

## 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>	12 $\mu$ m
<b>Dynamic range</b>	8- or 10 bit (user selectable)
<b>Gain control</b>	Low-, mid- and high gain (user selectable)
<b>Sensitivity</b>	ISO 1600 (mono), ISO 1000 (color)
<b>Image Resolution</b>	1280 x 1024 pixels
<b>Image size</b>	1280 x 1024: 15.36 x 12.28 mm (exceeding 1" format)
<b>Frame rate</b>	1,000 fps @ 1280 x 1024 pixels
<b>Max. frame rate</b>	100,000 fps (with reduced resolution)
<b>ROI</b>	User selectable
<b>Shutter type</b>	Global electronic shutter
<b>Shutter exposure times</b>	4 $\mu$ sec to 1/frame rate

<b>Image memory</b>	Built-in, DRAM
<b>Image memory type</b>	Circular buffer
<b>Standard capacity</b>	2 GB
<b>Optional</b>	4, 8 GB
<b>Memory upgrade</b>	Possible, factory upgrade
<b>Sequence length</b>	1.5 secs @ 1280 x 1024/1000 fps (2 GB image memory) 3 secs @ 1280 x 1024/1000 fps (4 GB image memory) 6 secs @ 1280 x 1024/1000 fps (8 GB image memory) Sequence length can be extended by reducing the image resolution resp. frame rate
<b>Non-volatile memory</b>	Optional Flash memory (4, 8, 16 or 32 GB) for secure image data storage

<b>Data Interface</b>	Gigabit Ethernet
<b>Video Interface</b>	Built-in (analog PAL/NTSC)
<b>Status lines</b>	2 (TTL, input). Used to control the 'event markers'
<b>Time stamping</b>	IRIG-B 122, amplitude modulated

<b>Power supply</b>	24 VDC (24...36 VDC)
<b>Power consumption</b>	12 W (w/o data link), 18 W (with data link)
<b>Battery</b>	Built-in, rechargeable NiMH battery allowing 30 minutes camera operation

### Extensions

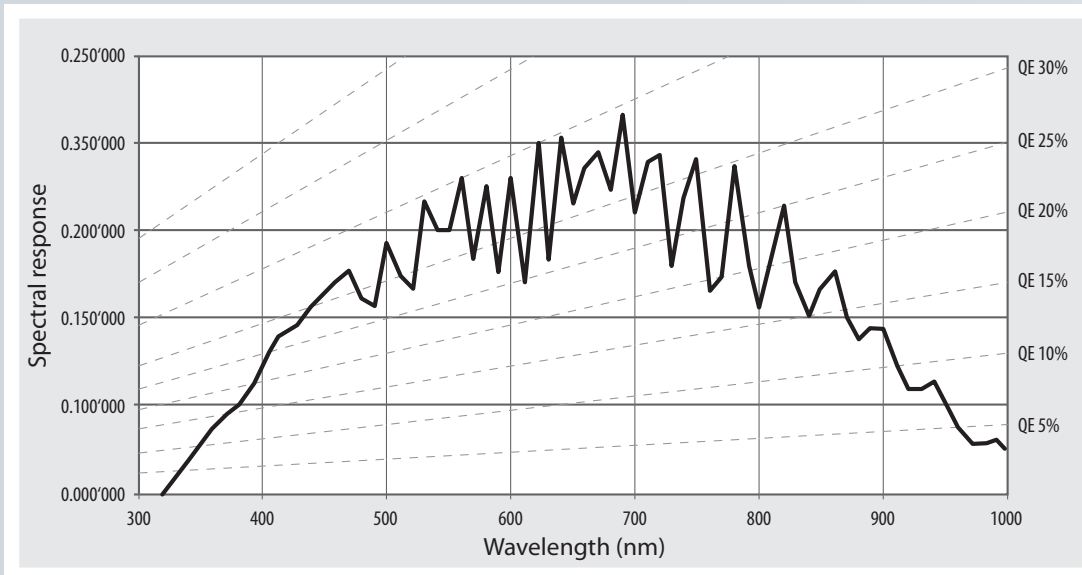
Extensions are additional hardware components, to be ordered with the camera.

<b>Extended battery</b>	Battery pack with 3 hour capacity
<b>Ext. temp range</b>	-40...+50 °C (-40...+120 °F)
<b>Coating</b>	To protect electronics against humidity
<b>Flash Memory</b>	Built-in non-volatile Flash Memory with 4, 8, 16 or 32GB capacity. Not replaceable by operator

### Certifications

<b>CE</b>	In compliance with relevant standards
<b>Shock</b>	Tested and certified with 100 G / 15 msec / 3 axis

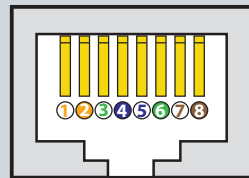
## Spectral response



## 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-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 Status 2 (In/Out)
- 13 IRIG-B (Return)
- 14 IRIG-B (In)

