LUMIX 30X Travel Zoom Camera with Eye Viewfinder DMC-ZS50S

DMC-ZS50S

- **Metrics**
  - Dimensions (W x H x D) 110.7 x 64.6 x 34.4 mm
  - Dimensions (W x H x D) (4.36 x 2.54 x 1.35 inch)
  - Weight Approx. 217 g without Battery and SD Memory Card (0.478 lb)
  - Weight Approx. 243 g with Battery and SD Memory Card (0.536 lb)

- **Optics**
  - *Pixels*
  - Camera Effective Pixels 12.1 Megapixels
  - *Sensor*
  - Sensor Size / Total Pixels / Filter 1/2.3-inch Large Pixel Sized High Sensitivity MOS Sensor / Total Pixel Number 12.8 Megapixels / Primary Color Filter
  - *Lens*
  - Aperture F3.3 - 6.4 / Multistage Iris Diaphragm (F3.3 - 8.0 (W), F6.4 - 8.0 (T))
  - Optical Zoom 30x
  - Focal Length f = 4.3 - 129mm (24 - 720mm in 35mm equiv.)
  - Focal Length (28 - 840mm in 35mm equiv. in 16:9 video recording / Level Shot function Off)
  - Focal Length (30 - 900mm in 35mm equiv. in 16:9 video recording / Level Shot function On)
  - Extra Optical Zoom (EZ) 36.7x (4:3 / 8M), 46.9x (4:3 / 5M), 58.6x (4:3 / under 3M)
  - Intelligent Zoom 60x
  - Lens LEICA DC VARIO-ELMAR
  - Lens 12 elements in 9 groups
  - Lens (5 Aspherical Lenses / 10 Aspherical surfaces / 3 ED Lenses)
  - 2- Speed Zoom Yes
  - Optical Image Stabilizer/Five Axis Correction HYBRID O.I.S. + (On / Off) / Yes
  - Digital Zoom Max. 4x (Max. 2x for TZ71)
  - Conversion Lens Compatibility -
  - *Focus*
  - Focusing Area Normal: Wide 50cm - infinity / Tele 200cm - infinity
  - Focusing Area AF Macro / MF / Intelligent Auto / Motion Picture: Wide 3 cm - infinity / Tele 200 cm - infi
  - AF Assist Lamp Yes (On/Off)
  - Focus Normal / AF Macro / Macro Zoom / MF
  - Focus Quick AF On / Off (on in Intelligent Auto), Continuous AF (only for motion picture)
  - Focus AF/AE Lock Button (Set the Fn button in custom menu to AF/AE lock)

- Focus Focus Peaking, One Shot AF (Set the Fn button in custom menu to AF-ON), AF Area Select, AF Tracking

- AF Metering Face / AF Tracking / 23-area / 1-area (flexible / scalable)

- *Shutter*

- Shutter Speed Approx. 4 - 1/2,000 sec

- Shutter Speed Starry Sky Mode: 15, 30, 60 sec

- **Recording**
  - *Finder*

  - Viewfinder 0.20" LVF (Live View Finder) (1,166K dots equiv.), Field of View: Approx. 100%, Lens 19.6x

  - Viewfinder Magnification: Approx. 2.59x / 0.46x (35 mm camera equivalent)

  - *File*

  - File Format Still Image: JPEG (DCF/Exif2.3) / RAW, DPOF

  - File Format 3D Image: MPO

  - File Format Motion Picture: AVCHD, MP4

  - *Recording Modes*

  - Mode Dial / Mode Button Intelligent Auto, P, A, S, M, C1 (Custom), C2 (Custom), Panorama Shot, Scene, Creative Control

  - Creative Control mode Expressive, Retro, Old Days, High Key, Low Key, Sepia, Dynamic Monochrome, Impressive Art, High Dynamic, Cross Process, Toy Effect, Miniature Effect, Soft Focus, Star Filter, One Point Color (15 filters)

  - Still Image Scene Mode Portrait, Soft Skin, Scenery, Sports, Night Portrait, Night Scenery, Handheld Night Shot, Food, Baby1, Baby2, Pet, Sunset, High Sensitivity, Glass Through, HDR, Starry Sky, High Speed Video, 3D Photo

  - Continuous Shooting Mode Full-Resolution Image: 10 frames/sec, Max. 6 images

  - Continuous Shooting Mode with AF Tracking: 6 frames/sec, 3 frames/sec

  - Continuous Shooting Mode Intelligent Burst Shooting

  - Continuous Shooting Mode High-speed Burst: Approx. 60 frames / sec

  - Continuous Shooting Mode (recorded in 2.5M / 0.3M for 4:3, 3M / 0.3M for 3:2, 3.5M / 0.2M for 16:9, 2M / 0.2M for 1:1)

