



## PROMON U750 – high speed power via USB3

**PROMON U750 is a high speed camera that connects directly to your PC via a single USB3 cable. The comprehensive software controls image acquisition, instant playback post recording analysis and file conversion. The high resolution sensor with 1.3 Megapixel provides frame rates from 200 fps at full resolution up to 3225 fps by reducing the resolution.**

PROMON U750 is a High Speed Camera system combination of unique Software with state of the art camera hardware. The small USB3 camera delivers high resolution images directly to your PC. PROMON U750 is ideal for educational purposes and for true mobile applications. This extremely economical high speed camera is the perfect companion when traveling and mobility is of essence. Nevertheless PROMON U750 with its powerful camera control software leaves no compromise open in view of functionality and offers all advantages of a high speed camera such as circular buffer recording, triggering by external discrete signals or by motion detection. In addition, for longer recording time, you may stream directly to hard disk for minutes or hours making sure to capture the most intermittent events of your measurements. Easy export of data to the most common movie formats is just another one of the many features of the software.

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### Unique features

- **Direct to PC** – While observing the scene in the live image PROMON 750U streams image data directly to your PC RAM or Hard Disk. The comprehensive software allows making the most demanding recordings and also supports 24/7h recordings.
- **Setup that works** – Camera and Software come from the same supplier, install Software, connect camera and you are ready to record.
- **Long recording times** – Recording times of minutes or even hours allow to record, analyze and archive a complete process in all detail, important to detect trends and to catch those sporadic and intermitted occurring incidents.
- **Image trigger** – extends the versatility of your PROMON by letting the camera trigger the system when an incident is visually detected.

# PROMON U750 – Key Specifications

## Typical Recording Times vs Resolution/Frame Speeds

Resolution ▶	Resolution @ fps	Resolution @ fps	Resolution @ fps	Resolution @ fps	Resolution @ fps	Resolution @ fps
	1280 x 1024 @ 203	1280 x 720 @ 284	1024 x 1024 @ 249	800 x 600 @ 511	640 x 480 @ 750	128 x 128 @ 3134
Memory ▼	Recording time	Recording time	Recording time	Recording time	Recording time	Recording time
2 GB RAM	8secs	8secs	8 secs	8.5 secs	13 secs	30 secs
500 GB SSD	34 mins	34 mins	34 mins	36 mins	56 mins	39 mins

Table shows typical recording time and fps with good PC performance. Recording time in memory depending on available free memory in PC

## Typical Frame rates vs Resolution

	1024	800	720	640	600	512	480	320	256	128
1280	203	257	284	318	338	392	417	604	736	1308
1024	249	315	348	389	413	478	507	729	884	1538
800	311	392	432	482	511	591	626	892	1074	1818
720	341	429	473	527	559	645	683	968	1162	1941
640	378	475	523	582	617	710	751	1060	1267	2087
608	395	496	546	607	643	740	783	1101	1315	2150
512	156	572	628	698	738	847	895	1248	1481	2369
480	481	602	659	717	777	895	939	1305	1547	2450
320	663	823	900	994	1049	1193	1254	1700	1984	2967
256	732	905	989	1090	1148	1302	1369	1838	2132	3134
128	732	905	989	1090	1148	1302	1369	1838	2132	3134

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

## Camera/Sensor specifications

<b>Camera Model</b>	USB 3 camera with CMOS sensor
<b>Light Sensitivity</b>	Color: ISO 2400 Mono: ISO 3600
<b>Image Sensor</b>	1280 x 1024 pixel with 8 Bit dynamic range
<b>Sensor Size</b>	4.8 µm pixel size / 1/2" (6,14 mm x 4,92 mm)
<b>Dynamic Range</b>	Sensor: 60 db, Output 8 Bit
<b>Optical Fill Factor</b>	56 %
<b>Shutter Type</b>	Global, independent of frame rate
<b>Exposure Time</b>	Free adjustable from 59 µsec to 1 / fps by software
<b>Power</b>	Via USB 3.0 Interface / 3 Watts
<b>I/O Tolerance</b>	Opto-coupled, 30V Tolerance Note: for switch closing contact triggering: AOS USB Trigger Set part# 2200204 is required
<b>Camera Mount</b>	C-Mount

