

## Technical specifications

<b>Product type</b>	Digital high speed camera
<b>Image Sensor</b>	CMOS Progressive Sensor
<b>Image Sensor</b>	Monochrome or color (with Bayer pattern)
<b>Pixel size</b>	14 µm
<b>Dynamic range</b>	5-, 8- or 10bit
<b>Gain control</b>	Low-, mid- and high gain (user selectable with option 1)
<b>Sensitivity</b>	ISO 3200 (monochrome), ISO 1600 (color)
<b>Image Resolution</b>	1280 x 1024 pixels
<b>Image size</b>	1280 x 1024: 18.2 x 14.5 mm (exceeding 1" format)
<b>Frame rate</b>	500 fps @ 1280 x 1024 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>	1 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>	1.3 GB
<b>Optional</b>	2.6, 5.2, 10.4 GB
<b>Memory upgrade</b>	Possible, factory upgrade
<b>Sequence length</b>	2 secs @ 1280 x 1024 / 500 fps (1.3 GB image memory) 4 secs @ 1280 x 1024 / 500 fps (2.6 GB image memory) 8 secs @ 1280 x 1024 / 500 fps (5.2 GB image memory) 16 secs @ 1280 x 1024 / 500 fps (10.4 GB image 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>	10 W (w/o data link), 15 W (with data link)
<b>Battery</b>	Built-in, rechargeable NiMH battery allowing 30 minutes camera operation. Optional 'extended battery pack' with 3 hour capacity

### Extensions

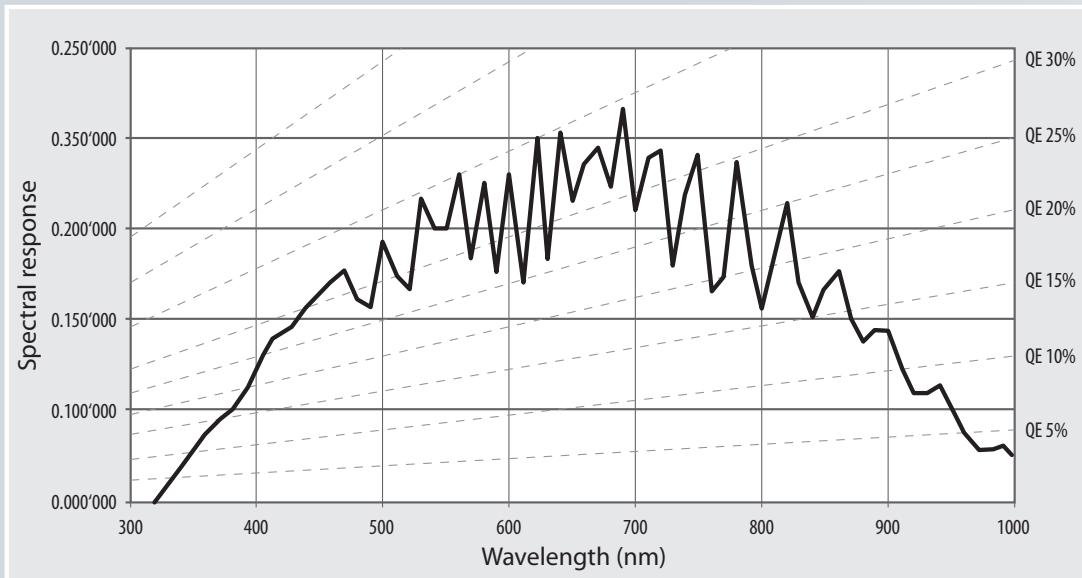
Extensions are additional hardware components, to be ordered with the camera.

<b>Extended battery pack</b>	3 hours battery capacity
<b>Video Interface</b>	SDI (digital) or PAL/NTSC (analog)

### Certifications

<b>CE</b>	In compliance with relevant tests according MIL-STD-810 and MIL-STD-461
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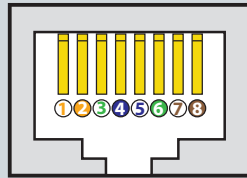
## Spectral response



## Connectors

### Data Connector

- 1 BI\_DA+
- 2 BI\_DA-
- 3 BI\_DB+
- 4 BI\_DC+
- 5 BI\_DC-
- 6 BI\_DB-
- 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 IRIG-B return (-)
  - 14 IRIG-B (In)
- different pinout configuration on request



**Connector type:** LEMO Type: FGG.2B.314.CLAD82Z  
ODU Type: S22LOC-P14MFG0-8200

## Environmental conditions

<b>Shock resistance</b>	Robust design, built to withstand severe shocks 100 G for 15 msec, 3 axis
<b>Operating temperature</b>	-51...+49 °C (-60...120 °F)
<b>Storage temperature</b>	-51...+70 °C (-60...158 °F)
<b>Operating humidity</b>	max. 95 %, non condensing, at 45 °C (113 °F) for 8 hours
<b>Storage humidity</b>	max. 50 %, non condensing, at 70 °C (158 °F) for 48 hours

