

Photometrics Prime BSI Express, USB 3.2 Camera, 1T-01-PRIME-BSI-EXP



Stock **#90-390** **NEW** **CONTACT US**

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1

+

£13,250⁰⁰

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Volume Pricing	
Qty 1+	£13,250.00 each
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Product Downloads

Monochrome

Spectrum:

General

Monochrome Camera

Type:

1T-01-PRIME-BSI-EXP

Model Number:

Manufacturer:

Teledyne Photometrics	
Prime BSI Express	Camera Series:
Note: Includes: USB 3.2 Gen 2 Cables USB 3.2 Gen 2 Interface Card 12V/ 5A power supply with international power cord set (2) Single-line MMCX trigger cables USB memory device containing PVCAM library and drivers Quick Installation Guide	
Physical & Mechanical Properties	
78 x 78 x 88	Dimensions (mm):
760	Weight (g):
Full	Housing:
Optical Properties	
200 - 1100	Wavelength Range (nm):
Sensor	
1.2"	Sensor Format:
4.20	Resolution (Megapixels):
95.00	Frame Rate (fps):
2,048 x 2,048	Pixels (H x V):
13.31 x 13.31	Sensing Area, H x V (mm):
GPixel Gsense 2020BSI	Imaging Sensor:
Progressive Scan CMOS	Type of Sensor:
Rolling	Shutter Type:
11, 12, 16 bit	Pixel Depth:
6µs- 10s	Exposure Time:
89	Dynamic Range (dB):
Hardware & Interface Connectivity	
USB 3.2 Gen 2	Connector:
Power over GPIO with #90-399	Power Supply:
1 configurable input, 3 configurable outputs	GPIOs:
Hardware Trigger (GPIO) or Software Trigger	Synchronization:
Back Panel	Interface Port Orientation:
BNC	GPIO Connector Type:
Threading & Mounting	
C-Mount	Mount:
(1) ¼–20 thread per side	Mounting Threads:
Environmental & Durability Factors	
0 to 30	Operating Temperature (°C):
–20 to 60	Storage Temperature (°C):
Regulatory Compliance	

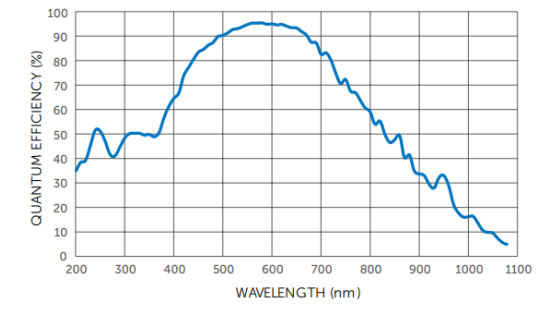
Exempt	RoHS 2015:
View	Certificate of Conformance:
Contains SVHC(s)	Reach 247:

Product Details

- Highly Sensitive Back-Illuminated sCMOS for Scientific Applications
- 95% QE and Ultra-Low 1.0 e⁻ Read Noise
- 95 fps Over USB 3.2
- Scientific Cameras for High Sensitivity Microscopy Applications

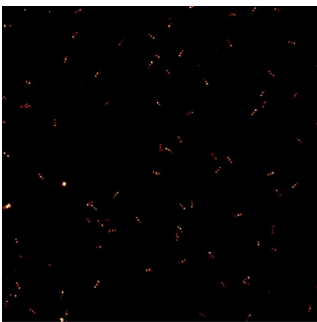


Teledyne Photometrics Prime BSI Express USB 3.2 Cameras feature a highly sensitive back-illuminated sCMOS sensor. This sensor provides a 95% peak quantum efficiency and ultra-low 1.0 e⁻ median read noise, delivering a high signal-to-noise ratio and outstanding performance in low-light imaging conditions. These cameras are designed to achieve up to 95 frames per second using a USB 3.2 interface, enabling high-speed imaging and fast data transfer. Teledyne Photometrics Prime BSI Express USB 3.2 Cameras are ideal for fluorescence, calcium imaging, and live-cell microscopy. These cameras include Teledyne's proprietary-designed software platforms, Beacon and PVCAM, for optimizing camera performance and ease of system integration.



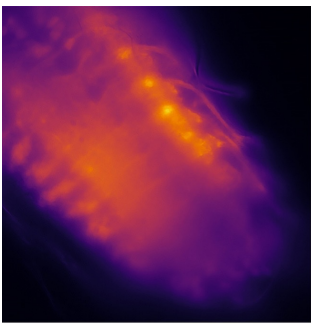
Sensitivity

The Prime BSI Express sCMOS camera delivers high sensitivity, high speed, and reliable quantitative imaging in a compact and easily integrated design. Built around a backside-illuminated scientific CMOS sensor, the camera achieves up to 95% peak quantum efficiency, enabling exceptional photon detection for demanding low-light microscopy applications. The Prime BSI express combines quantum efficiency with a low 1.0 e⁻ read noise to deliver the most sensitive camera based on sCMOS technology at 95 frames per second.



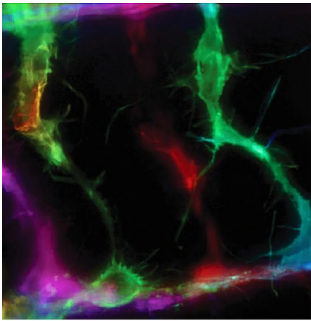
Resolution and Pixel Size

With a 2048 × 2048 resolution and 6.5 μm pixels, the Prime BSI Express provides an optimal balance between spatial resolution and sensitivity, making it well suited for a wide range of fluorescence imaging techniques. The camera reaches full-frame acquisition speeds of up to 95 frames per second, ensuring that fast biological dynamics can be captured without missed events.



Performance and Integration

Designed for both research and system integration, the camera combines low read noise ($\sim 1\text{ e}^-$), high dynamic range, and programmable scan modes to support advanced imaging workflows while maintaining precise and quantitative data acquisition. Its compact form factor and USB 3.2 Gen2 interface simplify integration into modern microscopy platforms and OEM imaging systems.



Ideal Applications

The Prime BSI Express is ideal for applications requiring both sensitivity and speed, including live-cell imaging, spinning disk confocal microscopy, light-sheet microscopy, calcium imaging, and super-resolution techniques.