PowerShot GOLF Laser Rangefinder

Device

Type of Device

Monocular Camera-equipped Telescopic Laser Rangefinder

Laser Rangefinding

Laser Classification

FDA 21 CFR Part 1040.10: Class I Laser Product

Measurement Range

Approximately 7.0 – 800 yds (6.4 – 732 m)
(Range may be limited by object measured or environment)

Measurement Accuracy

Less than 100 yds (91 m) – +/- 1.0 yd. (0.91 m)
100 yds. (91 m) or more – +/- 2.0 yd. (1.83 m)
(Straight-line measurement, based on Canon testing standards)

Distance Display Increment

0.5 yds (0.5 m)

Measurement Speed

Approx. 0.8 Sec.

Measurement Methods/Modes

- Slope-adjusted Measurement
- Straight-line Distance

(with [SLOPE] set to [ON]: Horizontal distance +/- difference in elevation)
(with [SLOPE] set to [Off]: Playback function and image delete function are restricted)

Slope Sensor	Built-in
Continuous Rangefinding	Available (Holding down the measure button halfway fires the laser for approx. 8 sec. after which flagpole-locking detects the target of measurement)
Still Photo/Movie Recording	Available (Selecting [Ranging+Photo] from the [Mode] menu enables still/video recording with rangefinder results superimposed over the image)

Image Sensor

Type	1/3-inch CMOS Sensor
Pixels	EFFECTIVE: Up to approx. 11 megapixels TOTAL: approx 13.5 megapixels
Aspect Ratio	4:3 (Horizontal: Vertical)

Lens

Focal Length	51.0mm (equivalent to approx. 410mm (35mm equivalent))
Shooting Range	Approx. 4.4 yd (approx. 4 m) to infinity
Digital Zoom	Enables approx. 2X magnification
Telephoto Magnification	When equivalent to approx. 410mm – 6X When equivalent to approx. 820mm – 12X (using digital zoom)
F-Number	f/3.9 (no aperture control)

Image Stabilization

Type	Lens Shift System - 2-axis correction (pitch/yaw) (Stabilization cannot be deactivated.)

Movie Digital IS	Not Available

Recording Media

Compatible Media	microSD / microSDHC / microSDXC memory cards * UHS-I Compatible
Error Warnings	Displayed in the viewfinder
Card formatting	Normal (Logical) Formatting (low-level formatting not available)
No Card Warning	Available
Shutter Release Without Card	Not Supported
Image Recording Format	Compliant with Design rule for Camera File System 2.0 and Exif 2.31 (Time difference information supported)
Folder Setting	Folders Created Automatically (selection of folders on cards not available)
File Name Settings	Not supported
File Number	Auto Reset (when cards are replaced, the numbering is reset to start from 0001. If the new card already contains images the existing numbering is continued)

Movie Recording

Format	Container Format: MP4 Video: H.264 / MPEG-4 AVC Audio: MPEG-4 AAC -LC (Stereo)
Quality	Full HD 1920x1080 (Movie recording size not adjustable) (Lower image quality when recording at equivelant of approx. 820mm due to digital zoom).
Frame Rate	When set to NTSC: 30 fps / 24 fps When set to PAL: 25.00 fps
Maximum Recording Time per Movie	59 Seconds

Total recording Time Available	8 GB: Max 33 min. 32 GB: Max 132 min. 128 GB: Max 530 min.
Maximum File Size	microSD FAT12/16: Max 2 GB microSDHC FAT32: Max 4 GB microSDXC exFAT: Unlimited
Card Performance Requirements	SD Speed Class 6 or Higher
Video System	NTSC/PAL
Recording Microphone	Built-in Stereo Microphones (No external microphone IN terminal provided).
White Balance	Auto

Viewfinder

Type	OLED Color Electronic Viewfinder
Size	0.39 Inch
Dot Count	Width: 1024 Dots Height: 768 Dots Total: Approx. 2,360,000 Dots
Coverage	Approx. 100% (With eyepoint of approx. 20 mm)
Brightness Adjustment	Not supported
Electronic Viewfinder Refresh Rate	59.954 fps

Autofocus

Focusing Method	Contrast Detection
Continuous AF	Enable / Disable (AF is active during movie recording under all settings.)

