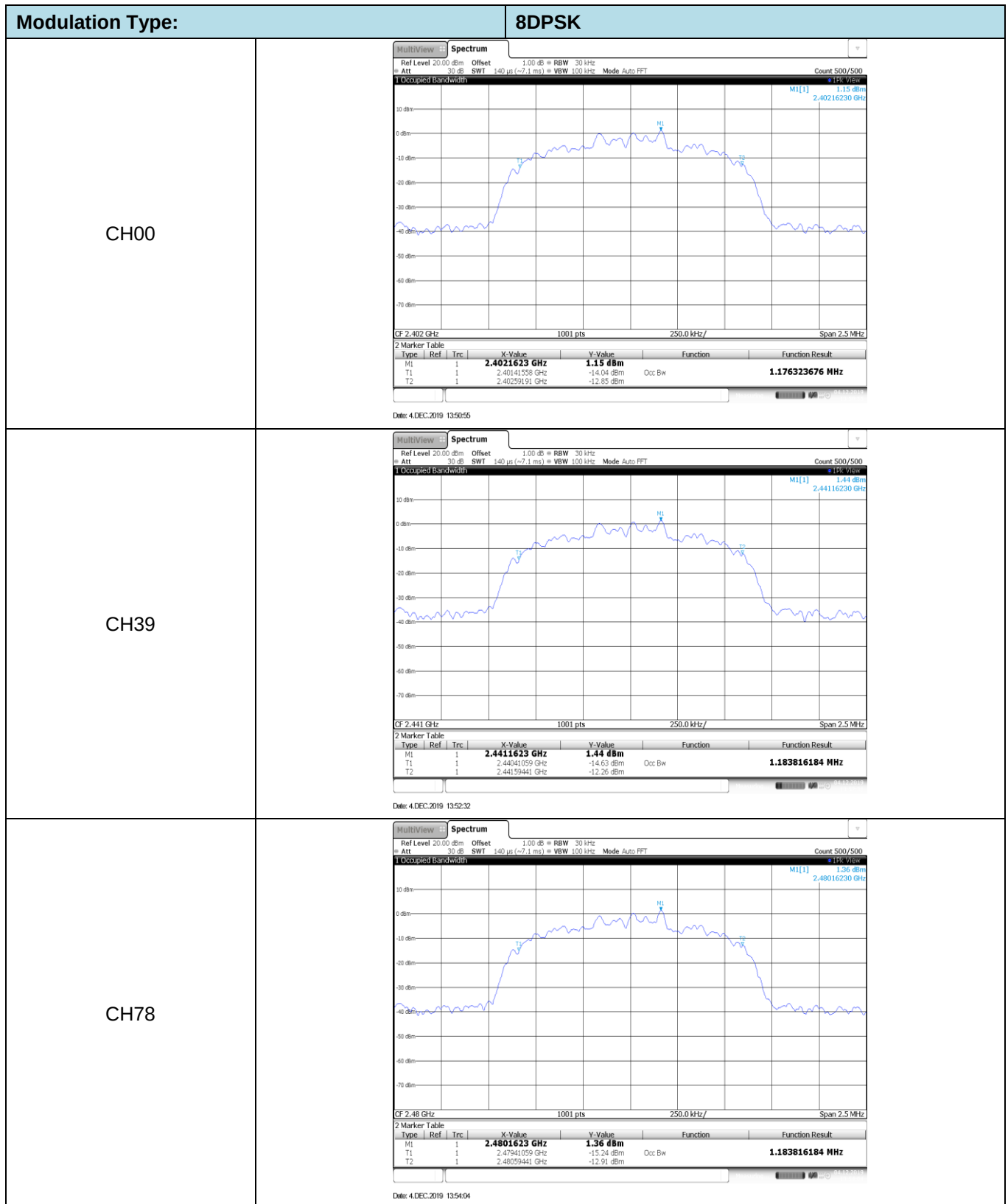


Appendix C: 99% Occupied Bandwidth

Modulation type	Channel	99% Occupied Bandwidth (MHz)	Limit (MHz)	Result
GFSK	00	0.90	-	Pass
	39	0.91		
	78	0.92		
$\pi/4$ DQPSK	00	1.17	-	Pass
	39	1.18		
	78	1.18		
8DPSK	00	1.18	-	Pass
	39	1.18		
	78	1.18		







Appendix D: Carrier Frequencies Separation

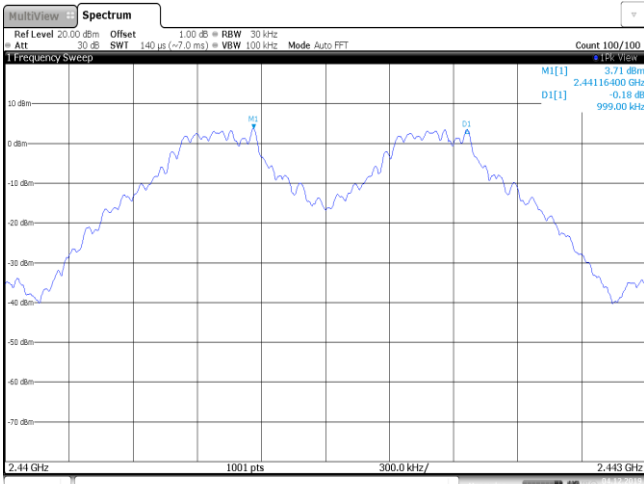
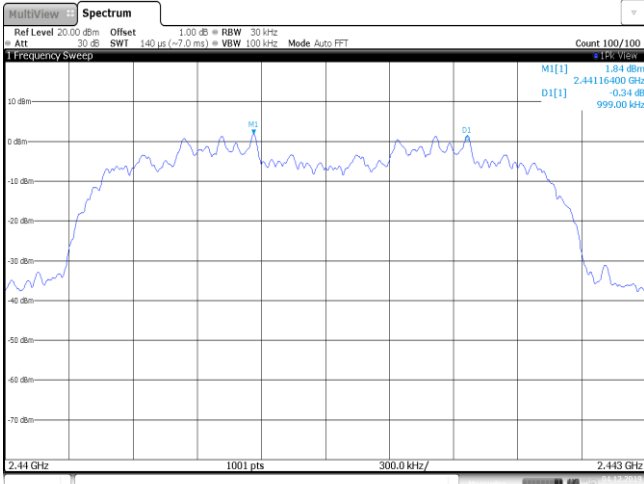
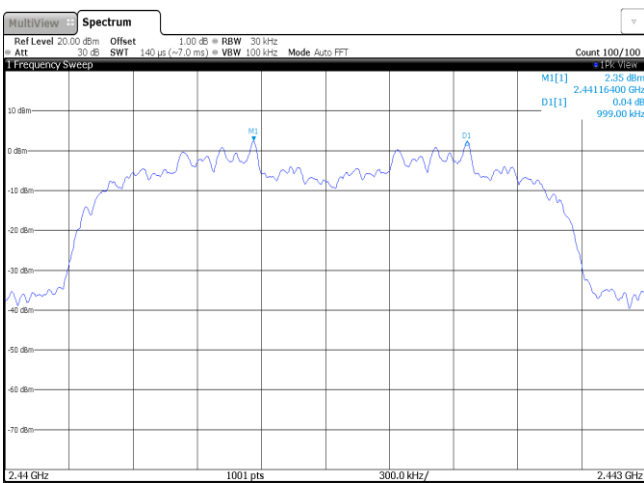
Modulation type	Channel	Carrier Frequencies Separation (MHz)	Limit (kHz) *	Result
GFSK	39	1.00	≥928.00	Pass
π/4DQPSK	39	1.00	≥872.00	Pass
8DPSK	39	1.00	≥873.33	Pass

Note:

*: GFSK limit = The maximum 20 dB Bandwidth for GFSK modulation on the appendix B.

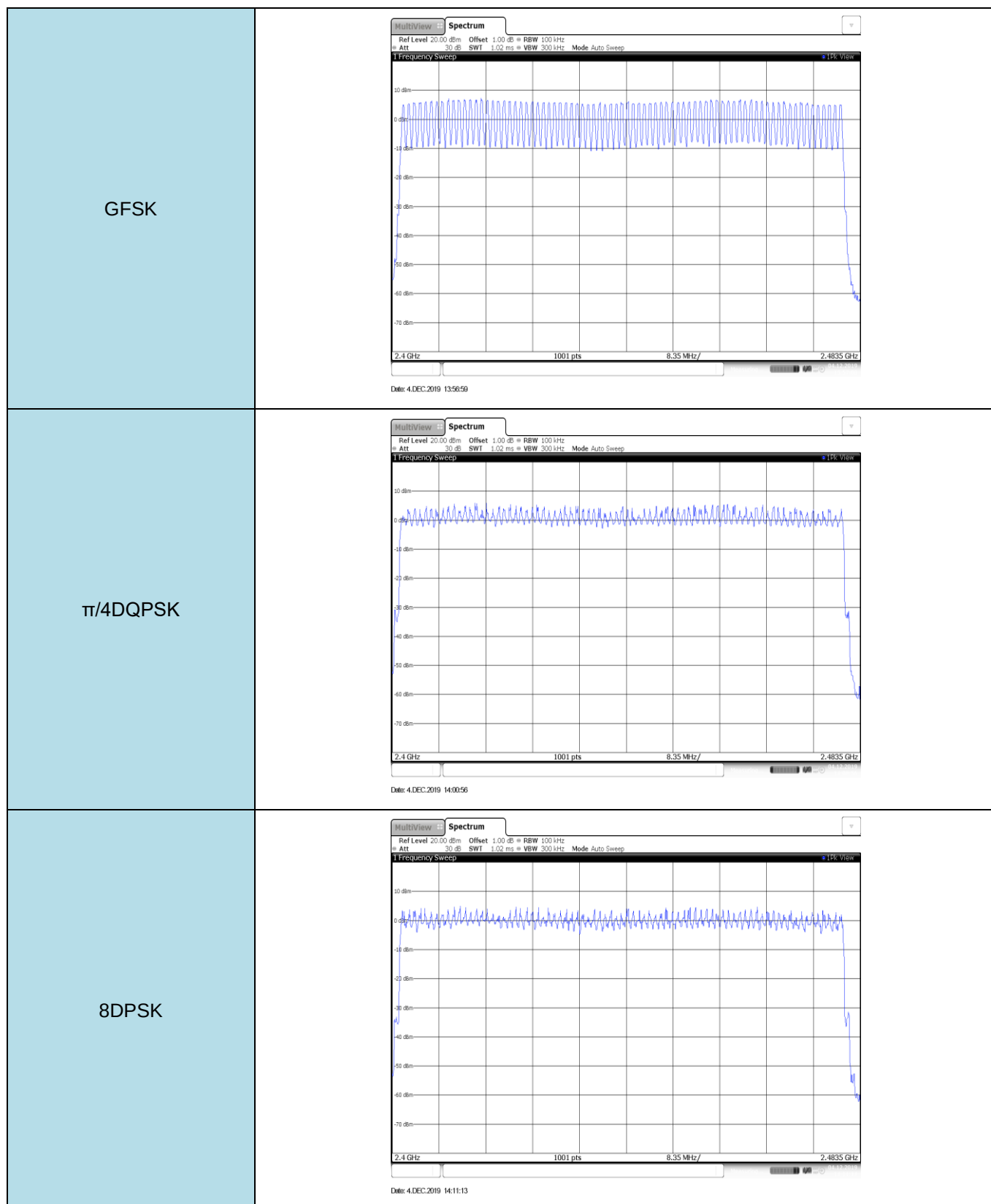
π/4DQPSK limit = $2/3$ * The maximum 20 dB Bandwidth for π/4DQPSK modulation on the appendix B.

