Explore your micro universe cost efficient with 3 & 12 MPix.

### 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**: ○ ○ ○ ○
JENOPTIK GYRPHAX® ALTAIR - technical data
Superior solution for education applications

**IMAGE SENSOR**
- Type Square Utilised sensor diagonal
- SONY back-illuminated CMOS 1/1.75" 9.3 mm
- Pixel dimensions 1.85 x 1.85 μm
- Color or monochrome Color
- Transfer method & shutter mode All pixel scan | rolling shutter

**CAMERA**
- Camera resolution & speed in LIVE mode 1000 x 750 pixel | 20 fps | 2000 x 1500 pixel | 20 fps
- Camera resolution in RECORD mode 1000 x 750 pixel | 2000 x 1500 pixel | 4000 x 3000 pixel
- Camera resolution & speed in VIDEO mode 2000 x 1500 pixel up to 20 fps
- Exposure time LIVE min. - max. 52 μs - 1 s
- Exposure time RECORD min. - max. 52 μs - 15 s
- Gain Max. 15
- Cooling NO
- A/D conversion | digital output 10 bit (1024 grey values) | 16 bit
- Absolute sensitivity threshold* 5.7 e-
- Quantum Efficiency @ 532 nm (green)* 0.57 QE (λ)
- Dark Noise [DN / e-]* 0.5 DN / 4 e-
- Saturation capacity* 10.000 e-
- Dynamic range* 65 dB
- Filter IR cut | optional clear-glass
- Power consumption Appr. 4.5 W
- Hardware Trigger NO
- 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

**RECOMMENDED SYSTEM REQUIREMENTS**
- Personal computer Intel i7 (Quad-Core) processor or comparable / 8 GB RAM
- Operating system - 64 Bit Win 7 SP1 / Win 8.1 / Win 10 | MacOS High Sierra / Mojave | Linux Ubuntu 16.04 LTS
- Data interface USB 3.0 integrated, no extra power supply needed
- Monitor resolution 3840 x 2160 pixel or higher
- Software (included in the package) Microscope software - GYRPHAX APP / Twain APP / DirectX APP / Software development kit

Measured spectral sensitivity*:

<table>
<thead>
<tr>
<th>Absolute</th>
<th>Relative</th>
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<tbody>
<tr>
<td>[Image of measured spectral sensitivity graphs]</td>
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*based on EMVA 1288 standard compliance guidelines