

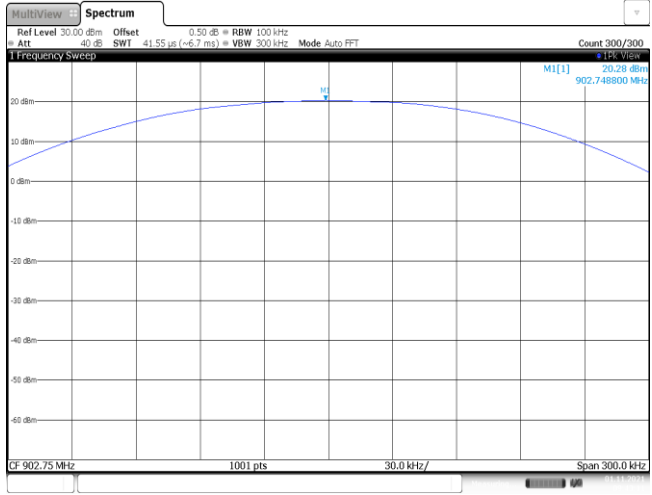
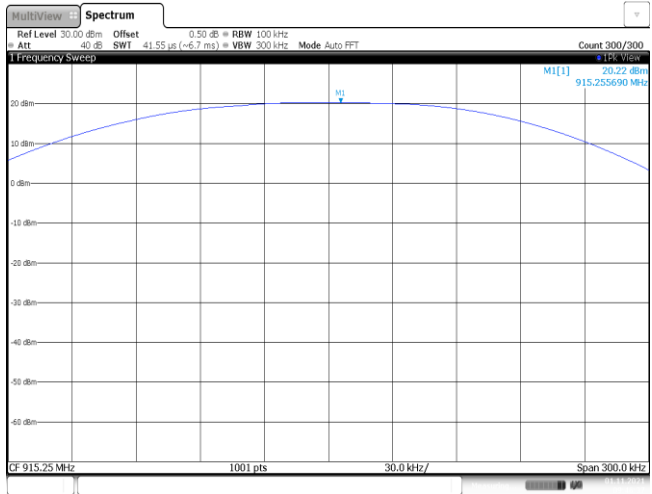
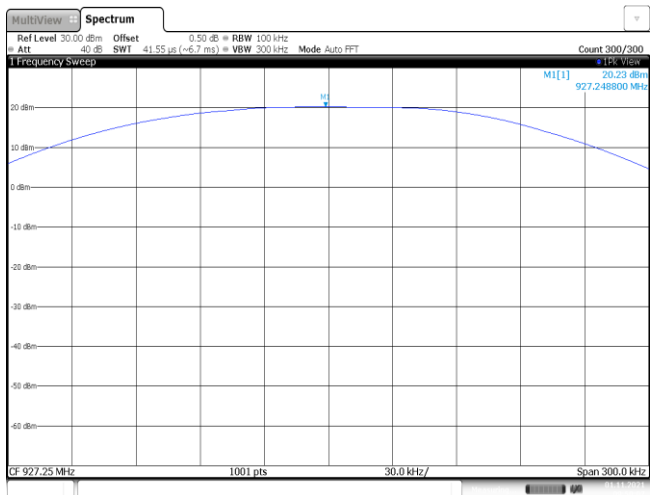
APPENDIX REPORT

Project No.	SHT2106117007EW		
Test sample No.	YPHT21061170008	Model No.	C6100
Start test date	2021-11-01	Finish date	2021-11-01
Temperature	24.9℃	Humidity	38%
Test Engineer	Hailey Chen	Auditor	Xiaodong Zhuo

