

# ZENMUSE H20N



## GENERAL

### Product Name

Zenmuse H20N

### Dimensions

178x135x161 mm

### Weight

878±5 g

### Protection Rating

IP44

### Laser Safety

Class 1M (IEC 60825-1:2014)

### Supported Aircraft

Matrice 300 RTK

## GIMBAL

### Angular Vibration Range

±0.01°

### Mount

Detachable

### Controllable Range

Pan: ±320°

Tilt: -120° to +60°

### Mechanical Range

Pan: ±330°

Tilt: -132.5° to +68°

Roll: -90° to +60°

### Max Control Speed

Pan: 90°/s

Tilt: 90°/s

## ZOOM CAMERA

### Sensor

1/1.8" CMOS; Effective Pixels: 4M

### Lens

Focal Length: 6.8-119.9 mm (equivalent: approximately 32.7-574.5 mm)

Aperture: f/1.6-f/11

Focus: 1 m to ∞ (wide); 8 m to ∞ (tele)

### Focus Mode

MF/AF-C/AF-S

### Exposure Mode

Manual, Auto

### Exposure Compensation

±3.0 (1/3 increments)

### Metering Mode

Spot Metering, Average Metering

### AE Lock

Supported

### Electronic Shutter Speed

Photo: 8-1/8000 s

Video: 1/30-1/8000 s

Video (Night Scene Mode, Enhanced Noise Reduction Off): 1/10-1/8000 s

Video (Night Scene Mode, Enhanced Noise Reduction On): 1/5-1/8000 s

### ISO Range

Video: 100-102400

Photo: 100-102400

Video Resolution

2688×1512@30fps

1920×1080@30fps

1920×1080@10fps (Night Scene Mode, Enhanced Noise Reduction Off)

1920×1080@5fps (Night Scene Mode, Enhanced Noise Reduction On)

**GRIDX**  
metering and control

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## Video Resolution

2688×1512@30fps

1920×1080@30fps

1920×1080@10fps (Night Scene Mode,  
Enhanced Noise Reduction Off)

1920×1080@5fps (Night Scene Mode, Enhanced  
Noise Reduction On)

## Video Format

MP4

## Video Caption

Supported

## Max Image Size

2688×1512

## Photo Format

JPEG

## WIDE CAMERA

### Sensor

1/2.7" CMOS; Effective Pixels: 2M

### Lens

DFOV: 73.6°

Focal Length: 4.5 mm (equivalent: approximately  
29 mm)

Aperture: f/2.8

Focus: 1 m to ∞

### Exposure Mode

Auto

### Exposure Compensation

±3.0 (1/3 increments)

### Metering Mode

Spot Metering, Average Metering

### AE Lock

Supported

### Electronic Shutter Speed

Photo: 0.8-1/8000 s

Video: 1/30-1/8000 s

Video (Night Scene Mode, Enhanced Noise  
Reduction Off): 1/10-1/8000 s

Video (Night Scene Mode, Enhanced Noise  
Reduction On): 1/5-1/8000 s

## ISO Range

Video: 100-102400

Photo: 100-102400

## Video Resolution

1920×1080@30fps

1920×1080@10fps (Night Scene Mode,  
Enhanced Noise Reduction Off)

1920×1080@5fps (Night Scene Mode, Enhanced  
Noise Reduction On)

## Video Format

MP4

## Video Caption

Supported

## Max. Image Size

1920×1080

## Image Format

JPEG

## TELE INFRARED THERMAL CAMERA

### Thermal Imager

Uncooled VOx Microbolometer

### Lens

DFOV: 12.5°

Focal Length: 44.5 mm (equivalent:  
approximately 196 mm)

Aperture: f/1.2

Focus: 45 m to ∞

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## Equivalent Digital Zoom

16x, 32x

## Video Resolution

640×512@30fps

## Video Format

MP4

## Image Resolution

640×512

## Image Format

R-JPEG\* (16 bit raw included)

## 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

-20° C to 150° C (High Gain)

0° C to 500° 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

## WIDE INFRARED THERMAL CAMERA

### Thermal Imager

Uncooled VOx Microbolometer

### Lens

DFOV: 45.5°

Focal Length: 12 mm (equivalent: approximately 53 mm)

Aperture: f/1.0

Focus: 5 m to ∞

## Equivalent digital zoom rate

4x

## Video Resolution

640×512 @ 30 fps

## Video Format

MP4

## Image Resolution

640×512

## Image Format

R-JPEG (16 bit raw included)

## 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

-20° to 150° C (High Gain)

0° to 500° C (Low Gain)

## Temperature Alert

Supported

## FFC

Auto/Manual

## Palette

WhiteHot/Fulgurite/IronRed/HotIron/Medical/Arctic/Rainbow 1/Rainbow 2/Tint/Black Hot

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## LASER RANGE FINDER

### Wavelength

905 nm

### Maximum Power

3.5 mW

### Single Pulse Width

6 ns

### Measuring Accuracy

$\pm (0.2 \text{ m} + \text{target distance} \times 0.15\%)$

### Measuring Range

3-1,200 m (0.5 x 12 m vertical surface with 20% reflectivity)

## STORAGE

### Supported microSD Cards

Supports a UHS-I Speed Grade 3 microSD card with a capacity of up to 128 GB

### Supported File System

exFAT

## ENVIRONMENT

### Operating Temperature

-20° to 50° C (-4 to 122°F)

### Storage Temperature

-20° to 60° C (-4 to 140°F)

**GRIDX**  
metering and control