BOBCAT
INTELLIGENT CAMERA SERIES

ICL-B3340

IMPERX ICL-B3340 is an advanced progressive scan, fully programmable CCD camera designed for imaging applications that require high speed, brilliant images, powerful features and flexibility. The camera is small, light weight, and built around Kodak´s KAI-08050, 4-tap, 5.5 micron Interline Transfer CCD image sensor with a 1.3" optical format.

The ICL-B3340 provides an image resolution of 3312 x 2488 and delivers up to 21 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.

Features

- 3312 x 2488
- Mono, color, or TRUESENSE 8, 10, 12 bit data
- Normal and over-clock operation (17/21fps)
- Base or Medium Camera Link
- RS232 serial communication
- Analog and digital gain and offset control
- 1x, 2x, 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)
- Two dimensional Flat Field Correction
- Reverse image (H mirror)
- MTBF of 660,000 hours @ 40°C

APPLICATIONS

Aerial Mapping	Automotive	Flat Panel Inspection	Metrology	Robotics
Aerial Robots: Military, Police	Biometrics	Food/Beverage	Microscopy	Scientific Apps
Aerospace	Broadcasting	Homeland Security	Military/Defense	Surveillance
Agriculture	Printed Circuit Board (PCB)	Law Enforcement	Pharmaceuticals	Semiconductors
Automation	Electronics	Intelligent Traffic Systems (ITS)	Particle Image Velocimetry (PIV)	Transportation
	Energy/Solar/Wind Power	Medical Devices/Imaging	Radiology	Textile/Apparel

IMPERX

Maximum Resolution	3312 x 2488
Sensor Type	KAI-08050; 1.3", 4:3 optical format
Pixel Size	5.50 µm
Frame Rate	17/21 fps (normal/overclock)
Max Frame Rate	21 fps
Minimum S/N ratio	60 db
Video Output	Base or Medium Camera Link, mini CL interface
Output Format	Mono, color, or TRUESENSE 8, 10, 12 bit quad
Binning H & V	1x, 2x, 4x, 8x
Area of Interest	8 independent AOIs, 2 x 2 to 3312 x 2488
Shutter Speed	1/125,000 to 1/17 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	DPC, HPC, LUT, FFC
Hardware Trigger	LVTTL or TTL via IN1/IN2, level, edge, pulse-width, programmable
Software Trigger	Software internal, level, edge, pulse-width, programmable
Trigger Modes	Programmable, standard, double exposure, fast, frame accumulation, asynchronous
Min. Illumination	1 Lux, F/1.4
Supply Input Range	12 VDC, (10V min, 33V max)
Power Consumption	7.2 W, 650 mA steady, 1.5 A inrush
Size (W x H x L)	60 x 60 x 53mm
Weight	360g
Lens Mount	F mount
Vibration, Shock	10G (20 - 200) Hz XYZ, 70G
Environmental	Operation (-40° to +85°)C Storage (-40° to +90°)C
Humidity	10% to 90% non-condensing
MTBF	660,000 hours @ 40°C
Regulatory	FCC 15 part A, CE, RoHS

Power and I/O Interface:
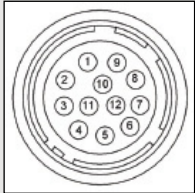
#	Signal	#	Signal
1	12V DC Return	7	OUT1 Signal
2	+12V DC	8	IN1 Signal
3	IRIS VCC	9	IN2 Signal
4	IRIS Video	10	IN1/2 Return
5	IRIS Return	11	Reserved
6	OUT1/2 Return	12	OUT2 Signal

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

Order Options:

ICL-B3340M-KFO	Monochrome Camera Link Output
ICL-B3340C-KFO	Color Camera Link Output
ICL-B3340T-KFO	TRUESENSE Camera Link Output

