

# LT8311E --- Product Brief

## USB 2.0 Repeater

### 1. Features

- Extension length up to 120 meters
- Supports USB 2.0 high-speed and USB 1.1(low-speed and full-speed)
- Supports hot plug
- Internal pull-up and pull-down resistor
- I2C control mode for equalization
- Single 3.3V power supply
- 16-pin TSSOP RoHS package
- -40 to 85°C operating temperature range
- 4 lines data transferring
- ESD: HBM to 2KV

### 2. General Description

LT8311E is a low cost high performance USB repeater that provides signal transferring extension over cat5/5e/6 cable, compliant with USB2.0 specification (up to

480Mbps). The maximum extension length can be up to 120 meters from the location of USB hub/host over CAT6 cable. The LT8311E eliminates the 5 meters distance limitation of USB2.0 specification.

There are two different ports for USB2.0 repeater. One port is used for connecting to the USB host, hub or device by USB2.0 cable, the other is used for connecting to another USB repeater by cat5/5e/6 cable. There are four lines used for data transferring between two LT8311E chips. Figure 3.1 shows the typical application. Internal equalization settings can be changed by switch on board under variable media conditions, such as, when using different length of cat5/5e/6 cable.

### 3. Applications

- Desktop and laptop computers, docking stations
- Servers and workstations
- Data storage systems

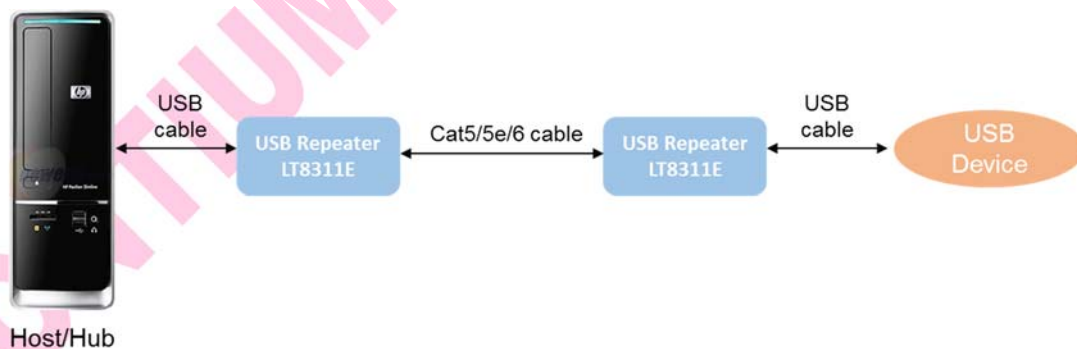


Figure 3.1 Application Diagram

### 4. Ordering Information

Table 4.1 Ordering Information

| Part Number | Package  | Operating Temperature Range | Packing Method | MPQ     |
|-------------|----------|-----------------------------|----------------|---------|
| LT8311E     | TSSOP 16 | -40°C to +85°C              | Tube           | 4800psc |

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