



RG-WX-TC Series Infrared Camera Datasheet



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Ruijie

Product Overview

Ruijie's infrared thermal imaging system consists an infrared camera and a blackbody, which integrates the infrared thermal imaging technology, AI face detection technology, network transmission technology, smart thermal value correction technology, etc.

The system features high accuracy, intuitive thermal image, wide detection range, high-speed and non-contact detection, and easy deployment. When the target passes by within the detection range of the infrared camera, the thermal image and thermal data of the target can be immediately displayed on a connected PC, and the operator can obtain the accurate data.

This system is an ideal choice for scenarios including transportation hubs, enterprises, office buildings, schools, hospitals, public security, government, etc.

The deployment is recommended in indoor windless stable environment.

Product Features

Smart features

- Support real-time thermal imaging detection
- Support alarm feature when temperature exceeding the threshold is detected

- Support snapshot feature for abnormal thermal imaging detection

Thermal imaging

- Uncooled detector
- Support bi-spectrum image fusion integrating thermal and visible-light imaging
- Support pseudo-color modes such as white mode, black mode, rainbow mode and amber mode

Visible-light imaging

- Support low bit rate and low latency
- Support 3D digital noise reduction

System features

- Support dual-channel single-IP output
- Support dual streams and NVR

Interface

- Support 10M/100M Ethernet port
- DC12V adapter or PoE

Security

- Support security certificates such as HTTPS, as well as certificate creation
- Support three-level user authority management, IP address filtering, authorized users and passwords



RG-WX-TC01 Infrared Camera



RG-WX-TB01 Blackbody



RG-WX-ZJB01 Mounting Plate

Technical Specifications

Model		RG-WX-TC01 Infrared Camera
Thermal imaging	Sensor type	Uncooled detector
	Maximum resolution	160×120
	Response waveband	8~14μm
	NETD (Noise Equivalent Temperature Difference)	≤40mk (@25°C, F#=1.0)
	Focal length	3mm
	Field of view	50°×37.2°
	Aperture	F1.1
	Pseudo color mode	15 modes including white, black, combination 1, rainbow, combination 2, rusty red 1, rusty red 2, dark brown, color group 1, color group 2, ice and fire, rain, red, green, and dark blue
Visible-light imaging	Sensor type	4 million (1600 * 2500) 1 / 2.7 "CMOS
	Minimum illumination	0.0018Lux @ (F1.6, AGC ON) ,0 Lux with IR
	Shutter speed	1/3 second to 1/100,000 second
	Focal length	4mm
	Day and night mode	ICR infrared filter
Imaging features	Bi-spectrum image fusion	Support fusion of thermal imaging and visible light imaging to enhance the image quality
	Smart information overlay	Overlay thermal imaging information on the optical image
Alarm function	Audio alarm	Support When the thermal level of the measured subject exceeds the threshold, the alarm will be triggered.
Thermal detection	Surface heat detection	Thermal imaging
	Face detection and multi-target thermal imaging	Support AI face detection and concurrent multi-target thermal imaging
	Temperature range	Temperature range: 30~45°C
	Response time	Real-time
	Accuracy	±0.3°C (with blackbody)@ 0.8~1.5m
Compression standard	Video compression standard	H.265/H.264/MJPEG
	H265 encoding	Main Profile
	H264 encoding	Baseline Profile / Main Profile / High Profile
	Video compression rate	32 Kbps~8Mbps
	Audio compression standard	G.711/G.722.1/G.726/MP2L2/PCM

Model		RG-WX-TC01 Infrared Camera
Network features	Main stream	Visible Light: 50Hz: 25fps (1920 × 1080), 25fps (1280 × 960), 25fps (1280 × 720) Visible Light: 60Hz: 30fps (1920 × 1080), 30fps (1280 × 960), 30fps (1280 × 720) Thermal: 25fps (160×120/320×240/388×284)
	Sub-stream	Visible Light: 50Hz: 25fps (704 × 576), 25fps (640 × 480) Visible Light: 60Hz: 30fps (704 × 480), 30fps (640 × 480) Thermal: 25fps (160×120/320×240/388×284)
	Network protocol	IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE, Bonjour
	Interface protocol	ONVIF (PROFILE S, PROFILE G), ISAPI, SDK, Ehome, GB28181
	Maximum no. of channels	20
	User management	Support three levels of user authority management: administrators, operators, ordinary users
	Security policy	Support authorized users and passwords Support HTTPS encryption, IEEE 802.1x network access control, and IP address filtering
Interface	Network port	1 RJ45 10/100M Ethernet port
	Browser	Support IE7+, Chrome18+, Firefox5.0+, Safari5.02+ Support multi-language
System	Power input	DC 12 V (±20%) (Remarks: the DC 12V power adapter is provided) PoE (802.3af, class 3): 42.5 V to 57 V, 0.14 A to 0.22 A
	Power consumption	8.5W
	Operating temperature and humidity	15°C ~35°C, <90% RH
	IP rating	IP53

Model		RG-WX-TB01 Blackbody
Blackbody	Temperature resolution	0.1°C
	Accuracy	±0.1°C
	Stability	±0.2°C /h
	Effective emissivity	0.97±0.02
	Operating ambient temperature	0~30°C

Deployment reference:

Model	Deployment distance between the blackbody and camera	Pitch angle	Detection distance (equipped with blackbody)
RG-WX-TC01	1m	<20°C	0.8-1.5m

Packaging Information

Model	Packaging dimensions per equipment (mm)	Weight per equipment	Dimensions of the multi-set package (mm)	Weight of the multi-set package	Item quantity per package
RG-WX-TC01	250*225*139	1.2kg	578*231*257	6kg	4
RG-WX-ZJB01	150*180*9	0.4kg	169*154*114	4.5kg	10
RG-WX-TB01	223*193*159	1.7kg	458*396*166	8kg	4

Ordering Information

Model	Name	Description	Remarks
RG-WX-TC01	Infrared camera	Infrared thermal imaging dome camera, maximum resolution: 160×120	
RG-WX-ZJB01	Mounting plate	Mounting plate, for mounting the TC01 infrared thermal imaging hemispheric camera on the tripod	No cardboard box packaging for each mounting plate
RG-WX-TB01	Blackbody	Blackbody, temperature resolution: 0.1°C, accuracy: 0.1°C	

Note: This product is not used for body temperature measurement or object temperature measurement.

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