BOBCAT 2.0 — **CCD**CAMERAS

SPECIFICATIONS

IMPERX™

CAMERAS
FRAME GRABBERS
IMAGING SOLUTIONS

B1942

2 MP HD

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.

Monochrome with Microlens
(Excludes lens & light source characteristics) — ICX-674

Color with Microlens
(Excludes lens & light source characteristics)

INTERFACES AVAILABLE:	Camera Link® Base or Medium
Resolution	1940 x 1460
Sensor	ICX-674 EXview HAD CCD II
Sensor Format	8.81mm (H) x 6.63mm (V) 10.97mm diagonal, 2/3"optical format
Pixel Size	4.54 µm
Frame Rate Standard Clock	40 MHz / 40 fps
Frame Rate Overclocked	50 MHz / 54 fps
Maximum Frame Rate	190 fps
Minimum S/N Ratio	60dB
Output Format	Mono CCD: 8, 10, 12
	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 1/32 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)
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
Supply Input Range	12VDC (10V - 15V), 1.5 A inrush
Power Consumption	CLM 5.5 W
Size – Width/Height	60mm (W) x 60mm (H) – Applies to all interfaces
Size – Length	CLM 53.1mm
Weight	CLM 360g
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
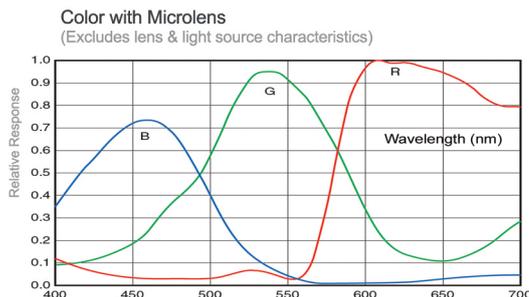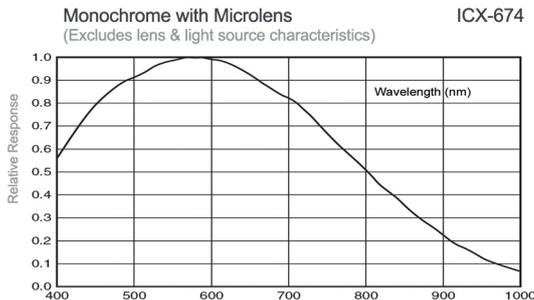
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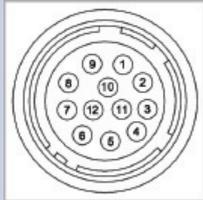
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Hirose Connectors

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)

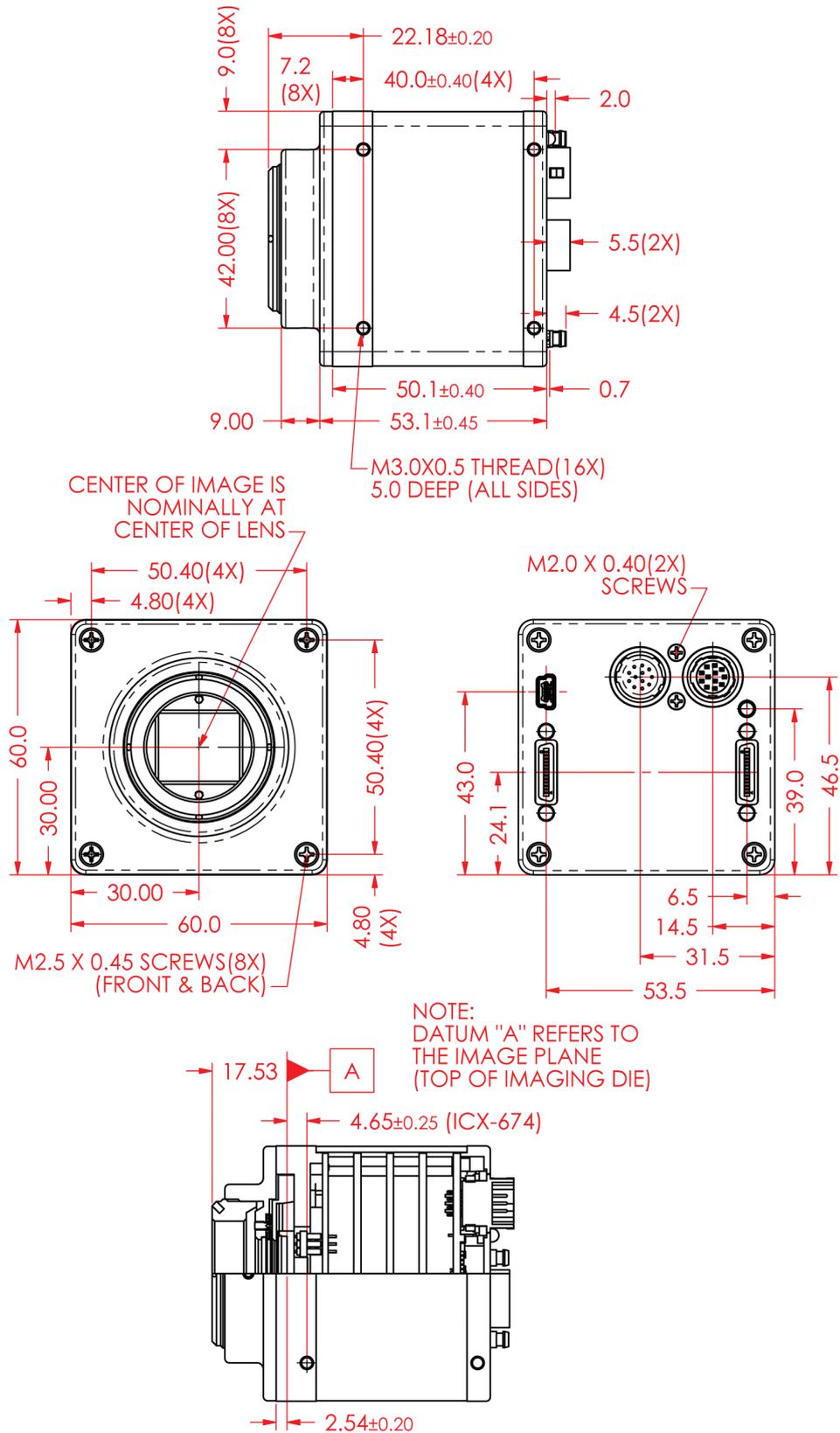## B1942 Ordering Information

Interfaces available
Camera Link® Medium (CLM)

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

M3.0X0.5 THREAD(16X) 5.0 DEEP (ALL SIDES)

M2.5 X 0.45 SCREWS(8X) (FRONT & BACK)

M2.0 X 0.40(2X) SCREWS

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

4.65±0.25 (ICX-674)

CAMERA Link

bobcat-B1942,Rev1