810nm 1W laser cluster (5 x 200mW)

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

WAVELENGTH	810nm ±5nm @ 25 ^{o} C
SPECTRAL WIDTH	1.2nm at 50% intensity
SEMI-CONDUCTOR MATERIAL	GaAlAs
CONSTRUCTION	Quantum well Separate Confinement Hetrostructure
AVERAGE POWER	200 mW
1/e^2 SPOT SIZE & SHAPE**	1.14mm x 3.24mm, elliptical
-3dB SPOT SIZE & SHAPE	0.72 x 2.08mm, elliptical
1/e^2 SPOT SIZE AREA**	0.029 cm^2
-3dB SPOT SIZE AREA	0.0117 cm^2
1/e^2 POWER DENSITY**	**5.96W/cm^2 (59600Wm^{-2})**
-3dB POWER DENSITY	8.55W/cm^2 (85500Wm^{-2})
BEAM DIVERGENCE	5° x 27°
NOHD*	1.15m
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^2 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 ±10nm @ 25 ^{o} C
SPECTRAL WIDTH	50nm at 50% intensity
AVERAGE POWER	10 mW typical, 10mW minimum
1/e^2 SPOT SIZE	0.2 cm^2
POWER DENSITY	50mW/cm^2 (750Wm^{-2})
BEAM DIVERGENCE	12°