

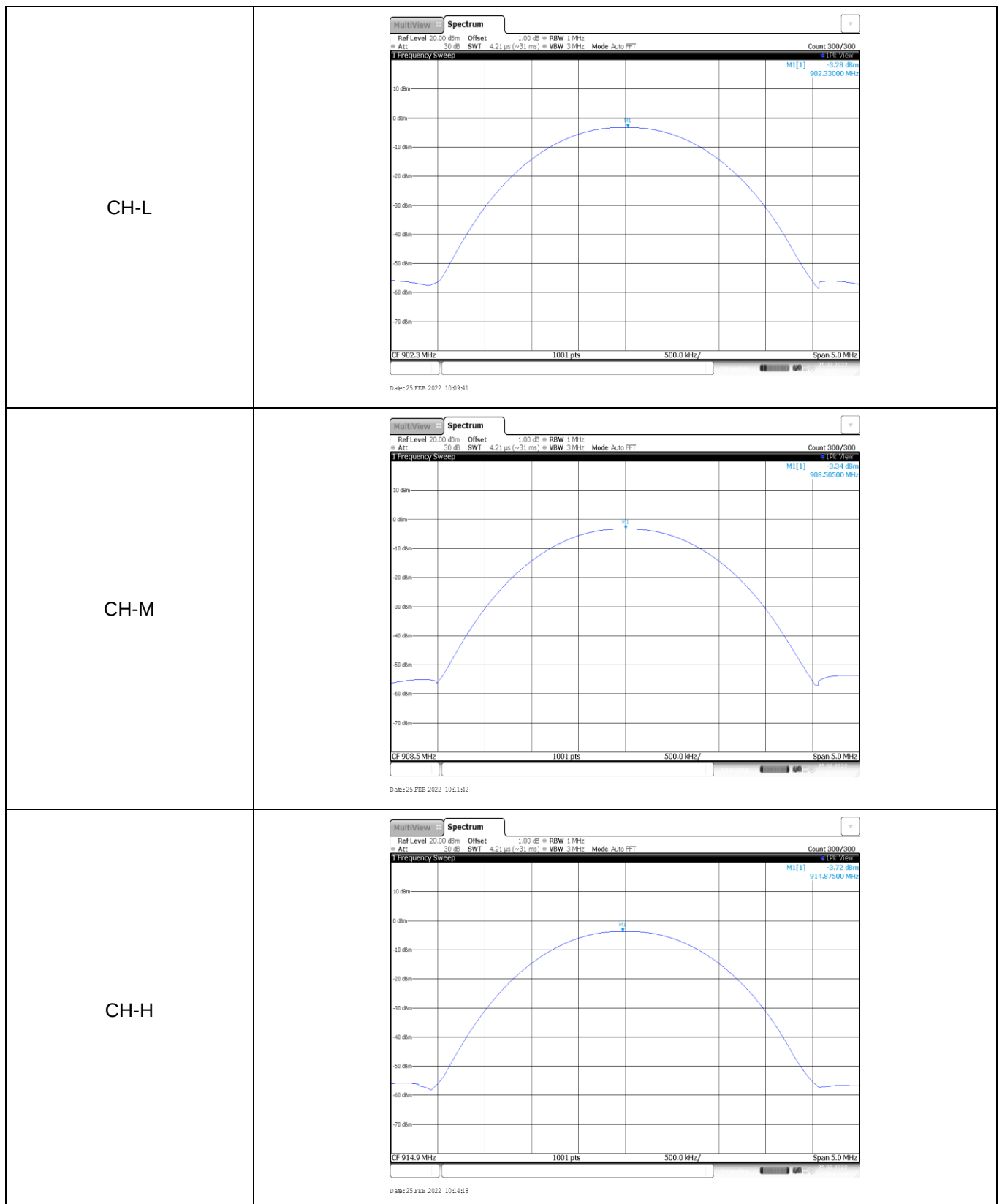
APPENDIX REPORT

Project No.	SHT2202012302EW		
Test sample No.	YPHT21100680014	Model No.	E22-900T22S 1B
Start test date	2022-02-25	Finish date	2022-02-28
Temperature	25.4℃	Humidity	51%
Test Engineer	Xiaoqin Li	Auditor	Xiaodong Zhu

