

APPENDIX REPORT

Project No.	SHT2106054104EW	Radio Specification	Bluetooth BLE
Test sample No.	YPHT21060541011	Model No.	VP880
Start test date	2021-07-02	Finish date	2021-07-02
Temperature	24.6°C	Humidity	39%
Test Engineer	Hailey Chen	Auditor	Xiaodong Zhu

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

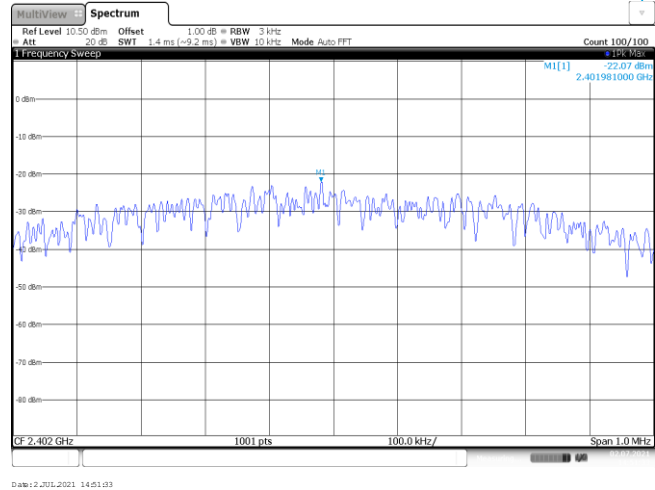
Type	Channel	Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
BT-BLE	00	-6.78	-6.79	≤ 30.00	Pass
	19	-7.97	-7.98		
	39	-7.11	-7.14		

CH00	The spectrum plot for CH00 shows a peak at 2.40196500 GHz with a magnitude of -6.74 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 10.50 dBm, Att 20 dB, Offset 1.00 dB, RBW 2 MHz, SWI 1.01 ms, VBW 5 MHz, and Mode Auto Sweep. The x-axis is labeled 'CF 2.402 GHz' and the y-axis is labeled 'dBm'. The plot shows a peak at 2.40196500 GHz with a magnitude of -6.74 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 10.50 dBm, Att 20 dB, Offset 1.00 dB, RBW 2 MHz, SWI 1.01 ms, VBW 5 MHz, and Mode Auto Sweep. The x-axis is labeled 'CF 2.402 GHz' and the y-axis is labeled 'dBm'. The plot shows a peak at 2.40196500 GHz with a magnitude of -6.74 dBm.
CH19	The spectrum plot for CH19 shows a peak at 2.43991010 GHz with a magnitude of -7.97 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 10.50 dBm, Att 20 dB, Offset 1.00 dB, RBW 2 MHz, SWI 1.01 ms, VBW 5 MHz, and Mode Auto Sweep. The x-axis is labeled 'CF 2.44 GHz' and the y-axis is labeled 'dBm'. The plot shows a peak at 2.43991010 GHz with a magnitude of -7.97 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 10.50 dBm, Att 20 dB, Offset 1.00 dB, RBW 2 MHz, SWI 1.01 ms, VBW 5 MHz, and Mode Auto Sweep. The x-axis is labeled 'CF 2.44 GHz' and the y-axis is labeled 'dBm'. The plot shows a peak at 2.43991010 GHz with a magnitude of -7.97 dBm.
CH39	The spectrum plot for CH39 shows a peak at 2.48007990 GHz with a magnitude of -7.11 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 10.50 dBm, Att 20 dB, Offset 1.00 dB, RBW 2 MHz, SWI 1.01 ms, VBW 5 MHz, and Mode Auto Sweep. The x-axis is labeled 'CF 2.48 GHz' and the y-axis is labeled 'dBm'. The plot shows a peak at 2.48007990 GHz with a magnitude of -7.11 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 10.50 dBm, Att 20 dB, Offset 1.00 dB, RBW 2 MHz, SWI 1.01 ms, VBW 5 MHz, and Mode Auto Sweep. The x-axis is labeled 'CF 2.48 GHz' and the y-axis is labeled 'dBm'. The plot shows a peak at 2.48007990 GHz with a magnitude of -7.11 dBm.

