



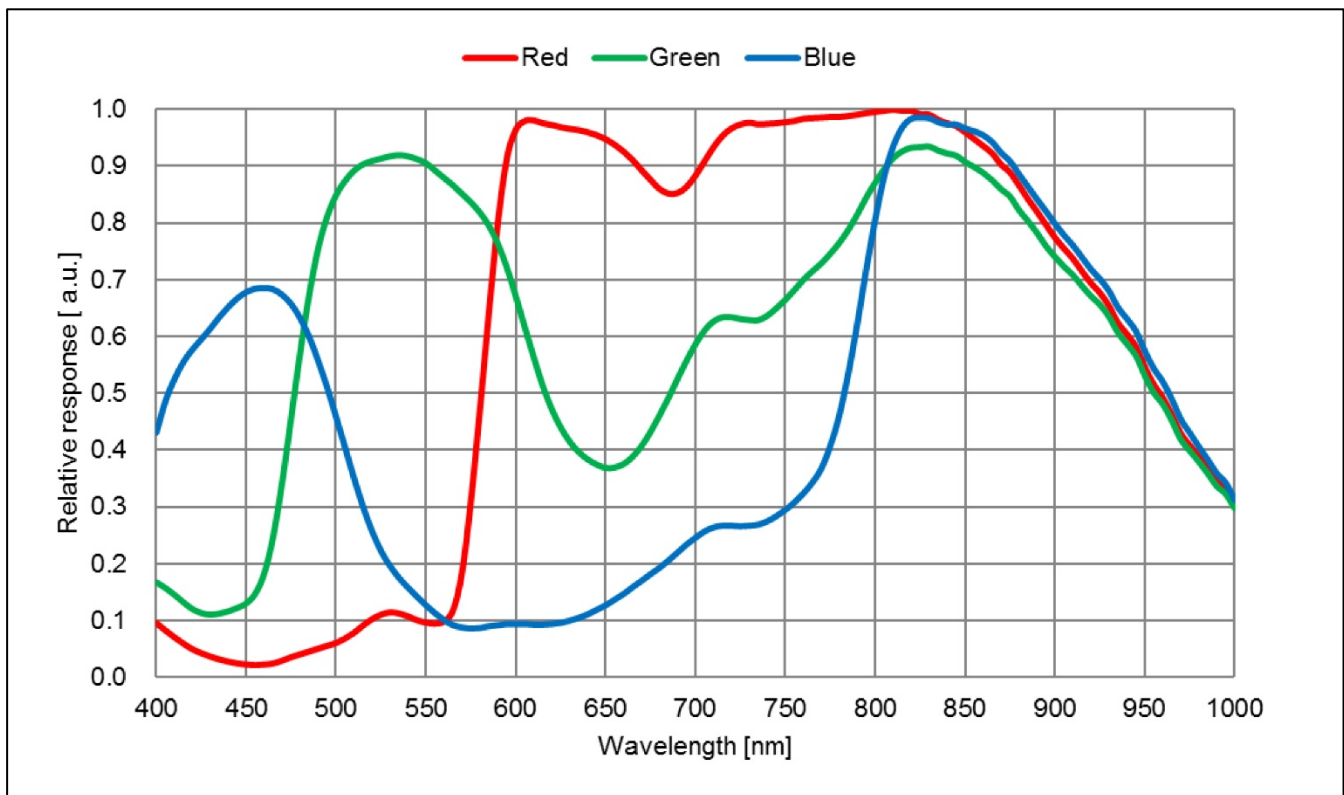
New Product Announcement QHY5III715C



Affordable Entry Level Planetary Camera and Guider

QHY5III715C Introduction

The QHY5III715C is an ultra-high resolution back-illuminated color camera with extremely low read noise. The sensor has a 1/2.8-inch optical format, similar to the QHY5III462C. However, the QHY5III715C has 4X as many pixels as the QHY5III462C for 4K resolution with 1.45um pixels in a 3830 x 2160 array. This makes the new QHY5III715C ideal for smaller short focal length refractors. The exceptionally small pixels subtend a FOV of less than 1 arcsecond at focal lengths of 12 inches (300mm) or longer. The QHY5III715C inherits all of the updates and improvements of the QHY5III Series Ver. 2 line of cameras (See below).



