

### FEATURES

#### Current feedback

#### Wide output swing

18.8 V p-p differential, (50 Ω R<sub>LOAD</sub>) from 12 V supply

20.0 V p-p differential, (100 Ω R<sub>LOAD</sub>) 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<sub>V DIFF</sub> = +2 dB, −3 dB)

900 V/μs slew rate (R<sub>LOAD</sub> = 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

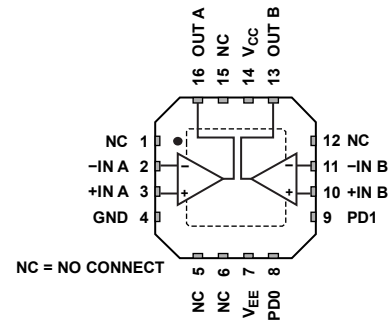


Figure 1. Thermally Enhanced, 4 mm × 4 mm, 16-Lead LFCSP\_VQ

### TYPICAL APPLICATION

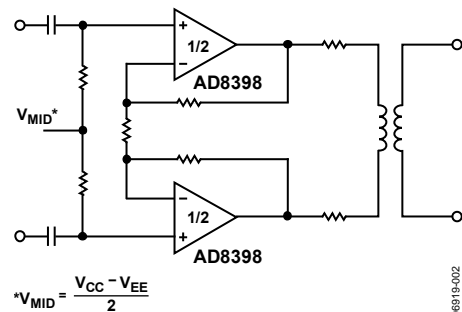


Figure 2. Typical PLC Driver Application

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](mailto:amplifiers.comparators@analog.com).

#### Rev. Sp0

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One Technology Way, P.O. Box 9106, Norwood, MA 02062-9106, U.S.A.

Tel: 781.329.4700

Fax: 781.461.3113

[www.analog.com](http://www.analog.com)

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**AD8398**

**NOTES**