

## Line Conducted Emissions Testing

The EUT was tested per the procedures in ANSI C63.4-2000 in the line conducted emissions test room at the UL Sunol Lab by the laboratory personnel.

The EUT was placed in a normal operation mode. A Bluetooth keyboard transmitted "H"s continuously which caused constant data flow over the USB cable and ports and also scrolled on the monitor.

Cabling from the peripherals and the host computer were dressed in the manner described in the test setup section of this report in accordance to the standard. The required ports were terminated and exercised as required in the standard.

The EUT, host computer, and all peripherals were kept 10 cm apart.

The host computer was connected to the LISN and the measuring instrument was connected to the 50 ohm port of the LISN.

Measurements were performed on both current-carrying lines of the host computer power cable.

Testing was performed from 150 kHz to 30 MHz for the whole range in accordance with the ICES-003 requirements and the new FCC limits for conducted emissions effective Sept. 9<sup>th</sup>, 2002.

The unit complied with the applicable limits at all frequencies in the peak mode. Several marginal frequencies were tested in using average detection to investigate further margin to the limit and are reported as well.

The results are presented as Appendix 2.

## Appendix 2 – Line Conducted Emission Data

### Line Conducted Emissions Testing

MS Lapis - Bluetooth Enabled Dongle

Tested at Underwriters Laboratory - Sunol

120VAC / 60 Hz Line 1

### FINAL RESULTS - Digital Device Testing

Standard Applied - ANSI C63.4 - 2000 / ICES-003

Frequency (MHz)	Spur Level (dBuV)	Detector Mode	FCC Class B Limit / Margin	ICES-003 Class B QP Limit / Margin	ICES-003 Class B Avg Limit / Margin	P / F
0.25423	45.22	Peak	61.6 / -16.38 (QP)	61.6 / -16.38	51.6 / -6.38	P
0.44779	43.45	Peak	56.9 / -13.45 (QP)	56.9 / -13.45	46.9 / -3.45	P
0.51107*	43.89	Peak	48 / -4.11	56 / -12.11	46 / -2.11	P
4.60572	40.53	Peak	48 / -7.47	56 / -15.47	46 / -5.47	P
14.44777	42.58	Peak	48 / -5.42	60 / -17.42	50 / -7.42	P
0.5115*	42.25	Avg	48 / -5.75	56 / -13.75	46 / -3.45	P

Table 2 – Line Conducted Data – Line 1

### Line Conducted Emissions Testing

MS Lapis - Bluetooth Enabled Dongle

Tested at Underwriters Laboratory - Sunol

120VAC / 60 Hz Line 2

### FINAL RESULTS - Digital Device Testing

Standard Applied - ANSI C63.4 - 2000 / ICES-003

Frequency (MHz)	Spur Level (dBuV)	Detector Mode	FCC Class B Limit / Margin	ICES-003 Class B QP Limit / Margin	ICES-003 Class B Avg Limit / Margin	P / F
0.25423	41.91	Peak	61.6 / -19.69 (QP)	61.6 / -19.69	51.6 / -9.69	P
4.60572	40.98	Peak	48 / -7.02	56 / -15.02	46 / -5.02	P
5.61822	40.15	Peak	48 / -7.85	60 / -19.85	50 / -9.85	P
15.06197	42.04	Peak	48 / -5.96	60 / -17.96	48 / -5.96	P

Table 3 – Line Conducted Data – Line 2