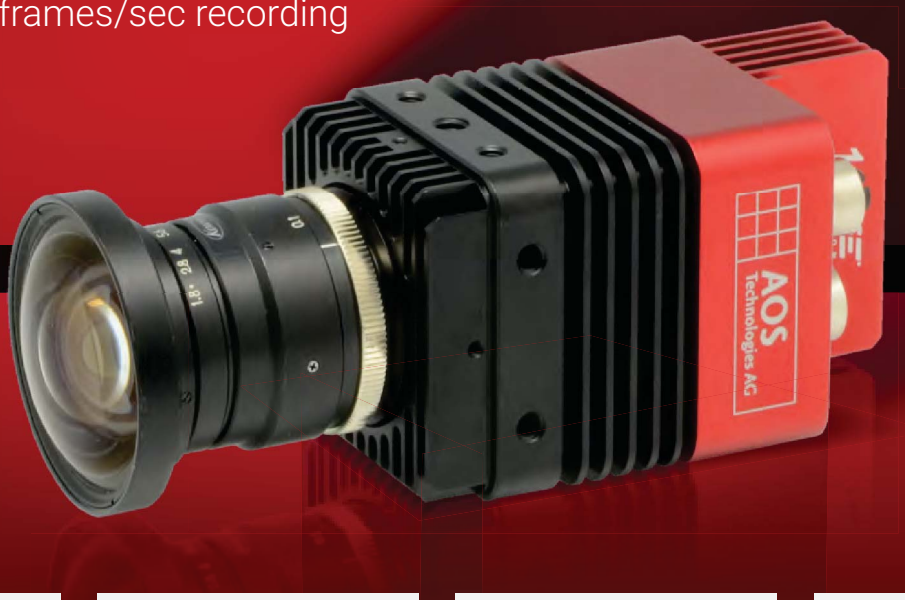
PROMON 2000

High Speed-High Resolution Streaming System

Full HD @ 1000 frames/sec recording directly to PC

AOS Technologies AG

Imaging for smart decisions...



Forget limited recording time

Stream directly to SSD with 1920x1080 @ 1000 frames/sec.

Beyond DRAM limitations

PROMON 2000 records directly to SSD without limitations of camera memory sizes

High Speed – High Dynamic

Record with up to 12 bits dynamic range

Powerful Software

With Imaging Studio V4 you handle recordings and post processing intuitively and efficiently

PROMON 2000 - record high speed events without the limitations of camera memory size. The only limit is the SSD.

- **PROMON 2000 offers a stunning recording speed in Full HD up to 1000fps with 8-bit dynamic directly via 10 Gigabit Ethernet directly to PC.**
- **Switch to high dynamic range with 12-bit and up to 390fps by a simple click in the Software.**

PROMON 2000 represents a breakthrough in high-speed recording technology. Unlike traditional high-speed cameras limited by internal memory size, PROMON 2000 pushes beyond these boundaries. Over a fast 10 Gigabit Ethernet connection, the camera streams at 1000 frames per second in 8-bit mode with a resolution of 1920 x 1080 pixels. When high dynamic range is needed, the 12-bit sensor enables recordings at up to 390 frames per second. These features are seamlessly integrated into a comprehensive software package, ensuring both recording and post-processing are easy and straightforward.

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PROMON 2000 | Key Specifications

Typical frame rates vs resolution

		10 Gigabit/s		1 Gigabit/s	
		8-bit	12-bit	8-bit	12-bit
1920	1080	1000	393	104	36
1920	1024	1055	415	110	37
1920	800	1349	531	141	48
1920	720	1498	590	156	54
1920	600	1795	707	188	64
1920	512	2100	829	220	75
1920	480	2239	884	235	81
1920	256	4158	1655	440	151
1920	128	8149	3299	881	303
1920	16	50'847	25'150	7004	2417

Table shows typical resolution vs. fps, Resolution is freely adjustable within limitations of camera/sensor

Recording time

Interface	Approximate recording time 8-bit	
NVMe disk size	500GB	1TB
10 Gigabit/s	8min	16min
1 Gigabit/s	1h 20min	2h 40min

