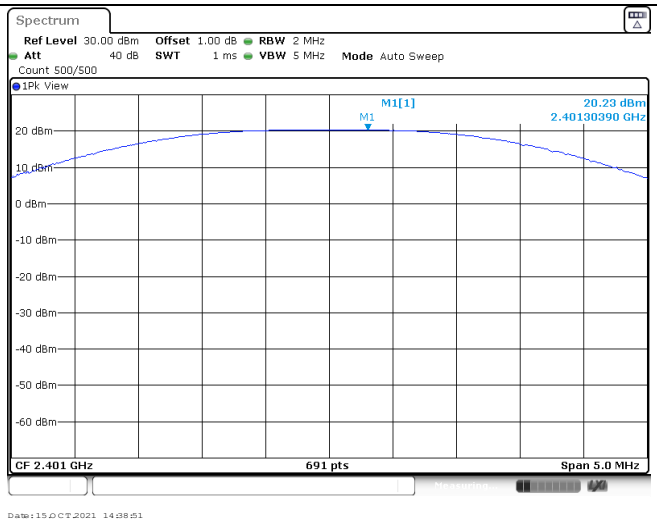
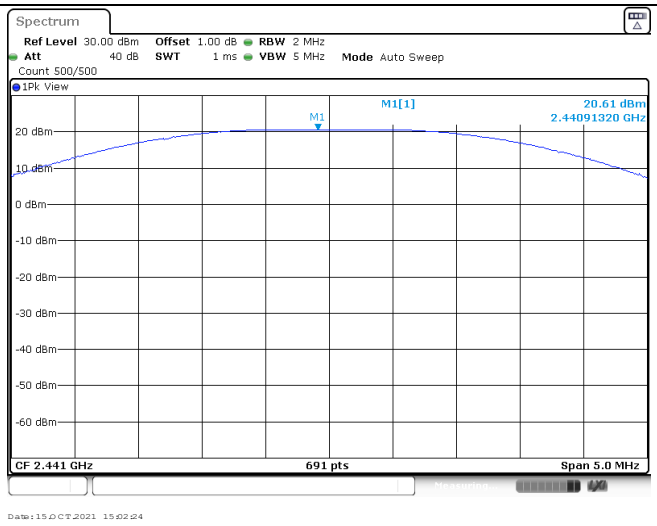
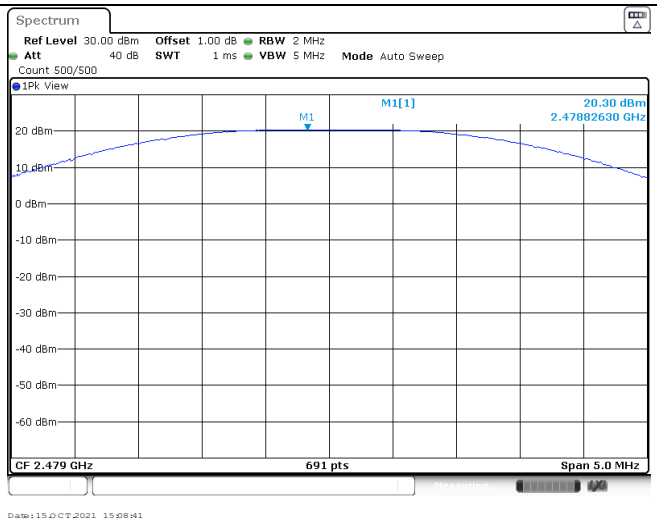
APPENDIX REPORT

Project No.	SHT2108049601EW	Radio Specification	2.4GHz Device
Test sample No.	YPHT21080496004	Model No.	GWC-EDGE-LR/2G4
Start test date	2021-10-15	Finish date	2021-10-15
Temperature	25.4℃	Humidity	36%
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

