

LaserCam-HR-UV

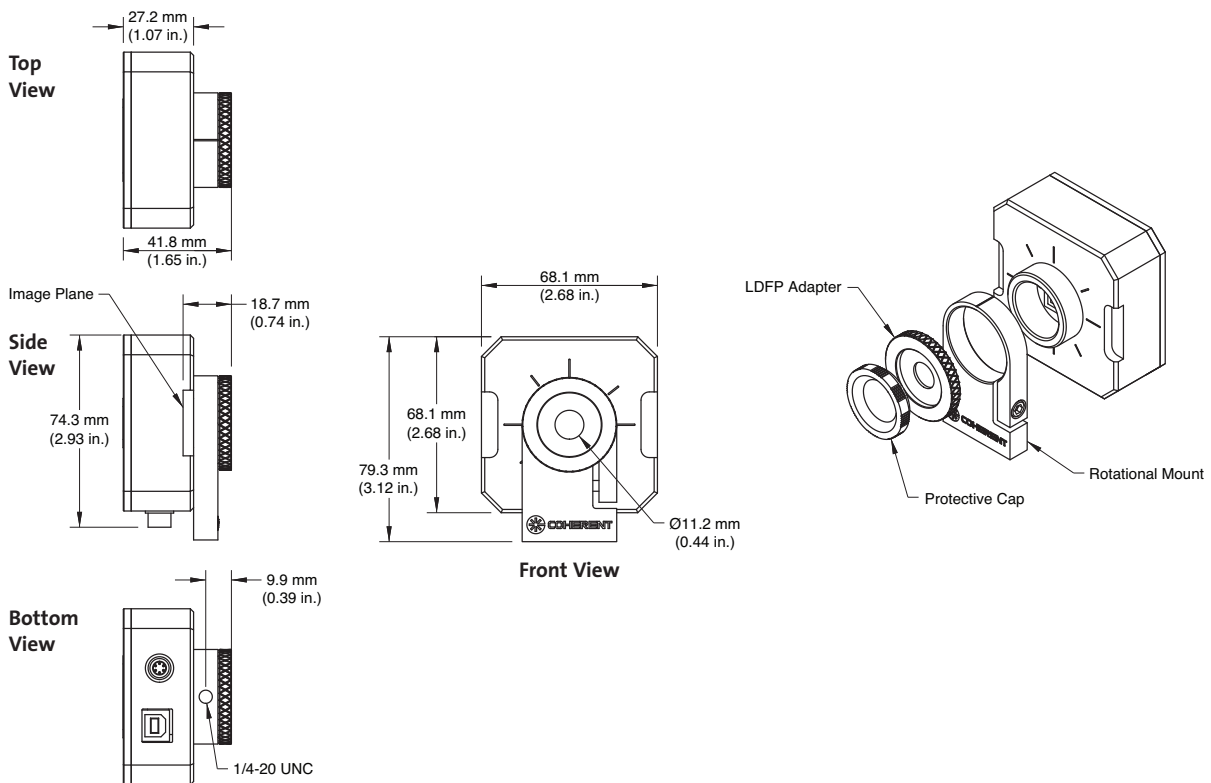
High-Resolution UV Laser Beam Profiling System



Features

- Large area, 2/3" 1280 x 1024 matrix, CMOS sensor, with 1.3 million pixels
- Long-term UV stability
- Compact 68 x 68 x 34 mm package – fits into small spaces
- 700:1 signal to noise – 10-bit digital output operation
- 20 μm x 20 μm effective pixel resolution
- USB 2.0 interface with single USB cable operation – no power supply required
- 190 nm to 355 nm spectral range
- Coherent Adaptive Pixel Technology (CAPT) pixel by pixel offset, linearity and blemish correction
- CW and Pulsed operation including external triggering
- Adjustable trigger delay
- Variable exposure time
- 360° Rotational camera mount – convenient and flexible

Mechanical Specifications



Superior Reliability & Performance

LaserCam™-HR-UV

High-Resolution UV Laser Beam Profiling System

Device Specifications

Sensor Elements (pixels)	1280 x 1024
Effective Pixel Resolution (µm)	20 x 20
Pixel Size (µm)	6.7 x 6.7
Sensor Active Area (mm)(H x V)	8.5 x 6.8 (2/3 inch format)
Spectral Range (nm)	190 to 355
Beam Diameters (mm)	0.4 to 6.0
Glassless Sensor	Low Distortion Faceplate is removable
Low Distortion Faceplate (LDFP)	UV grade ND filter, OD = 3.0 at 248 nm
Electrical Interface	USB 2.0
Capture Modes	Continuous (CW), pulsed
Variable Exposure Time	20 µsec to 30 msec, default at 10 msec
Pulsed Mode Trigger Methods	Trigger In (TTL)
Maximum Pulse Trigger In Rate (Hz)	100 (without averaging adjacent pulses)
Maximum Frame Rate (FPS)	20 (live video, no calculations), 15 (capture with calculations)
CW Saturation at 248 nm	90 mW/cm ² (with LDFP), 90 µW/cm ² (without LDFP)
Pulsed Saturation at 248 nm	5 mJ/cm ² (with LDFP), 5 µJ/cm ² (without LDFP)
USB 2.0 Cable	6 ft. standard A/B cable included
Trigger Connector	BNC receptacle (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 d4 Sigma
Flat Top Beam Analysis	Beam Uniformity, Plateau Uniformity, Flatness Factor, Edge Sharpness, Effective Irradiation Area, Effective Average Power Density
Displays	2-D, 3-D and choice of 4 color scales
Data Logging	For long-term laser stability analysis
Data File Formats	ATS, PNG, Binary, ASCII, Bitmap, JPEG and many more
Report Generation	PDF
Operating System Compatibility	Windows XP (SP2), Vista 32-bit (SP1)
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)	1149004

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

Coherent's LabMax meters 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.



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