

## Dual Channel Differential DSL Line Driver

The EL1528 is a dual channel differential amplifier designed for driving full rate ADSL signals at very low power dissipation. The high drive capability of 450mA makes this driver ideal for both CAP and DMT designs. It contains two pairs of wideband, high-voltage, current mode feedback amplifiers optimized for low power consumption in DSL systems.

These drivers achieve an MTPR distortion measurement of better than 70dB, while consuming typically 5mA per DSL channel of total supply current. This supply current can be set using a resistor on the  $I_{ADJ}$  pin. Two other pins ( $C_0$  &  $C_1$ ) can also be used to adjust supply current to one of four pre-set modes (full- $I_S$ , 3/4- $I_S$ , 1/2- $I_S$ , and full power-down). The EL1528 operates on  $\pm 5V$  to  $\pm 12V$  supplies and retains its bandwidth and linearity over the complete supply range.

The device is supplied in a thermally-enhanced 20-pin HTSSOP and the small footprint (4x5mm) 24-pin QFN packages. The EL1528 is specified for operation over the full  $-40^{\circ}C$  to  $+85^{\circ}C$  temperature range.

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## Features

- Pb-free available
- 450mA output drive capability
- 44.4V<sub>P-P</sub> differential output drive into 100 $\Omega$
- -75dBc THD @ 500kHz 16V<sub>P-P</sub>
- MTPR of -70dB
- Operates down to 2mA per amplifier supply current
- Current control pins
- Channel separation
  - 80dB @ 500kHz
  - 75dB @ 1MHz

## Applications

- Dual port ADSL line drivers
- HDSL line drivers
- VDSL line driver

## Ordering Information

| PART NUMBER                  | PACKAGE                    | TAPE & REEL | PKG. DWG. # |
|------------------------------|----------------------------|-------------|-------------|
| EL1528CL                     | 24-Pin QFN                 | -           | MDP0046     |
| EL1528CL-T7                  | 24-Pin QFN                 | 7"          | MDP0046     |
| EL1528CL-T13                 | 24-Pin QFN                 | 13"         | MDP0046     |
| EL1528CLZ<br>(See Note)      | 24-Pin QFN<br>(Pb-free)    | -           | MDP0046     |
| EL1528CLZ-T7<br>(See Note)   | 24-Pin QFN<br>(Pb-free)    | 7"          | MDP0046     |
| EL1528CLZ-T13<br>(See Note)  | 24-Pin QFN<br>(Pb-free)    | 13"         | MDP0046     |
| EL1528CRE                    | 20-Pin HTSSOP              | -           | MDP0048     |
| EL1528CRE-T7                 | 20-Pin HTSSOP              | 7"          | MDP0048     |
| EL1528CRE-T13                | 20-Pin HTSSOP              | 13"         | MDP0048     |
| EL1528CREZ<br>(See Note)     | 20-Pin HTSSOP<br>(Pb-free) | -           | MDP0048     |
| EL1528CREZ-T7<br>(See Note)  | 20-Pin HTSSOP<br>(Pb-free) | 7"          | MDP0048     |
| EL1528CREZ-T13<br>(See Note) | 20-Pin HTSSOP<br>(Pb-free) | 13"         | MDP0048     |

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

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