# Libra UV

The Libra UV is a UV global shutter CMOS camera for high-speed, high-resolution semiconductor inspection. It's proven in processes like patterned wafer inspection, mask alignment, and wafer bonding. With strong UV sensitivity, it's also promising for biospectral analysis, medical, and electronics testing.

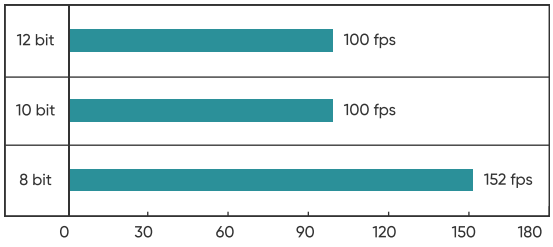

| Key Features | Benefits |
|---|---|
| UV Enhancement | Covers 200 nm to 1000 nm, with quantum efficiency up to 48% at 365 nm. |
| Global Shutter | Enables clear capture of fast-moving samples. |
| High-Speed & High-Resolution | Up to 100 fps at 12-bit and 152 fps at 8-bit at full 8.1 Megapixel resolution.[1] |
| 10 GigE Interface | High-speed and stable transmission, uncompressed data, flexible wiring. |
| Compact Design | Facilitates seamless integration into instrument systems. |

## Typical Applications

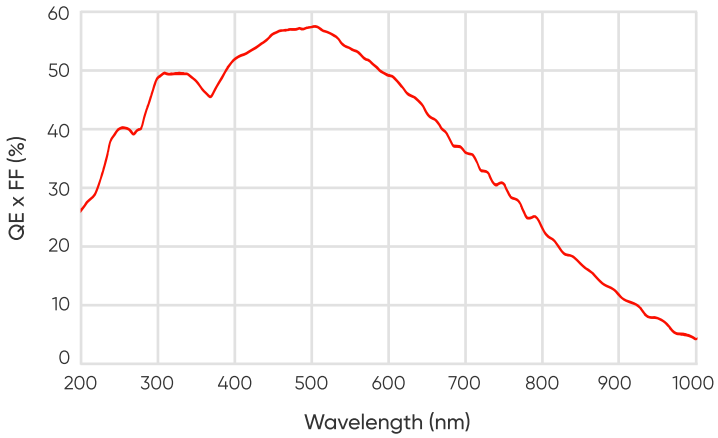
- Semiconductor Inspection
- Material Classification
- Infrastructure Testing
- Life Sciences

## Noted Examples

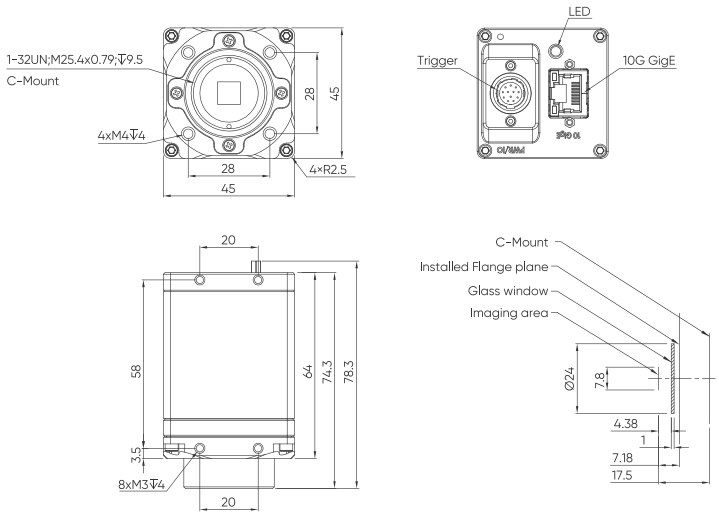
[1] The Libra UV utilizes Global Shutter technology and a 10 GigE interface to achieve transfer speeds of up to 100 fps at 12-bit and 152 fps at 8-bit with full 8.1 megapixel resolution, demonstrating a significant advantage in high-speed performance.




## Quantum Efficiency




## Dimensions (Unit: mm)



# Specifications

| | |
|---|---|
| Model | Libra UV |
| Sensor Type | CMOS |
| Sensor Model | SONY IMX487 |
| Spectrum | Visible/UV |
| Chrome | Mono |
| Peak QE | 56%@500 nm, 48%@365 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;<br>12 bit: 9250 e-@gain 1, 555 e-@gain 15.7 |
| Readout Noise | 10 bit: 3.9 e- (RMS)@gain 1, 2.1 e- (RMS)@gain 15.7;<br>12 bit: 2.4 e- (RMS)@gain 1, 1.5 e- (RMS)@gain 15.7 |
| Dynamic Range | 10 bit: 65 dB@gain 1, 49.1 dB@gain 15.7;<br>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 (Avg and Sum), Bin 2 x 1 (Avg and Sum), Bin 2 x 2 (Sum) |
| Timestamp Acc. | 1 μs |
| Trigger Mode | Hardware, Software |
| Trigger Output | High, Low, Trigger Ready, Readout, Exposure Out |
| Trigger Interface | Hirose-12-pin |
| Data Interface | 10 GigE |
| Bit Depth | 8 bit, 10 bit, 12 bit |
| Optical Interface | C Mount |
| Power Supply | 12 V / 2 A, 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, OpenEuler |
| Environment | Working: Temp. 0°C~40°C, HUM 10%~85%, Storage: Temp. -10°C~60°C, HUM 0%~85% |

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