

# Allegro SONY IMX249 2.3MP (HD+)



US3  
VISION

## SPECIFICATIONS

|                                     |  |
|-------------------------------------|--|
| <b>Image Sensor Model</b>           | <b>Sony Pregius IMX249</b>   |
| <b>Sensor Format</b>                | 1/1.2 inch   |
| <b>Max Resolution</b>               | 1920 x 1200, 2.3 MP  |
| <b>Max Frame Rate</b>               | 30 fps (mono)  |
| <b>Burst Frame Rate</b>             | 30 fps into internal buffer  |
| <b>Pixel Size</b>                   | 5.86 x 5.86 $\mu\text{m}$  |
| <b>Shutter</b>                      | Global   |
| <b>Vision Standard</b>              | USB3 Vision™ Specification v1.0  |
| <b>Analog-to-Digital Converter</b>  | 12-bit ADC   |
| <b>Sensor Video Data</b>            | 12-bit digital data  |
| <b>Image Data Formats</b>           | YUV, YCbCr422/400, RGB8/565, processed Bayer8/10/12, Mono8/10/12, including packed   |
| <b>FPGA</b>                         | Altera Cyclone V   |
| <b>On-Board Memory</b>              | 256 MB   |
| <b>Dynamic Range</b>                | 60 dB and other High Dynamic Range Modes Available   |
| <b>Partial Image Modes</b>          | 2 x 2 Binning is supported. Programmable region of interest capability.  |
| <b>Gain Control</b>                 | Analog Gain & Digital Gain (programmable)  |
| <b>Shutter Speed</b>                | Manual / One-push modes, programmable via software, 0.03 ms to 1 sec, longer exposure (integration) times can be supported if needed |
| <b>Synchronization</b>              | Via external trigger   |
| <b>Trigger Latency / Jitter</b>     | Latency TBD / Jitter +/- 0.5 microsecond   |
| <b>Interface Port</b>               | USB3   |
| <b>General Purpose I/O Port</b>     | 12 Pin 7 mm Push-Pull Connector   Programmable Opto-Isolated Trigger Input<br>2 Programmable Opto-Isolated Strobe Outputs            |
| <b>Power / Voltage</b>              | USB3 Host Port, 5 V +/- 10% at 0.9 A max   |
| <b>Dimensions (W x H x L)</b>       | 52 x 46 x 33 mm (camera body)  |
| <b>Mass</b>                         | 126 g (without optics)   |
| <b>Lens Mount</b>                   | C-Mount or CS-Mount (optional)   |
| <b>Adjustable Back Focal Length</b> | Optional   |
| <b>Emissions Compliance</b>         | CE, FCC, RoHS  |
| <b>Operating Temperature</b>        | -0° to 50° C   |
| <b>Storage Temperature</b>          | -30° to 70° C  |
| <b>Vibration Resistance</b>         | 10 G (14 Hz to 200 Hz)   |
| <b>LED Indicator</b>                | Status and power monitoring   Dual color   |
| <b>Enclosure</b>                    | Pre-drilled mounting holes   Tripod mount available   Heavy duty aluminum   Sealed Sensor Cavity                                     |
| <b>Warranty</b>                     | 4 years – Industry leading   |

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