



Outstanding Quality Higher Cost Performance



# Description

Utilizing self-developed wafer-level-packaging detector, the COIN612 uncooled thermal module is simplified in size and weight but does not compromise in performance. Equipped with a variety of industry-standard interfaces and a full set of optical lenses, it is easy for OEM customers who pursue strict requirements on size, weight and power consumption to start secondary development.

## **Optimal SWaP**

- Mini size: 25.4mm×25.4mm×14.1mm
- Light Weight: as low as 11.5g
- Power consumption: as low as 0.8W

## **Outstanding Image Quality**

New generation image processing algorithm: NUC/3DNR/DNS/DRC/EE

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Temperature measurement range: -20°C~150°C, 0~550°C (support expansion & customization)

### **Fast Integration**

- USB2.0/DVP/LVDS image output interfaces, RAW/YUV image data output, serial port control
- Provide ARM/Windows/Linux SDK; achieve full screen temperature measurement

IVIODEI	COIN612/R
	IR Detector Performance
Sensitive Material	Vanadium Oxide
Resolution	640×512
Pixel Size	12µm
Spectral Range	8μm ~14μm
Typical NETD	≪40mK
	Image Processing
Frame Rate	25Hz/30Hz
Start-up Time	5s
Analog Video	PAL/NTSC
Digital Video	RAW /YUV /BT656
Image Algorithm	NUC/3DNR/DNS/DRC/EE
Image Display	Black Hot/White Hot/Pseudo Color
	PC Software
ICC Software	Module Control & Video Display
	Electrical Specifications
Standard External Interface	50Pin_HRS: DF40C-50DP-0.4V(51), (HRS, Male)
USB Expansion Board	Type-C
Communication Interface	TTL-232/USB2.0
Digital Video Interface	CMOS8/CMOS16/LVDS/USB2.0
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Supply Voltage	4~5.5V
Supply Voltage Typical Power Consumption	4~5.5V 0.8W
Supply Voltage Typical Power Consumption	4~5.5V 0.8W Temperature Measurement
Supply Voltage Typical Power Consumption Operating Temperature Range	4~5.5V 0.8W Temperature Measurement -10°C~+50°C
Supply Voltage   Typical Power Consumption   Operating Temperature Range   Temperature Measurement Range	4~5.5V 0.8W Temperature Measurement -10°C~+50°C -20°C~150°C, 0°C~550°C (Support Expansion & Customization)
Supply Voltage Typical Power Consumption Operating Temperature Range Temperature Measurement Range Temperature Measurement Accuracy	4~5.5V 0.8W Temperature Measurement -10°C~+50°C -20°C~150°C, 0°C~550°C (Support Expansion & Customization) Greater of ±3°C or ±3%
Supply Voltage Typical Power Consumption Operating Temperature Range Temperature Measurement Range Temperature Measurement Accuracy RegionalTemperature Measurement	4~5.5V   0.8W   Temperature Measurement   -10°C~+50°C   -20°C~150°C, 0°C~550°C (Support Expansion & Customization)   Greater of ±3°C or ±3%   Support Maximum, Minimum and Average Value of the Output Regional Temperature
Supply Voltage Typical Power Consumption Operating Temperature Range Temperature Measurement Range Temperature Measurement Accuracy RegionalTemperature Measurement SDK	4~5.5V 0.8W Temperature Measurement -10°C~+50°C -20°C~150°C, 0°C~550°C (Support Expansion & Customization) Greater of ±3°C or ±3% Support Maximum, Minimum and Average Value of the Output Regional Temperature Windows/Linux/ARM; Achieve Video Stream Analysis and Conversion from Gray to Temperature
Supply Voltage Typical Power Consumption Operating Temperature Range Temperature Measurement Range Temperature Measurement Accuracy RegionalTemperature Measurement SDK	4~5.5V 0.8W Temperature Measurement -10°C~+50°C -20°C~150°C, 0°C~550°C (Support Expansion & Customization) Greater of ±3°C or ±3% Support Maximum, Minimum and Average Value of the Output Regional Temperature Windows/Linux/ARM; Achieve Video Stream Analysis and Conversion from Gray to Temperature Physical Characteristics
