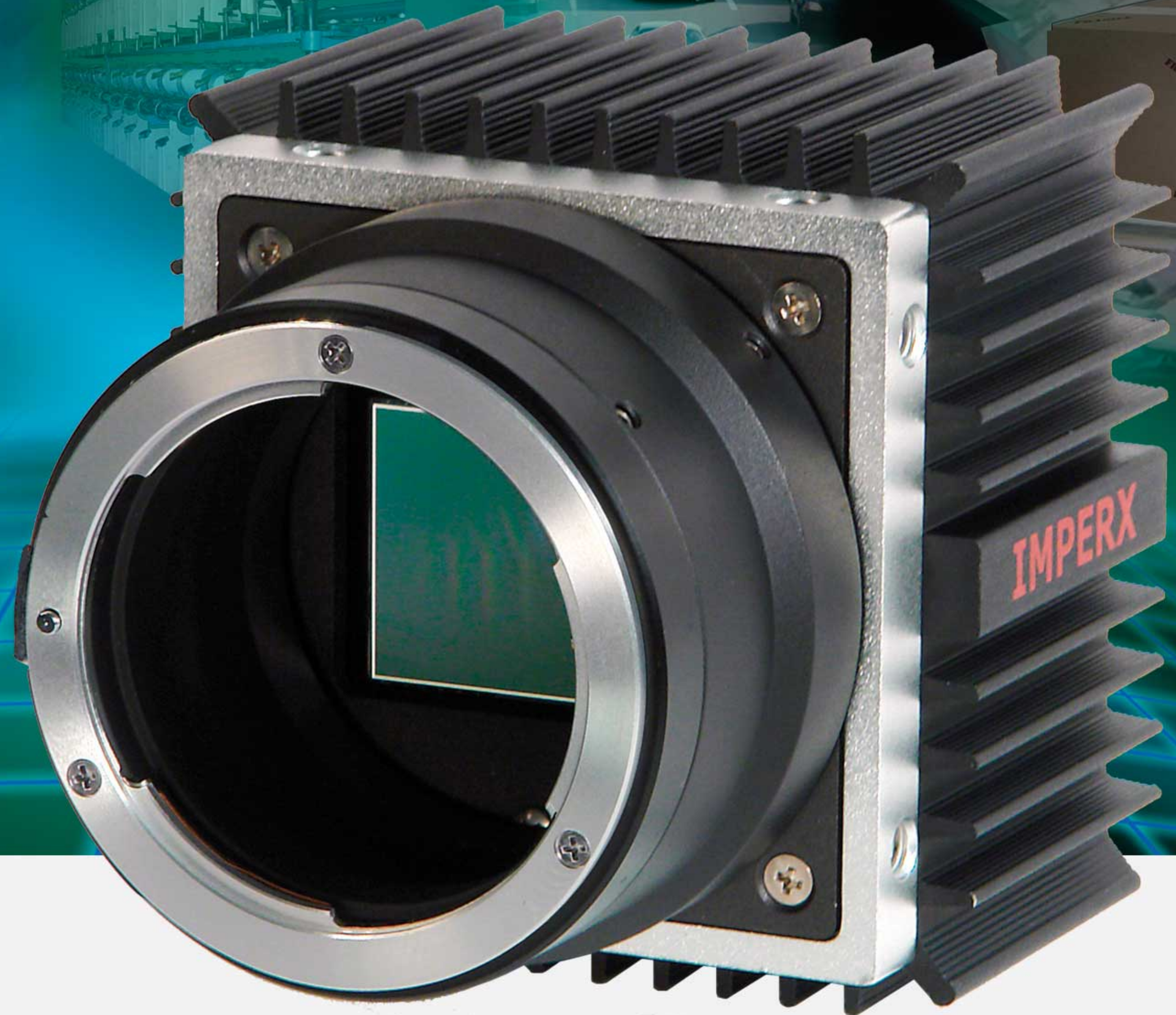


16 MEGA-PIXEL 8/10/12 BIT, 3 FPS, FIELD UPGRADEABLE, PROGRAMMABLE
DIGITAL CAMERA, GigE OUTPUT

IPX-16M3-G



Features

- 4872 x 3248 pixels @ 3 fps
- Mono or Color
- 8/10/12 bit selectable data output
- GigE Output
- Single or Dual tap operation
- Serial communication
- 32 bit RISC processor
- Horizontal and vertical binning
- Highly programmable:
 - resolution • frame rate
 - electronic shutter • long integration
 - external trigger • pre-exposure
 - synchronized triggering • double exposure
 - strobe output • gain and offset
 - area of interest • user LUT
- Dynamic Transfer Function correction
- Dynamic Black Level Compensation
- Temperature monitor
- Field upgradeable:
 - SW • FW • LUT • FFC • DPC
- Defective Pixel Correction
- Flat Field Correction
- Automatic Iris Control - optional

