

LaserCam-HR

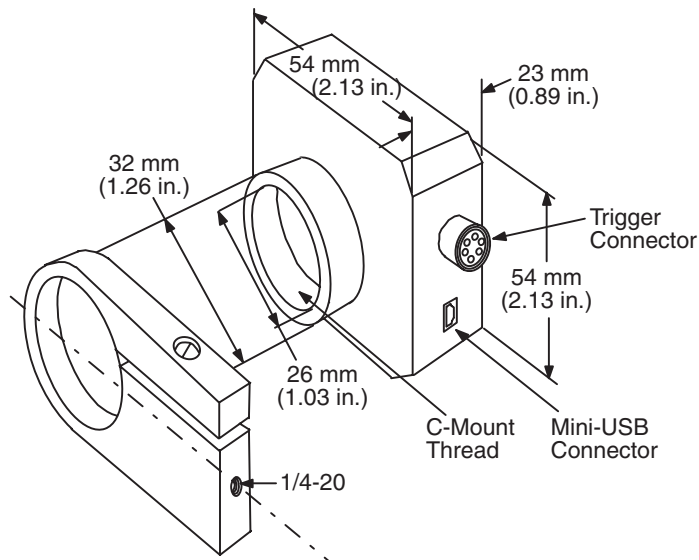
High-Resolution Laser Beam Profiling System



Features

- USB 2.0 interface means no more framegrabber cards
- Large area, 2/3" 1280 x 1024 matrix, CMOS sensor, with 1.3 million pixels
- Coherent Adaptive Pixel Technology (CAPT) pixel by pixel offset, linearity and blemish correction
- 1000:1 signal to noise – 10-bit operation shows the details other profilers miss
- 6.7 μm x 6.7 μm pixel size
- CW and Pulsed operation including asynchronous triggering
- Easy “plug & play” installation
- Single cable operation – no power supply required
- Compact 68 x 68 x 34 mm package – fits into small spaces
- 360° Rotational camera mount – convenient and flexible

Mechanical Specifications



LaserCam-HR™

High-Resolution Laser Beam Profiling System

Device Specifications

| | |
|---------------------------------|---|
| Matrix Size | 1280 x 1024 pixels |
| Pixel Size | 6.7 x 6.7 μm |
| Sensor Active Area | 8.5 x 6.8 mm (2/3 inch format) |
| Spectral Range | 300 to 1,100 nm (400 to 1,100 with LDFP) |
| Glassless Sensor | Low Distortion Faceplate is removable |
| Low Distortion Faceplate (LDFP) | NG10 glass, nominal OD = 2.3 |
| Electrical Interface | USB 2.0 |
| Modes of Operation | Pulsed, CW |
| Pulsed Mode Trigger Methods | Trigger In (TTL) |
| Maximum Pulse Trigger In Rate | 100 Hz (without averaging adjacent pulses) |
| Maximum Frame Rate | 15 FPS (live video, no calculations), 10 FPS (capture with calculations) |
| CW Saturation @ 633 nm | 40 mW/cm ² (with LDFP), 16 μW/cm ² (without LDFP) |
| CW Saturation @ 1064 nm | 800 mW/cm ² (with LDFP), 320 μW/cm ² (without LDFP) |
| USB 2.0 Connector | 5-pin standard USB cable included |
| Trigger Connector | BNC connector, trigger cable included |

BeamView-USB Analyzer PC Software

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|--|---|
| Measures | Centroid & peak locations, pointing stability beam width/diameter, divergence, gaussian fit analysis, elliptical analysis and uniformity analysis |
| Beam Width Calculations | Multiple, including the ISO standard d4 Sigma |
| Displays | 2-D, 3-D and choice of 4 color styles |
| Data Logging | For long-term laser stability analysis |
| Data File Formats | Binary, ASCII, Bitmap, JPEG/JIF and many more |
| Operating System Compatibility | Windows XP (service pack 1 or higher) |
| Pass/Fail Analysis | Of all measurements for production automation |
| Statistical Analysis | Of all measured laser parameters |
| Background Noise Level Monitoring | Alerts user when background correction is invalid |
| Password Protection | Limits unauthorized access to system configuration |
| Automated Apertures | Display calculated beam dimensions |
| User-Defined Apertures | Limit the scope of data for "Power-in-the-Bucket" calculations |
| Cursors | Display centroid, comparative and fit data |
| Crosshair | Defines bore-sighting central axis, centroid and/or peak locations |
| Total Power or Energy Calibrated with an External Meter | Enables power density or fluence measurements |
| Features | On-line help, hot function keys, graphical pan, zoom and many more |
| Part Number (RoHS) | 1098577 |

Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice.

Coherent's EnergyMax sensors are compliant with the EU Restriction of Hazardous Substances (RoHS) and Waste Electrical and Electronic Equipment [WEEE] Directives. They also meet the intent of Directive 89/336/EEC for Electromagnetic Compatibility (CE). CE compliance was demonstrated per testing to EN61326 Electromagnetic Compatibility Product Family Standard for Measurement, Control and Laboratory Equipment.

Coherent offers a Limited Warranty for all LaserCam-HR systems. For full details of this warranty coverage, please refer to the 'Warranty Information for Instruments' webpage under the service section of our website at www.Coherent.com or contact your local Sales or Service representative.