Thermal Camera

ZX-IRA26-5/6/8-DF250

User Manual
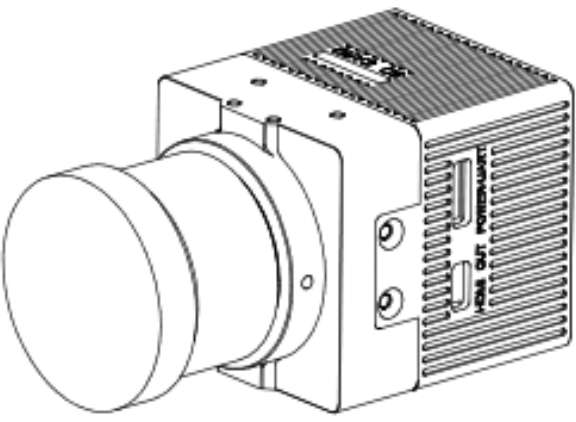**V2.0**

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Content

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

Module #		ZX-IRA26-5-DF190-G	ZX-IRA26-6-DF190-G	ZX-IRA26-8-DF190-G
Imaging index	Working system	Un-cooled long wave (8μm ~ 14μm)		
	Detector pixels	640×512		
	Pixel size	12μm		
	Focusing	Athermalizing		
	Emissivity correction	Emissivity 0.01~1 adjustable		
	NETD	≤50mK （@25℃）		
	MRTD	≤500mK （@Characteristic frequency）		
	Image enhancement	Automatically adjusts image brightness and contrast		
	Color palette	Black hot, white hot, pseudo color		
	Automatic non-uniformity correction function	Yes （without shutter）		
	Digital zoom	2X 3X 4X		
	Temperature measurement mode （Optional）	Temperature bar (pseudo display) Highest Temp Lowest Temp and field center temperature		
	Temperature warning (Optional)	Warning temperature 0℃ ~ 120℃		
Tracking index	Data refresh rate	25Hz or same with Sony RGB camera		
	Output lag	< 10ms		
	Tracking velocity	±32 pix/frame		
	Target size	16x16 pixels to 128*128 pixels		
Environmental adaptability	Working temperature	- 40℃~ 60℃		
	Storage temperature	- 40℃~ 65℃		
	Shock	Meet the GJB 150A vibration test conditions		
	Strike	Meet GJB 150A impact test conditions		
Electrical interface	Communication interface	TTL		
	Video input	LVDS (coaxial 30pin)	LVDS (coaxial 30pin)	LVDS (coaxial 30pin)
	Video output	HDMI micro, Ethernet	LVDS (coaxial 30pin), Ethernet	SDI, Ethernet
	Video format	HD 1080P; JPEG and H.264 for SD card storage		
	Power input	DC 12V		

Others	Lens	19mm(default), 25mm, 50mm	
	Size of device		77.3mm x 42mm x 42mm
	Weight	< 155g	
	Power consumption	≤4.6W （@25℃ with Sony RGB camera）	

Package List

Thermal camera×1	6pin testing cable×1

Ethernet cable (10pin)	LVDS cable (30pin)

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

Connections

6pin cable for serial port control and power

HDMI micro output

HDMI OUT POWER/UART

Sony LVDS video input (30pin)

