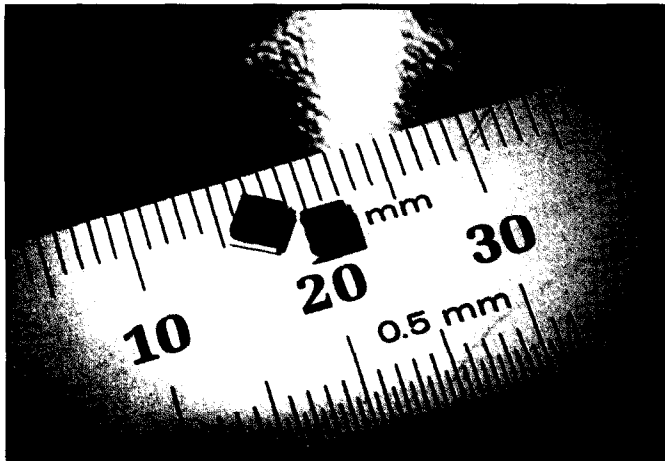


# Celeritek high dynamic range amplifier



*Tiny power amplifiers from Celeritek.*

A high dynamic range amplifier for transmit and receive functions in fixed wireless and wireless LAN applications where high linearity is required has been launched by Celeritek, Inc. (Santa Clara, CA, USA).

This new power amplifier, model CMM6004, complements the company's current RFIC offerings for applications with enhanced linearity and reduced current in an extremely small form-factor.

The amplifier operates from 0.25 to 7.0 GHz and offers 18dB of gain, 24dBm P1dB, an

exceptional output intercept point of 41dBm and current consumption of 180 mA. It is useful when used as a driver amplifier in applications including: cellular and PCS operating from 0.8 to 2.2 GHz; MIVIDS from 2.2 to 2.7 GHz; WLAN at 2.4 GHz; WLL at 3.5 GHz; and HiperLAN and U-NII from 5 to 6 GHz.

The CMM6004 is packaged in a low-cost and space-efficient land grid array package measuring only 3 x 3 x 1.5 mm high providing electrical stability and low thermal resistance.

## GCS raises more funds

Global Communications Semiconductor, Inc. (Torrance, CA, USA) has raised \$17.5m in Series D equity funding. TCW/YFY Investment Partners, Ltd. led this round of financing and was joined by several new and

existing financial investors, including the FIC group, Kwang Hua Investment Holding, and SinoStar Capital. T.J. Huang, President of TCW/YFY Investment Partners, will join GCS's board of directors.

Four major customers have qualified GCS as an InGaP HBT production foundry. Its proprietary world-class InP HBT foundry process supports 40Gb/sec data rates for OC-768 and PAs for 3G handsets and mm-wave frequency transceivers.

In the past month GCS has made significant progress in their proprietary InP HBT foundry process and InGaAs mesa PIN photodiode process for 1310 nm and 1550 nm high-speed optical fibre communication applications.

## Economic downturn threatens discrete diode markets

According to a new survey from Frost & Sullivan after a period of phenomenal growth due to booming telecommunications and data communications industries, the world market for discrete diodes is constricting.

The current economic downturn has weakened demand from key application sectors, leaving suppliers with large excess inventories. The result could be further erosion of

prices that will force manufacturers to rethink their business strategies.

The report, 'World Discrete Diode Markets', reveals that this industry generated revenues totalling \$2.61bn in 2000. After short-term restriction of returns, total revenues from small signal, Zener, transient protection, and RF and microwave diode markets will rise steadily through 2007.

"Threats to discrete diode markets will also come from competing technologies.

The trend toward ICs is a serious threat to discrete diodes," says Frost & Sullivan Industry Analyst Raman Monga. "However, high-frequency diode solutions, including Schottky, varactor, and PIN diodes, are likely to remain unaffected by this trend."

To combat price erosion, the ill effects of an economic downturn, and challenges from competing technologies, market participants will have to identify new opportunities to secure income.

At the same time, the multiplication of electronic devices in automobiles will drive demand for diodes and provide new growth opportunities.

## Accent DIVA to WAMI

Accent Optical Technologies announced the sale of a DIVA Dynamic I(V) Analyzer to the Wireless and Microwave Center (WAMI) in the Department of Electrical Engineering, University of South Florida in Tampa.

DIVA is a pulsed current voltage measurement instrument that performs measurements under conditions that are representative of the physical conditions that exist in practical RF, microwave and mm-wave circuits.

Professor Larry Dunleavy, Director of the WAMI Center said, "Pulsed I-V measurements, like DIVA can provide, are indispensable for non-linear transistor model development. Additionally, they have applications in diode modelling." The WAMI Center is part of the Electrical Engineering

Department of the University of South Florida College of Engineering, and focuses on industry-oriented research and a strong wireless circuits and systems curriculum leading to BSEE, MSEE, and Ph.D. degrees. A Graduate Certificate in Wireless Engineering is also available.