Dual Channel Differential DSL Line Driver for Globespan CO Chipsets
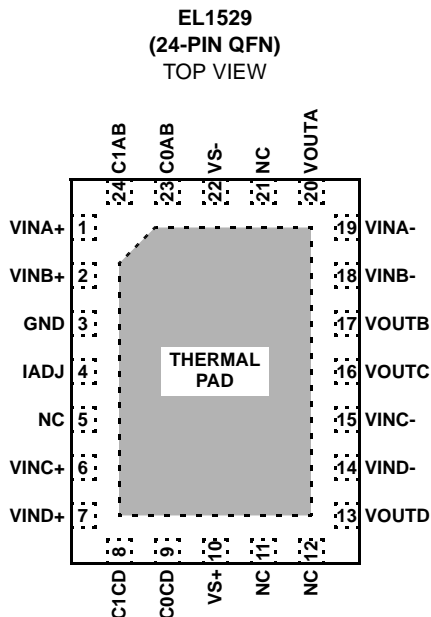
The EL1529 is to be used with Globespan's G7566-850 CO chipset for high performance long reach and high speed applications, including ADSL2, ADSL2+, G.Span, and G.Span+.

The EL1529 is an integral part of the signal chain. The driver has been optimized for flat gain response and reduced harmonic distortion and noise in the bands of interest to improve the overall signal to noise in the system.

These drivers achieve a total harmonic distortion (THD) measurement of typically -70dB @ 1.1MHz, 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 EL1529 operates on ±5V to ±12V supplies and retains its bandwidth and linearity over the complete supply range.

The device is supplied in the small footprint (4x5mm) 24-pin QFN package and is specified for operation over the full -40°C to +85°C temperature range.

Features

- 450mA output drive capability
- 44.1V_{P-P} differential output drive into 100Ω
- -85dBc THD @ 1MHz 2V_{P-P}
- High slew rate of 500V/μs
- Bandwidth - 46MHz
- Current control pins
- Channel separation
  - 80dB @ 500kHz
  - 75dB @ 1MHz
- Pb-free available (RoHS compliant)

Applications

- ADSL line drivers for **Globespan G7566-850** CO chipsets

Ordering Information

PART NUMBER	PACKAGE	TAPE & REEL	PKG. DWG. #
EL1529IL	24-Pin QFN	-	MDP0046
EL1529IL-T7	24-Pin QFN	7"	MDP0046
EL1529IL-T13	24-Pin QFN	13"	MDP0046
EL1529ILZ (See Note)	24-Pin QFN (Pb-Free)	-	MDP0046
EL1529ILZ-T7 (See Note)	24-Pin QFN (Pb-Free)	7"	MDP0046
EL1529ILZ-T13 (See Note)	24-Pin QFN (Pb-Free)	13"	MDP0046

NOTE: Intersil Pb-free 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.

Pinout

EL1529 (24-PIN QFN) TOP VIEW

Top pins (left to right): 24 C1AB, 23 C0AB, 22 VS-, 21 NC, 20 VOUTA

Left pins (top to bottom): 1 VINA+, 2 VINB+, 3 GND, 4 IADJ, 5 NC, 6 VINC+, 7 VIND+

Right pins (top to bottom): 19 VINA-, 18 VINB-, 17 VOUTB, 16 VOUTC, 15 VINC-, 14 VIND-, 13 VOUTD

Bottom pins (left to right): 8 C1CD, 9 C0CD, 10 VS+, 11 NC, 12 NC

Center: THERMAL PAD

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FN7406.1
February 11, 2005