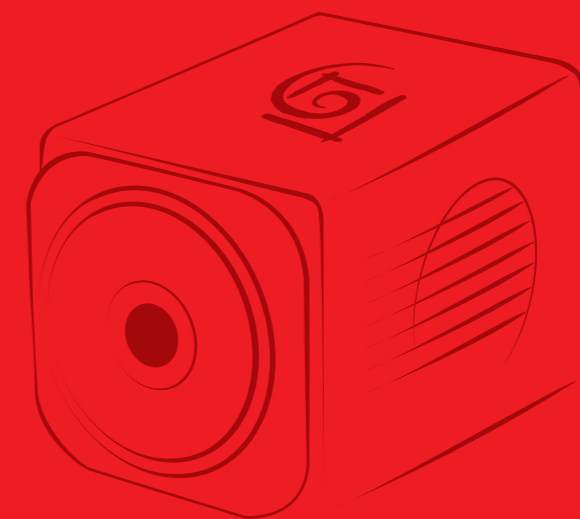


TO ENABLE BETTER PERCEPTION OF THE WORLD FOR HUMANS
AND ARTIFICIAL INTELLIGENCES

sCMOS cameras

Product Catalogue

2026



HF Agile Device Co., Ltd

📍 ADDR: Fuhuang New Version Mansion, Hefei, China

🌐 www.revealerhighspeed.com



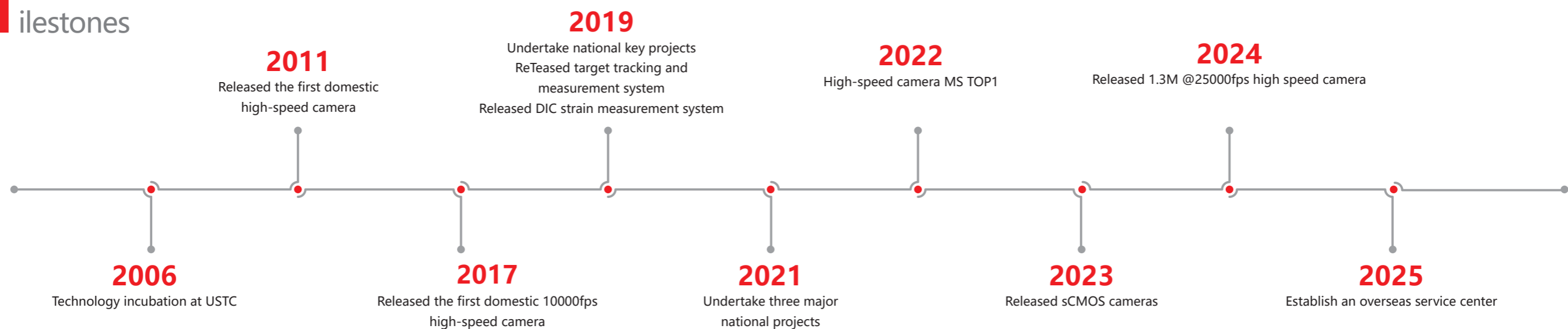


C Company Profile

HF Agile Device Co., Ltd. is a scientific instrument company specializing in innovative high-speed visual perception and measurement technologies.

Relying on self-developed core optoelectronic technologies, our instruments and systems serve transient analysis, flow & strain testing, target recognition, on-line quality monitoring and fault diagnosis, covering aerospace, scientific research, biomedicine and industrial manufacturing.

