Ladybug®2
Spherical digital video camera

POINT GREY
RESEARCH

- **30 FPS spherical imaging**
- **4.7 megapixels using six 1024x768 CCDs**
- **Embedded JPEG compression**
- **800Mb/s IEEE-1394b interface**
- **Reliable and cost effective**

Specifications

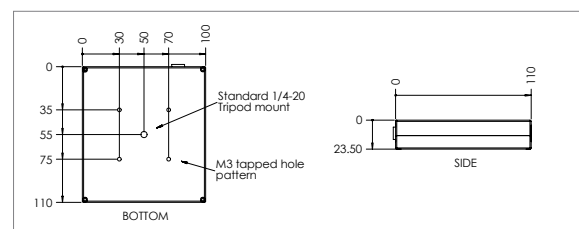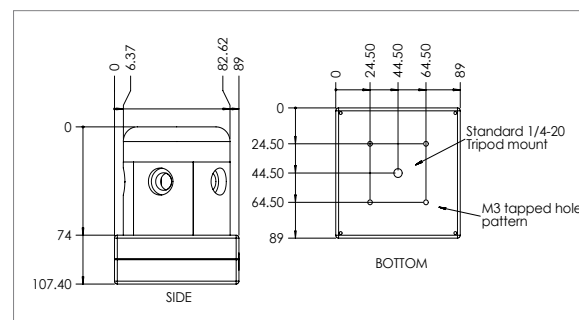|		
Overview	360-degree spherical IEEE-1394b digital video camera system	
Imaging Sensor	Six (6) ICX204AQ 1/3'' 1024x768 progressive scan CCDs	
A/D Converter	Six (6) Analog Devices 12-bit analog-to-digital converters	
Data Output	15 FPS uncompressed 8bpp Bayer-tiled data 30 FPS JPEG compressed 8bpp Bayer-tiled data	
Interfaces	Head Unit	1.2Gbps optical link to Compressor
	Compressor	800Mbps IEEE-1394b link for data transfer to PC
Frame Rates	30, 15, 7.5, 3.75 FPS	
Optics	Six (6) 2.5mm focal length high quality micro lenses Cameras in the horizontal ring are in portrait orientation	
Voltage Requirements	8-32V	
Power Consumption	11.2W (Head Unit: 6.5W, Compressor: 4.7W)	
Gain	Automatic/Manual Gain modes, 0 to 26dB	
Shutter	Automatic/Manual Shutter modes, 0.06ms to 33.3ms at 30 FPS	
Signal To Noise Ratio	TBD	
Dimensions	Head Unit	90mm x 90mm x 110mm
	Compressor	39mm x 43mm x 10mm
Mass	Head Unit	920g
	Compressor	270g
Camera Specification	IIDC 1394-based Digital Camera Specification v1.31	
Emissions Compliance	FCC and CE class A device	
Operating Temperature	Commercial grade electronics rated from 0° to 45°C	
Storage Temperature	-30° to 60°C	

Ladybug2 Camera System Components

- Ladybug2 camera Head and Compressor units
- IEEE-1394b OHCI PCI Host Adapter 3 port 800 Mb/s card
- 4.5 meter, 9-pin to 9-pin, IEEE-1394b cable
- 4.5 meter, 6-pin to 9-pin, IEEE-1394a-to-1394b cable
- 4.5 meter, 4-pin to 9-pin, IEEE-1394a-to-1394b cable
- 10 meter 62.5/125µm fiber optic link cable
- 10 meter, 3-pin power link cable
- 24V 2.5A power supply with standard connector and wall wart
- Ladybug SDK, including C/C++ API and device drivers
- Getting Started Manual

Recommended System Configuration

- Intel® Pentium 4 2.0GHZ
- Windows® XP Service Pack 1
- 128MB video card with OpenGL support
- 64-bit PCI or PCI-X slot for IEEE-1394b card
- Microsoft® Visual C++ 6.0 for sample code
- Multiple disk array to store full rate uncompressed streaming image data

Dimensions

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