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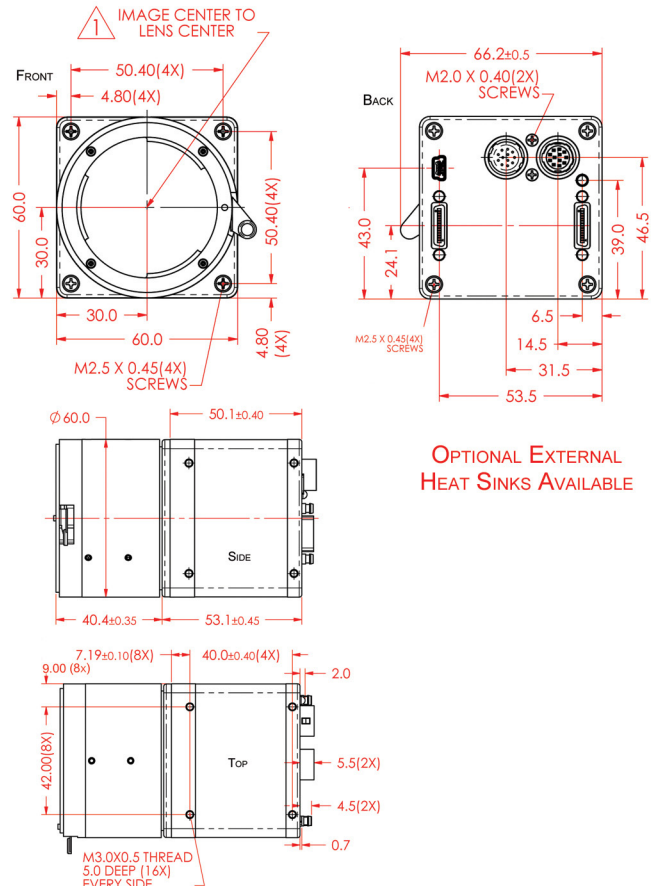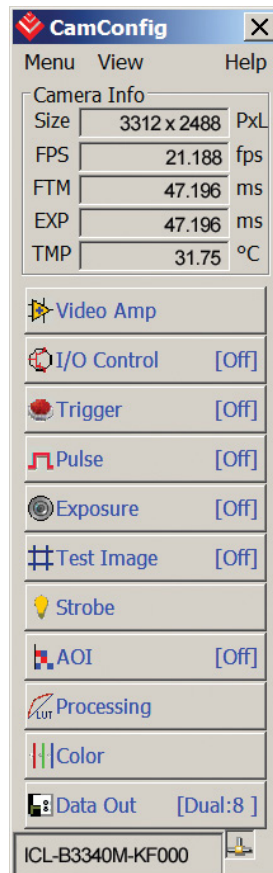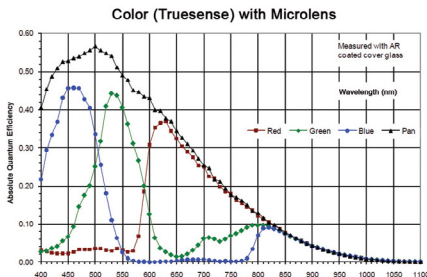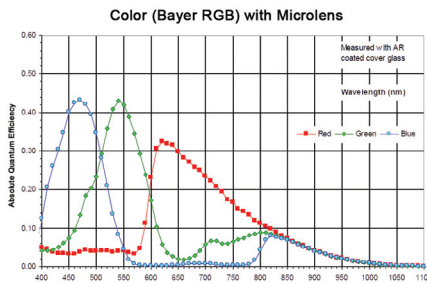
Accessories:

PS12V04: Power Supply (sold separately)

Spectral Response

Monochrome with Microlens

Color (Bayer RGB) with Microlens

Color (Truesense) with Microlens

Software/Drivers/Interface

Mechanical Dimensions
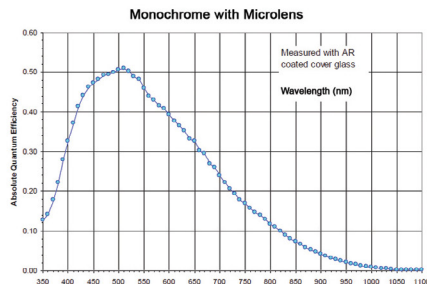
OPTIONAL EXTERNAL HEAT SINKS AVAILABLE