Milestones



P

roduct Brief

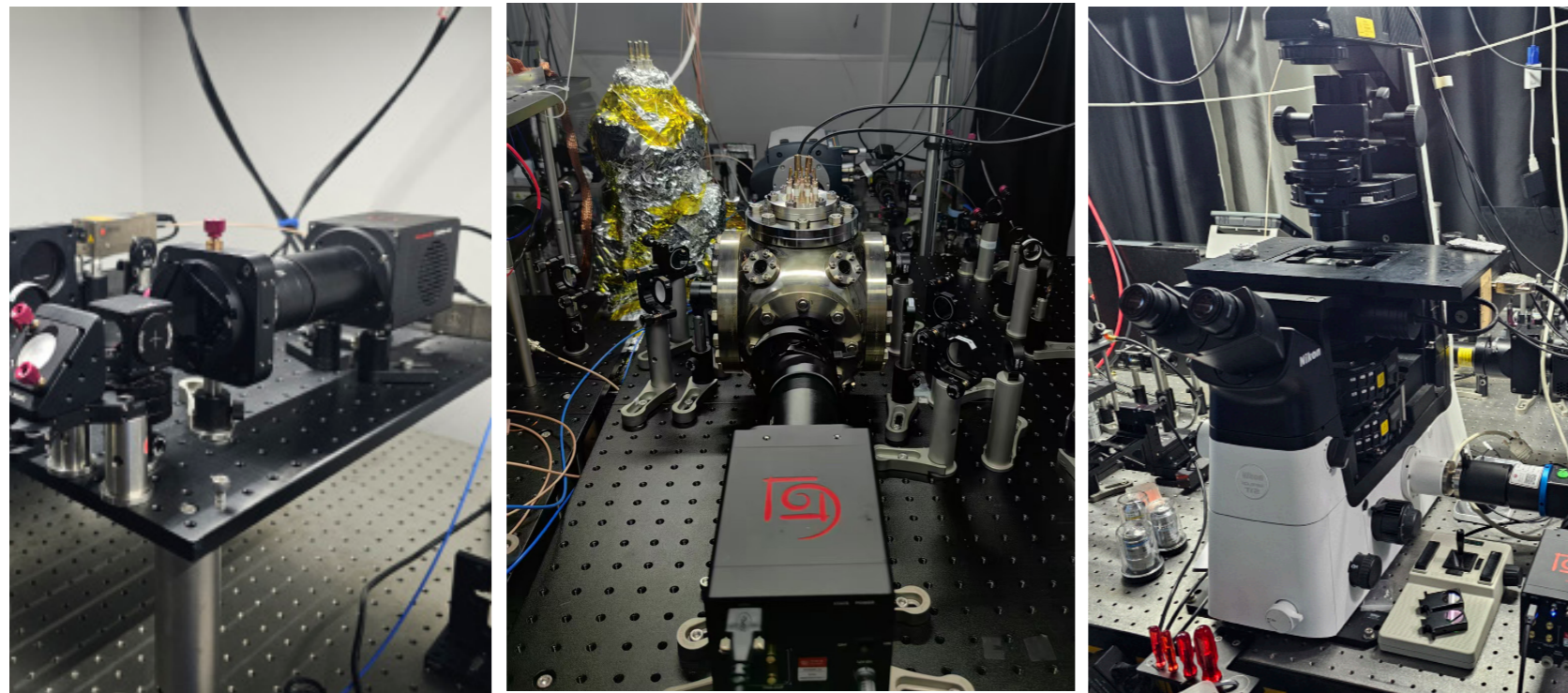
sCMOS camera Gloria series

Revealer Gloria series sCMOS cameras are designed with Gpixel' s leading CMOS image sensor, combined with backside illumination technology and deep cooling sealing process for QE of up to 95% and extreme lownoise, suitable for life sciences, quantum physics, astronomical observation and semiconductor inspection and others. It' s compact design is suitable for integration into the SIM and other optical inspection systems.

Gloria 6504 2048×2048 @291 fps @12 bit
2048×2048 @170 fps @16 bit

Gloria 1605 800×600 @60 fps @16 bit

Gloria 1104 2048×2048 @24 fps @16 bit
2048×2048 @48 fps @12 bit



K

ey Features



High QE (Gloria 1104)
95% @570 nm

Low Readout noise
(Gloria 1605)
0.9 e-

High Dynamic range (EMVA1288
standard)EMVA1288 (Gloria 1605)
93 dB

Single photon level detection



Flexible IO



Software easy to use



60° C below
ambient temperature
(Gloria 1605)



Data interface
USB 3.2 Gen2
CXP-12 ×2 (Gloria 6504)



1746 MB/s
Real time imagedata
transmission



16/12 Bit
Digital output



190~1100 nm
UV-NIR high sensitivity response



0.2 e-/p/s
Dark current(Gloria 1605)



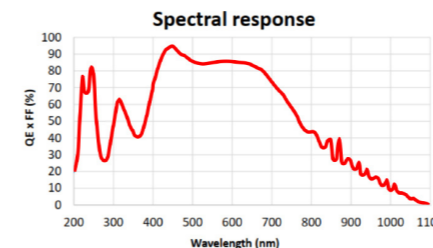
84mm×84mm×131mm
Compact size (Gloria 6504)

