

Semtech GN1411

11.3G DML driver with integrated limiting amplifier

Overview

The GN1411 is an integrated bi-directional DFB/FP laser driver and limiting amplifier for sub-1-Watt SFP+ optical module applications at data rates up to 11.3Gb/s.

It is a highly-integrated, low-power, small footprint device that is ideal for small-form-factor optical modules.

The transmit path consists of optional input equalization and a DFB laser driver. The receive path is comprised of a limiting amplifier with programmable equalization and slice level adjust, and programmable output swing for device power savings.

Both transmit and receive directions are highly-configurable, allowing for optimal electrical and optical output signals. Both directions also offer the option for polarity inversion, loopback and output muting.

The GN1411 has an integrated analog-to-digital converter, which, through the serial interface, provides digital diagnostic information about supply voltage, die temperature, laser bias current and transmit optical power. The GN1411 also offers integrated laser safety features.

The GN1411 device is packaged in a small-outline 5mm × 5mm 32-pin, high-frequency QFN package with exposed pad. The GN1411 is Pb-free, and the encapsulation compound does not contain halogenated flame retardant. This component and all homogeneous sub components are RoHS compliant.

Features

- 11.3Gb/s DML driver
- Integrated Limiting Amplifier
- Integrated APC loop
- Loopback support
- Programmable Output Crossing Point Adjust
- Programmable Tx Fault signalling
- Programmable Receive Path Output Swing
- I2C/SPI
- 5mmx5mm, 32-pin QFN
- Single 3.3V supply

Applications

- 11G DFB/FP based SFP+ optical modules
- 6G DFB/FP based SFP+ optical modules

Order Codes

Part Number	Package
GN1411-INE3	32-QFN



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