Supply Voltage   Typical Power Consumption   Operating Temperature Range   Temperature Measurement Range   Temperature Measurement Accuracy   RegionalTemperature Measurement   SDK   Size (mm)	4~5.5V 0.8W Temperature Measurement -10°C~+50°C -20°C~150°C, 0°C~550°C (Support Expansion & Customization) Greater of ±3°C or ±3% Support Maximum, Minimum and Average Value of the Output Regional Temperature Windows/Linux/ARM; Achieve Video Stream Analysis and Conversion from Gray to Temperature Physical Characteristics 25.4×25.4×14.1 (Without Lens)
Supply Voltage   Typical Power Consumption   Operating Temperature Range   Temperature Measurement Range   Temperature Measurement Accuracy   RegionalTemperature Measurement   SDK   Size (mm)   Weight	4~5.5V 0.8W Temperature Measurement -10°C~+50°C -20°C~150°C, 0°C~550°C (Support Expansion & Customization) Greater of ±3°C or ±3% Support Maximum, Minimum and Average Value of the Output Regional Temperature Windows/Linux/ARM; Achieve Video Stream Analysis and Conversion from Gray to Temperature Physical Characteristics 25.4×25.4×14.1 (Without Lens) 11.5g (Without Lens)
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Supply Voltage   Typical Power Consumption   Operating Temperature Range   Temperature Measurement Range   Temperature Measurement Accuracy   RegionalTemperature Measurement   SDK   Size (mm)   Weight   Operating Temperature	4~5.5V 0.8W Temperature Measurement -10°C~+50°C -20°C~150°C, 0°C~550°C (Support Expansion & Customization) Greater of ±3°C or ±3% Support Maximum, Minimum and Average Value of the Output Regional Temperature Windows/Linux/ARM; Achieve Video Stream Analysis and Conversion from Gray to Temperature Physical Characteristics 25.4×25.4×14.1 (Without Lens) 11.5g (Without Lens) Environmental Adaptability -40°C~+70°C
Supply Voltage   Typical Power Consumption   Operating Temperature Range   Temperature Measurement Range   Temperature Measurement Accuracy   RegionalTemperature Measurement Accuracy   SDK   Size (mm)   Weight   Operating Temperature   Storage Temperature	4~5.5V 0.8W Temperature Measurement -10°C~+50°C -20°C~150°C, 0°C~550°C (Support Expansion & Customization) Greater of ±3°C or ±3% Support Maximum, Minimum and Average Value of the Output Regional Temperature Windows/Linux/ARM; Achieve Video Stream Analysis and Conversion from Gray to Temperature Physical Characteristics 25.4×25.4×14.1 (Without Lens) 11.5g (Without Lens) 11.5g (Without Lens) Environmental Adaptability -40°C~+70°C -45°C~+85°C
Supply Voltage   Typical Power Consumption   Operating Temperature Range   Temperature Measurement Range   Temperature Measurement Accuracy   RegionalTemperature Measurement   SDK   Size (mm)   Weight   Operating Temperature   Storage Temperature   Humidity	4~5.5V 0.8W Certain Certain Measurement -10°C~+50°C -20°C~150°C, 0°C~550°C (Support Expansion & Customization) Greater of ±3°C or ±3% Support Maximum, Minimum and Average Value of the Output Regional Temperature Windows/Linux/ARM; Achieve Video Stream Analysis and Conversion from Gray to Temperature Physical Characteristics 25.4×25.4×14.1 (Without Lens) 11.5g (Without Lens) 11.5g (Without Lens) Certain Adaptability -40°C~+70°C -45°C~+85°C 5%~95%, non-condensing
Supply Voltage   Typical Power Consumption   Operating Temperature Range   Temperature Measurement Range   Temperature Measurement Accuracy   RegionalTemperature Measurement Accuracy   SDK   Size (mm)   Weight   Operating Temperature   Storage Temperature   Humidity   Vibration	4~5.5V 0.8W Temperature Measurement -10°C~+50°C -20°C~150°C, 0°C-550°C (Support Expansion & Customization) Greater of ±3°C or ±3% Support Maximum, Minimum and Average Value of the Output Regional Temperature Windows/Linux/ARM; Achieve Video Stream Analysis and Conversion from Gray to Temperature Physical Characteristics 25.4×25.4×14.1 (Without Lens) 11.5g (Without Lens) 11.5g (Without Lens) Environmental Adaptability -40°C~+70°C -45°C~+85°C 5%~95%, non-condensing 5.35grms, 3-axis
