

EHD IMAGING GMBH



# Ascent cooled CCD Cameras

Scientific Grade

Thermoelectrically cooled



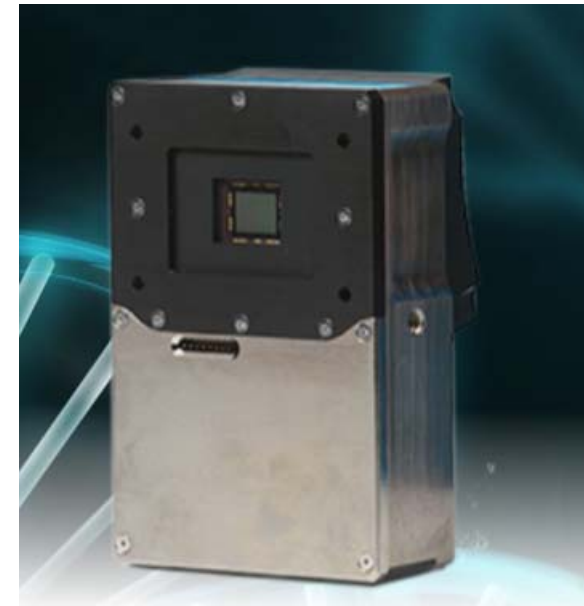
Made in Europe  
by Andor

EHD imaging GmbH, Zum Rennplatz 15, 49401 Damme  
Phone: +49 5491 2090 Fax: +49 5491 2098  
E-Mail: [info@ehdimaging.de](mailto:info@ehdimaging.de); URL: [www.ehd.de](http://www.ehd.de)

