

LUMIX FZ1000 4K QFHD/HD 16X Long Zoom Digital Camera

DMC-FZ1000

• Metrics

- Dimensions (W x H x D) 136.8 x 98.5 x 130.7 mm
- Dimensions (W x H x D) (5.39 x 3.88 x 5.15 inch)
- Weight Approx. 780 g without Battery and SD Memory Card (1.72 lb)
- Weight Approx. 831 g with Battery and SD Memory Card (1.83 lb)

• Optics

- *Pixels*
- Camera Effective Pixels 20.1 Megapixels
- *Sensor*
- Sensor Size / Total Pixels / Filter 1-inch High Sensitivity MOS Sensor / Total Pixel Number 20.9 Megapixel Primary Color Filter
- *Lens*
- Aperture F2.8 - 4.0 / Multistage Iris Diaphragm (Still Image: F2.8 - 8.0 (W), F4.0 - 8.0 (T), Motion Picture - 11.0 (W), F4.0 - 11.0 (T))
- Optical Zoom 16x
- Focal Length f = 9.1 - 146mm
- Focal Length (27 - 432mm in 35mm equiv. in 4:3)
- Focal Length (25 - 400mm in 35mm equiv. in 3:2)
- Focal Length (26 - 416mm in 35mm equiv. in 16:9)
- Focal Length (32 - 512mm in 35mm equiv. in 1:1)
- Focal Length (26 - 416mm in 35mm equiv. in 16:9 video recording / O.I.S. Off / Level Shot function Off)
- Focal Length (28 - 448mm in 35mm equiv. in 16:9 video recording / O.I.S. On / Level Shot function Off)
- Focal Length (31 - 496mm in 35mm equiv. in 16:9 video recording / O.I.S. On / Level Shot function On)
- Focal Length (37 - 592mm in 35mm equiv. in 4K video recording)
- Extra Optical Zoom (EZ) 22.4x (3:2 / 10M (M)), 32x (3:2 / 5M (S))
- Intelligent Zoom 32x
- Lens LEICA DC VARIO-ELMARIT
- Lens 15 elements in 11 groups
- Lens (5 Aspherical Lenses / 8 Aspherical Surfaces / 4 ED Lenses)
- 2-Speed Zoom N/A
- Changing of Zoom Speed 5-Speed Zoom
- Optical Image Stabilizer N/A
- Optical Image Stabilizer/Five Axis Correction HYBRID O.I.S. +* / Yes* * Except for the 4K video recording and high-speed video recording.

- **Digital Zoom Max. 4x**
 - **Conversion Lens Compatibility -**
 - *Focus*
 - **Focusing Area Normal: Wide 30 cm - infinity / Tele 100 cm - infinity**
 - **Focusing Area AF Macro / MF / Intelligent Auto / Motion Picture: Wide 3 cm - infinity / Tele 100 cm - infinity**
 - **AF Assist Lamp Yes (On / Off)**
 - **Focus AFS (Single) / AFF (Flexible) / AFC (Continuous) / MF**
 - **Focus Normal / AF Macro / Macro Zoom, Quick AF On / Off (on in Intelligent Auto), Low Light AF, AF/A Lock Button, AF Area Select, AF Tracking, Eye Sensor AF, Focus Peaking, One Shot AF (Set the Fn button custom menu to AF-ON)**
 - **AF Metering Face/Eye Detection / Tracking / 49-area / Custom Multi / 1-area (flexible / scalable) / Pinpoint**
 - *Shutter*
 - **Shutter Speed Still Image:**
 - **Shutter Speed Approx. 60 - 1/4,000 sec (Mechanical Shutter)**
 - **Shutter Speed Approx. 1 - 1/16,000 sec (Electronic Shutter)**
 - **Shutter Speed Bulb (Approx. 120 sec)**
 - **Shutter Speed Motion Picture:**
 - **Shutter Speed Approx. 1/30 - 1/16,000 sec**
 - **Shutter Speed Approx. 1/25 - 1/16,000 sec (AVCHD in FHD 24p)**
 - **Shutter Speed Approx. 1/2 - 1/16,000 sec (Creative Video M Mode / MF Mode)**
 - *Finder*
 - **Viewfinder 0.39" OLED LVF (Live View Finder) (2359K dots), Field of View: Approx. 100%,**
 - **Viewfinder Magnification: Approx. 1.88x / 0.7x (35mm equiv.), Eye Sensor**
-

• **Recording**

- *File*
- **File Format Still Image: JPEG (DCF/Exif2.3) / RAW, DPOF**
- **File Format Motion Picture: AVCHD, MP4**
- *Recording Modes*
- **Mode Dial / Mode Button Intelligent Auto, P, A, S, M, Creative Video, C1 (Custom), C2 (Custom), Scene C Creative Control**
- **Creative Control mode Expressive, Retro, Old Days, High Key, Low Key, Sepia, Monochrome, Dynamic Monochrome, Rough Monochrome, Silky Monochrome, Impressive Art, High Dynamic, Cross Process,**
- **Creative Control mode Toy Effect, Toy Pop, Bleach Bypass, Miniature Effect, Soft Focus, Fantasy, Star Filter, One Point Color, Sunshine (22 filters)**
- **Filter (Creative Control) N/A**
- **Still Image Scene Mode N/A**
- **Still Image Scene Mode / Scene Guide Clear Portrait, Silky Skin, Backlit Softness, Clear in Backlight, Relaxed Tone, 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,**

