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The color ASI 2600 MC Pro camera is one of the newest propositions of the ZWO company, addressed mainly to people who deal with very advanced astrophotography. The heart of this camcorder is the color CMOS sensor developed by Sony. Above all, the IMX571 sensor is characterized by a very low noise of only $0.0024 \text{ e} / \text{s} / \text{px}$ at 0°C . This means that with a 300-second exposure, the total noise is less than 1e , which means it is negligible in practice. Developed by the Japanese, the light-sensitive element uses the backlight technology, thanks to which it is much more sensitive than matrices made in the traditional technology, in which metal electrodes and transistor elements are located between the light source and the photodiode surface. In the case of the Sony IMX571 sensor, these elements do not cover the active surface. Another advantage of the back-illuminated light sensor is the elimination of the Amp-Glow effect. This phenomenon, manifested in the brightening of the image with long exposure, has been the bane of astrophotographers for a very long time. The ASI 2600 MC Pro camera is another model in the offer of the ZWO company that is free from this problem. A 16-bit analog-to-digital converter is responsible for signal processing while maintaining the highest tonal

range and the maximum dynamic range. This product is also characterized by an extremely complex temperature regulation system. The two-stage Peltier module keeps the temperature of the CMOS matrix low, guaranteeing almost immeasurable noise, and the special heater surrounding the protective glass eliminates the risk of condensation. The most important features of the ZWO ASI 2600 MC Pro Color camera " color matrix Sony IMX571 APS-C format with a resolution of 26 MPix " 16-bit ADC converter guaranteeing high dynamic range of the image " 256 MB of DDR3 memory acting as a buffer ensuring stable data transmission " efficient and energy-saving, two-stage cooling system based on the Peltier module " built-in heater to prevent condensation Technical parameters " matrix: Sony IMX571 (color) " matrix type: CMOS with backlight " matrix size: 23.5 x 15.7 mm (APS-C format), diagonal 28.3 mm " matrix resolution: 26 MPix, 6248 x 4176 px " single pixel size: 3.76 μm " capacity well of the potential: 50 ke " reading noise: $<1 - 3.3 e$ " quantum efficiency in the peak: 80% " Bayer grid system: RGGB " exposure time: 32 μs - 2000 s " ROI (select area of interest): yes " shutter type: rolling shutter, electronic " back focus: 17.5 mm " die protecting plate: D60-2 IR Cut " thickness of the glass protecting the matrix: 2 mm " transmittance of the glass protecting the matrix: $> 90\%$ @ 425 - 670 nm " buffer size: 256 MB DDR3 " ADC: 16 bit " compatible operating systems: Windows, Mac OS, Linux " ports: 1x USB 3.0 (in), 2x USB 2.0 (out), power socket 12 V, 3 A " cooling system: 2-stage, Peltier cells, $T 35^\circ\text{C}$, maximum power consumption 12 V, 3 A " built-in heater: yes, polyamide, 5 W " minimum permissible operating temperature: -5°C " maximum permissible operating temperature: 50°C " connector: M42x0.75 " dimensions: 97 x 90 mm " weight: 700 g Supported resolutions 16 bit ADC " 3.51 fps @ 6248 x 4176 " 4.75 fps @ 4096 x 3072 " 6.71 fps @ 4096 x 2160 " 6.71 fps @ 3840 x 2160 " 13.13 fps @ 1920 x 1080 " 19.29 fps @ 1280 x 720 " 28.06 fps @ 640 x 480 " 51.44 fps @ 320 x 240 Kit components " ZWO ASI 2600 MC Pro Color camera " camera cover " M48-M42 adapter " documentation " USB 3.0 cable (2 m) " 2 x USB 2.0 cable (0.5 m) " distance M42 - M42 21 mm " distance M42 - M48 16.5 mm " plugs " Allen key Warranty 24 months