

# 2009 LUMIX® DMC-ZS1/ZS3 Digital Cameras



## Intelligent Auto Mode

Completely automatic to help prevent shooting errors.



## LEICA DC VARIO-ELMAR Lens

25mm wide angle and 12x optical zoom.



## Venus Engine Technology

Venus Engine HD: ZS3  
- Supports AVCHD Lite and HDMI



Venus Engine IV: ZS1  
- Up to ISO1600 at full resolution

## ZS1:

- 2.7" (230k dots) Intelligent LCD with auto-brightness control
- ½.5" CCD 10.3 megapixels
- 40MB built-in memory

## ZS3:

- HD video recording
- 40MB built-in memory
- ½.33" CCD 12.7 megapixels



**LUMIX®**  
DIGITAL CAMERAS

**Panasonic**  
ideas for life

2009 **LUMIX**<sup>®</sup> **DMC-ZS1/ZS3** Digital Cameras **Specifications**

		DMC-ZS1	DMC-ZS3	
METRICS	Dimensions (W x H x D)	103.3 x 59.6 x 32.8 mm (4.07 x 2.35 x 1.29 in)	103.3 x 59.6 x 32.8 mm (4.07 x 2.35 x 1.29 in)	
	Weight	Approx. 206g (0.45 lb), Approx. 229g with Battery and SD Memory Card (0.50 lb)	Approx. 206g (0.45 lb), Approx. 229g with Battery and SD Memory Card (0.50 lb)	
OPTICS	<b>Pixels</b>	Camera Effective Pixels 10.1 Megapixels	10.1 Megapixels	
	<b>CCD</b>	Sensor Size / Total Pixels / Filter 1/2.5-inch / 10.35 Total Megapixels / Primary Color Filter	1/2.33-inch / 12.7 Total Megapixels / Primary Color Filter	
	<b>Lens</b>	Aperture F3.3 - 4.9 / Iris Diaphragm (F3.3 - 6.3 (W) / F4.9 - 6.3 (T))	F3.3 - 4.9 / Iris Diaphragm (F3.3 - 6.3 (W) / F4.9 - 6.3 (T))	
	<b>Optical Zoom</b>	12x	12x	
	<b>Focal Length</b>	f=4.1-49.2mm (25-300mm in 35mm equiv.)	f=4.1-49.2mm (25-300mm in 35mm equiv.)	
	<b>Extra Optical Zoom (EZ)</b>	14.3x (4.3 / 7M), 17.1x (4.3 / 5M), 21.4x (under 3M)	14.3x (4.3 / 7M), 17.1x (4.3 / 5M), 21.4x (under 3M)	
	<b>Lens</b>	LEICA DC VARIO-ELMAR, 10 elements in 8 groups. (2 Aspherical Lenses / 3 Aspherical surfaces, 2 ED lens)	LEICA DC VARIO-ELMAR, 10 elements in 8 groups. (2 Aspherical Lenses / 3 Aspherical surfaces, 2 ED lens)	
	<b>2-Speed Zoom</b>	Yes	Yes	
	<b>Optical Image Stabilizer</b>	MEGA O.I.S. (Auto / Mode1 / Mode2)	MEGA O.I.S. (Auto / Mode1 / Mode2)	
	<b>Conversion lens Compatibility</b>	—	—	
FOCUS	<b>Digital Zoom</b>	4x, (Max. 48.0 x combined with Optical Zoom without Extra Optical Zoom, (Max. 85.6x combined with Extra Optical Zoom)	4x, (Max. 48.0 x combined with Optical Zoom without Extra Optical Zoom, (Max. 85.6x combined with Extra Optical Zoom)	
	<b>Focusing Area</b>	Normal: Wide 50cm/Tele 200cm - infinity, Macro / Intelligent AUTO / Clipboard : Wide 3cm / Max 200cm / Tele 100cm - infinity	Normal: Wide 50cm/Tele 200cm - infinity, Macro / Intelligent AUTO / Clipboard : Wide 3cm / Max 200cm / Tele 100cm - infinity	
	<b>Focus Range Display</b>	Yes	Yes	
	<b>AF Assist Lamp</b>	Yes	Yes	
	<b>Focus</b>	Normal / Macro, Continuous AF (On / Off), AF Tracking (On / Off), Quick AF (On / Off)	Normal / Macro, Continuous AF (On / Off), AF Tracking (On / Off), Quick AF (On / Off)	
