

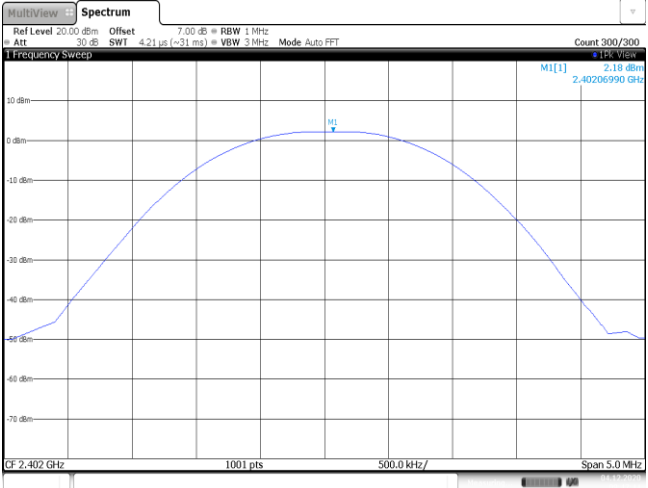
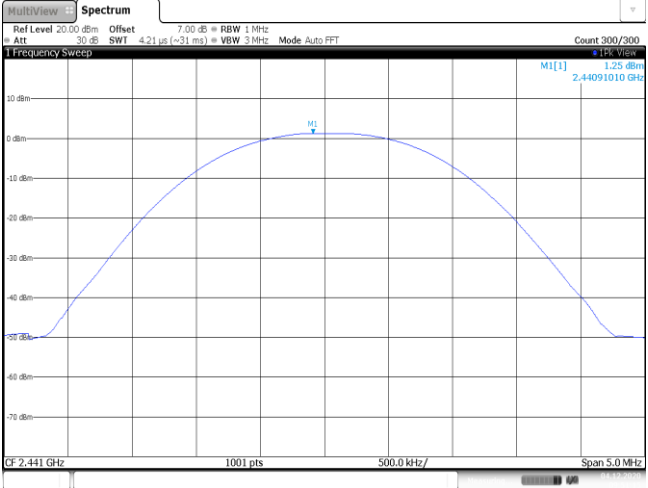
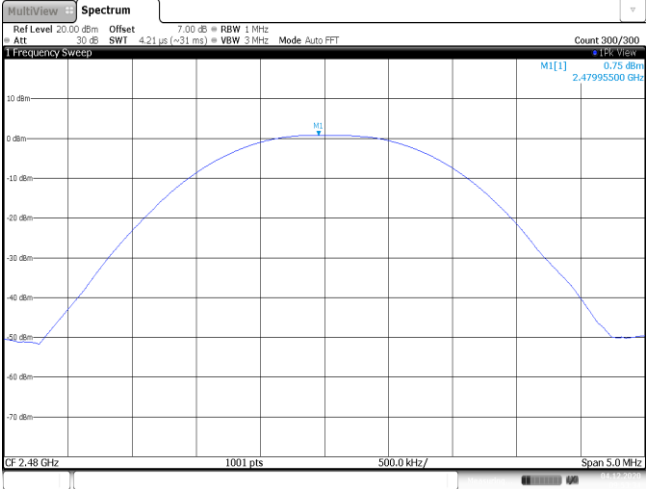
APPENDIX REPORT

Project No.	SHT2011088101EW	Radio Specification	Bluetooth EDR
Test sample No.	YPHT20110881006	Model No.	S241
Start test date	2020-12-4	Finish date	2020-12-4
Temperature	26.3°C	Humidity	31%
Test Engineer	Hailey Chen	Auditor	Xiaodong Zheo

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	2.18	2.16	≤ 30.00	Pass
	39	1.25	1.24		
	78	0.75	0.74		
$\pi/4$ DQPSK	00	3.60	3.03	≤ 21.00	Pass
	39	1.78	1.30		
	78	1.86	1.21		
8DPSK	00	3.82	3.16	≤ 21.00	Pass
	39	2.37	1.79		
	78	1.70	0.99		

Modulation Type:	GFSK
CH00	 Spectrum plot for CH00 showing a GFSK signal centered at 2.402 GHz. The plot displays a bell-shaped curve representing the signal's power spectrum. The y-axis represents power in dBm, ranging from -70 to 10. The x-axis represents frequency in GHz, ranging from 2.402 to 2.407. The plot includes parameters: Ref Level 20.00 dBm, Offset 30 dB, SWI 4.21 us (~31 ms), VBW 3 MHz, Mode Auto FFT, Count 300/300, and Date: 4 DEC 2020 09:47:44.
CH39	 Spectrum plot for CH39 showing a GFSK signal centered at 2.441 GHz. The plot displays a bell-shaped curve representing the signal's power spectrum. The y-axis represents power in dBm, ranging from -70 to 10. The x-axis represents frequency in GHz, ranging from 2.441 to 2.446. The plot includes parameters: Ref Level 20.00 dBm, Offset 30 dB, SWI 4.21 us (~31 ms), VBW 3 MHz, Mode Auto FFT, Count 300/300, and Date: 4 DEC 2020 09:51:15.
CH78	 Spectrum plot for CH78 showing a GFSK signal centered at 2.48 GHz. The plot displays a bell-shaped curve representing the signal's power spectrum. The y-axis represents power in dBm, ranging from -70 to 10. The x-axis represents frequency in GHz, ranging from 2.48 to 2.485. The plot includes parameters: Ref Level 20.00 dBm, Offset 30 dB, SWI 4.21 us (~31 ms), VBW 3 MHz, Mode Auto FFT, Count 300/300, and Date: 4 DEC 2020 09:53:05.

Modulation Type: $\pi/4$ DQPSK	
CH00	MultiView Spectrum Ref Level 20.00 dBm Offset 7.00 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] 3.66 dBm 2.40208490 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 2.402 GHz 1001 pts 500.0 kHz/ Span 5.0 MHz Date: 4 DEC 2020 09:58:35
CH39	MultiView Spectrum Ref Level 20.00 dBm Offset 7.00 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] 1.78 dBm 2.44115980 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 2.441 GHz 1001 pts 500.0 kHz/ Span 5.0 MHz Date: 4 DEC 2020 10:02:23
CH78	MultiView Spectrum Ref Level 20.00 dBm Offset 7.00 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] 1.86 dBm 2.48012990 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 2.48 GHz 1001 pts 500.0 kHz/ Span 5.0 MHz Date: 4 DEC 2020 10:05:44

Modulation Type: 8DPSK	
CH00	MultiView Spectrum Ref Level 20.00 dBm Offset 7.00 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] 3.82 dBm 2.40209490 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 2.402 GHz 1001 pts 500.0 kHz/ Span 5.0 MHz Date: 4 DEC 2020 10:28:57
CH39	MultiView Spectrum Ref Level 20.00 dBm Offset 7.00 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] 2.37 dBm 2.44104500 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 2.441 GHz 1001 pts 500.0 kHz/ Span 5.0 MHz Date: 4 DEC 2020 10:11:52
CH78	MultiView Spectrum Ref Level 20.00 dBm Offset 7.00 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] 1.70 dBm 2.48009490 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 2.48 GHz 1001 pts 500.0 kHz/ Span 5.0 MHz Date: 4 DEC 2020 10:44:11

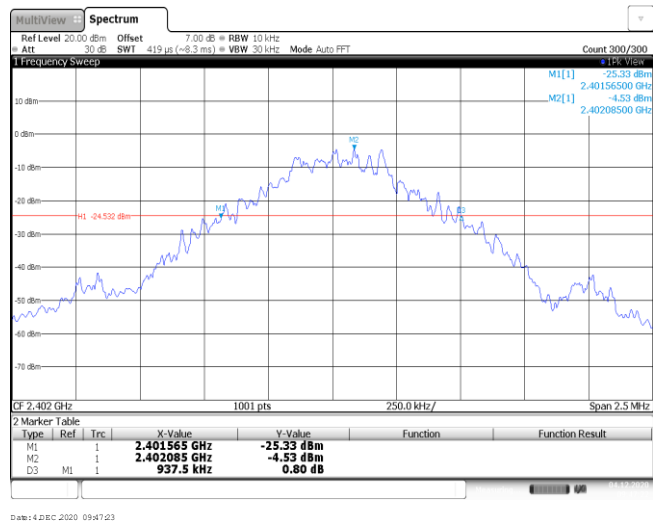
Appendix B : 20 dB Bandwidth

Modulation type	Channel	20 dB Bandwidth (kHz)	Limit (kHz)	Result
GFSK	00	937.50	-	Pass
	39	940.00		
	78	937.50		
$\pi/4$ DQPSK	00	1312.50	-	Pass
	39	1305.00		
	78	1312.50		
8DPSK	00	1302.50	-	Pass
	39	1302.50		
	78	1300.00		

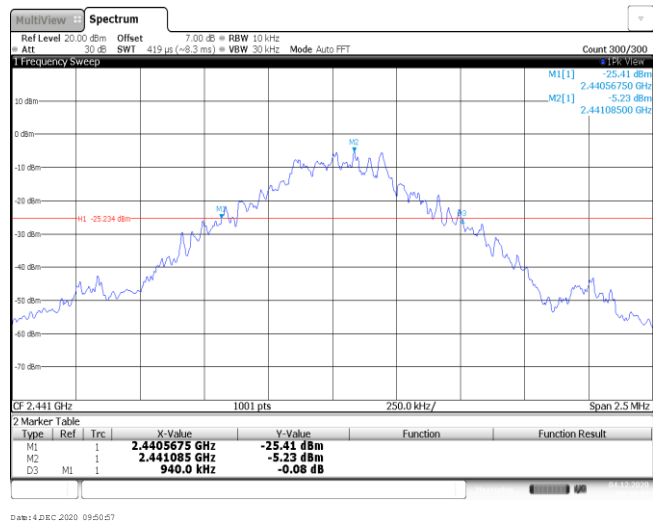
Modulation Type:

GFSK

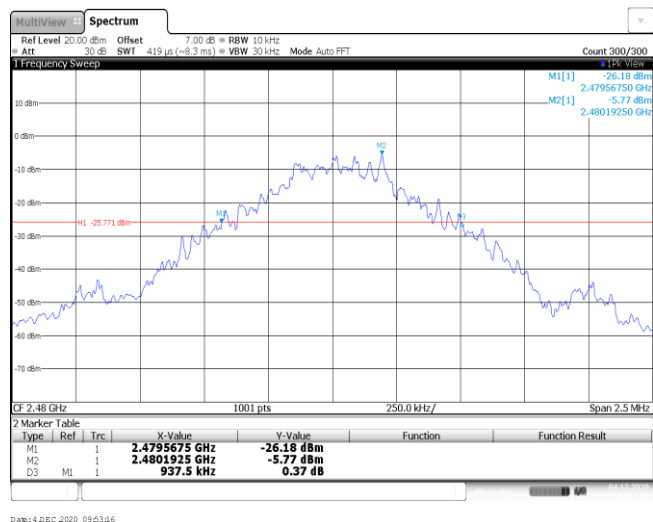
CH00



CH39



CH78

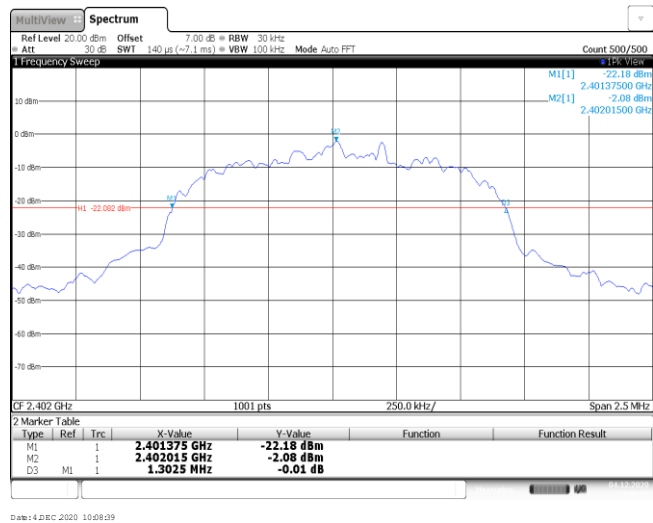


Modulation Type:		$\pi/4$ DQPSK
CH00	MultiView Spectrum Ref Level 20.00 dBm Offset 30 dB SWI 140 μs ($\approx$7.1 ms) 7.00 dB $\approx$ RBW 30 kHz Mode Auto FFT Count 500/500 1 Frequency Sweep	

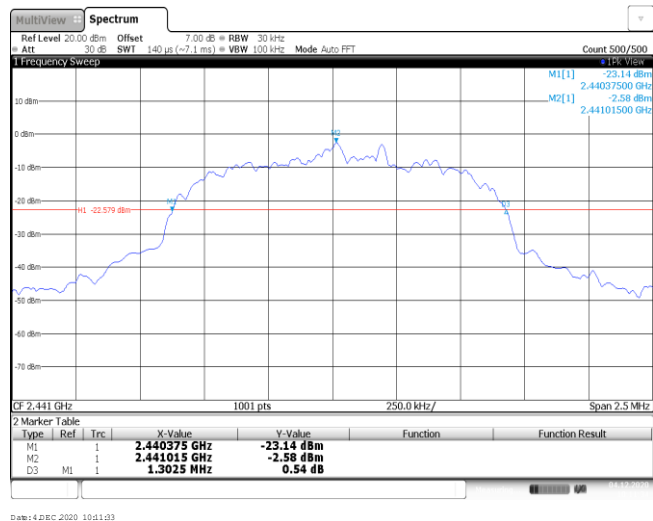
Modulation Type:

8DPSK

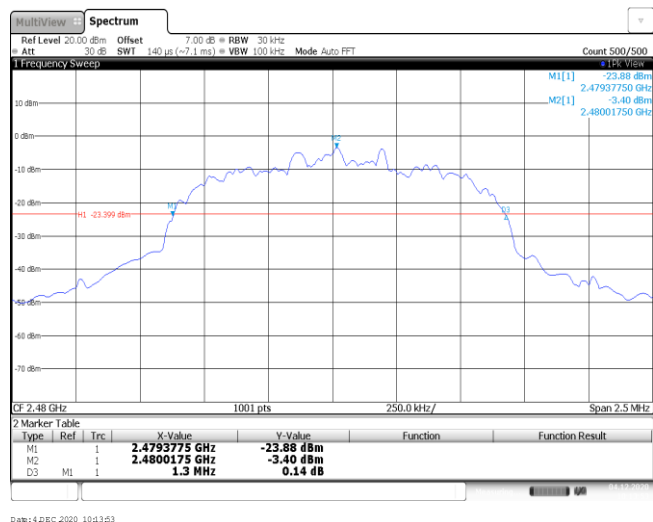
CH00



CH39

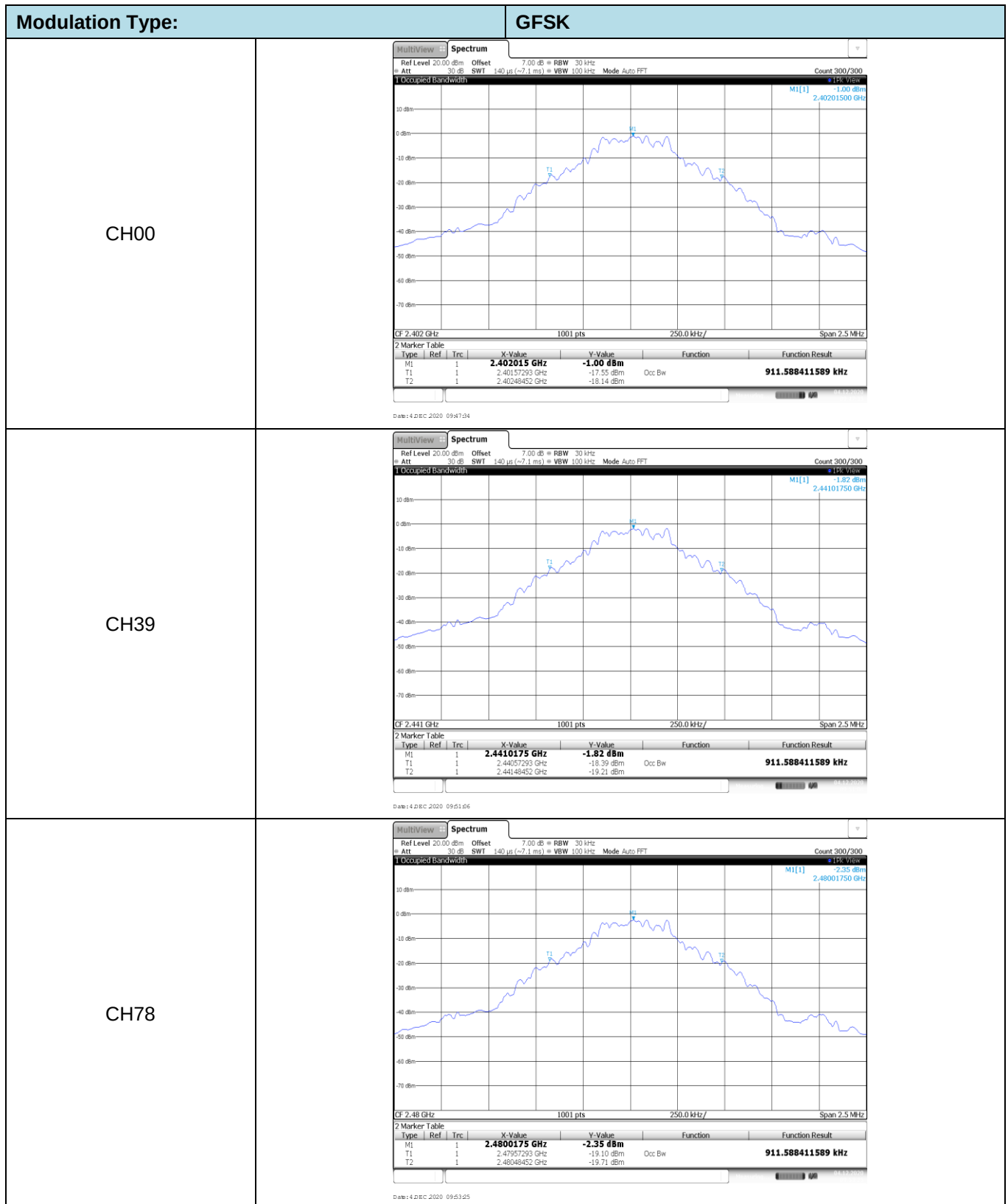


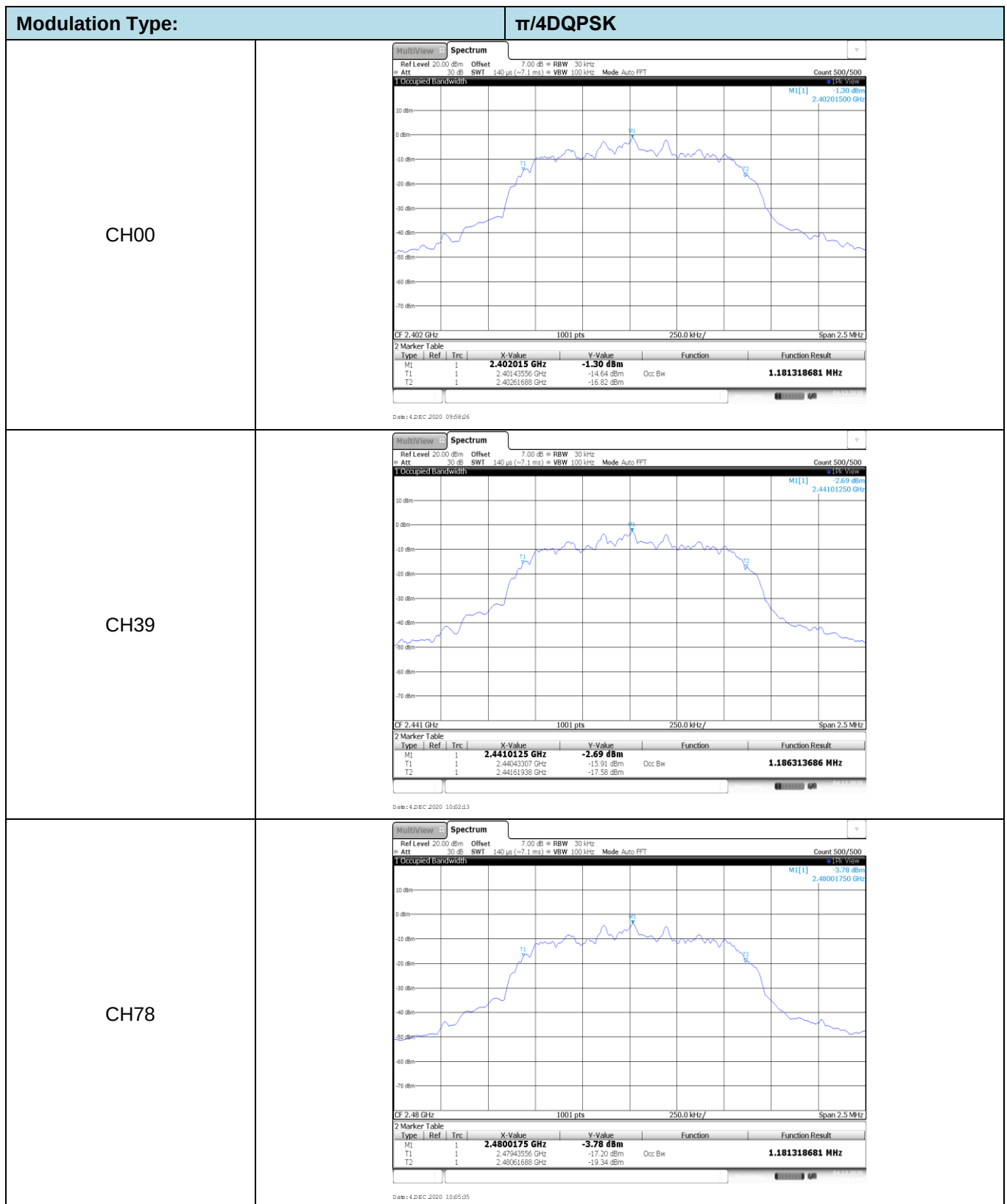
CH78

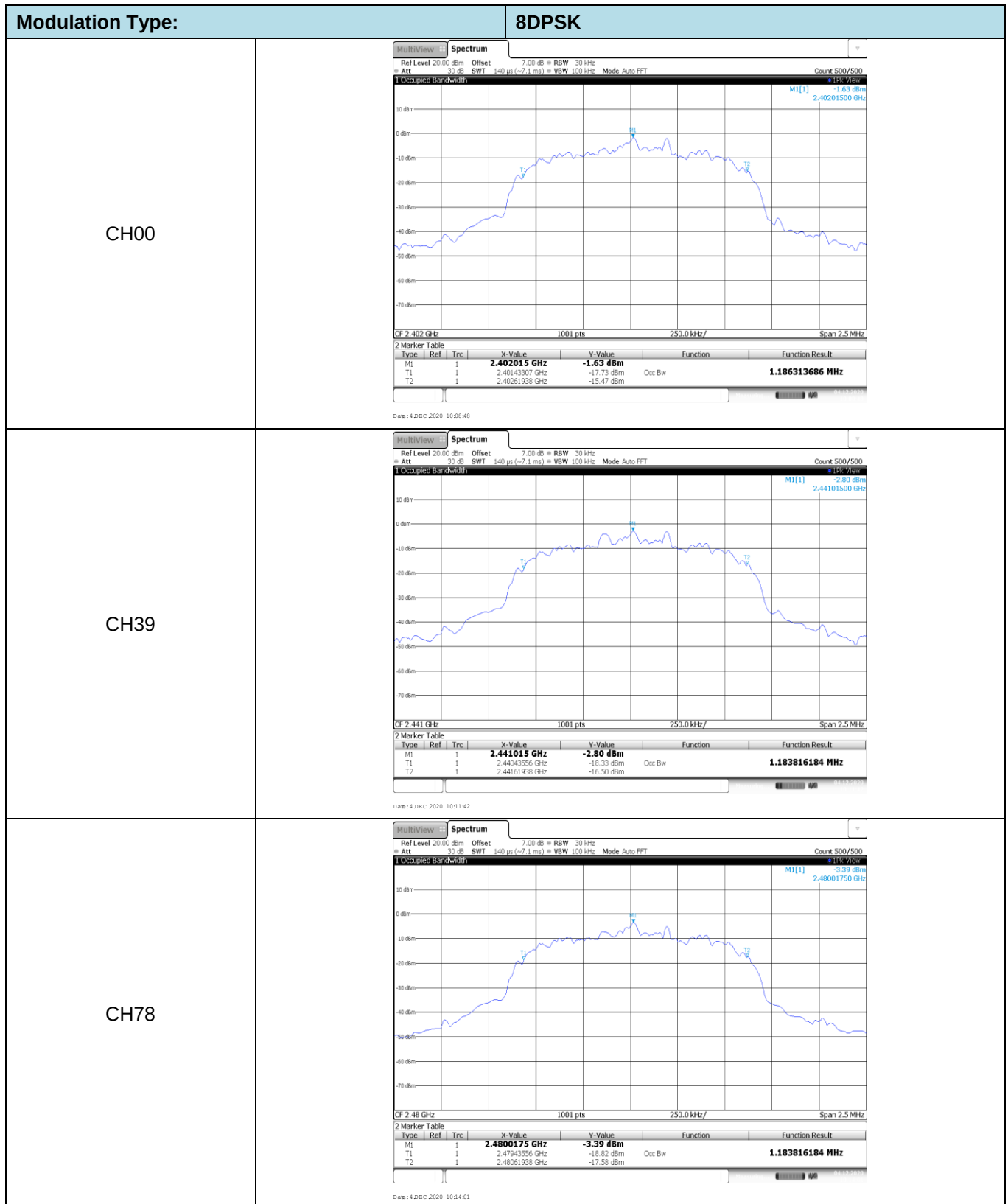


Appendix C: 99% Occupied Bandwidth

Modulation type	Channel	99% Occupied Bandwidth (MHz)	Limit (MHz)	Result
GFSK	00	0.91	-	Pass
	39	0.91		
	78	0.91		
$\pi/4$ DQPSK	00	1.18	-	Pass
	39	1.19		
	78	1.18		
8DPSK	00	1.19	-	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	≥940.00	Pass
π/4DQPSK	00	1.00	≥875.00	Pass
8DPSK	39	1.00	≥868.33	Pass

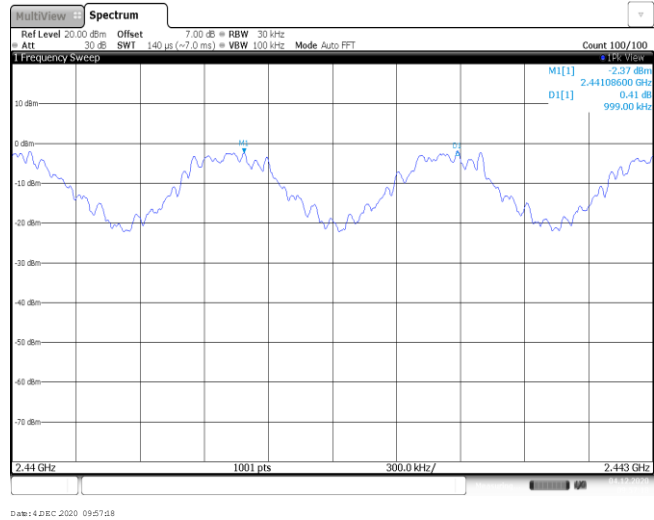
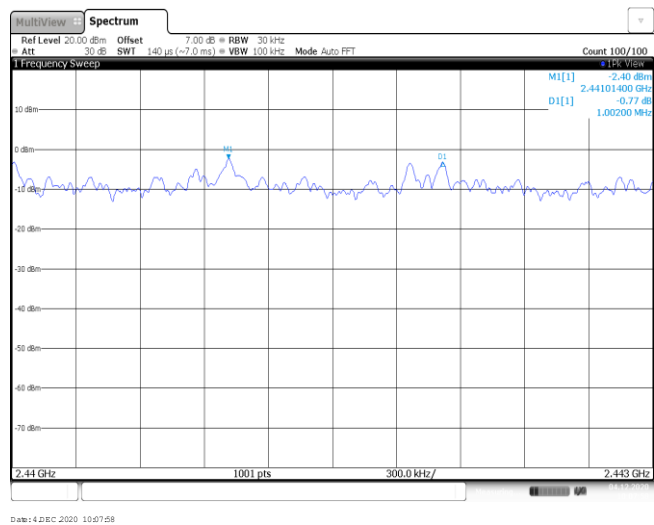
Note:

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

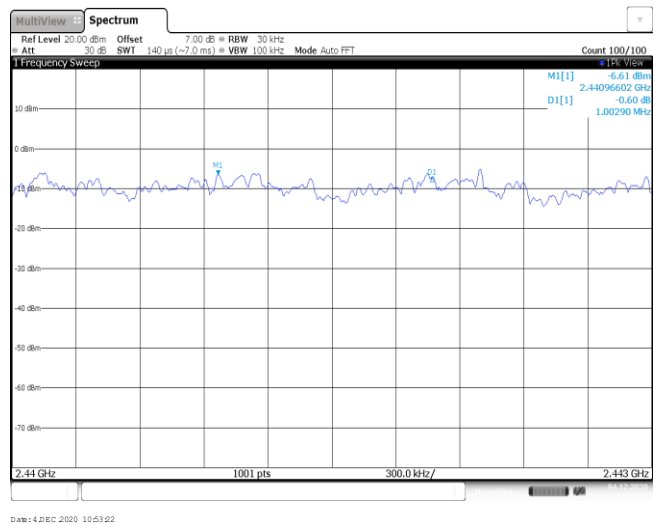
π/4DQPSK limit = 2/3 * The maximum 20 dB Bandwidth for π/4DQPSK modulation on the appendix B.

