

Libra 16/22/25

The Libra 16/22/25 series is designed by Tucsen to meet the growing demand for expanded optical imaging fields in microscopy. These large-format monochrome cooled cameras are tailored for scientific and industrial applications.



Key Features

Large Format Design^[1]

High SNR Performance

High-speed Trigger

Mosaic 3.0 Compatibility

Benefits

16 mm, 22 mm, and 25 mm sensor options for wide field-of-view microscope imaging.

Up to 92% QE and $1.0e^-$ read noise for high SNR imaging.

Synchronizes with illumination devices to enable high-speed, multi-channel imaging.

Supports advanced analysis and smart image processing.

Typical Applications

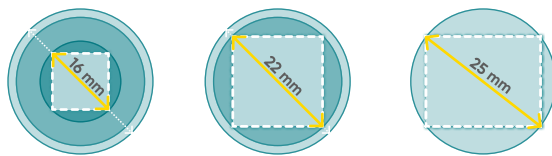
- Fluorescence Imaging
- Tissue Section Scanning
- High-Throughput Imaging
- Live-Cell Imaging

Noted Examples

[1]Libra 16: Suitable for standard C-mount field of view;

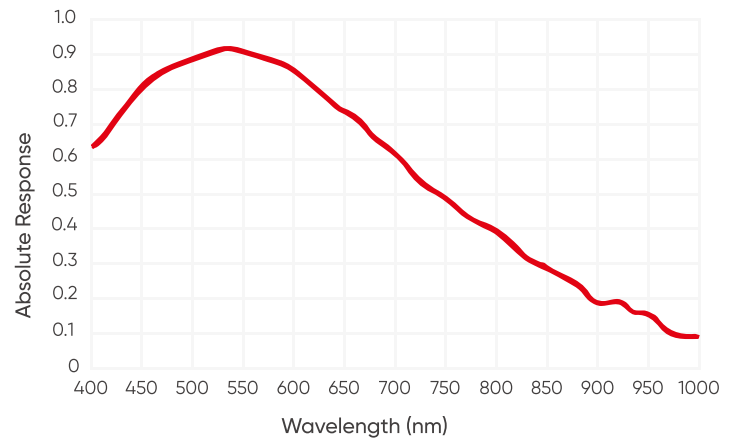
Libra 22: Compatible with mainstream fluorescence microscopy systems;

Libra 25: Designed for ultra-wide field microscopy systems.

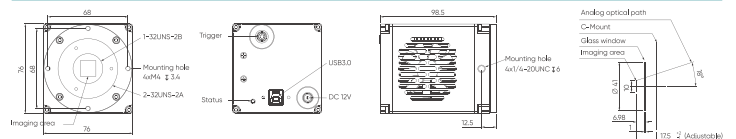


Model		Libra 22	Libra 25
Diagonal	16 mm	22 mm	25 mm
Resolution	1500x1500	2048x2048	2600x2048
OpticalInterface	C mount	C mount	T/F mount

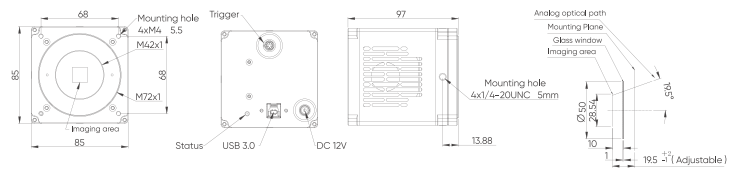
Quantum Efficiency



Dimensions (Unit: mm)



Libra 16



Libra 22 & Libra 25

Model	Libra 16	Libra 22	Libra 25
Sensor Model	BSI CMOS Sensor		
Color/Mono	Mono		
Pixel Size	High Sensitivity: 7.52 μm (High resolution mode: 3.76 μm)		
Diagonal	16 mm	22 mm	25 mm
Resolution	1500 x 1500	2048 x 2048	2600 x 2048
Effective Area	11.28 mm x 11.28 mm	15.4 mm x 15.4 mm	19.55 mm x 15.4 mm
Peak QE	92%@530 nm		
Dark Current	< 0.01 e ⁻ /pixel/s		
Bit Depth	14bit/16 bit		
Full Well Capacity	3.2 ke ⁻ (High Gain) / 48 ke ⁻ (Low Gain)		
Read Noise	1.0 e ⁻ (High Gain)		
Frame Rate	19 fps@HR	6.5 fps@HR	6.5 fps@HR
	63 fps@HS	37 fps@HS	32 fps@HS
Shutter Type	Rolling		
Binning	2 x 2, 3 x 3, 4 x 4		
Exposure Time	6 μs ~ 60 s		
Image Correction	DPC		
ROI	Support		
Cooling Method	TEC air cooling		
Cooling Temperature	Stable cooling to 0°C (ambient temperature 26°C)		
Trigger Mode	Hardware, Software		
Trigger Output	Exposure start, global, readout end, high level, low level		
Trigger Interface	Hirose		
SDK	C, C++, C#		
Software	Mosaic 3.0, SamplePro, LabVIEW, MATLAB, Micro-manager 2.0		
Data Interface	USB 3.0		
Optical Interface	C mount	C mount	T/F mount
Power Supply	12 V / 6 A		
Power Consumption	≤ 50 W		
Camera Size	76 mm x 76 mm x 98.5 mm	85 mm x 85 mm x 97 mm	85 mm x 85 mm x 97 mm
Weight	835 g	945 g	945 g
Operating System	Windows, Linux		
Operating Environment	Temperature: 0~45°C, Humidity 0~95%		
Storage Environment	Temperature: -35~60°C, Humidity 0~95%		