

**Video Tracker**  
**ZX-GZ1-D1V3**

**User Manual**  
**V1.1**

# CONTENT

<b>NOTICE</b> .....	<b>3</b>
<b>INTRODUCTION</b> .....	<b>3</b>
<b>PACKAGE LIST</b> .....	<b>4</b>
<b>CONNECTION</b> .....	<b>4</b>
<b>TROUBLESHOOT</b> .....	<b>5</b>
<b>STRUCTURE</b> .....	<b>5</b>
<b>PIN DEFINITION</b> .....	<b>6</b>

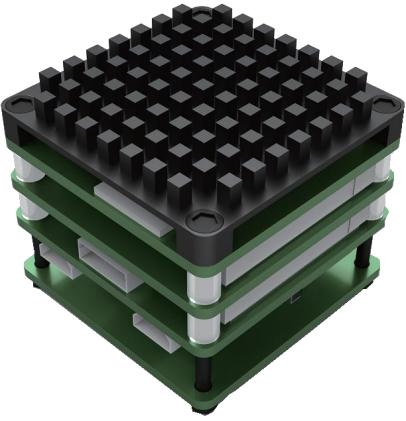
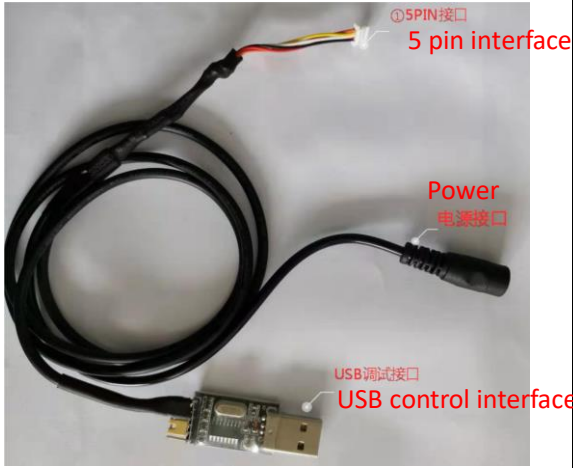
## Notice

- In order to ensure the instruments are in good technical condition, the daily maintenance of the operating personnel is only limited to the replacement and inspection of cables, cleaning and functional inspection.
- Please do not open the cabinet in any case even if the system runs into malfunction. Troubleshooting has to be taken on by professional technicians after thorough examinations.
- The IPM should be kept in a cool, dry environment for storage.
- Please make sure that the connector assemblies were inserted after aligned with sockets. Please do not pull the cable directly for unplugging.
- Wearing anti-static gloves when using and connecting the product to prevent it from being penetrated.
- The power input voltage of the IPM should be 12V, otherwise the device would be damaged.

## Introduction

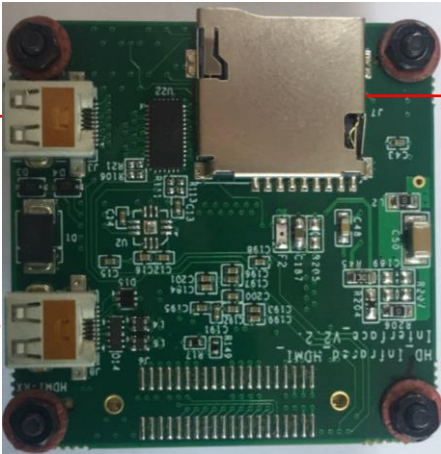
Video tracker ZX-GZ1-D1V3 is a device that tracks the static/moving target in the complex background of UAV and other high-speed moving platforms on a real-time basis. The video tracker could perfectly process the image affine transformation caused by the high speed movement of the platform, as well as the panning, zooming and rotation of the target. Product is composed of 4 pieces circuit board at 38mm\*38mm dimensions with FPGA+ARM structure and arrives at good performance in operation and instantaneity.

# Package List

Video tracker×1	5pin testing cable×1
	
<p>⚠ Note: To prevent the equipment from being damaged, please connect it to the power in the last step. <b>Please note the insertion pin.</b></p>	

## Connection

Pic 1 Video interface



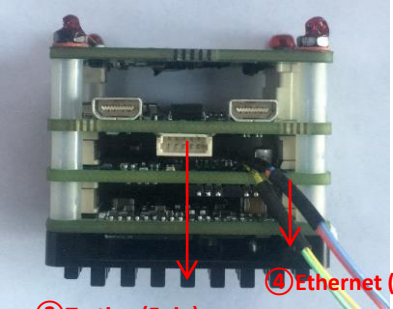
② Video output (HDMI micro) ←

① Video input (GoPro) ←

→ SD card

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Pic 2 Testing interface and Ethernet interface

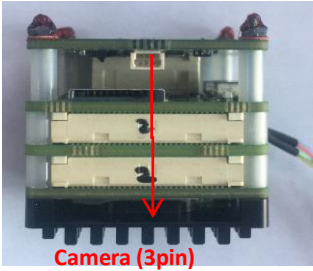


③ Testing (5pin)

