

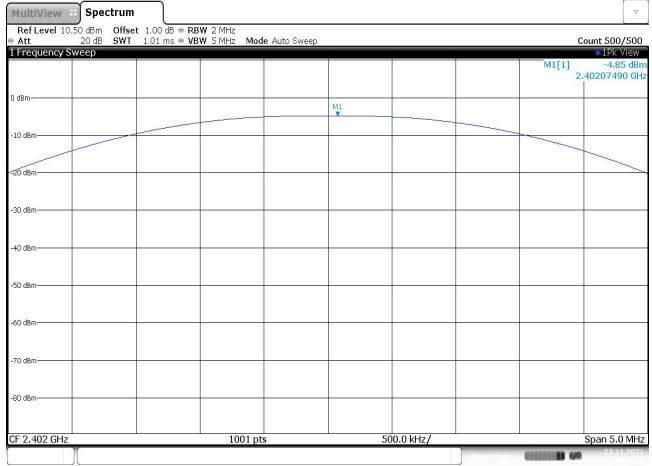
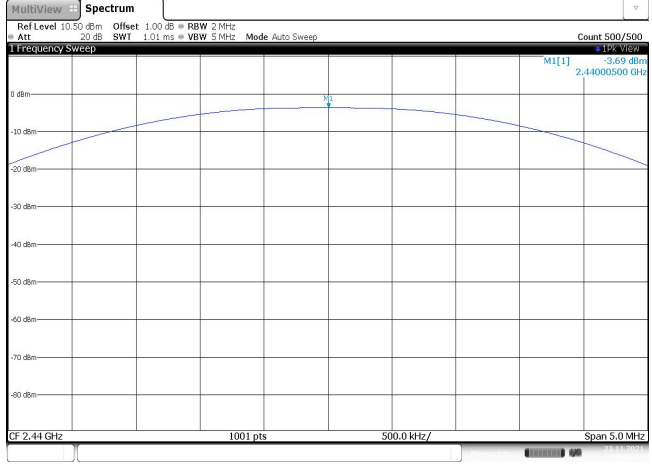
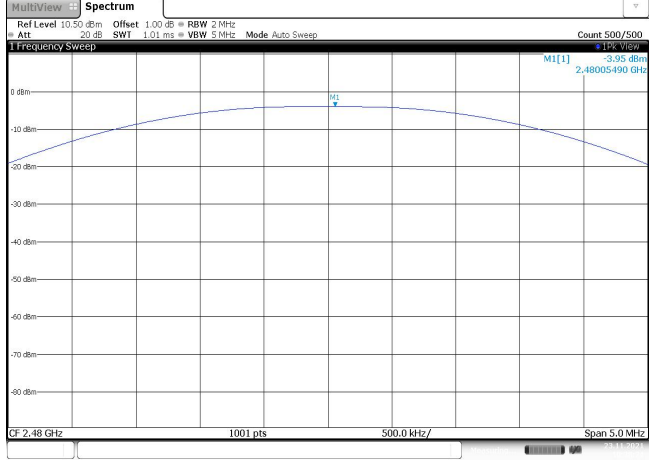
APPENDIX REPORT

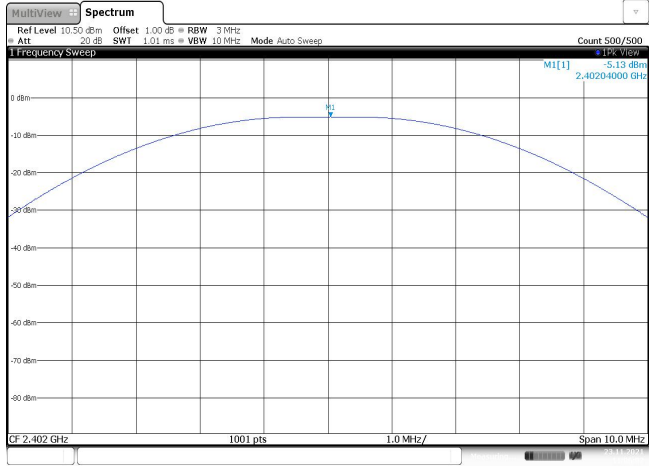
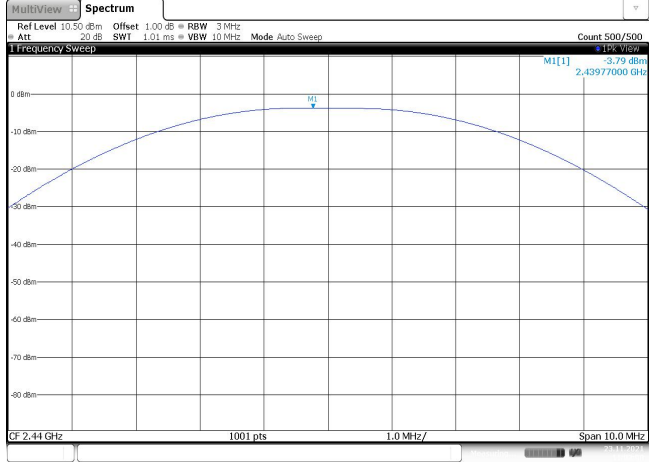
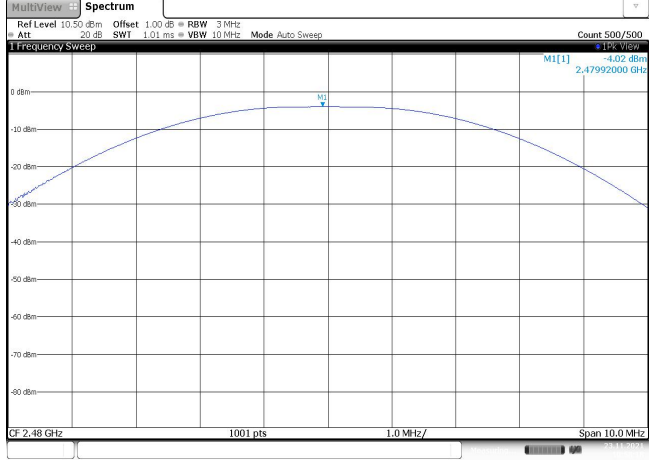
Project No.	SHT2012123404EW	Radio Specification	Bluetooth BLE
Test sample No.	YPHT20121234003	Model No.	T780
Start test date	2021-11-23	Finish date	2021-11-23
Temperature	23.9℃	Humidity	35%
Test Engineer	Xiaoqin Li	Auditor	Xiaodong Zhao

Appendix clause	Test item	Result
A	Peak Output Power	PASS
B	Power Spectral Density	PASS
C	6 dB Bandwidth	PASS
D	99% Occupied Bandwidth	PASS
E	Duty cycle	PASS
F	Band edge and Spurious Emissions (conducted)	PASS

