

2010 LUMIX® FH1 FH3 DIGITAL CAMERA



FH1



FH3

28MM WIDE LENS WITH 5X OPTICAL ZOOM

Enjoy the benefits of a wide angle lens without giving up the performance of a zoom.



INTELLIGENT AUTO WITH MEGA O.I.S.

Automatically adjusts to ensure great photos under any condition.



SONIC SPEED AF

Lightning fast focus for capturing the action as it is taking place.

- 14.1 Megapixel (FH3)
- 12.1 Megapixel (FH1)
- Intelligent Scene Selector
- MEGA O.I.S. (Optical Image Stabilizer)
- Face Detection
- Auto Backlight Compensation
- HD Movie Recording

Panasonic® LUMIX®

2010 LUMIX® FH1/FH3 Digital Camera Specifications

METRICS	Dimensions (W x H x D) Weight	DMC-FH1/F10		DMC-FH3/F511	
		98.4 x 55.2 x 23.4 mm / excl. protrusions: 20.7 mm, (3.87 x 2.17 x 0.92 in / excl. protrusions: 0.81 in) Approx. 145g with Battery and SD Memory Card (0.32 lb); Approx. 123g without Battery and SD Memory Card (0.27 lb)		98.4 x 55.2 x 24.0 mm / excl. protrusions: 21.3 mm, (3.87 x 2.17 x 0.94 in / excl. protrusions: 0.84 in) Approx. 147g with Battery and SD Memory Card (0.32 lb); Approx. 125g without Battery and SD Memory Card (0.27 lb)	
OPTICS	Pixels	Camera Effective Pixels	12.1 Megapixels		14.1 Megapixels
	CCD	Sensor Size / Total Pixels / Filter	1/2.33-inch / 12.7 Total Megapixels / Primary Color Filter		1/2.33-inch / 14.5 Total Megapixels / Primary Color Filter
	Lens	Aperture	F2.8-6.9/2-Step (F2.8-9 [W]/F6.9-20 [T])		F2.8-6.9/2-Step (F2.8-9 [W]/F6.9-20 [T])
		Optical Zoom	5x		5x
		Focal Length	f=5-25mm (28-140mm in 35mm equiv.)		f=5-25mm (28-140mm in 35mm equiv.)
		Extra Optical Zoom (EZ)	6.1x(4.3 / 8M, 7.8x(4.3 / 5M, 9.8x(under 3M)		5.9x(4.3 / 10M, 8.4x(4.3 / 5M, 10.5x(under 3M)
		Intelligent Zoom	—		—
		Lens	LUMIX DC VARIO: 6 elements in 5 groups; (3 Aspherical Lenses / 5 Aspherical Surfaces)		LUMIX DC VARIO: 6 elements in 5 groups; (3 Aspherical Lenses / 5 Aspherical Surfaces)
		2-Speed Zoom	—		—
		Optical Image Stabilizer	MEGA O.I.S. (Off / Auto / Mode1 / Mode2)		MEGA O.I.S. (Off / Auto / Mode1 / Mode2)
		Conversion Lens Compatibility	4x		4x
		Digital Zoom	(Max. 20.0 x combined with Optical Zoom without Extra Optical Zoom); (Max. 39.2 x combined with Extra Optical Zoom)		(Max. 20.0 x combined with Optical Zoom without Extra Optical Zoom); (Max. 42.0 x combined with Extra Optical Zoom)
Focus	Focusing Area	Normal: Wide 50 cm - infinity / Tele 100 cm - infinity; Macro / Intelligent AUTO: Wide 5 cm - infinity / Tele 100cm - infinity		Normal: Wide 50 cm - infinity / Tele 100 cm - infinity; Macro / Intelligent AUTO: Wide 5 cm - infinity / Tele 100cm - infinity	
	Focus Range Display	Yes		Yes	
	AF Assist Lamp	Yes		Yes	
	Focus	Normal / Macro, Zoom Macro, Quick AF (Always On)		Normal / Macro, Zoom Macro, Quick AF (Always On)	
	AF Metering	Face / 9 pt/1pt		Face / 9 pt/1pt	
Shutter	Shutter Speed	Still: approx. 8 - 1/1600 sec; Starry Sky Mode : 15, 30, 60 sec		Still: approx. 8 - 1/1600 sec; Starry Sky Mode : 15, 30, 60 sec	
	Shutter Interval	approx. 1.1 sec		approx. 1.2 sec	
RECORDING	Finder	Viewfinder	—	—	—
	IA	Face Recognition	—	—	—
