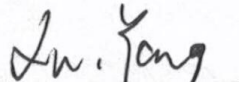


APPENDIX REPORT

Project No.	SHT2308070101EW	Radio Specification	Bluetooth EDR
Test sample No.	YPHT23080701001_01	Model No.	ENGY Pro 24
Start test date	2023-09-01	Finish date	2023-09-13
Temperature	23.5℃	Humidity	49%
Test Engineer	Xiaodong Zhao	Auditor	

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

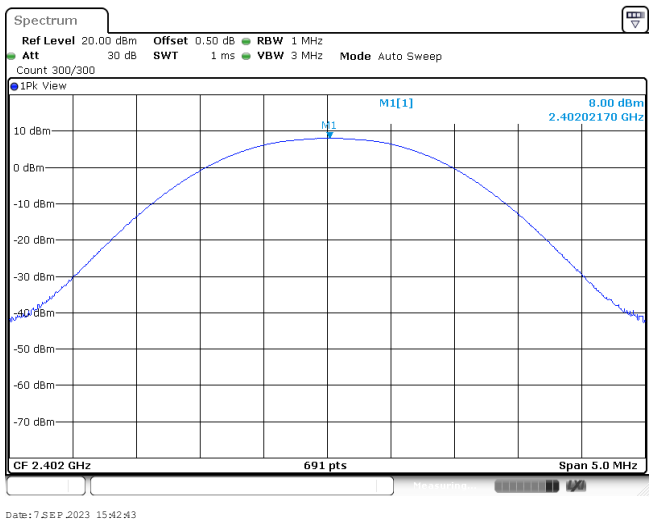
Appendix A: Peak Output Power

Modulation type	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
GFSK	00	8.00	6.75	≤ 30.00	Pass
	39	8.71	6.86		
	78	7.87	6.58		
$\pi/4$ DQPSK	00	7.41	6.32	≤ 21.00	Pass
	39	8.75	6.84		
	78	7.29	6.21		
8DPSK	00	7.43	6.26	≤ 21.00	Pass
	39	8.77	6.83		
	78	7.32	6.29		

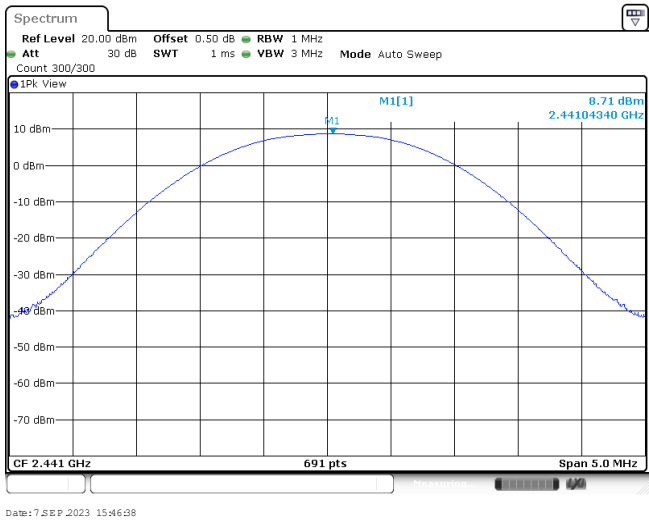
Modulation Type:

GFSK

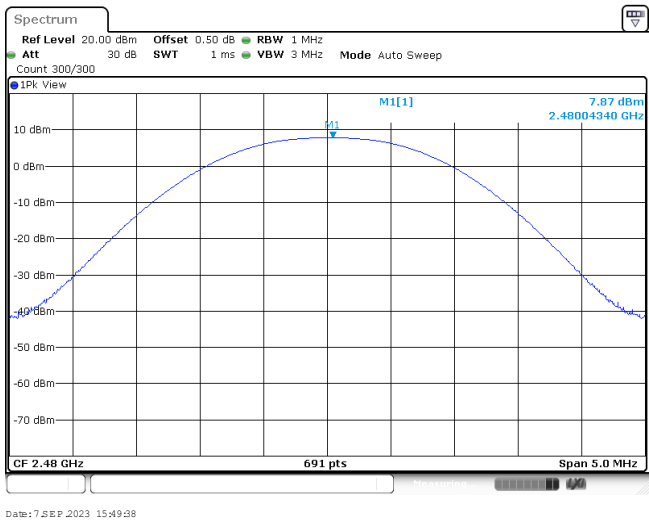
CH00



CH39



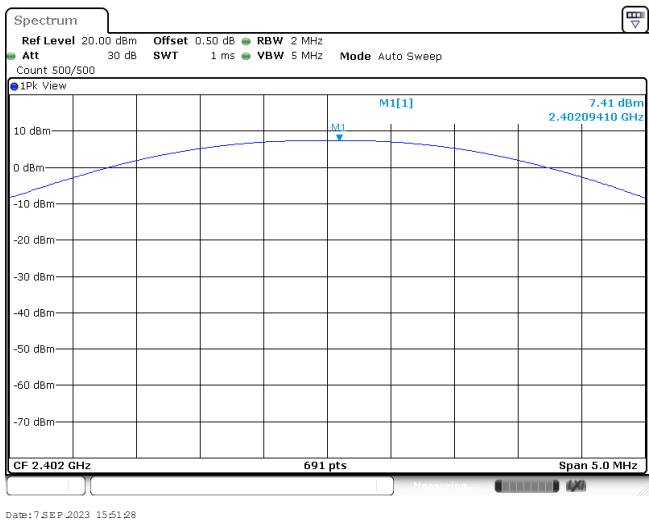
CH78



Modulation Type:

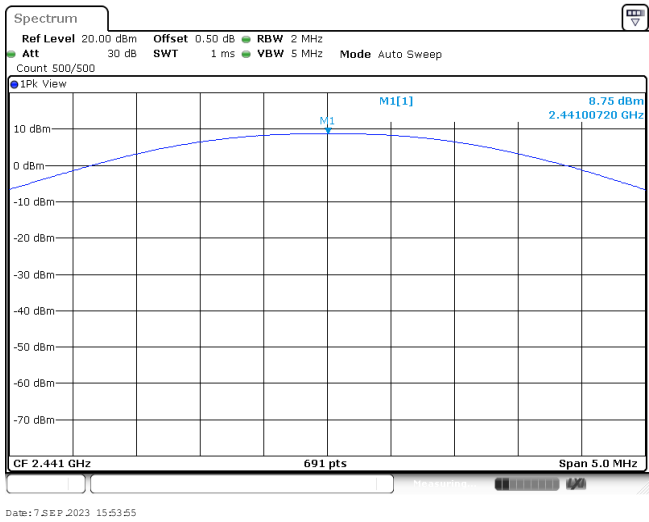
π /4DQPSK

CH00



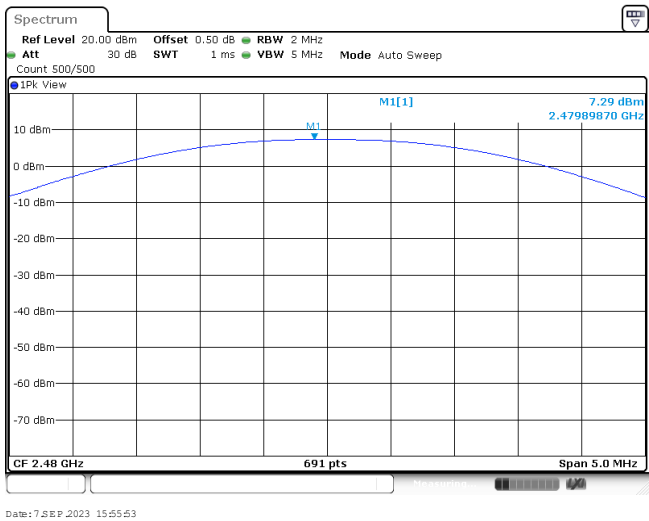
Date: 7 SEP 2023 15:51:28

CH39



Date: 7 SEP 2023 15:53:55

CH78

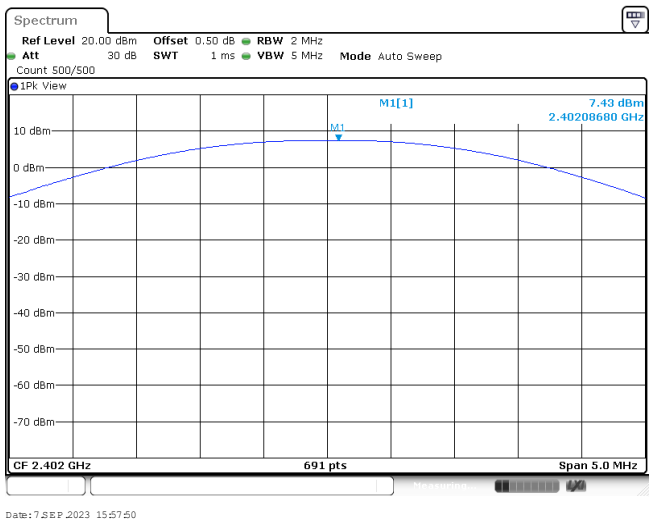


Date: 7 SEP 2023 15:55:53

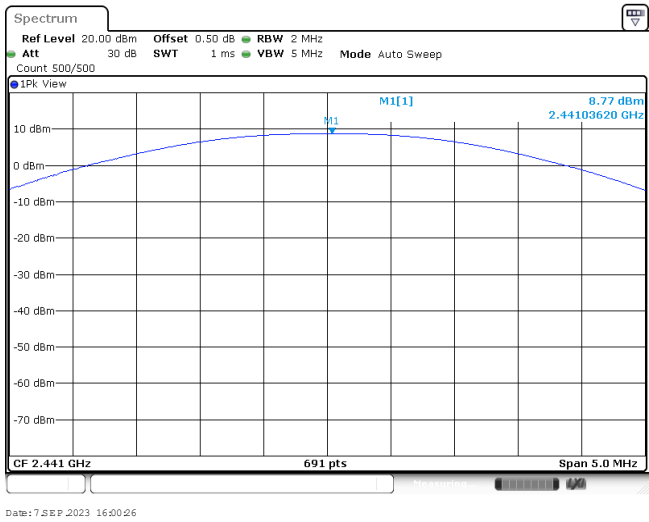
Modulation Type:

8DPSK

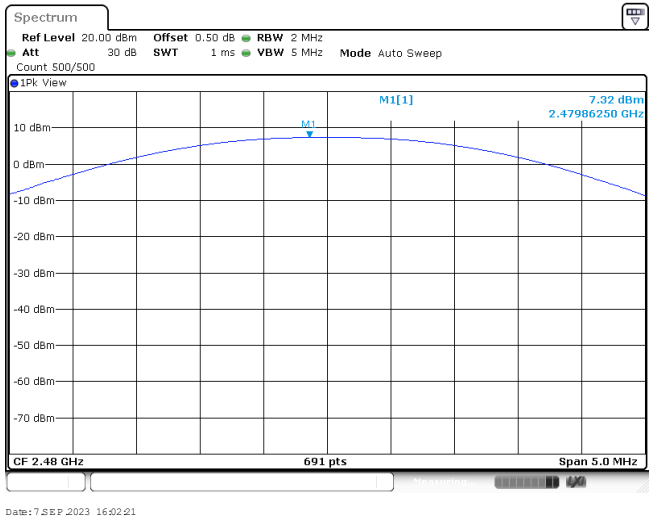
CH00



CH39



CH78



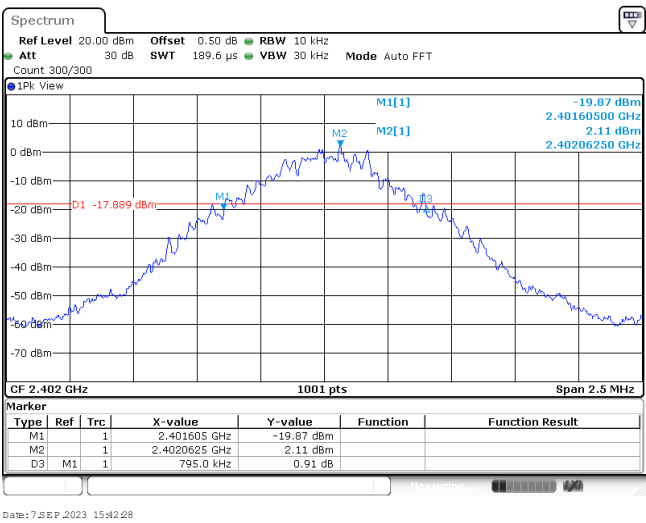
Appendix B : 20 dB Bandwidth

Modulation type	Channel	20 dB Bandwidth (kHz)	Limit (kHz)	Result
GFSK	00	795.00	-	Pass
	39	795.00		
	78	793.00		
$\pi/4$ DQPSK	00	1270.00	-	Pass
	39	1278.00		
	78	1260.00		
8DPSK	00	1260.00	-	Pass
	39	1273.00		
	78	1255.00		

