

# LT8514 --- Product Brief

## PCIe3.0 to SATA3.0 Converter

### 1. Features

- **PCIe3.0 EP**
  - Compliant with PCIe3.0
  - Support 2.5Gbps/5Gbps/8Gbps data rate per lane
  - Support x1 lane
  - Support PCIe link layer power saving mode
  - Support SRIS
  - Max Payload Size = 512Byte
- **SATA Controller**
  - Compliant with AHCI- 1.4
  - Support SATA Gen1/Gen2/Gen3
  - 4 SATA Ports
  - Support NCQ
  - Support SATA LED
  - Support port multiplier command based switching
  - Support Partial/Slumber power management
  - Support Device Sleep power management
- **Miscellaneous**
  - External 25M crystal
  - Integrated microprocessor

- Embedded SPI flash for firmware
- Integrated 100/400kHz I2C slave
- Power supply: 3.3V for I/O and 1.2V for core
- QFN64 8\*8 package

### 2. General Description

The LT8514 is a bridge controller with upstream PCIe Gen3 x1 and downstream four SATA Gen3 ports. It's a low latency, low cost and low power AHCI controller, which can be used for high speed data transfer between PCIe port and SATA port.

The LT8514 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 use of a dedicated configuration I2C slave interface.

### 3. Applications

- PC
- Servers

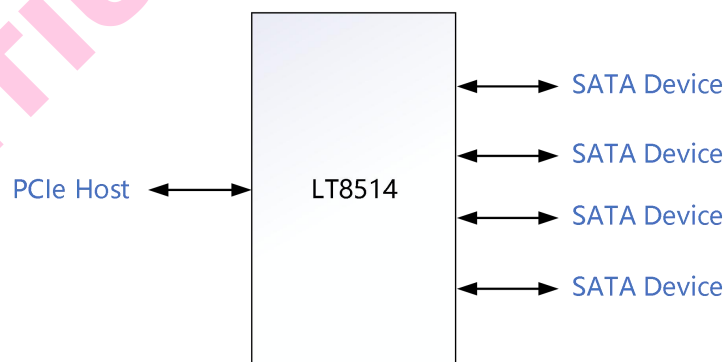
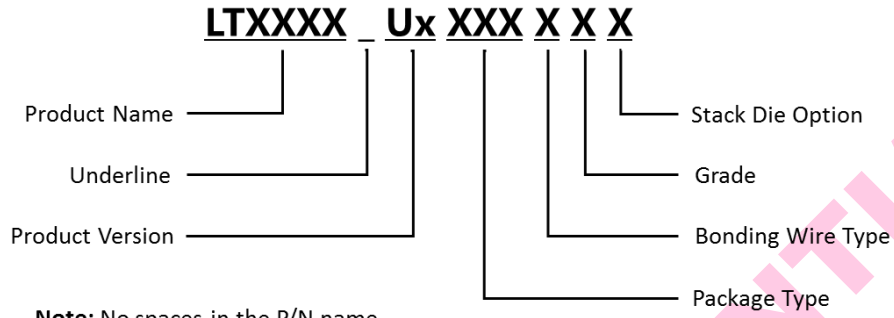


Figure 3.1 Application Diagram

### 4. Ordering Information

**Table 4.1 Ordering Information**

Product Name	Part Number	Product Status	Package	Bonding Wire	Grade	Operating Temperature Range	Stack Die Option	Packing Method	MPQ
LT8514	LT8514_U1Q23CEM	Preview	QFN64 (8*8) Saw	Cu	E	TBD	M	TBD	TBD



**Figure 4.1 Part Number Naming Rules**

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