

Technical specifications

Product type	Digital high speed camera
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Image Sensor	CMOS Progressive Sensor
Image Sensor	Monochrome or color (with Bayer pattern)
Pixel size	12 µm
Dynamic range	8- or 10 bit (user selectable)
Gain control	Low-, mid- and high gain (user selectable)
Sensitivity	tbd
Image Resolution	1280 x 1024 pixels
Image size	1280 x 1024: 15.36 x 12.28 mm (exceeding 1" format)
Frame rate	1,000 fps @ 1280 x 1024 pixels
Max. frame rate	100,000 fps (with reduced resolution)
ROI	User selectable
Shutter type	Global electronic shutter
Shutter exposure times	4 µsec to 1/frame rate

Image memory	Built-in, DRAM
Image memory type	Circular buffer
Standard capacity	2 GB
Optional	4, 8 GB
Memory upgrade	Possible, factory upgrade
Sequence length	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
Non-volatile memory	Optional Flash memory (4, 8, 16 or 32 GB) for secure image data storage

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

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

Extensions

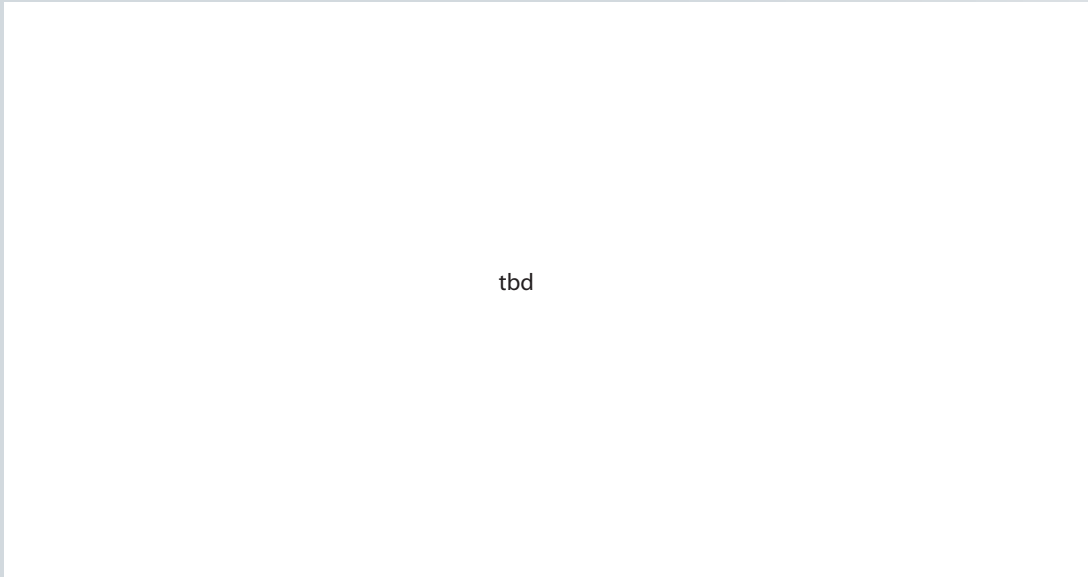
Extensions are additional hardware components, to be ordered with the camera.

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

Certifications

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

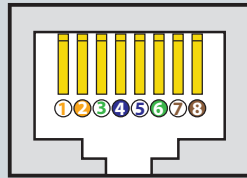
Spectral response



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-



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)

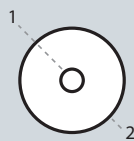


* optional

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

Operating temperature	0 ... +40 °C (32 ... 104 °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

