

Specifications

Main Unit Specs	
Standard Definition or High Definition	High Definition
Power Supply (Rated)	7.4V DC (Battery Pack), 8.4V DC (DC IN)
Television System	NTSC
Video Recording System	Compression: MPEG-4 AVC/H.264 File Format: AVCHD Ver 2.0 Compliant (AVCHD Progressive), MP4
Audio Recording System	AVCHD: Linear PCM (2ch)* / Dolby Digital (2ch) MP4: MPEG-2 AAC-LC (2ch) * 28 Mbps or 24 Mbps video recording modes only; 16-bit resolution.
Image Sensor	1/2.84-inch CMOS, RGB Primary Color Filter
Total Pixels	Approx. 3.09 megapixels (2208 x 1398)
Effective Pixels	Approx. 2.91 megapixels (2136 x 1362)
Lens	Zoom Ratio: 20x Optical / 400x Digital Focal Length: 3.67–73.4mm (35mm equivalent: 26.8–576mm with Standard IS/IS Off, 28.8–576mm with Dynamic IS) Zoom Speed: Variable speed / Constant speed (16 levels); Fast, Normal or Slow Max. F/Stop: f/1.8–2.8
Focusing System	Hybrid AF (TTL-video signal detection system and external phase difference metering system), Normal AF (TTL-video signal selection system), Face Only AF, Manual Focus Hybrid AF Controls: Instant AF, Medium AF
Manual Exposure	Available
Exposure Control	Auto Mode: Smart Auto Manual Mode: P, Tv, Av, M (Manual Exposure), SCN (Portrait, Sports, Snow, Beach, Sunset, Night, Low Light, Spotlight, Fireworks) Cinema Mode: P, Tv, Av, M
Maximum Shutter Speed	1/2000 sec.
Minimum Focusing Distance	20mm (at wide end), 60cm (from lens front) across zooming range
White Balance	Auto, Preset (Daylight, Shade, Cloudy, Tungsten, Fluorescent H, Fluorescent), Color Temperature Settings (2,000–15,000K), Set (1/2)
Frame Rate	AVCHD: 60p, 60i, PF29.97, 24p MP4: 60p, 30p, 24p
Minimum Illumination	P Mode: Approx. 1.2 lux (shutter speed 1/30 sec., with auto slow shutter on) Low Light Mode: Approx. 0.1 lux (shutter speed 1/2 sec.)
Image Stabilization	Optical system (lens shift) + electronic stabilization Control Modes: Dynamic IS, Powered IS*, Macro IS, Tripod Mode IS Modes other than Intelligent IS: Standard IS, IS Off * During Intelligent IS (Auto Mode), Powered IS can be set to On or Off.

Filter Diameter	58mm
Viewfinder	0.24-inch TFT wide color LCD screen, approx. 1.56 million dots, 100% field of view
LCD Touch Panel	3.0-inch LCD panel with AR surface treatment, approx. 460,000 dots, 100% field of view
Microphone	Stereo (using electret condenser microphone)
Recording Media	2 SD/SDHC/SDXC memory card slots
USB Terminal	mini-B receptacle and Hi-Speed USB supported (output only)
Accessory Shoe	Cold shoe
Video Terminal	3.5mm diameter 4-pole mini-jack (video/audio output only)
HDMI Terminal	HDMI™ mini connector
Microphone Terminal	3.5mm diameter stereo mini-jack, MIC/LINE switching possible
AV Mini Terminal/ Headphone Terminal	3.5mm stereo mini-jack
Remote Control Terminal	2.5mm stereo mini jack (input only)
Handle Unit Terminals	Input Terminal: XLR 3 pin-jacks (2 systems), MIC/LINE switch possible (input only) Shoe Terminal: Cold shoe
Operating Temperature Range	For Performance: Approx. 0–40°C, 85% (relative humidity) For Operation: Approx. -5–45°C, 60% (relative humidity)
Dimensions	Approx. 4.3 x 3.3 x 7.2 in. / 109 x 84 x 182mm (excluding lens hood, mic holder unit and handle unit) Approx. 4.5 x 3.3 x 9.1 in. / 115 x 84 x 231mm (including lens hood; excluding mic holder unit and handle unit) Approx. 5.2 x 7.1 x 9.1 in. / 131 x 180 x 231mm (including lens hood, mic holder unit and handle unit) All dimensions exclude the grip belt.
Weight	Approx. 1.6 lbs. / 745g (body only) Approx. 2.5 lbs. / 1135g (includes lens hood, mic holder unit, handle unit, Battery Pack BP-820 and 1 memory card) Grip belt included for all values.

Recording Modes

Recording Format	Bit Rate	Resolution	Frame Rate
AVCHD	28 Mbps (59.94P)*1,2	1920 x 1080	59.94P*3
	24 Mbps*1	1920 x 1080	59.94i/PF29.97/23.98P*3
	17 Mbps	1920 x 1080	59.94i/PF29.97/23.98P*3
	5 Mbps	1440 x 1080	59.94i/PF29.97/23.98P*3
MP4	35 Mbps (59.94P)*2	1920 x 1080	59.94P
	24 Mbps	1920 x 1080	29.97P/23.98P*4
	17 Mbps	1920 x 1080	29.97P/23.98P*4
	8 Mbps*2	1280 x 720	59.94P
	4 Mbps	1280 x 720	29.97P/23.98P*4
	3 Mbps	640 x 360	29.97P/23.98P*4

*1 During audio recording, either linear PCM recording or standard recording (Dolby Digital) can be selected.

*2 Cannot be set in Cinema mode.

*3 In AUTO mode: 59.94i.

*4 In AUTO mode: 29.97P only.

Maximum Recording Time

AVCHD	Recording Mode			
Memory Capacity	28 Mbps	24 Mbps	17 Mbps	5 Mbps
8 GB	35 min.	40 min.	1 hr.	3 hr.
16 GB	1 hr. 15 min.	1 hr. 25 min.	2 hr. 5 min.	6 hr. 5 min.
32 GB	2 hr. 30 min.	2 hr. 55 min.	4 hr. 10 min.	12 hr. 15 min.
64 GB	5 hr. 5 min.	5 hr. 55 min.	8 hr. 20 min.	24 hr. 30 min.
128 GB	10 hr. 10 min.	11 hr. 55 min.	16 hr. 45 min.	49 hr.

MP4	Recording Mode					
Memory Capacity	35 Mbps	24 Mbps	17 Mbps	8 Mbps	4 Mbps	3 Mbps
8 GB	30 min.	40 min.	1 hr.	2 hr. 10 min.	4 hr. 20 min.	5 hr. 40 min.
16 GB	1 hr.	1 hr. 25 min.	2 hr. 5 min.	4 hr. 20 min.	8 hr. 40 min.	11 hr. 25 min.
32 GB	2 hr.	2 hr. 55 min.	4 hr. 10 min.	8 hr. 40 min.	17 hr. 20 min.	22 hr. 55 min.
64 GB	4 hr.	5 hr. 55 min.	8 hr. 20 min.	17 hr. 20 min.	34 hr. 45 min.	45 hr. 55 min.
128 GB	8 hr.	11 hr. 55 min.	16 hr. 45 min.	34 hr. 45 min.	69 hr. 30 min.	91 hr. 55 min.

When AVCHD/MP4 recording has continued for 12 hours, it will automatically stop. A variable bit rate is applicable in each case.