

USB replacement device for Keyboard and Mouse with 10 configurable inputs

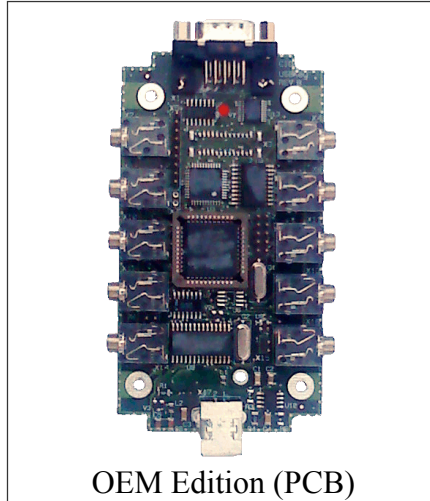
USBKey

Universal Keyboard
&
Mouse emulator
with USB interface

Product Datasheet



Commercial Edition



OEM Edition (PCB)

Product highlights:

USBKey is a programmable USB HID (Human Interface) device with 10 configurable inputs as well as an integrated RS-232 serial port. When plugged into a USB port of any personal computer (PC, Mac), it is immediately recognized as a HID peripheral (keyboard, mouse), without requiring any additional software driver installation.

In fact, USBKey is HID compliant and recognized by the operating system running on the computer after an automatic plug and play discovery process.

Therefore, no extra USB drivers are needed besides those already provided by operating system.

For this to work, the personal computer must however have the following

Minimum system requirements:

- At least one free USB port
- PC: Windows 2000 SP3 or higher ¹
- Mac: OS X 10.3.7 or higher ²

By using our USBKey Configurator Software (for PC/Mac), each of the 10 inputs can be freely and independently configured as:

- Mouse button (left, middle, right)
- Any key of an extended 101 keys keyboard (including the function keys and the numeric keypad)
- Phantom buttons (keys), that are invisible to standard applications, but intercepted only by specific applications designed to do so. To develop applications that support these inputs you have to request our Software Development Kit (SDK).

USBKey also offers the following additional features:

- RS-232 interface, usable by the personal computer. To develop applications that can use the RS-232 interface, you have to request our Software Development Kit (SDK).

When one of USBKey's inputs is activated, the computer will behave as if a standard mouse or keyboard generated the command.

¹ Windows 98SE works as well (unsupported)

² Lower versions of OS X and MacOS 9.x (classic) work as well (unsupported)

Hardware Specifications:

USB standard	V1.1 and higher (Full speed, 12 Mbit/s) USB features: - Low power mode (when the host computer sleeps): yes - Remote wakeup (USBKey can wake up computer): yes
Power supply	Self-powered through the USB cable
Input connectors	<u>Commercial version:</u> 3 mm jack ("stereo") <u>OEM version:</u> - 3 mm jack ("stereo"), or - high density connector (PCB direct)
Input circuits	With internal pull-up (external switches should close to GND). All inputs are protected against electrostatic discharge (ESD) and electronically debounced (filtered).
Keyboard keys	Any choice from: A ... Z 0 ... 9 Enter, ESC, Backspace, Tab, Spacebar, Minus, Equal, Caps Lock, Print screen, Scroll lock, Num lock, Pause, Insert, Home, Page Up, Page Down, Delete, End, Return () \ / : ; ' ~ , . ← → ↑ ↓ * - + F1 ... F15 CTRL (left & right side), SHIFT (left & right side), ALT (left & right side) Keypad keys (<i>all</i>) Auto-repeat feature: yes
Mouse buttons	Left mouse button single click Left mouse button double click Center mouse button Right mouse button <i>(mouse movements can also be implemented upon request)</i>
Phantom keys	Phantom 1 ... 16 <i>To develop applications that support these inputs you have to request our Software Development Kit (SDK).</i>
RS232 interface	Baudrate: 2400, 4800, 9600, 19200, 38400 Bits per character: 7 or 8 Stop bits: 1 or 2 Handshake: none, hardware, XON/XOFF <i>To develop applications that support the RS232 interface you have to request our Software Development Kit (SDK).</i>
Configuration storage	Permanent or volatile
Firmware upgradeable	Yes, through our USBKey Configurator software. Firmware updates are made available to our customers at no charge.

Software description:

Once that the various inputs of the USBKey have been configured, the device will operate without the need of any particular software running on the host computer. In fact, the settings can be stored in a nonvolatile memory inside the USBKey.