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

GFSK

 $\pi/4$ DQPSK

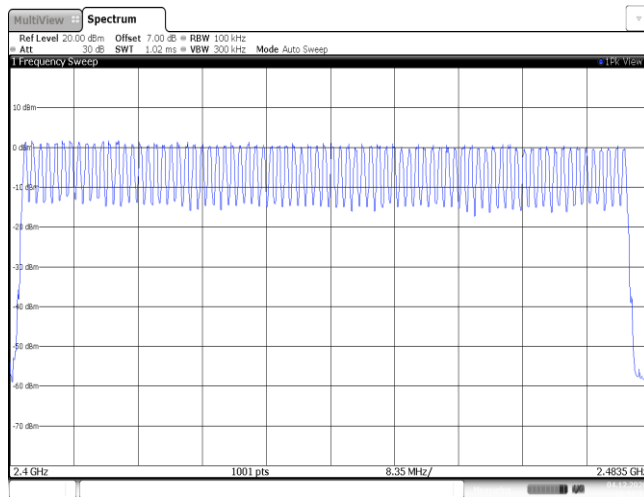
8DPSK



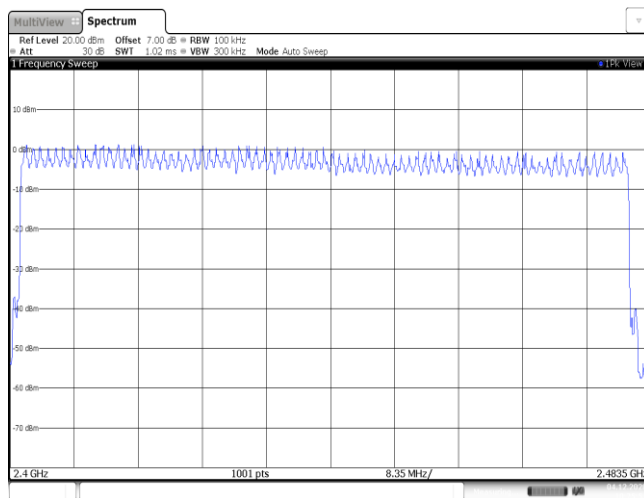
Appendix E: Hopping Channel Number

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

GFSK

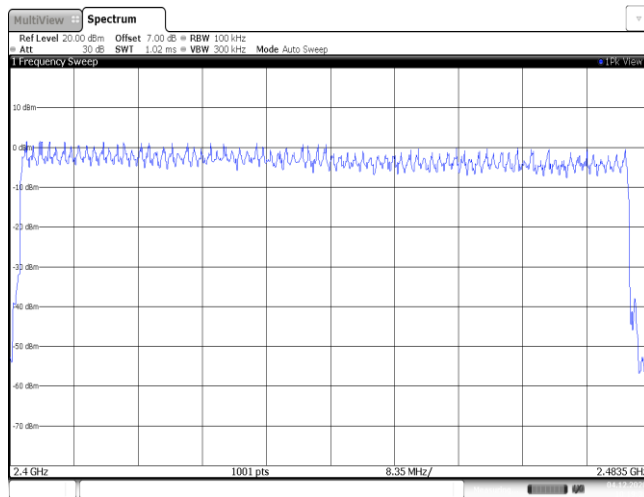


Date: 4 DEC 2020 10:31:12

 $\pi/4$ DQPSK

Date: 4 DEC 2020 10:25:50

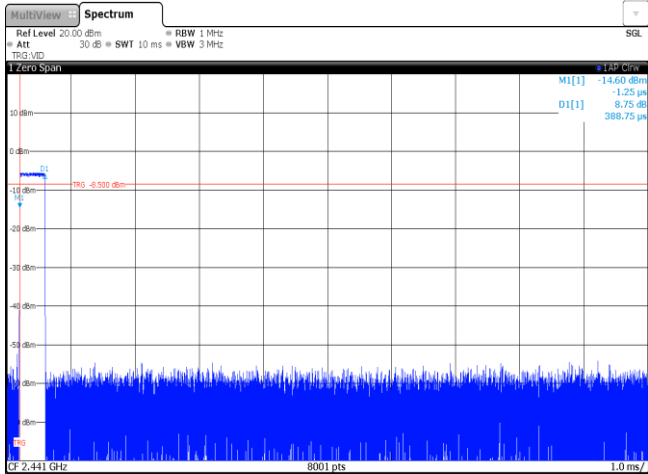
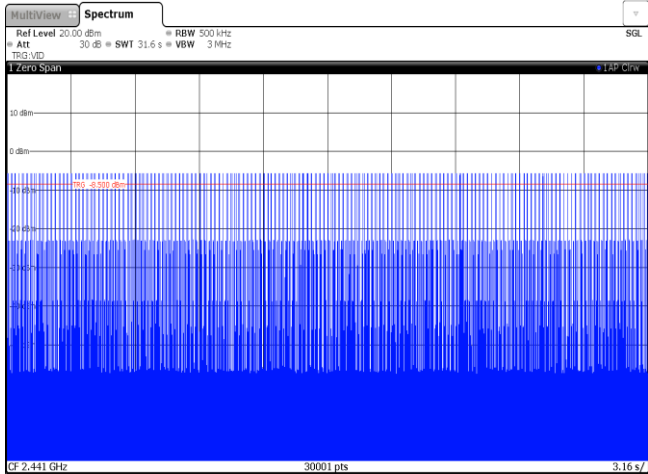
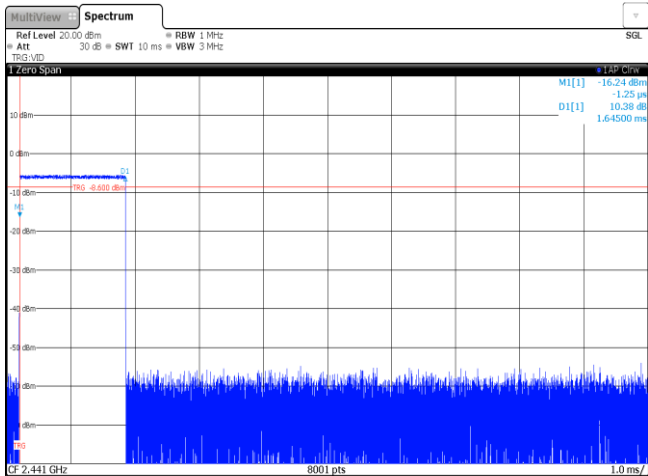
8DPSK

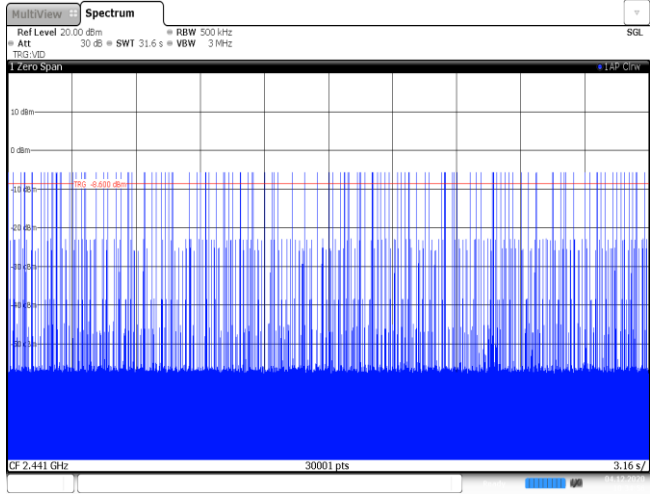
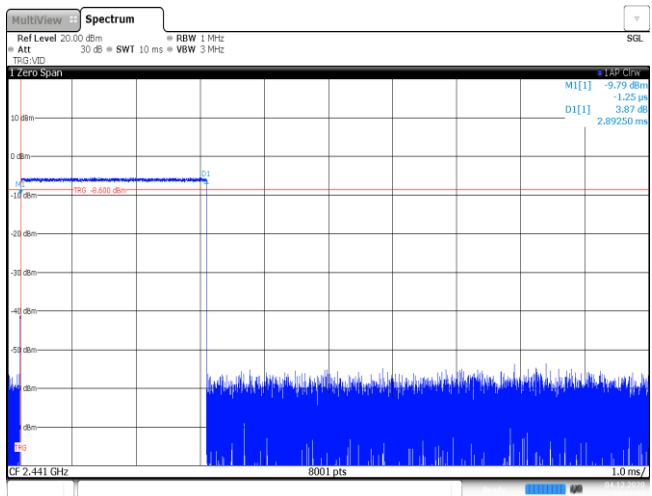
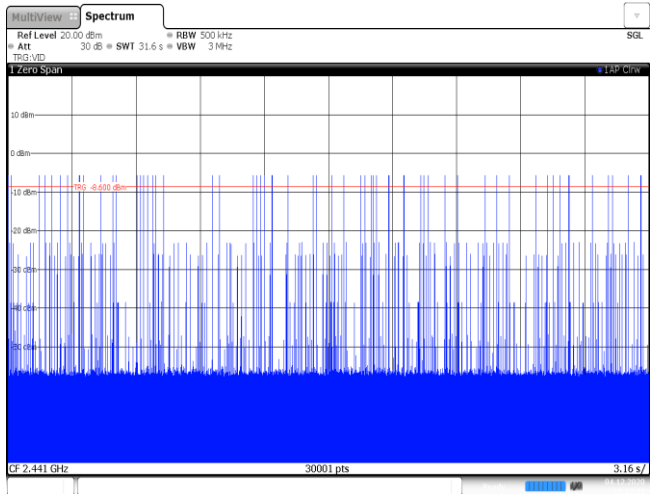


