

TWIN1212 Uncooled HD Infrared Camera Core

**High Resolution
Low Power Consumption**



Description

TWIN1212 uncooled infrared camera core integrates GSTiR self-developed 1280×1024 ceramic package infrared detector, high performance signal processing circuit and brand new image algorithm to output ultra clear images and accurate temperature data. It is suitable for application scenarios with requirements of high quality image and high performance.

Optimized Solution

- Mini size: 38mm×39mm×20.9mm (bare module)
- Weight as light as 49g (bare module)
- Power consumption as low as 1W

Strong Universality

- Good stability in various harsh environments
- Various image data output interfaces:
DVP8/DVP16/BT.1120

Outstanding Image Quality & Accurate Temperature Measurement

- Brand new image algorithm for excellent image presentation: NUC/3DNR/DNS/DRC/EE
- Temperature measurement range: -20℃~150℃, 0~550℃ (customizable)
- Temperature measurement accuracy: ±2℃ or ±2%
- Support Android/Windows/Linux/ARM SDK;
achieve video stream analysis and conversion from gray to temperature

Model	TWIN1212		TWIN1212R
IR Detector Performance			
Resolution	1280x1024		
Pixel Size	12μm		
Spectral Range	8~14μm		
Typical NETD	<30mK		
Image Processing			
Frame Rate	25Hz/30Hz/50Hz		25Hz/30Hz
Start-up Time	5s		
Analog Video	/		
Digital Video	DVP8/DVP16/BT.1120		
Image Display	10 in Total (White Hot/Lava/Iron Red/Hot Iron/Medical/Arctic/Rainbow1/Rainbow2/Tint/Black Hot)		
Image Algorithm	NUC/3DNR/DNS/DRC/EE		
Electrical Specifications			
Standard External Interface	50pin: BP040SB-50-0114-B-R0		
Communication Interface	RS232-TTL/USB2.0		
Supply Voltage	5V±0.5V		
Typical Power Consumption	1W		
Extension Components	Cameralink / HDMI / USB3.0 / GigE / MIPI / SDI		
Temperature Measurement			
Working Temperature Range	/	/	-10℃~50℃
Temperature Measurement Range	/	/	-20℃~150℃, 0℃~550℃
Temperature Measurement Accuracy	/	/	For 14mm/19mm Lens: Greater of ±2℃ or ±2% (@23℃±3℃), Temperature Measurement Distance is 5 meters For 25mm Lens: Greater of ±2℃ or ±2% (@23℃±3℃), Temperature Measurement Distance is 10 meters
Regional Temperature Measurement	/	/	Support temperature measurement in any area and output maximum, minimum and average values of the area
Point Temperature Measurement / Isotherm	/	/	Support
Full Screen Temperature Measurement	/	/	Support Temperature Matrix Output
SDK	Android/Windows/Linux/ARM; Achieve Video Stream Analysis		
Physical Characteristics			
Size (Bare Module)	38mm×39mm×20.9mm (Fixed Focus: 14/19/25/35mm)	68mm×69mm×17.7mm (Fixed Focus: 50mm Motorized Lens: 75mm/100mm/150mm Continuous Zoom: 28~90mm/30~180mm)	38mm×39mm×20.9mm (Fixed Focus: 14/19/25mm)
Weight (Bare Module)	49±3g	71.2±3g	49±3g
Environmental Adaptability			
Working Temperature	-40℃~+70℃		
Storage Temperature	-45℃~+85℃		
Humidity	5%~95%, non-condensing		
Vibration	Sine Vibration, Frequency: 10HZ~150HZ~10HZ, Peak Value: 0.15mm, Axial Direction: X Endurance Time: 8min/axis, Number of Cycles: 2 times		
Shock	Half-sine Wave, 30g/11ms Impact Direction: X-axis, 3 times		
Optics			
Optical Lens	Fixed Focus Athermal: 14mm/19mm/25mm/35mm/50mm/100mm Motorized Lens: 75mm/100mm/150mm Continuous Zoom: 28~90mm/30~180mm		Fixed Focus Athermal: 14mm/19mm/25mm

Specifications are subject to change without prior notice

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