Supply Voltage   Typical Power Consumption   Operating Temperature Range   Temperature Measurement Range   Temperature Measurement Accuracy   RegionalTemperature Measurement Accuracy   SDK   SDK   Operating Temperature Measurement   SDK   Operating Temperature   Storage Temperature   Humidity   Vibration   Shock	4~5.5V 0.8W Temperature Measurement -10°C~+50°C -20°C~150°C, 0°C~550°C (Support Expansion & Customization) Greater of ±3°C or ±3% Support Maximum, Minimum and Average Value of the Output Regional Temperature Windows/Linux/ARM; Achieve Video Stream Analysis and Conversion from Gray to Temperature Windows/Linux/ARM; Achieve Video Stream Analysis and Conversion from Gray to Temperature Physical Characteristics 25.4×25.4×14.1 (Without Lens) 11.5g (Without Lens) 11.5g (Without Lens) 40°C~+70°C -45°C~+85°C 5%~95%, non-condensing 5.35grms, 3-axis Half-sine Wave, 40g/11ms, 3-axis 6-direction
Supply Voltage   Typical Power Consumption   Operating Temperature Range   Temperature Measurement Range   Temperature Measurement Accuracy   RegionalTemperature Measurement Accuracy   SDK   Size (mm)   Weight   Operating Temperature   Storage Temperature   Humidity   Vibration   Shock   Certificate	4~5.5V 0.8W Comport Measurement -10°C~+50°C -20°C~150°C, 0°C~550°C (Support Expansion & Customization) Greater of ±3°C or ±3% Support Maximum, Minimum and Average Value of the Output Regional Temperature Windows/Linux/ARM; Achieve Video Stream Analysis and Conversion from Gray to Temperature Windows/Linux/ARM; Achieve Video Stream Analysis and Conversion from Gray to Temperature 25.4×25.4×14.1 (Without Lens) 11.5g (Without Lens) 11.5g (Without Lens) Comport Adore a to the terminal Adaptability -40°C~+70°C -45°C~+85°C 5%~95%, non-condensing 5.35grms, 3-axis Half-sine Wave, 40g/11ms, 3-axis 6-direction ROHS2.0/REACH
Supply Voltage Typical Power Consumption Operating Temperature Range Temperature Measurement Range Temperature Measurement Accuracy RegionalTemperature Measurement SDK SDK Size (mm) Weight Operating Temperature Storage Temperature Humidity Vibration Shock Certificate	4~5.5V 0.8W Temperature Measurement -10°C~+50°C -20°C~150°C, 0°C~550°C (Support Expansion & Customization) Greater of ±3°C or ±3% Support Maximum, Minimum and Average Value of the Output Regional Temperature Windows/Linux/ARM; Achieve Video Stream Analysis and Conversion from Gray to Temperature Physical Characteristics 25.4×25.4×14.1 (Without Lens) 11.5g (Without Lens) 11.5g (Without Lens) 11.5g (Without Lens) 6 11.5g (C~+70°C -45°C~+70°C -45°C~+85°C 5%~95%, non-condensing 5.35grms, 3-axis Half-sine Wave, 40g/11ms, 3-axis 6-direction ROHS2.0/REACH
Supply Voltage   Typical Power Consumption   Operating Temperature Range   Temperature Measurement Range   Temperature Measurement Accuracy   RegionalTemperature Measurement Accuracy   RegionalTemperature Measurement Accuracy   SDK   SDK   Operating Temperature Measurement   SDK   Operating Temperature   Storage Temperature   Humidity   Vibration   Shock   Certificate   Optional Lens	4-5.5V 0.8W Temperature Measurement -10°C~+50°C -20°C~150°C, 0°C~550°C (Support Expansion & Customization) Greater of ±3°C or ±3% Support Maximum, Minimum and Average Value of the Output Regional Temperature Windows/Linux/ARM; Achieve Video Stream Analysis and Conversion from Gray to Temperature Physical Characteristics 25.4×25.4×14.1 (Without Lens) 11.5g (Without Lens) 11.5g (Without Lens) 25.4×25.4×14.1 (Without Lens) 11.5g (Without Lens) 5.4×25.4×15, non-condensing 5.35grms, 3-axis Half-sine Wave, 40g/11ms, 3-axis 6-direction ROHS2.0/REACH Optics

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Specifications are subject to change without prior notice.

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