

Camera	
<b>Image Sensor</b>	
Sensor	1/2.84 type HD CMOS Pro
System	Bayer pattern filter
Total pixels per sensor	Approx. 3.09 megapixels
Effective pixels per sensor	Approx. 2.91 megapixels (2136 x 1362)
Minimum illumination	Auto: 1.0 lux Slow Shutter: 0.1 lux
Horizontal Resolution	1000 TV lines or more (Full HD recording)
<b>Lens</b>	
Zoom ratio	20x
Focal length	26.8 - 576mm (35mm equivalent / 28.8-576mm with Dynamic IS on)
Minimum focus distance	60cm (throughout zoom range); 10mm (wide angle)
ND filter	Built-in gradation filter (Auto or Off)
Zoom control	Zoom rockers on body and handle; Selectable manual zoom/focus ring on lens; Selectable High Speed and Soft Zoom modes available.
Zoom speed	Variable (body rocker only) or Constant speed (body and handle rocker; Fast/Normal/Slow, 16 speed level settings in each)
Focus control	MANUAL: Lens ring, Touchscreen OLED (touch Focus, Touch and Track), Focus Preset AUTO: Face Priority AF / Face Only AF / Instant AF / Medium AF / TV AF
Iris control	Custom dial; Touchscreen; Auto
Aperture range	f1.8 - f8
Filter diameter	58mm
Lens elements/groups	12/10
Aperture blades	8 Blade Circular Aperture
Image stabilization system	Optical lens shift system (angle & vector movement detection) + electronic stabilisation; 4 modes: Intelligent (Auto), Dynamic, Standard, Powered
Digital zoom	Up to 400x; Built-in 2x Digital Teleconverter (cannot be used with Digital Zoom)
<b>Image Processor</b>	
Type	DIGIC DV 4
<b>Recording</b>	
Video storage media	SDXC/SDHC/SD memory card (2 card slots); Dual Format recording, Double slot (simultaneous) recording and Relay (continuous) recording possible. <sup>1</sup>
Type	Class 6 (or higher) cards recommended for 1080/50P recording; Class 4 (or higher) cards recommended for other Full HD recording
Recording time	128GB SDXC card: 10hrs 10mins (AVCHD max. quality) <sup>1</sup> 8hrs 00mins (MP4 max. quality) <sup>1</sup> 91hrs 55mins (MP4 lowest quality) <sup>1</sup>
Recording file format	AVCHD Progressive (v2.0, high profile); MP4
Recording format	AVCHD (all modes variable bit rate, 4:2:0 colour sampling): 1920x1080: 50p (28Mbps, linear PCM audio available); 1920x1080: 50i/PF25 (24Mbps, 17Mbps); 1440x1080: 50i/PF25 (5Mbps)  MP4 (all modes variable bit rate, 4:2:0 colour sampling): 1920x1080: 50p (35Mbps); 1920x1080: 25P (24Mbps, 17Mbps); 1280x720: 25P (4Mbps); 640x360: 25P (3Mbps)
Slow/Fast motion	YES (MP4 HD mode only, 2x fast motion, 0.5x slow motion)
Interval Record	NO
Frame Record	NO
Pre Record (cache record)	YES (3 seconds)
Scan Reverse	NO
HD->SD conversion	YES (AVCHD to MP4)
Internal Data Transfer	MOVIE & STILL: Yes (card to card)
Photo storage media	SDXC/SDHC/SD memory card
Still quality	During video recording or playback: 1920 x 1080/1280 x 720/640 x 360
<b>System</b>	
<b>Monitoring Panel</b>	
Type	Capacitive Organic LED
Size	8.8cm (3.5"), 100% view
Dots	1.23 million-dot equivalent
Image quality adjustments	Brightness, backlight, OLED colour balance
Adjustable	YES (270 degree rotation about horizontal axis)
Waveform Monitor	NO
Focus Assist	Peaking; Magnifying
Peaking	YES
Zebra	YES (70% or 100% reference level)
Markers	ON/OFF (Level, Grid)