8DPSK limit = $2/3$ * The maximum 20 dB Bandwidth for 8DPSK modulation on the appendix B

GFSK	 4.DEC.2019 13:56:16
$\pi/4$ DQPSK	 4.DEC.2019 13:58:33
8DPSK	 4.DEC.2019 14:10:19

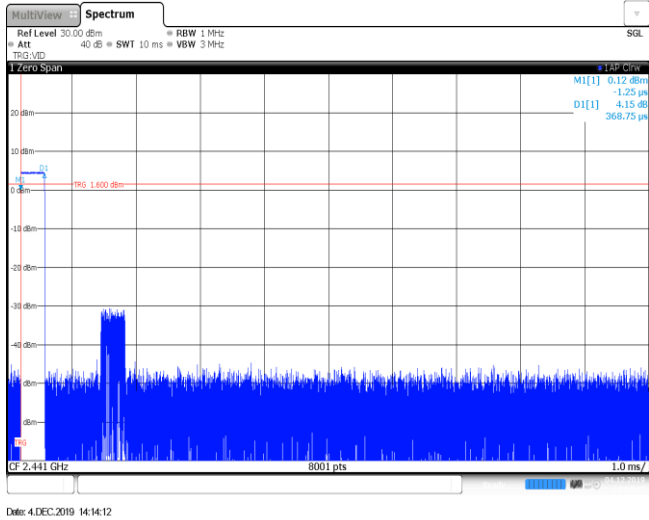
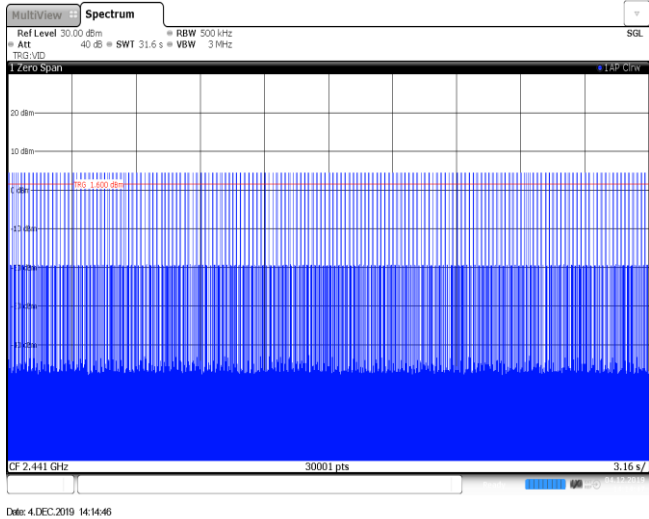
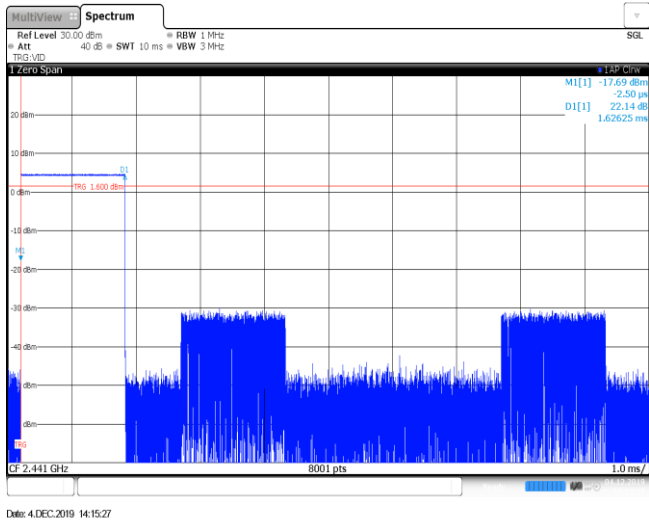
Appendix E: Hopping Channel Number

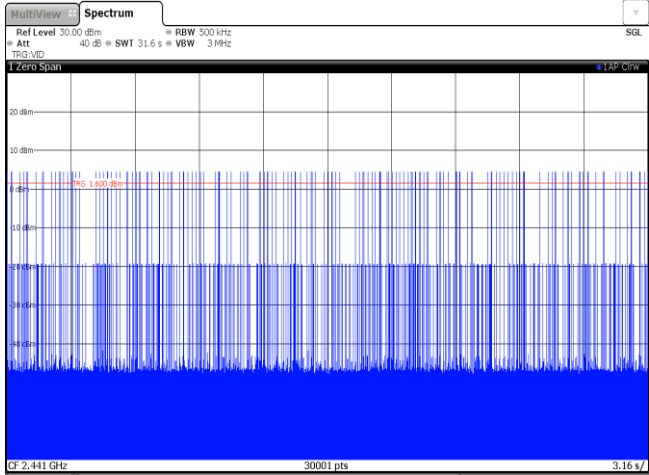
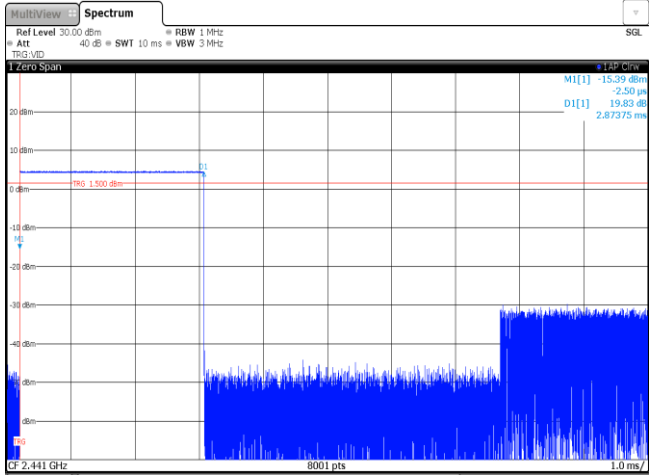
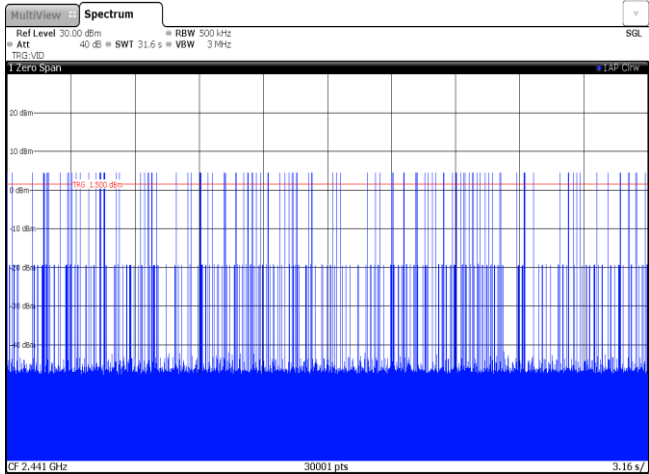
Modulation type	Channel number	Limit	Result
GFSK	79	≥15.00	Pass
π/4DQPSK	79		
8DPSK	79		



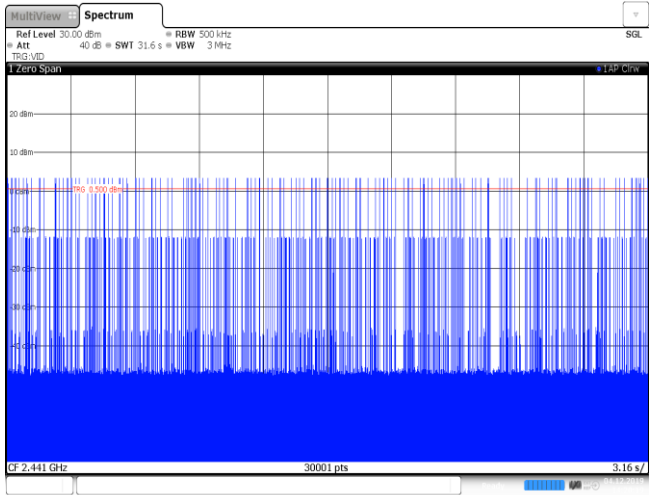
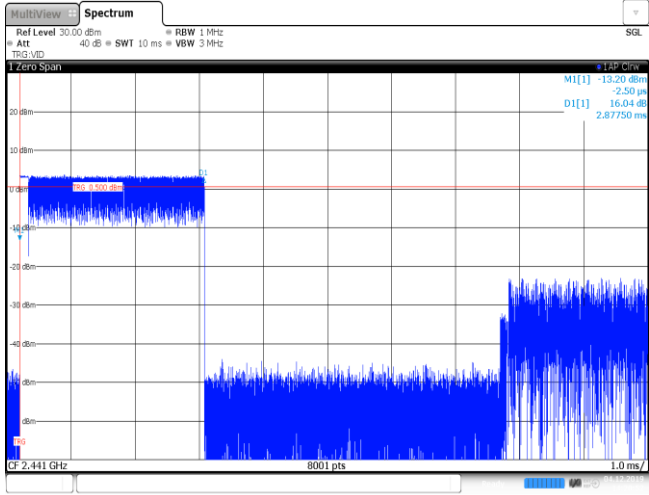
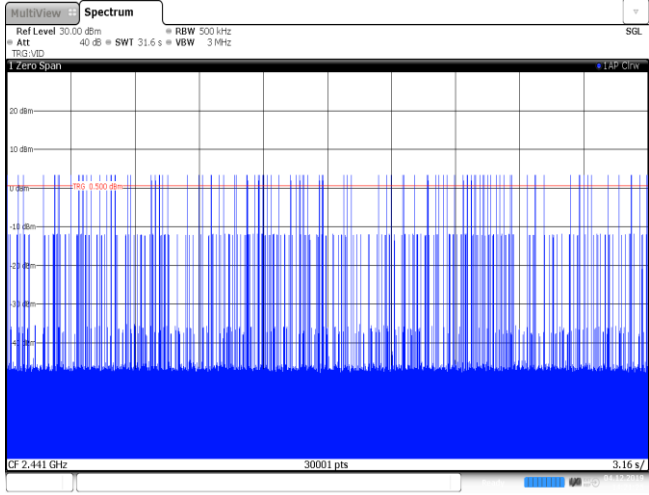
Appendix F: Dwell Time

