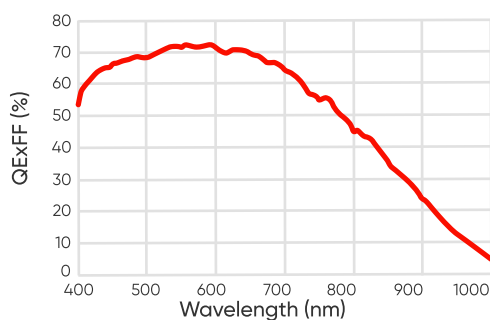


# Dhyana 401D / 201D

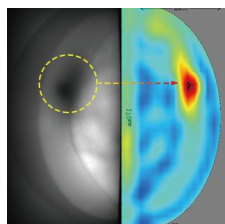
The Dhyana 401D and 201D are compact front-illuminated sCMOS cameras, ideal for instrument system integrators seeking cost-effective solutions. They feature 72% high quantum efficiency and  $2.1 e^-$  low readout noise, making them well-suited for general low-light imaging applications.



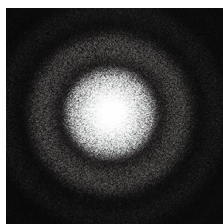
## Quantum Efficiency



## Application Cases

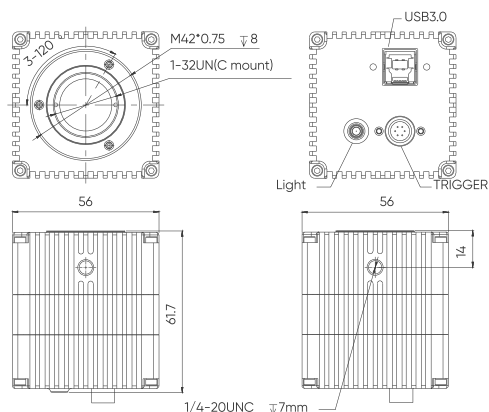


Tumor -  
DOT Detection



Blood-Diffractive  
Phase Imaging

## Dimensions (Unit: mm)



## Specification

| Model                 | Dhyana 401D                                              | Dhyana 201D                     |
|-----------------------|----------------------------------------------------------|---------------------------------|
| Sensor Type           | FSI sCMOS                                                |                                 |
| Sensor Model          | Gpixel GSENSE2020                                        | Gpixel GSENSE2011               |
| Peak QE               | 72%@595 nm                                               |                                 |
| Chrome                | Mono                                                     |                                 |
| Array Diagonal        | 18.8 mm                                                  | 15.3 mm                         |
| Effective Area        | 13.3 mm x 13.3 mm                                        | 13.3 mm x 7.5 mm                |
| Resolution            | 2048 (H) x 2048 (V)                                      | 2048 (H) x 1152 (V)             |
| Pixel Size            | 6.5 $\mu\text{m}$ x 6.5 $\mu\text{m}$                    |                                 |
| Full Well Capacity    | Typical: 43 ke-                                          | Typical: 45 ke-                 |
| Frame Rate            | 40 fps@16 bit<br>45 fps@8 bit                            | 70 fps@16 bit<br>80 fps@8 bit   |
| Readout Noise         | Typical: 2.1 $e^-$ (Median)                              |                                 |
| Shutter Mode          | Rolling                                                  |                                 |
| Exposure Time         | 10 $\mu\text{s}$ ~10 s                                   |                                 |
| Binning               | 2 x 2                                                    |                                 |
| ROI                   | Support                                                  |                                 |
| Trigger Mode          | Hardware, Software                                       |                                 |
| Trigger Output        | Exposure Start,<br>Readout End,<br>Trigger Ready         | Exposure Start,<br>Readout End, |
| Trigger Interface     | Hirose                                                   |                                 |
| Data Interface        | USB 3.0                                                  |                                 |
| Bit Depth             | 8 bit, 12bit, 16 bit                                     |                                 |
| Optical Interface     | C-mount                                                  |                                 |
| Power Supply          | 12 V / 8 A                                               |                                 |
| Power Cons.           | < 4 W                                                    |                                 |
| Dimensions            | 56 mm x 56 mm x 61.7 mm                                  |                                 |
| Weight                | 305 g                                                    |                                 |
| Software              | Mosaic, LabVIEW, MATLAB,<br>Micro-manager 2.0, SamplePro |                                 |
| SDK                   | C, C++, C#, Python                                       |                                 |
| Operating System      | Windows, Linux                                           |                                 |
| Operating Environment | Temp. 0°C~40°C, HUM 10%~85%                              |                                 |