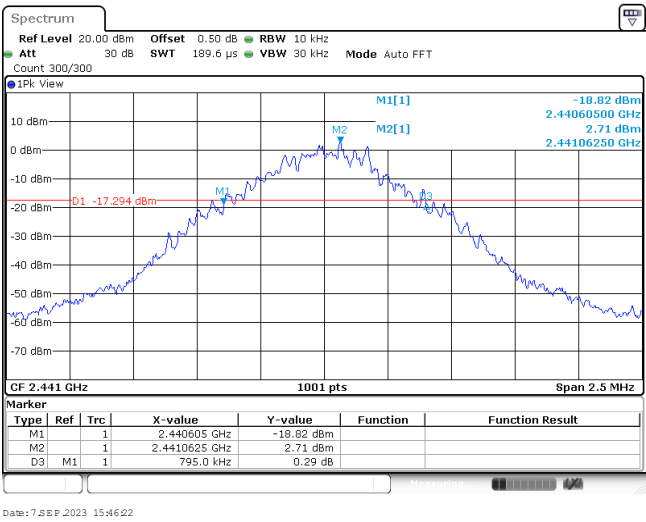
Modulation Type:

GFSK

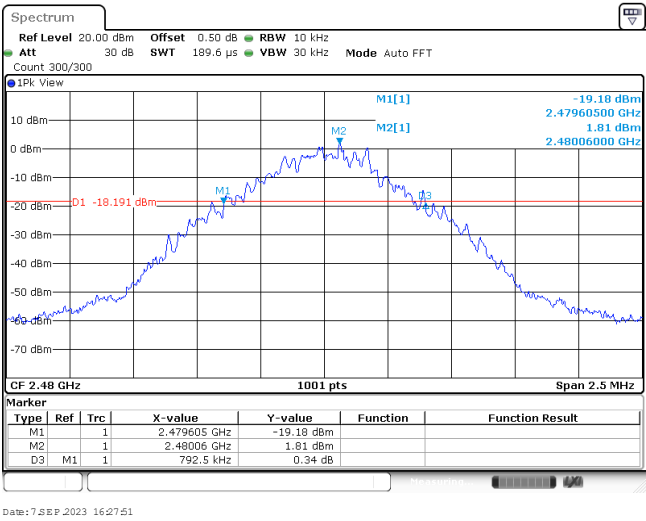
CH00



CH39



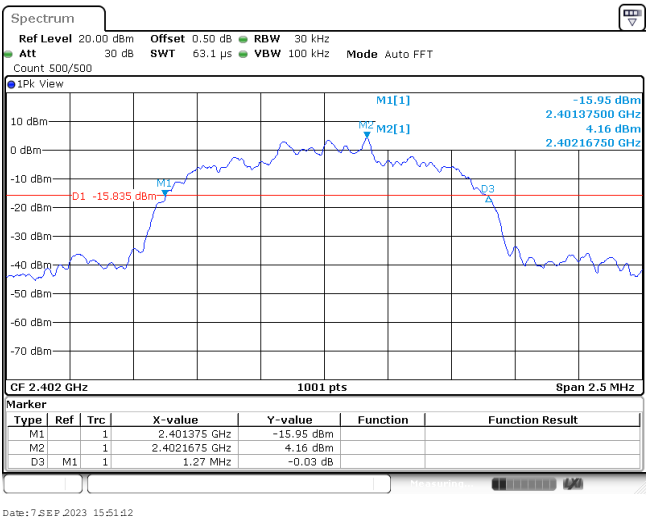
CH78



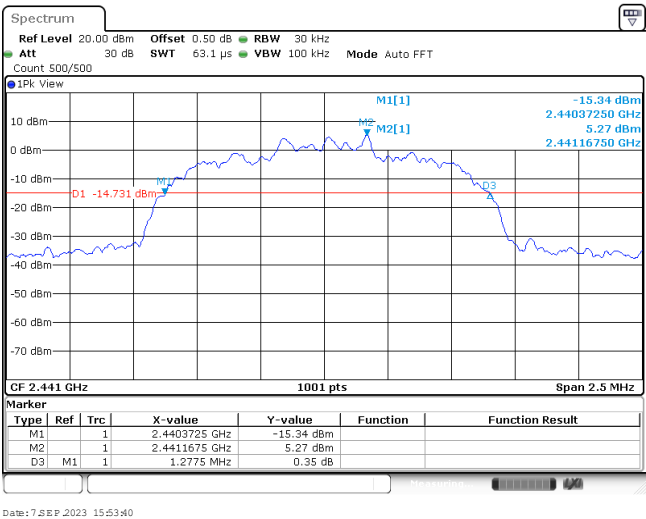
Modulation Type:

π /4DQPSK

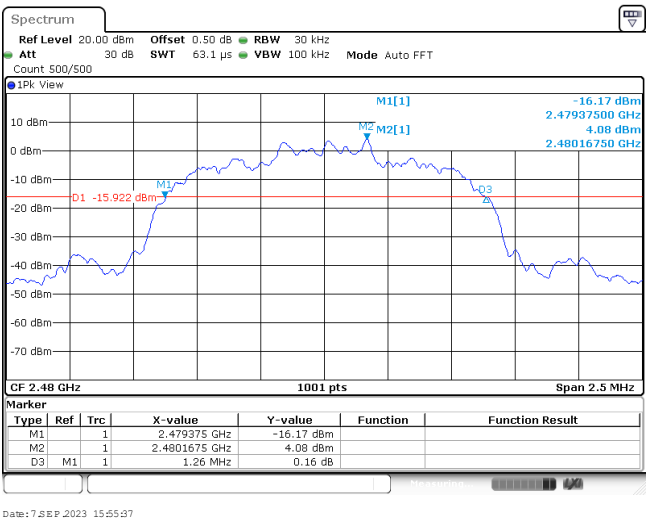
CH00



CH39



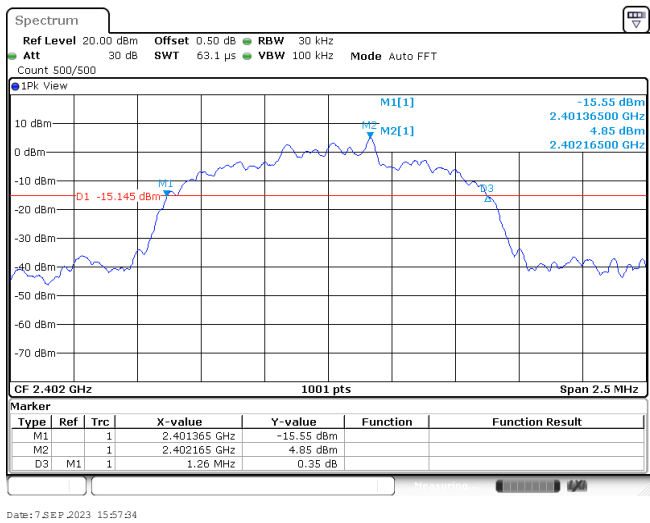
CH78



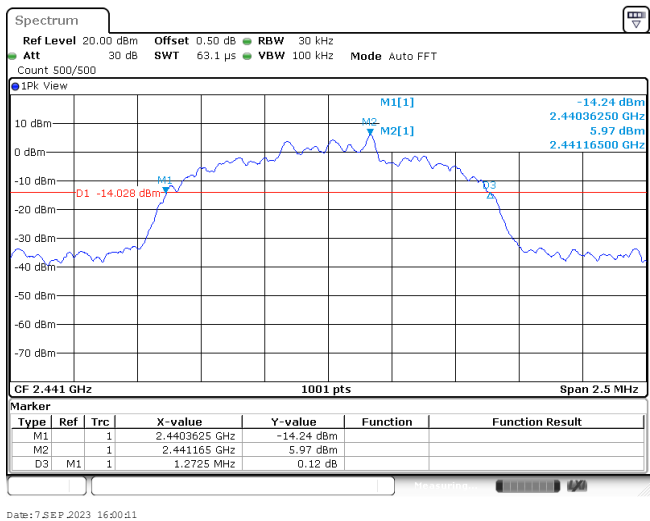
Modulation Type:

8DPSK

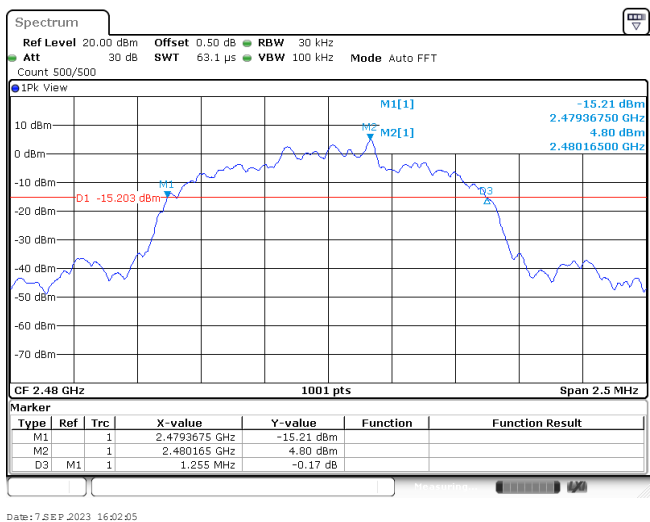
CH00



CH39



CH78



Appendix C: 99% Occupied Bandwidth

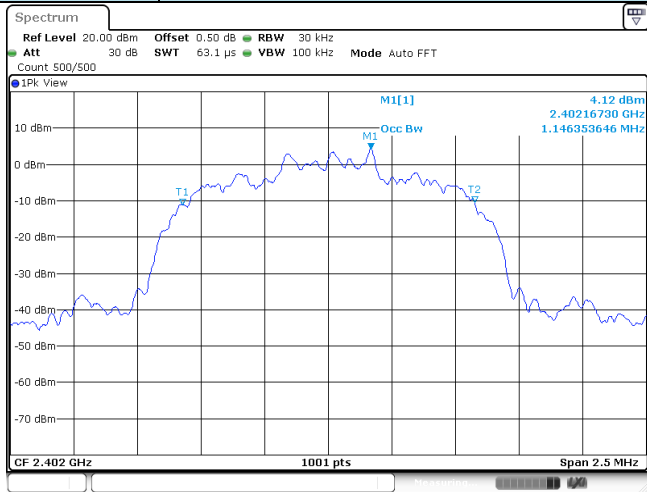
Modulation type	Channel	99% Occupied Bandwidth (MHz)	Limit (MHz)	Result
GFSK	00	0.76	-	Pass
	39	0.77		
	78	0.76		
$\pi/4$ DQPSK	00	1.15	-	Pass
	39	1.16		
	78	1.14		
8DPSK	00	1.15	-	Pass
	39	1.16		
	78	1.15		

Modulation Type: GFSK	
CH00	Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 30 kHz Att 30 dB SWT 63.1 μs VBW 100 kHz Mode Auto FFT Count 300/300 1Pk View M1[1] 5.16 dBm 2.40216480 GHz 761.738261738 kHz T1 T2 MT Occ Bw CF 2.402 GHz 1001 pts Span 2.5 MHz Date: 7 SEP. 2023 15:42:35
CH39	Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 30 kHz Att 30 dB SWT 63.1 μs VBW 100 kHz Mode Auto FFT Count 300/300 1Pk View M1[1] 5.54 dBm 2.44116480 GHz 771.728271729 kHz T1 T2 MT Occ Bw CF 2.441 GHz 1001 pts Span 2.5 MHz Date: 7 SEP. 2023 16:30:11
CH78	Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 30 kHz Att 30 dB SWT 63.1 μs VBW 100 kHz Mode Auto FFT Count 300/300 1Pk View M1[1] 4.84 dBm 2.48016480 GHz 759.240759241 kHz T1 T2 MT Occ Bw CF 2.48 GHz 1001 pts Span 2.5 MHz Date: 7 SEP. 2023 16:28:22

Modulation Type:

$\pi/4$ DQPSK

CH00



Spectrum

Ref Level 20.00 dBm Offset 0.50 dB RBW 30 kHz
Att 30 dB SWT 63.1 μ s VBW 100 kHz Mode Auto FFT
Count 500/500

1Pk View

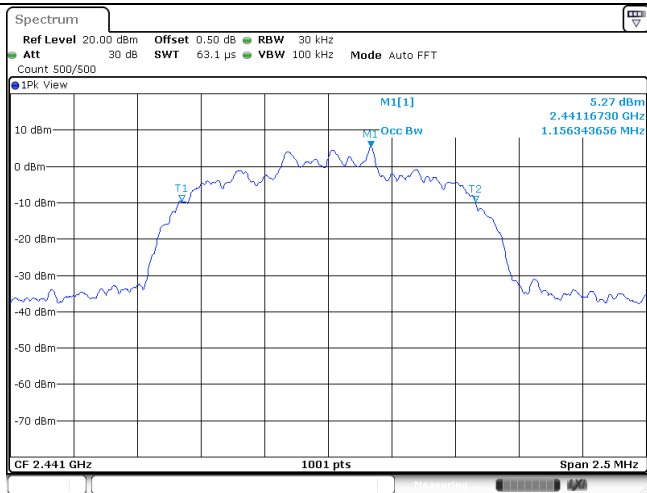
M1[1] 4.12 dBm
2.40216730 GHz
1.146333646 MHz

