

## **xDSL Differential Line Driver**

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-pin SO, the thermally-enhanced 16-pin QFN, and 10-pin HMSOP packages. All are specified for operation over the full -40°C to +85°C temperature range. The 16-pin QFN and 10-pin HMSOP package options have control pins C<sub>0</sub> and C<sub>1</sub> 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**

<b>PART NUMBER</b>	<b>PACKAGE</b>	<b>TAPE &amp; REEL</b>	<b>PKG. DWG. #</b>
EL1517IS	8-Pin SO	-	MDP0027
EL1517IS-T7	8-Pin SO	7"	MDP0027
EL1517IS-T13	8-Pin SO	13"	MDP0027
EL1517IL	16-Pin QFN	-	MDP0046
EL1517IL-T7	16-Pin QFN	7"	MDP0046
EL1517IL-T13	16-Pin QFN	13"	MDP0046
EL1517IYE	10-Pin HMSOP	-	MDP0050
EL1517IYE-T7	10-Pin HMSOP	7"	MDP0050
EL1517IYE-T13	10-Pin HMSOP	13"	MDP0050

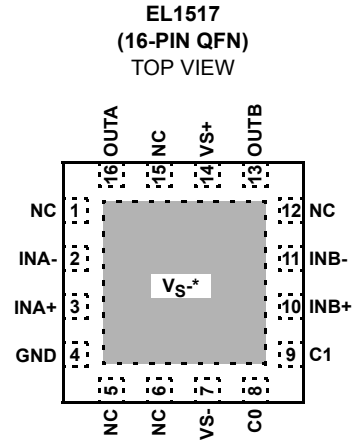
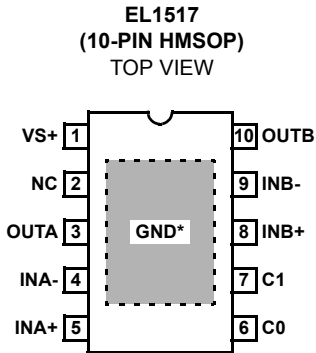
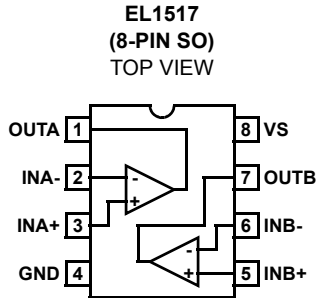
## **Features**

- Drives up to 250mA from a +12V supply
- 18V<sub>P-P</sub> differential output drive into 50Ω
- 20V<sub>P-P</sub> 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

## **Applications**

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

Pinouts



THERMAL PAD MUST BE CONNECTED TO NEGATIVE SUPPLY:  $V_{S-}$ .  
QFN PACKAGE CAN BE USED IN DUAL SUPPLY APPLICATIONS.

THERMAL PAD MUST BE CONNECTED TO GROUND.  
PAD IS CONNECTED INTERNALLY TO  $V_{S-}$  AND THUS HMSOP  
PACKAGE CAN ONLY BE USED IN SINGLE SUPPLY APPLICATIONS.

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