Appendix A: Peak Output Power

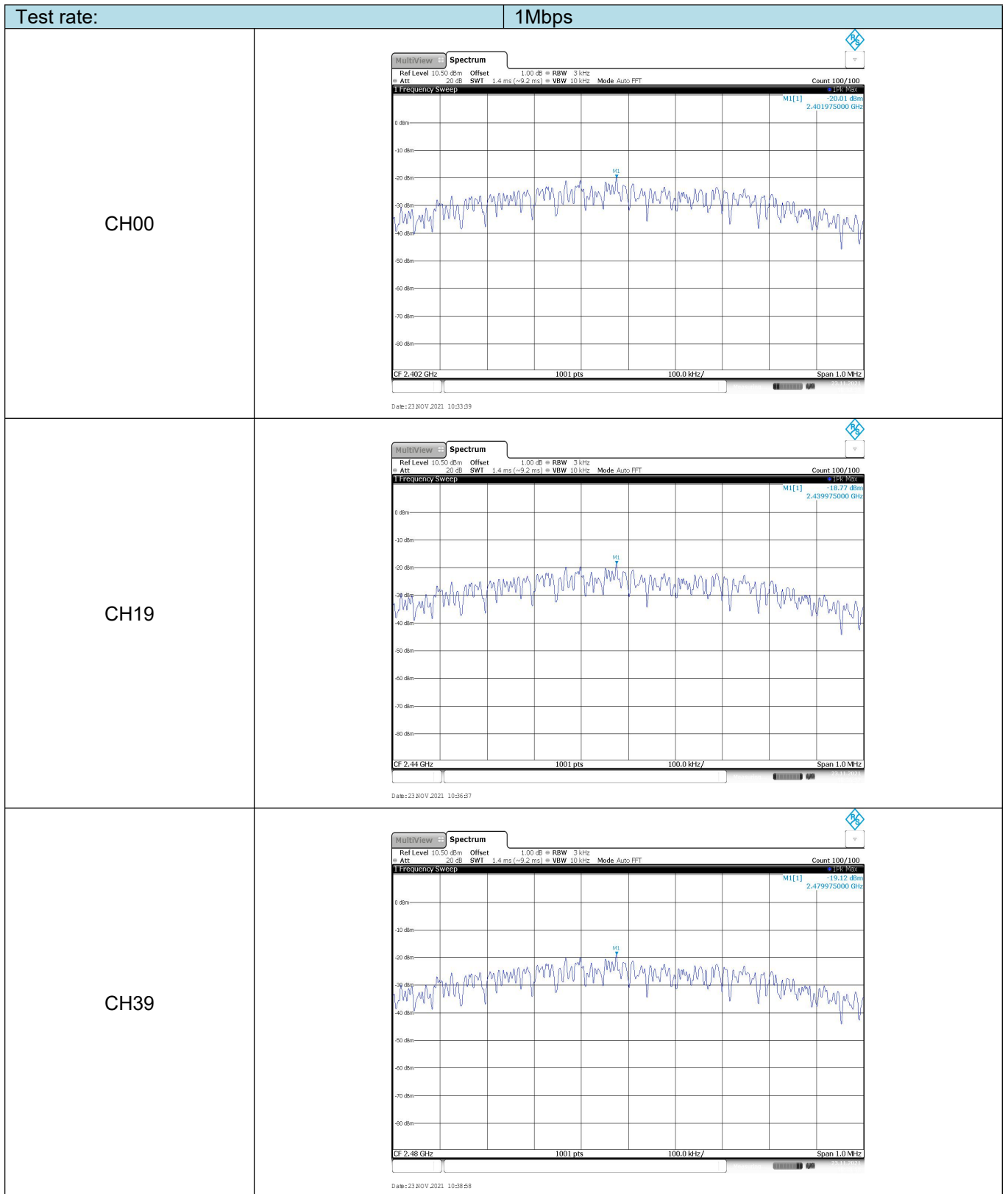
Test rate	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
1Mbps	00	-4.85	-4.97	≤ 30.00	Pass
	19	-3.69	-3.79		
	39	-3.95	-4.07		
2Mbps	00	-5.13	-5.22	≤ 30.00	Pass
	19	-3.79	-3.87		
	39	-4.02	-4.14		

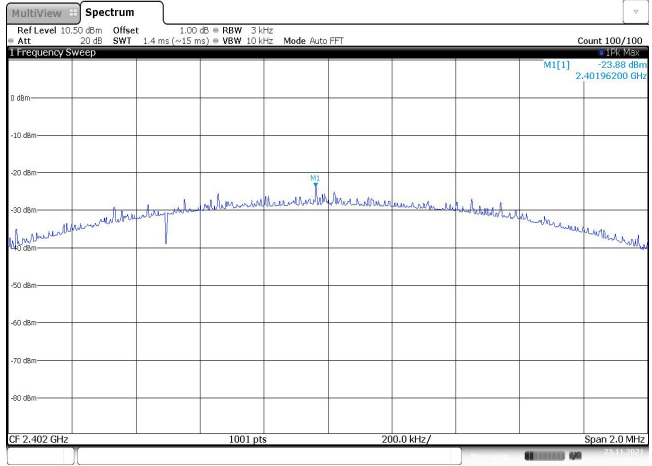
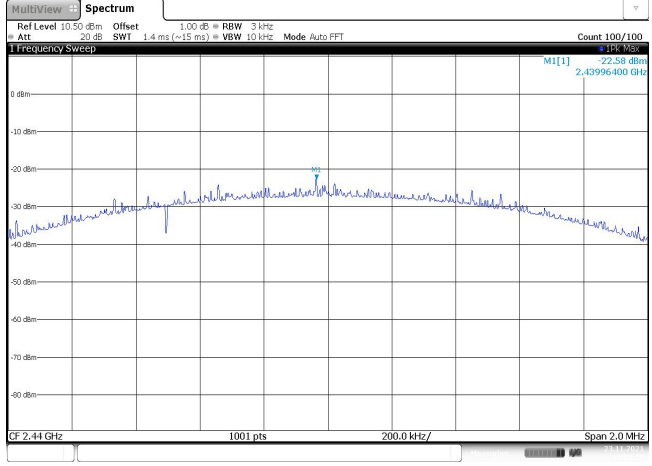
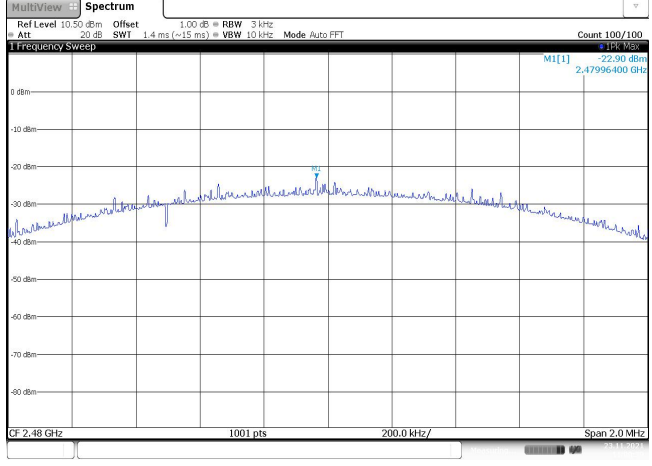
Test rate: 1Mbps	
CH00	 MultiView Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 2 MHz Att 20 dB SW1 1.01 ms VBW 5 MHz Mode Auto Sweep Count 500/500 1 Frequency Sweep M1[1] -4.83 dBm 2.4027490 GHz CF 2.402 GHz 1001 pts 500.0 kHz/ Span 5.0 MHz Date: 23 NOV 2021 10:52:24
CH19	 MultiView Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 2 MHz Att 20 dB SW1 1.01 ms VBW 5 MHz Mode Auto Sweep Count 500/500 1 Frequency Sweep M1[1] -3.69 dBm 2.44000500 GHz CF 2.44 GHz 1001 pts 500.0 kHz/ Span 5.0 MHz Date: 23 NOV 2021 10:55:56
CH39	 MultiView Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 2 MHz Att 20 dB SW1 1.01 ms VBW 5 MHz Mode Auto Sweep Count 500/500 1 Frequency Sweep M1[1] -3.93 dBm 2.48005490 GHz CF 2.48 GHz 1001 pts 500.0 kHz/ Span 5.0 MHz Date: 23 NOV 2021 10:58:24

