

MilliKey 1000 Hz USB Response Boxes

Technical Specifications

Supported Operating Systems	Windows 7, 10. OS X, and Linux.
Supported Experiment Software	Keyboard Events: Any USB Serial: Any software that allows reading / writing to a Serial port.
Case Size	See MilliKey Model Comparison Chart.
Button Size	
Button Colors	
Button Count	
Case Material	ABS Plastic (Black)
USB Connection	Full Speed USB 2 Type A
Keyboard Events	Operating System registers MilliKey as a standard USB keyboard without the need for any driver installation.
Max. Simultaneous Buttons / Keys Pressed	8 (buttons 1 - 6 map to standard keys; buttons 7 and 8 map to modifier keys)
USB Serial Interface	Windows 10 and OS X automatically register each MilliKey as a USB Serial device. See MilliKey Setup Guide for instructions for others OS's.
Updatable Firmware	Yes, using MilliKey Manager Application.
User Settable Parameters	Yes, using MilliKey Manager Application or USB Serial Interface
Device Name	Default: 'MilliKey'. 8 character maximum length.
button -> key mapping	Defaults: • Buttons 1 - 6 = Numpad Key 1 - 6. • Button 7 = ATL modifier, • Button 8 = CTRL modifier.
Debounce Interval	Default 15 msec.
Internal Button Sampling Rate	All button inputs are simultaneously read and processed at rate of at least 50 KHz. (50,000 second).
USB Keyboard Event Sampling Rate	1000 Hz (1 msec)
USB Serial Sampling Rate	1000 Hz
Button Press Event Delay* ^	<= 1.0 msec average. See MilliKey Timing Capabilities for more details.
Debounce Interval	Default: 15 msec. Applied to Button Release Events only. Button Presses are sent in the next available USB packet (<= 1.0 msec).
Button Release Event Delay** ^	Debounce Interval plus 0.5 msec average. Debounce Interval is User Configurable, with a default of 15 msec.

*Button Press Event Delay = Time OS Generates Event minus Time of Physical Button Press.

**Button Release Event Delay = Time OS Generates Event minus Time of Physical Button Press.

^ Computer Configuration can, and will, impact the ability of your computer to poll any USB HID device at 1000 Hz. The Experiment Software being used can, and will, impact the accuracy of keyboard event time stamps regardless of the USB hardware being used. MilliKey includes the ability for you to perform self-validation; the ability to test the delay of keyboard events on the computer being used, or test the accuracy of keyboard event timestamps by the experiment software itself, without the need for any additional hardware.

Specifications are subject to change without notice.

Visit us at
www.labhackers.com



LabHackers Inc.

www.labhackers.com

613-863-3860
info@labhackers.com

5771 Lombardy Dr.
Ottawa, Ontario K0A2W0