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

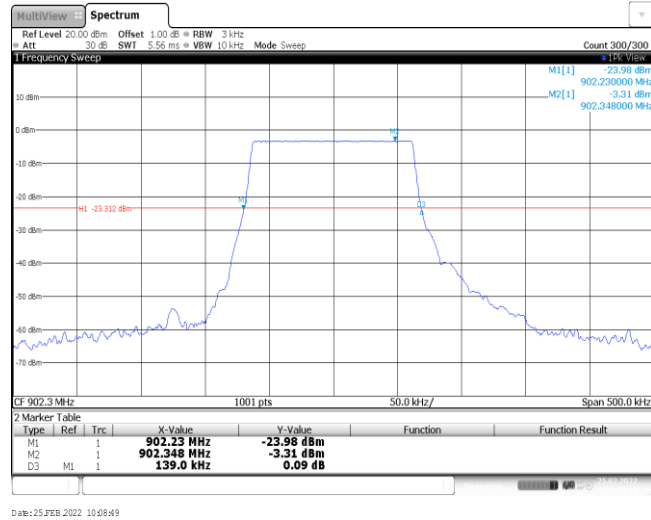
Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Antenna Gain (dBi)	Maximum e.r.i.p. (dBm)	EIRP Limit (dBm)	Result
CH-L	-3.28	-3.31	≤ 30.00	2.40	-0.88	≤ 36.00	Pass
CH-M	-3.34	-3.39		2.40	-0.94		
CH-H	-3.72	-3.80		2.40	-1.32		



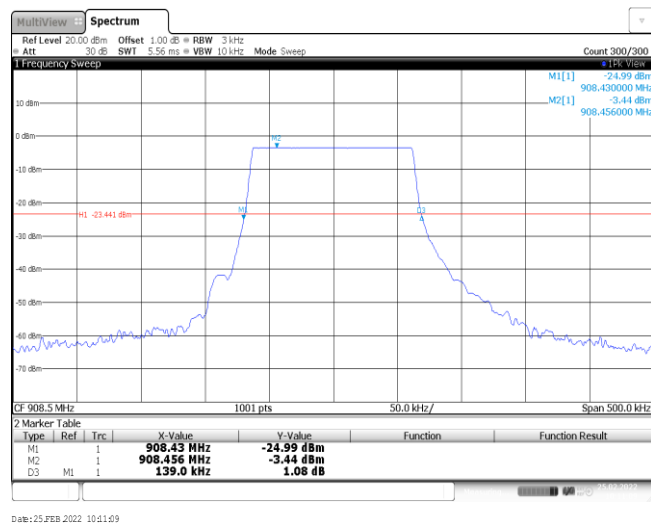
Appendix B : 20 dB Bandwidth

Channel	20 dB Bandwidth (kHz)	Limit (kHz)	Result
CH-L	139.00	≤500	Pass
CH-M	139.00		
CH-H	138.50		