Product Parameters

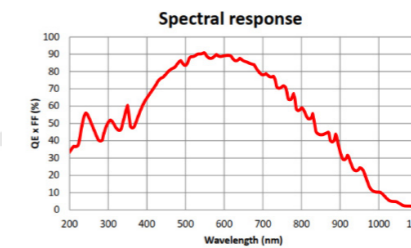
SKUs	Gloria 6504	Gloria 1605	Gloria 1104
Sensor type	sCMOS Gpixel GSENSE6504 BSI	sCMOS Gpixel GLUX1605 BSI	sCMOS Gpixel GSENSE400 BSI
Resolution	2048 (H) x 2048 (V)	800 (H) x 600 (V)	2048 (H) x 2048 (V)
Pixel Size	6.5 μm (H) x 6.5 μm (V)	16 μm (H) x 16 μm (V)	11 μm (H) x 11 μm (V)
Sensor Area	13.3 mm (H) x 13.3 mm (V)	12.8 mm(H) x 9.6 mm (V)	22.5 mm(H) x 22.5 mm(V)
Color/ Monochrome	Monochrome	Monochrome	Monochrome
Full Well Capacity (Typical)	13 500 e-	70 000 e-	80 000 e-
Readout Noise (Typical)	0.7 e-	1.6 e- @HDR Mode 0.9 e- @Low Noise Mode	1.6 e-
Peak QE	95 % @450 nm	90.7 % @550 nm	95 % @570 nm
Dynamic Range	83 dB	93 dB	90 dB
Dark Signal Non-Uniformity	0.2 e-	0.3 e-	0.2 e-
Photo Response Non-Uniformity	0.2% @half-saturation gray response	<0.5% @half-saturation gray response	<0.5% @half-saturation gray response
Cooling	TEC cooling, air & water cooling	TEC cooling, air & water cooling max ΔT = 60 °C below ambient	TEC cooling, air & water cooling max ΔT = 45 °C below ambient
Dark Current (Typical)	Air: 0.05 e-/p/s @20 °C Water: 0.01 e-/p/s @20 °C (coolant 15 °C)	Water: 0.2 e-/p/s	Air: 0.5 e-/p/s @-10 °C Water: 0.3 e-/p/s @-20 °C
Shutter Type	Rolling shutter, global reset	Rolling shutter, global reset	Rolling shutter
A/D Output	12 bit / 16 bit	12 bit / 16 bit	12 bit / 16 bit
Frame Rate	CXP 170 fps @16 bit HDR, 291 fps @12 bit STD USB 119 fps @16 bit HDR, 159 fps @12 bit STD	25 fps @12 bit LN 60 fps @16 bit HDR	48 fps @12 bit STD 24 fps @16 bit HDR
Readout Mode	Full frame / pixel binning (2x2, 4x4) / ROI	Full frame / pixel binning (2x2, 4x4) / ROI	Full frame / pixel binning (2x2, 4x4) / ROI
Exposure Time	11 μs ~ 30 s	26 μs ~ 60 s	21 μs ~ 10 s
Data Interface	USB 3.2 Gen 2 & CXP-12 x2	USB 3.1 Gen1	USB 3.1 Gen1
Timestamp Accuracy	1 μs	1 μs	1 μs
External Trigger Signal	TTL / 3.3 V level	TTL / 3.3 V level	TTL / 3.3 V level
Trigger Mode	Edge trigger / level trigger / start trigger / sync trigger	Edge trigger / level trigger / start trigger / sync trigger	Edge trigger / level trigger / start trigger / sync trigger
Trigger Output Signal	Three configurable outputs: exposure start, first row readout, readout end, trigger wait, global exposure, high level, low level	Three configurable outputs: exposure start, first row readout, readout end, trigger wait, global exposure, high level, low level	Three configurable outputs: exposure start, first row readout, readout end, trigger wait, global exposure, high level, low level
Image Correction Functions	Dark offset correction, pixel gain correction, defective pixel correction; software supports flat field and dark field correction	Dark offset correction, pixel gain correction, defective pixel correction; software supports flat field and dark field correction	Dark offset correction, pixel gain correction, defective pixel correction; software supports flat field and dark field correction
Lens Mount	C-Mount / F-Mount	C-Mount	C-Mount / F-Mount
Power Supply	12 V	12 V	12 V
Power Consumption	65 W	55 W	50 W
Dimensions	84 mm x 84 mm x 131 mm	94 mm x 94 mm x 142 mm	94 mm x 94 mm x 142 mm
Weight	1300 g	1500 g	1550 g
Operating Environment	Temperature 0 °C – 40 °C Humidity 10% – 80% (non-condensing)	Temperature 0 °C – 40 °C Humidity 10% – 80% (non-condensing)	Temperature 0 °C – 40 °C Humidity 10% – 80% (non-condensing)
Storage Environment	Temperature 0 °C – 50 °C Humidity ≤ 90% (non-condensing)	Temperature 0 °C – 40 °C Humidity ≤ 90% (non-condensing)	Temperature 0 °C – 40 °C Humidity ≤ 90% (non-condensing)
SDK	C, C#, C++, Python	C, C#, C++, Python	C, C#, C++, Python
Software	RPC, Micro-Manager, Labview, Matlab	RPC, Micro-Manager, Labview, Matlab	RPC, Micro-Manager, Labview, Matlab
EMC	Compliant with EN61326-1:2013 Class A	Compliant with EN61326-1:2013 Class A	Compliant with EN61326-1:2013 Class A