T1 T2

CF 2.402 GHz 1001 pts Span 2.5 MHz

Date: 7 SEP 2023 15:51:20

CH39



Spectrum

Ref Level 20.00 dBm Offset 0.50 dB RBW 30 kHz
Att 30 dB SWT 63.1 μ s VBW 100 kHz Mode Auto FFT
Count 500/500

1Pk View

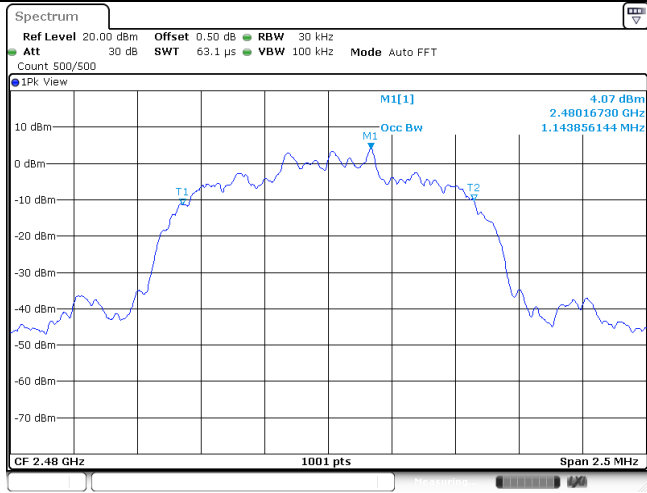
M1[1] 5.27 dBm
2.44116730 GHz
1.156343656 MHz

T1 T2

CF 2.441 GHz 1001 pts Span 2.5 MHz

Date: 7 SEP 2023 15:53:47

CH78



Spectrum

Ref Level 20.00 dBm Offset 0.50 dB RBW 30 kHz
Att 30 dB SWT 63.1 μ s VBW 100 kHz Mode Auto FFT
Count 500/500

1Pk View

M1[1] 4.07 dBm
2.48016730 GHz
1.143856144 MHz

T1 T2

CF 2.48 GHz 1001 pts Span 2.5 MHz

Date: 7 SEP 2023 15:55:45

Appendix report page: 13 of 41

Appendix D: Carrier Frequencies Separation

Modulation type	Channel	Carrier Frequencies Separation (MHz)	Limit (kHz) *	Result
GFSK	39	1.00	≥795	Pass
π/4DQPSK	39	1.00	≥852	Pass
8DPSK	39	1.00	≥849	Pass

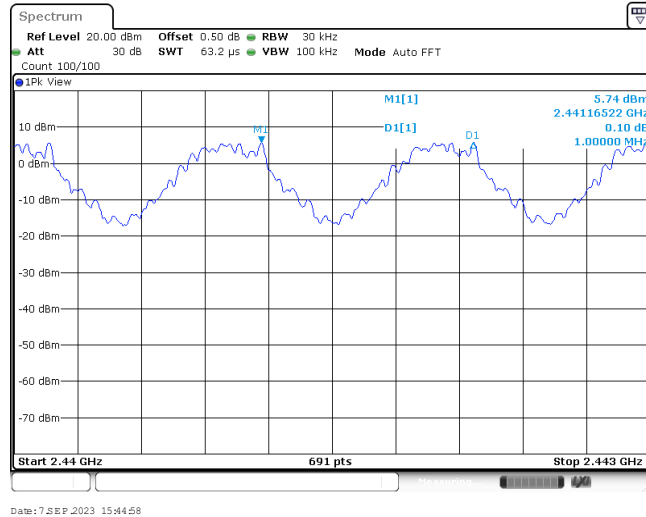
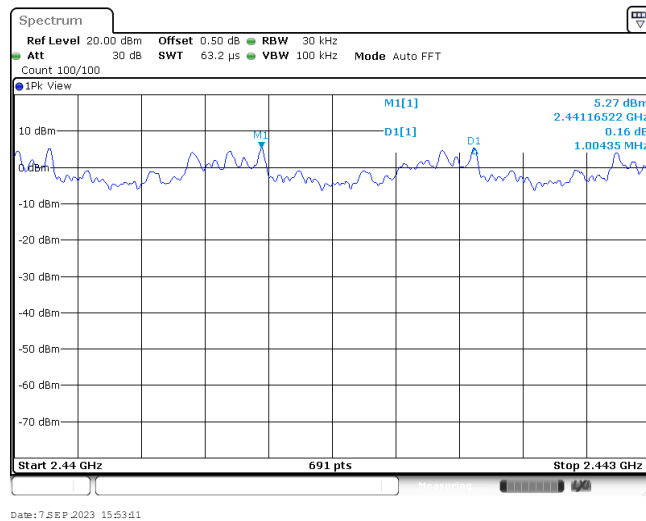
Note:

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

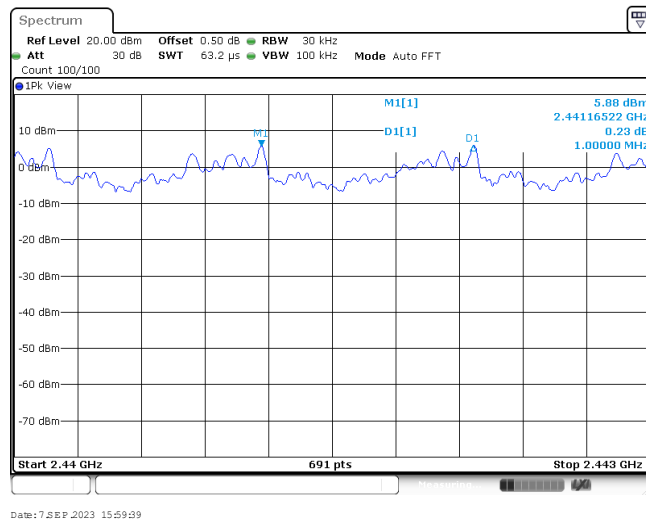
π/4DQPSK limit = 2/3 * The maximum 20 dB Bandwidth for π/4DQPSK modulation on the appendix B.

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

GFSK

 $\pi/4$ DQPSK

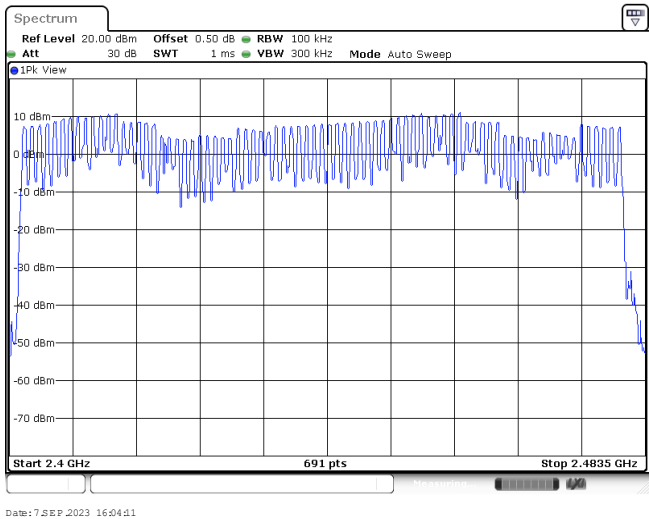
8DPSK



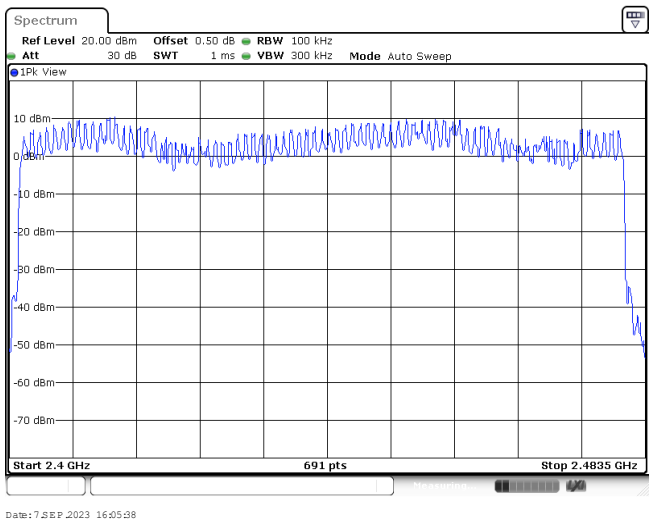
Appendix E: Hopping Channel Number

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

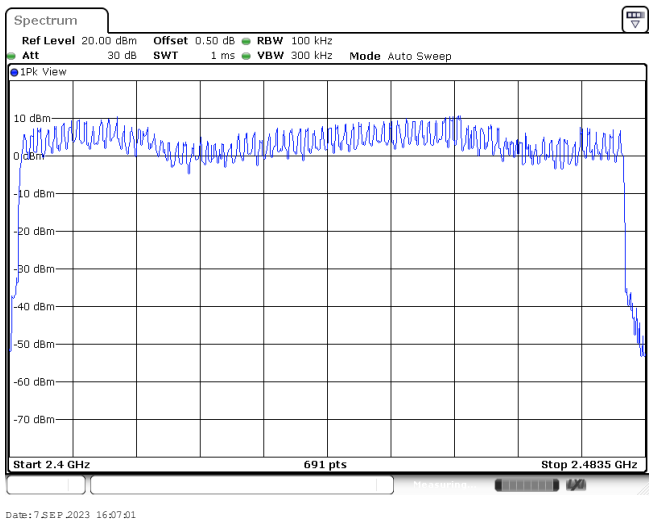
GFSK



$\pi/4$ DQPSK



8DPSK



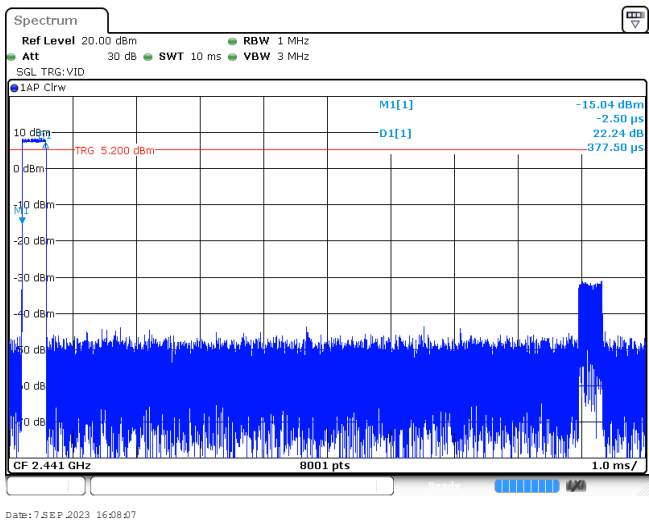
Appendix F: Dwell Time

Modulation type	Packet	Burst Width [ms]	Total Hops[hop*ch]	Dwell time (Second)	Limit (Second)	Result
GFSK	DH1	0.38	314.00	0.12	≤ 0.40	Pass
	DH3	1.63	159.00	0.26		
	DH5	2.88	98.00	0.28		
$\pi/4$ DQPSK	2DH1	0.38	315.00	0.12	≤ 0.40	Pass
	2DH3	1.64	154.00	0.25		
	2DH5	2.89	116.00	0.34		
8DPSK	3DH1	0.38	306.00	0.12	≤ 0.40	Pass
	3DH3	1.64	160.00	0.26		
	3DH5	2.89	103.00	0.30		

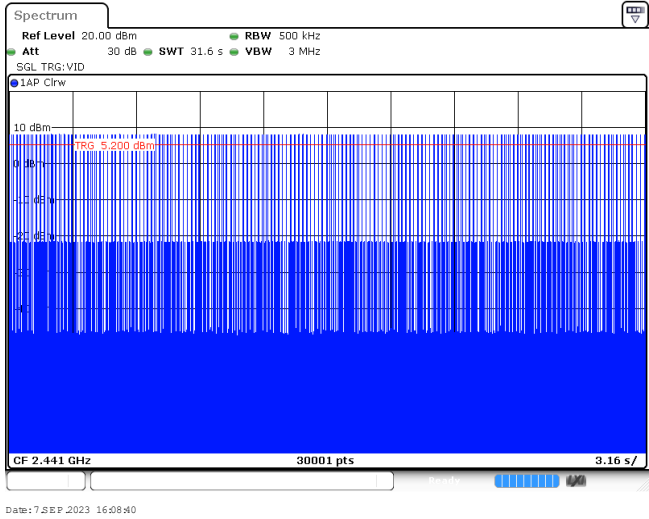
Modulation Type:

GFSK

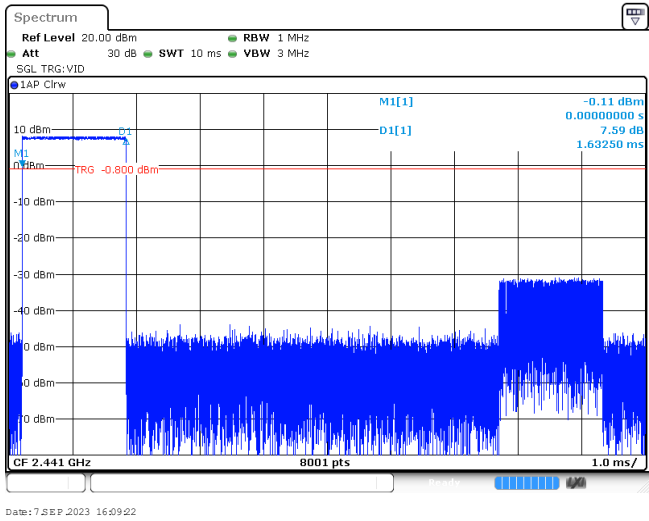
DH1
Burst width

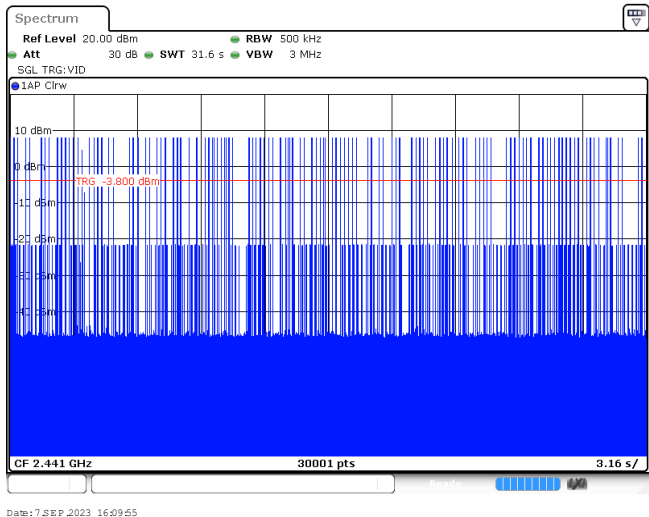
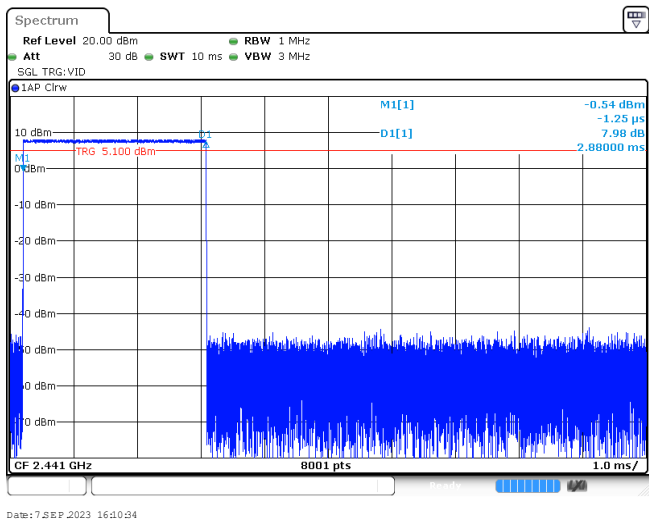
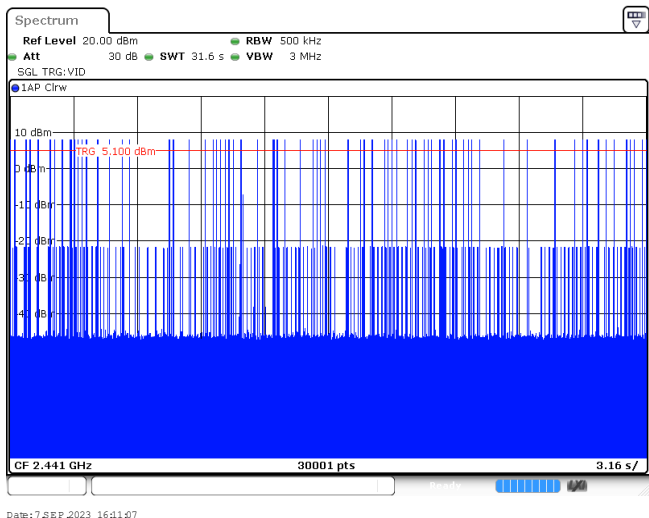


DH1
Burst number



DH3
Burst width

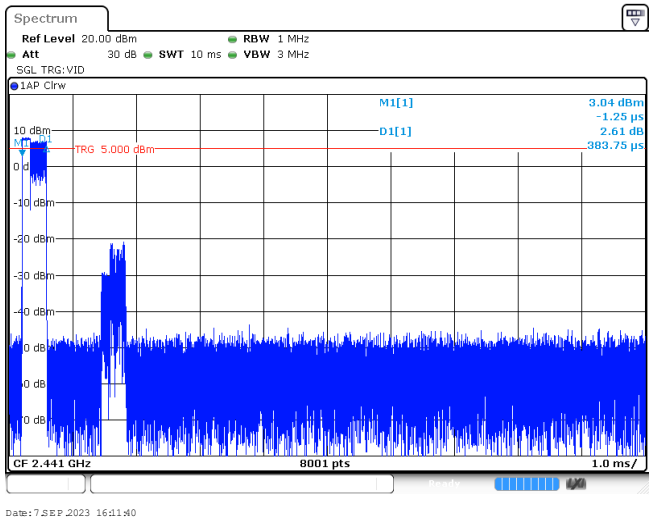


DH3 Burst number	
DH5 Burst width	
DH5 Burst number	

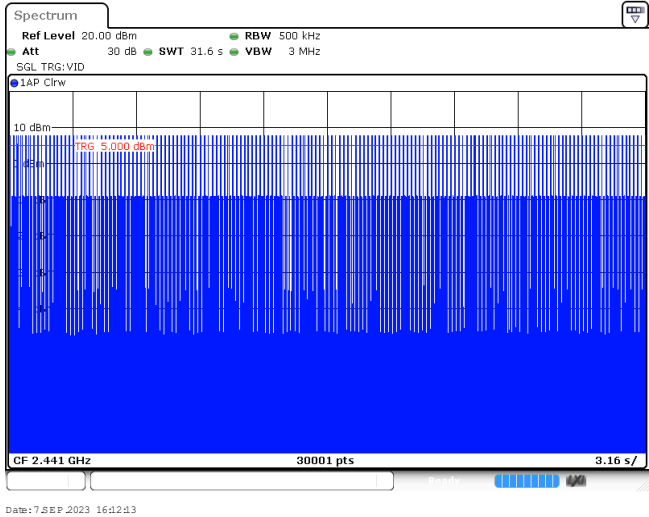
Modulation Type:

$\pi/4$ DQPSK

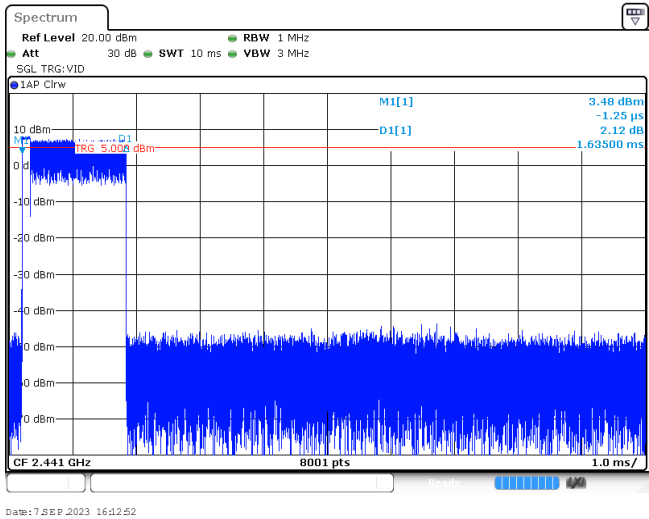
2DH1
Burst width

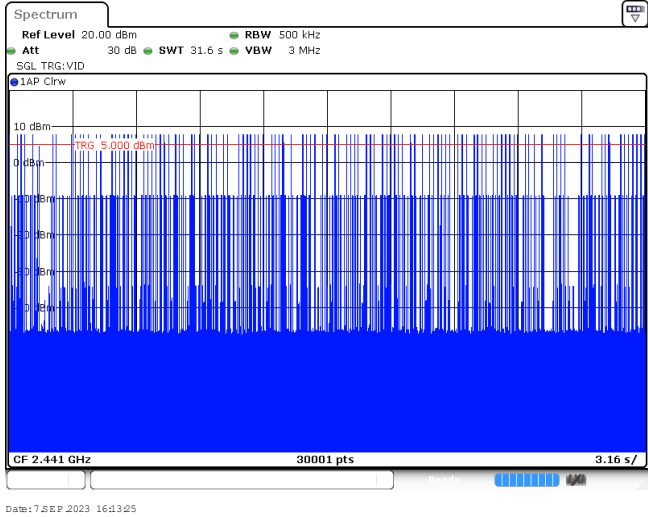
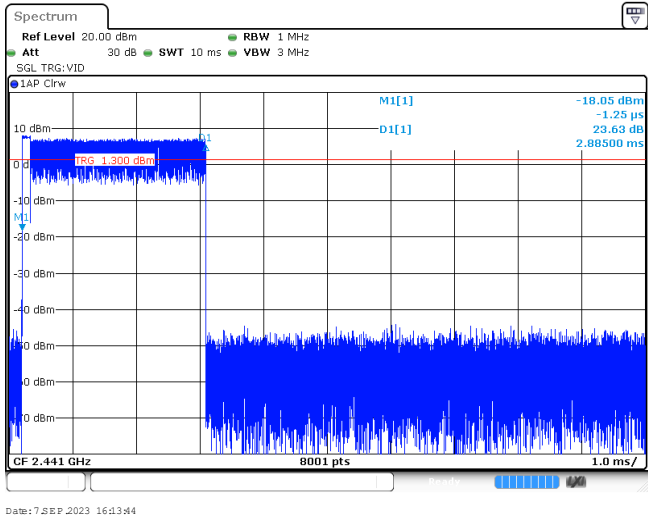
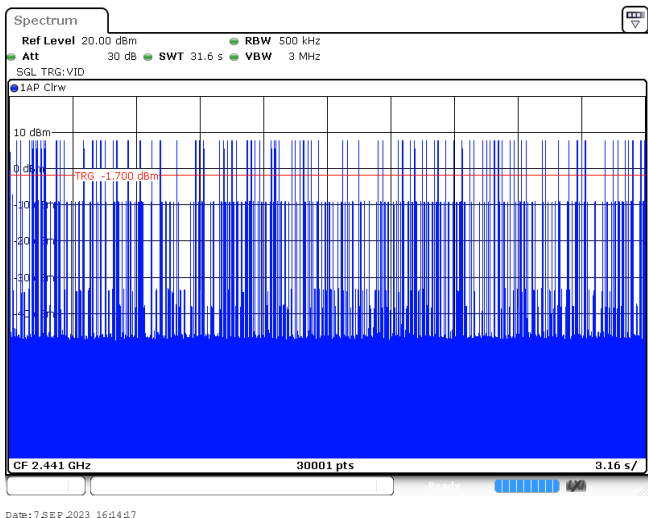


2DH1
Burst number



2DH3
Burst width

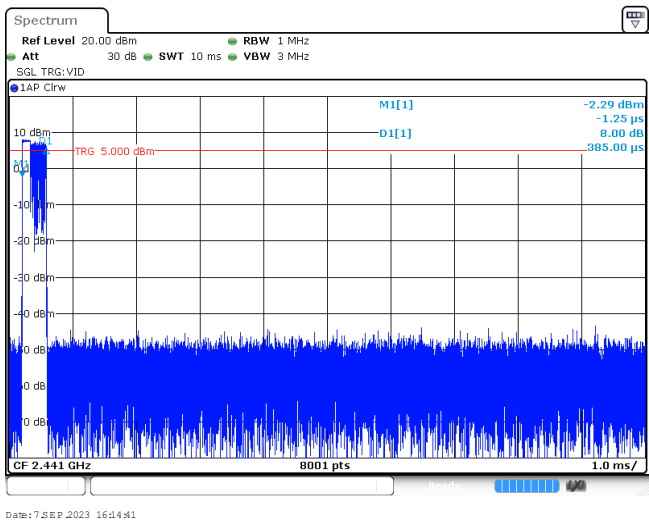


2DH3 Burst number	
2DH5 Burst width	
2DH5 Burst number	

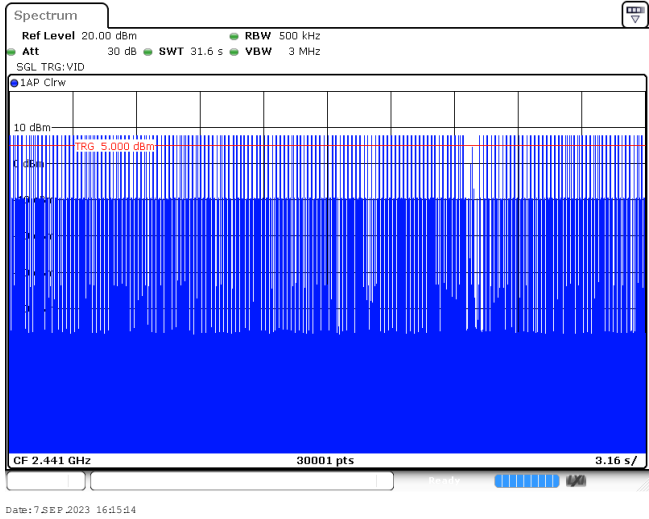
Modulation Type:

