

LM7121

Tiny Very High Speed Low Power Voltage Feedback Amplifier

General Description

The LM7121 is a high performance operational amplifier which addresses the increasing AC performance needs of video and imaging applications. Its tiny size and low power make it ideal for portable applications.

The LM7121 can operate over a wide dynamic range of supply voltages, from $\pm 15V$ to $\pm 5V$. It offers an excellent speed-power product delivering $1000V/\mu s$ and 200 MHz unity gain stability. Another key feature of this operational amplifier is stability while driving unlimited capacitive loads.

Due to its Tiny SOT23-5 package, the LM7121 is ideal for designs where space and weight are the critical parameters. The benefits of the tiny package are evident in small portable electronic devices, such as cameras, and PC video cards. Tiny amplifiers are so small that they can be placed anywhere on a board close to the signal source or near the input to an A/D converter.

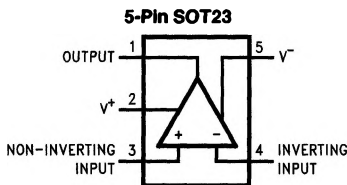
Features (Typical unless otherwise noted)

- Easy to use Voltage Feedback Topology
- Stable with unlimited capacitive loads
- Tiny SOT23-5 package—
typical circuit layout takes half the space of SO-8 designs
- Unity Gain Frequency 200 MHz
- Slew Rate 1000V/ μs
- Characterized for Supply Voltages $\pm 5V$ and $\pm 15V$
- Low Supply Current 5 mA

Applications

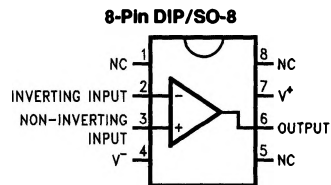
- Scanners, Color Fax, Digital copier
- Portable Video Equipment
- Cable Drivers
- Digital Cameras
- ADC/DAC Buffers

Connection Diagram



TL/H/12348-1

Top View



TL/H/12348-2

Top View

Ordering Information

| Package | Temperature Range Industrial, $-40^{\circ}C$ to $+85^{\circ}C$ | NSC Drawing Number | Transport Media |
|---------------------|---|-----------------------|--------------------|
| 8-Pin Molded DIP | LM7121AIN, LM7121BIN | N08E | Rails |
| 8-Pin Small Outline | LM7121AIM, LM7121BIM | M08A | Rails |
| | LM7121AIMX, LM7121BIMX | | Tape and Reel |
| 5-Pin SOT 23-5 | LM7121AIM5, LM7121BIM5 | MA05A | Rails |
| | LM7121AIM5X, LM7121BIM5X | | Tape and Reel |