



USAR USB ICs family product brief

USAR GeniKey™ **Single Chip USB Keyboard Encoder**



About USAR GeniKey™

The USAR GeniKey™ is a single chip USB keyboard encoder with a built-in PS/2 port available for PS/2 pointing or keyboard compatible devices. The USAR GeniKey™ achieves in one easy to implement IC what otherwise would require cumbersome and expensive chipsets.

The USAR GeniKey™ includes a PS/2 port for the hot-plug connection of legacy, specialized keyboards and other devices, such as bar-code scanners that adhere to the PS/2 keyboard or mouse protocols.

The USAR GeniKey™ PS/2 port can auto-switch between an external keyboard or pointing device, and will transparently enable the MouseWheel functionality in pointing devices that support it, and have a Mousewheel compatible driver.

The USAR GeniKey™ supports the boot mode of USB specification 1.1. The keyboard will therefore function at start-up, before the operating systems loads.

The IC scans and encodes an 8 x16 keyboard matrix, provides direct drive for three LEDs (caps

lock, numeric lock and scroll lock) and has a single USB endpoint compatible with USB 1.1 specifications.

The USAR GeniKey™ provides a cost-effective replacement to a product first introduced by USAR in 1995 - a design that combined keyboard scanning along with pointing device functionality through a single USB endpoint.

While the USAR GeniKey™ is an "off-the-shelf" product, the key matrix of the IC can be modified to suit specific keyboards, regardless of volumes. This enables industrial and other vertical system OEMs to easily utilize USB for their input device needs.



USAR GeniKey™

Single Chip USB Keyboard Encoder

GeniKey™ at a glance

- Inexpensive, single chip solution
- Supports boot mode of USB 1.1 specification
- External PS/2 interface to USB
- PS/2 port supports hot-plug of PS/2 legacy devices
- PS/2 port supports MouseWheel functionality
- Single USB endpoint, compatible with USB 1.1 specification
- Scans and encodes an 8 x 16 keyboard matrix
- Provides direct drive for three LEDs (caps lock, numeric lock, scroll lock)
- Customized versions available in small or large quantities

Benefits

The USAR GeniKey™ achieves in one easy to implement IC what would otherwise require cumbersome and expensive chipsets.

Because the USAR implementation utilizes a single USB port for the connection of both basic input devices, systems that come equipped with dual USB ports will benefit by keeping the second USB port available to other USB devices - without the need for an additional Hub. In addition, the IC allows systems that do not come equipped with PS/2 ports to connect with standard or custom PS/2 legacy devices.

Applications

- System Legacy Support
- Industrial / Custom Keyboards
- Desktop Computers
- P.O.S. Terminals
- Portable Devices
- H/PC and Professional H/PCs

Evaluation Kit

USAR GeniKey™ Evaluation Kit now available.
Order Code:
EVK3-GNK-XXX

For sales information and product literature, contact:

USAR Systems, Inc.
568 Broadway
New York, NY 10012
info@usar.com
http://www.usar.com
212 226 2042 Telephone
212 226 3215 Telefax

Copyright 1999, USAR Systems. All rights reserved. GeniKey is a trademark of USAR Systems, Inc. USAR and the USAR logo are registered trademarks of USAR Systems, Inc. All other trademarks belong to their respective companies. USAR Systems reserves the right to make changes without further notice to improve reliability, function or design. USAR Systems does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent and copyright rights nor the rights of others.