SONY INPUT

10pin Ethernet video output

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
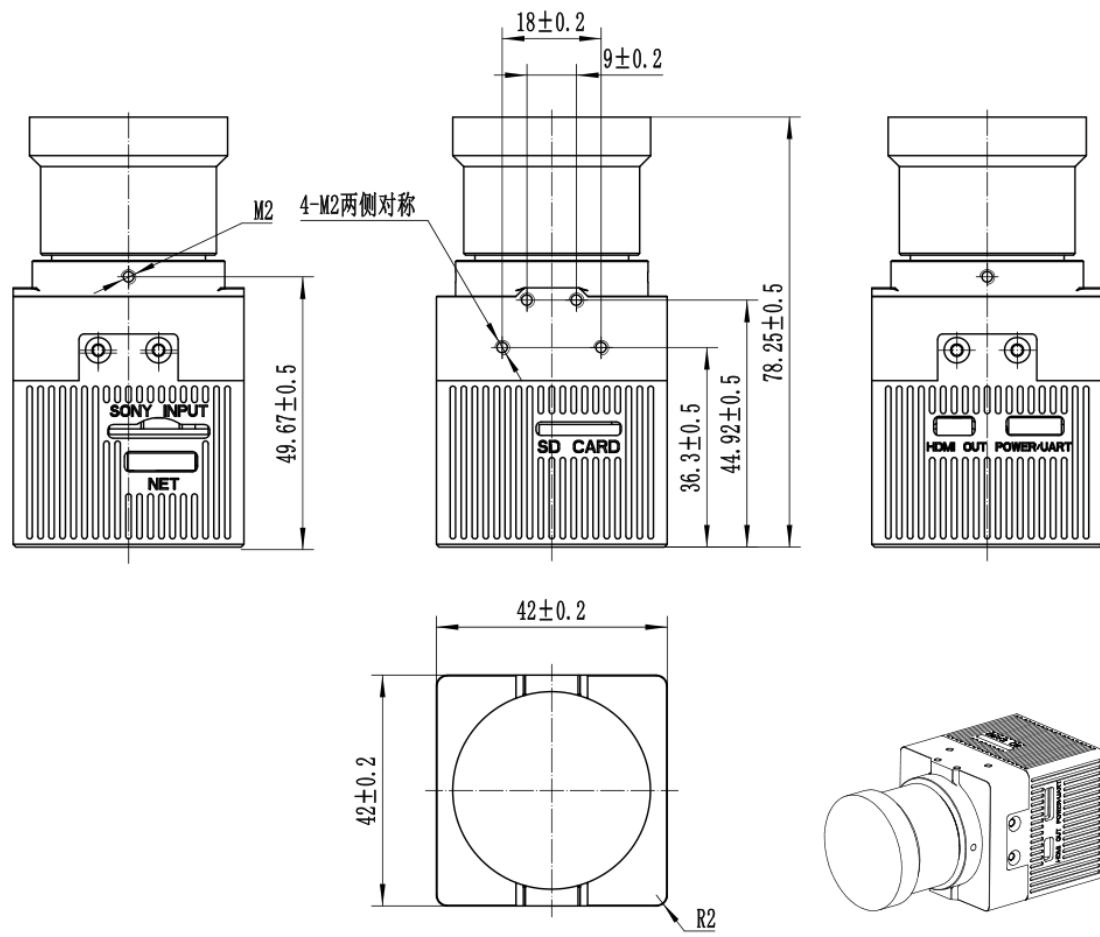
Pin Definition

6PIN interface		
Pin #	Pin title	Function
1	Power in	+12V power in
2	Power in	+12V power in
3	GND	Ground
4	GND	Ground
5	RXD	Serial port receive
6	TXD	Serial port send
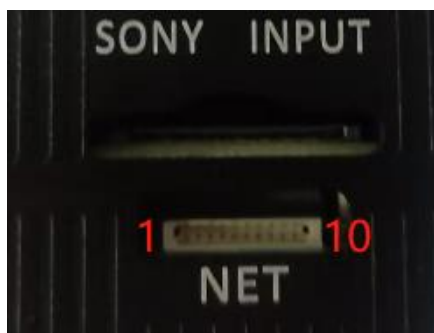
Ethernet pin definition (only first 4 pins from right side in the picture occupied)		
Pin #	Pin title	Function
1	DATA_1_N	Ethernet data 1_N
2	DATA_1_P	Ethernet data 1_P
3	DATA_0_N	Ethernet data 0_N
4	DATA_0_P	Ethernet data 0_P