

# B3420

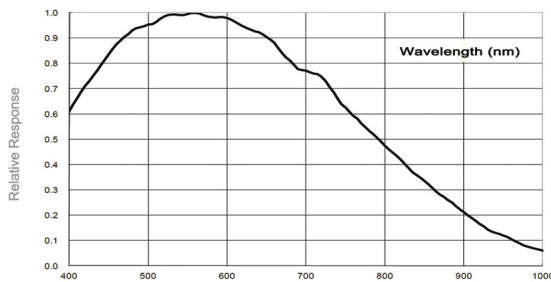


**IMPERX:** Technically superior products, full tech support, rapid-response customer care. "Bobcat 2.0" adds many new features, lens control, more memory and enhanced image quality. Each easy to use Bobcat is supported by IMPERX professionals.

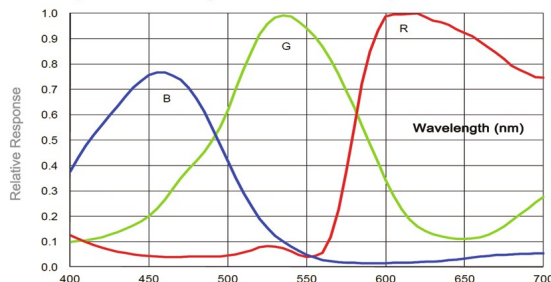
**INTERFACES AVAILABLE:**

- Resolution 3388 x 2712
- Sensor ICX-814 EXview HAD CCD II
- Sensor Format 12.50mm (H) x 10.00mm (V) 15.97mm diagonal
- Pixel Size 1.0" optical format
- Frame Rate Standard Clock 3.69  $\mu$ m
- Frame Rate Overclocked 40 MHz / 6.9 fps
- Maximum Frame Rate 50 MHz / 8.6 fps
- Minimum S/N Ratio 41 fps
- Output Format 60dB
- Mono CCD: 8, 10, 12, 14-bit (Single only)
  - Color CCD: 8, 10, 12
- 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 1/8 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), FFC, 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 (motorized lens, custom)
- Supply Input Range 12VDC (10V - 15V), 1.5 A inrush
- Power Consumption CLB 3.5 W, GEV 5.1W, PoE 6.2W, CXP TBD
- Size - Width/Height 46mm (W) x 46mm (H) - Applies to all interfaces
- Size - Length CLB 59.6mm (L), GEV 77.5mm (L), PoE 91.1mm (L), CXP 67.2mm (L)
- Weight CLB 325g, GEV 398g, PoE 534g, CXP 374g
- 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 (Telcordia SR-332)
- Regulatory FCC 15 part A, CE, RoHS

Monochrome with Microlens ICX-814  
(Excludes lens & light source characteristics)

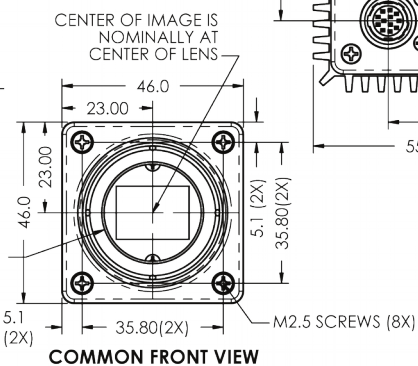
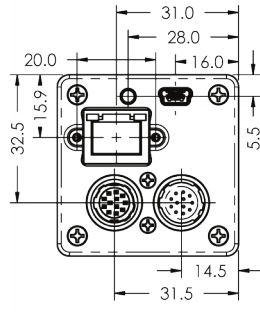
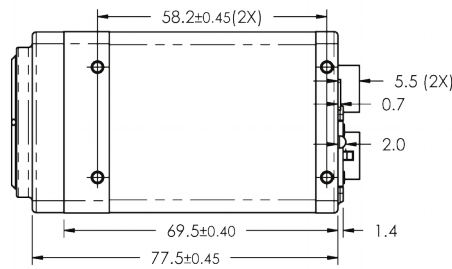


