2010 LUMIX®
FH20
DIGITAL CAMERA

ULTRA COMPACT 28MM LENS AND 8X OPTICAL ZOOM
Easily bring your images closer without losing picture quality in an ultra compact camera.

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
- 28mm Wide Angle Lens
- HD Movie Recording
- Fast Start-Up Time
- Venue Engine IV for Advanced Signal Processing
- Auto Backlight Feature

Panasonic® LUMIX®

PANASONIC

2010 LUMIX® DMC-FH20 Digital Camera Specifications

		DMC-FH20/FS30
METRICS	Dimensions (W x H x D)	100.0 x 56.5 x 27.8 mm/excl. protrusions: 22.4 mm (3.94 x 2.22 x 1.09 in/excl. protrusions: 0.88 in)
	Weight	Approx. 160g with Battery and SD Memory Card (0.35 lb) Approx. 138g without Battery and SD Memory Card (0.30 lb)
OPTICS	Pixels — Camera Effective Pixels	14.1 Megapixels
	CCD — Sensor Size / Total Pixels / Filter	1/2.33-inch/14.5 Total Megapixels/Primary Color Filter
	Lens — Aperture	F3.3−5.9/2-Step [F3.3−10 [W]/F5.9−18 [T]]
	Optical Zoom	8x
	Focal Length	f=5-40mm (28-224mm in 35mm equiv.)
	Extra Optical Zoom (EZ)	9.5x (4:3/10M), 11.3x (4:3/7M), 13.5x (5M) 16.9x(under 3M)
	Intelligent Zoom	
	Lens	LUMIX DC VARIO 9 elements in 7 groups (3 Aspherical Lenses/6 Aspherical Surfaces)
	2-Speed Zoom	
	Optical Image Stabilizer	MEGA O.I.S. (Off/Auto/Mode1/Mode2)
	Conversion Lens Compatibility	
	Digital Zoom	4x (Max. 32.0 x combined with Optical Zoom without Extra Optical Zoom) (Max. 67.5 x combined with Extra Optical Zoom)
	Focus — Focusing Area	Normal: Wide 50 cm−infinity/Tele 200 cm−infinity Macro/Intelligent AUTO : Wide 5 cm−infinity/Tele 100cm−infinity
	Focus Range Display	Yes
	AF Assist Lamp	Yes
	Focus	Normal/Macro, Zoom Macro, Quick AF (Always On)
	AF Metering	Face/9 pt/1pt
	Shutter — Shutter Speed	Still: approx. 8−1/1600 sec Starry Sky Mode : 15, 30, 60sec
	Shutter Interval	approx. 1.2 sec
	Finder — Viewfinder	—
RECORDING	iA — Face Recognition	—
	Optical Image Stabilizer	Photo & Movie
	Intelligent ISO Control	Photo
	Face Detection	Photo
	Intelligent Scene Selector	Photo (Portrait, Scenery, Night Portrait, Night Scenery, Sunset, Macro)
	Intelligent Exposure	
	AF Tracking	
	Digital Red Eye Correction (Red-Eye Removal)	Photo
	iA Direct Button	Yes
	Intelligent Resolution Technology	
	File — File Format	Still Image: JPEG(DCF/Exif2.21) Motion picture: QuickTime Motion JPEG
	AVCHD Lite REC	
	Interface — Mode Switch	[Recording]/[Playback]
	One-Touch Movie Button	
	Recording Modes — Mode Dial/Mode Button	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
	Movie Scene Mode	
	Continuous Shooting Mode	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	1.5 frames/sec
	Flash Burst Continuous Shooting Mode	Max. 5 images (Standard mode)
	Motion Picture Recording — 4:3	VGA: 640 x 480 pixels, 30fps (Motion JPEG) QVGA: 320 x 240 pixels, 30 fps (Motion JPEG)
	16:9	WVGA: 848 x 480 pixels, 30 fps (Motion JPEG)
	HD Movie	1280x720 pixels, 30fps (Motion JPEG)
	Continuous Recordable Time (Motion Pictures) — AVCHD Lite with Picture Quality set to [SH]	—
	MOTION JPEG with Picture Quality set to [HD]	—
	Actual Recordable Time (Motion Pictures) — AVCHD Lite with Picture Quality set to [SH]	—
	MOTION JPEG with Picture Quality set to [HD]	—
	Exposure Parameters — Exposure	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
