

## Technical specifications

<b>Product type</b>	Digital high speed camera
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<b>Image Sensor</b>	CMOS Progressive Sensor
<b>Image Sensor</b>	Monochrome or color (with Bayer pattern)
<b>Pixel size</b>	8 µm
<b>Dynamic range</b>	8bit
<b>Gain control</b>	User selectable
<b>Sensitivity</b>	ISO 2000 (monochrome), ISO 1000 (color)
<b>Image Resolution</b>	1696x 1710 pixels
<b>Image size</b>	1696 x 1710: 13.56 x 13.68 mm
<b>Frame rate</b>	500 fps @ 1696 x 1710 pixels
<b>Max. frame rate</b>	100,000 fps
<b>ROI</b>	Free selectable
<b>Shutter type</b>	Global electronic shutter
<b>Shutter exposure times</b>	2 µsec to 1/frame rate
<b>Frame synchronization</b>	Sync in, sync out (TTL)
<b>Multi-camera operation</b>	

<b>Image memory</b>	Built-in, DRAM
<b>Image memory type</b>	Circular buffer
<b>Standard capacity</b>	2.6 GB
<b>Optional</b>	5.2, 10.4 GB
<b>Memory upgrade</b>	Possible, factory upgrade
<b>Sequence length</b>	1.8 secs @ 1696 x 1710 / 500 fps (2.6 GB memory) 3.6 secs @ 1696 x 1710 / 500 fps (5.2 GB memory) 7.2 secs @ 1696 x 1710 / 500 fps (10.4 GB memory) Sequence length can be extended by reducing the image resolution resp. frame rate

<b>Data Interface</b>	Gigabit Ethernet
<b>Memory Interface</b>	Built-in CF interface, accepting CF cards for non-volatile data storage
<b>Status lines</b>	1 (TTL, input), control the 'event markers' Other configuration of status lines available on request

<b>Power supply</b>	28 VDC (24...36 VDC)
<b>Power consumption</b>	14 W (w/o data link), 18 W (with data link)
<b>Battery</b>	Built-in, rechargeable NiMH battery allowing 30 minutes camera operation. Optional 'extended battery pack' with 2 hour capacity

### Extensions

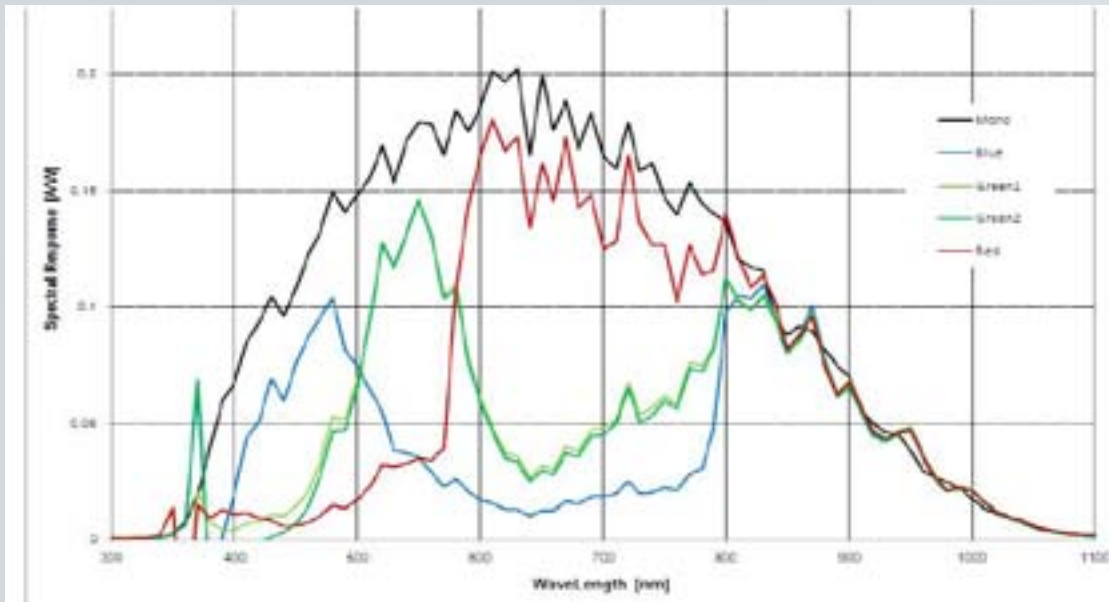
Extensions are additional hardware components, to be ordered with the camera.