		Optical Image Stabilizer	Photo & Movie	Photo & Movie	Photo & Movie
		Intelligent ISO Control	Photo	Photo	Photo
		Face Detection	Photo	Photo	Photo
		Intelligent Scene Selector	Photo (Portrait, Scenery, Night Portrait, Night Scenery, Sunset, Macro)	Photo (Portrait, Scenery, Night Portrait, Night Scenery, Sunset, Macro)	Photo (Portrait, Scenery, Night Portrait, Night Scenery, Sunset, Macro)
		Intelligent Exposure	—	—	—
		AF Tracking	—	—	—
		Digital Red-Eye Correction (Red-Eye Removal)	Photo	Photo	Photo
		IA Direct Button	Yes	Yes	Yes
		Intelligent Resolution Technology	—	—	—
	File	File Format	Still Image: JPEG(DCF/Exif2.21); Motion picture: QuickTime Motion JPEG	Still Image: JPEG(DCF/Exif2.21); Motion picture: QuickTime Motion JPEG	Still Image: JPEG(DCF/Exif2.21); Motion picture: QuickTime Motion JPEG
RECORDING Modes	AVCHD Lite REC	—			
	Interface	Mode Switch	[Recording] / [Playback]	[Recording] / [Playback]	[Recording] / [Playback]
	One-Touch Movie Button	—	—	—	—
	Mode/Mode Button	Intelligent AUTO, Normal Picture, SCN, My SCN, Motion Picture	Intelligent AUTO, Normal Picture, SCN, My SCN, Motion Picture	Intelligent AUTO, Normal Picture, SCN, My SCN, Motion Picture	Intelligent AUTO, Normal Picture, SCN, My SCN, Motion Picture
	Still Image/Scene Mode	Portrait, Soft Skin, Transform, Self-Portrait, Scenery, Sports, Night Portrait, Night Scenery, Food, Party, Candle Light, Baby1, Baby2, Pet, Sunset, High sensitivity, Hi-Speed Burst, Flash Burst, Starry Sky, Fireworks, Beach, Snow, Aerial photo, Film Grain, Photo Frame	Portrait, Soft Skin, Transform, Self-Portrait, Scenery, Sports, Night Portrait, Night Scenery, Food, Party, Candle Light, Baby1, Baby2, Pet, Sunset, High sensitivity, Hi-Speed Burst, Flash Burst, Starry Sky, Fireworks, Beach, Snow, Aerial photo, Film Grain, Photo Frame	Portrait, Soft Skin, Transform, Self-Portrait, Scenery, Sports, Night Portrait, Night Scenery, Food, Party, Candle Light, Baby1, Baby2, Pet, Sunset, High sensitivity, Hi-Speed Burst, Flash Burst, Starry Sky, Fireworks, Beach, Snow, Aerial photo, Film Grain, Photo Frame	Portrait, Soft Skin, Transform, Self-Portrait, Scenery, Sports, Night Portrait, Night Scenery, Food, Party, Candle Light, Baby1, Baby2, Pet, Sunset, High sensitivity, Hi-Speed Burst, Flash Burst, Starry Sky, Fireworks, Beach, Snow, Aerial photo, Film Grain, Photo Frame
	Movie Scene Mode	—	—	—	—
	Continuous Shooting Mode	High-speed Burst Mode: approx. 5.5 frames/sec (image priority); (recorded in 3M for 4.3, 2.5M for 3.2, 2M for 16.9)	High-speed Burst Mode: approx. 4.6 frames/sec (image priority); (recorded in 3M for 4.3, 2.5M for 3.2, 2M for 16.9)	High-speed Burst Mode: approx. 4.6 frames/sec (image priority); (recorded in 3M for 4.3, 2.5M for 3.2, 2M for 16.9)	High-speed Burst Mode: approx. 4.6 frames/sec (image priority); (recorded in 3M for 4.3, 2.5M for 3.2, 2M for 16.9)
	Unlimited Consecutive Shooting	1.8 frames/sec	1.5 frames/sec	1.5 frames/sec	1.5 frames/sec
	Flash Burst Continuous Shooting Mode	Max. 5 images (Standard mode)			
