

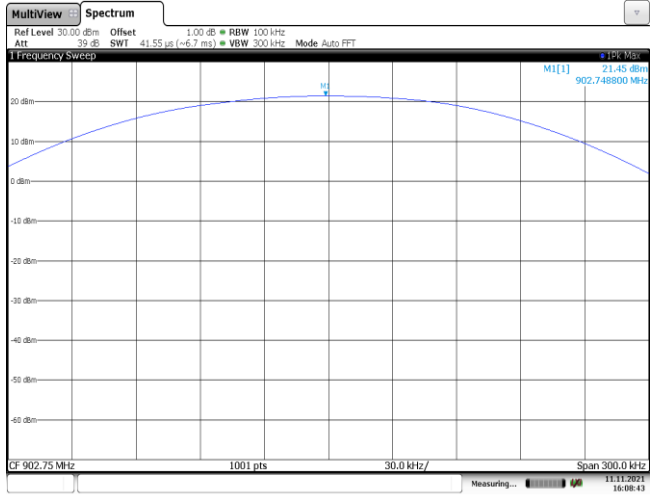
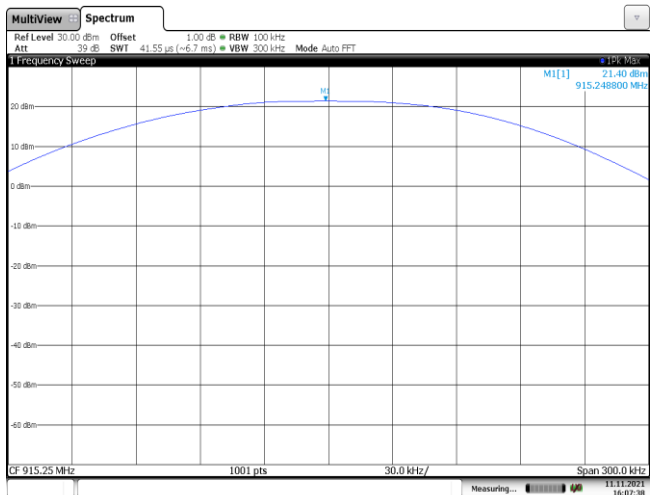
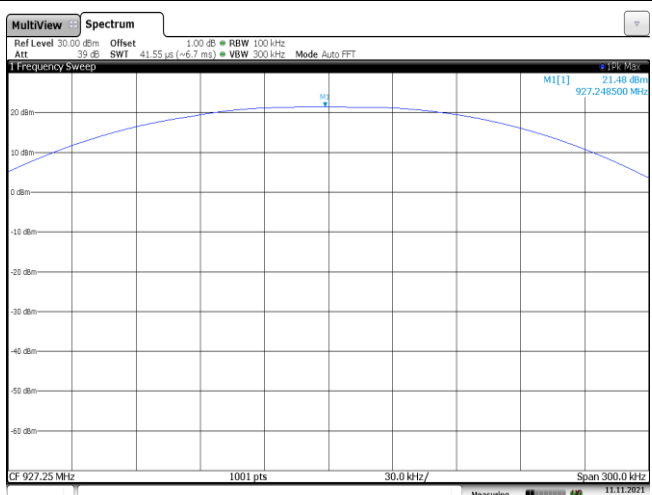
APPENDIX REPORT

Project No.	SHT2111020903EW		
Test sample No.	YPHT21061170008	Model No.	BX6100
Start test date	2021-11-11	Finish date	2021-11-12
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

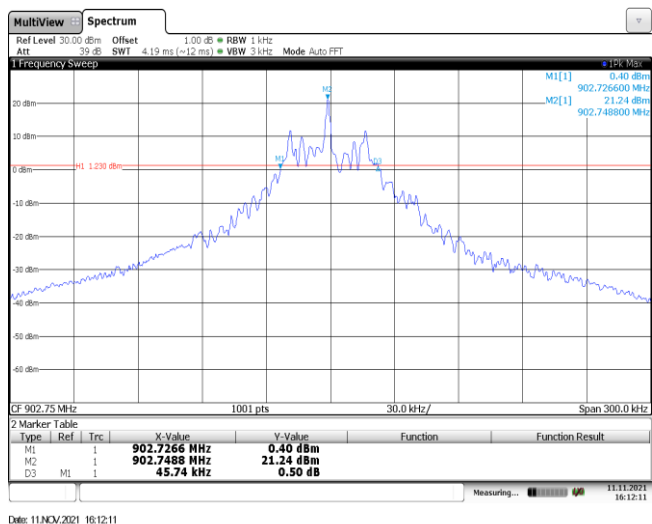
Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
CH-L	21.45	21.44	≤ 30.00	Pass
CH-M	21.40	21.37		
CH-H	21.48	21.43		

