## DATARAY $_{*}$

## WinCamD-QD SWIR/eSWIR Quantum Dot Beam Profiler

## High resolution beam profiling at 1550 nm

The WinCamD-QD series uses colloidal quantum dot sensors to provide high quality beam profiling for visible, SWIR, and eSWIR sources. With $15 \mu \mathrm{~m}$ pixels, a wavelength range as wide as 350-2000 nm, and a global shutter, the WinCamD-QD series offers unparalleled beam profiling capabilities. With a signal-to-noise ratio that exceeds 2100:1, the WinCamD-QD series is capable of ISO 11146 compliant beam measurements. The state-of-the-art colloidal quantum dot sensor features very high sensitivity with a global shutter for pulsed beam profiling.


The WinCamD-QD series is supported by DataRay's full-featured, highly customizable, user-centric software which has no license fees, unlimited installations, and free software updates. The DataRay software allows you to interface with external programs, log data, conduct fully automated $\mathrm{M}^{2}$ measurements using our M2DU translation stages, and much more, all included without any additional charges. For higher power lasers, DataRay offers a range of sampling, absorbing, and reflecting attenuation options to assure your beam is adequately attenuated before profiling.

## System Features

- Colloidal quantum dot sensor, optimized for SWIR and eSWIR
- SWIR (400-1700 nm) and eSWIR (350-2000 nm) sensors available
- Multiple resolution options, up to $1920 \times 1080$. See table on next page for more information.
- $15 \mu \mathrm{~m}$ pixels
- 14-bit ADC
- Global shutter supports pulsed and CW beams
- >2100:1 dynamic range (33dB opt./66dB elec.)
- In-firmware NUC
- Parallel capture on multiple cameras
- $\mathrm{M}^{2}$ measurements
- GigE or USB 3.0 with $3 m$ screw locking cable
- GigE Vision/USB3 Vision support


WinCamD-QD
$2.4 \times 2.4 \times 3.9$ in $66 \times 66 \times 99 \mathrm{~mm}$

## Applications

- 1550 nm laser profiling
- Field service of 1550 nm laser and laser-based systems
- Optical assembly and instrument alignment
- Telecommunications fiber characterization
- Beam wander and logging
- High divergence diode characterization
- $\mathrm{M}^{2}$ measurement with available M2DU stage


| WinCamD-QD Model | Wavelength | Pixel Size | Resolution | Measurement Area | Included Filters |
| :---: | :---: | :---: | :---: | :---: | :---: |
| S-WCD-QD-1550 | 400-1700 nm | $15 \mu \mathrm{~m}$ | $640 \times 512$ | $9.6 \times 7.7 \mathrm{~mm}$ | Includes NDL to C-mount adapter with ND-1, ND-2, and ND-4 filters. |
| S-WCD-QD-1550-L | 400-1700nm | $15 \mu \mathrm{~m}$ | $1280 \times 1024$ | $19.2 \times 15.4$ mm | Includes NDL mount NDL-1, NDL-2, and NDL-4 filters. |
| S-WCD-QD-1550-XL | 400-1700 nm | $15 \mu \mathrm{~m}$ | $1920 \times 1080$ | $28.8 \times 16.2 \mathrm{~mm}$ | Includes NDL mount NDL-1, NDL-2, and NDL-4 filters. |
| S-WCD-QD-2000 | 350-2000 nm | $15 \mu \mathrm{~m}$ | $640 \times 512$ | $9.6 \times 7.7 \mathrm{~mm}$ | Includes NDL to C-mount adapter with ND-1, ND-2, and ND-4 |
| S-WCD-QD-2000-L | 350-2000 nm | $15 \mu \mathrm{~m}$ | $1280 \times 1024$ | $19.2 \times 15.4$ mm | Includes NDL mount NDL-1, NDL-2, and NDL-4 filters. |
| S-WCD-QD-2000-XL | 350-2000 nm | $15 \mu \mathrm{~m}$ | $1920 \times 1080$ | $28.8 \times 16.2 \mathrm{~mm}$ | Includes NDL mount NDL-1, NDL-2, and NDL-4 filters. |