- Still Image Scene Mode / Scene Guide Artistic Nightscape, Glittering Illuminations, Handheld Night Shot, Night Portrait, Soft Image of a Flower, Appetizing Food, Cute Dessert, Freeze Animal Motion, Clear Sport Shot, Monochrome, Panorama
- Continuous Shooting Mode N/A
- Continuous Shooting Mode (Approx.) [AFS] SH: 50 frames/sec*, H: 12 frames/sec, M: 7 frames/sec (with Live View), L: 2 frames/sec (with Live View)
- Continuous Shooting Mode (Approx.) [AFC] H: 7 frames/sec, M: 7 frames/sec (with Live View), L: 2 frames/sec (with Live View)
- Continuous Shooting Mode (Approx.) * Electronic shutter only.
- 4K Photo Mode Exif Information: Yes *
- 4K Photo Mode Selectable Aspect Ratio: Yes (4:3 / 3:2 / 16:9 / 1:1 are selectable) *
- 4K Photo Mode Exposure Mode: Program AE / Aperture Priority AE / Shutter Priority AE / Manual *
- 4K Photo Mode Marking Function: Yes *
- 4K Photo Mode * Firmware must be updated to the latest version 2.0.
- *Motion Picture Recording (*2)*
- 4K Video 3840 x 2160 pixels, 30p (4K: 100Mbps / MP4) (Sensor Output is 30fps) (AAC)
- 4K Video 3840 x 2160 pixels, 23.98p (4K: 100Mbps / MP4) (Sensor Output is 23.98fps) (AAC) *
- 4K Video * Firmware must be updated to the latest version 2.0.
- HD Video 1920 x 1080 pixels, 60p (FHD: 28Mbps / AVCHD) (Sensor Output is 60fps) (Dolby)
- HD Video 1920 x 1080 pixels, 24p (FHD: 24Mbps / AVCHD) (Sensor Output is 24fps) (Dolby)
- HD Video 1920 x 1080 pixels, 30p (FHD: 24Mbps / AVCHD) (Sensor Output is 30fps) (Dolby)
- HD Video 1920 x 1080 pixels, 60i (FHD: 17Mbps / AVCHD) (Sensor Output is 60fps) (Dolby)
- HD Video 1920 x 1080 pixels, 60p (FHD: 28Mbps / MP4) (Sensor Output is 60fps) (AAC)
- HD Video 1920 x 1080 pixels, 30p (FHD: 20Mbps / MP4) (Sensor Output is 30fps) (AAC)
- HD Video 1280 x 720 pixels, 30p (HD: 10Mbps / MP4) (Sensor Output is 30fps) (AAC)
- STD Video 640 x 480, 30p (VGA: 4Mbps / MP4) (Sensor Output is 30fps) (AAC)
- High Speed Video 1920 x 1080 pixels, 30p (FHD: MP4) (Sensor Output is 120fps)
- *Continuous recordable time (motion pictures)*
- AVCHD Approx. 130 min (FHD/60p), Approx. 135 min (FHD/60i)
- MP4 Approx. 110 min (4K/30p), Approx. 130 min (FHD/60p)
- *Actual recordable time (motion pictures)*
- AVCHD Approx. 65 min (FHD/60p), Approx. 70 min (FHD/60i)
- MP4 Approx. 55 min (4K/30p), Approx. 65 min (FHD/60p)
- *Exposure Parameters*
- Exposure Program AE, Aperture Priority AE, Shutter Priority AE, Manual
- Exposure Compensation 1/3 EV step, +/-5 EV (+/-3 EV for motion picture)
- Auto (AE) Bracketing 3, 5, 7 frames in 1/3, 2/3 or 1 EV Step, Max. +/-3 EV