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

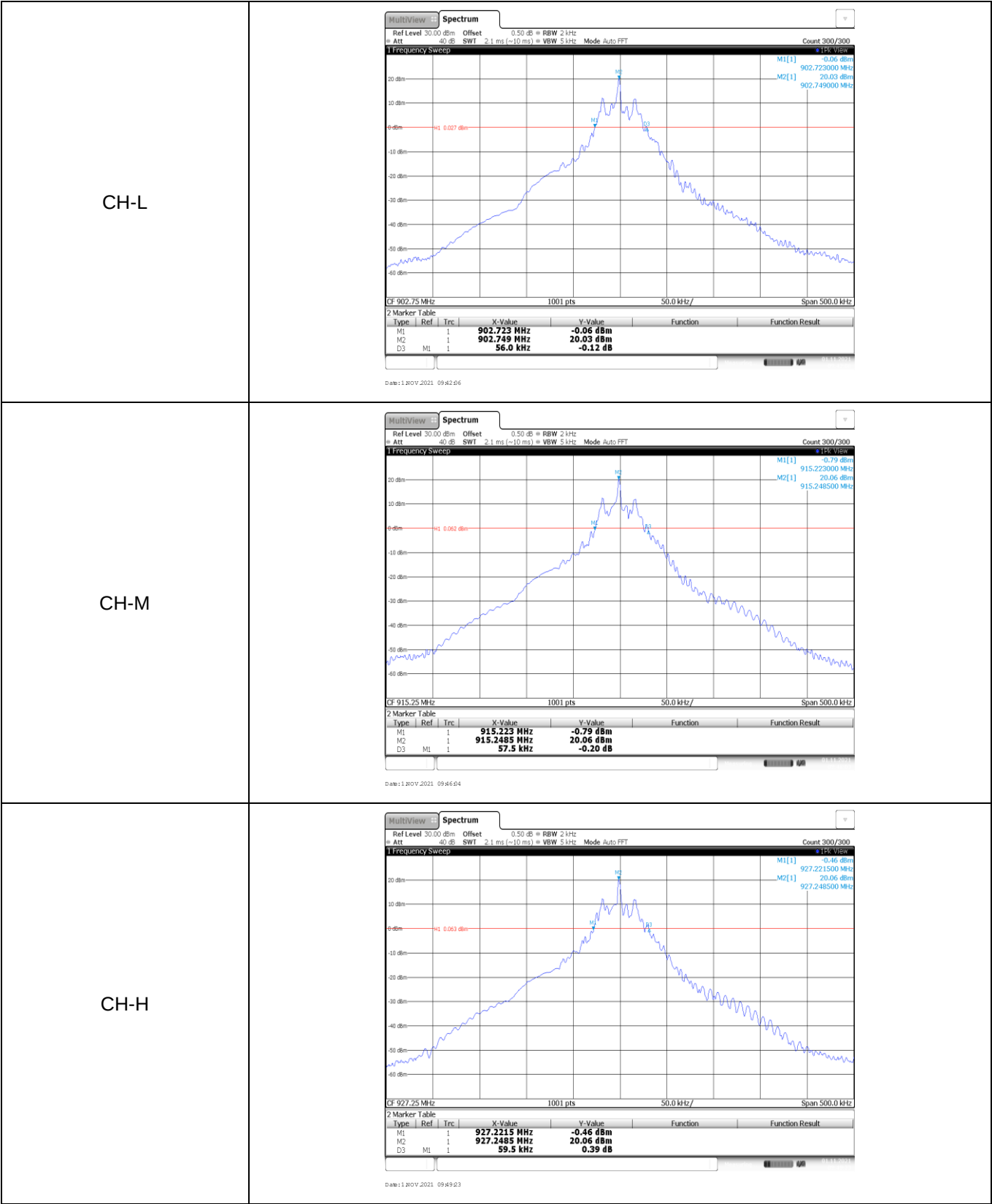
Appendix A: Peak Output Power

Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
CH-L	20.28	20.25	≤ 30.00	Pass
CH-M	20.22	20.13		
CH-H	20.23	20.22		

CH-L	 Date: 1 NOV 2021 09:43:11
CH-M	 Date: 1 NOV 2021 09:46:07
CH-H	 Date: 1 NOV 2021 09:50:07