Quantum Efficiency

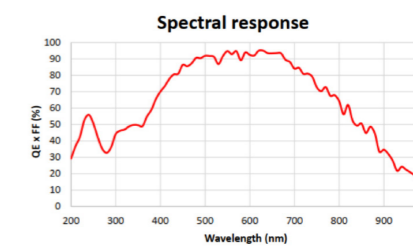
Gloria 6504



Gloria 1605

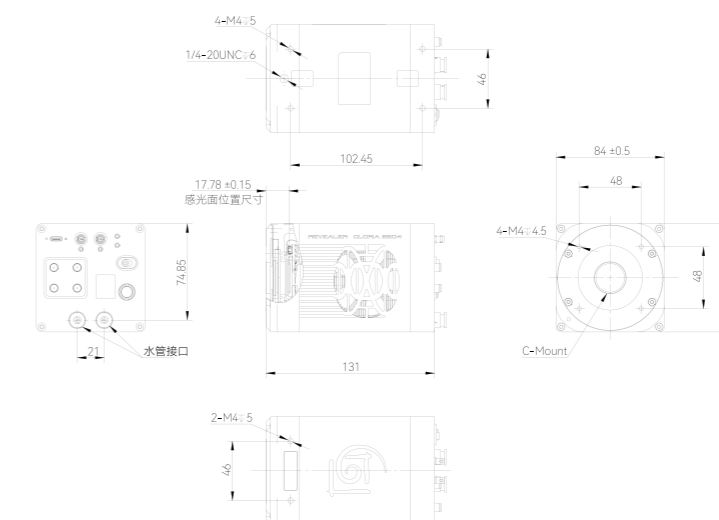


Gloria 1104

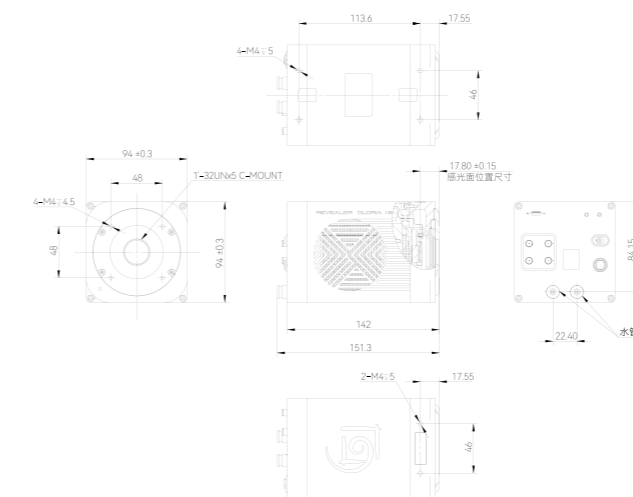


