

FASTEC TS3



TS3 At A Glance

- Handheld, battery-powered, with built-in touchscreen LCD
- TS3S records SXGA (1280 x 1024) @ 510fps (higher frame rates at lower resolutions)
- TS3L records SVGA (800 x 600) @ 1250fps
- 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

- **Portability** – With its small form factor, battery operation, large built-in LCD touch screen and intuitive on-screen menu system, the TS3 puts the power of a complete high-speed camera system into the palm of your hand.
- **Multiple Storage Options** – The TS3 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 optional built-in SSD provides up to 2TB of lightning-fast non-volatile internal storage.
- **FasFire** – The TS3 divides up its memory into up to 16 partitions, allowing you to record into an open partition **while** the camera automatically saves recorded clips to onboard nonvolatile storage. Once saved, partitions become available again for recording. Especially when used with an SSD, you are always ready to take the next high-speed snapshot!
- **Long Record “D” Option** Unlike traditional high-speed camera systems, which only record for a few seconds and require careful triggering, the Fastec TS3 with the “D” (dual record) option can record continuously at high speed for many minutes, or hours at reduced resolutions.
- **FasCorder Mode** – Operate the camera as you would a common camcorder! This intuitive Long-Record feature allows you to record and pause as needed to follow the action, stop recording and review what you have, and then append additional footage at will, even after a power cycle. Choose between Record on Command (ROC), which records varying length clips, or Burst Record on Command (BROC), which records fixed-length clips. In Playback, all of the recordings are browsable on the timeline. You may play or scrub through them continuously or jump to the beginning of each, making it easy to find the footage you wish to view.
- **Flexible Control** – The TS3 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 large uncompressed images via Gigabit Ethernet at rates of 50–80MB/sec to moderately equipped PCs.



Fastec TS3 Specifications

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|-------------------------------|--|
| System Design | Handheld, battery-powered, portable with multiple I/O ports and media options |
| Sensor | 10-bit CMOS sensor with 14 μm square pixels, color or monochrome |
| Resolution | TS3S: 1280 x 1024 pixels maximum, TS3L: 800 x 600 pixels maximum |
| Light Sensitivity | 3,200 ISO monochrome, 1,600 ISO color |
| Record Rate TS3S | 24 to 510 fps at 1280 x 1024, over 60,000 fps at reduced resolutions |
| Record Rate TS3L | 24 to 1250fps at 800 x 600 |
| Shutter | Global electronic shutter from 2μsec to 41.667ms |
| Image Memory | 4GB |
| Removable Storage | SD card (SDHC: 32GB maximum), USB Flash drive |
| Session Length | 256MB(minimum) to 8GB (may be divided into up to 16 partitions) |
| File Formats | Stacks – BMP, DNG (color), JPEG, TIFF (processed or raw); Video – AVI, CAP (raw) |
| Lens Mount | C-Mount |
| Built-in Monitor | High resolution resistive touch screen, 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 (1080p/60, 1080p/30, 720p/60) |
| Construction | Anodized machined aluminum housing |
| Power | Rechargeable Li-ion battery (4+ hours non-LR), or 10-26 VDC external power |
| Power Consumption | 40W 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

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|----------------------------------|--|
| Memory | 8GB maximum |
| Built-In Storage | Solid State Drive: 256GB, 512GB, 1TB, 2TB |
| “D” Long Record | Requires 8GB memory + minimum 512GB SSD |
| WiFi | 802.11 b/g/n, Security: open, WEP, WPA(2) - PS |
| Lens Mounts | F-Mount, PL-Mount |
| External TimeStamp + Sync | 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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