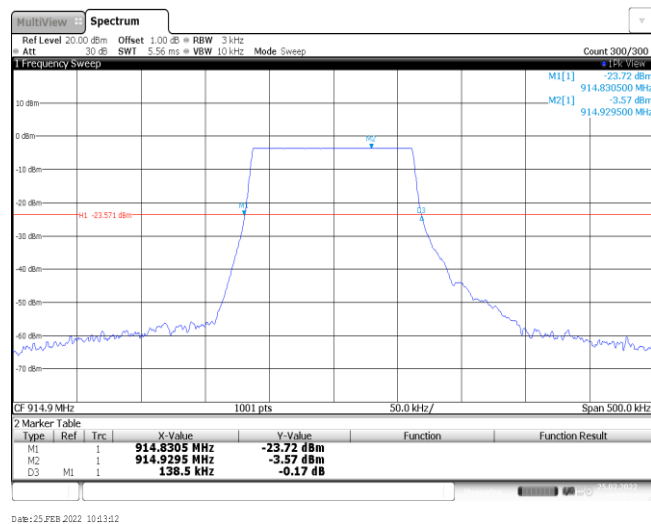
CH-L



CH-M

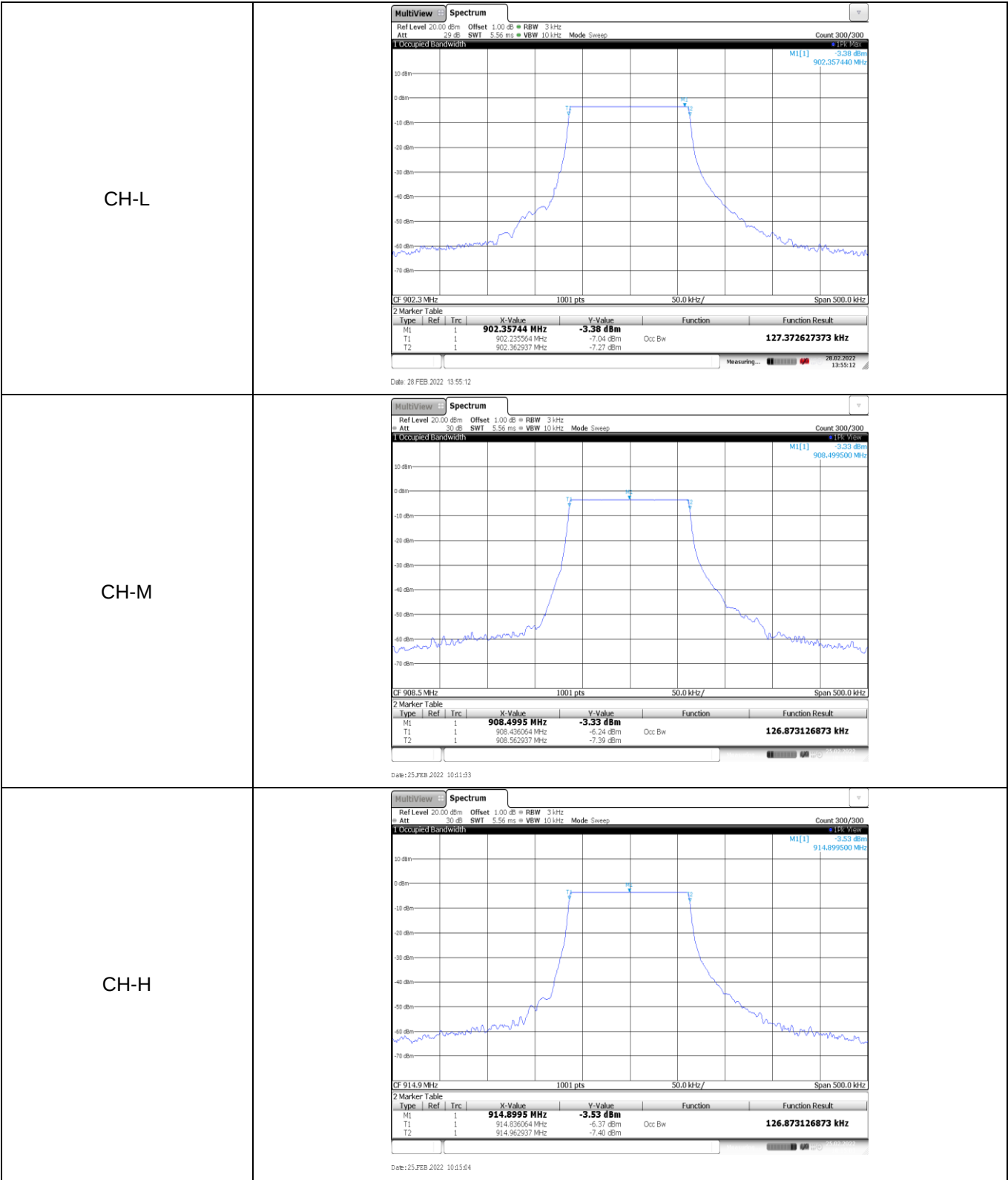


CH-H



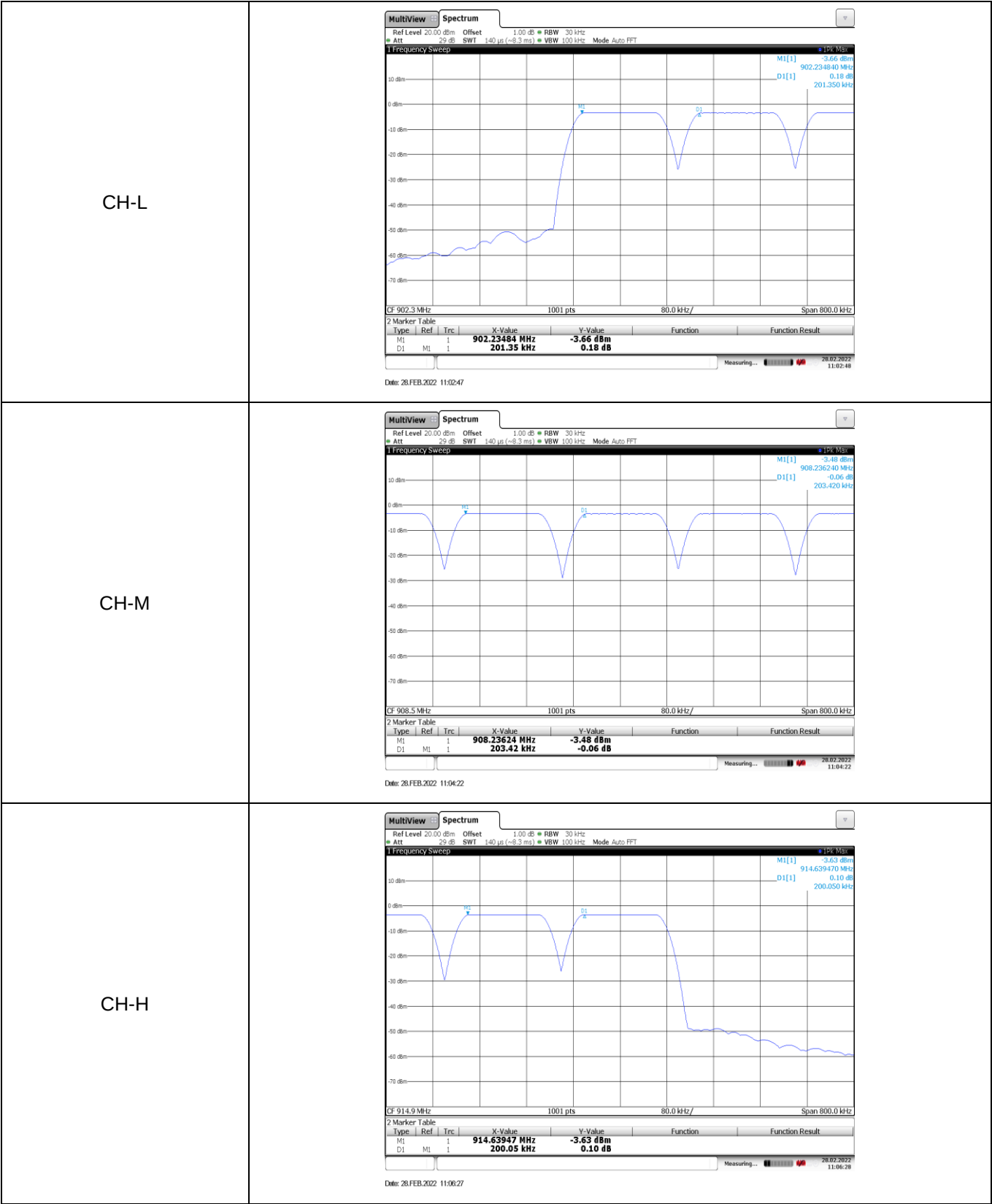
Appendix C: 99% Occupied Bandwidth

