

xDSL Differential Line Driver

The EL1517B is a dual operational amplifier designed for VDSL and ADSL line driving in DMT based solutions. EL1517B includes internal protection for high ruggedness against lightning related transients. This device features a high drive capability of 250mA while consuming only 7mA of supply current per amplifier and operating from a single 5V to 12V supply. This driver achieves a typical distortion of 80dBc, at 150kHz into a 25Ω load. The EL1517B is available in a 10 Ld HMSOP package and is specified for operation over the full -40°C to +85°C temperature range. The device has control pins C₀ and C₁ for controlling the bias and enable/disable of the outputs. These controls allow for lowering the power to fit the performance/power ratio for the application.

The EL1517B is ideal for ADSL, SDSL, HDSL2 and VDSL line driving applications. All performance graphs in this datasheet were generated for EL1517BIS and EL1517BIL. There is no significant electrical difference between EL1517BIYE and the performance curves for EL1517BIL.

The **EL1517B** can only be used for single supply operation. Use EL1517BIL or EL1517BIS for dual supply applications.

Ordering Information

PART NUMBER (Note)	PART MARKING	TAPE & REEL	PACKAGE (Pb-Free)	PKG. DWG. #
EL1517BIYEZ	BBBCA	-	10 Ld HMSOP	MDP0050
EL1517BIYEZ-T7	BBBCA	7"	10 Ld HMSOP	MDP0050
EL1517BIYEZ-T13	BBBCA	13"	10 Ld HMSOP	MDP0050
EL1517BILZ	1517BIL	-	16 Ld QFN	MDP0046
EL1517BILZ-T13	1517BIL	13"	16 Ld QFN	MDP0046
EL1517BILZ-T7	1517BIL	7"	16 Ld QFN	MDP0046
EL1517BISZ	1517BIS	-	8 Ld SOIC	MDP0027
EL1517BISZ-T13	1517BIS	13"	8 Ld SOIC	MDP0027
EL1517BISZ-T7	1517BIS	7"	8 Ld SOIC	MDP0027

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 requirements of IPC/JEDEC J STD-020.

Features

- Internal protection for high ruggedness against lightning related transients
- Drives up to 250mA from a +12V supply
- 18V_{P-P} differential output drive into 50Ω
- 20V_{P-P} differential output drive into 100Ω
- -80dBc typical driver output distortion at full output at 150kHz
- -75dBc typical driver output distortion at 3.75MHz
- -60dBc typical driver output distortion at 8MHz
- -50dBc typical driver output distortion at 16MHz
- Low quiescent current of 7mA per amplifier
- 200MHz bandwidth
- Use for single supply applications
- Pb-free plus anneal available (RoHS Compliant)

Applications

- VDSL line drivers
- ADSL full rate CPE line driving
- G.SHDSL, HDSL2 line drivers
- HomePlug networking drivers

Get Full Datasheet

All Intersil U.S. products are manufactured, assembled and tested utilizing ISO9000 quality systems.
Intersil Corporation's quality certifications can be viewed at www.intersil.com/design/quality

Intersil products are sold by description only. Intersil Corporation reserves the right to make changes in circuit design, software and/or specifications at any time without notice. Accordingly, the reader is cautioned to verify that data sheets are current before placing orders. Information furnished by Intersil is believed to be accurate and reliable. However, no responsibility is assumed by Intersil or its subsidiaries for its use; nor for any infringements of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of Intersil or its subsidiaries.

For information regarding Intersil Corporation and its products, see www.intersil.com