	ISO Sensitivity	i.ISO/80/100/200/400/800/1600 High Sensitivity (ISO 1600-6400)
	Max Auto ISO Setting	
	Image Parameters — Aspect Ratio	4:3/3:2/16:9
	Still Picture Recording — 4:3	4320x3240(14M)/3648x2736(10M EZ)/2560x1920(5M EZ)/2048X1536(3M EZ)/640X480(0.3M EZ)
	3:2	4320 x 2880 (12.5M)
	16:9	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)
	Quick Menu	Yes
	Color Mode/Color Effect	Standard, Vivid, Natural, Black & White, Sepia, Cool, Warm
	Picture Adjustment	
	Others — Still Image with Audio Recording	—
	GPS	—
	Flip Animation	—
	Real-time histogram	—
	Composition Guide line	Yes (1 pattern)
	Auto Review	1sec, 2sec, Hold
	Easy Zoom/Zoom Resume	No/No
	Optical Zoom in Motion Picture	—
	Macro Zoom	Yes
	Orientation Detector	Yes
	Scene Mode Help Screen	Yes
	Self Timer	2sec/10sec
	Focus Icon Select	Yes
PLAYBACK	Display — Playback Mode	Normal Playback, Slideshow, Category Playback, Favorites Playback
	Thumbnails/Zoomed Playback	12,30-thumbnails/Max 16x
	Calendar Display/Dual-Image Playback	Yes/No
	Set Favorites/Rotate Image	Yes/No
	Playback Still Images with Audio	—
	Playback Motion Picture	Yes (Motion JPEG)
	Slideshow Mode	All/Category/Favorites/BGM Effect (Natural/Slow/Swing/Urban/OFF)
	Show Histogram	—
	Show Highlights	—
	Delete — Delete Image	Single/Multi/All/All except Favorites
	DPOF Print Setting/Set Protection	Yes/Yes
	Edit — Resize/Trim/Aspect Conv./Leveling	Yes/Yes/No/No
	Copy/Title Edit/Text Stamp	Yes/No/Yes (only Baby, Pet, Travel)
	Cut Animation	
	Video Divide	
	PictBridge Support	Single/Multi/All/Favorites/DPOF
SETUP	OSD language	English/Spanish
	Movie REC Guide	—
	Wind-Cut in Motion Picture	—
	Travel Date/World Time	Yes/Yes
OTHERS	Monitor — LCD Monitor	2.7" TFT Screen LCD Display (230K dots) Field of View: approx. 100% AUTO Power LCD mode, Power LCD mode, High Angle mode
	Touch Panel	—
	Tough — Water Proof	—
	Dust Proof	—
	Freeze Proof	—
	Shock Proof	—
	Flash — Built-in-Flash	Auto, Auto/Red-eye Reduction, Forced On, Slow Sync./Red-eye Reduction, Forced Off 0.6−5.8m (Wide/ISO Auto), 1.0−3.2m (Tele/ISO Auto)
	External Flash	—
	Media — Recording Media	Built-in Memory, SD Memory Card, SDHC Memory Card, SDXC Memory Card
	Built-in-Memory	Approx. 40MB
	Audio — Microphone/Speaker	Mono/Yes
	Interface — Interface	AV Output (NTSC), USB2.0 Full-speed, DC Input (requires optional DC Coupler)
	Network — Viera Link	—
	HDMI output	—
	Power — Power	ID-Security Li-ion Battery Pack (3.6V, Minimum: 740mAh) (Included) AC Adaptor (Input: 110-240V AC) (Optional)
	Battery life (approx.)	300 pictures (CIPA Standard)ʼ¹
	Standard Package — Included Software	PHOTOfunSTUDIO 5.0 Edition, QuickTime, Adobe Reader
	Standard Accessories	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 [Camera & Imaging Products Association].
• Temperature: 23 oC (73.4 oF)/Humidity: 50% while LCD monitor is on.
• Using a Panasonic SD Memory Card (32 MB).
• 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 recordable pictures decreases in Auto Power LCD Mode and Power LCD Mode.

• These are standard times taken at a temperature of 23 oC (73.4 oF) 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], starting/stopping recording, 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 on the screen."