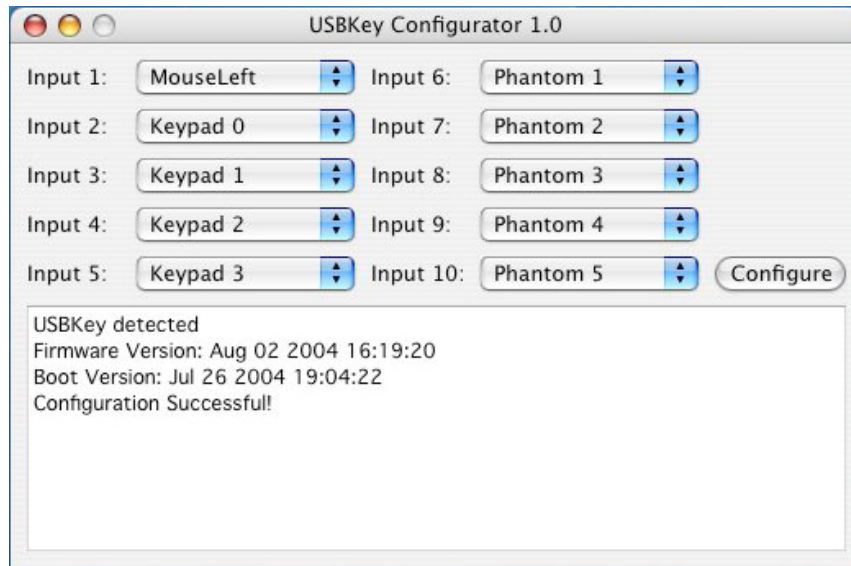
Alternatively, by letting our USBKey Configurator software (see next page) run in the background, it is possible to define multiple configurations that are loaded on the fly depending on the application used on the computer. The front most ("focused") application dictates the USBKey configuration to be loaded. In this case, the USBKey will hold its configuration in a volatile memory (RAM).

USBKey Configurator software:

This software is freely available and exists in both Windows and Mac OS X versions.

Sample of the software's main screen:

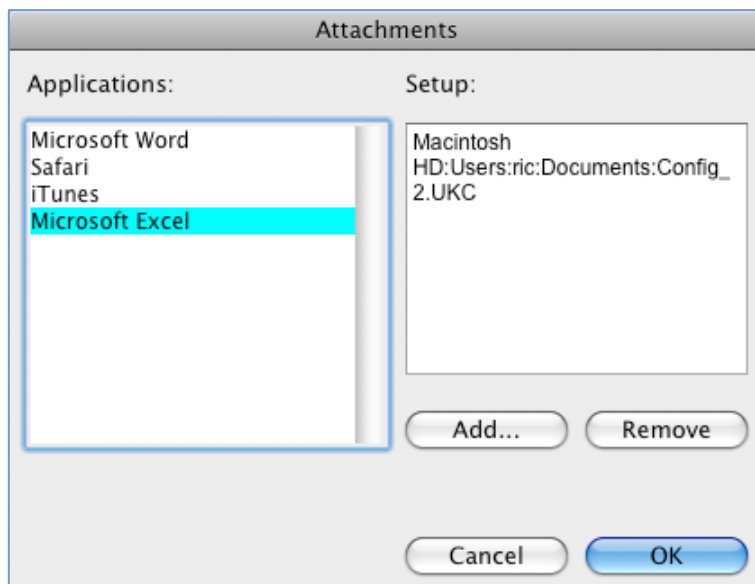
In this screen, each single USBKey input can be configured as a keyboard, mouse or phantom key:



If stored permanently in USBKey's non volatile internal memory, the configuration will be preserved when the device is powered off (or detached). The USBKey will start up with the same configuration the next time it is reconnected or powered up.

The following screen is an example of how the USBKey can receive different configurations depending on the software application being used.

When multiple applications are open at the same time on the computer, the front most (i.e. the one having the focus) will define the configuration to be used:



This so called "on the fly" configuration requires that the USBKey Configurator software is running in the background on the personal computer.

Ordering information:

Item	Ordering Code
USBKey-01 - commercial edition	USBKey-01
USBKey-01 - OEM edition (bare PCB)	USBKey-01-OEM
USBKey Configurator (software) for PC (Windows)	USBKeyConf-PC
USBKey Configurator (software) for PC (Mac OS X)	USBKeyConf-Mac
USBKey special function's Software Development Kit (SDK)	USBKey-SDK

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