



**LD3600-XX**  
**4, 6, 8, up to 16-Channel**  
**+5V, -5V, MR Head Preamplifier**  
**Samples Available**

**DESCRIPTION**

The LD3600-XX is a BICMOS monolithic integrated circuit designed for use with four-terminal Magneto-Resistive recording heads. The reader architecture is MR current bias/voltage sense and will support user data rates of up to 225 Mbit/sec. A bi-directional serial port is provided to enable the implementation of on-chip MR bias and Write current DACs. The device provides a write driver, low noise read amplifier, serial port controlled head selection, servo bank write, write current, MR read bias current, and read and write fault detection circuitry for up to ten channels. In a servo write servo mode, 5 or 10 channels can be selected at one time. The device requires +5V and -5V and comes in a 100-pin TQFP package or flip-chip die form.

**FEATURES**

- +5V, -5V power supplies
- Designed for four-terminal MR heads with minimum external components
- Truly differential current bias / voltage sense MR read Amp
- MR head bias current range = 4 - 14 mA
- MR read gain = 220 V/V (nom)
- MR read input noise .75 nV / rt. Hz (nom)
- MR read input resistance = 300 Ohm (nom)
- Differential PECL write data input
- Head voltage swing = 12 Vp-p (nom)
- Write current range = 12.5 - 50 mA
- Read and Write unsafe detection
- Enhanced system write to read and read to write recovery time
- Power supply fault protection
- Serial port controls head selection, write current, MR read bias current