CH-L	 MultiView Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att 39 dB SWI 41.55 μs (~6.7 ms) VBW 300 kHz Mode Auto FFT Frequency Sweep M1[1] 21.45 dBm 902.748800 MHz CF 902.75 MHz 1001 pts 30.0 kHz/ Span 300.0 kHz Date: 11/NOV/2021 16:08:43
CH-M	 MultiView Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att 39 dB SWI 41.55 μs (~6.7 ms) VBW 300 kHz Mode Auto FFT Frequency Sweep M1[1] 21.40 dBm 915.248800 MHz CF 915.25 MHz 1001 pts 30.0 kHz/ Span 300.0 kHz Date: 11/NOV/2021 16:07:38
CH-H	 MultiView Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att 39 dB SWI 41.55 μs (~6.7 ms) VBW 300 kHz Mode Auto FFT Frequency Sweep M1[1] 21.40 dBm 927.248500 MHz CF 927.25 MHz 1001 pts 30.0 kHz/ Span 300.0 kHz Date: 11/NOV/2021 16:06:30

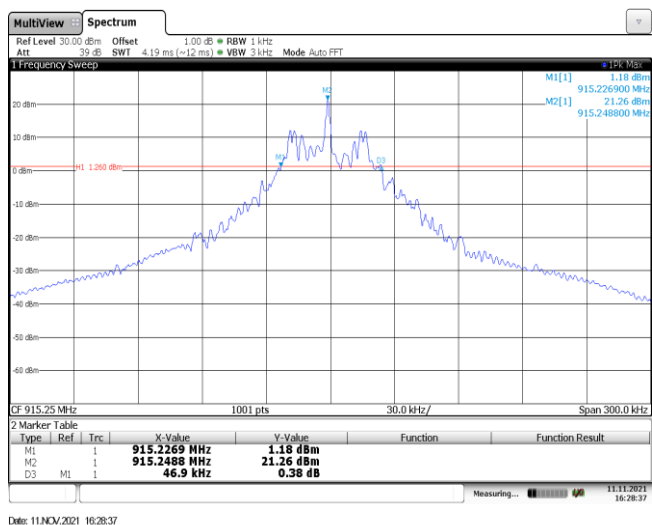
Appendix B : 20 dB Bandwidth

Channel	20 dB Bandwidth (kHz)	Limit (kHz)	Result
CH-L	45.74	≤500	Pass
CH-M	46.90		
CH-H	50.60		

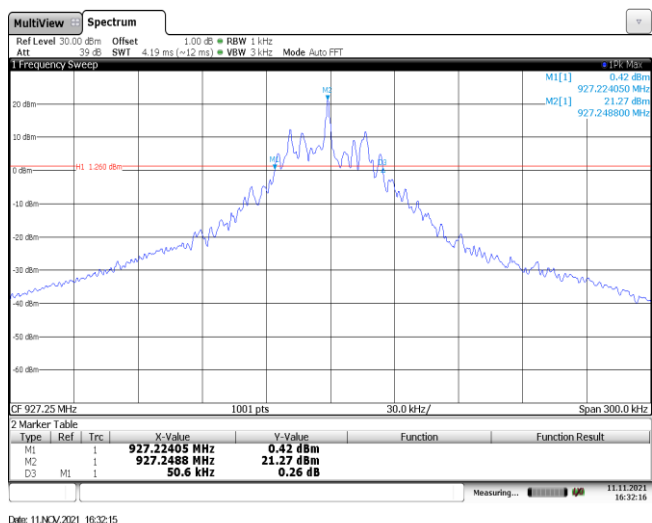
CH-L



CH-M



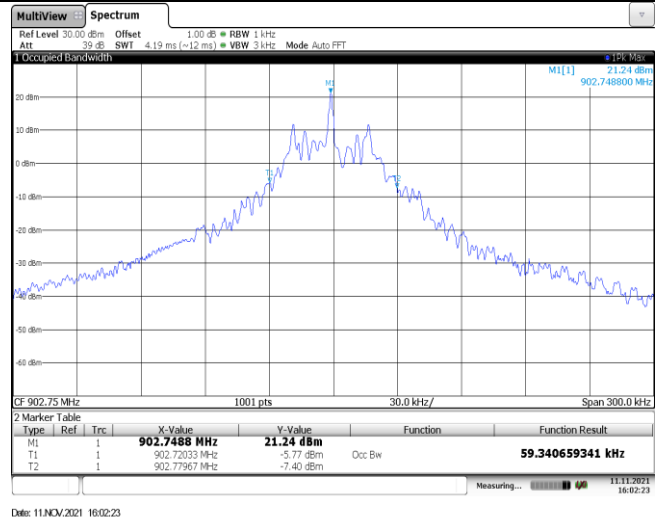
CH-H



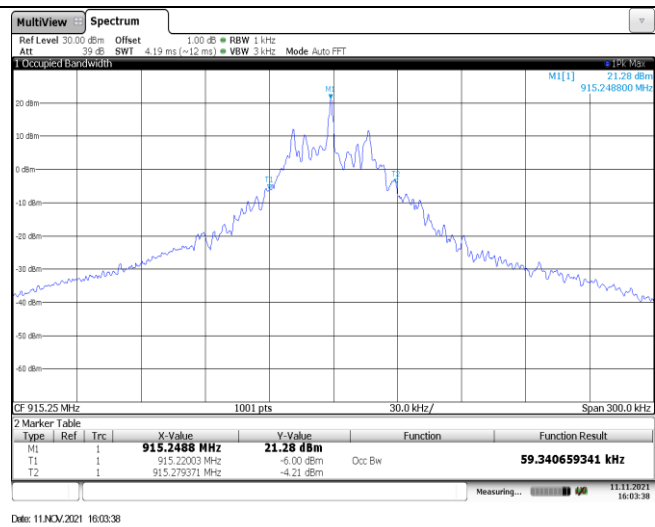
Appendix C: 99% Occupied Bandwidth

Channel	99% Occupied Bandwidth (MHz)	Limit (MHz)	Result
CH-L	0.06	-	Pass
CH-M	0.06		
CH-H	0.06		