Dimension Drawing

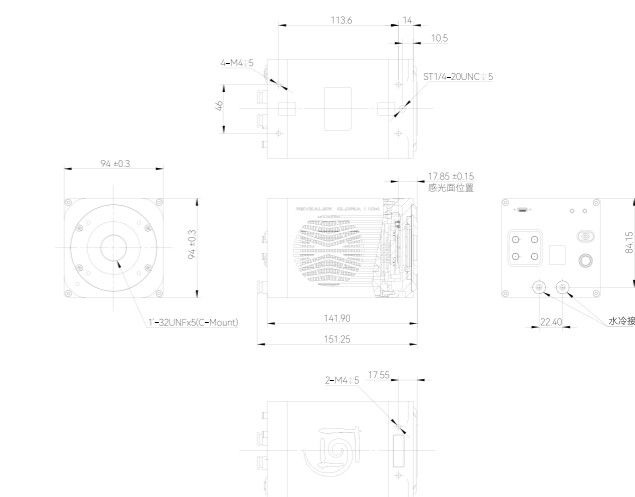
Gloria 6504



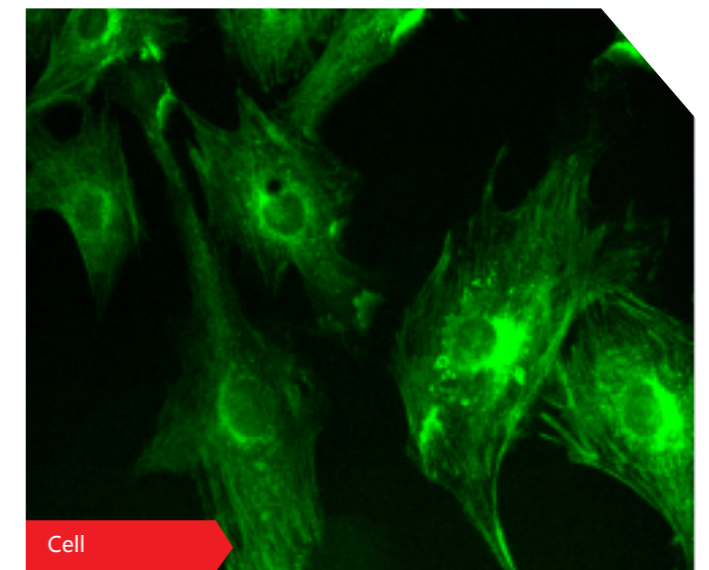
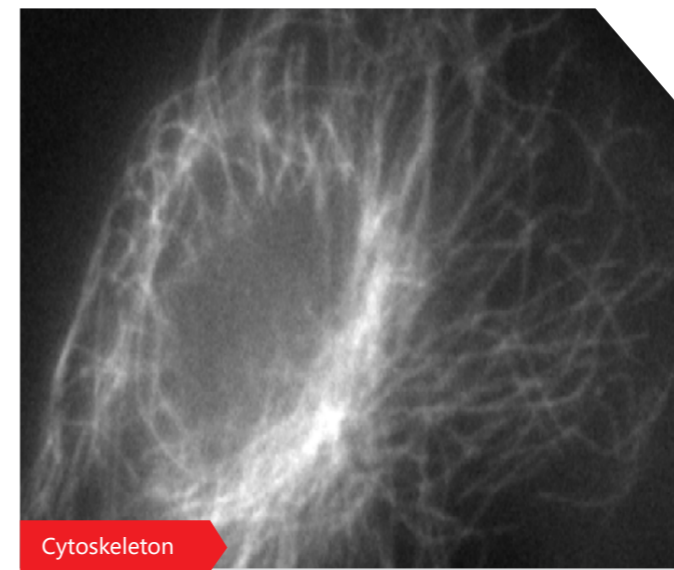