Test rate: 2Mbps	
CH00	 Ref Level 10.50 dBm Offset 1.00 dB RBW 3 MHz Att 20 dB SW1 1.01 ms VBW 10 MHz Mode Auto Sweep Count 500/500 M1[1] -5.13 dBm 2.40204000 GHz CF 2.402 GHz 1001 pts 1.0 MHz/ Span 10.0 MHz Date: 23 NOV 2021 11:56:21
CH19	 Ref Level 10.50 dBm Offset 1.00 dB RBW 3 MHz Att 20 dB SW1 1.01 ms VBW 10 MHz Mode Auto Sweep Count 500/500 M1[1] -5.79 dBm 2.43977000 GHz CF 2.44 GHz 1001 pts 1.0 MHz/ Span 10.0 MHz Date: 23 NOV 2021 11:53:20
CH39	 Ref Level 10.50 dBm Offset 1.00 dB RBW 3 MHz Att 20 dB SW1 1.01 ms VBW 10 MHz Mode Auto Sweep Count 500/500 M1[1] -4.02 dBm 2.47992000 GHz CF 2.48 GHz 1001 pts 1.0 MHz/ Span 10.0 MHz Date: 23 NOV 2021 10:58:18

Appendix B: Power Spectral Density

Test rate	Channel	Power Spectral Density(dBm/3KHz)	Limit (dBm/3KHz)	Result
1Mbps	00	-20.01	≤8.00	Pass
	19	-18.77		
	39	-19.12		
2Mbps	00	-23.88	≤8.00	Pass
	19	-22.58		
	39	-22.90		



Test rate: 2Mbps	
CH00	 Ref Level 10.50 dBm Offset 1.00 dB RBW 3 kHz Att 20 dB SWI 1.4 ms (~15 ms) VBW 10 kHz Mode Auto FFT Count 100/100 M1[1] -23.88 dBm 2.40196200 GHz CF 2.402 GHz 1001 pts 200.0 kHz/ Span 2.0 MHz Date: 23 NOV 2021 11:56:37
CH19	 Ref Level 10.50 dBm Offset 1.00 dB RBW 3 kHz Att 20 dB SWI 1.4 ms (~15 ms) VBW 10 kHz Mode Auto FFT Count 100/100 M1[1] -22.58 dBm 2.43996400 GHz CF 2.44 GHz 1001 pts 200.0 kHz/ Span 2.0 MHz Date: 23 NOV 2021 11:53:24
CH39	 Ref Level 10.50 dBm Offset 1.00 dB RBW 3 kHz Att 20 dB SWI 1.4 ms (~15 ms) VBW 10 kHz Mode Auto FFT Count 100/100 M1[1] -22.90 dBm 2.47996400 GHz CF 2.48 GHz 1001 pts 200.0 kHz/ Span 2.0 MHz Date: 23 NOV 2021 11:50:40

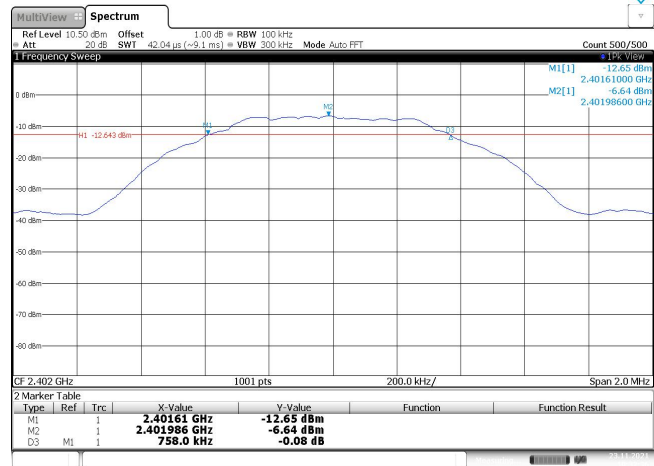
Appendix C: 6dB bandwidth

Type	Channel	6dB Bandwidth(kHz)	Limit (kHz)	Result
1Mbps	00	758.00	≥500	Pass
	19	762.00		
	39	760.00		
2Mbps	00	1395.00	≥500	Pass
	19	1400.00		
	39	1395.00		

Test rate:

1Mbps

CH00



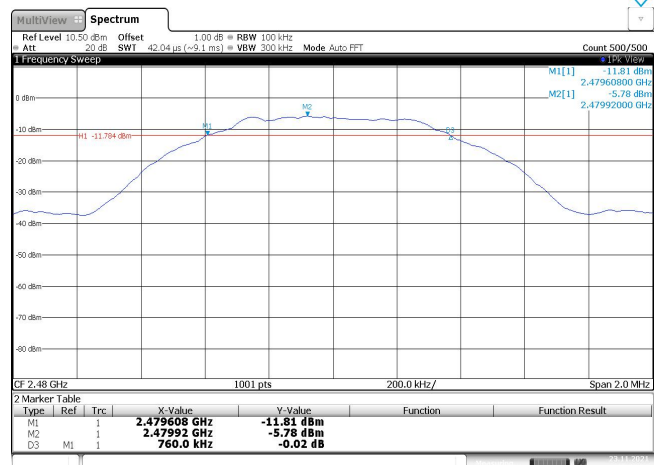
Date: 23 NOV 2021 10:32:35

CH19



Date: 23 NOV 2021 10:35:38

CH39

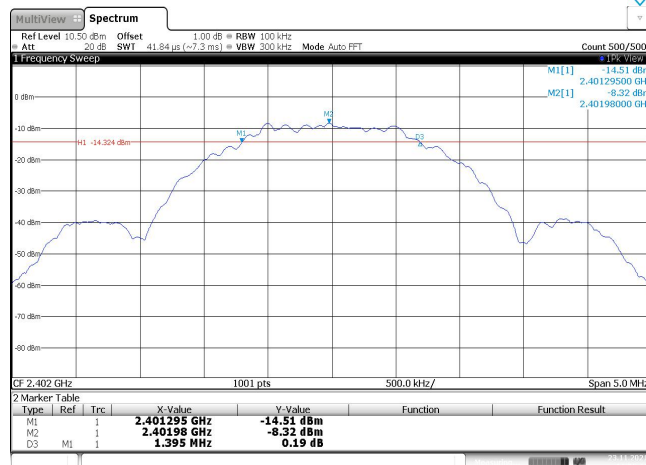


Date: 23 NOV 2021 10:38:26

Test rate:

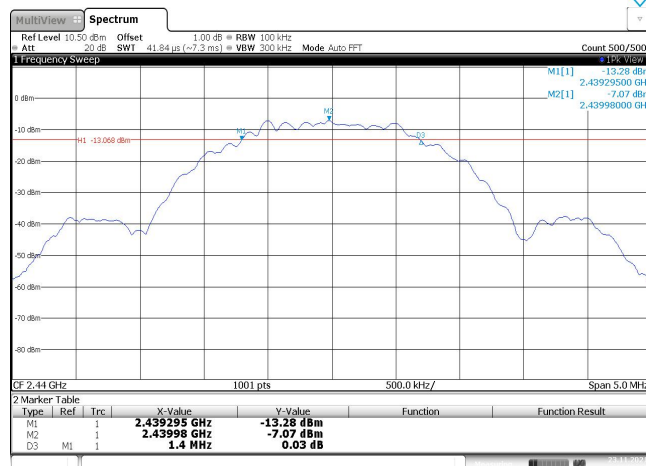
2Mbps

CH00



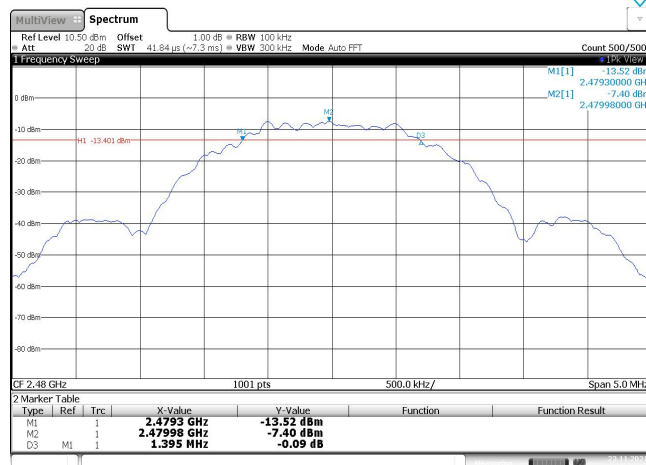
Date: 23 NOV 2021 11:55:43

CH19



Date: 23 NOV 2021 11:52:43

CH39



Date: 23 NOV 2021 10:58:20

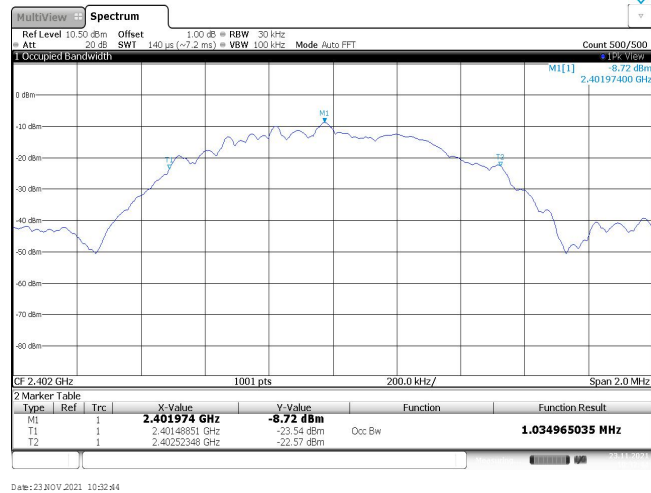
Appendix D: 99% Occupied Bandwidth

Test rate	Channel	99% Occupied Bandwidth(MHz)	Limit (kHz)	Result
1Mbps	00	1.03	-	Pass
	19	1.03		
	39	1.03		
2Mbps	00	2.06	-	Pass
	19	2.06		
	39	2.06		

Test rate:

1Mbps

CH00



CH19



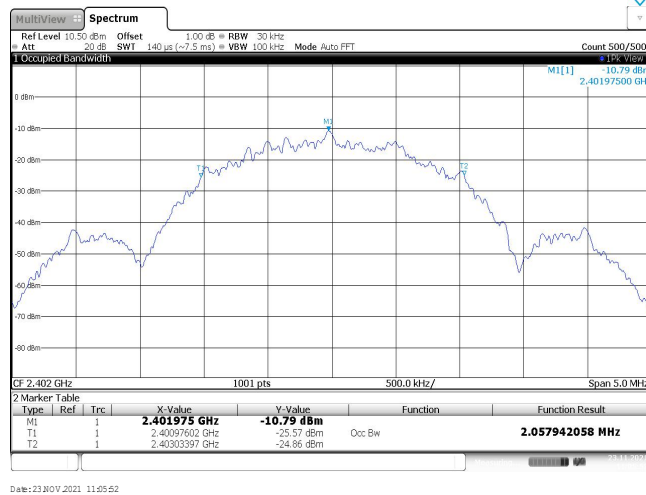
CH39



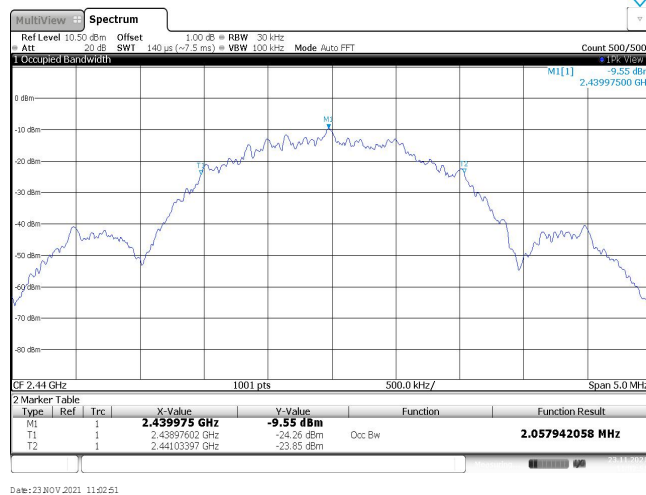
Test rate:

2Mbps

CH00



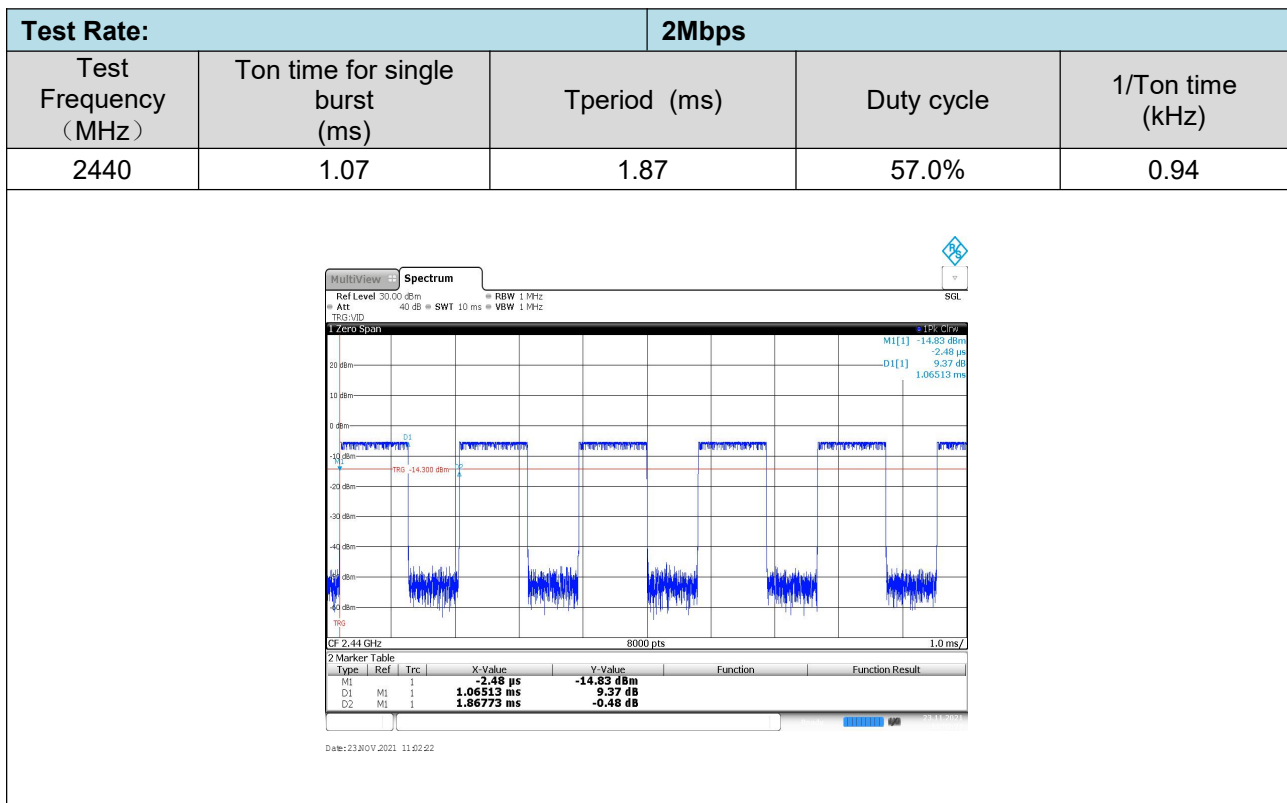
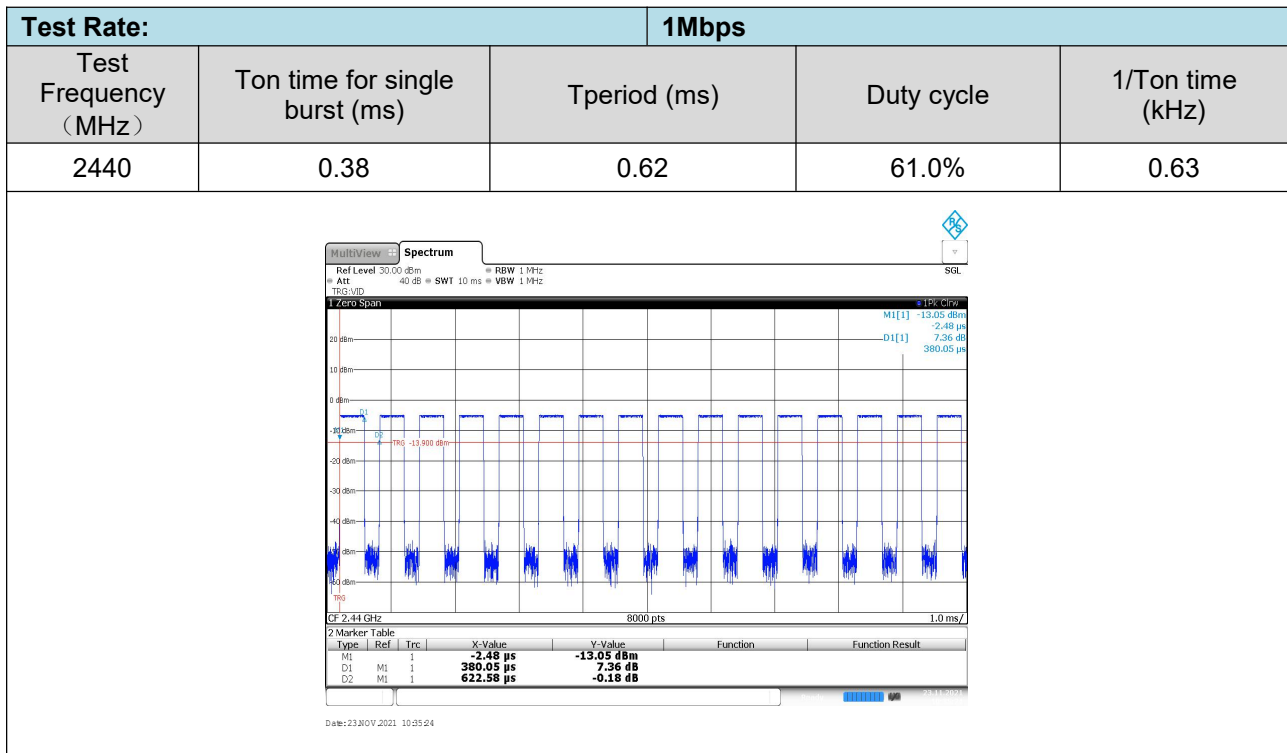
CH19



