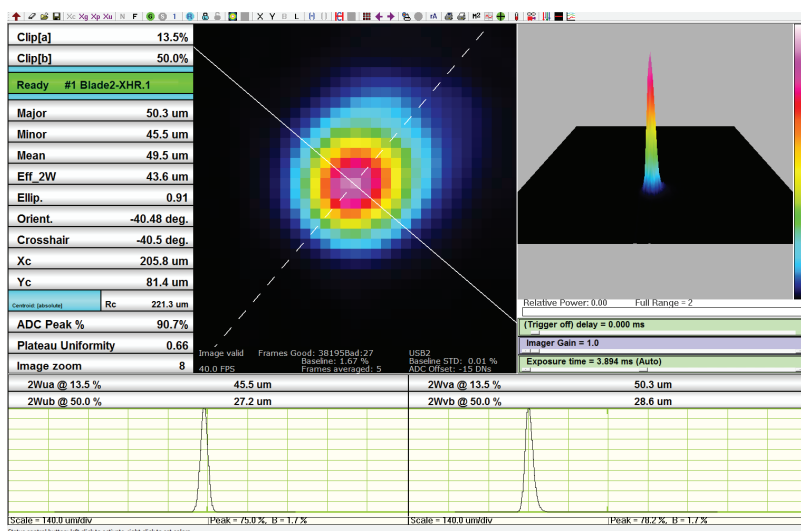




BladeCam2

½" CMOS Beam Profiling Camera, Ultra Compact, USB 3.0

Updated with USB 3.0 connectivity and other improvements, the BladeCam2™ offers an enhanced BladeCam™ beam profiling experience. With pixels as small as 3.2 μm , the high resolution and highly compact BladeCam2™ beam profilers have a thickness of only 0.50" (12.84 mm) for insertion into tight optical trains and OEM applications.



The BladeCam2™ is paired with DataRay's full featured, highly customizable, user-centric software which has no license fees, unlimited installations, and free software updates. It is perfect for applications including: CW laser profiling; field servicing of laser systems; optical assembly; instrument alignment; beam wander and logging; R&D; OEM integration; quality control; and M² measurement with available M2DU stage.



BladeCam2
1.8 x 1.8 x 0.5 in
46.0 x 46.0 x 12.8 mm

System Features

- 355 - 1150 nm, CMOS detector
 - TEL sensor options for 1480 - 1610 nm
 - UV and 1310 nm options available
- Two sensor pixel size/resolution options
 - BladeCam2-XHR: 3.2 μm pixels, 3.1 MPixel, 2048 x 1536
 - BladeCam2-HR: 5.2 μm pixels, 1.3 MPixel, 1280 x 1024
- 6 fps @ 2048 x 1526, 16 fps @ 1024 x 1024, 35 fps @ 512 x 512
- Port-powered USB 3.0
- HyperCal™ – Dynamic Noise and Baseline Correction
- C-mount filters included
- 1,000:1 Signal to RMS Noise
- CW/Quasi-CW
- Electronic auto-shutter, 40 μs - 1 s (XHR) or 40 μs - 500 ms (HR)
- 10-bit ADC
- Parallel capture on multiple cameras
- Field-replaceable image sensors
- Relative power level display
- Window-free sensors standard for no fringing
- ISO 11146 M² option – beam propagation analysis, divergence, focus

Applications

- CW/Quasi-CW
- Field servicing of lasers and laser-based systems
- Optical assembly & instrument alignment
- Beam wander & logging
- M² measurements
- Small form factor for tight optical trains

Additional Software Features

- XY profiles and centroids
 - Linear and logarithmic displays
 - Gaussian and Top Hat least squares fits
 - Ellipse Angle, Major, Minor, Mean Diameters
 - ISO 11146 compliant
- Background capture and subtraction
 - Image & Intensity Zoom
 - Linear and area filters
 - Image Averaging, 1 to continuous
 - Proprietary HyperCal™ Dynamic Noise and Baseline Correction

WinCamD-BladeCam2™ Series Model Specifications:

BladeCam2™	BC2-XHR	BC2-HR	BC2-HR-TEL
Pixel Count & H x V:	3.2M Pixel 2048 x 1536	1.3 M Pixel 1280 x1024	
Sensor image area (mm):	6.5 x 4.9	6.6 x 5.3	
Pixel dimension (µm):	3.2 x 3.2	5.2 x 5.2	25 (due to phosphor)
Min. beam (10 pixels):	32 µm	52 µm	250 µm
Wavelength Range:	355-1100 nm		1480-1680 nm
Shutter type:	Rolling		
Max Frame rate: Frame rate @ 2048 x 1536	> 6 Hz	N/A	
Frame rate @ 1024 x 1024:	> 16 Hz		
Frame rate @ 512 x 512:	> 35 Hz		
Max. ‘every pulse’ PRR:	Not suitable for pulse capture		
Single pulse capture PRR:	Not suitable for pulse capture		
Signal to RMS Noise (Optical/Electrical):	1,000:1 (30/60 dB)		
Electronic Shutter Dynamic Range:	40 µs to 1s 44dB	40 µs to 500ms 41dB	
ADC:	10-bit		
Interface:	USB 3.0/2.0		

