



Electro Optical Components, Inc.

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IR Converter - *bringing IR lasers to light*

PRODUCT DATA SHEET

Infrared laser alignment head

Introduction

IR Converter 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 **IR Converter** and more importantly IR will not discharge!

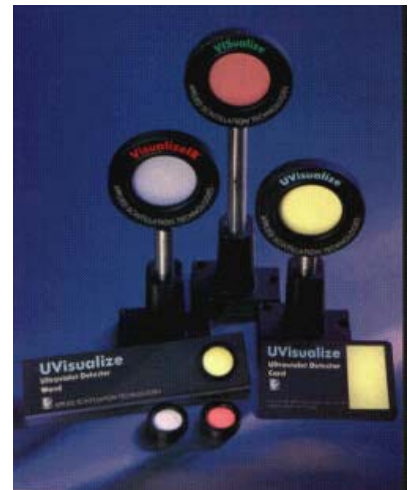
Features

- 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 **IR Converter** 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 center 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 Color: (see graph)

- Principle peak:
Green centered @ 550 nm

Other peaks:

- Red centered @ 673 nm
- Blue centered @ 400 nm

Persistence

Decay time to 10%: 800 μ s

Minimum Stimulation for Visible Emission:

Pulsed: 250 kW/cm² @ 1064 nm
(7 ns pulse, 10 Hz, low ambient)

Continuous: <2 μ W/cm² @ 808 nm
<175 nW/cm² @ 960 nm
<100 μ W/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.

