FASTER THAN VISION

FASTEC





Its superior image quality and dynamic range make it a great studio camera for everything from food commercials to music videos.

....5µm pixel means greater depth of field....3.9 crop factor (a) 1080p is 2x to 4x as high as most other high-speed cameras, allowing use of very fast C-mount lenses with exceptional depth of field. This is extremely valuable for difficult tabletop shots as well as for wildlife video!

...Save 8-, 10-, or 12-bit raw clips to optional built-in SSD... Built-in SSDs up to 1TB are available for saving footage during your shoot. Batch download/conversion to DNG or other formats may be done at your convenience after shooting.

DATA SHEET May, 2018

TS5

In the Studio, on the shoot, in the field...High-speed imaging in the palm of your hand!

- Four models from QSXGA (2560 x 2048) @ 250fps to SVGA (800 x 600)
 @ 1650fps--all with faster frame rates at lower resolutions
- 7" touch display for control, frame and focus, and playback
- Built-in battery, good for up to 4 hours of operation
- Flexible recording and triggering modes to assure you capture every shot, every time
- Multiple built in non-volatile storage devices, including optional SSDs with up to 2TB capacity allow you to shoot and save your high-speed video quickly and securely without connecting to a PC



Recording with the Circular Buffer

TS5, an extremely efficient tool for capturing high-speed footage...

Using the circular buffer the TS5 may record some video trailing into the past as well as some advancing into the future.

Frame the shot and Arm the camera. The camera begins recording...captures a programmable amount of video into the circular buffer and then begins to overwrite it...



Trigger the camera as you would to take a snapshot. The camera, depending upon how you have it set up, may record video before and/or after the trigger. That way you may choose to respond to things before or after they happen.

Record exactly what you want, no more no less.

FasFire automatically saves that clip while continuing to record the next. Never miss a shot!

On-board high-speed memory may be divided into as many as 16 partitions. As one or more partitions are filled, they begin to empty into on-board storage, making them available again. (Use the optional 2TB SSD for best performance!) You just keep taking shots as opportunities arise.

Does the TS5 have the dynamic range you need?

This is a common concern among professionals when using high-speed cameras.

On a demo of the TS5 in a studio in LA, we got the opportunity to put the TS5 up against a Red Dragon. Same exact setup...apples to apples... well, it was actually "churros to churros!" The image on the top was from the TS5--1080p @ 529fps (12 bits). The image at the bottom was the Red camera--1080p @ 300fps (12 bits).

Conclusion: Advantage TS5 for speed. Image quality was comparable.



Optimized workflow with the optional SSD!

Record hundreds of high-speed clips on the TS5 without having to stop to download...

Save Raw, Uncompressed 8-10- or 12-bit images

- The native raw format of the camera (CAP file) may be saved to the SSD very quickly (about 6 seconds for a 2GB clip)
- Once saved to the SSD, CAP files may be played back on the camera display
- CAP files may be converted to other formats (DNG, TIFF, JPEG, BMP, AVI) when transferred via Gigabit Ethernet to computer
- Batch transfers allow you copy all or selected files to computer



SSD Sizes up to 2TB

Stream directly to the SSD with the "Long Record" option as one long, continuous video, or start and stop the recording as you would a regular camcorder in **FasCorder** mode.



- The entire event is accessible for playback on the TS5 display, mobile device or computer
- Start and Stop markers are placed on the timeline for easy navigation
- Save any portion of the recording to onboard media or to a computer

Camera Control Interfaces

Connect wirelessly via the TS3's built-in Web-Server for camera control on PC or mobile device on any browser without loading additional software. 7" on-camera display with touch and D-Pad controls for complete setup, control, and playback.





...or use FasMotion software on a PC or Mac

- Fast downloads to PC (up to goMB/sec)
- Multi-camera control
- Batch downloads and transcoding
- Flexible custom overlay superimposing metadata, user text or images on video



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TS5 Dimensions



Normal Mode*

				Resolution	Max Frame Rate	Recording Time
				2560 x 2048 (QSXGA)	253 fps	6.3 sec
				2560 x 1440 (QHD)	359 fps	6.3 sec
TS5-Q: QSXGA				1920 x 1080 (HD: 1080p)	634 fps	6.5 sec
				1440 x 1080	634 fps	8.5 sec
	80p			1280 × 1024 (SXGA)	991 fps	6.4 sec
	010			1280 x 1014	1001 fps	6.4 sec
	Ξ			1280 x 720 (HD: 720p)	1403 fps	6.5 sec
	÷	SXGA		1000 × 1000	1015 fps	8.2 sec
	TS5-			1024 x 768 (XGA)	1316 fps	8.1 sec
		TS5-S:	SVGA	800 x 600 (SVGA)	1677 fps	10.4 sec
				800 x 450	2221 fps	10.5 sec
			TS5-L:	768 x 576	2764 fps	6.8 sec
				640x480 (VGA)	3289 fps	8.3 sec
				512 × 384	4061 fps	10.5 sec
				320 × 240	6267 fps	17.4 Sec
				64 x 32	29090 fps	2min 19 se <mark>c</mark>

Long Record Mode**

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

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