

TYPE	Type	Digital interchangeable lens system camera		
	Recording media	SD memory card, SDHC memory card		
	Image sensor size	17.3 x 13.0 mm (in 4:3 aspect ratio)		
	Lens mount	Micro Four Thirds mount		
IMAGE SENSOR	Type	Live MOS Sensor		
	Total pixels	13.1 Megapixels		
	Camera effective pixels	12.1 Megapixels		
	Color filter	Primary color filter		
	Dust reduction system	Supersonic wave filter		
RECORDING SYSTEM	Recording file format	Still Image: JPEG(DCF, Exif 2.21), RAW, DPOF compatible		
		Still Image with Audio: JPEG(DCF, Exif 2.21) + QuickTime		
		Motion Image: AVCHD Lite / QuickTime Motion JPEG		
	Aspect ratio	4:3, 3:2, 16:9, 1:1		
	Image quality	RAW, RAW+Fine, RAW+Standard, Fine, Standard		
	Color space	sRGB, Adobe RGB		
	File size (Pixels)	Still Image	[4:3] 4000 x 3000(L), 2816 x 2112(M), 2048 x 1536(S)	
			[3:2] 4000 x 2672(L), 2816 x 1880(M), 2048 x 1360(S)	
			[16:9] 4000 x 2248(L), 2816 x 1584(M), 1920 x 1080(S)	
			[1:1] 2992 x 2992(L), 2112 x 2112(M), 1504 x 1504(S)	
		Motion Image	Motion JPEG	[4:3] QVGA : 320 x 240, 30fps / VGA : 640 x 480, 30fps
[16:9] WVGA : 848 x 480, 30fps				
[HD] 1280 x 720, 30fps				
	AVCHD Lite	NTSC	[HD] 1280 x 720, 60p (sensor output is 30fps)(SH: 17Mbps, H: 13Mbps, L: 9Mbps)	
		PAL	[HD] 1280 x 720, 50p (sensor output is 25fps)(SH: 17Mbps, H: 13Mbps, L: 9Mbps)	
Continuous recordable time (Motion images)		AVCHD Lite with picture quality set to [SH]: Approx. 210 min with H-H020 / Approx. 170 min with H-FS014045 Motion JPEG with picture quality set to [HD]: Approx. 210 min with H-H020 / Approx. 170 min with H-FS014045		
Actual recordable time (Motion images)		AVCHD Lite with picture quality set to [SH]: Approx. 110 min with H-H020 / Approx. 100 min with H-FS014045 Motion JPEG with picture quality set to [HD]: Approx. 110 min with H-H020 / Approx. 100 min with H-FS014045		
FOCUS	Type	Contrast AF system		
	Focus mode	AFS/AFC/MF		
	AF mode	Face detection / AF Tracking / 23-area-focusing / 1-area-focusing		
	AF detective range	EV 0-18 (F3.5 lens, ISO 100)		
	AF assist lamp	YES		
	AF lock	AF/AE LOCK button or Shutter button halfway pressed in AFs mode		
	Others	Pre AF(Quick AF/Continuous AF),AF+MF, MF Assist(5x, 10x)		
EXPOSURE CONTROL	Light metering system	144-zone multi-pattern sensing system		
	Light metering mode	Intelligent Multiple/Center Weighted/Spot		
	Metering range	EV 0-18 (F2.0 lens, ISO 100)		
	Exposure mode	Program AE, Aperture Priority AE, Shutter Priority AE, Manual		