  - Continuous Shooting Mode Approx. 40 frames / sec

  - Continuous Shooting Mode (recorded in 5M / 3M / 0.3M for 4:3, 4.5M / 2.5M / 0.3M for 3:2, 3.5M / 2M / 0.2M for 16:9, 3.5M / 2.5M / 0.2M for 1:1)

  - Continuous Shooting Mode Flash Burst Shooting

  - *Motion Picture Recording (*2)*

  - HD Video 1920 x 1080 pixels, 60p (FHD: 28Mbps / AVCHD) (Sensor Output is 60fps)

  - HD Video 1920 x 1080 pixels, 60i (FHD: 17Mbps / AVCHD) (Sensor Output is 60fps)

  - HD Video 1280 x 720 pixels, 60p (HD: 17Mbps / AVCHD) (Sensor Output is 60fps)

  - HD Video 1920 x 1080 pixels, 30p (FHD: 20Mbps / MP4) (Sensor Output is 30fps)

  - HD Video 1280 x 720 pixels, 30p (HD: 10Mbps / MP4) (Sensor Output is 30fps)

- STD Video 640 x 480, 30p (VGA: 4Mbps / MP4) (Sensor Output is 30fps)

- High Speed Video 1280 x 720 pixels, 30p (HD: MP4) (Sensor Output is 120fps)

- High Speed Video 640 x 480 pixels, 30p (VGA: MP4) (Sensor Output is 240fps)

- *Continuous recordable time (motion pictures)*

- AVCHD Approx. 75 min (FHD/60p), Approx. 80 min (FHD/60i)

- MP4 Approx. 90 min (FHD)

- *Actual recordable time (motion pictures)*

- AVCHD Approx. 30 min (FHD/60p), Approx. 35 min (FHD/60i)

- MP4 Approx. 40 min (FHD)

- *Exposure Parameters*

- Exposure Program AE, Aperture Priority AE, Shutter Priority AE, Manual

- Exposure Compensation 1/3 EV step, +/-2 EV

- Auto (AE) Bracketing 1/3-1EV step, Max. +/-1 EV, 3 frames

- Light Metering Intelligent Multiple / Center Weighted / Spot

- ISO Sensitivity Auto / i.ISO / 80 / 100 / 200 / 400 / 800 / 1600 / 3200 / 6400

- *Picture Quality*

- Still Picture Recording [4:3] 4000x3000 (12M) / 3264x2448 (8M EZ) / 2560x1920 (5M EZ) / 2048x1536 (3M / 640x480 (0.3M EZ)

- Still Picture Recording [3:2] 4000x2672 pixels (10.5M) / 3264x2176 (7M EZ) / 2560x1712 (4.5M EZ) / 2048 (2.5M EZ) / 640x424 (0.3M EZ)

- Still Picture Recording [16:9] 4000x2248 (9M) / 3840 x 2160 (8M EZ) / 2560x1440 (3.5M EZ) / 1920x1080 (EZ) / 640x360 (0.2M EZ)

- Still Picture Recording [1:1] 2992x2992 (9M) / 2448x2448 (6M EZ) / 1920x1920 (3.5M EZ) / 1536x1536 (2.5 EZ) / 480x480 (0.2M EZ)

- Image Quality RAW / RAW+Fine / RAW+Standard / Fine / Standard

- Image Quality (3D Mode: MPO+Fine / MPO+Standard)

- White Balance Auto / Daylight / Cloudy / Shade / Incandescent / White Set

- White Balance White Balance Adjustment (Except Auto)

- Photo Style / Film Mode -

- Color Mode / Color Effect / My color -

- Picture Adjustment -

- Aspect Bracketing -

- *Other*

- Digital Red Eye Correction (Red-Eye Removal) Yes (On/Off)

- GPS -

- Wi-FI IEEE 802.11b/g/n

- Wi-FI 2412 MHz – 2462 MHz (1-11 ch)

- - Wi-FI WPA / WPA2

  - Wi-FI Infrastracture Mode / WPS / Wi-Fi Direct

  - Wi-FI Wi-Fi Button

  - NFC ISO/IEC 18092 (NFCIP-1) NFC-F

  - Zoom in Motion Picture Yes

  - Self Timer 2 sec / 10 sec

  - Self Shot Mode -

- **Playback**
  - *Display*

  - Playback Mode All, Slideshow, Filtering Play (Picture Only, Video Only, 3D Play, GPS Area Play*, Travel, Category Selection, Select Date, Favorite), Calendar

  - Playback Mode * Not available on products for China.

