EL1517

xDSL Differential Line Driver

OBSOLETE PRODUCT
NO RECOMMENDED REPLACEMENT
contact our Technical Support Center at
1-888-INTERSIL or www.intersil.com/tsc

FN7425
Rev 4.00
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The EL1517 is a dual operational amplifier designed for VDSL and ADSL line driving in DMT based solutions. 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 EL1517 is available in the industry-standard 8 Ld SOIC and the thermally-enhanced 16 Ld QFN packages. All are specified for operation over the full -40°C to +85°C temperature range. The 16 Ld QFN package option has control pins C_0 and C_1 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 EL1517 is ideal for ADSL, SDSL, HDSL2 and VDSL line driving applications.

Ordering Information

PART NUMBER	PART MARKING	PACKAGE	TAPE & REEL	PKG. DWG. #
EL1517IS	1517IS	8 Ld SOICIC	-	MDP0027
EL1517IS-T7	1517IS	8 Ld SOICIC	7”	MDP0027
EL1517IS-T13	1517IS	8 Ld SOICIC	13”	MDP0027
EL1517ISZ (Note)	1517ISZ	8 Ld SOICIC (Pb-Free)	-	MDP0027
EL1517ISZ-T7 (Note)	1517ISZ	8 Ld SOICIC (Pb-Free)	7”	MDP0027
EL1517ISZ-T13 (Note)	1517ISZ	8 Ld SOIC (Pb-Free)	13”	MDP0027
EL1517IL	1517IL	16 Ld QFN	-	MDP0046
EL1517IL-T7	1517IL	16 Ld QFN	7”	MDP0046
EL1517IL-T13	1517IL	16 Ld QFN	13”	MDP0046
EL1517ILZ (Note)	1517ILZ	16 Ld QFN (Pb-Free)	-	MDP0046
EL1517ILZ-T7 (Note)	1517ILZ	16 Ld QFN (Pb-Free)	7”	MDP0046
EL1517ILZ-T13 (Note)	1517ILZ	16 Ld QFN (Pb-Free)	13”	MDP0046

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

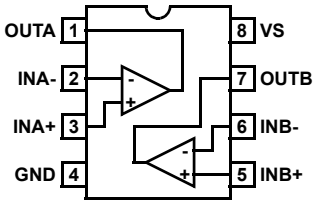
- Drives up to 250mA from a +12V supply
- $18V_{P-P}$ differential output drive into 50Ω
- $20V_{P-P}$ differential output drive into 100Ω
- -80dBc typical driver output distortion at full output at 150kHz
- -75dBc typical driver output distortion at 3.75MHz
- -60dBc typical driver output distortion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

Applications

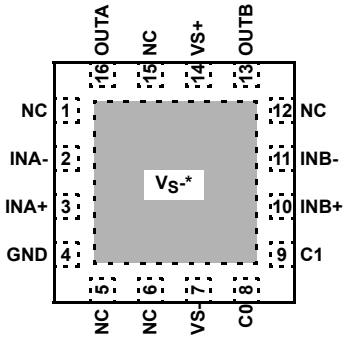
- VDSL line drivers
- ADSL full rate CPE line driving
- G.SHDSL, HDSL2 line drivers
- HomePlug networking drivers

Pinouts

EL1517
(8 LD SOIC)
TOP VIEW



EL1517
(16 LD QFN)
TOP VIEW



***THERMAL PAD MUST BE CONNECTED TO NEGATIVE SUPPLY: V_S-. QFN PACKAGE CAN BE USED IN DUAL SUPPLY APPLICATIONS.**