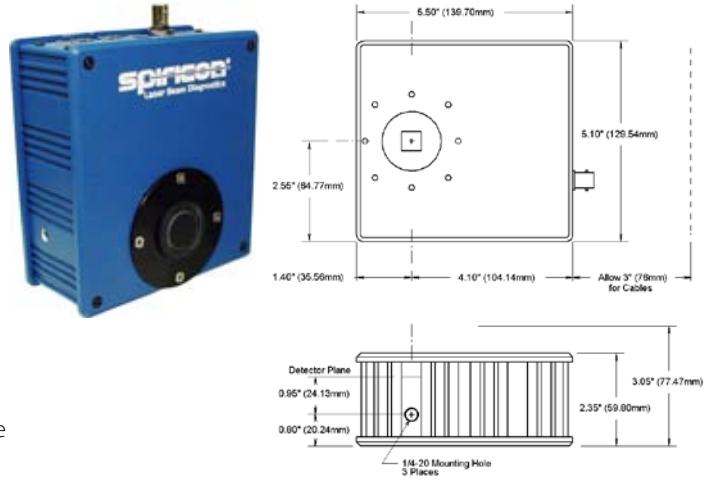


3.2.2 13-355nm and 1.06-3000 μ m - Pyroelectric Array Camera

Pyrocam™ III Series

Features

- Spectral ranges available from 13 to 355 nm and 1.06 to >3000 μ m
- Image CO₂ lasers, telecom NIR lasers and other infrared sources out to Far IR THz sources
- Solid state array camera with 1000:1 linear dynamic range for accurate profiling
- Integrated chopper for CW beams and thermal imaging
- Versatile Firewire interface
- Interchangeable windows available for a variety of applications
- Image Viewer utility presents 3D isometric plots, 2D color contour plots and grayscale, among other views
- Includes BeamGage Laser Beam Analysis Software for extensive quantitative analysis and image display



Spiricon has been the world leader in the manufacture of pyroelectric solid-state detector arrays and cameras. For over 25 years the Pyrocam™ has been the overwhelming camera of choice for Laser Beam Diagnostics of IR and UV lasers and high temperature thermal imaging. Precision, stability, reliability, and versatility have become its proud heritage.

The Pyrocam™ III offers easy Windows® camera setup, direct Windows quantitative and image display, 14 bit digitizer, versatile Firewire® PC interface, an integral chopper for CW beams and thermal imaging, and many other enhanced features.

See Your Beam As Never Before

The Pyrocam™ III camera creates clear and illuminating images of your laser beam profile. Displayed in 2D or 3D views, you can immediately recognize beam characteristics that affect laser performance and operation. This instantly alerts you to detrimental laser variations. Instantaneous feedback enables timely correction and real-time tuning of laser parameters. For example, when an industrial shop foreman saw the CO₂ laser beam profile in Figure 1 he knew immediately why that laser was not processing materials the same as the other shop lasers, with the profile shown in Figure 2.

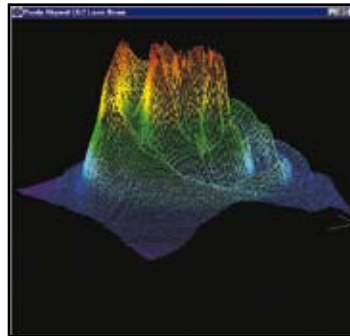


Fig. 1. Industrial CO₂ laser performing inconsistent processing.

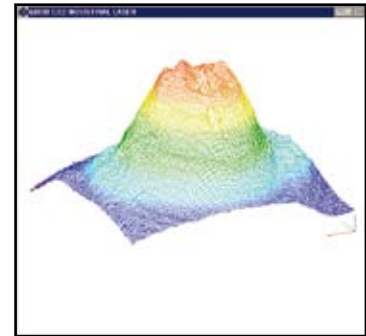


Fig. 2. Industrial CO₂ laser performing specified processing.

Pulsed and CW Lasers

The Pyrocam™ III measures the beam profile of both pulsed and CW lasers. Since the pyroelectric crystal is an integrating sensor, pulses from femtosecond to 12.8ms can be measured. The pyroelectric crystal only measures changes in intensity, and so is relatively immune to ambient temperature changes. Because CW laser beams must be chopped to create a changing signal, the Pyrocam™ III contains an integral chopper as an option.