

# B1320



**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  
 Sensor  
 Sensor Format

Pixel Size  
 Frame Rate Standard Clock  
 Frame Rate Overclocked  
 Maximum Frame Rate  
 Minimum S/N Ratio  
 Output Format

Analog Gain Control  
 Black Level Control  
 Digital Gain and Offset  
 RGB Gain and Offset  
 White Balance  
 Shutter Speed  
 Exposure Control  
 Long Integration  
 Regions of Interest (ROI)  
 Binning H/V  
 Trigger Inputs

Trigger Options

Trigger Modes

Double Trigger (PIV) Interframe  
 External Inputs/Outputs  
 Strobe Output  
 RS232 Interface  
 Pulse Generator  
 Image Overlay  
 Image Enhancement

Internal DDR Memory  
 On Board FIFO (GEV & PoE)  
 Gamma Correction  
 Data Corrections

Minimum Illumination  
 Lens Mount  
 Video Iris Control  
 Iris, Zoom Focus Control  
 Supply Input Range  
 Power Consumption  
 Size – Width/Height  
 Size – Length

Weight  
 Vibration, Shock  
 Environmental  
 Humidity  
 MTBF  
 Regulatory

Camera Link® Base (PoCL), GigE Vision, PoE, CoaXPress, HD-SDI

1280 x 720 (std.), 1312 x 728 (max.)

KAI-01150, CCD

7.22mm (H) x 4.00mm (V) 8.08mm diagonal, 1/2" optical format

5.50  $\mu$ m

40 MHz / 68 fps

50 MHz / 85 fps

471 fps

60dB

Mono CCD: 8, 10, 12, 14-bit (Single only)

Color CCD: 8, 10, 12, RGB 24 (Bayer only)

TRUESENSE Sparse CFA

Manual, Auto: 0 - 36dB 1024 steps

Manual, 1024 steps

Manual

Manual

Manual, auto, off

1 $\mu$ s/step, 1/250,000 to 1/68 sec (nom)

Manual, auto, external

Up to 16 seconds

7 ROIs, any line to any line, any pixel to any pixel

1x, 2x, 3x, 4x, 8x (Independent for H & V)

External (TTL via IN1/IN2), pulse generator, software, computer

Level, edge, pulse width, internal exposure,

up to 16 seconds trigger delay, debounce

Free-run, standard, double, fast, asynchronous, frame accumulation

Time: 200 nanoseconds

2 IN, 2 OUT, user programmable

2 strobes, programmable position and duration

Yes, programmable

Yes, programmable

Optical center, programmable H & V lines

Threshold, contrast enhancement, knee correction, horizontal flip, negative image, bit shift (+/- 7 places)

2Gb (256 MB)

1Gb (128 MB)

G=1.0, G=0.45, user upgradeable LUT

Defective/hot pixel correction (static, dynamic), black level, vertical smear

1 Lux, F/1.4

C-Mount (Default), CS

Auto, programmable

Manual, user programmable

12VDC (10V - 15V), 1.5 A inrush

CLB 3.3 W, GEV 4.7W, PoE 5.9W, CXP TBD

46mm (W) x 46mm (H) – Applies to all interfaces

CLB 58.3mm (L), GEV 76.2mm (L), PoE 89.8mm (L), CXP 65.8mm (L)

CLB 165g, GEV 284g, PoE 394g, CXP 274g

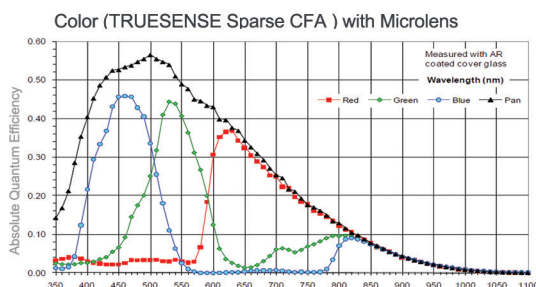
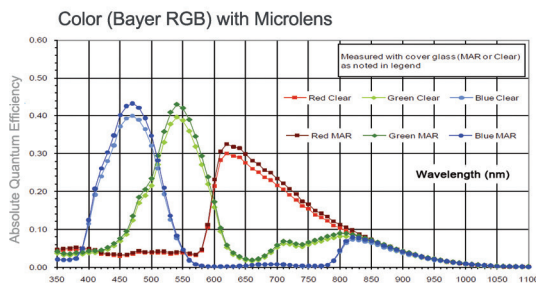
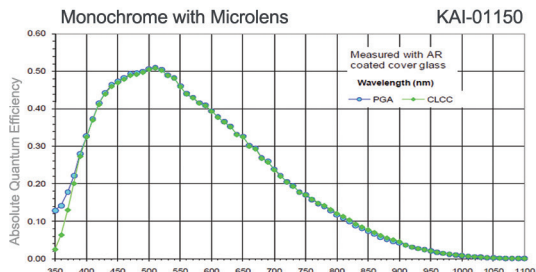
100g (20-200) HZ XYZ, 1000g

