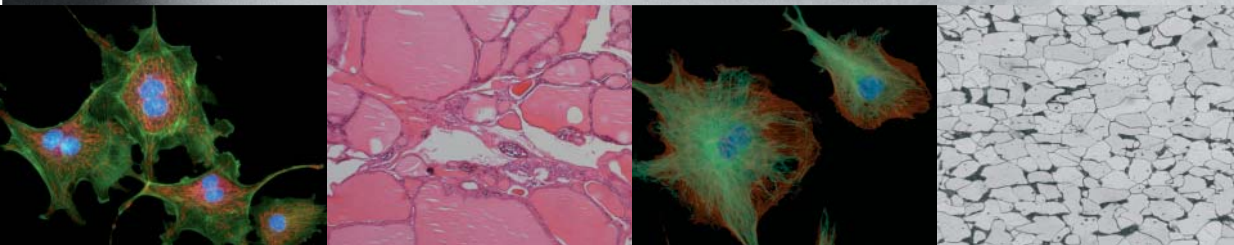


JENOPTIK  
JENA

Laser.Optik.  
— Systeme.

*it's time to change your point of view*



## ProgRes® 14bit cameras Monochrome and Color

With the new monochrome camera series **ProgRes® MF** JENOPTIK offers a professional solution for the special tasks in fluorescence microscopy.

The 14bit cameras with a resolution of 1.4 million pixel deliver detailed images and assure a sparing treatment of your fluorescence samples due to high image refresh rates of up to 51 frames per second offered in several binning-modes. The sensitivity and the quality of the image is additionally improved by an analogue gain and a switchable thermo-electrical cooling, optionally available.

A sophisticated fluorescence mode, additionally integrated

in the **ProgRes® Capture Software**, offers multi-color fluorescence image capturing and enables the user to minimize auto-fluorescence already during image capture.

Additionally available as color camera series **ProgRes® CF**, the systems are also suitable for applications in quality assurance, as the 14bit digitization delivers superb contrasts and high information depth required for material analysis.

Of course, the cameras can be externally triggered and are easily adoptable to any microscope or PC in combination with C-Mount and FireWire® interface.

### Camera Models:

**ProgRes® MF**  
· Monochrome  
CCD camera,  
12bit, non-cooled

**ProgRes® MF<sup>cool</sup>**  
· Monochrome  
CCD camera,  
14bit, cooled

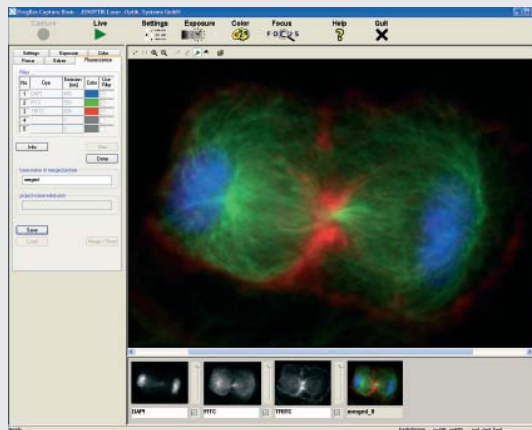
**ProgRes® CF**  
· Color CCD  
camera, 12bit,  
non-cooled

**ProgRes® CF<sup>cool</sup>**  
· Color CCD  
camera, 14bit,  
cooled



**ProgRes®**

JENOPTIK-Group.



*Fluorescence mode for capture of multi-color fluorescences – user-guided capture procedure and combination of several filter images.*

### Application Areas:

- Phase contrast
- Fluorescence
- Transmitted & Reflected Light
- Brightfield & Darkfield

### In the fields of:

#### Live-Science

- Genetics
- Microbiology
- Pathology
- Histology
- Hematology
- Cytology
- Zoology

#### Material sciences

- Quality control
- Geology
- Mineralogy
- Chemistry
- Semiconductor industry
- Industrial inspection

#### Forensics

## Technical Data

Camera Model	ProgRes® MF	ProgRes® MF <sup>cool</sup>	ProgRes® CF	ProgRes® CF <sup>cool</sup>
CCD Sensor	2/3" 1.4 Megapixel CCD Sensor (Sony ICX285AL/AQ) Active area: 8.8 x 6.6 mm <sup>2</sup>			
Cooling	no	Peltier & Fan	no	Peltier & Fan
Digital output	12bit	14bit	12bit	14bit
Sensor resolution	1360 x 1024			
Pixel size	6.45 µm x 6.45 µm			
Read-out frequency	Switchable: 12 MHz and 24.5 MHz			
IR cut-off filter	Hoya C-500S (optionally available without)			
Dynamic range	ca. 66 db/typical: >2000:1			
Exposure time	0 to 600 s			
Gain	Analogue 1x to 8x			
Image refresh rate	Up to 51 fps			
Image Resolution	<b>Programmable Resolution</b> 1360 x 1024 680 x 512 High Frame Read-out Mode 340 x 256 High Frame Read-out Mode 680 x 512 2x2 binning (Fluorescence) 452 x 340 3x3 binning (Fluorescence) 340 x 256 4x4 binning (Fluorescence) 272 x 204 5x5 binning (Fluorescence)			
Digital interface	FireWire® IEEE1394a			
Optical interface	C-Mount (0.63x TV Adaptor for microscope usage)			
Trigger	External trigger in and out			
Tripod thread	Dual thread 3/8" and 1/4"			
Software	<b>ProgRes®</b> Capture Software for MS Windows® 2000/XP (TWIN and Stand-Alone) <b>ProgRes®</b> Capture Software for Apple Macintosh OS X (in preparation) SDK for MS Windows® and Apple Macintosh OS X			
Hardware requirements	PC: Pentium IV 1.4 GHz or better; ≥512 MB RAM; FireWire® (OHCI Standard) MAC: G4 or better; 512 MB RAM			
Power consumption	6 W	8 W	6 W	8 W
Weight	800 g / 1.76 lbs			
Dimension	145 x 93 x 123 mm / 5.7 x 3.6 x 4.85" (L x W x H)			
Operating conditions	Temperature: +5°C to +35°C (41°F to 95°F) Humidity: 5% - 80%, not condensing			