12.5 Gbps Limiting Amplifier with Loss-of-Signal Detection

Hittite Microwave Corporation has expanded its Limiting Amplifier product line with the release of the HMC914LP4E, a Limiting Amplifier with Loss-of-Signal detection capability. The HMC914LP4E supports data rates up to 12.5 Gbps, and is ideal for SONET/SDH-based transmission systems, OC-192 Fiber Optic modules, 10 Gibabit Ethernet (GbE), 8x & 10x Fiber Channel, or for use as a wideband RF gain block.

The HMC914LP4E Limiting Amplifier is designed to support data transmission rates up to 12.5 Gbps, operates from a single +3.3 V DC supply, and provides 32 dB of differential small signal gain. The amplifier can operate over a wide range of input voltage levels and provides a constant-level differential output swing which may be adjusted up to 750 mVp-p. The outputs of the HMC914LP4E may be operated either singled-ended or differentially. All single-ended input signals are terminated with 50 Ohms to +3.3 V on-chip, and may be either AC or DC coupled.

The HMC914LP4E features a loss-of-signal (LOS) indicator output and a control pin for adjustment of the input signal amplitude threshold level. The HMC914LP4E also features an output level control pin, which allows for loss compensation or for output signal level optimization. The amplifier also provides an analog RSSI (Received Signal Strength Indicator) output voltage which is proportional to input signal amplitude. Integrated DC offset compensation is also provided on chip.

The HMC914LP4E is housed in a plastic RoHS compliant 4 x 4 mm SMT package, and is specified for operation from -40 °C to +85 °C.

Source URL (retrieved on *03/10/2014 - 3:09pm*):
http://www.wirelessdesignmag.com/product-releases/2010/09/125-gbps-limiting-amplifier-loss-signal-detection