Channel	99% Occupied Bandwidth (MHz)	Limit (MHz)	Result
CH-L	0.13	-	Pass
CH-M	0.13		
CH-H	0.13		



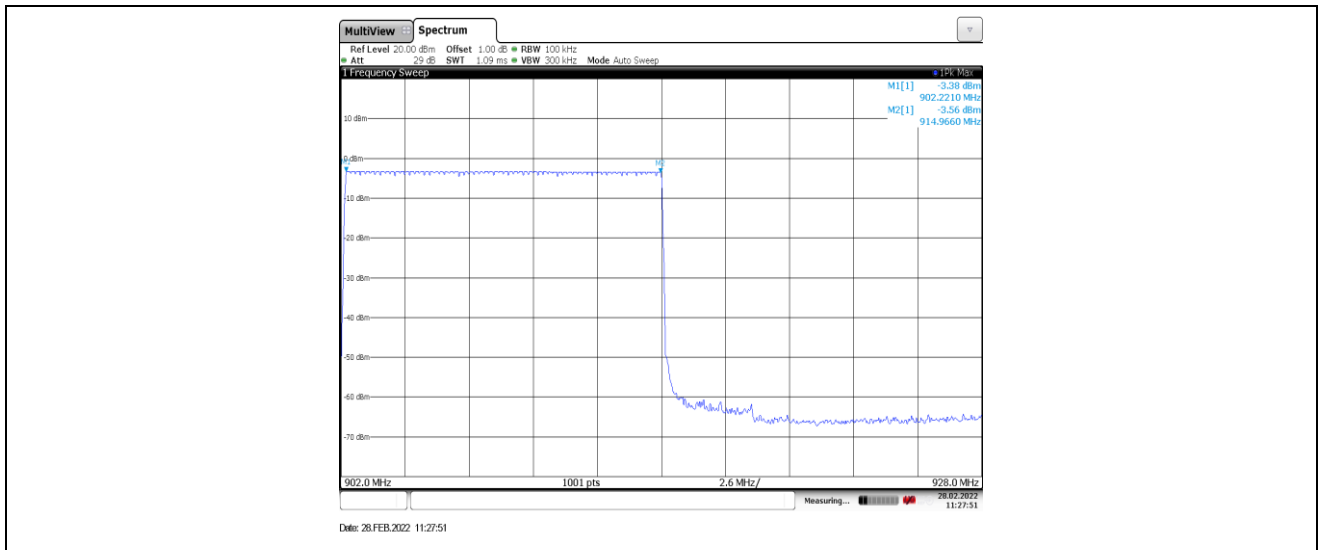
Appendix D: Carrier Frequencies Separation