8DPSK

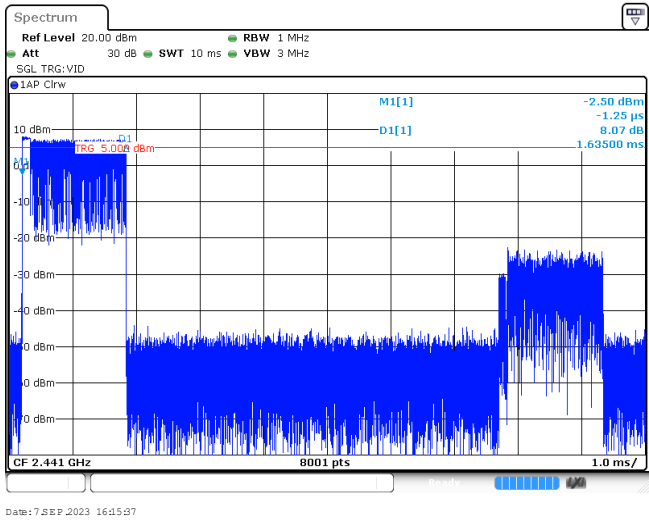
3DH1
Burst width

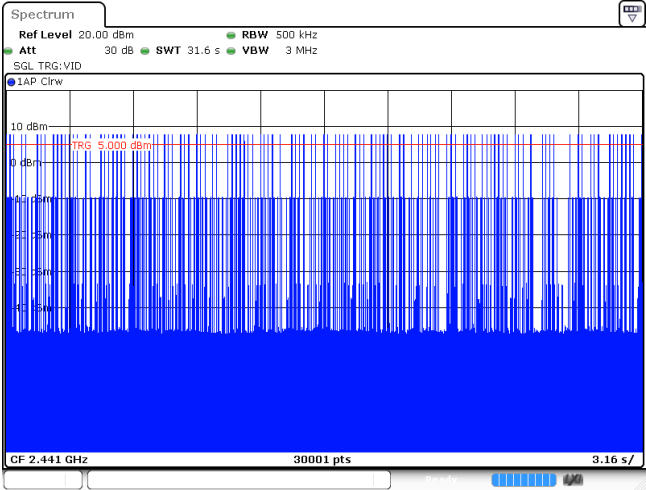
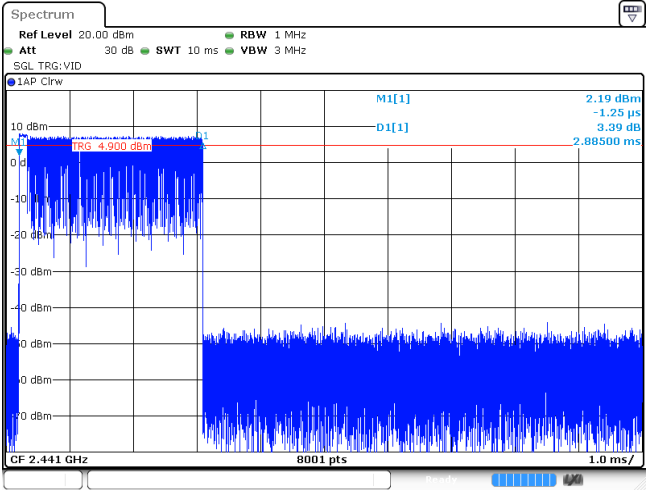
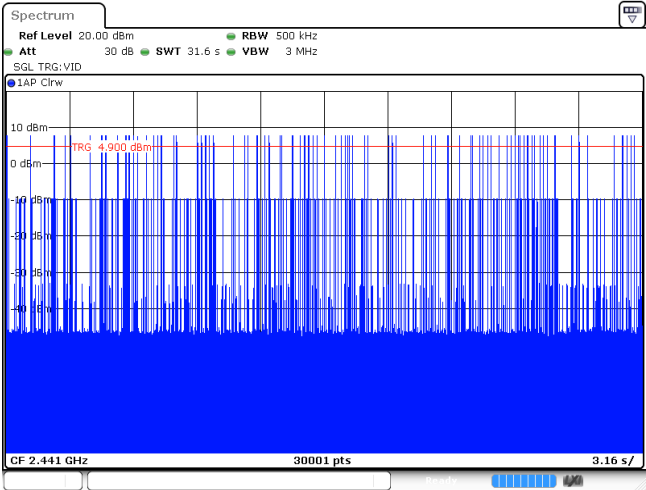


3DH1
Burst number



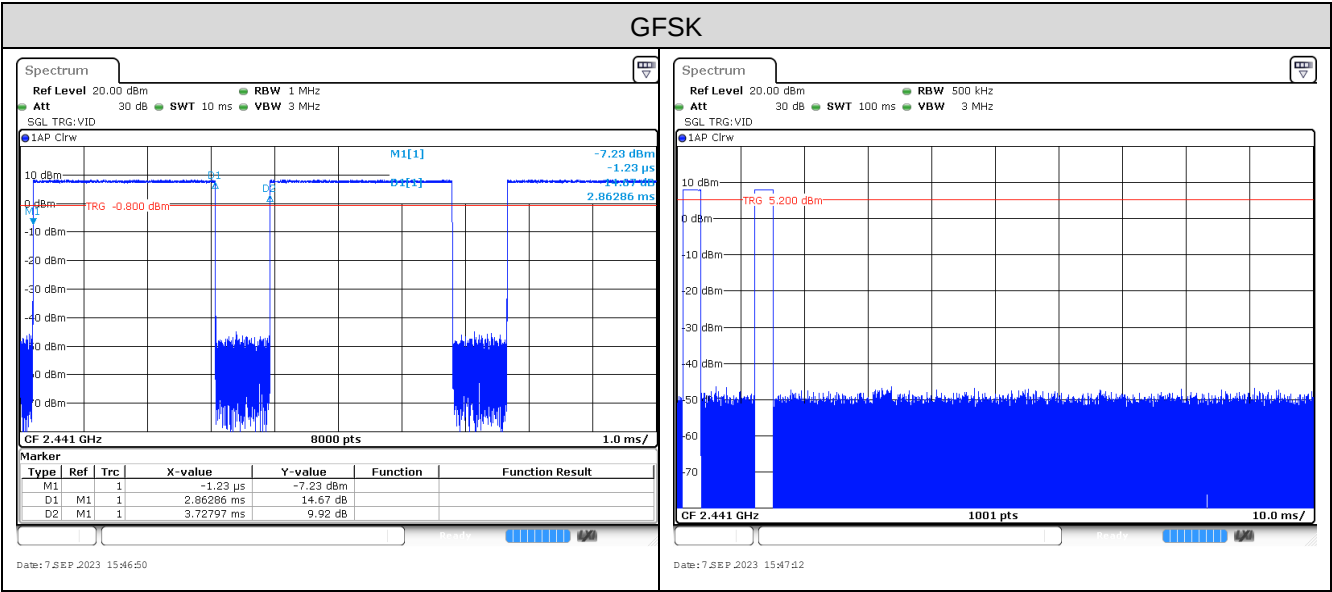
3DH3
Burst width



3DH3 Burst number	 The spectrum plot shows a signal at 2.441 GHz with a bandwidth of 30001 pts. The y-axis ranges from -40 dBm to 10 dBm. A red trigger line is set at 5.000 dBm. The signal is a burst of noise. The date is 7 SEP 2023 16:16:10.
3DH5 Burst width	 The spectrum plot shows a signal at 2.441 GHz with a bandwidth of 8001 pts. The y-axis ranges from -40 dBm to 10 dBm. A red trigger line is set at 4.900 dBm. The signal is a burst of noise. The date is 7 SEP 2023 16:16:36.
3DH5 Burst number	 The spectrum plot shows a signal at 2.441 GHz with a bandwidth of 30001 pts. The y-axis ranges from -40 dBm to 10 dBm. A red trigger line is set at 4.900 dBm. The signal is a burst of noise. The date is 7 SEP 2023 16:17:09.

Appendix G: Duty Cycle Correction Factor (DCCF)

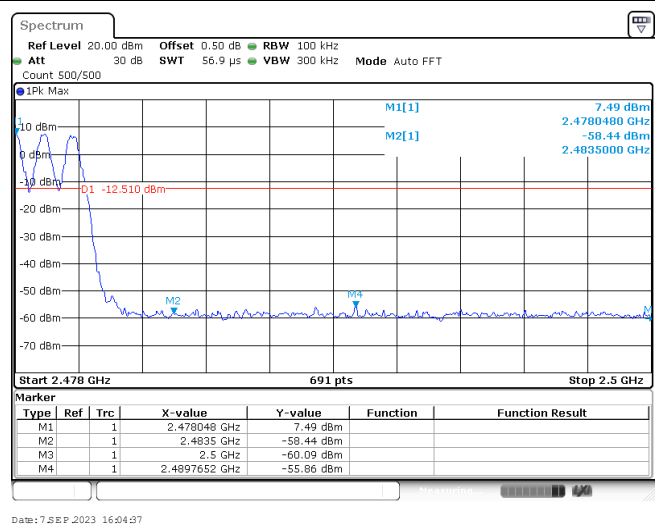
DCCF Calculate Formula					
$DCCF = 20 * \text{Log}(\text{duty cycle}) = 20 * \text{Log}(T_{\text{on time}} / T_{\text{period}})$					
Modulation type	Test Frequency (MHz)	$T_{\text{on time}}$ for single burst [ms]	T_{period} [ms]	Burst Quantity	DCCF [dB]
GFSK	2441	2.86	100	2.00	-24.84
$\pi/4$ DQPSK	2441	1.52	100	2.00	-30.37
8DPSK	2441	1.06	100	2.00	-33.47



Appendix H: Band edge and Spurious Emissions (conducted)

