



# Product Line Card Imaging

**2025 V1**

For customized projects please Contact us:

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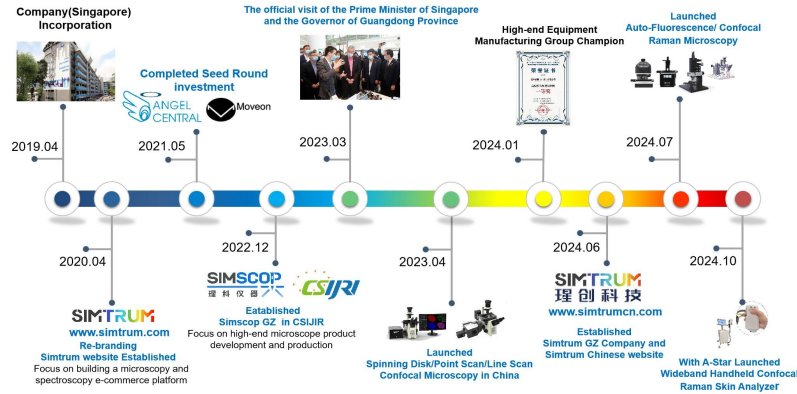
## Company Profile

Established in Singapore in 2019, SIMTRUM Group specializes in innovation and applications within microscopy and spectroscopy. Its core team brings decades of optical technology expertise. In 2022, the company partnered with the CSIJRI in Guangzhou to establish a joint R&D laboratory for microscopy with independent research capabilities. The team now includes multiple Ph.D. graduates from the National University of Singapore (NUS), and has grown to dozens of members.

SIMTRUM has collaborated with leading institutions such as Nanyang Technological University (NTU), NUS, A-Star, and Xiamen University to develop high-end microscopy systems. In March 2023, the company's Guangzhou R&D center was visited by former Singapore Prime Minister Lee Hsien Loong and the Governor of Guangdong Province. Later that year, SIMTRUM won first prize in the startup category of the Guangzhou Technology Innovation and Entrepreneurship Competition and secured multiple technology patents.

**Vision:** To be a leading photonics technology company that truly understands and adds value to our customers.

**Mission:** Driven by innovation, we deliver exceptional services and precise products to global photonics users, empowering customer success and advancing industry transformation.

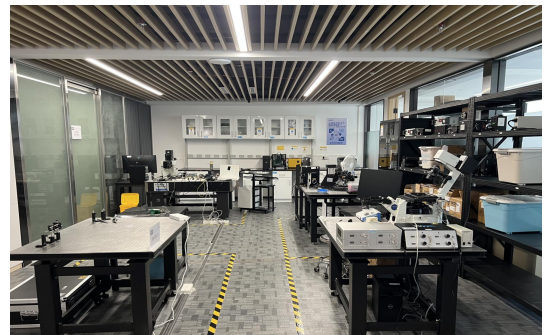
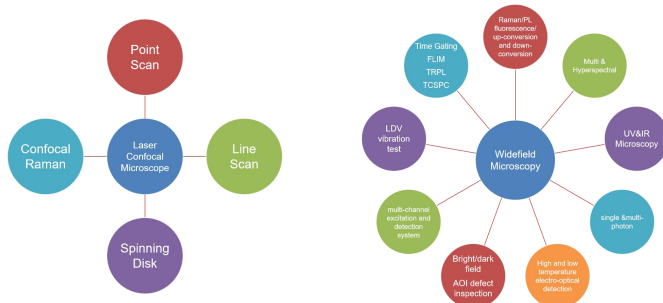


## Company Milestones

## Optical R&D Laboratory

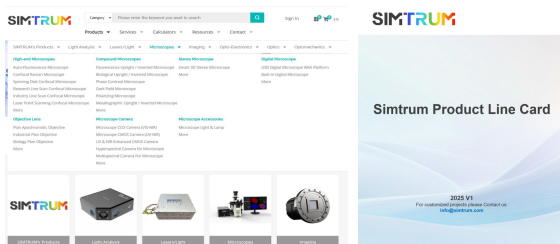
We have established a fully-owned optical laboratory in Guangzhou operating as a subsidiary of Simscop Instruments. This facility specializes in the R&D and manufacturing of high-end microscope systems and critical equipment components.

