



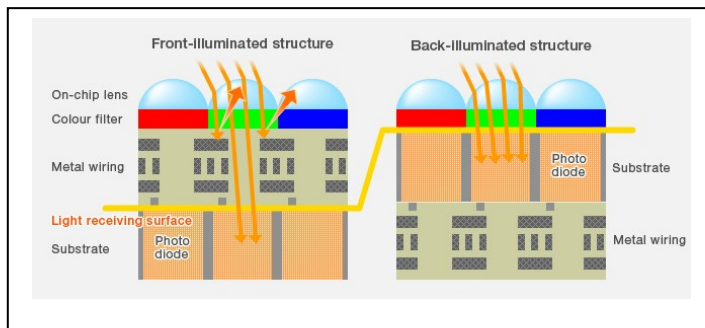
QHYCCD

New Product Announcement QHY183M 20 Megapixel 1" Back-Illuminated CMOS Monochrome Camera



The **QHY183M** is a one-inch, 20 Megapixel back-illuminated monochrome CMOS camera with a peak QE of 84%. The pixel size is 2.4um, yielding high-resolution with modest size telescopes. The camera is capable of producing 15FPS@20 Megapixels. It has a two-stage TEC that cools the sensor to -40C to -45C below ambient. The ADC is 12-bit / 16-bit with 1e- read noise! The computer interface is USB 3.0 and exposure times can be set from 50us to 3600sec.

Sony's Image Sensor **Exmor R** is a back-illuminated CMOS image sensor with improved sensitivity and noise reduction - the key factors to enhancing image quality, while radically realigning their fundamental pixel structure from front-illumination to back-illumination. It retains the advantages of CMOS image high-speed operation while dramatically improving sensitivity.

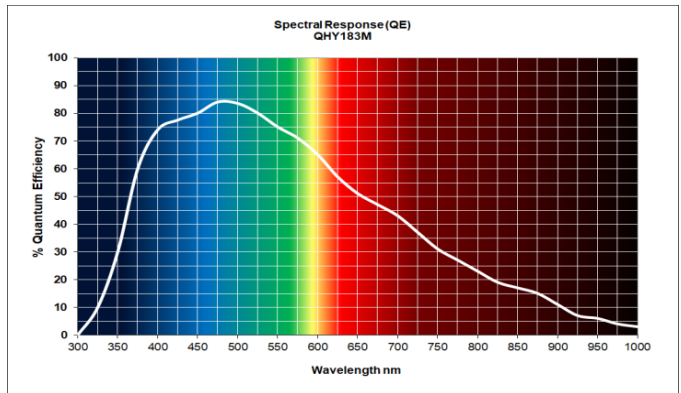
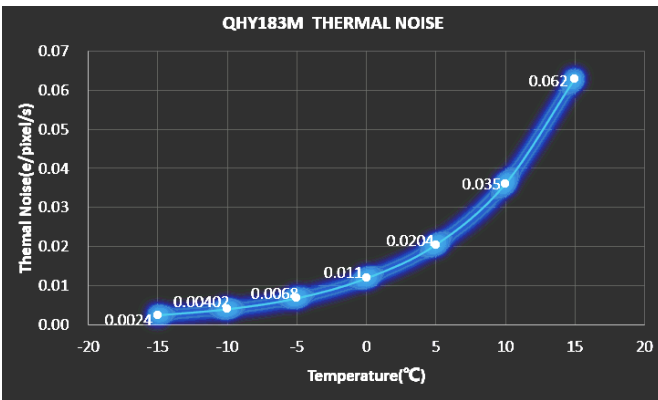
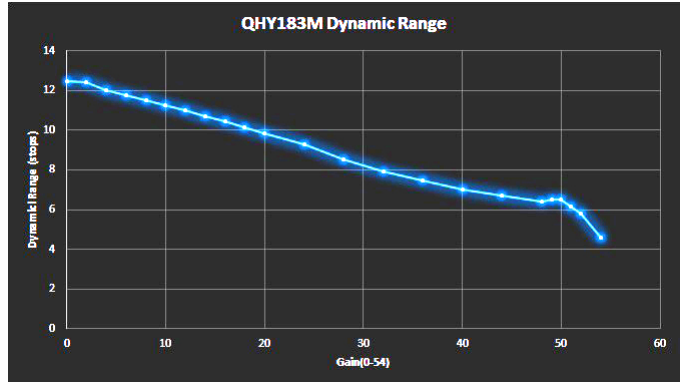
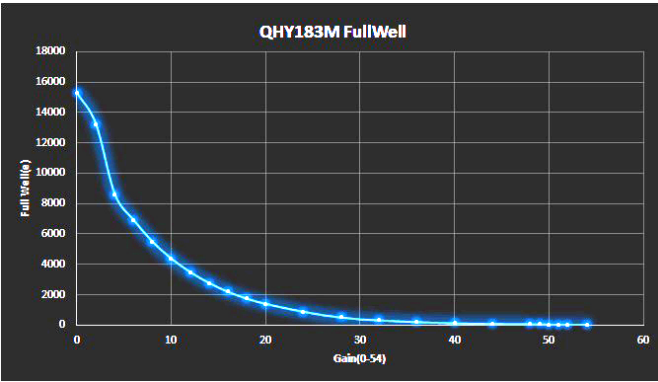
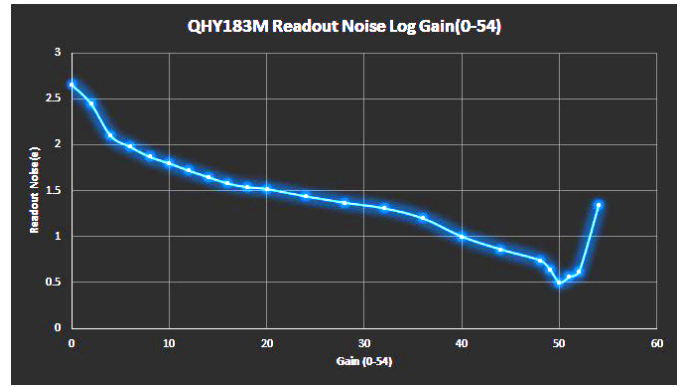
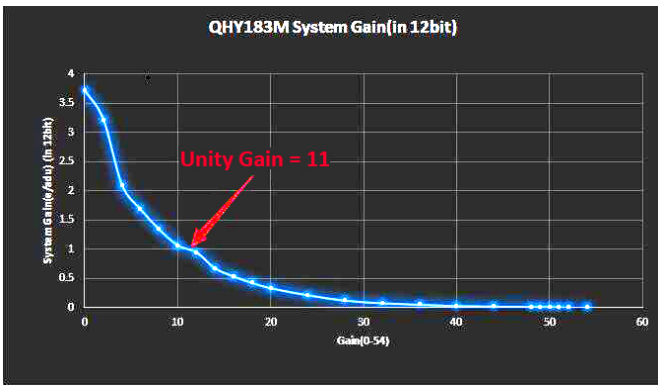


