

T1 Series SD Video Tracker
ZX-GZ3-B
Product Test Instructions
V1.1

CATALOGUE

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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, daily 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 video tracker 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 infrared camera should be ranging between 8V~16V, otherwise the device would be damaged.

Product list

| NO. | Title | Quantity | configuration | Remarks |
|-----|-------------------|----------|---------------|----------------|
| 1 | SD video tracker | 1 | √ | |
| 2 | Connecting cables | 1 | √ | |
| 3 | Testing software | 1 | √ | Electroni c |

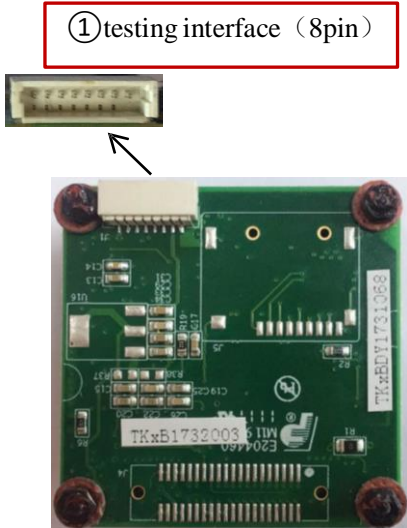
1 Technical index

| | | |
|--------------------------|-------------------------|---|
| Video format | Input video | SD analog video (PAL) |
| | Output video | SD analog video (PAL) |
| Connector | BNC (in/out) | |
| Communication interface | RS232/TTL | |
| Tracking index | Data refresh rate | 50Hz |
| | Minimum target contrast | 5% |
| | Tracking velocity | ±32 pixels/ frame |
| | Target effective memory | 100 frames |
| | Tracking characteristic | Second time locating |
| | Target size | 16×16~128×128 pixel |
| Environmental adaptation | Working temperature | -40°C~60°C |
| | Storage temperature | -45°C~65°C |
| | Shock | Meet the GJB 150A vibration test conditions |
| | Strike | Meet the GJB 150A impact test conditions |
| Others | Volume | 38mm × 38 mm × 19mm |
| | Power | DC 12V |
| | Weight | <32g |
| | Power consumption | <3W (@25°C) |