Eye Detection	Not supported
AF Point Display	Shown in the viewfinder when the shutter button is pressed halfway
Focus Confirmation (show in viewfinder)	Green Frame: In Focus Red Frame: Out of Focus

Exposure Control

Shooting Mode	Autoexposure Shooting (Shooting mode selection not available)
Metering Mode	Center-weighted average metering (Metering mode cannot be changed)
ISO Speed	Still and Movie recording: Controlled automatically (ISO 100-3200)
Exposure Compensation	+/- 3 stops in 1/3-stop increments
Exposure Compensation Factors	Shutter Speed, ISO Speed

Shutter

Type (for still and movie recording)	Electronic Shutter, using the image sensor
Shutter Speed	Controlled Automatically (1/8000 to 1/30 Sec.)
Drive Mode	Single Shooting
Self-Timer	Not Provided

Playback

Playback Methods	In Electronic Viewfinder On a computer or Smartphone
Movie Playback	Play Skip backward (approx. 4 sec.) Previous frame Next Frame

	Skip Forward (approx. 4 sec.)
Erase Images	Select and erase images/all images on card
Indicator Lamp	Green Lit/Blinking: Accessing Card Orange Lit: Charging in Progress Orange Off: Charging Completed
Slope Function Lamp (Blue)	Blinking: Straight-line distance Off: Straight-line distance / Slope-adjusted distance

Menus

Display Device	Shown in the electronic viewfinder
Description	Rangefinding Shooting Playback Function Settings
Display languages	English, German, French, Dutch, Danish, Portuguese, Finnish, Italian, Ukrainian, Norwegian, Swedish, Spanish, Russian, Turkish, Simplified Chinese, Traditional
Firmware Updates	Available

External Interface

Terminal Type	USB Type-C
Transmission	Equivalent to Hi-Speed USB (USB 2.0)
Applications	For charging the built-in battery and powering the rangefinder (Recognized as a USB device when connected to computers; images on the rangefinder memory)

Wireless Connections

Wi-Fi Connectivity	Not Provided
Bluetooth Connectivity	Not Provided

Date/Time Function

Time Zone Settings	Honolulu, Anchorage, Los Angeles, Denver, Chicago, New York, Caracas, New Foundland, São Paulo, Fernando de Noronha, Azores, London, Paris, Cairo, Moscow, Tehran, Dubai, Kabul, Karachi, Delhi, Kathmandu, Dacca, Yangon, Bangkok, Beijing/Singapore, Tokyo/Seoul, Adelaide, Sydney, Solomon Islands, Wellington, Chatham Islands, Samoa
Time Difference Setting	Available (in 15-minute Increments)
Daylight saving time	Available
Date/Time back-up Battery	Same as battery that powers the rangefinder

Power Source

Battery	Built-in rechargeable Lithium-ion battery
Rated voltage/Capacity	3.7 V, 1000 mAH
Recharge Cycles	Approx. 300 charging/usage cycles
USB Power Source	5 V 0.5 A or more (5 V 1 A or more recommended)
Charging over USB	Supported
Power over USB	Supported
USB Charging Time	Approx. 2 hr. 30 min. (The charging time required and the amount charged vary depending on ambient temperature and remaining capacity).
Number of Still Photos that can be taken	Approx. 200 shots (With a new, fully charged battery at room temperature (73ºF))
Time Available for Movie Recording	Approx. 1 hr. 10 min. (With a new, fully charged battery at room temperature (73ºF))
Time Available for Image Display	Approx. 1 hr. 40 min. (With a new, fully charged battery at room temperature (73ºF))
Battery Check	Battery level automatically checked and indicated in a 4-level display when the unit is powered

on.

Power Saving Function	Auto Power off: 5 sec. / 10 sec. / 15 sec. Viewfinder off: 1 min. / 3 min.

Exterior

Body Material	Polycarbonate and Stainless Steel
Exterior Color	Black
Water Resistance	Equivalent to IPX4 (Not dustproof)

Dimensions and Weight

Dimensions (W) x (H) x (D)	Approx. 1.2 x 2.3 x 3.6 in. (31.0 x 58.9 x 91.2 mm)
Weight (including memory card)	Approx. 5.3 oz (151 g)

Operating Environment

Usable Temperature	32-104°F (0-40°C)
Usable Humidity	10-90%