

BOBCAT

INTELLIGENT CAMERA SERIES

ICL-B1310



The ICL-B1310 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 SONY's ICX 445 3.75 micron Interline Transfer CCD image sensor with a 1/3" optical format.

The ICL-B1310 provides an image resolution of 1296 x 966 and delivers up to 39 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 hrs @ 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 the following interfaces: CoaXPress and GigE Vision.

Features

- 1296/1280 x 966/960
- Mono or color 8, 10, 12, 14 or RGB 24 bit single output
- Normal and over-clock operation (26/39 fps)
- Base CameraLink
- 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 hrs. @ 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



BOBCAT ICL-B1310 Specifications

Maximum Resolution	1296 x 966
Sensor Type	1/3" CCD ICX 445
Pixel Size	3.75 µm
Frame Rate	26/39 fps (normal/overclock)
Max Frame Rate	170 FPS
Minimum S/N ratio	60 db
Video Output	Base Camera Link, mini CL interface, PoCL
Output Format	Mono or color 8, 10, 12, 14 or RGB 24 bit single outpt
Binning H & V	x1, x2, x3, x4, x8
Area of Interest	8 independent AOIs, 2 x 2 to 1296 x 966
Shutter Speed	1/200,000 to 1/26 sec (nom)
Long Integration	Up to 16 sec
Gamma Correction	G=1.0, G= 0.45, user upgradable LUT
Video Gain	36 dB range, 1024 steps, 0.0351 dB per step
Exposure and AGC	Manual, Auto, Programmable
Iris Control	Auto, Programmable
Strobe Output	Programmable position and duration
Image Overlay	Yes, Programmable
RS232 Interface	Yes

Data Corrections
Hardware Trigger

Software Trigger

Trigger Modes

Min. Illumination
Supply Input Range

Power Consumption
Size (W x H x L)

Weight

Lens Mount

Vibration, Shock

Environmental

Humidity

MTBF

Regulatory

DPC, HPC, LUT

LVTTTL or TTL via IN1/IN2, level, edge, pulse-width, programmable

Software internal, level, edge, pulse-width, programmable

Programmable, standard, double exposure, fast, frame accumulation, asynchronous

.2 Lux, F/1.4

12 VDC, (10V min, 15V max)

1.8 W, 150 mA steady, 1.5 A inrush

46 x 46 x 39mm

136g

C mount

10G (20 - 200) Hz XYZ, 70G

Operation (-40° to +85°)C

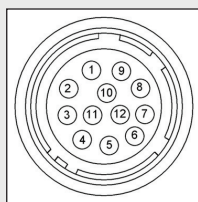
Storage (-40° to +90°)C

10% to 90% non-condensing

660,000 hrs. @ 40°C

FCC 15 part A, CE, RoHS

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:

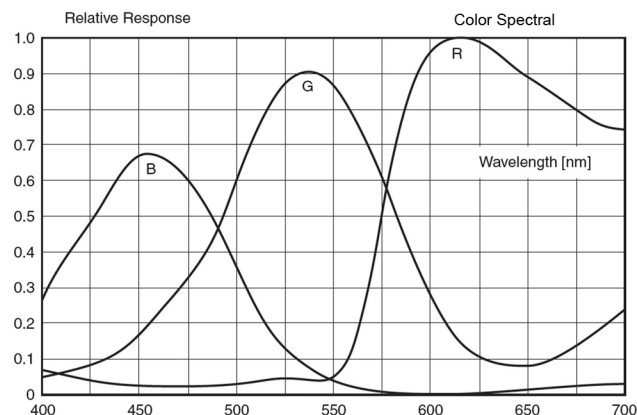
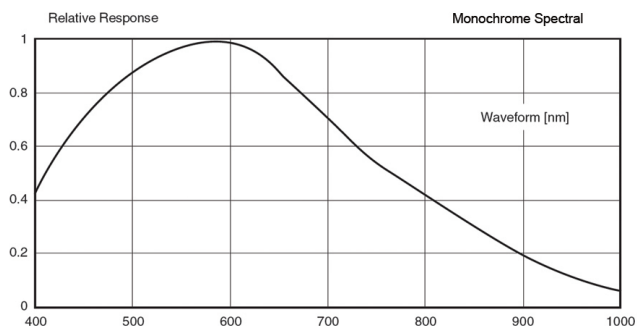
ICL-B1310M-SCO Monochrome CameraLink Output
ICL-B1310C-SCO Color CameraLink Output

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

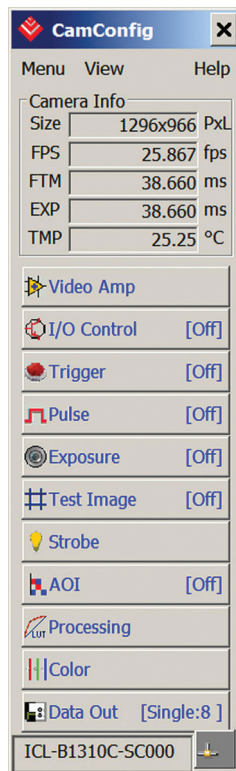
Accessories:

PS12V04: Power Supply (sold separately)

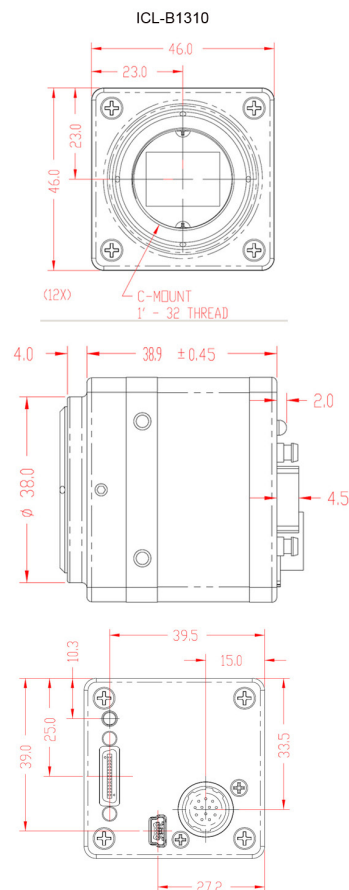
Spectral Response



Software/Drivers/Interface



Mechanical Dimensions



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