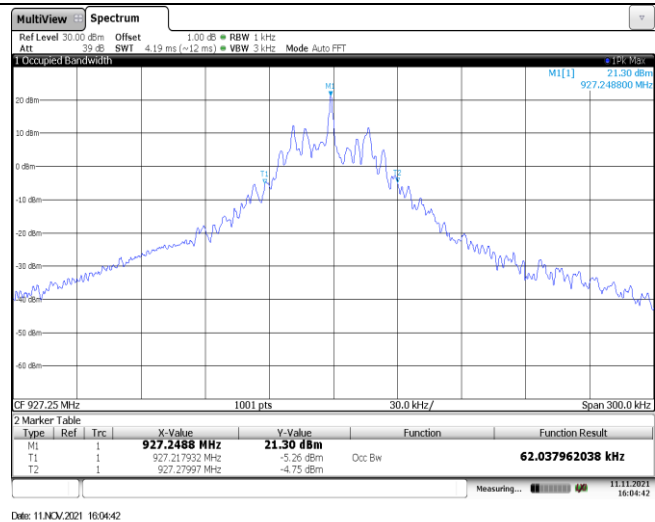
CH-L



CH-M

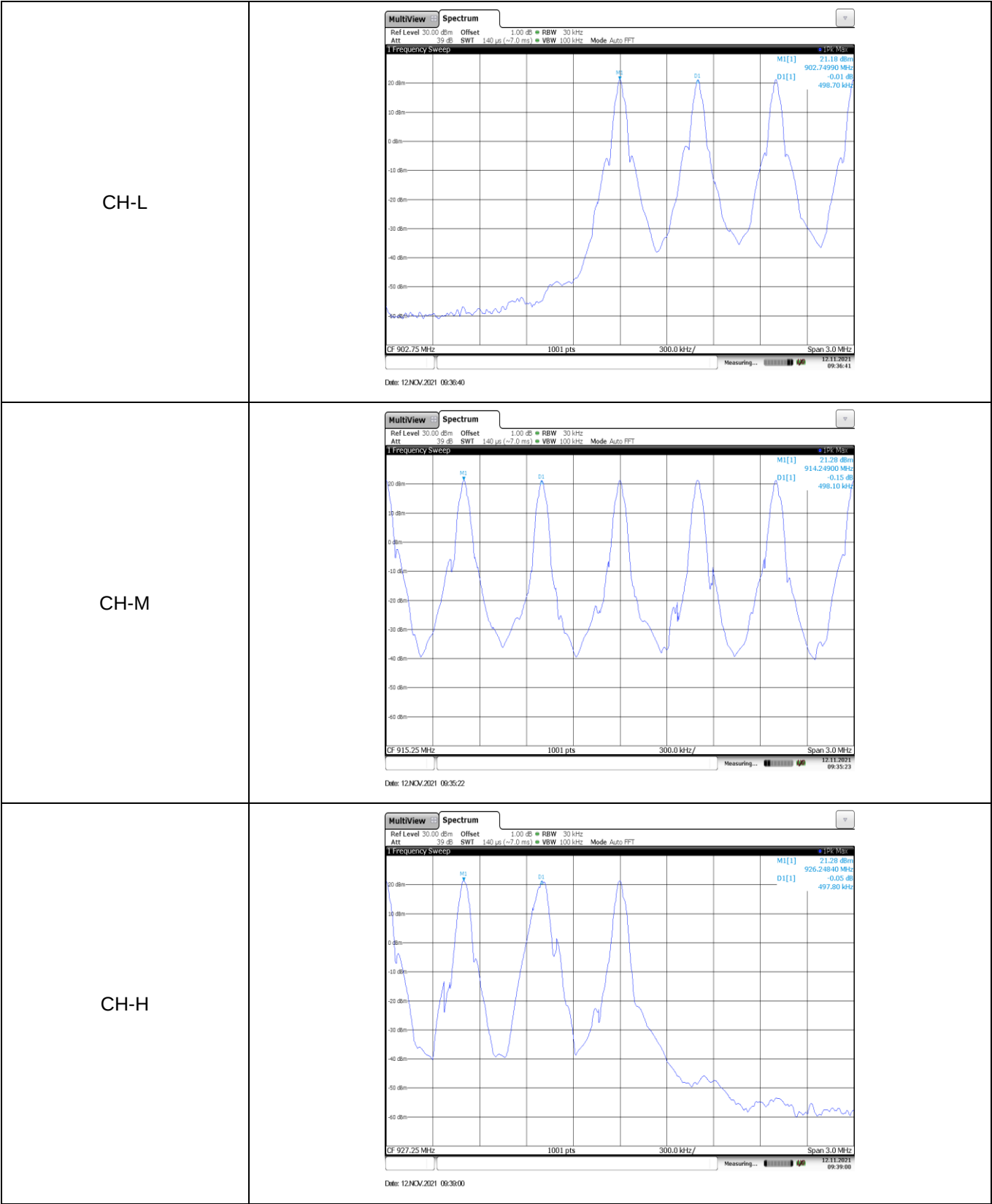


CH-H



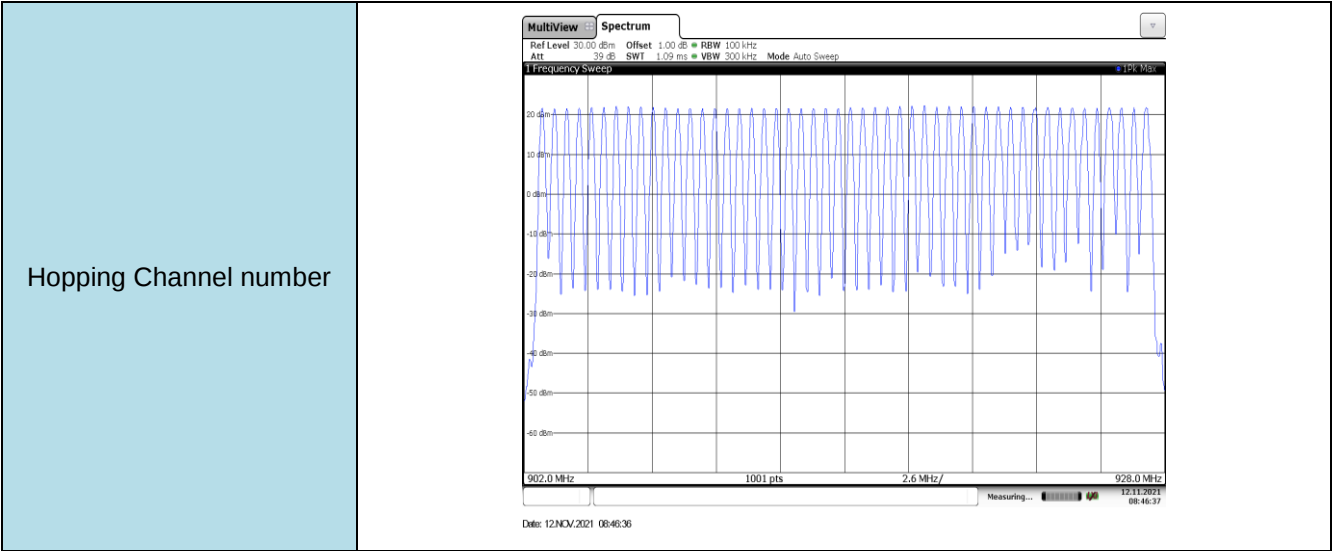
Appendix D: Carrier Frequencies Separation

Channel	Carrier Frequencies Separation (kHz)	Limit (kHz) *	Result