  - Thumbnails / Zoomed Playback 12,30-thumbnails / Yes

  - Calendar Display / Dual- Image Playback Yes (Menu / Zoom Lever) / No

  - Set Favorites / Rotate Image Yes / No

  - Show Histogram Yes

  - Show Highlights -

  - DPOF Print Setting / Set Protection Yes / Yes

  - *Edit*

  - Retouch Auto Retouch / Creative Retouch

  - Resize / Cropping / Aspect Conv. / Leveling Yes / Yes / No / No

  - Copy / Title Edit / Text Stamp Yes / Yes / Yes

  - Cut Animation Yes

  - Video Divide Yes

  - PictBridge Support Single / Multi / All / DPOF / Favorites

- **Setup**
  - OSD language English, Spanish

- **Others**
  - *Monitor*

  - LCD Monitor 3.0" (7.5cm) TFT Screen LCD Display (1,040K dots), AR Coating

  - LCD Monitor Field of View: Approx. 100%, Wide Viewing-angle

  - LCD Monitor Power Monitor mode, AUTO Power Monitor mode

  - *Flash*

  - Built- in- Flash Auto, Auto/Red-eye Reduction, Forced On, Slow Sync./Red-eye Reduction, Forced Off

  - Built- in- Flash 0.6 - 6.4m (Wide / ISO Auto), 2.0 - 3.3m (Tele / ISO Auto)

  - *Media*

  - Recording Media Built-in Memory, SD Memory Card, SDHC Memory Card, SDXC Memory Card

- Built- in- Memory Approx. 86MB * Approx. 86MB for China

- *Audio*

- Microphone / Speaker Stereo / Mono

- *Interface*

- Interface microHDMI, AV Output (NTSC), USB (AV/USB Multi)

- *Power*

- Power Li-ion Battery Pack (3.6V, 1250mAh, 4.5 Wh) (Included)

- Power AC Adaptor (Input: 110 - 240V AC) (Included, connect with USB cable)

- Battery life (approx.) 300 pictures (CIPA Standard)*1

- *Standard Package*

- Included Software PHOTOfunSTUDIO 9.6PE

- Included Software LoiLoScope (trial version)

- Included Software Adobe Reader

- Included Software ・ The software to process RAW file on PC is not bundled with DMC-ZS50.

- Included Software To do this, SILKYPIX Developer Studio is available for download at Ichikawa Soft Laboratory's website using PC connected to the Internet.

- Standard Accessories Battery Pack, AC Adaptor, USB Cable, Hand Strap, CD-ROM

- NOTE *1

- NOTE Recording conditions by CIPA standard

- NOTE - Temperature: 23 oC (73.4 oF) / Humidity: 50%RH when LCD monitor is on.

- NOTE - Using a Panasonic SDHC Memory Card

- NOTE - Using the supplied battery.

- NOTE - Starting recording 30 seconds after the camera is turned on. (When the optical image stabilizer function is set to [ON].)

- NOTE - Recording once every 30 seconds with full flash every second recording.

- NOTE - Rotating the zoom lever from Tele to Wide or vice versa in every recording.

- NOTE - The number of recordable pictures varies depending on the recording interval time.

- NOTE - If the recording interval time becomes longer, the number of recordable pictures decreases.

- NOTE - CIPA is an abbreviation of [Camera & Imaging Products Association].

- NOTE *2

- NOTE - These are standard times taken at a temperature of 23 oC (73.4 oF) and a humidity of 50%RH.

- NOTE - The time available for recording varies depending on the environment, the interval between recordings, and the manner of use.

- NOTE - Actual recordable time is the time available for recording when repeating actions such as switchir power supply [ON] / [OFF], starting/stopping recording, zoom operation etc.

- NOTE - Use a card with SD Speed Class with "Class 4" or higher when recording motion pictures.

- NOTE SD speed class is the speed standard regarding continuous writing.

- NOTE - Maximum time to record motion pictures continuously with [AVCHD] in [FHD/60p] / [FHD/60i] i minutes 59 seconds.

- NOTE - Maximum time to record motion pictures continuously with [MP4] is 29 minutes 59 seconds or up GB.

- - **UPC**885170235472