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SUCCESS BY DESIGN

**USB3740**



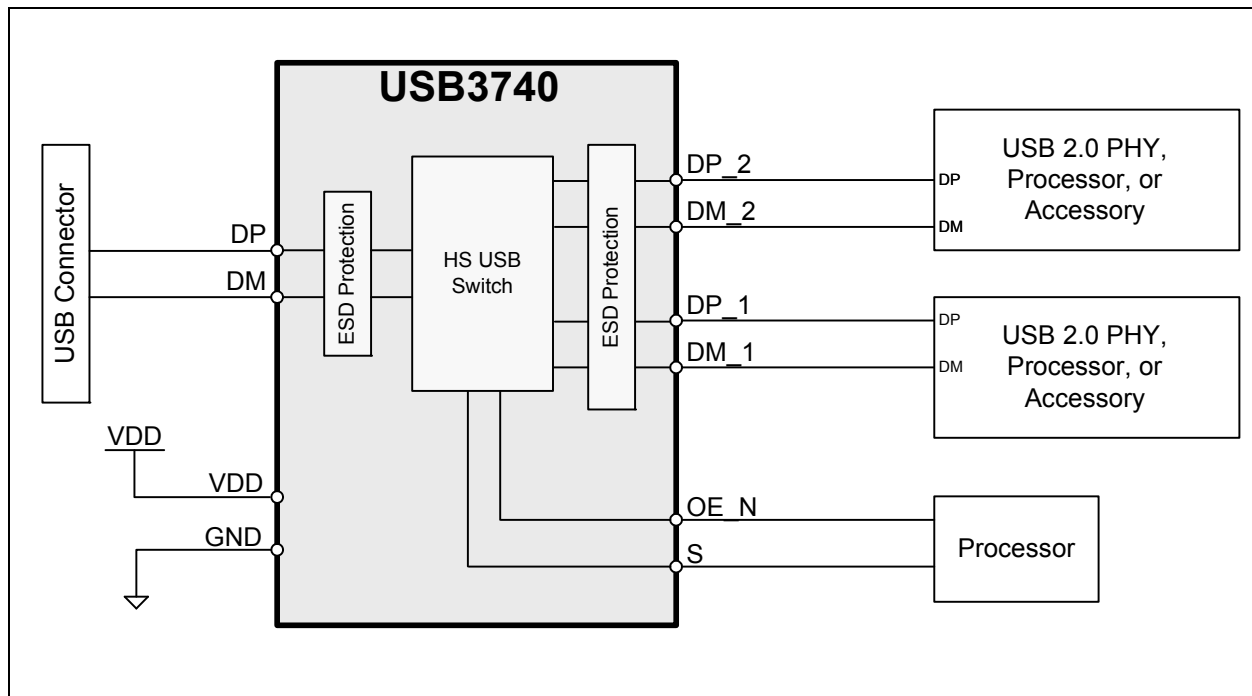
## High Speed Switch for Mobile and Portable Applications

### PRODUCT FEATURES

Data Brief

- High Speed USB Mux for multiplexing the USB lanes between different functions
  - Switch the USB connector between two different functions
  - Up to 1GHz Bandwidth
- USB Port ESD Protection (**DP/DM**)
  - $\pm 15\text{kV}$  (air discharge)
  - $\pm 15\text{kV}$  (contact discharge)
  - IEC 61000-4-2 level 4 ESD protection without external devices
- flexPWR<sup>™</sup> Technology
  - 30nA Active/Standby Current
  - Extremely low power design ideal for battery powered applications
- Control inputs accommodate 1.8V to 5V inputs
- DP/DM tolerate up to 5.5V
- Industrial Operating Temperature  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- 10 pin, QFN lead-free RoHS compliant package; (1.3mm x 1.8mm x 0.55mm height, 0.4mm pitch)
- 10 pin, QFN lead-free RoHS compliant package; (1.6mm x 2.1mm x 0.55mm height, 0.5mm pitch)

