

# ZENMUSE H20

## 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

±0.01°

### Mount

Detachable

### Controllable Range

Pitch: -120° to +30°

Yaw: ±320°

### Mechanical Range

Pitch: -132.5° to +42.5°

Yaw: ±330°

Roll: -90° to +60°



## 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 ∞ (wide), 8 m to ∞ (telephoto)

### Focus Mode

MF/AF-C/AF-S

### Exposure Mode

Auto, Manual

### Exposure Compensation

±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

**GRIDX**  
metering and control

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## 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

±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 (ZENMUSE 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 ∞

**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 μm

### Spectral Band

8-14 μm

### Sensitivity (NETD)

≤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

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metering and control

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## 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 $\times$  (DFOV: 4°, EQV: 556.2mm)

### Max. Zoom

200 $\times$  (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

**GRIDX**  
metering and control