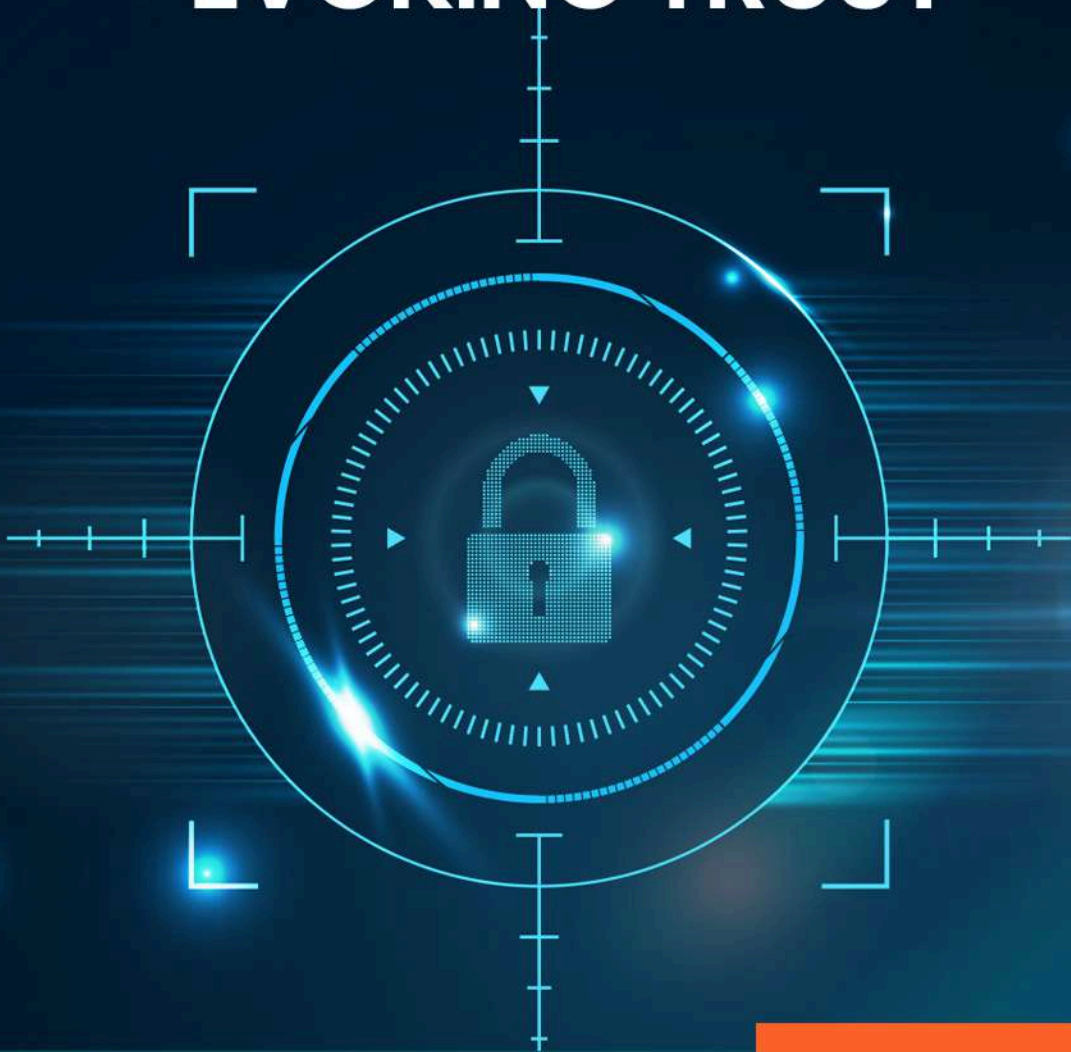




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**EVOKING TRUST**



**Intelligent Video  
Analysis at Edge  
IP-30 Camera Series**



# THERMAL MINI BULLET IP CAMERA IP-2T001BO-T35



**About the Camera :** IP 30 Series cameras are Artificial Intelligence powered latest camera series by Wavesys. It is built on advanced system-on-chip technology from California based company Ambarella and Sony Starvis Sensors. The IP30 series cameras are integrated with Wavesys Open Platform Enterprise Level Video Management Software WVMS. Wavesys is a video-based business intelligence leader with deep knowledge of different applications of intelligent video across distinct verticals.