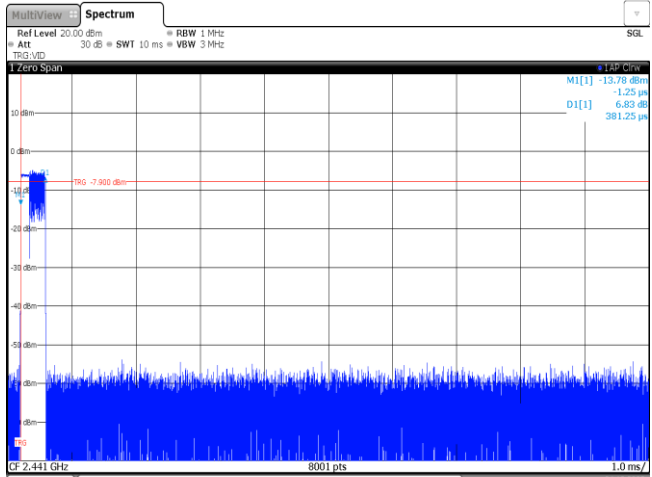
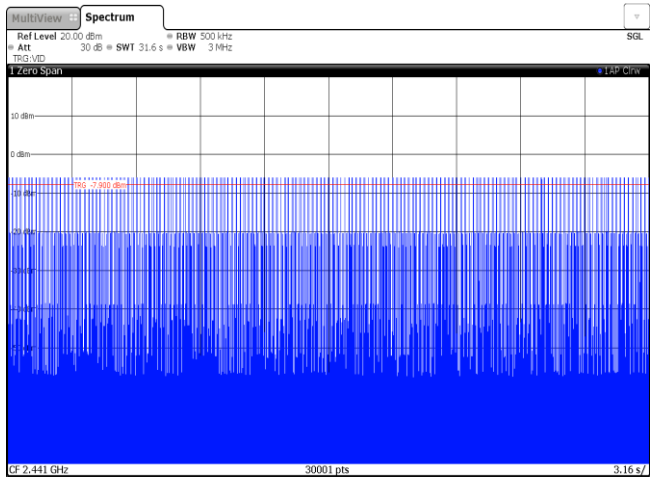
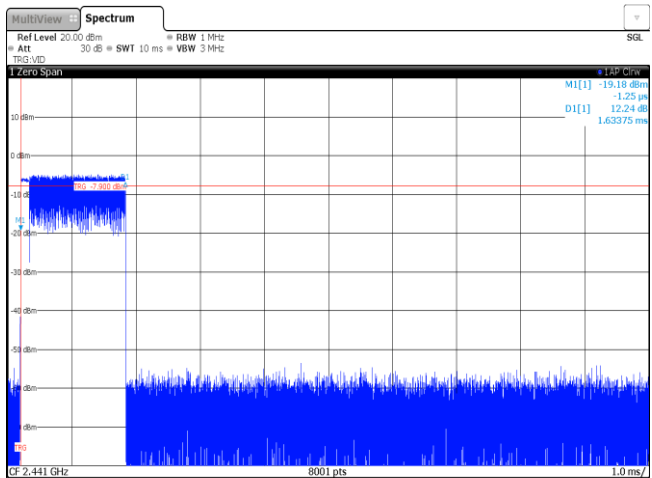
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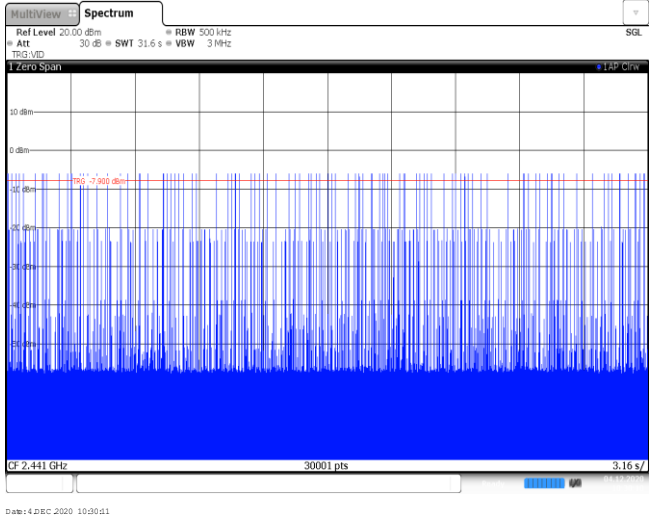
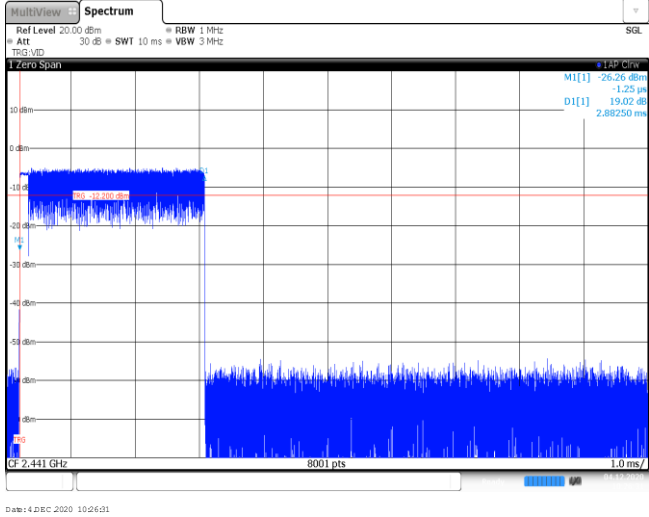
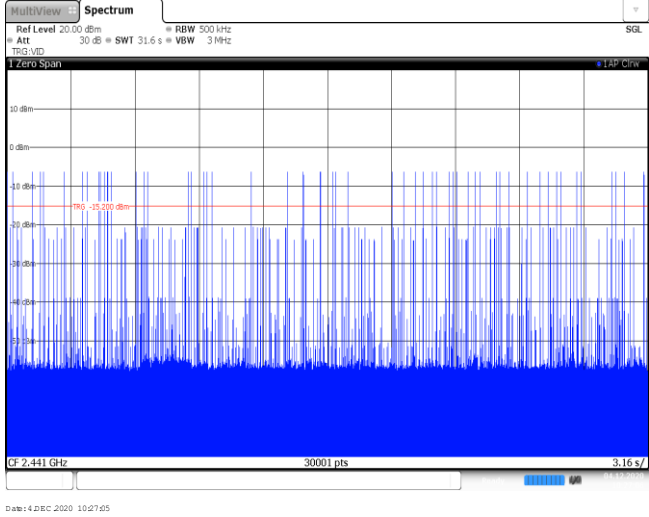
Appendix F: Dwell Time

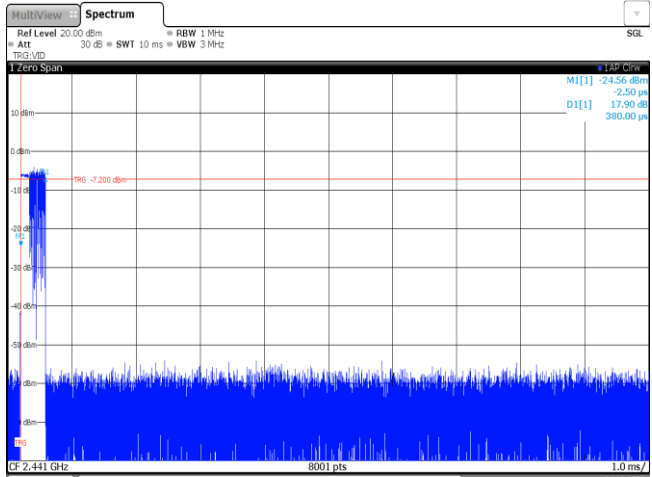
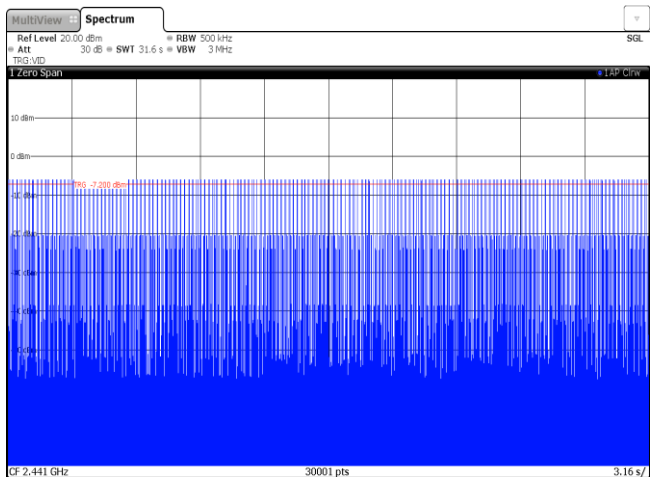
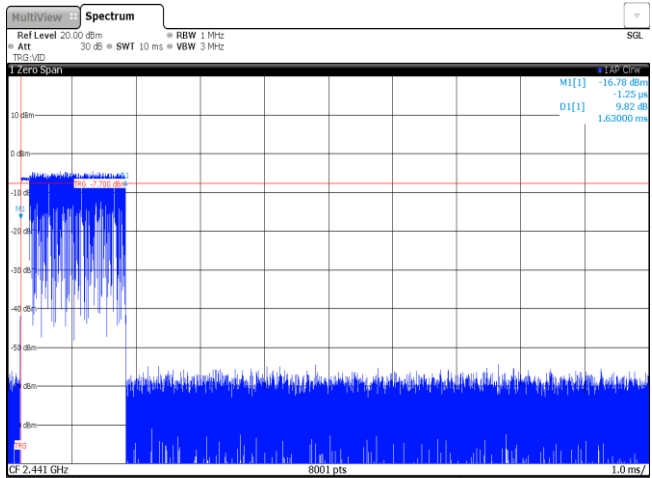
Modulation type	Packet	Burst Width [ms]	Total Hops[hop*ch]	Dwell time (Second)	Limit (Second)	Result
GFSK	DH1	0.39	319	0.12	≤ 0.40	Pass
	DH3	1.65	123	0.20		
	DH5	2.89	59	0.17		
$\pi/4$ DQPSK	2DH1	0.38	318	0.12	≤ 0.40	Pass
	2DH3	1.63	105	0.17		
	2DH5	2.88	56	0.16		
8DPSK	3DH1	0.38	316	0.12	≤ 0.40	Pass
	3DH3	1.63	115	0.19		
	3DH5	2.88	72	0.21		

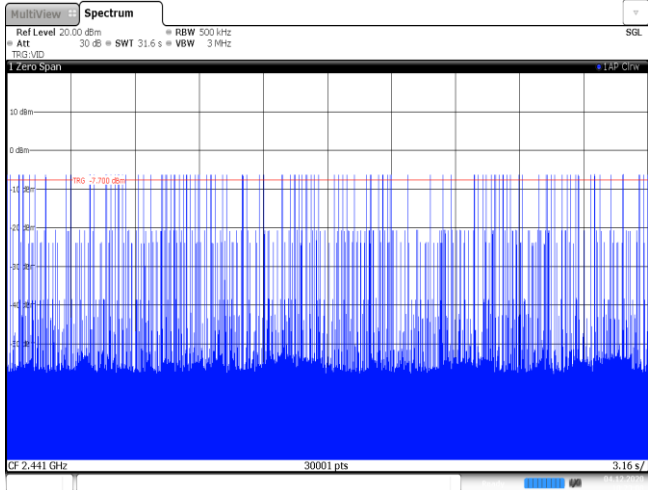
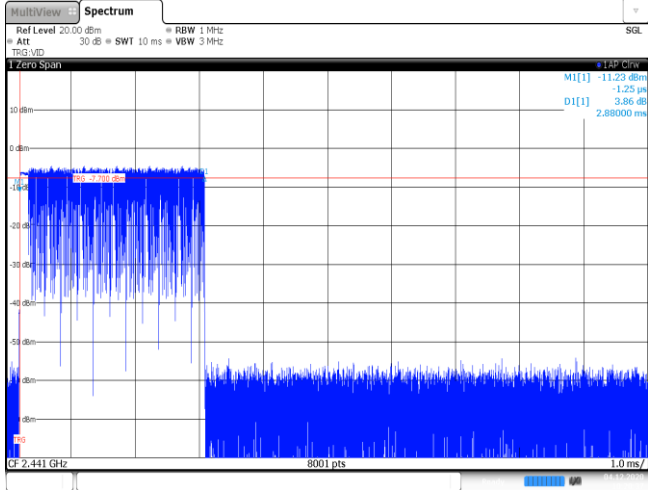
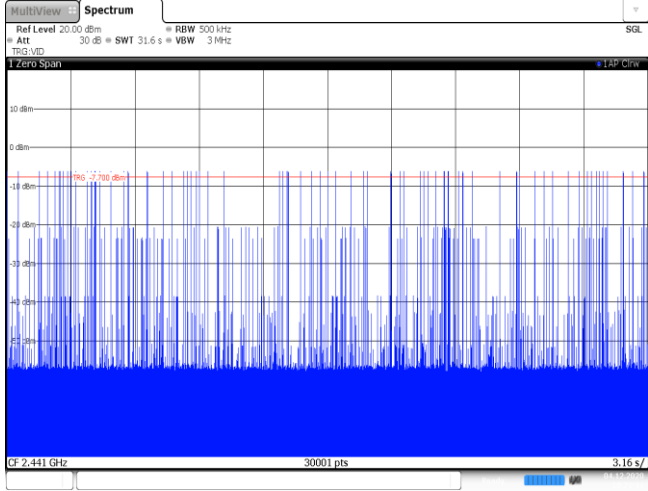
Modulation Type: GFSK	
DH1 Burst width	 Ref Level 20.00 dBm Att 30 dB RBW 1 MHz SWT 10 ms VBW 3 MHz M[1] -14.60 dBm D1[1] 8.75 dB 388.75 ps CF 2.441 GHz 8001 pts 1.0 ms/ Date: 4 DEC 2020 10:33:22
DH1 Burst number	 Ref Level 20.00 dBm Att 30 dB RBW 500 kHz SWT 31.6 s VBW 3 MHz CF 2.441 GHz 30001 pts 3.16 s/ Date: 4 DEC 2020 10:33:56
DH3 Burst width	 Ref Level 20.00 dBm Att 30 dB RBW 1 MHz SWT 10 ms VBW 3 MHz M[1] -16.24 dBm D1[1] 10.38 dB 1.64500 ms CF 2.441 GHz 8001 pts 1.0 ms/ Date: 4 DEC 2020 10:34:21

DH3 Burst number	 The spectrum plot shows a dense burst of signal activity. The y-axis represents power in dBm, ranging from -50 to 10. The x-axis represents frequency in GHz, centered around 2.441 GHz. The plot shows a wideband signal with many narrowband components. A red line indicates a threshold at -40.00 dBm. The bottom status bar shows 'CF 2.441 GHz', '30001 pts', and '3.16 s'.
DH5 Burst width	 The spectrum plot shows a burst of signal activity. The y-axis represents power in dBm, ranging from -50 to 10. The x-axis represents frequency in GHz, centered around 2.441 GHz. The plot shows a wideband signal with many narrowband components. A red line indicates a threshold at -40.00 dBm. The bottom status bar shows 'CF 2.441 GHz', '8001 pts', and '1.0 ms'.
DH5 Burst number	 The spectrum plot shows a dense burst of signal activity. The y-axis represents power in dBm, ranging from -50 to 10. The x-axis represents frequency in GHz, centered around 2.441 GHz. The plot shows a wideband signal with many narrowband components. A red line indicates a threshold at -40.00 dBm. The bottom status bar shows 'CF 2.441 GHz', '30001 pts', and '3.16 s'.

Modulation Type:	$\pi/4$ DQPSK
2DH1 Burst width	 The spectrum plot shows a single burst of signal at 2.441 GHz. The y-axis represents power in dBm, ranging from -60 to 10. The x-axis represents time in ms, ranging from 0 to 1.0. A red line indicates the noise floor at -7.900 dBm. The signal is a narrowband burst. The plot includes parameters: Ref Level 20.00 dBm, Att 30 dB, SWT 10 ms, RBW 1 MHz, VBW 3 MHz. The data is dated 4 DEC 2020 10:28:43.
2DH1 Burst number	 The spectrum plot shows a continuous signal at 2.441 GHz. The y-axis represents power in dBm, ranging from -60 to 10. The x-axis represents time in s, ranging from 0 to 3.16. A red line indicates the noise floor at -7.900 dBm. The signal is a narrowband burst. The plot includes parameters: Ref Level 20.00 dBm, Att 30 dB, SWT 31.6 s, RBW 500 kHz, VBW 3 MHz. The data is dated 4 DEC 2020 10:29:17.
2DH3 Burst width	 The spectrum plot shows a single burst of signal at 2.441 GHz. The y-axis represents power in dBm, ranging from -60 to 10. The x-axis represents time in ms, ranging from 0 to 1.0. A red line indicates the noise floor at -7.900 dBm. The signal is a narrowband burst. The plot includes parameters: Ref Level 20.00 dBm, Att 30 dB, SWT 10 ms, RBW 1 MHz, VBW 3 MHz. The data is dated 4 DEC 2020 10:29:47.

