

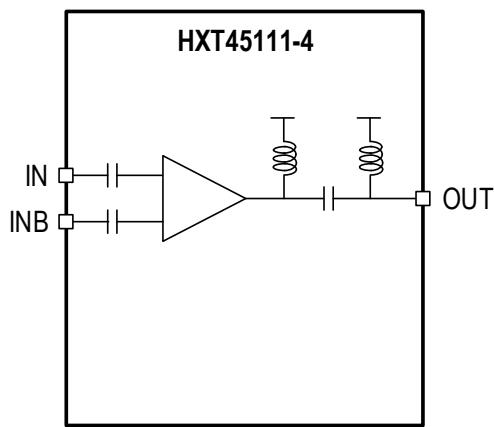
HXT45111-4

112Gbps Linear EML Driver

The HXT45111-4 is a single channel linear EML driver, which is a member of the Renesas family of Optical Receiver Transmitter Array (ORTA) products. Together with an EML, a compact linear transmitter can be designed for the next generation of 100G and 200G/400G optical transceivers.

The HXT45111-4 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 inputs and single-ended outputs consisting of one 56Gbaud broadband amplifier channel. This design enables it to drive a linear output voltage of 2.0Vpp, which is suitable for 112G PAM-4 applications.

Block Diagram



Features

- Data rate up to 56Gbaud per channel for PAM-4 applications
- Low power consumption of 200mW 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
- 7.0×2.85 mm SMT package

Applications

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

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Corporate Headquarters

TOYOSU FORESIA, 3-2-24 Toyosu,
Koto-ku, Tokyo 135-0061, Japan
www.renesas.com

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