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KAM Zenmuse H20 SERIES

Sensors

BY

KAMBILL SYSTEMS PVT. LTD.



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
 - ±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

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 μ m
- Spectral Band
 - 8-14 μ m
- 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

Laser Rangefinder

- Wave length
 - 905 nm

Get in touch:

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- Measurement range
 - 3-1200 m (to a vertical surface with ≥ 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 (≤ 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