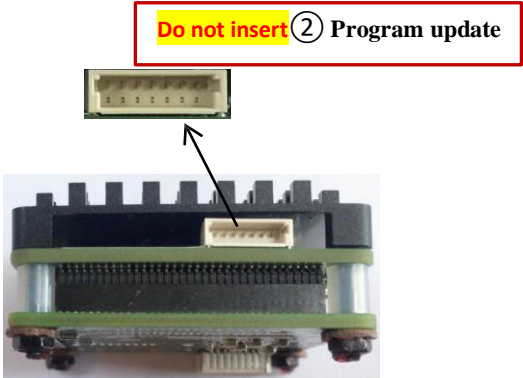
2 Test connection instruction

2. 1. Interface sketch

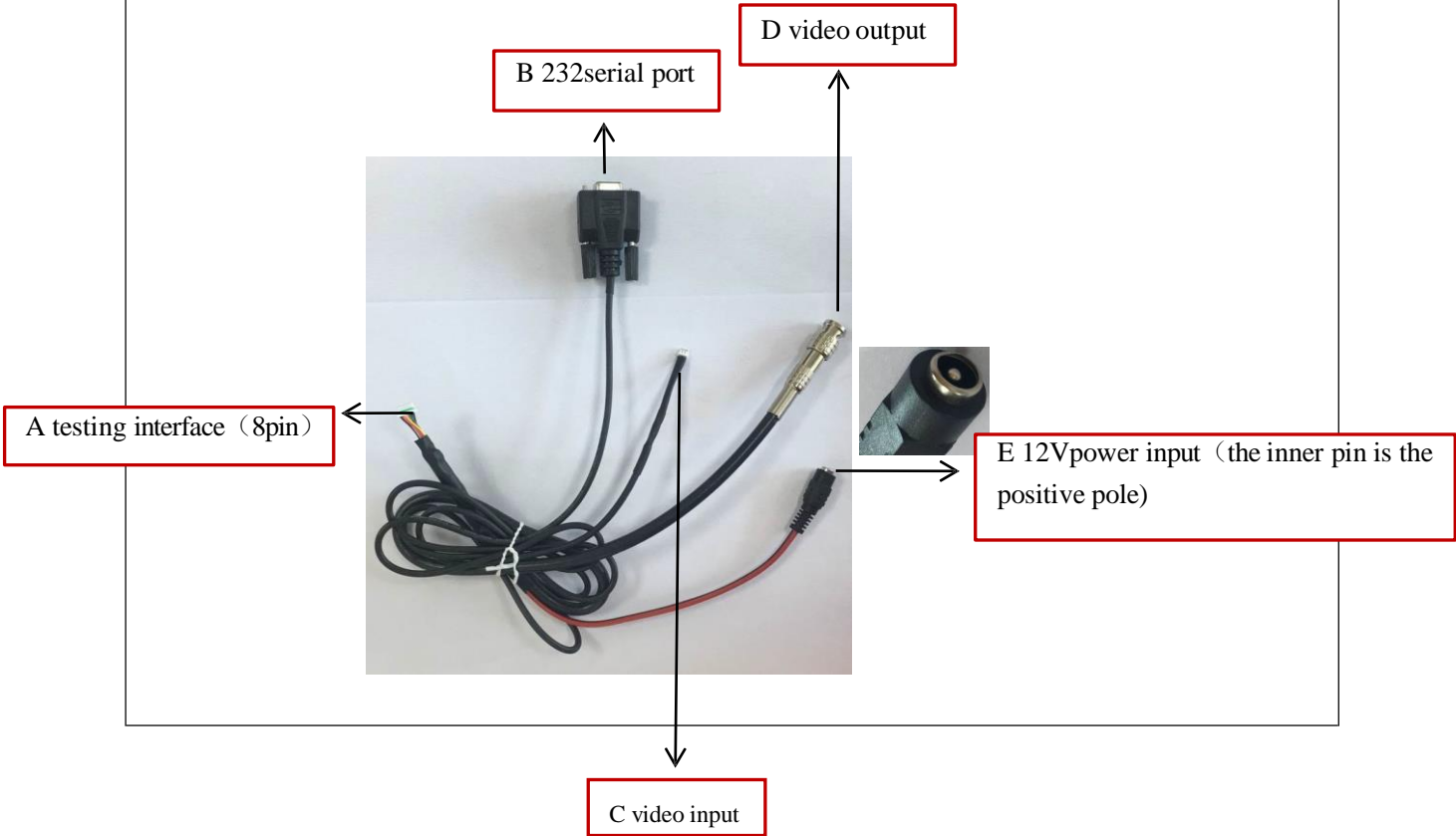
picture1 front interface diagram of the product:



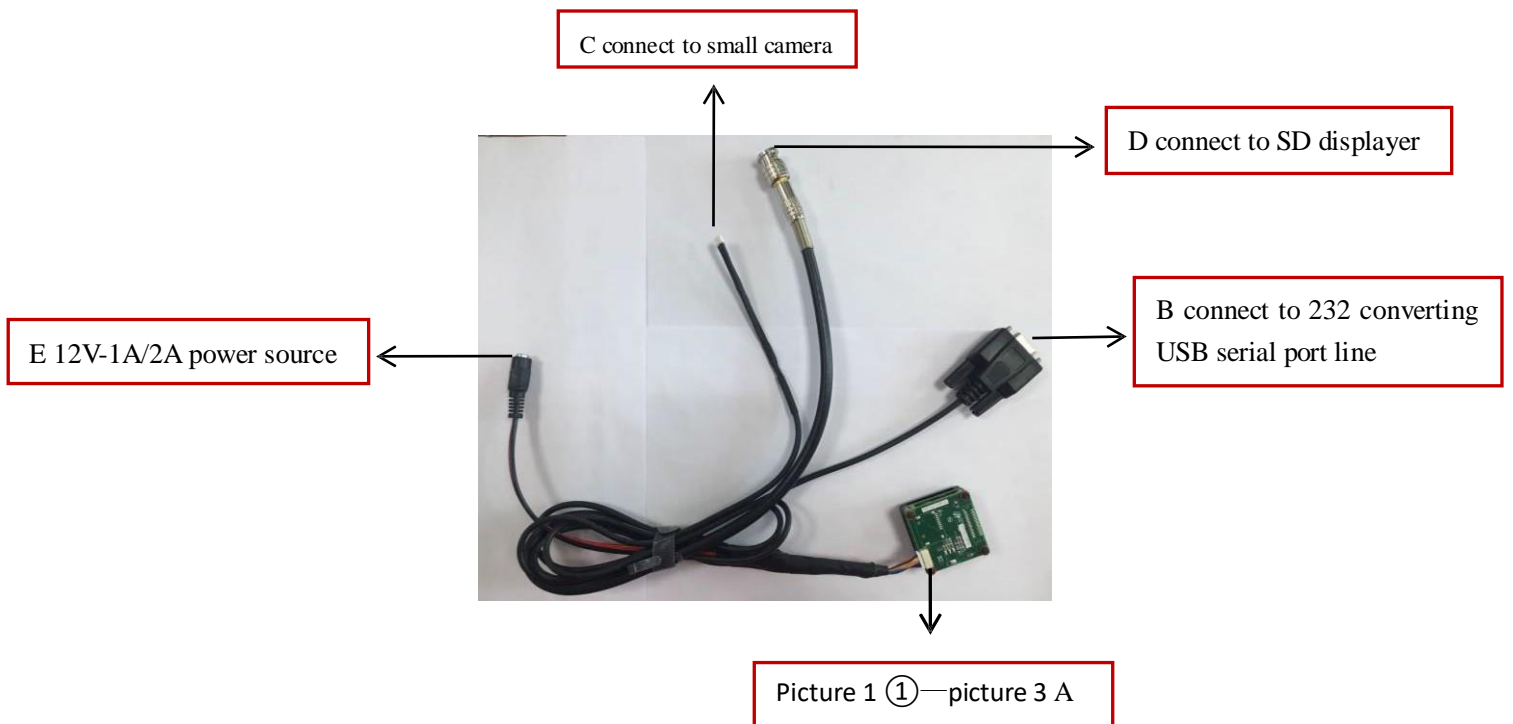
picture2 lateral interface diagram of the product:



picture3 Test line interface diagram :



