

PROMON 12M – 12 megapixel high speed streaming camera

AOS Technologies offers the highest resolution, high speed streaming camera configured with a PC recording device via CoaXpress. This high performance camera system comes ready to use with powerful operation software.

The PROMON 12M camera is available as monochrome or color version. PROMON 12M offers stunning data rates of 12 megapixels @ up to 166 fps and higher with reduced resolution. Full HD-TV Format with 1920 x 1080 pixels provides sequences with up to 461 fps. Circular buffer recording, triggering by discrete signals and automatic re-arm after download are just a few functions made available in the easy-to-use software. Images can be recorded to PC-RAM or for longer recording time PROMON 12M can stream directly to HPD (high performance drive) for minutes. Easy export of image data to common movie formats is included as one of the many features of the software suite. PROMON 12M covers the 'Commercial Super HD (4K)' standard, perfect for broadcast or movie applications.

Unique features

- **Resolution** – PROMON 12M with its powerful 4064 x 3072 pixel resolution opens completely new possibilities for many different applications. Images can be analyzed in great detail by taking advantage of the impressive zoom capability.
- **Long recording times** – PROMON 12M records images directly to your PC RAM or HPD, providing recording times from seconds up to minutes.
- **Long cable** – a single cable link between controller and camera bearing all required data links of up to 20 m (60 ft); options to extend up to 1000 m or more.
- **Turnkey** – PROMON 12M system comes with camera, cables, controller and pre-installed software ready for use. No time-consuming setup procedures necessary.

PROMON 12M – Key specifications

Typical frame rate vs resolution vs recording time (partial)

Resolution ▶	Resolution @ fps	Resolution @ fps	Resolution @ fps	Resolution @ fps	Resolution @ fps	Resolution @ fps
	4064 x 3072 @ 166 fps	4064 x 1560 @ 300 fps	1920 x 1080 @ 461 fps	1280 x 720 @ 678 fps	640 x 480 @ 986 fps	320 x 120 @ 3100 fps
Memory ▼	Recording time	Recording time	Recording time	Recording time	Recording time	Recording time
25 GB RAM	12 sec	12 sec	41 sec	41 sec	86 sec	220 sec
800 GB HPD	6.4 min	6.4 min	21 min	21 min	45 min	117 min
1.6 TB HPD	12.8 min	12.8 min	42 min	42 min	90 min	234 min
3.2 TB HPD	25.4 min	25.4 min	86 min	86 min	182 min	465 min

Table shows typical resolution vs. fps, resolution is freely adjustable within limitations of camera/sensor, recording time and fps depends on PC performance

Optical/Sensor specifications

Sensor Type		PROMON 12M color	PROMON 12M monochrome
Image Sensor	4064 x 3072 pixel with 8 Bit dynamic range, monochrome and colour, max 166 fps @ full resolution		
Sensor Size	5.5 µm pixel size / 22.44 x 16.90 mm ²		
Dynamic Range	Sensor: 60 db, Output 8 Bit		
Sensitivity		ISO 160	ISO 320
Shutter Type	Global, independent of frame rate		
Exposure Time	Freely adjustable from 28 µs to 1/fps by software		
Power	Via CoaXpress		
Filter	UV-NIR Cut filter for MONO and COLOR		
Camera Mount	F-Mount (other mounts on request)		

Control Software

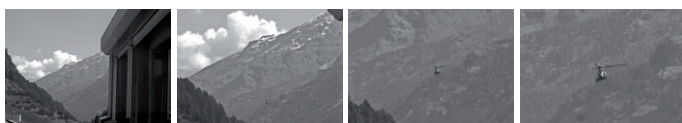
Functionality	Camera control, recording settings, playback, store data, and file format conversion
Auto Store Function	Auto store function in PC for 24/7 recording supported
Trigger Modes, Positions	Pre-post triggering, adjustable by software to 0% / 10% / 25% / 50% / 75% / 90% / 100% of total available recording time Re-arm after trigger for instantaneously new recording
Event Markers / Bookmarks	Events in a sequence can be tagged by bookmarks for easy retrieval / location.
File Formats	PROM, RAW3, AVI, TIFF, PNG and JPG with integrated batch converter
OSD	Information on camera, recording features, time stamp and camera name can be added in image data, position of OSD is set by user.
Motion Analysis (optional)	2D basic motion analysis with auto-tracking feature for up to 5 points is optionally available
Custom Specific	Extended functions for custom specific use can be integrated. Contact us for further details.

Interface and Connector

Data Interface	Coaxpress CXP-6
Connector	4x DIN 1.0/2.3
Trigger In	BNC switch closing, TTL

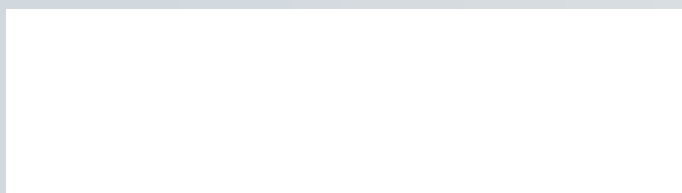
Physical specifications Camera

Size	With cable lock 98 x 88 x 100 mm Without cable lock 93 x 88 x 84 mm
Weight	With cable lock 800 g
Operation Temp.	0 °C ... +40 °C ambient
Storage Temp.	-40 °C ... +60 °C
Mounting Threads	M6 Mounting threads on all sides UNC ¼" on bottom side



Zooming in on PROMON 12M images – making the invisible visible

Your local AOS partner:



Physical specifications Compact PC System *

CPU	Intel Core i7-4770S
RAM	32 GB DDR
Operating System Storage	250 GB SSD
Sequence Storage	1 TB in mobile rack, front-accessible for easy data transfer
Streaming Storage (HPD)	Optional, 800 GB – 3.2 TB
Data Export	4x USB 3.0
Video Out	HDMI and VGA
Dimensions	(DxWxH) 421 mm x 232 mm x 176 mm (7 kg)

* Other configurations optional, please inquire

Available System configurations

Configuration	Recording time 25 GB RAM allocated (full @ 166 fps)	Recording time HPD* (full @ 166 fps)
Basic	Up to 12 sec	–
PC800	Up to 12 sec	Up to 6.4 min
PC1600	Up to 12 sec	Up to 12.8 min
PC3200	Up to 12 sec	Up to 25.4 min

* High performance drive, inquire about OEM configurations

Scope of Supply

Camera with cable lock
CoaXpress cable 5 m
PC-System with Win7 64 Bit multilingual
Dongle for PROMON Studio Software
Optional Add-ons:
– Motion Analysis Software
– Other cable lengths

