

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

Benefits

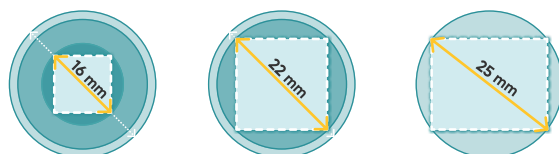
Large Format Design	16mm, 22mm, and 25mm sensor options for wide field-of-view microscope imaging.
High SNR Performance	Up to 92% QE and $1.0e^-$ read noise for high SNR imaging.
High-speed Trigger	Synchronizes with illumination devices to enable high-speed, multi-channel imaging.
Mosaic 3.0 Compatibility	Supports advanced analysis and smart image processing.

Typical Applications

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

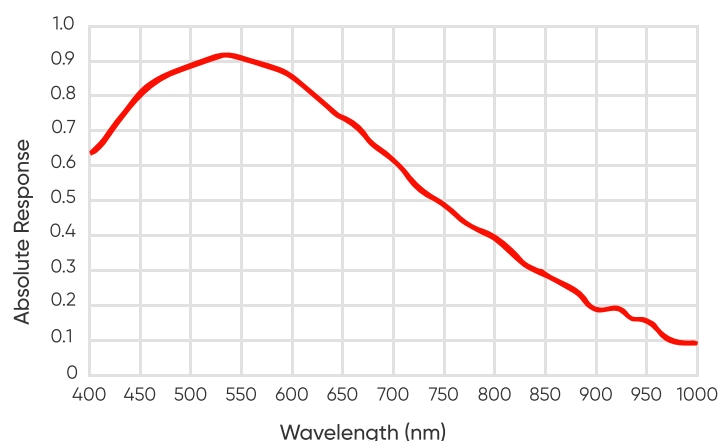
Noted Examples

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.

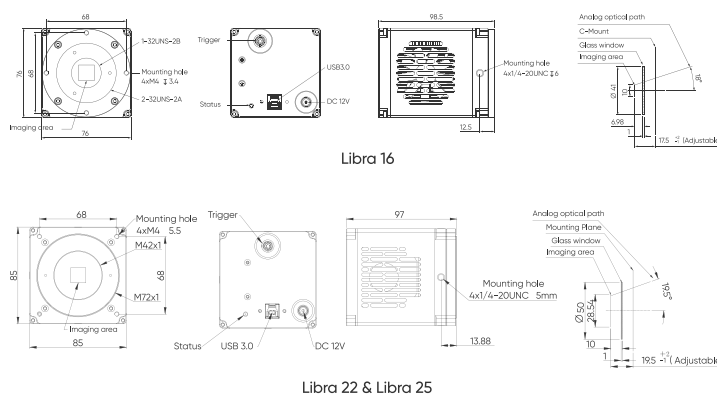


Model	Libra 16	Libra 22	Libra 25
Diagonal	16 mm	22 mm	25 mm
Resolution	1500x1500	2048x2048	2600x2048
Optical Interface	C mount	C mount	T/F mount

Quantum Efficiency



Dimensions (Unit: mm)



Specifications

Model	Libra 16	Libra 22	Libra 25
Sensor Type	BSI CMOS Sensor		
Chrome	Mono		
Pixel Size	High Sensitivity: 7.52 μm (High resolution mode: 3.76 μm)		
Array 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	15.40 mm x 15.40 mm	19.55 mm x 15.40 mm
Peak QE	92%@530 nm		
Dark Current	< 0.01 e ⁻ /pixel/s		
Bit Depth	14 bit / 6 bit		
Full Well Capacity	3.2 ke ⁻ (High Gain) / 48 ke ⁻ (Low Gain)		
Readout Noise	1.0 e ⁻ (High Gain)		
Frame Rate	63 fps@HS	37 fps@HS	32 fps@HS
Shutter Mode	Rolling		
Binning	2 x 2, 3 x 3, 4 x 4		
Exposure Time	6 μs ~60 s		
Image Correction	DPC, DSNU, PRNU		
ROI	Support		
Cooling Method	TEC (Air Cooling)		
Cooling Temp.	Stable cooling to 0°C (ambient 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 Cons.	≤ 50 W		
Dimensions	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	Working: Temp. 0°C~45°C, HUM 0%~95%, Storage: Temp. -35°C~60°C, HUM 0%~95%		

*Specifications in this manual are subject to changes without prior notice.



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