

## Features

- High power ADSL driver
- 39.2V<sub>P-P</sub> differential output drive into 22Ω
- 42.4V<sub>P-P</sub> differential output drive into 65Ω
- Driver 2<sup>nd</sup>/3<sup>rd</sup> harmonics of -66dBc/-72dBc at 2V<sub>P-P</sub> 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 # |
|---------------|--------------------|-------------|-----------|
| EL1503ACM     | 20-Pin SO (0.300") | -           | MDP0027   |
| EL1503ACM-T13 | 20-Pin SO (0.300") | 13"         | MDP0027   |
| EL1503ACL     | 24-Pin LPP         | -           | MDP0046   |
| EL1503ACL-T7  | 24-Pin LPP         | 7"          | MDP0046   |
| EL1503ACL-T13 | 24-Pin LPP         | 13"         | MDP0046   |
| EL1503ACS     | 16-Pin SO (0.150") | -           | MDP0027   |
| EL1503ACS-T7  | 16-Pin SO (0.150") | 7"          | MDP0027   |
| EL1503AC-T13  | 16-Pin SO (0.150") | 13"         | MDP0027   |

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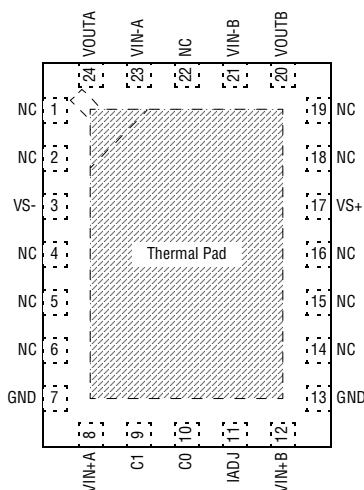
## General Description

The EL1503AC 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<sub>P-P</sub> signal into a 22Ω load while exhibiting very low distortion. The EL1503AC also has a number of power saving features. The IADJ pin can be used to set the maximum supply current and the C<sub>0</sub> and C<sub>1</sub> 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 EL1503AC 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 EL1503AC operates on ±5V to ±12V supplies and consumes only 12.5mA per amplifier.

The device is supplied in a thermally-enhanced 20-pin SO (0.300"), a thermally-enhanced 16-pin 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<sub>JA</sub> (<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



24-Pin LPP Top View

Pin Configurations continues on Page 3

# ***EL1503AC - Product Brief***

***High Power Differential Line Driver***

## **General Disclaimer**

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HIGH PERFORMANCE ANALOG INTEGRATED CIRCUITS

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