



# B1310



**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

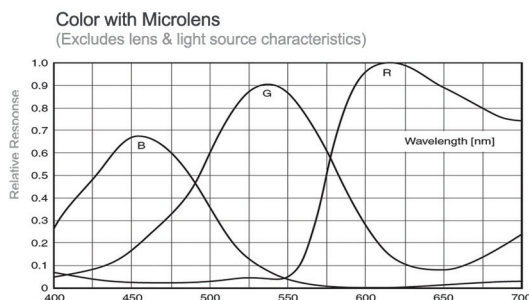
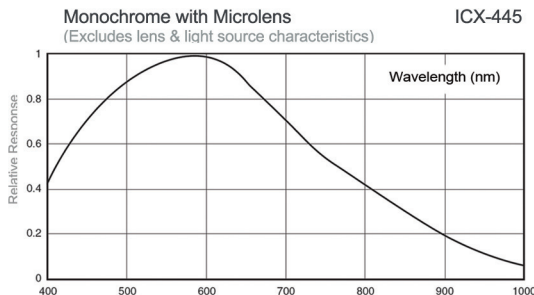
Double Trigger (PIV) Interframe  
 External Inputs/Outputs  
 Strobe Output  
 RS232 Interface  
 Pulse Generator  
 Image Overlay  
 Image Enhancement

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

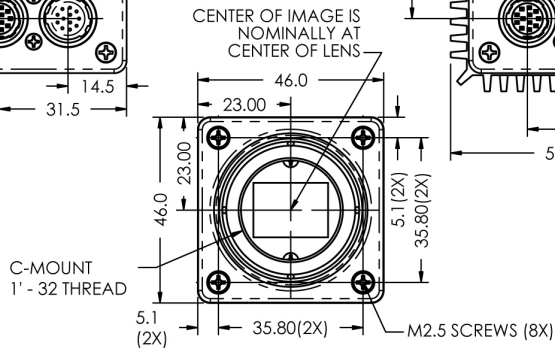
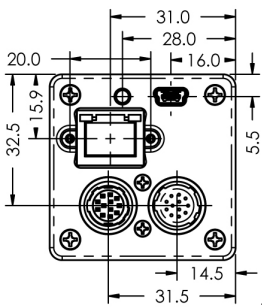
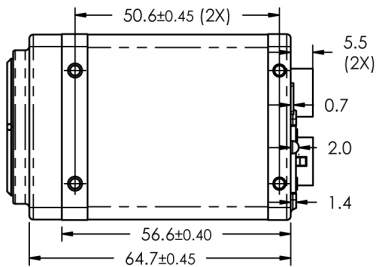
Weight  
 Vibration, Shock  
 Environmental  
 Humidity  
 MTBF  
 Regulatory

Camera Link® Base (PoCL), GigE Vision, PoE, CoaXPress  
 1280 x 960 (std.), 1296 x 966 (max.)  
 ICX-445 EXview HAD CCD  
 4.86mm (H) x 3.62mm (V) 6.0mm diagonal,  
 1/3" optical format  
 3.75 µm  
 40 MHz / 26 fps  
 64 MHz / 39 fps  
 191 fps  
 60dB  
 Mono CCD: 8, 10, 12, 14-bit (Single only)  
 Color CCD: 8, 10, 12, RGB 24  
 Manual, Auto: 0 - 36dB 1024 steps  
 Manual, 1024 steps  
 Manual  
 Manual  
 Manual, auto, off  
 1µs/step, 1/200,000 to 1/26 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  
 0.5 Lux, F/1.4  
 C-Mount (Default), CS  
 Auto, programmable  
 Manual, user programmable  
 12VDC (10V - 15V), 1.5 A inrush  
 CLB 2.0 W, GEV 3.4W, PoE 4.5W, CXP TBD  
 46mm (W) x 46mm (H) – Applies to all interfaces  
 CLB 46.8mm (L), GEV 64.7mm (L), PoE 78.3mm (L),  
 CXP 54.5mm (L)  
 CLB 160g, GEV 246g, PoE 348g, CXP 237g  
 100g (20-200) HZ XYZ, 1000g  
 -40°C to +85°C Operating, -50°C to +90°C Storage  
 10% to 90% non-condensing  
 >660,000 hours @ 40°C (Telcordia SR-332)  
 FCC 15 part A, CE, RoHS



