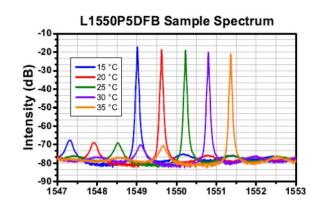
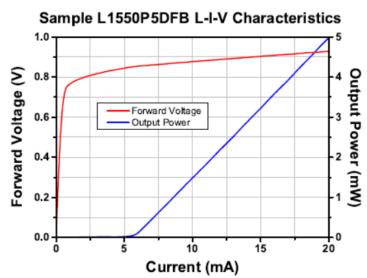
Fermionics Bias study



L1550P5DFB 1550 nm, 5 mW, Ø5.6 mm, D Pin Code DFB Laser Diode with Aspheric Lens Cap



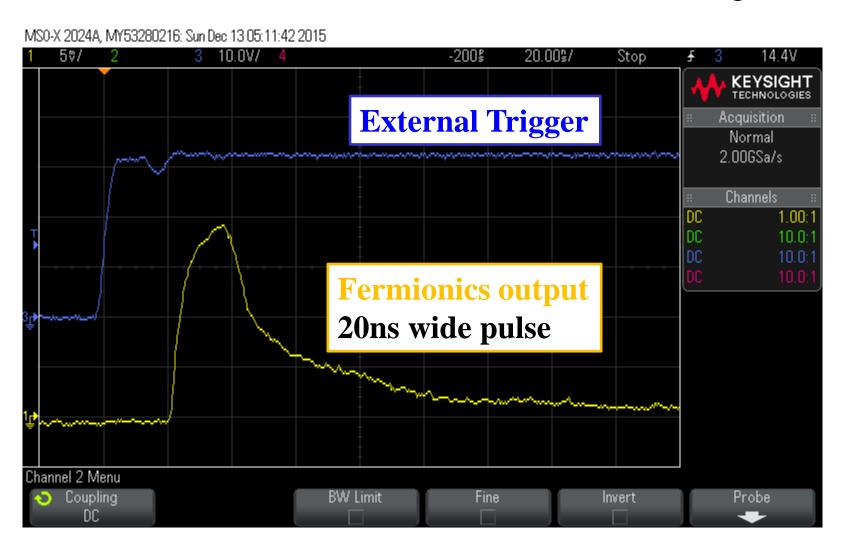


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Dec. 12, 2015

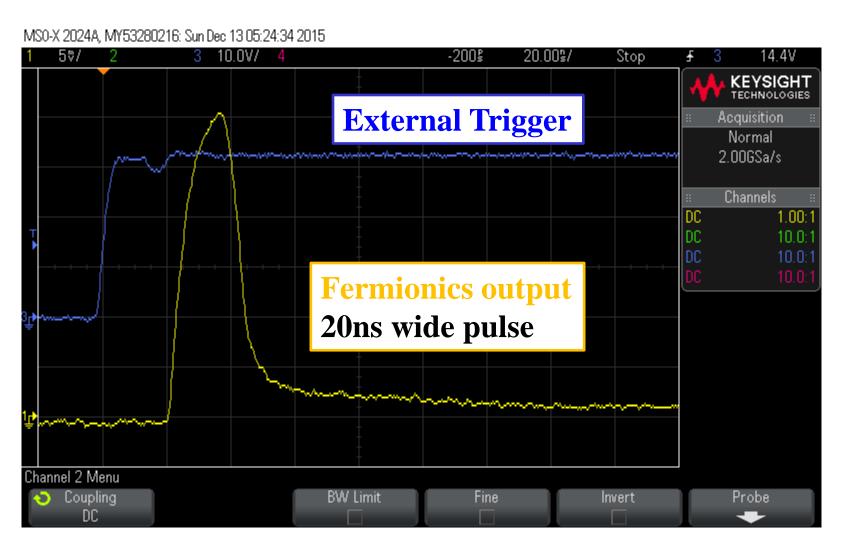
Zero Bias

• Both 50 ohm terminated and Vbias set to zero give



>~1V bias

• Signal collection not any faster, slightly larger charge



Comments

- Tried pulsing diode with a couple of fast [Avtech] pulsers, but wasn't able to see anything (too fast?)
- Long tail didn't change versus bias:
 - ➤ Slow [lateral] charge collection (?)
 - ➤ Diode afterglow (?) shouldn't be



This 1550 nm, 5 mW, 2.5 Gbps, DFB laser diode is a Telcordia qualified product operable over a broad temperature range with a low temperature-wavelength coefficient. It is well suited for applications such as communications research, interferometry, and optical reflectometry for distance measurement in fiber or free space. Each device undergoes testing and burn-in.

This laser comes packaged in a 5.6 mm TO Can with D pin code. It contains an integrated aspheric focusing lens in the cap, allowing the focus spot and numerical aperture (NA) to be matched to SMF-28e+ fiber.