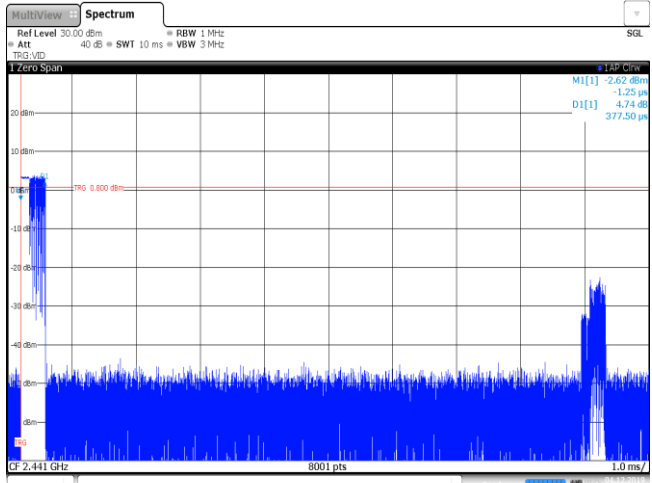
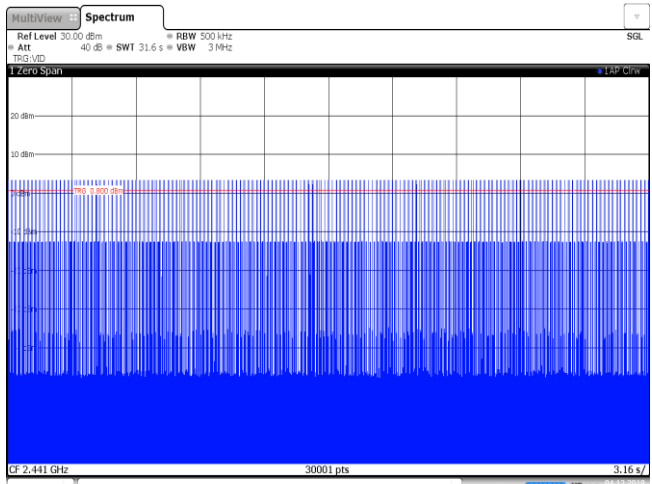
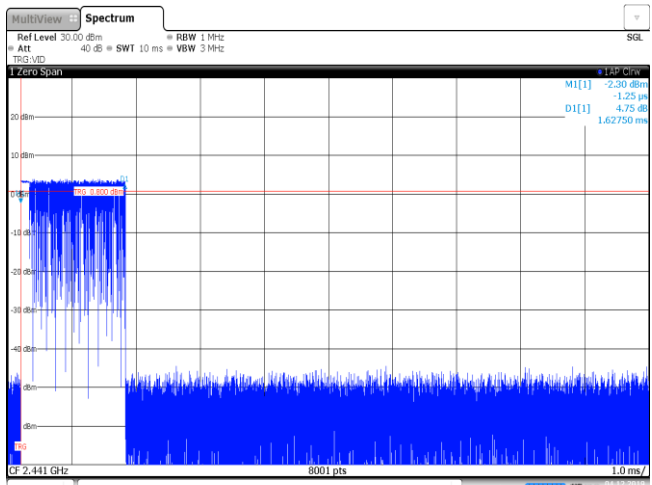
Modulation type	Packet	Burst Width [ms]	Total Hops[hop*ch]	Dwell time (Second)	Limit (Second)	Result
GFSK	DH1	0.37	314.00	0.12	≤ 0.40	Pass
	DH3	1.63	158.00	0.26		
	DH5	2.87	106.00	0.31		
$\pi/4$ DQPSK	2DH1	0.38	315.00	0.12	≤ 0.40	Pass
	2DH3	1.63	162.00	0.26		
	2DH5	2.88	105.00	0.30		
8DPSK	3DH1	0.38	314.00	0.12	≤ 0.40	Pass
	3DH3	1.63	158.00	0.26		
	3DH5	2.88	106.00	0.31		

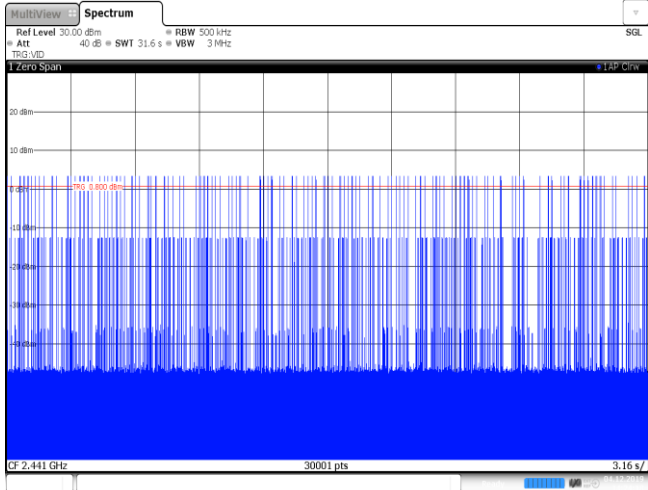
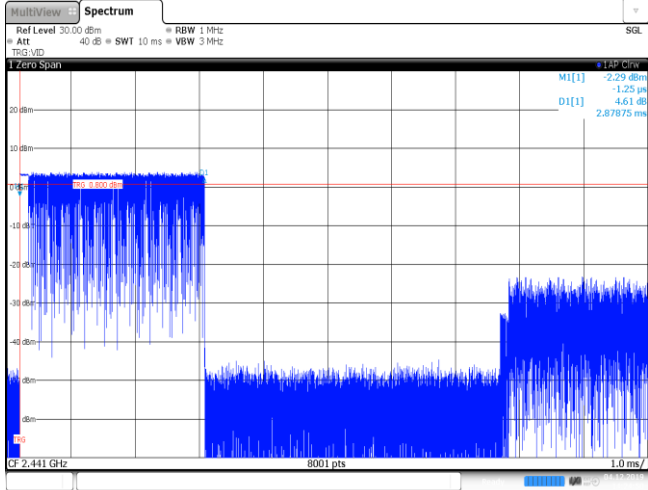
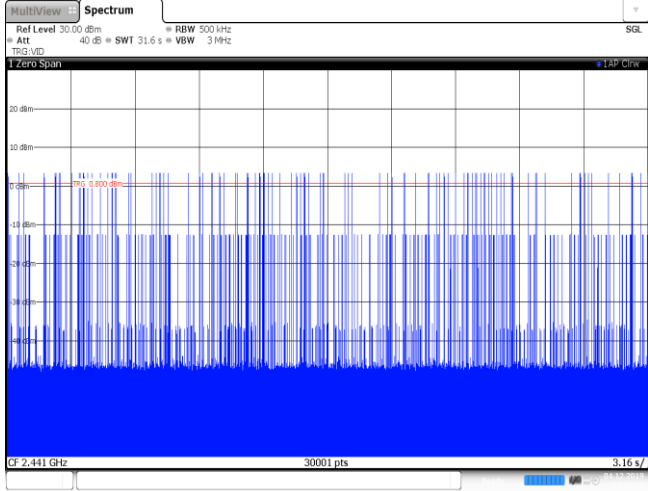
Modulation Type: GFSK	
DH1 Burst width	
DH1 Burst number	
DH3 Burst width	

DH3 Burst number	 The screenshot shows a spectrum analyzer interface with the title 'Spectrum'. The y-axis represents power in dBm, ranging from -40 to 20. The x-axis represents frequency in GHz, centered at 2.441 GHz. A red horizontal line is drawn at approximately -15 dBm. The plot shows a dense, noisy signal across the entire frequency range, with a blue shaded area at the bottom. The status bar at the bottom indicates 'CF 2.441 GHz', '30001 pts', and '3.16 s'. The date and time are 'Date: 4.DEC.2019 14:16:01'.
DH5 Burst width	 The screenshot shows a spectrum analyzer interface with the title 'Spectrum'. The y-axis represents power in dBm, ranging from -40 to 20. The x-axis represents frequency in GHz, centered at 2.441 GHz. A red horizontal line is drawn at approximately -15 dBm. The plot shows a noisy signal that is mostly below -30 dBm, with a sharp peak reaching about -15 dBm. The status bar at the bottom indicates 'CF 2.441 GHz', '8001 pts', and '1.0 ms'. The date and time are 'Date: 4.DEC.2019 14:16:38'.
DH5 Burst number	 The screenshot shows a spectrum analyzer interface with the title 'Spectrum'. The y-axis represents power in dBm, ranging from -40 to 20. The x-axis represents frequency in GHz, centered at 2.441 GHz. A red horizontal line is drawn at approximately -15 dBm. The plot shows a dense, noisy signal across the entire frequency range, with a blue shaded area at the bottom. The status bar at the bottom indicates 'CF 2.441 GHz', '30001 pts', and '3.16 s'. The date and time are 'Date: 4.DEC.2019 14:17:13'.

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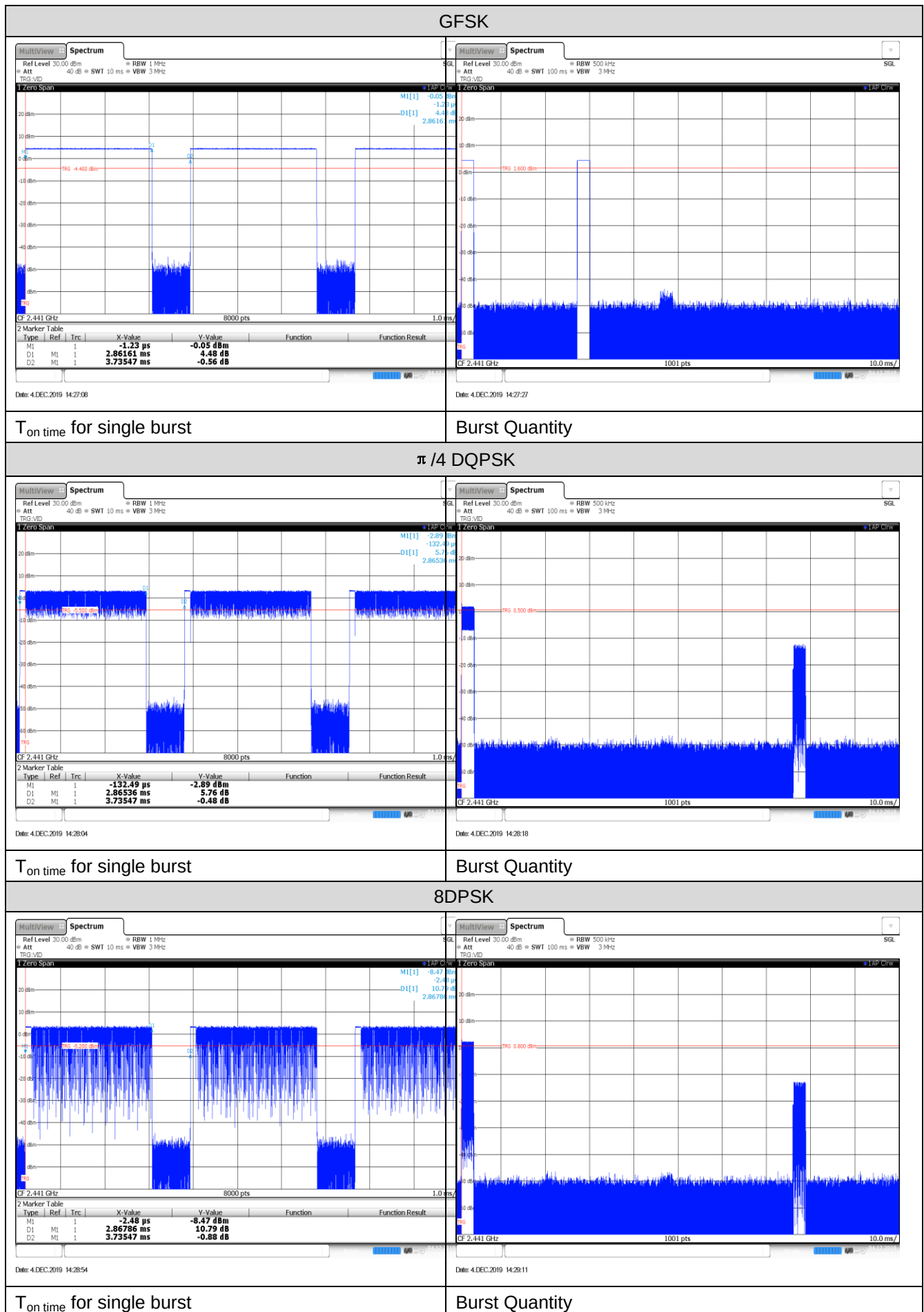
2DH3 Burst number	
2DH5 Burst width	
2DH5 Burst number	