2. 2. Flow chart of installation

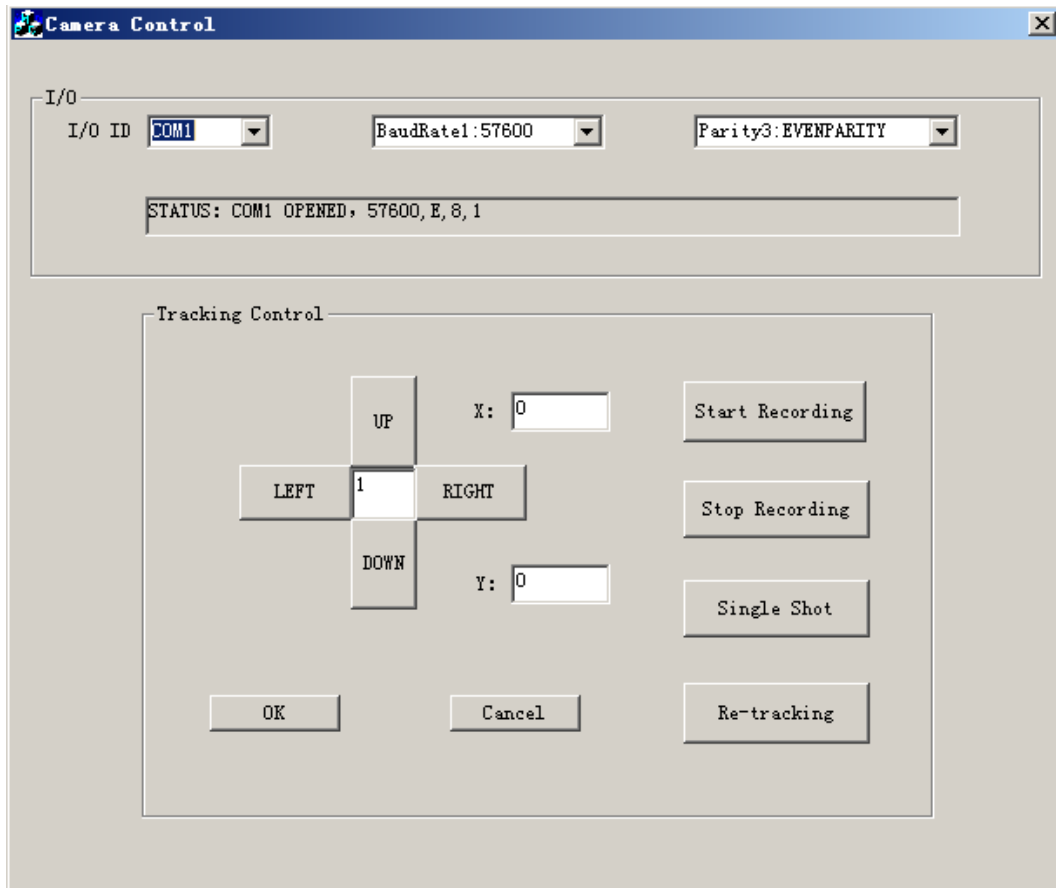


Note: To prevent the equipment from being damaged, please connect it to the power in the last step.

Attention, Attention: the position of 8 pin insert pin.

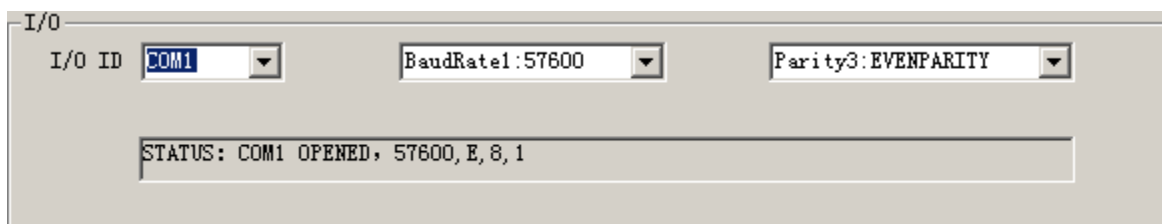
3 Test software usage

- The software installation instructions refer to the software installation package



3. 1. Flow chart of software operation

3. 1. 1. Communication interface

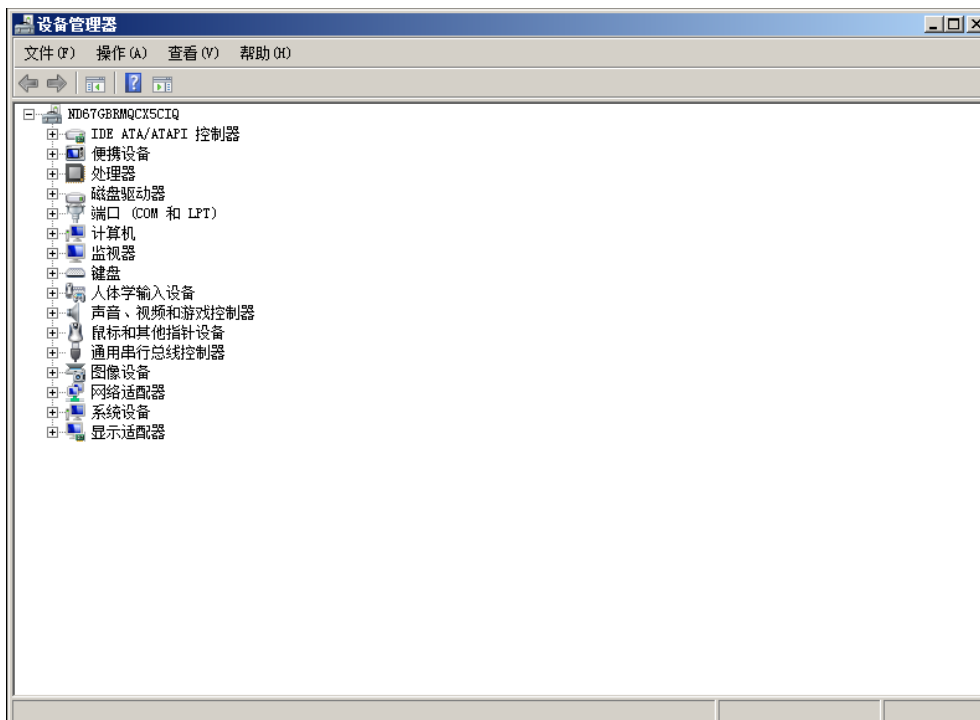


- Serial number setting and connection
- (Please install CH340 driver if there is no signal or showing exclamation mark when you refresh the page)

* Normally, the selected serial number should be the refreshed number after connecting line inserted.

