

### USB D+/D- Hi-Speed or SBU1/2 Switch with Fault Protection

#### Features

- Operating Range: 2.7V to 5.5V
- For USB D+/D- Hi-Speed or SBU1/2 signals
- USB Hi-Speed Dual SPDT Switch/MUX
  - ▶ Reverse blocking back-to-back MOSFETs
  - ▶ >1GHz -3db Bandwidth
  - ▶ Low 6Ω Switch On-Resistance
  - ▶ Typical 4.0pF Switch On-Capacitance
- Overvoltage Protection
  - ▶ Up to +20VDC
  - ▶ Surge Protection Up to +25V
- Switch Resistance to ground: 5MΩ typ
- FLAG open drain output overvoltage indicator
- EN to disable switch output
- WLCSP34-12 package (1.17mm x 1.57mm)
- -40°C to +85°C Temperature Range

#### Brief Description

The KTU1001A is a Hi-Speed (up to 480Mbps) USB dual SPDT (single-pole/double-throw) switch with overvoltage protection. This device operates over a 2.7V to 5.5V input supply range with over voltage fault protection up to 20V. USB Type-C features high voltage charging where the KTU1001A protects USB data lines from short circuit and surge events that can permanently damage the mobile system. The device features independent control bits for each switch pair and an on/off enable (EN) for shutdown mode. Additional features include low switch on resistance and capacitance along with a fault flag (FLAG) to alert the system processor to overvoltage fault events.

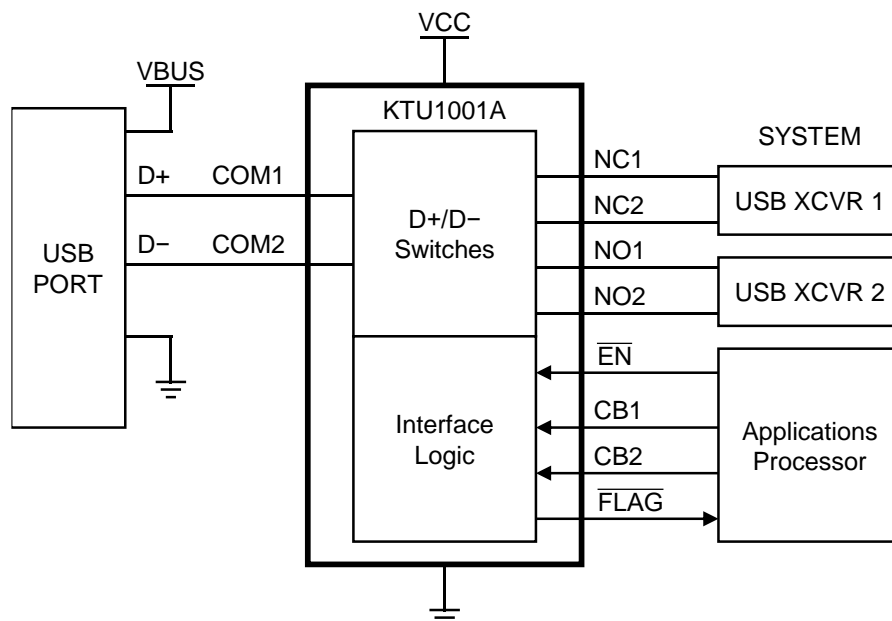
Similar in features and performance to KTU1000, the KTU1001A adds reverse blocking MOSFET switch functionality.

The KTU1001A has low power consumption and is available in an ultra-small 12-Bump 1.17mm x 1.57mm WLCSP package making it an ideal solution for USB interface switching and protection in mobile applications.

#### Applications

- Smartphones
- USB Type-C
- Mobile Internet Devices
- Tablet Computers
- Peripherals

#### Typical Application



### Ordering Information

Part Number	Marking <sup>1</sup>	Operating Temperature	Package
KTU1001AEVA-TR	LQXXYYZZZZ	-40°C to +85°C	WLCSP-12

1. "XXYYZZZZ" is the date code, assembly code and serial number.

Kinetic Technologies cannot assume responsibility for use of any circuitry other than circuitry entirely embodied in a Kinetic Technologies product. No intellectual property or circuit patent licenses are implied. Kinetic Technologies reserves the right to change the circuitry and specifications without notice at any time.