Modulation Type:	8DPSK
3DH1 Burst width	 The spectrum plot shows a signal at 2.441 GHz with a bandwidth of 8001 pts. The y-axis represents power in dBm, ranging from -50 to 20. The x-axis represents time in ms, ranging from 0 to 1.0. A red horizontal line indicates a threshold at -10 dBm. The signal is a burst of energy, with a peak power of approximately -10 dBm. The plot includes a 'Zero Span' view and a 'Spectrum' view. The 'Spectrum' view shows the signal's frequency components, with a peak at 2.441 GHz. The 'Zero Span' view shows the signal's time-domain characteristics, with a peak at 0.000 ms. The plot also displays the following parameters: Ref Level 30.00 dBm, Att 40 dB, SWT 10 ms, RBW 1 MHz, VSW 3 MHz, and a date of 4.DEC.2019 14:22:17.
3DH1 Burst number	 The spectrum plot shows a signal at 2.441 GHz with a bandwidth of 30001 pts. The y-axis represents power in dBm, ranging from -50 to 20. The x-axis represents time in s, ranging from 0 to 3.16. A red horizontal line indicates a threshold at -10 dBm. The signal is a burst of energy, with a peak power of approximately -10 dBm. The plot includes a 'Zero Span' view and a 'Spectrum' view. The 'Spectrum' view shows the signal's frequency components, with a peak at 2.441 GHz. The 'Zero Span' view shows the signal's time-domain characteristics, with a peak at 0.000 s. The plot also displays the following parameters: Ref Level 30.00 dBm, Att 40 dB, SWT 31.6 s, RBW 500 kHz, VSW 3 MHz, and a date of 4.DEC.2019 14:22:51.
3DH3 Burst width	 The spectrum plot shows a signal at 2.441 GHz with a bandwidth of 8001 pts. The y-axis represents power in dBm, ranging from -50 to 20. The x-axis represents time in ms, ranging from 0 to 1.0. A red horizontal line indicates a threshold at -10 dBm. The signal is a burst of energy, with a peak power of approximately -10 dBm. The plot includes a 'Zero Span' view and a 'Spectrum' view. The 'Spectrum' view shows the signal's frequency components, with a peak at 2.441 GHz. The 'Zero Span' view shows the signal's time-domain characteristics, with a peak at 0.000 ms. The plot also displays the following parameters: Ref Level 30.00 dBm, Att 40 dB, SWT 10 ms, RBW 1 MHz, VSW 3 MHz, and a date of 4.DEC.2019 14:23:44.

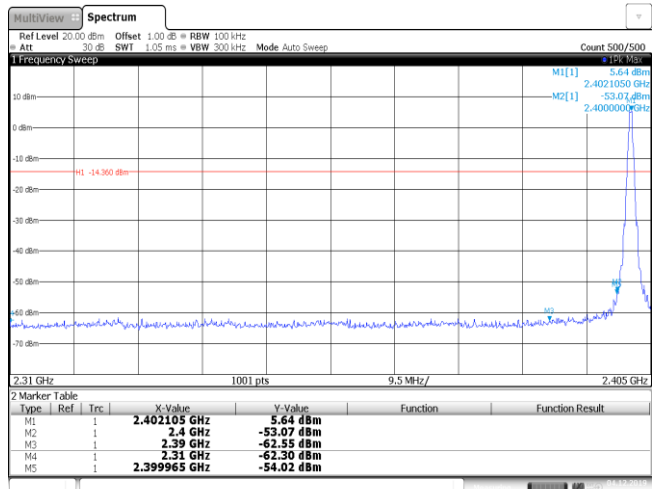
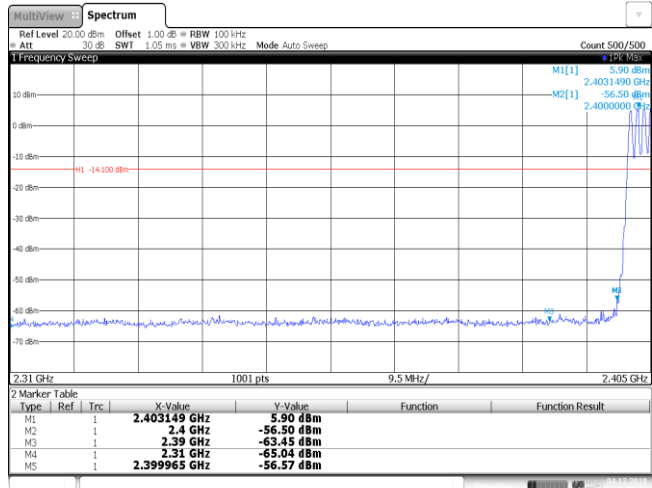
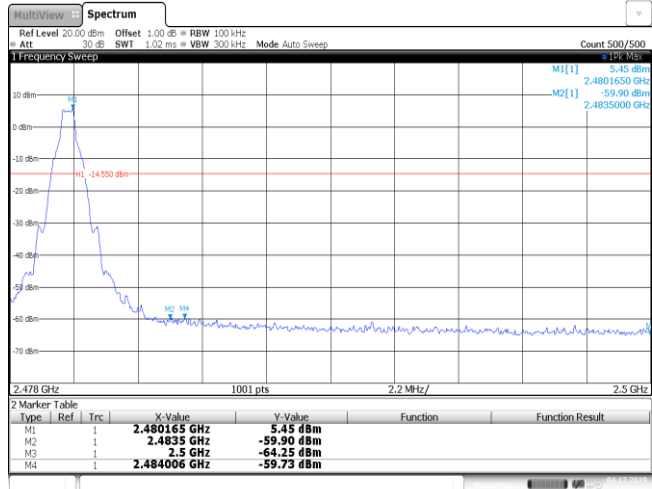
3DH3 Burst number	
3DH5 Burst width	
3DH5 Burst number	

Appendix G: Duty Cycle Correction Factor (DCCF)

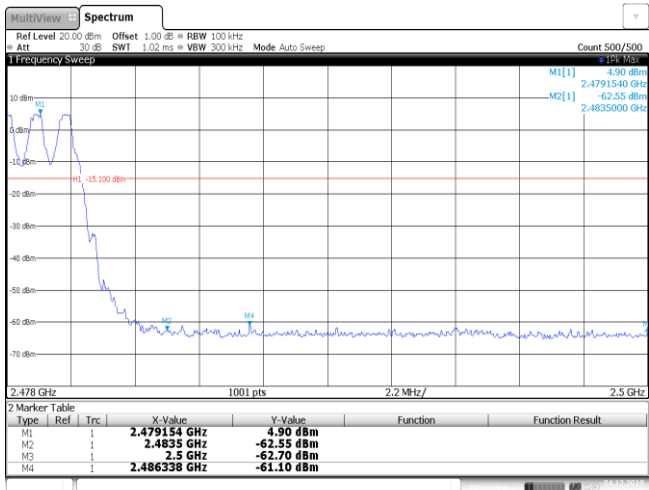
DCCF Calculate Formula					
$DCCF = 20 * \text{Log}(\text{duty cycle}) = 20 * \text{Log}(T_{\text{on time}} / T_{\text{period}})$					
Modulation type	Test Frequency (MHz)	$T_{\text{on time}}$ for single burst [ms]	T_{period} [ms]	Burst Quantity	DCCF [dB]
GFSK	2441	2.86	100	2	-24.85
$\pi/4$ DQPSK	2441	2.87	100	2	-24.82
8DPSK	2441	2.87	100	2	-24.82



Appendix H: Band edge and Spurious Emissions (conducted)

Test Item:	Band edge	Modulation type:	GFSK																																										
CH00 No hopping mode	<table><tr><th>Type</th><th>Ref</th><th>Trc</th><th>X-Value</th><th>Y-Value</th><th>Function</th><th>Function Result</th></tr><tr><td>M1</td><td>1</td><td></td><td>2.402103 GHz</td><td>5.64 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4 GHz</td><td>-53.07 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.39 GHz</td><td>-62.55 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-62.30 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.399965 GHz</td><td>-54.02 dBm</td><td></td><td></td></tr></table> Date: 4.DEC.2019 13:36:52			Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.402103 GHz	5.64 dBm			M2	1		2.4 GHz	-53.07 dBm			M3	1		2.39 GHz	-62.55 dBm			M4	1		2.31 GHz	-62.30 dBm			M5	1		2.399965 GHz	-54.02 dBm		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																																							
M1	1		2.402103 GHz	5.64 dBm																																									
M2	1		2.4 GHz	-53.07 dBm																																									
M3	1		2.39 GHz	-62.55 dBm																																									
M4	1		2.31 GHz	-62.30 dBm																																									
M5	1		2.399965 GHz	-54.02 dBm																																									
CH00 Hopping mode	<table><tr><th>Type</th><th>Ref</th><th>Trc</th><th>X-Value</th><th>Y-Value</th><th>Function</th><th>Function Result</th></tr><tr><td>M1</td><td>1</td><td></td><td>2.403149 GHz</td><td>5.90 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4 GHz</td><td>-56.50 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.39 GHz</td><td>-63.45 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-65.04 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.399965 GHz</td><td>-56.57 dBm</td><td></td><td></td></tr></table> Date: 4.DEC.2019 13:57:13			Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.403149 GHz	5.90 dBm			M2	1		2.4 GHz	-56.50 dBm			M3	1		2.39 GHz	-63.45 dBm			M4	1		2.31 GHz	-65.04 dBm			M5	1		2.399965 GHz	-56.57 dBm		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																																							
M1	1		2.403149 GHz	5.90 dBm																																									
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M5	1		2.399965 GHz	-56.57 dBm																																									
CH78 No hopping mode	<table><tr><th>Type</th><th>Ref</th><th>Trc</th><th>X-Value</th><th>Y-Value</th><th>Function</th><th>Function Result</th></tr><tr><td>M1</td><td>1</td><td></td><td>2.480165 GHz</td><td>5.45 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4835 GHz</td><td>-59.90 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.5 GHz</td><td>-64.25 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.484006 GHz</td><td>-59.73 dBm</td><td></td><td></td></tr></table> Date: 4.DEC.2019 13:40:45			Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.480165 GHz	5.45 dBm			M2	1		2.4835 GHz	-59.90 dBm			M3	1		2.5 GHz	-64.25 dBm			M4	1		2.484006 GHz	-59.73 dBm									
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																																							
M1	1		2.480165 GHz	5.45 dBm																																									
M2	1		2.4835 GHz	-59.90 dBm																																									
M3	1		2.5 GHz	-64.25 dBm																																									
M4	1		2.484006 GHz	-59.73 dBm																																									

