

USB Hi-Speed Switch with Fault Protection

Features

- Operating Range: 2.7V to 5.5V
- USB Hi-Speed Dual SPDT Switch
- >1GHz -3db Bandwidth
- Low 3.8Ω Switch On-Resistance
- Typical 2.0pF Switch On-Capacitance
- Overvoltage Protection Up to +20V
- Surge Protection Up to +25V
- $\overline{\text{FLAG}}$ open drain output overvoltage indicator
- $\overline{\text{EN}}$ to disable switch output
- WLCSP34-12 package (1.17mm x 1.57mm)
- -40°C to +85°C Temperature Range

Brief Description

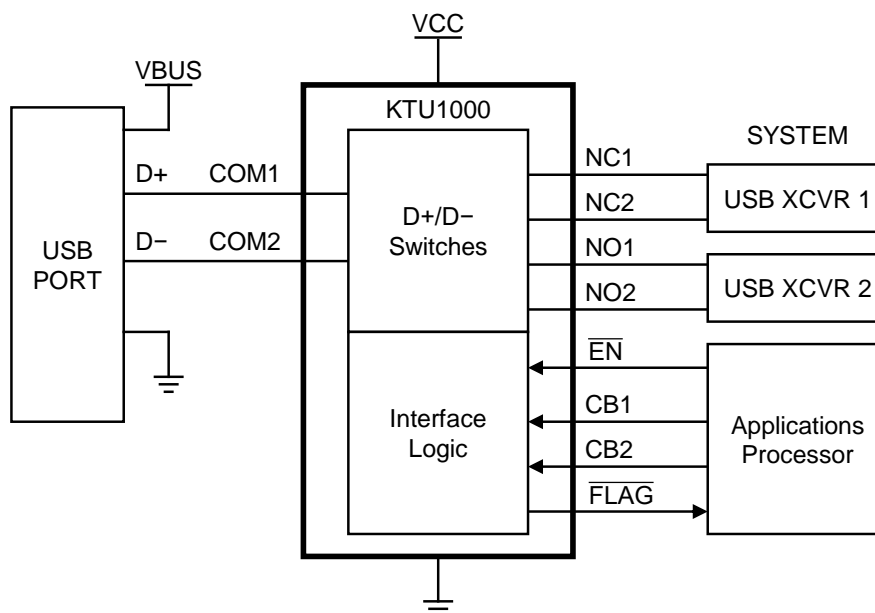
The KTU1000 is a Hi-Speed USB dual SPDT (single-pole/double-throw) switch with overvoltage protection. This device operates over a 2.7V to 5.5V input supply range with over voltage fault protection up to 20V. USB Type-C features high voltage charging where the KTU1000 protects USB data lines from short 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 ($\overline{\text{EN}}$) for shutdown mode. Additional features include low switch on resistance and capacitance along with a fault flag ($\overline{\text{FLAG}}$) to alert the system processor to overvoltage fault events.

The KTU1000 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	Operating Temperature	Package
KTU1000EUX-TR	KYXXYYZZZZ ¹	-40°C to +85°C	WLCSP-12

1. XX = Date Code, YY = Assembly Code, ZZZZ = Serial Number.

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