CH39



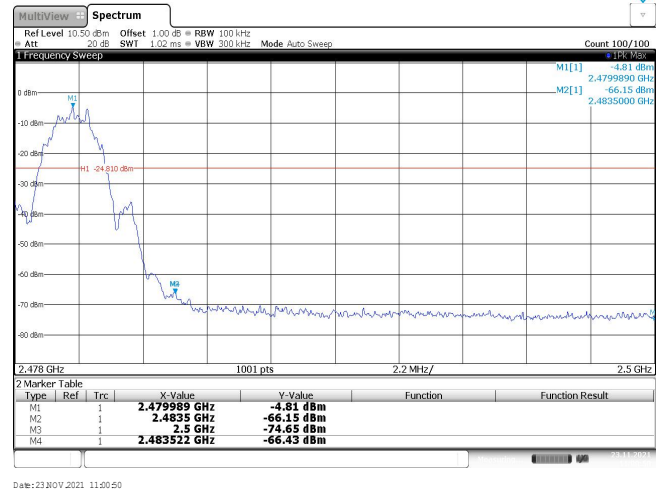
Appendix E: Duty cycle

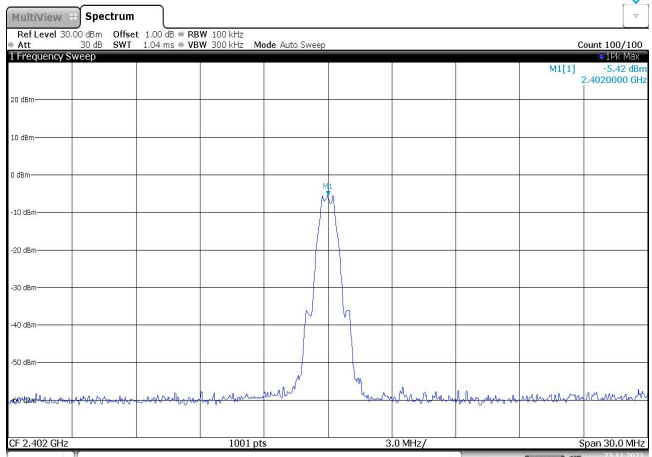
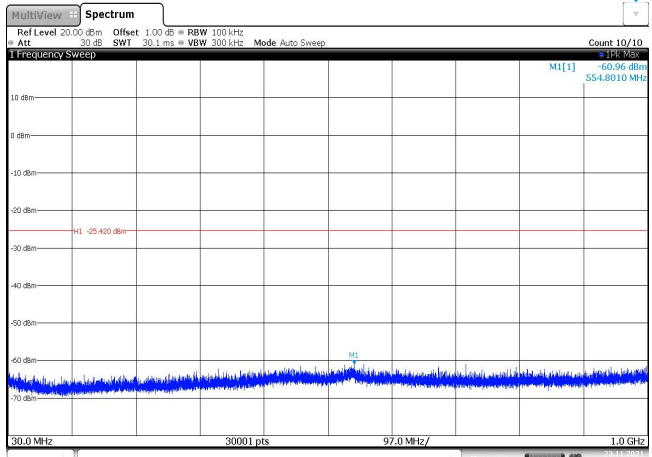
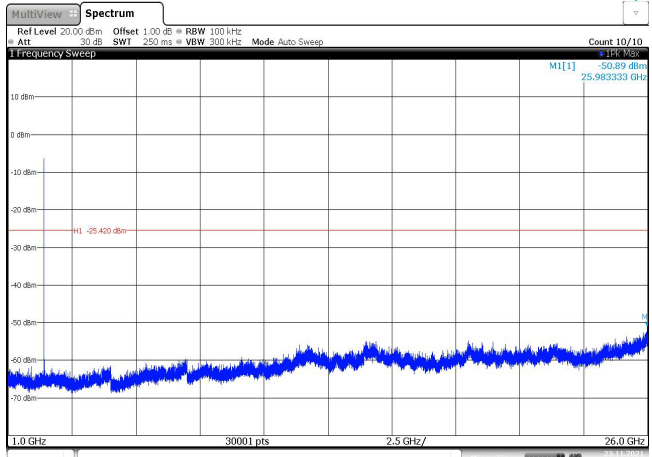


Appendix F: Band edge and Spurious Emissions (conducted)

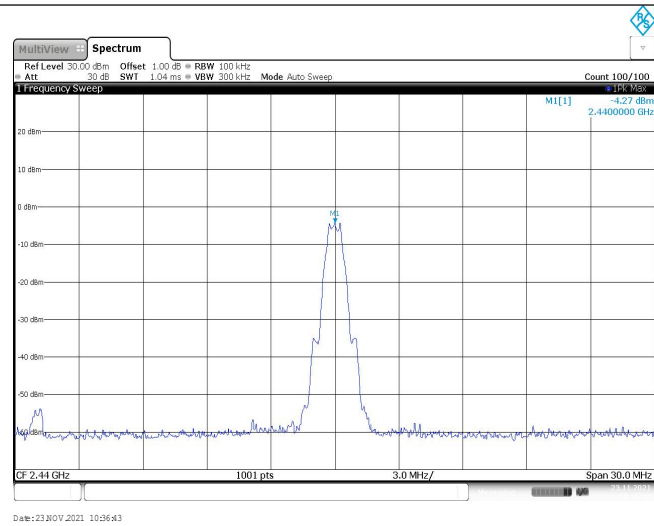
Test Item:	Band edge	Test Rate:	1Mbps
CH00			

CH39

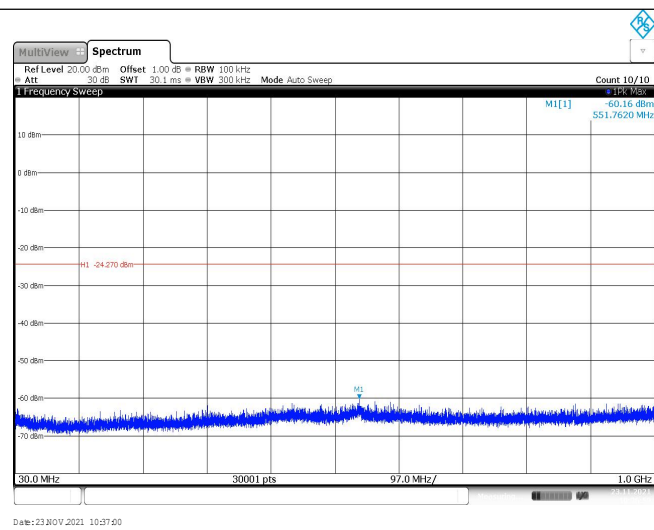


Test Item:	SE	Test Rate:	1Mbps
CH00 Reference level	 Count 100/100 Ref Level 30.00 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SWI 1.04 ms VBW 300 kHz Mode Auto Sweep Frequency Sweep M1[1] -5.42 dBm 2.402000 GHz CF 2.402 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 23 NOV 2021 10:33:56		
CH00 30MHz~1000MHz	 Count 10/10 Ref Level 20.00 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SWI 30.1 ms VBW 300 kHz Mode Auto Sweep Frequency Sweep M1[1] -60.96 dBm 554.8010 MHz M1 -25.420 dBm 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 23 NOV 2021 10:34:13		
CH00 1GHz~26GHz	 Count 10/10 Ref Level 20.00 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SWI 250 ms VBW 300 kHz Mode Auto Sweep Frequency Sweep M1[1] -50.89 dBm 25.983333 GHz M1 -25.420 dBm 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 23 NOV 2021 10:34:29		

