

Features

- High power ADSL driver
- 39.2V_{P-P} differential output drive into 22Ω
- 42.4V_{P-P} differential output drive into 65Ω
- Driver 2nd/3rd harmonics of -66dBc/-72dBc at 2V_{P-P} into 100Ω differential
- Supply current of 12.5mA per amplifier
- Supply current control
- Power saving modes
- Standard surface-mount packages
- Ultra-small LPP package

Applications

- ADSL line drivers
- HDSL2 line drivers
- Video distribution amplifiers

Ordering Information

Part No.	Package	Tape & Reel	Outline #
EL1503CL	24-Pin LPP	-	MDP0046
EL1503CL-T7	24-Pin LPP	7"	MDP0046
EL1503CL-T13	24-Pin LPP	13"	MDP0046
EL1503CM	20-Pin SO (0.300")	-	MDP0027
EL1503CM-T13	20-Pin SO (0.300")	13"	MDP0027
EL1503CS	16-Pin SO (0.150")	-	MDP0027
EL1503CS-T7	16-Pin SO (0.150")	7"	MDP0027
EL1503CS-T13	16-Pin SO (0.150")	13"	MDP0027

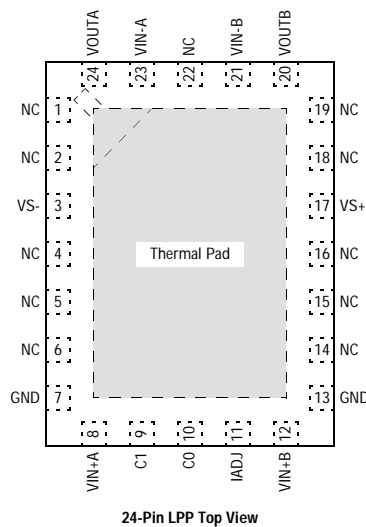
General Description

The EL1503C ADSL Line Driver contains two wideband high-voltage drivers which are ideally suited for both ADSL and HDSL2 applications. They can supply a 39.2V_{P-P} signal into a 22Ω load while exhibiting very low distortion. The EL1503C also has a number of power saving features. The IADJ pin can be used to set the maximum supply current and the C₀ and C₁ pins can be used to digitally vary the supply current to one of four modes. These modes include full power, low power, terminate only and power down.

The EL1503C uses current-feedback type amplifiers, which achieve a high slew rate while consuming moderate power. They retain their frequency response over a wide range of externally set gains. The EL1503C operates on ±5V to ±12V supplies and consumes only 12.5mA per amplifier.

The device is supplied in a standard form-factor 20-pin SO (0.300"), 16-pin thermal SO (0.150"), and the small footprint (4x5mm) 24-pin LPP packages. Center pins on each side of the 20-pin and 16-pin packages are used as ground connections and heat spreaders. The LPP package has the potential for a low θ_{JA} (<40°C/W) and dissipates heat by means of a thermal pad that is soldered onto the PCB. All package options are specified for operation over the full -40°C to +85°C temperature range.

Pin Configurations



Pin Configurations continues on Page 3

Note: All information contained in this data sheet has been carefully checked and is believed to be accurate as of the date of publication; however, this data sheet cannot be a "controlled document". Current revisions, if any, to these specifications are maintained at the factory and are available upon your request. We recommend checking the revision level before finalization of your design documentation.

EL1503C - Product Brief

High Power Differential Line Driver

**Not Recommended
for New Designs -
Use EL1503AC**

General Disclaimer

Specifications contained in this data sheet are in effect as of the publication date shown. Elantec, Inc. reserves the right to make changes in the circuitry or specifications contained herein at any time without notice. Elantec, Inc. assumes no responsibility for the use of any circuits described herein and makes no representations that they are free from patent infringement.

élantec

HIGH PERFORMANCE ANALOG INTEGRATED CIRCUITS

Elantec Semiconductor, Inc.

675 Trade Zone Blvd.

Milpitas, CA 95035

Telephone: (408) 945-1323

(888) ELANTEC

Fax: (408) 945-9305

European Office: +44-118-977-6020

Japan Technical Center: +81-45-682-5820

WARNING - Life Support Policy

Elantec, Inc. products are not authorized for and should not be used within Life Support Systems without the specific written consent of Elantec, Inc. Life Support systems are equipment intended to support or sustain life and whose failure to perform when properly used in accordance with instructions provided can be reasonably expected to result in significant personal injury or death. Users contemplating application of Elantec, Inc. Products in Life Support Systems are requested to contact Elantec, Inc. factory headquarters to establish suitable terms & conditions for these applications. Elantec, Inc.'s warranty is limited to replacement of defective components and does not cover injury to persons or property or other consequential damages.