

Technical specifications

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

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

Data Interface	Gigabit Ethernet
Memory Interface	Optional, see below
Status lines	1 (TTL, input) 3 additional Event Markers (option 4)

Power supply	12 VDC (9...16VDC), other voltage ratings on request
Power consumption	14 W (w/o data link), 18 W (with data link)
Battery	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.

Video Interface	Video out (digital SDI, or analog PAL/NTSC)
CF Interface	For CF memory cards (Silicone Drive)
IRIG B Interface	IRIG B time stamping (requires external IRIG-B122, amplitude modulated signal)
24 V Interface	Voltage range (24 – 36V DC)

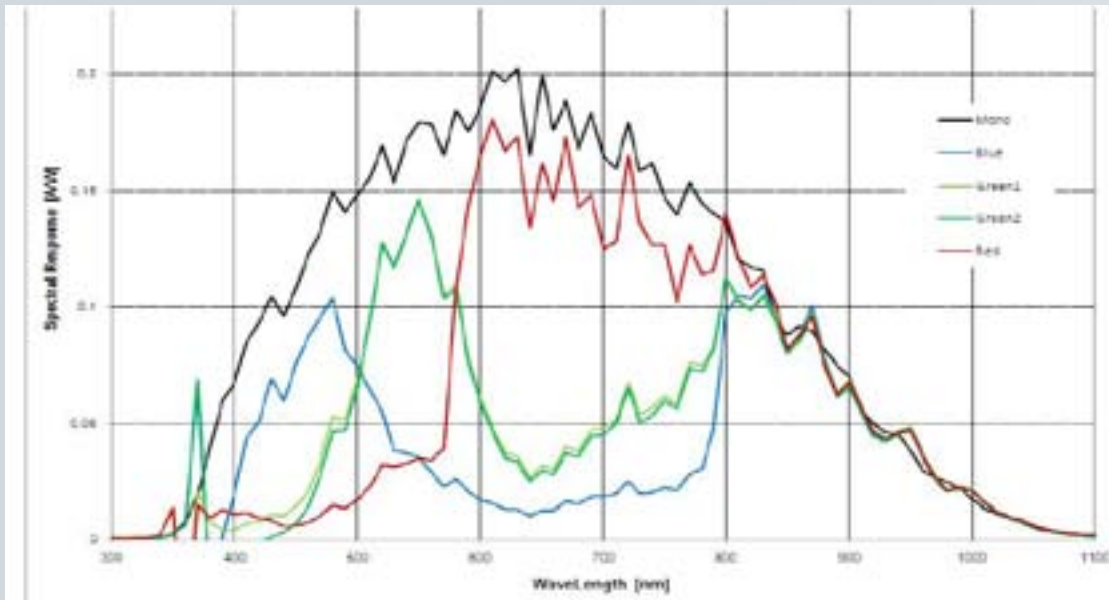
Certifications

CE	In compliance with relevant standards
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Options

Options are software-based upgrades to extend the cameras performance and functionality. They can be purchased together with a new camera, or at any time later. Options for existing cameras will be sent electronically and can be installed by the operator within minutes.

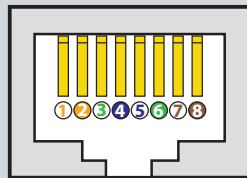
Spectral response



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 Event Marker 1
- 12 Event Marker 2 *
- 13 Event Marker 3 *
- 14 Event Marker 4 *

* optional



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
Operating temperature	0 ... +45 °C (32 ... 113 °F)
Storage temperature	-40 ... +70 °C (-40 ... 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

