IMPERX IGV-B6620 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 the TRUESENSE Imaging KAI-29050 5.5 micron interline transfer CCD image sensor with a 35mm image diagonal format.

IMPERX IGV-B6620 provides an image resolution of 6600 x 4400 and delivers up to 2.5 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**
- Mono, color, or TRUESENSE Sparse CFA 8, 10, 12 bit single or dual output (16 bit is single only)
- Normal and over-clock operation (1.8/2.5 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 hours @ 40°C.
BOBCAT IGV-B6620 Specifications

Maximum Resolution 6600 x 4400
Sensor Type 35mm CCD KAI-29050
Pixel Size 5.50 µm
Frame Rate 1.8/2.5 fps (normal/overclock)
Max Frame Rate 13 FPS
Minimum S/N ratio 60 db
Video Output RJ45 CAT5e, CAT6
Output Format Mono, color, or TRUESENSE Sparse CFA 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 6600 x 4400
Shutter Speed 1/125,000 to 1/2.5 sec (nom)
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

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

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

Software/Drivers/Interface

Spectral Response

Color (Bayer RGB) with Microlens

Color (TRUESENSE Sparse CFA) with Microlens

Software
- Pleora GEVPlayer, IMPERX GEV Player(includes Cam-Config GUI), Bobcat GEV Download Utility, Net Command
- Pupil, Labview, Halcon, MIL, Common Vision BLOX, StreamPix, ActiveGigE, and others

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

Order Options:
- IGV-B6620M-TFO Monochrome GigE Vision Output
- IGV-B6620C-TFO Color GigE Vision Output
- IGV-B6620T-TFO TRUESENSE Sparse CFA 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)

Mechanical Dimensions

- Front
- Side
- Back

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

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