

Data Sheet June 24, 2004 FN7015

Medium Power Differential Line Driver

élantec.

The EL1509 is a dual operational amplifier designed for customer premise line driving in DMT ADSL

solutions. This device features a high drive capability of 250mA while consuming only 7.1mA of supply current per amplifier and operating from a single 5V to 12V supply. This driver achieves a typical distortion of less than -85dBc, at 150kHz into a 25Ω load. The EL1509 is available in the industry standard 8-pin SO as well as the thermallyenhanced 8-pin DFN package. Both are specified for operation over the full -40°C to +85°C temperature range.

The EL1509 is ideal for ADSL, SDSL, HDSL2 and VDSL line driving applications.

Ordering Information

| PART NUMBER | PACKAGE | TAPE & REEL | PKG. DWG. # |
|-----------------------------|-----------------------|-------------|-------------|
| EL1509CS | 8-Pin SO | - | MDP0027 |
| EL1509CS-T7 | 8-Pin SO | 7" | MDP0027 |
| EL1509CS-T13 | 8-Pin SO | 13" | MDP0027 |
| EL1509CSZ (See Note) | 8-Pin SO (Pb-free) | - | MDP0027 |
| EL1509CSZ-T7 (See Note) | 8-Pin SO (Pb-free) | 7" | MDP0027 |
| EL1509CSZ-T13 (See Note) | 8-Pin SO (Pb-free) | 13" | MDP0027 |
| EL1509CL | 8-Pin DFN | - | MDP0047 |
| EL1509CL-T7 | 8-Pin DFN | 7" | MDP0047 |
| EL1509CL-T13 | 8-Pin DFN | 13" | MDP0047 |

NOTE: Intersil Pb-free products employ special Pb-free material sets; molding compounds/die attach materials and 100% matte tin plate termination finish, which is compatible with both SnPb and Pb-free soldering operations. Intersil Pb-free products are MSL classified at Pb-free peak reflow temperatures that meet or exceed the Pb-free requirements of IPC/JEDEC J Std-020B.

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Features

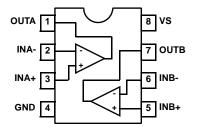
- Drives up to 250mA from a +12V supply
- $20V_{P-P}$ differential output drive into 100Ω
- · -85dBc typical driver output distortion at full output at 150kHz
- · Low quiescent current of 7.5mA per amplifier
- · Pb-free available

Applications

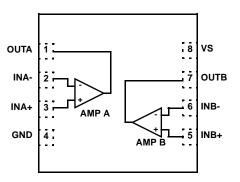
- · ADSL G.lite CO line driving
- · ADSL full rate CPE line driving
- · G.SHDSL, HDSL2 line driver
- Video distribution amplifier
- · Video twisted-pair line driver

Pinouts

EL1509 (8-PIN SO) TOP VIEW



EL1509 (8-PIN DFN) TOP VIEW



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