

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

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 Ω 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_0 and C_1 , per channel. With the selection of C_0 and C_1 , the device can be set into full- I_S power, 3/4- I_S power, 1/2- I_S 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_{P-P} on $\pm 12V$ supplies
- 44V_{P-P} differential output drive into 100 Ω
- 37.2V_{P-P} minimum differential output drive into 60 Ω
- -75dBc typical driver output distortion driving 50 Ω at 1MHz and 1/2- I_S bias current
- Low quiescent current of 3.9mA per amplifier in 1/2- I_S mode
- 50MHz BW at $A_V = 10$
- 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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