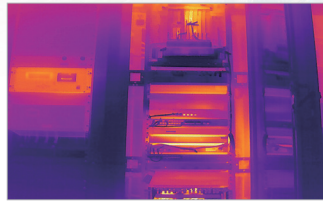# IRS - FD2 series

Dual-Spectrum Thermal Network Dome Camera

IRS-FD2 series dual-spectrum thermal network camera equipped with the advanced thermal detectors and high-resolution visible module. Based on the AI algorithm, the camera is able to detect line crossing, intrusion and region entrance/exit and various measurement rules can be set. FD225-T series could be used for perimeter defense, fire prevention in warehouse or gas station, or industrial temperature measurement.

12μm VOx Uncooled Detector

Equipped with new generation InfiRay® 12μm uncooled Vox detector to provide advanced thermal image quality

High Accuracy

-20°C~+550°C measure range, ±2°C accuracy with various measurement rules

Smart Alarm

Supports event linkage alarm, supports sound or light alarm

Dual-Spectrum Image

Visible light image & thermal image for 24-hours surveillance

Smart Video Analysis

Supports Line Crossing, Intrusion on both visible/thermal channel, support fire point detection

High Compatibility

Provides NVR and VMS client, compatible with ONVIF, GB28181 protocols, provides SDK for development

Product Specifications

Technical Specifications	IRS-FD225-T	
Thermal		
Detector Type	VOx, uncooled FPA detectors	
Spectral Range	8～14μm	
NETD	≤40mK(@25°C,F#1.0,25Hz)	
Resolution	256×192	
Pixel size	12μm	
Focal length	3.2mm	7mm
Visible light		
Sensor	5MP 1/2.7" CMOS	
Focal length	4mm	8mm
IR distance	Max. 30m	
Dual-spectrum		
Dual-spectrum Fusion	Support the thermal image to fuse visible image to improve the image details	
Temperature Information Overlay	The camera displays a digital camera image with superimposed thermal imaging thermographic information	
Temperature measurement		
Range	-20°C ～ +550°C	
Accuracy	±2°C or ±2%	
Temperature Analysis	Whole frame, spot, line, region, support temperature measurement rules and linkage alarms	
Smart function		
Fire detection	Support fire detection	
VCA	Line Crossing/Intrusion detection/Human-vehicle recognition	
Alarm action	Video/Snapshot/Email/Alarm output/sound and light alarm	
Two-way talk	Support two-way talk	
System interfaces		
Power	DC 12V±25% / PoE(802.3af)	
Network	1×RJ45 10M/100M self-adaptive interface	
RS485	1×RS485, support Pelco	
Audio input	1 channel audio input	
Audio output	1 channel audio output	
Alarm input	2-channel switch alarm input	
Alarm output	1 channel switch alarm output	
Edge storage	Support Micro SD (max. 256G)	
Reset button	Support	
General		
Work temperature	-40°C ～ +70°C；<95%RH	
Protection	IP66	
Power consumption	≤5W	
Dimension (mm)	Φ129×96	
Weight	≤800g	

Application

Perimeter defense

Fire prevention

Electrical equipment inspection

Building security

About Iraytek

IRay Technology Co., Ltd. concentrates on developing infrared thermal imaging technologies and manufacturing relevant products, with completely independent intellectual property rights. IRay is committed to providing global customers with professional and competitive infrared thermal imaging products and solutions. The main products include IRFPA detectors, thermal imaging modules, and terminal thermal imaging products.

With R&D personnel accounts for 48% of all employees, 662 intellectual property projects in terms of IRay have been authorized and accepted: 522 patented technologies authorized and accepted in China (including those for integrated circuit chips, MEMS sensors design and manufacture, Matrix III image algorithms and intelligent precise temperature measurement algorithms, etc.); 16 patented technologies authorized and accepted overseas; 86 software copyrights; and 38 integrated circuit layout designs.

IRay products have been applied in various fields, including epidemic prevention and control, industrial thermography, security and fire control, night vision observation, automatic driving, Internet of Things, AI, and machine vision.

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