Channel	Carrier Frequencies Separation (kHz)	Limit (kHz) *	Result
CH-L	201.35	≥139.00	Pass
CH-M	203.42	≥139.00	Pass
CH-H	200.05	≥138.50	Pass



Appendix E: Hopping Channel Number

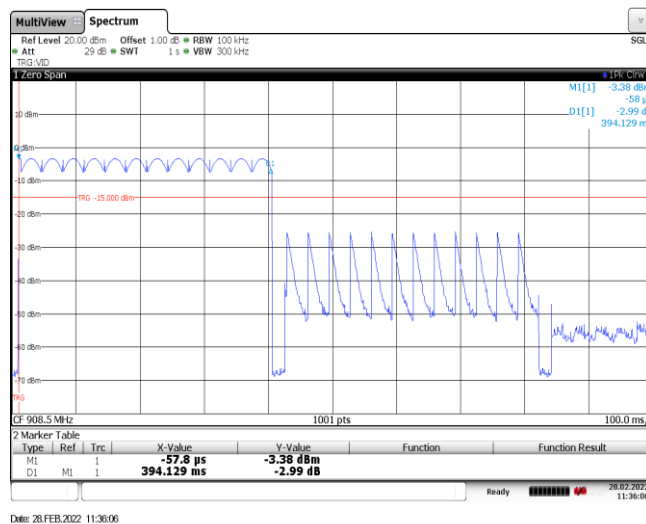
Channel number	Limit	Result
64	≥ 50	Pass



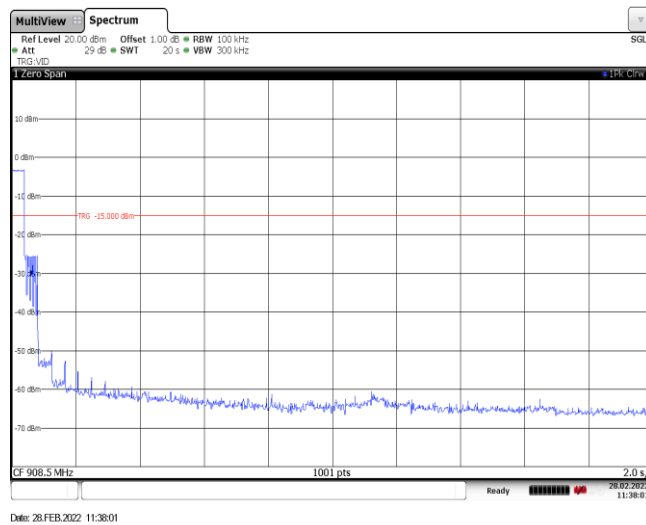
Appendix F: Dwell Time

Packet	Burst Width [ms]	Total Hops[hop*ch]	Dwell time (Second)	Limit (Second)	Result
CH-M	394.129	1	0.39	≤ 0.40	Pass

CH-M
Burst width



CH-M
Burst number



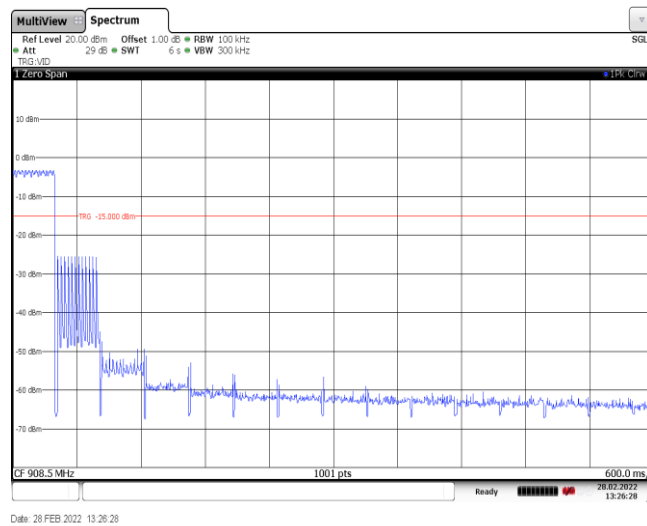
Appendix G: Duty Cycle Correction Factor (DCCF)

