

# iNova

*PLB-Mx2*  
*PLB-Cx*



## Multi-purpose camera

*From lunar/solar & deepsky imaging to autoguiding*

*Aptina MT9M034 - 1.2Mpx Monochrome & Color CMOS Sensor*

### Description

- New **Aptina MT9M034 Cmos sensor (1280 x 960 pixel array)** with a very high quantum efficiency from the visible spectrum to the near infrared (IR) region.
- Ideally suited for **lunar/solar high resolution imaging**, and deepsky imaging, thanks to an excellent sensitivity from the visible spectral range to the near infrared region, with a very low electronic noise which allows long exposure times.
- Provides **2x2 binning** (640 x 480) to get a 7.5 $\mu$ m 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, ...).



## Technical features

CMOS Sensor	Aptina MT9M034 1/3"
CMOS Matrix (L*H)	1280*960
Pixel size	3.75µm x 3.75µm
Binning 2x2	✓
ROI (region of interest)	✓
A/D converter	10/12bit
Frame rate (8/12bit)	Up to 30 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)



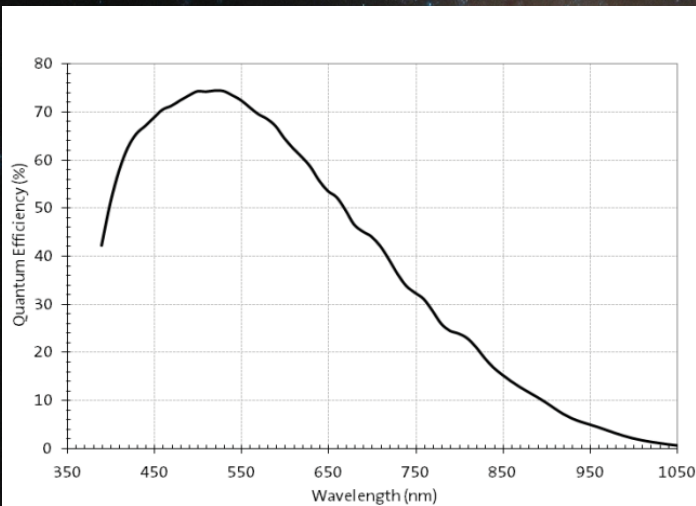
## Software and compatibility

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.

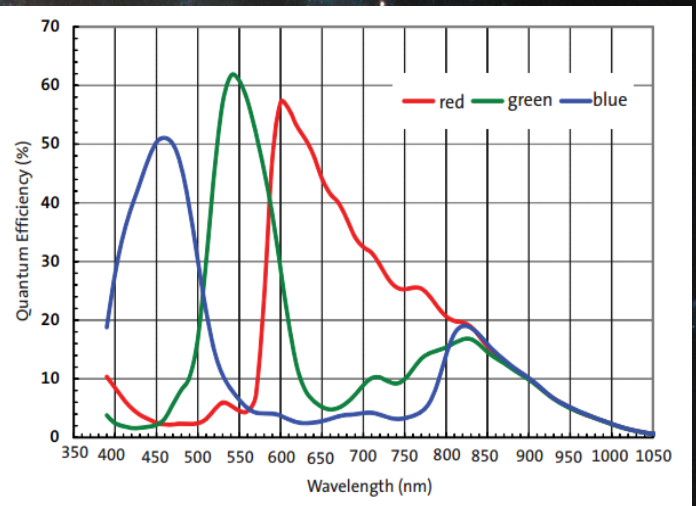


## Quantum efficiency

Monochrome sensor (PLB-Mx2)

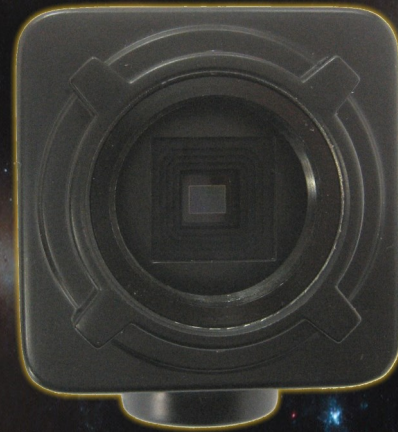


Color sensor (PLB-Cx)



## Performance - Frame rate (FPS), 8bit mode:

Resolution	Frame rate
1280*960	34 FPS
1280*480	68 FPS
1024*768	43 FPS
800*600	82 FPS
640*480	104 FPS
400*400	119 FPS
320*240	200 FPS



PLB-Mx2 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 [www.inova-ccd.fr/download](http://www.inova-ccd.fr/download)

### Options

- Autoguiding cable RJ12 connector for ST4 port.
- Peltier cooling system kit with or w/o temperature regulation.

