



**MORE LIGHT**

JENOPTIK GRYPHAX® SUBRA

Explore your micro universe in full HD.

Camera properties

Sensor Size	✓	✓	✓	✓
Sensitivity	✓	✓	✓	✓
Frame Rate	✓	✓	✓	✓
Resolution	✓	✓	✓	✓



Recommended: Applications

Life & Medical Science	✓	✓	✓	✓
Education Life & Medical Science	✓	✓	✓	✓
Material & Manufacturing	✓	✓	✓	✓
Education Material & Manufacturing	✓	✓	✓	✓
Fluorescence	✓	✓	✓	✓
Education Fluorescence	✓	✓	✓	✓

Contrast techniques

BF	✓	✓	✓	✓
DF	✓	✓	✓	✓
DIC	✓	✓	✓	✓
Ph	✓	✓	✓	✓
Pol	✓	✓	✓	✓

**IMAGE SENSOR**

Type	Square Utilised sensor diagonal	SONY back-illuminated CMOS 1/1.2" 13.3 mm
Pixel dimensions		5.86 x 5.86 µm
Color or monochrome		Color
Transfer method	I shutter mode	All pixel scan I global shutter

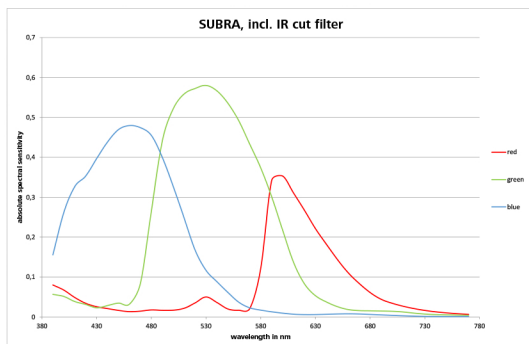
**CAMERA**

Camera resolution & speed in LIVE mode		1920 x 1200 pixel I 30 fps
Camera resolution in RECORD mode		1920 x 1200 pixel
Camera resolution & speed in VIDEO mode		FULL HD - 1920 x 1200 pixel up to 25 fps
Exposure time LIVE min. - max.		26 µs - 1 s
Exposure time RECORD min. - max.		26 µs - 30 s
Gain		Max. 30
Cooling		NO
A/D conversion   digital output		12 bit (4096 grey values)   16 bit
Absolute sensitivity threshold*		5.5 e-
Quantum Efficiency @ 532 nm (green)*		0.57 QE (λ)
Dark Noise [DN / e-]*		1.6 DN / 5 e-
Saturation capacity*		12.500 e-
Dynamic range*		67 dB
Filter		IR cut I optional clear-glass
Power consumption		Appr. 4.5 W
Hardware Trigger		OUT
Weight		Appr. 400 g
Power switch		Yes
Optical interface		C-mount
Dimensions		85 mm x 75 mm x 50 mm
Storage options		-20°C up to 70°C
Operating temperature		+10°C up to + 35°C non condensing
Warranty		24 months
Conformity to CE / WEEE / RoHS / China RoHS		Yes

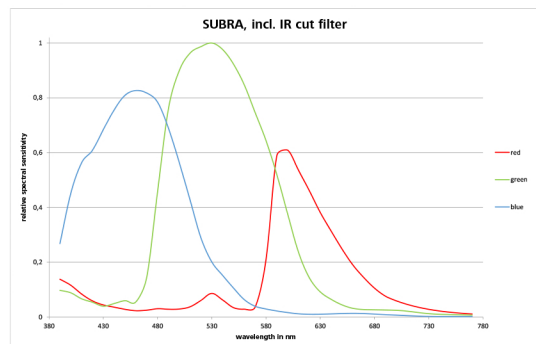
**RECOMENDED SYSTEM REQUIREMENTS**

Personal computer		Intel i7 Quad-Core (min. 3.0 GHz) processor   8 GB RAM
Operating system -64 Bit		Win 7 SP1 / Win 8.1 / Win 10 I MacOS High Sierra / Mojave I Linux Ubuntu 16.04 LTS
Data interface		USB 3.0 integrated, no extra power supply needed
Monitor resolution		1920 x 1200 or higher
Software (included in the package)		Microscope software - GRYPHAX APP / Twain APP / DirectX APP / Software development kit

Measured spectral sensitivity\*:  
 Absolute



Relative



\*based on EMVA 1288 standard compliance guidelines