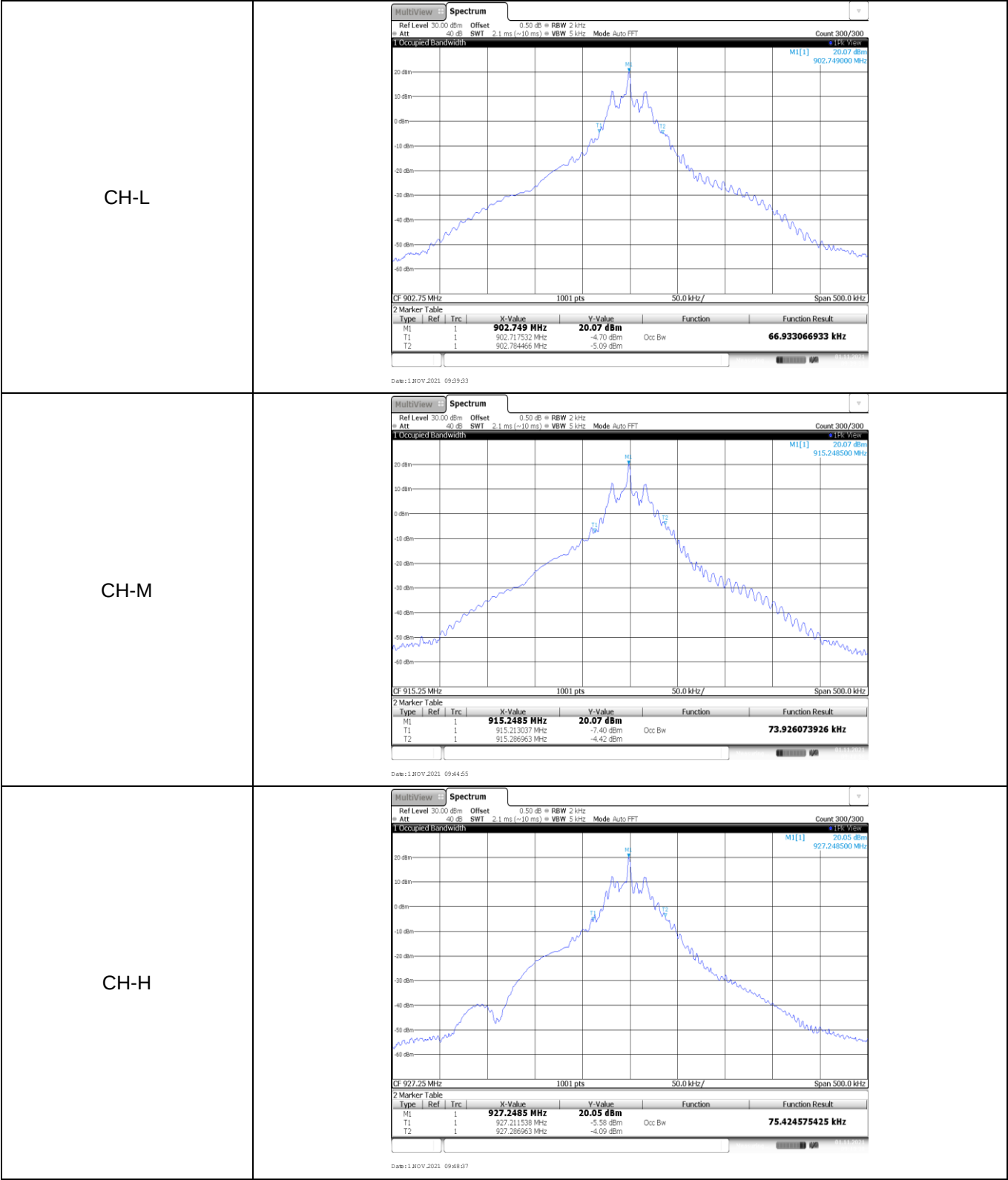
Appendix B : 20 dB Bandwidth

Channel	20 dB Bandwidth (kHz)	Limit (kHz)	Result
CH-L	56.00	≤500	Pass
CH-M	57.50		
CH-H	59.50		



Appendix C: 99% Occupied Bandwidth

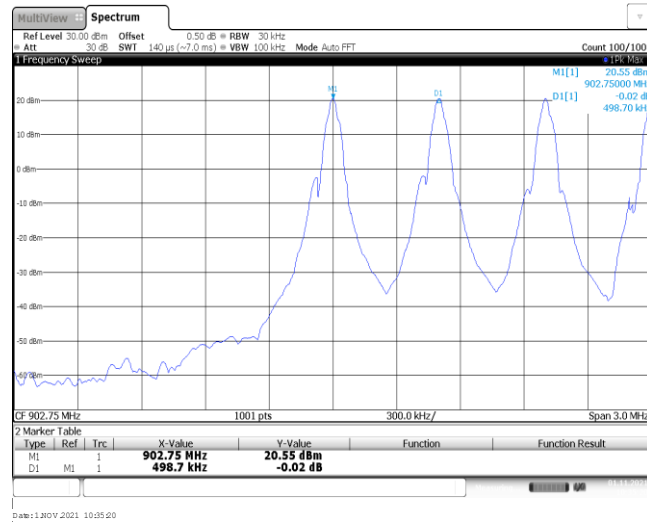
Channel	99% Occupied Bandwidth (MHz)	Limit (MHz)	Result
CH-L	0.07	-	Pass
CH-M	0.07		
CH-H	0.08		



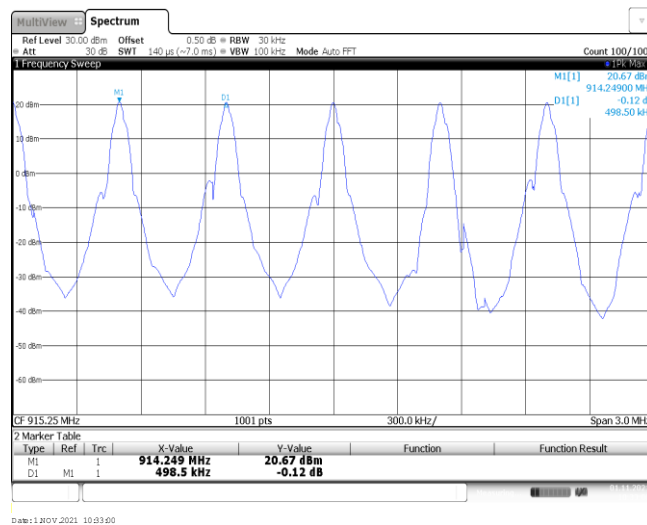
Appendix D: Carrier Frequencies Separation

