



FASTEC TS5

TS5 At A Glance

- Handheld, battery-powered, with built-in touchscreen LCD
- TS5-Q records Quad HD (1440p) @ 359fps
- TS5-H records Full HD (1080p) @ 634fps
- TS5-S records 1280 x 1014 @ 1000fps; HD (720p) @ 1400fps
- Multiple recording modes to suit any situation
- Control via powerful FasMotion Software on PC or Mac or via built-in web interface
- Long Record Option: Stream video directly to an SSD

Key Features

- **Performance to fit** – With four models from QSXGA (2560x2048) @ 253fps to SVGA (800x600) @ 1677fps, there is a *TS5* that is right for your needs. All models use an advanced 5-Megapixel sensor that produces remarkably clean images at all resolutions. Binning and sub-sampling features of the sensor give it great flexibility and sensitivity.
- **FasFire Mode** – Ultra-fast save times to the onboard media *while simultaneously recording* high-speed bursts of hundreds or even thousands of images at a time, the *TS5* is always ready for the next high-speed snapshot!
- **Portability** – With its small form factor, battery operation, large built-in LCD touch screen and intuitive on-screen menu system, the *TS5* puts the power of both a traditional high-speed camera *and* long-record system into the palm of your hand. The *TS5* is truly a point-and-shoot high-speed camera solution.
- **Flexible Control** – The *TS5* can be operated as a self-contained, handheld camera, or controlled over Gigabit Ethernet via Fastec FasMotion software on your PC or Mac or via the built-in web interface with your favorite web browser on your PC, Mac, tablet, or even your smartphone.
- **High-Performance Image Transfer** – The FasMotion application makes workflow a breeze with transfers of uncompressed images via Gigabit Ethernet at rates of 50–80MB/sec to moderately equipped PCs.
- **Multiple Storage Options** – The *TS5* features both a USB port and an SD port for quick and easy image downloads to USB flash drives, SD cards, or portable hard drives. The built-in SSD provides up to 1 terabyte (TB) of lightning-fast non-volatile internal storage.
- **Long Record Option** – Stream video to a built-in SSD at over 200 frames per second at HD 1080p resolution and 520 fps at HD 720p resolution. Unlike traditional high-speed camera systems that record for a only few seconds and require careful triggering, the Fastec *TS5* with LR option can record at high speed for many minutes, or hours at reduced resolutions.
- **FasCorder Mode** – The *TS5* allows you to acquire multiple high-speed “takes” of varied lengths, from a few seconds to many minutes, without having to fuss with any settings. Just click to record, click again to pause...as often and as quickly as the situation demands.



Fastec TS5 Specifications

Standard Features

System Design	Handheld, battery-powered, portable with touchscreen LCD
Sensor	12-bit CMOS sensor with 5µm 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 2560 x 2048; TS5-H: HD 1920x1080; -S: SXGA 1280x1024; -L SVGA 800x600
Light Sensitivity	1600 to 12,800* ISO monochrome, 800 to 6400* ISO color (depending on mode)
Shutter	Global electronic shutter from 3µsec to 41.654ms
Image Memory	4GB (std.) or 8GB (optional)
Removable Storage	SD card (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 (std.), F-mount or PL-mount (optional)
Built-in Monitor	High resolution, 178mm (7”) diagonal LCD
Communication Ports	USB 2.0 device (micro-B), Ethernet (10/100/1000Base-T)
Control Software	FasMotion (PC/Mac application), web interface (browser on all platforms)
Six External I/O Ports	Markers, Trigger In/Out, Sync In/Out, Arm In/Out (LVTTTL (3.3V) or switch closure)
Marker Data Views	Camera display info line, playback timeline, FasMotion o-scope mode, XML file
Video Out	HDMI (1080p30, 1080p60, 720p, 480p)
Construction	Anodized machined aluminum housing
Power	Rechargeable Internal Li-ion battery or 10-26 VDC external
Power Consumption	42W maximum
Operating Environment	+5°C to +40°C
Size and Weight	228mm (9.0”) W x 114mm (4.5”) H x 89mm (3.5”) D. 1.8 Kg (3.9 lbs.)

Optional Features

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

*Higher ISO settings available via bit-shifting and analog gains result in lower SNR. Binning modes reduce noise.

Sample Record Rates and Times

	Resolution	Normal Mode*		Long Record Mode**	
		Max Frame Rate	Recording Time	Max Frame Rate	Recording Time
TS5-Q: QSXGA	2560 x 2048 (QSXGA)	253 fps	6.3 sec	91 fps	34.9 min
	2560 x 1440 (QHD)	359 fps	6.3 sec	130 fps	34.7 min
TS5-H: HD 1080p	1920 x 1080 (HD: 1080p)	634 fps	6.5 sec	231 fps	34.7 min
	1440 x 1080	634 fps	8.5 sec	308 fps	34.7 min
	1280 x 1024 (SXGA)	991 fps	6.4 sec	366 fps	34.7 min
TS5-S: SXGA	1280 x 1014	1001 fps	6.4 sec	369 fps	34.7 min
	1280 x 720 (HD: 720p)	1403 fps	6.5 sec	520 fps	34.7 min
	1000 x 1000	1015 fps	8.2 sec	478 fps	34.7 min
TS5-L: SVGA	1024 x 768 (XGA)	1316 fps	8.1 sec	610 fps	34.7 min
	800 x 600 (SVGA)	1677 fps	10.4 sec	993 fps	34.7 min
	800 x 450	2221 fps	10.5 sec	1331 fps	34.7 min
	768 x 576	2764 fps	6.8 sec	1084 fps	34.7 min
	640x480 (VGA)	3289 fps	8.3 sec	1562 fps	34.7 min
	512 x 384	4061 fps	10.5 sec	2441 fps	34.7 min
	320 x 240	6267 fps	17.4 sec	5000 fps	42.8 min

All Specifications subject to change. All record times and rates assume 8-bit data.

*Record times assume 8GB of memory. Divide Record times by 2 for approximate 4GB record times.

**LR Record times assume Long Record option and 1TB SSD. Divide by 2 if using a 512GB SSD.

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