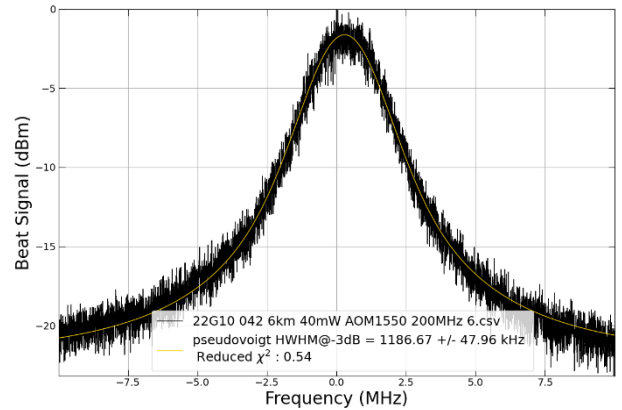
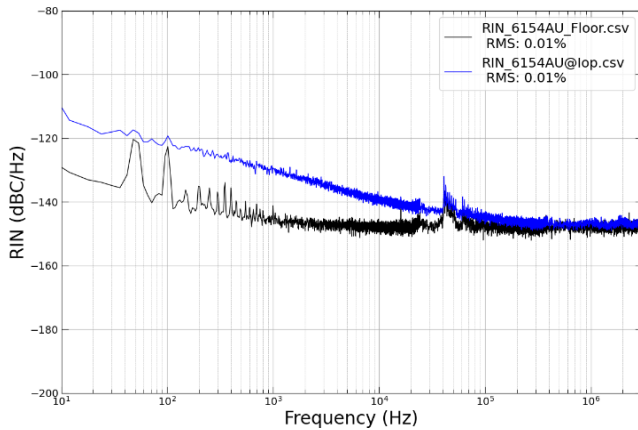
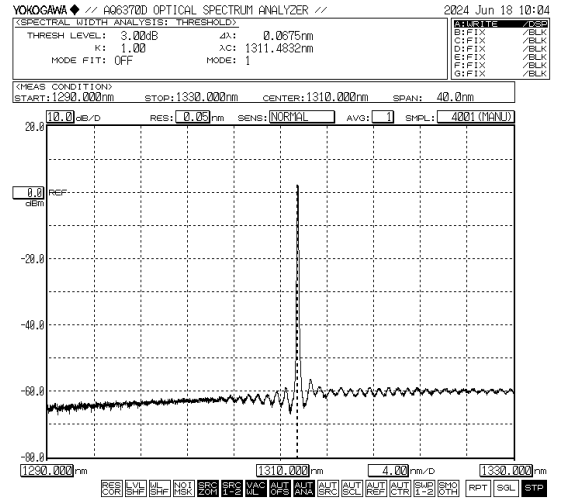
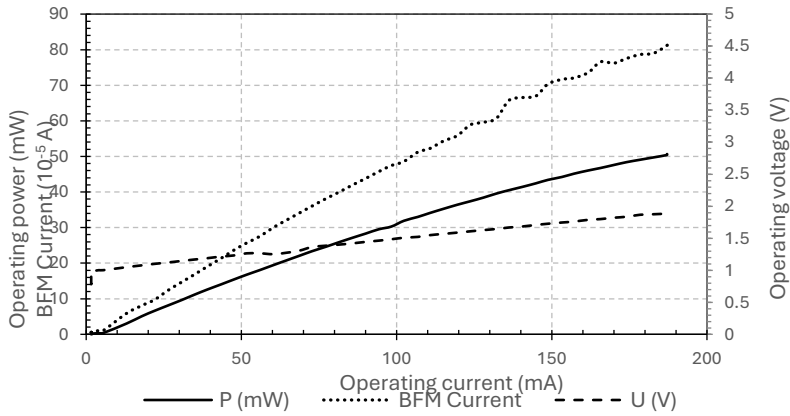


1310 nm laser diode

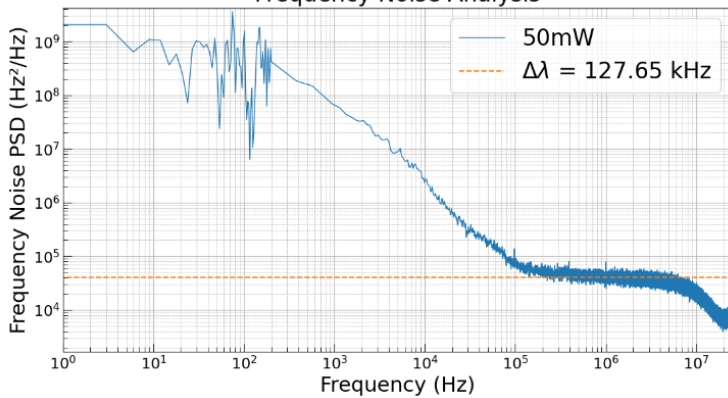
40mW / DFB / Butterfly package

Power vs Current & Voltage vs Current @ 25,00 °C



^ Beat Signal obtained from Self-Heterodyne measurements with 6 km delay fiber

Frequency Noise Analysis



Pseudovoigt fit :

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

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. 127 kHz through frequency noise measurement.