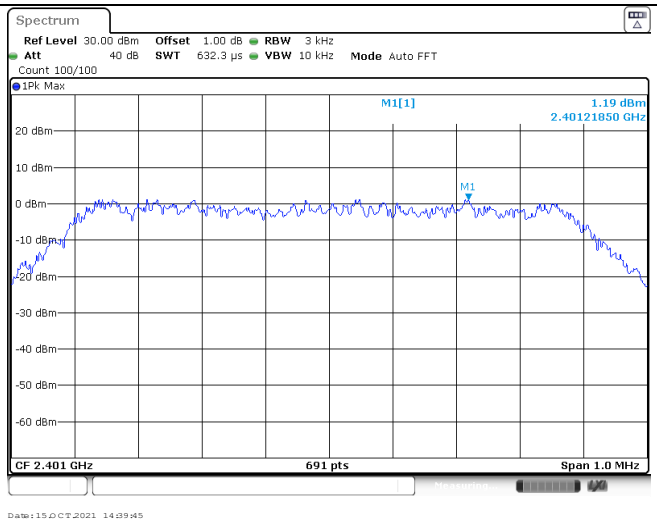
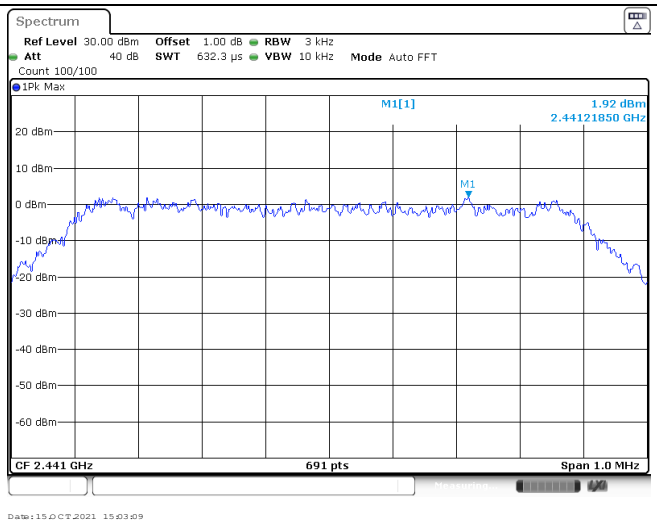
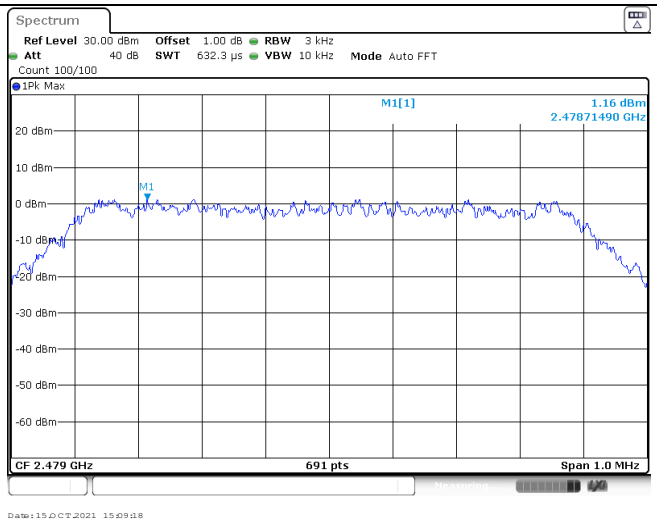
Appendix A：Peak Output Power

Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
CH_L	20.23	20.18	≤ 30.00	Pass
CH_M	20.61	20.54		
CH_H	20.30	20.25		

CH_L	 Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 2 MHz Att 40 dB SWT 1 ms VBW 5 MHz Mode Auto Sweep Count 500/500 1Pk View M1[1] 20.23 dBm 2.40130390 GHz M1 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm CF 2.401 GHz 691 pts Span 5.0 MHz Date:15.OCT.2021 14:38:51
CH_M	 Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 2 MHz Att 40 dB SWT 1 ms VBW 5 MHz Mode Auto Sweep Count 500/500 1Pk View M1[1] 20.61 dBm 2.44091320 GHz M1 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm CF 2.441 GHz 691 pts Span 5.0 MHz Date:15.OCT.2021 15:02:24
CH_H	 Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 2 MHz Att 40 dB SWT 1 ms VBW 5 MHz Mode Auto Sweep Count 500/500 1Pk View M1[1] 20.30 dBm 2.47882630 GHz M1 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm CF 2.479 GHz 691 pts Span 5.0 MHz Date:15.OCT.2021 15:08:41