CH-L	498.70	≥45.74	Pass
CH-M	498.10	≥46.90	Pass
CH-H	497.80	≥50.90	Pass



Appendix E: Hopping Channel Number

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



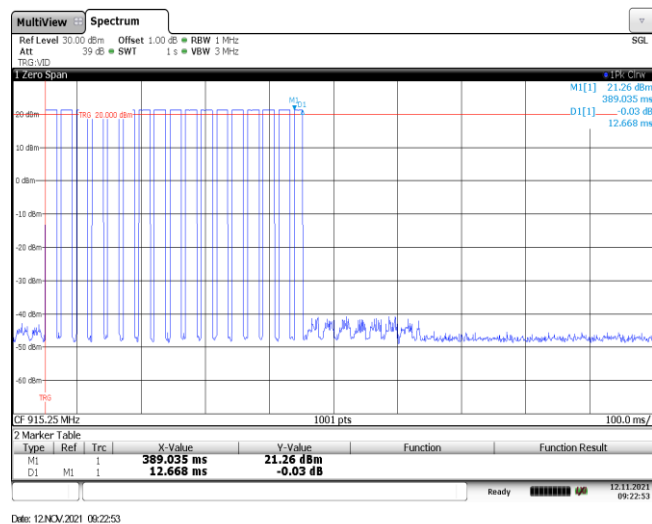
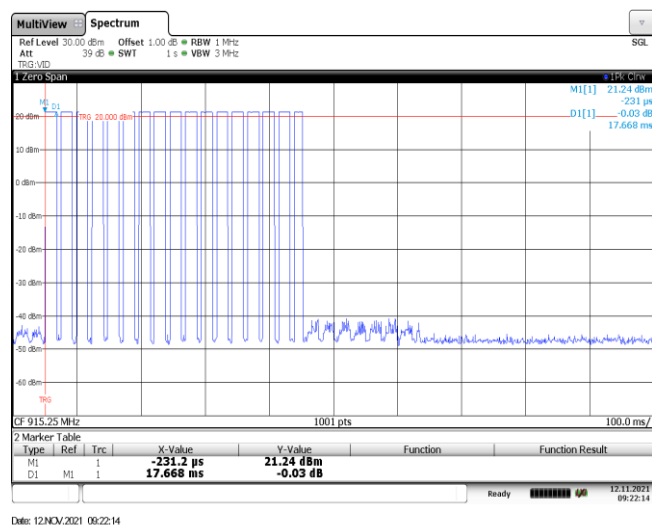
Appendix F: Dwell Time