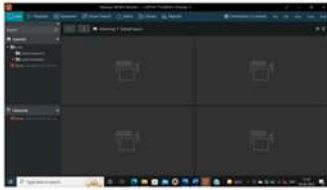
## Key Features

- Compact size and light weight
- Array size : 200 x 150
- Indoor/Outdoor (IP66)
- Flexible input power options: DC or PoE
- 12  $\mu\text{m}$  uncooled vanadium oxide microbolometer
- Burnt-in text, video motion detection
- $-40^{\circ}\text{C}$  to  $330^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $626^{\circ}\text{F}$ ) Detection

## Application



### Key features of WVMS



WVMS Professional – Monitoring Console



WVMS Enterprise – Wall & Redundancy



WVMS Facial Recognition Module



WVMS Video Content Analytics



WVMS License Plate Recognition



WVMS Mobile Application

### Specification

#### CAMERA MODULE (Pixel Array)

<b>Model</b>	<b>IP-2T001BO-T35</b>
Array Size (Resolution)	200 x 150
Detection Type	Uncooled Vanadium Oxide Microbolometer
Sensor Pixel Size	12 $\mu\text{m}$
Spectral Response	7.8-14 $\mu\text{m}$
Lens	4.0mm, F1.0
FoV	35° x 26°
Smart Capture Technology	WaveCapture: Smart Advanced Wide Dynamic Capture for high details in challenging conditions
Sensitivity (NETD)	65mK(Typical), Less than 100mK(max) @ 25°C
Detectable Temperature Range	-40°C to 330°C (-40°F to 626°F)
Temperature Accuracy	The greater of $\pm 5^\circ\text{C}$ or 5% between 5°C to 140°C scene temperatures. Typical performance of $\pm 10\%$ between 140°C to 330°C scene temperatures. Specified at nominal 25°C ambient operating temperature and nominal measurement distance of 12 inches from blackbody. Temperature reported is Center Spot temperature, which is an average of the center 36 pixels.

#### VIDEO

Video Compression	H.265, H.264, MJPEG
Profile	H.264: MP/HPH.265: MP
Multiple Profile Streaming Performance	640x480/9fps + 640x480/9fps with H.264, H.265 + MJPEG
Resolution	640x480, 320x240
Frame Rate	Max. 9fps in all resolutions
Video Bit Rate	100Kbps ~ 10Mbps Multi-rate for Preview and Recording
Bitrate Control	Multi Streaming CBR/VBR (Controllable frame rate and Bandwidth)
Digital Noise Reduction	3D-DNR
Privacy Mask	16 programmable zones
Special Features	WaveStream: Smart compression Technology based on Bit rate Control- Region of Interest
Analogue Output	1 (Installation only) CVBS 1.0V p-p (75 $\Omega$ ), 4:3 aspect ratio
<b>AUDIO</b>	
Input	1 channel

Output	1 channel
Compression Format	G.711, AAC
<b>EVENT</b>	
Event Trigger	Motion Alarm, DI Temperature Alarm (Above, Below, Slope Rate)
Pre-Post Recording	Pre: 1-5 sec Post: 1-240 sec
Event Notification	FTP, E-mail, Alarm-out, SD card
Smart Edge Analytics	WaveVCA: Intelligence built in camera analytics
<b>NETWORK</b>	
Ethernet Standard	10 / 100 Base-T
IP	IPv4
Protocol	TCP/IP, UDP, AutoIP, RTP(UDP/TCP), RTSP, NTP, HTTP, HTTPS, SSL, DNS, DDNS, DHCP, FTP, SMTP, ICMP, SNMPv1/v2/v3(MIB-2), ONVIF
Security	HTTPS(SSL), IP filtering, 802.1x, Digest Authentication
Plug In	ONVIF Profile S, CGI API
<b>GENERAL</b>	
Material	Aluminum Die-casting, White & Silver
External I/O Terminals	1 x Alarm In / 1 x Alarm Out
Language on webpage	English
Power Source	DC12V, PoE (IEEE 802.3af)
Power Consumption	DC12V Max 8.7W, PoE Max 11.9W
Operating Conditions	Humidity 10 ~ 90% RH (non-condensing) [DC12V / PoE] -40°C ~ 50°C (-40°F ~ 122°F)
Approvals	FCC, CE, IP66
Weight	0.65 kg
Dimension (H x W x D)	76mm x 61mm x 208mm
<b>EDGE STORAGE</b>	
Storage	1x microSD / microSDHC / microSDXC (card not included)

## WaveVCA : Intelligence built-in Cameras Analytics

### Basic features

**Analytics Engine** WVCA Technology's advanced tracking algorithm with rich library of detection behaviors

**Detection Zones and Rules** 40 zones (Multi-segment Polygons and Lines) in total, 60 rules in total as standard

**Intrusion Detection** Detection of the presence of an object

**Tamper Detection** Supported as standard



Intrusion Detection



Tamper Detection



Zones & lines

### Optional features

**Detection Behavior** Enter, Exit, Appear, Disappear, Stop, Direction, Dwell filter, Abandoned/Removed object filter, Tailgating

**Logical Rules** Extends standard rules to allow various combinations of the inputs

**3D Behavior** Perspective Corrected Size and Speed Filters

**Object Classification** - Configured Max./Min. object sizes and Max./Min. speeds

Counting Line High accuracy people and vehicle counting, 20 counters in total

**Meta Data** JSON format, Plain XML format



Enter Filter



3D Calibration



Tailgating Filter



Appear Filter



Counting



Exit Filter



Dwell Filter



Disappear Filter



Removed Object Filter



Stopped Filter



Direction Filter



Logical Rules



Abandoned Object Filter



Counting Lines

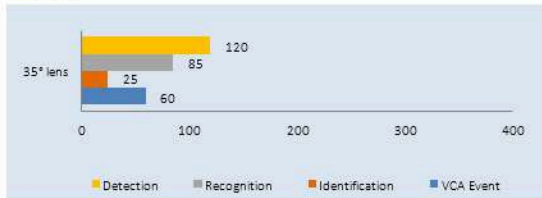
### DETECTION RANGE

\*The detection range is of maximum values.

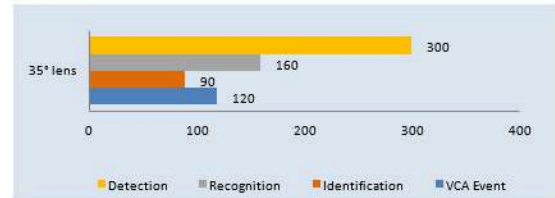
### IP-2T00IBO-T35

OBJECT	DETECTION	RECOGNITION	IDENTIFICATION	WVCA EVENT
PERSON	120	85	25 MAX.	60
VEHICLE	300	160	90 MAX.	120

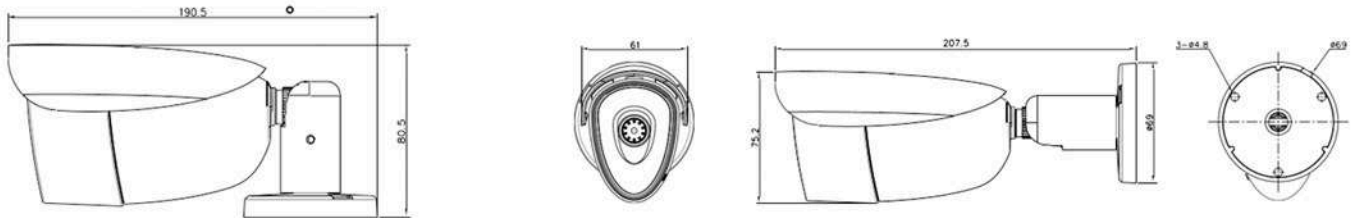
Person



Vehicle



### DIMENSIONS



### ACCESSORIES



BJC07