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

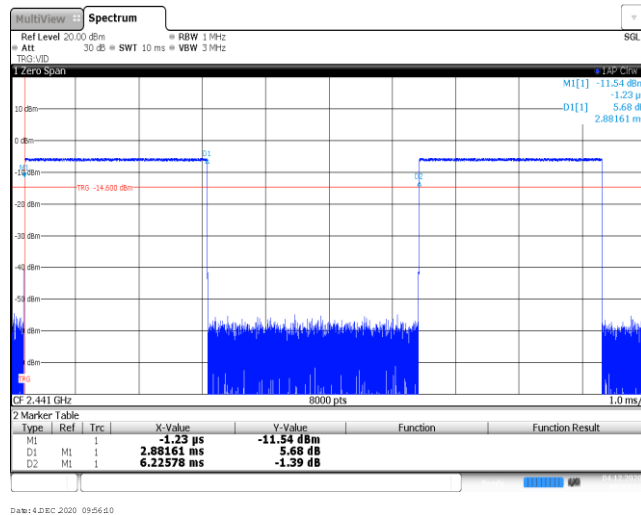
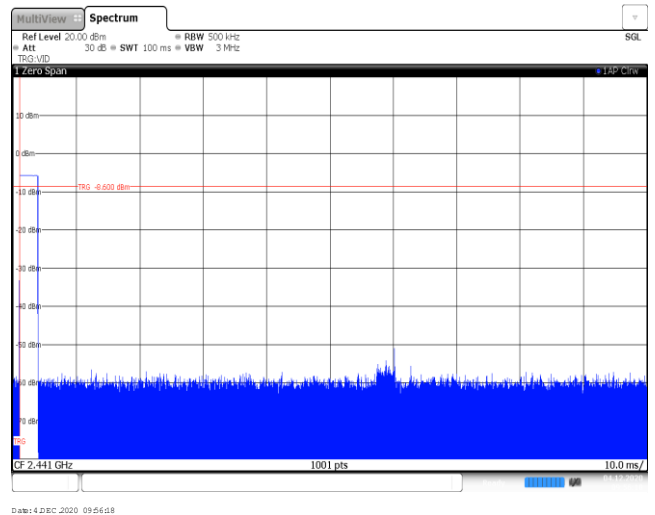
Modulation Type:	8DPSK
3DH1 Burst width	 The spectrum plot shows a signal at 2.441 GHz with a bandwidth of 8001 pts. The y-axis represents power in dBm, ranging from -60 to 10. A red trace is visible at approximately -7.200 dBm. The plot includes a 'Zero Span' view and a 'Spectrum' view. The date is 4 DEC 2020 10:21:39.
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 -60 to 10. A red trace is visible at approximately -7.200 dBm. The plot includes a 'Zero Span' view and a 'Spectrum' view. The date is 4 DEC 2020 10:22:13.
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 -60 to 10. A red trace is visible at approximately -7.200 dBm. The plot includes a 'Zero Span' view and a 'Spectrum' view. The date is 4 DEC 2020 10:22:33.

3DH3 Burst number	 Ref Level 20.00 dBm Att 30 dB RBW 500 kHz SWT 31.6 s VBW 3 kHz 1 Zero Span CF 2.441 GHz 30001 pts 3.16 s Date: 4 DEC 2020 10:23:08
3DH5 Burst width	 Ref Level 20.00 dBm Att 30 dB RBW 1 MHz SWT 10 ms VBW 3 MHz 1 Zero Span CF 2.441 GHz 8001 pts 1.0 ms M1[1] -11.23 dBm D1[1] 2.88000 ms 1.25 μs Date: 4 DEC 2020 10:20:07
3DH5 Burst number	 Ref Level 20.00 dBm Att 30 dB RBW 500 kHz SWT 31.6 s VBW 3 kHz 1 Zero Span CF 2.441 GHz 30001 pts 3.16 s Date: 4 DEC 2020 10:21:12

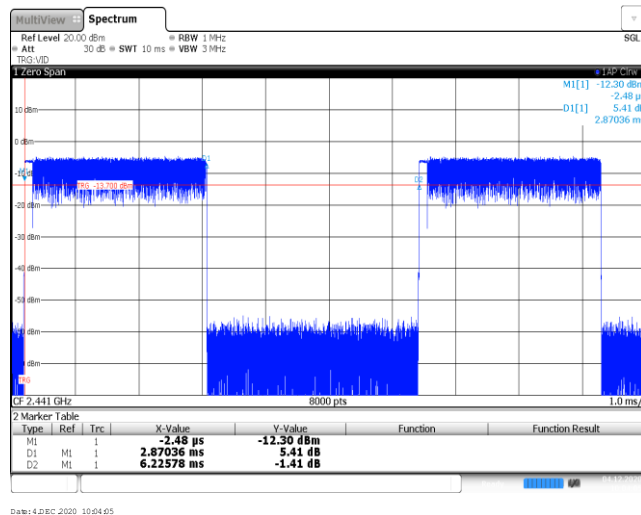
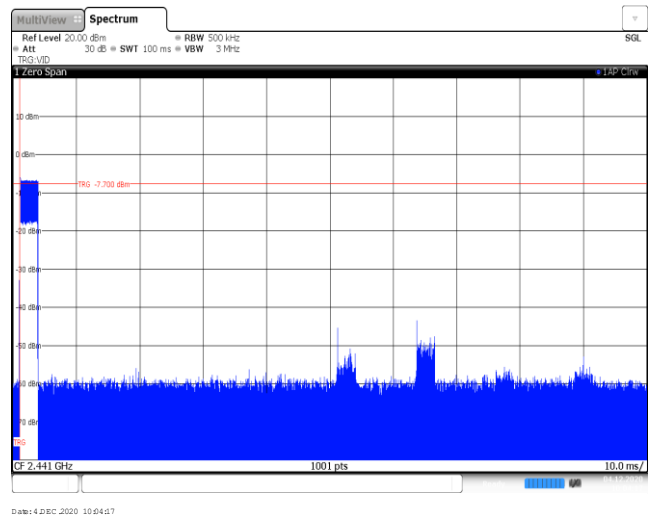
Appendix G: Duty Cycle Correction Factor (DCCF)

DCCF Calculate Formula					
DCCF=20 * Log(duty cycle) = 20 * 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	2.88	100	1	-30.81
$\pi/4$ DQPSK	2441	2.87	100	1	-30.84
8DPSK	2441	2.87	100	1	-30.84

GFSK

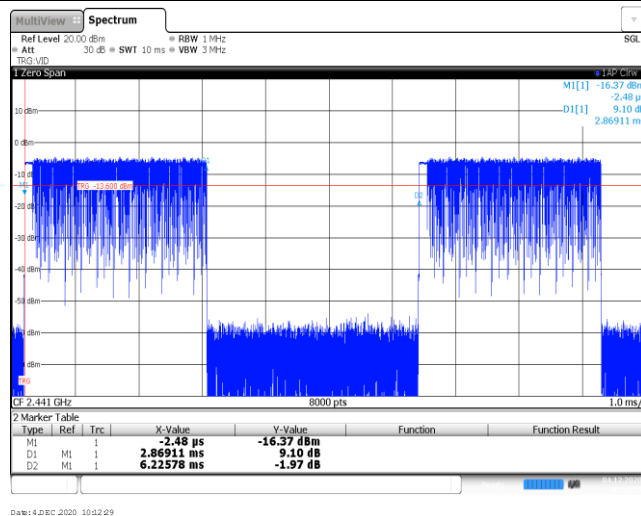
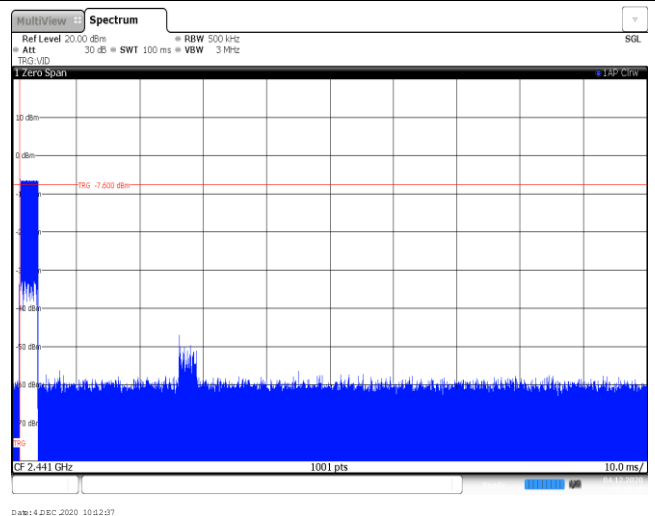
T_{on} time for single burst

Burst Quantity

 $\pi/4$ DQPSKT_{on} time for single burst

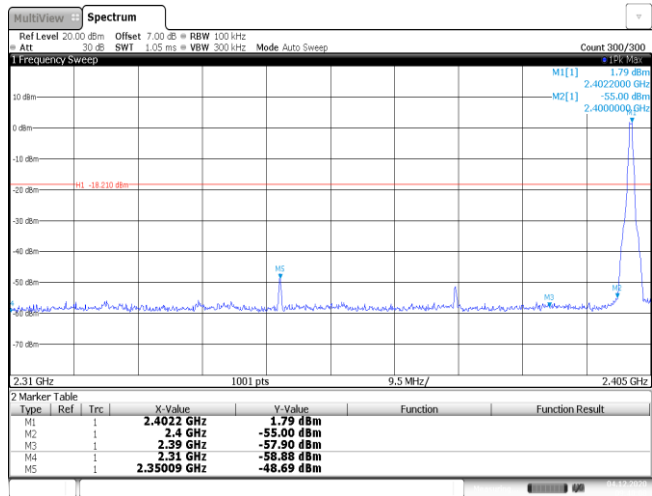
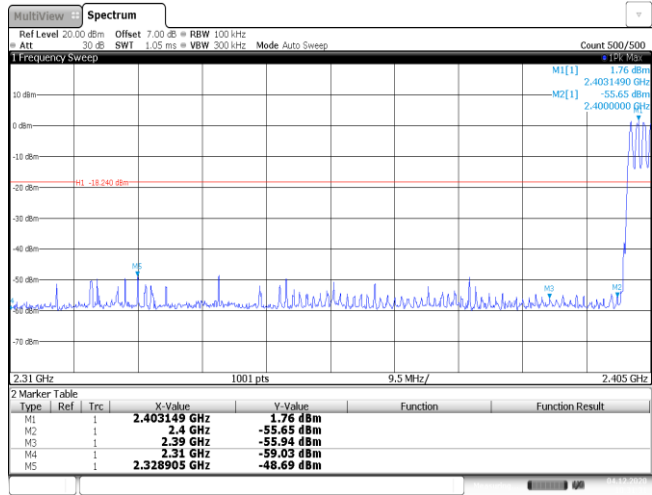
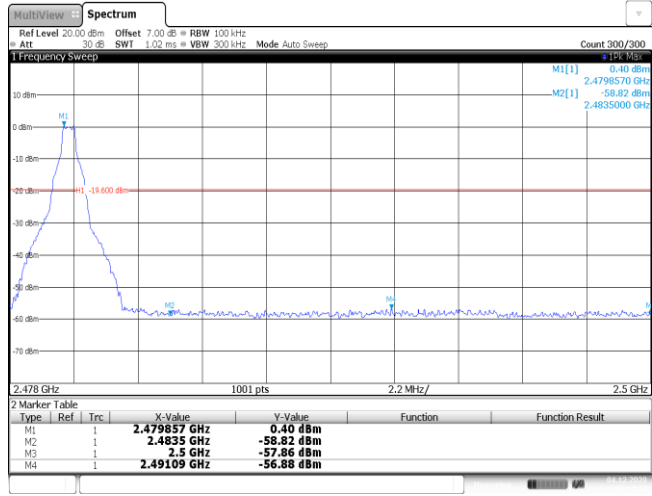
Burst Quantity

8DPSK

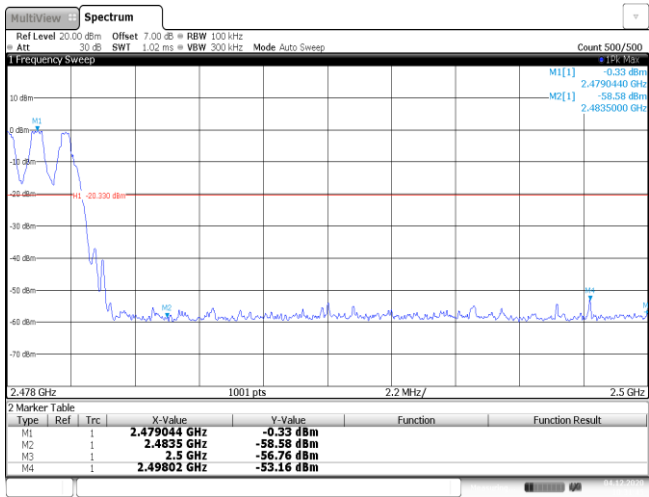
T_{on} time for single burst

Burst Quantity

Appendix H: Band edge and Spurious Emissions (conducted)