Channel	Carrier Frequencies Separation (kHz)	Limit (kHz) *	Result
CH-L	498.7	≥56.0	Pass
CH-M	498.5	≥57.5	Pass
CH-H	498.9	≥59.5	Pass

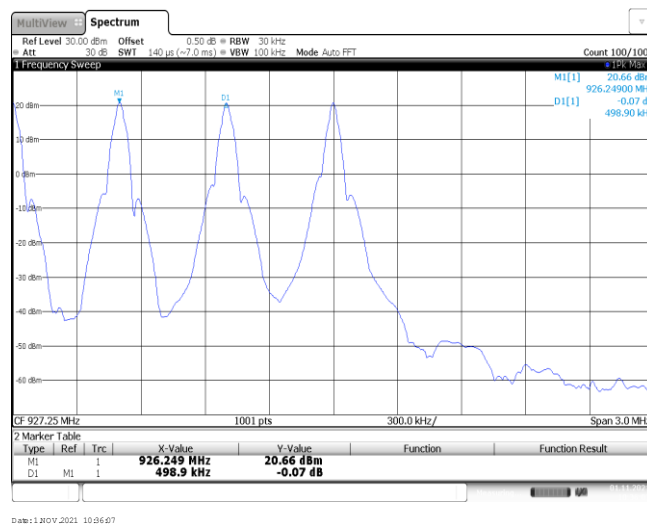
CH-L



CH-M



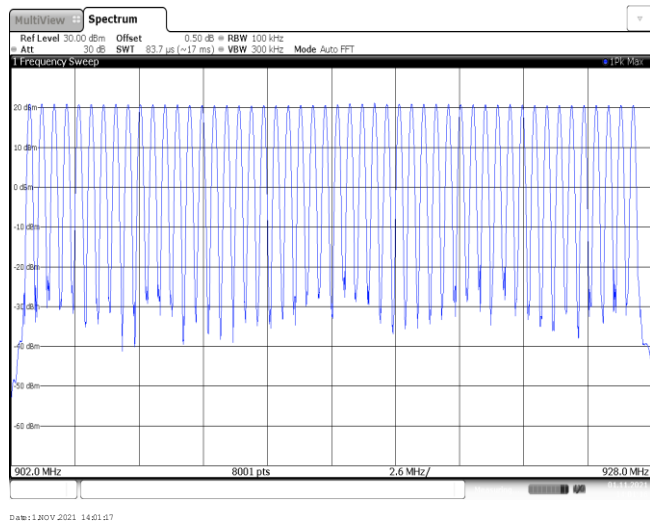
CH-H



Appendix E: Hopping Channel Number

Test Item	Channel number	Limit	Result
Hopping Channel Number	50	≥50	Pass

Hopping Channel number



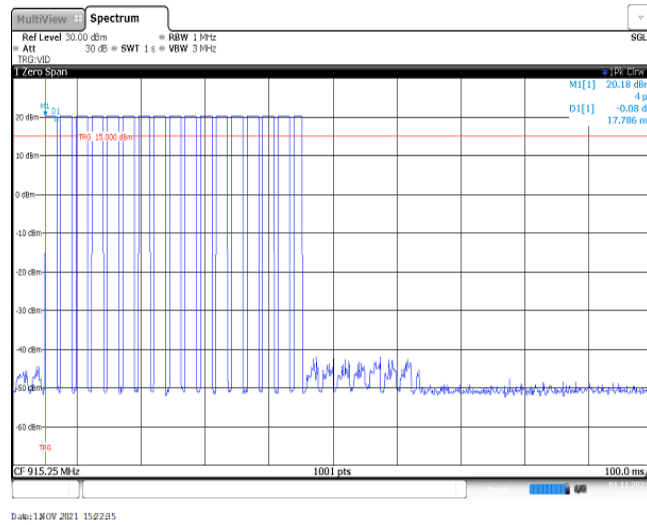
Appendix F: Dwell Time

Packet	Burst Width [ms]	Total Hops[hop*ch]	Dwell time (ms)
CH-M-1	17.786	17	302.362
CH-M-2	17.786	7	130.542
	6.040	1	

