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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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# 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

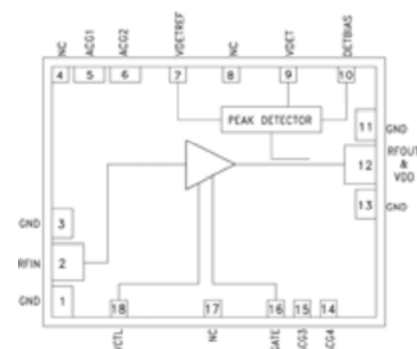
### Features

- 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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