Applications

- Medical and Scientific Imaging
- Machine Vision and Metrology
- Microscopy

The **IPX-16M3-G** is an advanced, high-resolution progressive scan, fully programmable and field upgradeable CCD camera, built around KODAK's KAI-16000 interline transfer CCD. The camera provides 4872 x 3248 resolution and delivers 3 frames per second at full resolution. The camera image processing engine is based on a 2 million gate FPGA and 32 bit RISC processor, featuring programmable resolution, AOI, binning, triggering, shutter, long integration, transfer function correction and user LUT. Support for DPC and FFC.

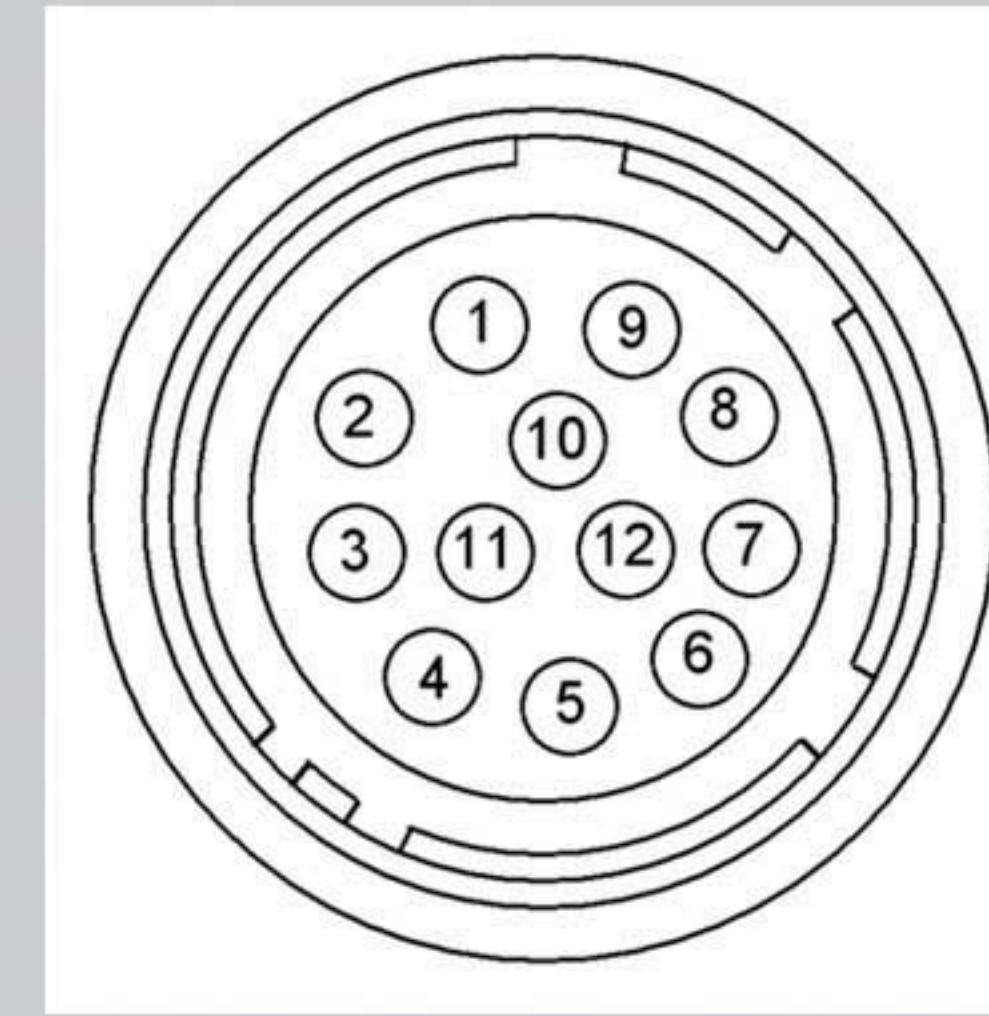
FAST...SMART...FLEXIBLE...
LYNX FAMILY



Specifications for IPX-16M3-G

Active Image Pixels	4872 (H) x 3248 (V), Mono or Color
Active Image Area	36.07 mm x 24.05 mm
Pixel size	7.4 um
Video Output	Digital, 8/10/12 bit, one or two outputs
Camera Interface	GigE Output
Physical Interface	RJ-45, 802.3, Ethernet v2.0, IP, ICMP, UDP, PING
Data Clock	28.000 MHz
Resolution	4872 x 3248 pixels max
Frame Rate	3 fps (dual) / 1.5 fps (single), up to 29 fps w/AOI
Shutter Speed	1/1700 sec to 1/1.5 sec
Long Integration	1/1.5 sec to 10 sec
Gamma Correction	G=1.0, G=0.45, User defined LUT
Black Level Offset	256 levels/output
Video Gain	6-40 dB, 1024 steps/output
Camera Triggering	Asynchronous, Hardware, Software
Trigger modes	Programmable, Normal, Double, Fast
Camera Firmware	32 bit RISC, field upgradeable
S/N Ratio	60 dB
Strobe Output	Active HIGH, for external light source
Lens Mount	F mount, 43.3 mm image diagonal
Environmental	Operating: -5 to 50 C, Storage: -10 to 65 C
Min. Illumination	1.0 Lux, f=1.4, no IR cut filter, no shutter
Mechanical	(78 x 78 x 70) mm; 23 oz (640 g)

