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April 19, 2007

FN6134.1

Dual Channel Central Office ADSL2+ Line Driver

The EL1537A is a very low power dual channel differentiated amplifier designed for central office line driving for DMT ADSL solutions. The EL1537A has a higher output swing specification for driving 30Ω loads as compared to the EL1537. 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 50Ω load. The EL1537A is available in the thermally-enhanced 28 Ld HTSSOP package. This device is specified for operation over the full -40°C to $+85^{\circ}\text{C}$ temperature range.

The EL1537A 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 EL1537A maintains excellent distortion and load driving capabilities even in the lowest power settings. The EL1537A has extended bandwidth and improved THD and slew rate for ADSL2+ and VDSL applications.

Ordering Information

PART NUMBER (Note)	PART MARKING	PACKAGE (Pb-free)	TAPE & REEL	PKG. DWG. #
EL1537AIREZ	1537AIREZ	28 Ld HTSSOP	-	MDP0048
EL1537AIREZ-T7	1537AIREZ	28 Ld HTSSOP	7"	MDP0048
EL1537AIREZ-T13	1537AIREZ	28 Ld HTSSOP	13"	MDP0048

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

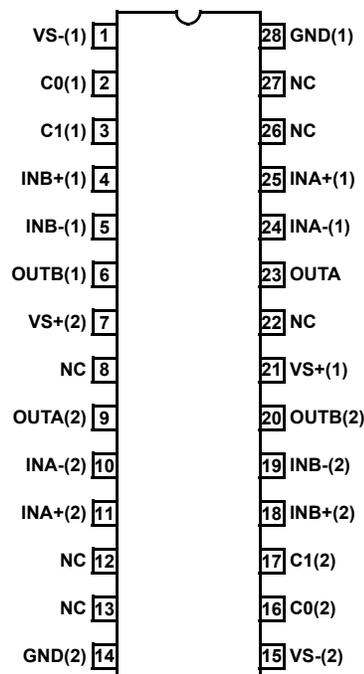
- Drives 400mA at $16V_{P-P}$ on $\pm 12V$ supplies
- $44.4V_{P-P}$ differential output drive into 100Ω
- $40V_{P-P}$ minimum differential output drive into 60Ω
- -75dBc typical driver output distortion driving 50Ω at 1MHz and $1/2-I_S$ bias current
- Low quiescent current of 3.9mA per amplifier in $1/2-I_S$ 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

Pinout

EL1537A
(28 LD HTSSOP)
TOP VIEW



All Intersil U.S. products are manufactured, assembled and tested utilizing ISO9001 quality systems.
Intersil Corporation's quality certifications can be viewed at www.intersil.com/design/quality

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