

# B1943



**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

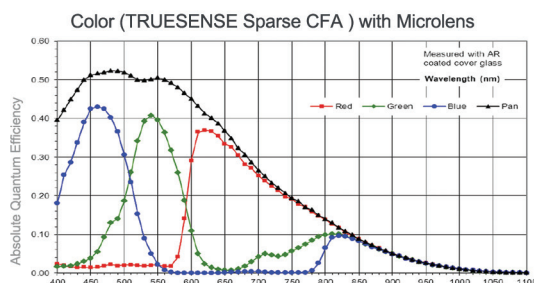
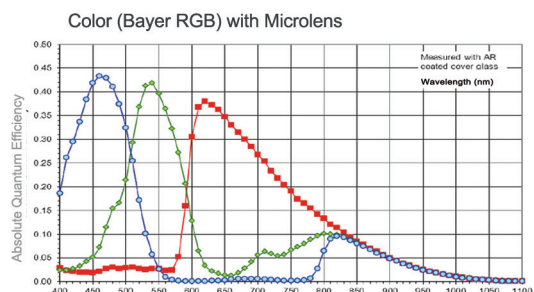
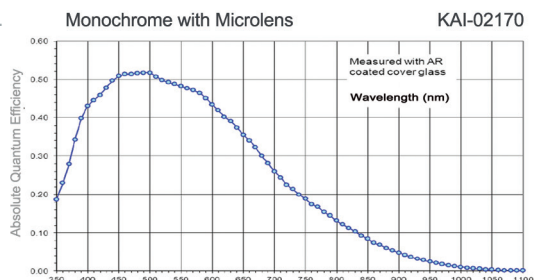
## Trigger Modes

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  
 1928 x 1088  
 KAI-02170, CCD  
 14.26mm (H) x 8.05mm (V) 16.4mm diagonal,  
 1.0" optical format  
 7.4  $\mu$ m  
 40 MHz / 60 fps  
 50 MHz / 75 fps  
 248 fps  
 60dB  
 Mono CCD: 8, 10, 12  
 Color CCD: 8, 10, 12  
 TRUESENSE Sparse CFA  
 Manual, Auto: 0 - 36dB 1024 steps  
 Manual, 1024 steps  
 Manual  
 Manual  
 Manual, auto, off  
 1us/step, 1/500,000 to 1/32 sec (nom)  
 Manual, auto, external  
 Up to 16 seconds  
 7 ROIs, any line to any line, any pixel to any pixel  
 1x, 2x, 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), FFC,  
 black level, vertical smear  
 1 Lux, F/ 1.4  
 C-Mount  
 Auto, programmable  
 Manual, user programmable  
 12VDC (10V - 15V), 1.5 A inrush  
 CLM 7.7 W  
 60mm (W) x 60mm (H) – Applies to all interfaces  
 CLM 53.1mm (L)  
 CLM 338g  
 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

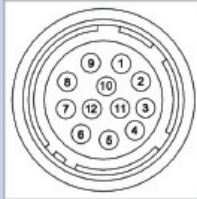


- |                 |                 |
|-----------------|-----------------|
| 1 12V DC Return | 7 OUT1 Signal   |
| 2 +12V DC       | 8 IN1 Signal    |
| 3 IRIS VCC      | 9 IN2 Signal    |
| 4 IRIS Video    | 10 IN1/2 Return |
| 5 IRIS Return   | 11 Reserved     |
| 6 OUT1/2 Return | 12 OUT2 Signal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

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

### 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)

## B1943 Ordering Information

### Interfaces available

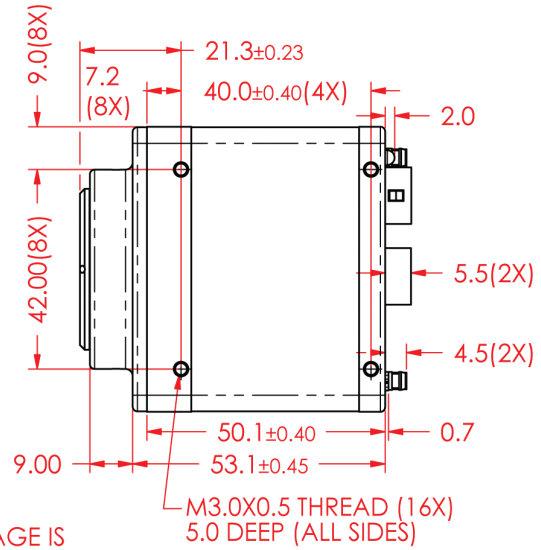
Camera Link® Medium (CLM)

### Sensor types available

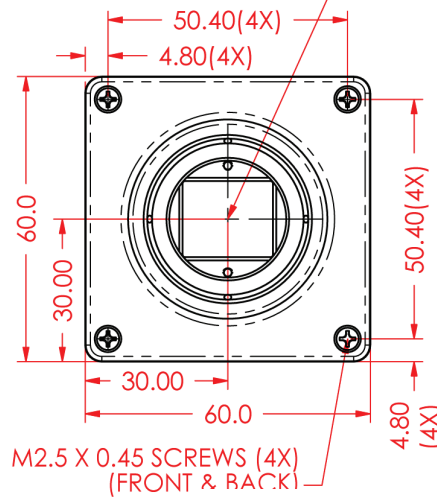
Monochrome  
Bayer Color  
TRUESENSE Sparse CFA

### Accessories (Sold separately)

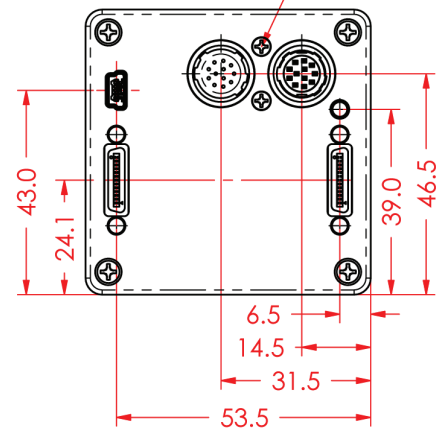
PS12v04-Power Supply w/ 1 input and 1 output  
PS12v05-Power Supply (as above) and Video Iris



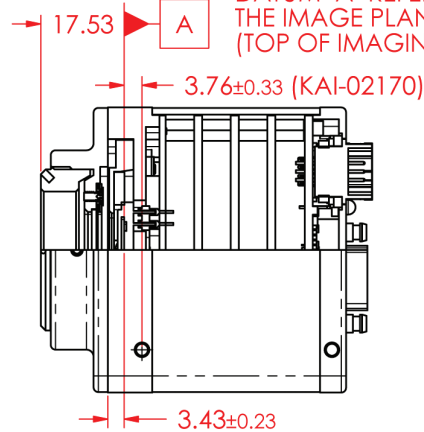
CENTER OF IMAGE IS  
NOMINALLY AT  
CENTER OF LENS



M2.0 X 0.40(2X)  
SCREWS



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



Quality Management System ISO 9001:2008 Registered  
Environmental Management System ISO 14001:2004 Registered  
DDTC Registered (Directorate of Defense Trade Controls, US Department of State)



bobcat-B1943,Rev1