



# FD-1665 3-CCD Multispectral Camera

Customizable 3-CCD Camera Systems

[www.fluxdata.com](http://www.fluxdata.com)

The FluxData FD-1665 is a 3-CCD Multispectral Camera system that offers unique opportunities for customization.

The camera is offered in a range of resolutions from 0.3MP up to 2MP sensors. By mixing color and monochrome CCDs, 3-9 spectral bands can be captured simultaneously.

Each camera is purpose-built with customer specified narrow or broadband filters to modulate the 400-1000nm spectral response of each sensor.

Three Firewire B outputs provide independent control of exposure, gain and readout. Each sensor's exposure can be automatically triggered simultaneously or separately via hardware or software control.

The camera is also offered as a pre-configured 7 channel system and as a 0°, 45° and 90° polarization camera.



*FluxData FD-1665 3-CCD  
Camera System*

## Applications

- Color Reproduction
- Document and Archival Imaging
- Medical 3-CCD Imaging
- Machine Vision
- Iris Imaging
- Industrial Vision
- Food Processing
- Textiles and Plastics
- Timber Inspection
- Pharmaceuticals
- Counterfeit Detection
- Defense
- Pyrometry

## Features and Benefits

- Choice of 12 resolutions from 640 x 480 up to 2MP CCDs
- Mix-and-match Color (Bayer) and Monochrome sensors
- Sensors fitted with customer specified filters
- Standard Nikon F-Mount or T-Mount(14-1500 mm lens options)
- Frame rates up to 120 fps
- Polarization camera configuration 0°, 45°, 90° or custom
- Separate Firewire B output for each sensor
- Powered over Firewire or Hirose connector
- Compact and rugged enclosure
- Pixel-binning and region-of-interest support
- Fully IIDC 1.31 compliant

## Specifications

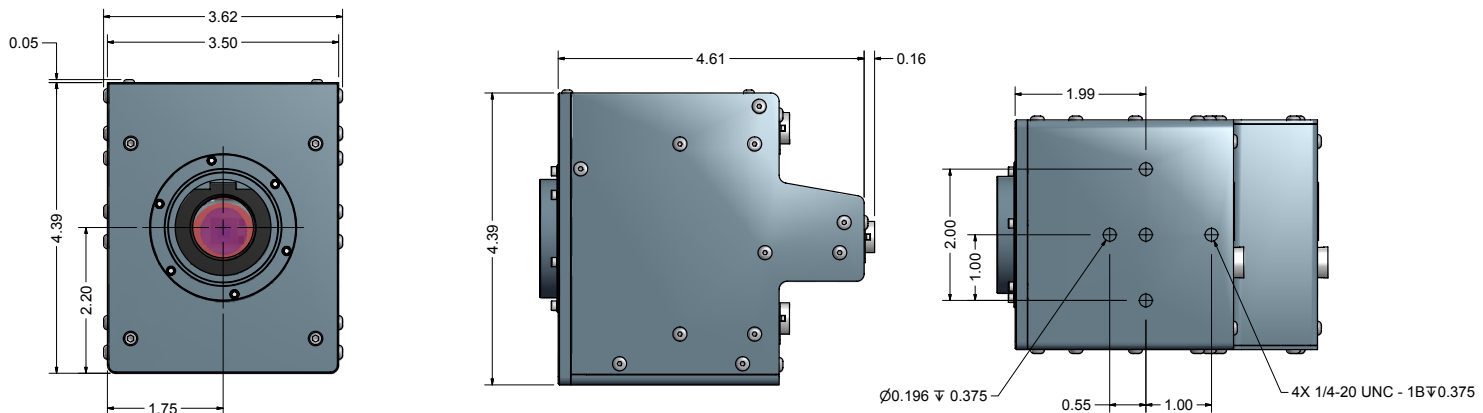
Table 1 - Sensor Options

Image Device	See Table 1
Sensor Size	See Table 1
Pixel Size	See Table 1
Pixel Depth	12-bit ADC
Frame Rate	See Table 1
Image Data Format	Y8, Y16 (all models), RGB, YUV411, YUV422, YUV444, 8-bit and 16-bit raw Bayer data (color models)
Video Data Output	8,16 and 24-bit digital data
Digital Interface	3 x IEEE-1394b (9 pin)
Lens Mount	Nikon F-Mount or T-Mount
Electronic Shutter	Automatic / manual / one-push modes, programmable via software 1µsec - 65sec
Gain Selection	0dB to 24dB in 0.04dB increments
General Purpose I/O Port	12-pin Hirose GPIO connector
Operating Temperature	0-40° C
Voltage Requirement	8-32V, via the IEEE-1394b interface or Hirose 12-pin GPIO connector trigger
Power Consumption	8V DC ~30V DC, 840mA 12V DC (10W)
Weight	1.25 kg (without lens)

Sensor Type	Sensor Size (HxV pixels)	Optical Size	Pixel Size (microns)	Max Frame Rate (at full resolution)
Sony ICX424	659x494	1/3"	7.4x7.4	71
Sony ICX414	659x494	1/2"	9.9x9.9	74
Sony ICX618	659x494	1/4"	5.6x5.6	119
Micron MT9V022	752x480	1/3"	6.0x6.0	60
Sony ICX415	782x582	1/2"	8.3x8.3	54
Sony ICX204	1034x779	1/3"	4.65x4.65	20
Sony ICX204	1034x779	1/3"	4.65x4.65	30
Sony ICX445	1296x966	1/3"	3.75x3.75	32
Sony ICX267	1392x1040	1/2"	4.65x4.65	17
Sony ICX285	1392x1040	2/3"	6.45x6.45	17
Sony ICX285	1392x1040	2/3"	6.45x6.45	30
Sony ICX274	1628x1236	1/1.8"	4.4x4.4	14

## Dimensions

All Units in Inches. For Reference Only



All specifications subject to change without notice.