

## Medium Power Differential Line Driver

The EL1507 is a very low power dual operational amplifier designed for central office and customer premise line driving for DMT ADSL solutions. This device features a high drive capability of 400mA while consuming only 7.5mA of supply current per amplifier from  $\pm 12V$  supplies. This driver achieves a typical distortion of less than -75dBc, at 1MHz into a 50 $\Omega$  load. The EL1507 is available in the thermally-enhanced 16-pin SO package, as well as a 16-pin QFN package. Both are specified for operation over the full -40°C to +85°C temperature range.

The EL1507 has two control pins,  $C_0$  and  $C_1$ . With the selection of  $C_0$  and  $C_1$ , the device can be set into full- $I_S$  power,  $\frac{3}{4}$ - $I_S$  power,  $\frac{1}{2}$ - $I_S$  power, and power down disable modes. The EL1507 maintains excellent distortion and load driving capabilities even in the lowest power settings.

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## Features

- Drives 360mA at 16V<sub>P-P</sub> on  $\pm 12V$  supplies
- 40V<sub>P-P</sub> differential output drive into 100 $\Omega$
- -75dBc typical driver output distortion driving 50 $\Omega$  at 1MHz and  $\frac{1}{2}$ - $I_S$  bias current
- Low quiescent current of 3.5mA per amplifier in  $\frac{1}{2}$ - $I_S$  mode
- Power down disable mode
- Pb-Free available (RoHS compliant)

## Applications

- ADSL G.DMT and G.lite CO line driving
- G.SHDSL, HDSL2 line driver
- ADSL CPE line driving
- Video distribution amplifier
- Video twisted-pair line driver

## Ordering Information

PART NUMBER	PACKAGE	TAPE & REEL	PKG. DWG. #
EL1507CS	16-Pin SO	-	MDP0027
EL1507CS-T7	16-Pin SO	7"	MDP0027
EL1507CS-T13	16-Pin SO	13"	MDP0027
EL1507CSZ ( See Note)	16-Pin SO (Pb-free)	-	MDP0027
EL1507CSZ-T7 (See Note)	16-Pin SO (Pb-free)	7"	MDP0027
EL1507CSZ-T13 (See Note)	16-Pin SO (Pb-free)	13"	MDP0027
EL1507CL	16-Pin QFN	-	MDP0046
EL1507CL-T7	16-Pin QFN	7"	MDP0046
EL1507CL-T13	16-Pin QFN	13"	MDP0046

NOTE: Intersil Pb-free products employ special Pb-free material sets; molding compounds/die attach materials and 100% matte tin plate termination finish, which are RoHS compliant and 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-020.

All Intersil U.S. products are manufactured, assembled and tested utilizing ISO9000 quality systems.  
Intersil Corporation's quality certifications can be viewed at [www.intersil.com/design/quality](http://www.intersil.com/design/quality)

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