	<b>AF Metering</b>	Face / AF Tracking / Multi (1 pt) / 1 pt HS / 1 pt / Spot	Face / AF Tracking / Multi (1 pt) / 1 pt HS / 1 pt / Spot	
	<b>Shutter</b>	Shutter Speed 8-1/2000 sec (Selectable minimum shutter speed) Starry Sky Mode : 15, 30, 60sec.	8-1/2000 sec (Selectable minimum shutter speed) Starry Sky Mode : 15, 30, 60sec.	
	<b>Finder</b>	—	—	
	IA	<b>Face Recognition</b>	—	Still
		<b>Optical Image Stabilizer</b>	—	Still & Movie
<b>Intelligent ISO Control</b>		—	Still	
<b>Face Detection</b>		—	Still & Movie	
<b>Intelligent Scene Selector</b>		Still (Portrait, Scenery, Night Portrait, Night Scenery, Macro)	Still (Portrait, Scenery, Night Portrait, Night Scenery, Macro), & Movie (Portrait, Scenery, Low Light, Macro)	
<b>Intelligent Exposure</b>		—	Still & Movie	
<b>AF Tracking</b>		—	Still	
<b>Digital Red Eye Correction</b>		—	Still	
<b>iA Direct Button</b>		—	Still	
<b>File</b>		File Format Still Image: JPEG (DCF / Exif2.1), Image with Audio: JPEG (DCF / Exif2.21) + QuickTime, Motion picture: QuickTime Motion JPEG	Still Image: JPEG (DCF / Exif2.21), Image with Audio: JPEG (DCF / Exif2.21) + QuickTime, Motion picture: AVCHD Lite, QuickTime Motion JPEG	
INTERFACE	<b>AVCHD Lite REC</b>	—	NTSC / PAL (Depends on Region)	
	<b>Mode Switch</b>	[Recording] / [Playback]	[Recording] / [Playback]	
	<b>One-Touch Movie Button</b>	—	Yes	
RECORDING	<b>Interface</b>	Intelligent AUTO, Normal Picture, MySCN, SCN, Motion Picture, Clipboard	Intelligent AUTO, Normal Picture, MySCN1, MySCN2, SCN, Clipboard	
	<b>Recording Modes</b>	Portrait, Soft Skin, Transform, Self-Portrait, Scenery, Panorama Assist, Sports, Night Portrait, Night Scenery, Food, Party, Candle Light, Baby*, Pet, Sunset, High sensitivity, Hi-Speed Burst (Image Priority / Speed Priority), Flash Burst, Starry Sky, Fireworks, Beach, Snow, Aerial photo, Pinhole, Film Grain, Underwater Full-Resolution Image, 2.5 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)	Portrait, Soft Skin, Transform, Self-Portrait, Scenery, Panorama Assist, Sports, Night Portrait, Night Scenery, Food, Party, Candle Light, Baby*, Pet, Sunset, High sensitivity, Hi-Speed Burst (Image Priority / Speed Priority), Flash Burst, Starry Sky, Fireworks, Beach, Snow, Aerial photo, Pinhole, Film Grain, Underwater 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)	
	<b>Unlimited Consecutive Shooting</b>	—	1.8 frames/sec	
	<b>Motion Picture Recording</b>	4:3 16:9 HD Movie VGA: 640 x 480 pixels, 30fps (Motion JPEG), DVGA: 320 x 240 pixels, 30 fps (Motion JPEG) WVGA: 848 x 480 pixels, 30 fps (Motion JPEG)	VGA: 640 x 480 pixels, 30fps (Motion JPEG), DVGA: 320 x 240 pixels, 30 fps (Motion JPEG) WVGA: 848 x 480 pixels, 30 fps (Motion JPEG) HD Movie 1280x720, 60P (AVCHD Lite, SH: 17Mbps / H:13Mbps / L:8Mbps) / 30fps (Motion JPEG)	
