

BOBCAT

INTELLIGENT CAMERA SERIES

IGV-B1310



IMPERX IGV-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 3.75micron interline transfer CCD image sensor with a 1/3" optical format.

IMPERX IGV-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 hours @ 40C, make this GigE Vision® camera a perfect fit for the most demanding industrial, medical, scientific and military applications. This camera is also available with CoaXPress and Camera Link® interfaces.

Features

- 1296/1280 x 966/960
- Mono or color 8, 10, 12, 16 or RGB 24 bit single output
- Normal and over-clock operation (26/39 fps)
- 10/100/1000 Gigabit Ethernet LAN (RJ-45)
- 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

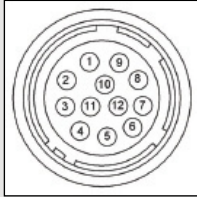


BOBCAT IGV-B1310 Specifications

Maximum Resolution	1296 x 966
Sensor Type	1/3" CCD ICX 445
Pixel Size	3.75 μ m
Frame Rate	26/39 fps (normal/overclock)
Max Frame Rate	170 FPS
Minimum S/N ratio	60 db
Video Output	RJ45 CAT5e, CAT6
Output Format	Mono or color 8, 10, 12, 16 or RGB 24 bit single output
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

Data Corrections	DPC, HPC, LUT
Hardware Trigger	LVTTTL 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	.2 Lux, F/1.4
Supply Input Range	12 VDC, (10 V – 15 V)
Power Consumption	3.4 W, 352 mA steady (Typ), 1.5 A inrush
Size (W x H x L)	46 x 46 x 63mm
Weight	243g
Lens Mount	C-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:



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:

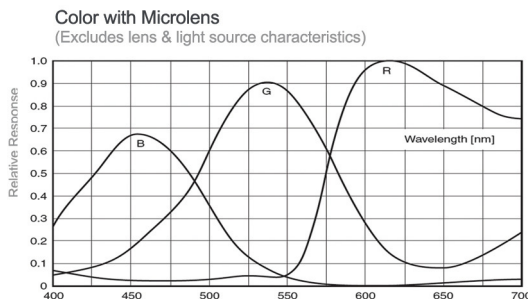
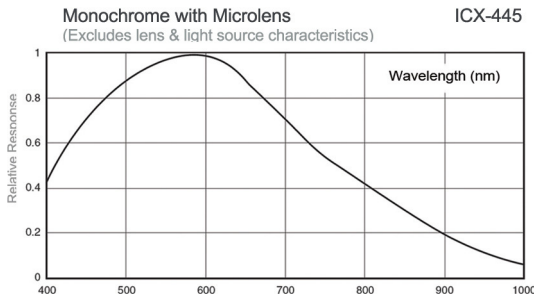
IGV-B1310M-SCO	Monochrome GigE Vision Output
IGV-B1310C-SCO	Color GigE Vision Output

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

GigE Vision Protocol: 10/100/1000 Mb/s, 802.3, Ethernet V2.0, IPv4, IGMPv.2, UDP and ICMP, and GenI-Cam

eBUS Drivers: Windows XP 32b, XP 64b, Vista 32b, Vista 64b, 7 32b, 7 64b. Linux: SuSE v10, RedHat 5 (Kernel 2.6)

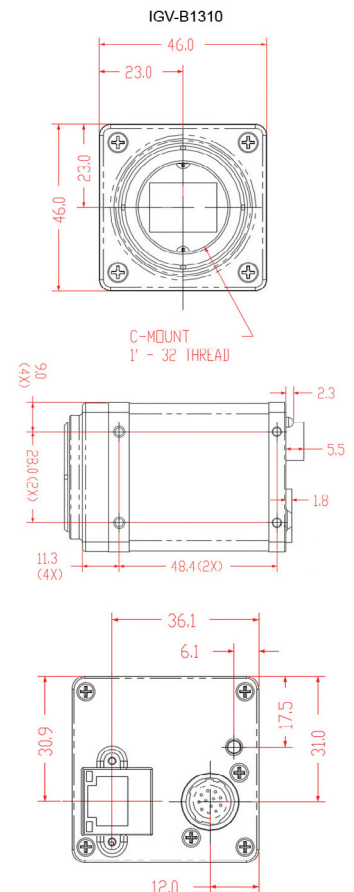
Software: Pleora GEVPlayer, IM-PERX GEV Player (includes Cam-Config GUI), Bobcat GEV Download Utility, Net Command

SDK: PureGEV GigE Vision SDK for Windows (Microsoft Visual C++, COM, .NET, C#, VB.NET, Borland C++Builder), PureGEV, GigE Vision SDK for Linux

Compatible with: Labview, Halcon, MIL, Common Vision BLOX, StreamPix, ActiveGigE, and others

Multicast capable

Mechanical Dimensions



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