Our proprietary microscope systems include confocal laser microscopes and wide-field microscopes, along with core components such as detection modules, photomultiplier tubes (PMTs), silicon photomultipliers (SiPMs), multi-channel lasers, and motorized filter wheels. Additional products are currently under development.



Real scene of optical R&D laboratory

## Focus on microscopy and spectroscopy e-commerce platform



Simtrum is a specialized e-commerce platform dedicated to microscopy and spectroscopy, serving scientific research, industrial, and healthcare fields with high-quality products and aiming to be a trusted partner in the sector.

The platform features seven major product categories: Microscopes, Light Analysis, Lasers/Light sources, Imaging, Opto-Electronics, Optomechanics, and Optic, offering over 4,000 products in total. Each category is equipped with a product line card to facilitate efficient selection.

As a supply chain-integrated systems provider, Simtrum employs a rigorous testing system where every product undergoes professional inspection and performance verification before launch. This ensures reliability and delivers a ready-to-use, worry-free experience for customers.

E-commerce platform website: [www.simtrum.com](http://www.simtrum.com)

With 10 years of expertise, we support 3,000+ customers with 30+ tailored solutions.  
Trust Simtrum for your microscopy and spectroscopy needs.

## Scientific CMOS Cameras(190-1100nm)



**Soft X-Ray BSI sCMOS Camera  
(80-1000eV)**



**High-speed sCMOS Camera  
(200-1100 nm)**



**High Sensitivity sCMOS Camera  
(200-1100 nm)**



**38M Pixel large Format sCMOS  
(200-1100 nm)**



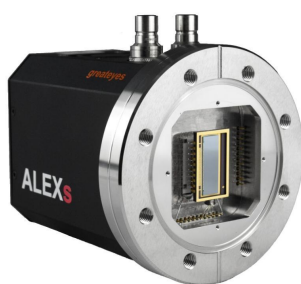
**Compact BSI/FSI sCMOS Camera  
(200-1000 nm)**

Model	Description
soft X-ray BSI sCMOS Camera (80-1000eV)	Wavelength Range: 200-1100 nm(80-1000eV); Resolution: 2048×2048; QE:1~100%@80-1000eV;Frame rate:48fps@4MP
High-speed sCMOS Camera	Including high-speed linear array, high-speed area array camera; Wavelength Range: 200-1100nm Frame Rate: 450fps@8bit ; 300fps@10bit; 250fps@12bit; 225fps@8bit (area array) Frame Rate: 300kHz@12bit; 345kHz@10bit; 510kHz@8bit(linear array)
High Sensitivity sCMOS Camera	Wavelength Range:190-1100 nm,Resolution:2048×2048/800×600, Pixel size:6.5 μm×6.5 μm/11 μm×11μm;QE: 95%@560 nm
38M Pixel large Format sCMOS	Wavelength Range:200-1100 nm,Resolution:6144×6144/4096×4096, Pixel size:9 μm×9 μm/10 μm×10μm
Compact BSI/FSI sCMOS Camera	Wavelength Range:200-1000 nm,Resolution:2048×2048/2048×1152, Pixel size:6.5 μm×6.5 μm/11 μm×11μm

## Scientific CCD Cameras(160-1100 nm)



**Full Frame CCD Camera for  
UV-NIR  
(160-1100nm)**



**Full Frame CCD Camera  
for VUV EUV X-Ray**



**Full Frame In-vacuum CCD  
Cameras  
(5eV-20KeV)**



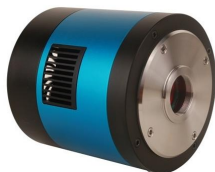
**Large Format In-  
vacuum CCD  
Cameras**

Model	Series	Wavelength	Pixel
Full Frame CCD Camera for UV-NIR	ELSEs	160 - 1100nm	1024 * (127,255) , 2048 * (264,512)
	ELSEi		1024 * 1024, 2048 * 2048, 4096 * 4112
Full Frame CCD Camera for VUV EUV X-Ray	ALEXs	5 eV - 20 keV	1024 * 255, 2048 * 512
	ALEXi		1024 * 1024, 2048 * 2048, 4096 * 4096
Large Format In-vacuum CCD Cameras	LOTTEs	5 eV - 20 keV	1024 * 255, 2048 * 512
	LOTTEi		1024 * 1024, 2048 * 2048, 4096 * 4096
Large Format In-vacuum CCD Cameras	/	5 eV - 20 keV	/

