



**A camera that shoots
360-degree spherical
images in high-quality
in a single shot.**

	ART. CODE	EAN
RICOH THETA Z1	910774	0026649107740

Achieving 360-degree images in 23MP resolution

- The camera is equipped with a 1.0-inch back-illuminated CMOS image sensor
- A multi-level aperture mechanism is newly equipped, allowing users to set the F-number to one of the three levels of F2.1, F3.5, and F5.6
- ISO6400 high-sensitivity shots
- Can shoot using a high shutter speed of up to 1/25000 seconds

New type of lens unit

- The lens unit uses Ricoh's original tri-fold structure technology, allowing for a slim body of just 24mm*2 despite the large image sensor
- A multi-level aperture mechanism is newly equipped, allowing users to set the F-number to one of the three levels of F2.1, F3.5, and F5.6

New image processing algorithm

- Renewed the image processing algorithm achieved to get low- and high-sensitivity, low-noise, and high-resolution images
- Dynamic Range (DR) compensation
- Multi-bracket shooting
- Support for RAW file format

New shooting modes to suit the scene

- HDR Rendering
- Interval Composite shooting

Intuitive main body user interface

- 0.93-inch organic EL (OLED) monitor that displays shooting information in the lower part of the main body
- New function (Fn) button
- Shooting settings from a smartphone can be saved as My Settings in the camera

High-quality 4K 360-degree videos

- The camera has 3-axis rotational stabilization while shooting videos to show superior image stabilization
- using the latest image stabilization technology
- 4-channel microphone that supports 360-degree spatial audio recording

Optional Accessories

LENS CAP TL-2	30278	026649759468
SEMI-HARD CASE TS-2	39892	027075183513
STRAP ATTACHMENT AT-1	38371	027075301030
EXTENSION ADAPTER TE-1	37861	027075300385



Semi-hard Case TS-2



Lens Cap TL-2

RICOH THETA Z1

CAMERA TYPE

TYPE Full Spherical Camera

SENSOR

TYPE 1 inch x 2
 Effective: approx. 20 megapixels
 PIXELS Still image, Video: AUTO (ISO80 to 6400, The Upper Limit settings), Manual (ISO80 to 6400) *3
 SENSITIVITY Live Streaming: AUTO (ISO80 to 6400)

MOTION BLUR REDUCTION 3-axis rotational stabilization while shooting videos
 WHITE BALANCE Still image, Video: Auto, outdoor, shade, cloudy, incandescent lamp 1, incandescent lamp 2, daylight color fluorescent lamp, natural white fluorescent lamp, white fluorescent lamp, light bulb color fluorescent lamp, Color temperature (2500K - 10000K) *3
 NOISE REDUCTION Live Streaming : Auto
 Automatic function

FILE FORMATS

STILL Still image: RAW (DNG) *2, JPEG (Exif Ver. 2.3)
 RECORDED PIXELS RAW: 7296 x 3648Px, JPEG: 6720 x 3360Px
 JPEG: Output pixel count equivalent to approx. 23MP
 STORAGE MEDIA not available
 BUILT-IN MEMORY Approx. 19GB
 NUMBER OF PHOTOS THAT CAN BE RECORDED, TIME*1 Still image: RAW+ approx. 350 photos, JPEG approx. 2400 photos

LENS

ANGLE OF VIEW 360° Full Spherical
 APERTURE F2.1, F3.5, F5.6
 CONSTRUCTION 14 elements in 10 groups
 OBJECT DISTANCE Approx. 40cm - ∞ (from front of lens)

AUTO FOCUS SYSTEM

TYPE Fixed fokus

EXPOSURE CONTROL

METERING SYSTEM Integral
 SHUTTER SPEED Still image: (AUTO) 1/25000 sec. to 1/8 sec.
 (Shutter Priority) 1/25000 sec. to 1/8 sec. *3
 (Manual):1/25000 sec. to 60 sec. *3
 Video: (AUTO)1/25000 sec. to 1/30 sec.
 (Shutter Priority, Manual) 1/25000 sec. to 1/30 sec. *3
 Live Streaming: (AUTO)1/25000 sec. to 1/30 sec.

