



**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 $\mu$  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

<b>System Design</b>	Handheld, battery-powered, portable with touchscreen LCD
<b>Sensor</b>	12-bit CMOS sensor with 5µm square pixels, color or monochrome
<b>Sensor Modes</b>	Standard, binning 2x2 or 4x4; sub-sampling 2x2 or 4x4; Or 2x binning + 2x sub-sampling
<b>Resolution by Model</b>	TS5-Q: QSXGA 2560 x 2048; TS5-H: HD 1920x1080; -S: SXGA 1280x1024; -L SVGA 800x600
<b>Light Sensitivity</b>	1600 to 12,800* ISO monochrome, 800 to 6400* ISO color (depending on mode)
<b>Shutter</b>	Global electronic shutter from 3µsec to 41.654ms
<b>Image Memory</b>	4GB (std.) or 8GB (optional)
<b>Removable Storage</b>	SD card (SDHC: 32GB maximum); USB flash drive
<b>File Formats</b>	Stacks – BMP, DNG (color), JPEG (selectable quality), TIFF, TIFF(raw); Video – AVI (selectable quality (compressed) or un-compressed), CAP(raw); Still – JPEG
<b>Lens Mounts</b>	C-mount (all cameras ship with C-mount), F-mount or PL-mount (optional) High resolution, 178mm (7") diagonal LCD
<b>Built-in Monitor</b>	resolution, 178mm (7") diagonal LCD
<b>Communication Ports</b>	USB 2.0 device port (micro-B), Ethernet (10/100/1000Base-T)
<b>Control Software</b>	FasMotion (PC/Mac application), web interface (web browser on all platforms)
<b>Six External I/O Ports</b>	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
<b>Marker Data Views</b>	Camera display info line, playback timeline, FasMotion o-scope mode, XML file
<b>Video Out</b>	HDMI (1080p30, 1080p60, 720p, 480p)
<b>Construction</b>	Anodized machined aluminum housing
<b>Power</b>	Rechargeable Internal Li-ion battery or 10-26 VDC external
<b>Power Consumption</b>	42W 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.)

## Optional Features

<b>WiFi</b>	802.11 b/g/n, Security: open, WEP, WPA(2) - PSK
<b>Built-In Storage</b>	Solid State Drive (SSD): 256GB, 512GB, 1TB, 2TB
<b>Long Record</b>	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.

## Authorized Distributor

Dynamic Analysis System Pte Ltd (Singapore)  
Block 3015A, Ubi Road 1, #05-06, Singapore 408705  
Tel: +65 6747 6883 .

Email: sales@photonics.com.sg. Website: www.photonics.com.sg

Dynamic Analysis System (Thailand) Co., Ltd  
4345 Bhiraj Tower, 23th Floor Sukhumvit Rd, South Bangna,  
Bangna, Bangkok 10260 Thailand

Email: sales@photonics.com.sg. Website: www.photonics.com.sg

# TS5 Dimensions