<b>EVF</b>	
Size	0.61cm (0.24"), 100% view
Dots	1.56 million dots equivalent
Adjustable	YES (tiltable to 45 degrees)
Correction lens	+ 2.0 to -5.5 diopter
<b>Inputs/Outputs</b>	
Audio in	XLR inputs with 48V phantom power (x2), 3.5mm microphone input jack
Headphone output	3.5mm stereo jack
Video monitor output	NO
HDMI	YES (HDMI™ mini connector, output only, 1080/50p output possible)
IEEE 1394 (Firewire)	NO
USB	YES (Mini-B, USB 2.0 Hi-Speed, output only)
HD/SD-SDI output	YES (576i, 720P or 1080i, output only, embedded audio and time code)
Time code	YES (Embedded in SDI output; superimposed on HDMI Output signal)
Genlock	NO
Component out	NO
AV terminal	3.5mm mini jack (output only for video and audio)
DC input	YES
Remote Control Terminal	2.5mm mini jack
Colour Bars	YES (SMPTE or EBU), with 1KHz Tone
<b>Misc</b>	
Tally lamp	YES, in detachable handle
Accessory shoe	YES (cold shoe)
Custom key	YES (5 assignable buttons; select from 22 functions)
Custom Dial	YES (Shutter Priority (Tv), Aperture Priority (Av), Manual Exposure, exposure compensation, AGC limit)
<b>Shooting functions</b>	
<b>Exposure</b>	
Exposure metering	Centre-weighted average or segment evaluative (determined by shooting mode); No metering: Fireworks mode, Fixed exposure (1/50 sec.)
Exposure compensation	-3 to +3 EV (12 steps); Backlight Correction available (Auto or always on)
Auto Exposure mode	Smart Auto, Face Detection AE; Manual control via Touch Exposure and Exposure Compensation functions.
Push Auto Iris	YES (via touchscreen)
Exposure Lock	YES
Auto Gain Control setting	Auto / Manual
Auto Gain Control limit	0 to 24dB, 1dB increments (0 to 18dB in Cinema Mode)
Gain setting	0 to 24dB, 1dB increments (0 to 18dB in Cinema Mode)
<b>Shutter speed</b>	
Control Modes	Full Auto / Manual control (touchscreen LCD or control dial)
Shutter speed	1/6 to 1/2000 (depending on Scene Mode and frame rate)
Clear Scan	NO
<b>Infrared</b>	
Infrared shooting mode	YES (green or white)
Built-in IR lamp	YES, in detachable handle
<b>3D Shooting Assist</b>	
OIS Axis Shift	NO
Focal Length Guide	NO
<b>Shooting Modes</b>	
Smart AUTO	YES
Program AE	AUTO; M mode: P, Tv, Av, M (manual exposure), SCN (Portrait, Sports, Snow, Beach, Sunset, Night, Low Light, Spotlight, Fireworks); Cinema mode: P, Tv, Av, M
Cinema Features	Cinema-Look Filter (9 options, including customisable 'Cinema Standard')
Image Effects	Brightness, Contrast, Sharpness, Colour Depth
<b>Wi-Fi &amp; GPS Specifications</b>	
Wireless LAN standards	IEEE 802.11b/g/n (2.4GHz band) / IEEE 802.11a/n (5GHz band) <sup>2</sup>
Supported Wi-Fi Functions	Remote Operation; Movie Uploader (YouTube and Facebook) <sup>3</sup> ; Playback (in browser); Media Server; FTP File Transfer
Supported Browser for Remote Operation	Internet Explorer 8 or later, Safari (iOS), Safari (MacOS), Android standard browser
Remote Operation Control Features	Aperture, Focus, WB, shutter Speed, Gain, Exposure Compensation, Shooting Mode, Slot select, Start/Stop Recording
Live view image Resolution	Camera setting mode: 680 x 383; Simplified setting: 284 x 160
Authentication Systems	Open/WPA-PSK/WPA2-PSK
Encryption	WEP64, WEP128, TKIP, AES
GPS Information (Optional Accessory)	Latitude/Longitude/Elevation, Coordinated Universal Time (UTC)
<b>White balance</b>	
Auto	YES
Preset	6: Daylight, Shade, Cloudy, Tungsten (incandescent lamps or halogen bulbs), Fluorescent H (3-wavelength type fluorescent), Fluorescent (white fluorescent)
Manual setting	Set 1, Set 2, Colour Temperature (2,000–15,000 K, 100K steps)
<b>Countup system</b>	
Countup system	Regen/Rec Run/Free Run/Preset (Non-Drop Frame)
Start value setting	"00:00:00:00", Set/Reset selectable

<b>Audio</b>	
Recording	AVCHD: Linear PCM <sup>4</sup> (2ch, 16 bit, 48 kHz) or Dolby Digital (AC-3 2ch, 48kHz) MP4: MPEG-2 AAC LC (2 ch)
Control	Audio controls include: Independent 2ch Line/Mic/Mic+48V input; Independent level control per channel (-∞ to +18 dB); Independent audio limiters (2 ch); Input mic trimming
Microphone attenuation	Auto/On/Off (20dB)
Microphone level meter	YES
Zoom Microphone	YES (customisable frequency response and directivity)
<b>Accessories</b>	
Supplied	Lens hood with barrier, Mic holder unit, Handle unit (HDU-1), Wireless Controller (WL-D89), Battery Pack BP-820, High Speed HDMI Cable (HTC100/S), Compact Power unit CA-570, AC Cable, Interface Cable (IFC-300PCU/S), Stereo Video Cable (STV-250N), Data Import Utility Ver2.0
Optional	Canon Battery Pack BP-820/BP-828 Canon Compact Power Adapter CA-570, Canon Battery Charger CG-800E/CG-800B, Canon HDMI cable HTC-100, Canon Stereo Video Cable STV-250N, Canon Tele Converter TL-H58, Canon Wide Attachment WA-H58, Canon Wireless Microphone WM-V1, Canon Soft Carrying Case SC-2000, Canon PROTECT Filter 58 mm, Canon ND4-L Filter 58 mm, Canon ND8-L Filter 58 mm, Canon GPS Receiver GP-E2, Canon Battery Video Light VL-10Li/VL-10LiII (Model A/B only), Canon Battery Pack BP-900 series (for VL-10Li/VL-10LiII), Canon Compact Power Adapter CA-910/920/930 (for charging BP-900 series)
<b>Battery</b>	
Backup power supply	Lithium coin battery (built-in)
Power Consumption	4.9W <sup>5</sup> (AVCHD) / 4.8W (MP4) <sup>5</sup>
Continuous Recording Time	Supplied BP-820: Approx. 145 minutes <sup>5</sup> Optional BP-828: Approx. 220 minutes <sup>5</sup>
<b>Miscellaneous</b>	
Dimensions	Approx. 109 x 84 x 182 mm (main body only) Approx. 131 x 180 x 231 mm (fully equipped)
Detachable handle	YES
Weight (camera only)	Approx. 770 g
Weight (fully equipped)	Approx. 1160 g
Operating Temperature range	-5°C to +45°C, 60% relative humidity

#### Disclaimers

1. After 12 hours of continuous recording, camcorder will stop recording and re-start automatically. Simultaneous/Dual Format recording
2. 5Ghz not available in Qatar
3. iOS devices only, excludes MP4 1080/50P mode
4. AVCHD 1080/50P mode only
5. 28Mbps / 35Mbps recording, normal EVF brightness

All specifications are subject to change without notice