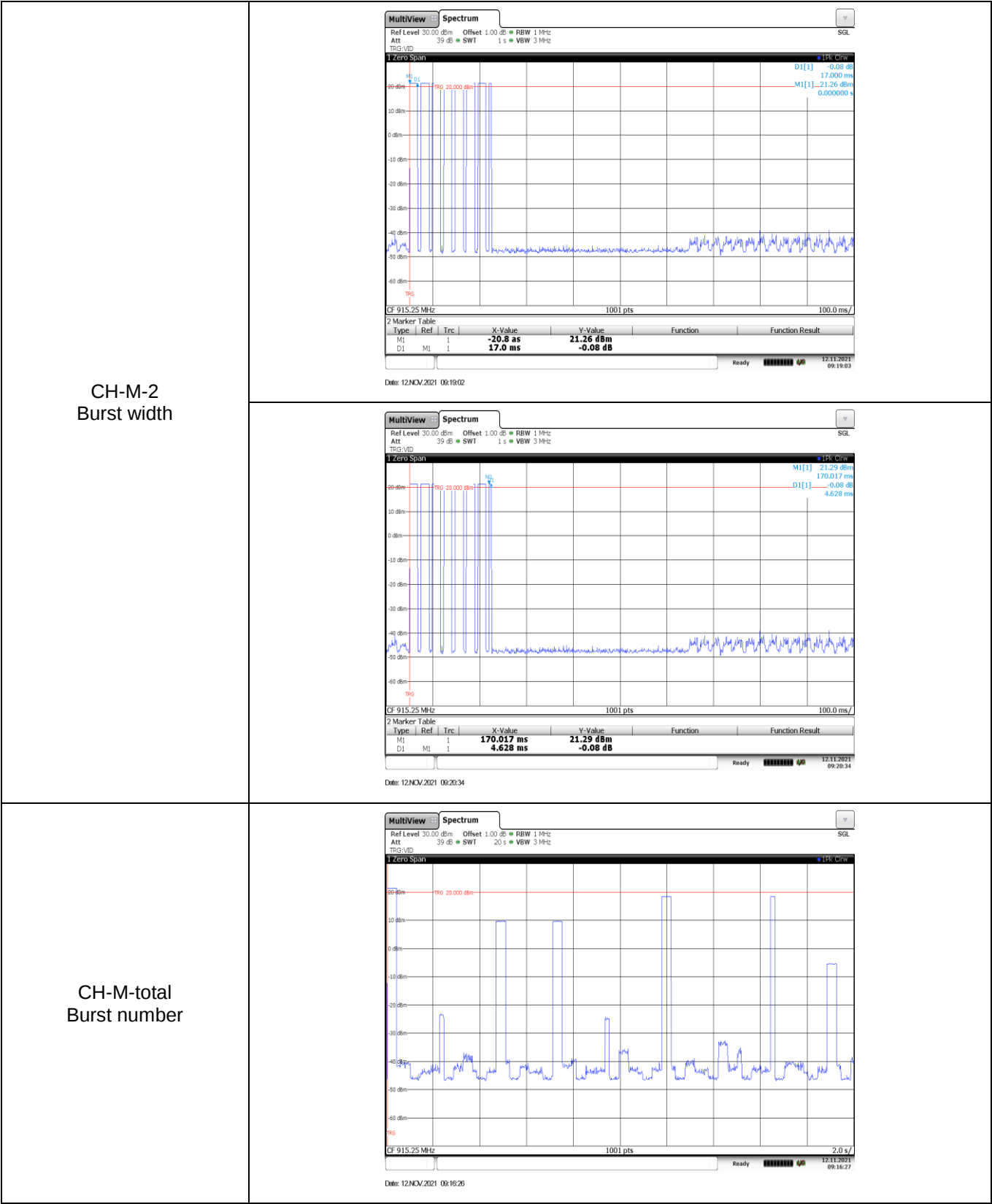
Packet	Burst Width [ms]	Total Hops[hop*ch]	Dwell time (ms)
CH-M-1	17.668	16	295.356
	12.668	1	
CH-M-2	17.000	7	123.628
	4.628	1	

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	$296.356 \times 1 = 296.356$	≤ 0.40	Pass

