

## Semtech GN1035

GN1035 2.5Gb/s Transimpedance Amplifier with Automatic Gain Control

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### Overview

Gennum's GN1035 is a fully integrated, silicon germanium transimpedance amplifier; providing wideband, low noise pre-amplification of signal current from a photodetector.

It features differential outputs, and incorporates an automatic gain control mechanism to increase dynamic range, allowing input signals up to 2.6 mA peak. A decoupling capacitor on the supply is the only external circuitry required.

### Features

- Single +3.3V power supply
- Power dissipation 125mW (typ)
- Input noise current = 250nA rms when used with a 0.5pF detector
- Transimpedance gain 10k $\Omega$  into 100 $\Omega$  load (differential)
- Bandwidth (-3dB) = 2.0GHz
- No photodiode bypass capacitor required in PIN-based applications.
- RSSI (received signal strength indicator) current output operates from sensitivity to overload, selectable source or sink
- Bondpad configuration, and output polarity control, allow for maximum flexibility in pin-out in a TO Can ROSA
- On-chip filter to improve sensitivity and control bandwidth

### Applications

- GPON ONU/ONT
- Gigabit Ethernet
- 2x Fibre Channel
- PCI Express
- SONET/SDH
- Infiniband

### Order Codes

Type	Package
GN1035CWA-CHIP	Bare Die