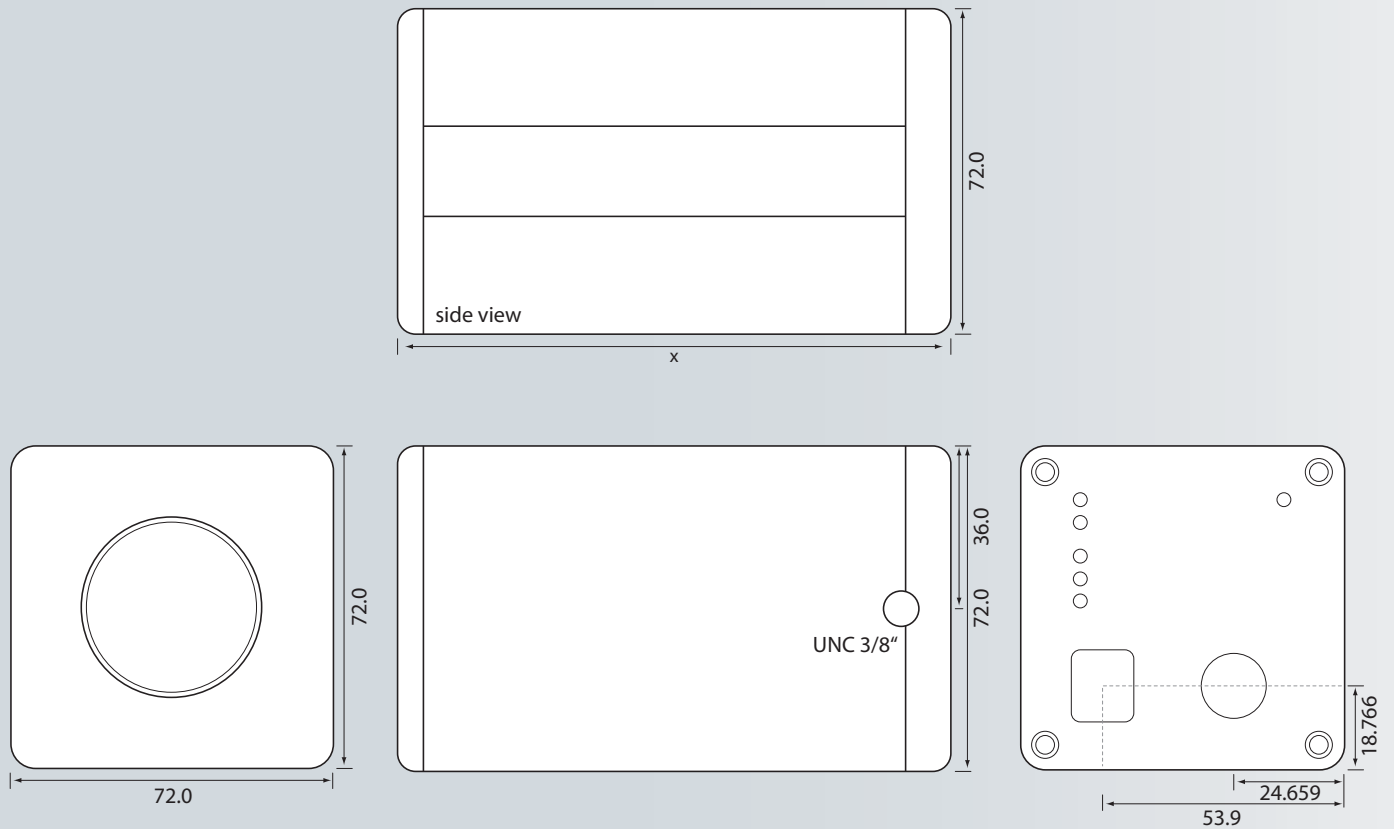
CPU	Pentium 4, 2 GHz with MMX
DRAM	2 GB
HDD	60 GB
Interfaces	GigE
OS	MS Windows XP PRO, VISTA, Win7

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)	72 x 72 x 122 mm (w/o lens and extensions)
Weight	900 gr (w/o lens and extensions)
Lens mount	c-mount, adjustable backfocus 1" lens covers complete image size
Camera mount	Standard 3/8" thread with 1/4" brass insert

Dimension / Mounting



x = Length (standard): 122 mm
 Length (with CF interface): 137 mm
 Length (with Video Interface): 129 mm
 Length (with CF- and Video Interface): 144 mm



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