

There's a better way to capture light

Three unique imaging sensors with a single lens system. Experience the 3CCD series of multispectral cameras ranging in resolution from VGA up to 2MP.

FD-1665





CUSTOMIZED



PRECISE



COMPACT



DURABLE

Features and Benefits

- Choice of 11 sensors from 659x494 up to 1628x1236
- Spectral Sensitivity from 400nm to 1,700nm
- Mix-and-match Color (Bayer) and Monochrome sensors
- Sensors fitted with customer specified filters
- Standard Nikon F-Mount or T-Mount
- Fixed focal length lens choices from 14 to 1500mm
- Frame rates up to 120 fps
- Multispectral, Polarization, and HDR configurations
- Separate Firewire B or GigE output for each sensor
- Powered over Firewire or Hirose (GigE) connector
- Compact and rugged enclosure
- Pixel-binning and region-of-interest support
- Fully IIDC 1.31 compliant for Firewire
- GigE Vision compliant for GigE version

The FluxData FD-1665 line of cameras are offered in a range of resolutions from 0.3MP up to 2MP sensors and with frame rates up to 120 frames per second.

Three Firewire B or Gigabit Ethernet (GigE) 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. By mixing color and monochrome CCDs, 3-9 spectral bands can be captured simultaneously. The camera is offered in several configuration versions for various applications.

FD-1665-MS Multispectral version offered in 3, 5, 7 or 9 band configurations. Custom configurations can be built using customer specified narrow or broadband filters and beam splitter coatings to modulate the 400-1000nm spectral response of each sensor.

FD-1665-HDR High Dynamic Range (HDR) version provides a four f-stop or customer specified exposure difference between each of three RGB (Bayer pattern) sensors.

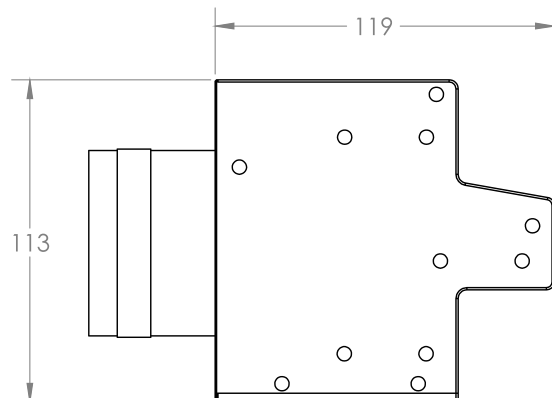
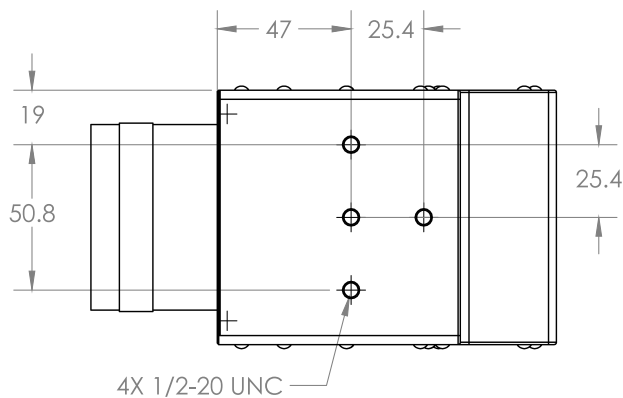
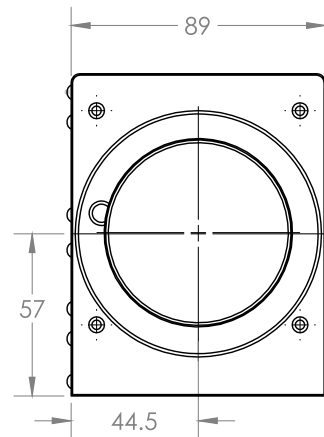
FD-1665-P Polarimetric/Polarization version configured with 0°, 45° and 90° linear polarizers to measure linear Stokes parameters.

FD-1665 SPECIFICATIONS

Image Device	See sensor options
Sensor Size	See sensor options
Pixel Size	See sensor options
Pixel Depth	12-bit ADC
Frame Rate	See Sensor Options
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 or 24-bit digital data
Digital Interface	3 x IEEE-1394b (9 pin) or 3 x GigE (CAT 5)
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	10 Watts

SENSOR OPTIONS

Sensor Type	Sensor Size (HxV pixels)	Optical Size	Pixel Size (microns)	Max FSP (at full res)
Sony ICX424	659 x 494	1/3"	7.4 x 7.4	71
Micron MT9V022	752 x 480	1/3"	6.0 x 6.0	60
Sony ICX204	1034 x 779	1/3"	4.65 x 4.65	20/30
Sony ICX445	1296 x 966	1/3"	3.75 x 3.75	32
Sony ICX285	1392 x 1040	2/3"	6.45 x 6.45	17/30
Sony ICX274	1628 x 1236	1/1.8"	4.4 x 4.4	14
SUI SWIR	640 x 512	2/3"	12.5 x 12.5	30





FluxData

FluxData, Inc. is an international leader in industrial in-line color process control and measurement.

Fortune 100 companies trust FluxData to deliver in-line systems customized to their needs, seamlessly integrating with existing systems and manufacturing lines.

FluxData's in-line inspection equipment is used by some of the largest consumer electronics companies in the world and has resulted in dramatic reductions in costs and yield improvements.

FluxData's product line is rapidly expanding and includes customizable multispectral and polarimetric imaging systems for aerospace, industrial, medical, defense, and scientific markets.

Our experienced team of engineers and color scientists are eager to work with you to customize our solutions to your needs. In addition to overcoming challenges specific to your application, we offer prompt and helpful support, both remote and on-site.

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