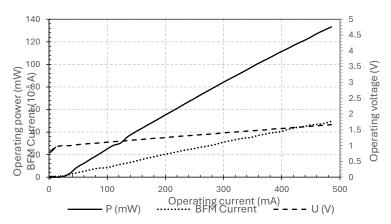
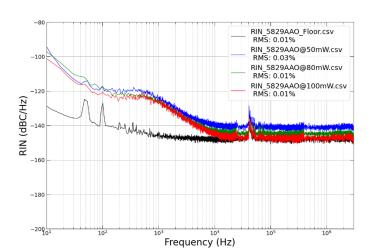


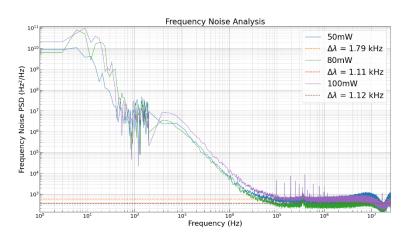
1310 nm laser diode

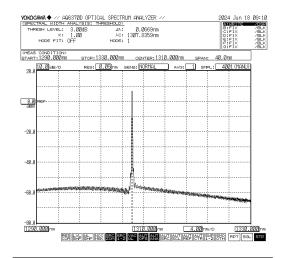
100mW / DFB / Butterfly package

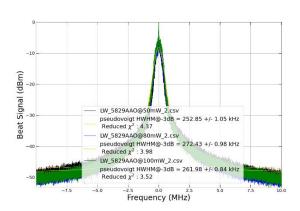












^ Beat Signal obtained from Self-Heterodyne measurements with 12 km delay fiber

Pseudovoigt fit:

$$pseudovoigt(f) = offset + A \left[(1 - \eta) \cdot \frac{2\sqrt{2 \ln(2)}}{\Delta \lambda \sqrt{2\pi}} exp\left(-\frac{4 \ln(2) (f - f_0)^2}{\Delta \lambda^2} \right) + \eta \cdot \frac{2}{\pi \Delta \lambda} \cdot \frac{1}{1 + \left(\frac{2(f - f_0)}{\Delta \lambda} \right)^2} \right]$$

Important note: The self-heterodyne linewidth measurements were obtained with our optimized experimental setup. It is probable that the linewidth we measured is still limited by the overall noise of our non-ideal setup. We estimate an even narrower real linewidth for this diode, given at approx. 1 kHz through frequency noise measurement.