CH-M-1
Burst width





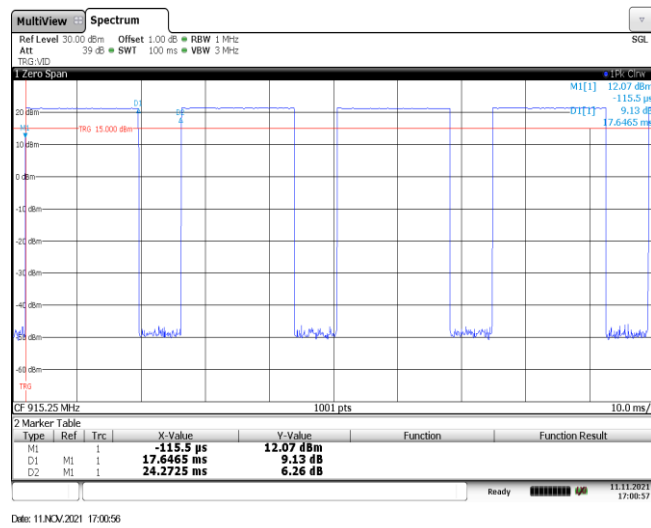
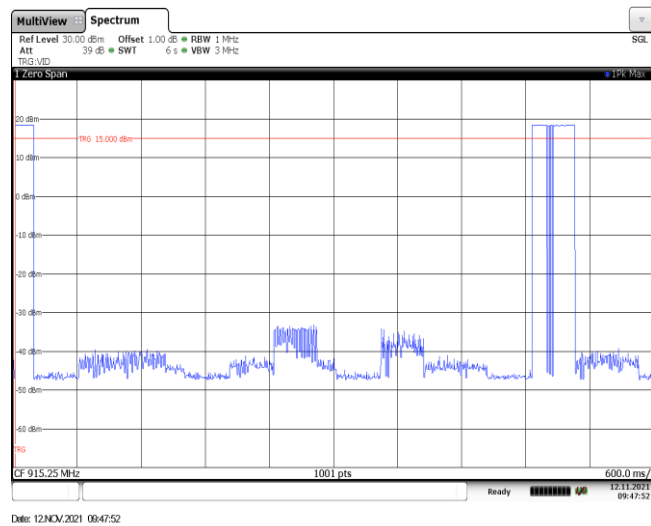
Appendix G: Duty Cycle Correction Factor (DCCF)

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	17.647	100	3	-5.52

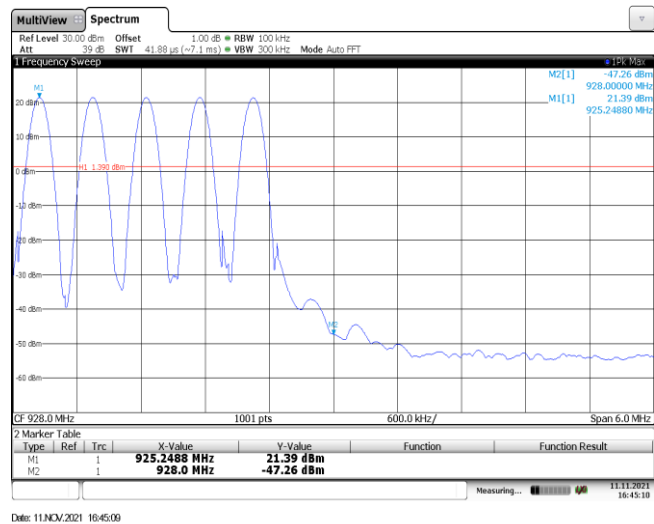
Burst Quantity

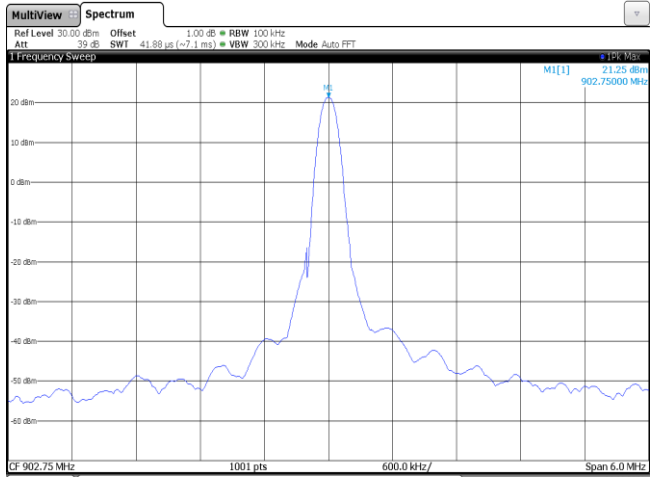
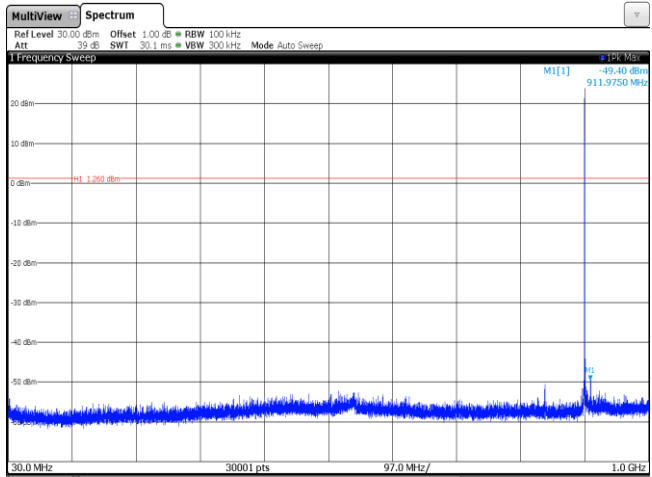
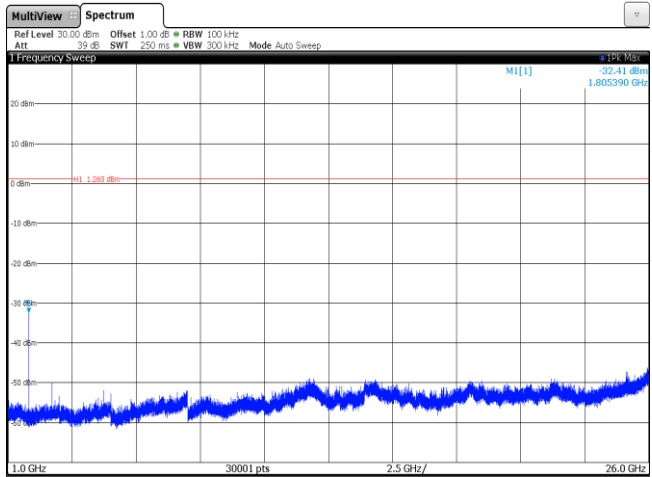
 $T_{\text{on time}}$ for single burst

