

*Fax:* +886 2 26099303



File Number: C1M2310118

Report Number: EM-F230560



APPENDIX A-Page 249 of 269 Tel: +886 2 26099301 Fax: +886 2 26099303



File Number: C1M2310118

Report Number: EM-F230560



Fax: +886 2 26099303

BLE (2Mbps) TX 2402MHz TX 2440MHz Reference Level **Reference Level** Spectrum Analyzer 3 Swept SA PNO: Best Wide Gale: Off Avg]Hold Spectrum Analyzer 1 Occupied BW KEYSIGHT Input. RF Coupling Align. Aut Spectrum Analyzer 2 Occupied BW Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) PNO. Best Wide Gale: Off F Gain: Low Sig Track: Off Spectrum Analyzer 4 Swept SA + Spectrum Analyzer 3 Swept SA Spectrum Analyzer 4 Swept SA Spectrum Analyzer + iput RF Avg Type: Log-Power Avg[Hold.>100/100 Trig: Free Run KEYSIGHT Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) 1 2 M₩ PNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off  $\mathbf{r}$ Mkr1 2.439 991 6 GHz 6.77 dBm Ref LvI Offset 1.10 dB Ref Level 11.10 dBm Mkr1 2.401 993 28 GH: 6.87 dBn 1 Spectrum Scale/Div 10 dB Ref Lvi Offset 1.10 dB Ref Level 11.10 dBm 1 Spectrum Scale/Div 10 dB Video BW 300 kHz Span 1.676 MHz Sweep 1.00 ms (1001 pts) Center 2.4020000 #Res BW 100 kHz Video BW 300 kHz Span 1.680 MHz Sweep 1.00 ms (1001 pts) Center 2.440000 #Res BW 100 kH Ct 19, 2023 1:27:32 PM C 19, 2023 1:23:36 PM Band Edge Spectrum Analyzer 1 Occupied BW KEYSIGHT Input: RF Couping Align: Auto Spectrum Analyzer 2 Occupied BW Spectrum Analyzer 3 Swept SA Spectrum Analyzer 4 Swept SA • + PNO: Fast Gete: Off Avg[Hold>100/100 IF Gain: Low Trig: Free Run Sig Track: Off Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) Mkr1 2.399 90 GHz -26.04 dBm 1 Spectrum Scale/Div 10 dB Ref Lvi Offset 1.10 dB Ref Level 14.10 dBm ø Span 50.00 MHz Sweep 1.00 ms (1001 pts) Video BW 300 kHz Center 2.40200 GHz #Res BW 100 kHz Ct 19, 2023 1:24:35 PM **Conducted Spurious Emission Conducted Spurious Emission** Spectrum A Swept SA Input Z: 50 Q Corrections: Off Freq Ref: Int (S) Spectrum Analyzer 4 Swept SA Spectrum Analyzer Swept SA Spectrum / Swept SA Spectrum Ana Occupied BW Spectrum Analyzer 5 Swept SA Spectrum Analyze · + Spe + Avg Type: Log-Avg[Hold: 21/1 Trig: Free Run KEYSIGHT PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) PNO: Fast Gate: Off IF Gain: Low Sig Track: Off nout: RF Avg Type: Log-Avg[Hold: 51/1 Trig: Free Run MWWWWW 1 Spectrum Scale/Div 10 dB Ref Lvi Offset 1.10 dB Ref Level 14.10 dBm Ref Lvi Offset 1.10 dB Ref Level 14.10 dBm Scale/Div 10 dB Stop 25.00 GHz Sweep ~89.6 ms (32001 pts) Video BW 300 kHz Start 30 MHz #Res BW 100 kHz Video BW 300 kHz stop 25.00 C 19, 2023 1:25:41 PM

