

HMC1069

32Gbps Optical Modulator Driver



No Image Available

Product Details

[Request Data Sheet](#)

ECCN: EAR99

Quality & Reliability

[Waffle-Pak & Gel-Pak](#)

[Press & Media](#)

[Product Press Release](#)

Life Cycle Status

[Production, Recommended for New Designs](#)

Data Rate (Gbps)	Function	Gain (dB)	Group Delay Variation (ps)	Additive Jitter (ps)	Output Voltage Max. (Vp-p)	Package
32	32Gbps Optical Modulator Driver	15	±5	0.3	7.5	Chip

Features

- Low DC Power Dissipation, 0.70W for 6Vpp output swing at 5V and 1W for 7.5Vpp swing at 6V supply.
- Integrated peak-detect function
- High gain, 15dB at 16GHz
- Low Additive RMS Jitter, <300 fsec
- High Bandwidth, 12 psec Rise and Fall Times
- Small Die Size: 1.71 x 1.35 x 0.10 mm

Typical Applications

- Up to 32Gbps optical modulator driver
- Test and Measurement Instrumentation
- Microwave Radio & VSAT
- Military & Space

Functional Diagram



General Description

The HMC1069 is a broadband distributed amplifier optimized for time-domain performance with high bandwidth supporting data-rates up to 32Gbps. The output signal amplitude and cross point are adjustable through the control pins and the integrated peak detector feature is used for monitoring the output voltage signal levels during device's normal operation. The HMC1069 is designed in GaAs MMIC PHEMT process and the device can support supply (Vdd) voltage range from 5V to 7V with excellent performance. HMC1069 can be used as a post-stage driver in cascaded configuration when HMC1068 is utilized as pre-stage amplifier. HMC1069 can also be used as a single-stage driver to address applications with low output swing requirements. The HMC1069 comes in a small die size and need minimal number of external components for decoupling only, which makes it well suited for driver integrated optical modulator chip-and-wire assemblies.

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