

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 μ m
Dynamic range	5-, 8- or 10bit
Gain control	Low-, mid- and high gain (user selectable with option 1)
Sensitivity	ISO 800 (monochrome), ISO 200 (color)
Image Resolution	1280 x 1024 pixels
Image size	1280 x 1024: 15.36 x 12.29 mm
Frame rate	500 fps @ 1280 x 1024 pixels
Max. frame rate	32,000 fps
ROI	Free selectable
Shutter type	Global electronic shutter
Shutter exposure times	4 μ sec 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	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 45 minutes camera operation. Optional 'extended battery pack' with 3 hour capacity

Extensions

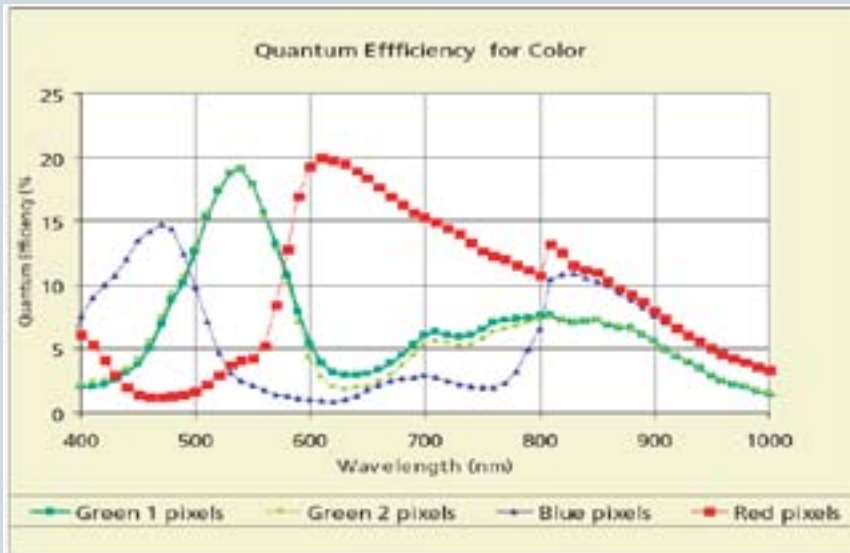
Extensions are additional hardware components, to be ordered with the camera.

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

Certifications

CE	In compliance with relevant standards
EMC tests	In compliance with MIL-STD-461E
Environmental tests	In compliance with MIL-STD-810:
Ambient air condition	Meth. 501.4, Proc. I, Tab. 501.4II
Sever cold	Meth. 502.4, Proc. I, Tab. 502.4II
Temp. shock	Meth. 503.4, Proc. I, Tab. 503.4II
Low altitude	Meth. 500.4, Proc. II
Vibration	Meth. 514.5, Proc. I, Cat. 12, Fig. 514-5C8
Mech. shock	Meth. 516.5, Proc. I, Tab. 516.5-1
Humidity	Meth. 507.4, Fig. 507.4-1, modified (2 cycles)

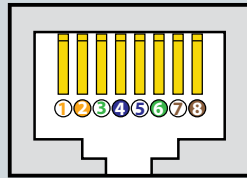
Spectral response



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 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, designed/built to withstand severe shocks up to 100 G for 15 msec, 3 axis
Operating temperature	-51 ... +49 °C (-60 ... 120 °F)
Storage temperature	-55 ... +80 °C (-67 ... 176 °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

