Omegon ED100 Imaging test

Carlos Malagón

Omegon is a large brand of telescopes and accessories. Today we are testing one of its best seller telescopes. The Omegon ED100 APO.

These are the main features of the telescope according to the manufacturer

- Doublet design ED-Apo with 100mm aperture and 600mm focal length
- 360° rotatable 2.7“ focuser
- M72 thread (e.g. for your present Takahashi accessories)
- comes with robust tube rings included
- extended length 61cm, retracted length 50cm
- OTA weight only 3.5 kg, total weight with case 7.6 kg
- case dimensions 56x20x32cm

At first glance it looks nice and has a nice focal lenght to be used with a medium size ccd camera.

For our testing purposes we are going to use the following

Equipment

-1 Omegon ED100 Apo refractor

-1 Vixen New Atlux mount

-1 Sbig ST-10XME with AO8 and filter wheel.

The ccd sensor grants, in conjuction with the telescope, a field of view of 57,3 x 85 arc minutes with a resolution of 2,33 arcseconds per pixel.

Observing site

El Torcal de Antequera (Málaga). Europe´s most important Karstic landscape

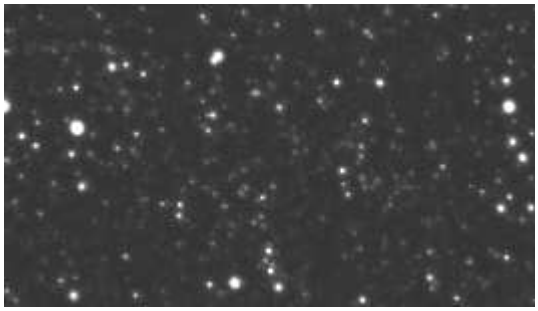
It is getting dark and the sky promises a excellent observing session. We look forward starting!

The telescope itself

It really looks well made. The suitcase is also a feature included. A finder is something I have missed.

An excellent sturdy rack and pinion focuser allows you to hold a heavy camera and accesories. Our camera is very demanding on this side, because of its large weight, and dislike cheap crayford focusers. Focusing was extremely simple and accurate. I did not have to change focus during the whole night.

All these are first impressions, let us make it work and see how far is able to go.



Stars are extremely small on the screen and there is no coma on any corner with our sensor of 21,5mm of diagonal.

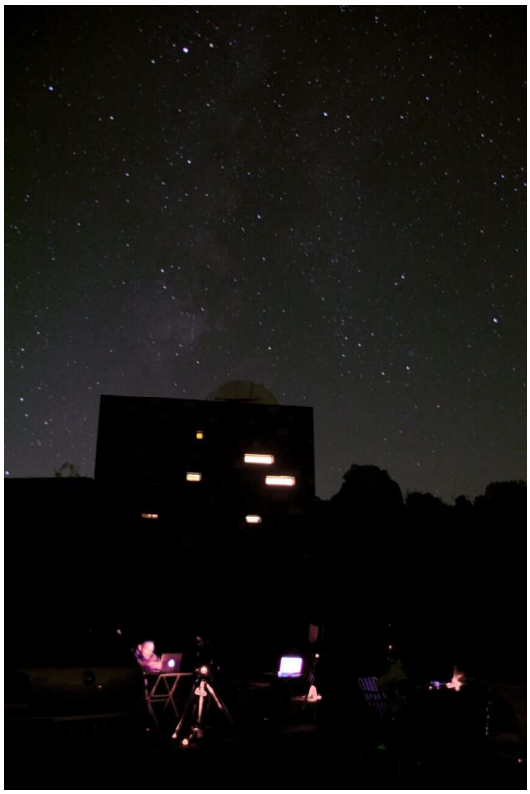
All these details are important to get into consideration, but the real test is on the field, so...

Let´s start

Messier 11, or wild duck cluster, is well positioned in Scutum constellation.

This is our first target. I am sure that the crowded background of stars in the field of view will deserve it. This photo took only 39 minutes and second target was fixed on Andromeda galaxy. Our neighbour do not dissapoint anyone. At the time of finishing with Andromeda, NGC253, or sculptor galaxy, was reaching the meridian and this became the third photo. Finally, the Bubble nebula (NGC7635) was a nice frame to be taken with the near cluster M52.

The night is just fantastic. No wind and temperature around 19 degress Celsius.



Imaging place with the Milkyway in the background

Photo by Jesús Fernández

Messier 11. Wild duck cluster in Scutum constellation.

Technical data of the photo Luminance 24 x 60seconds unbinned. RGB 5 x 60seconds binning 2x2

Messier 31. Andromeda Galaxy.

Technical data of the photo Luminance 30 x 60seconds unbinned. RGB 10 x 60seconds binning 2x2

NGC 253. Sculptor galaxy.

Technical data of the photo Luminance 19 x 60seconds unbinned. RGB 7 x 60seconds binning 2x2

NGC 7635 & M52. Bubble nebula and cluster.

Technical data of the photo Luminance 40 x 60seconds unbinned. RGB 10 x 60seconds binning 2x2

I am really excited with the results. The telescope, being 4" in diameter, delivers nice resolution to all the photos and collects enough light to go deep very fast. It is very portable and the quality of the mechanics gives you excellent results. The non anti-blooming camera made me to take very shorts exposures to avoid the light to spread along the pixels, however 60 seconds per subframe were enough to get such nice views of the sky.

Driving back home at 03:30 am made me feel very satisfy with all the targets achieved. Four photos in one night!.

I am sure this is not the only time I will take photos with this telescope.

Thanks to

El Torcal Observatory for supporting us with power supply and use its facilities.

Javier Muñoz and Jesus Fernandez for their companion.

Málaga, October the 19th 2014.