Step 1: Confirm the serial number

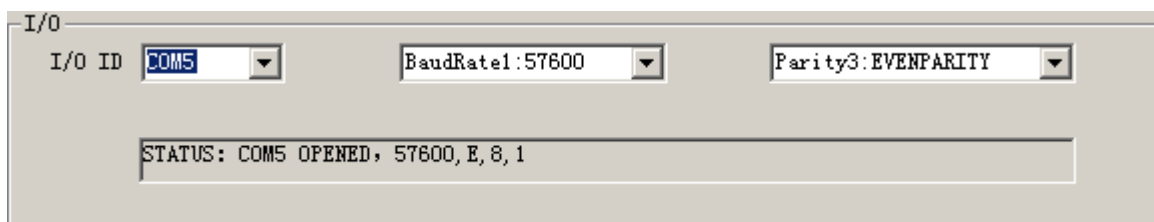
Right-click the Computer , select Computer Properties and the following interface appears



Double-click the port (COM and LPT), refreshed USB port should be selected, as shown in the picture below:



Step 2: Click the dropdown list, select the serial number (State: opened, the serial port cable is connected correctly)



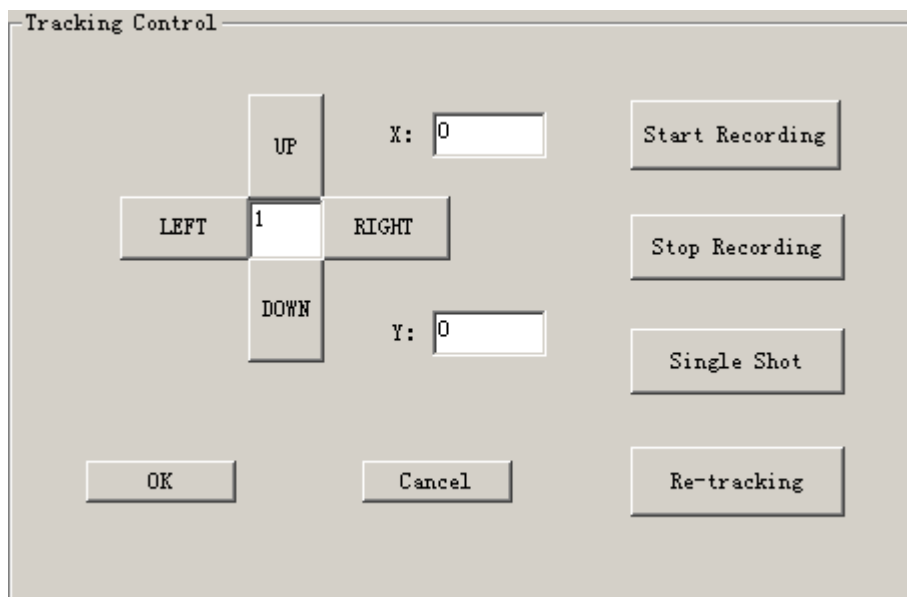
➤ Baud rate setting

Click the dropdown list and select baud rate

➤ Verification mode setting

Click the dropdown list and select verification mode

3. 1. 2. Tracking control interface



➤ Click the UP, DOWN, LEFT and RIGHT button and the cross cursor will show up.



“LEFT” button: display interface 3



“RIGHT” button: display interface 4



Step 1: Locate the tracking target

Click the Direction button in the tracking control interface and the cross cursor will show up, input the cursor in the input-box of the tracking control interface to adjust the steps(Unit: Pixel). Adjust the position of the cross cursor through UP, DOWN, LEFT and RIGHT button. Click ‘confirm’ button and complete the target locating when the tracking box appear.

