



TS5: The power of a complete high-speed camera system in the palm of your hand!

Standard Features

- 7" Touch display for control and playback
- Internal Battery--up to 4hrs of operation
- Advanced 2560 x 2080 12-bit CMOS sensor
- 5 μ low-noise pixel for superior depth of field and high system magnification
- Full HD frame rates above 600fps
- Over 20,000fps at reduced resolutions
- Built-in web interface for control via browser on PC, tablet, or phone
- Advanced PC software for Windows, Mac, Linux

Options

- Internal SSD up to 2TB
- Streaming modes for long record times
- External portable battery for extended operation
- WiFi: control camera via tablet, PC, or phone



At home in the manufacturing plant, on the athletic field, in the lab, or commercial studio, the TS5 is the most versatile high-speed camera you will find!

Recording Rates and Time

Normal Mode*

	Resolution	Max Frame Rate	Recording Time	
TS5-Q: QSXGA	2560 x 2048 (QSXGA)	253 fps	6.3 sec	
	2560 x 1440 (QHD)	359 fps	6.3 sec	
	TS5-H: HD 1080p	1920 x 1080 (HD: 1080p)	634 fps	6.5 sec
		1440 x 1080	634 fps	8.5 sec
	TS5-S: SXGA	1280 x 1024 (SXGA)	991 fps	6.4 sec
		1280 x 1014	1001 fps	6.4 sec
		1280 x 720 (HD: 720p)	1403 fps	6.5 sec
		1000 x 1000	1015 fps	8.2 sec
	TS5-L: SVGA	1024 x 768 (XGA)	1316 fps	8.1 sec
		800 x 600 (SVGA)	1677 fps	10.4 sec
		800 x 450	2221 fps	10.5 sec
		768 x 576	2764 fps	6.8 sec
		640x480 (VGA)	3289 fps	8.3 sec
		512 x 384	4061 fps	10.5 sec
		320 x 240	6267 fps	17.4 sec
		64 x 32	29090 fps	2min 19 sec

Long Record Mode**

	Resolution	Max Frame Rate	Recording Time	
TS5-Q: QSXGA	2560 x 2048 (QSXGA)	91 fps	34.9 min	
	2560 x 1440 (QHD)	130 fps	34.7 min	
	TS5-H: HD 1080p	1920 x 1080 (HD: 1080p)	231 fps	34.7 min
		1440 x 1080	308 fps	34.7 min
	TS5-S: SXGA	1280 x 1024 (SXGA)	366 fps	34.7 min
		1280 x 1014	369 fps	34.7 min
		1280 x 720 (HD: 720p)	520 fps	34.7 min
		1000 x 1000	478 fps	34.7 min
	TS5-L: SVGA	1024 x 768 (XGA)	610 fps	34.7 min
		800 x 600 (SVGA)	993 fps	34.7 min
		800 x 450	1331 fps	34.7 min
		768 x 576	1084 fps	34.7 min
		640x480 (VGA)	1562 fps	34.7 min
		512 x 384	2441 fps	34.7 min
		320 x 240	5000 fps	42.8 min

All specifications subject to change. All record 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 "D" option and 1TB SSD. Divide by 2 for 512GB SSD; multiply by 2 for 2TB SSD.

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 or 4x4; sub-sampling 2x2 or 4x4; Or 2x binning + 2x sub-sampling
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 (color), JPEG (selectable quality), TIFF, TIFF(raw); Video – AVI (selectable quality (compressed) or un-compressed), CAP(raw); Still – JPEG
Lens Mounts	C-mount (all cameras ship with C-mount), F-mount or PL-mount (optional)
Built-in Monitor	High resolution, 178mm (7") diagonal LCD
Communication Ports	USB 2.0 device port (micro-B), Ethernet (10/100/1000Base-T)
Control Software	FasMotion (PC/Mac application), web interface (web browser on all platforms)
Six External I/O Ports	Trigger In/Out, Sync In/Out, Arm In/Out (LVTTTL (3.3V) or switch closure); Any or all of the I/O ports may be used as Marker inputs
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, 2TB
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.

All specifications subject to change.

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TS5 Dimensions