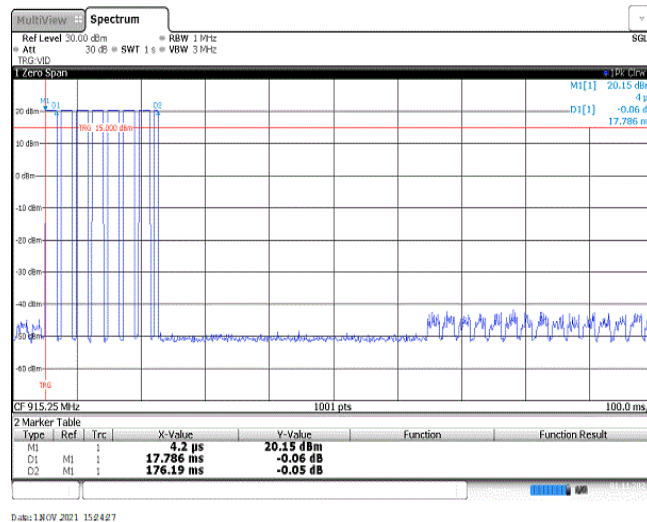
Note: The burst signal of CH-M-1 and CH-M-2 does not transmit on the same time.

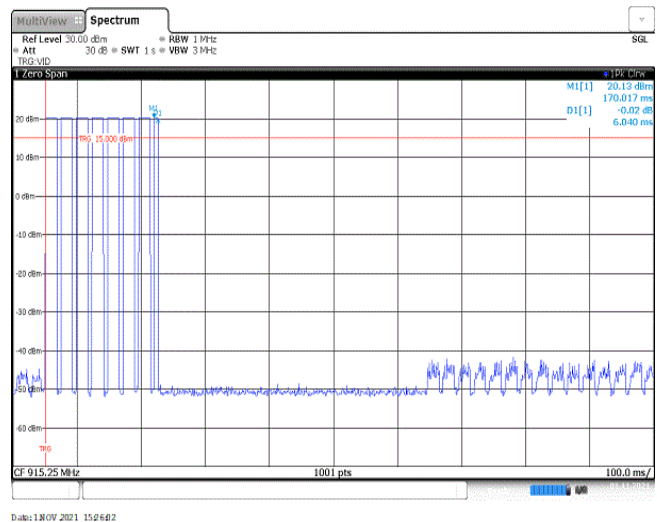
Packet	Dwell time (ms)	Limit (Second)	Result
CH-M-total	$302.362 \times 1 = 302.362$	≤ 0.40	Pass

CH-M-1
Burst width

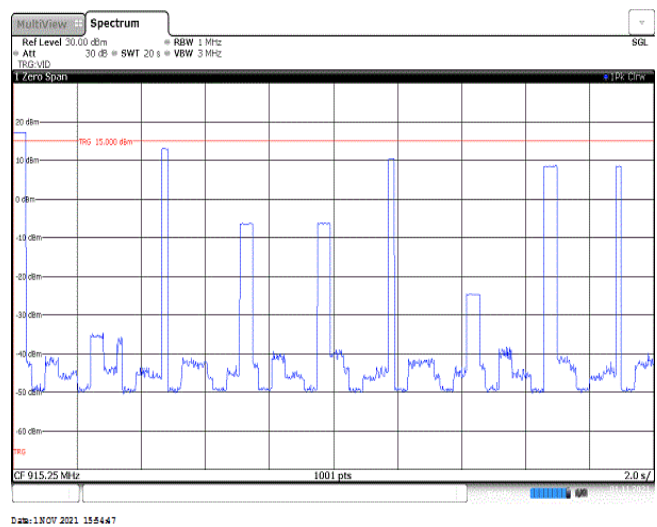


CH-M-2
Burst width





CH-M-total
Burst number



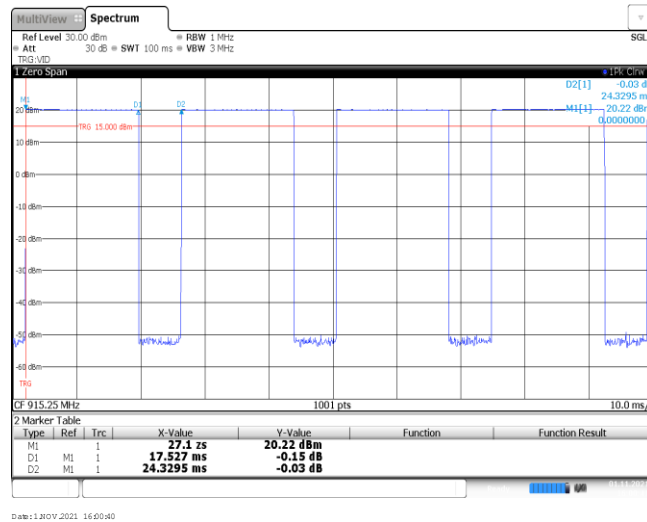
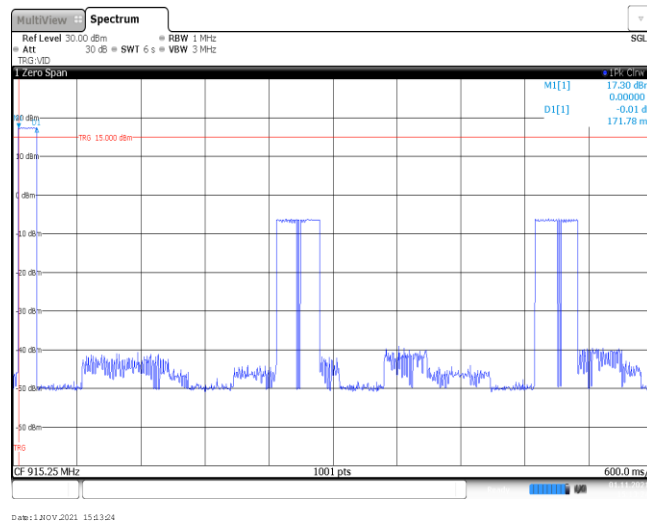
Appendix G: Duty Cycle Correction Factor (DCCF)

