![Raythink]

Turing F384
Uncooled Infrared Module (Imaging)

Turing F384 uncooled infrared module has a built-in high-sensitivity VOx infrared detector, providing a consistently high-performance kernel, ultimate image algorithms, and technology of lens control, bringing a new experience for long-distance monitoring. The product can be widely used in application scenarios such as perimeter security, high-altitude observation, forest fire prevention, and water area monitoring.

Product Highlights

All-Weather, All-Scenario Ultra-Fast Focusing

- By optimizing the lens control technology and employing a series of continuous zoom lenses,this product achieves full focus in all temperature ranges.
- Deeply optimized automatic focusing algorithm to achieve ultra-fast focusing in 1 second in general and weak target scenarios.
- The image is clear throughout the process in application scenarios like target tracking and linkage magnification.

Providing Sharp Infrared Images

- The module upgrades the image algorithm to the new generation and optimizes the image for special scenarios such as forests, sea, sky, and rainy and foggy weather, providing customers with clear and sharp infrared images.

Providing Optimized Lens

- It supports athermalized prime lenses, prime electric focusing lenses, and continuous zoom lenses.
- It can realize electric focus, continuous zoom, automatic focus, and defocusing compensation functions, etc.

Multiple Interfaces, Easy for Secondary Development

- It provides interfaces, BT.601, BT.1120, and other video output interfaces.
- Expandable SDI, USB, Cameralink, and HDMI interfaces.
- It provides multiple SDK, which are simple and easy to use, shortening the development cycle, improving efficiency,and reducing secondary development costs.

Specifications

Model	Turing F384 Imaging
Performance Characteristics	
Detector Type	Uncooled VOx infrared detector
Resolution	384×288
Pixel Pitch	12μm
Frame Rate	50Hz
Spectral Band	8~14μm
NETD	≤40mK@25℃,F#1.0
Image Adjustment	
Palette	Support (20)
Digital Zoom	1.0~8.0× continuous zoom (step size: 0.1)
Image Processing	Non-uniformity correction/Brightness and contrast adjustment/Temporal filtering and spatial filtering noise reduction/Digital detail enhancementStyle adjustment
Mirror Image	Horizontal/Vertical/Diagonal
Temperature Measurement and Alarming	
Temperature Measurement Range	Not support
Measurement Accuracy	Not support
Fire Alarm	Support
Network Function	
Network Protocol	TCP/IP, UDP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, RTP, RTSP, RTCP, IGMP, SMTP, NTP, QoS, and other network protocols
Platform Access	Support Modbus TCP, MQTT protocols, ONVIF, GB28181, and SDK
Simultaneous Previewed Videos	Up to 8 channels
User Management	Up to 20 users, 3 levels: administrator, operator and user
Browser	Google, Firefox, Edge, etc
Intelligent Function	
Fire Warning	Support fire point detection
Intelligent Video Taking	Support
Intelligent Alarm	Support abnormality detection and linkage alarm for network cable disconnection, IP address conflict, memory error, and illegal access
Intelligent Detection	Support intelligent analysis of events such as regional intrusion, tripwire intrusions, and passenger and vehicle recognition
Alarm Linkage	Video taking/Image capture (thermal image capture supported)/Email/Linked PTZ/Alarm output
Lens Control	
Lens Type	Athermalized/Prime electric focus
Focus Mode	Manual/Automatic
Electric Focus	Support
Electric Zoom	Support
Digital	
Power Supply Range	5-24V DC (12V DC recommended)
Power Consumption	<1.5w (Typical, @25℃)
Analog Video	1-channel PAL system
Digital Video	LVCMOS/BT.601/BT.1120
Communication Interface	RS-232/UART
Online	
Power Supply Range	12V DC ±10%
Power Consumption	<2.0w (Typical, @25℃)
Communication Interface	One RJ45 10M/100M adaptive Ethernet port, one RS-485, one UART
Alarm Interface	1-channel alarm input, 1-channel alarm output
Audio Interface	1-channel audio input, 1-channel audio output
Environment Adaptability	
Operating Temperature	-40℃~+70℃
Storage Temperature	-45℃~+85℃
Humidity	5-95%, non-condensing
Product Certification	RoHS2.0

Applications

Perimeter Surveillance

Forest Fire Prevention

Security Monitoring

Urban High-Altitude Observation

Raythink Technology Co., Ltd.