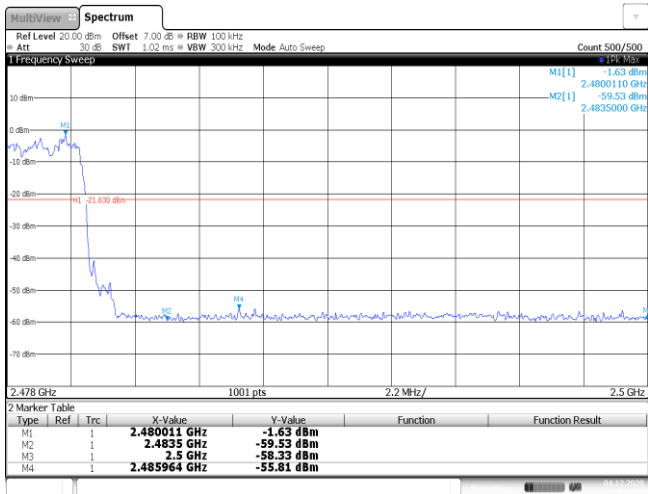
Test Item:	Band edge	Modulation type:	GFSK																																										
CH00 No hopping mode	 <table><tr><th>Type</th><th>Ref</th><th>Trc</th><th>X-Value</th><th>Y-Value</th><th>Function</th><th>Function Result</th></tr><tr><td>M1</td><td>1</td><td></td><td>2.4022 GHz</td><td>1.79 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4 GHz</td><td>-55.00 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.39 GHz</td><td>-57.90 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-58.88 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.35009 GHz</td><td>-48.69 dBm</td><td></td><td></td></tr></table> Date: 4 DEC 2020 09:48:08	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.4022 GHz	1.79 dBm			M2	1		2.4 GHz	-55.00 dBm			M3	1		2.39 GHz	-57.90 dBm			M4	1		2.31 GHz	-58.88 dBm			M5	1		2.35009 GHz	-48.69 dBm				
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																																							
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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>1.76 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4 GHz</td><td>-55.65 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.39 GHz</td><td>-55.94 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-59.03 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.328905 GHz</td><td>-48.69 dBm</td><td></td><td></td></tr></table> Date: 4 DEC 2020 10:21:30	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.403149 GHz	1.76 dBm			M2	1		2.4 GHz	-55.65 dBm			M3	1		2.39 GHz	-55.94 dBm			M4	1		2.31 GHz	-59.03 dBm			M5	1		2.328905 GHz	-48.69 dBm				
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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>2.479857 GHz</td><td>0.40 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4835 GHz</td><td>-58.82 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.5 GHz</td><td>-57.86 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.49109 GHz</td><td>-56.88 dBm</td><td></td><td></td></tr></table> Date: 4 DEC 2020 09:53:49	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.479857 GHz	0.40 dBm			M2	1		2.4835 GHz	-58.82 dBm			M3	1		2.5 GHz	-57.86 dBm			M4	1		2.49109 GHz	-56.88 dBm											
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CH78
Hopping mode



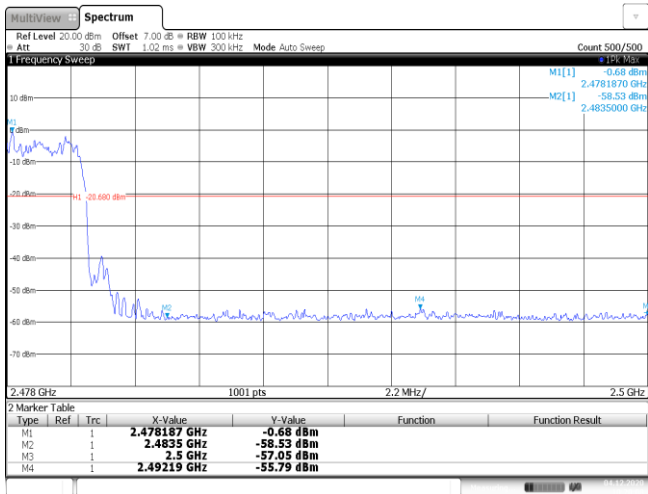
Test Item:	Band edge	Modulation type:	$\pi/4$ DQPSK																																										
CH00 No hopping mode	MultiViewSpectrum Ref Level 20.00 dBm Offset 7.00 dB BW 100 kHz Att 30 dB SW 1.05 ms VBW 300 kHz Mode Auto Sweep Count 500/500 Frequency Sweep M1[1] 1.31 dBm 2.4022000 GHz M2[1] 51.57 dBm 2.4000000 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm 2.31 GHz 1001 pts 9.5 MHz/ 2.405 GHz 2 Marker Table <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>2.4022 GHz</td><td>1.31 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>-58.18 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-58.79 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.3498437 GHz</td><td>-50.21 dBm</td><td></td><td></td></tr></table> Date: 4 DEC 2020 10:01:18			Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.4022 GHz	1.31 dBm			M2	1		2.4 GHz	-51.57 dBm			M3	1		2.39 GHz	-58.18 dBm			M4	1		2.31 GHz	-58.79 dBm			M5	1		2.3498437 GHz	-50.21 dBm		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																																							
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M5	1		2.3498437 GHz	-50.21 dBm																																									
CH00 Hopping mode	MultiViewSpectrum Ref Level 20.00 dBm Offset 7.00 dB BW 100 kHz Att 30 dB SW 1.05 ms VBW 300 kHz Mode Auto Sweep Count 500/500 Frequency Sweep M1[1] 0.33 dBm 2.4049530 GHz M2[1] -57.06 dBm 2.4000000 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm 2.31 GHz 1001 pts 9.5 MHz/ 2.405 GHz 2 Marker Table <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>2.404953 GHz</td><td>0.33 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4 GHz</td><td>-57.06 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.39 GHz</td><td>-57.54 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-58.51 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.36016 GHz</td><td>-51.57 dBm</td><td></td><td></td></tr></table> Date: 4 DEC 2020 10:26:08			Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.404953 GHz	0.33 dBm			M2	1		2.4 GHz	-57.06 dBm			M3	1		2.39 GHz	-57.54 dBm			M4	1		2.31 GHz	-58.51 dBm			M5	1		2.36016 GHz	-51.57 dBm		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																																							
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M4	1		2.31 GHz	-58.51 dBm																																									
M5	1		2.36016 GHz	-51.57 dBm																																									
CH78 No hopping mode	MultiViewSpectrum Ref Level 20.00 dBm Offset 7.00 dB BW 100 kHz Att 30 dB SW 1.02 ms VBW 300 kHz Mode Auto Sweep Count 500/500 Frequency Sweep M1[1] -0.61 dBm 2.4801870 GHz M2[1] -56.65 dBm 2.4835000 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm 2.478 GHz 1001 pts 2.2 MHz/ 2.5 GHz 2 Marker Table <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>2.480187 GHz</td><td>-0.61 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4835 GHz</td><td>-56.65 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.5 GHz</td><td>-58.23 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.49098 GHz</td><td>-56.72 dBm</td><td></td><td></td></tr></table> Date: 4 DEC 2020 10:04:17			Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.480187 GHz	-0.61 dBm			M2	1		2.4835 GHz	-56.65 dBm			M3	1		2.5 GHz	-58.23 dBm			M4	1		2.49098 GHz	-56.72 dBm									
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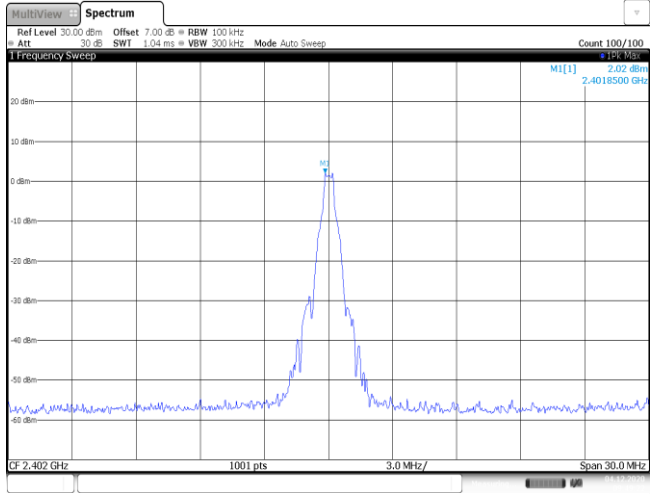
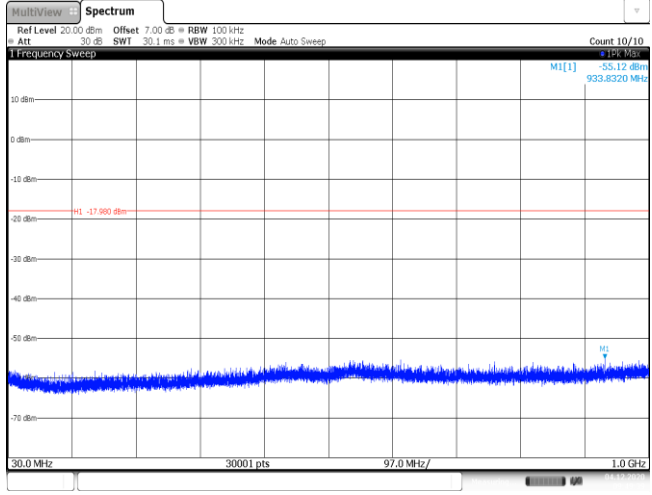
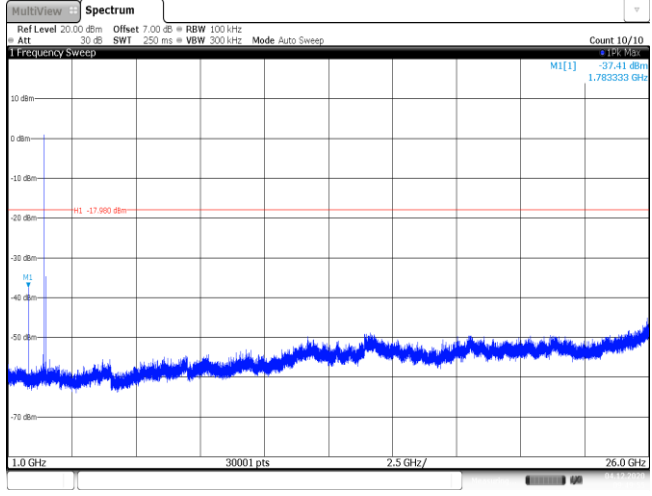
CH78
Hopping mode

