SaiS

BOBCAT
INTELLIGENT CAMERA SERIES

IGV-B1610

The **IGV-B1610** 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 SONY'S ICX-274 Interline transfer CCD image sensor with a 1/1.8" optical format. IGV-B1610 is available with Ethernet output (GigEVision compliant).
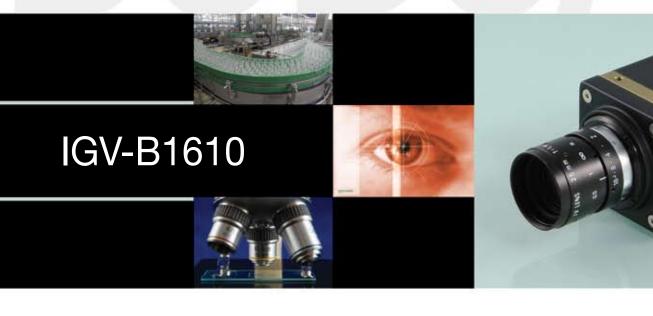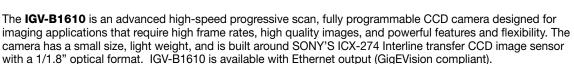
The B1610 provides an image resolution of 1628 x 1236 and delivers 25 frames per second at full resolution. The camera image processing engine is based on a high-speed, high-density FPGA, featuring programmable resolution, speed, 8 independent AOIs, binning, triggering, exposure control, line and frame time, I/O mapping, external/internal sync, AGC, transfer function correction, user LUT, and Defective and Hot Pixel Correction (DPC, HPC).

Features

1620/1628 x1220/1236
Mono and color - 8/10/12/14-bit data
Normal and over-clock operation (17/25 fps)
Ethernet output, GigEVision and Gen<I>Cam support
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
Automatic gain, exposure and iris control

Internal/External exposure control
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
Temperature monitor
Field upgradeable firmware, LUT, DPC, HPC

Applications

Industrial
Medical
Microscopy
Military
Scientific
Surveillance

Specifications for Bobcat IGV-B1610

Maximum Resolution	1628 x 1236
Sensor Type	1/1.8" CCD ICX274
Pixel Size	4.40 um
Frame Rate	17/25 fps
Max Frame Rate	210 fps
Minimum S/N ratio	60 db
Video output	RJ45 CAT 5e, CAT6
Output format	mono 8/10/12/16, mono 10/12 packed, bayer 8/10/12
Binning H & V	x1, x2, x3, x4, x8
Area of Interest	8 independent AOIs, 2 x 2 to 1628 x 1236
Shutter Speed	1/200000 to 1/16
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	LVTTL or TTL via IN1/IN2, optically isolated, level, edge, pulse-width, programmable
Software trigger	Software, internal, 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	Yes
Min. illumination	0.5 Lux, F/1.4
Power input range	12 VDC, (10 V – 15 V)
Power consumption	4.6 W
Size (W x H x L), Weight	45 x 45 x 63mm, 243g
Lens Mount	C mount
Vibration, Shock	10G (20 - 200)Hz XYZ, 70G
Environmental	Operation (-30° to 60°) C, storage (-40° to 70°) C
Humidity	10% to 90% non-condensing

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	Spare
6	OUT1/2 Return	12	OUT2 Signal

Power Requirements

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

Accessories

PS12V04: Power Supply (sold separately)
PS12V05 Power Supply with Auto Iris (sold separately)

Ordering Information

Ordering: **IGV-B1610M-SCO**

Camera Family
B-Bobcat Family

Sensor Type
M-Monochrome
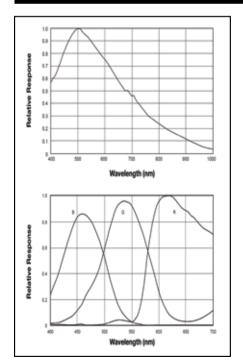C-Color

Lens Mount
C-"C" mount (default)
F-"F" Mount

CCD
S-Sony

Spectral Response

Software/Drivers/Interface

GigE Protocol: 10/100/1000 Mb/s, 802.3, Ethernet v2.0, IPv4, IGMPv.2, UPD and ICMP

Drivers for: Windows 2000/XP/XP-64/Vista32/ Vista64/Win 7-32/Win 7-64/SuSE 10/RedHat 5/ and others

Software: GigEVision Player

SDK: C++GigEVision Software Developers Kit

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

Multicast capable

Made in USA

PoCL

Mechanical Dimensions

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