

SPECIFICATIONS

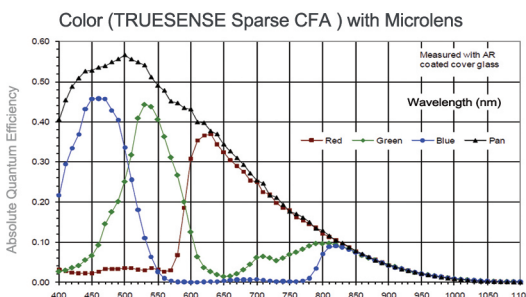
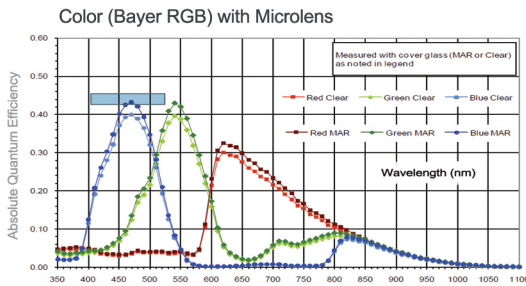
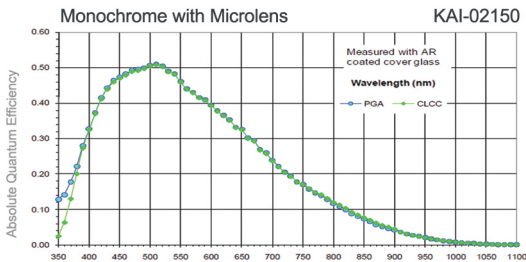
BOBCAT2.0 B1921



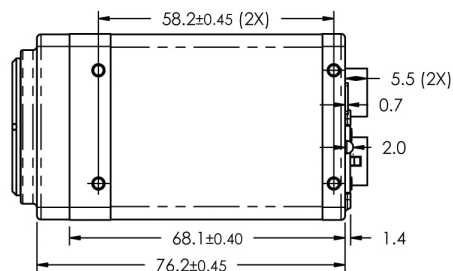
IMPERX: Technically superior products, full tech support, rapid-response customer care. "Bobcat 2.0" adds many new features, lens control, more memory and enhanced image quality. Each easy to use Bobcat is supported by IMPERX professionals.

INTERFACES AVAILABLE:

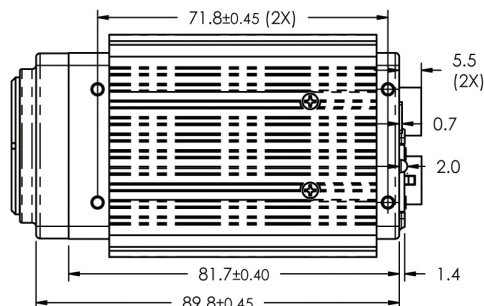
Resolution	1920 x 1080 (std.), 1952 x 1112 (max.)
Sensor	KAI-02150, CCD
Sensor Format	10.73mm (H) x 6.11mm (V) 12.1mm diagonal 2/3" optical format
Pixel Size	5.5 μm
Frame Rate Standard Clock	40 MHz / 32 fps
Frame Rate Overclocked	50 MHz / 39 fps
Maximum Frame Rate	271 fps
Minimum S/N Ratio	60dB
Output Format	Mono CCD: 8, 10, 12, 14-bit (Single only) Color CCD: 8, 10, 12, RGB 24 (Bayer only) TRUESENSE Sparse CFA
Analog Gain Control	Manual, Auto: 0 - 36dB 1024 steps
Black Level Control	Manual, 1024 steps
Digital Gain and Offset	Manual
RGB Gain and Offset	Manual
White Balance	Manual, auto, off
Shutter Speed	1us/step, 1/500,000 to 1/32 sec (nom)
Exposure Control	Manual, auto, external
Long Integration	Up to 16 seconds
Regions of Interest (ROI)	7 ROIs, any line to any line, any pixel to any pixel
Binning H/V	1x, 2x, 3x, 4x, 8x (Independent for H & V)
Trigger Inputs	External (TTL via IN1/IN2), pulse generator, software, computer
Trigger Options	Level, edge, pulse width, internal exposure, up to 16 seconds trigger delay, debounce
Trigger Modes	Free-run, standard, double, fast, asynchronous, frame accumulation
Double Trigger (PIV) Interframe	Time: 200 nanoseconds
External Inputs/Outputs	2 IN, 2 OUT, user programmable
Strobe Output	2 strobes, programmable position and duration
RS232 Interface	Yes, programmable
Pulse Generator	Yes, programmable
Image Overlay	Optical center, programmable H & V lines
Image Enhancement	Threshold, contrast enhancement, knee correction, horizontal flip, negative image, bit shift (+/- 7 places)
Internal DDR Memory	2Gb (256 MB)
On Board FIFO (GEV & PoE)	1Gb (128 MB)
Gamma Correction	G=1.0, G=0.45, user upgradeable LUT
Data Corrections	Defective/hot pixel correction (static, dynamic), black level, vertical smear
Minimum Illumination	1 Lux, F/ 1.4
Lens Mount	C-Mount
Video Iris Control	Auto, programmable
Iris, Zoom Focus Control	Manual, user programmable
Supply Input Range	12VDC (10V - 15V), 1.5 A inrush
Power Consumption	CLB 3.6 W, GEV 5.2W, PoE 6.3W, CXP TBD
Size – Width/Height	46mm (W) x 46mm (H) – Applies to all interfaces
Size – Length	CLB 58.3mm (L), GEV 76.2mm (L), PoE 89.8mm (L), CXP 65.8mm (L)
Weight	CLB 164g, GEV 233g, PoE 343g, CXP 224g
Vibration, Shock	100g (20-200) HZ XYZ, 1000g
Environmental	-40°C to +85°C Operating, -50°C to +90°C Storage
Humidity	10% to 90% non-condensing
MTBF	>660,000 hours @ 40°C
Regulatory	FCC 15 part A, CE, RoHS



