

Description

The HXT45430 is a quad-channel linear optical modulator driver array, and is a member of the Datacom family of Optical Receiver Transmitter Array (ORTA) products. In conjunction with a Silicon Photonics modulator or other external modulator such as EML, a compact linear transmitter can be designed for the next generation of 200G/400G optical transceivers.

The HXT45430 is a low-power, high-performance, quad-channel linear driver, designed for 4×112Gb/s PAM4 Silicon Photonics-based transceivers. The driver has differential inputs and outputs consisting of 4×56Gbaud broadband amplifier channels, each capable of driving a linear output voltage of 4.0V_{ppd}, suitable for 4λ 400G PAM-4 applications.

Features

- Data baud rate up to 56Gbaud per channel for PAM-4 applications
- > 40GHz Bandwidth
- > 10dB dynamic range of gain control
- 1.6W power consumption at linear 3.0V_{ppd} output
- DC-coupled 100Ω differential input
- Open collector configuration at 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 available

Typical Applications

- 400GBASE-DR4 and FR4 Ethernet transceivers
- 200G/400G QSFP-DD or OSFP or 400G OBO

Block Diagram

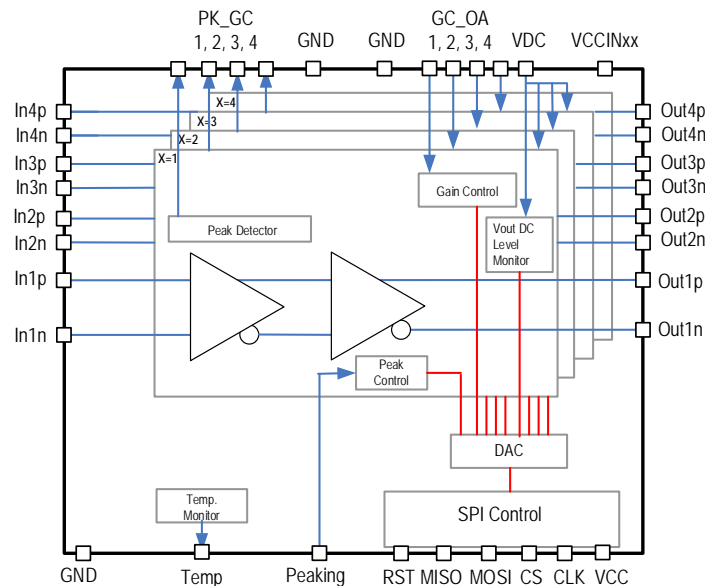


Figure 1: Block Diagram

Ordering Information

Orderable Part Number	Die Package Size (mm)	Temperature (°C)
HXT45430-DNU	2.015 x 3.995 x 0.3	-5°C to +105°C

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