

FEATURES

Current feedback

Wide output swing

- 18.8 V p-p differential, (50 Ω R_{LOAD}) from 12 V supply
- 20.0 V p-p differential, (100 Ω R_{LOAD}) from 12 V supply

High output current

- Linear output current of 250 mA peak

Low distortion

- 100 dBc typical at 200 kHz
- 76 dBc typical at 4 MHz
- 66 dBc typical at 8 MHz
- 56 dBc typical at 16 MHz

Low quiescent current

- 15 mA total

High speed

- 200 MHz bandwidth (A_{V DIFF} = +2 dB, -3 dB)
- 900 V/μs slew rate (R_{LOAD} = 50 Ω)

APPLICATIONS

- VDSL line driver
- Consumer xDSL modems
- Twisted pair line drivers

GENERAL DESCRIPTION

The AD8398 comprises two high-speed current feedback operational amplifiers. The high output current, high bandwidth, and fast slew rate make it particularly well suited as the line driver in VDSL and VDSL2 applications. The AD8398 is available in a thermally enhanced 4 mm × 4 mm, 16-lead LFCSP.

PIN CONFIGURATION

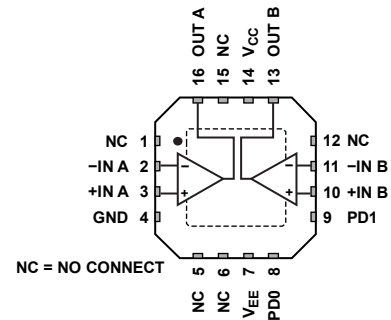


Figure 1. Thermally Enhanced, 4 mm × 4 mm, 16-Lead LFCSP_VQ

TYPICAL APPLICATION

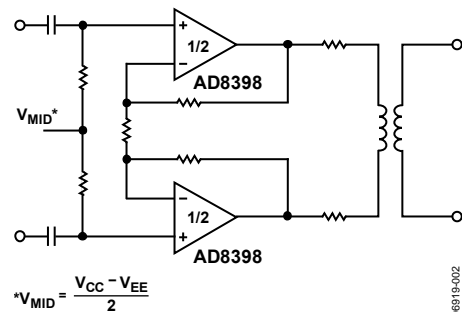


Figure 2. Typical PLC Driver Application

The AD8398 incorporates power management functionality via two CMOS-compatible control pins, PD0 and PD1. These pins select one of four operating modes: full power, medium power, low power, and complete power down. In the power-down mode, the quiescent current drops to 1.2 mA.

The AD8398 operates in the extended industrial temperature range of -40°C to +85°C.

For more information about the AD8398 email: amplifiers.comparators@analog.com.

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AD8398* PRODUCT PAGE QUICK LINKS

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COMPARABLE PARTS

View a parametric search of comparable parts.

DOCUMENTATION

Data Sheet

- AD8398: VDSL, Dual Line Driver with Shutdown Data Sheet

DESIGN RESOURCES

- AD8398 Material Declaration
- PCN-PDN Information
- Quality And Reliability
- Symbols and Footprints

DISCUSSIONS

View all AD8398 EngineerZone Discussions.

SAMPLE AND BUY

Visit the product page to see pricing options.

TECHNICAL SUPPORT

Submit a technical question or find your regional support number.

DOCUMENT FEEDBACK

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AD8398

NOTES