

# B1040



**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  
 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 or Medium, CoaXPress  
 1024 x 1024 (std.), 1032 x 1032 (max.)

KAI-01050, CCD

5.63mm (H) x 5.63mm (V) 7.96mm diagonal  
 1/2" optical format

5.50  $\mu$ m

40 MHz / 118 fps

50 MHz / 148 fps

689 fps

60dB

Mono CCD: 8, 10, 12

Color CCD: 8, 10, 12

Manual, Auto: 0 - 36dB 1024 steps

Manual, 1024 steps

Manual

Manual

Manual, auto, off

1 $\mu$ s/step, 1/500,000 to 1/64 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)

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 (motorized lens, custom)

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

CLM 6.7 W, CXP -TBD

60mm (W) x 60mm (H) – Applies to all interfaces

CLM 53.1mm (L), CXP -TBD

CLM 337g, CXP -TBD

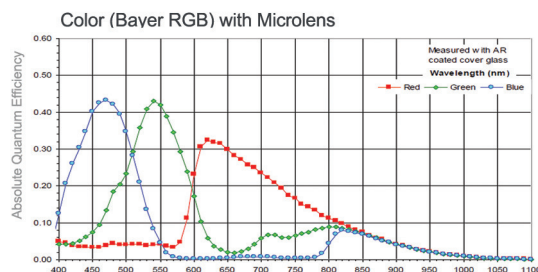
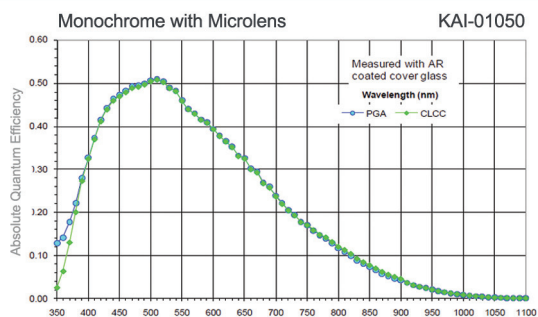
100g (20-200) HZ XYZ, 1000g

-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

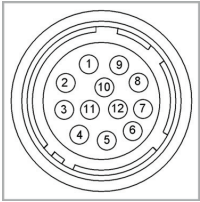




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## Hirose Connectors

### Power and I/O Interface



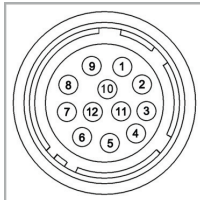
- |                   |                 |
|-------------------|-----------------|
| 1 12V DC Return * | 7 OUT1 Signal   |
| 2 +12V DC*        | 8 IN1 Signal    |
| 3 IRIS VCC        | 9 IN2 Signal    |
| 4 IRIS Video      | 10 IN1/2 Return |
| 5 IRIS Return     | 11 Reserved     |
| 6 OUT1/2 Return 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

## B1040 Ordering Information

### Interfaces available

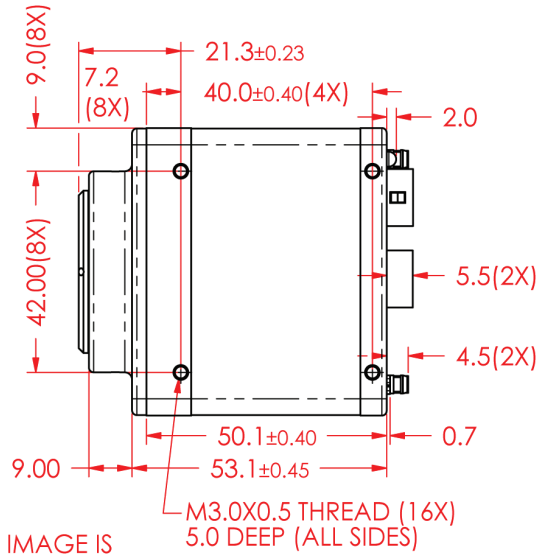
- Camera Link® Medium (CLM)
- CoaXPress (CXP)

### Sensor types available

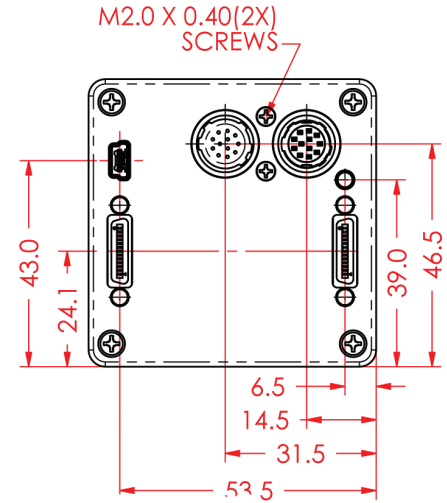
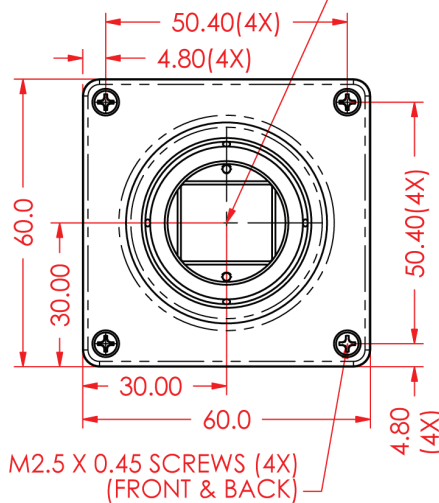
- Monochrome
- Bayer Color

### Accessories (Sold separately)

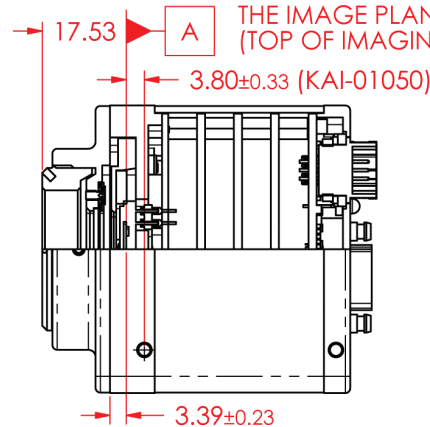
- PS12v04-Power Supply w/ 1 input and 1 output
- PS12v05-Power Supply (as above) and Video Iris



CENTER OF IMAGE IS  
NOMINALLY AT  
CENTER OF LENS



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



bobcat-B1040\_Rev1