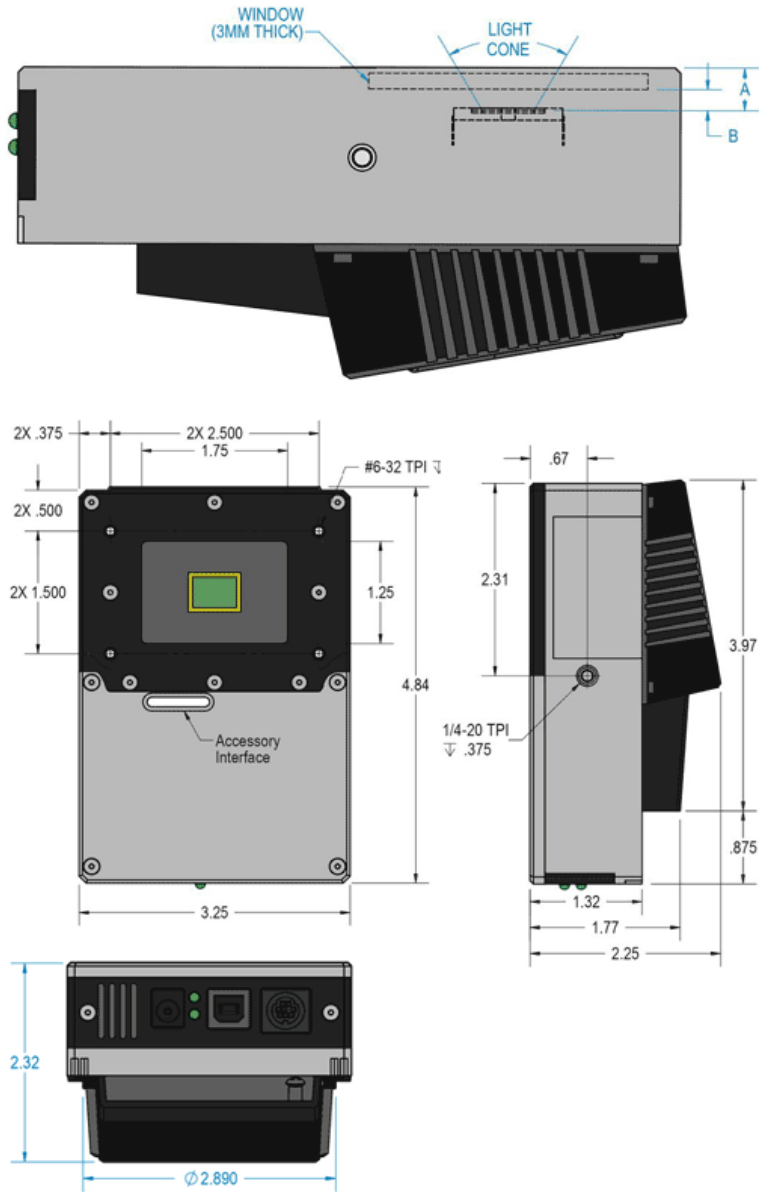
## Apogee Ascent CCD Cameras

The Apogee Ascent Camera Series supports a wide variety of interline transfer sensors with high quantum efficiency and low dark current, in an 'OEM optimized' compact, USB 2.0 platform.

Low noise and high resolution formats are ideal for a variety of OEM applications such as gel documentation, quantitative PCR, gene sequencing and high content screening.



### Ascent Housing ( No Shutter)



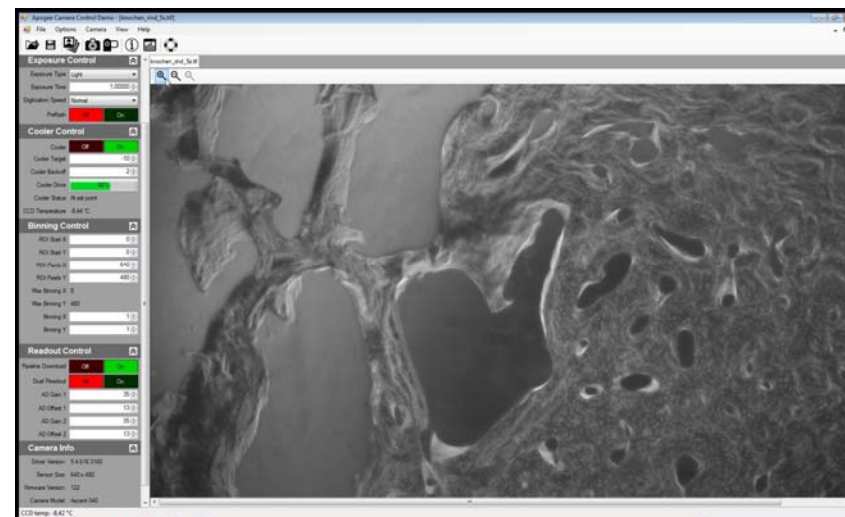
### Apogee Ascent CCD Camera Matrix

Model	Sensor Type	CCD	Array Size (Pixel)	Pixel Size (µm)	Sensor Diag. (mm)	Full Well	Read Noise (e <sup>-</sup> )	Dark Current (e/pix/s)	Dynamic (dB)
A29050	IL,FI,M	KAI-29050	6576 x 4384	5,5	43,5	21000	13,5	0,025	63,8
A16000	IL,FI,M	KAI-16000	4872 x 3248	7,4	43,3	40000	6	0,15	74
A814	IL,FI,M	ICX814	3380 x 2704	3,69	15,97	13000	6,2	0,005	66,4
A8050	IL,FI,M	KAI-8050	3296 x 2472	5,5	22,7	18000	10	0,013	65,2
A694	IL,FI,M	ICX694	2750 x 2200	4,54	15,99	21000	5,9	0,0041	70,7
A4000	IL,FI,M,C	KAI-4022	2048 x 2048	7,4	21,4	35000	10	0,0068	70,9
A4050	IL,FI,M	KAI-4050	2336 x 1752	5,5	16,1	18000	10,6	0,0111	64,8
A2150	IL,FI,M	KAI-2150	1920 x 1080	5,5	12,1	20000	6	0,01	64
A2050	IL,FI,M	KAI-2050	1600 x 1200	5,5	11	20000	6	0,01	64
A2000	IL,FI,M	KAI-2020	1600 x 1200	7,4	14,8	40000	6	0,01	74
A1050	IL,FI,M,C	KAI-1050	1024 x 1024	5,5	8	20000	6	0,01	64
A285	IL,FI,M	ICX-285	1360 x 1024	6,45	11	18000	5,9	0,0999	69,7

