

LUMIX 4K Digital Camera ZS200 with 20.1 Megapixel Sensor - Silver - DC-ZS200S DC-ZS200S

• Metrics

- o Dimensions (W x H x D) 111.2 x 66.4 x 45.2 mm (4.38 x 2.61 x 1.78 inch)
- Weight Approx. 340 g with Battery and SD Memory Card (0.75 lb)
- Weight Approx. 298 g without Battery and SD Memory Card (0.66 lb)

Optics

- o Pixels
- o Camera Effective Pixels 20.1 Megapixels
- Sensor
- Sensor Size / Total Pixels / Filter 1-inch High Sensitivity MOS Sensor / 20.9 Total Megapixels / Primary Co Filter
- o Lens
- Aperture F3.3 6.4 / Multistage Iris Diaphragm (F3.3 8.0 (W), F6.4 8.0 (T))
- Optical Zoom 15x
- Focal Length f = 8.8 132mm
- Focal Length (26 390mm in 35mm equiv. in 4:3)
- Focal Length (24 360mm in 35mm equiv. in 3:2)
- Focal Length (25 375mm in 35mm equiv. in 16:9)
- o Focal Length (31 465mm in 35mm equiv. in 1:1)
- Focal Length (36 540mm in 35mm equiv. in 4:3, 3:2, 16:9 4K PHOTO recording)
- Focal Length (38 570mm in 35mm equiv. in 1:1 4K PHOTO recording)
- Focal Length (36 540mm in 35mm equiv. in 4K video recording)
- o Focal Length (25 375mm in 35mm equiv. in 16:9 video recording / O.I.S. Off / Level Shot function Off)
- Focal Length (27 405mm in 35mm equiv. in 16:9 video recording / O.I.S. On / Level Shot function Off)
- o Focal Length (30 450mm in 35mm equiv. in 16:9 video recording / O.I.S. On / Level Shot function On)
- Extra Optical Zoom (EZ) 21x (3:2 / 10M (M)), 30x (3:2 / 5M (S))

- o Intelligent Zoom 30x
- Lens LEICA DC VARIO-ELMAR
- Lens 13 elements in 11 groups
- o Lens (1 aspherical ED lens / 5 aspherical lenses / 3 ED lenses) (11 aspherical surfaces)
- Optical Image Stabilizer 5-Axis HYBRID O.I.S. +*
- Optical Image Stabilizer *5-Axis compensation works in video recording except for 4K video or high-speevideo recording.
- Digital Zoom Max. 4x (Digital Zoom and Intelligent Zoom combine for a maximum of 4x.)
- o Conversion Lens Compatibility N/A
- o Focus
- Focusing Area Normal: Wide 50 cm infinity / Tele 100 cm infinity
- o Focusing Area AF Macro / MF / Intelligent Auto / Motion Picture: Wide 3 cm infinity / Tele 100 cm infi
- AF Assist Lamp Yes (On / Off)
- Focus AF / AF Macro / Macro Zoom
- Focus *Each available with AFS (Single) / AFF (Flexible) / AFC (Continuous) Quick AF, Continuous AF (during motion picture recording),
- Focus Touch AF/AE Function, Touch Shutter, Eye Sensor AF, Touch Pad AF, 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, Starl
 AF
- Post Focus Yes
- Focus Stacking Yes
- o AF Metering Face/Eye Detection / Tracking / 49-area / Custom Multi / 1-area / Pinpoint
- AF Metering (Full area touch is available)
- o Shutter
- o Shutter Speed [Still Image] Approx. 60 1/2,000 sec (Mechanical Shutter)
- Shutter Speed [Still Image] Approx. 1 1/16,000 sec (Electronic Shutter)
- Shutter Speed [Still Image] Time (Approx. 120 sec)
- o Shutter Speed [Motion Picture] Approx. 1/30 1/16,000 sec
- Shutter Speed [Motion Picture] Approx. 1/25 1/16,000 sec (in 24p recording)
- Shutter Speed [Motion Picture] Approx. 1/2 1/16,000 sec (Creative Video M Mode / MF Mode)
- o Finder
- Viewfinder 0.21" LVF (Live View Finder) (2,330k dots equiv.), Field of View: Approx. 100%
- Viewfinder Magnification: Approx. 1.45x / 0.53x (35 mm camera equivalent)

Recording

- o File
- File Format Still Image: JPEG (DCF/Exif2.31) / RAW
- File Format 4K PHOTO: MP4
- o File Format Motion Picture: AVCHD (Audio format: Dolby Audio 2ch), MP4 (Audio format: AAC 2ch)