Locating, tracking: display interface 1



Step 2: Second time target tracking

Click the ‘second time tracking’ button in the tracking control interface, the cross cursor will show up again on the displayer. And you can adjust the cursor position according to step 1 and then locking the tracking target.

Second time tracking: display interface 1



Second time tracking: display interface 2



Step 3: Cancel target tracking

Click 'cancel' button in tracking control interface and cross cursor will disappear, and target tracking is cancelled.

Cancel tracking: display interface 1



3. 1. 3. Other

➤ **SD video tracker has no storage function momentarily**

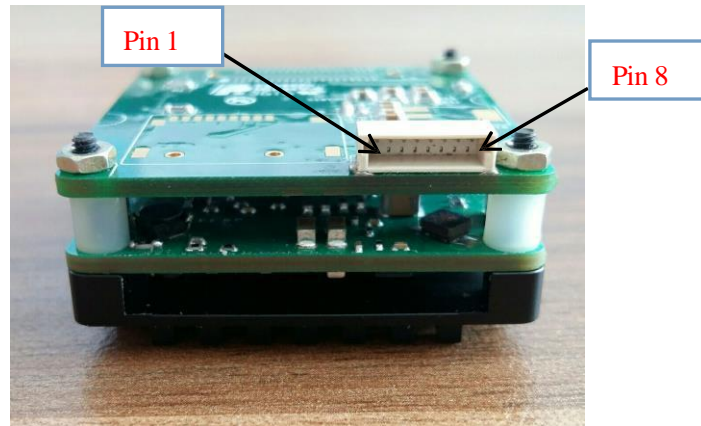


4 Simple malfunction diagnosis and exclusion

Please use the form below to check the infrared camera when it has any trouble. Disconnect the power and contract our technical support department if the problem cannot be fixed.

| Malfunction | Reason and solution |
|---|---|
| Video tracker cannot start /the power light is not on | 1. Check whether the power is connected. 2. Check whether the voltage is lower than required which should be 12V. |
| No image display | 1. Check whether the video input format of video tracker is PAL 2. Check whether the video input format of displayer is PAL 3. Check whether the baud rate is correct |
| The serial command does not respond | 1. Check whether the serial port is open(not serial port 1 open) 2. Check whether the verification mode is correct |
| No tracking box | 1. The target is too close or not obvious, reselect target |

Attachment 2 Pin definitions



| PIN No. | PIN Name | Function |
|---------|-----------|-------------------------------------|
| 1 | POWER IN | +8V+16V power input |
| 2 | GND | Ground |
| 3 | RS232_TXD | Video tracker Serial port sending |
| 4 | RS232_RXD | Video tracker Serial port receiving |
| 5 | GND | Video output GND |
| 6 | VIDEO_OUT | SD video tracker video output |
| 7 | GND | Video input GND |
| 8 | VIDEO_IN | SD video input |

Attachment 3 Communication protocol

Baud rate: 57600

Without the start bit, 8 bit data bits, 1 bit stop bit, even check

1. Control instruction set of video tracker control

(Reserved for infrared camera engineering commissioning mode occupied, please write 0x00)

There are two working states :(the working states are independent from each other)

0x00: Imaging mode;

0x71: Tracking mode;

| Byte mark | Number and function |
|-----------|---|
| 0 | 0x7E |
| 1 | 0x7E |
| 2 | 0x44 |
| 3 | 0x00 |
| 4 | 0x00 |
| 5 | 0x71 |
| 6 | 0x00 |
| 7 | X-axis movement is low 8 bits |
| 8 | X-axis movement is high 8 bits |
| 9 | Y-axis movement is low 8 bits |
| 10 | Y-axis movement is high 8 bits |
| 11 | 00: Cancel the tracking 01: Confirm the tracking |
| 12 | 0x01(Please do not change factory settings) |
| 13 | 0x05(Please do not change factory settings) |
| 14 | 0x00 |
| 15 | 0x00 |
| 16 | 0x00 |
| 17 | 0x00 |
| 18 | 0x00 |
| 19-47 | 0x00 |
| 48 | Checksum |

