



**Thermal Camera**  
**ZX-IRA26-a-DF250-G**  
**User Manual**  
**V2.0**

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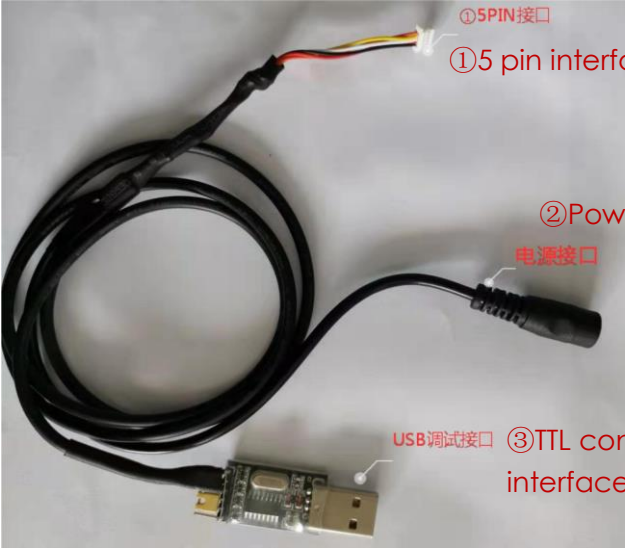
## Notes

- 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 thermal camera 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 video tracker should be 12V, otherwise the device would be damaged.

