HMC1068

32Gbps Optical Modulator Driver, Pre-Stage

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, Pre-Stage	15	±5	0.3	3	Chip

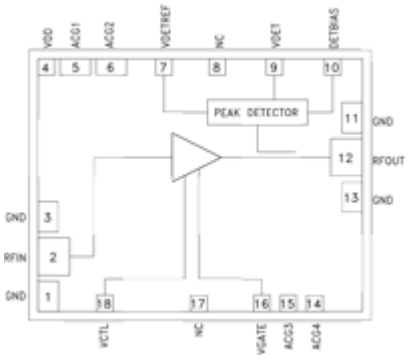
Features

- Low DC Power Dissipation, 0.30W for 2.8Vpp swing at 5V and 0.45W for 3Vpp 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
- Up to 32Gbps pre-driver or receiver block

Functional Diagram



General Description

The HMC1068 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 HMC1068 is designed in GaAs MMIC PHEMT process and the device can support wide supply (Vdd) voltage range from 3.3V to 7V with excellent performance, which gives the system designers the flexibility to further optimize the power consumption of the device by settings the supply voltage to its optimum value depending on the output voltage requirements.

HMC1068 performance is optimized for operating as a pre-stage amplifier in a cascaded configuration when HMC1069 is used as post-stage driver.

The HMC1068 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 module assemblies..

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978-250-3343 | sales@hittite.com