





# <u>Multi-purpose camera</u>

From planetary imaging to autoguiding Sony HAD ICX098BL-E - 310Kpx Monochrome CCD Sensor

# **Description**

- Sony HAD ICX098BL-E CCD sensor (640 x 480 pixel array) with a high quantum efficiency in the visible spectrum.
- Ideally suited for **planetary high resolution imaging**, thanks to a good sensitivity in the visible spectrum.
- Provides 2x2 binning (320 x 240) to get a 11.2μm square pixel to be able to detect a faint star for autoguiding.
- **C-mount thread** (this standard allows users to take different kinds of adapters like 1.25" eyepiece holder, camera objective lens with step down ring, ...).

# is Nova

## Technical features

CCD Sensor	Sony HAD ICX098BL-E 1/4"
CCD Matrix (L*H)	640*480
Pixel size	5.6μm x 5.6μm
Binning 2x2	$\checkmark$
ROI (region of interest)	$\checkmark$
A/D converter	10/12bit
Frame rate (8/12bit)	Up to 60 FPS at full resolution
Exposure time	From 0.1ms to infinity
Interface	USB2.0
Communication port	For filter wheel control, focusing motors control and telescope mount control (ASCOM V6)
File format	BMP, AVI (8bit), FITS (8/16 bit) and SER (8/16bit) which can be read directly with main softwares like RegiStax V6.1, Avistacker V2, AutoStakkert! V2
ASCOM	ASCOM V6 Plugin available and tested with PHDGuiding V1.14, AstroArt V4 & V5, MaximDL V5, Prism and all softwares using ASCOM protocol
Dimensions	50 x 50 x 40mm
Weight	170g (6 oz)



Microsoft	Windows XP SP3, Vista, W7, 8, 8.1 x86/x64 Compliant with Microsoft Directshow. The SDK is available on request for programming (Microsoft C# or C++).
Linux	Linux drivers (INDI) are available.
MacOS	Drivers are not available but it is possible to run <i>i–Nova</i> cameras in <b>emulation Windows mode</b> with Bootcamp.

i-Nova is a registered trademark of M42 Optic SARL in France and other countries.

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#### Quantum efficiency

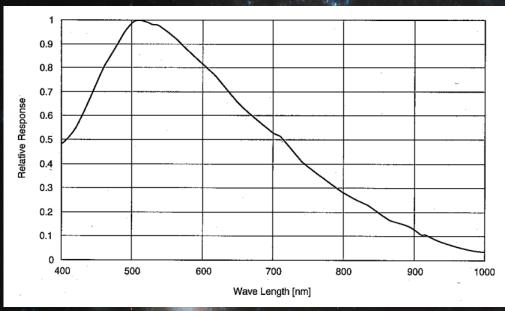
Performance

Mode

Fast mode

Normal mode

Low speed mode



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**PLA-M Camera** - USB2.0 , ST4 and TTL serial communication ports



#### Camera has a female Kodak thread socket



PLA-M Camera - Front side

## Included accessories

- C mount to 1.25" adapter
- USB2 cable for PC connection
- Software pack including:
  - PLxCapture control and acquisition specific software and conversion format utility (video),
    ASCOM plugin.

New software releases are available for download from FTP site <u>www.inova-ccd.fr/download</u>

Frequency

24Mhz

12Mhz

6Mhz

#### <u>Options</u>

• Autoguiding cable RJ12 connector for ST4 port.

Method to reduce readout noise with lower frequency:

Planetary 8/12bit

Planetary 12bit

Deepsky 12bit

Visual enhancement &

Usage

- Peltier cooling system kit with or w/o temperature regulation.
- **Recommanded accessories**
- Motorised filter wheel 5 or 8 positions provided with ASCOM plugin
- Electronic viewfinder: C/CS mount objective lens, FL from 2.1mm (150° fov) to 25mm (11° fov)
- GPS module with USB2.0 port
- C mount to female T2 adapter

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