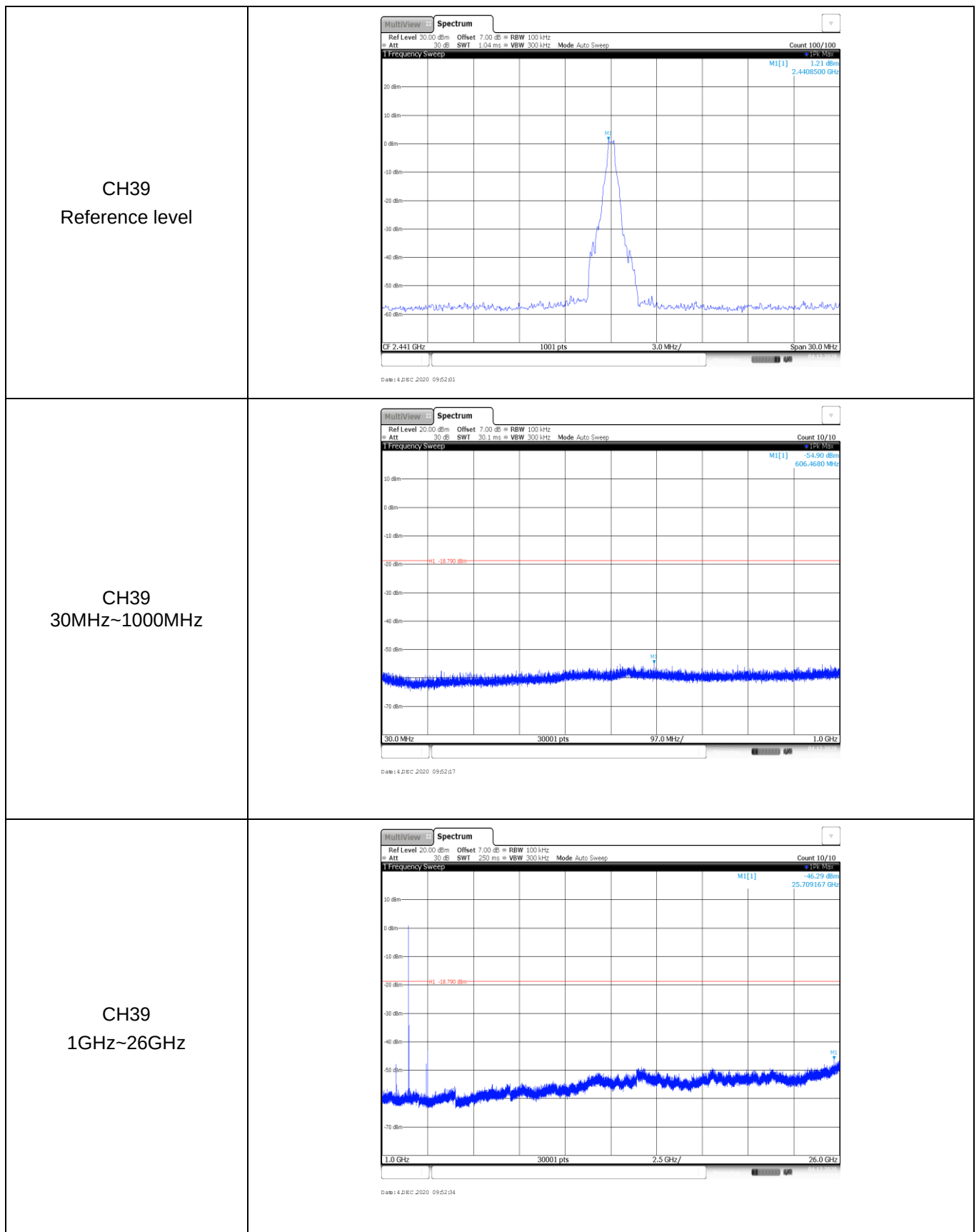


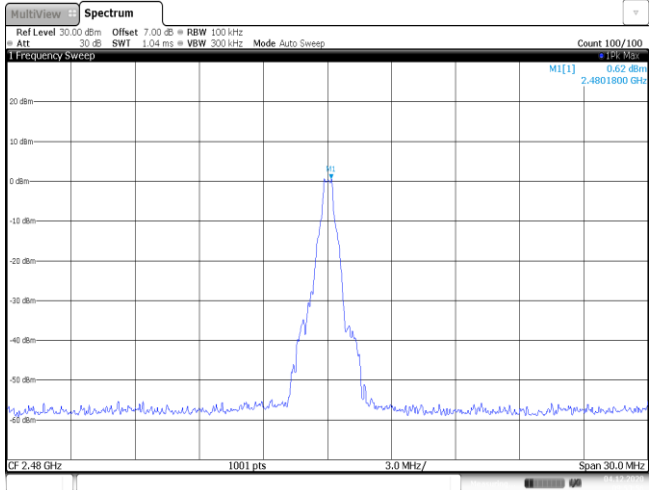
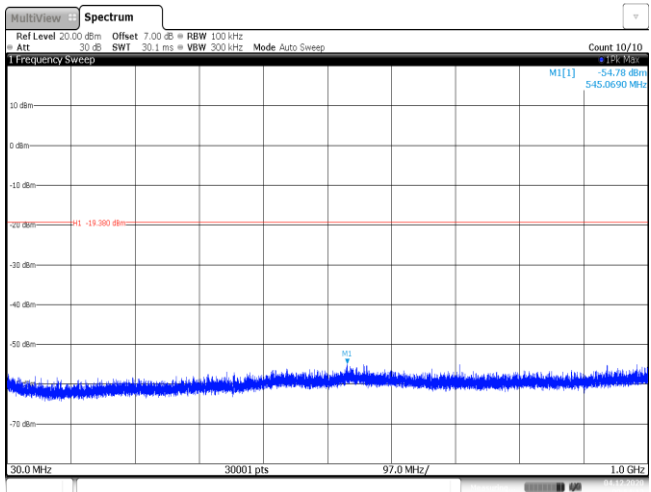
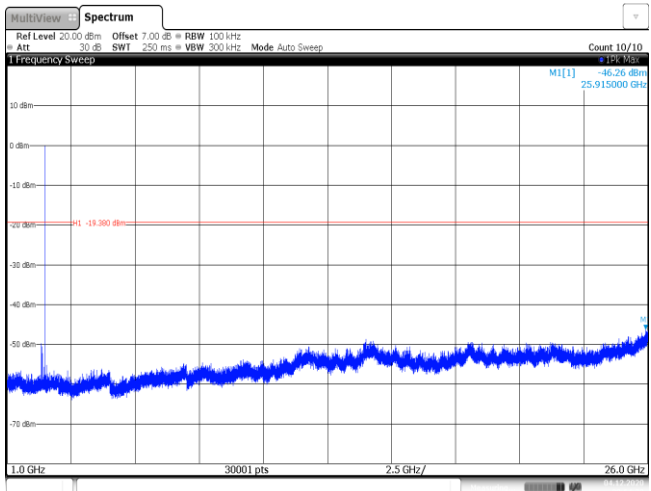
Test Item:	Band edge	Modulation type:	8DPSK																																										
CH00 No hopping mode	MultiView Spectrum Ref Level 20.00 dBm Offset 7.00 dB BW 100 kHz Att 30 dB SW 1.05 ms VBW 300 kHz Mode Auto Sweep Count 500/500 Frequency Sweep M1[1] 1.16 dBm 2.4022000 GHz M2[1] -49.61 dBm 2.4000000 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm 2.31 GHz 1001 pts 9.5 MHz/ 2.405 GHz 2 Marker Table <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>2.4022 GHz</td><td>1.16 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4 GHz</td><td>-49.61 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.39 GHz</td><td>-57.34 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-58.64 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.3497618 GHz</td><td>-50.14 dBm</td><td></td><td></td></tr></table> Date: 4 DEC 2020 10:00:08			Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.4022 GHz	1.16 dBm			M2	1		2.4 GHz	-49.61 dBm			M3	1		2.39 GHz	-57.34 dBm			M4	1		2.31 GHz	-58.64 dBm			M5	1		2.3497618 GHz	-50.14 dBm		
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CH00 Hopping mode	MultiView Spectrum Ref Level 20.00 dBm Offset 7.00 dB BW 100 kHz Att 30 dB SW 1.05 ms VBW 300 kHz Mode Auto Sweep Count 500/500 Frequency Sweep M1[1] 1.56 dBm 2.4031490 GHz M2[1] -53.96 dBm 2.4000000 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm 2.31 GHz 1001 pts 9.5 MHz/ 2.405 GHz 2 Marker Table <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>1.56 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4 GHz</td><td>-53.96 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.39 GHz</td><td>-57.89 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-58.84 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.311805 GHz</td><td>-52.15 dBm</td><td></td><td></td></tr></table> Date: 4 DEC 2020 10:19:52			Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.403149 GHz	1.56 dBm			M2	1		2.4 GHz	-53.96 dBm			M3	1		2.39 GHz	-57.89 dBm			M4	1		2.31 GHz	-58.84 dBm			M5	1		2.311805 GHz	-52.15 dBm		
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CH78 No hopping mode	MultiView Spectrum Ref Level 20.00 dBm Offset 7.00 dB BW 100 kHz Att 30 dB SW 1.02 ms VBW 300 kHz Mode Auto Sweep Count 500/500 Frequency Sweep M1[1] -0.91 dBm 2.4801870 GHz M2[1] -55.85 dBm 2.4835000 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm 2.478 GHz 1001 pts 2.2 MHz/ 2.5 GHz 2 Marker Table <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>2.480187 GHz</td><td>-0.91 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4835 GHz</td><td>-55.85 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.5 GHz</td><td>-58.44 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.483522 GHz</td><td>-56.31 dBm</td><td></td><td></td></tr></table> Date: 4 DEC 2020 10:14:54			Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.480187 GHz	-0.91 dBm			M2	1		2.4835 GHz	-55.85 dBm			M3	1		2.5 GHz	-58.44 dBm			M4	1		2.483522 GHz	-56.31 dBm									
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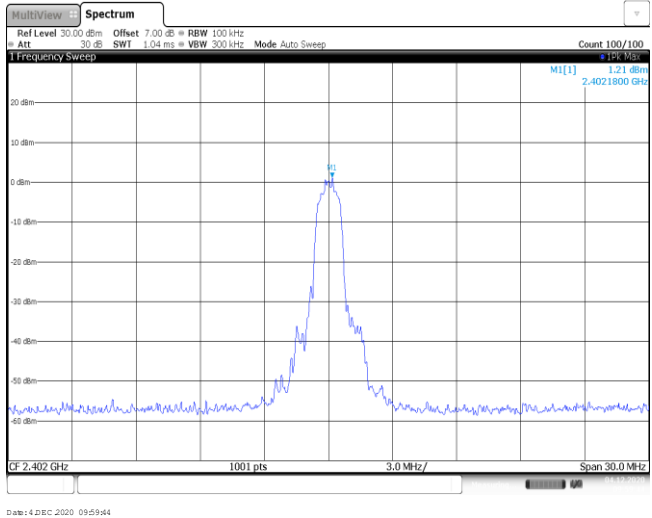
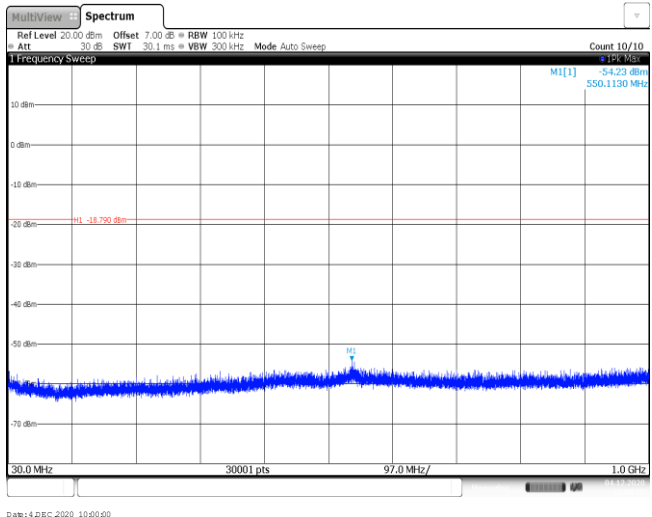
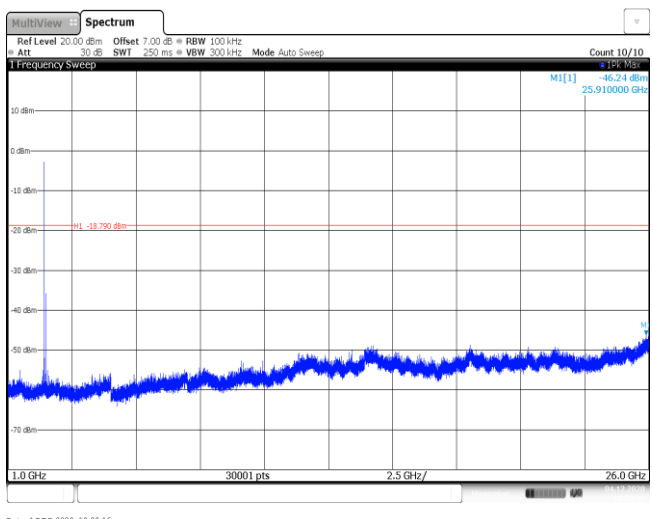
CH78
Hoppig mode

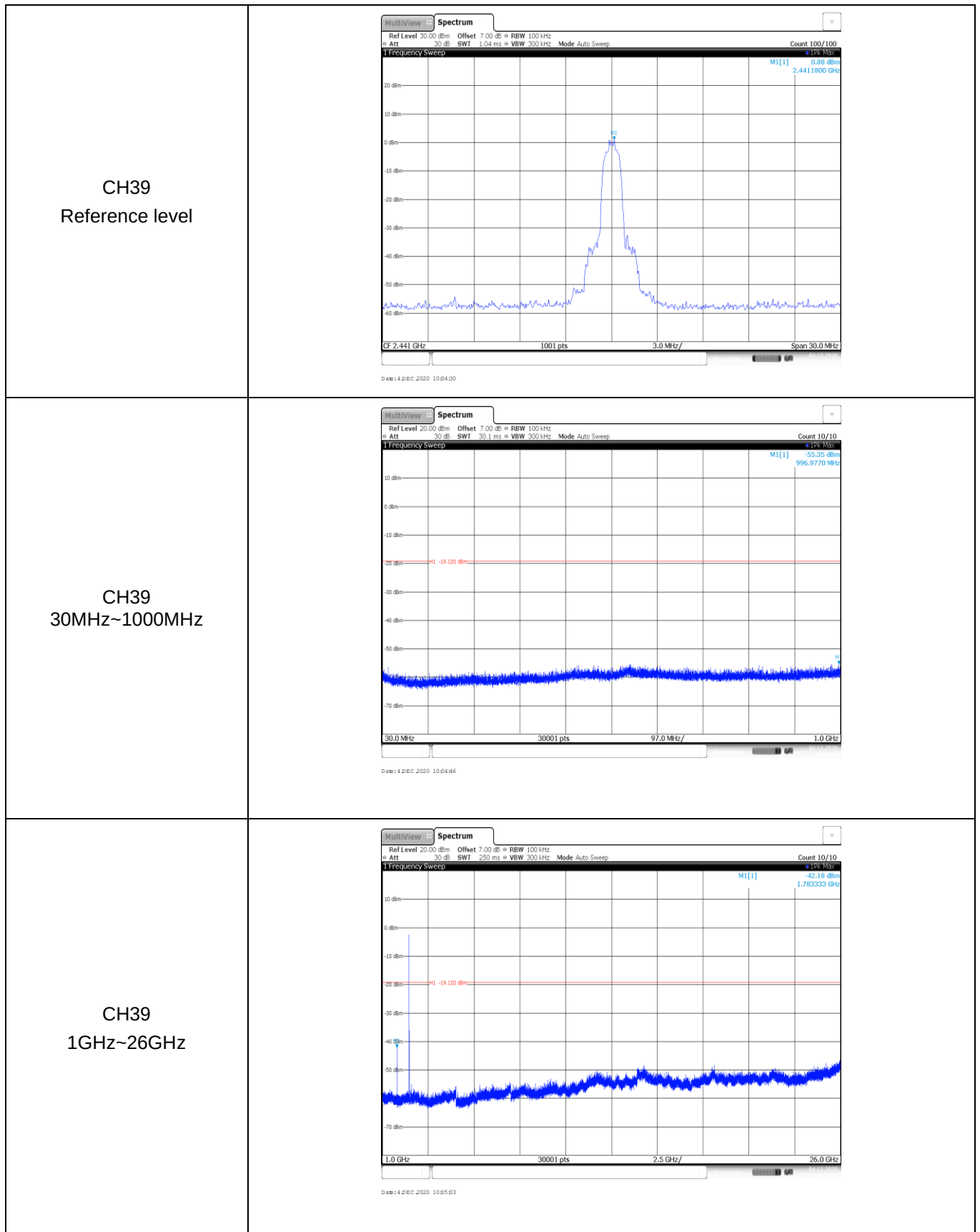


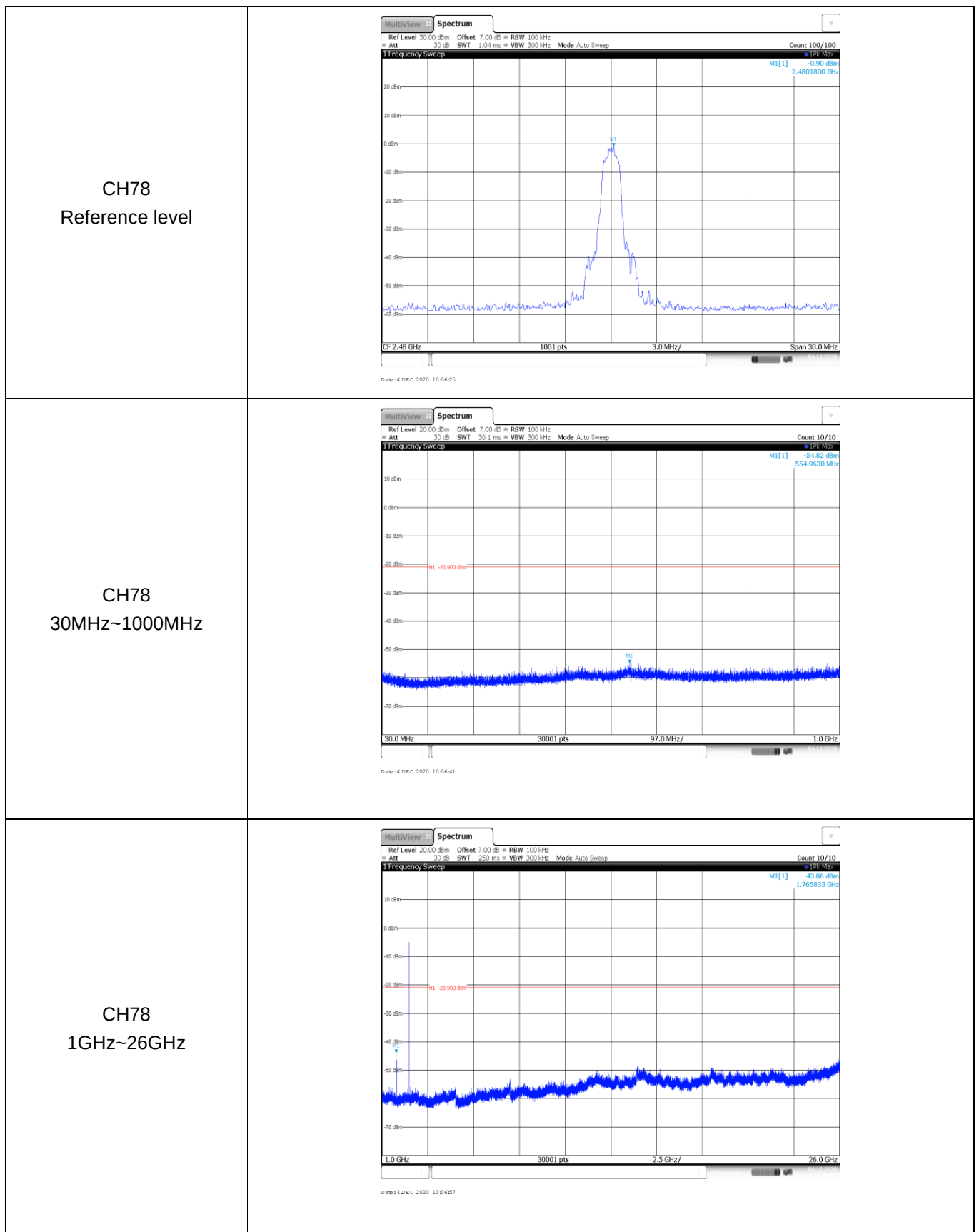
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CH00 Reference level			
CH00 30MHz~1000MHz			
CH00 1GHz~26GHz			

