



## Technical specifications

Product type	Digital high speed camera
Image Sensor	CMOS Progressive Sensor
Image Sensor	Monochrome or color (with Bayer pattern)
Pixel size	14 µm
Dynamic range	5-, 8- or 10bit
Gain control	Low-, mid- and high gain (user selectable with option 1)
Sensitivity	ISO 3200 (monochrome), ISO 1600 (color)
Image Resolution	1280 x 1024 pixels
Image size	1280 x 1024: 18.2 x 14.5 mm (exceeding 1" format)
Frame rate	500 fps @ 1280 x 1024 pixels
Max. frame rate	100,000 fps
ROI	Free selectable
Shutter type	Global electronic shutter
Shutter exposure times	1 µsec to 1/frame rate
Frame synchronization Multi-camera operation	Sync in, sync out (TTL)

Image memory	Built-in, DRAM
Image memory type	Circular buffer
Standard capacity	1.3 GB
Optional	2.6, 5.2, 10.4 GB
Memory upgrade	Possible, factory upgrade
Sequence length	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

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

Power supply	28 VDC (24...36 VDC)
Power consumption	10 W (w/o data link), 15 W (with data link)
Battery	Built-in, rechargeable NiMH battery allowing 30 minutes camera operation. Optional 'extended battery pack' with 3 hour capacity

### Extensions

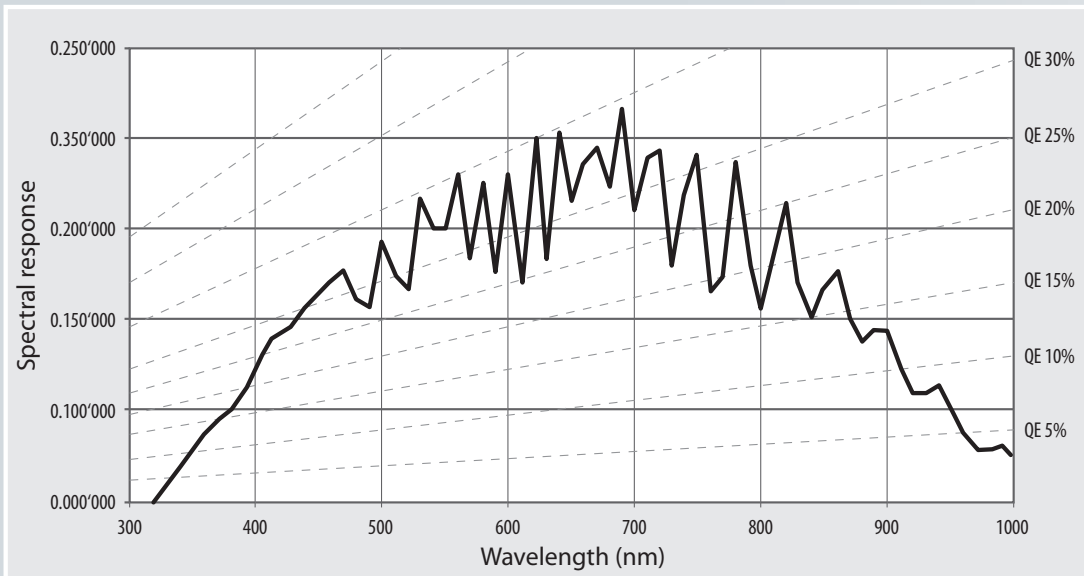
Extensions are additional hardware components, to be ordered with the camera.

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

### Certifications

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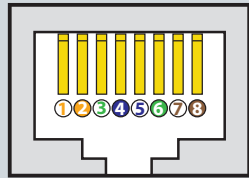
## Spectral response



## Connectors

### Data Connector

- 1 Tx +
- 2 Tx -
- 3 Rx +
- 4
- 5
- 6 Rx -
- 7
- 8



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, but not designed/built to withstand severe shocks  
100 G for 15 msec, 3 axis

### Operating temperature

-51...+49 °C (-60...120 °F)

