

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 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 EL1517 is ideal for ADSL, SDSL, HDSL2 and VDSL line driving applications.

Ordering Information

| PART NUMBER | PACKAGE | TAPE & REEL | PKG. DWG. # |
|--------------------|----------------|------------------------|--------------------|
| 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

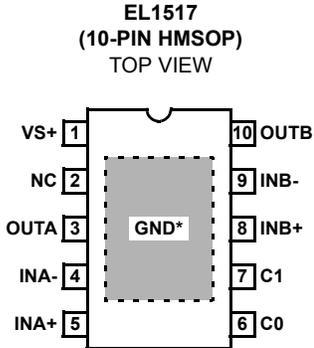
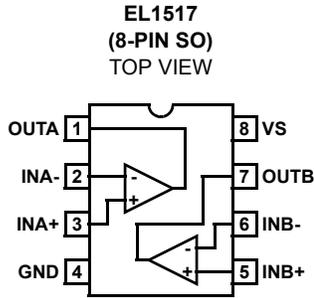
- Drives up to 250mA from a +12V supply
- 18V_{P-P} differential output drive into 50Ω
- 20V_{P-P} differential output drive into 100Ω
- -80dBc typical driver output distortion at full output at 150kHz
- -75dBc typical driver output distortion at 3.75MHz
- -60dBc typical driver output distortion at 8MHz
- -50dBc typical driver output distortion at 16MHz
- Low quiescent current of 7mA per amplifier
- 200MHz bandwidth

Applications

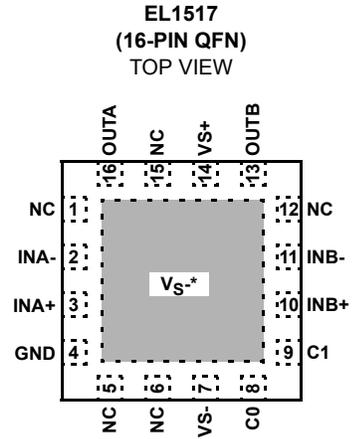
- VDSL line drivers
- ADSL full rate CPE line driving
- G.SHDSL, HDSL2 line drivers
- HomePlug networking drivers

Get Full Datasheet

Pinouts



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.



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

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