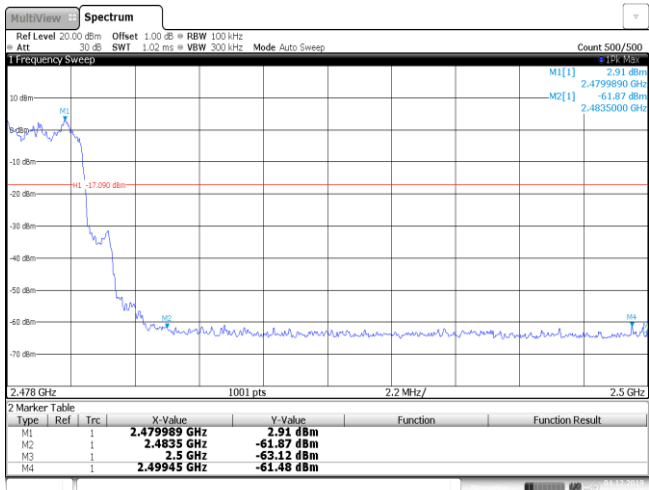
CH78
Hopping mode



Date: 4.DEC.2019 13:57:28

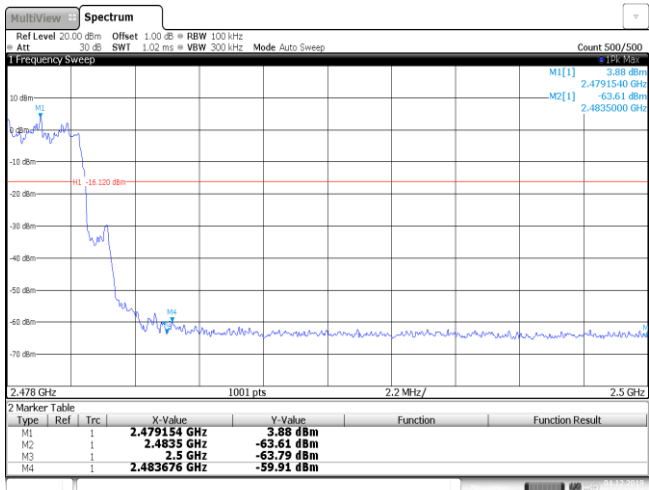
Test Item:	Band edge	Modulation type:	$\pi/4$ DQPSK																																										
CH00 No hopping mode	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SW 1.05 ms VBW 300 kHz Mode Auto Sweep Count 500/500 Frequency Sweep 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1 M2 M3 M4 M5 2.31 GHz 1001 pts 9.5 MHz/ 2.405 GHz M1[1] 4.36 dBm 2.401821 GHz M2[1] -51.57 dBm 2.400000 GHz <table><tr><th>Type</th><th>Ref</th><th>Trc</th><th>X-Value</th><th>Y-Value</th><th>Function</th><th>Function Result</th></tr><tr><td>M1</td><td>1</td><td></td><td>2.401821 GHz</td><td>4.36 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4 GHz</td><td>-51.57 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.39 GHz</td><td>-63.11 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-64.24 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.399965 GHz</td><td>-52.16 dBm</td><td></td><td></td></tr></table> Date: 4 DEC 2019 13:46:43			Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.401821 GHz	4.36 dBm			M2	1		2.4 GHz	-51.57 dBm			M3	1		2.39 GHz	-63.11 dBm			M4	1		2.31 GHz	-64.24 dBm			M5	1		2.399965 GHz	-52.16 dBm		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																																							
M1	1		2.401821 GHz	4.36 dBm																																									
M2	1		2.4 GHz	-51.57 dBm																																									
M3	1		2.39 GHz	-63.11 dBm																																									
M4	1		2.31 GHz	-64.24 dBm																																									
M5	1		2.399965 GHz	-52.16 dBm																																									
CH00 Hopping mode	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SW 1.05 ms VBW 300 kHz Mode Auto Sweep Count 500/500 Frequency Sweep 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1 M2 M3 M4 M5 2.31 GHz 1001 pts 9.5 MHz/ 2.405 GHz M1[1] 3.20 dBm 2.402960 GHz M2[1] -52.22 dBm 2.400000 GHz <table><tr><th>Type</th><th>Ref</th><th>Trc</th><th>X-Value</th><th>Y-Value</th><th>Function</th><th>Function Result</th></tr><tr><td>M1</td><td>1</td><td></td><td>2.40296 GHz</td><td>3.20 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4 GHz</td><td>-52.22 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.39 GHz</td><td>-64.01 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-64.13 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.39987 GHz</td><td>-53.20 dBm</td><td></td><td></td></tr></table> Date: 4 DEC 2019 14:01:10			Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.40296 GHz	3.20 dBm			M2	1		2.4 GHz	-52.22 dBm			M3	1		2.39 GHz	-64.01 dBm			M4	1		2.31 GHz	-64.13 dBm			M5	1		2.39987 GHz	-53.20 dBm		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																																							
M1	1		2.40296 GHz	3.20 dBm																																									
M2	1		2.4 GHz	-52.22 dBm																																									
M3	1		2.39 GHz	-64.01 dBm																																									
M4	1		2.31 GHz	-64.13 dBm																																									
M5	1		2.39987 GHz	-53.20 dBm																																									
CH78 No hopping mode	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SW 1.02 ms VBW 300 kHz Mode Auto Sweep Count 500/500 Frequency Sweep 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1 M2 M3 M4 2.478 GHz 1001 pts 2.2 MHz/ 2.5 GHz M1[1] 4.25 dBm 2.4798350 GHz M2[1] -58.43 dBm 2.483500 GHz <table><tr><th>Type</th><th>Ref</th><th>Trc</th><th>X-Value</th><th>Y-Value</th><th>Function</th><th>Function Result</th></tr><tr><td>M1</td><td>1</td><td></td><td>2.479835 GHz</td><td>4.25 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4835 GHz</td><td>-58.43 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.5 GHz</td><td>-64.71 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.483566 GHz</td><td>-59.40 dBm</td><td></td><td></td></tr></table> Date: 4 DEC 2019 13:49:37			Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.479835 GHz	4.25 dBm			M2	1		2.4835 GHz	-58.43 dBm			M3	1		2.5 GHz	-64.71 dBm			M4	1		2.483566 GHz	-59.40 dBm									
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																																							
M1	1		2.479835 GHz	4.25 dBm																																									
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M4	1		2.483566 GHz	-59.40 dBm																																									

CH78
Hopping mode

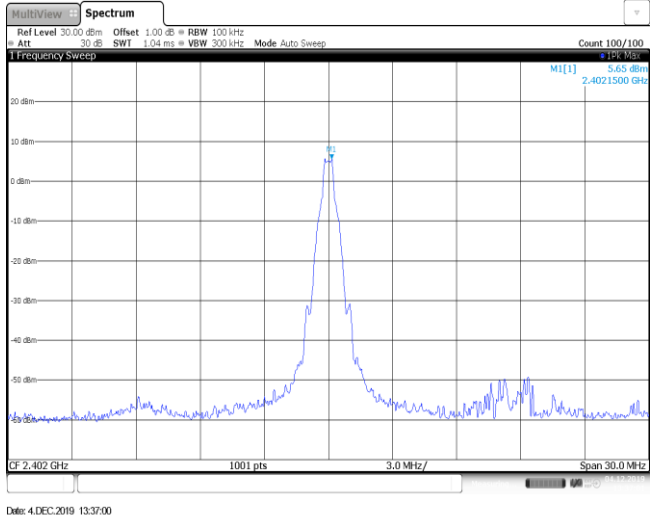
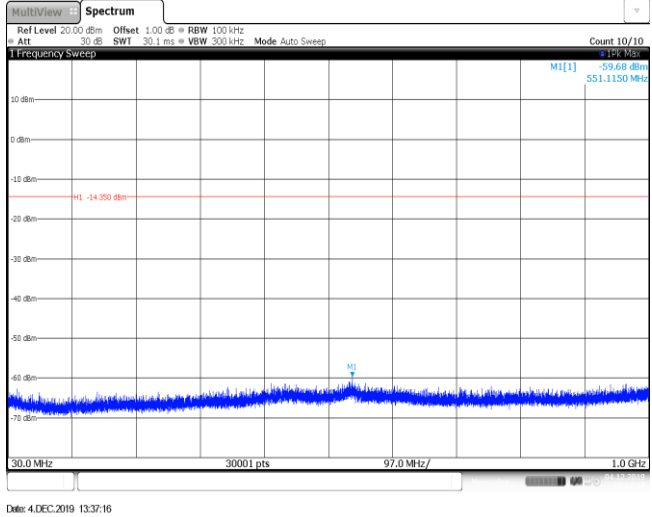
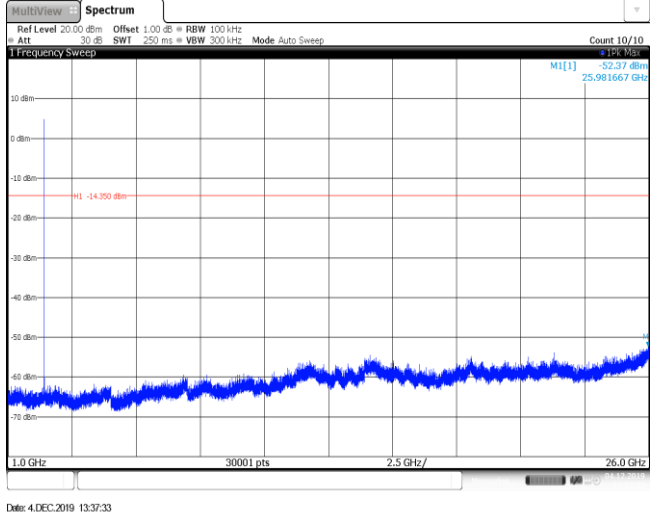