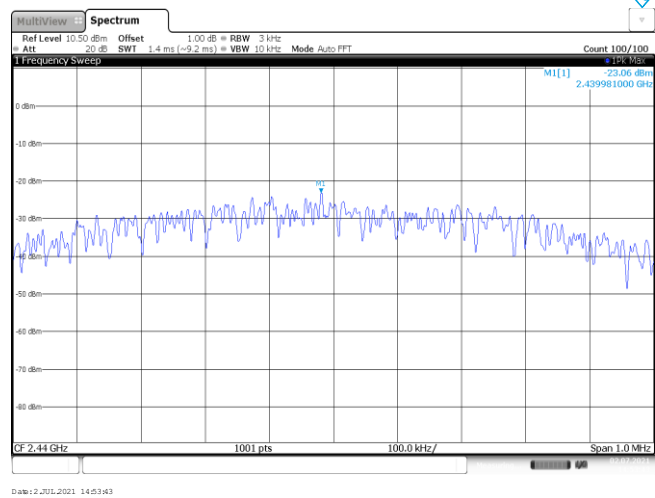
Appendix B: Power Spectral Density

Type	Channel	Power Spectral Density(dBm/3KHz)	Limit (dBm/3KHz)	Result
BT-BLE	00	-22.07	≤8.00	Pass
	19	-23.06		
	39	-22.30		

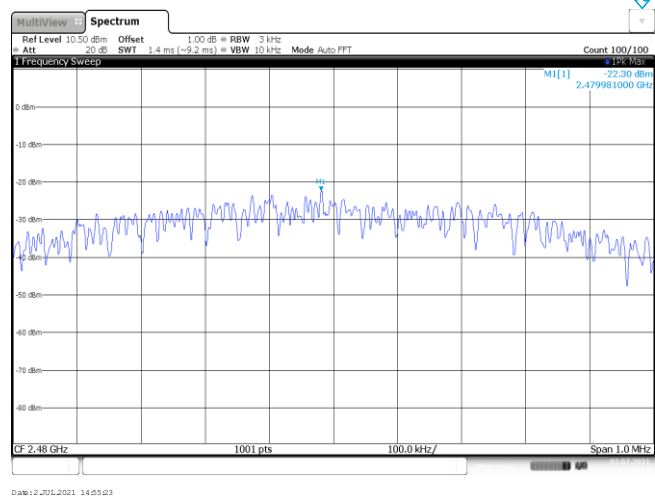
CH00



CH19



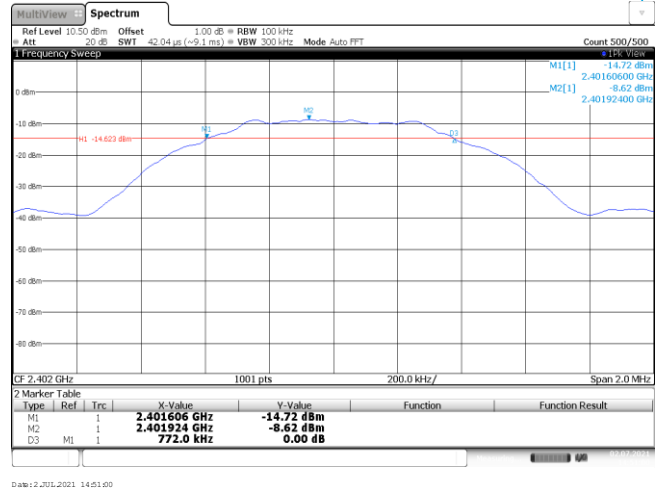
CH39



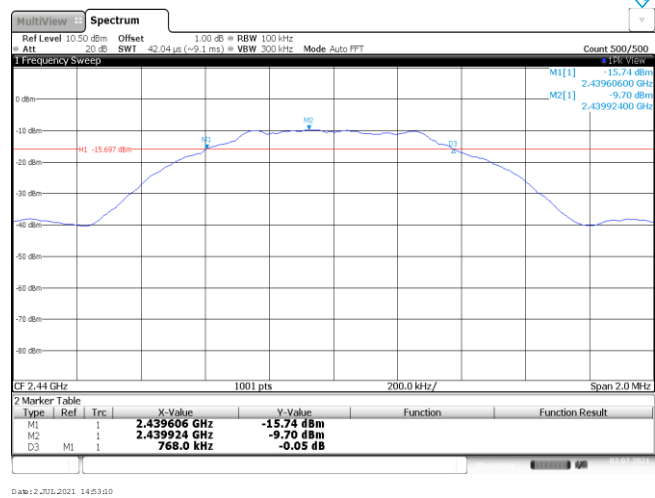
Appendix C: 6dB bandwidth

Type	Channel	6dB Bandwidth(kHz)	Limit (kHz)	Result
BT-BLE	00	772.00	≥500	Pass
	19	768.00		
	39	770.00		

