

HMC7144LC4

28 Gbps EML Driver w/ Peak-Detector



Data Rate (Gbps)	Function	Gain (dB)	Group Delay Variation (ps)	Additive Jitter (ps)	Output Voltage Max. (Vp-p)	Package
28.3	28 Gbps EML Driver w/ Peak-Detector	14	±10	0.25	2.3	LC4

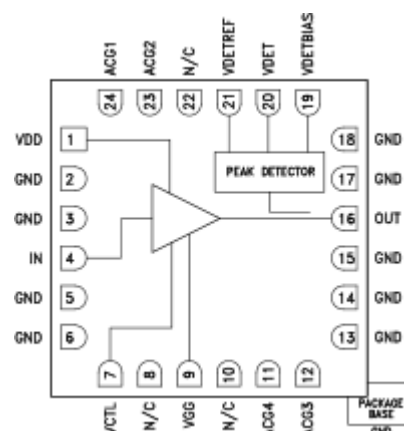
Features

- 100Gb Ethernet ER4/ LR4 systems
- CFP/CFP2 or similar form factor modules
- Optical transceivers and pluggable modules
- Broadband gain stages and pre-amplifiers
- Broadband Test & Measurement Equipment

Typical Applications

- Operation up to 28.3 Gbps
- Low DC Power Dissipation:
 - 0.12W for 1.5Vpp swing @ 3.5V supply
 - 0.50W for 2.3Vpp swing @ 6V supply
- Adjustable Output Amplitude from 1.2Vpp to 2.3Vpp
- Integrated Peak Detector
- 24 Lead Ceramic 4x4mm SMT Package: 16 mm²

Functional Diagram



General Description

The HMC7144LC4 is a broadband driver amplifier for electro-absorption modulated lasers (EML) and supports data-rates up to 28.3 Gbps to meet the 100Gb Ethernet system requirements. The part provides the module designers scalable power dissipation for varying drive voltage characteristics of different modulators and the power consumption of the module can be set as low as 0.12W to 0.5W at 1.5Vpp and 2.2Vpp outputs amplitudes, respectively. The HMC7144LC4 supports wide range of supply voltages from 3.5V to 6V and delivering excellent time domain performance. The driver incorporates the unique feature, peak-detector with reference, which enables the continuous output amplitude monitoring without the need for an external high-frequency circuitry. The output amplitude and cross-point can be adjusted via control pins. The input and output are 50 Ohms matched and used AC coupled. The HMC7144LC4 is in robust leadless 4x4mm ceramic surface mountable package.