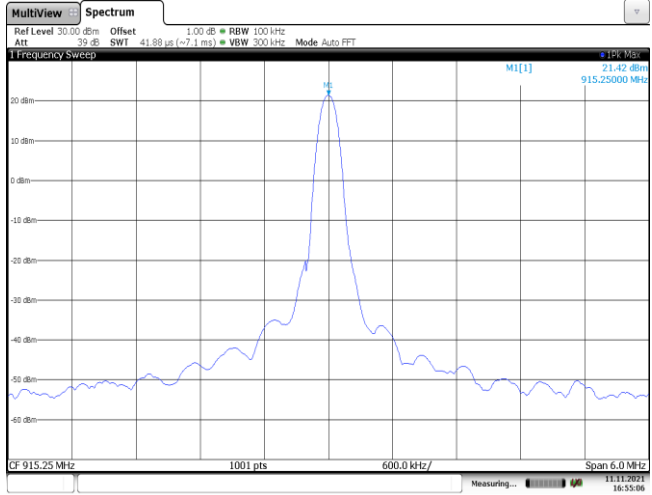
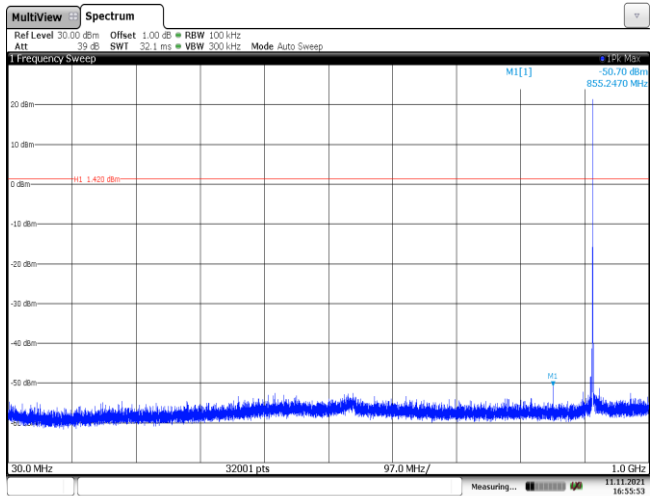
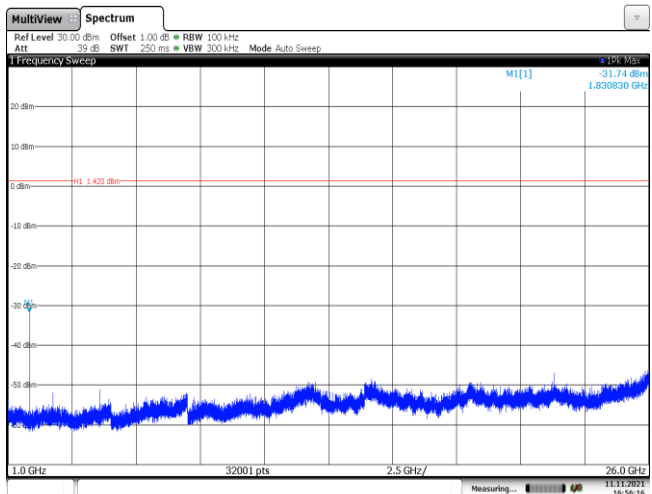
Appendix H: Band edge and Spurious Emissions (conducted)

