



**THE DATASHEET OF  
PI3USB103ZLEX**



## Features

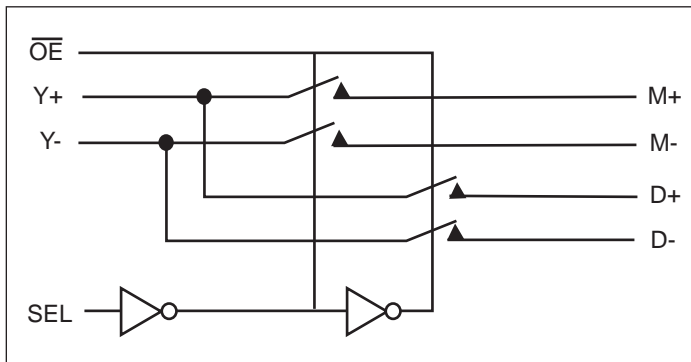
- USB 2.0 compliant (high speed and full speed)
- $R_{ON}$  is 3.0Ω typical @  $V_{DD} = 3.0V$
- Low bit-to-bit skew
- Low Crosstalk: -33dB @ 480 Mbps
- Off Isolation: -30dB @ 480 Mbps
- Near-Zero propagation delay: 250ps
- Channel On Capacitance: 6.0pF (typ)
- $V_{DD}$  Operating Range: 2.7V to 4.4V
- Data pin I/O ESD (pins 1, 2, 4, 5, 6, and 7): ±4kV contact per IEC61000-4-2 spec
- -0.5dB BW of 400MHz
- I/O pins have over-voltage protection and can tolerate a short to Vbus
- Packaging (Pb-free and Green):
  - 10-contact UQFN, 1.4mm x 1.8mm x 0.5mm (ZM10)
  - 10-contact TQFN, 1.3mm x 1.6mm x 0.75mm (ZL10)

## Description

The PI3USB103 is a single differential channel 2:1 multiplexer/demultiplexer USB 2.0 Switch. Industry leading advantages include a propagation delay of less than 250ps, resulting from its low channel resistance and I/O capacitance. The device multiplexes differential outputs from a USB Host device to one of two corresponding outputs. The switch is bidirectional and offers little or no attenuation of the high-speed signals at the outputs. It is designed for low bit-to-bit skew, high channel-to-channel noise isolation and is compatible with various standards, such as High Speed USB 2.0 (480 Mb/s).

The PI3USB103 offers over voltage protection per the USB 2.0 specification. With the chip powered on or off, all I/O pins can withstand a short to Vbus. If  $V_{DD} = 0V$ , the I/Os can still have signals present, and the signal will NOT leak through to  $V_{DD}$ .