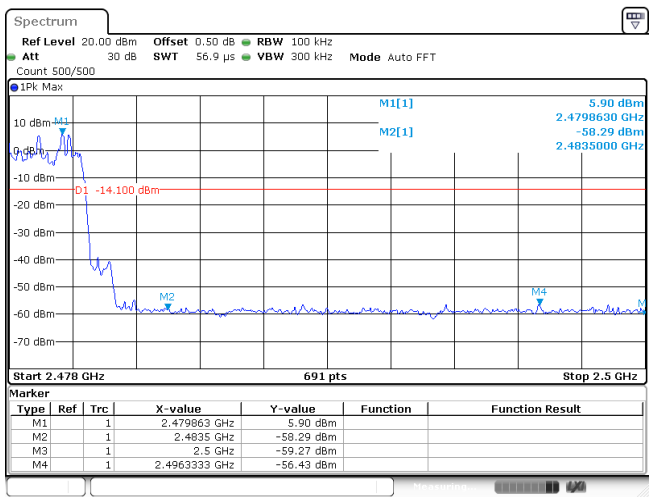
Test Item:	Band edge	Modulation type:	GFSK																																										
CH00 No hopping mode	Spectrum Ref Level 20.00 dBm Att 30 dB Count 300/300 Offset 0.50 dB SWT 1.1 ms RBW 100 kHz VBW 300 kHz Mode Auto Sweep 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1[1] M2[1] D1 -12.500 dBm M5 M3 M4 7.50 dBm 2.402040 GHz -54.14 dBm 2.400000 GHz Start 2.31 GHz 691 pts Stop 2.405 GHz Marker <table><thead><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></thead><tbody><tr><td>M1</td><td></td><td>1</td><td>2.40204 GHz</td><td>7.50 dBm</td><td></td><td></td></tr><tr><td>M2</td><td></td><td>1</td><td>2.4 GHz</td><td>-54.14 dBm</td><td></td><td></td></tr><tr><td>M3</td><td></td><td>1</td><td>2.39 GHz</td><td>-54.94 dBm</td><td></td><td></td></tr><tr><td>M4</td><td></td><td>1</td><td>2.31 GHz</td><td>-54.74 dBm</td><td></td><td></td></tr><tr><td>M5</td><td></td><td>1</td><td>2.322942 GHz</td><td>-52.18 dBm</td><td></td><td></td></tr></tbody></table> Date: 7 SEP 2023 15:42:56			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1		1	2.40204 GHz	7.50 dBm			M2		1	2.4 GHz	-54.14 dBm			M3		1	2.39 GHz	-54.94 dBm			M4		1	2.31 GHz	-54.74 dBm			M5		1	2.322942 GHz	-52.18 dBm		
Type	Ref	Trc	X-value	Y-value	Function	Function Result																																							
M1		1	2.40204 GHz	7.50 dBm																																									
M2		1	2.4 GHz	-54.14 dBm																																									
M3		1	2.39 GHz	-54.94 dBm																																									
M4		1	2.31 GHz	-54.74 dBm																																									
M5		1	2.322942 GHz	-52.18 dBm																																									
CH00 Hopping mode	Spectrum Ref Level 20.00 dBm Att 30 dB Count 500/500 Offset 0.50 dB SWT 1.1 ms RBW 100 kHz VBW 300 kHz Mode Auto Sweep 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1[1] M2[1] D1 -11.420 dBm M3 M5 M2 8.58 dBm 2.404930 GHz -52.58 dBm 2.400000 GHz Start 2.31 GHz 691 pts Stop 2.405 GHz Marker <table><thead><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></thead><tbody><tr><td>M1</td><td></td><td>1</td><td>2.40493 GHz</td><td>8.58 dBm</td><td></td><td></td></tr><tr><td>M2</td><td></td><td>1</td><td>2.4 GHz</td><td>-52.58 dBm</td><td></td><td></td></tr><tr><td>M3</td><td></td><td>1</td><td>2.39 GHz</td><td>-54.19 dBm</td><td></td><td></td></tr><tr><td>M4</td><td></td><td>1</td><td>2.31 GHz</td><td>-54.40 dBm</td><td></td><td></td></tr><tr><td>M5</td><td></td><td>1</td><td>2.397428 GHz</td><td>-50.58 dBm</td><td></td><td></td></tr></tbody></table> Date: 7 SEP 2023 16:04:24			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1		1	2.40493 GHz	8.58 dBm			M2		1	2.4 GHz	-52.58 dBm			M3		1	2.39 GHz	-54.19 dBm			M4		1	2.31 GHz	-54.40 dBm			M5		1	2.397428 GHz	-50.58 dBm		
Type	Ref	Trc	X-value	Y-value	Function	Function Result																																							
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M2		1	2.4 GHz	-52.58 dBm																																									
M3		1	2.39 GHz	-54.19 dBm																																									
M4		1	2.31 GHz	-54.40 dBm																																									
M5		1	2.397428 GHz	-50.58 dBm																																									
CH78 No hopping mode	Spectrum Ref Level 20.00 dBm Att 30 dB Count 300/300 Offset 0.50 dB SWT 56.9 μs RBW 100 kHz VBW 300 kHz Mode Auto FFT 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1 M2[1] D1 -12.700 dBm M2 M4 7.30 dBm 2.4798310 GHz -57.87 dBm 2.4835000 GHz Start 2.478 GHz 691 pts Stop 2.5 GHz Marker <table><thead><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></thead><tbody><tr><td>M1</td><td></td><td>1</td><td>2.479831 GHz</td><td>7.30 dBm</td><td></td><td></td></tr><tr><td>M2</td><td></td><td>1</td><td>2.4835 GHz</td><td>-57.87 dBm</td><td></td><td></td></tr><tr><td>M3</td><td></td><td>1</td><td>2.5 GHz</td><td>-58.88 dBm</td><td></td><td></td></tr><tr><td>M4</td><td></td><td>1</td><td>2.4860348 GHz</td><td>-56.07 dBm</td><td></td><td></td></tr></tbody></table> Date: 7 SEP 2023 15:49:51			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1		1	2.479831 GHz	7.30 dBm			M2		1	2.4835 GHz	-57.87 dBm			M3		1	2.5 GHz	-58.88 dBm			M4		1	2.4860348 GHz	-56.07 dBm									
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CH78
Hopping mode



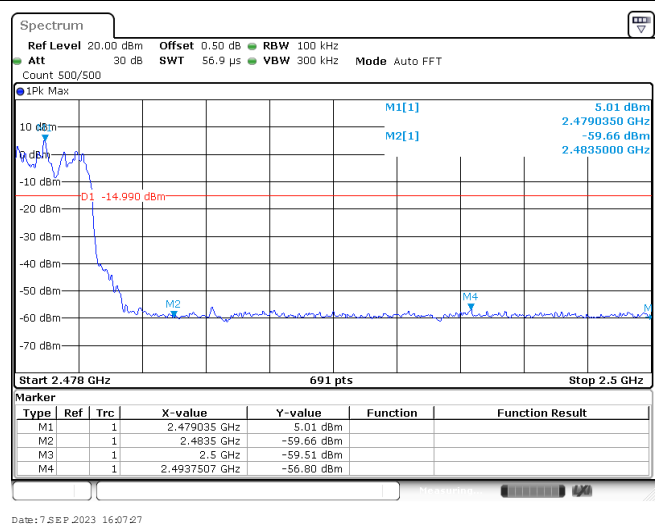
Test Item:	Band edge	Modulation type:	$\pi/4$ DQPSK																																										
CH00 No hopping mode	Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 1.1 ms VBW 300 kHz Mode Auto Sweep Count 500/500 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1[1] M2[1] M3 M4 6.75 dBm 2.401910 GHz -50.17 dBm 2.400000 GHz -13.250 dBm D1 Start 2.31 GHz 691 pts Stop 2.405 GHz Marker <table><thead><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></thead><tbody><tr><td>M1</td><td>1</td><td>1</td><td>2.40191 GHz</td><td>6.75 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td>1</td><td>2.4 GHz</td><td>-50.17 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td>1</td><td>2.39 GHz</td><td>-54.93 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td>1</td><td>2.31 GHz</td><td>-53.68 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td>1</td><td>2.399906 GHz</td><td>-50.04 dBm</td><td></td><td></td></tr></tbody></table> Date: 7 SEP 2023 15:51:41			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1	1	2.40191 GHz	6.75 dBm			M2	1	1	2.4 GHz	-50.17 dBm			M3	1	1	2.39 GHz	-54.93 dBm			M4	1	1	2.31 GHz	-53.68 dBm			M5	1	1	2.399906 GHz	-50.04 dBm		
Type	Ref	Trc	X-value	Y-value	Function	Function Result																																							
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CH00 Hopping mode	Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 1.1 ms VBW 300 kHz Mode Auto Sweep Count 500/500 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1[1] M2[1] M3 M4 M5 5.27 dBm 2.404110 GHz -54.48 dBm 2.400000 GHz -14.730 dBm D1 Start 2.31 GHz 691 pts Stop 2.405 GHz Marker <table><thead><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></thead><tbody><tr><td>M1</td><td>1</td><td>1</td><td>2.40411 GHz</td><td>5.27 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td>1</td><td>2.4 GHz</td><td>-54.48 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td>1</td><td>2.39 GHz</td><td>-54.65 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td>1</td><td>2.31 GHz</td><td>-54.12 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td>1</td><td>2.363971 GHz</td><td>-52.25 dBm</td><td></td><td></td></tr></tbody></table> Date: 7 SEP 2023 16:05:51			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1	1	2.40411 GHz	5.27 dBm			M2	1	1	2.4 GHz	-54.48 dBm			M3	1	1	2.39 GHz	-54.65 dBm			M4	1	1	2.31 GHz	-54.12 dBm			M5	1	1	2.363971 GHz	-52.25 dBm		
Type	Ref	Trc	X-value	Y-value	Function	Function Result																																							
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M3	1	1	2.39 GHz	-54.65 dBm																																									
M4	1	1	2.31 GHz	-54.12 dBm																																									
M5	1	1	2.363971 GHz	-52.25 dBm																																									
CH78 No hopping mode	Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 56.9 μs VBW 300 kHz Mode Auto FFT Count 500/500 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1[1] M2[1] M3 M4 7.04 dBm 2.4798310 GHz -57.24 dBm 2.4835000 GHz -12.950 dBm D1 Start 2.478 GHz 691 pts Stop 2.5 GHz Marker <table><thead><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></thead><tbody><tr><td>M1</td><td>1</td><td>1</td><td>2.479831 GHz</td><td>7.04 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td>1</td><td>2.4835 GHz</td><td>-57.24 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td>1</td><td>2.5 GHz</td><td>-59.08 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td>1</td><td>2.4835797 GHz</td><td>-55.51 dBm</td><td></td><td></td></tr></tbody></table> Date: 7 SEP 2023 15:56:05			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1	1	2.479831 GHz	7.04 dBm			M2	1	1	2.4835 GHz	-57.24 dBm			M3	1	1	2.5 GHz	-59.08 dBm			M4	1	1	2.4835797 GHz	-55.51 dBm									
Type	Ref	Trc	X-value	Y-value	Function	Function Result																																							
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CH78
Hopping mode

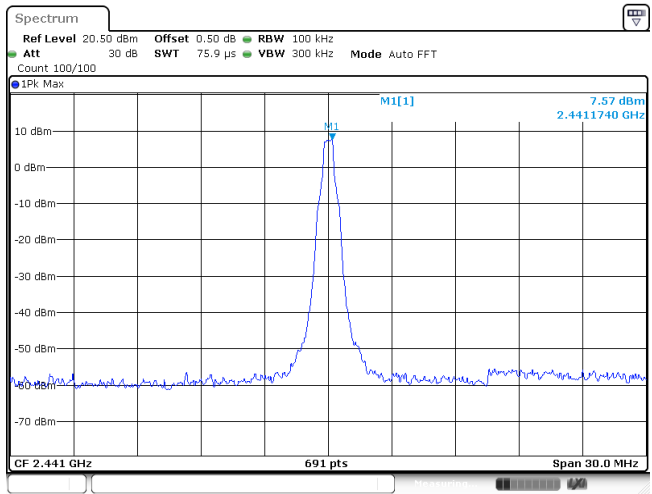
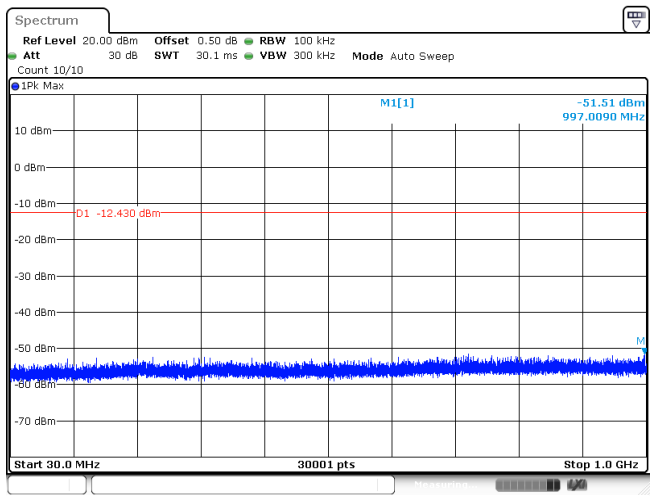
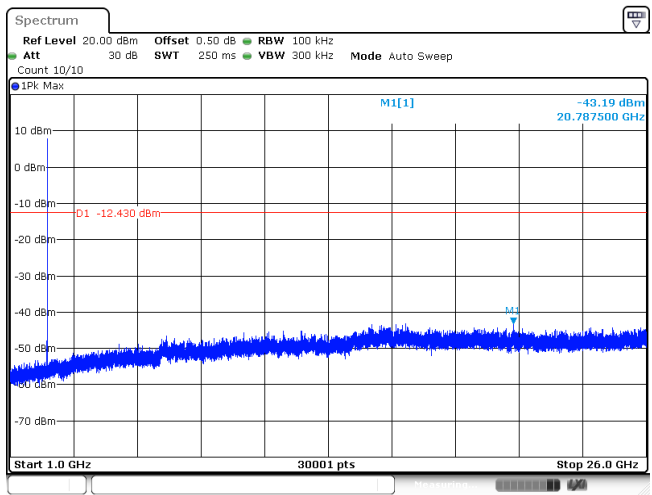