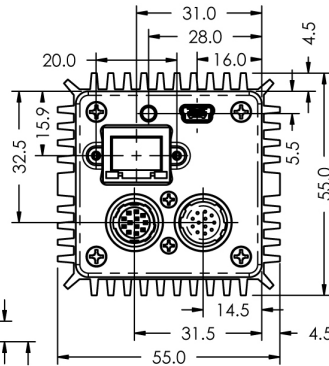
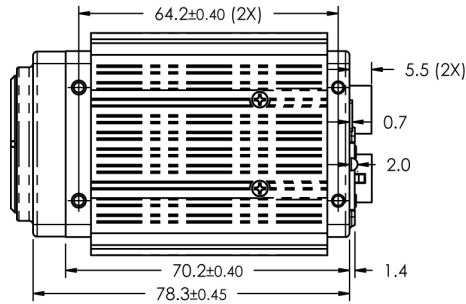
# BOBCAT 2.0 B1310 Specifications

## GigE Vision(Without PoE)

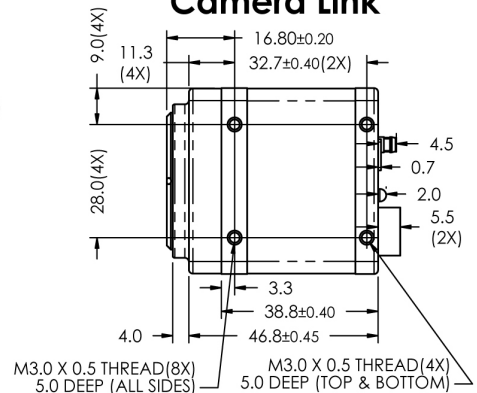


COMMON FRONT VIEW

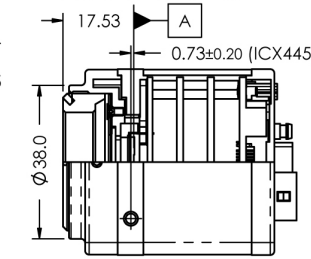
## GigE Vision(With PoE)



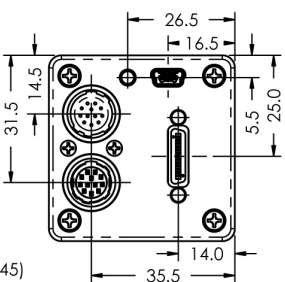
## Camera Link



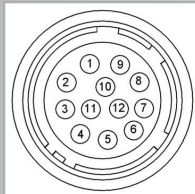
NOTE: DATUM "A" REFERS TO THE IMAGING PLANE (TOP OF IMAGING DIE)



COMMON IMAGE PLANE DISTANCE



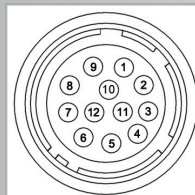
### Hirose Connectors Power and I/O Interface



- |                   |                 |
|-------------------|-----------------|
| 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

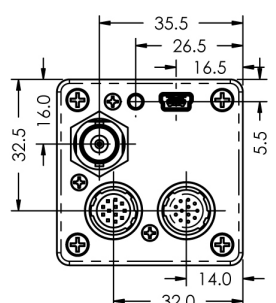
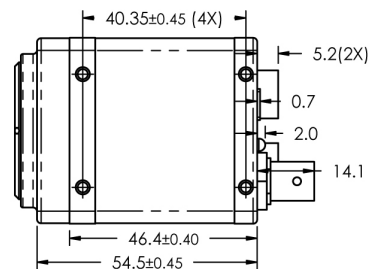
### Lens Control/RS232

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



## B1310 Ordering Information

### Interfaces available

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

### Sensor types available

- Monochrome
- Bayer Color

### Accessories (Sold separately)

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



bobcat-B1310\_Rev1