**USB3740 Block Diagram**



**Order Numbers:****USB3740B-AI2-TR for 10-pin, 1.3mm x 1.8mm QFN lead-free RoHS compliant package****USB3740B-AI9-TR for 10-pin, 1.6mm x 2.1mm QFN lead-free RoHS compliant package****This product meets the halogen maximum concentration values per IEC61249-2-21****For RoHS compliance and environmental information, please visit [www.smssc.com/rohs](http://www.smssc.com/rohs)**

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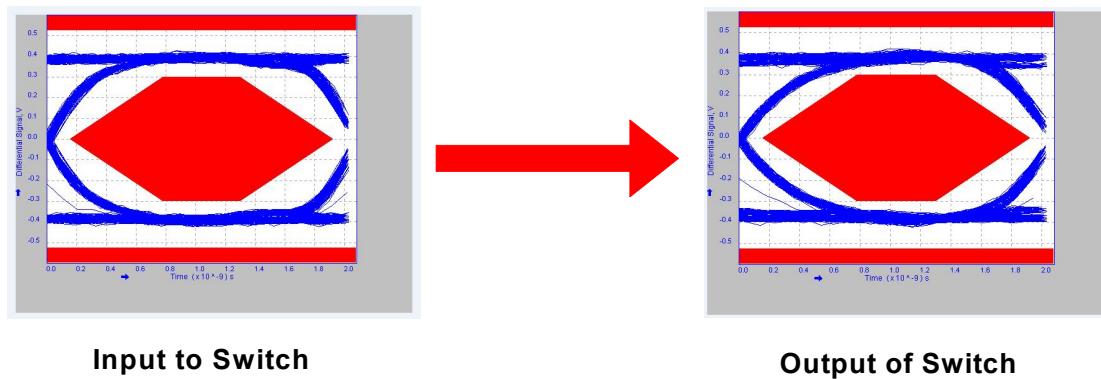
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## General Description

The USB3740 is a USB 2.0 compliant High Speed switch that provides robust ESD protection to the interface in an extremely small package. Outstanding ESD robustness eliminates the need for external ESD protection devices to save eBOM cost and PCB area.

The high bandwidth capabilities of the USB3740 enable extremely low high frequency loss and an exceptionally clean USB 2.0 High Speed eye diagram.