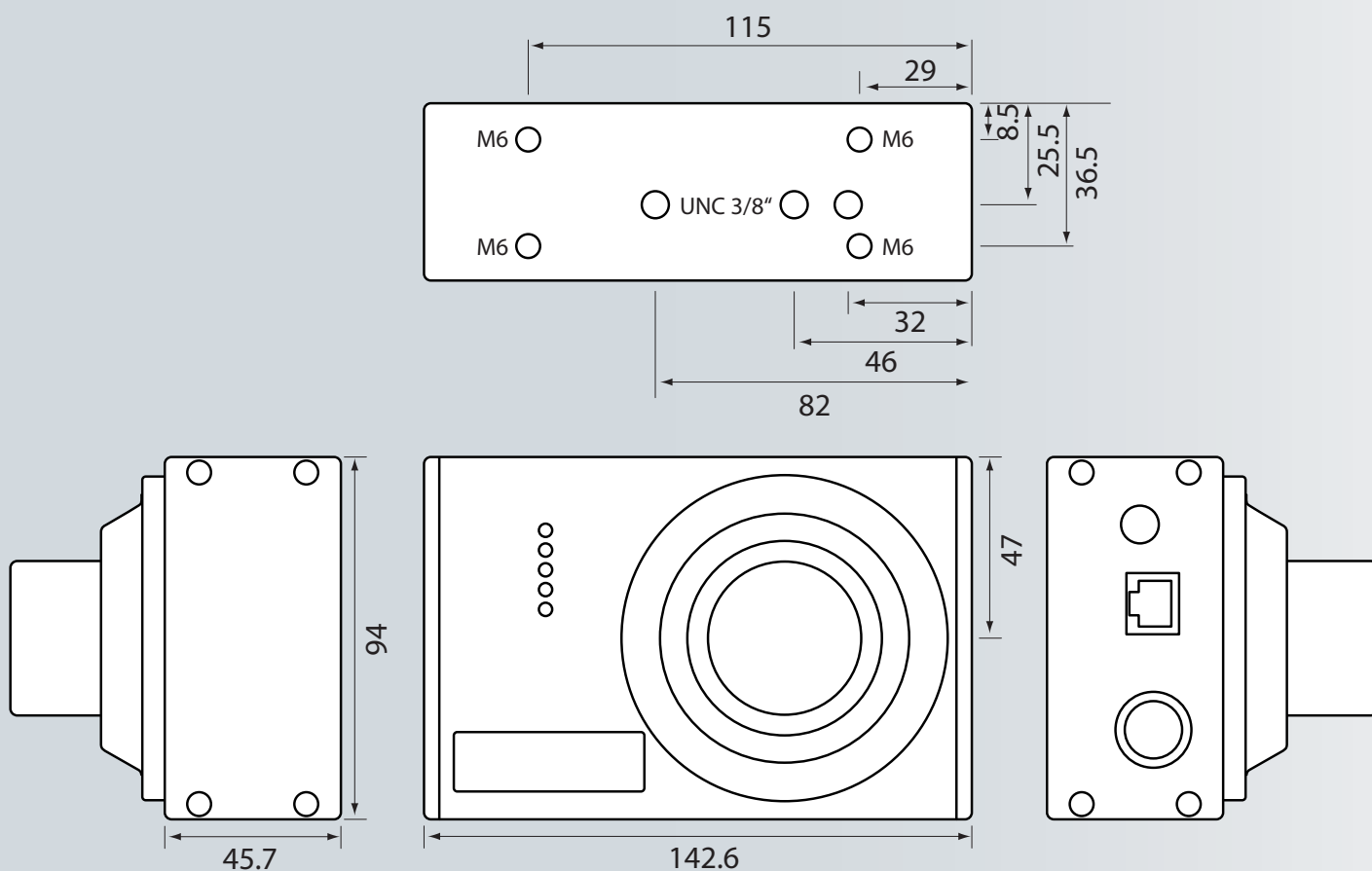
CPU	Pentium Dual Core, 2 GHz
DRAM	2 GB
HDD	60 GB
Interfaces	GigE
OS	MS Windows XP PRO, VISTA, Windows7 32- and 64-bit versions

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

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

Dimension / Mounting



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