GX79472

4 × 96Gbaud Linear Driver with Differential Input and Single-ended Output

The GX79472 is a low-power, high-performance, quad-channel linear driver chip that is designed for 800G and beyond optical integrated transmitter small-form factor (SFF) modules for metro and long-haul applications.

The GX79472 integrates quad lanes of driver with SPI circuitry for DC controls on a single die. Each channel of driver has 100Ω differential AC-coupled input and a single-ended output with a back-terminated output stage. The output stage allows external AC-coupled interface with optical modulators having a wide characteristic impedance range from 30Ω to 50Ω. The linear output voltage of 2.0Vpps is suitable for the LiNbO3 optical modulators with multi-level modulations.

Applications

- 800G and beyond advanced multi-level QAM modulation systems
- High-bandwidth SFF optical integrated modules

Features

- Data rate up to 96Gbaud per channel for 800G and beyond DP-mQAM applications
- > 70GHz E/O bandwidth
- > 10dB dynamic range of gain control
- 3.5W (typical) at linear 2.0Vpps
- AC-coupled 100Ω differential input/30Ω to 50Ω single-ended output
- Ultra-low inter-channel cross-talk
- Peaking adjustment functionality
- Analog control for gain and output voltage setting, and analog monitor for peak detector and gain control monitor
- OIF compliant SPI digital interface integration

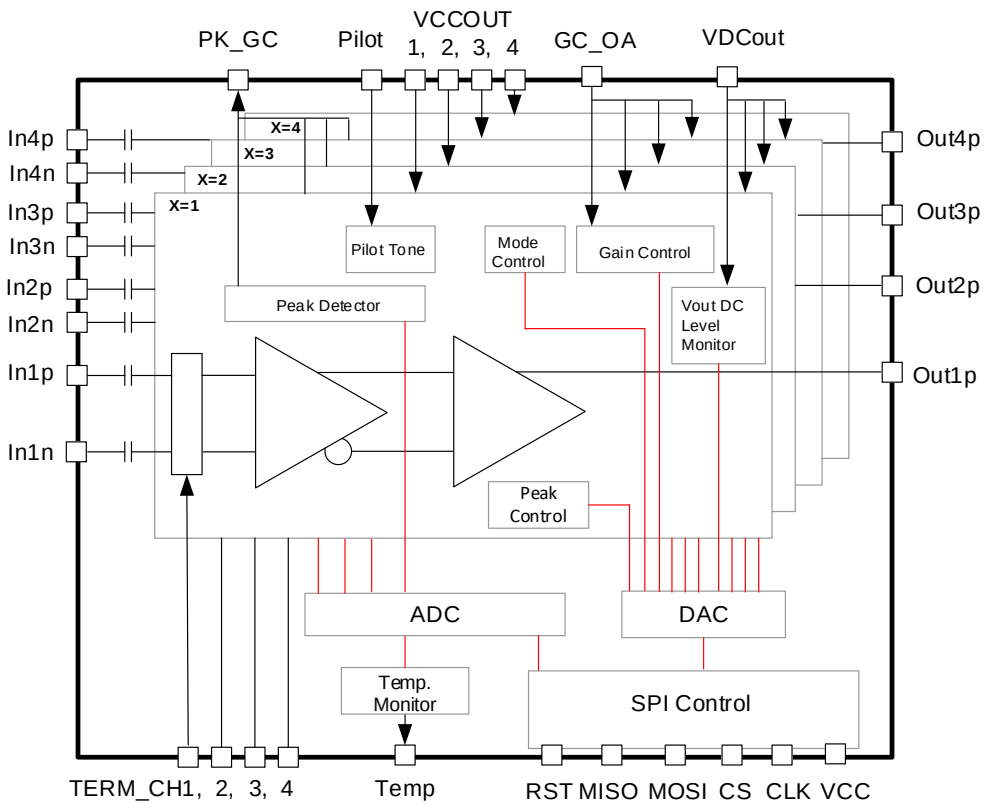

Figure 1. Block Diagram

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