Power Connector



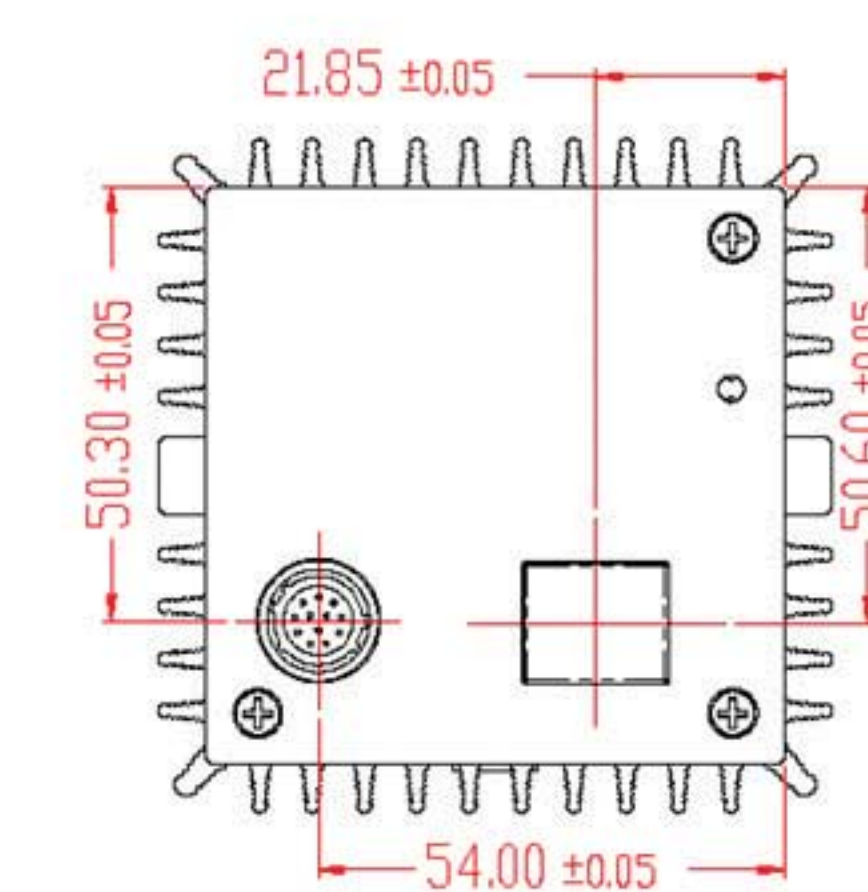