④ Ethernet (4 cables)

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Pic 3 Camera interface



Camera (3pin)

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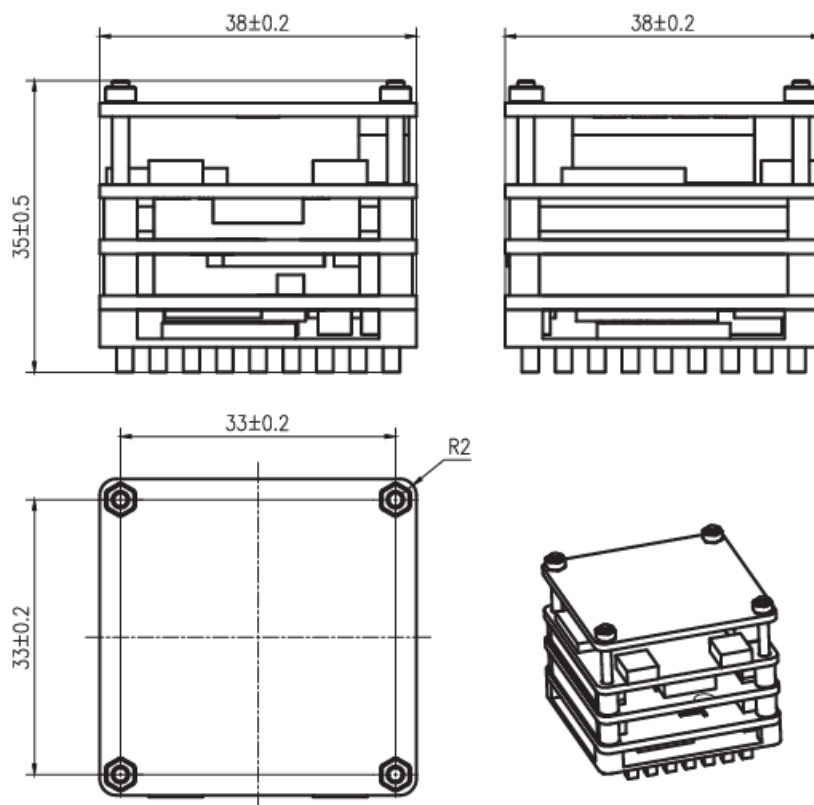
**\* Note: Please do NOT insert upgrading interface (7pin)**

## Troubleshoot

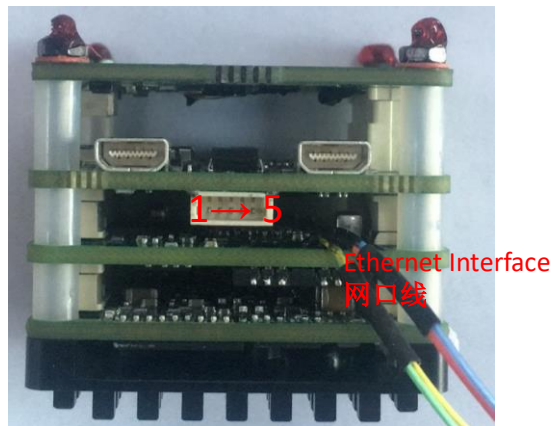
Please use the form below to check the video tracker when it has any trouble.  
Disconnect the power and contact our technical team if problem remains.

Malfunction	Reason and solution
IPM cannot start/Power light is not on	<ol style="list-style-type: none"> <li>1. Check whether the power is connected.</li> <li>2. Check whether the voltage is lower than required which should be 12V.</li> </ol>
No image display	<ol style="list-style-type: none"> <li>1. Check whether the serial port is open(not serial port 1)</li> <li>2. Check whether the baud rate setting of the operation software is correct.</li> <li>3. Check whether the video output format of the displayer is 1080P.</li> </ol>
The serial command does not respond	<ol style="list-style-type: none"> <li>1. Check whether the serial port is open (not serial port 1 open) Check whether the verification mode is correct.</li> </ol>
No tracking box	<ol style="list-style-type: none"> <li>1. The target is too close or not obvious, reselect target.</li> </ol>

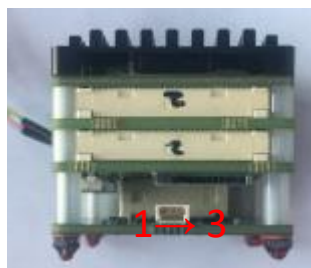
## Structure



## Pin Definition



5PIN interface		
Pin No.	Pin Title	Function
1	GND	Ground
2	TXD	Serial port send
3	RXD	Serial port receive
4	GND	Ground
5	POWER IN	12V power input
Ethernet definition		
Pin color	Pin Title	Function
Blue	DATA_1_N	TX_N
Red	DATA_1_P	TX_P
Green	DATA_0_N	RX_N
Yellow	DATA_0_P	RX_P



Pin No.	Function
1	GND
2	Video input
3	5V power input