

Libra 536

The Libra 536 is a global-shutter camera designed for high-speed, high-resolution imaging applications. Equipped with a global-shutter sensor and a high-bandwidth 10 GigE interface, the camera delivers 8.1-megapixel full-resolution imaging at up to 152 fps, making it an excellent fit for semiconductor manufacturing workflows such as wafer inspection and advanced packaging.



Key Features

Benefits

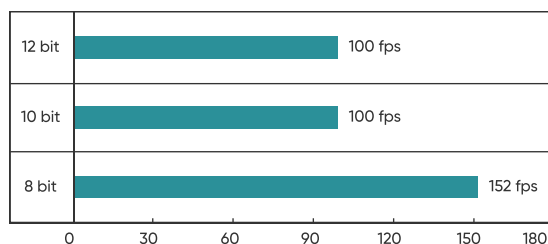
Global Shutter	High-speed, artifact-free imaging for clear capture of fast-moving targets.
High-speed and high-resolution	At 8.1 MP full resolution, the maximum speed can reach 100 fps@12 bit and 152 fps@8 bit. ^[1]
10 GigE Interface	High-speed, stable transmission without frame loss, flexible for remote and multi-camera setups.
Compact Design	Conducive to the integration of the instrument system.

Typical Applications

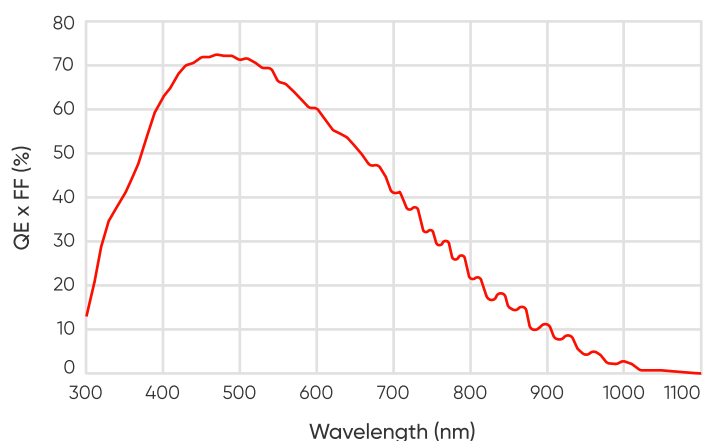
- Semiconductor Inspection
- Material Classification
- Slide Scanning
- Life Sciences

Noted Examples

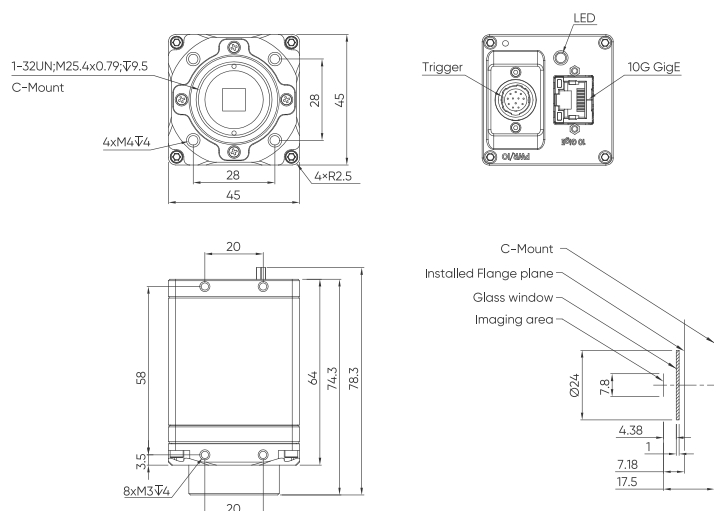
[1] The Libra 536 utilizes Global Shutter technology, and the 10 GigE interface achieves a transfer speed of up to 100 fps@12 bit and 152 fps@8 bit at 8.1million full resolution pixels.



Quantum Efficiency



Dimensions (Unit: mm)



Specifications

Product Name	Libra 536
Sensor Type	CMOS
Sensor Model	SONY IMX536
Spectrum	Visible
Chrome	Mono
Peak QE	72%@470 nm
Array Diagonal	11 mm (2/3")
Effective Area	7.8 mm x 7.8 mm
Resolution	2856 (H) x 2848 (V)
Pixel Size	2.74 μm x 2.74 μm
Gain	Supports analog gain (1 ~15.7) and digital gain (15.8 ~ 126)
Frame Rate	152 fps@8 bit, 100 fps@10 bit, 100 fps@12 bit
Full Well Capacity	10 bit: 9000 e-@gain 1, 580 e-@gain 15.7; 12 bit: 9250 e-@gain 1, 555 e-@gain 15.7
Readout Noise	10 bit: 3.8 e- (RMS)@gain 1, 2.0 e- (RMS)@gain 15.7; 12 bit: 2.5 e- (RMS)@gain 1, 1.4 e- (RMS)@gain 15.7
Dynamic Range	10 bit: 65 dB@gain 1, 49.1 dB@gain 15.7; 12 bit: 72 dB@gain 1, 52 dB@gain 15.7
Shutter Mode	Global
Exposure Time	8 bit: 2 μs ~10 s; 10, 12 bit: 3 μs ~10 s
DSNU	0.38 e-
PRNU	0.52%
Image Correction	DPC
ROI	Support
Binning	Bin 1 x 2, Bin 2 x 1, Bin 2 x 2
Timestamp Acc.	1 μs
Trigger Mode	Hardware, Software
Trigger Output	Exposure Out, Readout, Trigger Ready, High, Low
Trigger Interface	Hirose-12-Pin
Data Interface	10 GigE
Bit Depth	8 bit, 10 bit, 12 bit
Optical Interface	C Mount
Power Supply	12-24 V, PoE support
Power Cons.	≤ 12 W
Dimensions	45 mm (H) x 45 mm (W) x 74.3 mm (L)
Software	Sample Pro
SDK	C / C++ / C# / Python
Operating System	Windows, Linux
Environment	Working: Temp. 0°C~40°C, HUM 10%~85%, Storage: Temp. -10°C~60°C, HUM 0%~85%

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



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