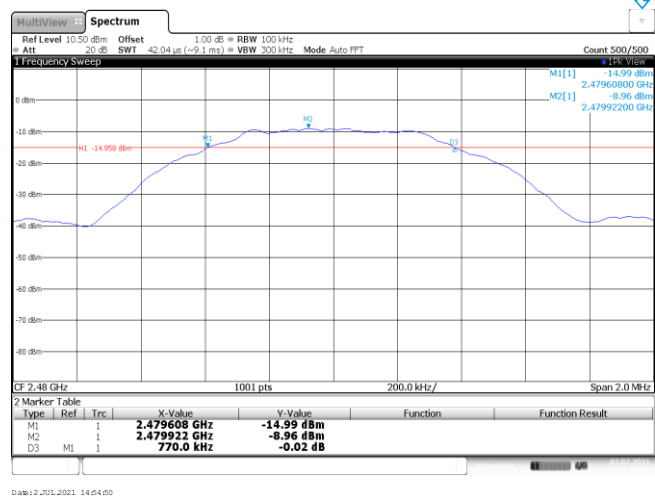
CH00



CH19



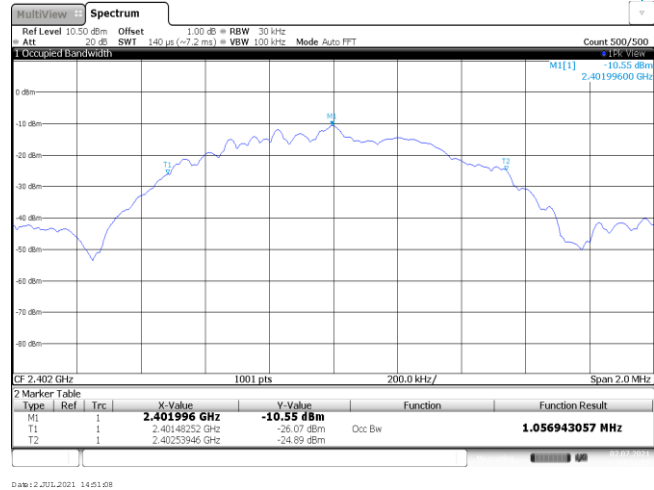
CH39



Appendix D: 99% Occupied Bandwidth

Type	Channel	99% Occupied Bandwidth(MHz)	Limit (kHz)	Result
BT-BLE	00	1.06	-	Pass
	19	1.06		
	39	1.06		