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 _{on time} for single burst [ms]	T _{period} [ms]	Burst Quantity	DCCF [dB]
908.5	1.00	100	2	-33.98

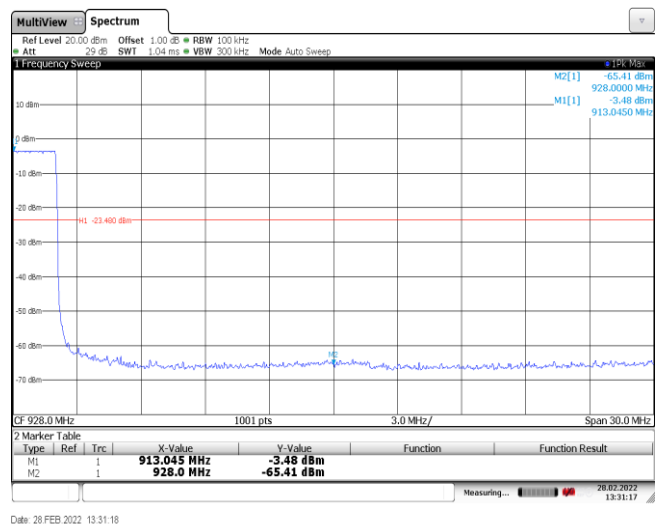
Burst Quantity

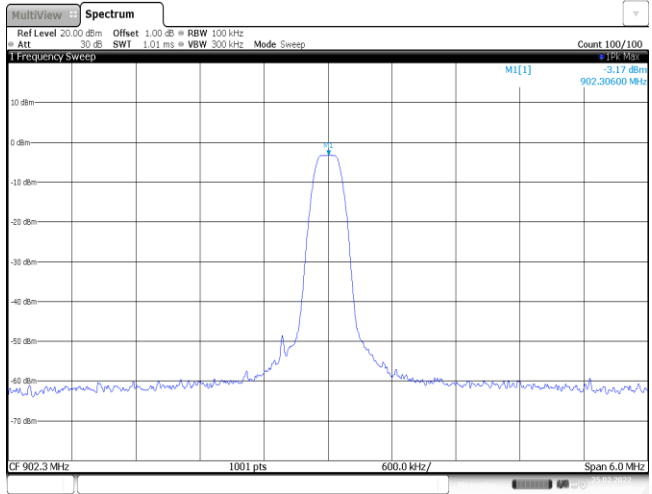
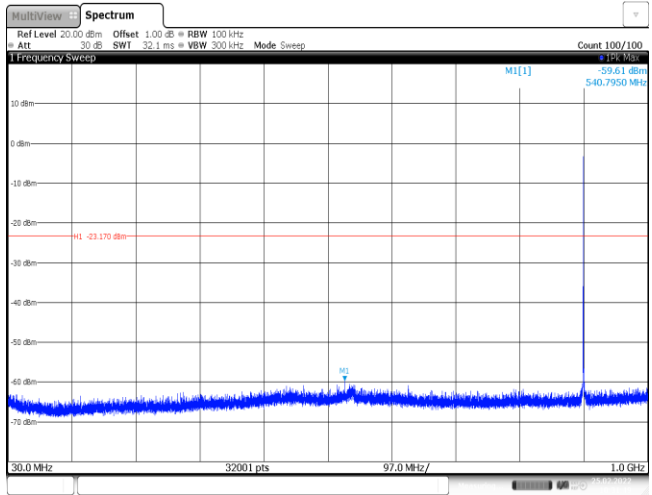
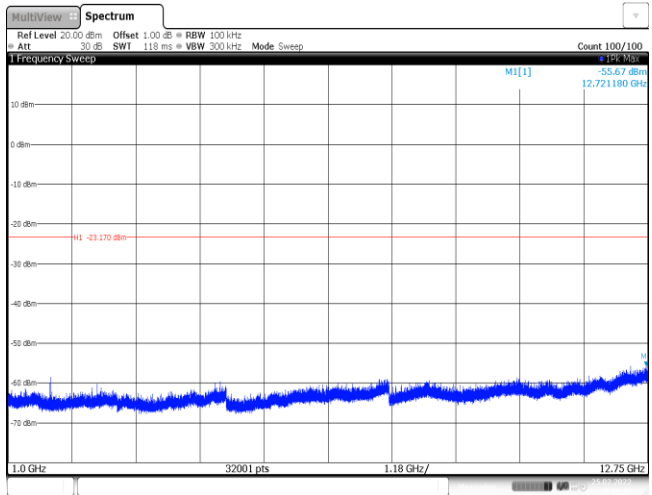
T_{on time} for single burst