	Motor Picture Recording	4.3: VGA: 640 x 480 pixels, 30fps (Motion JPEG); 16.9: WVG: 848 x 480 pixels, 30fps (Motion JPEG)	4.3: VGA: 640 x 480 pixels, 30fps (Motion JPEG); 16.9: WVG: 848 x 480 pixels, 30fps (Motion JPEG)	4.3: VGA: 640 x 480 pixels, 30fps (Motion JPEG); 16.9: WVG: 848 x 480 pixels, 30fps (Motion JPEG)	4.3: VGA: 640 x 480 pixels, 30fps (Motion JPEG); 16.9: WVG: 848 x 480 pixels, 30fps (Motion JPEG)
	HD Movie	1280x720 pixels, 30fps (Motion JPEG)			
Continuous Recordable Time (Motion Pictures)	AVCHD Lite with Picture Quality Set to [SH]	—	—	—	—
	MOTION_PEG with Picture Quality Set to [HD]	—	—	—	—
	AVCHD Lite with Picture Quality Set to [SH]	—	—	—	—
	MOTION_PEG with Picture Quality Set to [HD]	—	—	—	—
	Exposure Parameters	Program AE	Program AE	Program AE	Program AE
	Exposure Compensation	1/3 EV step, +/-2 EV			
	Backlight Compensation	Yes (only in Intelligent AUTO mode)			
	Auto (AE) Bracketing	—	—	—	—
	Multi-Aspect	—	—	—	—
	Light Metering	Intelligent Multiple	Intelligent Multiple	Intelligent Multiple	Intelligent Multiple
	ISO Sensitivity	ISO / 80 / 100 / 200 / 400 / 800 / 1600 / High Sensitivity (ISO 1600-6400)	ISO / 80 / 100 / 200 / 400 / 800 / 1600 / High Sensitivity (ISO 1600-6400)	ISO / 80 / 100 / 200 / 400 / 800 / 1600 / High Sensitivity (ISO 1600-6400)	ISO / 80 / 100 / 200 / 400 / 800 / 1600 / High Sensitivity (ISO 1600-6400)
	Max. Auto ISO Setting	—	—	—	—
Image Parameters	Aspect Ratio	4:3 / 2:3 / 16:9	4:3 / 2:3 / 16:9	4:3 / 2:3 / 16:9	4:3 / 2:3 / 16:9
	Still Picture Recording	4.3: 4000x3000(12M) / 3264x2448(8M EZ) / 2560x1920(5M EZ) / 2048X1536(3M EZ) / 640x480(0.3M EZ)- 3.2: 4000 x 2672 (10.5M) 16.9: 4000 x 2248 (9M)	4320x3240(14M) / 3648x2736(10M EZ) / 2560x1920(5M EZ) / 2048X1536(3M EZ) / 640X480(0.3M EZ)	4320x3240(14M) / 3648x2736(10M EZ) / 2560x1920(5M EZ) / 2048X1536(3M EZ) / 640X480(0.3M EZ)	4320 x 2880 (12.5M) 4320 x 2432 (10.5M)
	Image Quality	—	—	—	—
	White Balance	Auto / Daylight / Cloudy / Shade / Halogen / White Set (Selectable at Portrait, Soft Skin, Transform, Self-Portrait, Sports, Baby, Pet, High Sensitivity, Highspeed Burst, Photo Frame)	Auto / Daylight / Cloudy / Shade / Halogen / White Set (Selectable at Portrait, Soft Skin, Transform, Self-Portrait, Sports, Baby, Pet, High Sensitivity, Highspeed Burst, Photo Frame)	Auto / Daylight / Cloudy / Shade / Halogen / White Set (Selectable at Portrait, Soft Skin, Transform, Self-Portrait, Sports, Baby, Pet, High Sensitivity, Highspeed Burst, Photo Frame)	Auto / Daylight / Cloudy / Shade / Halogen / White Set (Selectable at Portrait, Soft Skin, Transform, Self-Portrait, Sports, Baby, Pet, High Sensitivity, Highspeed Burst, Photo Frame)
	Quick Menu	Yes	Yes	Yes	Yes
	Color Mode/Color Effect	Standard, Vivid, Natural, Black & White, Sepia, Cool, Warm	Standard, Vivid, Natural, Black & White, Sepia, Cool, Warm	Standard, Vivid, Natural, Black & White, Sepia, Cool, Warm	Standard, Vivid, Natural, Black & White, Sepia, Cool, Warm
	Picture Adjustment	—	—	—	—
	Others	Still Image with Audio Recording	—	—	—
		GPS	—	—	—
		Flip Animation	—	—	—
		Real-Time Histogram	—	—	—
PLAYBACK	Composition Guideline	Yes (1 pattern)	Yes (1 pattern)	Yes (1 pattern)	Yes (1 pattern)
