Libra 16 / 22 / 25

The Libra 16/22/25 series are designed by Tucsen to meet the growing demand of imaging fields in microscopy. These large-format monochrome cooled cameras are tailored for scientific and industrial applications.
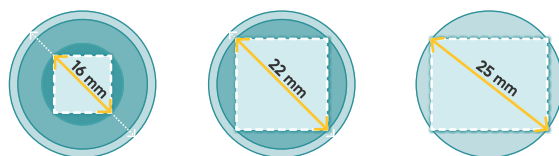
Key Features	Benefits
Large Format Design	16 mm, 22 mm and 25 mm options for large field-of-view microscopy.[1]
High SNR Performance	92% QE and 1.0 e- read noise for high SNR imaging.
High-speed Trigger	Synchronizes with illumination devices to enable high-speed, multi-channel imaging.
Mosaic 3.1 Compatibility	Supports advanced analysis and smart image processing.

Typical Applications

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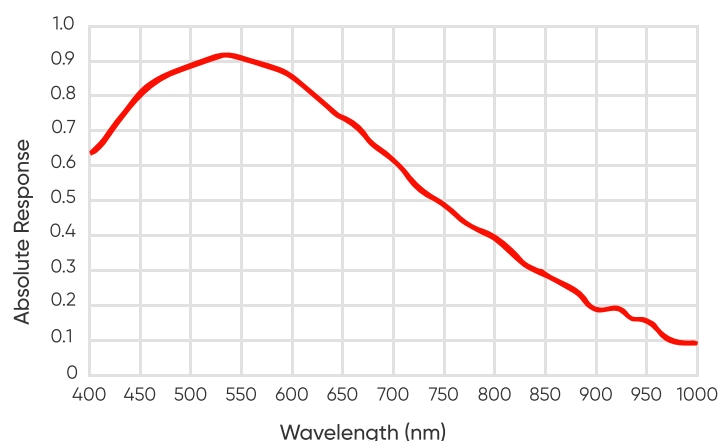- High-Throughput Imaging
- Live-Cell Imaging

Noted Examples

[1] Libra 16: Suitable for standard C-mount field of view;
Libra 22: Compatible with mainstream fluorescence microscopy systems;
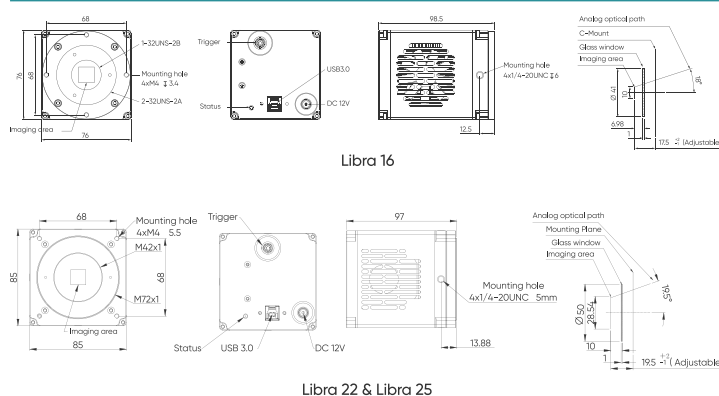Libra 25: Designed for ultra-wide field microscopy systems.

Model	Libra 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)

Libra 16

Libra 22 & Libra 25

Specifications

Model	Libra 16	Libra 22	Libra 25
Sensor Type	BSI CMOS Sensor		
Chrome	Mono		
Pixel Size	7.52 µm@High Sensitivity Mode, 3.76 µm@High resolution mode		
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 / 16 bit		
Full Well Capacity	3 Ke- (High Gain) / 48 Ke- (Low Gain)		
Readout Noise	1.0 e- (High Gain)		
Frame Rate	59 fps@HS	38 fps@HS	32 fps@HS
Shutter Mode	Rolling		
Binning	2 x 2, 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℃		
Trigger Mode	Hardware, Software		
Trigger Output	Exposure start, global, readout end, high level, low level		
Trigger Interface	Hirose-6-Pin		
SDK	C / C++ / C#		
Software	Mosaic 3.1, Sample Pro, 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.	14 W	25 W	25 W
Dimensions (mm)	76 (H) x 76 (W) x 98.5 (L)	85 (H) x 85 (W) x 97 (L)	85 (H) x 85 (W) x 97 (L)
Weight	835 g	945 g	945 g
Operating System	Windows, Linux		
Environment	Working: Temp. 0℃~40℃, HUM 0%~85%, Storage: Temp. 0℃~60℃, HUM 0%~90%		