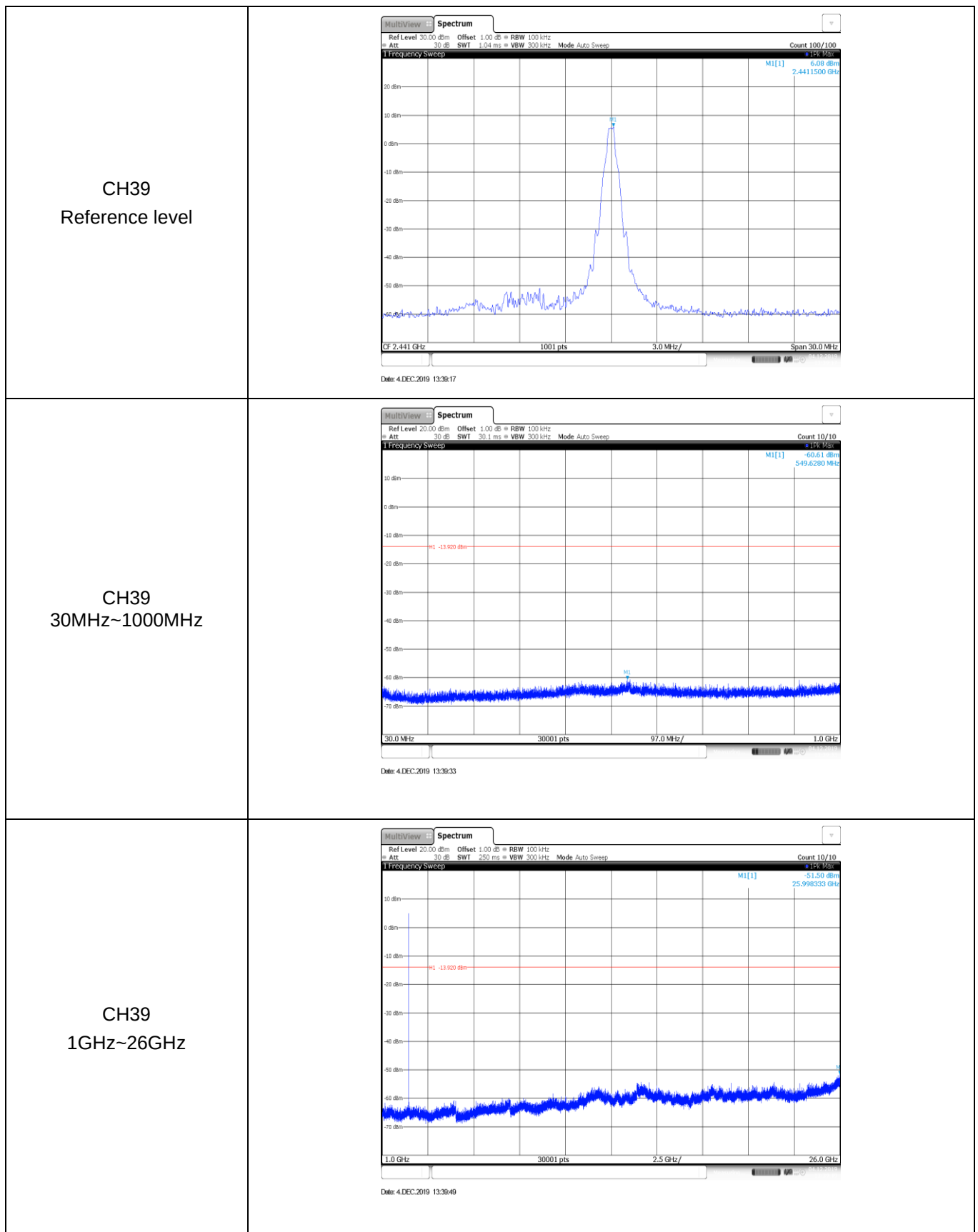
Test Item:	Band edge	Modulation type:	8DPSK
CH00 No hopping mode	<		

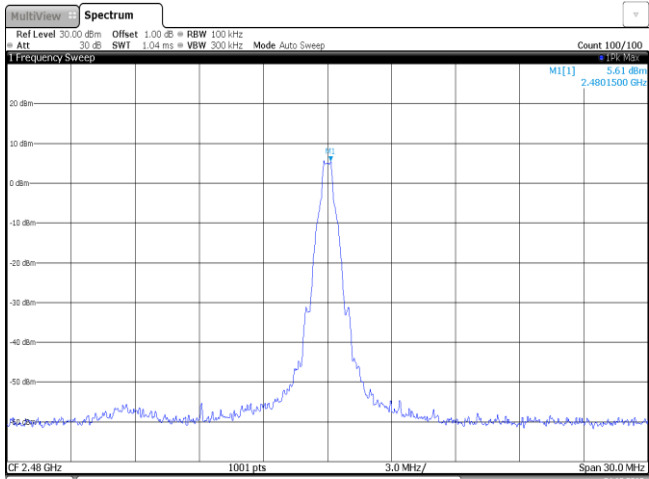
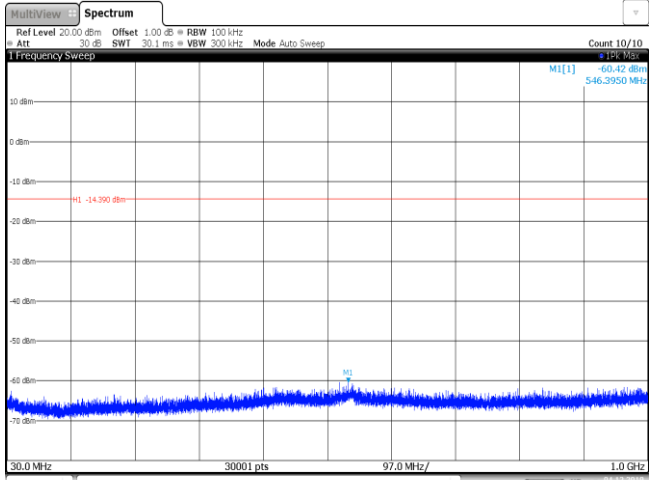
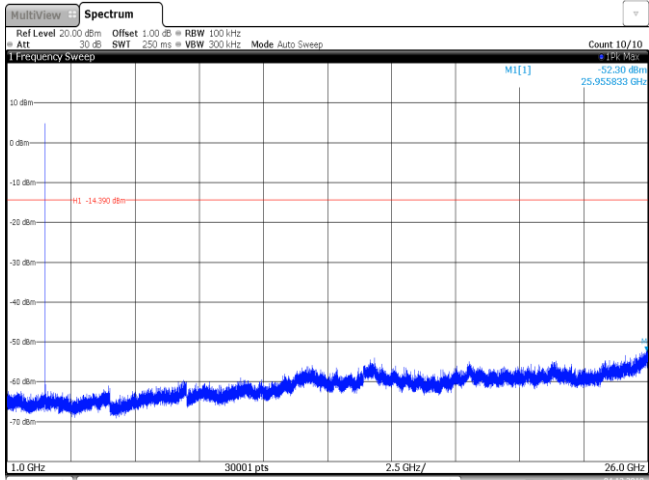
CH78
Hoppig mode

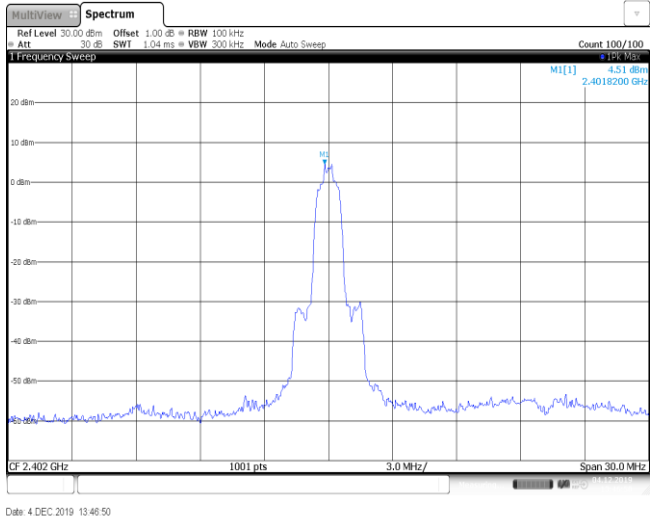
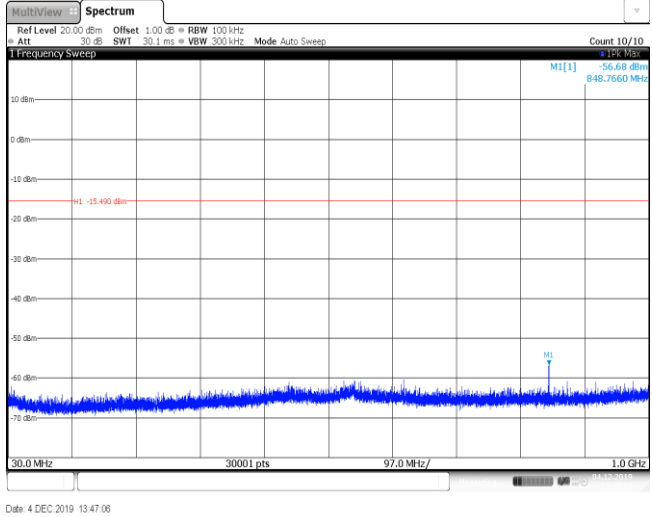
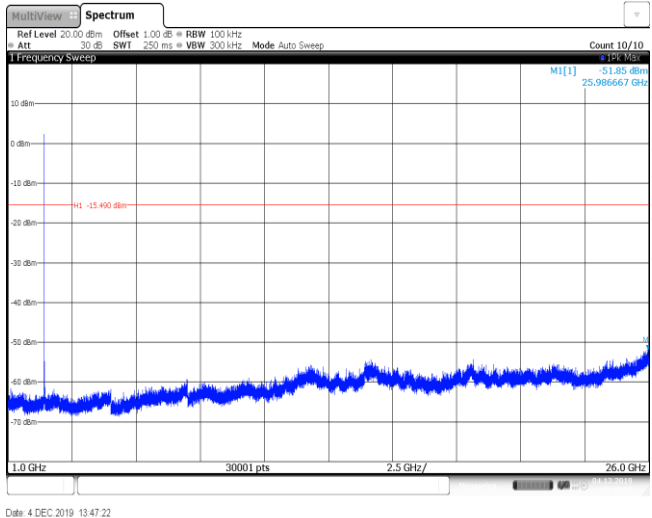