**Figure 1 USB3740 USB 2.0 High Speed Eye Diagram**

## Package Outlines

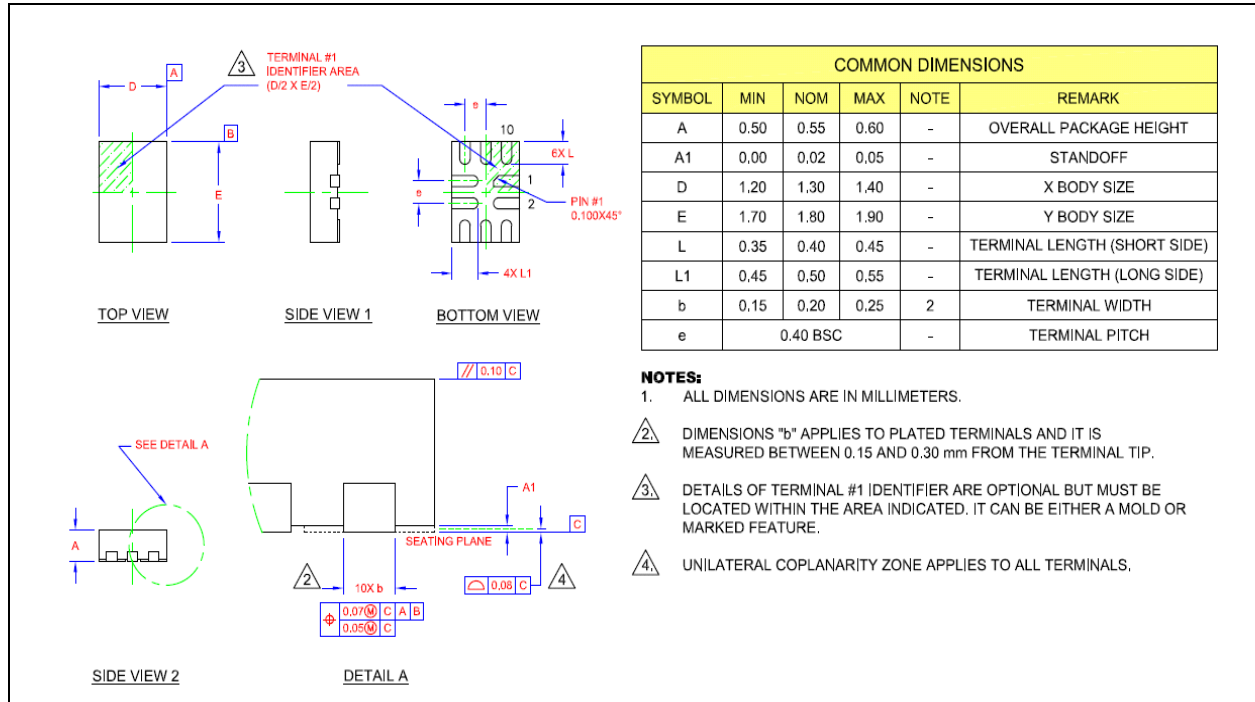


Figure 2 10 pin, 1.3mm x 1.8mm QFN Package Outline

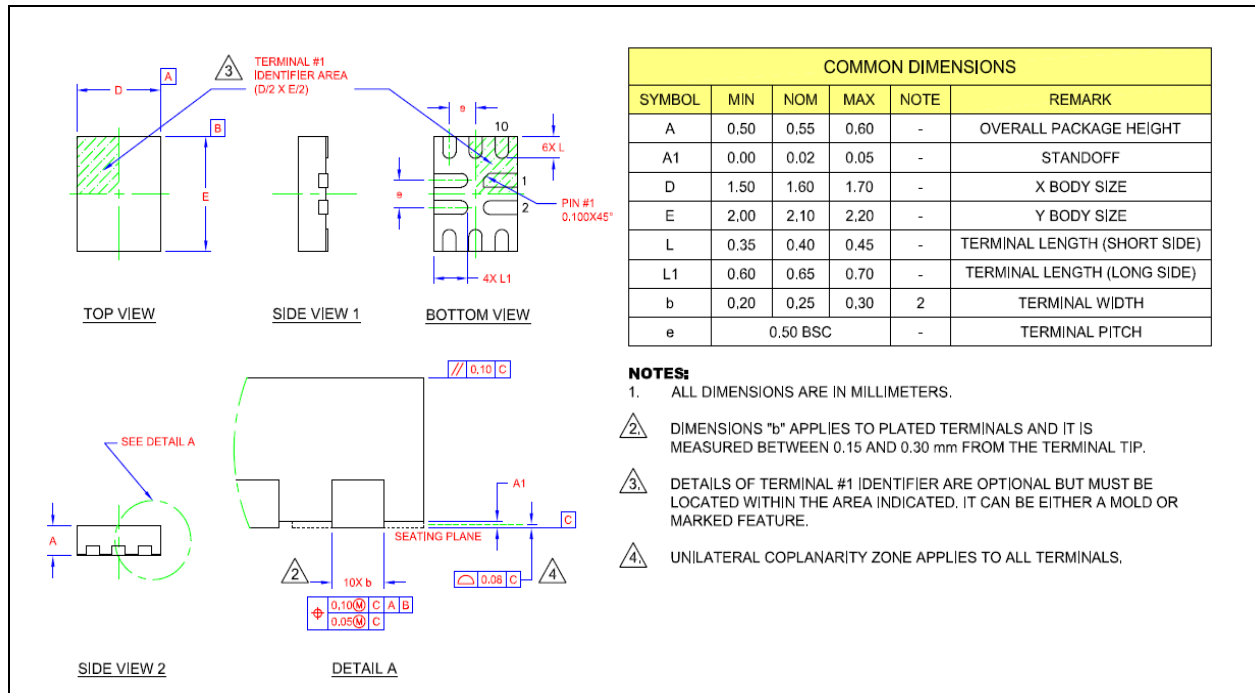


Figure 3 10 pin, 1.6mm x 2.1mm QFN Package Outline