- Recording Modes
- Mode Dial Intelligent Auto, P, A, S, M, Creative Video, C (Custom), Panorama Shot, Scene Guide, Creativ Control
- Creative Control mode Expressive / Retro / Old Days / High Key / Low Key / Sepia / Monochrome / Dynar Monochrome / Rough Monochrome* / Silky Monochrome* / Impressive Art / High Dynamic / Cross Proce Toy Effect / Toy Pop / Bleach Bypass / Miniature Effect / Soft Focus* / Fantasy / Star Filter* / One Point C Sunshine* (22 filters) *For photos only.
- Scene Guide Clear Portrait, Silky Skin, Backlit Softness, Clear in Backlight, Relaxing Tone, Sweet Child's
 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, Free
 Animal Motion, Clear Sports Shot, Monochrome *For photos only.
- Burst Shooting Mode (Approx.) [AFS] H: 10 frames/sec, M: 7 frames/sec (with Live View), L: 2 frames/se (with Live View)
- Burst Shooting Mode (Approx.) [AFF/AFC] H: 6 frames/sec, M: 6 frames/sec (with Live View), L: 2 frame (with Live View)
- o 4K Photo Mode (*2) 4K Burst: 30 frames/sec, max. 15 min
- o 4K Photo Mode (*2) 4K Burst (S/S): 30 frames/sec, max. 15 min
- o 4K Photo Mode (*2) 4K Pre-Burst: 30 frames/sec, approx. 2 sec
- 4K Photo Mode (*2) Exif Information: Yes (Each JPEG image cropped out of the 4K burst file complies w EXIF.)
- 4K Photo Mode (*2) Auto Marking Function: Auto / Face Priority / Motion Priority (in 4K Burst mode an Burst (S/S) mode)
- Motion Picture Recording (*2)
- o MP4 [4K]
- o MP4 3840x2160 4K/30p: 100Mbps
- o MP4 4K/24p: 100Mbps
- MP4 [Full HD]
- o MP4 1920x1080 FHD/60p: 28Mbps
- o MP4 FHD/30p: 20Mbps
- MP4 [HD]
- o MP4 1280x720 HD/30p: 10Mbps
- AVCHD [Full HD]
- o AVCHD 1920x1080 FHD/60p: 28Mbps, 60p recording
- AVCHD FHD/60i: 17Mbps, 60i recording
- AVCHD FHD/30p: 24Mbps, 60i recording (sensor output is 30fps)
- o AVCHD FHD/24p: 24Mbps, 24p recording
- High Speed Video(*2) [Full HD]
- High Speed Video(*2) 1920x1080 FHD/30p (Sensor Output is 120fps)
- Continuous Recordable Time (Motion Pictures) (*2)
- o AVCHD 4K/30p: Approx. 90 min

- AVCHD FHD/60p: Approx. 100 min
- o MP4 FHD/60p: Approx. 100 min
- o MP4 FHD/60i: Approx. 100 min
- Actual recordable Time (Motion Pictures) (*2)
- AVCHD 4K/30p: Approx. 45 min
- AVCHD FHD/60p: Approx. 50 min
- o MP4 FHD/60p: Approx. 50 min
- MP4 FHD/60i: Approx. 50 min
- o 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 / 4K PHOTO)
- o Light Metering Intelligent Multiple / Center Weighted / Spot
- ISO Sensitivity Still Image: Auto / i.ISO / 80* / 100* / 125 / 200 / 400 / 800 / 1600 / 3200 / 6400 / 12800 / 256
 *Extended ISO
- ISO Sensitivity Motion Picture: Auto / 80* / 100* / 125 / 200 / 400 / 800 / 1600 / 3200 / 6400 *Extended ISO
- ISO Sensitivity (Changeable to 1/3 EV step)
- o Picture Quality
- o 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)
- $\verb| o Image Quality RAW | RAW + Fine | RAW + Standard | Fine | Standard | \\$
- White Balance AWB / AWBc / Daylight / Cloudy / Shade / Incandescent / Flash / White Set 1, 2, 3, 4 / Colo temperature setting
- White Balance (2-axis adjustable)
- o Photo Style Standard, Vivid, Natural, L. Monochrome, Monochrome, Scenery, Portrait, Custom
- o Picture Adjustment Contrast, Sharpness, Noise Reduction, Saturation*, Color Tone**, Filter Effect**
- Picture Adjustment *Except for Monochrome mode. **For Monochrome mode only.
- o Bracket
- AE Bracket 3, 5, 7 images in 1/3, 2/3 or 1 EV step, Max. +/-3 EV
- Aperture Bracket 3 or all positions in 1 EV step
- o Focus Bracket 1 to 999 frames, focus steps can be set in 10 levels
- White Balance Bracket '3 images in blue/amber axis or in magenta/green axis
- o Other
- o Digital Red Eye Correction (Red-Eye Removal) Yes (On / Off)
- o GPS N/A