### Recommended accessories

- Motorized 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



**iNova**



*PLB-Cx Camera - Front side*

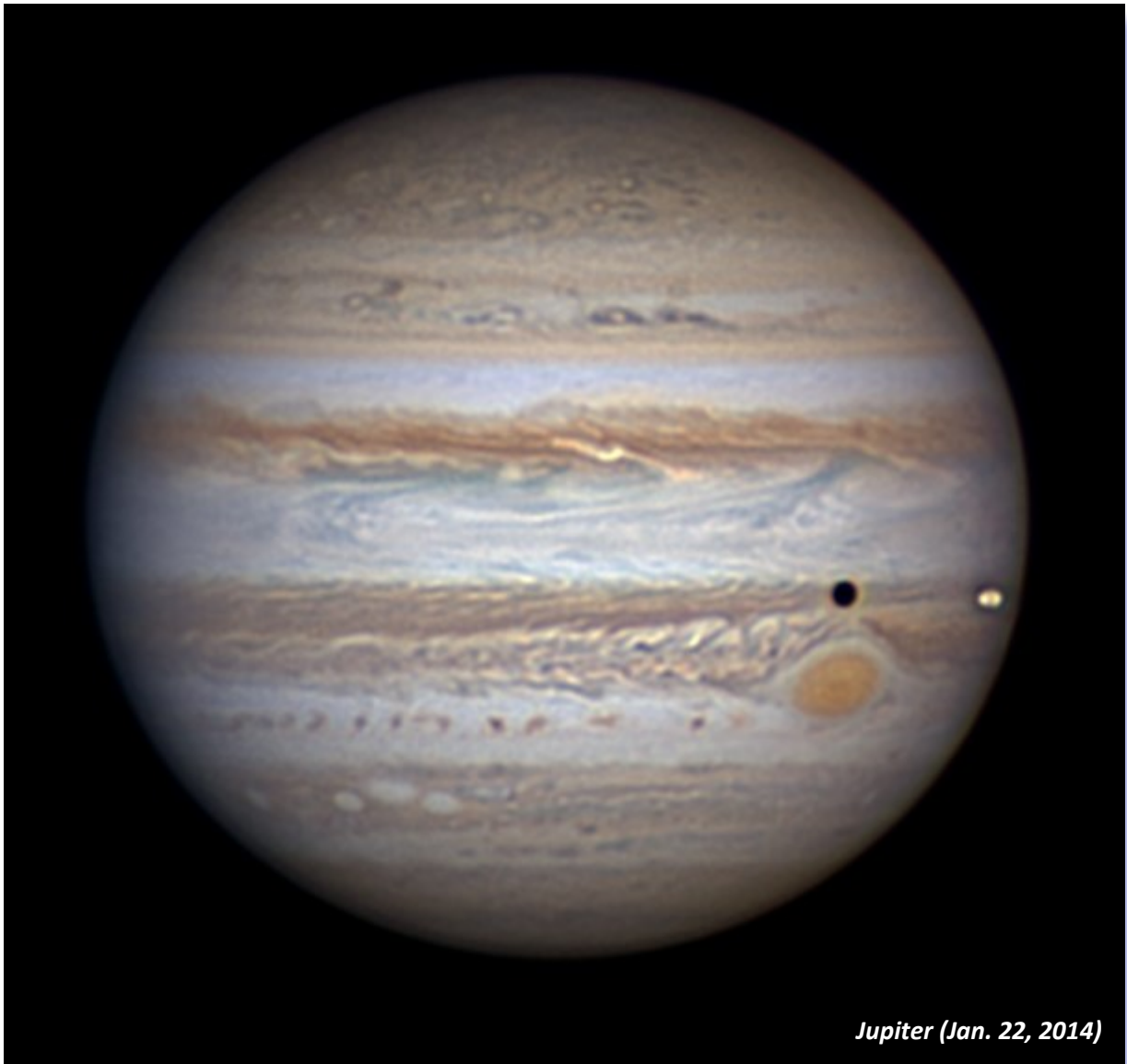


*PLB-Mx2 Camera - USB2.0 , ST4  
and TTL serial communication ports*

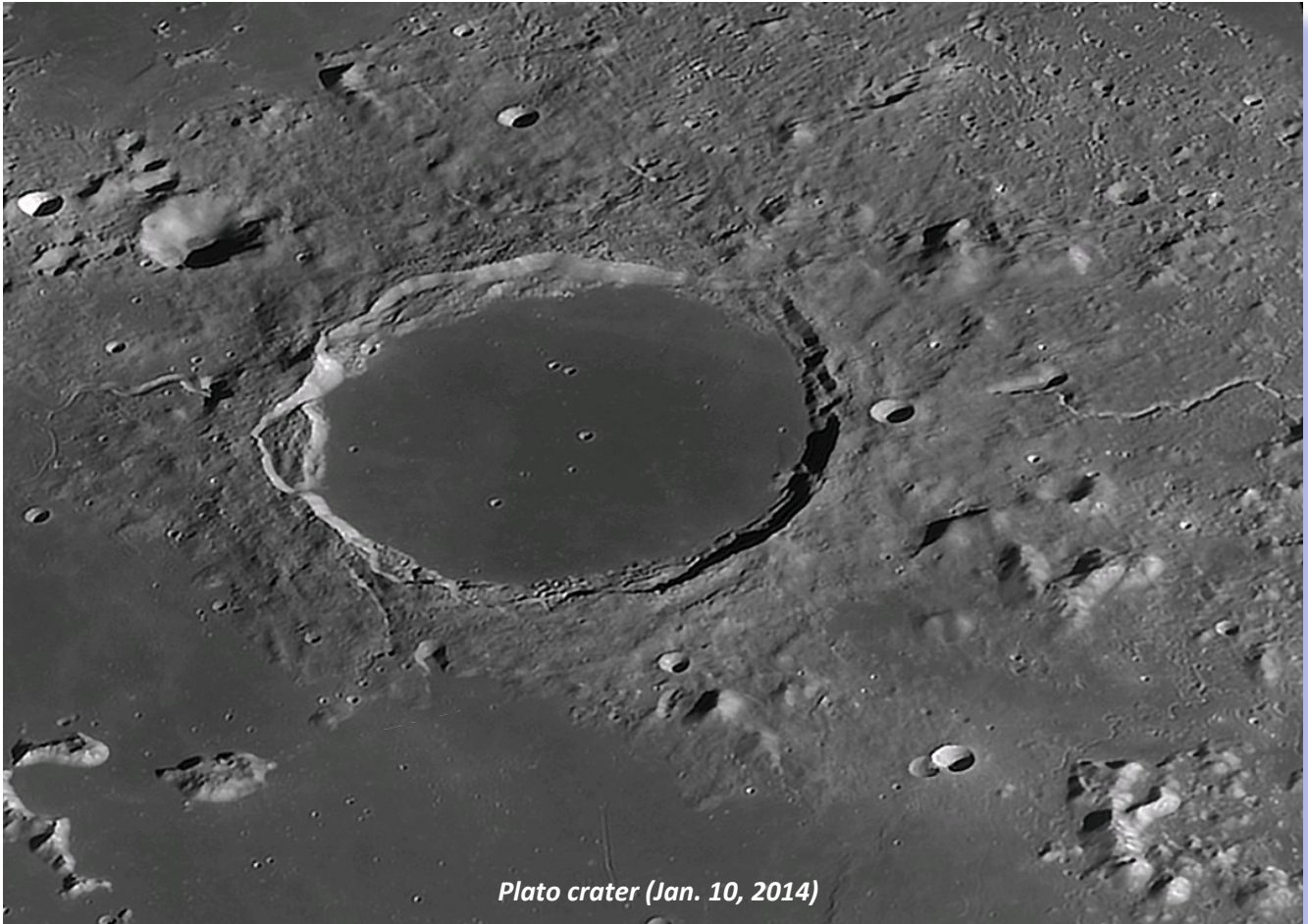


*Camera attached on an **objective lens***

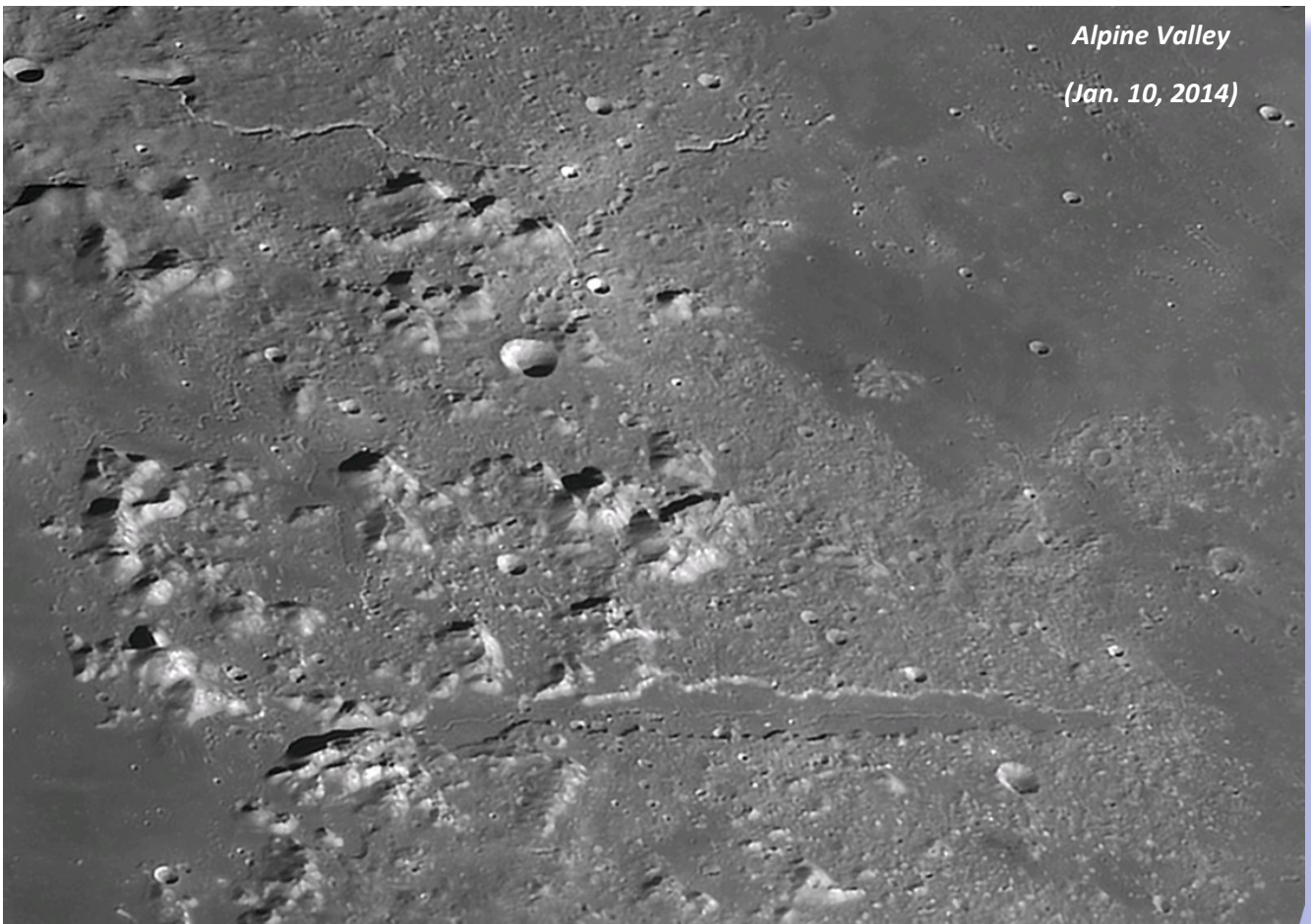
[Photo gallery with photos taken by users](#)



*Jupiter (Jan. 22, 2014)*



*Plato crater (Jan. 10, 2014)*



*Alpine Valley  
(Jan. 10, 2014)*

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