

# illuminis RMOD-71 USB3

*Rolling Shutter CMOS USB3*

**10,000 X 7094 - 3.1 $\mu$ m PIXEL**



*The RMOD-71 USB3 is a USB3.0 rolling shutter CMOS digital camera with an astounding 71 million pixels! The RMOD-71 USB3 is available in color and monochrome versions and is designed for use in industrial, machine vision, aerial, document imaging, and security applications.*

The RMOD-71 USB3 uses the CMOSIS CHR71000ES-1E5M1PA or CHR71000ES-1E5C1PA sensor. This sensor has 8 analog outputs (8-tap) each running up to 42.5MHz. This results in 4.2 fps at full resolution. Higher frame rates achieved in ROI/windowing mode. The RMOD-71 USB3 has all of the “rugged” features, such as industrial design, military de-rated components, and a CNC machined case. Fan cooling insures minimum dark current and excellent image quality.

## **RMOD-71 USB3 HIGHLIGHTS**

- ✓ USB3 Vision compatible using the Pleora EBUS Interface
- ✓ 10,000 x 7094 = 70,960,000 3.1 $\mu$ m active pixels
- ✓ Monochrome, RGB Bayer
- ✓ Rolling Shutter CMOS
- ✓ Windowing ROI capability
- ✓ Dynamic range 64dB
- ✓ 8 Tap readout at up to 42.5MHz each (340Mpix/sec)
- ✓ Up to 12 bits, up to 4.22 fps at full resolution, faster when windowed
- ✓ Field-updatable firmware and flat field correction
- ✓ F-Mount standard, other lens mounts available
- ✓ Camera Link and TEC versions available

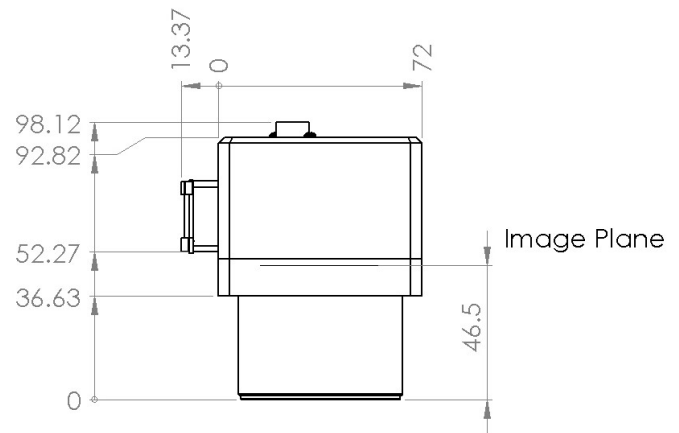
## RMOD-71 USB3 SPECIFICATIONS

<b>Sensor</b>	CMOSIS CHR71M
<b>Architecture</b>	Rolling Shutter CMOS
<b>Configuration</b>	Mono, RGB Bayer
<b>Active Pixels</b>	10000 (H) x 7094 (V)
<b>Pixel Size</b>	3.1 x 3.1µm
<b>Active Image Size</b>	31 x 22mm
<b>Outputs</b>	8 analog outputs from sensor. Digitized and output as 8/12 bits
<b>Frame Rates (USB-3)</b>	2.1 fps : 2 Tap mode (8/12 bit) 3.0 fps : 4 Tap mode (8 bit) 4.22 fps : 4 Tap mode (8 bit) over-clock
<b>Dynamic Range</b>	64dB
<b>Clock Speed</b>	21.25, 30, 42.5 MHz per tap, 8 taps
<b>Full Well Charge</b>	>13Ke
<b>Rolling Shutter Exposure</b>	Min exposure ~66us
<b>Dark Noise</b>	7e <sup>-</sup> (Fan cooled to ambient)
<b>Dark Current</b>	3.2 e <sup>-</sup> /s at room temperature
<b>Power</b>	7-12VDC at 3-6W
<b>Exposure Modes</b>	Free Run, Triggered, Triggered Flash, Triggered Shutter
<b>Mount Options</b>	F-mount, OEM configuration Custom
<b>Defect Correction</b>	Row, Column, Pixel, Hot Pixel, Flat Field Column gain and offset
<b>Options</b>	High Grade Sensor OEM Module, Camera Link Custom Sequencer, TEC Cooler

All illunis cameras come with our free camera control software, which allows interactive setup of all camera parameters.



## DIMENSIONS



## APPLICATIONS

- ✓ DNA SEQUENCING
- ✓ LCD/FPD INSPECTION
- ✓ DOCUMENT SCANNING
- ✓ SCIENTIFIC IMAGING
- ✓ MILITARY APPLICATIONS
- ✓ PERSISTENT SURVEILLANCE
- ✓ PCB INSPECTION

NOT APPLICABLE FOR BIOMETRIC APPLICATIONS

### ROI Increases Frame Rates:

- ✓ HD (1920 X 1080) at 96+ fps
- ✓ UHD (3840 X 2160) at 30+ fps
- ✓ 29M (6575 X 4384) at 9.8 fps
- ✓ 50M (8176 X 6132) at 5.8 fps
- ✓ VGA (640 X 480) at 357 fps

The Pleora EBUS SDK can be found at:  
<http://pleora.com/our-products/ebus-sdk>

# Get in Touch

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