Date: 4.DEC.2019 14:11:57

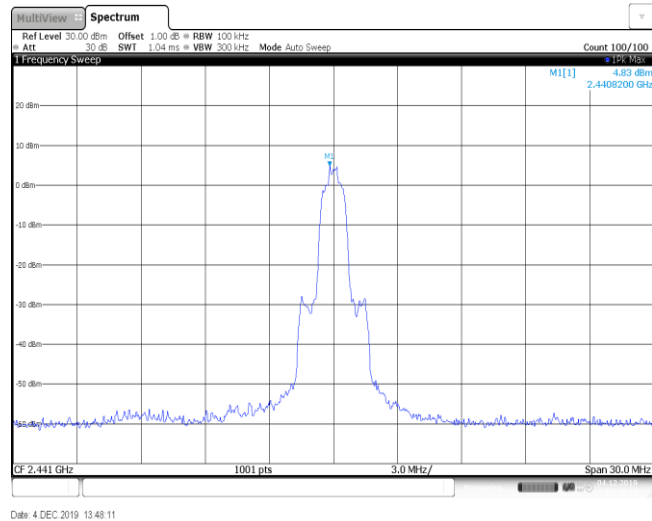
Test Item:	Spurious Emission	Modulation type:	GFSK
CH00 Reference level			
CH00 30MHz~1000MHz			
CH00 1GHz~26GHz			



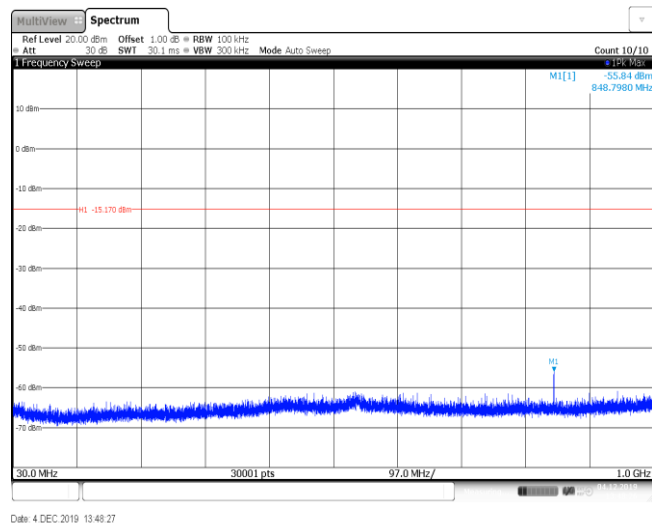
CH78 Reference level	 The spectrum plot for CH78 Reference level shows a single sharp peak at 2.48 GHz. The y-axis represents power in dBm, ranging from -80 to 20. The x-axis represents frequency in MHz, with a span of 30.0 MHz. The peak is labeled with a count of 100/100 and a power level of 5.61 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 30.00 dBm, Offset 1.00 dB, RBW 100 kHz, Mode Auto Sweep, Count 100/100, Att 30 dB, SWF 1.04 ms, VBW 300 kHz. The date is 4.DEC.2019 13:40:51.
CH78 30MHz~1000MHz	 The spectrum plot for CH78 30MHz~1000MHz shows a noisy baseline across the frequency range. The y-axis represents power in dBm, ranging from -80 to 10. The x-axis represents frequency in MHz, with a span of 1.0 GHz. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 100 kHz, Mode Auto Sweep, Count 10/10, Att 30 dB, SWF 30.1 ms, VBW 300 kHz. The date is 4.DEC.2019 13:41:07.
CH78 1GHz~26GHz	 The spectrum plot for CH78 1GHz~26GHz shows a noisy baseline across the frequency range. The y-axis represents power in dBm, ranging from -80 to 10. The x-axis represents frequency in GHz, with a span of 26.0 GHz. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 100 kHz, Mode Auto Sweep, Count 10/10, Att 30 dB, SWF 250 ms, VBW 300 kHz. The date is 4.DEC.2019 13:41:24.

Test Item:	Spurious Emission	Modulation type:	$\pi/4$ DQPSK
CH00 Reference level			
CH00 30MHz~1000MHz			
CH00 1GHz~26GHz			

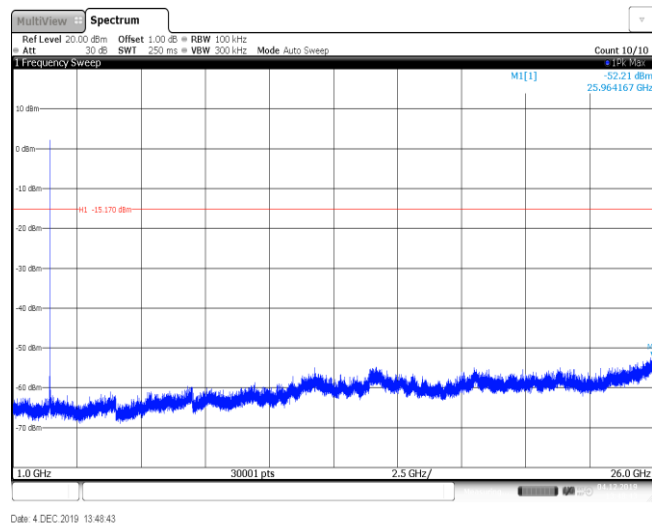
CH39
Reference level

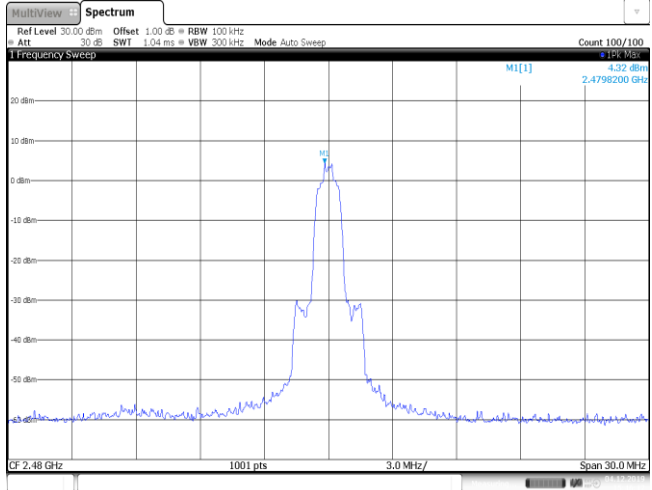
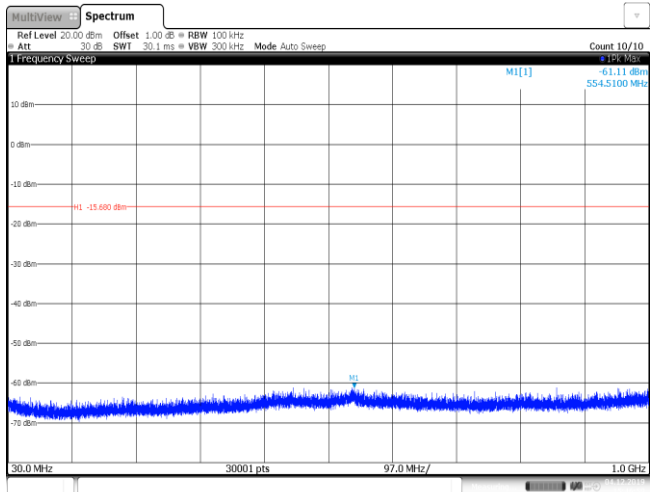
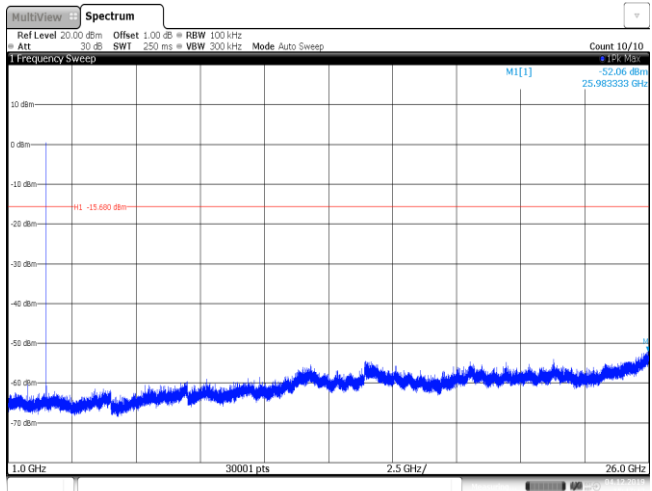


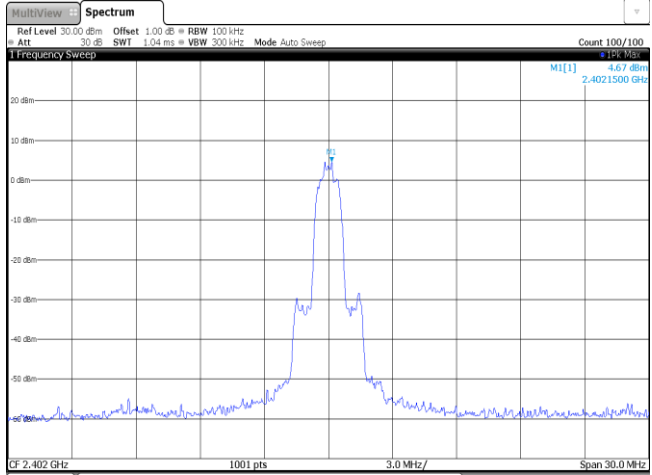
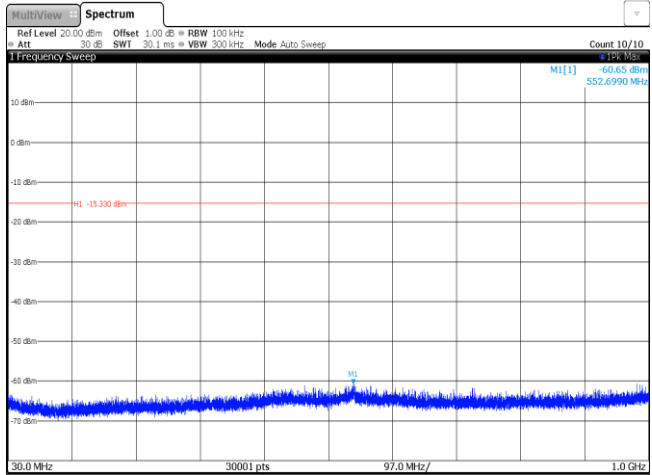
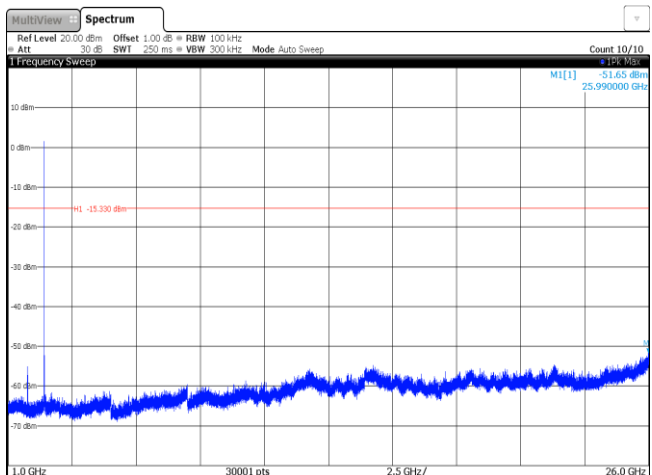
CH39
30MHz~1000MHz

