

BOBCAT

INTELLIGENT CAMERA SERIES

IGV-B1921



The IGV-B1921 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 Kodak's KAI-02150 5.5 micron Interline Transfer CCD image sensor with a 2/3" optical format.

The IGV-B1921 provides an image resolution of 1952 x 1112 and delivers up to 40 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 GigE Vision 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 Camera Link®.

Features

1952/1920 x 1112/1080
 Mono, color, or TRUESENSE 8, 10, 12 bit single or dual output (16 bit is single only)
 Normal and over-clock operation (32/40 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)
 Two dimensional Flat Field Correction
 Reverse image (H mirror)
 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



TM

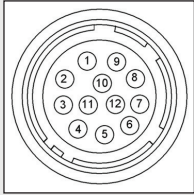
BOBCAT IGV-B1921 Specifications

Maximum Resolution	1952 x 1112
Sensor Type	2/3" CCD KAI-02150
Pixel Size	5.50 μm
Frame Rate	32/40 fps (normal/overclock)
Max Frame Rate	282 FPS
Minimum S/N ratio	60 db
Video Output	RJ45 CAT5e, CAT6
Output Format	Mono, color, or TRUESENSE 8, 10, 12 bit single or dual output (16 bit is single only)
Binning H & V	x1, x2, x3, x4, x8
Area of Interest	8 independent AOIs, 2 x 2 to 1952 x 1112
Shutter Speed	1/500000 to 1/32 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, FFC
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	1 Lux, F/1.4
Supply Input Range	12 VDC, (10 V – 15 V)
Power Consumption	4.4 W, 370 mA steady (Typ), 1.5 A inrush
Size (W x H x L)	46 x 46 x 74.5mm
Weight	229g
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 hrs. @ 40°C
Regulatory	FCC 15 part A, CE, RoHS

DPC, HPC, LUT, FFC	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
1 Lux, F/1.4	12 VDC, (10 V – 15 V)
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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:

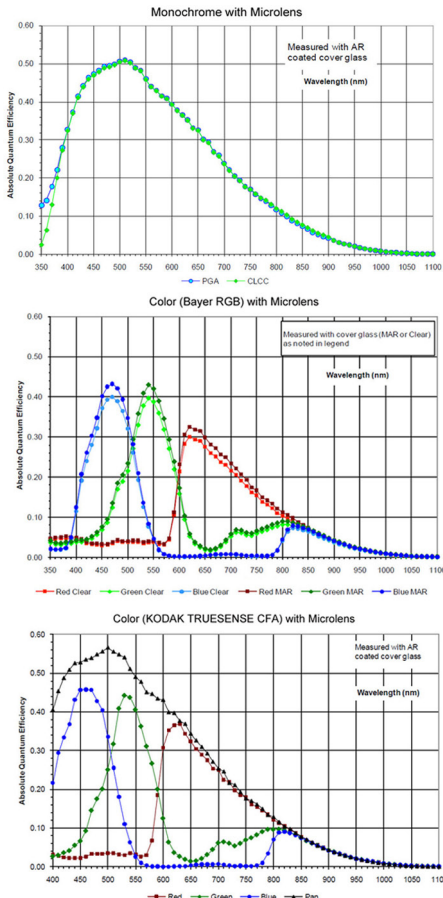
IGV-B1921M-KCO	Monochrome GigE Vision Output
IGV-B1921C-KCO	Color GigE Vision Output
IGV-B1921T-KCO	TRUESENSE GigE Vision Output

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)

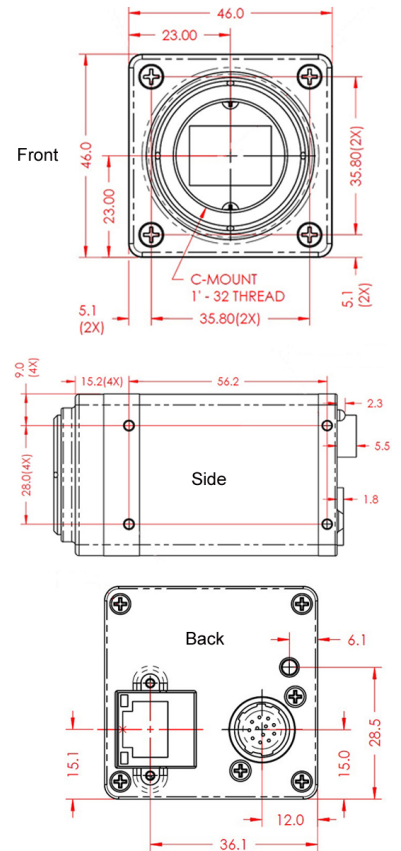
Software: Pleora GEVPlayer, IMPERX GEV Player (includes Cam-Config GUI), Bobcat GEV Download Utility, Net Command

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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