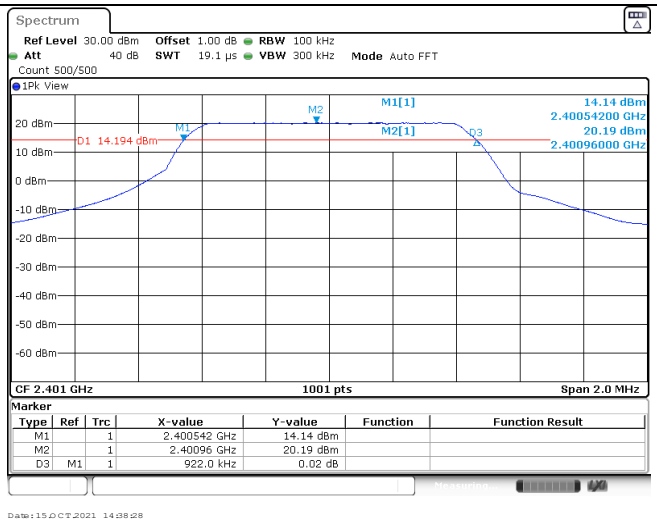
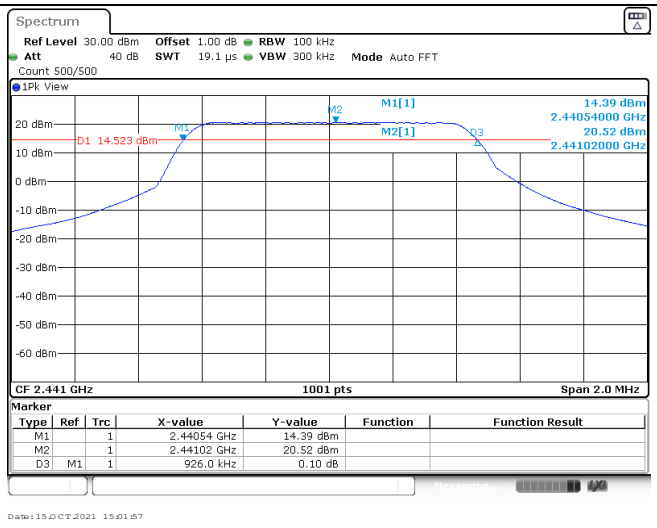
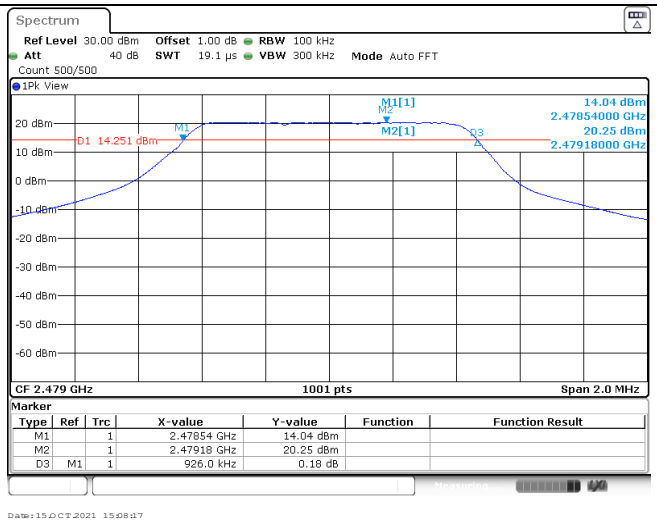
Appendix B：Power Spectral Density

Channel	Power Spectral Density(dBm/3KHz)	Limit (dBm/3KHz)	Result
CH_L	1.19	≤8.00	Pass
CH_M	1.92		
CH_H	1.16		

CH_L	 Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 3 kHz Att 40 dB SWT 632.3 µs VBW 10 kHz Mode Auto FFT Count 100/100 1Pk Max M1[1] 1.19 dBm 2.40121850 GHz M1 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm CF 2.401 GHz 691 pts Span 1.0 MHz Date:15.OCT.2021 14:39:45
CH_M	 Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 3 kHz Att 40 dB SWT 632.3 µs VBW 10 kHz Mode Auto FFT Count 100/100 1Pk Max M1[1] 1.92 dBm 2.44121850 GHz M1 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm CF 2.441 GHz 691 pts Span 1.0 MHz Date:15.OCT.2021 15:03:09
CH_H	 Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 3 kHz Att 40 dB SWT 632.3 µs VBW 10 kHz Mode Auto FFT Count 100/100 1Pk Max M1[1] 1.16 dBm 2.47871490 GHz M1 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm CF 2.479 GHz 691 pts Span 1.0 MHz Date:15.OCT.2021 15:09:18