<b>Extended battery pack</b>	2 hours battery capacity
<b>Video Interface</b>	SDI (digital) or PAL/NTSC (analog)

### Certifications

<b>CE</b>	In compliance with relevant standards
<b>EMC tests</b>	In compliance with MIL-STD-461E (pending)
<b>Environmental tests</b>	In compliance with MIL-STD-810 (pending):
Ambient air condition	Meth. 501.4, Proc. I, Tab. 501.4II (pending)
Sever cold	Meth. 502.4, Proc. I, Tab. 502.4II (pending)
Temp. shock	Meth. 503.4, Proc. I, Tab. 503.4II (pending)
Low altitude	Meth. 500.4, Proc. II (pending)
Vibration	Meth. 514.5, Proc. I, Cat. 12, Fig. 514-5C8 (pending)
Mech. shock	Meth. 516.5, Proc. I, Tab. 516.5-1 (pending)
Humidity	Meth. 507.4, Fig. 507.4-1, modified (2 cycles) (pending)

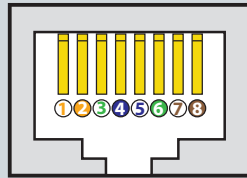
## Spectral response



## Connectors

### Data Connector

- 1 BI\_DA+
- 2 BI\_DA-
- 3 BI\_DB+
- 4 BI\_DB-
- 5 BI\_DC+
- 6 BI\_DC-
- 7 BI\_DD+
- 8 BI\_DD-



**Connector type:**

**RJ45** (lockable)

### I/O Connector

- 1 GND (-)
  - 2 V In (In)
  - 3 Remote On (In)
  - 4 Sync In (In) \*
  - 5 Sync Out (Out) \*
  - 6 Set-to-Rec (In)
  - 7 Trigger (In)
  - 8 Strobe (Out)
  - 9 Armed (Out)
  - 10 Triggered (Out)
  - 11 Status 1 (In/Out)
  - 12 GND
  - 13 GND
  - 14 IRIG-B (In)
- different pinout configuration on request



**Connector type:**

**LEMO** Type: FGG.2B.314.CLAD82Z

**ODU** Type: S22LOC-P14MFG0-8200

## Environmental conditions

### Shock resistance

Robust design, designed/built to withstand severe shocks up to 100 G for 15 msec, 3 axis

### Operating temperature

-45 ... +49 °C (-49 ... 120 °F)

### Storage temperature

-55 ... +80 °C (-67 ... 176 °F)

