

2009 LUMIX® DMC-TS1 Digital Camera



**3m Water Proof, Dust Proof,
1.5m Shock Proof**

- HD video recording
- 40MB built-in memory
- 1/2.33" CCD 12.7 megapixels



Intelligent Auto Mode

Completely automatic to help prevent shooting errors.

**LEICA
DC LENS**

LEICA DC VARIO-ELMAR Lens
28mm wide angle.



LUMIX®
DIGITAL CAMERAS

Panasonic
ideas for life

2009 LUMIX[®] DMC-TS1 Digital Camera Specifications

		DMC-TS1		
METRICS	Dimensions (W x H x D)	98.3 x 63.1 x 22.7 mm (3.87 x 2.49 x 0.89 in)		
	Weight	Approx. 162.5g (0.36 lb), Approx. XXXg with Battery and SD Memory Card (XXX lb)		
OPTICS	Pixels	Camera Effective Pixels	12.1 Megapixels	
	CCD	Sensor Size / Total Pixels / Filter	1/2.33-inch / 12.7 Total Megapixels / Primary Color Filter	
		Aperture	F3.3 - 5.9 / 2-Step (F3.3 - 11 (W) / F5.9 - 18 (T))	
		Optical Zoom	4.6x	
	Lens	Focal Length	f=5.0-23.0mm (28-130mm in 35mm equiv.)	
		Extra Optical Zoom (EZ)	5.6x (4.3 / 8M), 7.2x (4.3 / 5M), 9.0x (under 3M)	
		Lens	LEICA DC VARIO-ELMAR, 9 elements and 1 prism in 8 groups, (5 Aspherical Lenses / 6 Aspherical surfaces, 1 ED lens)	
Focus	2-Speed Zoom	MEGA O.I.S. (Auto / Mode1 / Mode2)		
	Optical Image Stabilizer	—		
	Conversion lens Compatibility	—		
	Digital Zoom	4x (Max. 18.4 x combined with Optical Zoom without Extra Optical Zoom, (Max.36.0x combined with Extra Optical Zoom)		
Shutter	Focusing Area	Normal: Wide 50cm - infinity, Macro / Intelligent AUTO : Wide Scm / Tele 30cm - infinity		
	Focus Range Display	Yes		
	AF Assist Lamp	Yes		
Finder	Focus	Normal / Macro, Continuous AF (On / Off), AF Tracking (On / Off), Quick AF (On / Off)		
	AF Metering	Face / AF Tracking / Multi (11pt) / 1pt HS / 1pt / Spot		
RECORDING	IA	Face Recognition	Still	
		Optical Image Stabilizer	Still & Movie	
	File	Intelligent ISO Control	Still	
		Face Detection	Still & Movie	
	Interface	Intelligent Scene Selector	Still (Portrait, Scenery, Night Portrait, Night Scenery, Macro), & Movie (Portrait, Scenery, Low Light, Macro)	
		Intelligent Exposure	Still & Movie	
	Recording Modes	AF Tracking	Still	
		Digital Red Eye Correction	Still	
		IA Direct Button	—	
		File Format	Still Image: JPEG (DCF / Exif2.21), Image with Audio: JPEG (DCF / Exif2.21) + QuickTime, Motion picture: AVCHD Lite, QuickTime Motion JPEG	
	Exposure Parameters	Mode Switch	NTSC / PAL (Depends on Region)	
		One-Touch Movie Button	[Recording] / [Playback]	
	Image Parameters	Mode Dial	Yes	
		Scene Mode	Intelligent AUTO, Normal Picture, SCN, Beach & Surf, Snow, Sports, Clipboard	
		Continuous Shooting Mode	Portrait, Soft Skin, Transform, Self-Portrait, Scenery, Panorama Assist, Night Portrait, Night Scenery, Food, Party, Candle Light, Baby1, Baby2, Pet, Sunset, High sensitivity, Hi-Speed Burst (Image Priority / Speed Priority), Flash Burst, Starry Sky, Fireworks, Aerial photo, Pinhole, Film Grain, Underwater	
		Unlimited Consecutive Shooting	Full-Resolution Image, 2.3 frames/sec. Max. 5 images (Standard mode), Max. 3 images (Fine Mode), High-speed Burst Mode: approx. 6.0 frames/sec (image priority), approx. 10 frames/sec (speed priority), (recorded in 3M for 4.3, 2.5M for 3.2, 2M for 16.9)	
	Others	Motion Picture Recording	1.8 frames/sec	
		Exposure	VGA: 640 x 480 pixels, 30fps (Motion JPEG), OVGA: 320 x 240 pixels, 30 fps (Motion JPEG)	
		Exposure Compensation	WVGA: 848 x 480 pixels, 30 fps (Motion JPEG)	
		Backlight Compensation	1280x720, 60P (AVCHD, SH: 17Mbps / H:13Mbps / L:9Mbps) / 30fps (Motion JPEG)	
Image Parameters	Auto (AE) Bracketing	Program AE		
	Color Bracketing	1/3 EV step, +/- 2 EV		
	Multi-Aspect	Yes (only in Intelligent AUTO mode)		
	Light Metering	+/- 1/3 EV -1EV step, 3 frames		
Image Parameters	ISO Sensitivity	Intelligent Multiple		