	Auto Review	1sec, 2sec, Hold	1sec, 2sec, Hold	1sec, 2sec, Hold	1sec, 2sec, Hold
	Easy Zoom/Zoom Resume	No / No	No / No	No / No	No / No
	Optical Zoom in Motion Picture	—	—	—	—
	Macro Zoom	Yes	Yes	Yes	Yes
	Orientation Detector	Yes	Yes	Yes	Yes
	Scene Mode Help Screen	Yes	Yes	Yes	Yes
	Self Timer	2sec / 10sec	2sec / 10sec	2sec / 10sec	2sec / 10sec
	Focus Icon Select	Yes	Yes	Yes	Yes
	Display	Normal Playback, Slideshow, Category Playback, Favorites Playback			
	Thumbnail/Zoomed Playback	12.30-thumbnails / Max 16x			
SETUP	Calendar Display/Dual-Image Playback	Yes / No	Yes / No	Yes / No	Yes / No
	Playback Still Images with Audio	—	—	—	—
	Playback Motion Picture	Yes (Motion JPEG)	Yes (Motion JPEG)	Yes (Motion JPEG)	Yes (Motion JPEG)
	SlideShow Mode	All / Category / Favorites / BGM Effect (Natural / Slow / Swing / Urban / OFF)	All / Category / Favorites / BGM Effect (Natural / Slow / Swing / Urban / OFF)	All / Category / Favorites / BGM Effect (Natural / Slow / Swing / Urban / OFF)	All / Category / Favorites / BGM Effect (Natural / Slow / Swing / Urban / OFF)
	Show Histogram	—	—	—	—
	Show Highlights	—	—	—	—
	Delete Image	Single / Multi / All / All except Favorites	Single / Multi / All / All except Favorites	Single / Multi / All / All except Favorites	Single / Multi / All / All except Favorites
	DPOF Print Setting/Set Protection	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes
	Edit	Yes / Yes / Yes (only Baby, Pet, Travel)	Yes / Yes / Yes (only Baby, Pet, Travel)	Yes / Yes / Yes (only Baby, Pet, Travel)	Yes / Yes / Yes (only Baby, Pet, Travel)
	Resize/Trim/Aspect Conv./Leveling	—	—	—	—
	Copy/Title Edit/Text Stamp	—	—	—	—
	Cur Animation	—	—	—	—
	Video Divide	—	—	—	—
OTHERS	PrintBridge Support	Single / Multi / All / Favorites / DPOF	Single / Multi / All / Favorites / DPOF	Single / Multi / All / Favorites / DPOF	Single / Multi / All / Favorites / DPOF
	OSD Language	English/Spanish	English/Spanish	English/Spanish	English/Spanish
	Movie REC Guide	—	—	—	—
	Wind-Cut in Motion Picture	—	—	—	—
	Travel Date / World Time	Yes / Yes	Yes / Yes	Yes / Yes	Yes / Yes
OTHERS	Monitor	2.7" TFT Screen LCD Display (230K dots); Field of View: approx. 100%; AUTO Power LCD mode, Power LCD mode, High Angle mode	2.7" TFT Screen LCD Display (230K dots); Field of View: approx. 100%; AUTO Power LCD mode, Power LCD mode, High Angle mode	2.7" TFT Screen LCD Display (230K dots); Field of View: approx. 100%; AUTO Power LCD mode, Power LCD mode, High Angle mode	2.7" TFT Screen LCD Display (230K dots); Field of View: approx. 100%; AUTO Power LCD mode, Power LCD mode, High Angle mode
	Tough	Touch Panel	—	—	—
		Waterproof	—	—	—
		Dustproof	—	—	—
		Freezeproof	—	—	—
	Flash	Built-in Flash	Auto, Auto/Red-eye Reduction, Forced On, Slow Sync/Red-eye Reduction, Forced Off; 0.6 - 6.8m (Wide/ISO Auto), 1.0 - 2.7m (Tele/ISO Auto)	Auto, Auto/Red-eye Reduction, Forced On, Slow Sync/Red-eye Reduction, Forced Off; 0.6 - 6.8m (Wide/ISO Auto), 1.0 - 2.7m (Tele/ISO Auto)	Auto, Auto/Red-eye Reduction, Forced On, Slow Sync/Red-eye Reduction, Forced Off; 0.6 - 6.8m (Wide/ISO Auto), 1.0 - 2.7m (Tele/ISO Auto)
