

LaserCam-HR

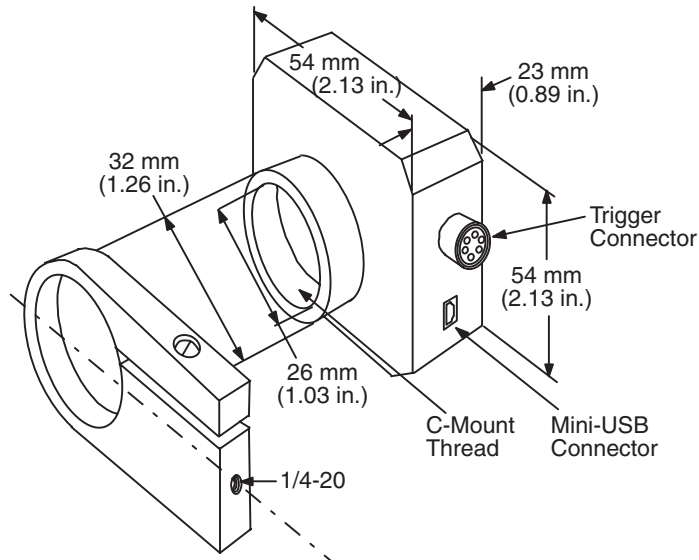
High-Resolution Laser Beam Profiling System



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 LDFFP)
Glassless Sensor	Low Distortion Faceplate is removable
Low Distortion Faceplate (LDFFP)	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 LDFFP), 16 $\mu\text{W/cm}^2$ (without LDFFP)
CW Saturation @ 1064 nm	800 mW/cm ² (with LDFFP), 320 $\mu\text{W/cm}^2$ (without LDFFP)
USB 2.0 Connector	5-pin standard USB cable included
Trigger Connector	BNC connector, trigger cable included

BeamView-USB Analyzer PC Software

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 d_4 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.