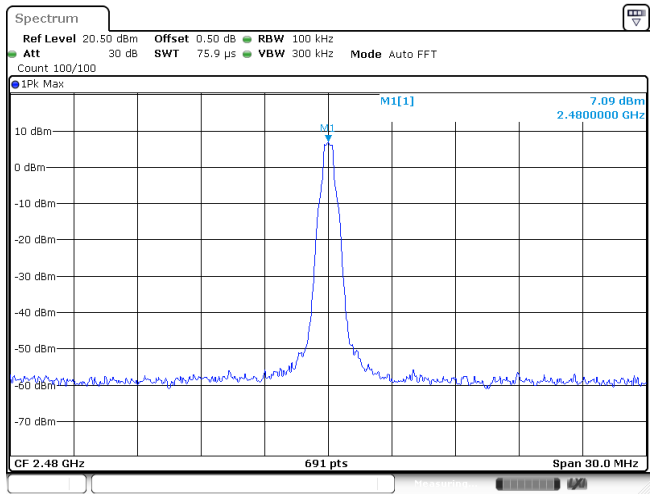
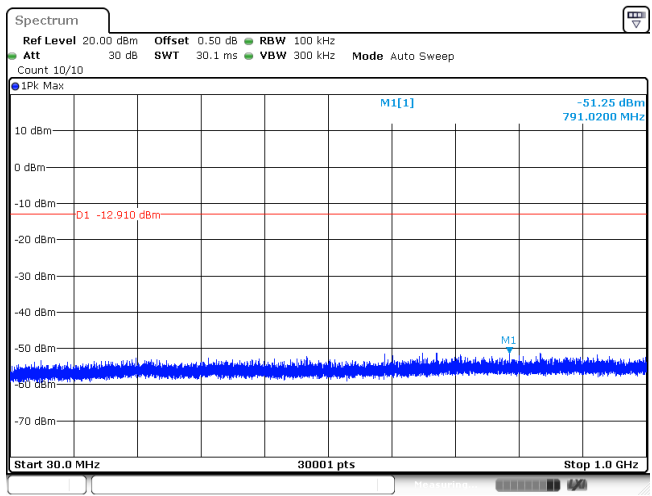
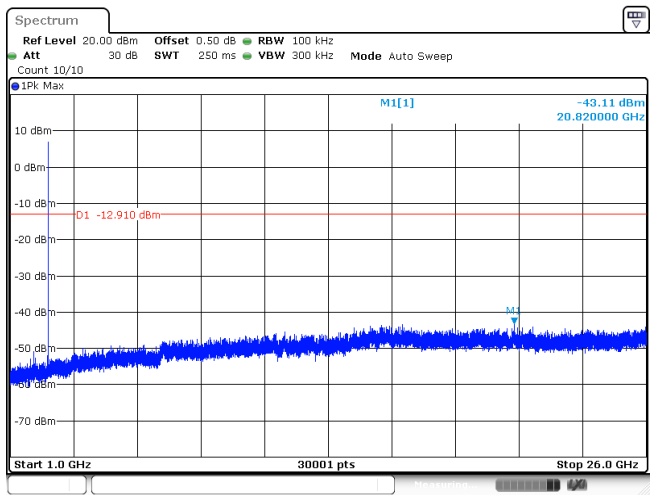
Test Item:	Band edge	Modulation type:	8DPSK																																										
CH00 No hopping mode	Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 1.1 ms VBW 300 kHz Mode Auto Sweep Count 500/500 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1[1] M2[1] M3 M4 M5 6.85 dBm 2.402180 GHz -51.79 dBm 2.400000 GHz D1 -13.150 dBm Start 2.31 GHz 691 pts Stop 2.405 GHz Marker <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>1</td><td>2.40218 GHz</td><td>6.85 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td>1</td><td>2.4 GHz</td><td>-51.79 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td>1</td><td>2.39 GHz</td><td>-54.92 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td>1</td><td>2.31 GHz</td><td>-54.12 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td>1</td><td>2.39963 GHz</td><td>-49.84 dBm</td><td></td><td></td></tr></table> Date: 7 SEP 2023 15:58:03			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1	1	2.40218 GHz	6.85 dBm			M2	1	1	2.4 GHz	-51.79 dBm			M3	1	1	2.39 GHz	-54.92 dBm			M4	1	1	2.31 GHz	-54.12 dBm			M5	1	1	2.39963 GHz	-49.84 dBm		
Type	Ref	Trc	X-value	Y-value	Function	Function Result																																							
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CH00 Hopping mode	Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 1.1 ms VBW 300 kHz Mode Auto Sweep Count 500/500 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1[1] M2[1] M3 M4 M5 6.80 dBm 2.402180 GHz -53.00 dBm 2.400000 GHz D1 -13.200 dBm Start 2.31 GHz 691 pts Stop 2.405 GHz Marker <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>1</td><td>2.40218 GHz</td><td>6.80 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td>1</td><td>2.4 GHz</td><td>-53.00 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td>1</td><td>2.39 GHz</td><td>-54.58 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td>1</td><td>2.31 GHz</td><td>-54.05 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td>1</td><td>2.39935 GHz</td><td>-50.91 dBm</td><td></td><td></td></tr></table> Date: 7 SEP 2023 16:07:14			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1	1	2.40218 GHz	6.80 dBm			M2	1	1	2.4 GHz	-53.00 dBm			M3	1	1	2.39 GHz	-54.58 dBm			M4	1	1	2.31 GHz	-54.05 dBm			M5	1	1	2.39935 GHz	-50.91 dBm		
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CH78 No hopping mode	Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 56.9 μs VBW 300 kHz Mode Auto FFT Count 500/500 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1[1] M2[1] M3 M4 7.03 dBm 2.4801490 GHz -57.52 dBm 2.4835000 GHz D1 -12.970 dBm Start 2.478 GHz 691 pts Stop 2.5 GHz Marker <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>1</td><td>2.480149 GHz</td><td>7.03 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td>1</td><td>2.4835 GHz</td><td>-57.52 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td>1</td><td>2.5 GHz</td><td>-59.42 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td>1</td><td>2.4860667 GHz</td><td>-55.67 dBm</td><td></td><td></td></tr></table> Date: 7 SEP 2023 16:02:34			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1	1	2.480149 GHz	7.03 dBm			M2	1	1	2.4835 GHz	-57.52 dBm			M3	1	1	2.5 GHz	-59.42 dBm			M4	1	1	2.4860667 GHz	-55.67 dBm									
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CH78
Hoppig mode

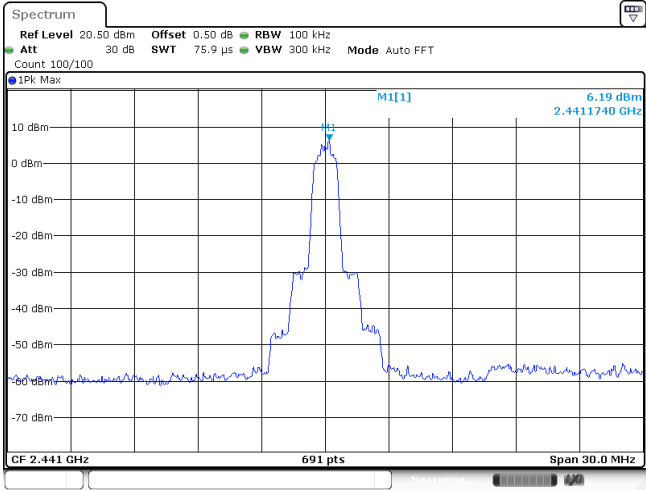
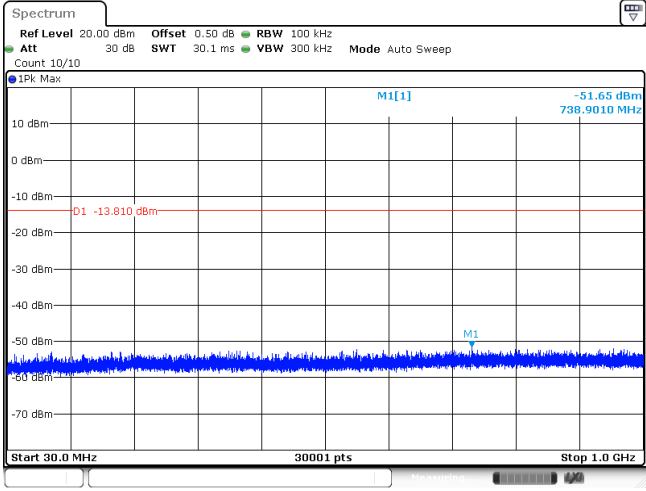
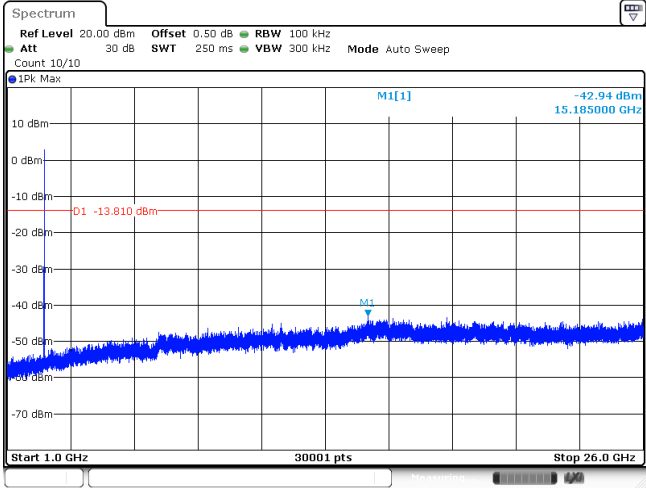


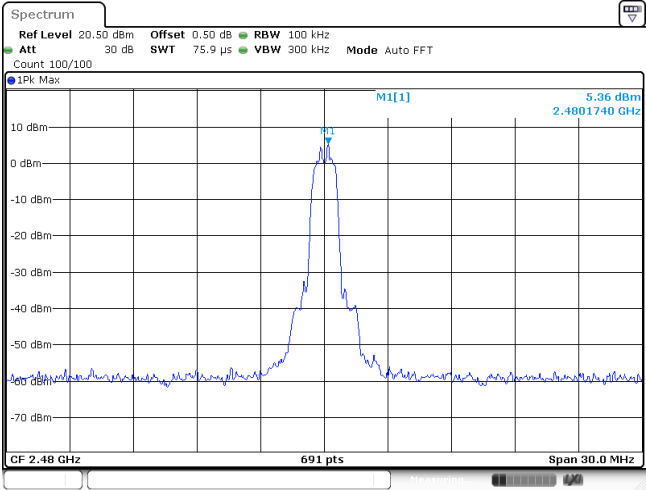
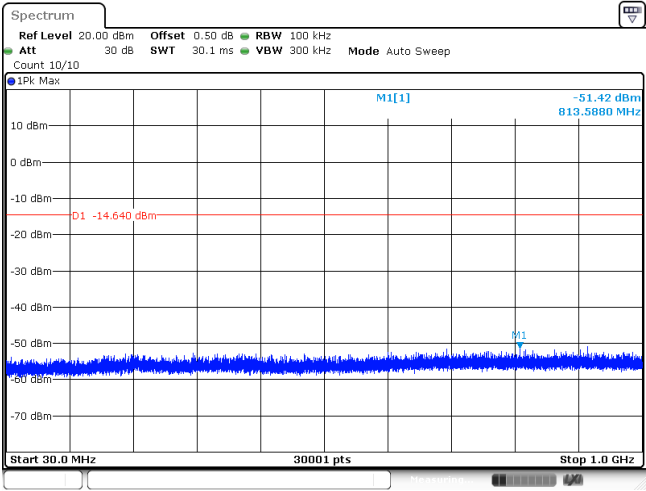
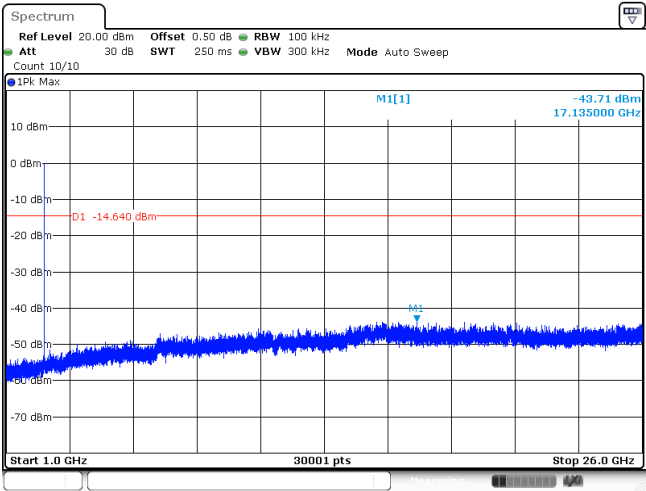
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CH00 30MHz~1000MHz	Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 1Pk Max M1[1] -51.56 dBm 844.3360 MHz D1 -13.120 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1 Start 30.0 MHz 30001 pts Stop 1.0 GHz Date: 7 SEP 2023 15:43:17		
CH00 1GHz~26GHz	Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 1Pk Max M1[1] -42.69 dBm 16.192500 GHz D1 -13.120 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1 Start 1.0 GHz 30001 pts Stop 26.0 GHz Date: 7 SEP 2023 15:43:32		

