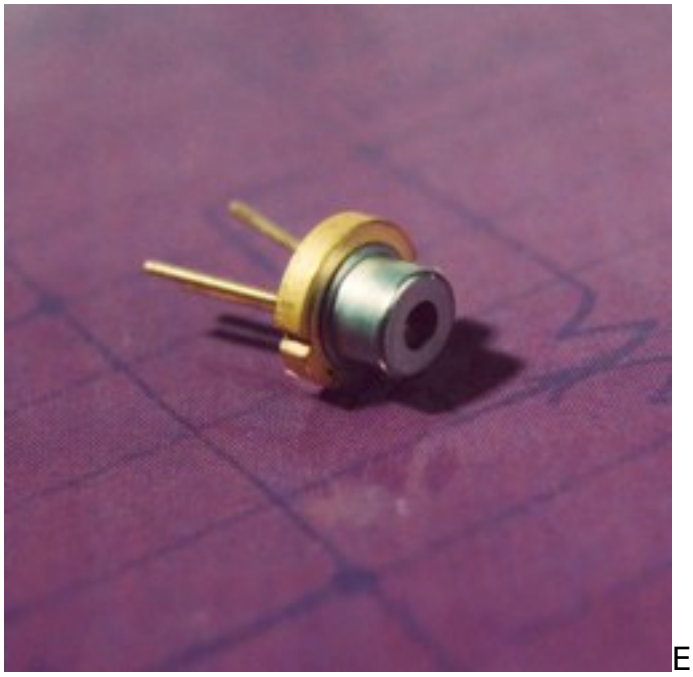
Diode Laser Module 'Breaks Record' for Power at Wavelength in the Deep Violet



Elk Industries, LLC has achieved a "Breakthrough" in Output Radiant Flux for a CW Diode LASER Module at 398 - 401 nm. In the R&D Laboratories of ELK Industries, this milestone advance allows New and useful advances in the arts and sciences.
A rugged and robust, variable power OEM/Laboratory LASER Operating at 401 nm with Output Power of 400 - 500 milliwatts (High Power) was Demonstrated for the first time in North America. It's Power Input is only 2 Watts at 100 - 240 VAC, 50 - 60 Hz, and LASER Diode Input of 393 milliamps at 5 volts, D.C., for full Output Power. The Highly collimated Output appears as TEMoo with a Focal Point of (only) 500 microns, or less. Additional collimation allows for Transmission for distances of over 1 kilometer. This advance "Opens Up Doors" into Research not possible, or practical, in the past.

Especially due to the High Power and High Quality Beam Characteristics, this LASER can enable (New) Research in Fluorescence Lifetime Studies, Materials Research, Direct - Diode LASER Pumping of Dye Liquid LASERS, LASER Ablation Spectroscopy, LASER Marking & Engraving, Micromachining - especially of Organic Materials, Forensic Studies, Near UV LASER Illumination, LASER Light Shows, LASER Projection systems and Displays, Counterfeit Detection, and a host of other unique applications.

The (overall) size of the LASER Module is (only) ~ 4" x 6" x 5". The LASER Diode, itself, is made in a Standard TO-18, 5.6 mm Can. The LASER Diodes are also available from ELK Industries, as a "Stock Item". This Product set is called the "DEEP VIOLET LASER".

At ELK Industries, extreme utility of this LASER is key to the Development of Tunable, Direct - Diode LASER (CW) pumped Dye Liquid LASERS operating in the Blue or Blue-Green Wavelengths, as well as the 550 - 620 nm wavelength region. Researcher, and CEO of ELK Industries, Mr. Robin Elkins, has already achieved High Power CW Direct Diode LASER pumping of Rhodamine 590 Chloride with the "BLUE MAXTM OEM/Laboratory LASER", which Produces a diode LASER Output of 1 Watt at 440 nm (Maximum). Other, proprietary applications are being investigated for potential Industrial Uses on a Large Scale.

These OEM, 398 - 401 High Power Diode LASER Modules are planned for immediate release, as the Diode LASER Lifetime, and "other" Key Diode LASER Characteristics have been well established, earlier this Year. These OEM/Lab LASER Modules are manufactured in the USA.

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