

LM6132 Dual and LM6134 Quad High Speed/Low Power 7 MHz Rail-to-Rail I/O Operational Amplifiers

General Description

Using patent pending circuit topologies, the LM6132/34 provides new levels of speed vs. power performance in applications where low voltage supplies or power limitations previously made compromise necessary. With only 550 $\mu\text{A}/\text{amp}$ supply current, the 7 MHz bandwidth of this device supports new portable applications where higher power devices unacceptably drain battery life.

In addition, the LM6132/34 can be driven by voltages that exceed both power supply rails, thus eliminating concerns over exceeding the common-mode voltage range. The rail-to-rail output swing capability provides the maximum possible dynamic range at the output. This is particularly important when operating on low supply voltages. The LM6132/34 can also drive large capacitive loads without oscillating.

Operating on supplies of 1.8 to over 24 volts, the LM6132/34 is excellent for a very wide range of applications, from battery operated systems with large bandwidth requirements to high speed instrumentation.

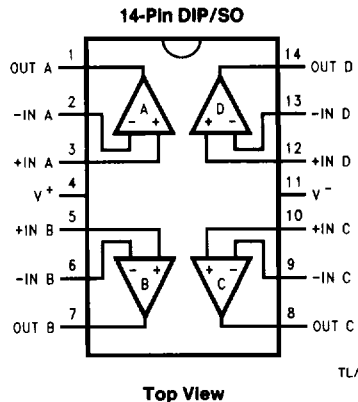
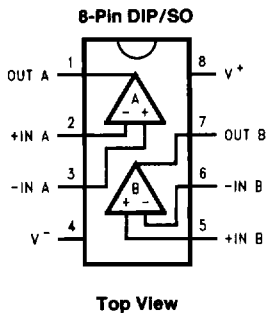
Features (For 5V Supply)

- Rail-to-rail input CMVR -0.25V to 5.25V (Max/Min)
- Rail-to-rail output swing 0.01V to 4.99V (Max/Min)
- Wide gain-bandwidth at 50 KHz 7 MHz (Typ)
- Slew rate $12\text{ V}/\mu\text{s}$ (Typ)
- Low supply current $550\ \mu\text{A}/\text{amp}$ (Typ)
- Wide supply range 1.8V to 24V
- CMRR 107 dB (Typ)
- Gain 108 dB (Typ) with $R_L = 10\text{K}$
- PSRR 87 dB (Typ)

Applications

- Battery operated instrumentation
- 5V instrumentation
- Portable scanners
- Wireless communications

Connection Diagrams



Ordering Information

Package	Temperature Range	
	Industrial -40°C to $+85^{\circ}\text{C}$	NSC Drawing
8-Pin Molded DIP	LM6132AIN, LM6132BIN	N08E
8-Pin Small Outline	LM6132AIM, LM6132BIM	M08A
14-Pin Molded DIP	LM6134AIN, LM6134BIN	N14A
14-Pin Small Outline	LM6134AIM, LM6134BIM	M14A