

## Camera

Item	Details
Power supply	Using AC adapter: DC 5.2 V Using battery pack: DC 3.5 V - 3.6 V
Power consumption	GZ-HM445/GZ-HM448: 2.3 W (when "MONITOR BRIGHTNESS" is set to "3" (standard)) 2.5 W (when "MONITOR BRIGHTNESS" is set to "4" (brighter)) GZ-HM650/GZ-HM670: 2.4 W (when "MONITOR BRIGHTNESS" is set to "3" (standard)) 2.6 W (when "MONITOR BRIGHTNESS" is set to "4" (brighter)) Rated Current Consumption: 1A
Dimensions (mm)	51 mm x 55 mm x 111 mm (W x H x D: excluding grip belt)
Mass	Approx. 195 g (camera only), Approx. 235 g (including supplied battery pack)
Operating environment	Allowable operating temperature: 0°C to 40°C Allowable storage temperature: -20°C to 50°C Allowable relative humidity: 35 % to 80 %
Image pickup device	GZ-HM445/GZ-HM448: 1/5.8" 1,500,000 pixels (progressive CMOS) GZ-HM650/GZ-HM670: 1/4.1" 3,320,000 pixels (progressive CMOS)
Recording area (Video)	GZ-HM445/GZ-HM448: (UXP/XP/SP/EP) 630,000 to 1,050,000 pixels (AIS ON) 630,000 to 1,250,000 pixels (AIS OFF) (SSW/SEW) 340,000 to 1,050,000 pixels (dynamic zoom ON) 630,000 to 1,050,000 pixels (dynamic zoom OFF) GZ-HM650/GZ-HM670: (UXP/XP/SP/EP) 1,220,000 pixels (AIS ON) 1,440,000 pixels (AIS OFF) (SSW/SEW) 390,000 to 1,220,000 pixels (dynamic zoom ON) 1,220,000 pixels (dynamic zoom OFF)
Recording area (Still image)	GZ-HM445/GZ-HM448: (4:3) 470,000 to 930,000 pixels (16:9) 630,000 to 1,250,000 pixels GZ-HM650/GZ-HM670: (4:3) 1,080,000 pixels (16:9) 1,440,000 pixels
Lens	F1.8 - 6.3, f $\approx$ 2.9 mm to 116.0 mm GZ-HM445/GZ-HM448: (UXP/XP/SP/EP) 35 mm conversion: 45.6 mm to 1,824 mm (AIS ON) 35 mm conversion: 42.0 mm to 1,680 mm (AIS OFF) (SSW/SEW) 35 mm conversion: 45.6 mm to 3,182 mm (dynamic zoom ON) 35 mm conversion: 45.6 mm to 1,824 mm (dynamic zoom OFF) GZ-HM650/GZ-HM670: (UXP/XP/SP/EP) 35 mm conversion: 45.0 mm to 1,800 mm (AIS ON) 35 mm conversion: 41.4 mm to 1,656 mm (AIS OFF) (SSW/SEW) 35 mm conversion: 45.0 mm to 3,150 mm (dynamic zoom ON) 35 mm conversion: 45.0 mm to 1,800 mm (dynamic zoom OFF)

Lowest illumination	GZ-HM445/GZ-HM448: 9 lux 1 lux (SCENE SELECT: NIGHTALIVE) GZ-HM650/GZ-HM670: 4 lux 1 lux (SCENE SELECT: NIGHTALIVE)
Zoom (during video recording)	Optical zoom: Up to 40x Dynamic zoom: Up to 70x (SSW/SEW) Digital zoom: Up to 200x
Zoom (during still image recording)	Optical zoom: Up to 40x
LCD monitor	2.7", 23 megapixels, color LCD
Recording media	GZ-HM445/GZ-HM448: SDHC/SDXC card (commercially available) Eye-Fi card (commercially available) GZ-HM650: Built-in memory (8 GB) SDHC/SDXC card (commercially available) Eye-Fi card (commercially available) GZ-HM670: Built-in memory (32 GB) SDHC/SDXC card (commercially available) Eye-Fi card (commercially available)
Clock battery	Rechargeable battery

Specifications

Connectors

Item	Details
HDMI output connector	HDMI™ mini connector
Component output connector (GZ-HM445/GZ-HM650/GZ-HM670)	Y, Pb, Pr component output Y: 1.0 V (p-p), 75 Ω Pb/Pr: 0.7 V (p-p), 75 Ω
AV output connector	Video output: 1.0 V (p-p), 75 Ω Audio output: 300 mV (rms), 1 KΩ
USB connector	Mini USB Type AB, USB 2.0 compliant

Video

Item	Details
Recording/ Playback format	AVCHD standard Video: AVC/H.264 Audio: Dolby Digital 2ch
Extension	.MTS
Signal system	PAL standard
Image quality (Video)	UXP 1920 x 1080 pixels Average Approximate 24 Mbps XP 1920 x 1080 pixels Average Approximate 17 Mbps SP 1920 x 1080 pixels Average Approximate 12 Mbps EP 1920 x 1080 pixels Average Approximate 4.8 Mbps SSW (16:9) 720 x 576 pixels (Interlaced) Average Approximate 6.2 Mbps SEW (16:9) 720 x 576 pixels (Interlaced) Average Approximate 3 Mbps
Sound quality (Audio)	48 kHz, 256 kbps

Still Image

Item	Details
Recording format	JPEG standard
Extension	.JPG
Image size	
Quality	FINE / STANDARD

AC Adapter (AC-V10M)

Item	Details
Power supply	AC 110 V to 240 V, 50 Hz/60 Hz
Output	DC 5.2 V, 1 A
Allowable operating temperature	0°C to 40°C (10°C to 35°C during charging)
Dimensions (mm)	83 mm x 28 mm x 40 mm (W x H x D: excluding cord and AC plug)
Mass	Approx. 77 g

Battery Pack (BN-VG114E/BN-VG114AC)

Item	Details
Power voltage	3.6 V
Capacity	1400 mAh
Dimensions (mm)	31 mm x 21.5 mm x 43 mm (W x H x D)
Mass	Approx. 40 g

**Memo :** \_\_\_\_\_

- The specifications and appearance of this product are subject to changes for further improvement without prior notice.