	<b>Exposure Parameters</b>	Exposure Program AE Exposure Compensation 1/3 EV step, +/-2 EV Backlight Compensation Yes (only in Intelligent AUTO mode) Auto (AE) Bracketing +/- 1/3 EV -1EV step, 3 frames Color Bracketing — Multi-Aspect — Light Metering Intelligent Multiple/ Center Weighted/ Spot ISO Sensitivity Auto / 80 / 100 / 200 / 400 / 800 / 1600 High Sensitivity (ISO 1600-6400) Max Auto ISO Setting — Multi-Exposure — Aspect Ratio 4:3 / 3:2 / 16:9	Program AE 1/3 EV step, +/-2 EV Yes (only in Intelligent AUTO mode) +/- 1/3 EV -1EV step, 3 frames — Yes Intelligent Multiple/ Center Weighted/ Spot Auto / 80 / 100 / 200 / 400 / 800 / 1600 High Sensitivity (ISO 1600-6400) — — 4:3 / 3:2 / 16:9	
	<b>Image Parameters</b>	Still Picture Recording 4:3 3:2 16:9 3648 x 2736 (10M) / 3072 x 2304 (7M EZ) / 2560 x 1920 (5M EZ) / 2048 x 1536 (3M EZ) / 1600 x 1200 (2M EZ) / 640 x 480 (0.3M EZ) 3648 x 2432 (9M) / 3072 x 2048 (6M EZ) / 2560 x 1712 (4.5M EZ) / 2048 x 1360 (2.5M EZ) 3648 x 2056 (7.5M) / 3072 x 1728 (5.5M EZ) / 2560 x 1440 (3.5M EZ) / 1920 x 1080 (2M EZ)	3648 x 2736 (10M) / 3072 x 2304 (7M EZ) / 2560 x 1920 (5M EZ) / 2048 x 1536 (3M EZ) / 1600 x 1200 (2M EZ) / 640 x 480 (0.3M EZ) 3776 x 2520 (9.5M) / 3168x2112 (6.5M EZ) / 2656x1768 (4.5M EZ) / 2121x1408 (3M EZ) / 2048 x 1360 (2.5M EZ) 3968 x 2232 (8M) / 3328x1872 (6M EZ) / 2784x1584 (4.5M EZ) / 2208x1248 2.5M EZ / 1920 x 1080 (2M EZ)	
	<b>Others</b>	Image Quality File / Standard 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 Color Effect — Picture Adjustment — Color Mode Standard, Natural, Vivid, Black & White, Sepia, Cool, Warm	File / Standard 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) — — — Standard, Natural, Vivid, Black & White, Sepia, Cool, Warm	
	PLAYBACK	<b>Display</b>	Still Image with Audio Recording 5 sec Audio Dubbing Max. 10sec Flip Animation — Real-time Histogram Yes Composition Guide Line Yes (2 patterns) Auto Review 1sec, 2sec, Zoom, Hold	5 sec Max. 10sec — — Yes (2 patterns) 1sec, 2sec, Zoom, Hold
		<b>Delete</b>	Review Yes Easy Zoom / Zoom Resume No / Yes Optical Zoom in Motion Picture Yes Zoom Macro Yes Orientation Detector Yes Scene Mode Help Screen Yes Self Timer 2sec / 10sec Focus Icon Select No	Yes No / Yes Yes Yes Yes Yes 2sec / 10sec Yes (in Face Recognition only)
		<b>Edit</b>	Playback Mode Normal Playback, Slideshow, Mode Playback, Category Playback, Favorites Playback Easy Organization — Touch Zoom — 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 Playback Motion Picture Yes (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 — Delete Image Single / Multi / All / All except Favorites	Normal Playback, Slideshow, Mode Playback, Category Playback, Favorites Playback — — 12,30-thumbnails / Max 16x Yes / No Yes / Yes Yes Yes (Motion JPEG / AVCHD) All / Still Images Only / Motion Picture Only / Favorites / Category BGM Effect (Natural / Slow / Swing / Urban / OFF) Yes — Single / Multi / All / All except Favorites