### Operating humidity

max. 80 %, non condensing, at 45 °C (113 °F) for 8 hours

### Storage humidity

max. 40 %, non condensing, at 70 °C (158 °F) for 48 hours

## Control PC – minimum requirements

### CPU

Pentium 4, 2 GHz with MMX

### DRAM

2 GB

### HDD

60 GB

### Interfaces

GigE

### OS

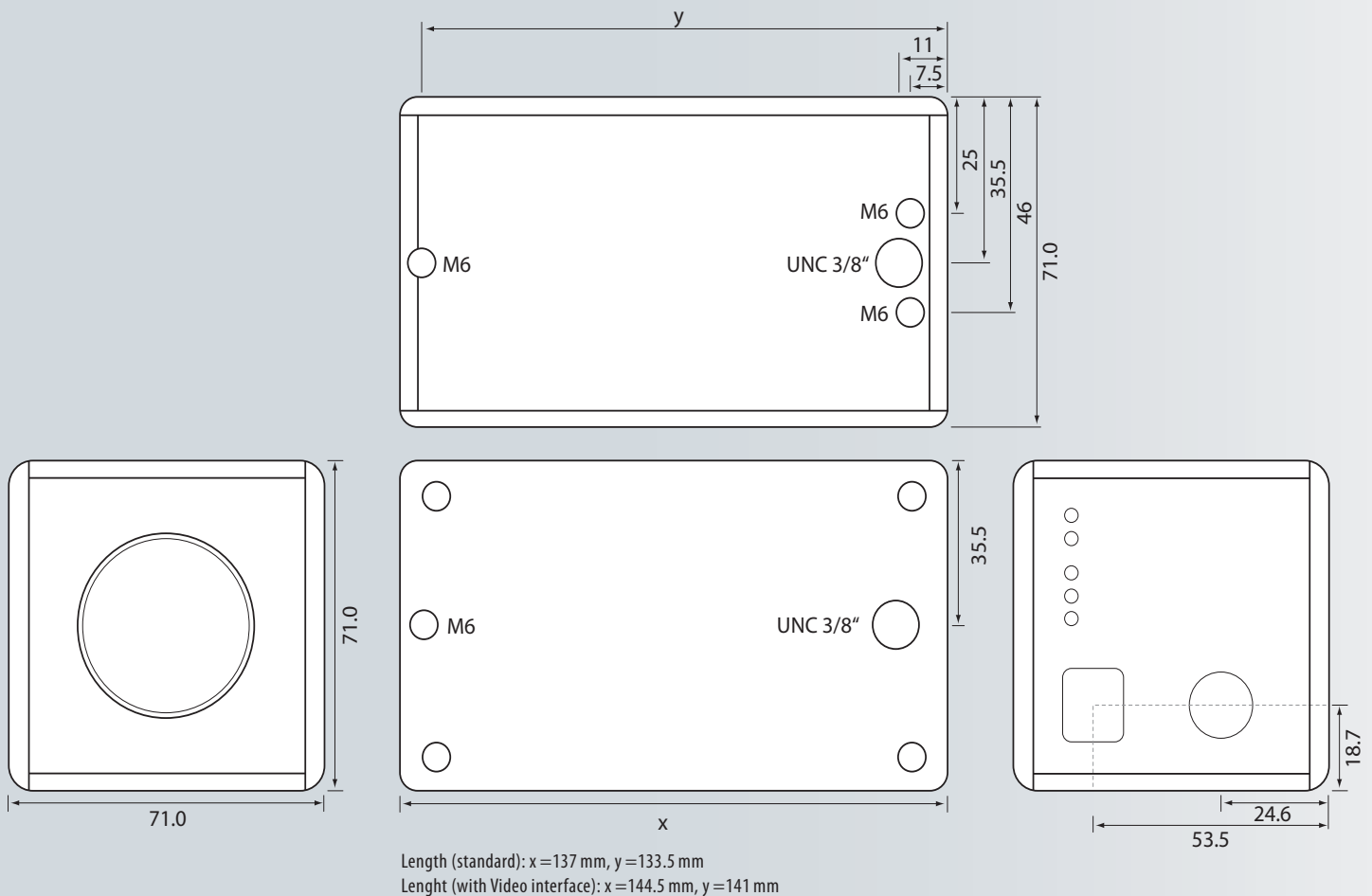
MS Windows XP PRO, VISTA, Win7

The control PC for an AOS high speed camera has to meet or exceed these minimum requirements for a reliable, convenient camera performance. PC's with lower specifications may result in a camera performance below the indicated ones.

## Dimensions / weight / mechanics

<b>Dimension (w/o options)</b>	71 x 71 x 137 mm (w/o lens and extensions)
<b>Weight</b>	950 gr (w/o lens and extensions)
<b>Lens mount</b>	c-mount, adjustable backfocus 1" lens covers complete image size
<b>Camera mount</b>	Standard UMC 3/8" threads on all 4 sides M6 threads for camera plate

## Dimension / Mounting



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Specifications are subject to change without prior notice – v07.2016