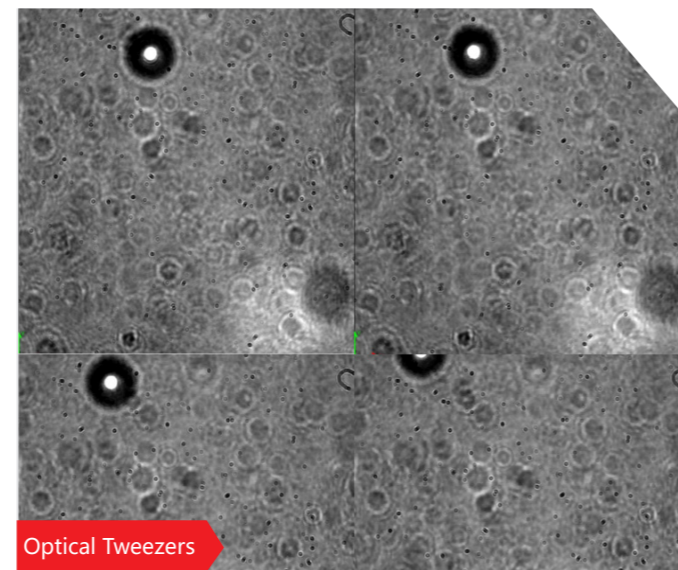
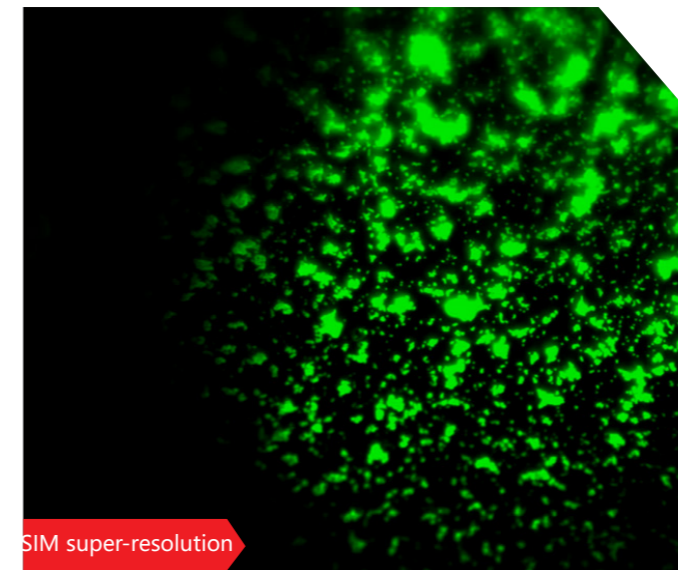
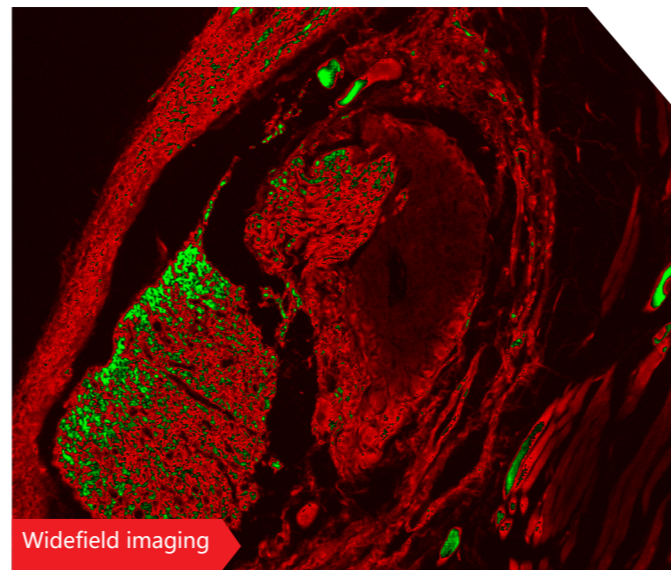
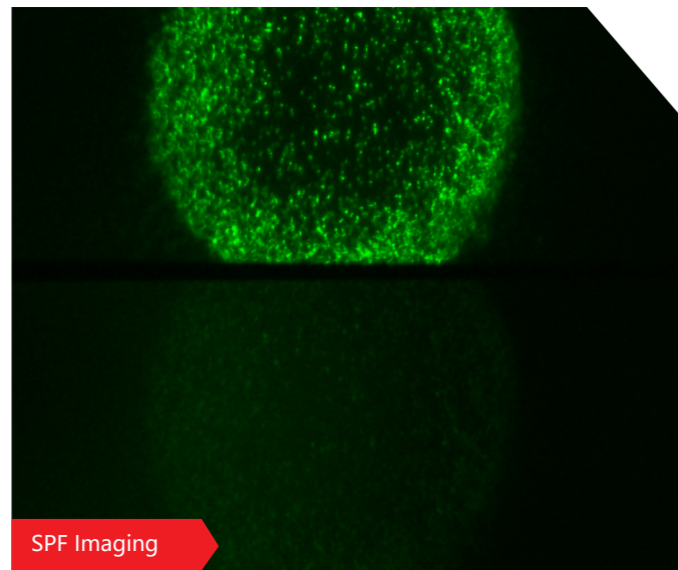
Gloria 1605