Recording time with above resolution settings @ max fps

Optical / Camera specifications

Image Sensor	CMOS sensor, monochrome
Pixel Size	10 microns
Resolution	1952x 1080 active pixels
Spectral range	CMOS monochrome standard 350-950nm
Dynamic Range „high speed“	8 bit @ 1000fps @ 1920 x 1080
Dynamic Range „high dynamic“	12 bit @ 300fps @ 1920 x 1080
Sensor Format	4/3“ 19.2 x 10.8mm / Diagonal 22.31mm
Responsivity (@560nm)	1600 x 103 DN / (J/m2)
Light Sensitivity	ISO 8000 (monochrome)
Shutter Type	Global, independent of frame rate
Exposure Time	Free adjustable from 10µsec to 1 / framing rate by software
Lens Mount	C-mount with adjustable back focus

Camera Control Features and Data Interface

Data	10GBASE-T Ethernet X-coded M12 GigE connector 17 pin
I/O	14 pin LEMO connector, compatible with all AOS camera series
I/O Tolerance	TTL compliant, max. 15V
Power Requirements	12-24V / max. 20 Watts
Sync In/Out	Sync in / Sync out for phase-locked master-slave operation with other cameras or synchronization to external frequency.
Trigger In	Input for start stop recording, falling edge, switch closure
Motion Detection	Image based algorithm used as trigger or event marker
Strobe	Strobe out for synchronization of LED illumination
Data Storage	Streaming to PC RAM or NVMe

Note: The PC must have an NVMe disk to achieve necessary writing speed.

Camera operation

Control SW	AOS Imaging Studio v4 for parametrization, recording, editing and exporting/converting of recordings included
Live Video	Live video out via Ethernet
Recording medium	Circular buffer in PC RAM or SSD, parametrized by software
Number of Buffers	Up to 100 buffers, individually configurable by software
Trigger Modes	Pre-post recording, adjustable in steps of 1 frame, rising falling edge
Auto Download	Auto store of sequences upon trigger and return to recording mode for 24/7 operation
Export Formats	Export in all popular movie and single image formats supported

Physical specifications

Size & Weight	width: 59mm / height: 59mm / length: 104mm / 0.47kg width: 2.32” / height: 2.32” / length: 4.06” / 1.04 lb
Mounting	¼” UNC thread, bottom / M5 mounting threads on 4 sides
Operating Temperature	-5 … 40°C / +23 … +104 °F (with ChillBox)
Storage Temperature	-20 … +60 °C / -4 … +140 °F
Standards	CE, FCC

Ordering Information

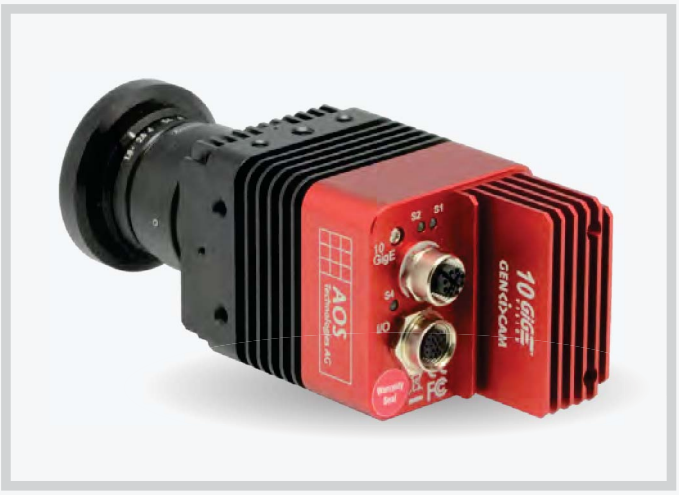
Model	
PROMON 2000	AOS# 590112-00-0000

Shipment includes:

- PROMON 2000 camera
- ChillBox
- Ethernet cable
- Power Trigger adapter
- Power supply 110-230V / 24V

Order separately:

- AOS# 2200104 Trigger pickle switch
- AOS# 2200116 pigtail cable for synch in/out, STROBE out



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