

**NOT RECOMMENDED FOR NEW DESIGNS
NO RECOMMENDED REPLACEMENT**
contact our Technical Support Center at
1-888-ELANTEC x311

To request the full datasheet, please visit www.intersil.com/products/EL1502

October 12, 1999

FN7037

**High Power Differential Line Driver/
Receiver**



The EL1502 is a complete transceiver solution for high speed data transmission over twisted pair wires. It

contains two wideband, high-voltage drivers and two low-noise receive amplifiers. The EL1502 is ideally suited for both ADSL and HDSL2 applications, in which it can supply a 50V_{P-P} signal into a 50Ω differential load while exhibiting very low distortion. The receive amplifiers also have very low distortion and low-noise for superior reception of small signals.

The line drivers of the EL1502 are 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 receive amplifiers are of the voltage-feedback type and can be used to implement a hybrid coupler or filter functions using external passive components.

The EL1502 operates on ±5V to ±15V supplies. It retains its bandwidth and linearity over the complete supply range.

The device is supplied in a standard form factor, 20-pin SOIC package. The eight center package pins of the package are used as ground connections and heat spreaders, allowing for operation over the full -40°C to +85°C temperature range.

Ordering Information

PART NUMBER	PACKAGE	TAPE & REEL	PKG. DWG. #
EL1502CM	20-Pin SO	-	MDP0027

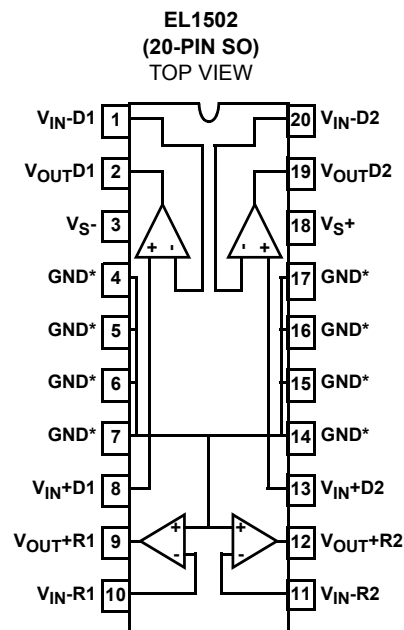
Features

- Complete ADSL differential driver and receiver
- 54V_{P-P} output drive into 100Ω differential
- 50V_{P-P} output drive into 50Ω differential
- Driver 2nd/3rd harmonics of -70dBc/-75dBc at 2V_{P-P} into 100Ω
- Low supply current 12.5mA per drive amplifier and 5mA per receive amplifier
- Standard surface-mount package

Applications

- ADSL line driver
- HDSL2 line driver
- Video distribution amplifier

Pinout



NOTE: * GND PINS ARE HEAT SPREADERS

All Intersil U.S. products are manufactured, assembled and tested utilizing ISO9001 quality systems.
Intersil Corporation's quality certifications can be viewed at www.intersil.com/design/quality

Intersil products are sold by description only. Intersil Corporation reserves the right to make changes in circuit design, software and/or specifications at any time without notice. Accordingly, the reader is cautioned to verify that data sheets are current before placing orders. Information furnished by Intersil is believed to be accurate and reliable. However, no responsibility is assumed by Intersil or its subsidiaries for its use; nor for any infringements of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of Intersil or its subsidiaries.

For information regarding Intersil Corporation and its products, see www.intersil.com