



Operating Lifetimes of OZ Optics Fiber Pigtailed Laser Modules

OZ Optics has spent significant research in developing laser modules with high reliability and long operating lifetimes. The following charts give typical test data for optical sources that we have produced. While actual operating lifetimes depend on the operating wavelength, laser power, and reliability data for the laser diodes by the manufacturers, the data given indicates the reliability of the optics and control electronics developed by OZ Optics.

Example 1: 670nm sources.

Chart #1 shows the output power over time for six fiber sources, pigtailed with polarization maintaining fiber. All six sources emit 1mW of laser power at 670nm. A forward monitoring optical tap controlled optical power. The devices were left to operate at room temperature continuously. As indicated in the chart, all six devices have operated for over a year, with less than a 1% drop in overall power, and are expected to operate at least 3 years with less than 5% change in the overall power.

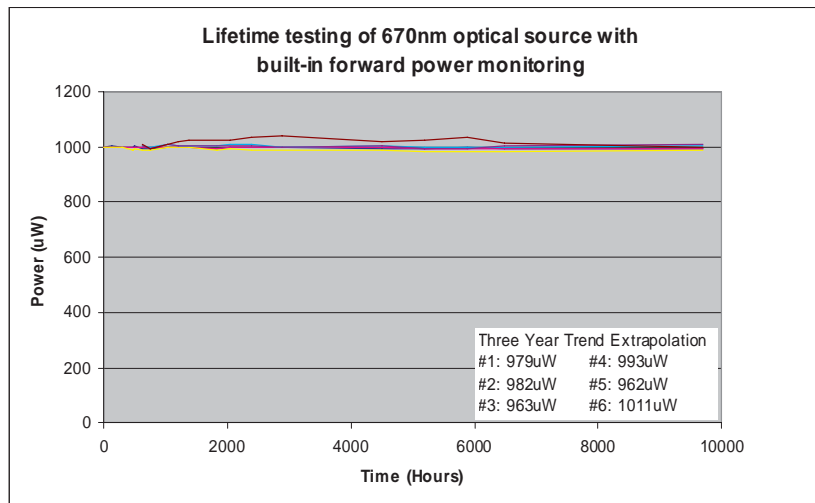


Chart #1: 670nm source lifetime testing

Example 2: 405nm sources

Chart #2 shows the output power over time for three fiber sources, again pigtailed with polarization maintaining fiber. All three sources emit over 30mW of laser power at 405nm. Power was controlled using the internal monitor photodiode inside the laser diode housing. The devices were left to operate at room temperature continuously. As indicated in the chart, all the units were able to run for over 1500 hours with less than a 3% drop in overall power.