## Microscope Cameras(200-1100 nm)



**Microscope USB3.0 CCD Camera**  
(380-650nm)



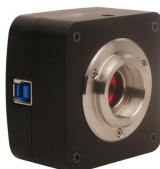
**Microscope TE-Cooling USB3.0 CCD Camera**  
(380-650nm)



**Microscope USB3.0 CMOS Camera**  
(380-650nm)



**TE-Cooling USB3.0 CMOS Camera**  
(380-650nm)



**Microscope USB3.0 CMOS Camera with ISP**



**Microscope USB3.0 CMOS Camera UV Enhanced**  
(200-1100nm)



**HDMI Color CMOS Camera**



**Eyepiece USB3.0 CMOS Camera**

Camera Category	Wavelength	Resolution	Pixel Size
Microscope USB3.0 CCD Camera	380nm - 650nm	1.5MP to 12MP	6.45um to 3.1um
Microscope TE-Cooling USB3.0 CCD Camera	380nm - 650nm	1.5MP to 12MP	6.45um to 3.1um
Microscope USB3.0 CMOS Camera	380nm - 650nm	0.5MP to 45MP	6.9um to 1.55um
TE-Cooling USB3.0 CMOS Camera	380nm - 650nm	10MP to 45MP	4.63um to 2.31um
Microscope USB3.0 CMOS Camera with ISP	380nm - 650nm	1.5MP to 45MP	3.4um to 1.2um
Microscope USB3.0 CMOS Camera UV Enhanced	200nm -1100nm	1.3MP to 10MP	9.7um to 4.6um
HDMI Color CMOS Camera	380 - 1100nm	2MP to 8MP	/
Eyepiece USB3.0 CMOS Camera	380nm - 650nm	5MP	2um



## Industrial Machine Vision Camera(200-1100 nm)



**Single Line Scan Camera**



**Multi-line Scan Camera**



**256 Multi-line Scan Camera**



**Industry High Resolution Camera**



**Industry High Resolution Cooled Camera**



**High Speed Large Format Camera**



**Frame Grabber**

Model	Resolution	Pixel Size	Frame Rate
Single Line Scan CMOS Camera	(2048 - 16384) * 1	3.5μm, 5.6μm, 7μm	30 ~80KHz
Multi-line Scan CMOS Camera	(4096-16384) *2	3.5μm, 5.6μm, 7μm	10~200KHz
BSI multi-line scan CCD camera	(4096-16384)*256	5μm	167 ~ 250Khz
High-resolution area array camera	26M,31M,65M	3.4μm, 4.5μm	4~12
Cooled area array camera	40M,65M,100M,150M,1.3B	3.1μm, 3.7μm	2~20
High-speed area array camera	3M to 65M	2.5μm,3.2μm, 4.5μm,5.5μm	30~409

## Infrared Pyrometer



**Pyroelectric Single-Element Detectors**



**Pyroelectric Multi-Channel Detectors**



**Pyroelectric IR Linear Detector /LVF**



**Infrared Pyrometers (-40~3000°C)**



**Infrared linear Array Camera**



**Infrared Matrix Array Cameras**



**Blackbody Calibration Sources (-15~1500°C)**

Model	Wavelength	Resolution
Pyroelectric Single-Element Detectors	2~12 $\mu\text{m}$	1×1/1.2×1.2/2×2/ 3×3mm <sup>2</sup> , $\varnothing$ 2.5/ $\varnothing$ 2/ $\varnothing$ 1 mm
Pyroelectric Multi-Channel Detectors	2~12 $\mu\text{m}$	2×2× 2/ 2×1×1/3×2×2/ 4×2×2 mm <sup>2</sup> 3
Pyroelectric IR Linear Detector /LVF	2~12 $\mu\text{m}$	128/256/510
Infrared Pyrometers	0.7~14 $\mu\text{m}$	/
Infrared linear Array Camera	0.8~1.1 $\mu\text{m}$ /3~5 $\mu\text{m}$ /8~14 $\mu\text{m}$	128/256/512*1
Infrared Matrix Array Cameras	0.8~1.1 $\mu\text{m}$ /3~5 $\mu\text{m}$ /8~14 $\mu\text{m}$	384×288/512×384/ 640×480/768×576
Blackbody Calibration Sources	/	/

