

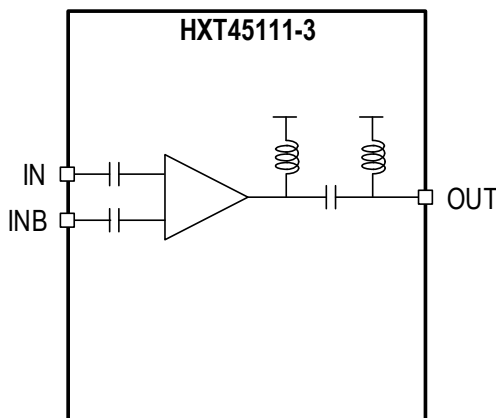
HXT45111-3

112Gbps Linear EML Driver

The HXT45111-3 is a single channel linear EML driver, which is a member of the Renesas family of Optical Receiver Transmitter Array (ORTA) products. In conjunction with an EML, a compact linear transmitter can be designed for the next generation of 100G and 200G/400G optical transceivers.

The HXT45111-3 is a low-power, high-performance, single channel linear driver, designed for 112Gbps PAM4 EML-based transceivers. The device is a small form factor (SFF) packaged surface mount device (SMD) with differential input and single-ended output consisting of one 56Gbaud broadband amplifier channel. This design enables it to drive a linear output voltage of 2.0Vpp, suitable for 112G PAM-4 applications.

**Block Diagram**



**Features**

- Data rate up to 56Gbaud per channel for PAM-4 applications
- Low power consumption of 250mW per channel
- > 45GHz bandwidth
- Build-in Bias –T and internal high-frequency chokes
- > 10dB dynamic range of gain control
- Peaking on/off control
- Low channel cross-talk
- Small form factor SMD
- Internally DC-blocked RF inputs and outputs

**Applications**

- 100GBASE-DR/FR/LR transmitters
- New generation of 100G Ethernet optical receiver modules: 100G QSFP56 DR, FR, and LR

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