

FASTEC IMAGING™

HIGH-SPEED IMAGING IN THE PALM OF YOUR HAND



FASTEC TS5

TS5 At A Glance

- Handheld, battery-powered, with built-in touchscreen LCD
- TS5-H models record full 1080p @ 634fps
- Advanced 5-Megapixel CMOS sensor
- 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 three models from SVGA (800x600) to full HD (1920x1080), 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/s 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 1TB 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-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): 250GB, 500GB, 1TB
Long Record	Streams uncompressed video to SSD at 480MB/sec; 8GB mem. + SSD required *Higher ISO settings available via bit-shifting and analog gains result in lower SNR. Binning modes reduce noise.

Sample Record Rates and Times

		Normal Mode*		Long Record Mode**			
		Resolution	Max Frame Rate	Recording Time	Max Frame Rate	Recording Time	
TS5-H HD: 1080p	TS5-S: SXGA	1920 x 1080 (HD: 1080p)	634fps	6.5 sec	231	17.3 min	
		1440 x 1080	634fps	6.4 sec	308	17.3 min	
	TS5-L: SVGA	1280 x 1024 (SXGA)	668fps	7.2 sec	366	17.3 min	
		1280 x 960	721fps	7.2 sec	390	17.3 min	
		1280 x 720 (HD: 720p)	943fps	7.2 sec	520	17.3 min	
		1024 x 1024	668fps	9.1 sec	457	17.3 min	
		1024 x 768 (XGA)	885fps	9.1 sec	610	17.3 min	
		800 x 600 (SVGA)	1125fps	11.8 sec	993	17.3 min	
	TS5-L: SVGA	800 x 450	1477fps	11.9 sec	1331	17.3 min	
		640 x 576 (PAL)	1172fps	14.7 sec	1172	19.1 min	
		640x480 (VGA)	1398fps	14.8 sec	1398	19.2 min	
		512 x 384	1732fps	18.7 sec	1732	24.0 min	
			320 x 240	2697fps	41.1 sec	2268	24.0 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 streaming option and 500GB SSD. Multiply by 2 if using a 1TB SSD.