EV COMPENSATION Still image, Video: -2.0 to +2.0EV, 1/3EV step *3
 EXPOSURE CONTROL Program AE, Aperture Priority AE, ISO Priority AE, Shutter Priority AE, Manual Exposure
 SELF TIMER A smartphone with a dedicated app is required to change modes or configure manual settings

CAPTURE SETTING

A smartphone is required to change modes or configure manual settings

STATUS DISPLAY

TYPE OLED Panel: 0.93 inch Organic light emitting display Panel, 128 x 36 dots, Automatic brightness adjustment function

SHOOTING FEATURES

DRIVE MODES Still image, Video: Auto, Aperture priority, Shutter priority, ISO priority, Manual *3
 Live Streaming: Auto
 SHOOTING FUNCTIONS Still image: Noise reduction, DR compensation, HDR Rendering, Interval shooting, Interval Composite shooting, Multi bracket shooting, Self-timer (2, 5, 10sec.), MY Settings
 Video: Self-timer (2, 5, 10sec.), MY Settings

MOVIE

FILE FORMAT Video: MP4 (Video: MPEG-4 AVC/H.264
 Live Streaming: Video: H.264, Audio: Linear PCM (4ch)
 NUMBER OF RECORDED PIXELS 4K: 3840x1920 / 29.97fps / 56Mbps
 2K: 1920x960 / 29.97fps / 16Mbps
 AUDIO 4ch Spatial audio
 Video: AAC-LC (monaural) + Linear PCM
 Live Streaming: Linear PCM (4ch)
 TIME THAT CAN BE RECORDED Video (time per recording): Max. 5minutes/Max. 25 minutes *3 *4
 *1 Video (total recording time): (4K) Approx. 40 minutes, (2K) approx. 130 minutes
 LIVE STREAMING (USB) 4K: 3840x1920 / 29.97fps / 120Mbps
 2K: 1920x960 / 29.97fps / 42Mbps

SPECIAL

OPERATING TEMPERATURE -10°C (14°F) to 40°C (104°F)
 STORAGE TEMPERATURE -20°C to 60°C
 OPERATING HUMIDITY 90% or less

CAMERA OPERATION SYSTEM

"RICOH THETA+"-APP Some Functions could be controlled directly by the new Fn-Function Button and the new OLED Display. It is required to use a smartphone with dedicated "THETA+" App. This is working like a remote control. Herewith lot of settings could be controlled, e.g.: ISO, Shutter Speed, Manual Setting, Shooting Mode, White Balance, EV-Compensation;
 "THETA+"-APP With this App could be also GPS signal synchronized with image file.
 A lot of edit functions are available with the app "THETA+". E.g. different still picture animation could be done or video files could be edited
 WEBSITE "theta360.com" is the main webpage for product support, up-load portal and information center

MOBILE COMMUNICATION

WIRELESS LAN

STANDARDS IEEE802.11 a/b/g/n/ac (2.4GHz/5GHz) *5
 IEEE802.11 b/g/n (2.4GHz Only)
 FREQUENCY 2400MHz - 2483.5MHz, 5150MHz - 5250MHz *5
 USING CHANNEL 2.4GHz:1 - 11ch or 1 - 13ch *5
 5GHz:W52 (36 - 48ch, Channel bandwidth 20/40/80MHz) *5
 PROTOCOL HTTP (Open Spherical Camera API v2)

BLUETOOTH®

STANDARDS Bluetooth 4.2
 PROFILE Bluetooth low energy technology using Profile: GATT (Generic Attribute Profile)

POWER SUPPLY

POWER SOURCE Lithium ion battery (built in) *6
 BATTERY LIFE Still image:Approx. 300 photos *7
 Video:Approx. 60 minutes *7

INTERFACES

USB USB Type-C, USB3.0

DIMENSIONS & WEIGHT

DIMENSIONS 48mm (W) x 132.5mm (H) x 29.7mm (24mm *8) (D)
 WEIGHT Approx. 182g

SYSTEM REQUIREMENTS

For operating the camera a smartphone with a dedicated App is required
 PC Windows® 7, Windows® 8.1, Windows® 10
 MAC Mac OS X 10.10, 10.11, 10.12, 10.13, 10.14

*1 The number of photos and time are guides only. The actual number differs according to the photography conditions.
 *2 Only RAW and JPEG can be recorded simultaneously.
 *3 A smartphone is required to change modes or configure manual settings.
 *4 Automatic shut down if the internal temperature increases.
 *5 That differs depending on the region.
 *6 Charge the battery by connecting it to a PC using the supplied USB cable.
 *7 The number of photos that can be taken is a guide based on RICOH's measurement method. The actual number differs according to usage conditions.
 *8 Excluding lens section.