Dhyana 201D Compact FSI sCMOS Camera, 2048 × 1152, 6.5 µm Pixels, USB 3.0

Model Dhyana 201D · waveqvanta.com/products/dhyana-201d-scmos-camera

A small, cost-conscious sCMOS camera for instrument builders who need scientific-grade imaging inside their systems.



The Dhyana 201D is a compact front-illuminated sCMOS camera for system integrators who want sCMOS performance while keeping instrument size and cost down. Its GSENSE2011 sensor provides 2048 × 1152 pixels of 6.5 µm on a 15.3 mm diagonal, with 72% peak QE and 2.1 e^- median read noise. Frame rates reach 70 fps at 16 bit or 80 fps at 8 bit over USB 3.0.

Key features

- 72% peak QE at 595 nm with hardware 2 × 2 binning for low-light imaging
- 2.1 e^- median read noise and 45 ke^- typical full-well capacity
- 70 fps at 16 bit or 80 fps at 8 bit at the full 2048 × 1152 resolution
- Small housing and integration-oriented design to save space and cost in OEM instruments
- USB 3.0 data interface, C-mount optics, hardware and software triggering

Specifications

Sensor Type	FSI sCMOS
Sensor	GSENSE2011
Color / Mono	Mono
Peak QE	72% @ 595 nm
Resolution	2048 × 1152
Pixel Size	6.5 µm × 6.5 µm
Effective Area	13.3 mm × 7.5 mm
Array Diagonal	15.3 mm
Full-Well Capacity	45 ke^- (typical)
Readout Noise	2.1 e^- median (typical)
Frame Rate	70 fps @ 16 bit; 80 fps @ 8 bit
Shutter Type	Rolling
Exposure Time	10 µs – 10 s
Binning	2 × 2, 4 × 4
Bit Depth	8 bit, 12 bit, 16 bit
Data Interface	USB 3.0
Trigger	Hardware, software
Optical Interface	C-mount
Power Supply	USB 3.0

Typical applications

- OEM instrument integration
- Laser spot and beam analysis
- Diffractive phase imaging of blood cells

- Tumor DOT detection
- General low-light imaging