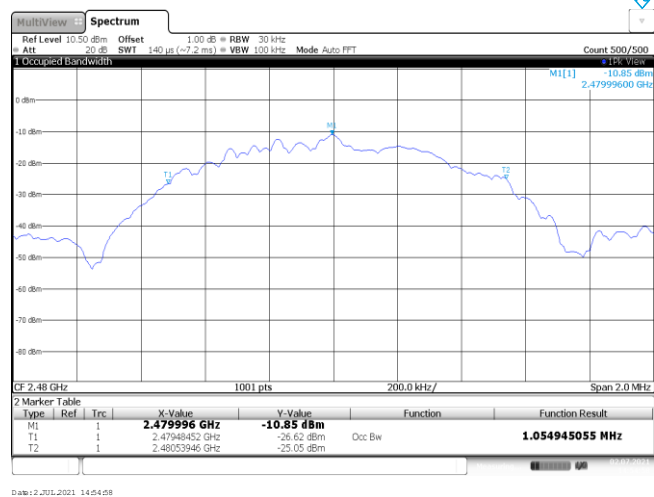
CH00



CH19

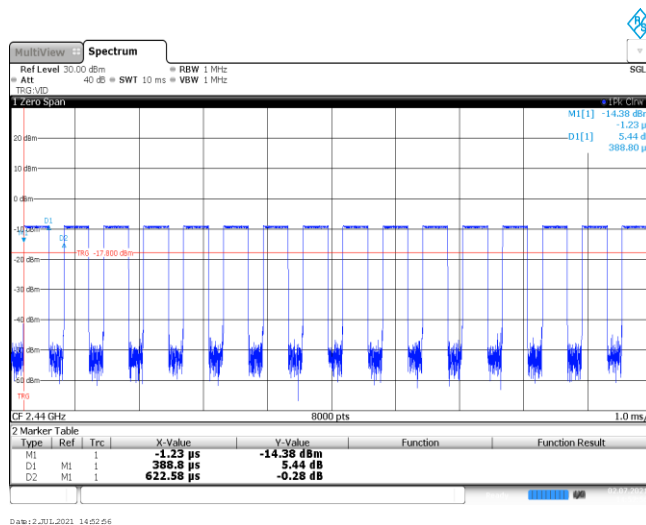


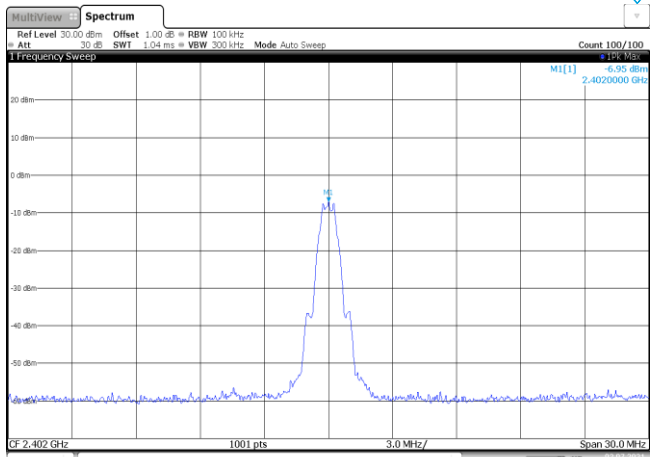
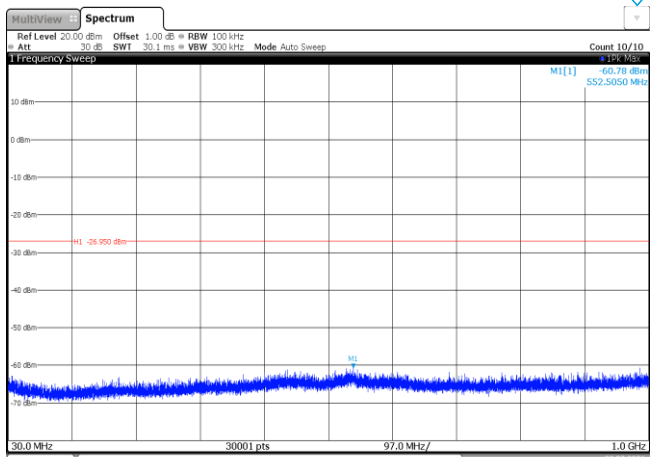
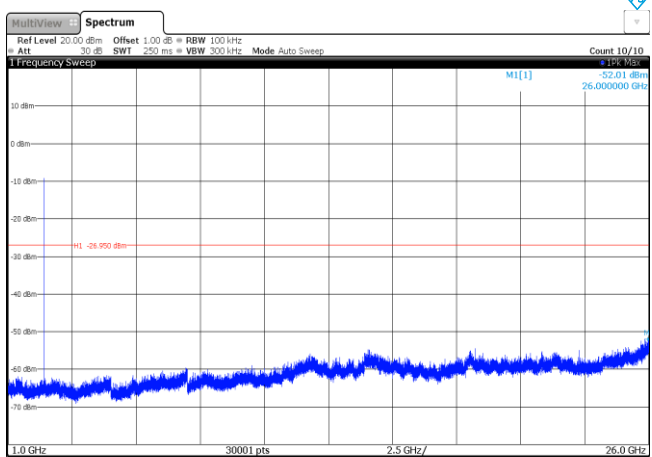
CH39