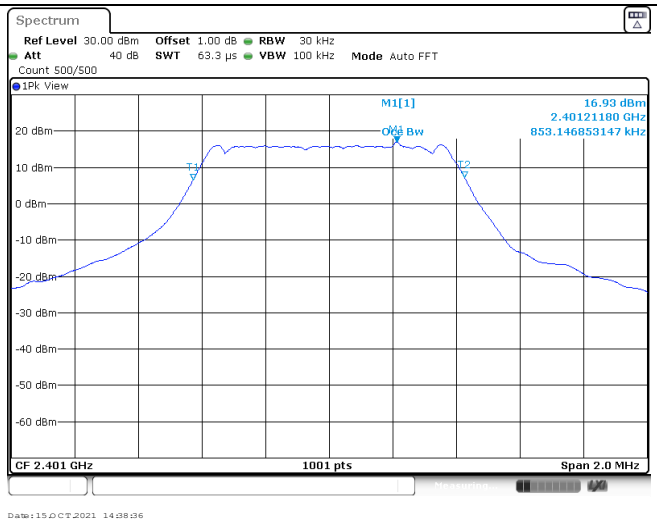
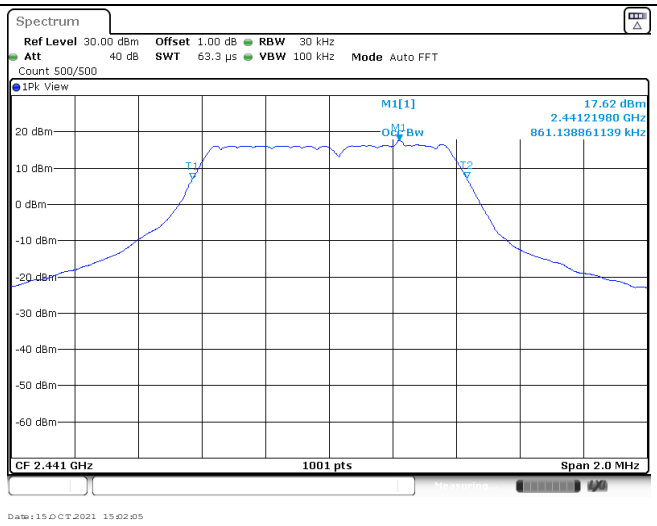
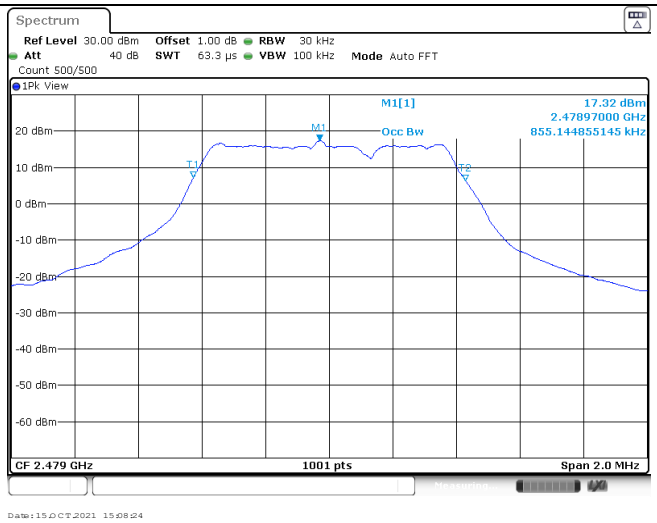
Appendix C：6dB bandwidth

Channel	6dB Bandwidth(kHz)	Limit (kHz)	Result
CH_L	922.00	≥500	Pass
CH_M	926.00		
CH_H	926.00		