The QHY183M has a **128MB DDR Memory Buffer**. A QHY183M 16-bit image is about 40MB, so 128MB of memory can easily buffer a full frame for transfer to the computer using QHY183M software with native single-frame shooting function, instead of intercepting a frame from a continuous video transmission. This makes data transfer to the computer stable and reliable because there is no USB bandwidth or busy CPU problems.

The QHY183M utilizes the **Anti-Dew** features common to the QHY COLDMOS cameras. A heated optical window prevents exterior dew from forming, and the CMOS chamber has a desiccant plug socket to prevent moisture from forming on the sensor at cold temperatures.

The QHY183M incorporates QHY's **Anti-Amp Glow** technology to significantly reduce typical CMOS amplifier glow to a minimum, allowing excellent calibration by subtracting a dark frame.

The QHY183M includes a **Filter Wheel Package**. Get a QHYCFW3, 7-Position Filter Wheel at half-price with the purchase of a QHY183M camera!



QHY183M			
Sensor	Sony IMX183 Back-Illuminated CMOS	Peak QE	84%
Optical Format	Typical 1-inch	Read Noise	1.0e@high gain, 2.7e@Low gain
Sensor Size	13.3mm x 8.9mm	Dark Current	0.0024e-/p/s@-15C
Pixel Size	2.4um x 2.4um	Frame Rate	15FPS@20Mp, 25FPS@4K HD, 5FPS@12Mp
Effective Pixels	5544 x 3694, 20 Megapixels	Full Well	15ke- to 16ke-
Binning	1 x 1	Cooling Delta T	2-stage TEC, -40C Regulated
Readout Type	Progressive Scan	Computer	USB3.0
Shutter	Electronic Shutter	Mechanical	M54/0.75 female thread
Exposure Time	50us-3600 sec	Weight	699g
Frame Rate	15FPS@20Mp, 25FPS@4K HD, 5FPS@12Mp	Power	30W @ 100% TEC, 13W @ 50%TEC
Reference Price	\$1099. Plus 50% off the price of a QHYCFW3S Filter Wheel or 50% off the price of a QHY183C Color Camera with the purchase of a QHY183M.		

For more information visit <http://www.qhyccd.com>