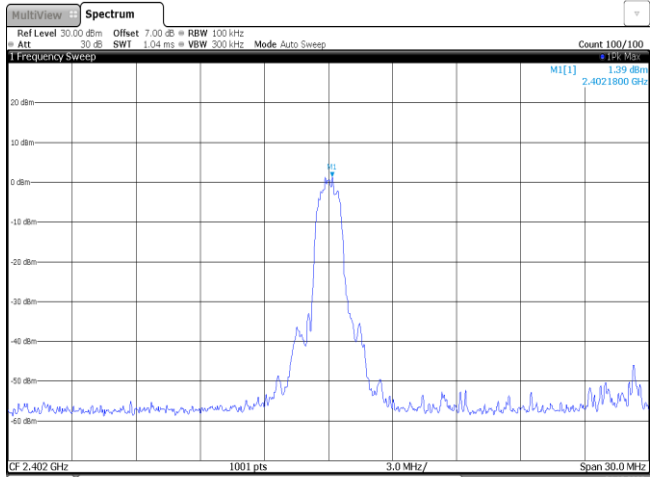
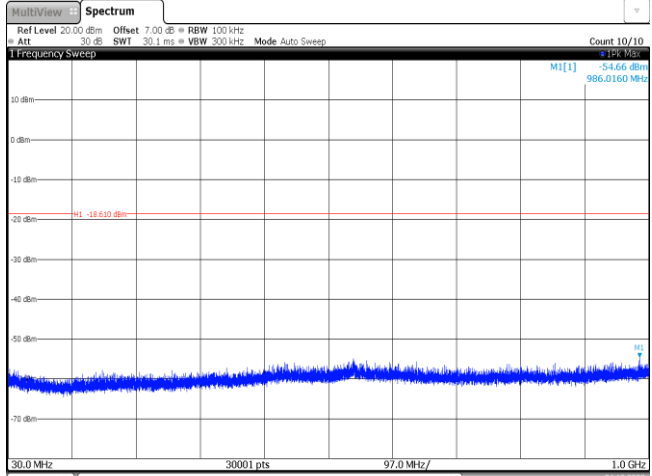
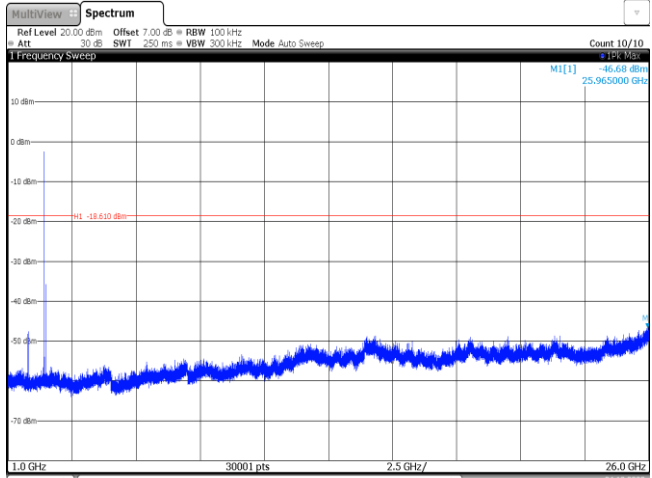


CH78 Reference level	 The spectrum plot shows a single sharp peak at 2.48 GHz. The y-axis represents power in dBm, ranging from -60 to 20. The x-axis represents frequency in MHz, with a span of 30.0 MHz. The peak is labeled with a count of 100/100. The plot is titled 'Spectrum' and includes parameters: Ref Level 30.00 dBm, Offset 7.00 dB, RBW 100 kHz, Att 30 dB, SWF 1.04 ms, VBW 300 kHz, Mode Auto Sweep. The date is 4 DEC 2020 09:53:56.
CH78 30MHz~1000MHz	 The spectrum plot shows a wideband signal from 30 MHz to 1000 MHz. The y-axis represents power in dBm, ranging from -70 to 10. The x-axis represents frequency in MHz, with a span of 97.0 MHz. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Offset 7.00 dB, RBW 100 kHz, Att 30 dB, SWF 30.1 ms, VBW 300 kHz, Mode Auto Sweep. The date is 4 DEC 2020 09:54:12.
CH78 1GHz~26GHz	 The spectrum plot shows a wideband signal from 1 GHz to 26 GHz. The y-axis represents power in dBm, ranging from -70 to 10. The x-axis represents frequency in GHz, with a span of 2.5 GHz. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Offset 7.00 dB, RBW 100 kHz, Att 30 dB, SWF 250 ms, VBW 300 kHz, Mode Auto Sweep. The date is 4 DEC 2020 09:54:29.

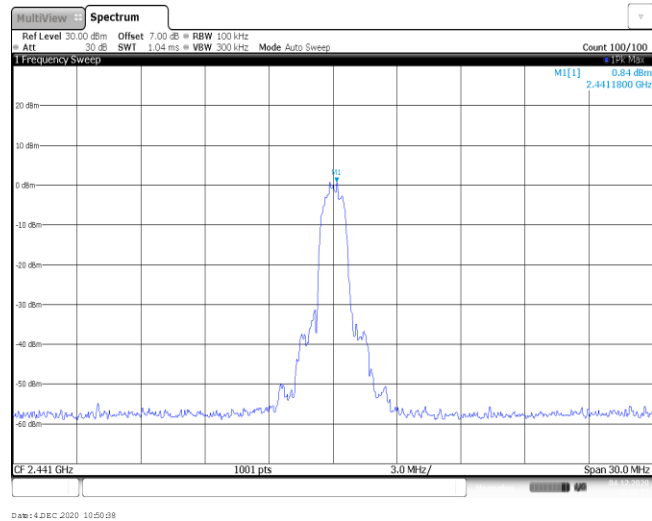
Test Item:	Spurious Emission	Modulation type:	$\pi/4$ DQPSK
CH00 Reference level			
CH00 30MHz~1000MHz			
CH00 1GHz~26GHz			



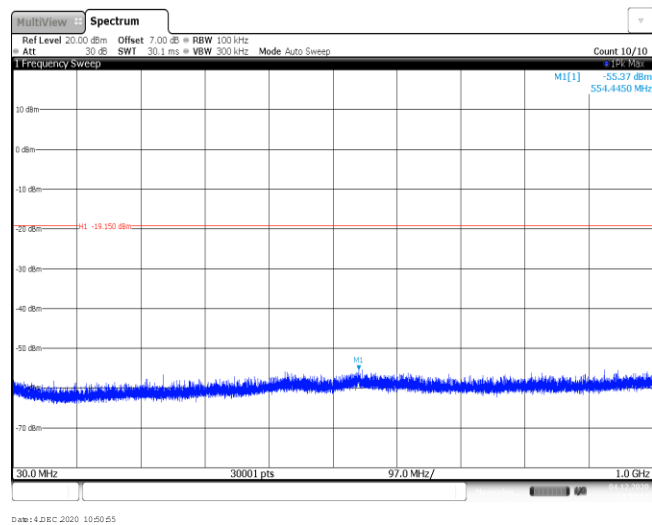


Test Item:	Spurious Emission	Modulation type:	8DPSK
CH00 Reference level	 Ref Level 30.00 dBm Offset 7.00 dB RBW 100 kHz Att 30 dB SWI 1.04 ms VBW 300 kHz Mode Auto Sweep Count 100/100 M1[1] 1.39 dBm 2.4021800 GHz CF 2.402 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 4 DEC 2020 10:01:15		
CH00 30MHz~1000MHz	 Ref Level 20.00 dBm Offset 7.00 dB RBW 100 kHz Att 30 dB SWI 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 M1[1] -54.66 dBm 986.0160 MHz 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 4 DEC 2020 10:01:02		
CH00 1GHz~26GHz	 Ref Level 20.00 dBm Offset 7.00 dB RBW 100 kHz Att 30 dB SWI 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 M1[1] -46.68 dBm 25.965000 GHz 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 4 DEC 2020 10:01:48		

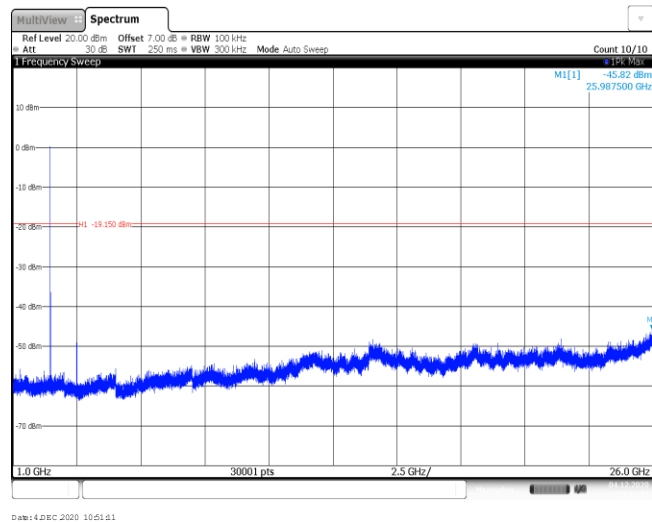
CH39
Reference level

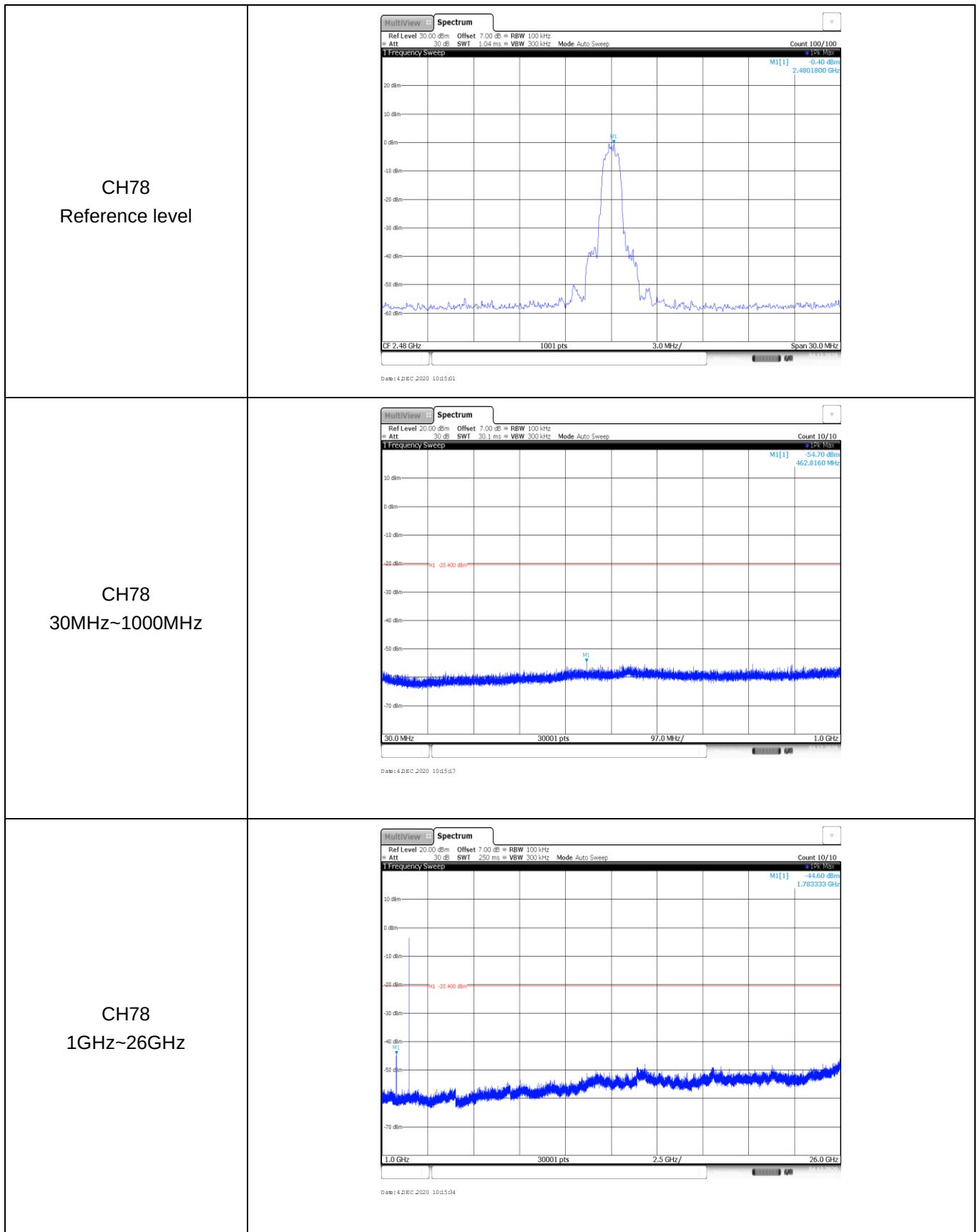


CH39
30MHz~1000MHz



CH39
1GHz~26GHz





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