Gloria 1104

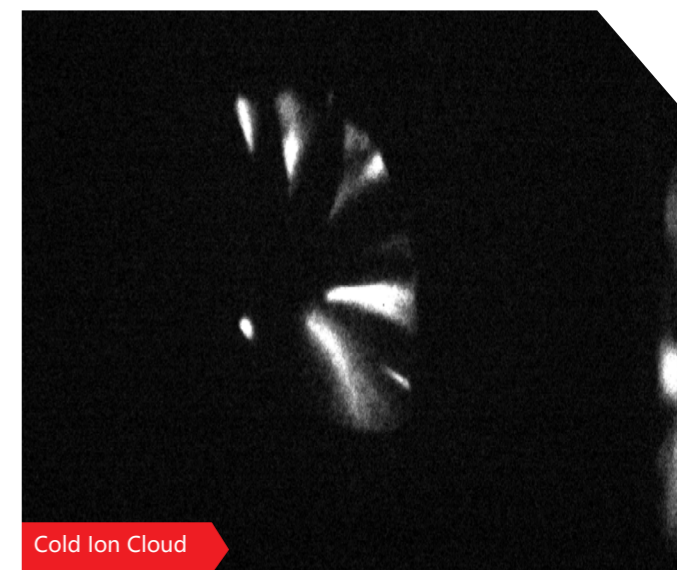
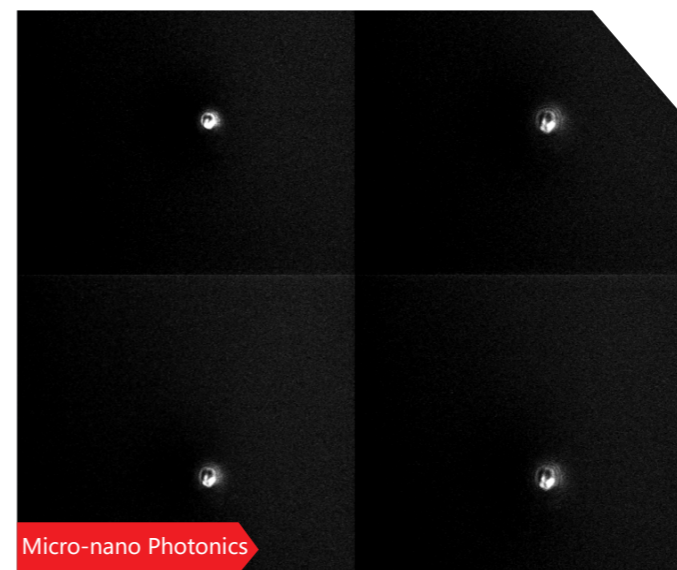
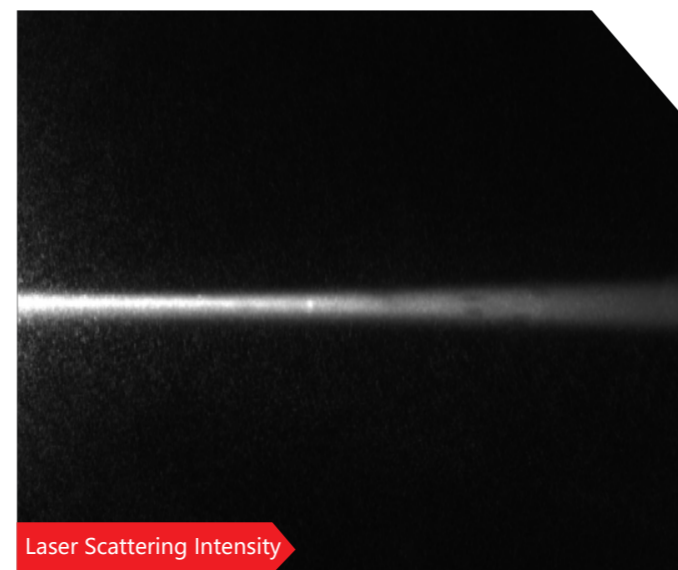
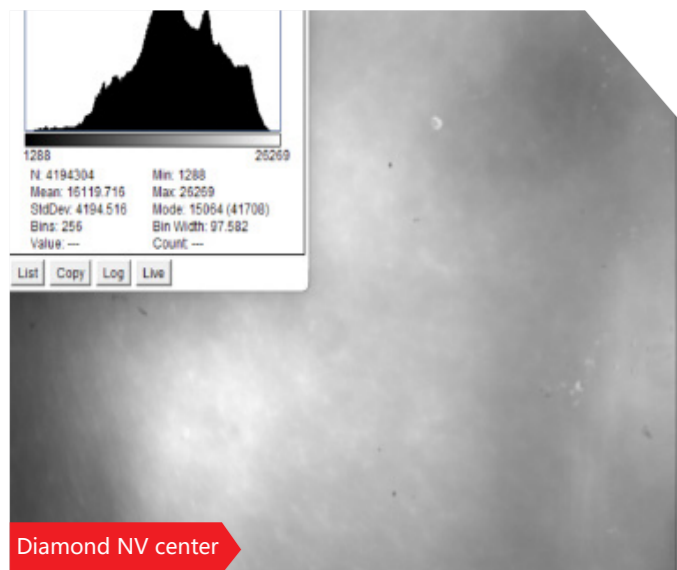