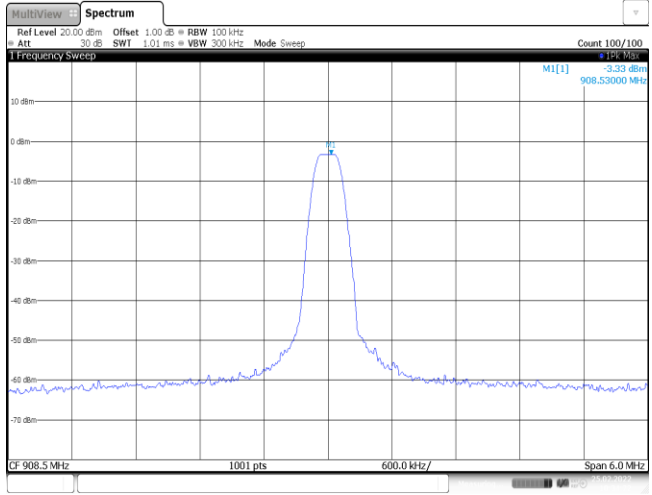
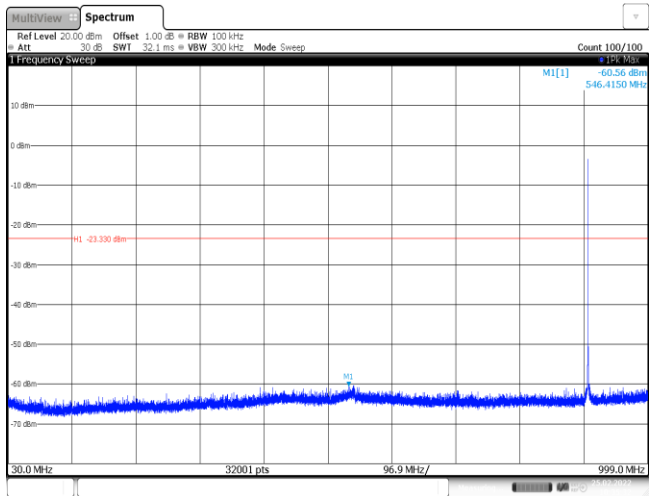
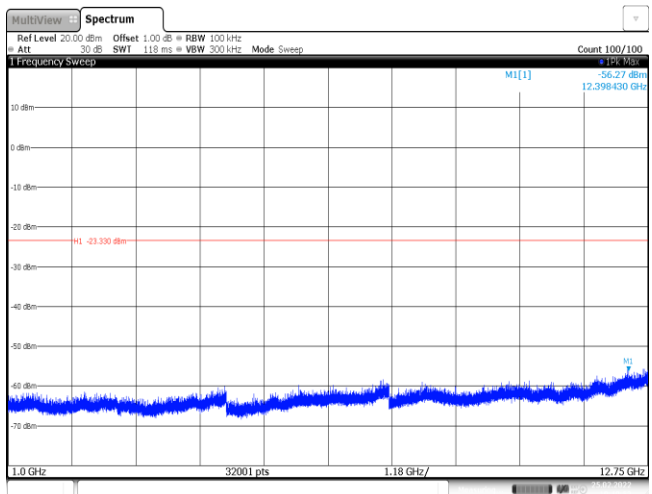
Appendix H: Band edge and Spurious Emissions (conducted)