Color with Microlens  
(Excludes lens & light source characteristics)

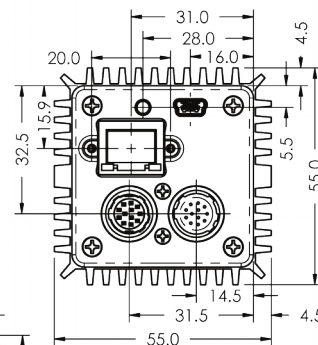
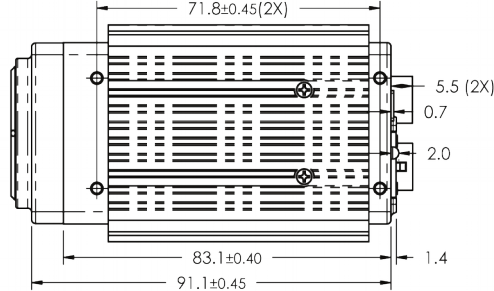


# BOBCAT 2.0 B3420 Specifications

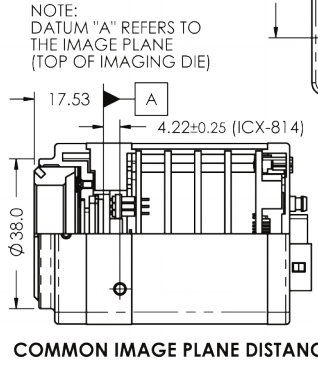
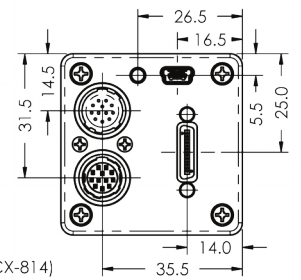
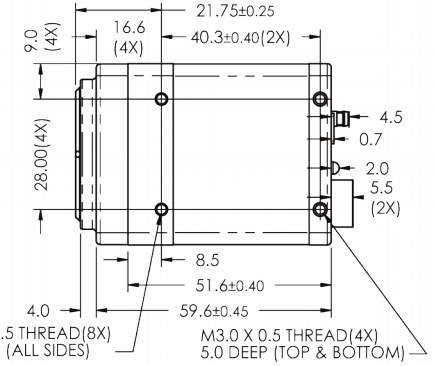
## GigE Vision(Without PoE)



## GigE Vision(With PoE)

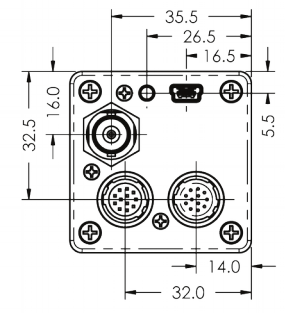
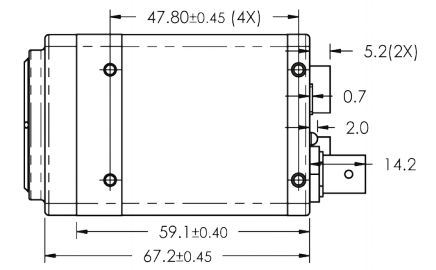


## Camera Link



COMMON IMAGE PLANE DISTANCE

## CoaXPress



### Hirose Connectors

#### Power and I/O Interface

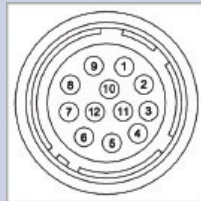


- |                   |                 |
|-------------------|-----------------|
| 1 12V DC Return * | 7 OUT1 Signal   |
| 2 +12V DC*        | 8 IN1 Signal    |
| 3 IRIS VCC        | 9 IN2 Signal    |
| 4 IRIS Video      | 10 IN1/2 Return |
| 5 IRIS Return     | 11 Reserved     |
| 6 OUT1/2 Return 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

\*Not connected for CXP  
Connector: Hirose HR 10A- 10R- 12PB(71)

#### 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)

### B3420 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



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bobcat-B3420,Rev1