ISL1535A

Dual Channel Central Office ADSL2+ Line Driver

FN6585
Rev 1.00
December 9, 2015

The ISL1535A 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 7.5mA 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 ISL1535A is available in a 28 Ld HTSSOP package and a 24 Ld QFN package. This device is specified for operation over the full -40°C to +85°C temperature range.

The ISL1535A 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 ISL1535A maintains excellent distortion and load driving capabilities even in the lowest power settings. The ISL1535A has extended bandwidth, low THD and high slew rate for ADSL2+ applications.

Ordering Information

PART NUMBER (Note 2)	PART MARKING	PACKAGE (Pb-free)	PKG. DWG. #
ISL1535AIVEZ	1535A IVEZ	28 Ld HTSSOP	MDP0048
ISL1535AIVEZ-T13*	1535A IVEZ	28 Ld HTSSOP Tape and Reel	MDP0048
ISL1535AIRZ (Note 1) **(No longer available or supported)**	1535A IRZ	24 Ld QFN	MDP0046
ISL1535AIRZ-T13* (Note 1) **(No longer available or supported)**	1535A IRZ	24 Ld QFN Tape and Reel	MDP0046

*Please refer to TB347 for details on reel specifications.

NOTES:

1. Contact Intersil for the availability in QFN package.
2. These Intersil Pb-free plastic packaged products employ special Pb-free material sets; molding compounds/die attach materials and 100% matte tin plate PLUS ANNEAL - e3 termination finish, which is 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 requirements 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 7.5mA per amplifier in Full-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 (RoHS compliant)

Applications

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

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