

TSB2750 Smart Card Interface

- USB keyboard controller

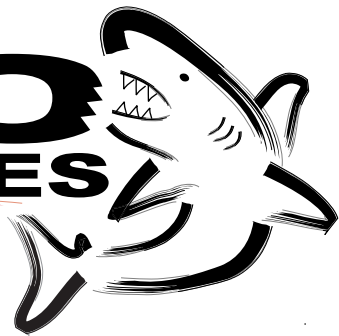
Infineer's TSB2750 combines the keyboard scan matrix and smart card interface function into a single chip solution. The result is an integrated USB keyboard controller, a USB hub and fully certified smart card interface. The keyboard scan matrix can be easily modified to facilitate rapid design implementation. Infineer's TSB2750 offers compatibility with ISO 7816 smart cards and secure PIN entry. The selection of the TSB2750 offers a proven path to EMV compliance for your USB device, ensuring that financial transactions can be completed in strict accordance with Europay, MasterCard, and Visa.

The Infineer TSB2750 offers:

- ▶ **Integrated keyboard microcontroller and smart card interface**
customizable to user specification for reduced product cost and time-to-market
- ▶ **USB 1.1 hub with up to 4 downstream ports**
to offer the consumer additional functionality and value
- ▶ **EMV Compliance**
for secure and certified financial transactions with Europay, Mastercard, and Visa
- ▶ **PIN entry security**
that ensures that the information stored on the smart card will not be accessed without the correct PIN...all without leaving the internal security of the IC
- ▶ **Support for memory cards and microprocessor ISO 7816 smart cards**
including most standard I²C cards
- ▶ **Power management**
with sleep and suspend modes resulting in minimum current draw
- ▶ **Microsoft PC/SC compatibility**
for easy integration with your existing smart card applications



MAKO TECHNOLOGIES



TSB2750 USB Keyboard Controller

Specifications Common To All Infineer Smart Card Interface Solutions

- ▶ Offer EMV certification for your product
- ▶ Microsoft PC/SC compatible API
- ▶ Embedded RISC micro-processor
- ▶ High level driver and support available
- ▶ Evaluation/development board available
- ▶ Full Protocol and Parameter Selection (PPS) support
- ▶ Support ISO 7816 1,2,3 T=0 and T=1 transmission protocols
- ▶ Support synchronous memory cards, I²C, and extended I²C cards
- ▶ Single clock for smart card and microcontroller operation
- ▶ Guard time, block time, and character wait time supported on chip

TSB2750 Specifications

General Specifications

- ▶ 56-pin SSOP package
- ▶ EPROM based solution for quick modification and fast time-to-market
- ▶ 6 MHz external clock for reduced EMI emission
- ▶ Power management with sleep and suspend modes
- ▶ Compliant with WHQL test kits KCT99 v3.1
- ▶ Supports Windows 98, 2000 and Me platforms

Smart Card Interface Specifications

- ▶ Secure PIN entry
- ▶ Supports Standard I²C memory cards
- ▶ "Plug and Play" support
- ▶ Support for 5V smart cards
- ▶ Supports ISO 7816 1,2,3 T=0 and T=1 transmission protocols

Keyboard Specifications

- ▶ Integrated keyboard controller
- ▶ Compliant with USB HID Rev 1.1
- ▶ Ref. Design 1: 16 x 8 keyscan matrix
- ▶ Ref. Design 2: 21 x 8 keyscan matrix (24 hot keys)
- ▶ Recognized as a standard 104-key USB Keyboard
- ▶ Compliant with IBM keyboard specification
- ▶ Supports Remote wakeup
- ▶ 3 LEDs (Num Lock, Caps Lock, Scroll Lock)
- ▶ Boot device (boot support protocol supported)

USB Specifications

- ▶ Hardware and Firmware compliant with USB Spec. Rev 1.1
- ▶ Supports both OHCI & UHCI hosts
- ▶ Provides four downstream ports with DC +5V, 500mA total
- ▶ All downstream ports support full-speed (12Mbps) and low-speed (1.5Mbps) operation

