

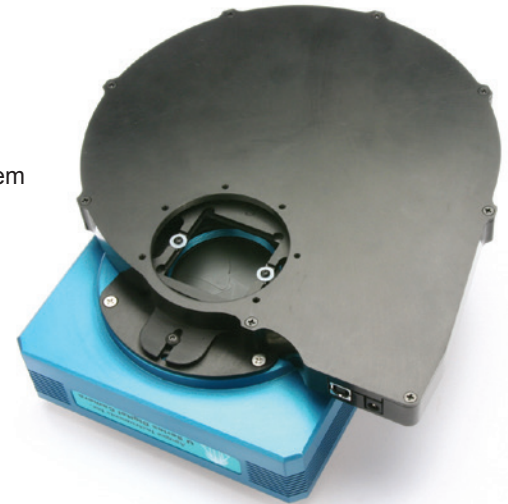
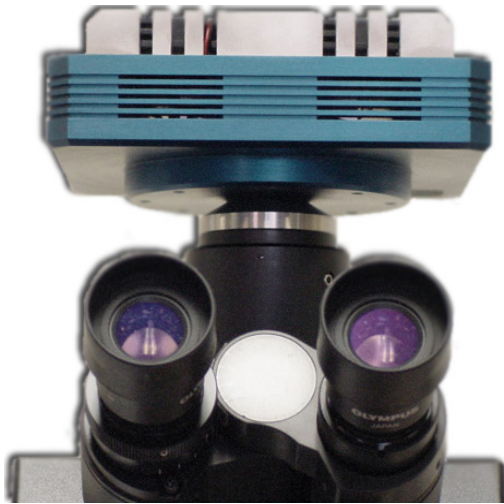
DESCRIPTION

The F47 represents the next step in the evolution of the Alta line of cameras with faster readout speeds. The Alta F47 has a back-illuminated full frame megapixel CCD with exceptionally high quantum efficiency. The standard midband coating (F47-MB) has the highest peak in the visible; the optional broadband coating (F47-BB) has somewhat higher QE in the near UV but lower QE across the visible. The UV-enhanced version (F47-UV) has the highest QE in the UV. All Alta systems are backed by a 2 year warranty on the camera and lifetime warranty on the CCD chamber integrity.



SYSTEM FEATURES

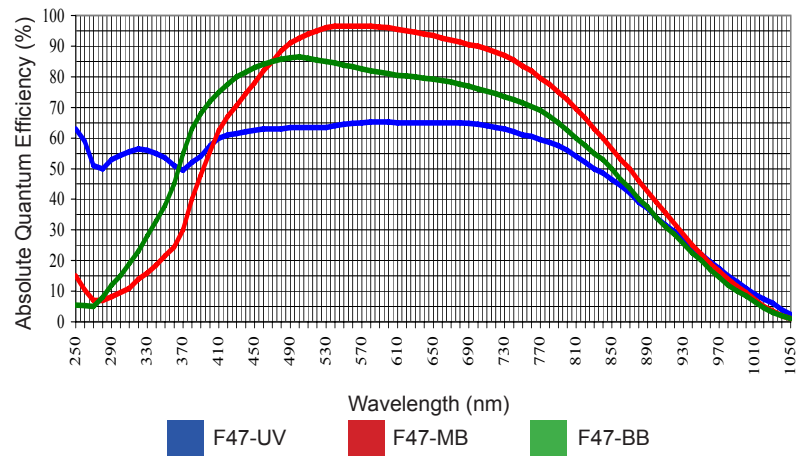
- 1 to 4 MHz 16-Bit digitization
- 32 MByte camera memory
- Field upgradeable firmware
- Subarray readout and fast sequencing modes
- 32/64 bit ActiveX drivers included with every system
- Programmable cooling to 55°C below ambient
 - General purpose programmable I/O port
 - Adjustable fan speed for low/zero vibration
 - Programmable status indicators
- AR coated silica windows
- RBI pre-flash available
- Moisture free chambers
 - Liquid cooling option
- Precision locking filter wheels optional



CCD SPECIFICATIONS

CCD	E2V CCD47-10
Array Size (pixels)	1024 x 1024
Pixel Size	13 x 13 microns
Imaging Area	13.3 x 13.3mm (177mm ²)
Imaging Diagonal	18.8mm
Linear Full Well (typical)	100K electrons
Dynamic Range	83 dB
QE at 400nm	52% (MB); 75% (BB); 57% (UV)
Peak QE	96% (MB); 86% (BB); 65% (UV)
Anti-blooming	None