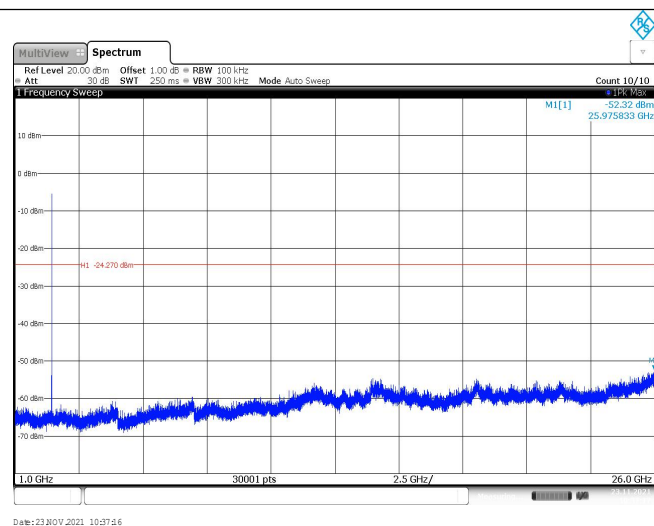
CH19
Reference level

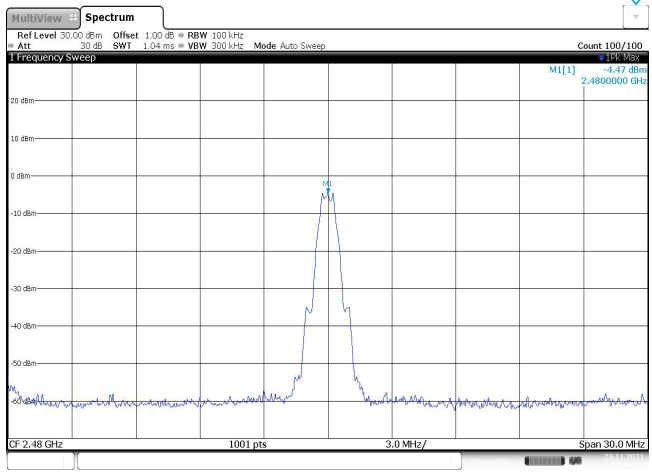
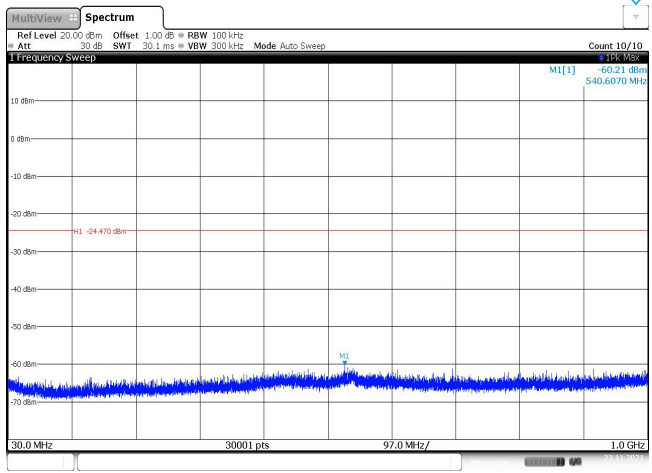
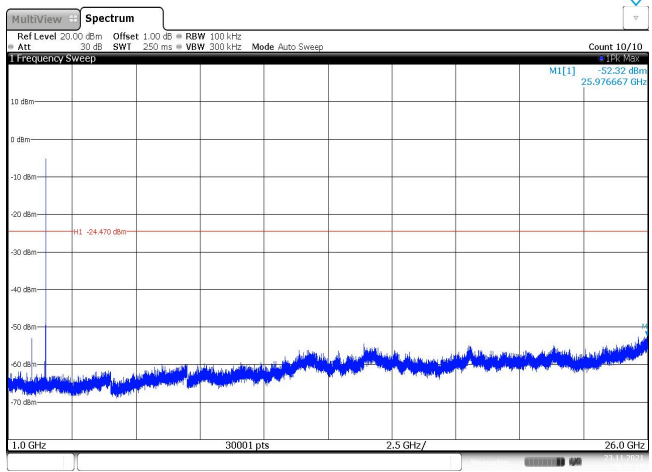


CH19
30MHz~1000MHz



CH19
1GHz~26GHz



CH39 Reference level	 The spectrum plot shows a single sharp peak at 2.480000 GHz. The y-axis represents power in dBm, ranging from -20 to -60. The x-axis represents frequency in MHz, with a span of 30.0 MHz. The plot is titled 'Spectrum' and includes parameters: Ref Level 30.00 dBm, Att 30 dB, Offset 1.00 dB, RBW 100 kHz, SWI 1.04 ms, VBW 300 kHz, Mode Auto Sweep. The peak is labeled M1[1] with a value of -4.47 dBm.
CH39 30MHz~1000MHz	 The spectrum plot shows a noisy baseline across the 30.0 MHz to 1000 MHz range. The y-axis ranges from -20 to -70 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Att 30 dB, Offset 1.00 dB, RBW 100 kHz, SWI 30.1 ms, VBW 300 kHz, Mode Auto Sweep. A red horizontal line is drawn at -24.470 dBm. The plot shows a small peak at 540.6070 MHz labeled M1[1] with a value of -60.21 dBm.
CH39 1GHz~26GHz	 The spectrum plot shows a noisy baseline across the 1.0 GHz to 26.0 GHz range. The y-axis ranges from -20 to -70 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Att 30 dB, Offset 1.00 dB, RBW 100 kHz, SWI 250 ms, VBW 300 kHz, Mode Auto Sweep. A red horizontal line is drawn at -24.470 dBm. The plot shows a small peak at 25.976667 GHz labeled M1[1] with a value of -32.52 dBm.

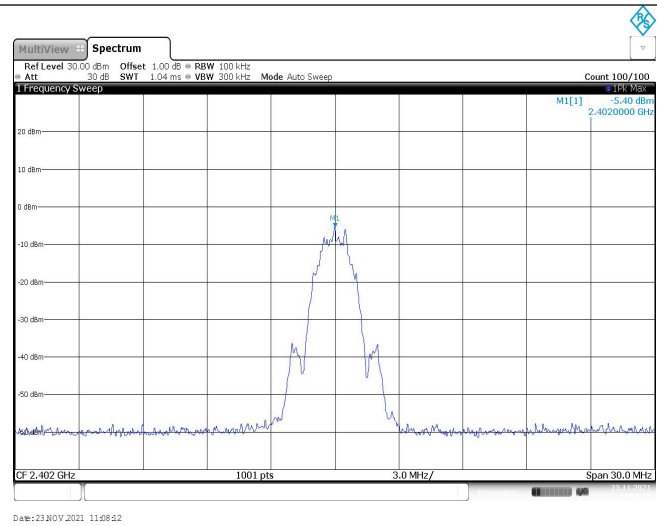
Test Item:

SE

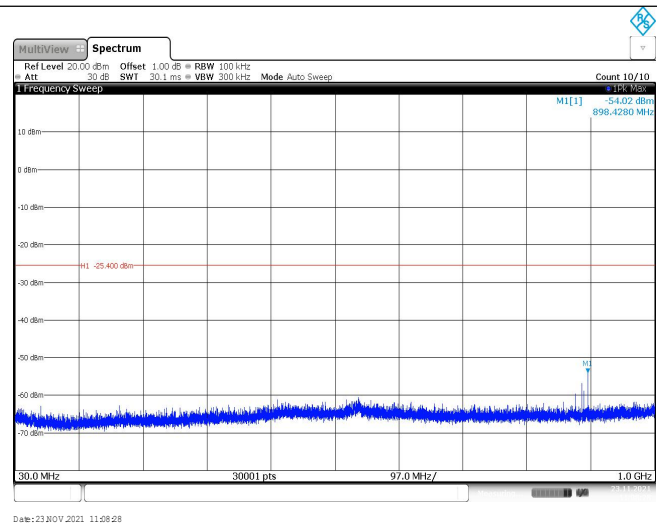
Test Rate:

2Mbps

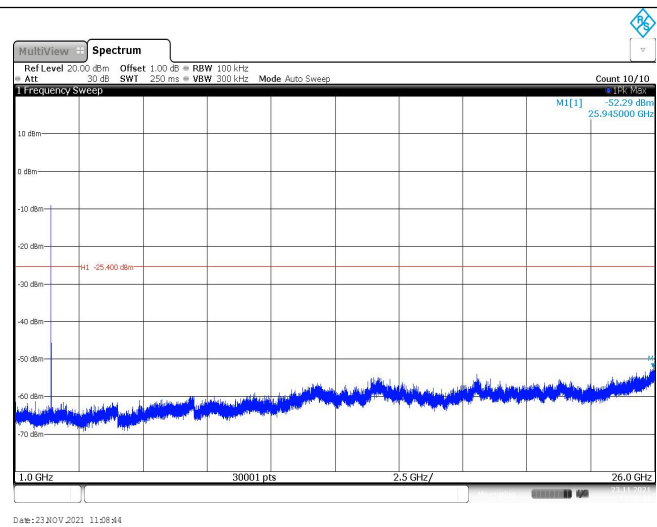
CH00
Reference level



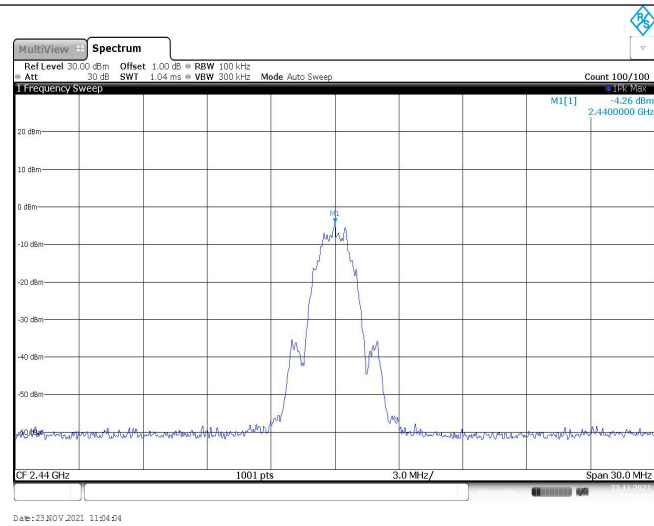
CH00
30MHz~1000MHz



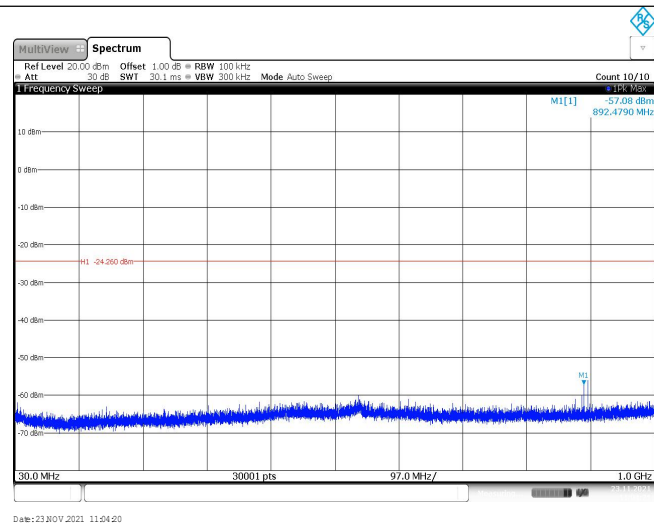
CH00
1GHz~26GHz



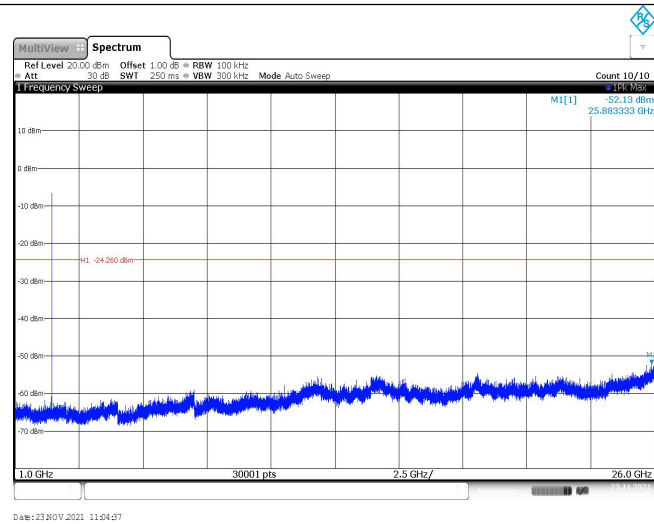
CH19
Reference level



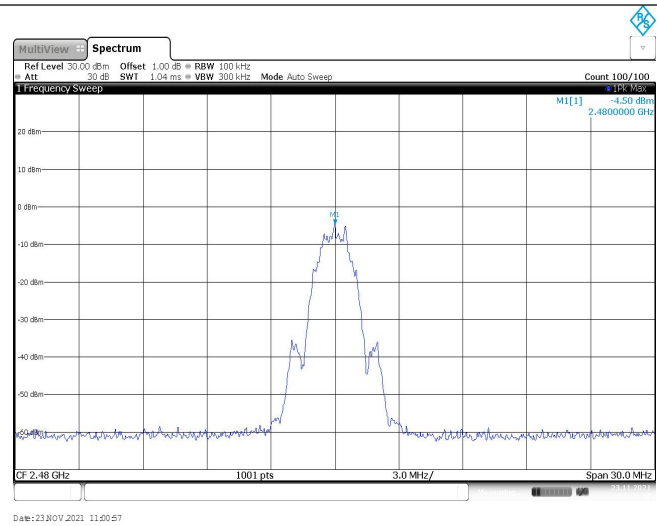
CH19
30MHz~1000MHz



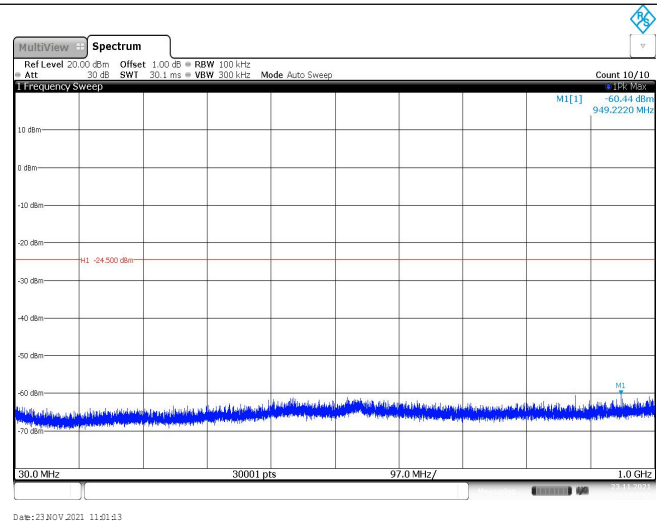
CH19
1GHz~26GHz



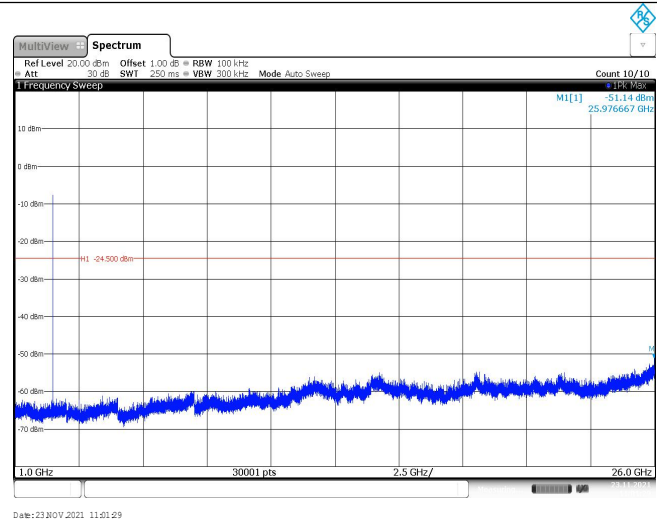
CH39
Reference level



CH39
30MHz~1000MHz



CH39
1GHz~26GHz



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