- Light Metering Intelligent Multiple / Center Weighted / Spot
- ISO Sensitivity Auto / i.ISO / 80* / 100* / 125 / 200 / 400 / 800 / 1600 / 3200/ 6400 / 12800 / 25600* (* Extended ISO)
- ISO Sensitivity (Changeable to 1/3 EV step)
- *Picture Quality*
- Still Picture Recording [4:3] 4864x3648 (17.5M) (L) / 3456x2592 (9M) (M) / 2432x1824 (4.5M) (S)
- Still Picture Recording [3:2] 5472x3648 (20M) (L) / 3888x2592 (10M) (M) / 2736x1824 (5M) (S)
- Still Picture Recording [16:9] 5472x3080 (17M) (L) / 3840x2160 (8M) (M) / 1920x1080 (2M) (S)
- Still Picture Recording [1:1] 3648x3648 (13.5M) (L) / 2592x2592 (6.5M) (M) / 1824x1824 (3.5M) (S)
- Image Quality RAW / RAW+Fine / RAW+Standard / Fine / Standard
- White Balance Auto / Daylight / Cloudy / Shade / Incandescent / Flash / White Set1 / White Set2 / White Set3 / White Set4 / Color Temperature
- White Balance (2-axis Adjustable)
- Photo Style / Film Mode N/A
- Photo Style Standard, Vivid, Natural, Monochrome, Scenery, Portrait, Custom, Cinelike D*, Cinelike V* * For Vivid, Natural, Monochrome, Scenery, Portrait, Custom, Cinelike D*, Cinelike V* When Creative Video mode is selected.
- Color Mode / Color Effect / My color N/A
- Color Mode / Color Effect -
- Picture Adjustment Contrast, Sharpness, Noise Reduction, Saturation*, Color Tone**, Filter Effect** * For Monochrome mode. ** For Monochrome mode only.
- 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 Infrastructure Mode / WPS / Wi-Fi Direct
- Wi-Fi Wi-Fi Button
- NFC ISO/IEC 18092, NFC-F (Passive Mode)
- Zoom in Motion Picture Yes
- Self Timer 2 sec / 10 sec / 10 sec (3 images)
- Self Shot Mode -

• Playback

- *Display*
- Playback Mode All, Slideshow, Filtering Play (Picture Only, Video Only, Category Selection, Favorite), Calendar
- Thumbnails / Zoomed Playback 12,30-thumbnails / Yes

- **Calendar Display / Dual- Image Playback Yes / No**
- **Set Favorites / Rotate Image Yes / Yes**
- **Show Histogram Yes**
- **Show Highlights Yes**
- **DPOF Print Setting / Set Protection Yes / Yes**
- *Edit*
- **Retouch No**
- **RAW Processing Yes**
- **Resize / Cropping / Aspect Conv. / Leveling Yes / Yes / No / No**
- **Copy / Title Edit / Text Stamp No / 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) Free-Angle TFT Screen LCD Display (921K dots), AR Coating**
- **LCD Monitor Field of View: Approx. 100%, Wide Viewing-angle**
- **Rear Monitor N/A**
- *Flash*
- **Built- in- Flash Auto*, Auto/Red-eye Reduction*, Forced On, Forced On/Red-eye Reduction, Slow Sync., ! Sync./Red-eye Reduction, Forced Off * For iA, iA+ mode only.**
- **Built- in- Flash Flash Synchro: 1st / 2nd Slow Sync.**
- **Built- in- Flash Synchronization for flash dimming and exposure compensation**
- **Built- in- Flash 0.3 - 13.5m (Wide / ISO Auto), 1.0 - 9.5m (Tele / ISO Auto)**
- **Flash (Bundled) N/A**
- **Flash (Included) N/A**
- *Media*
- **Recording Media SD Memory Card, SDHC Memory Card, SDXC Memory Card (Compatible with UHS-I standard)**
- **Built- in- Memory -**
- *Audio*
- **Microphone / Speaker Stereo / Mono**
- *Interface*
- **Interface microHDMI, AV Output (NTSC), USB (AV/USB Multi)**
- **Remote Input ø2.5mm for Remote**

- External Microphone Input ϕ 3.5mm for External Microphone
 - *Power*
 - Power Li-ion Battery Pack (7.2V, 1200mAh, 8.7 Wh) (Included)
 - Power AC Adaptor (Input: 110 - 240V AC)
 - Battery life (approx.) 360 pictures (CIPA Standard)*1
 - *Standard Package*
 - Included Software PHOTOfunSTUDIO 9.5PE
 - Included Software SILKYPIX Developer Studio
 - Included Software LoiLoScope (trial version)
 - Included Software Adobe Reader
 - Standard Accessories Battery Charger, Battery Pack, USB Cable, Lens Hood, Lens Cap, Hot Shoe Cover,
-

• NOTES

- NOTE *1. Recording conditions by CIPA standard
 - NOTE - Temperature: 23 °C (73.4 °F) / 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. - These are standard times taken at a temperature of 23 °C (73.4 °F) 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 switching 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 - Use a card with SD Speed Class with "UHS-I Speed Class 3 (U3)" when recording motion picture [MP4] in [4K].
 - NOTE (SD speed class is the speed standard regarding continuous writing.)
 - NOTE - Maximum time to record motion pictures continuously with [AVCHD] is 29 minutes 59 seconds.
 - NOTE - Maximum time to record motion pictures continuously with [MP4] in [4K] is 29 minutes 59 seconds
 - NOTE - Maximum time to record motion pictures continuously with [MP4] in [FHD] [HD] [VGA] is 29 minutes 59 seconds or up to 4 GB.
 - NOTE - Maximum time to record High Speed motion pictures continuously is 7 minutes 59 seconds.
-

- - **UPC885170188235**
-