CCD SENSITIVITY



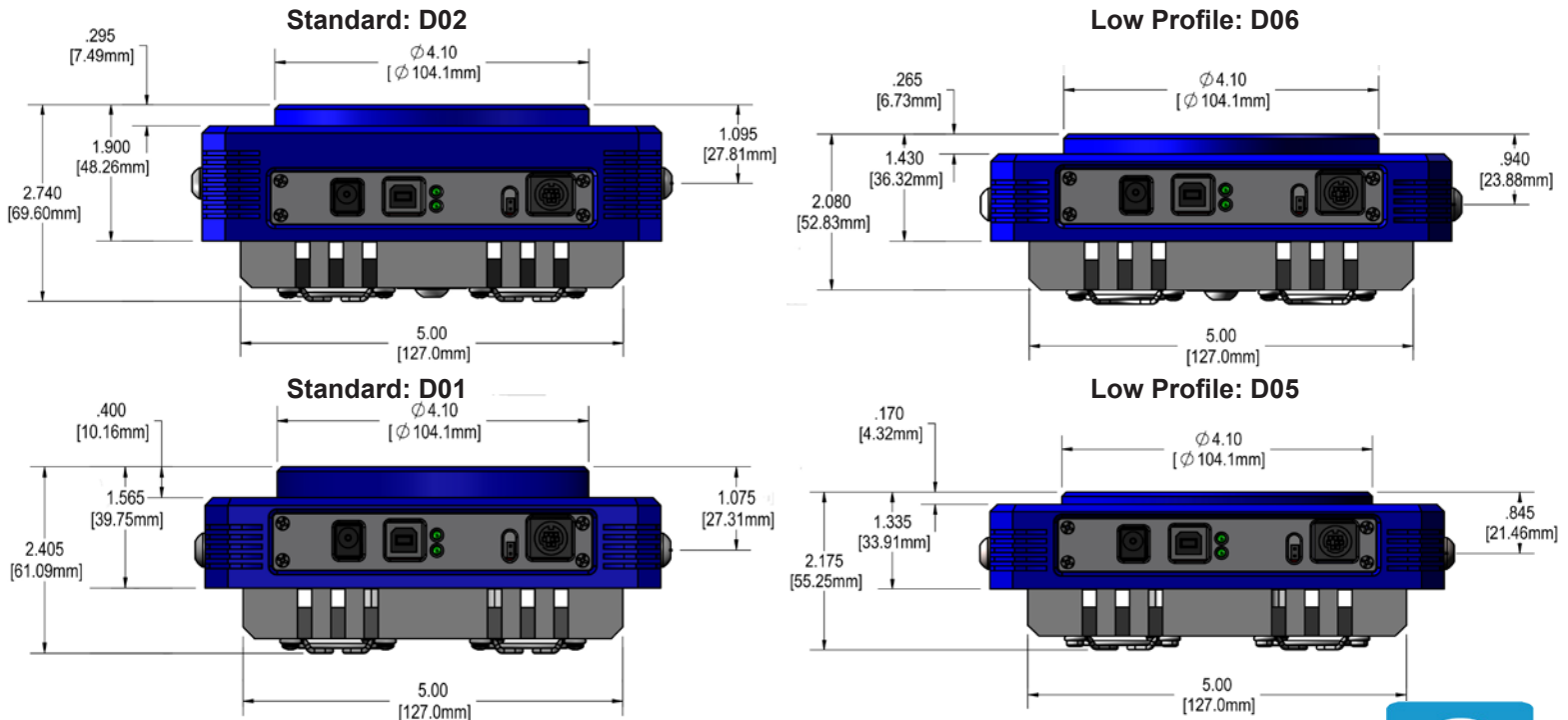
Imaging area of CCD

13.3 x 13.3mm

SYSTEM SPECIFICATIONS

PC Interface	USB 2.0	Operating Environment	-25° to 40°C. Relative humidity: 10 to 90% non-condensing.
Max. Cable Length	5 meters between hubs, 5 hubs maximum (max. total of 30m); or up to 50m with Icron 2.0 Ranger extender	Power	40W maximum power with shutter open and cooling maximum. AC/DC "brick" supply with int'l AC input plug (100-240V, 50-60Hz). Alternate 12V input from user's source.
Digital Resolution	16 bits to 4 MHz	Remote Triggering	LVTTTL input allows exposure to start within 25 microseconds of rising edge of trigger.
System Noise (typical)	9 e ⁻ RMS at 1 MHz	Camera Head Size	D02: Low profile: D06: Aluminum, hard blue anodized. 6"x6"x2.5" (15x15x6.35 cm). Weight: 3.1 lb. (1.4 kg). Also available in D01 (Low profile: D05).
Pixel Binning	1 x 1 to 8 x 1024 on chip	Back Focal Distance	D02: 1.025"(2.60cm). D06: 0.460"(1.17cm). D01: 0.69"(1.75cm). D05: 0.46"(1.17cm). [optical]
Exposure Time	20 milliseconds to 183 minutes (2.56 microsecond increments)	Mounting	D02/D06: 3.5" bolt circle. 2" 24 TPI thread. D01/D05: C-mount (1" 32 TPI thread). Optional Nikon F-mount or Canon FD or EF/ EOS mount on all.
Image Sequencing	1 to 65535 image sequences under software control	Shutter	D02: 43mm shutter. D06: no shutter. D01: 25mm shutter. D05: no shutter.
Frame Sizes	Full frame, subframe, focus mode		
Cooling (typical)	Thermoelectric cooler with forced air. Maximum cooling up to 55°C below ambient temperature.		
Dark Current (typical)	0.2 e ⁻ /pixel/sec (-20°C)		
Temperature Stability	+/- 0.1°C		

CONFIGURATION OPTIONS



EHD imaging GmbH
49401 Damme/Germany
tel +49-5491-2090
e-mail: info@ehdimaging.de
www.ehd.de