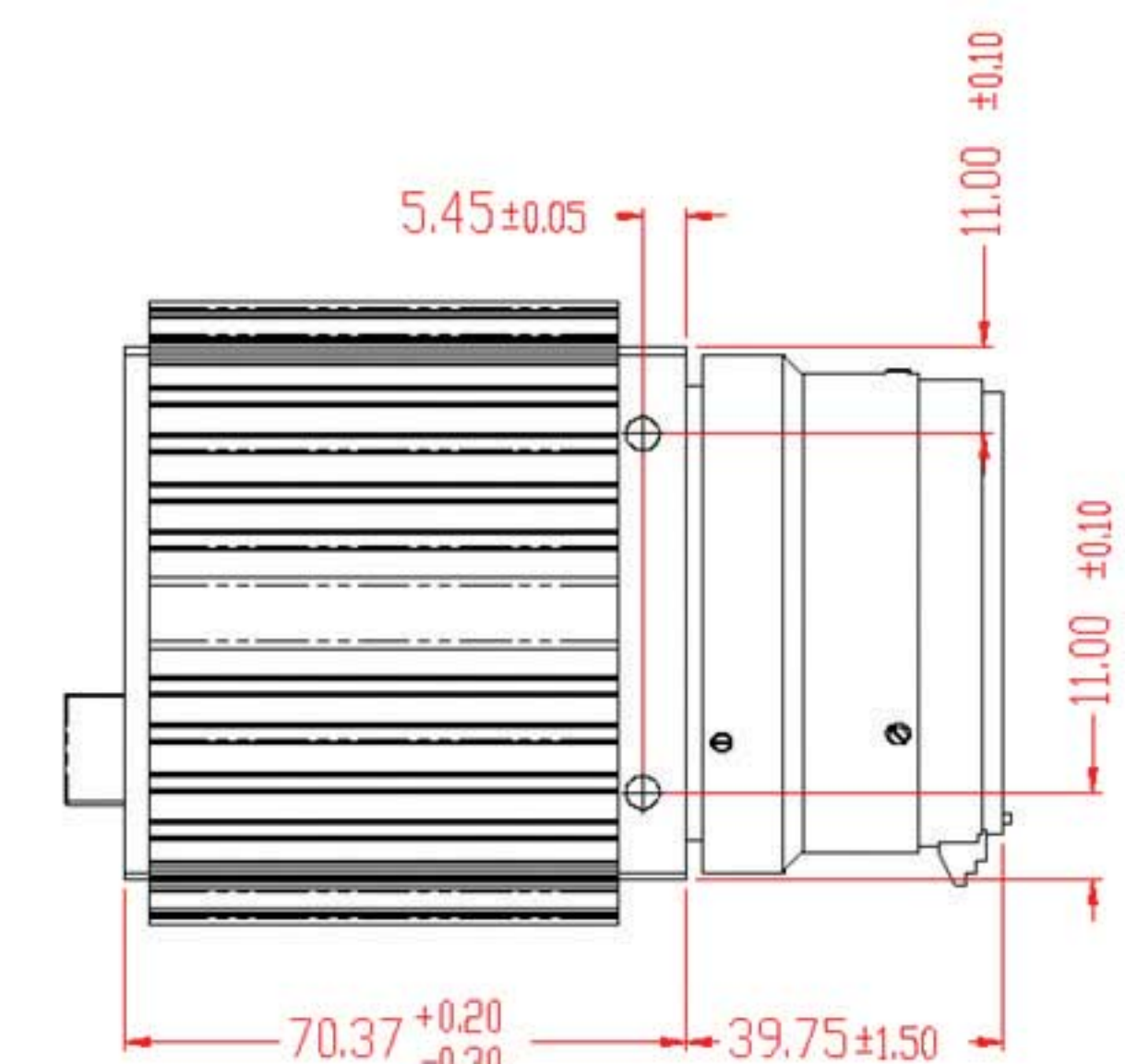
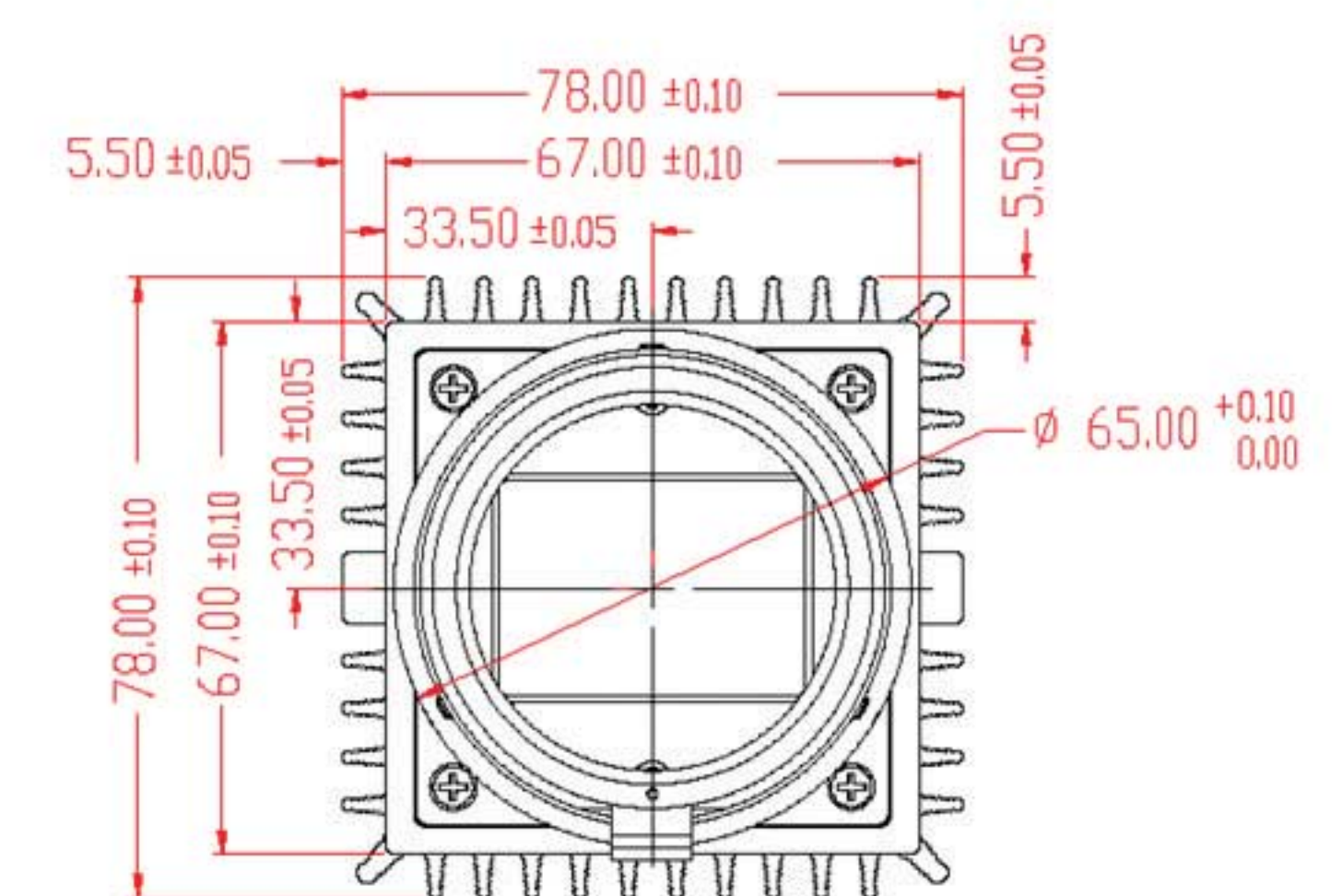
Rear Camera View

