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 ±5V to ±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 LPP packages. The EL1528 is specified for operation over the full -40°C to +85°C temperature range.

Features

- 450mA output drive capability
- 44.4V_{P-P} differential output drive into 100Ω
- -75dBc THD @ 500kHz 16V_{P-P}
- 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. NO.
EL1528CL	24-Pin LPP	-	MDP0046
EL1528CL-T7	24-Pin LPP	7”	MDP0046
EL1528CL-T13	24-Pin LPP	13”	MDP0046
EL1528CRE	20-Pin HTSSOP	-	MDP0048
EL1528CRE-T7	20-Pin HTSSOP	7”	MDP0048
EL1528CRE-T13	20-Pin HTSSOP	13”	MDP0048

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