-40C to +85C Operating, -50C to +90C Storage

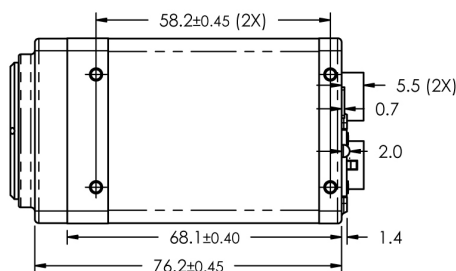
10% to 90% non-condensing

>660,000 hours @ 40°C (Telcordia SR-332)

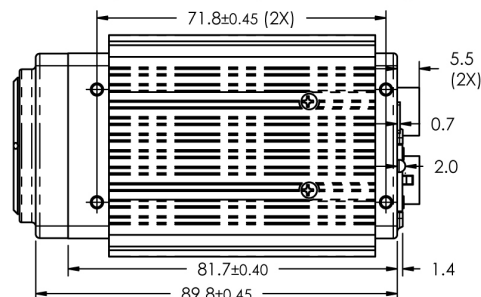
FCC 15 part A, CE, RoHS



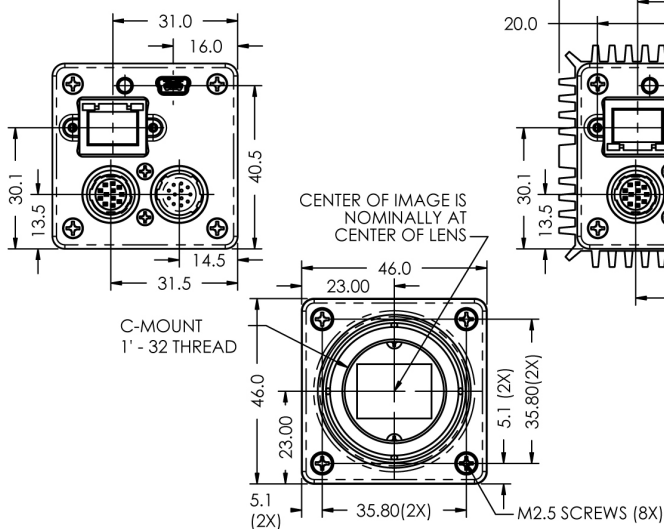
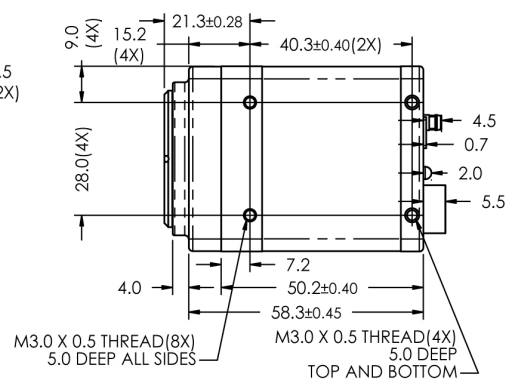
## GigE Vision(Without PoE)



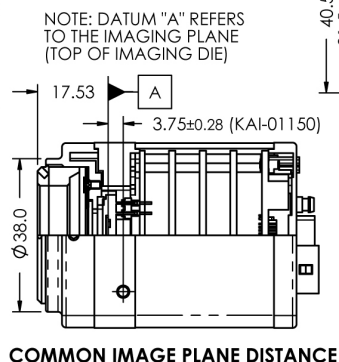
## GigE Vision(With PoE)



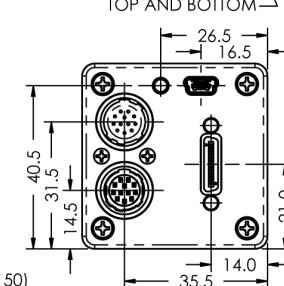
## Camera Link



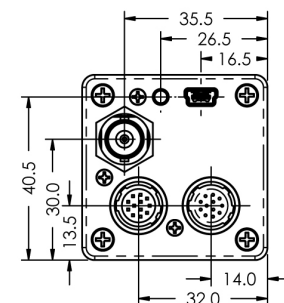
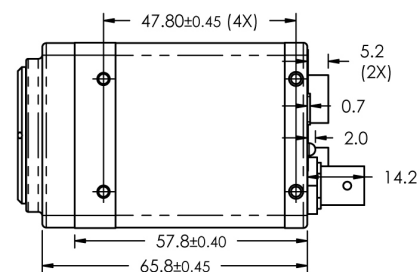
COMMON FRONT VIEW



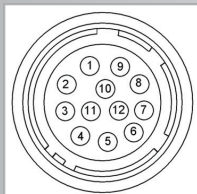
COMMON IMAGE PLANE DISTANCE



## CoaXPress



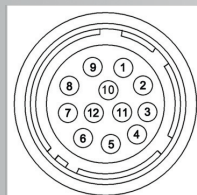
### Hirose Connectors Power and I/O Interface



- |                   |                 |
|-------------------|-----------------|
| 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)

## B1320 Ordering Information

### Interfaces available

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

### Sensor types available

- Monochrome
- Bayer Color
- TRUESENSE

### Accessories (Sold separately)

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



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bobcat-B1320,Rev1