

# 810nm 2W laser cluster (5 x 400mW)



**This probe contains five 810nm Laser Diodes each with the following spec:-**

Wavelength	790nm - 800nm (795nm $\pm$ 5nm) @ 25° C
Spectral Width	1.6nm at 50% intensity
Semi-Conductor Material	GaAlAs
Construction	Quantum well Separate Confinement Hetrostructure
Average Power	400mW
1/e <sup>2</sup> Spot Size & Shape**	0.177cm x 0.5012cm, elliptical
-3dB Spot Size & Shape	0.108cm x 0.324cm, elliptical
1/e <sup>2</sup> Spot Size Area**	0.0697cm <sup>2</sup>
-3dB Spot Size Area	0.0275cm <sup>2</sup>
1/e <sup>2</sup> Power Density**	4.97W/cm <sup>2</sup> (59600Wm <sup>-2</sup> )
-3dB Power Density	7.27W/cm <sup>2</sup> (85500Wm <sup>-2</sup> )
Beam divergence half angle	5° x 27°
Beam divergence full angle	10° x 54°
NOHD*	2.3m
Safety Spectacles	OD4 minimum at 810nm
Classification	CLASS 3B LASER
Application	Analgesia, deep anti-inflammatory & deep tissue repair
Polarisation	Linear

\* NOHD - Nominal Ocular Hazard Distance - The distance at which the Laser output is safe to view without safety spectacles i.e. below the MPE.

\*\* 1/e<sup>2</sup> The spot size is recommended to be used for dosage calculations

**This probe also has four 660nm LED's, intended as a guide beam, with the following spec.:-**

Wavelength	660nm $\pm$ 10nm @ 25° C
Spectral Width	50nm at 50% intensity
Average Power	10mW typical
1/e <sup>2</sup> Spot Size	0.2 cm <sup>2</sup>
Power Density	50mW/cm <sup>2</sup> (750Wm <sup>-2</sup> )
Beam Divergence	12°