



Bonito PRO

X-1250B NIR

- Latest CMOS sensor
- CXP-6 speed
- PoCXP
- 142.6 fps at full resolution

12.5 Megapixel CMOS camera for wide temperature ranges - CoaXPress

The Bonito PRO is Allied Vision's brand new high-bandwidth camera series with a CoaXPress interface. Equipped with four DIN 1.0/2.3 connectors the camera is capable to transmit 25 Gbps via quad CXP-6 (6.25 Gbps) high-speed connections. The Bonito PRO features a rugged, fan-less housing design and its powerful feature set make this camera an ideal choice for high-definition imaging applications demanding high-throughput, robustness, and system design-in flexibility. By default, NIR models ship with no optical filter.

Benefits and features

- Extended near-infrared (X-1250B NIR) model
- Extended feature set with Sequencer Control and Multiple Region of Interest selection to support advanced imaging applications
- On-board Defect Pixel and 2D Fixed Pattern Noise Correction for improved image quality
- Simplified firmware update in the field via interface cables using GenICam File Access
- Robust, fan-less design for industrial imaging applications
- Heat-dissipation optimized housing to reduce image noise
- Build-in tripod adapter and multiple mounting holes for eased system integration
- DIN 1.0/2.3 CoaXPress connectors for secure operation in industrial environments
- Single cable solution using Trigger and Power over CoaXPress
- Comprehensive I/O functionality for extended control of connected system components
- Select between B 270 ASG protection glass and filter types: IRC30 IR cut filter or Schneider 486 IR cut filter

See the [Modular Concept](#) for lens mount and optical filters options. See the [Customization and OEM Solutions](#) webpage for additional options.

性能参数

Bonito PRO	X-1250B NIR
接口	CoaXPress (CXP-6) 4 DIN
分辨率	4096 (H) × 3072 (V)
传感器	ON Semi PYTHON 12K NIR
传感器类型	CMOS
Shutter mode	Global shutter
传感器尺寸	Type 4/3
像元尺寸	4.5 μm × 4.5 μm
Lens mounts (available)	F-Mount, F-Mount PA, EF-Mount PA, M42-Mount, M42-Mount PA, M58-Mount, M58-Mount PA
最大满帧帧率	142.6 fps
ADC	10 Bit
非易失性内存 (Flash)	1024 KB

成像性能

Imaging performance data is based on the evaluation methods in the EMVA 1288 Release 3.1 standard for characterization of image sensors and cameras. Measurements are typical values for NIR models measured without optical filter.

在波长为529nm下, 量子转换效率	54 %
在波长为850nm下, 量子转换效率	33 %
暗噪声	15.0 e ⁻
饱和电子数	7600 e ⁻
动态范围	53.7 dB
绝对灵敏度阈值	15.8 e ⁻

输出

Bit位数	10 Bit
黑白像素格式	Mono8, Mono10

通用输入输出(GPIOs)

TTL I/Os	1 input, 2 outputs
光耦 I/Os	1 input, 2 outputs

工作条件/尺寸

工作温度	-20 °C to +70 °C housing (without condensation)
电源要求 (DC)	24 VDC; PoCXP
功耗	External power: 15.7 W at 24 VDC Power over CoaXPress: 15.7 W
重量	500 g (with F-Mount)

Bonito PRO

尺寸 (L × W × H in mm)

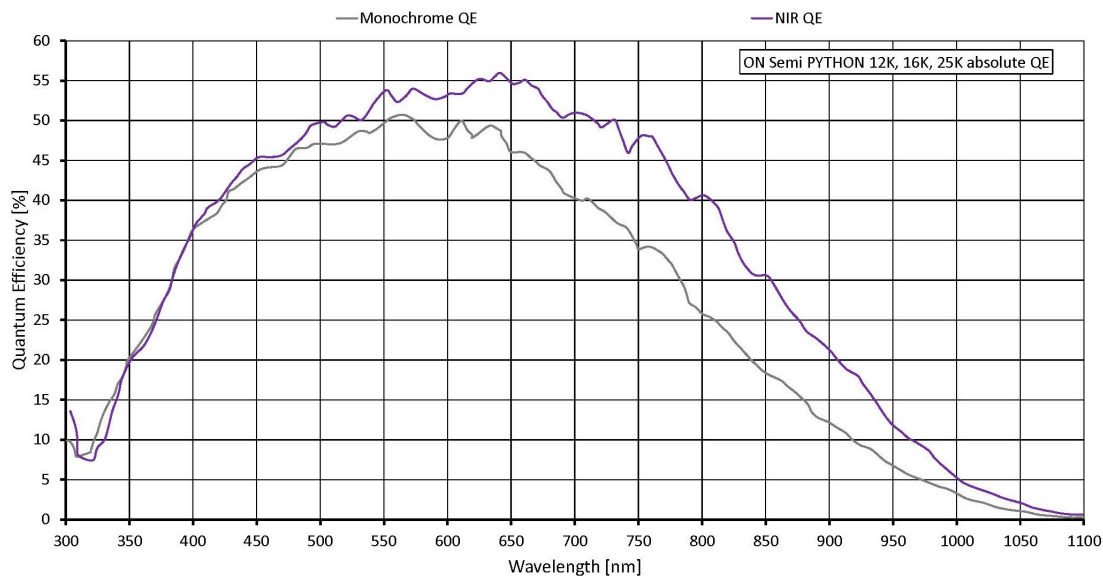
符合规范

X-1250B NIR

114.9 × 70 × 70 (with F-Mount and connectors)