CH_L	 Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att 40 dB SWT 19.1 µs VBW 300 kHz Mode Auto FFT Count 500/500 1Pk View M1[1] 14.14 dBm 2.40054200 GHz M2[1] 20.19 dBm 2.40096000 GHz D1 14.194 dBm CF 2.401 GHz 1001 pts Span 2.0 MHz Marker Type Ref Trc X-value Y-value Function Function Result M1 1 2.400542 GHz 14.14 dBm M2 1 2.40096 GHz 20.19 dBm D3 M1 1 922.0 kHz 0.02 dB
CH_M	 Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att 40 dB SWT 19.1 µs VBW 300 kHz Mode Auto FFT Count 500/500 1Pk View M1[1] 14.39 dBm 2.44054000 GHz M2[1] 20.52 dBm 2.44102000 GHz D1 14.523 dBm CF 2.441 GHz 1001 pts Span 2.0 MHz Marker Type Ref Trc X-value Y-value Function Function Result M1 1 2.44054 GHz 14.39 dBm M2 1 2.44102 GHz 20.52 dBm D3 M1 1 926.0 kHz 0.10 dB
CH_H	 Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att 40 dB SWT 19.1 µs VBW 300 kHz Mode Auto FFT Count 500/500 1Pk View M1[1] 14.04 dBm 2.47854000 GHz M2[1] 20.25 dBm 2.47918000 GHz D1 14.251 dBm CF 2.479 GHz 1001 pts Span 2.0 MHz Marker Type Ref Trc X-value Y-value Function Function Result M1 1 2.47854 GHz 14.04 dBm M2 1 2.47918 GHz 20.25 dBm D3 M1 1 926.0 kHz 0.18 dB

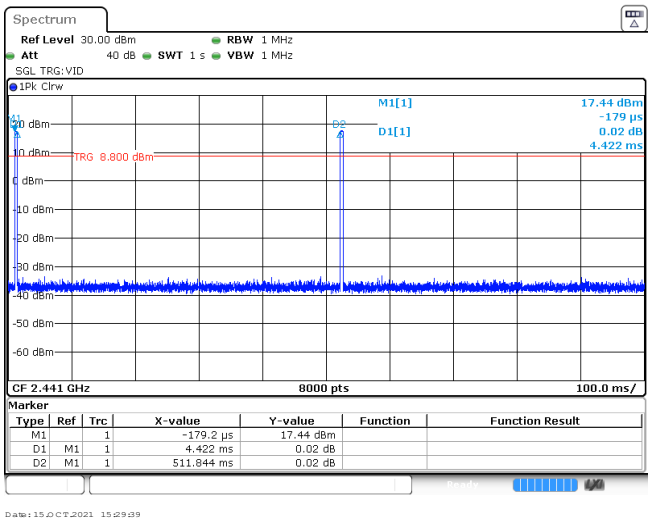
Appendix D：99% Occupied Bandwidth

Channel	99% Occupied Bandwidth(MHz)	Limit (kHz)	Result
CH_L	0.85	-	Pass
CH_M	0.86		
CH_H	0.86		

