TGEN6309 Product Brief

1. Description

The TGEN6309 is a high-performance PCIe clock generator that generates nine 100 MHz PCIe clocks using either a 25 MHz crystal or an external single-ended clock input. The clock outputs adhere to the Common Clock specifications for PCIe Gen 1, Gen 2, Gen 3, Gen 3 SRNS, Gen 4, Gen 5, and Gen 6. There is also a spread spectrum control pin for EMI reduction. The compact size and low power consumption of the TGEN6309 make it an excellent clock solution for consumer and embedded applications.

2. Features

- PCI-Express Gen 1, Gen 2, Gen 3, Gen 4, Gen 5 and Gen6 Common Clock Compliant
- PCIe Gen5 CC Phase Jitter < 40fs rms
- PCIe Gen6 CC Phase Jitter < 30fs rms
- Gen 3 SRNS compliant
- Serial-ATA (SATA) support at 100 MHz
- Low-power push-pull HCSL-compatible differential outputs
- No termination resistors required
- 25 MHz crystal input or external single-ended clock input
- Up to nine PCI-Express clock outputs
- Supports 0%, -0.3% and -0.5% spread-spectrum amounts for EMI reduction
- I2C support with readback capabilities
- Industrial temperature: -40 to 85°C
- 3.3 V power supply
- 48-pin LGA package (Compatible with 48-pin QFN)

3. Applications

- Data Center
- X86/Arm Server
- Multi-function printer
- Wireless access point

4. Functional Diagram

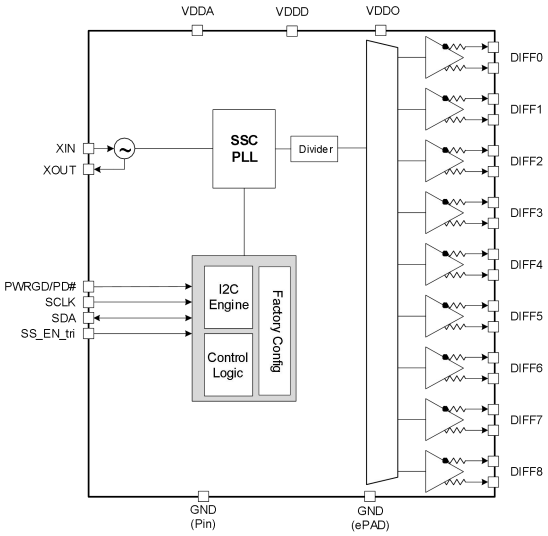

Figure 1 Functional Diagram