	Max Auto ISO Setting	Auto / 80 / 100 / 200 / 400 / 800 / 1600 High Sensitivity (ISO 1600-6400)		
	Multi-Exposure	—		
	Aspect Ratio	—		
Others	Still Picture Recording	4.3 / 3.2 / 16.9		
	Image Quality	4000 x 3000(12M) / 3264 x 2448 (8M EZ) / 2560 x 1920 (5M EZ) / 2048 x 1536 (3M EZ) / 1600 x 1200 (2M EZ) / 640 x 480 (0.3M EZ)		
	White Balance	Auto / Daylight / Cloudy / Shade / Halogen / White Set, White Balance Adjustment (+10steps, except for auto set), (Selectable at Portrait, Soft Skin, Transform, Self-Portrait, Sports, Baby, Pet, High Sensitivity, Highspeed Burst, Pinhole mode)		
	Quick Menu	Yes		
PLAYBACK	Color Effect	—		
	Picture Adjustment	—		
	Color Mode	Standard, Natural, Vivid, Black & White, Sepia, Cool, Warm		
	Still Image with Audio Recording	5 sec		
Display	Audio Dubbing	Max. 10sec		
	Flip Animation	—		
	Real-time Histogram	Yes		
	Composition Guide Line	Yes (2 patterns)		
Delete	Auto Review	1sec, 2sec, Zoom, Hold		
	Review	Yes		
	Easy Zoom / Zoom Resume	No / No		
	Optical Zoom in Motion Picture	Yes		
Edit	Zoom Macro	Yes		
	Orientation Detector	Yes		
	Scene Mode Help Screen	Yes		
	Self Timer	2sec / 10sec		
SETUP	Focus Icon Select	Yes (in Face Recognition only)		
	Playback Mode	Normal Playback, Slideshow, Mode Playback, Category Playback, Favorites Playback		
	Easy Organization	—		
	Touch Zoom	—		
OTHERS	Thumbnails / Zoomed Playback	12,30-thumbnails / Max 16x		
	Calendar Display / Dual-Image Playback	Yes / No		
	Set Favorites / Rotate Image	Yes / Yes		
	Playback Still Images with Audio	Yes		
Monitor	Playback Motion Picture	Yes (AVCHD / Motion JPEG)		
	Slideshow Mode	All / Still Images Only / Motion Picture Only / Favorites / Category BGM Effect (Natural / Slow / Swing / Urban / OFF)		
	Show Histogram	Yes		
	Show Highlights	—		
Tough	Delete Image	Single / Multi / All / All except Favorites		
	DPOF Print Setting / Set Protection	Yes / Yes		
	Resize / Trim / Aspect Conv. / Leveling	Yes / Yes / Yes		
	Copy / Title Stamp / Text Stamp	Yes / Yes / Yes		
Flash	Auto Animation	—		
	PictBridge Support	—		
	OSD language	Single / Multi / All / Favorites / DPOF		
	Viera Link™	English, German, French, Italian, Spanish, Polish, Czech, Hungarian, Russian, Chinese (Traditional), Chinese (Simplified), Netherlandic, Thai, Korean, Turkish, Portuguese, Arabic, Persian, Japanese, Swedish, Danish, Finnish		
Media	HDMI Output	Yes		
	Movie REC Guide	Video: Auto / 1080i / 720p / 480p Audio: Dolby Digital Creator (Dolby AC3)		
	Wind-Out in Motion Picture	Yes		
	Travel Date / World Time	Yes / Yes		
Audio Interface	Monitor	2.7" TFT LCD Display (230K dots), Field of View : approx. 100%, Wide Viewing Angle, AUTO Power LCD mode, Power LCD mode		
	Tough	Water Proof Dust Proof Shock Proof		
	Flash	3.0m iFX8 compliant Yes (iF5X compliant) 1.5m MIL-STD compliant		
	Media	Auto, Auto/Red-eye Reduction, Forced On, Slow Sync., Red-eye Reduction, Forced Off, 0.6 - 5.3m (Wide/ISO Auto), 1.0 - 3.6m (Tele/ISO Auto)		
Power	Recording Media	Built-in Memory, SD Memory Card, SDHC Memory Card, MultiMediaCard (Still image only)		
	LED Illumination	Yes		
	Built-in Memory	Approx. 50MB		
	Microphone / Speaker	Mono / Yes		
Standard Package	Interface	minHDMI, USB2.0 High speed / AV Output (Stereo Type, NTSC/PAL) / DC input (requires optional Multi-Adapter)		
	Power	ID-Security Li-Ion Battery Pack (3.6V, 940mAh) (Included), AC Adaptor (Input: 110-240V AC) (Optional)		
	Battery Life (approx.)	300 pictures (CIPA Standard)		
	Included Software	PHOTOonSTUDIO v3.0 HD Edition, ArcSoft MediaImpression / Panorama Maker, USB Driver, QuickTime Battery Charger, Battery Pack, Battery Carrying Case, AV Cable, USB Connection Cable, AC Cable		