



EVOKING TRUST



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



THERMAL MINI BULLET IP CAMERA IP-2T101BO-T56

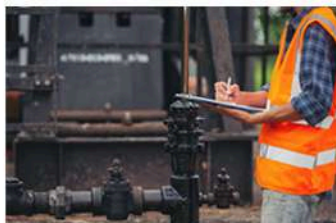


About the Camera : IP 30 Series cameras are Artificial Intelligence powered latest camera series by Wavesys. It is built on advanced system-on-chip technology from California based company Ambarella and Sony Starvis Sensors. The IP30 series cameras are integrated with Wavesys Open Platform Enterprise 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.

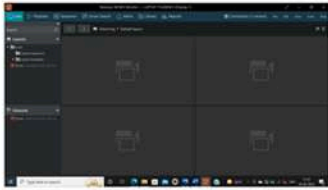
Key Features

- Compact size and light weight
- Array size : 320X240
- Indoor/Outdoor (IP66)
- Flexible input power options: DC or PoE
- 12 μm uncooled vanadium oxide microbolometer
- Burnt-in text, video motion detection
- -40°C to 330°C (-40°F to 626°F) Detection

Application



Key features of WVMS



WVMS Professional – Monitoring Console



WVMS Enterprise – Wall & Redundancy



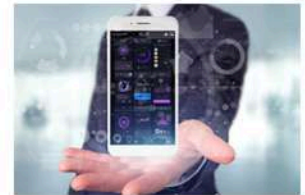
WVMS Facial Recognition Module



WVMS Video Content Analytics



WVMS License Plate Recognition



WVMS Mobile Application

Specification

CAMERA MODULE (Pixel Array)

Model	IP-2T101BO-T56
Array Size (Resolution)	320 x 240
Detection Type	Uncooled Vanadium Oxide Microbolometer
Sensor Pixel Size	12 μm
Spectral Response	7.8-14 μm
Lens	4.0mm, F1.0
FoV	56° x 42°
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 ±5°C or 5% between 5°C to 140°C scene temperatures. Typical performance of ±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/HP, H.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 Bitrate Control, Region of Interest
Analogue Output	1 (Installation only) CVBS 1.0V p-p (75Ω), 4:3 aspect ratio

EDGE STORAGE

Storage	1x microSD / microSDHC / microSDXC (card not included)
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AUDIO

Input	1 channel
Output	1 channel
Compression Format	G.711, AAC

EVENT

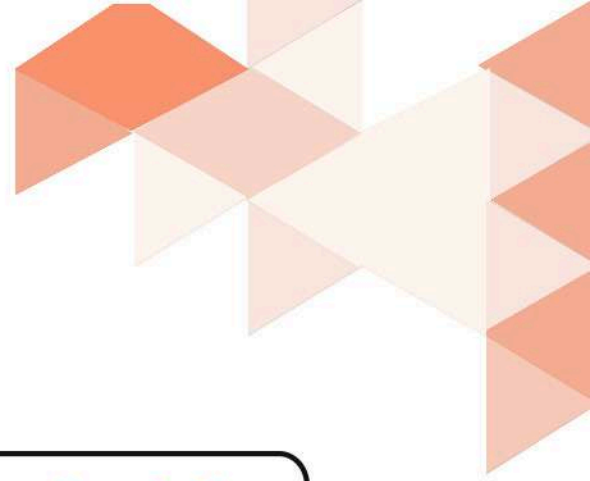
Event Trigger	Motion Alarm, DI Temperature Alarm(Above, Below, Slope Rate)
Pre-Post Recording	Pre: 1-5 sec Post: 1-240 sec
Event Notification	FTP, E-mail, Alarm-out, SD card
Smart edge Analytics	WaveVCA: Intelligence built in camera Analytics

NETWORK

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

GENERAL

Material	Aluminum Die-casting, White & Silver
External I/O Terminals	1x Alarm In / 1x 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



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

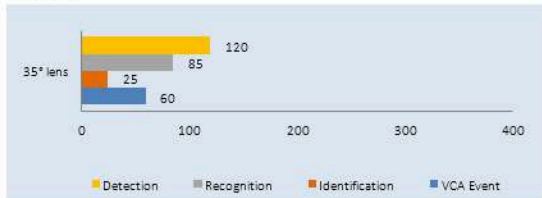
DETECTION RANGE

*The detection range is of maximum values.

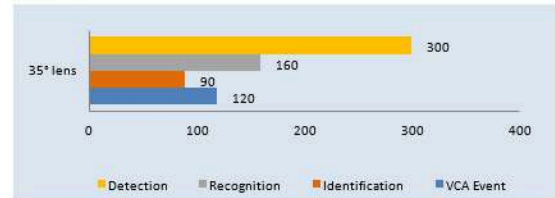
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OBJECT	DETECTION	RECOGNITION	IDENTIFICATION	WVCA EVENT
PERSON	120	85	25 MAX.	60
VEHICLE	300	160	90 MAX.	120

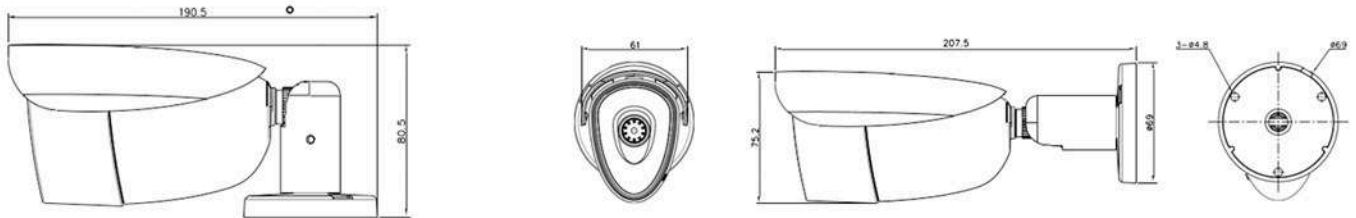
Person



Vehicle



DIMENSIONS



ACCESSORIES



BJCO7