## Control PC – minimum requirements

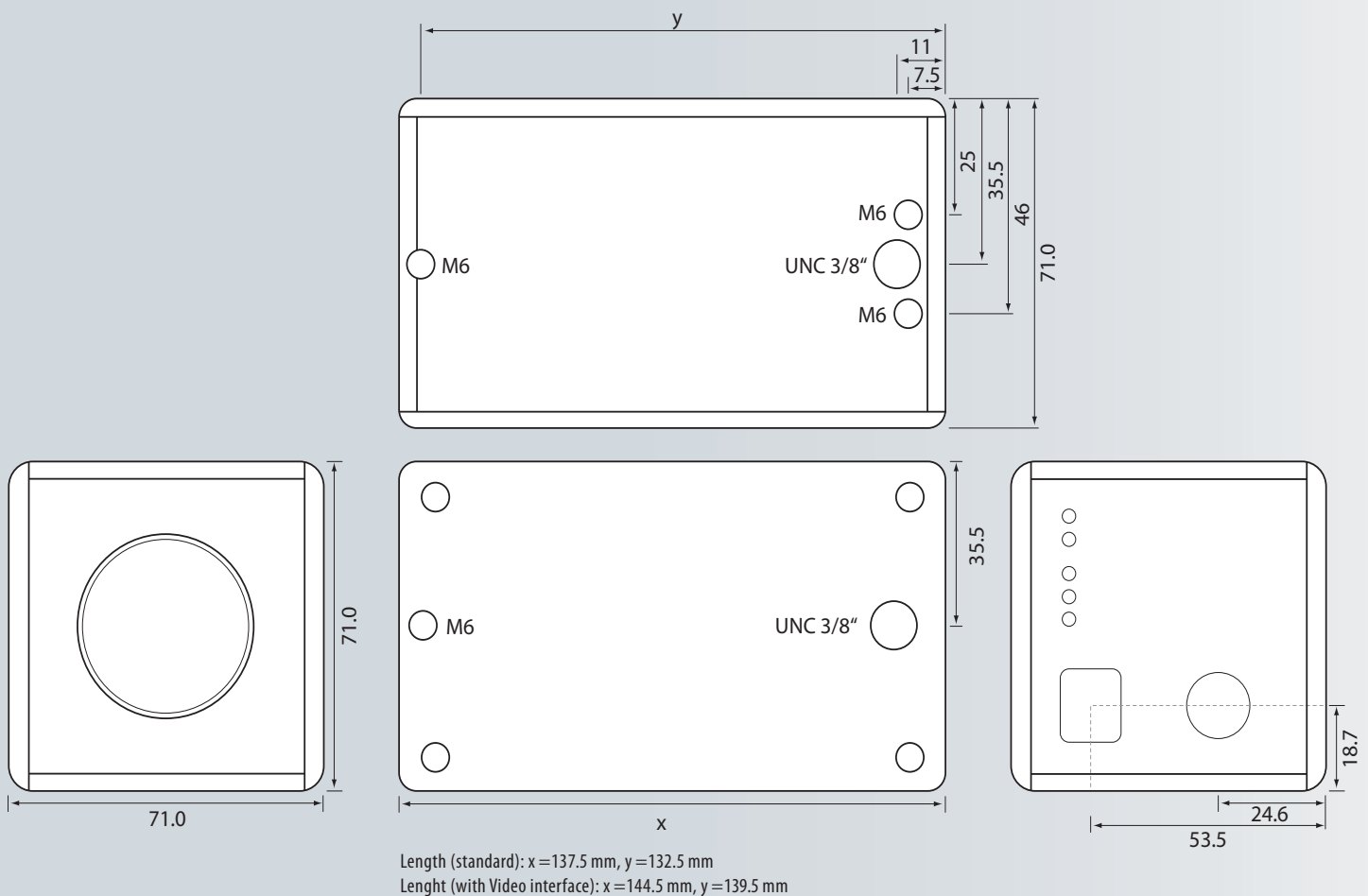
<b>CPU</b>	Pentium 4, 2 GHz with MMX
<b>DRAM</b>	2 GB
<b>HDD</b>	60 GB
<b>Interfaces</b>	GigE
<b>OS</b>	MS Windows XP PRO, VISTA, Win7

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 137.5 mm (w/o lens and extensions)
<b>Weight</b>	900 gr (w/o lens and extensions)
<b>Shock resistance</b>	100G for 15msec, 3 axis
<b>Lens mount</b>	c-mount, adjustable backfocus 1" lens format covers image format at 800 x 600 Full format of 1280 x 1024 (option 2) requires lenses with an image size larger than 1" (i.e. F-mount lenses with adapter)
<b>Camera mount</b>	Standard UNC 3/8" threads on all 4 sides M6 threads for camera plate, UNF threads on request

## Dimension / Mounting



AOS Technologies AG, Taefernstrasse 20,  
 CH-5405 Baden-Daettwil  
 Tel. +41 (56) 483 3488, Fax + 41 (56) 483 3489  
 info@aostechnologies.com  
 www.aostechnologies.com

Your local AOS Partner: