

## 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  $\pm 12V$  supplies. This driver achieves a typical distortion of less than -75dBc, at 1MHz into a 50 $\Omega$  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<br>(Note 2)                                         | PART MARKING | PACKAGE<br>(Pb-free)          | PKG. DWG. # |
|-----------------------------------------------------------------|--------------|-------------------------------|-------------|
| ISL1535AIVEZ                                                    | 1535A IVEZ   | 28 Ld HTSSOP                  | MDP0048     |
| ISL1535AIVEZ-T13*                                               | 1535A IVEZ   | 28 Ld HTSSOP<br>Tape and Reel | MDP0048     |
| ISL1535AIRZ (Note 1)<br>(No longer available or supported)      | 1535A IRZ    | 24 Ld QFN                     | MDP0046     |
| ISL1535AIRZ-T13* (Note 1)<br>(No longer available or supported) | 1535A IRZ    | 24 Ld QFN<br>Tape and Reel    | MDP0046     |

\*Please refer to TB347 for details on reel specifications.

#### NOTES:

- Contact Intersil for the availability in QFN package.
- 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<sub>P-P</sub> on  $\pm 12V$  supplies
- 21.4V<sub>P-P</sub> differential output drive into 100 $\Omega$
- 20.6V<sub>P-P</sub> minimum differential output drive into 60 $\Omega$
- -75dBc typical driver output distortion driving 50 $\Omega$  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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