

VisualizeIR - bringing IR lasers to light

PRODUCT DATA SHEET

Infrared laser alignment head

Introduction

VisualizeIR is an essential aid to the alignment, location and visualization of infrared beams from laser diodes, Nd:YAG/YLF lasers and other NIR emitters.

Unlike conventional IR detector cards there is no need to optically charge VisualizeIR and more importantly VisualizeIR will not discharge!

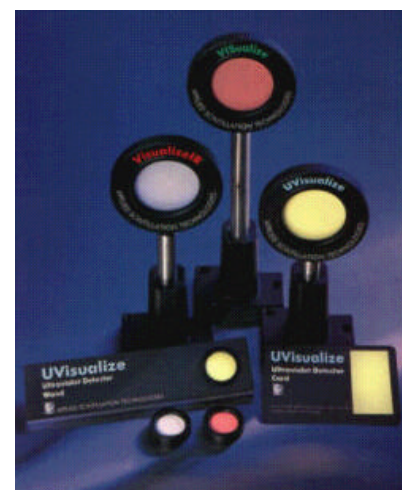
Features

- Gives **green** emission under CW or pulsed NIR.
- Active in popular laser diode, Nd:YAG/YLF and communications wavelengths bands.
- **Always ready for use** with no optical charging necessary.
- **No fading! Constant light output for steady light input.**
- Detects IR at powers as low as **175 nW/cm²**
- Free from hazardous reflections.
- A low cost alternative to beam profilers.

Product Styles:

The **VisualizeIR** product comes in 3 formats:

- **Laminated "credit card" style** - budget format suitable for low power lamp and laser use
- **25 mm disc and clip-on wand** - specifically designed for laser engineers and optics experimentalists where frequent component positioning is required
- **Optical bench mounted head** - rugged, 40 mm active area, free standing 13.7 mm mounting post and post holder allowing centre adjustments from 90 - 235 mm. Ideally suited for laser alignment component positioning and beam profiling – complete with alignment target



Product Style Information:

Credit Card Style

Dimensions 86 mm x 54 mm
Active area ~4.5 cm²

Disc + Wand

Disc OD 25 mm
optical mount compatible
Active area ~3 cm²
Wand ~130 mm x 35 mm

Optical Bench Mounted Head

Head OD 70 mm
Depth 8 mm
Post dia. 12.6 mm

Active area ~12.6 cm²

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Performance Specifications

Stimulation range: (see graph)
 Band 1: 790 nm to 840 nm
 Band 2: 870 nm to 1070 nm
 Band 3: 1550 nm

Typical Applications

Band 1: 808 nm, 820 nm, 830 nm LDs
 Band 2: 880 nm, 960-980 nm LDs, Hd:YAG
 Band 3: 1550 nm telecommunications

Emission Colour: (see graph)

Principle peak:
 Green centred @ 550 nm

Other peaks:
 Red centred @ 673 nm
 Blue centred @ 400 nm

Persistence

Decay time to 10%: 800µs

Minimum Stimulation for Visible Emission:

Pulsed: 250 kW/cm² @ 1064 nm

(7 ns pulse, 10 Hz, low ambient)

Continuous: <2 µW/cm² @ 808 nm
 <175 nW/cm² @ 960 nm
 <100 µW/cm² @ 1550 nm

(measured under darkened conditions)

Maximum Stimulation:

Single pulse: 35 MW/cm² @ 1064 nm, 7 ns

Continuous: < 100 W/cm²

For use of Nd:YAG at powers > 35 MW/cm², please contact Laser Components for a special quotation.

