

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	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
ROI	Free selectable
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	Built-in CF interface (optional), accepting CF cards for non-volatile data storage
Status lines	4 (TTL, input)

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

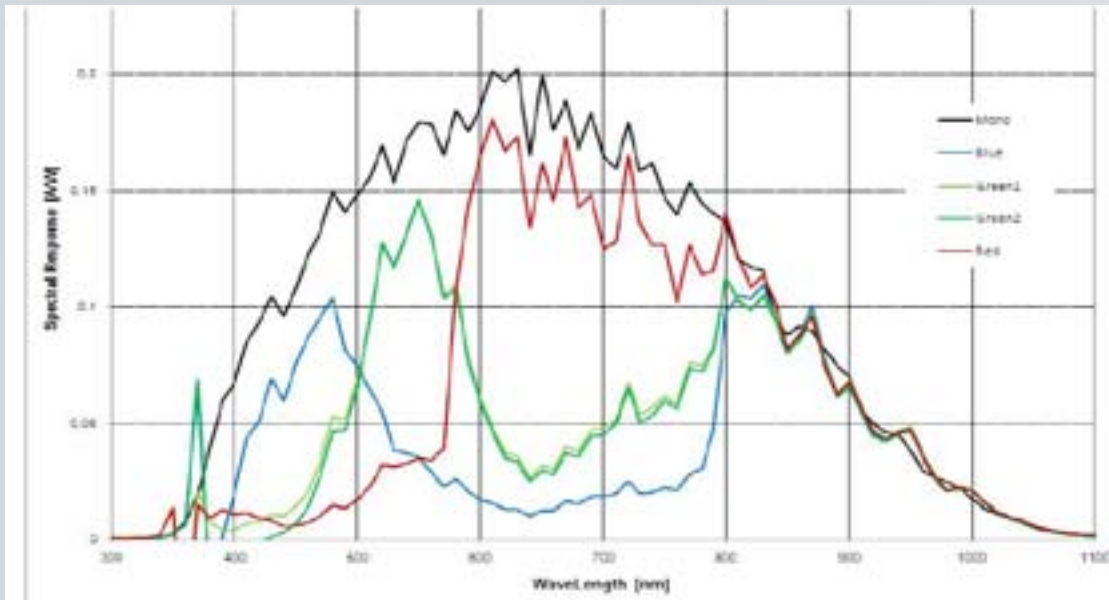
Extensions are additional hardware components, to be ordered with the camera.

Extended battery pack	2 hours battery capacity
Video Interface	SDI (digital) or PAL/NTSC (analog)
IRIG B Interface	IRIG B time stamping (requires external IRIG-B122, amplitude modulated signal)
24 V Interface	Voltage range (24 – 36 V DC)
Ext. temp range	-40...+50 °C (-40...+120 °F)
Coating	To protect electronics against humidity

Certifications

CE	In compliance with relevant standards
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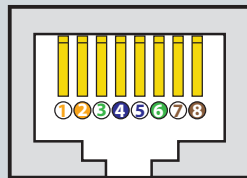
Spectral response



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)
 - 12 Status2 (In)
 - 13 Status 3 (In)
 - 14 Status 4 (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

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

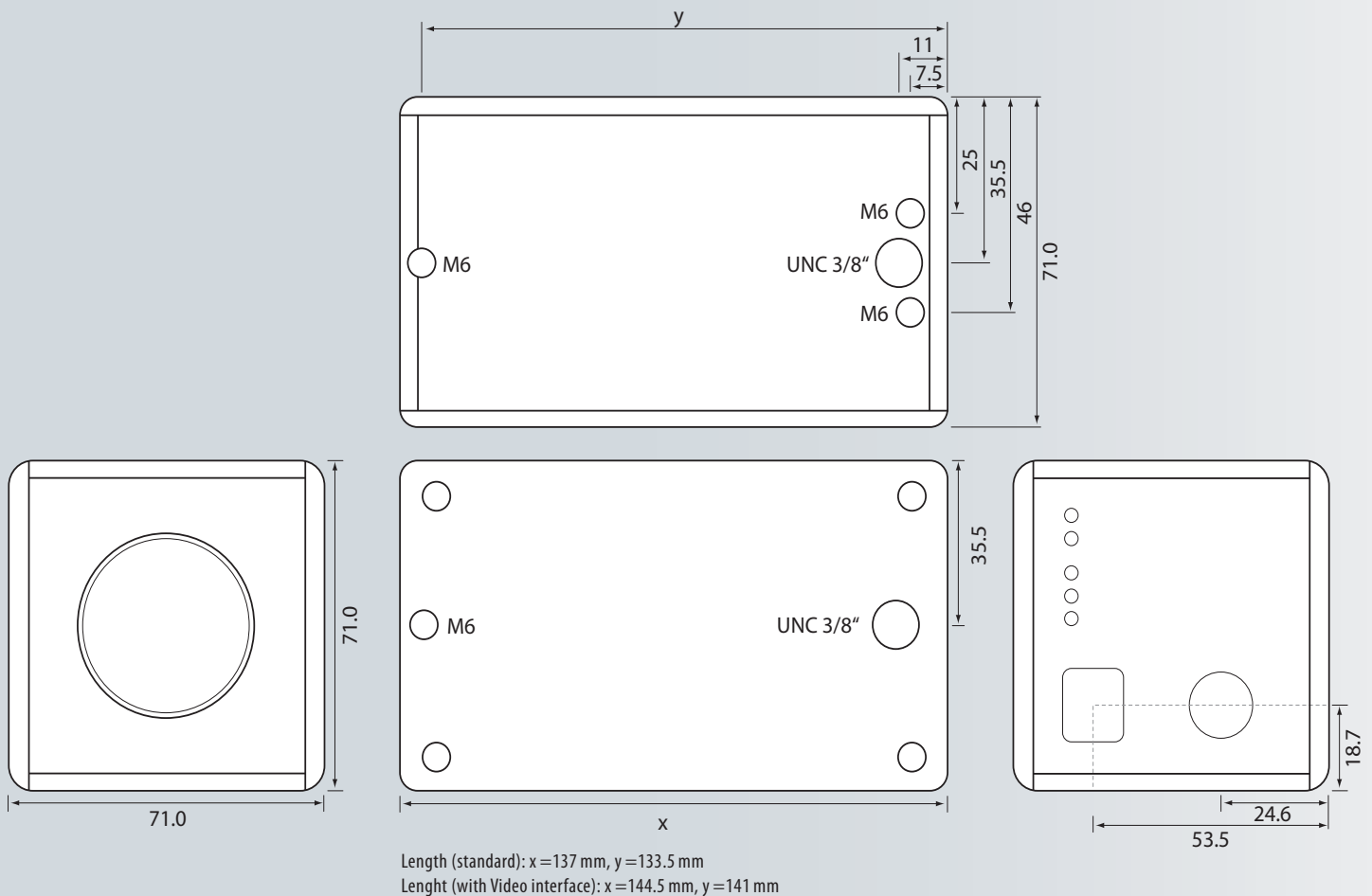
MS Windows XP PRO, VISTA, Win7

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)	71 x 71 x 137 mm (w/o lens and extensions)
Weight	950 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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