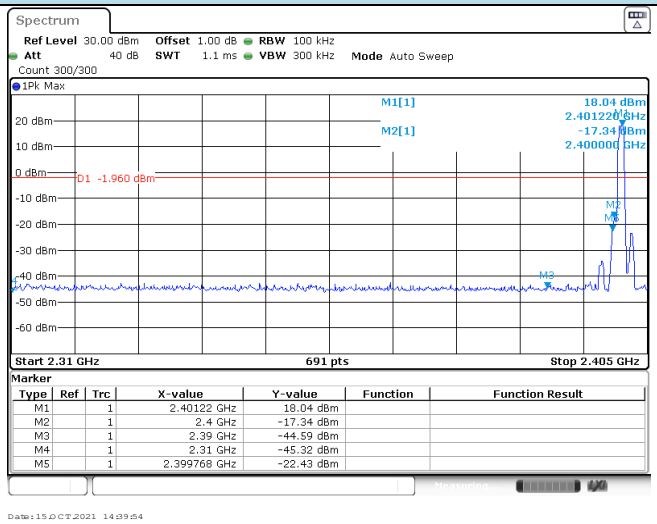
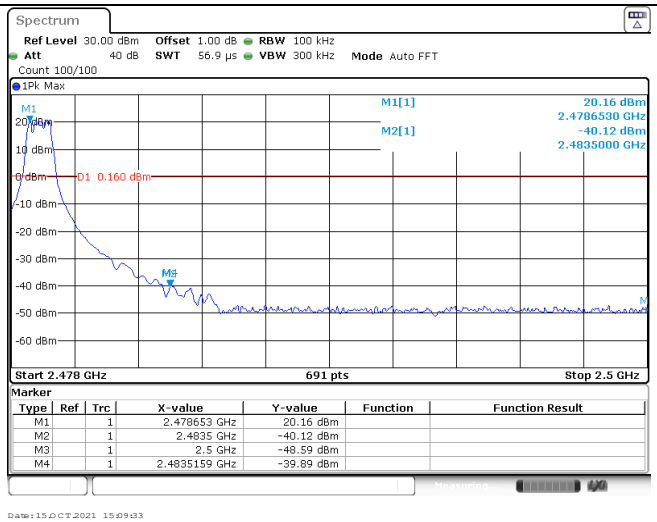
CH_L	 Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 30 kHz Att 40 dB SWT 63.3 µs VBW 100 kHz Mode Auto FFT Count 500/500 1Pk View M1[1] 16.93 dBm 2.40121180 GHz Occ Bw 853.146853147 kHz 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm CF 2.401 GHz 1001 pts Span 2.0 MHz Date:15.OCT.2021 14:38:36
CH_M	 Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 30 kHz Att 40 dB SWT 63.3 µs VBW 100 kHz Mode Auto FFT Count 500/500 1Pk View M1[1] 17.62 dBm 2.44121980 GHz Occ Bw 861.138861139 kHz 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm CF 2.441 GHz 1001 pts Span 2.0 MHz Date:15.OCT.2021 15:02:05
CH_H	 Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 30 kHz Att 40 dB SWT 63.3 µs VBW 100 kHz Mode Auto FFT Count 500/500 1Pk View M1[1] 17.32 dBm 2.47897000 GHz Occ Bw 855.144855145 kHz 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm CF 2.479 GHz 1001 pts Span 2.0 MHz Date:15.OCT.2021 15:08:24

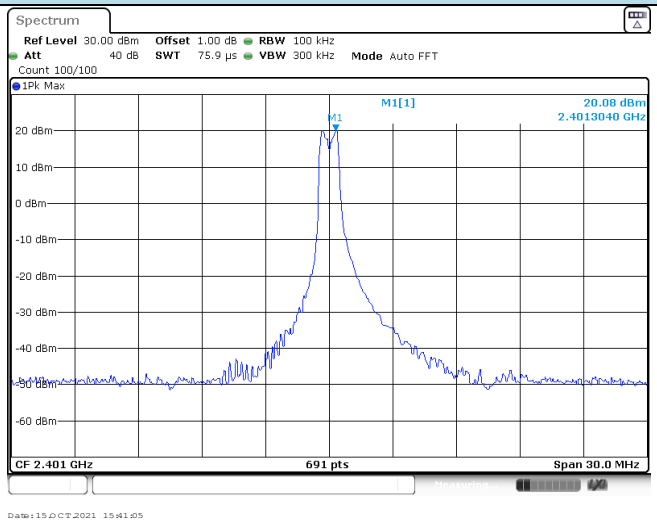
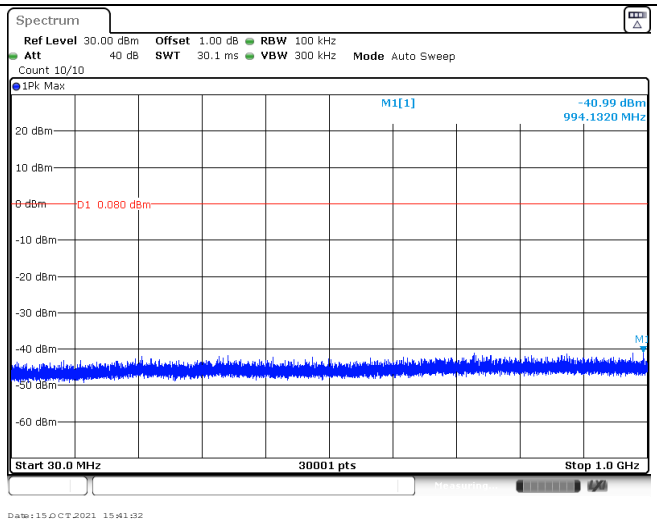
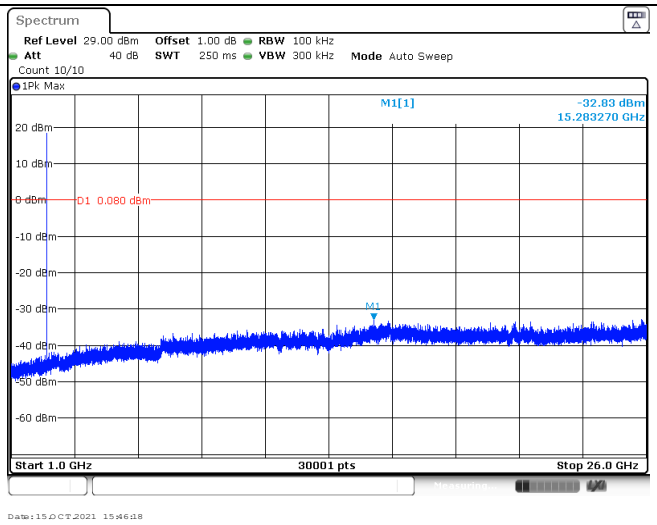
Appendix E：Duty cycle