	ISO sensitivity (Standard Output Sensitivity)	Auto / 100 / 200 / 400 / 800 / 1600 / 3200 / Intelligent ISO
	Exposure compensation	1/3EV Step \pm 3EV
	AE lock	AF/AE LOCK button or Shutter button halfway pressed
	AE bracket	3,5,7 frame, in 1/3 or 2/3 EV Step, \pm 2 EV
WHITE BALANCE	White balance	Auto / Daylight / Cloudy / Shade / Halogen / Flash / White Set 1,2 / Color temperature setting
	White balance adjustment	Blue/amber bias, Magenta/green bias
	Color temperature setting	2500-10000K in 100K
	White balance bracket	3 exposures in blue/amber axis or in magenta/green axis
SHUTTER	Type	Focal-plane shutter
	Shutter speed	Still Images: 1/4000 ~ 60 and Bulb (up to approx. 4minutes)
	Self timer	2sec / 10sec / 10sec, 3 images
	Remote control	Remote control with bulb function by DMW-RSL1 (Optional)
SCENE MODE	Still Image SCN mode	Portrait/Soft Skin/Scenery/Architecture/Sports/Peripheral Defocus/Flower/Food/Objects/Night Portrait/Night Scenery/Illuminations/Baby 1,2/Pet/Party/Sunset
	Movie SCN mode	Portrait/Soft Skin/Scenery/Architecture/Sports/Flower/Food/Objects/Low Light/Party/Sunset (Activated by selecting Still Image SCN mode then pressing Movie Button. Still Image SCN modes without corresponding Movie SCN mode is recorded in Normal mode or other related mode.)
MY COLOR MODE	My Color Mode	Expressive/Retro/Pure/Elegant/Monochrome/Dynamic Art/Silhouette/Custom(Color/Brightness/Saturation/ adjustable)
BURST SHOOTING	Burst speed	3 frames/sec (High speed) or 2 frames/sec (Low speed)
	Number of recordable images	7 images (when there are RAW files with the particular speed) Unlimited consecutive shooting (when there are no RAW files) (depending on memory card size, battery power, picture size, and compression)
BUILT-IN-FLASH	Type	TTL Built-in-Flash, GN6.0 equivalent (ISO 100 •m), Built-in Pop-up
	Flash mode	Auto, Auto/Red-eye Reduction, Forced On, Forced On/Red-eye Reduction, Slow Sync., Slow Sync./Red-eye Reduction, Forced Off
	Synchronization speed	Less than 1/160 second
	Flash output adjustment	1/3EV Step \pm 2EV
	Flash synchronization	1st. Curtain Sync, 2nd Curtain Sync.
	Hot shoe	TTL Auto with FL220/FL360/FL500(Optional)
LCD MONITOR	Type	Low temperature Polycrystalline TFT LCD
	Monitor size	3.0inch / 3:2 Aspect / Wide viewing angle
	Pixels	460K dots
	Field of view	Approx. 100%
	Monitor adjustment	Brightness (7 levels), Color (7 levels)
	LCD mode	Off / Auto Power LCD / Power LCD
LIVE VIEW	Digital zoom	2x, 4x
	Extra optical zoom	Max.2x (Not effective with L size recording. Magnification ratio depends on the recording pixels and aspect ratio.)
	Other functions	Guide Lines (3 patterns)
		Real-time Histogram

FILM MODE	Color	Standard / Dynamic / Nature / Smooth / Nostalgic / Vibrant
	Black and white	Standard / Dynamic / Smooth
	Others	My Film1 / My Film2 / Multi Film
PLAYBACK	Playback mode	Normal playback, 30-thumbnail display, 12-thumbnail display, Calendar display, Zoomed playback (16x Max.), Slideshow, Playback Mode (Normal/Picture/AVCHD Lite/Motion JPEG/Category/Favorite), Title Edit, Text Stamp, Resize, Trimming, Aspect Conversion, Rotate, Rotate Display, Print Set, Protect, Audio Dubbing
IMAGE PROTECTION / ERASE	Protection	Single / Multi or Cancel
	Erase	Single / Multi / All / Except Favorite
PRINT	Direct print	PictBridge compatible (Print size, Layout, Date setting is selectable)
INTERFACE	USB	USB 2.0 High Speed
	HDMI	miniHDMI TypeC Video: Auto / 1080i / 720p / 480p (576p in PAL system) Audio: Dolby® Digital Creator
	Audio video output	Monaural Type, NTSC/PAL, NTSC only for North America *Check the website of the Panasonic sales company in your country or region for details on the products that are available in your market.
	Remote	φ2.5mm.
	Built-in microphone	Monaural, Wind-cut: Off / Low / Standard / High
	External microphone terminal	NO
	Speaker	YES
LANGUAGE	OSD language	English, German, French, Italian, Spanish, Polish, Czech, Hungarian, Russian, Chinese (Traditional), Chinese (Simplified), Dutch, Thai, Korean, Turkish, Portuguese, Arabic, Persian, Japanese, Swedish, Danish, Finnish *Check the website of the Panasonic sales company in your country or region for details on the OSD languages on the products that are available in your market.
POWER	Battery	ID-Security Li-ion Battery Pack (7.2V, 1250mAh) (Included) Battery Charger/AC Adapter (Input: 110-240V AC, DC Cable is required)
	Battery life	CIPA Standard*: Approx. 380 images(LCD), Approx. 430 images(optional LVF) with H-H020 Approx. 350 images(LCD), Approx. 400 images(optional LVF) with H-FS014045
DIMENSIONS / WEIGHT	Dimensions (W x H x D)	119 x 71 x 36.3mm / 4.69 x 2.80 x 1.43 in
	Weight	Approx. 285g / 10.05 oz (Body only)
OPERATING ENVIRONMENT	Operating temperature	0°C to 40°C (32° F to 104° F)
	Operating humidity	10% to 80%
STANDARD ACCESSORIES	Software	PHOTOfunSTUDIO 4.0 HD Edition SILKYPIX® Developer Studio 3.0 SE USB Driver
	Standard accessories	Battery Charger/AC Adapter, Battery Pack, Body Cap, AV Cable, USB Connection Cable, AC Cable, Shoulder Strap, CD-ROM