		External Flash	—	—	—
	Media	Recording Media	Built-in Memory, SD Memory Card, SDHC Memory Card, SDXC Memory Card	Built-in Memory, SD Memory Card, SDHC Memory Card, SDXC Memory Card	Built-in Memory, SD Memory Card, SDHC Memory Card, SDXC Memory Card
		Built-in Memory	Approx. 40MB	Approx. 40MB	Approx. 40MB
	Audio Interface	Microphone/Speaker	Mono / Yes	Mono / Yes	Mono / Yes
		Viera Link™	—	—	—
	Network	HDMI Output	AV Output (NTSC/PAL, NTSC only for N. America), USB2.0 Full-speed, DC Input (requires optional DC Coupler)	AV Output (NTSC/PAL, NTSC only for N. America), USB2.0 Full-speed, DC Input (requires optional DC Coupler)	AV Output (NTSC/PAL, NTSC only for N. America), USB2.0 Full-speed, DC Input (requires optional DC Coupler)
	Power	ID-Security Li-ion Battery Pack (3.6V, Minimum: 740mAh) (Included), AC Adaptor (Input: 110-240V AC) (Optional)	ID-Security Li-ion Battery Pack (3.6V, Minimum: 740mAh) (Included), AC Adaptor (Input: 110-240V AC) (Optional)	ID-Security Li-ion Battery Pack (3.6V, Minimum: 740mAh) (Included), AC Adaptor (Input: 110-240V AC) (Optional)	ID-Security Li-ion Battery Pack (3.6V, Minimum: 740mAh) (Included), AC Adaptor (Input: 110-240V AC) (Optional)
	Standard Package	Battery Life (approx.) Included Software Standard Accessories	310 pictures (CPA Standard)* PHOTOfunSTUDIO 5.0 Edition; QuickTime; Adobe Reader Battery Charger, Battery Pack, Battery Case, AV Cable, USB Cable, Hand Strap, CD-ROM	310 pictures (CPA Standard)* PHOTOfunSTUDIO 5.0 Edition; QuickTime; Adobe Reader Battery Charger, Battery Pack, Battery Case, AV Cable, USB Cable, Hand Strap, CD-ROM	310 pictures (CPA Standard)* PHOTOfunSTUDIO 5.0 Edition; QuickTime; Adobe Reader Battery Charger, Battery Pack, Battery Case, AV Cable, USB Cable, Hand Strap, CD-ROM

NOTE:

* Recording conditions by CIPA standard:
* CIPA is an abbreviation of [Cameras & Im-

- CPA is an abbreviation of [Camera & Imaging Products Association].
- Temperature: 23° C (73.4° F)/Humidity: 50% when LCD monitor is on.
- Using a Polarized 3D Monitor: 0.2~0.3 MP

- Using a Panasonic SD Memory Card (32 MB).
- Using the supplied battery.

Using the supplied battery.

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

- 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.

- Turning the camera off every 10 recordings and leaving it until the temperature of the battery decreases.
- The number of successive nickname decreases in both Power LCD Mode and Power LCD Mode.

- The number of recordable pictures decreases in Auto Power LCD Mode and Power LCD Mode.
- These are standard times taken at a temperature of 23° C (73.4° F) and a humidity of 50%.

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

* Actual recordable time is the time available for recording when repeating actions such as switching the power supply [ON] / [OFF], zoom operation etc.

* Motion picture recorded continuously in [MOTION JPEG] is up to 2 GB. Only the maximum recordable time for 2 GB is displayed.

* Motion pictures can be recorded continuously for up to 15 minutes in European PAL area.