- 1 - 12V DC
- 2 +12V DC
- 3 Auto Iris 1
- 4 Auto Iris 2
- 5 Auto Iris GND
- 6 Strobe GND
- 7 Strobe OUT
- 8 Trigger IN
- 9 N/C
- 10 Trigger GND
- 11 N/C
- 12 N/C

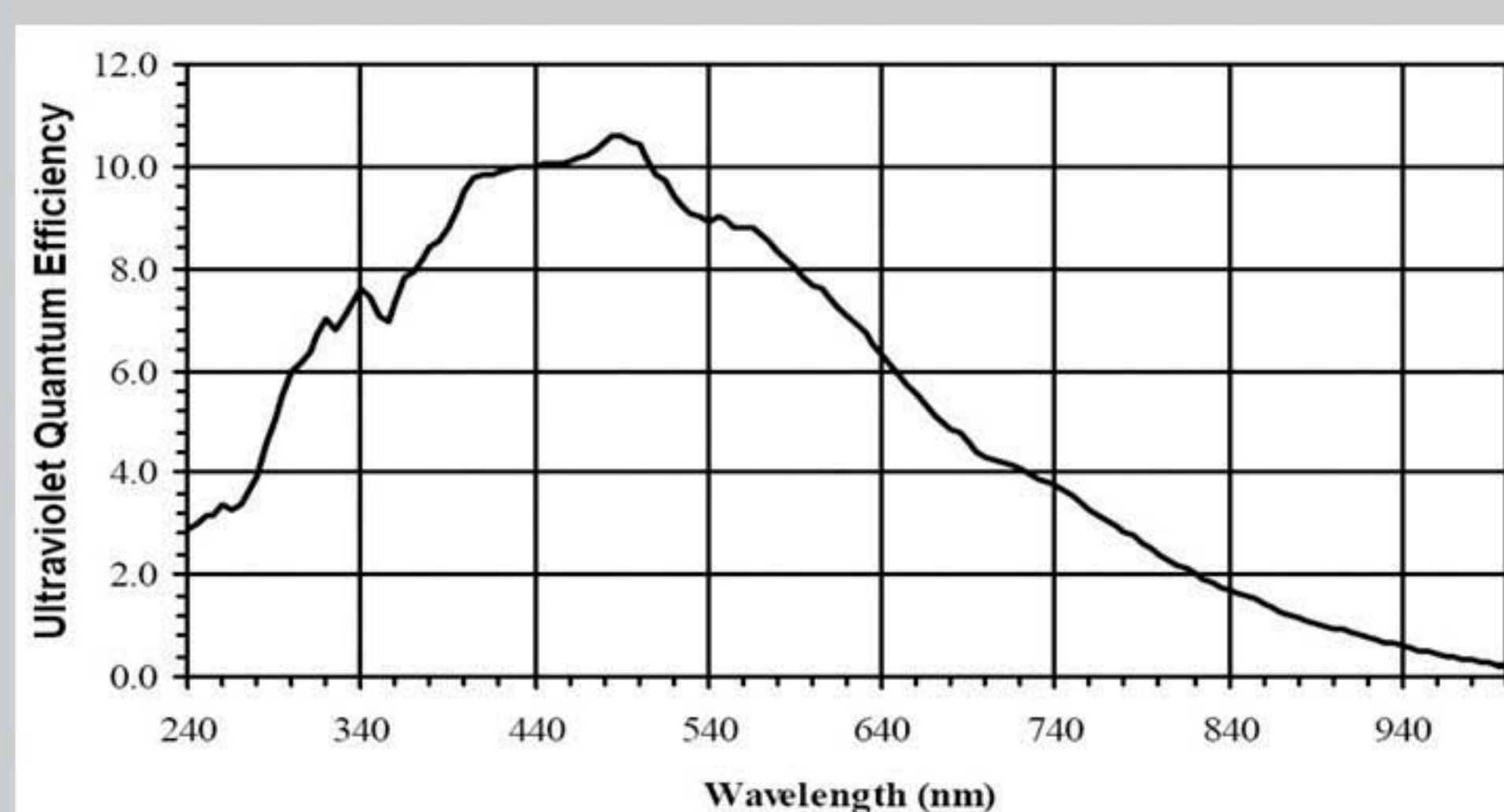
