

Fast and Accurate Laser Safety Calculations with LaserSafe PC

The screenshot displays the LaserSafe PC Professional software interface, Version 5.0. The main window is titled "Small (Point) Source - Repetitively Pulsed". It features several panels:

- Input Parameters:**
 - Laser Beam Wavelength: 1.06 μm
 - Exposure to Beam Time Frame: 1 s
 - Laser Output Peak Power: 3 kW
 - Axis 1 Laser Beam Diameter: 2 mm
 - Axis 2 Laser Beam Diameter: 2 mm
 - Axis 1 Beam Divergence: 3 mr
 - Axis 2 Beam Divergence: 3 mr
 - Laser to Target Distance: 5 m
 - Pulse Repetition Frequency: 12 kHz
 - Pulse Width: 20 ns
- Correction Factors:**
 - C₁: 1
 - C₂: 1
 - C₃: 1
 - C₄: 5
 - C₅: 0.478
 - C₆: 1
 - C₇: 1
- Pulse Train Calculation Values:**
 - Pulse Summing not Employed
 - Pulse Train Duration: 1 s
 - Effective Pulse Train: 12 k
- Time Breakpoints:**
 - T₁: 10 s
 - T₂: 10 s
- Accessible Emission:** 35.2 x MPE. (Warning: These conditions are above 5 x MPE!)
- Small (Point) Source Details Window:**

Single Pulse MPE	20 mJ/m ²	Accessible Emission	264 mJ/m ²	Safety Eyewear and Filters	
Pulse Train MPE	9.55 mJ/m ²	MPE Limit Aperture	7 mm		
Average MPE	7.5 mJ/m ²	ExNOHD Aperture	50 mm		
MPE Excess	35.2	Skin AE	264 mJ/m ²		
Class 1 AEL Excess	1450	Skin MPE Excess	-0577	Nominal O.D.	1.5 1.0
Test Class	4	N.O.H.D.	33 m	L Number	RL3
Class Time Base	100 s	Extended NOHD	240 m	LB Number for Glass	DLB4 RLB5
Av. Beam Irradiance	3.17 kW/m ²	Spot Major Axis	17 mm	LB Number for Plastic	DLB5 RLB5
Pk. Beam Irradiance	13.2 MW/m ²	Spot Minor Axis	17 mm	EN208 RB Number	N/A
Pk. Energy Output	60 μJ	Exposure Train	12000 Pulses	Av. Actual Irradiance	3.17 kW/m ²
				Peak Actual Irradiance	13.2 MW/m ²
				Actual Radiant Exposure	264 mJ/m ²

Version 5

The New version 5.00 software updated to latest standard IEC/EN 60825-1:2014 and latest safety eyewear specifications

[Download](#) free AEL / MPE calculation demo software.

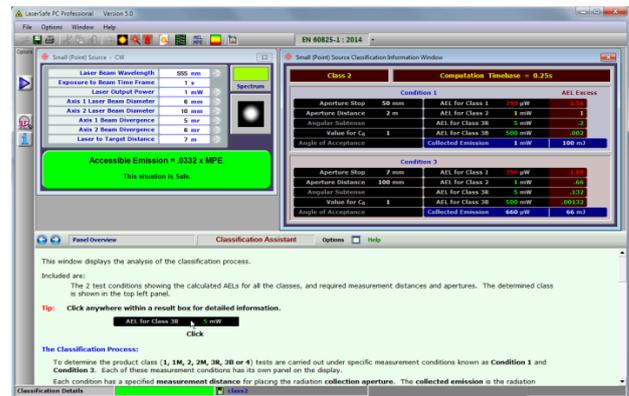
Follow the link from <http://www.lasermet.com/laser-safety-software.php>

Produced by GL Services in association with Lasermet Ltd, this is an ideal package for Laser Safety Officers or anyone else who regularly performs risk assessments on lasers. According with all the relevant standards, (see below), it will save you hours of work and give consistent and correct answers to your calculations of MPEs, AELs, accessible emission, optical density requirements, classification etc. Because it performs in seconds, calculations which used to take hours, you can easily explore the safety of different scenarios for your laser or laser system. LaserSafe PC is by far the most comprehensive and widely used laser safety software available, with extensive use by major companies, government institutions and Universities.

Accords with:

- IEC / EN 60825-1
- IEC / EN 60825-2
- EN 207
- EN 208

- **Calculates in Seconds**
- Accessible Emission (AE)
- MPEs
- AELs
- NOHD
- ENOHD
- MPE Excess (AE to MPE ratio) for eye and skin
- Classification or Hazard Levels
- Eye, skin & classification apertures
- EN 207 L numbers, LB numbers
- EN 208 RB numbers
- Optical density requirements for filters
- Irradiance and Radiant Exposures
- ...and much more



Risk Assessment

Safety Training

Quick Calculation

LaserSafe PC is a comprehensive and versatile programme which covers all of the following laser situations including LED evaluation.

Covers:

- All wavelengths
180 nm - 1 mm
- All times from
<100fs to 30000s
- CW emission
- Single pulse
- Repetitive pulsing
- Point Sources
- Extended Sources
- Fibre optics
- Diffuse reflection
- LEDs
- Scanning lasers

Displays:

- T1, T2, C1 - C7 values
- Classification calculation analysis
- MPE and AEL table values
- Description of all Classes
- Risk Assessment Notes

Minimum System Requirements

- Windows XP / Vista / Windows 7 / Windows 8
- VGA or SVGA monitor



Substantial discounts are available for multiple copies and a site licence is available, allowing unlimited copies to be used on one company site. The programme is being continually improved and expanded as well as revised in accordance with any standards revisions. Users receive free updates for the first twelve months - thereafter updates are available at 55% of the full purchase price - enabling you to keep abreast of any changes.

Lasermet Ltd. Lasermet House, 137 Hankinson Road, Bournemouth BH9 1HR United Kingdom
Tel: 44 (0) 1202 770740 Fax: 44 (0) 1202 770730 sales@lasermet.com www.lasermet.com