



JENOPTIK GRYPHAX® - real measured color

Explore your micro universe with
JENOPTIK GRYPHAX® microscope cameras.



Wir machen Qualität sichtbar

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JENOPTIK GRYPHAX® camera overview

Explore your micro universe: life- and medical-science⁽¹⁾ | material and manufacturing⁽²⁾ | education⁽³⁾

JENOPTIK GRYPHAX®	AVIOR ⁽³⁾	ALTAIR ⁽³⁾	ARKTUR ^(1,2)
Explore your micro universe ...	cost efficient with 2 & 8 MPix.	cost efficient with 3 & 12 MPix.	with revolutionary 3 & 8 MPix.
IMAGE SENSOR			
Type Square utilised sensor diagonal	SONY back-illuminated CMOS 1/2" 8.2 mm	SONY back-illuminated CMOS 1/1.75" 9.3 mm	SONY back-illuminated CMOS 2/3" 10.6 mm
Pixel dimensions	1.85 x 1.85 µm	1.85 x 1.85 µm	2.4 x 2.4 µm
Color or monochrome	Color	Color	Color
Transfer method shutter mode	All pixel scan rolling shutter	All pixel scan rolling shutter	All pixel scan rolling shutter
CAMERA			
Camera resolution & speed in LIVE mode	1920 x 1080 pixel 30 fps	1000 x 750 pixel 20 fps 2000 x 1500 pixel 20 fps	1920 x 1080 pixel 50 fps 2560 x 1440 pixel 30 fps 3840 x 2160 pixel 30 fps
Camera resolution & speed in RECORD mode	1920 x 1080 pixel 3840 x 2160 pixel	1000 x 750 pixel 2000 x 1500 pixel 4000 x 3000 pixel	1920 x 1080 pixel 2560 x 1440 pixel 3840 x 2160 pixel
Camera resolution & speed in VIDEO mode	FULL HD - 1920 x 1080 pixel up to 25 fps	2000 x 1500 pixel up to 20 fps	FULL HD - 1920 x 1080 pixel up to 25 fps
Exposure time LIVE min. - max.	52 µs - 1 s	52 µs - 1 s	51 µs - 1 s
Exposure time RECORD min. - max.	52 µs - 15 s	52 µs - 15 s	51 µs - 30 s
Gain	Max. 15	Max. 15	Max. 30
Cooling	NO	NO	NO
A/D conversion digital output	10 bit (1024 grey values) 16 bit	10 bit (1024 grey values) 16 bit	10 bit (1024 grey values) 16 bit
Absolute sensitivity threshold*	5.7 e-	5.7 e-	7.8 e-
Quantum efficiency @ 532 nm (green)*	0.57 QE (λ)	0.57 QE (λ)	0.65 QE (λ)
Dark noise [DN / e-]*	0.5 DN / 4 e-	0.5 DN / 4 e-	0.5 DN / 6 e-
Saturation capacity*	10.000 e-	10.000 e-	14.700 e-
Dynamic range*	65 dB	65 dB	66 dB
Filter	IR cut optional clear-glass	IR cut optional clear-glass	IR cut optional clear-glass
Power consumption	Appr. 4.5 W	Appr. 4.5 W	Appr. 3 W
Hardware trigger	NO	NO	OUT
Weight	Appr. 400 g	Appr. 400 g	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		

* based on EMVA 1288 standard compliance guidelines

NAOS ⁽²⁾	PROKYON ^(1,2)	KAPELLA ^(1,2)	SUBRA ⁽²⁾
with revolutionary 5 & 20 MPix.	with the flagship and real measured color.	colored in low light & bright field.	in full HD.
SONY back-illuminated CMOS 1" 15.6 mm	SONY back-illuminated CMOS 1/1.2" 13.3 mm	SONY back-illuminated CMOS 1/1.2" 13.3 mm	SONY back-illuminated CMOS 1/1.2" 13.3 mm
2.4 x 2.4 µm	5.86 x 5.86 µm	5.86 x 5.86 µm	5.86 x 5.86 µm
Color	Color (measured)	Color	Color
All pixel scan rolling shutter	All pixel scan global shutter	All pixel scan global shutter	All pixel scan global shutter
1800 x 1200 pixel 50 fps 2700 x 1800 pixel 30 fps	960 x 600 pixel 60 fps 1920 x 1200 pixel 60 fps	960 x 600 pixel 60 fps 1920 x 1200 pixel 60 fps	1920 x 1200 pixel 30 fps
1800 x 1200 pixel 2700 x 1800 pixel 5400 x 3600 pixel	960 x 600 pixel 1920 x 1200 pixel 1920 x 1200 pixel (scan) 3840 x 2400 pixel (scan) 5760 x 3600 pixel (scan)	960 x 600 pixel 1920 x 1200 pixel	1920 x 1200 pixel
1800 x 1200 pixel up to 25 fps	FULL HD - 1920 x 1200 pixel up to 25 fps	FULL HD - 1920 x 1200 pixel up to 25 fps	FULL HD - 1920 x 1200 pixel up to 25 fps
51µs - 1 s	26 µs - 1 s	26 µs - 1 s	26 µs - 1 s
51µs - 30 s	26 µs - 60 s	26 µs - 60 s	26 µs - 30 s
Max. 30	Max. 60	Max. 60	Max. 30
NO	YES	YES	NO
12 bit (4096 grey values) 16 bit	12 bit (4096 grey values) 16 bit	12 bit (4096 grey values) 16 bit	12 bit (4096 grey values) 16 bit
3.8 e-	7.0 e-	7.0 e-	5.5 e-
0.66 QE (λ)	0.6 QE (λ)	0.6 QE (λ)	0.57 QE (λ)
0.9 DN / 3 e-	0.8 DN / 6 e-	0.8 DN / 6 e-	1.6 DN / 5 e-
15.000 e-	33.000 e-	32.000 e-	12.500 e-
72 dB	73.3 dB	73 dB	67 dB
IR cut optional clear-glass	IR cut optional clear-glass	IR cut optional clear-glass	IR cut optional clear-glass
Appr. 3 W	Appr. 4.5 W	Appr. 4.5 W	Appr. 4.5 W
OUT	OUT	OUT	OUT
Appr. 400 g	Appr. 420 g	Appr. 400 g	Appr. 400 g
Yes			
C-mount			
85 mm x 75 mm x 50 mm			
-20°C up to 70°C			
+10°C up to + 35°C non condensing			
24 months			
Yes			

