

Pixelink®

A NANITAR COMPANY

M12

CMOS | SONY IMX253 | GLOBAL SHUTTER

Ideal for use in any laboratory or industrial setting, Pixelink cameras let you capture high-quality images with your existing microscope equipment. We will work with you to choose and integrate the optimal USB 3.0 camera for your microscopy project. Our microscope cameras and associated software are designed to offer consistent, superior quality image acquisition and performance.



KEY FEATURES

12.29MP
CMOS

33
FRAMES
Per Sec.

3.45µm

17.6mm

Sensor
Size
1.1"

12 BIT

COLOR

MONO

USB 3

USB
VISION

TYPICAL APPLICATIONS

Live Cell Imaging
Microbiology
Cell Analysis
Vision Correction

Packaging
Measurements
Inspection
Paint Analysis & Dirt Analysis

TECHNICAL SPECIFICATIONS

SENSOR

| | |
|-------------|-----------------------|
| Sensor | Sony IMX253 |
| Type | CMOS Global Shutter |
| Resolution | 12.29MP (4096 x 3000) |
| Pixel Pitch | 3.45 μm x 3.45 μm |
| Active Area | 17.6 mm diagonal |

PERFORMANCE SPECIFICATIONS

| | |
|--------------------|---|
| FPN | < 0.03% of signal |
| PRNU | < 0.4% of signal |
| Dynamic Range | 70 dB |
| Bit Depth | 8 or 12-bit |
| Color Data Formats | Bayer 8, Bayer 12 Packed, Bayer 16 & YUV422 |
| Mono Data Formats | Mono 8, Mono 12 Packed & Mono 16 |

FRAME RATES

| | |
|--|--------------|
| Resolution | Free Running |
| 4096 x 3000 | 32.5 fps |
| 1280 x 1024 | 98.4 fps |
| 640 x 480 | 198.6 fps |
| Frame rates will vary based on host system and configuration | |
| *Above calculations based on fixed frame rate mode | |

INTERFACES

| | |
|-----------------------|---------------------------|
| Interface Data rate | USB 3.0 Micro-B 5Gbps |
| Trigger Mode 0 | Software |

MECHANICALS

| | |
|-----------------|-------------------------------------|
| Dimensions (mm) | 80.88 x Ø54.01 (without lens mount) |
| Weight (g) | 218.5 (without optics) |
| Mounting | C-Mount |

ENVIRONMENTAL & REGULATORY

| | |
|-----------------------|----------------------------|
| Compliance | FCC, CE & RoHS |
| Shock & Vibration | 300 G & 20 G (10Hz - 2KHz) |
| Operating Temperature | 0°C to 50°C |
| Storage Temperature | -45°C to 85°C |

SOFTWARE

| | |
|------------------------------------|-------------------------------------|
| Pixelink Capture | Capture, control, measure & operate |
| Pixelink SDK | Software Development Kit |
| Pixelink μScope | Acquisition, analysis & reporting |
| 3rd. Party U3V Vision Applications | |

COMPUTER & OPERATING SYSTEM

| | Windows | Linux x86 | Linux ArmV7 | Linux ArmV8 |
|------------------|--------------------|----------------------------|--------------------|--------------------|
| Processor | Intel i5 or better | Intel i5 or better | Arm7 (32 bit) | Arm8 (64 bit) |
| Memory | 4GB recommended | 4GB recommended | 2GB | 2GB |
| Hard Drive Space | 150 MB | 150 MB | 50 MB | 50 MB |
| Operating System | Windows 7/8/10 | Ubuntu 14.04/16.04 Desktop | Ubuntu 14.04/16.04 | Ubuntu 14.04/16.04 |

POWER REQUIREMENTS

| | |
|------------------|----------------------------|
| Voltage Required | 5V DC (from USB connector) |
|------------------|----------------------------|

AVAILABLE CONFIGURATIONS

M12C-CYL
M12C-KIT-CYL
M12C-SE-CYL
M12C-PRO-CYL

M12M-CYL
M12M-KIT-CYL
M12M-SE-CYL
M12M-PRO-CYL

Housing
CYL = Cylindrical Case

Software Included
KIT = μScope Essentials
SE = μScope Standard
PRO = μScope Professional

PIXELINK'S INDUSTRY LEADING SOFTWARE

PIXELINK μ SCOPE

Pixelink μ Scope is a software tool developed for the Microscopy marketplace. It gives users the ability to quickly and easily capture, measure and enhance images. In addition to this it can also correlate image data effectively and output the data in a format that can be further analysed by other software packages.

Pixelink μ Scope Essentials (ES) Software is an easy-to-use robust image capture tool optimized for productivity. **Pixelink μ Scope Standard (SE)** Software has added features, making it a highly productive image capture tool for microscopy. **Pixelink μ Scope Pro (PRO)** Software is for users needing more advanced tools for their microscopy requirements. This feature-rich application includes tools such as z-axis, extended focus imaging, shading correction, and reflected light subtraction.

PIXELINK SDK

Providing full control of all camera functions, the **Pixelink Software Developers Kit (SDK)** is the software package of choice for developers and system integrators who are integrating Pixelink cameras into their applications. The Pixelink SDK provides access to the full Pixelink Application Programming Interface (API) and provides sample applications, wrappers for many 3rd party controls, such as LabVIEW, along with full documentation.

The Pixelink SDK is compatible with Microsoft Windows and popular Linux platforms. When using the Pixelink SDK, developers can integrate Pixelink cameras into their custom applications with ease.

PIXELINK CAPTURE

Pixelink Capture is powerful multi-camera software application designed to configure "n" numbers of cameras and stream "n" number of cameras simultaneously in real-time high-quality video viewed in a multi-window environment. Pixelink Capture offers options for complex image enhancements such as; exposure control, filtering, frame-by-frame property changes in addition to multi-camera application testing and configuration.

Pixelink Capture also provides features to measure supporting; point, line, circle, rectangle, polyline and polygon measurements while determining pixel location. After creating spatial calibration, the user can then review and adjust before exporting the findings to an Excel spreadsheet for further analysis. Pixelink Capture also has integrated lens control (zoom & focus) for Navitar motorized lenses and accurate autofocus options for Navitar motorized fine focus mechanisms.

For more information on Pixelink μ Scope, the Pixelink SDK and/or Pixelink Capture visit www.pixelink.com.