<b>Setup</b>		DPOF Print Setting / Set Protection Yes / Yes Resize / Trim / Aspect Conv. / Leveling Yes / Yes / Yes Copy / Title Stamp / Text Stamp Yes / Yes / Yes Cut Animation — PicBridge Support —	Yes / Yes Yes / Yes / Yes Yes / Yes / Yes — Single / Multi / All / Favorites / DPOF	
OTHERS		<b>Setup</b>	OSD language English, German, French, Italian, Spanish, Polish, Czech, Hungarian, Russian, Chinese (Traditional), Chinese (Simplified), Netherlandic, Thai, Korean, Turkish, Portuguese, Arabic, Persian, Japanese, Swedish, Danish, Finnish Viera Link™ — HDMI Output — Movie REC Guide — Wind-Cut in Motion Picture — Travel Date / World Time Yes / Yes	English, German, French, Italian, Spanish, Polish, Czech, Hungarian, Russian, Chinese (Traditional), Chinese (Simplified), Netherlandic, Thai, Korean, Turkish, Portuguese, Arabic, Persian, Japanese, Swedish, Danish, Finnish Yes Video: Auto / 1080i / 720p / 480p Audio: Dolby Digital Stereo Creator (Dolby AC3) Yes Yes Yes / Yes
		<b>Monitor</b>	LCD Monitor 2.7" TFT LCD Display (230K dots), Field of View : approx. 100%, AUTO Power LCD mode, Power LCD mode, High angle mode	3.0" Polycrystalline TFT LCD Display (460K dots), Field of View : approx. 100%, Wide Viewing Angle, AUTO Power LCD mode, Power LCD mode
		<b>Tough</b>	Water Proof — Dust Proof — Shock Proof —	— — —
		<b>Flash</b>	Built-in-Flash 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)	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)
		<b>Media</b>	External Flash — Recording Media Built-in Memory, SD Memory Card, SDHC Memory Card, MultiMediaCard (Still image only)	— Built-in Memory, SD Memory Card, SDHC Memory Card, MultiMediaCard (Still image only)
		<b>Audio</b>	Built-in Memory Approx. 50MB Microphone / Speaker Mono / Yes	Approx. 50MB Stereo / Yes
	<b>Interface</b>	Interface USB2.0 High speed / AV Output (Stereo Type, NTSC/PAL) / DC Input (requires optional Multi-Adapter)	miniHDMI, USB2.0 High speed / AV Output (Stereo Type, NTSC/PAL) / DC Input (requires optional Multi-Adapter)	
	<b>Power</b>	Power ID-Security Li-ion Battery Pack (3.6V, 895mAh) (Included), AC Adaptor (input: 110-240V AC) (Optional) Battery Life (approx.) 320 pictures (CIPA Standard)	ID-Security Li-ion Battery Pack (3.6V, 895mAh) (Included), AC Adaptor (input: 110-240V AC) (Optional) 320 pictures (CIPA Standard)	
	<b>Standard Package</b>	Included Software PHOTOmanSTUDIO v3.0, ArcSoft (MediaImpression / Panorama Maker), USB Driver, QuickTime Standard Accessories Battery Charger, Battery Pack, Battery Carrying Case, AV Cable, USB Connection Cable, AC Cable, Strap, CD-ROM	PHOTOmanSTUDIO 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, Strap, CD-ROM	

Notice: VIERA™ Link is a new name for EZ Sync™. Not All 2008 VIERA Link™ features are compatible with all 2006/2007 EZ Sync™ products.