

# Uncooled Infrared Camera Module

## Pioneer series



Tian Yuan Global Corp.

## Overview

Our Pioneer Series cameras are infrared thermal imaging camera modules. The camera module is equipped with a 640\*512 infrared sensor, which uses a microbolometer of vanadium oxide material to convert infrared radiation into an electrical signal, which can be integrated into an infrared thermal imaging machine.



## Spotlight

- Considering sensitivity, uniformity, and performance, it is suitable for a variety of applications
- Highly adaptable, greatly reducing BOM cost, highly adaptable
- Excellent temporal and spatial noise, noise reduction technology to minimize the impact of noise

## Images from Our Pioneer series camera





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### Product Features

- 640\* 512 (VGA)
- 17 $\mu$ m pixel size
- Maximum frame rate 60Hz
- 8~14  $\mu$ m
- NETD<40mK (F/1, 300K, 50Hz)
- Thermal time constant <12ms
- 100g of weight (w/o lens)
- Dimensions are 50mm\*50mm\*30mm
- IP67
- With defrosting function
- Operating temperature range -40 $^{\circ}$ C to 85 $^{\circ}$ C
- Storage temperature range -40 $^{\circ}$ C to 95 $^{\circ}$ C
- DC 5V, <2mW
- Video protocol : LVDS
- Data format : YUV and RGB
- Physical Interface : Fakra, Type C, MIPI
- Communication Interface : I2C, GPIO
- Field of View/Focal Length : 33(H)\*24(V)/13.5mm  
48(H)\*38(V)/19mm



### Applications

- Advanced Driver Assistance Systems (ADAS)
- Vehicle security night vision
- Security protection monitoring
- Firefighting and rescuing
- Mountain, inshore waters rescuing
- Long-term care medical monitoring