

# Specs

## General

- **Weight**

- Zenmuse H20: 678±5 g

Zenmuse H20T: 828±5 g

- **Dimensions**

- Zenmuse H20: 150×114×151 mm

Zenmuse H20T: 167×135×161 mm

- **Ingress Protection Rating**

- IP44

- **Operating Temperature**

- -20° to 50° C (Temperature Measurement is only available between -10° to 50° C)

- **Storage Temperature**

- -20° to 60° C

- **Laser Safety**

- Class 1M (IEC 60825-1:2014)
- **Supported Aircraft**
  - Matrice 300 RTK

## Gimbal

- **Angular Vibration Range**
  - $\pm 0.01^\circ$
- **Mount**
  - Detachable
- **Controllable Range**
  - Pitch:  $-120^\circ$  to  $+30^\circ$   
Yaw:  $\pm 320^\circ$
- **Mechanical Range**
  - Pitch:  $-132.5^\circ$  to  $+42.5^\circ$   
Yaw:  $\pm 330^\circ$   
Roll:  $-90^\circ$  to  $+60^\circ$

## Zoom Camera

- **Sensor**

- 1/1.7" CMOS, 20 MP

- **Lens**

- DFOV: 66.6°-4°

Focal length: 6.83-119.94 mm (equivalent: 31.7-556.2 mm)

Aperture: f/2.8-f/11 (normal), f/1.6-f/11 (night scene)

Focus: 1 m to  $\infty$  (wide), 8 m to  $\infty$  (telephoto)

- **Focus Mode**

- MF/AF-C/AF-S

- **Exposure Mode**

- Auto, Manual

- **Exposure Compensation**

- $\pm 3.0$  (1/3 increments)

- **Metering Mode**

- Spot metering, Center-weighted metering

- **AE LOCK**

- Supported

- **Electronic Shutter Speed**

- 1 ~ 1/8000 s

- **ISO Range**

- Video: 100 - 25600

Photo: 100 - 25600

- **Video Resolution**

- 3840x2160@30fps, 1920x1080@30fps
- **Video Format**
  - MP4
- **Video subtitles**
  - Supported
- **Photo Size**
  - 5184 × 3888
- **Photo Format**
  - JPEG

## Wide Camera

- **Sensor**
  - 1/2.3" CMOS, 12 MP
- **Lens**
  - DFOV: 82.9°  
Focal length: 4.5 mm (equivalent: 24 mm)  
Aperture: f/2.8  
Focus: 1 m to ∞
- **Exposure Mode**
  - Auto

- **Exposure Compensation**
  - $\pm 3.0$  (1/3 increments)
- **Metering Mode**
  - Spot metering, Center-weighted metering
- **AE LOCK**
  - Supported
- **Shutter Speed**
  - 1 ~ 1/8000
- **ISO Range**
  - Video: 100 - 25600
  - Photo: 100 - 25600
- **Video Resolution**
  - 1920×1080@30fps
- **Video Format**
  - MP4
- **Video subtitles**
  - Supported
- **Photo Size**
  - 4056 x 3040
- **Photo Format**
  - JPEG

## Thermal Camera (Zemuse H20T)

- **Sensor**

- Uncooled VOx Microbolometer

- **Lens**

- DFOV: 40.6°

Focal length: 13.5 mm (equivalent: 58 mm)

Aperture: f/1.0

Focus: 5 m to  $\infty$

- **Digital Zoom**

- 1x, 2x, 4x, 8x

- **Video Resolution**

- 640×512 @ 30 Hz

- **Video Format**

- MP4

- **Image Resolution**

- 640×512

- **Image Format**

- R-JPEG (16 bit)

- **Pixel Pitch**

- 12  $\mu\text{m}$

- **Spectral Band**

- 8-14  $\mu\text{m}$

- **Sensitivity (NETD)**

- $\leq 50$  mK @ f/1.0

- **Temperature Measurement Method**
  - Spot Meter, Area Measurement
- **Scene Range**
  - -40 °C to 150 °C (High Gain)
  - -40 °C to 550 °C (Low Gain)
- **Temperature alert**
  - Supported
- **FFC**
  - Auto/ manual
- **Palette**
  - White hot/Fulgurite/Iron Red/Hot Iron/Medical/Arctic/Rainbow 1/Rainbow 2/Tint/Black Hot

## Laser Rangefinder

- **Wave length**
  - 905 nm
- **Measurement range**
  - 3-1200 m (to a vertical surface with  $\geq 12$ m diameter and 20% reflection rate)
- **Measurement accuracy**
  - $\pm (0.2 \text{ m} + D \times 0.15\%)$

D is the distance to a vertical surface

# Features

- **Hybrid Optical Zoom**
  - 23× (DFOV: 4°, EQV: 556.2mm)
- **Max. Zoom**
  - 200× (DFOV: 0.5°, EQV: 4800mm)
- **One Click Capture**
  - One click to save the video or picture of 3 cameras (zoom, wide and thermal camera) simultaneously
- **Point to Aim**
  - Double click on the wide/thermal camera view, then the system will automatically move the gimbal to focus on the point of interest
- **High-Res Grid Photo**
  - Frame an area of interest in wide camera view, and the zoom camera will automatically capture a set of 20 MP images of the area. These images are stored together with an overview image that can be viewed in greater detail.
- **Night Scene**
  - Supported (zoom camera)
- **Timestamp**
  - Including GPS, date, and time



# Storage

- **Supported SD Card**

- MicroSD card (Max capacity: 128 GB, UHS-1 Speed Grade 3 required)

- **Supported File Systems**

- FAT32 ( $\leq$  32 GB), exFAT ( $>$  32 GB)

- **Recommended Micro SD Cards**

- TOSHIBA EXCERIA PRO 32GB micro SD HC II

SanDisk\_Extreme PRO\_32GB\_3\_A1\_micro SD V30 HC I

TOSHIBA EXCERIA PRO 64GB micro SD XC II

SanDisk\_Extreme PRO\_64GB\_3\_A2\_micro SD V30 XC I

SAMSUNG\_EVO\_128GB\_micro SD 3 XC I

TOSHIBA EXCERIA M303E 32GB micro SD HC I

TOSHIBA EXCERIA M303E 64GB micro SD XC I

TOSHIBA EXCERIA M303E 64GB micro SD XC I

TOSHIBA EXCERIA M303 128GB micro SD XC I

SAMSUNG\_EVO\_64GB\_micro SD 3 XC I