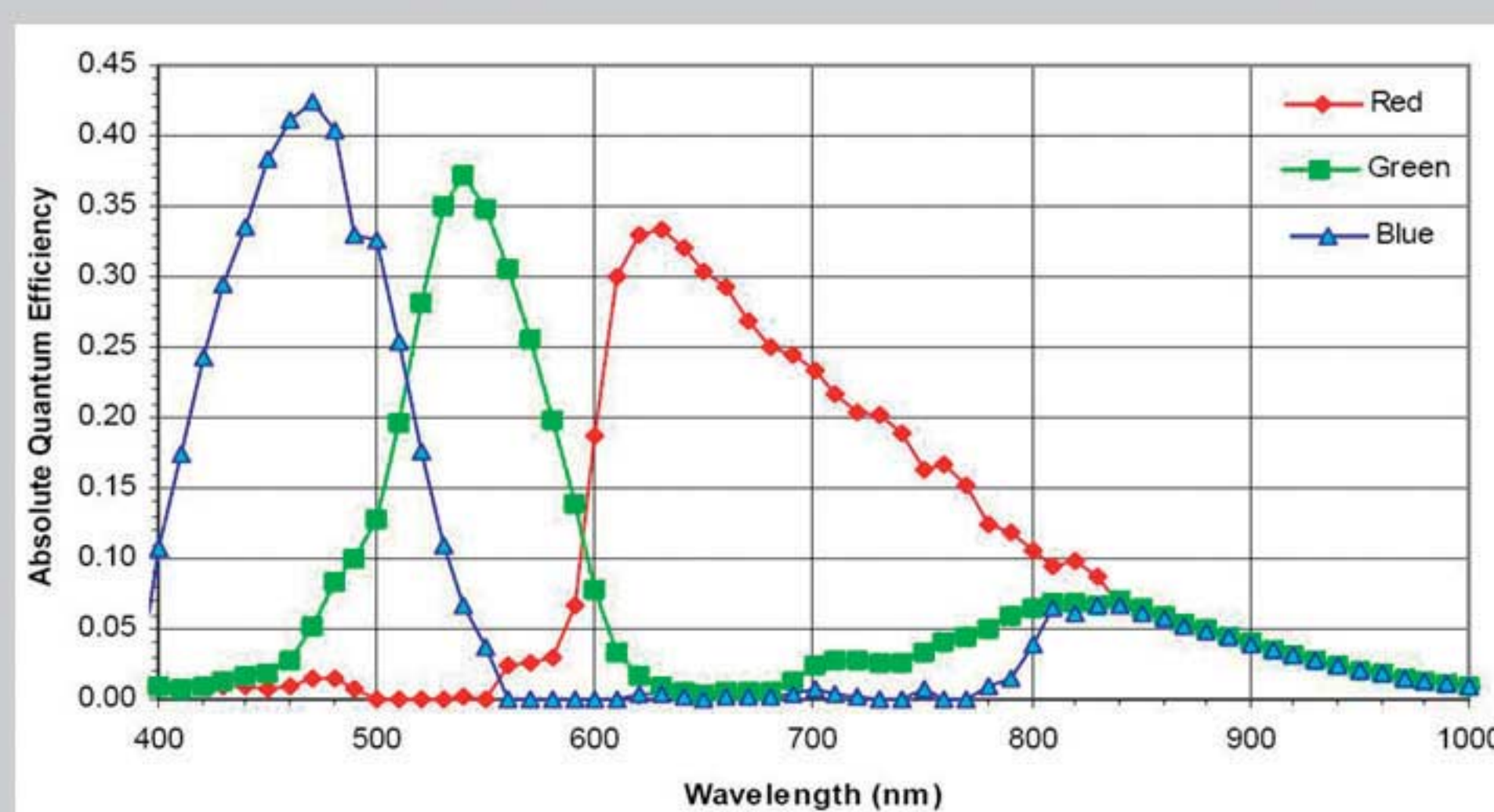
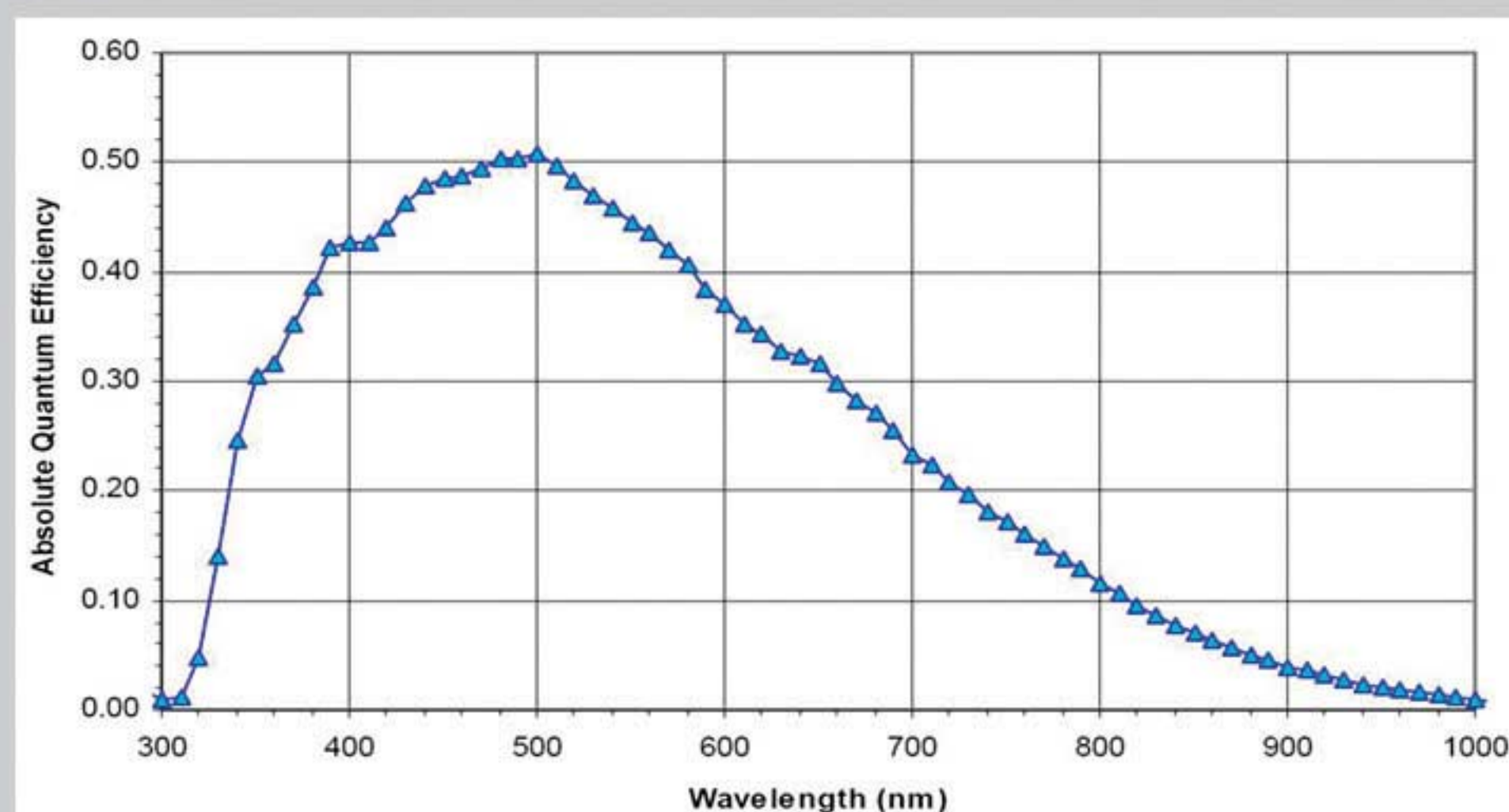
Power Requirements

