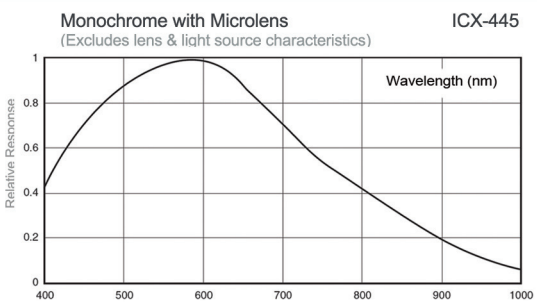
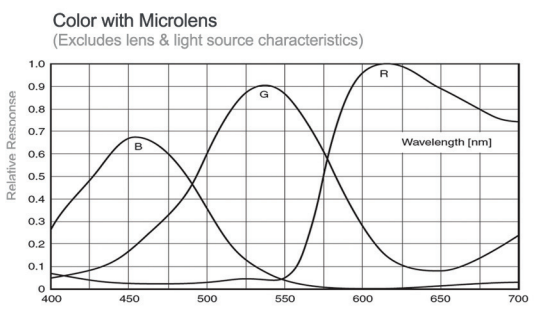
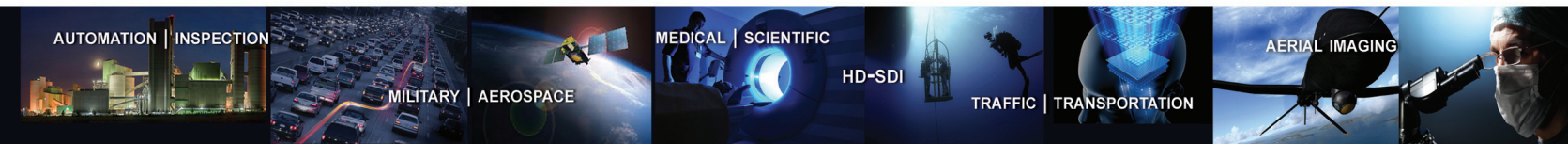
B1310

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.



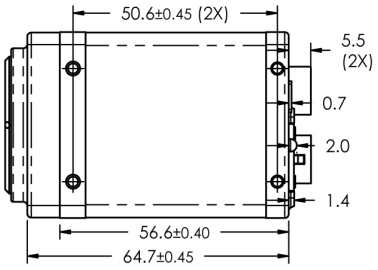


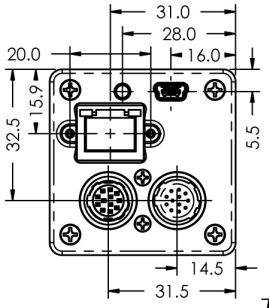
INTERFACES AVAILABLE:	Camera Link® Base (PoCL), GigE Vision, PoE, CoaXPress
Resolution	1280 x 960 (std.), 1296 x 966 (max.)
Sensor	ICX-445 EXview HAD CCD
Sensor Format	4.86mm (H) x 3.62mm (V) 6.0mm diagonal, 1/3" optical format
Pixel Size	3.75 µm
Frame Rate Standard Clock	40 MHz / 26 fps
Frame Rate Overclocked	64 MHz / 39 fps
Maximum Frame Rate	191 fps
Minimum S/N Ratio	60dB
Output Format	Mono CCD: 8, 10, 12, 14-bit (Single only) Color CCD: 8, 10, 12, RGB 24
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, 1/200,000 to 1/26 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), black level, vertical smear
Minimum Illumination	0.5 Lux, F/1.4
Lens Mount	C-Mount (Default), CS
Video Iris Control	Auto, programmable
Iris, Zoom Focus Control	Manual, user programmable
Supply Input Range	12VDC (10V - 15V), 1.5 A inrush
Power Consumption	CLB 2.0 W, GEV 3.4W, PoE 4.5W, CXP TBD
Size – Width/Height	46mm (W) x 46mm (H) – Applies to all interfaces
Size – Length	CLB 46.8mm (L), GEV 64.7mm (L), PoE 78.3mm (L), CXP 54.5mm (L)
Weight	CLB 160g, GEV 246g, PoE 348g, CXP 237g
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

