

BOBCAT

INTELLIGENT CAMERA SERIES

IGV-B6620



The IGV-B6620 is an advanced high-speed progressive scan, fully programmable CCD camera designed for imaging applications that require high frame rates, high quality images, and powerful features and flexibility. The camera has a small size, light weight, and is built around Kodak's KAI-29050 5.5micron Interline transfer CCD image sensor with a 43.3 mm image diagonal. IGV-B6620 features CameraLink output. IGV-B6620 features GigE vision output.

The IGV-B6620 provides an image resolution of 6600 x 4400 and delivers up to 2.4 frames per second at full resolution. The camera image processing engine is based on a high-speed, high-density FPGA, featuring programmable resolution, speed, 8 independent AOIs, binning, triggering, exposure control, line and frame time, I/O mapping, external/internal sync, AGC, AEC, Auto Iris, transfer function correction, user LUT, static and Dynamic Defective and Hot Pixel Correction (DPC, HPC), Flat Field Correction (FFC) and Horizontal Image Reversal. MTBF of 660,000 hrs. @ 40°C.

Features

- 6600/6576 x 4400/4384
- Mono, color and Truesense - 8/10/12/14-bit data
- Normal and over-clock operation (1.8/2.5 fps)
- Base CameraLink
- Two dimensional Flat Field Correction
- 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:
 - 3 triggering sources
 - 5 triggering modes
- Internal/External exposure control

- 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
 - 4 programmable inputs
 - 3 programmable outputs
- 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)
- Flat field correction
- Reverse image (H. mirror)

Applications

- Industrial
- Medical
- Microscopy
- Military
- Scientific
- Surveillance

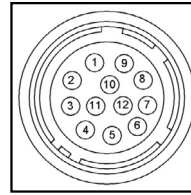


BOBCAT IGV-B6620 Specifications

Maximum Resolution	6600 x 4400
Sensor Type	43.3 mm diagonal CCD KAI-29050
Pixel Size	5.50 μ m
Frame Rate	1.8/2.4 fps (normal/overclock)
Max Frame Rate	13 FPS
Minimum S/N ratio	60 db
Video Output	RJ45 CAT5e, CAT6
Output Format	8, 10, 12 bit dual, 8, 10, 12, 14 bit single
Binning H & V	x1, x2, x3, x4, x8
Area of Interest	8 independent AOIs, 2 x 2 to 6600 x 4400
Shutter Speed	1/125,000 to 1/2.5 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
Hardware Trigger	LVTTTL or TTL via IN1/IN2, optically isolated, level, edge, pulse-width, programmable
Software Trigger	Frame-grabber via CC1/CC2, level, edge, pulse-width, programmable
Trigger Modes	Programmable, standard, double exposure, fast, frame accumulation, asynchronous
Strobe Output	Programmable position and duration
Image Overlay	Yes, Programmable
RS232 Interface	Yes
Data Corrections	DPC, HPC, LUT, FFC
Min. Illumination	1 Lux, F/1.4
Power Input Range	12 VDC, (10 V – 15 V)
Power Consumption	3.6 W (12V)
Size (W x H x L), Weight	60 x 60 x 45mm, 320g
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
MBTF	MTBF of 660,000 hrs. @ 40°C

Power and I/O Interface

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



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

Power Requirements

12V DC, (10V min, 15V max)
300 mA steady, 1.5 A inrush
3.6 W

Accessories

PS12V04: Power Supply (sold separately)

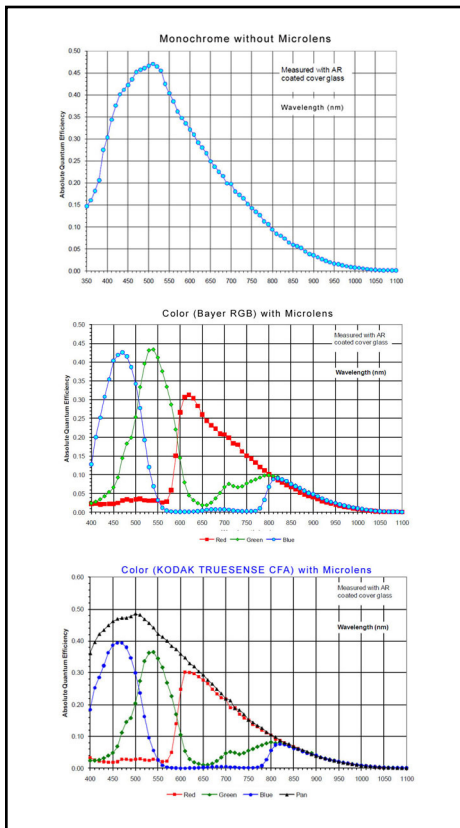
Ordering Options

ICL- B6620M-KFO	Monochrome CameraLink Output
ICL- B6620C KFO	Color CameraLink Output
IGV- B6620M-KFO	Monochrome GigE Output
IGV- B6620C-KFO	Color GigE Output

Spectral Response

Software/Drivers/Interface

Mechanical Dimensions



GigE Vision Protocol: 10/100/1000 Mb/s, 802.3, Ethernet V2.0, IPv4, IG-MPV.2, UDP and ICMP, and GenICam

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

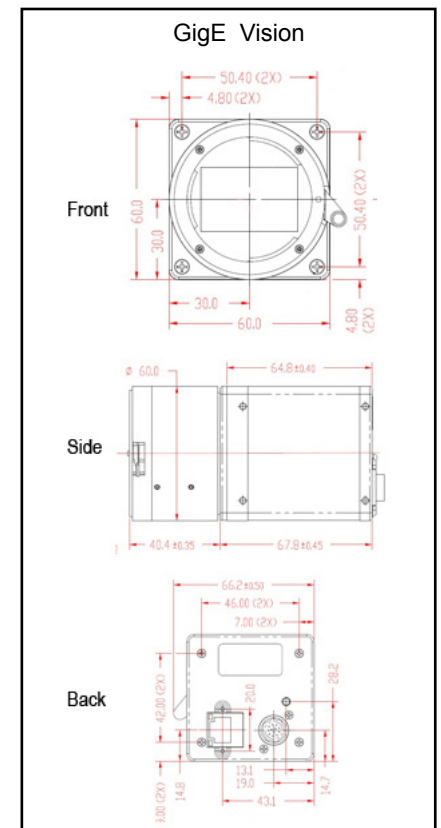
Software: GEVPlayer, Bobcat GEV Player, Bobcat GEV Download Utility, Net Command

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

Support for: Labview, ImagePro, Halcon, MIL, eVision, CommonVision, StreamPix, CoreView, Streams5, Absoft Active GigE, and others

Multicast capable

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



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