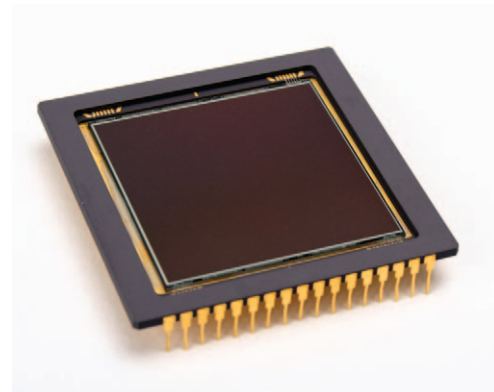




ALTA Camera Systems: Performance Overview

Alta is a platform, not a CCD or specific interface type. It supports a wide variety of CCDs, ranging from the smallest to those measuring 49mm on a side, up to 39 megapixels. Please see http://www.ccd.com/alta_ccd.html for an up-to-date listing. The Alta platform currently supports 11 different housing configurations, including C-mount compatible, high cooling, wide entrance angle, and low profile variants, many with a choice of fans or liquid circulation. For complete description of the various housings, please see the housing pages of the Full Brochure, or visit http://www.ccd.com/alta_mechanical.html.

- 5 MHz 12-bit and 1 MHz 16-bit digitization (except U9000X, 16 bits at 1.8 MHz)
- 32Mbyte camera memory
- USB 2.0 interface: no plug in cards or external controllers
- Programmable, intelligent cooling to 75°C below ambient
- Binning up to 8 Horizontal x Height of CCD (up to 4095)
- Subarray readout and fast sequencing modes
- Precision time delayed integration (TDI) and kinetics mode readout
- Programmable fan speed for low / zero vibration
- Optional liquid circulation (most models)
- Two serial port outputs for control of peripheral devices
- General purpose programmable I/O port
- External triggering and strobe controls
- ActiveX drivers included with every system
- Field upgradeable firmware
- Fused silica windows with MgF2 or BBAR coating both sides
- Runs from single 12V supply with input voltage monitor
- Programmable status indicators



www.ccd.com

PC Interface	USB 2.0
Cable Length	Standard: 5 meters (16.5 ft) (included)
Max. Cable Length (USB)	5 meters between hubs; 5 hubs maximum (max. total of 30m). Extenders available.
Digital Resolution	16 bits at 1 MHz (except U9000X, 16 bits at 1.8 MHz) and 12 bits at 5 MHz
Exposure Time	30 milliseconds to 183 minutes (2.56 microsecond increments)
Image Sequencing	1 to 65535 image sequences under software control
Frame Sizes	Full frame, subframe, focus mode
Cooling for CCD	Thermoelectric (Peltier) cooler
Temperature Stability	± 0.1°C
Camera Head Size	See mechanical details at www.ccd.com/alta_mechanical.html
Mounting	3.5 or 5.125" bolt circle. Optional Nikon F-mount or Canon FD or EOS/EF mount.
Operating Environment	-22° to 27°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, 50-60 Hz) included. Alternate 12V input from user's source.
Shutter (by housing)	D01: Vincent 25mm; D02: Melles Griot 43mm; D07, D09: Melles Griot 63mm. D10: Vincent 90mm.
Remote Triggering	LVTTL input allows exposure to start within 25 microseconds of rising edge of trigger
Warranty	Two years, parts and labor. Lifetime guarantee against condensation inside the camera head.



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