622 Mbps Pre-Amplifier

MC2009

The MC2009 is a low-noise, transimpedance amplifier with AGC, manufactured in an advanced, low-cost, submicron CMOS process. Its wide dynamic range, differential output and high-PIN bias make it well suited for telecommunications, especially OC-12/STM-4. However, the MC2009 is intended to meet the needs of both telecom and datacom users. The MC2009 is designed to be used with the MC2044C post-amplifier IC. When combined with a photodiode, the chipset forms a high-performance, low-cost 3.3V receiver.

KEY FEATURES

- Low cost IC, fabricated in advanced sub-micron pure-CMOS process.
- Receiver sensitivity better than -32 dBm at 622 Mbps.
- Minimum 415 MHz -6 dB bandwidth and multi-pole roll off allows a wide range of operation up to 622 Mbps.
- Typical differential transimpedance at low signal levels of 32 k.
- AGC gives continuous operation to +3 dBm.
- > 33 dB power-supply noise rejection.
- Typical 130 mW power consumption.
- Monitor O/P gives linear indication of received optical power.