

H.264 Thermal Imaging Camera with Embedded Analytics

Feature Highlights

- 320x240 Image Resolutions
- 17 μm Next Generation Microbolometer Technology
- 42, 19, 12, 9 or 6 Degrees Field of View
- Video Frame Rate: 30Hz
- Video Compression: H.264, MPEG-4, MJPEG
- Embedded Intelligent Video Analytics
- Optimize Outdoor surveillance capability through VCAdetect License included as standard
- Burnt-in Text, Video Motion Detection Support
- Two-way Audio
- USB 2.0 Support (Local Storage, Wireless LAN)
- MicroSD Memory Support
- Comprehensive SDK Support



The **RTC1100 Series** is one of the world's first thermal imaging IP cameras combining state of the art thermal imaging technology with state of the art intelligent video analytics. Including a reliable video analytics as a standard feature, the **RTC1100 Series** is a highly advanced thermal imaging IP camera, capable of long distance detection customers have come to expect of thermal imaging products, but also provides increased analytics reliability for applications such as object tracking, people counting, car counting, loitering and much more. The **RTC1100 Series** thermal imaging products are ideally suited for customers who seek to experience ever more accurate video analytics performance combined with the high detection capabilities characteristic of thermal imaging technology.

Affordability

With its reliable surveillance performance and affordability, the RTC1100 Series provides new opportunities for applications such as general purpose video security, people counting and footfall metrics in retail environments, traffic and congestion monitoring, and much more.

Advanced Thermal Imaging Technology

Using state-of-the art 17 μm microbolometer sensors and specially designed thermal imaging lenses, the RTC1100 Series is one of the most advanced camera systems available in the marketplace today. It works in the 8-14 μm wavelengths detecting heat radiation that all objects emit.

Wide Field of View and High Resolution

The RTC1100 Series offers wide angle lens options with up to 42 degrees field of view to optimize its coverage

Ordering information

The RTC1100 Series is designed for a wide variety of applications and distance requirements. Models are available in a varying lens options. Lens options not listed are available upon request. All products comes standard with VCAdetect license to optimize object detection in outdoor application together with the thermal imaging technology.

efficiency. The RTC1100 series is available in standard resolution of 320x240 .

Benefits of IP Camera

Like all RIVA products, the RTC1100 Series is a product designed for network use and it shares the same core networking technologies as all imaging products. A user can easily upgrade the firmware over network, and set up or administrate the camera through its standard Web browser.

Video Analytics

Integrating VCA advanced tracking engine into the RTC1100 Series contributes to improving the video analytics performance. The RTC1100 Series brings the accuracy in object detection with fewer false alarm rates to unprecedented level.

Option Model	Resolution	Frame Rate	Focal length	H FOV (Degree)	PoE	USB	SD	VCAdetect
RTC1130-320-7.5	320x240	30 Hz	7.5mm	42.1	○	○	○	○
RTC1130-320-16.7	320x240	30 Hz	16.7mm	18.7	○	○	○	○
RTC1130-320-25	320x240	30Hz	25mm	12.4	○	○	○	○
RTC1130-320-35	320x240	30Hz	35mm	8.9	○	○	○	○
RTC1130-320-50	320x240	30Hz	50mm	6.2	○	○	○	○

