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STL-1001E

Typical Specifications



CCD	
CCD	KAF-1001E
Total Pixels	1.0 million
Array	1024 x 1024 pixels
CCD Dimensions	24.5 x 24.5 mm
Pixel Size	24 microns
CCD Type	Full Frame
CCD Class Available	1, 2, 3
ABG/NABG	NABG only
Full Well Capacity	200,000e-
Dark Current e-/p/s at 0°C	9e-
Read Noise	14.8e- RMS
Gain e-/ADU	2
Full Frame Download	~10 seconds
Antiblooming	No
Peak QE	72%
Focal Length at 1 arcsecond per pixel	195 inches
FOV at 1 arcsecond per pixel	0.3 x 0.3 degrees

Camera Mechanical Specifications	
Dimensions	6.5 x 6 x 3.5 inches (16.5 x 15.2 x 8.9 cm) excluding nosepiece and handles
Weight	Approx. 4 lbs. (1.8kg) without filters
Computer Interface	USB 1.1 (transfer rate approx. 425,000 pixels/second)
Telescope Interface	Threaded accessory ring, mounting plate and 2" nosepiece supplied, Nikon 35mm lens adapter optional
Filter Wheel	5 position internal carousel accepts 48mm threaded filter cells and 2" unmounted round filters

Shutter	Internal Mechanical Shutter on all cameras, plus electronic shutter on Interline CCDs
Cooling	2 stage thermoelectric, water circulation, -40°C below ambient with uncooled water, regulated to +/- 0.1 degree (~32°C air only). Further cooling may be achieved by using water cooled below ambient and above the dew point.
Backfocus	Approximately 1.7 inches +/- 0.1 inches (~4.3 cm +/- 0.25 cm) with 2" nosepiece attached
Power Requirements	10 – 18VDC, 12VDC nominal, Universal 110 - 220VAC to 12VDC desktop supply provided (extension cord and 12VDC field power cord are optional)
Carrying Case	Pelican 1550 Case with custom cut foam insert
Software	CCDOPS ver. 5.xx, CCDSoftV5, CCDSharp, TheSky v.5, level II

Remote Head Mechanical Specifications	
Dimensions	2.75 x 2 x 2 inches (7 x 5 x 5 cm) excluding nosepiece and desiccant plug
Weight	Approx. 0.5 lbs. (0.23kg)
Computer Interface	USB 1.1 through main camera to computer. Proprietary protocol between remote head and camera body.
Telescope Interface	T-thread or supplied 1.25" nosepiece, optional T-thread to C-mount and 35mm camera lens adapters
Shutter	Internal Mechanical Shutter for dark frames plus electronic shutter for short exposures
Power Requirements	None (Remote head receives power through the head cable from the main camera)
Mounting connections	1/4-20 threaded hole on side of camera housing

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