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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.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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### FEATURES

**Integrated photodiode + TIA**  
**Differential responsivity: 5.5 mV/μW**  
**50 μm diameter germanium photodiode**  
**Input sensitivity: -19.5 dBm @ 6.144 Gbps**  
**Wavelength range: 830 nm to 1560 nm**  
**Single 3.3 V supply**  
**Power dissipation: 65 mW**  
**Differential output swing: 240 mV p-p**  
**On-chip power monitor function**  
**Die size: 0.835 mm × 0.675 mm**

### APPLICATIONS

**Optical receivers up to 6.5 Gbps**  
**6G CPRI, OBSAI, and 8G short range and LTE receivers**  
**Receiver optical subassemblies (ROSA)**

### GENERAL DESCRIPTION

The ADN3000-06 is a complete high speed optical receiver featuring a proprietary large-area germanium PIN photodiode integrated with a transimpedance amplifier (TIA). The integration of the photodiode eliminates bond wires between the diode and TIA that provides guaranteed performance and improved manufacturing reliability. The ADN3000-06 supports data rates of up to 6.5 Gbps for telecommunication and point-to-point LAN applications, and a wide range of operating wavelengths from 830 nm to 1560 nm.

### FUNCTIONAL BLOCK DIAGRAM

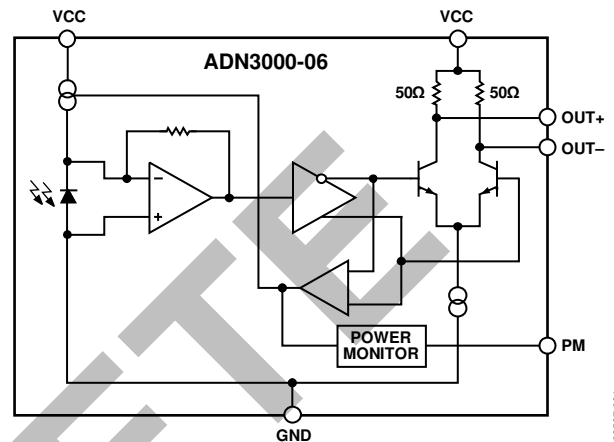


Figure 1.

The ADN3000-06 also features an optical average power monitoring circuit that generates a voltage output proportional to the average photodiode current.

Typical power consumption of ADN3000-06 is 65 mW from a single 3.3 V supply. In saturated output, the signal has a typical differential amplitude of 240 mV p-p.

The ADN3000-06 is available in die form, and it is operational over the extended industrial temperature range of -40°C to +85°C.

### Rev. Sp0

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**NOTES**

**OBSOLETE**