DCCF Calculate Formula

$$\text{DCCF} = 20 * \text{Log}(\text{duty cycle}) = 20 * \text{Log}(T_{\text{on time}} / T_{\text{period}})$$

Test Frequency (MHz)	$T_{\text{on time}}$ for single burst [ms]	T_{period} [ms]	Burst Quantity	DCCF [dB]
915.25	17.527	100	5	-1.15

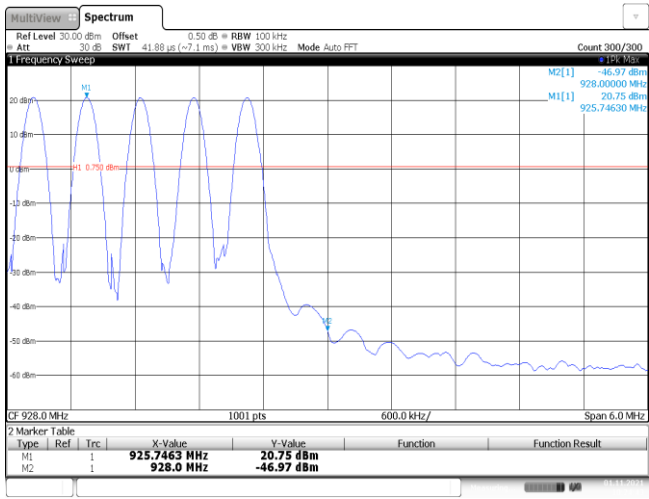
Burst Quantity

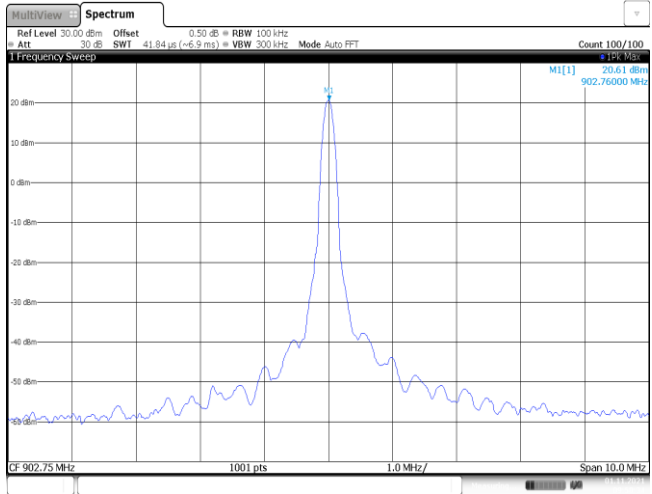
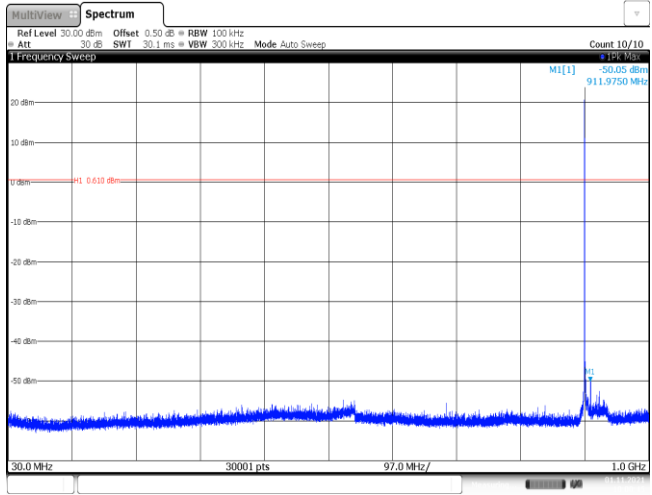
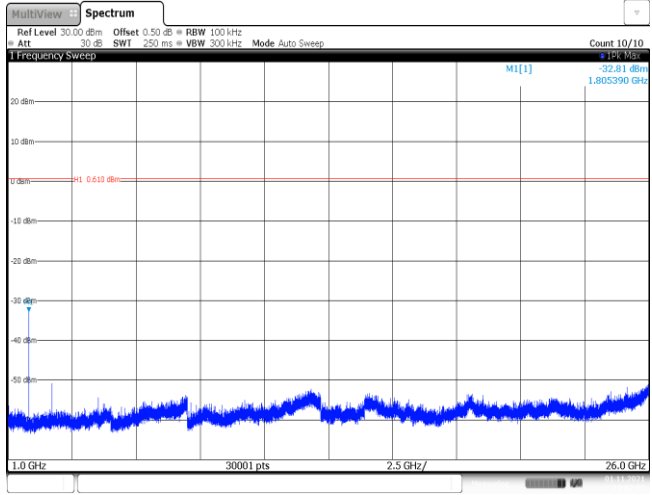
 $T_{\text{on time}}$ for single burst