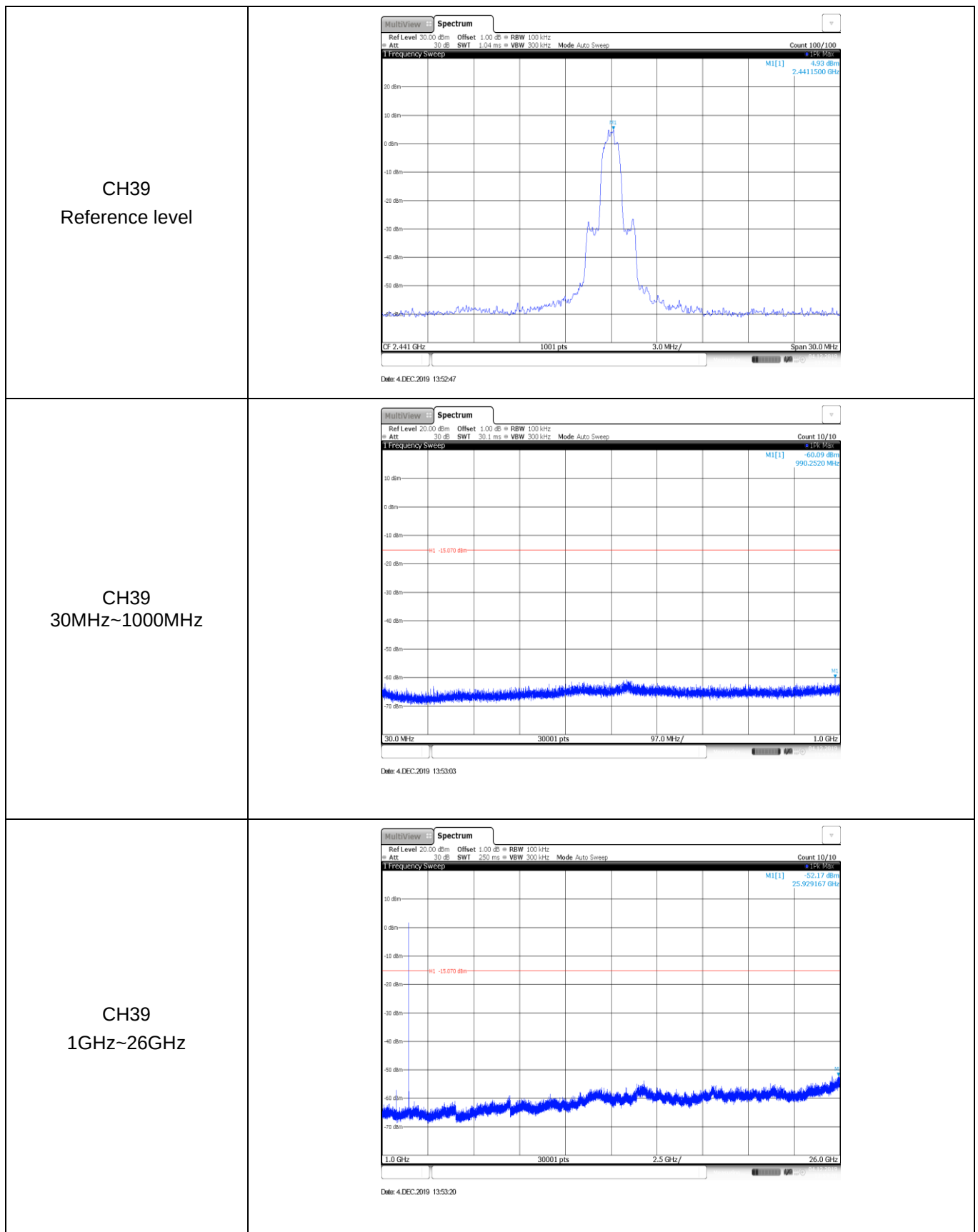


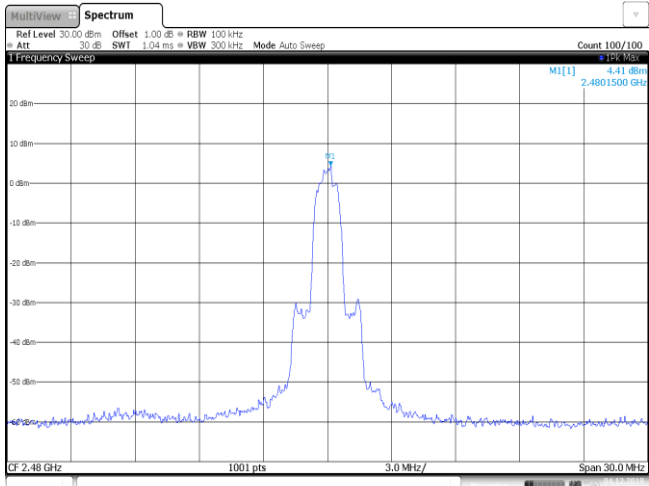
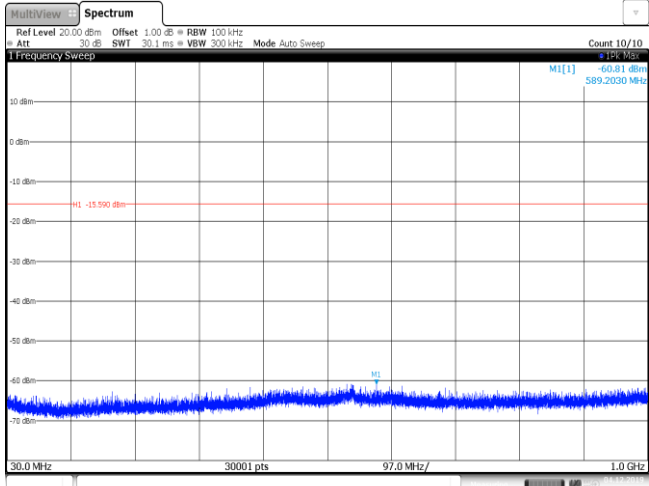
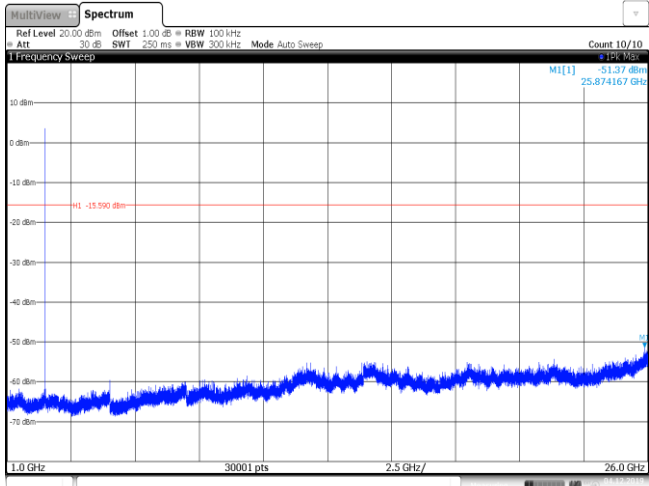
CH39
1GHz~26GHz



CH78 Reference level	 The spectrum plot shows a single sharp peak at 2.4796200 GHz with a magnitude of 4.32 dBm. The y-axis ranges from -60 dBm to 20 dBm, and the x-axis ranges from 2.46 GHz to 2.49 GHz. The plot is titled 'Spectrum' and includes parameters: Ref Level 30.00 dBm, Offset 1.00 dB, RBW 100 kHz, Att 30 dB, SWF 1.04 ms, VBW 300 kHz, Mode Auto Sweep. The date is 4.DEC.2019 15:46:43.
CH78 30MHz~1000MHz	 The spectrum plot shows a noisy baseline across the 30.0 MHz to 1.0 GHz range. A red horizontal line is drawn at -15.680 dBm. The y-axis ranges from -70 dBm to 10 dBm, and the x-axis ranges from 30.0 MHz to 1.0 GHz. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 100 kHz, Att 30 dB, SWF 30.1 ms, VBW 300 kHz, Mode Auto Sweep. The date is 4.DEC.2019 15:46:59.
CH78 1GHz~26GHz	 The spectrum plot shows a noisy baseline across the 1.0 GHz to 26.0 GHz range. A red horizontal line is drawn at -15.680 dBm. The y-axis ranges from -70 dBm to 10 dBm, and the x-axis ranges from 1.0 GHz to 26.0 GHz. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 100 kHz, Att 30 dB, SWF 250 ms, VBW 300 kHz, Mode Auto Sweep. The date is 4.DEC.2019 15:47:44.

Test Item:	Spurious Emission	Modulation type:	8DPSK
CH00 Reference level	 Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWI 1.04 ms VBW 300 kHz Mode Auto Sweep Count 100/100 M1[1] 4.67 dBm 2.4021500 GHz CF 2.402 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 4.DEC.2019 13:51:25		
CH00 30MHz~1000MHz	 Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWI 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 M1[1] -60.65 dBm 552.6990 MHz H1 -15.330 dBm 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 4.DEC.2019 13:51:41		
CH00 1GHz~26GHz	 Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWI 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 M1[1] -51.65 dBm 25.990000 GHz H1 -15.330 dBm 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 4.DEC.2019 13:51:58		



CH78 Reference level	 The spectrum plot for CH78 Reference level shows a frequency sweep from 2.48 GHz to 2.481500 GHz. The y-axis represents power in dBm, ranging from -70 to 20. A single sharp peak is visible at 2.48 GHz, reaching approximately 10 dBm. The plot includes parameters: Ref Level 30.00 dBm, Offset 1.00 dB, RBW 100 kHz, Mode Auto Sweep, Count 100/100, and Span 30.0 MHz.
CH78 30MHz~1000MHz	 The spectrum plot for CH78 30MHz~1000MHz shows a frequency sweep from 30.0 MHz to 589.2030 MHz. The y-axis represents power in dBm, ranging from -70 to 10. The plot shows a flat noise floor at approximately -60 dBm. A red horizontal line is drawn at -15.90 dBm. The plot includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 100 kHz, Mode Auto Sweep, Count 10/10, and Span 30.0 MHz.
CH78 1GHz~26GHz	 The spectrum plot for CH78 1GHz~26GHz shows a frequency sweep from 1.0 GHz to 25.874167 GHz. The y-axis represents power in dBm, ranging from -70 to 10. The plot shows a flat noise floor at approximately -60 dBm. A red horizontal line is drawn at -15.90 dBm. The plot includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 100 kHz, Mode Auto Sweep, Count 10/10, and Span 25.0 GHz.

-----End of Report-----