Data Sheet | July 11, 2007 | FN6226.2

Dual Channel Central Office ADSL2+ Line Driver

The ISL1535 is a very low power dual channel differentiated amplifier designed for central office line driving for DMT ADSL2+ solutions. This device features a high drive capability of 600mA while consuming 5.2mA of supply current per amplifier from ±12V supplies. This driver achieves a typical distortion of less than -75dBc, at 1MHz into a 50Ω load. The ISL1535 is available in 28 Ld HTSSOP package. This device is specified for operation over the full -40°C to +85°C temperature range.

The ISL1535 has two control pins, C_0 and C_1, per channel. With the selection of C_0 and C_1, the device can be set into full-I_S power, 3/4-I_S power, 1/2-I_S power, and power-down disable modes. The ISL1535 maintains excellent distortion and load driving capabilities even in the lowest power settings. The ISL1535 has extended bandwidth, low THD and high slew rate for ADSL2+ applications.

Ordering Information

PART NUMBER (Note)	PART MARKING	PACKAGE (Pb-free)	PKG. DWG. #
ISL1535IVEZ	ISL1535 IVEZ	28 Ld HTSSOP	MDP0048
ISL1535IVEZ-T13*	ISL1535 IVEZ	28 Ld HTSSOP	MDP0048
ISL1535IRZ	1535 IRZ	24 Ld QFN	MDP0046
ISL1535IRZ-T13*	1535 IRZ	24 Ld QFN	MDP0046

*Please refer to TB347 for details on reel specifications.

NOTE: Intersil Pb-free plus anneal products employ special Pb-free material sets; molding compounds/die attach materials and 100% matte tin plate termination finish, which are RoHS compliant and compatible with both SnPb and Pb-free soldering operations. Intersil Pb-free products are MSL classified at Pb-free peak reflow temperatures that meet or exceed the Pb-free ruirements of IPC/JEDEC J STD-020.

Features

- Drives 400mA at 16V_{P-P} on ±12V supplies
- 21.4V_{P-P} differential output drive into 100Ω
- 20.6V_{P-P} minimum differential output drive into 60Ω
- -75dBc typical driver output distortion driving 50Ω at 1MHz and 1/2-I_S bias current
- Quiescent current of 5.2mA per amplifier in 1/2-I_S mode
- 100MHz BW at A_V = 10
- Current control pins to select power modes
- Pin-to-pin replacement for EL1527 and EL1537
- Pb-free plus anneal available (RoHS compliant)

Applications

- ADSL, ADSL2, ADSL2+ line drivers
- G.SHDSL, HDSL2 line drivers
- VDSL line drivers
- Video distribution amplifiers
- Video twisted-pair line drivers