Report Number: EM-F230560



APPENDIX A-Page 251 of 269 Tel: +886 2 26099301 Fax: +886 2 26099303



Report Number: EM-F230560



APPENDIX A-Page 252 of 269 Tel: +886 2 26099301

Fax: +886 2 26099303



File Number: C1M2310118

Report Number: EM-F230560



APPENDIX A-Page 253 of 269 Tel: +886 2 26099301 Fax: +886 2 26099303



Report Number: EM-F230560



*Fax:* +886 2 26099303



Report Number: EM-F230560



APPENDIX A-Page 255 of 269 Tel: +886 2 26099301 Fax: +886 2 26099303



Report Number: EM-F230560

## A.6 POWER SPECTRAL DENSITY

Test Date	2023/10/19 ~ 31	Temp./Hum.	24 ~ 25°C/55 ~ 69%	
Cable Loss	WiFi: 1.10dB, BLE: 1.10dB	Tested By	Harry Huang	
Test Voltage	AC 120V, 60Hz (via AC Adapter)			

## A.6.1 Power Spectral Density Result

Mode	Centre Frequency	Power Spectral Density (dBm)		MAX. Power Spectral Density	Limit
	(MHz)	AUX	Main	(dBm) <sup>Note 2</sup>	
802.11b	2412	-6.420	-6.210	-6.210	<8 dBm/3kHz
	2442	-6.500	-6.350	-6.350	
	2462	-6.580	-6.360	-6.360	
	2472	-7.220	-8.050	-7.220	
802.11g	2412	-8.360	-7.920	-7.920	
	2442	-7.950	-6.880	-6.880	
	2462	-8.260	-7.740	-7.740	
	2472	-13.220	-14.140	-13.220	

Note: 1. All results have been included cable loss.

2. MAX. Power Spectral Density (dBm) = Max of each Power Spectral Density (dBm).

Report Number: EM-F230560



APPENDIX A-Page 257 of 269 Tel: +886 2 26099301 Fax: +886 2 26099303

Mode	Centre Frequency	Power Spectral Density (dBm)		Total Power Spectral Density	Limit
	(MHZ)	AUX	Main	(dBm) <sup>Note 2</sup>	
802.11n-HT20	2412	-8.750	-9.940	-6.294	
	2442	-7.450	-7.590	-4.509	
	2462	-8.290	-10.060	-6.075	
	2472	-19.210	-20.130	-16.635	
802.11n-HT40	2422	-13.060	-12.620	-9.824	<8 dBm/3kHz
	2442	-12.020	-12.750	-9.359	
	2452	-13.310	-13.290	-10.290	
	2462	-23.390	-22.800	-20.075	
802.11ax-HE20	2412	-11.410	-11.200	-8.293	
	2442	-8.070	-8.550	-5.293	
	2462	-10.160	-9.250	-6.671	
	2472	-21.290	-20.790	-18.023	
802.11ax-HE40	2422	-14.700	-14.580	-11.629	
	2442	-14.280	-13.440	-10.829	
	2452	-14.660	-14.920	-11.778	
	2462	-23.920	-23.960	-20.930	

Mode	RU Config	Centre Frequency	Power Spectral Density (dBm)		Total Power Spectral	Limit
	uration	(MHz)	AUX	Main	Density (dBm) Note 2	
802.11ax-HE20	26/0	2412	1.020	-1.680	2.887	<8 dBm/3kHz
	52/37		-1.860	-1.370	1.402	
	106/53		-5.050	-4.440	-1.724	
	26/8	2472	-12.010	-11.670	-8.826	
	52/40		-14.440	-13.690	-11.039	
	106/54		-16.680	-15.710	-13.158	
802.11ax-HE40	242/61	2422	-10.750	-10.390	-7.556	
	242/62	2462	-20.800	-20.470	-17.622	

Note: 1. All results have been included cable loss.

2. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm) = Sum to individual Power Spectral Density (dBm).

Report Number: EM-F230560



APPENDIX A-Page 258 of 269 Tel: +886 2 26099301 Fax: +886 2 26099303

Mode	Centre Frequency (MHz)	Power Spectral Density (dBm)	Limit
BLE (1M)	2402	-8.04	
	2440	-8.28	<8 dBm/3kHz
	2480	-8.30	
BLE (2M)	2402	-10.41	
	2440	-10.75	
	2480	-11.26	
BLE (PHY Coded S2)	2402	1.30	
	2440	1.12	
	2480	-0.30	
BLE (PHY Coded S8)	2402	1.10	
	2440	0.80	
	2480	0.19	

Note: All results have been included cable loss.

File Number: C1M2310118

Report Number: EM-F230560