## Apogee Ascent System Features:

- Compact and Lightweight
- Andor OEM Optimisation
- High QE Low noise Interline sensors
- Programmable TE cooling to 35°C below ambient
- Electronic Shutter and Progressive Scan Mode
- USB2.0 Interface
- 16 Bit digitization
- Programmable I/O Port
- Remote Triggering
- Focusing Mode
- Precision locking filterwheels optional

## Apogee Camera Control Demo



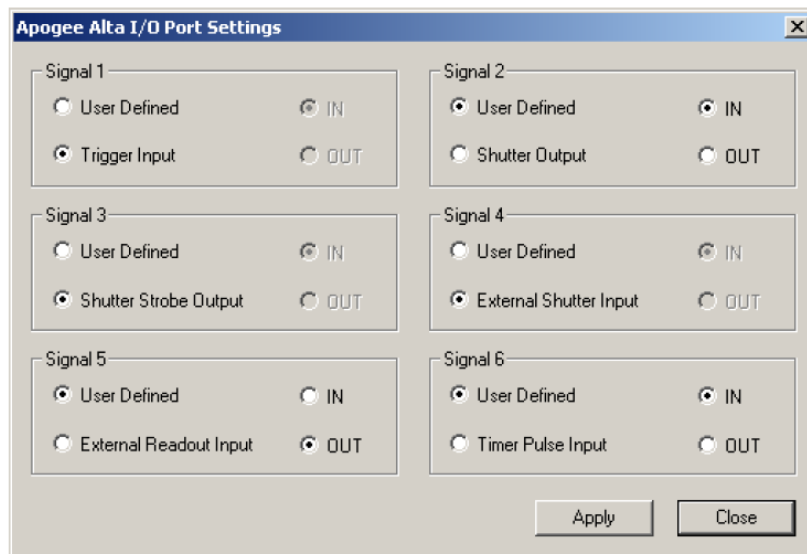
Note: Basic, unsupported acquisition application, recommended ONLY for use when testing and demonstrating Apogee cameras. Not compatible with Apogee filter wheels.

## Apogee ActiveX/COM API

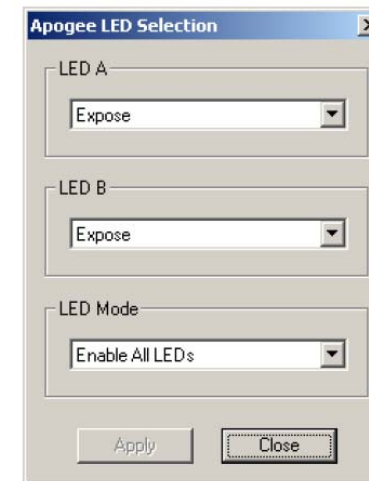
The Apogee camera drivers provide access to all functions through a straightforward ActiveX/COM API