POLARIS⁽¹⁾	RIGEL⁽¹⁾	WEGA⁽¹⁾	BETRIA⁽³⁾
with the monochrome flagship.	monochrome in low light.	monochrome in full HD.	cost efficient monochrome.
SONY back-illuminated CMOS 1/1.2" 12.2 mm	SONY back-illuminated CMOS 1/1.2" 13.3 mm	SONY back-illuminated CMOS 1/1.2" 13.3 mm	SONY back-illuminated CMOS 1/1.75" 9,3 mm
7.2 x 7.2 µm	5.86 x 5.86 µm	5.86 x 5.86 µm	3.7 x 3.7 µm
Monochrome	Monochrome	Monochrome	Monochrome
All pixel scan rolling shutter	All pixel scan global shutter	All pixel scan global shutter	All pixel scan rolling shutter
900 x 900 pixel 22 fps 1200 x 1200 pixel 22 fps 1800 x 1800 pixel 22 fps	960 x 600 pixel 60 fps 1920 x 1200 pixel 60 fps	1920 x 1200 pixel 30 fps	1000 x 750 pixel 20 fps 2000 x 1500 pixel 20 fps
900 x 900 pixel 1200 x 1200 pixel 1800 x 1800 pixel	960 x 600 pixel 1920 x 1200 pixel	1920 x 1200 pixel	1000 x 750 pixel 2000 x 1500 pixel
1200 x 1200 pixel up to 22 fps	FULL HD - 1920 x 1200 pixel up to 25 fps	FULL HD - 1920 x 1200 pixel up to 25 fps	1000 x 750 pixel up to 20 fps
51 µs - 1 s	26 µs - 2 s	26 µs - 1 s	52 µs - 1 s
51µs - 60 s	26 µs - 120 s	26 µs - 30 s	52 µs - 15 s
Max. 60	Max. 60	Max. 30	Max. 15
NO	YES	NO	NO
13 bit (8192 grey values) 16 bit	12 bit (4096 grey values) 16 bit	12 bit (4096 grey values) 16 bit	10 bit (1024 grey values) 16 bit
17.0 e-	7.0 e-	6.0 e-	ca. 5.7 e-
0.73 QE (λ)	0.66 QE (λ)	0.65 QE (λ)	ca. 0.68 QE (λ)
1.0 DN / 16 e-	0.8 DN / 6 e-	1.3 DN / 5 e-	ca. 0.5 DN / 4 e-
123.600 e-	32.300 e-	15.900 e-	ca. 10.200 e-
77 dB	73 dB	69 dB	ca. 65 dB
Clear-glass optional IR cut	Clear-glass optional IR cut	Clear-glass optional IR cut	Clear-glass optional IR cut
Appr. 3 W	Appr. 4.5 W	Appr. 4.5 W	Appr. 4.5 W
OUT	OUT	OUT	NO
Appr. 400 g	Appr. 400 g	Appr. 400 g	Appr. 400 g
Yes			
C-mount			
85 mm x 75 mm x 50 mm			
-20°C up to 70°C			
+10°C up to + 35°C non condensing			
24 months			
Yes			

Why JENOPTIK GRYPHAX®?

JENOPTIK GRYPHAX® refines every microscope workstation to a digital microscope workstation!
Stay completely flexible and continue using your existing image analysis software with JENOPTIK GRYPHAX®!
Document your daily work with real measured color and participate of JENOPTIK GRYPHAX® value propositions.



High image quality

Giving you the details to make the right decisions.

- Professional Jenoptik image quality, based on real measured colors by use of color-co-site sampling & microscanning
- Perfect color reproduction by use of spectrally measured sensors



Easy of use

Giving your work an effortless feel.

- User-friendly and intuitive microscope camera software
- Optimized workflows
- Live-image optimized, all features in real time, all the time
- Time-saving and easy installation



Versatility

Giving you the freedom to work with your favorite equipment.

- Cross-platform compatible for WIN, MAC & Linux
- Identical GUI across WIN, MAC & Linux platform
- Suitable for all microscope brands
- Free SDK available
- Twain, Direct Show and 3rd party software support



Stability

Giving you a reliable research tool you can count on.

- USB 3.0 camera interface
- Secure investment: long-lasting & reliable hardware
- Secure investment: long-term software support & operating system compatibility

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