## Block Diagram

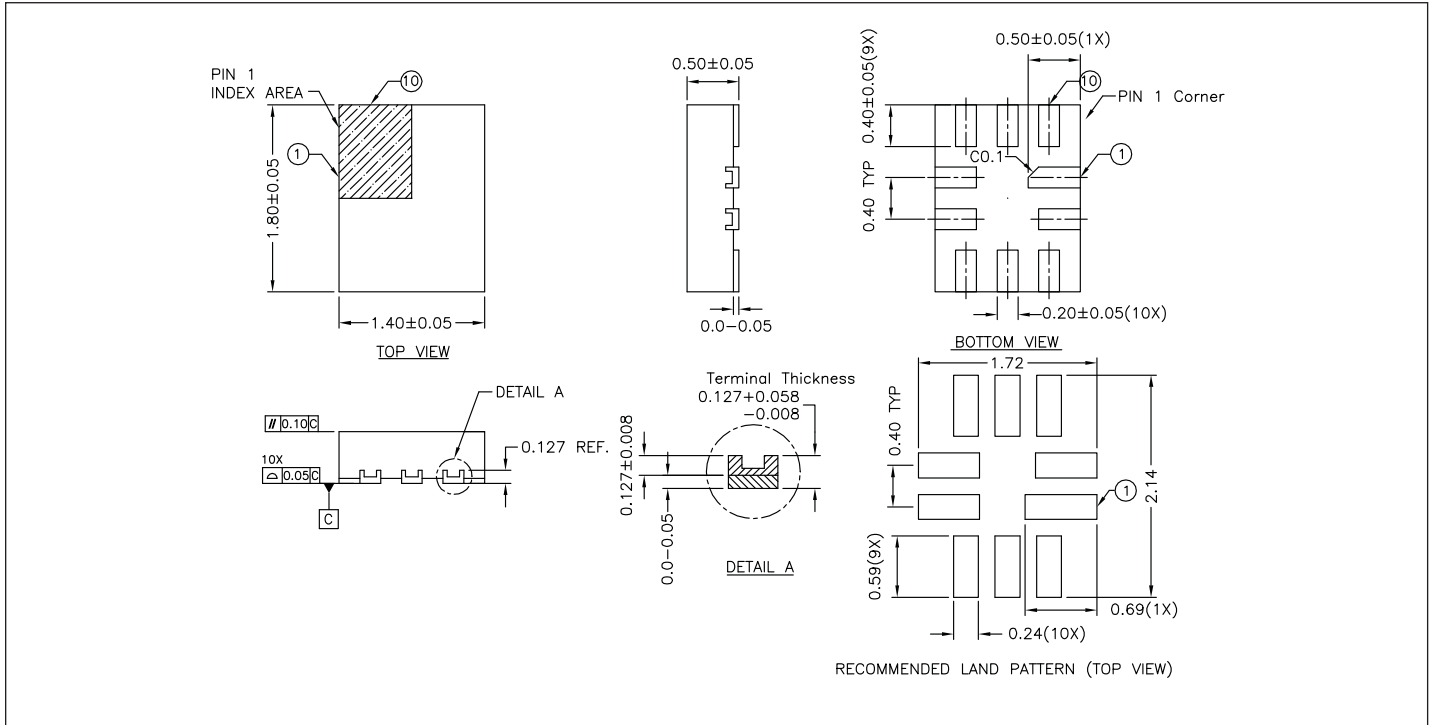


## Ordering Information

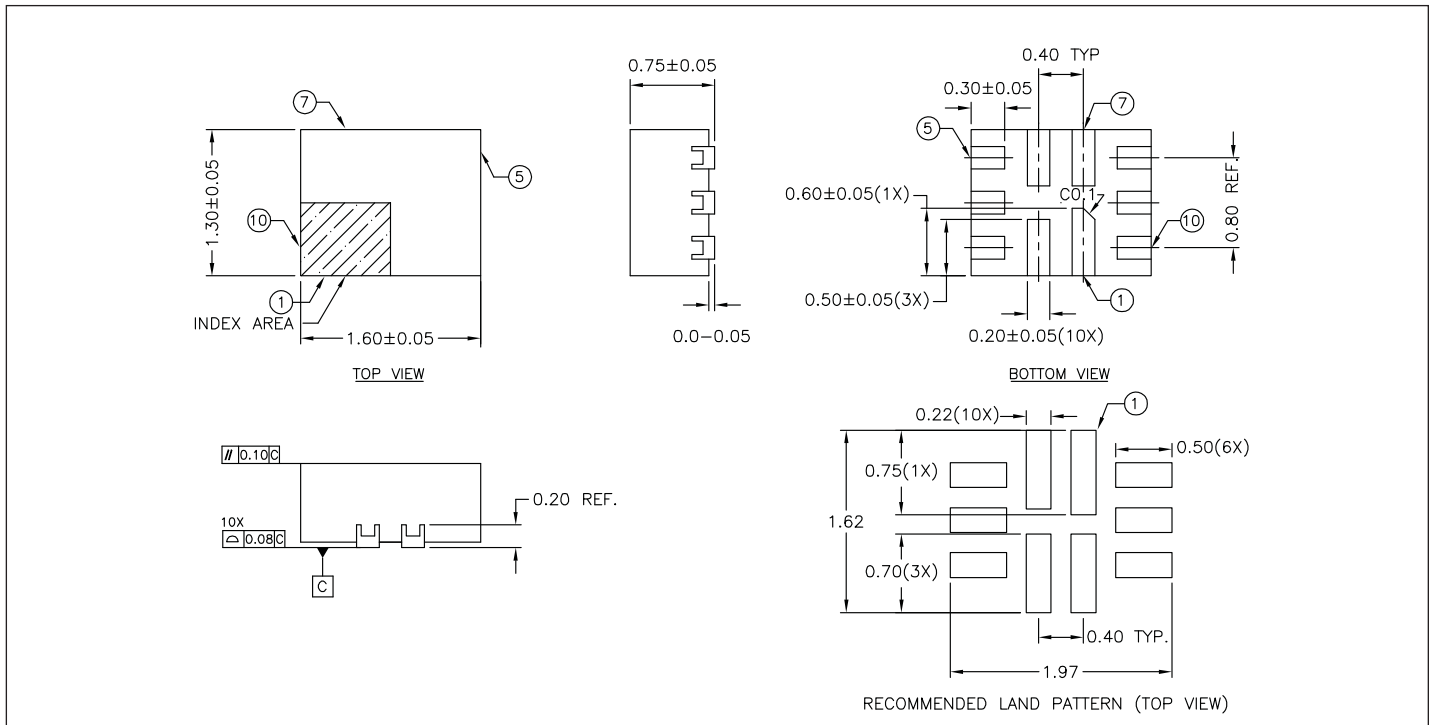
Ordering Code	Package Code	Package Type
PI3USB103ZLE	ZL	Pb-free & Green, 10-contact TQFN
PI3USB103ZME	ZM	Pb-free & Green, 10-contact UQFN

1. Thermal characteristics can be found on the company web site at [www.pericom.com/packaging/](http://www.pericom.com/packaging/)
2. E = Pb-free and Green
3. Adding an X Suffix = Tape/Reel

**Package Mechanical: 10-Contact, TQFN (ZM)**



**Package Mechanical: 10-Contact, TQFN (ZL)**



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