### Storage temperature

-51...+70 °C (-60...158 °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

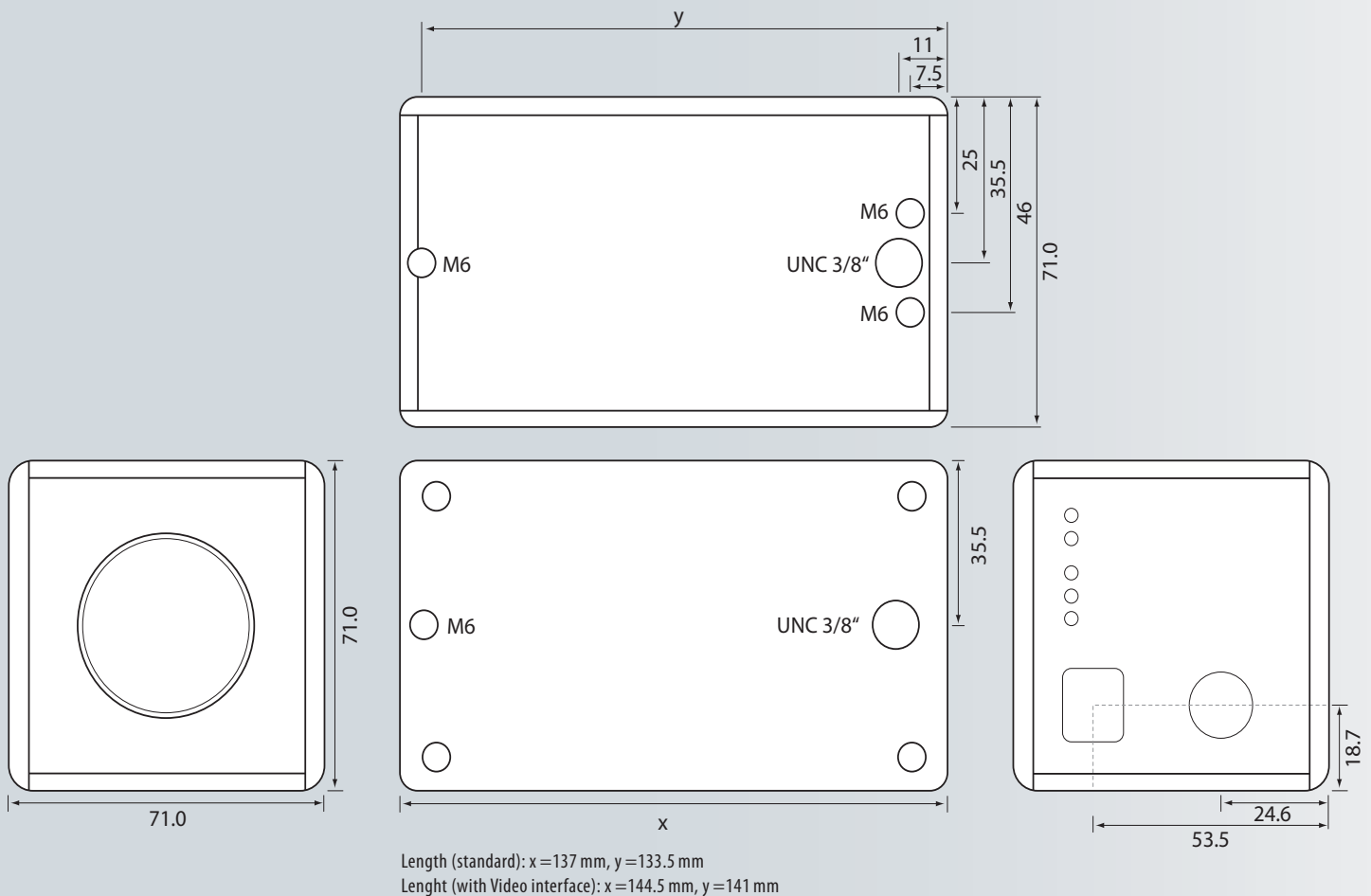
CPU	Pentium 4, 2 GHz with MMX
DRAM	2 GB
HDD	60 GB
Interfaces	GigE
OS	MS Windows XP PRO, VISTA, Win7

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

Dimension (w/o options)	71 x 71 x 137 mm (w/o lens and extensions)
Weight	900 gr (w/o lens and extensions)
Shock resistance	100G for 15msec, 3 axis
Lens mount	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)
Camera mount	Standard UMC 3/8" threads on all 4 sides M6 threads for camera plate

## 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:

Specifications are subject to change without prior notice – v12.2011