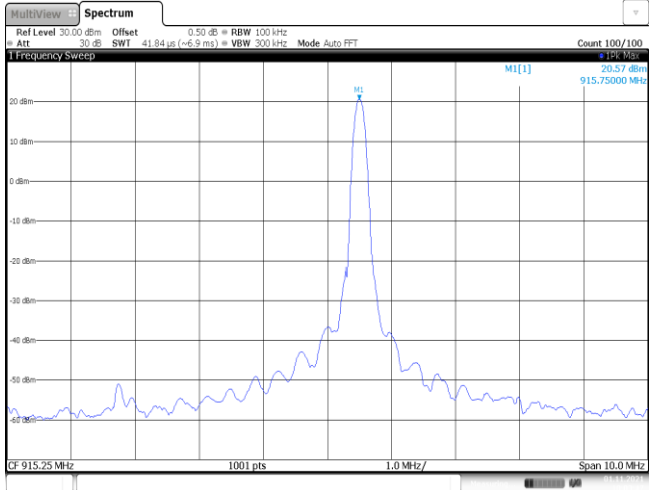
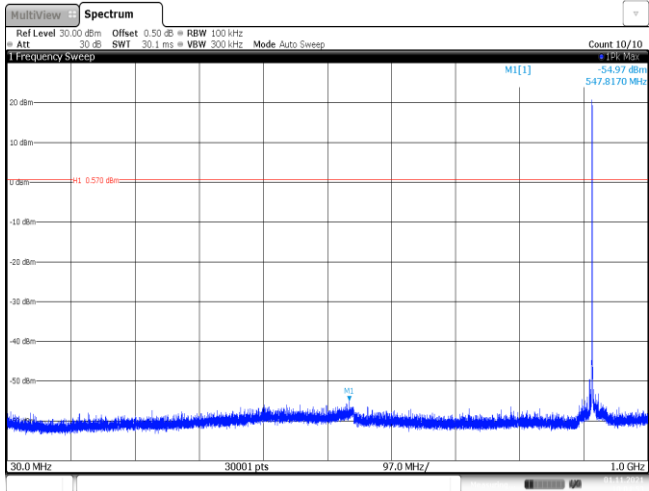
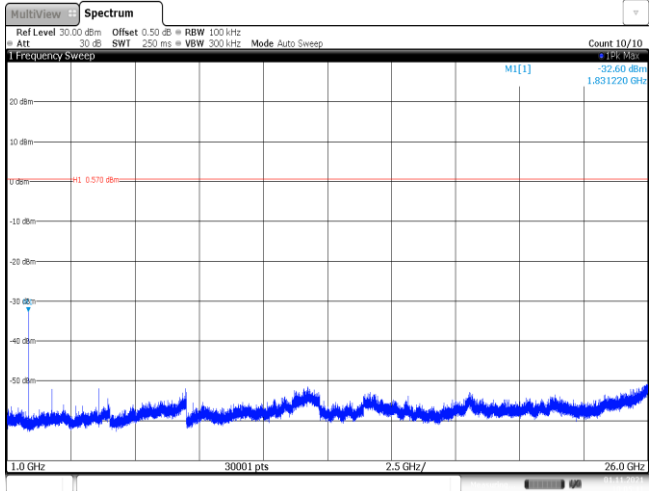
Appendix H: Band edge and Spurious Emissions (conducted)

