## Specifications

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<td><strong>Standard Definition or High Definition</strong></td>
<td>High Definition</td>
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<td><strong>Television System</strong></td>
<td>NTSC</td>
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<td><strong>Video Recording System</strong></td>
<td>MPEG-4</td>
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<td><strong>Image Sensor</strong></td>
<td>1/4.85-inch CMOS, RGB Primary Color Filter</td>
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<tr>
<td><strong>Total Pixels</strong></td>
<td>Approx. 3.28 Megapixels</td>
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| **Effective Pixels**                         | **Video**: Approx. 2.07 Megapixels (1920 x 1080)  
**Photo**: Approx. 2.07 Megapixels (1920 x 1080) |
| **Maximum Recording Time**                   | 32GB Internal Flash Drive in MP4*:  
4 Mbps (1280 x 720)**: 17 hrs. 20 min.  
17 Mbps (1920 x 1080)**: 4 hrs. 10 min.  
24 Mbps (1920 x 1080)**: 2 hrs. 55 min.  
35 Mbps (1920 x 1080)**: 2 hrs.  
* Variable bit rate.  
** When recording has continued for approximately 12 hours, it will automatically stop and then start. |
| **Lens**                                     | Zoom Ratio: 57x Advanced / 32x Optical / 1140x Digital  
Focal Length: 2.8–89.6mm  
35mm Film Equivalent: Optical Zoom: Approx. 38.5–1232mm  
Advanced Zoom Off: Approx. 38.5–1232mm  
Advanced Zoom On: Approx. 32.5–1853mm  
Zoom Speed: Variable / 3 Fixed Zoom Speeds  
Max. F/Stop: f/1.8–4.5 |
| **Focusing System**                          | TTL (Through The Lens) |
| **Manual Exposure**                          | Available |
| **Programmed AE**                            | Smart AUTO, P, SCN**, High-brightness priority, Cinema Mode**2  
**1 Portrait, Sports, Snow, Beach, Sunset Scene, Night, Low Light, Spotlight, Fireworks  
**2 Cinema Standard, Vivid, Cool, Sepia, Old Movies |
| **Max Shutter Speed**                        | Movie: 1/2000 sec  
Still Image: 1/500 sec |
| **Minimum Focusing Distance**                | Auto mode: 10mm (AF linkage: WIDE end), 1m in intermediate zoom range, approx. 50 cm at TELE end  
All other modes: 10mm (WIDE end), 1m across entire zooming range (from edge of lens). However, approx. 50cm at tele macro setting established at this time (automatic movement to TELE end) |
| **White Balance**                            | Auto, Daylight, Tungsten, Custom WB |
| **Frame Rate**                               | 60P/30P/24P |
| **Minimum Illumination**                     | P mode: Approx. 5 lux  
Low Light mode: Approx. 0.4 lux |
| **Image Stabilization** | Intelligent IS in Auto/Baby mode  
• Dynamic IS (default)  
• Powered IS  
• Macro IS  
• Tripod Mode  

IS Modes other than Intelligent IS; Dynamic IS and Powered IS settings can be made manually in P/High-brightness priority/SCN*/ Cinema Mode:  
• Standard IS  
• IS Off  

Angular velocity detection (using piezoelectric vibration sensor) and hybrid by sensor based movement vector detection supported.  

*1 Portrait, Sports, Snow, Beach, Sunset, Night, Low Light, Spotlight, Fireworks  

| **Filter Diameter** | 43mm diameter  

| **Viewfinder** | Not Available  

| **LCD Screen** | 3.0-inch (7.51cm) panel, widescreen color LCD (approx. 230,000 dots)  

| **Recording Media** | Built-in 32GB memory and 1 additional SD/SDHC/SDXC memory card slot  

| **Recommended Cards** | 60P (DOM) recording: Memory cards of class 6 or 10  
Class 4, 6 or 10 memory cards are recommended in the high-image-quality and Full HD standard modes.  
Slow & Fast motion recording: Use of Class 6 or 10 memory cards  
Any class of card may be used for photo shooting.  

| **USB Terminal** | mini-AB: Hi-Speed USB supported  

| **Video Terminal** | Signal configuration: NTSC standard color video signals  
Impedance: 75 Ω  
Signal level: 1 Vp-p (composite)  

Horizontal resolution  
Self recording/playback: Max. 530 TV lines (screen center)  
Camera EEout catalog value: Approx. 530 TV lines (screen center)  

| **Audio** | Types of signals: Stereo audio signal  
Impedance: Less than 3 kΩ  
Signal level: -10 dBV (with 47 kΩ load)  
Frequency characteristic: 60 Hz to 16 kHz (range between 1 kHz reference ±3 dB)  

| **Accessory Shoe** | Not Available  

| **Supplied Video Editing Software** | Not Available  

| **HDMI Terminal** | HDMI Mini Connector, output only for both images and sound  

| **Headphone Jack** | 3.5mm diameter stereo mini-jack (also serves as AV mini-terminal)  
Impedance: 47 Ω  
Output signal level: -18 dBV (with 16 Ω load at maximum volume)  

| **Operating Temperature Range** | 23° to 113°F (-5° to 45°C) 60% relative humidity (operation)  
32° to 104°F (0° to 40°C) 85% relative humidity (performance)  

| **Dimensions (W x H x D)** | Approx. 2.1 x 2.3 x 4.6 in. / 53 x 58 x 116mm (not including grip belt)  

| **Weight** | Approx. 8.5 oz. / 240g (body, not including grip belt)  
Approx. 10.9 oz. / 310g (including Battery BP-727, memory card, grip belt)