

# KEIC-USB Single Chip Encoder

Incorporate the USB Keyboard Encoder Function into your own Design

The KEIC-USB is available as a 40 pin DIP, or 48 pin SSOP

The KEIC-USB product provides the user with a single chip device that can be incorporated into their own USB design. The device requires minimal support circuitry as demonstrated on the sample schematic.

The KEIC-USB is a custom product and is configured by Hagstrom Electronics, Inc. for the user's application. The following list itemizes the information required to set up the KEIC-USB for an application.

- 1) Define which scan lines are Rows and which are Columns in the user's matrix. Although the KEIC-USB sample schematic shows Rows and Columns assigned to specific pins, any of the scan lines can be either a Row or Column, or even an individual input.
- 2) Specify the keystroke to be emulated for each position in the matrix or input.
- 3) Fax or email the information to us with your order. We typically have your devices ready in less than one week!

Note that the KEIC-USB can also be used in a combination keyboard and mouse mode. In this mode, the KEIC-USB tells the host that it is a combination keyboard and mouse. Inputs in this mode may be programmed to generate Left, Middle, and Right Mouse clicks. We can also add translation from PS/2 mouse into USB mouse protocol as shown on the sample schematic.

The KEIC-USB can also support the three keyboard status LEDs as demonstrated on the sample schematic.

The KEIC-USB support circuitry includes a 6.00 Mhz resonator, several capacitors, and various resistors as shown.

The level of customization that we provide for the KEIC-USB is diverse. Hagstrom Electronics, Inc. can add other functions to the KEIC-USB based on your requirements!

# Schematic of typical KEIC Implementation and Support Circuitry (PC Compatible)

