LT8311SX --- Product Brief

USB2.0 Extender with Integrated MCU

Features

- **USB2.0 Extender**
  - Support HS/FS/LS mode
  - Extended USB communication distance over CAT6 Ethernet cable: up to 60m for HS/FS, and up to 130m for LS
  - Single pair operation
  - Transparent to USB hosts and devices (driver free)
  - Support hot plug
  - Used in pairs
- **Miscellaneous**
  - External oscillator
  - Integrated microprocessor
  - Embedded SPI flash for firmware storage
  - GPIOs for system control
  - Integrated 100/400kHz I2C slave
  - Firmware update through SPI or I2C interface
  - Power supply: 3.3V for I/O and 1.2V for core
  - ESD 4kV HBM
  - Temperature Range: -40℃ ~ +85℃
  - Package: QFN64(7.5mm*7.5mm)

Description

The LT8311SX is a high performance USB2.0 extender which provides USB signal repeating over Ethernet cable or standard USB cable. Compliant with USB2.0 specification, the LT8311SX support high speed, full speed and low speed communication. It extends USB2.0 HS transmission distance up to 60m at 480Mbps therefore eliminates the 5m limitation by USB2.0 specification. Also, user defined packet is supported which provides a path for sideband data communication. It is designed for long cable application and thus ideal for extending the reach of USB2.0 I/O devices such as USB2.0 cameras, hard drivers, flash drivers, printers, scanners, etc.

The device is capable of automatic operation which is enabled by an integrated microprocessor that uses an embedded SPI flash for firmware storage. System control is also available through the configuration I2C slave interface.

Applications

- Surveillance
- KVM Extension
- Car System

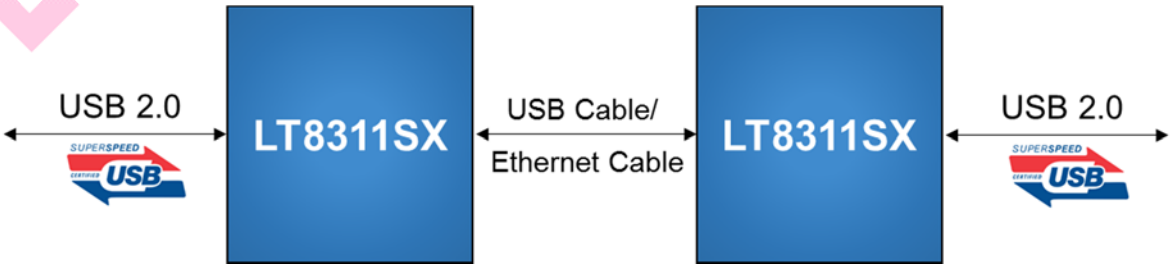

Figure1. Application Diagram

Ordering Information

Part Number	Operating Temperature Range	Package	Packing Method
LT8311SX	-40℃ to +85℃	QFN64 (7.5*7.5)	Tray

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