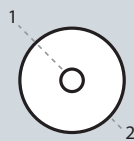


**Connector type:**

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

### Video out

- 1 signal
- 2 ground



**Connector type:**

**LEMO** Type: FFA.00.250.CTAC31

## Environmental conditions

<b>Operating temperature</b>	0 ... +40 °C (32 ... 104 °F)
<b>Storage temperature</b>	-40 ... +70 °C (-40 ... 158 °F)
<b>Operating humidity</b>	max. 80 %, non condensing, at 45 °C (113 °F) for 8 hours
<b>Storage humidity</b>	max. 40 %, non condensing, at 70 °C (158 °F) for 48 hours

## Control PC – minimum requirements

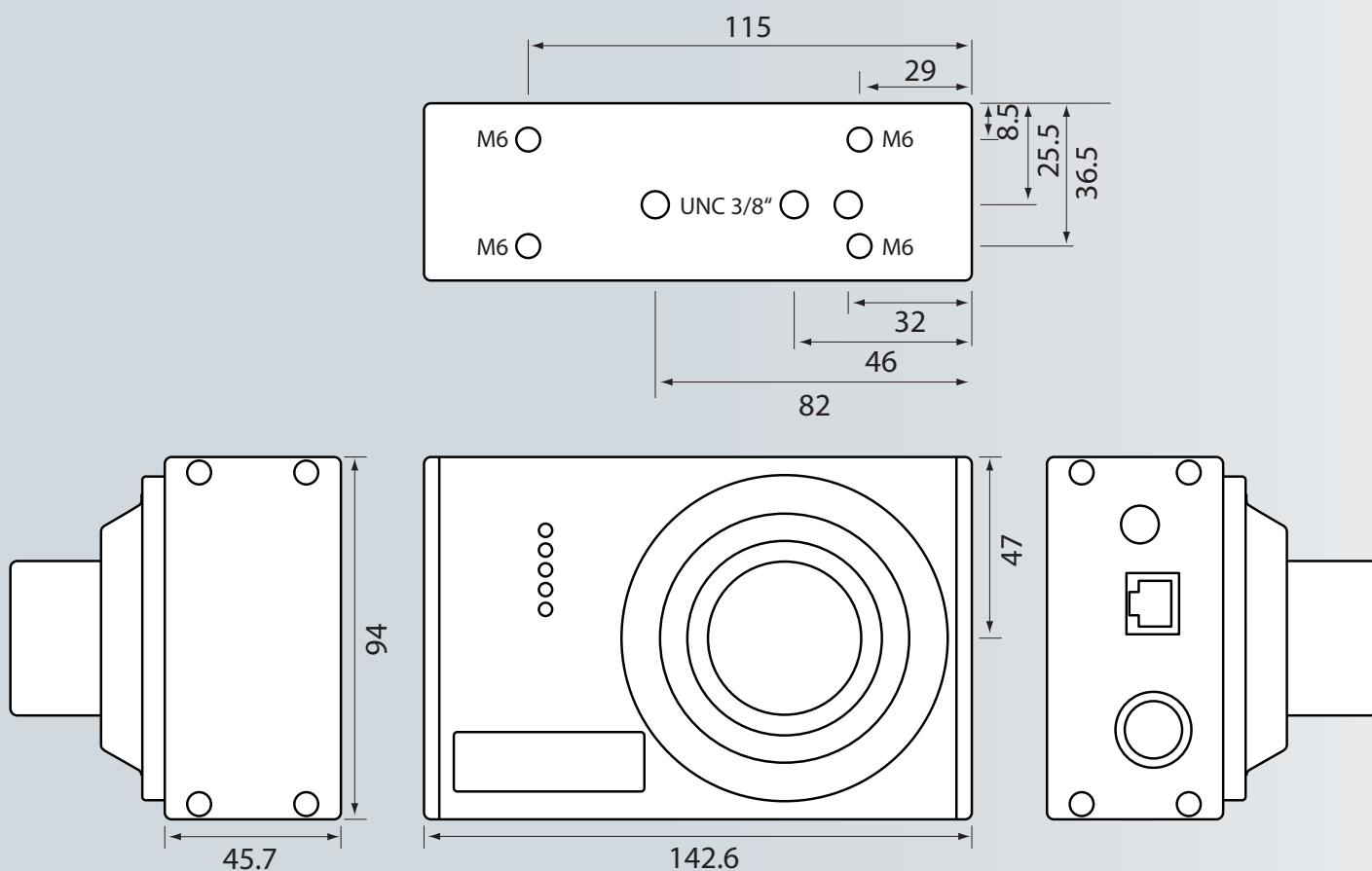
<b>CPU</b>	Pentium Dual Core, 2 GHz
<b>DRAM</b>	2 GB
<b>HDD</b>	60 GB
<b>Interfaces</b>	GigE
<b>OS</b>	MS Windows XP PRO, VISTA, Windows7 32- and 64-bit versions

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>	Approx. 143 x 94 x 46 mm (w/o lens ring and lens)
<b>Weight</b>	900 gr (w/o lens)
<b>Shock resistance</b>	100 G for 15 msec, 3 axis
<b>Lens mount</b>	c-mount, adjustable backfocus
<b>Camera mount</b>	Standard 1/4" bthread on top and bottom plate 4x M6 threads on top and bottom 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: