

# ZN-TH110xVE-H SERIES

## H.264 Thermal Imaging Camera with Embedded Analytics

- 320x240 pixels
- 17  $\mu\text{m}$  Next Generation Microbolometer Technology
- 42, 18, 12, 9 or 6 Degrees Field of View
- Video Frame Rate: 9Hz or 30Hz
- Video Compression: H.264, MPEG-4, and MJPEG
- Embedded Intelligent Video Analytics
- Burnt-in Text, Video Motion Detection Support
- Two-way Audio
- USB 2.0 Support (Local Storage, Wireless LAN)
- microSD Memory Slot Support
- Comprehensive SDK Support



*\*Supplied with Camera & housing as package.*

The ZN-TH110xVE Series is one of the world's first thermal imaging IP camera combining state of the art thermal imaging technology with state of the art intelligent video analytics. Including CBC's reliable video analytics as a standard feature, the ZN-TH110xVE 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 ZN-TH110xVE 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 ZN-TH110xVE 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  $\mu\text{m}$  microbolometer sensors and specially designed thermal imaging lenses, the ZN-TH110xVE Series is one of the most advanced camera systems available in the marketplace today. It works in the 8-14  $\mu\text{m}$  wavelengths detecting heat radiation that all objects emit.

### Wide Field of View and High Resolution

The ZN-TH110xVE Series offers wide angle lens options with up to 42 degrees field of view to optimize its coverage efficiency. The ZN-TH110xVE series is available in standard 320x240 pixels.

### Benefits of IP Camera

Like all CBC products, the ZN-TH110xVE Series is a product designed for network use and it shares the same core networking technologies as all CBC 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 CBC's advanced tracking engine into the ZN-TH110xVE Series contributes to improving the video analytics performance.

The ZN-TH110xVE Series brings the accuracy in object detection with fewer false alarm rates to unprecedented level.

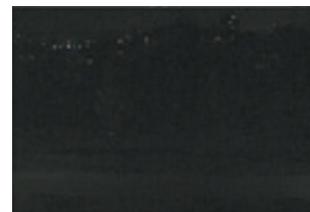
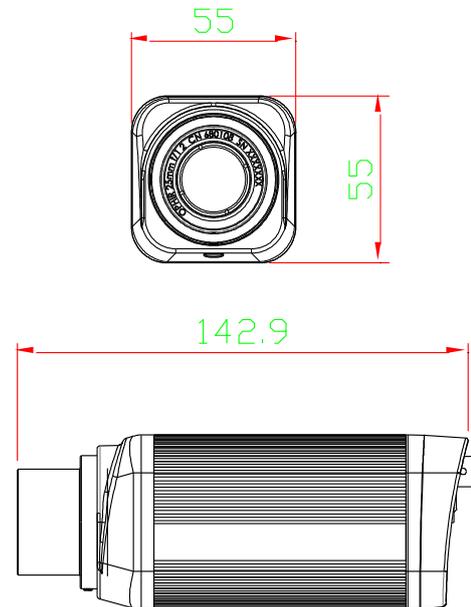
## Specifications

Camera Module	
Focal Plane Array	17 $\mu\text{m}$ Uncooled Vanadium Oxide Microbolometer
Effective Pixels	320x240
Scanning System	Progressive Scan
Spectral Response	8 - 14 $\mu\text{m}$
Lens (Optional)	7.5mm, F1.4 (42.1 Degree FoV) 16.7mm, F1.2 5(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, MPEG4, MJPEG
Frame Rate	9Hz or 30Hz Models Available
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	Support (DSP)
Output	1 channel
Audio	
Input	1 channel
Output	1 channel
Compression Format	G.711
Function	
Digital Input	1 channel (Dry and Wet Contact Selectable)
Digital Output	1 channel (Dry Contact)
RS-485/422	Support (RS-485 only)
Network	10 / 100 Base-T
Protocol	TCP/IP, UDP/IP, HTTP, RTSP, RTCP, RTP/UDP, RTP/TCP, SNTP, mDNS, UPnP, SMTP, SOCK, IGMP, DHCP, FTP, DDNS, SSL v2/v3, IEEE 802.1X, SSH, SNMP v2/v3
USB 2.0	Support (Mini-B plug)
SD Memory Card Slot	Support (microSD type)
Electrical	
Power Source	12V DC (Screw Terminal)
Power over Ethernet	Support (IEEE 802.3af)
Power Consumption(Approx)	Estimated 6-8 Watts
Environmental	
Operating Temperature(indoor)	0 $^{\circ}\text{C}$ ~ 50 $^{\circ}\text{C}$ (32 $^{\circ}\text{F}$ ~ 122 $^{\circ}\text{F}$ )
Operating Temperature (outdoor)	-40 $^{\circ}\text{C}$ ~ 50 $^{\circ}\text{C}$ (-40 $^{\circ}\text{F}$ ~ 122 $^{\circ}\text{F}$ ) *Cold start: 0 $^{\circ}\text{C}$
Operating Humidity	Up to 85% RH (Non-condensing)
Mechanical	
Material	Aluminum Die Casting-2
Color	White Pearl
Dimension	65(W) x 65(H) x 114.2(D) mm
Weight (Approx)	300g
Video Content Analysis (Included as Standard)	
High Performance	Advanced Tracking Algorithm, Low False Alarm Rate
Easy to Use	Intuitive Web Browser Interface
Detection Zones	Multi-segment Polygons and Lines
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	Detect camera tampering
Video Content Analysis (Option)	
Detection Behavior	Direction, Stopping, Loitering, Entering, Exiting, Appear, Disappear Filters, Abandoned and Removed Object, Tailgating Detection
3D Behavior	Perspective Corrected Size and Speed Filters
Statistics	Counting Functions and Other Statistics
Meta Data	Plain XML Format

## Image Stabilization (Option)

<b>Electronic Stabilization</b>	Removes Camera Sway
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## Dimension



General Surveillance Camera



ZN-TH110xVE



High Accuracy Traffic Monitoring with ZN-TH110xVE

## Ordering information

The ZN-TH110xVE Series is designed for a wide variety of applications and distance requirements. Models are available in a varying resolutions and lens options. Lens options not listed are available upon request. All products come with VCA presence as a standard feature.

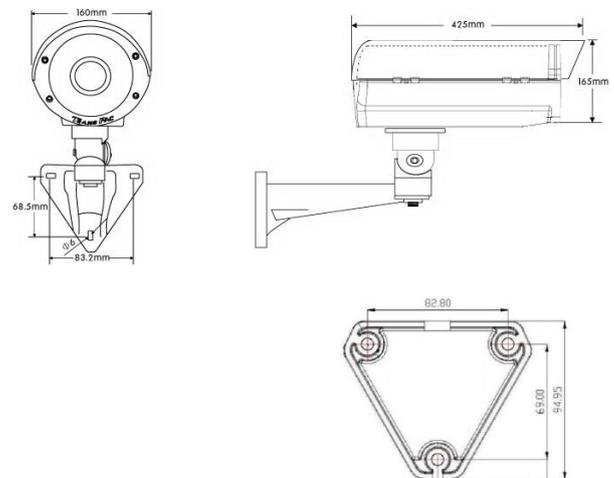
with housing CBC model no.	Resolution	FPS	Focal length	FOV (Degree)	PoE	USB	SD	VCApresence
ZN-TH110FVE-07-H	320 x240 (QVGA)	30Hz	7.5mm	42.1	O	O	O	O
ZN-TH110FVE-16-H			16.7mm	18.7	O	O	O	O
ZN-TH110FVE-25-H			25mm	12.4	O	O	O	O
ZN-TH110FVE-35-H			35mm	8.9	O	O	O	O
ZN-TH110FVE-50-H			50mm	6.2	O	O	O	O
ZN-TH1109VE-07-H	320 x240 (QVGA)	9Hz	7.5mm	42.1	O	O	O	O
ZN-TH1109VE-16-H			16.7mm	18.7	O	O	O	O
ZN-TH1109VE-25-H			25mm	12.4	O	O	O	O
ZN-TH1109VE-35-H			35mm	8.9	O	O	O	O
ZN-TH1109VE-50-H			50mm	6.2	O	O	O	O

## Housings

### Thermal camera Housing specifications

Models	ODE-1000T-230
Material	Aluminum die casting
Color	Ivory
Paint	Powder coating
Size (mm)	160(W) x 165(H) x 425(D)mm
Weight	5Kg
Heater/Fan Control	Heater : 0 °C (ON) / 10 °C (OFF) Fan : 35°C (ON) / 25°C (OFF)
Operating Temp.	ODE-1000T-230 : -40 ~ 50 °C
	ODE-1000T-PoE : -20 ~ 50 °C
	ODE-1000T-024 : -40 ~ 50 °C
Input power	ODE-1000T-230: AC90V ~ 230V, 50/60Hz (standard) ODE-1000T-PoE: PoE+, 50/60Hz (option) ODE-1000T-024: AC24V, 50/60Hz (option)
Protection	IP66

## Dimension



## Theoretical Distance (unit : Meter)

Lens	Vehicle			Human		
	Detect	Recognize	Identify	Detect	Recognize	Identify
7.5mm	491	125	62	170	43	22
14.5mm	955	243	122	338	84	42
25mm	1560	405	202	565	140	70
35mm	2150	560	280	780	190	97
50mm	2600	700	350	1000	250	128