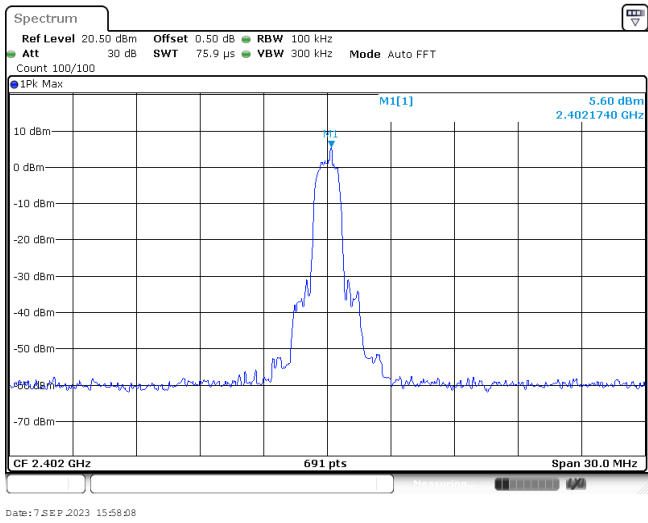
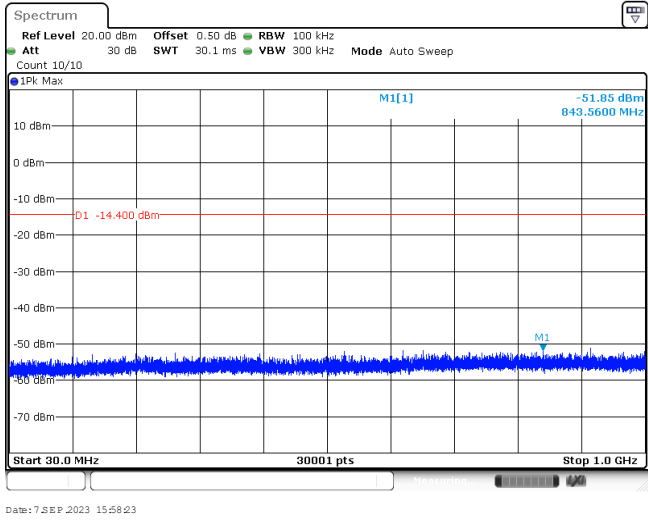
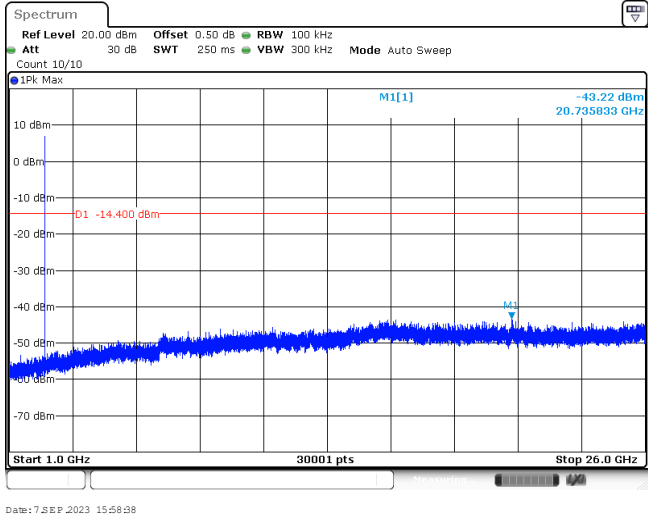
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CH39 30MHz~1000MHz	 Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 IPk Max M1[1] -51.51 dBm 997.0090 MHz D1 -12.430 dBm Start 30.0 MHz 30001 pts Stop 1.0 GHz Date: 7 SEP 2023 15:47:50
CH39 1GHz~26GHz	 Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 IPk Max M1[1] -43.19 dBm 20.787500 GHz D1 -12.430 dBm Start 1.0 GHz 30001 pts Stop 26.0 GHz Date: 7 SEP 2023 15:48:05

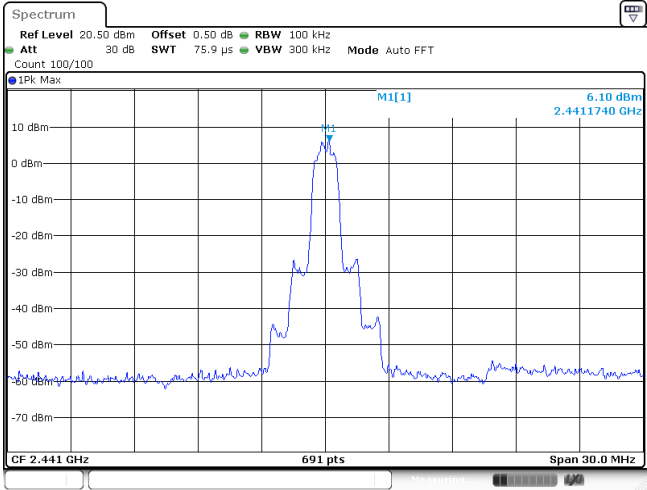
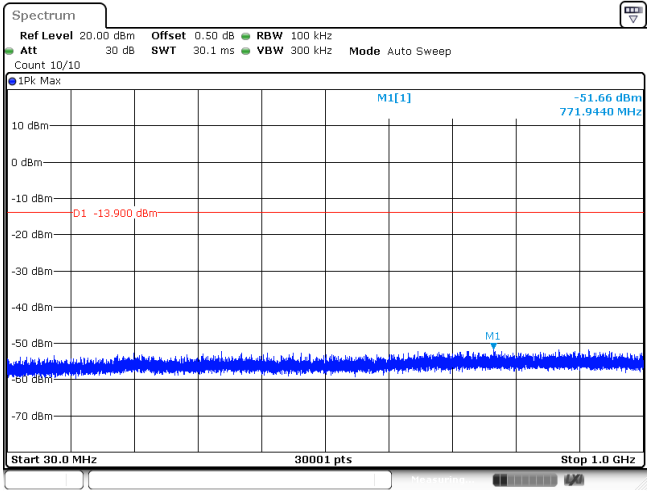
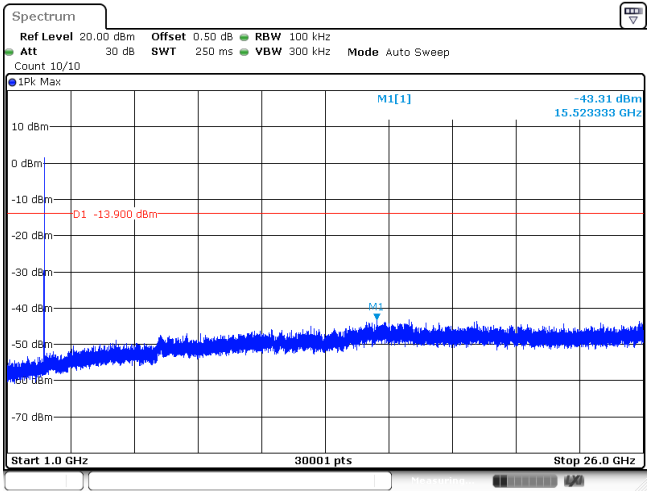
CH78 Reference level	 Spectrum Ref Level 20.50 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 75.9 μs VBW 300 kHz Mode Auto FFT Count 100/100 IPk Max M1[1] 7.09 dBm 2.480000 GHz CF 2.48 GHz 691 pts Span 30.0 MHz Date: 7 SEP 2023 15:49:57
CH78 30MHz~1000MHz	 Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 IPk Max M1[1] -51.25 dBm 791.0200 MHz D1 -12.910 dBm Start 30.0 MHz 30001 pts Stop 1.0 GHz Date: 7 SEP 2023 15:50:11
CH78 1GHz~26GHz	 Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 IPk Max M1[1] -43.11 dBm 20.820000 GHz D1 -12.910 dBm Start 1.0 GHz 30001 pts Stop 26.0 GHz Date: 7 SEP 2023 15:50:27

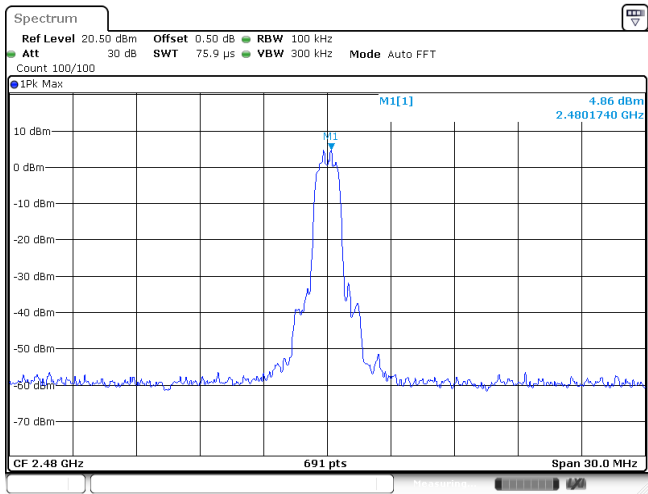
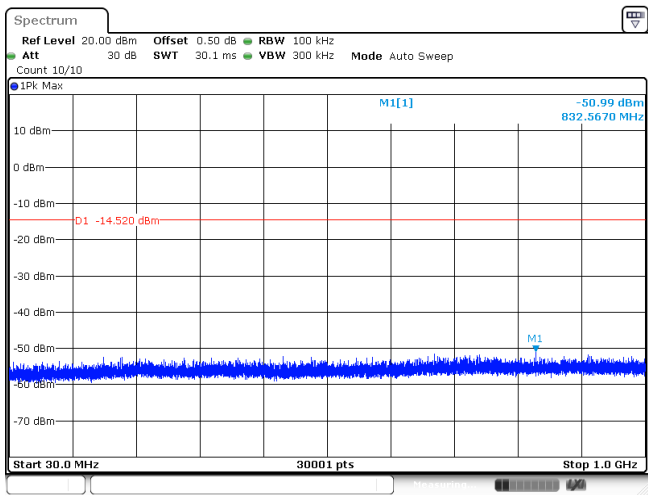
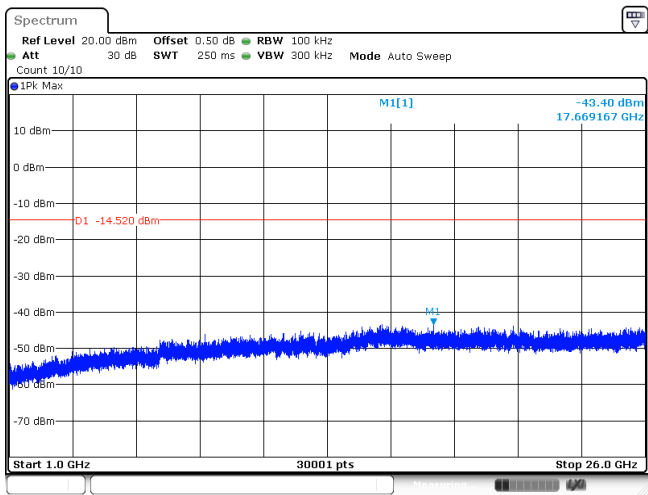
Appendix report page: 36 of 41

CH39 Reference level	 Spectrum Ref Level 20.50 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 75.9 μs VBW 300 kHz Mode Auto FFT Count 100/100 IPk Max M1[1] 6.19 dBm 2.4411740 GHz CF 2.441 GHz 691 pts Span 30.0 MHz Date: 7 SEP 2023 16:32:45
CH39 30MHz~1000MHz	 Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 IPk Max M1[1] -51.65 dBm 738.9010 MHz D1 -13.810 dBm Start 30.0 MHz 30001 pts Stop 1.0 GHz Date: 7 SEP 2023 16:33:00
CH39 1GHz~26GHz	 Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 IPk Max M1[1] -42.94 dBm 15.185000 GHz D1 -13.810 dBm Start 1.0 GHz 30001 pts Stop 26.0 GHz Date: 7 SEP 2023 16:33:15

CH78 Reference level	 Spectrum Ref Level 20.50 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 75.9 μs VBW 300 kHz Mode Auto FFT Count 100/100 IPk Max M1[1] 5.36 dBm 2.4801740 GHz CF 2.48 GHz 691 pts Span 30.0 MHz Date: 7 SEP 2023 15:56:11
CH78 30MHz~1000MHz	 Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 IPk Max M1[1] -51.42 dBm 813.5880 MHz D1 -14.640 dBm Start 30.0 MHz 30001 pts Stop 1.0 GHz Date: 7 SEP 2023 15:56:26
CH78 1GHz~26GHz	 Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 IPk Max M1[1] -43.71 dBm 17.135000 GHz D1 -14.640 dBm Start 1.0 GHz 30001 pts Stop 26.0 GHz Date: 7 SEP 2023 15:56:41

Test Item:	Spurious Emission	Modulation type:	8DPSK
CH00 Reference level			
CH00 30MHz~1000MHz			
CH00 1GHz~26GHz			

CH39 Reference level	 Spectrum Ref Level 20.50 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 75.9 μs VBW 300 kHz Mode Auto FFT Count 100/100 IPk Max M1[1] 6.10 dBm 2.4411740 GHz CF 2.441 GHz 691 pts Span 30.0 MHz Date: 7 SEP 2023 16:34:58
CH39 30MHz~1000MHz	 Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 IPk Max M1[1] -51.66 dBm 771.9440 MHz D1 -13.900 dBm Start 30.0 MHz 30001 pts Stop 1.0 GHz Date: 7 SEP 2023 16:34:53
CH39 1GHz~26GHz	 Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 IPk Max M1[1] -43.31 dBm 15.523333 GHz D1 -13.900 dBm Start 1.0 GHz 30001 pts Stop 26.0 GHz Date: 7 SEP 2023 16:35:08

CH78 Reference level	 Spectrum Ref Level 20.50 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 75.9 μs VBW 300 kHz Mode Auto FFT Count 100/100 IPk Max M1[1] 4.86 dBm 2.4801740 GHz CF 2.48 GHz 691 pts Span 30.0 MHz Date: 7 SEP 2023 16:02:39
CH78 30MHz~1000MHz	 Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 IPk Max M1[1] -50.99 dBm 832.5670 MHz D1 -14.520 dBm Start 30.0 MHz 30001 pts Stop 1.0 GHz Date: 7 SEP 2023 16:02:54
CH78 1GHz~26GHz	 Spectrum Ref Level 20.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWT 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 IPk Max M1[1] -43.40 dBm 17.669167 GHz D1 -14.520 dBm Start 1.0 GHz 30001 pts Stop 26.0 GHz Date: 7 SEP 2023 16:03:09

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