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Dual Channel Central Office ADSL2+ Line Driver

The EL1537 is a very low power dual channel differentiated 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 ±12V supplies. This driver achieves a typical distortion of less than -75dBc, at 1MHz into a 50Ω 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, C₀ and C₁, per channel. With the selection of C₀ and C₁, 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 ±12V supplies
- 44V_{P-P} differential output drive into 100Ω
- 37.2V_{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

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