

Panasonic LUMIX DC-TZ99 Digitial Camera Specifications

Panasonic LUMIX DC TZ99

	Approx. 112.0 v.67.9 v.42.1 mm (4.41 v.2.67 v.1.70 inch)
Dimensions (W	Approx. 112.0 x 67.8 x 43.1 mm (4.41 x 2.67 x 1.70 inch)
x H x D)	
Weight	Approx. 322 g with Battery and SD Memory Card (0.71 lb)
	Approx. 280 g without Battery and SD Memory Card (0.62 lb)
Camera	20.3 Megapixels
Effective Pixels	
Sensor Size / Total Pixels /	1/2.3-inch High Sensitivity MOS Sensor / 21.1 Total Megapixels / Primary Color Filter
Filter Aperture	F3.3 - 6.4 / Multistage Iris Diaphragm (F3.3 - 8.0 (W), F6.4 - 8.0 (T))
Optical Zoom	30x
	f = 4.3 - 129mm
Focal Length	
	(24 - 720mm in 35mm equiv. in 4:3)
	(25 - 750mm in 35mm equiv. in 3:2)
	(26 - 780mm in 35mm equiv. in 16:9)
	(28 - 840mm in 35mm equiv. in 1:1)
	(35 - 1050mm in 35mm equiv. in 4K PHOTO recording)
	(35 - 1050mm in 35mm equiv. in 4K video recording)
	(26 - 780mm in 35mm equiv. in 16:9 video recording / O.I.S. Off / Level Shot function Off)
	(28 - 840mm in 35mm equiv. in 16:9 video recording / O.I.S. On / Level Shot function Off)
	(30 - 900mm in 35mm equiv. in 16:9 video recording / O.I.S. On / Level Shot function On)
Extra Optical	41.8x (4:3 / 10M (M)), 59.2x (4:3 / 5M (S))
Zoom (EZ)	
Intelligent	60x
Zoom	
Lens	LEICA DC VARIO-ELMAR
	12 elements in 9 groups

	(5 aspherical lenses / 10 aspherical surfaces)		
Optical Image	5-Axis HYBRID O.I.S. +*		
Stabilizer	*5-axis compensation works in video recording except for 4K video recording.		
Digital Zoom			
	Max. 4x (When Digital Zoom is used simultaneously with Intelligent Zoom, you can only increase the zoom ratio up to 2x.)		
Focusing Area	Normal: Wide 50 cm - infinity / Tele 200 cm - infinity		
	AF Macro / MF / Intelligent Auto / Motion Picture: Wide 3 cm - infinity / Tele 200 cm - infinity		
AF Assist Lamp	Yes (On / Off)		
Focus	AF* / AF Macro* / Macro Zoom* / MF *Each available with AFS (Single) / AFF (Flexible) / AFC (Continuous)		
	Quick AF, Continuous AF (during motion picture recording), Touch AF/AE Function, Touch Shutter, MF Assist, Touch MF Assist, AF+MF, Focus Peaking, One Shot AF (Set the Fn button in custom menu to AF-ON), Low Light AF		
Post Focus	Yes		
Focus Stacking	Yes		
AF Metering	Face/Eye Detection / Tracking / 49-area / Custom Multi / 1-area / Pinpoint		
	(Full area touch is available)		
Shutter Speed	Still Image:		
	Approx. 1/2,000 - 4 sec (Mechanical Shutter)		
	Approx. 1/16,000 - 1 sec (Electronic Shutter)		
	Artistic Nightscape (Approx. 30 sec)		
	Motion Picture:		
	Approx. 1/16,000 - 1/25 sec		
	Approx. 1/16,000 - 1/2 sec (Creative Video M Mode / MF Mode)		
File Format	Still Image: JPEG (DCF/Exif2.31) / RAW		
riie roimat	4K PHOTO: MP4		
	Motion Picture: MP4 (Audio format: AAC 2ch)		
Mode Dial	Intelligent Auto, P, A, S, M, Creative Video, Custom 1, Custom 2, Scene Guide, Creative Control		
Creative	Expressive, Retro, Old Days, High Key, Low Key, Sepia, Monochrome, Dynamic		
Control Mode	Monochrome, Rough Monochrome, Silky Monochrome, Impressive Art, High		

cliftoncameras

Scene Guide Sweet Child's Face, Distinct Scenery, Bright Blue Sky, Romantic Sunset Glow, Vivid Sunset Glow, Glistening Water, Clear Nightscape, Cool Night Sky, Warm Glowing Nightscape, Artistic Nightscape, Glittering Illuminations, Handheld Night Shot, Clear Night Portrait, Soft Image of a Flower, Appetizing Food, Cute Dessert, Freeze Animal Motion, Clear Sports Shot, Monochrome Continuous Shooting Mode (Approx.) [AFS] H: 10 frames/sec, M: 5 frames/sec (with Live View), L: 2 frames/sec (with Live View) [AFC] H: 5 frames/sec, M: 5 frames/sec (with Live View), L: 2 frames/sec (with Live View) Number of Recordable Images 4K Photo Mode (*2) 4K Burst: 30 frames/sec, max. 15 min 4K Burst: 30 frames/sec, approx. 2 sec (Depending on memory card size and battery power) Exif Information: Yes		- Circorcarricias
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Recordable FHD/60p, FHD/50p: Approx. 100 min		4K/30p, 4K/25p: Approx. 90 min
	Recordable	FHD/60p, FHD/50p: Approx. 100 min

