

Model STF-8300



The new Model STF-8300 is SBIG's second-generation camera using the popular KAF-8300 CCD. The STF-8300 has new, faster, electronics with 10-megapixel/second digitization rate and a full frame image buffer. A high res image will download in less than one second. The camera uses SBIG's traditional even-illumination (photometric) shutter design and adds a user rechargeable desiccant plug similar to the proven ST, STL, and STX designs. Integrated 5-position and 8-position filter wheels are available as well as a new integrated, low profile, wide field off-axis guiding accessory that, with the ST-i, turns the STF-8300 into a self-guiding camera.



Low Profile, Wide Field Off Axis Guider

The new Low Profile Off-Axis Guider is designed with a 7-element relay lens system that places the position of the guide camera to the side of the main camera and filter wheel. This allows a minimum impact on overall backfocus. The same lens system also acts as a 0.7X focal reducer that doubles the field of view of the guide camera compared to a typical off-axis system. The OAG adds only $\frac{3}{4}$ in. (19mm) backfocus to the camera and filter wheel. The guide camera can also be rotated in 90 degree increments about the OAG to orient the guide camera and cables in a convenient position.

The OAG can be used on both mono and color cameras (with appropriate adapter) and is 100% backward compatible with all ST-8300 cameras.



STF-8300 Preliminary Specifications

CCD	Kodak KAF-8300
Pixel Array	3326 x 2504 pixels
CCD Size	17.96 x 13.52 mm
Total Pixels	8.3 million
Full Well Capacity	~25,500e-
Dark Current	0.002e- / pixel / sec at -10°C
Antiblooming	1000X
Shutter	Even-Illumination, Mechanical
Exposure	0.09 to 3600 seconds
A/D Converter	16 bits
Gain	0.37e- / ADU
Read Noise	~9.3e-
Binning Modes	1 x 1, 2 x 2, 3 x 3, etc. – 15 x 15
Digitization Rates	10 Megapixels / Second
Full Frame Download	Less than 1 second
Cooling	-40°C max. from ambient
Temp. Regulation	+/- 0.1 degree
Power	12VDC, 3 amps max
Interface	USB 2.0
Computer Compatibility	All Windows O/S, 32-bit and 64-bit, Mac OSX
Camera Body Size	2 x 4 x 5 inches (50 x 100 x 127 mm)
Mounting	T-thread, 2" Nosepiece
Weight	1.8 pounds (0.8 kg)
Backfocus	0.69 inches (17.5 mm)

