Zenmuse XT

The Zenmuse XT gimbal and camera features the FLIR Longwave Infrared Thermal Camera. It provides high-sensitivity (<50 mK@f/1.0) infrared scanning at 640/30 fps or 336/30 fps (depending on the camera model), and comes with 6.8 mm, 7.5 mm, 9 mm, 13 mm and 19 mm lens options.

As with other DJI 3-axis gimbal systems, the Zenmuse XT can be mounted onto the Inspire 1, Inspire 1 v2.0 or Matrice 100 aircraft and stream live HD video to the DJI GO app. This makes it excellent for aerial thermal applications such as inspection and maintenance, search and rescue, and precision agriculture.

Quick Start Guide

V1.0

For more information, read the User Manual: http://www.dji.com/product/zenmuse-xt
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1 Gimbal Connector
2 Pan Motor
3 Tilt Motor
4 Lens
5 Camera
6 Micro SD Slot
7 Roll Motor

For more information, read the User Manual: http://www.dji.com/product/zenmuse-xt

※ This Quick Start Guide is subject to change without prior notice.
In the Box

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
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<tbody>
<tr>
<td>Gimbal and Camera</td>
<td>×1</td>
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<tr>
<td>16GB Micro SD Card</td>
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</table>

For more information, read the User Manual: http://www.dji.com/product/zenmuse-xt

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Installation

Remove the gimbal cap and lens cap.

Rotate the Gimbal Lock on the Inspire 1 to the unlocked position. Align the white lines and insert the gimbal.

Rotate the Gimbal Lock to the locked position.

Camera Controls

Remote Controller
To select a Palette or adjust digital zoom, press the right dial. Press the Shutter Button or Record Button to capture photos or record video. Adjust the camera’s tilt using the left dial.

DJI GO App
The touch interface can be used for capturing photos, recording videos and playback. The Palette, Scene, Digital Zoom, Spot Meter and Isotherm functions can all be configured in the app.

Specifications

● General
Name: Zenmuse XT
Dimensions: 103 mm × 74 mm × 102 mm
Weight: 270 g

● Gimbal
Angular Vibration Range: ±0.03°
Mount: Detachable
Controllable Range:
Tilt: +30° to -90°
Pan: ±320°
Roll: ±15°
Mechanical Range:
Tilt: +45° to -135°
Pan: ±320°
Roll: ±45°
Max Controllable Speed: 120°/s

● Camera
Thermal Imager: Uncooled VOx Microbolometer
FPA/Digital Video Display Formats: 640 × 512; 336 × 256
Analog Video Display Formats: 720 × 480 (NTSC); 720 × 576 (PAL)
Pixel Pitch: 17 μm
Spectral Band: 7.5 - 13.5 μm
Full Frame Rates: 30 Hz (NTSC); 25 Hz (PAL)
Exportable Frame Rates: 7.5 Hz (NTSC); 8.3 Hz (PAL)
Sensitivity (NEdT): <50 mK at f/1.0
Scene Range (High Gain):
640 × 512: -13° to 275° F (-25° to 135° C)
336 × 256: -13° to 212° F (-25° to 100° C)
Scene Range (Low Gain):
-40° to 1022° F (-40° to 550° C)
Spot Meter Temperatures measured in central 4×4
File Storage: Micro SD Card
Photo Format: JPEG, TIFF
Video Format: MP4
Video Recording Bitrate: 2 Mbps
Support SD Cards: Micro SD, Max capacity: 32 GB

● Image Processing & Display Controls
NTSC/PAL (Field Switchable): Yes
Image Optimization: Yes
Digital Detail Enhancement: Yes
Polarity Control (Black Hot/White Hot): Yes
Color & Monochrome Palettes (LUTs): Yes
Digital Zoom:
640 × 512: 2x, 4x, 8x
336 × 256: 2x, 4x

● Lens Models

<table>
<thead>
<tr>
<th>Lens Models</th>
<th>6.8 mm</th>
<th>7.5 mm</th>
<th>9 mm</th>
<th>13 mm</th>
<th>19 mm</th>
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<tbody>
<tr>
<td>f/1.4</td>
<td>f/1.4</td>
<td>f/1.25</td>
<td></td>
<td>f/1.25</td>
<td></td>
</tr>
<tr>
<td>FoV</td>
<td>/</td>
<td>90°×69°</td>
<td>69°×56°</td>
<td>45°×37°</td>
<td>32°×26°</td>
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<tr>
<td>iFoV</td>
<td>2.267 mr</td>
<td>1.889 mr</td>
<td>1.308 mr</td>
<td>0.895 mr</td>
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<td>f/1.4</td>
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<tr>
<th>Lens Models</th>
<th>17 μm 640×512</th>
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<tr>
<td>FoV</td>
<td>49.1°×37.4°</td>
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<tr>
<td>iFoV</td>
<td>2.519 mr</td>
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<td>Min Focus Distance</td>
<td>2.3 cm 2.5 cm 3.2 cm 7.6 cm 15.3 cm</td>
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<tr>
<td>Hyperfocal Distance</td>
<td>1.2 m 1.2 m 2.1 m 4.4 m 9.5 m</td>
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<tr>
<td>Hyperfocal Depth</td>
<td>0.6 m 0.6 m 1.1 m 2.2 m 4.8 m of Field</td>
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● Environmental
Operating Temperature: 14° to 104° F (-10° to 40° C)
Non-Operating Temperature: -22° to 158° F (-30° to 70° C)
Temperature Shock: 5°C/min
Humidity: 5% to 95%

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Rotate the Gimbal Lock to the locked position.

Camera Controls

Remote Controller
To select a Palette or adjust digital zoom, press the right dial. Press the Shutter Button or Record Button to capture photos or record video. Adjust the camera’s tilt using the left dial.
**Installation**
Remove the gimbal cap and lens cap.

Rotate the Gimbal Lock on the Inspire 1 to the unlocked position. Align the white lines and insert the gimbal.

Rotate the Gimbal Lock to the locked position.

**Camera Controls**

**Remote Controller**
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**DJI GO App**
The touch interface can be used for capturing photos, recording videos and playback. The Palette, Scene, Digital Zoom, Spot Meter and Isotherm functions can all be configured in the app.

**Specifications**

- **General**
  - Name: Zenmuse XT
  - Dimensions: 103 mm × 74 mm × 102 mm
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- **Gimbal**
  - Angular Vibration Range: ±0.03°
  - Mount: Detachable
  - Controllable Range:
    - Tilt: +30° to -90°;
    - Pan: ±320°; Roll: ±15°
  - Mechanical Range:
    - Tilt: +45° to -135°;
    - Pan: ±320°; Roll: ±45°
  - Max Controllable Speed: 120°/s

- **Camera**
  - Thermal Imager: Uncooled VOx Microbolometer
  - FPA/Digital Video Display Formats: 640 × 512; 336 × 256
  - Analog Video Display Formats: 720 × 480 (NTSC); 720 × 576 (PAL)
  - Pixel Pitch: 17 μm
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  - Polarity Control (Black Hot/White Hot): Yes
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