Extended Near Infrared Sensitivity

Also similar to the QHY5III462, the new QHY5III715C has extended NIR spectral sensitivity. In this latest generation of sensors, the photodiodes are physically deeper than in previous sensors, allowing photons of longer wavelengths to penetrate deeper into the substrate. This dramatically increases the sensor's sensitivity to red and near-infrared (NIR) light. The sensor displays almost equal peak sensitivity to NIR light as it does to light in the visible spectrum.

New QHY5III V.2 Models

As the fourth in the latest QHY5III series V.2 planetary cameras and guiders, the QHY5III715C includes all of the improvements and upgrades found in this latest series of cameras, including:

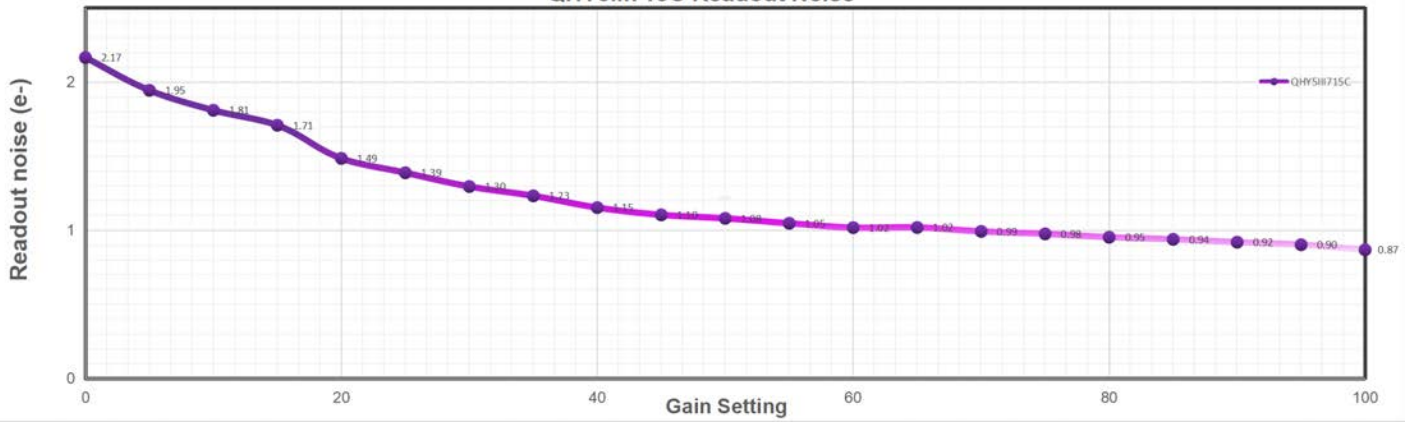
- Larger 512MB DDR3 image buffer
- Improved front end design
- CS and C-mount lens compatibility
- USB 3.2 Type C interface
- Universal ST-4 guiding port
- Status indicator LED
- 1.25" body size for maximum compatibility