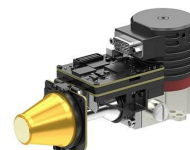
## Infrared Cameras



Short-Wave Infrared Camera



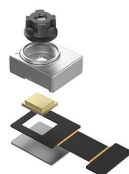
Cooled Mid-Wave Infrared Detectors



Cooled Mid-Wave Infrared Camera



Cooled MIR & LWIR Infrared Detectors



Thermal Imaging Cameras for Phone



Cooled Long-Wave Infrared Detectors



Cooled Long-Wave Infrared Camera



Compact Uncooled LWIR Thermal Image Camera for Drone



Uncooled LWIR Thermography Camera



Thermography Camera for Skin Temperature Screening

Product		Spectral Range	Resolution
Short-Wave Infrared Camera		400-1700nm	1.3MP, 0.3MP
MIR Camera	Cooled Mid-Wave Infrared Detectors	3.7um to 4.8um	0.08MP, 0.3MP, 1.5MP
	Cooled Mid-Wave Infrared Camera	3.7um to 4.8um	0.08MP, 0.3MP, 1.5MP
	Cooled MIR & LWIR Infrared Detectors	3.7 to 4.8um 7.7 to 9.5um	320*256
LWIR Camera	Cooled LWIR Detector	7.7um to 9.4um	0.08MP, 0.3MP
	Cooled LWIR Camera	7.7um to 9.4um	0.3MP
	Uncooled LWIR Thermography Camera	8 to 14um	0.08MP, 0.3MP, 1.5MP
	Thermography Camera for Skin Temperature Screening	8 to 14um	320*256
	Thermal Imaging Cameras for Phone	8 to 14um	256*192
	Compact Uncooled LWIR Thermal Image Camera for Drone	8 to 14um	0.08MP, 0.3MP



## Solar Blind UV Camera



**Solar Blind UV Imaging Module**



**UV-VIS Online Monitoring Module**



**UV-VIS Dual Channel Camera**



**UV-VIS-IR Triple Spectral Fusion Camera**



**Ultraviolet Camera for Drone**

Model	Technical Specifiacion
Solar Blind UV Imaging Module 720*576 (240-280nm)	QE:≥25%, MCP Gain:≥10 <sup>5</sup> @1750V, Spectral Range:240~280nm, Center Wavelength:265nm, Resolution:720×576, Focal Length:112mm
Solar Blind UV Imaging Module 1280*720 (240-280nm)	QE:≥25%, MCP Gain:≥10 <sup>5</sup> @1750V, Spectral Range:240~280nm, Center Wavelength:265nm, Resolution:1280×720, Focal Length:35/50/112mm
UV-VIS Dual Channel Online Monitoring Module	UV Spectral Range:240-280nm, UV/VIS Overlay Accracy:≤1mrad, Focal Distance:≥3m, Display Resolution:1280×720, Display Mode:UV/VIS/fusion
UV-VIS Dual Channel Camera	UV Spectral Range:240-280nm, UV/VIS Overlay Accracy:≤1mrad, Focal Distance:≥3m, Display Resolution:640×480, Display Mode:UV/VIS/fusion
LCD Touch-Screen Solar Blind UV Camera 1280*720	UV Spectral Range:240-280nm, UV/VIS Overlay Accracy:≤1mrad, Focal Distance:≥3m, Resolution:1280×720, Storage:SD card@64G
UV-VIS-IR Triple Spectral Fusion Camera	UV Spectral Range:240-280nm, IR Resolution:640×480, UV/VIS Overlay Accracy:≤1mrad, Focal Distance:≥3m, Display Resolution:640×480, UV Spectral Range:240-280nm, UV/VIS Overlay Accracy:≤1mrad, Focal Distance:≥3m, Resolution:1280×720, Field of view:12.4°×7°
Ultraviolet Camera for Drone 1280*720	UV Spectral Range:240-280nm, UV Resolution:1280×1024, IUV/VIS Overlay Accracy:≤1mrad, Focal Distance:≥3m
Lightweight UV Camera for Drone Support 2nd Development	