HMC1051

8Vpp Optical Modulator Driver / Wideband Amplifier, DC - 30 GHz

No Image Available

Product Details

Request Data Sheet
ECCN: EAR99

Quality & Reliability

Waffle-Pak & Gel-Pak

Press & Media

Featured Article

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	8Vpp Optical Modulator Driver, with Peak Detect	16	±5	0.3	8	Chip

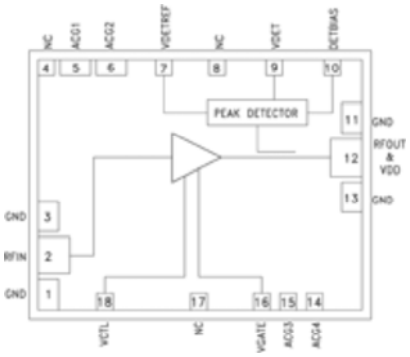
Features

- Low DC Power Dissipation, 1.05W for 8Vpp swing @ 6V supply
- Integrated peak-detect function
- 16 dB Gain @ 16 GHz
- +22 dBm saturated output power (8.0 Vpp)
- Low Additive RMS Jitter, <300 fsec
- Rise and Fall Times 11.5 psec
- 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 HMC1051 is a GaAs MMIC PHEMT Distributed Amplifier die which operates between DC and 30 GHz. The amplifier provides 16 dB of gain, and + 20 dBm of output power at 1 dB gain compression. HMC1051 has a wide supply (Vdd) operating range from +5V to +7V.

Integrated Peak-Detect Function enables the output power stability for calibration and field monitoring. The HMC1051 amplifier I/Os are internally matched to 50 Ohms facilitating integration into Mutli-Chip-Modules (MCMs).

8.0Vpp output voltage swing can be obtained with 1250mVpp input when stimulated with 32Gbps 231-1 PRBS NRZ data.

The HMC1051 is suitable for a variety of wideband electronic warfare systems and test & measurement applications including NRZ applications up to 32 Gbps. The HMC1051 is capable of driving Mach- Zehnder optical modulator with electrical NRZ data.

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978-250-3343 | sales@hittite.com