



eosens TS5

High-Speed Handheld Camera



High-Speed Handheld Camera

Performance to Fit

With four models, there is an eosens TS5 that is perfect for your needs. All models use an advanced 5-Megapixel sensor that produces remarkably clean images at all resolutions.

Easy to Use

With its small form factor, battery operation, large built-in LCD screen and intuitive on-screen menu system, the eosens TS5 puts the power of both a traditional high-speed camera and long-record system into the palm of your hand.

Ultra-Fast Save Times

While the eosens TS5 is saving to the onboard media you can simultaneously record your next high-speed snapshot. Uncompressed images are transferred via the Gigabit Ethernet at rates of 50 - 80 MB/sec, depending on your PC performance.

Long Record Option

Unlike traditional high-speed camera systems that record for only a few seconds, the long record option allows the eosens TS5 to record at high speed for more than 30 minutes, or even hours at reduced resolutions.

eosens TS5 Advantages at a Glance:

- Battery powered handheld high-speed camera
- Built-in LCD screen with on-screen menu system
- TS5-H and TS5-Q models record full 1080 px at 634 fps
- Advanced 5-Megapixel CMOS sensor
- Multiple recording modes to suit any situation
- More than 30 minutes recording time at full resolution and speed with long record option

Technical Data

(More detailed specifications are available on request)

eosens TS5	
System design	Handheld, battery-powered, portable with touchscreen LCD
Sensor	12-bit CMOS sensor with 5 µm square pixels, color or monochrome
Sensor Modes	Standard, binning 2x2, 4x4; sub-sampling 2x2, 4x4; 2x bin + 2x sub
Resolution by Model	TS5-Q: QSXGA 2,560 x 2,048 pixel; TS5-H: HD 1,920 x 1,080 pixel; TS5-S: SXGA 1,280 x 1,024 pixel; TS5-L: SVGA 800 x 600 pixel
Light Sensitivity	1,600 to 12,800* ISO monochrome, 800 to 6,400* ISO color (depending on mode)
Shutter	Global electronic shutter from 3 µsec to 41.654 ms
Image Memory	4 GB, optional 8 GB
Removable Storage	SDHC - 32GB maximum; USB flash drive
File Formats	Stacks – BMP, DNG, JPEG, TIFF, TIFF (raw); Video – AVI, CAP (raw); Still – JPEG
Lens Mounts	C-Mount, optional F-Mount or PL-Mount
Built-in Monitor	High resolution, 178 mm (7") diagonal LCD
Communication Ports	USB 2.0 device (micro-B), Ethernet (10/100/1000 Base-T)
Control Software	Mac, Windows or Linux OS compatible via web browser
Six External I/O Ports	Markers, Trigger In/Out, Sync In/Out, Arm In/Out (LVTTTL (3.3V) or switch closure)
Video Out	HDMI (1080P, 720P, 480P)
Construction	anodized machined aluminum housing
Power	rechargeable Lithium-Ion Pack – 4 hours, or 10 - 26 VDC external power supply
Power Consumption	42W
Operating Environment	5°C ... 40°C
Camera Size	228 x 114 x 89 mm
Weight	1.8 kg, without lens

Optional Extensions

WiFi	802.11 b/g/n, Security: open, WEP, WPA(2) - PSK Solid
Solid State Drive (SSD)	256 GB, 512 GB or 1 TB
Long Record Option	Streams uncompressed video to SSD at 480 MB/sec; 8 GB memory and SSD required; ships with an external battery pack

Sample Record Rates and Times

Model	Resolution	Frame Rate	Recording Time
Normal Mode with 8 GB memory			
TS5-Q	2,560 x 2,048 px	253 fps	6.3 sec
	2,560 x 1,440 px	359 fps	6.3 sec
TS5-H	1,920 x 1,080 px	634 fps	6.5 sec
	1,440 x 1,080 px	634 fps	8.5 sec
TS5-S	1,280 x 1,024 px	668 fps	9.7 sec
	1,024 x 768 px	886 fps	12.0 sec
TS5-L	800 x 600 px	1,126 fps	15.5 sec
	512 x 384 px	1,732 fps	24.7 sec
Long Record Mode with 1 TB SSD			
TS5-Q	2,560 x 1,440 px	130 fps	34.7 min
TS5-H	1,440 x 1,080 px	308 fps	34.7 min
TS5-S	1,024 x 768 px	610 fps	34.7 min
TS5-L	320 x 240 px	5,000 fps	42.8 min

MIKROTRON GmbH

MIKROTRON GmbH provides a full range of high-speed imaging solutions for challenging applications in industry, engineering, science and sports. The company's extreme slow-motion recording enables customers to optimize manufacturing processes, improve product design, revolutionize quality management and analyze motion.

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