

**TS3: 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 even in an F18!**

## Standard Features

- 7" Touch display for control and playback
- Internal Battery--up to 4hrs of operation
- Proven 1280 x 1024 Sensor
- Full resolution frame rates above 500fps
- Over 60,000fps 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

# TS3 Specifications

<b>System Design</b>	Hand-held, battery-powered, portable with multiple I/O ports and media options
<b>Sensor</b>	10-bit CMOS sensor with 14 µm square pixels, color or monochrome
<b>Resolution</b>	TS3S: 1280 x 1024 pixels maximum, TS3L: 800 x 600 pixels maximum
<b>Light Sensitivity</b>	3,200 ISO monochrome, 1,600 ISO color
<b>Record Rate TS3S</b>	24 to 510 fps at 1280 x 1024, over 60,000 fps at reduced resolutions
<b>Record Rate TS3L</b>	24 to 1250fps at 800 x 600
<b>Shutter</b>	Global electronic shutter from 2µsec to 41.667ms
<b>Image Memory</b>	4GB
<b>Removable Storage</b>	SD card (SDHC: 32GB maximum), USB Flash drive
<b>Session Length</b>	256MB(minimum) to 8GB (may be divided into up to 16 partitions)
<b>File Formats</b>	Stacks – BMP, DNG (color), JPEG, TIFF (processed or raw); Video – AVI, CAP (raw)
<b>Lens Mount</b>	C-Mount
<b>Built-in Monitor</b>	High resolution resistive touch screen, 178mm (7") diagonal LCD
<b>Communication Ports</b>	USB 2.0 device (micro-B), Ethernet (10/100/1000Base-T)
<b>Control Software</b>	FasMotion (PC/Mac application), web interface (browser on all platforms)
<b>Six External I/O Ports</b>	Markers, Trigger In/Out, Sync In/Out, Arm In/Out (LVTTTL (3.3V) or switch closure)
<b>Marker Data Views</b>	Camera display info line, playback time line, FasMotion o-scope mode, XML file
<b>Video Out</b>	HDMI (1080p/60, 1080p/30, 720p/60)
<b>Construction</b>	Anodized machined aluminum housing
<b>Power</b>	Rechargeable Li-ion battery (4+ hours non-LR), or 10-26 VDC external power
<b>Power Consumption</b>	40W maximum
<b>Operating Environment</b>	+5°C to +40°C
<b>Size and Weight</b>	228mm (9.0") W x 114mm (4.5") H x 89mm (3.5") D. 1.8 Kg (3.9 lbs.)
<b>Optional Features</b>	
<b>Memory</b>	8GB maximum
<b>Built-In Storage</b>	Solid State Drive: 256GB, 512GB, 1TB, 2TB
<b>"D" Long Record</b>	Requires 8GB memory + minimum 512GB SSD
<b>WiFi</b>	802.11 b/g/n, Security: open, WEP, WPA(2) - PS
<b>Lens Mounts</b>	F-Mount, PL-Mount
<b>Ext. TimeStamp + Sync</b>	IRIG-B (modulated and unmodulated)

## Sample Record Rates and Times

Standard Mode			Long Record Mode**	
Resolution	Frame Rate	Recording Time	Frame Rate	Recording Time
1280 x 1024*	510fps (Max)	12.9sec	366fps (Max)	17min 50sec
1280 x 1024*	250fps	26.1sec	125fps	52min 3sec
1280 x 720*	725fps (Max)	12.8sec	518fps (Max)	17min 52sec
1280 x 720*	250fps	37.1sec	250fps	37min
800 x 600*	1299fps (Max TS3S)	13.7sec	993fps (Max)	17min 47sec
800 x 600	1250fps (Max TS3L)	14.2sec	993fps (Max)	17min 47sec
800 x 600	250fps	71.2sec	250fps	1hr 10min 36sec
640 x 480*	1959fps (Max TS3S)	14.2sec	1541fps (Max TS3S)	18min 4sec
640 x 480	1250fps (Max TS3L)	22.2sec	1250fps (Max TS3L)	22min 16sec
640 x 480	250fps	1min 50.5sec	250fps	1hr 51min 5sec
320 x 240*	6259fps (Max TS3S)	17.8sec	6167fps (Max)	17min 47sec
320 x 240	1250fps (Max TS3L)	88.9sec	1250fps (Max TS3L)	1hr 27min 44sec
320 x 240	250fps	7min 24.7sec	250fps	7hr 18min 31sec
48 x 32*	64,483fps (Max TS3S)	1min 24.4sec		

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

\* TS3S only.

\*\*LR Record times assume 512GB SSD. (Multiply approximately 2x for 1TB SSD, 4x for 2TB SSD)

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