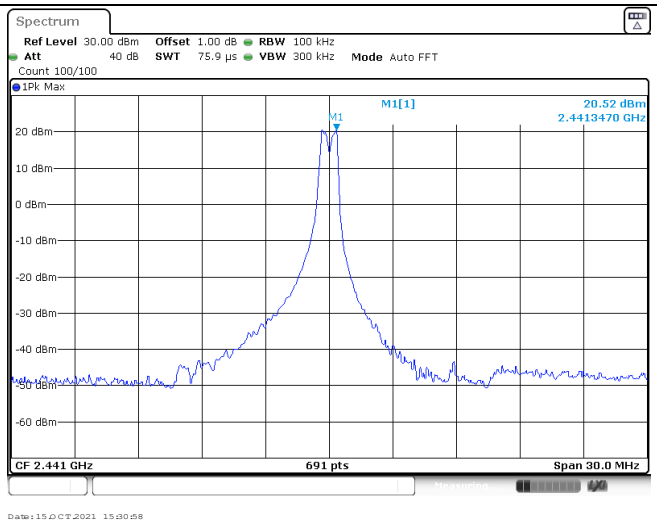
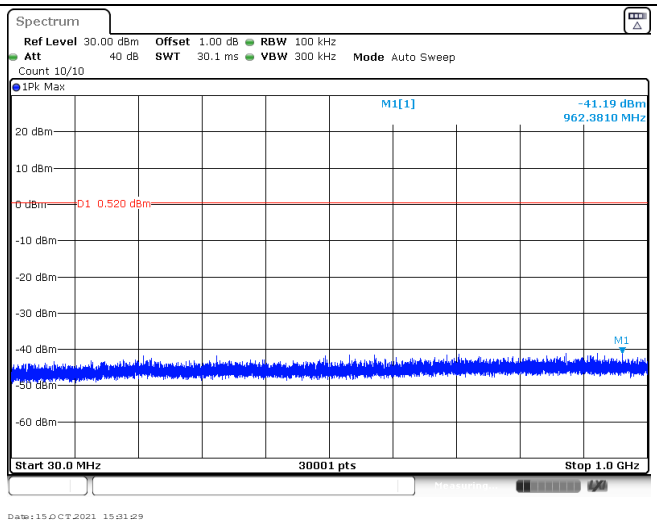
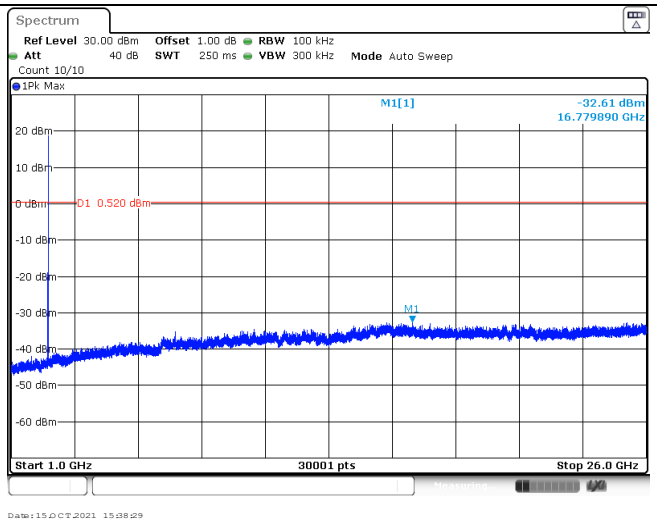
Test Frequency （MHz）	$T_{on\ time}$ for single burst (ms)	T_{period} (ms)	Duty cycle	$1/T_{on\ time}$ (kHz)
2441	4.42	511.84	0.9%	0.2

