

BOBCAT

INTELLIGENT CAMERA SERIES

ICL-B0610



IMPERX ICL-B0610 is an advanced progressive scan, fully programmable CCD camera designed for imaging applications that require high quality images, powerful features and flexibility. The camera is small, light weight, and built around the TRUESENSE Imaging KAI-0340 7.4 micron interline transfer CCD image sensor with a 1/3" optical format.

IMPERX ICL-B0610 provides an image resolution of 648 x 488 and delivers up to 138 frames per second at full resolution. The camera's 14 bit internal data image processing engine is based on an industrial grade high-speed, high-density FPGA, enabling a broad standard feature set and easy implementation of demanding custom imaging solutions. The thermally optimized, mechanical and electrical design plus the extended operating temperature range (-40°C to +85°C), and high MTBF of 660,000 hours @ 40C, make this Camera Link® camera a perfect fit for the most demanding industrial, medical, scientific and military applications. This camera is also available with CoaXPress or GigE Vision® interfaces.

Features

648/640 x 488/480

Mono or color 8, 10, 12, 14 or RGB 24 bit single output

Normal and over-clock operation (110/138 fps)

Base Camera Link

RS232 serial communication

Analog and digital gain and offset control

1x, 2x, 3x, 4x, 8x horizontal and vertical binning

Eight (8) independent horizontal and vertical AOIs

Programmable horizontal and vertical resolution

Programmable line time, frame time and speed

Programmable external trigger

Internal/External exposure control

Standard, fast, frame accumulation, double and asynchronous triggering modes

Automatic gain, exposure and iris control

Automatic white balance

Internal/External H and V sync input/output

Left/right digital bit shift

Test image with image superimposition

Built in pulse generator

Programmable I/O mapping

Dynamic transfer function correction

Dynamic black level correction

Defective and hot pixel correction (static/dynamic)

Temperature monitor

Field upgradeable firmware

Customer defined Look Up Table (LUT)

Reverse image (H mirror) (optional)

MTBF of 660,000 hours @ 40°C

APPLICATIONS

Aerial Mapping

Aerial Robots: Military, Police

Aerospace

Agriculture

Automation

Automotive

Biometrics

Broadcasting

Printed Circuit Board (PCB)

Electronics

Energy/Solar/Wind Power

Flat Panel Inspection

Food/Beverage

Homeland Security

Law Enforcement

Intelligent Traffic Systems (ITS)

Medical Devices/Imaging

Metrology

Microscopy

Military/Defense

Pharmaceuticals

Particle Image Velocimetry (PIV)

Radiology

Robotics

Scientific Apps

Surveillance

Semiconductors

Transportation

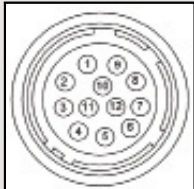
Textile/Apparel

IMPERX

BOBCAT ICL-B0610 Specifications

Maximum Resolution	648 x 488	Data Corrections	DPC, HPC, LUT
Sensor Type	KAI-0340, CCD, 1/3" optical format	Hardware Trigger	LVTTL or TTL via IN1/IN2, level, edge, pulse-width, programmable
Pixel Size	7.40 µm	Software Trigger	Software internal, level, edge, pulse-width, programmable
Frame Rate	110/138 fps (normal/overclock)	Trigger Modes	Programmable, standard, double exposure, fast, frame accumulation, asynchronous
Max Frame Rate	2000 FPS	Min. Illumination	1 Lux, F/1.4
Minimum S/N ratio	60 db	Supply Input Range	12 VDC, (10V min, 15V max)
Video Output	Base Camera Link, mini CL interface, PoCL	Power Consumption	2.8 W, 240 mA steady, 1.5 A inrush
Output Format	Mono or color 8, 10, 12, 14 or RGB 24 bit single output	Size (W x H x L)	46 x 46 x 39mm
Binning H & V	x1, x2, x3, x4, x8	Weight	137g
Area of Interest	8 independent AOIs, 2 x 2 to 648 x 488	Lens Mount	C-Mount
Shutter Speed	1/500,000 to 1/110 sec (nom)	Vibration, Shock	10G (20 - 200) Hz XYZ, 70G
Long Integration	Up to 16 sec	Environmental	Operation (-40° to +85°)C
Gamma Correction	G=1.0, G= 0.45, user upgradable LUT	Humidity	Storage (-40° to +90°)C
Video Gain	36 dB range, 1024 steps, 0.0351 dB per step	MTBF	10% to 90% non-condensing
Exposure and AGC	Manual, Auto, Programmable	Regulatory	660,000 hours @ 40°C
Iris Control	Auto, Programmable		FCC 15 part A, CE, RoHS
Strobe Output	Programmable position and duration		
Image Overlay	Yes, Programmable		
RS232 Interface	Yes		

