



High Sensitivity sCMOS Camera Dhyana400BSI V3



2022 V1

For customized projects please Contact us:

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Dhyana400BSI V3 – BSI sCMOS camera is designed lighter and with less power to integrate and fit in small spaces.

Dhyana 400BSI V3 is undoubtedly the best camera featuring the Gpixel Gsense2020BSI sensor, being designed so easy to integrate, fit in small spaces, using less power, giving results you can rely on that you or your customers can make the correct decisions.

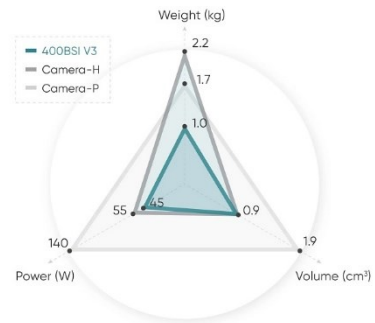
Feature

- 95%@600nm Peak QE
- 6.5µm x 6.5µm Pixel Size
- 2048 x 2048 Resolution
- 100fps@CL, 40fps@USB3.0
- CameraLink & USB3.0



Lighter and Less Power

The weight is only 995g and the power consumption is only 45W making Dhyana 400BSI V3 the lightest and the least power in its class and so easy to integrate and fit in small spaces.



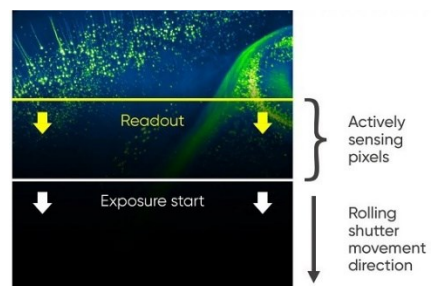
100fps@4MP

Dhyana 400BSI V3 has been upgraded from 74fps to 100fps, reaching the limit readout speed of 4MP resolution at CameraLink mode. You may also get higher frame rate support by ROI function.

Resolution	400BSI V2	400BSI V3
2048 x 2048	74 fps	100 fps
2048 x 1024	147 fps	200 fps
2048 x 512	293 fps	398 fps
2048 x 256	582 fps	792 fps
2048 x 128	1147 fps	1578 fps
2048 x 64	2227 fps	3083 fps
2048 x 8	12563 fps	14900 fps

Rolling Shutter Control Mode

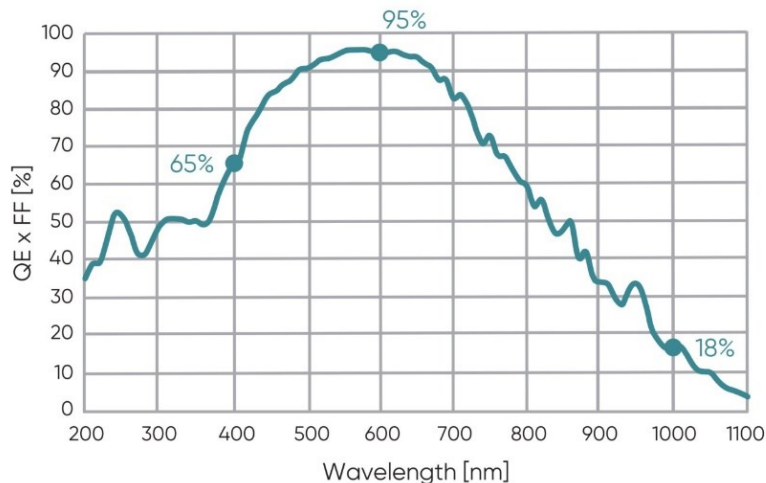
Dhyana 400BSI V3 has developed a new technology named Rolling Shutter Control Mode, which allows users to add defined line time delays or slit heights to synchronize scanning modes in applications such as Light-Sheet Microscopy.



Specifications

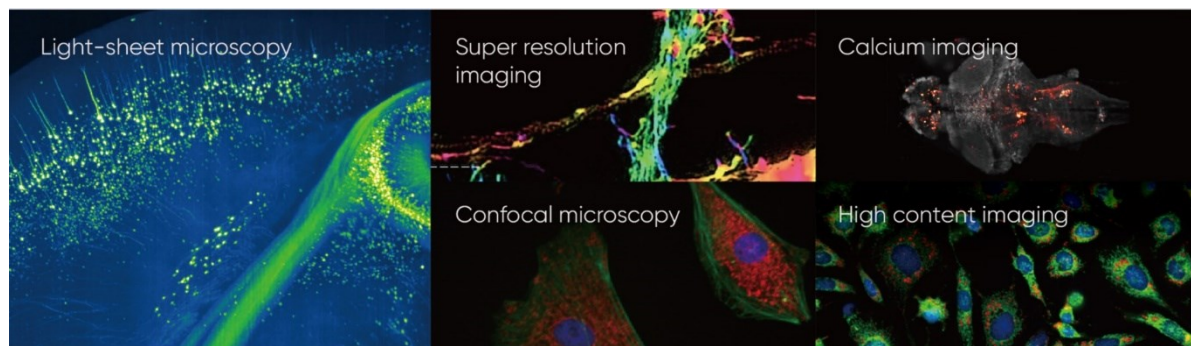
Model	Dhyana 400BSI V3
Sensor Type	BSI sCMOS
Sensor Model	GSENSE2020BSI
Peak QE	95%@600nm
Color/Mono	Mono
Array Diagonal	18.8mm
Effective Area	13.3mm x 13.3mm
Resolution	2048(H) x 2048(V)
Pixel Size	6.5µm x 6.5µm
Full-Well Capacity	Typical: 45ke-
Dynamic Range	90dB
Frame Rate	HDR mode: 74fps@CameraLink; 40fps@USB3.0 High Speed mode: 100fps@CameraLink
Readout Noise	CMS: 1.1e-(Median)/1.2e-(RMS)
Shutter Type	Rolling/Global reset
Exposure Time	6.6µs-10s
DSNU	0.2e-
PRNU	0.30%
Cooling Method	Air & Liquid
Max. Cooling Temperature	45°C below ambient
Dark Current	Air: 0.15e-/p/s@-15°C; Liquid: 0.10e-/p/s@-25°C
Binning	2x2, 4x4
ROI	Support
Trigger Mode	Hardware & Software
Output Trigger Signals	Exposure start, Global, Readout end, High level, Low level
Trigger Interface	SMA
Data Interface	USB3.0 & CameraLink
Bit Depth	16bit
Optical Interface	C-mount
Power Supply	12V/8A
Power Consumption	45W
Dimensions	85mm x 85mm x 127mm
Weight	995g
Software	Mosaic/LabVIEW/Matlab/Micromanager/ MetaMorph
SDK	C/C++/C#
Operating System	Windows/Linux
Operating Environment	Temperature 0~40°C/Humidity 10~85%

Quantum Efficiency



Typical Applications

- Low light imaging: STORM, PALM, SIM, etc.
- High-speed imaging: Calcium, FRET, TIRF, high content, etc.
- Synchronize scanning: Light-sheet, spinning-disk confocal, spectroscopy, etc.



Dimensions (Unit: mm)