Time (Motion			
Picture) (*2)			
Actual	4K/30p, 4K/25p: Approx. 45 min		
Recordable	FHD/60p, FHD/50p: Approx. 50 min		
Time (Motion			
Picture) (*2)			
Exposure	Program AE, Aperture Priority AE, Shutter Priority AE, Manual		
Exposure	1/3 EV step, +/-5 EV (+/-3 EV for motion picture)		
Compensation			
Light Metering	Intelligent Multiple / Center Weighted / Spot		
ISO Sensitivity	Still Image: Auto / i.ISO / 80 / 100 / 200 / 400 / 800 / 1600 / 3200 / 6400 (Extended ISO)		
	Motion Picture: Auto / 80 / 100 / 200 / 400 / 800 / 1600 / 3200		
	(Changeable to 1/3 EV step)		
Still Picture	4:3		
Recording	5184x3888 (20M) (L) / 3712x2784 (10M) (M) / 2624x1968 (5M) (S)		
	3:2		
	5184x3456 (17M) (L) / 3712x2480 (9M) (M) / 2624x1752 (4.5M) (S)		
	16:9		
	5184x2920 (14.5M) (L) / 3840x2160 (8M) (M) / 1920x1080 (2M) (S)		
	1:1		
	3888x3888 (14.5M) (L) / 2784x2784 (7.5M) (M) / 1968x1968 (3.5M) (S)		
Image Quality	RAW / RAW+Fine / RAW+Standard / Fine / Standard		
White Balance	AWB / AWBc / AWBw / Daylight / Cloudy / Shade / Incandescent / Flash / White Set1 / White Set2 / White Set3 / White Set4 / Color Temperature		
	(2-axis adjustable)		
Wi-Fi	IEEE 802.11b/g/n		
	2412 MHz - 2462 MHz (1-11 ch)		
	WPA / WPA2		
	Infrastructure Mode		
Bluetooth	Bluetooth® v5.0 (Bluetooth Low Energy (BLE))		
Self Timer	2 sec / 10 sec / 10 sec (3 images)		
Self Shot Mode	Yes (Single, Self timer: 1, 2, 3 or 4 images, 4K PHOTO)		
Shutter	Shutter Button, Touch, Face Shutter, Buddy Shutter		

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Effect	Soft Skin: 10 levels, Filter Select: Expressive / Retro / High Key / Monochrome / Toy Effect, Background Control: Defocus / Clear, Slimming Mode: 10 levels
Retouch	Clear Retouch
RAW Processing	Yes
OSD Language	Please refer to "OSD" Sheet
LCD Monitor	3.0"" (7.6cm) TFT Screen LCD Display (1,840k dots), Tiltable monitor
	Static Touch Control
	Field of View: Approx. 100%
Built- in- Flash	Auto*, Auto/Red-eye Reduction*, Forced On, Forced On/Red-eye Reduction, Slow Sync., Slow Sync./Red-eye Reduction, Forced Off *For iA, iA+ mode only.
	0.6 - 5.6m (Wide / ISO Auto), 2.0 - 2.9m (Tele / ISO Auto)
Recording	SD Memory Card, SDHC Memory Card, SDXC Memory Card
Media	(Compatible with UHS-I UHS Speed Class 3 standard SDHC / SDXC Memory Cards)
Microphone / Speaker	Stereo / Mono
Interface	microHDMI typeD (*3), USB Type-C® (USB Charging)
Power	Li-ion Battery Pack (7.2V, 1025mAh, 7.4 Wh) (Included)
	USB Power Charging
Battery Life (Approx.)	Approx. 380 images (*1)
Included Software	• The software to edit and playback images on computer is not bundled with this camera. To do this, PHOTOfunSTUDIO is available for download at Panasonic website using computer connected to the Internet.
	https://panasonic.jp/support/global/cs/soft/download/d_pfs10ae.html (For Windows)
	• The software to process RAW file on PC is not bundled with this camera. To do this, SILKYPIX Developer Studio is available for download at Adwaa's website
	 using PC connected to the Internet. The Operating Instructions for advanced features is available for downloaded at Panasonic LUMIX Customer Support Site using PC, smartphone or tablet connected to the Internet.

Recording conditions by CIPA standard

- Temperature: 23 °C (73.4 °F) / Humidity: 50%RH when monitor is on.
- Using a Panasonic SDHC Memory Card
- Using the supplied battery.
- Starting recording 30 seconds after the camera is turned on. (When the optical image stabilizer function is set to [ON].)
 - Recording once every 30 seconds with full flash every second recording.
 - Rotating the zoom lever from Tele to Wide or vice versa in every recording.
 - The number of recordable pictures varies depending on the recording interval time.
 - If the recording interval time becomes longer, the number of recordable pictures decreases.
 - CIPA is an abbreviation of [Camera & Imaging Products Association].

About motion picture recording

- Use a card with SD Speed Class with UHS-I Speed Class 3 (U3) when recording motion pictures in [4K] or [4K PHOTO].
- Recording stops when the continuous recording time exceeds 15 minutes in [4K].
- Recording stops when the continuous recording time exceeds 29 minutes and 59 seconds in [FHD/60p] [FHD/50p] [High Speed Video HD/30p] [High Speed Video HD/25p].

***2** [4K]

- When using an SDHC memory card: You can continue recording without interruption even if the file size exceeds 4 GB, but the motion picture file will be divided and recorded/played back separately.
- When using an SDXC memory card: You can record a motion picture in a single file.

[FHD] [HD] [VGA]

- You can continue recording without interruption even if the file size exceeds 4 GB, but the motion picture file will be divided and recorded/played back separately.
- *3 For [4K] video output, use an HDMI cable that has the HDMI logo on it, and that is described as "4K compatible".