### Following are a few samples of camera control settings with the ActiveX/COM API

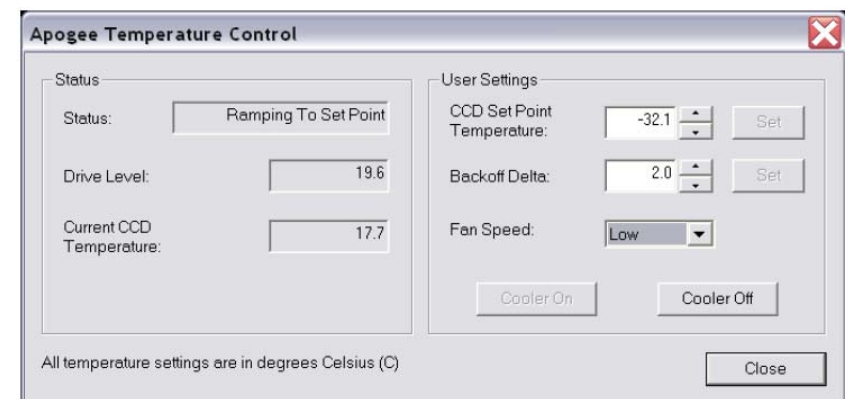
The following graphic shows the I/O selection dialog; *ShowIODialog*



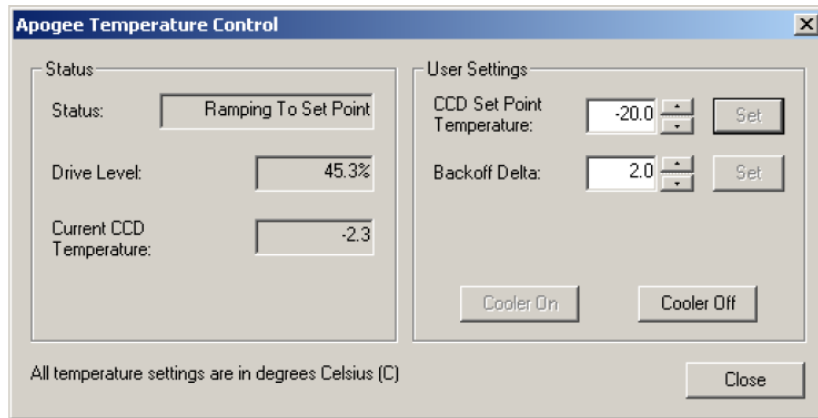
The following graphic shows the ILED selection dialog; *ShowLedDialog*



The following graphic shows the Temp control selection dialog; *ShowTempDialog*



The following graphic shows the Temp control selection dialog;  
**ShowTempDialog** for Ascent cameras



## Apogee ActiveX/COM API within LABVIEW

The Apogee ActiveX/COM DLL can be used within LabVIEW, a graphical programming environment from National Instruments. LabVIEW allows the user to control the camera system through the DLL. At this time, Apogee does not provide an instrument driver for LabVIEW beyond the Apogee ActiveX/COM DLL.

The easiest way to invoke the ActiveX/COM capabilities within LabVIEW is to use LabVIEW as an Automation Client. In this mode, LabVIEW acts as a client, and requests information from the Apogee DLL, which is the automation server.

In order to use the Apogee DLL from within LabVIEW, refer to your LabVIEW documentation to create an Automation Open Reference.

## Accessories

### Filter Wheels



- Apogee range compatible
- Multi-position options
- USB 2.0

### Filters



- Range of Astrodon filters
- Square or round
- 50mm or 31mm

### Adapters



- Couple to Apogee CCDs
- Couple to filter wheels
- Lens, telescope & face plate



## Filterwheels

	AFW50-9R	AFW50-7S	AFW50-10S	AFW31-17R	CFW31-8R
Compatible Cameras	Alta, Aspen, Ascent (A16000 and A29050)	Alta, Aspen, Ascent (A16000 and A29050)	Alta, Aspen, Ascent (A16000 and A29050)	Alta, Aspen, Ascent (A16000 and A29050)	Ascent (except A16000 and A29050)
Filter positions	9	7	10	17	8
Filter Shape	Round	Square	Square	Round	Round
Filter size	50mm	50mm	50mm	31mm	31mm
Interface	USB 2.0	USB 2.0	USB 2.0	USB 2.0	Ascent Peripheral Interface

## Filters and/or lens Adapters

A wide range of Astrodon filters and filter sets as well as camera lens adapters are available, compatible with Apogee filterwheels and cameras.

Please call for Specifications and price  
Phone: +40-5491-2090