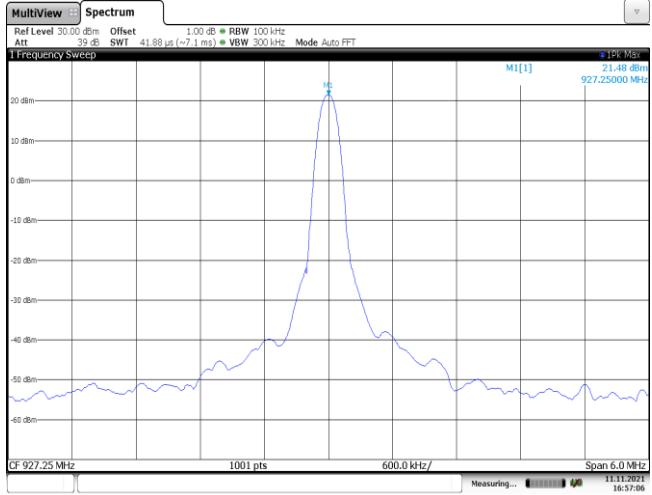
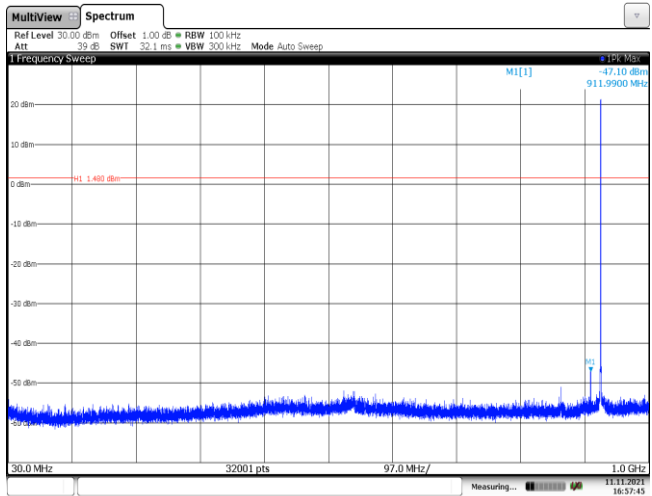
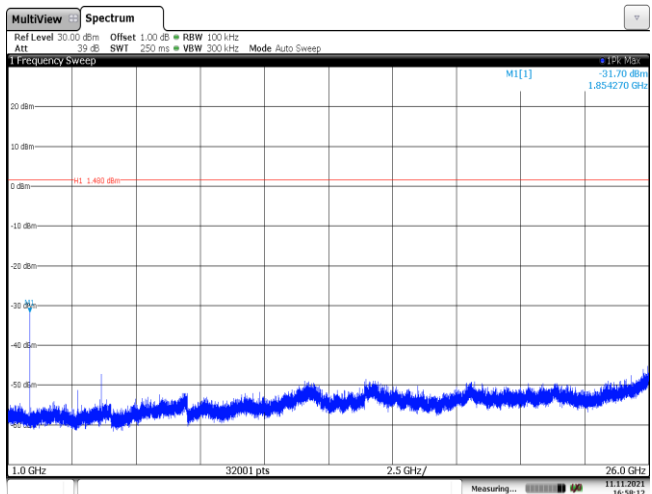
Test Item:	Band edge
CH-L No hopping mode	

CH-H
Hopping mode



Test Item:	Spurious Emission
CH-L Reference level	 MultiView Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att 39 dB SWI 41.88 μs (~7.1 ms) VBW 300 kHz Mode Auto FFT 1 Frequency Sweep M1[1] 21.25 dBm 902.75000 MHz CF 902.75 MHz 1001 pts 600.0 kHz/ Span 6.0 MHz Date: 11/NOV/2021 16:48:23
CH-L 30MHz~1000MHz	 MultiView Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att 39 dB SWI 30.1 ms VBW 300 kHz Mode Auto Sweep 1 Frequency Sweep M1[1] -49.40 dBm 911.9750 MHz 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 11/NOV/2021 16:49:18
CH-L 1GHz~26GHz	 MultiView Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att 39 dB SWI 250 ms VBW 300 kHz Mode Auto Sweep 1 Frequency Sweep M1[1] -32.41 dBm 1.805390 GHz 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 11/NOV/2021 16:49:48

CH-M Reference level	 MultiView Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att -39 dB SWI 41.88 μs (~7.1 ms) VBW 300 kHz Mode Auto FFT 1 Frequency Sweep M1[1] 21.42 dBm 915.25000 MHz CF 915.25 MHz 1001 pts 600.0 kHz/ Span 6.0 MHz Date: 11/NOV/2021 16:55:06
CH-M 30MHz~1000MHz	 MultiView Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att -39 dB SWI 32.1 ms VBW 300 kHz Mode Auto Sweep 1 Frequency Sweep M1[1] -50.70 dBm 855.2470 MHz 30.0 MHz 32001 pts 97.0 MHz/ Span 1.0 GHz Date: 11/NOV/2021 16:55:52
CH-M 1GHz~26GHz	 MultiView Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att -39 dB SWI 250 ms VBW 300 kHz Mode Auto Sweep 1 Frequency Sweep M1[1] -51.74 dBm 1.830830 GHz 1.0 GHz 32001 pts 2.5 GHz/ Span 26.0 GHz Date: 11/NOV/2021 16:56:16

CH-H Reference level	 MultiView Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att 39 dB SWI 41.88 μs ($\sim$7.1 ms) VBW 300 kHz Mode Auto FFT 1 Frequency Sweep M1[1] 21.48 dBm 927.25000 MHz CF 927.25 MHz 1001 pts 600.0 kHz/ Span 6.0 MHz Date: 11/NOV/2021 16:57:06
CH-H 30MHz~1000MHz	 MultiView Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att 39 dB SWI 32.1 ms VBW 300 kHz Mode Auto Sweep 1 Frequency Sweep M1[1] -47.10 dBm 911.9900 MHz 30.0 MHz 32001 pts 97.0 MHz/ 1.0 GHz Date: 11/NOV/2021 16:57:45
CH-H 1GHz~26GHz	 MultiView Spectrum Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att 39 dB SWI 250 ms VBW 300 kHz Mode Auto Sweep 1 Frequency Sweep M1[1] -51.70 dBm 1.854270 GHz 1.0 GHz 32001 pts 2.5 GHz/ 26.0 GHz Date: 11/NOV/2021 16:58:12

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