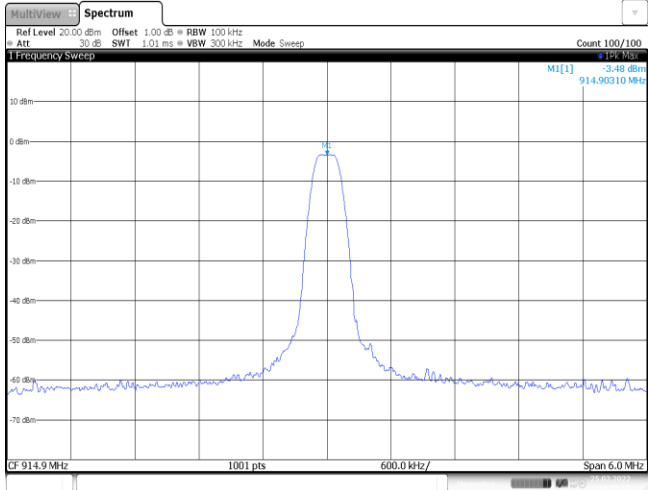
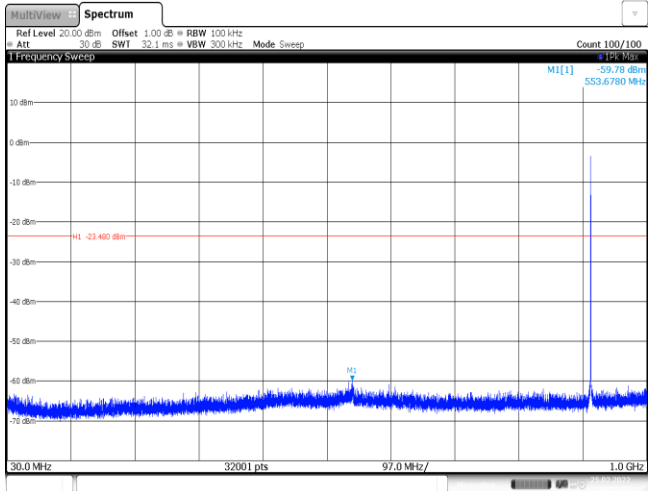
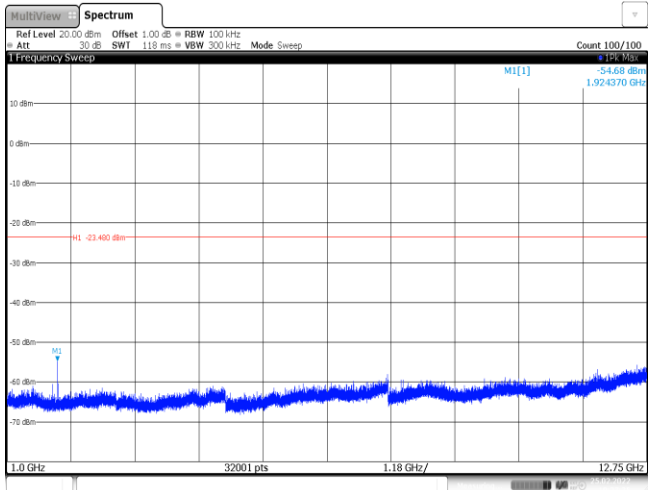
Test Item:	Band edge
CH-L No hopping mode	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Mode Sweep ATT 30 dB SWT 1.01 ms VBW 300 kHz Count 100/100 1 Frequency Sweep </

CH-H
Hopping mode



Test Item:	Spurious Emission
CH-L Reference level	 The spectrum plot shows a single peak at 902.3 MHz. The y-axis represents power in dBm, ranging from -70 to 10. The x-axis represents frequency in MHz, ranging from 900 to 904. The peak is labeled with a value of -3.17 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 100 kHz, Att 30 dB, SWI 1.01 ms, VBW 300 kHz, Mode Sweep. The x-axis is labeled 'Frequency Sweep' and the y-axis is labeled 'Count 100/100'.
CH-L 30MHz~1000MHz	 The spectrum plot shows a peak at 540.7950 MHz. The y-axis represents power in dBm, ranging from -70 to 10. The x-axis represents frequency in MHz, ranging from 30.0 to 1000.0. The peak is labeled with a value of -59.61 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 100 kHz, Att 30 dB, SWI 32.1 ms, VBW 300 kHz, Mode Sweep. The x-axis is labeled 'Frequency Sweep' and the y-axis is labeled 'Count 100/100'.
CH-L 1GHz~26GHz	 The spectrum plot shows a peak at 12.721180 GHz. The y-axis represents power in dBm, ranging from -70 to 10. The x-axis represents frequency in GHz, ranging from 1.0 to 26.0. The peak is labeled with a value of -55.67 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 100 kHz, Att 30 dB, SWI 118 ms, VBW 300 kHz, Mode Sweep. The x-axis is labeled 'Frequency Sweep' and the y-axis is labeled 'Count 100/100'.

CH-M Reference level	 Date: 25.FEB.2022 10:24:23
CH-M 30MHz~1000MHz	 Date: 25.FEB.2022 10:25:22
CH-M 1GHz~26GHz	 Date: 25.FEB.2022 10:40:53

CH-H Reference level	 Date: 25.FEB.2022 10:25:57
CH-H 30MHz~1000MHz	 Date: 25.FEB.2022 10:26:47
CH-H 1GHz~26GHz	 Date: 25.FEB.2022 10:27:35

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