## Data Interface (standard)

<b>Data Interface</b>	USB3 Interface with lockable connector on camera
<b>I/O Interface</b>	Hi-Rose HR10A-10P-12S (female)
<b>Trigger In</b>	TTL level, max +30 V, or switch closing contact Requires AOS USB Trigger Set part# 2200204

## PC requirements

<b>Operation System</b>	Win 7/10 64 bit
<b>CPU</b>	Pentium Core i5 or better
<b>RAM</b>	4 GB or higher (only part of it usable for recording)
<b>Hard Disk</b>	500 GB or more, SATA-3 standard <b>Separate SSD for image data recording is strongly recommended in order to avoid damage to operation system partition</b>
<b>Interface</b>	USB3: Full open USB3 interface dedicated for camera Recommended Chipset: Intel USB 3.0 eXtensible Host Controller
<b>Graphic Card</b>	Recommended is a good performing fast graphic card with dedicated memory

## Software

<b>Parameters</b>	Camera control, recording settings, playback and file conversion
<b>Auto-store function</b>	Auto-store function in PC for 24/7 recording supported
<b>Trigger Modes, Positions</b>	Pre-post recording, adjustable by software to 0 % / 10 % / 25 % / 50 % / 75 % / 90 % / 100 % of total available recording time Re-arm after trigger for instantaneously new recording
<b>File Formats</b>	Recording in AOS native format for performance reasons, conversion to avi, mpeg, mpeg4 single Image formats such as BMP, JPEG TIFF Gif etc.
<b>Snap Shot</b>	Single snapshot of live Images supported
<b>Motion Detection</b>	Motion trigger and motion event marking in file
<b>Event Markers / Bookmarks</b>	Events in the sequence can be tagged by bookmarks for easy orientation / finding
<b>OSD</b>	Information on camera, recording features, time stamp, camera name may be added in image data, Position of OSD is set by user
<b>Custom Specific</b>	Extended functions for custom specific use are easy to integrate Contact us for further details

## Physical specifications

<b>Size</b>	30 x 30 x 30 mm / 80 gr 1.18" x 1.18" x 1.18" / 0.18 lb
<b>Operating Temperature</b>	-0 ... +50 °C / +32 ... +122 °F
<b>Storage Temperature</b>	-40 ... +70 °C / -40 ... +158 °F
<b>Mounting Threads</b>	2 x M4 Mounting threads on bottom UNC ¼" on bottom for tripod mounting
<b>I/O Connector</b>	USB 3.0 Micro-B lockable connector Hirose micro plug (part number HR10A-7P-6S)
<b>CE</b>	In compliance with relevant standards

## Scope of Supply

	<ul style="list-style-type: none"> <li>PROMON U750 camera</li> <li>3 m USB cable, lockable on camera side</li> <li>Software, Manual and documentation on CD</li> </ul>
<b>Accessories</b>	<ul style="list-style-type: none"> <li>AOS USB Trigger Set</li> <li>LED lights</li> <li>Mounts and Tripods</li> <li>Lenses</li> <li>Extended cabling solutions</li> </ul>

## Ordering information

<b>510011-00-0000</b>	<ul style="list-style-type: none"> <li>PROMON U750 camera color</li> <li>3 m USB cable, lockable on camera side</li> <li>Software, Manual and documentation on CD</li> </ul>
<b>510013-00-0000</b>	<ul style="list-style-type: none"> <li>PROMON U750 camera monochrome</li> <li>3 m USB cable, lockable on camera side</li> <li>Software, Manual and documentation on CD</li> </ul>
<b>2200204</b>	<ul style="list-style-type: none"> <li>AOS Trigger Set</li> </ul>

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