

FEATURES

- 2 differential DSL channels comprised of current feedback, high output current amplifiers
- Integrated feedback and gain resistors
- Integrated biasing network
- Ideal for use as ADSL/ADSL2+ dual-channel Central Office (CO) line drivers
- Low power consumption
 - Dual-supply operation from $\pm 6\text{ V}$ to $\pm 12\text{ V}$
 - Single-supply operation from 12 V to 24 V
 - 10.8 mA quiescent supply current in full power mode
 - 1.4 mA quiescent supply current in shutdown mode
 - Less than 700 mW internal power dissipation while driving 20.4 dBm line power, 1:1 transformer
- High output voltage and current drive
 - 43.4 V p-p differential output voltage
- Low distortion
 - 66 dBc typical MTPR @ 20.4 dBm, 26 kHz to 2.2 MHz
- High speed: 170 V/ μs differential slew rate

APPLICATIONS

ADSL/ADSL2+ CO line drivers

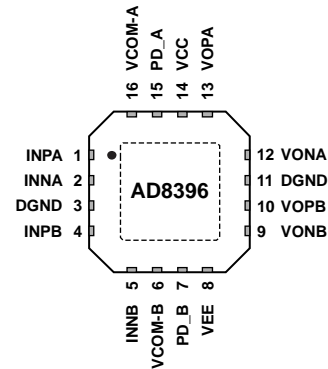
GENERAL DESCRIPTION

The AD8396 is comprised of four high output current, low power consumption operational amplifiers. It is particularly well suited for the CO driver interface in digital subscriber line systems, such as ADSL and ADSL2+. The driver can deliver 20.4 dBm to a line while compensating for losses due to hybrid insertion and back-termination resistors.

The low power consumption, high output current, high output voltage swing, and robust thermal packaging enable the AD8396 to be used as the CO line driver in ADSL and other xDSL systems.

The AD8396 is available in a 4 mm \times 4 mm 16-lead LFCSP.

PIN CONFIGURATION



NOTE
THE EXPOSED PAD IS NOT CONNECTED INTERNALLY.
FOR INCREASED RELIABILITY OF THE SOLDER JOINTS
AND MAXIMUM THERMAL CAPABILITY IT IS RECOMMENDED
THAT THE PAD BE SOLDERED TO THE GROUND PLANE.

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Figure 1.

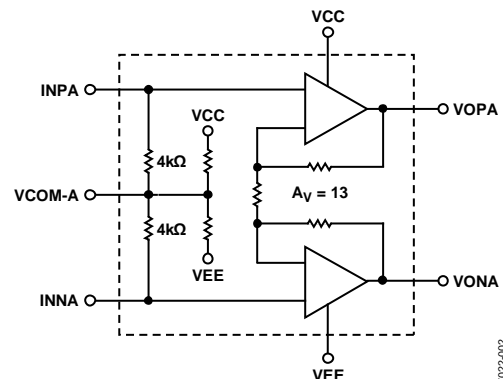


Figure 2. Channel A Internal Schematics

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For more information on the AD8396, contact Analog Devices, Inc. at: Broadband.products@analog.com.

Rev. SpB

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AD8396

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