Discovery Semiconductors



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## **New Product Announcement:**

## 28 Gbaud Linear InGaAs Optical Receiver with Adjustable Gain for PAM-4

**November 16, 2016 – Ewing, NJ –** Discovery Semiconductors introduces a linear PIN + transimpedance amplifier with user-adjustable gain and is primarily designed for 25 to 28 Gbaud / 50 to 56 Gbps Pulse Amplitude Modulation (PAM-4) and 25 to 28 Gbps NRZ-ASK (PAM-2) modulation formats for 1310 nm and 1550 nm single-mode systems. This new product, the DSC-R418, is currently available only in Discovery's self-contained Lab Buddy instrument.



Fig. 1: DSC-R418 Lab Buddy instrument.

The DSC-R418 has a differential conversion gain of up to 3000 V/W, offers linear response to > -6 dBm optical input, -3dBm of maximum optical overload. The maximum differential voltage peak-to-peak output is  $\sim 1$ V. Please see the linearity plot below.



Fig 2: Linearity plot of DSC-R418.

Mr. Aaron Berry, Sr. Global Sales Engineer commented, "Initially, our plans are to release this product in a Lab Buddy, thus, allowing our customers a quick and easy solution to benchmark their link performance. At a later date, with advise from our customers, we will release this product in a suitable butterfly or surface mount package for volume production."

Added Mr. Abhay Joshi, President and CEO, "With Content Distribution Networking becoming ubiquitous the need for super datacenters is now and real. Both PAM-2 and PAM-4 will be widely used in these datacenters. The new DSC-R418 receiver will serve the need of the optical community for years to come."

Discovery Semiconductors, Inc., established in 1993, is an industry leader in manufacturing ultrafast, broadband (800 nm - 2200 nm) high optical power handling InGaAs photodetectors, optical receivers, balanced optical receivers, PAM-4 linear optical receivers, Coherent receivers and wideband RF amplifiers for 10G through 400G applications. In addition, Discovery offers its complete photodetector product line in its plug-and-play Lab Buddy instrumentation platform.

For additional information, including complete product specifications, operational capabilities and pricing, or to discuss your application in detail, please call Discovery at: (609) 434-1311 or fax: (609) 434-1317.