Specifications

Camera Module	
Focal Plane Array	17 μm Uncooled Vanadium Oxide Microbolometer
Effective Pixels	320x240
Scanning System	Progressive Scan
Spectral Response	8 - 14 μm
Lens (Optional)	7.5mm, F1.4 (42.1 Degree FoV) 16.7mm, F1.2 (18.7 Degree FoV) 25mm, F1.2 (12.4 Degree FoV) 35mm, F1.2 (8.9 Degree FoV) 50mm, F1.2 (6.2 Degree FoV) Other Lenses available upon request
NEDT	Less than 50mK
Video	
Compression	H.264, MPEG-4, MJPEG
Frame Rate	30Hz
Number of Streams	Dual Stream, Configurable
Resolution	Sensor is 320x240, Image can be scaled from QCIF to D1
Motion Detection	Support (DSP)
Burnt-in Text (Digital)	Support (DSP)
Audio	
Input	1 channel
Output	1 channel
Compression Format	G.711
Function	
Digital Input	1 channel, max 50mA@5VDC, TTL
Digital Output	1 channel, max 50mA@24VDC, TTL
Serial Port	RS-485 only
Network	10 / 100 Base-T
Protocol	TCP/IP, UDP/IP, HTTP, RTSP, RTP, UDP, RTP/TCP, SNMP, mDNS, UPnP, SMTP, IGMP, DHCP, FTP, DDNS, SSL v2/v3, IEEE 802.1X, SNMP v2/v3
USB 2.0	Support (Mini-B plug)
SD Memory Card Slot	Support (microSD type)
Electrical	
Power Source	12V DC (Screw Terminal, Camera Unit)
Power over Ethernet	Support (IEEE 802.3af) Camera Unit
Power Consumption	(Approx) 6-8 Watts
Environmental	
Operating Temperature	0°C ~ 50°C (32°F ~ 122°F)
Operating Humidity	Up to 85% RH (Non-condensing)
Mechanical - Camera	
Material	Aluminum Die Casting-2
Color	Grey
Dimension	55(W) x 55(H) x 120(D) mm
Weight (Approx)	350g
Thermal Outdoor Housing	
Models	ODE-1000T-230: Input Power AC90V ~ 230V, 50/60Hz ODE-1000T-PoE: Input Power PoE+
Material	Aluminum-Die Casting / Germanium Window
Heater / Fan Control	Heater: 0°C (ON) / 10°C (OFF) Fan: 35°C (ON) / 25°C (OFF)
Operating Temp.	ODE-1000T-230: -40°C ~ 50°C ODE-1000T-PoE: -20°C ~ 50°C
Color / Paint	Ivory / Powder Coating
Outside Dimension	425L x 165H x 160W
Weight / Protection	(Approx) 5kg / IP66

Video Content Analysis (Included as Standard)	
High Performance	Advanced Tracking Algorithm, Low False Alarm Rate
Easy to Use	Intuitive Web Browser Interface
Detection Zones	Up to 40 zones (multi-segment polygons and lines) 60 VCA filter rules in total
On-screen Display	Real-time Display of Tracking Data and Events
Camera Shake Cancellation	Improve the VCA performance with cameras that are prone to shake
Tamper Detection	Recognize camera tampering via VCA detection
Event Actions	Notification service via TCP/IP, HTTP, multicast or email text messages with snapshot, DC-contact, file upload on FTP server, local SD memory card recording

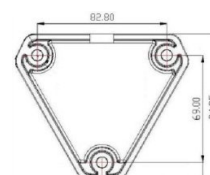
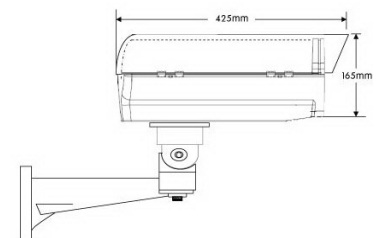
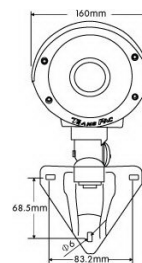
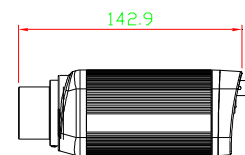
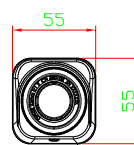
VCAdetect IP - License (Included as Standard)	
3D VCA Calibration	Camera Scene Settings will be configured with innovative graphical controls and tools to optimize VCA output
Object Classification	Design of different Object classes to include in VCA Alarm Rules
Included VCA Filters	Object Detection Filters: Direction, Speed, Dwell, Stop, Classification

Video Content Analysis (Option)	
Detection Behavior	Direction, Stopping, Loitering, Entering, Exiting, Appear, and Disappear Filters, Abandoned/Removed Object Detection, Tailgating Detection
VCA Features	- Up to 20 Onscreen Counter Displays, - Counting-Line for accuracy people and vehicle counting, - VCA Event Metadata Streaming (RTSP/RTP), - VCA calibration for right object size detection
Info VCA	Details regarding supported VCA filters and features of the different extension licenses find on 'Filter Matrix VCA License' document

Image Stabilization (Option)	
Electronic Stabilization	Removes Camera Sway
Accessories	
Mounting Adapter	PMA-6600 - Pole Mount Adapter

Dimension

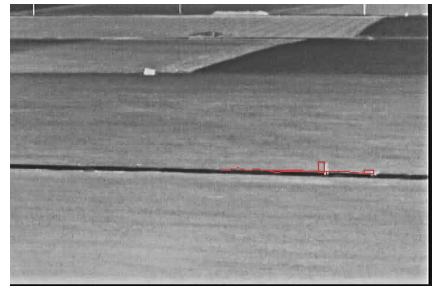
(unit: mm)



Standard CCTV Camera Compare to Thermal Imaging Camera



General Surveillance Camera



RTC



Perimeter Surveillance with RTC



High Accuracy Traffic Monitoring with RTC