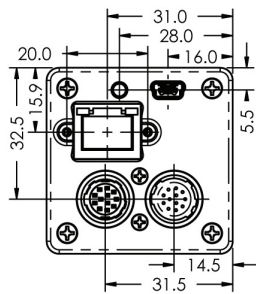
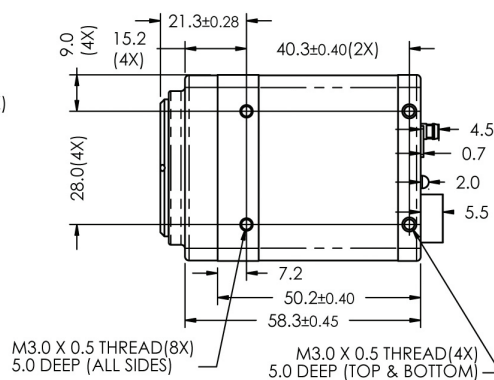
GigE Vision(Without PoE)



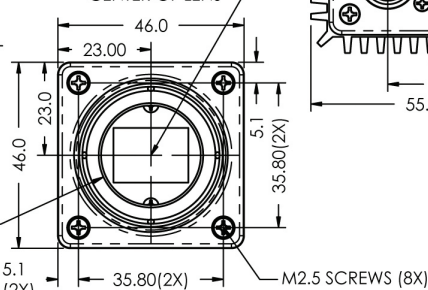
GigE Vision(With PoE)



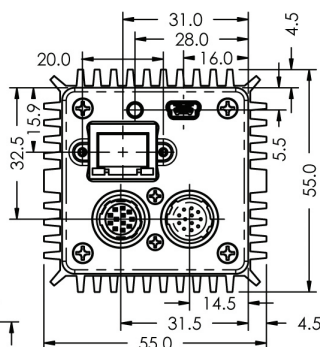
Camera Link



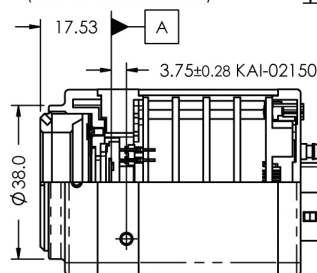
CENTER OF IMAGE IS NOMINALLY AT CENTER OF LENS



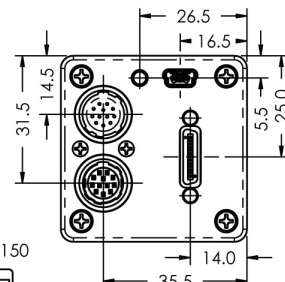
COMMON FRONT VIEW



NOTE: DATUM "A" REFERS TO THE IMAGING PLANE (TOP OF IMAGING DIE)

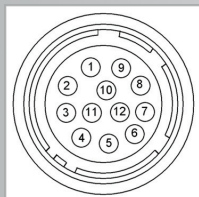


COMMON IMAGE PLANE DISTANCE



Hirose Connectors

Power and I/O Interface



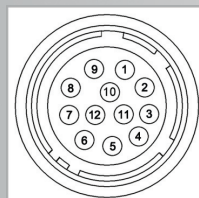
- | | |
|-------------------|-----------------|
| 1 12V DC Return * | 7 OUT1 Signal |
| 2 +12V DC* | 8 IN1 Signal |
| 3 IRIS VCC | 9 IN2 Signal |
| 4 IRIS Video | 10 IN1/2 Return |
| 5 IRIS Return | 11 Reserved |
| 6 OUT1/2 Return | 12 OUT2 Signal |

Connector: Hirose HR 10A- 10R- 12PB(71)

*Not connected for CXP

Lens Control/RS232

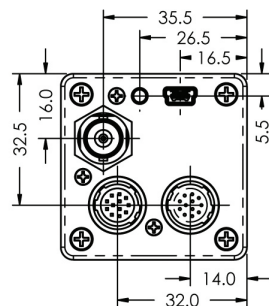
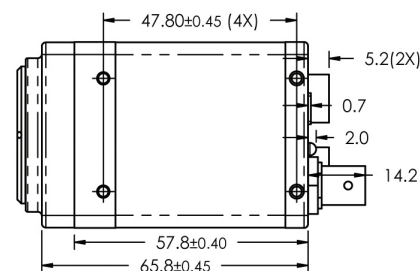
See manual for PIN information



- | | |
|---------------|-------------|
| 1 IRIS Return | 7 FOCUS + |
| 2 IRIS VCC | 8 ZOOM - |
| 3 IRIS Video | 9 ZOOM + |
| 4 IRIS - | 10 UART_COM |
| 5 IRIS + | 11 UART_RX |
| 6 FOCUS - | 12 UART_TX |

Connector: Hirose HR 10A- 10R- 12SB(71)

CoaXPress



B1921 Ordering Information

Interfaces available

- Camera Link® Base (CLB)
- GigE Vision (GEV / PoE)
- CoaXPress (CXP)

Sensor types available

- Monochrome
- Bayer Color
- TRUESENSE Sparse CFA

Accessories (Sold separately)

- PS12v04-Power Supply w/ 1 input and 1 output
- PS12v05-Power Supply (as above) and Video Iris



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bobcat-B1921-v2.Rev1