

## Thermal Infrared Imaging-IR Camera

### ATC8225

### Features

Number of pixels: 640\*512;  
Using C308F integrated Stirling refrigerator;  
Converting  $1.0\pm0.2\mu\text{m}$  ~  $2.5\pm0.2\mu\text{m}$  band infrared radiation signal;  
Pixel size is 15\*15 microns;  
Blind element rate  $\leq 0.5\%$ ;  
NETD (average noise equivalent temperature difference) sensitivity  $\leq 50\text{mk}$ ;  
Response non-uniformity  $\leq 7\%$ ;  
The main control board supports 16-bit Cameralink video output, and the expansion board supports USB3.0, network and Mini-HDMI display.

### Application

Civil aviation field  
Electric field  
Petrochemical field  
Forest fire prevention and environmental detection  
High-end security monitoring  
Maritime field  
Unmanned aerial vehicles

### Description

The ATC8225 Thermal Infrared Imaging-IR Camera realizes the drive of the refrigerator and digitizes the analog signal of the detector. The analog signal of the detector is converted into a digital signal by a 14-bit ADC chip, and output as a USB3.0 digital video. It can also output clear infrared images in the dark night or in bad weather conditions, which can detect and identify potential long-distance threats, and present more detailed information on short-distance targets.

The SWIR used by the ATC8225 is more like enhanced vision, and it creates an image very similar to what the human eye sees. This has strong advantages in many of its applications, such as reducing potential friendly fire, seeing important features of maritime targets such as ship names, and face recognition in security applications. In addition, short-wave infrared imaging has a major advantage that other technologies cannot match.



## 1. parameter

Thermal Infrared Imaging-IR Camera	
Detector Type Cooled	Shortwave Infrared Focal Plane Detector
Material	MCT
Resolution	640x512
Pixel size	15μm
Spectral Response Range	1.0±0.2μm ~2.5±0.2μm
Quantum efficiency	≥70%(1.0μm~2.5μm)
Operable pixel rate	≥99.5%
NETD	≤10mK
NETD	≤50mK (25±3℃)
Response rate non-uniformity	≤7%
Digital video	Cameralink
	16bit DVP
	USB3.0 output
	LAN interface
Control interface	RS422
Cooling method	Integrated integral Stirling refrigeration
Boot completion time	≤8min@25±3℃;≤12min@60±3℃
Powered by	DC12±1V
Operating temperature	-40℃~+60℃
Storage temperature	-45℃~+70℃
Humidity	0%~85%RH
Weight	to be determined
Size	to be determined
F#	1.5
Focal length	25mm

## 2. Parts List

Serial No.	Item	Quantity	Optional/Standard
1	Thermal Infrared Imaging-IR Camera	1	Standard
2	Window guard	1	Standard
3	Product Manual	1	Standard
4	Cooling core configuration software	1	Standard
5	lens	1	Optional