	 Wi-FI 2412 MHz - 2462 MHz (1-11 ch)
	• Wi-FI WPA / WPA2
	• Wi-FI Infrastructure Mode / WPS
	• Bluetooth 'Bluetooth® v4.2 (Bluetooth Low Energy (BLE))
	• NFC N/A
	• Zoom in Motion Picture N/A
	• Self Timer 2 sec / 10 sec / 10 sec (3 images)
	 Self Shot
	• Self Shot Mode N/A
	o Shutter N/A
	• Effect N/A
Playback	o Display
	 Playback Mode All, Picture Only, Video Only, Slideshow (All / Picture Only / Video Only, duration & effective selectable), Calendar
	 Thumbnails / Zoomed Playback 12,30-thumbnails / Yes
	o Rating / Rotate Image / Protect Yes / Yes / Yes
	• Set Favorites / Rotate Image N/A
	• Show Histogram/ Show Highlights Yes / Yes
	• DPOF Print Setting / Set Protection N/A
	o Edit
	Retouch Clear Retouch
	 Image Composition Light Composition, Sequence Composition
	 Creating a Motion Picture from Still Pictures Time Lapse Video, Stop Motion Video
	• RAW Processing Yes
	• Resize/ Cropping Yes / Yes
	• Title Edit / Text Stamp Yes / Yes
	• Video Divide Yes
	Direct Print PictBridge compatible
	PictBridge Support N/A
Setup	 OSD language Japanese, English, German, French, Italian, Spanish, Polish, Chinese (Traditional)
Others	o Monitor
	• LCD Monitor 3.0" (7.5cm) TFT Screen LCD Display (1240k dots)
	 LCD Monitor Static Touch Control

o Wi-FI IEEE 802.11b/g/n

- LCD Monitor Field of View: Approx. 100%, AF Coating
- o 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 0.6 6.8m (Wide / ISO Auto), 1.0 3.9m (Tele / ISO Auto)
- Media
- o Recording Media SD Memory Card, SDHC Memory Card, SDXC Memory Card
- Recording Media (Compatible with UHS-I UHS Speed Class 3 standard SDHC / SDXC Memory Cards)
- o Built- in- Memory -
- o Audio
- o Microphone / Speaker Stereo / Mono
- Interface
- o Interface microHDMI typeD (*3), USB2.0 Micro-B
- o Power
- o Power Li-ion Battery Pack (7.2V, 1025mAh, 7.4 Wh) (Included)
- o Power USB power charging
- Battery life (Approx.) Approx. 370 images (rear monitor), 250 images (LVF), 350 images (LVF eco30fps se
 (*1)
- o Standard Package
- Included Software The software to edit and playback images on computer is not bundled with this cam
 To do this, PHOTOfunSTUDIO is available for download at Panasonic website using computer connected
 Internet.
- o Included Software http://panasonic.jp/support/global/cs/soft/download/d pfs10ae.html (For Windows)
- Included Software The software to process RAW file on computer is not bundled with this camera. To d
 this, SILKYPIX Developer Studio is available for download at Ichikawa Soft Laboratory's website using
 computer connected to the Internet.
- Included Software http://www.isl.co.jp/SILKYPIX/english/p/ (For Windows / Mac)
- o Standard Accessories Battery Pack, AC Adaptor, USB Cable, Hand Strap
- Standard Accessories Operating Instructions for advanced features is available for downloaded at Pana LUMIX Customer Support Site using PC, smartphone or tablet connected to the Internet.

NOTES

- NOTE *1 "Recording conditions by CIPA standard
- NOTE Temperature: 23 oC (73.4 oF) / Humidity: 50%RH when monitor is on.
- o 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.

- o 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 "
- NOTE *2 "- 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 pict with [MP4] in [4K] [High Speed Video] or [4K PHOTO].
- NOTE (SD speed class is the speed standard regarding continuous writing.)
- NOTE Recording stops when the continuous recording time exceeds 29 minutes and 59 seconds with [AV in [FHD/60p] [FHD/60i].
- NOTE Recording stops when the continuous recording time exceeds 15 minutes with [MP4] in [4K].
- NOTE When using an SDHC memory card: You can continue recording without interruption even if the size exceeds 4 GB,
- NOTE but the motion picture file will be divided and recorded/played back separately.
- NOTE When using an SDXC memory card: You can record a motion picture in a single file.
- NOTE Recording stops when the continuous recording time exceeds 29 minutes and 59 seconds with [MI [FHD/60p] and [High Speed Video].
- NOTE You can continue recording without interruption even if the file size exceeds 4 GB,
- NOTE but the motion picture file will be divided and recorded/played back separately.
- o NOTE MP4 motion pictures with [MP4] in [FHD/30p] [HD]: You can continue recording without interru
- NOTE even if the file size exceeds 4 GB or 30 minutes in length, but the motion picture file will be divided recorded/played back separately.
- o 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 *3 For [4K] video output, use an HDMI cable that has the HDMI logo on it, and that is described a compatible".

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