Test Item:	Band edge																					
CH-L No hopping mode	MultiView Spectrum Ref Level 30.00 dBm Offset 0.50 dB RBW 100 kHz Att 40.00 dB SWT 41.88 μs (~7.1 ms) VBW 300 kHz Mode Auto FFT Count 300/300 1 Frequency Sweep 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm M1 -45.57 dBm 902.00000 MHz 902.75520 MHz CF 902.0 MHz 1001 pts 600.0 kHz / Span 6.0 MHz 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>902.7552 MHz</td><td>-45.57 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>902.0 MHz</td><td>-45.57 dBm</td><td></td><td></td></tr></table> Date: 1 NOV 2021 09:57:13	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		902.7552 MHz	-45.57 dBm			M2	1		902.0 MHz	-45.57 dBm		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																
M1	1		902.7552 MHz	-45.57 dBm																		
M2	1		902.0 MHz	-45.57 dBm																		
CH-L Hopping mode	MultiView Spectrum Ref Level 30.00 dBm Offset 0.50 dB RBW 100 kHz Att 30.00 dB SWT 41.88 μs (~7.1 ms) VBW 300 kHz Mode Auto FFT Count 300/300 1 Frequency Sweep 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm M1 20.55 dBm M2 -48.20 dBm 902.74930 MHz 902.00000 MHz CF 902.0 MHz 1001 pts 600.0 kHz / Span 6.0 MHz 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>902.7493 MHz</td><td>-20.55 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>902.0 MHz</td><td>-48.20 dBm</td><td></td><td></td></tr></table> Date: 1 NOV 2021 10:22:32	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		902.7493 MHz	-20.55 dBm			M2	1		902.0 MHz	-48.20 dBm		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																
M1	1		902.7493 MHz	-20.55 dBm																		
M2	1		902.0 MHz	-48.20 dBm																		
CH-H No hopping mode	MultiView Spectrum Ref Level 30.00 dBm Offset 0.50 dB RBW 100 kHz Att 40.00 dB SWT 41.88 μs (~7.1 ms) VBW 300 kHz Mode Auto FFT Count 300/300 1 Frequency Sweep 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm M1 20.21 dBm M2 -43.89 dBm 927.24480 MHz 928.00000 MHz CF 928.0 MHz 1001 pts 600.0 kHz / Span 6.0 MHz 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>927.2448 MHz</td><td>-20.21 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>928.0 MHz</td><td>-43.89 dBm</td><td></td><td></td></tr></table> Date: 1 NOV 2021 09:52:26	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		927.2448 MHz	-20.21 dBm			M2	1		928.0 MHz	-43.89 dBm		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																
M1	1		927.2448 MHz	-20.21 dBm																		
M2	1		928.0 MHz	-43.89 dBm																		

CH-H
Hopping mode



Test Item:	Spurious Emission
CH-L Reference level	 MultiView Spectrum Ref Level 30.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWI 41.84 μs (-6.9 ms) VBW 300 kHz Mode Auto FFT Count 100/100 1 Frequency Sweep 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm 902.75 MHz 1001 pts 1.0 MHz/ Span 10.0 MHz M1[1] 20.61 dBm 902.76000 MHz Date: 1 NOV 2021 09:58:34
CH-L 30MHz~1000MHz	 MultiView Spectrum Ref Level 30.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWI 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 1 Frequency Sweep 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz M1[1] -50.03 dBm 911.9750 MHz H1 0.610 dBm Date: 1 NOV 2021 10:00:46
CH-L 1GHz~26GHz	 MultiView Spectrum Ref Level 30.00 dBm Offset 0.50 dB RBW 100 kHz Att 30 dB SWI 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 1 Frequency Sweep 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz M1[1] -32.81 dBm 1.805390 GHz H1 0.610 dBm Date: 1 NOV 2021 10:02:03

CH-M Reference level	 The spectrum plot displays a single prominent peak at 915.75 MHz. The y-axis represents power in dBm, ranging from -60 to 20. The x-axis represents frequency in MHz, with a span of 10.0 MHz. The peak is labeled M1 and has a power level of 20.57 dBm. The plot includes a frequency sweep and a count of 100/100.
CH-M 30MHz~1000MHz	 The spectrum plot shows a peak at 547.8170 MHz. The y-axis ranges from -60 to 20 dBm. The x-axis ranges from 30.0 MHz to 1.0 GHz, with a span of 97.0 MHz. The peak is labeled M1 and has a power level of -54.97 dBm. The plot includes a frequency sweep and a count of 10/10.
CH-M 1GHz~26GHz	 The spectrum plot displays a peak at 1.831220 GHz. The y-axis ranges from -60 to 20 dBm. The x-axis ranges from 1.0 GHz to 26.0 GHz, with a span of 2.5 GHz. The peak is labeled M1 and has a power level of -32.60 dBm. The plot includes a frequency sweep and a count of 10/10.

CH-H Reference level	
CH-H 30MHz~1000MHz	
CH-H 1GHz~26GHz	

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