

LMC6772 Dual, LMC6774 Quad, Micro-Power Rail-To-Rail Input and Open Drain Output CMOS Comparator

General Description

The LMC6772/4 is an ultra low power dual/quad comparator with a maximum 10 μA /comparator power supply current. It is designed to operate over a wide range of supply voltages, from 2.7V to 15V. The LMC6772/4 has guaranteed specs at 2.7V to meet the demands of 3V digital systems.

The LMC6772/4 has an input common-mode voltage range which exceeds both rails. This is a significant advantage in low-voltage applications. The LMC6772/4 also features an open-drain output. This architecture is ideal for mixed supply voltage systems as an external resistor can be used to pull the output up to +15V, regardless of the supply voltage.

A quiescent power consumption of 50 μW /Amplifier (@ $V_S = 5\text{V}$) makes the LMC6772/4 ideal for applications in portable phones and hand-held electronics. The ultra-low supply current is also independent of the power supply voltage. Guaranteed operation at 2.7V and rail-to-rail performance make the device ideal for battery-powered applications.

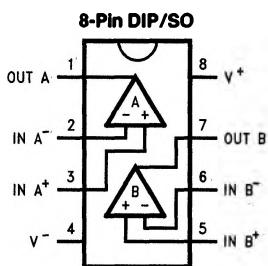
Features (Typical unless otherwise noted)

- Low power consumption $I_S = 10 \mu\text{A}/\text{comp}$
- Wide range of supply voltages 2.7V to 15V
- Rail-to-Rail Input Common Mode Voltage Range
- Open-drain output stage
- Short circuit protection 40 mA
- Propagation delay (@ $V_S = 5\text{V}$, 100 mV overdrive) 5 μs
- Refer to the LMC6762/4 datasheet for a device with similar specs and a push-pull output stage

Applications

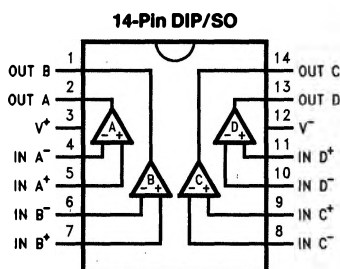
- Laptop computers
- Mobile Phones
- Metering systems
- Hand-held electronics
- RC timers, Window Comparators, Multivibrators
- Alarm and monitoring circuits

Connection Diagrams



TL/H/12347-1

Top View



TL/H/12347-2

Top View

Package	Temperature Range Industrial, -40°C to +85°C	NSC Drawing	Transport Media
8-Pin Molded DIP	LMC6772AIN, LMC6772BIN	N08E	Rails
8-Pin Small Outline	LMC6772AIM, LMC6772BIM	M08A	Rails
	LMC6772AIMX, LMC6772BIMX		Tape and Reel
14-Pin Molded DIP	LMC6774AIN, LMC6774BIN	N14A	Rails
14-Pin Small Outline	LMC6774AIM, LMC6774BIM	M14A	Rails
	LMC6774AIMX, LMC6774BIMX		Tape and Reel