

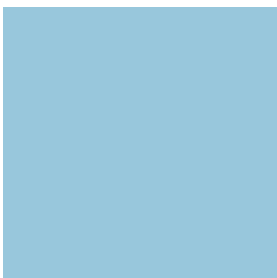


System Features^{*1}

- 16-Bit digitization
- 32 MB camera memory
- Field upgradeable firmware
- Subarray readout and fast sequencing modes
- 32/64 bit ActiveX drivers included with every system
- Programmable cooling to 45°C below ambient
- General purpose programmable I/O port
- Adjustable fan speed for low/zero vibration
- Programmable status indicators
- AR coated silica windows
- Moisture free chambers
- Precision locking filter wheels optional

Size of CCD Imaging Area

36.8 x 36.8 mm



ALTA F16M: Compact, 16 Megapixel CCD

The F16M represents the next step in the evolution of the Alta line of cameras with faster readout speeds. The Alta F16M uses a very large format 16-megapixel full frame sensor with microlenses and anti-blooming gates, ideal for applications requiring large field of view, such as astrophotography, sky surveys and radiology.

All Alta systems are backed by a 2 year warranty on the camera and 3 year warranty on the CCD chamber integrity.

Specifications Summary^{*1}

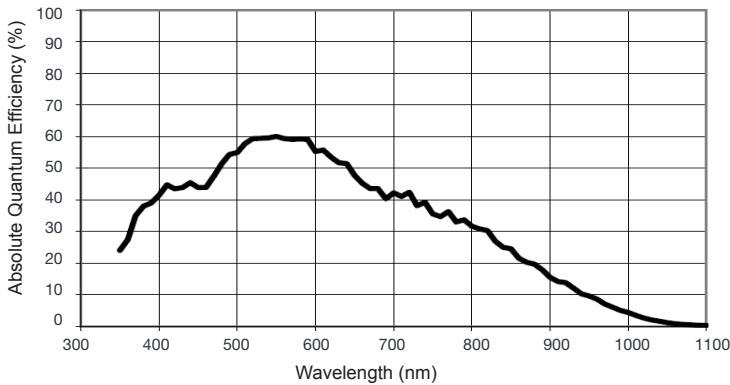
	CCD	Kodak KAF-16803
Array Size (pixels)		4096 x 4096
Pixel Size		9 x 9 μm
Imaging Area		36.8 x 36.8 mm (1359 mm ²)
Imaging Diagonal		52.1 mm
Linear Full Well (typical)		95,000 e ⁻
Dynamic Range		72.6 dB
QE @400nm^{*4}		41.5%
Peak QE @550nm		60%
Anti-blooming		>100%

Specifications^{*1}

PC Interface	USB 2.0
Digital Resolution	16-bit
System Noise (typical)	22.1e- (RMS @0.87 Mhz)
Pixel Binning	1 x 1 to 8 x 4096 on chip
Exposure Time	20 milliseconds to 183 minutes (2.56 microsecond increments)
Image Sequencing	1 to 65535 image sequences under software control
Frame Rate (fps)	0.051 Full frame (@0.87 Mhz) 0.244 Full frame (@4.31 Mhz, focusing mode)
Frame Sizes	Full frame, subframe
Cooling (typical)^{*2}	Thermoelectric cooler with forced air. Maximum cooling up to 45°C below ambient temperature.
Dark Current (typical)^{*3}	0.02 e-/pixel/sec
Blemish Specification	Grade S as per sensor manufacturer definition

Temperature Stability	+/- 0.1°C
Operating Environment	-25 to 40°C. Relative humidity: 10 to 90% non-condensing.
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.
Remote Triggering	LVTTTL input allows exposure to start within 25 microseconds of rising edge of trigger.
Operating System Support	Windows, Linux
Camera Head Size	Aluminum, hard blue anodized. 7"x7"x2.55" (17.8x17.8x6.48 cm) Weight: 4.2 lb. (1.9 kg).
Back Focal Distance	1.005" (2.56 cm) [optical]
Mounting	5.125" bolt circle. 2.5" 24 TPI thread. Optional Nikon F-mount or Canon EOS/EF or FD mount.
Shutter	63 mm shutter.

Quantum Efficiency^{*4}



Ordering Information

Product Description

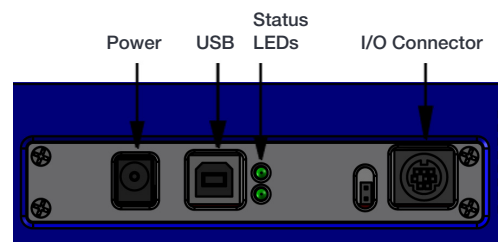
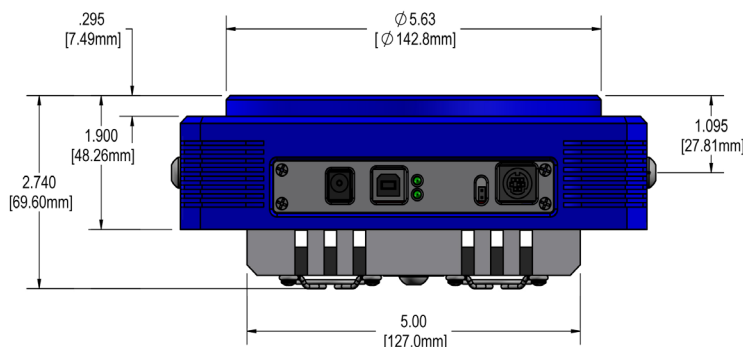
Alta F16M grade S 63 mm Shutter

Part Code

F16M-S-D07-S63

Mechanical Drawings

DO7 (63 mm Shutter)



Footnotes

- Figures are typical unless stated otherwise
- Ambient temperature of 25°C
- At minimum temperature
- Data as supplied by sensor manufacturer

For more information, please see: ccd.com

Apogee Imaging Systems

425 Sullivan Avenue, Suite # 3, South Windsor,
CT 06074, USA

ANDOR
an Oxford Instruments company