CE: 2014/30/EU (EMC), 2011/65/EU, including amendment 2015/863/EU (RoHS); FCC Class B; CAN ICES-3 (B)

量子转换效率



特性

Image optimization features:

- Auto gain (manual gain control: 0 to 22 dB)
- Auto exposure (manual exposure control: 1 μ s to 1 s)
- Binning (horizontal and/or vertical), (sum or average)
- Decimation X/Y
- Gamma correction
- Three look-up tables
- Defect Pixel Correction
- Fixed Pattern Noise Correction

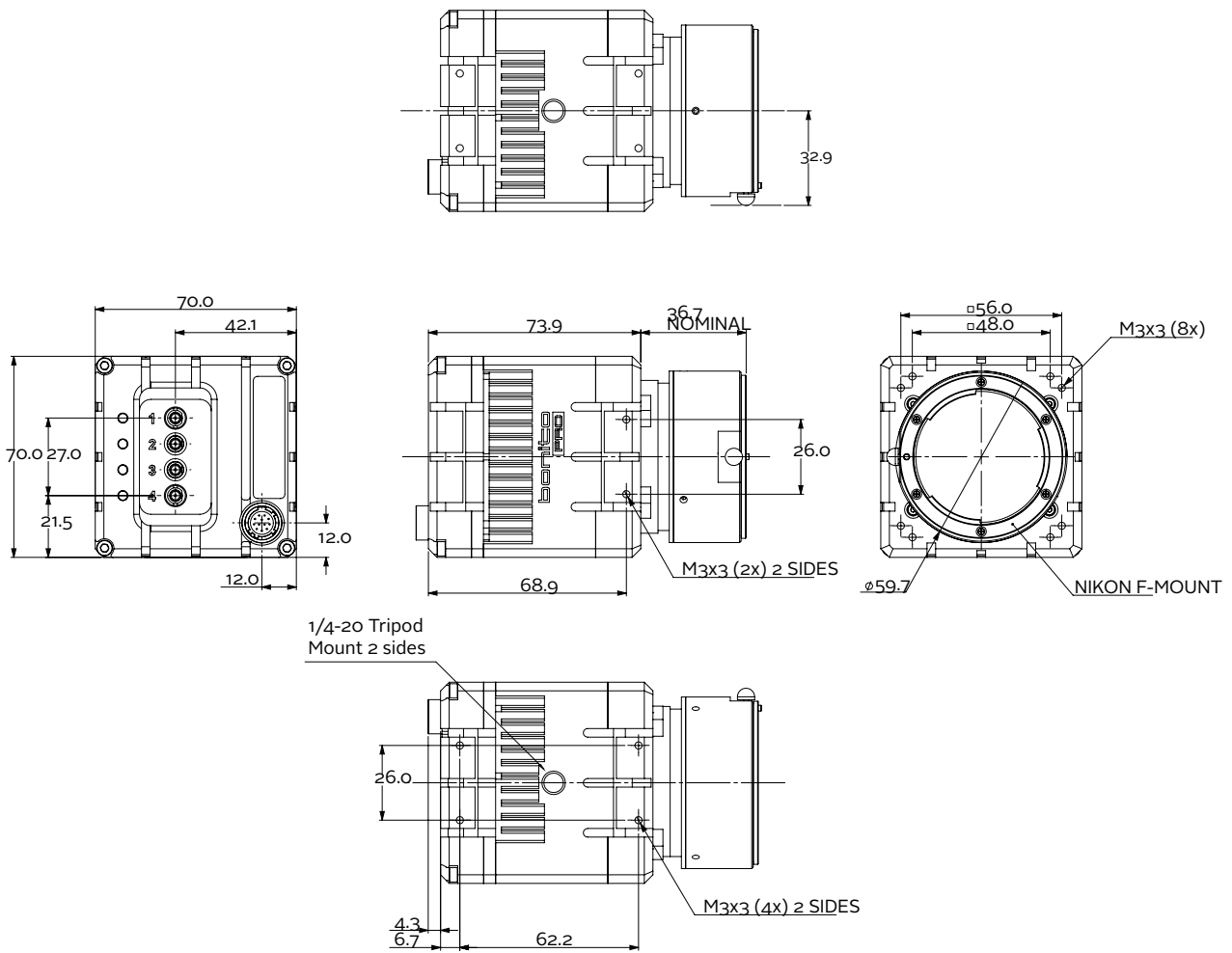
Camera control features:

- Multiple region of interest



- Sequencer Control
- Trigger over CoaXPress
- EF lens control (order option -18)
- Storable user sets
- Sync out modes: Trigger ready, input, exposing, readout, imaging, strobe, GPO
- Temperature monitoring (main board and sensor board)

外形尺寸





应用场景

Bonito PRO X-1250B NIR is ideal for a wide range of applications including:

- Automated Optical Inspection of flat panel displays, PCB/electronics, printings
- 2D/3D Surface Inspection (for example, glass)
- Aerial imaging