



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

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



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