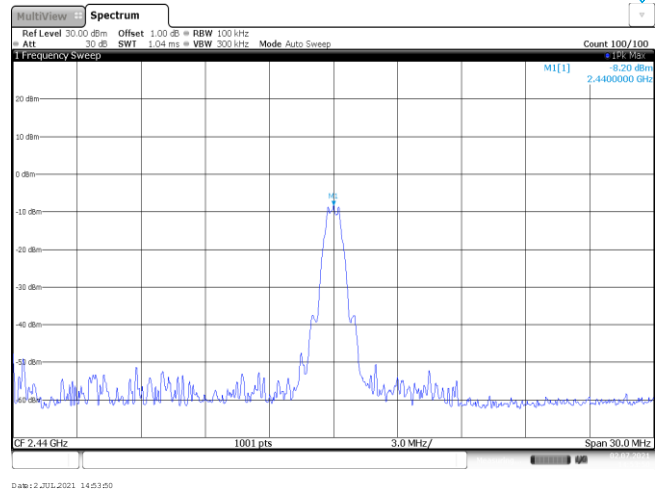
Appendix E: Duty cycle

Test Frequency (MHz)	T _{on} time for single burst (ms)	T _{period} (ms)	Duty cycle	1/T _{on} time (kHz)
2440	0.39	0.62	62.9%	2.6

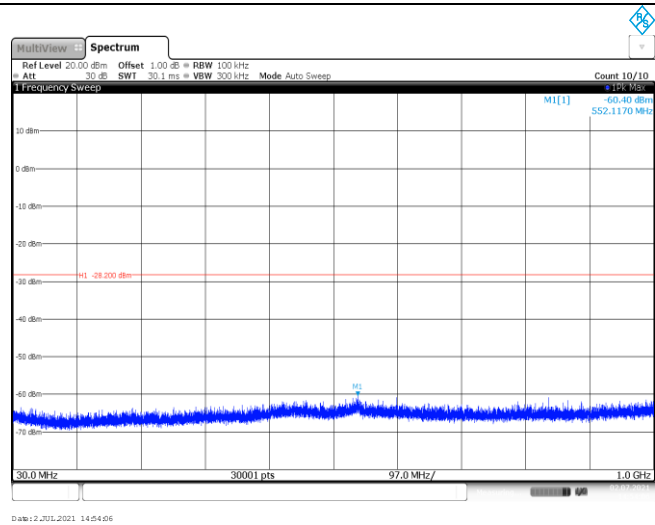


Test Item:	SE
CH00 Reference level	 Ref Level 30.00 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SWI 1.04 ms VBW 300 kHz Mode Auto Sweep Count 100/100 M1[1] -52.00 dBm 2.402000 GHz CF 2.402 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 2 JUL 2021 14:01:55
CH00 30MHz~1000MHz	 Ref Level 20.00 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SWI 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 M1[1] -60.75 dBm 552.5050 MHz M1 -26.950 dBm 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 2 JUL 2021 14:02:01
CH00 1GHz~26GHz	 Ref Level 20.00 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SWI 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 M1[1] -52.01 dBm 26.000000 GHz M1 -26.950 dBm 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 2 JUL 2021 14:02:28

