

## Specifications

Main Unit Specs	
Standard Definition or High Definition	High Definition
Power Supply (rated)	7.4 V DC (battery pack), 8.4 V DC (DC IN)
Television System	NTSC
Recording Format	AVCHD / MP4
Video Recording System	MPEG-4 AVC / H.264
Audio Recording System	Linear PCM (2ch)*, Dolby Digital (2ch) / MPEG-2 AAC-LC (2ch) *28 Mbps/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	<b>Zoom Ratio:</b> 20x Optical / 400x Digital  <b>Focal Length:</b> 3.67-73.4mm (35mm equivalent: 26.8-576mm with Standard IS/IS Off, 28.8-576mm with Dynamic IS)  <b>Zoom Speed:</b> Variable speed / Constant speed (16 levels); Fast, Normal or Slow  <b>Max. F/Stop:</b> f/1.8-2.8
Focusing System	Hybrid AF (TTL-video signal detection system and external phase difference metering system): Instant AF, Medium AF, Normal AF (TTL-video signal selection system), Face Only AF, Manual Focus
Manual Exposure	Available
Programmed AE	Auto Mode: 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
Max Shutter Speed	1/2000 sec.
Minimum Focusing Distance	20mm (wide end) / 60cm (across zooming range)
White Balance	Auto, Daylight, Shade, Cloudy, Tungsten, Fluorescent, Fluorescent H
Frame Rate	<b>AVCHD</b> – 1080: 59.94P / 59.94i / PF29.97 / 23.98P <b>MP4</b> – 1080: 59.94P / 29.97P / 23.98P; 720 and 360: 29.97P / 23.98P
Minimum Illumination	Auto Mode: Approx. 1.2 lux (shutter speed 1/30 sec. and with auto slow shutter on) Low Light Mode: Approx. 0.1 lux (shutter speed 1/2 sec.)

<b>Image Stabilization</b>	<p>Optical system (lens shift) + electronic stabilization</p> <p>Control Modes:</p> <ul style="list-style-type: none"> <li>• Dynamic IS</li> <li>• Powered IS*</li> <li>• Macro IS</li> <li>• Tripod Mode</li> </ul> <p>*During Intelligent IS (Auto Mode), Powered IS can be set to On or Off.</p> <p>IS Modes other than Intelligent IS:</p> <ul style="list-style-type: none"> <li>• Standard IS</li> <li>• IS Off</li> </ul>
<b>Filter Diameter</b>	58mm
<b>Viewfinder</b>	0.24-inch, TFT Widescreen color LCD (Equivalent to approx. 1.56 million dots; 100% field of view)
<b>LCD Screen</b>	3.5-inch OLED, Capacitive Touch Panel (Approx. 1.23 million dots)
<b>Recording Media</b>	2 SD/SDHC/SDXC memory card slots
<b>USB Terminal</b>	mini-B receptacle and Hi-Speed USB supported (output only)
<b>HD/SD-SDI Terminal</b>	N/A
<b>Accessory Shoe</b>	Cold shoe
<b>HDMI Terminal</b>	HDMI OUT mini connector
<b>Microphone Terminal</b>	3.5mm diameter stereo mini-jack, MIC/LINE switching possible
<b>A/V Mini Terminal/ Headphone Terminal</b>	3.5mm diameter 4-pole mini-jack (video/audio output only)
<b>Headphone Terminal</b>	3.5mm stereo mini-jack
<b>Remote Control Terminal</b>	2.5mm stereo mini-jack (input only)
<b>Operating Temperature Range</b>	Approx. -5–45°C, 60% relative humidity (operation) Approx. 0–40°C, 85% relative humidity (performance)
<b>Dimensions (W x H x D)</b>	4.3 x 3.3 x 7.2 in. / 109 x 84 x 182mm (Not including lens hood, grip belt, microphone holder and handle unit)
<b>Weight</b>	Approx. 1.7 lb. / 765g (includes grip belt)

### Maximum Recording Time

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