- 12V DC, (10V min, 15V max)
- 660 mA steady, 2.0 A inrush
- 8.0 W constant power
- Connector: Hirose HR 10A-10R-12P

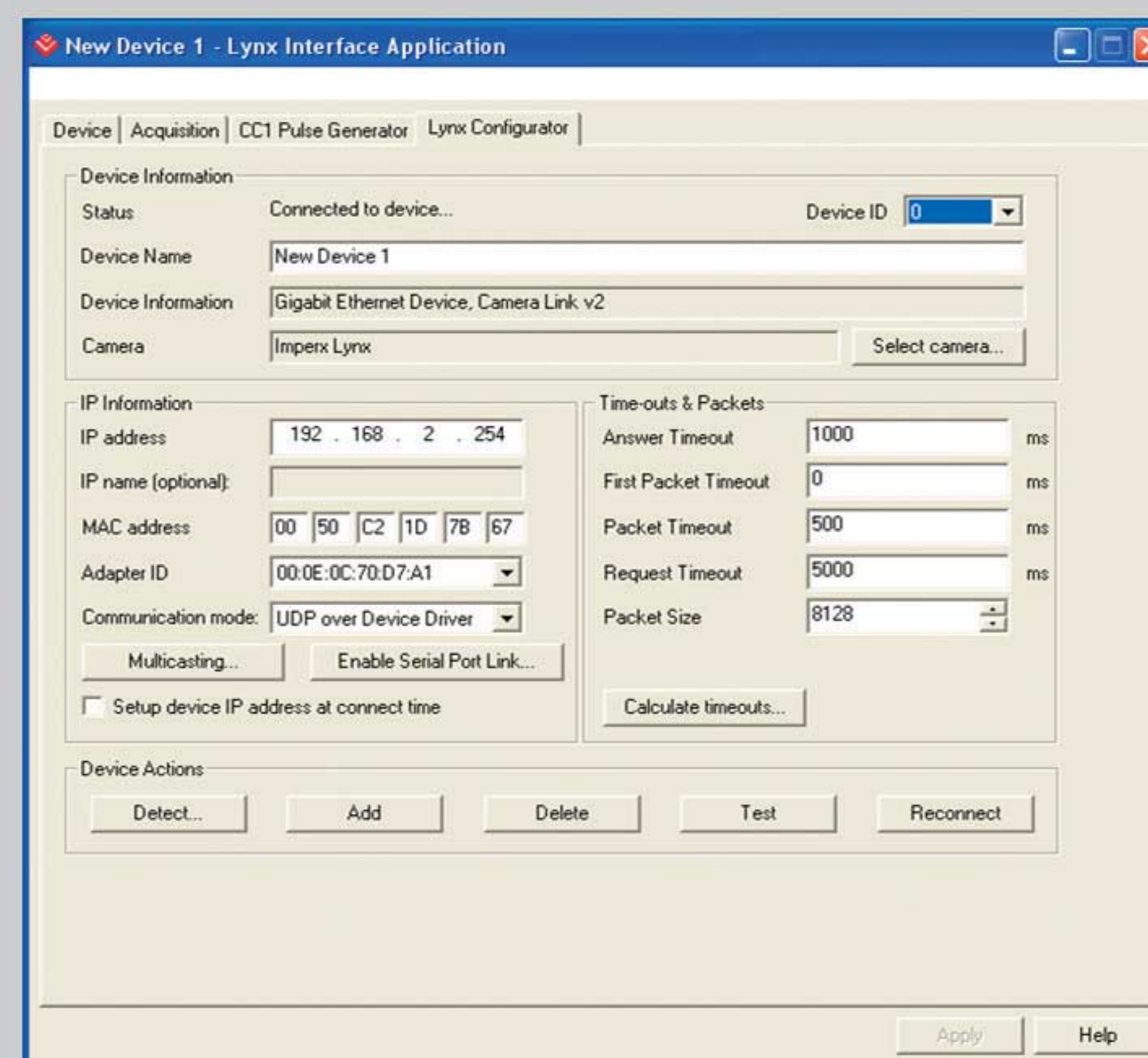
Mechanical Dimensions



Spectral Response



Software Tools



- Integrated software tools:
 - data acquisition and display
 - camera control and communication
 - camera configuration utility
 - triggering waveform generator
- Support for Labview, Image Pro, Halcon, Video Savant, MIL, eVision, Common Vision, StreamPix, and others.
- C++ and VB SDK. Support for Windows 2000, XP, Vista, SuSe-10, Linux, and others.

Ordering: **IPX-16M3-GMFB**

Camera Family

G - LYNX GigE Family

Sensor Type

M - Monochrome
C - Color
U - UV sensitive (no glass)
S - Special - user filter

Options

N - silver housing
B - black housing
I - Auto Iris

Lens Mount

F - "F" mount
O - Open frame

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

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