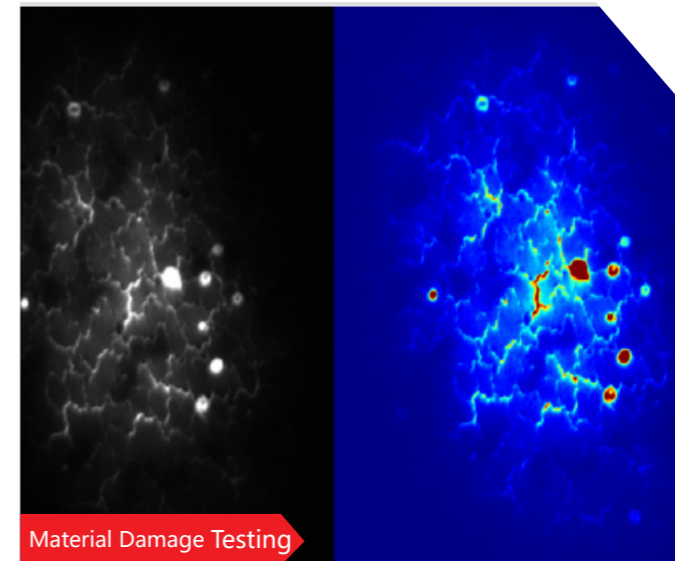
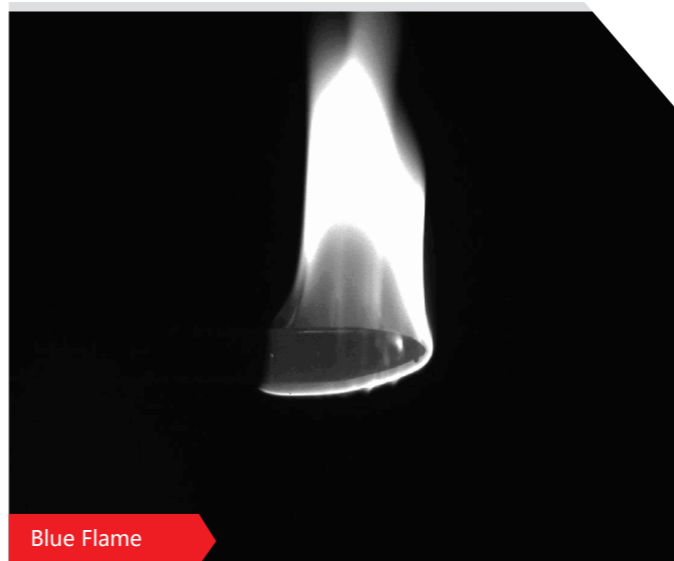
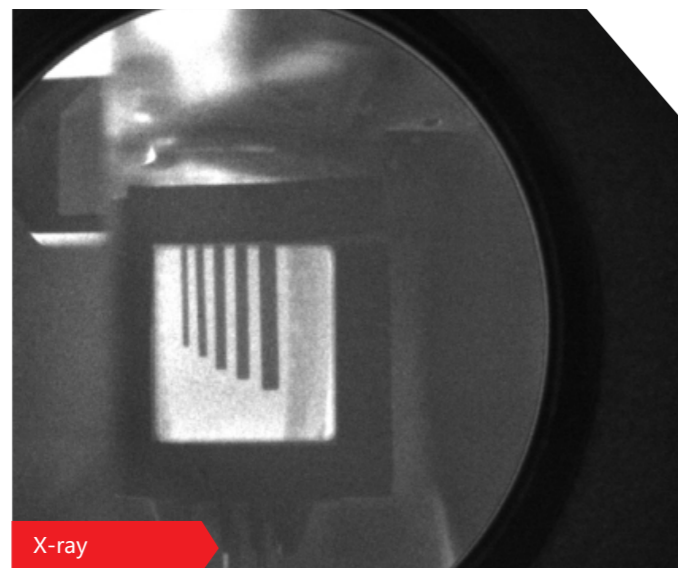


Typical Cases



SCMOS CAMERA GLORIA SERIES

Typical Cases



SCMOS CAMERA GLORIA SERIES