

High Power Differential Line Driver



The EL1503A 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 EL1503A also has a number of power saving features. The I_{ADJ} 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 EL1503A 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 EL1503A 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_{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.

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

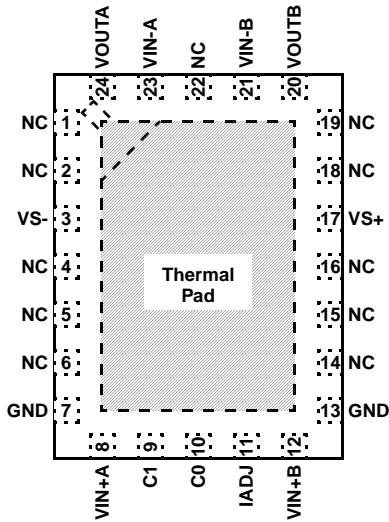
Ordering Information

PART NUMBER	PACKAGE	TAPE & REEL	PKG. NO.
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

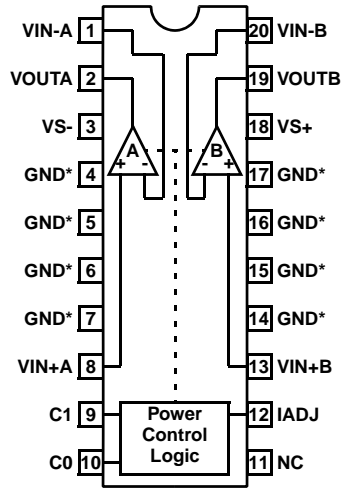
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Pinouts

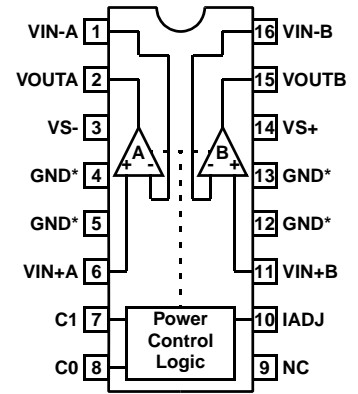
EL1503
[24-PIN LPP]
TOP VIEW



EL1503
[20-PIN SO (0.300")]
TOP VIEW



EL1503
[16-PIN SO (0.150")]
TOP VIEW



*GND PINS ARE HEAT SPREADERS

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