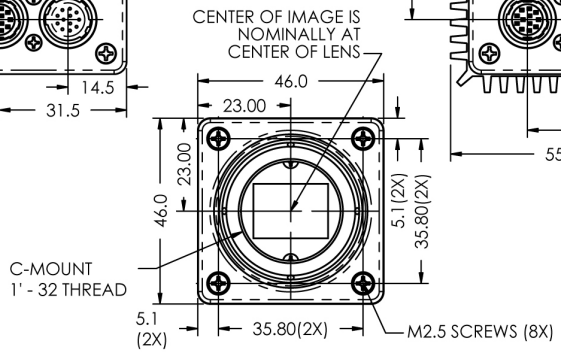


BOBCAT 2.0 B1310 Specifications

GigE Vision(Without PoE)

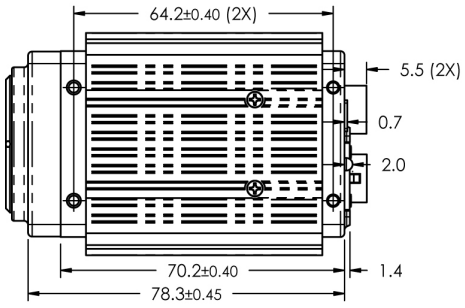


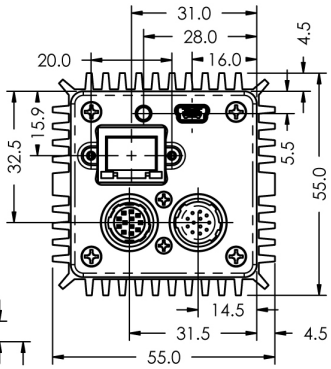


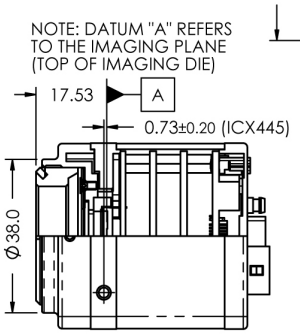


COMMON FRONT VIEW

GigE Vision(With PoE)

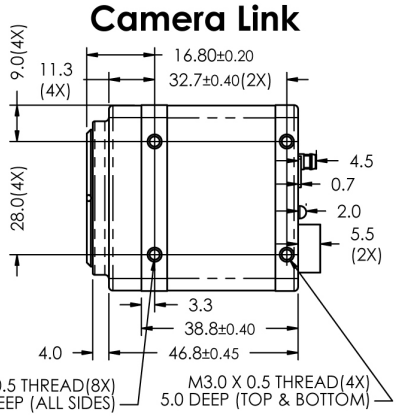


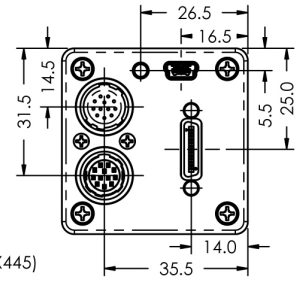




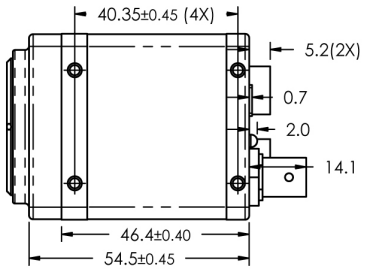
COMMON IMAGE PLANE DISTANCE

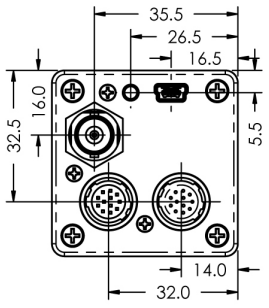
Camera Link





CoaXPress





Hirose Connectors

Power and I/O Interface

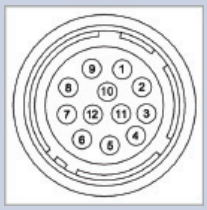
1	12V DC Return *	7	OUT1 Signal
2	+12V DC*	8	IN1 Signal
3	IRIS VCC	9	IN2 Signal
4	IRIS Video	10	IN1/2 Return
5	IRIS Return	11	Reserved
6	OUT1/2 Return	12	OUT2 Signal

*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)

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

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

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