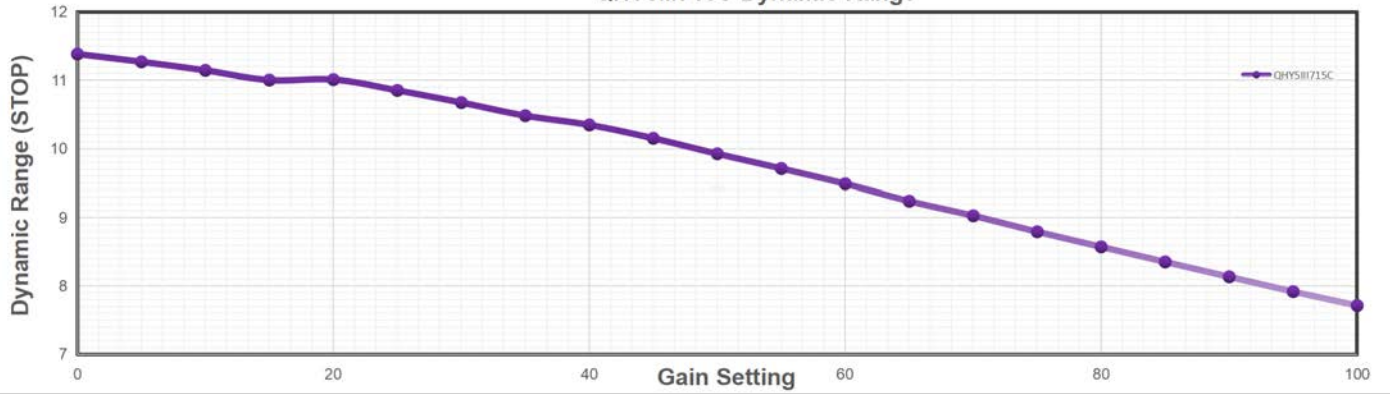
PRELIMINARY SPECIFICATIONS

Model	QHY5III715C
CMOS Sensor	Sony IMX715 BSI Sensor – Color only
Pixel Size	1.45um x 1.45um
Pixel Area	3840 x 2192
Effective Pixels	8.4 Megapixels
AD Sample Depth	12-bit (output as 16-bit and 8-bit)
Built-in Image Buffer	512MB DDR3 Memory
Read Noise	0.87e- to 2.17e-
Ful Well Capacity	5.7ke-
Exposure range	11us – 900 sec.
Frame Rates	Full Resolution, 42 FPS at 8-bits 1920 lines, 83 FPS @ 8-bits, 47 FPS @ 16-bits 640 lines, 99 FPS @ 8-bits, 99 FPS @ 16-bits
Shutter Type	Electronic Rolling Shutter
Computer Interface	USB3.2 Gen1 Type-C
Guide Port	Universal ST-4 compatible
Telescope Interface	1.25-inch, compatible with CS or C-mount by changing the front-end connector. (UV/IR-Cut filter included. IR850nm filter optional)
Back Focal Length	8mm
Weight	90g

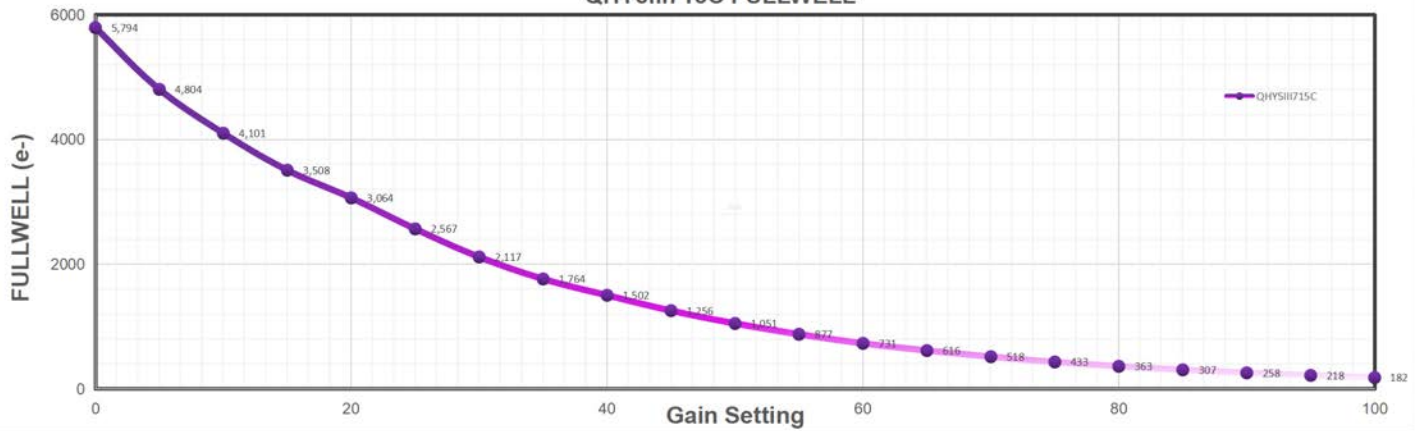
QHY5III715C Readout Noise



QHY5III715C Dynamic Range



QHY5III715C FULLWELL



QHY5III715C System Gain