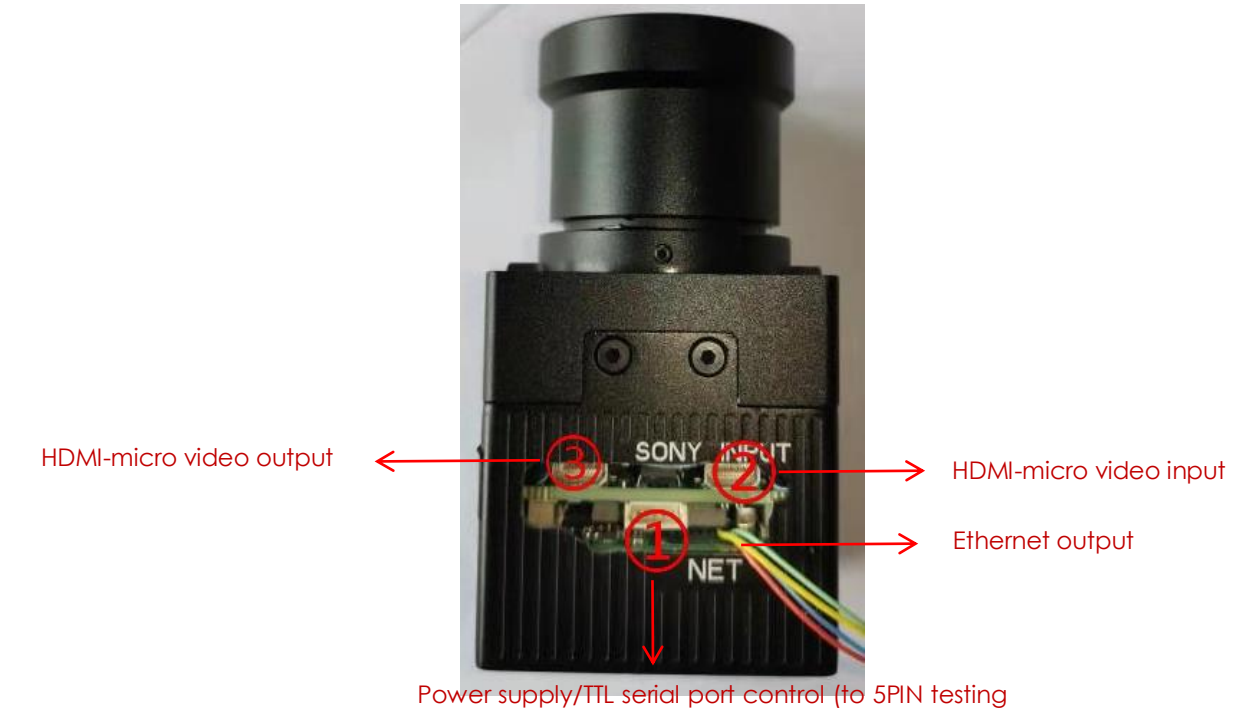
## Parameters

<b>Imaging index</b>	Working format	Un-cooled 8 $\mu$ m~14 $\mu$ m
	Resolution	640*480
	Size of pixel	17 $\mu$ m
	Emissivity correction	Emissivity0.01~1 adjustable
	NETD	$\leq$ 50mK (@25 $^{\circ}$ C)
	MRTD	$\leq$ 550mK (under characteristic frequency)
	Image enhancement	Auto adjust brightness and contrast
	Color palette	Black hot/white hot/pseudo color
	Digital zoom	2X, 3X, 4X
	Temperature measurement	Temperature bar with highest/lowest/center temperature spot
	Measurement range	0 $^{\circ}$ C~120 $^{\circ}$ C
	<b>Tracking index</b>	Data refresh rate
Output lag		<40ms
Minimum target contrast		5%
Tracking velocity		$\pm$ 32 pixels / frame
Target effective memory		100 frame
Target size		16 $\times$ 16~128 $\times$ 128 pixels
<b>Electrical interface</b>	Video interface	HDMI micro (input) / HDMI micro+Ethernet (output)
	Communication interface	TTL
	Power input	12V
<b>Environmental adaptation</b>	Working temperature	-40 $^{\circ}$ C~60 $^{\circ}$ C
	Storage temperature	-45 $^{\circ}$ C~65 $^{\circ}$ C
	Shock	Meet the GJB 150A vibration test conditions
<b>Others</b>	Lens	19mm/25mm/50mm
	Volume	78.3mm $\times$ 42mm $\times$ 42mm
	Weight	<155g
	Power consumption	$\leq$ 4.6W (@25 $^{\circ}$ C)

# Package List

Thermal camera×1	5pin testing cable×1
	

## Connections



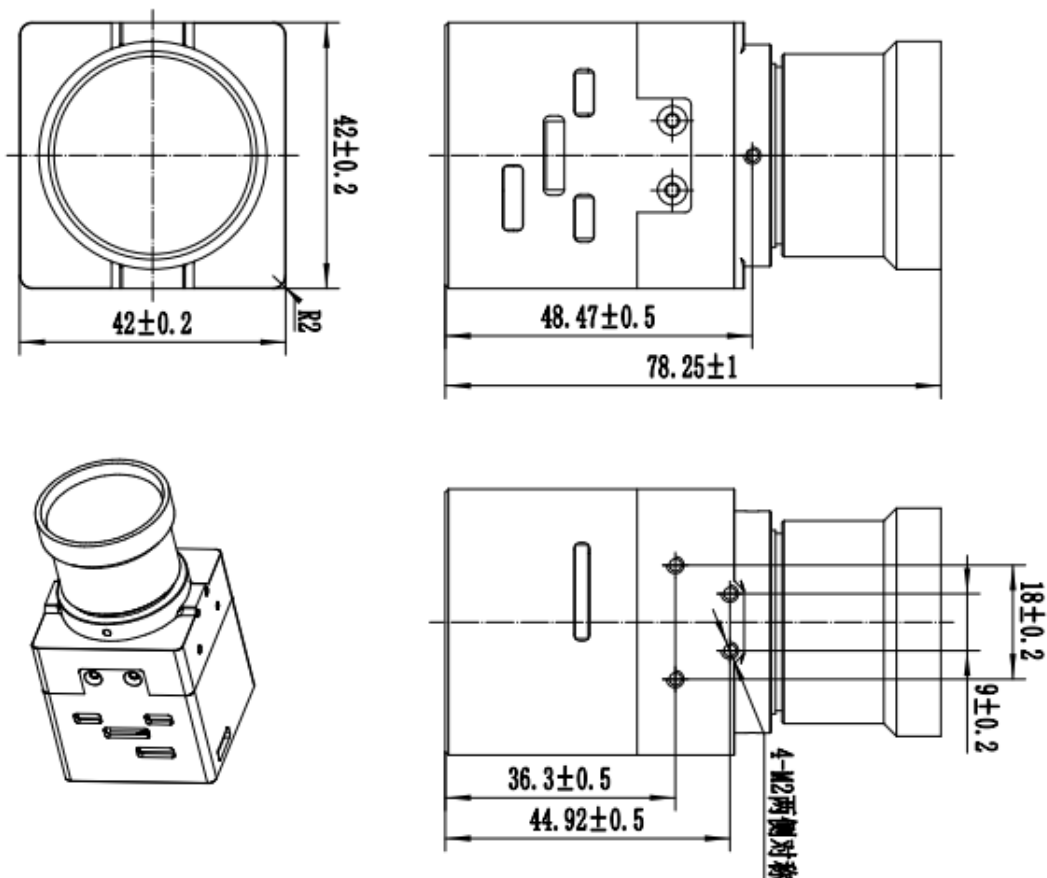
⚠ Note: To prevent the equipment from being damaged, please connect it to the power in the last step. **Please note the insertion pin.**

## Troubleshoot

Please use the form below to check the IPM 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	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 serial port is open(not serial port 1) 2. Check whether the baud rate setting of the operation software is correct. 3. Check whether the video output format of the displayer is 1080P.
The serial command does not respond	1. Check whether the serial port is open (not serial port 1 open) Check whether the verification mode is correct.
No tracking box	1. The target is too close or not obvious, reselect target.

## Dimensions



# Pin Definition



Ethernet interface

5PIN interface		
Pin #	Pin title	Function
1	GND	Ground
2	TXD	Serial port send
3	RXD	Serial port receive
4	GND	Ground
5	POWER IN	12V power in

Ethernet pin definition		
Pin #	Pin title	Function
Blue	DATA_1_N	Ethernet data 1_N
Red	DATA_1_P	Ethernet data 1_P
Green	DATA_0_N	Ethernet data 0_N
Yellow	DATA_0_P	Ethernet data 0_P