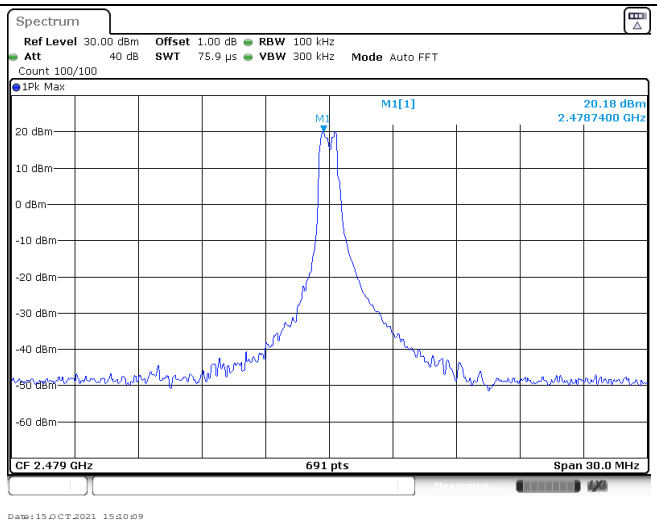
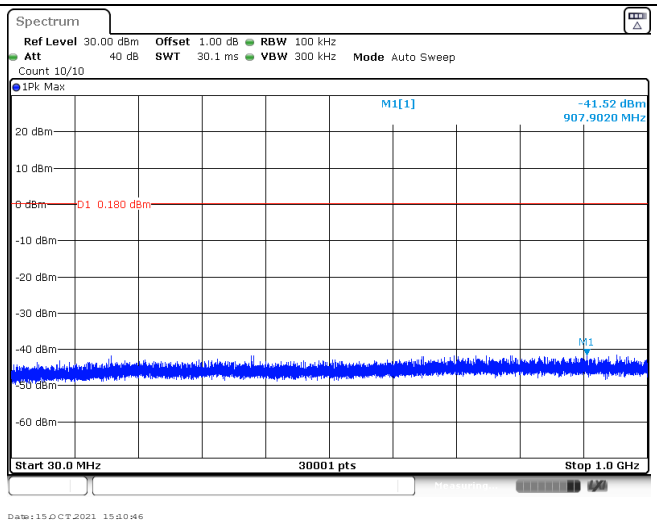
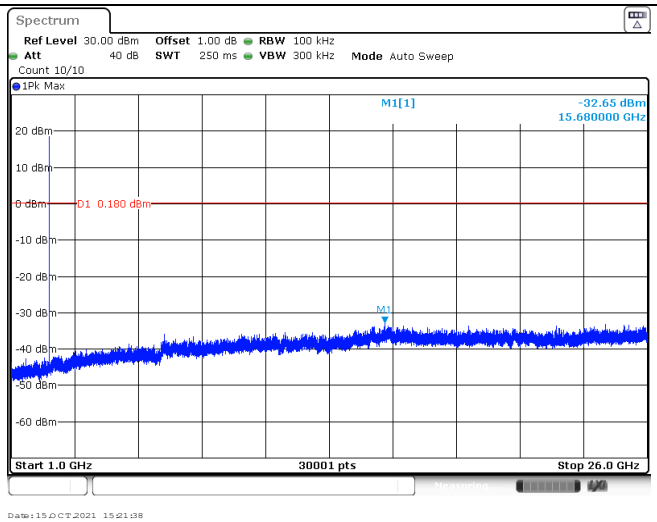


Appendix F：Band edge and Spurious Emissions (conducted)

Test Item:	Band edge
CH_L	
CH_H	

Test Item:	SE
CH_L Reference level	
CH_L 30MHz~1000MHz	
CH_L 1GHz~26GHz	

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

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

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