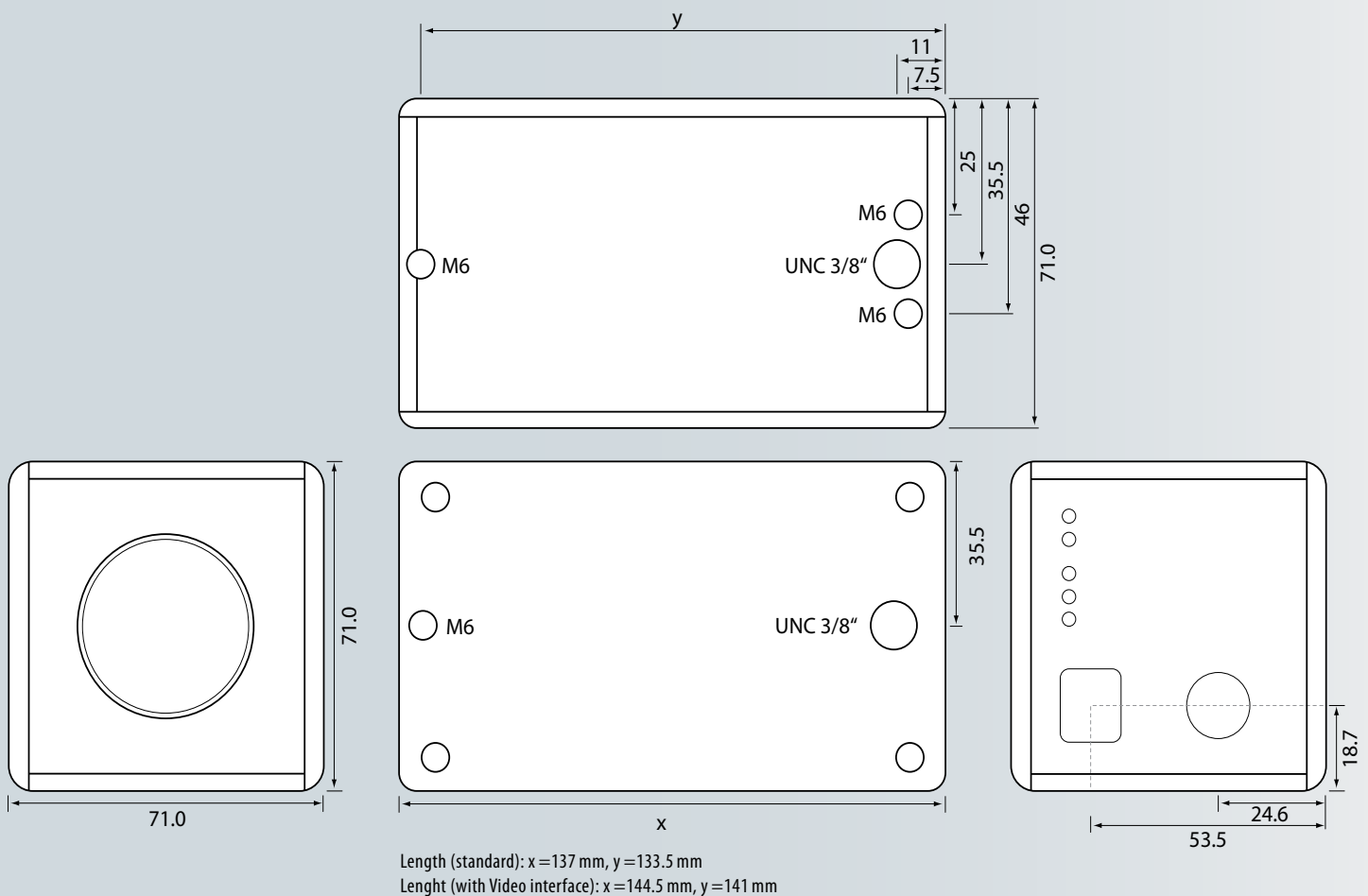
CPU	Pentium 4, 2 GHz with MMX
DRAM	2 GB
HDD	60 GB
Interfaces	GigE
OS	MS Windows 2000, XP PRO, VISTA

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)
Lens mount	c-mount, adjustable backfocus 1" lens covers complete image size
Camera mount	Standard UMC $\frac{3}{8}$ " threads on all 4 sides M6 threads for camera plate

Dimension / Mounting



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