

## EL1537

Dual Channel Central Office ADSL

FN7433

Rev 2.00

December 14, 2005

**NOT RECOMMENDED FOR NEW DESIGNS**  
**NO RECOMMENDED REPLACEMENT**  
 contact our Technical Support Center at  
**1-888-INTERSIL** or [www.intersil.com/tsc](http://www.intersil.com/tsc)

The EL1537 is a very low power dual channel amplifier designed for central office 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 EL1537 is available in the thermally-enhanced 28-pin HTSSOP package. This device is specified for operation over the full -40°C to +85°C temperature range.

The EL1537 has two control pins, C<sub>0</sub> and C<sub>1</sub>, per channel. With the selection of C<sub>0</sub> and C<sub>1</sub>, the device can be set into full-I<sub>S</sub> power, 3/4-I<sub>S</sub> power, 1/2-I<sub>S</sub> power, and power-down disable modes. The EL1537 maintains excellent distortion and load driving capabilities even in the lowest power settings. The EL1537 has extended bandwidth and improved THD and slew rate for ADSL2+ and VDSL applications.

### Ordering Information

PART NUMBER	PART MARKING	PACKAGE	TAPE & REEL	PKG. DWG. #
EL1537IRE	1537IRE	28-Pin HTSSOP	-	MDP0048
EL1537IRE-T7	1537IRE	28-Pin HTSSOP	7"	MDP0048
EL1537IRE-T13	1537IRE	28-Pin HTSSOP	13"	MDP0048
EL1537IREZ (See Note)	1537IREZ	28-Pin HTSSOP (Pb-Free)	-	MDP0048
EL1537IREZ-T7 (See Note)	1537IREZ	28-Pin HTSSOP (Pb-Free)	7"	MDP0048
EL1537IREZ-T13 (See Note)	1537IREZ	28-Pin HTSSOP (Pb-Free)	13"	MDP0048
EL1537IL	1537IL	24-Pin QFN	-	MDP0046
EL1537IL-T7	1537IL	24-Pin QFN	7"	MDP0046
EL1537IL-T13	1537IL	24-Pin QFN	13"	MDP0046
EL1537ILZ (See Note)	1537ILZ	24-Pin QFN (Pb-free)	-	MDP0046
EL1537ILZ-T7 (See Note)	1537ILZ	24-Pin QFN (Pb-free)	7"	MDP0046
EL1537ILZ-T13 (See Note)	1537ILZ	24-Pin QFN (Pb-free)	13"	MDP0046

NOTE: Intersil Pb-free plus anneal 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.

### Features

- Drives 400mA at 16V<sub>P-P</sub> on  $\pm 12V$  supplies
- 44V<sub>P-P</sub> differential output drive into 100 $\Omega$
- 37.2V<sub>P-P</sub> minimum differential output drive into 60 $\Omega$
- -75dBc typical driver output distortion driving 50 $\Omega$  at 1MHz and 1/2-I<sub>S</sub> bias current
- Low quiescent current of 3.9mA per amplifier in 1/2-I<sub>S</sub> mode
- 50MHz BW at A<sub>V</sub> = 10
- Power-down disable mode
- Pin-to-pin replacement for EL1527
- Pb-free plus anneal available (RoHS compliant)

### Applications

- ADSL, ADSL2, ADSL2+ line drivers
- G.SHDSL, HDSL2 line drivers
- VDSL line drivers
- Video distribution amplifiers
- Video twisted-pair line drivers

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