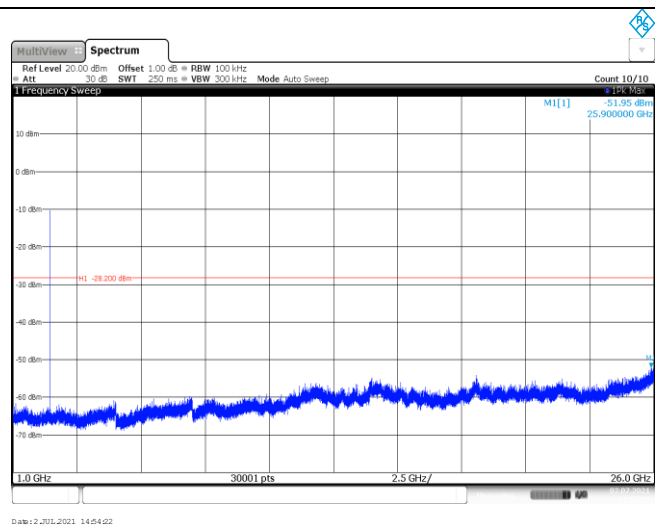
CH19
Reference level

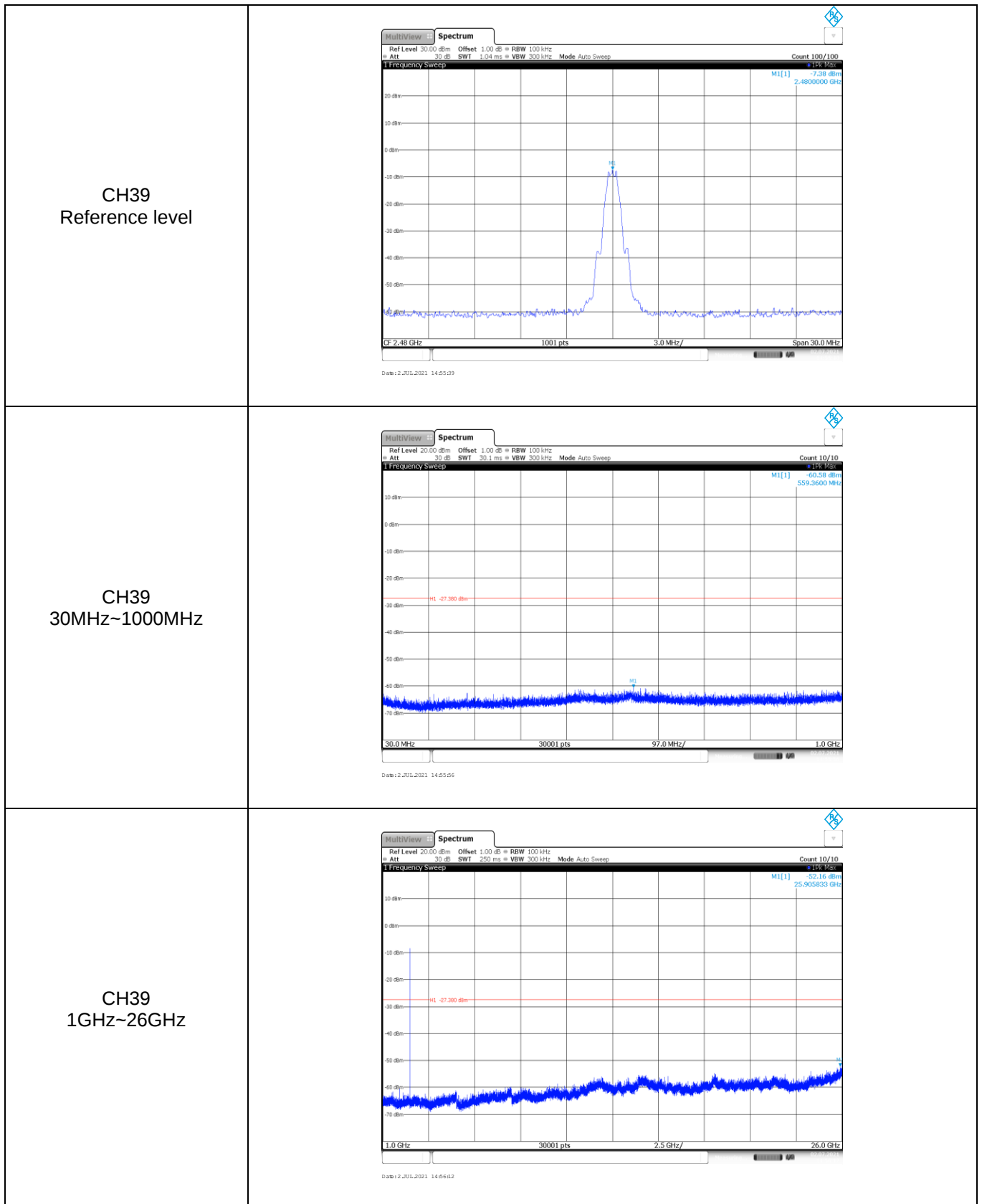


CH19
30MHz~1000MHz



CH19
1GHz~26GHz





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