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)

Order Options:

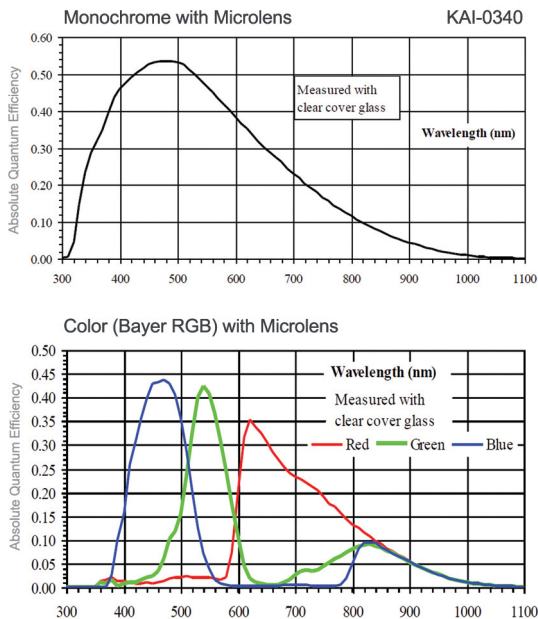
- ICL-B0610M-TCO Monochrome Camera Link Output
ICL-B0610C-TCO Color Camera Link Output

For specific details and ordering information, consult the camera user's manual or contact IMPERX at sales@imperx.com.

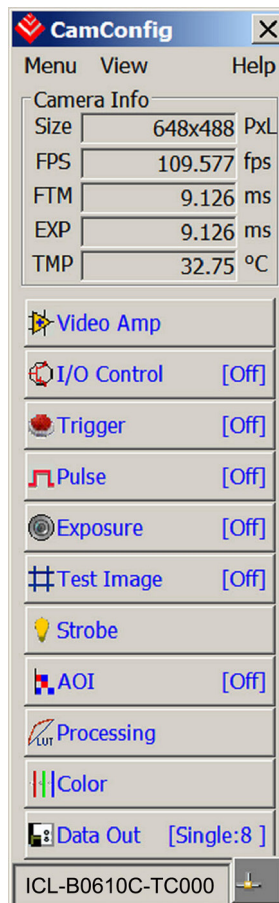
Accessories:

- PS12V04: Power Supply (sold separately)

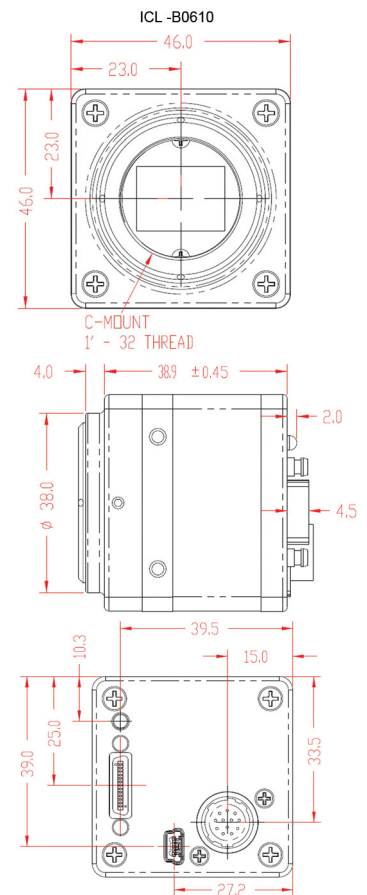
Spectral Response



Software/Drivers/Interface



Mechanical Dimensions



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