WAVESYS
EVOKING TRUST

Multi Layered Deep Learning Ai Analytics at Edge

IP- 50 Camera Series

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BISPECTRAL IR THERMAL Ai BULLET CAMERA
IP-50301LTB

3 YEAR WARRANTY
STANDARD +2 YEAR EXTENDED WARRANTY

About the Camera : IP 50 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 IP 50 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

- 30fps at 5MP & Array Size - 320 x 240 at 9fps

- WaveStream: Smart Compression Technology based on bit rate Control, ROI

- Sony Starvis CMOS & Uncooled Sun-Safe Vanadium Oxide Microbolometer

- Power over Ethernet (IEEE 802.3af)

- H.265, H.264 and MJPEG compression

- WaveVCA*: Intelligence built-in Camera Analytics

- IP67 and IK10 Environmental Housing

- 4 mm fixed lens

- Deep Learning Object Tracker/People Tracker

- UL, CE, FCC, BIS & RoHS Certification

Application

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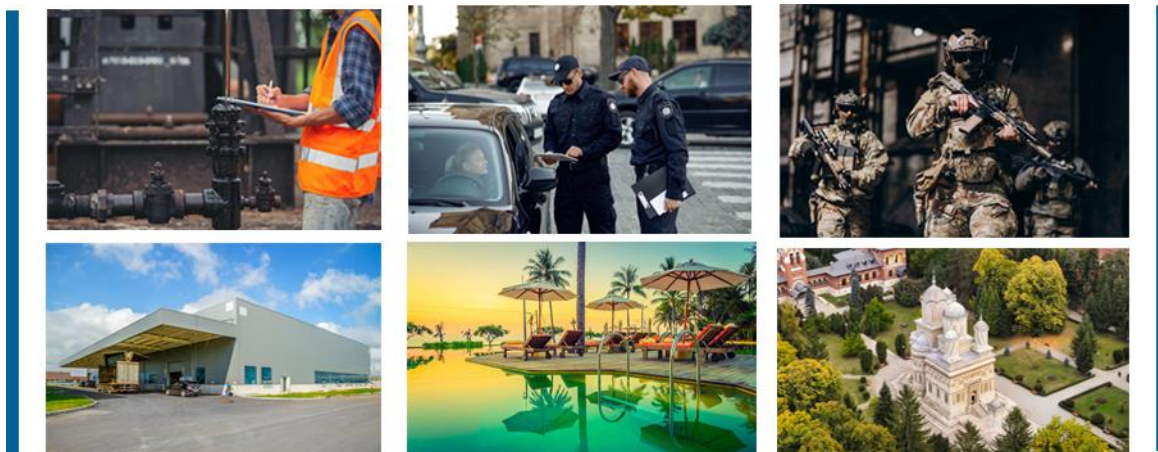
Key features of WVMS
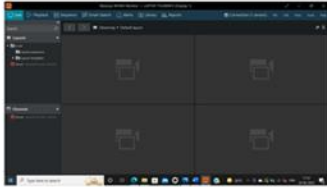
WVMS Professional – Monitoring Console

WVMS Enterprise – Wall & Redundancy

WVMS Facial Recognition Module

WVMS Video Content Analytics

WVMS License Plate Recognition

WVMS Mobile Application

Specification

CAMERA

Model	IIP-50301LTB
Image Sensor	-Visible : SONY STARVIS IMX335, 1/2.8" 5.14M CMOS - Thermal : Uncooled Sun-Safe Vanadium Oxide Microbolometer
Effective Pixels	Visible: 2592(H) x 1944(V) Thermal: Array Size - 320 x 240
Scanning System	Progressive scanning
Spectral Response	Thermal:7.8~14 µm
NETD	Thermal:65mK(Typical), Less than 100mK(max) @ 25°C
AGC Control	Auto
IRIS Type	Auto IRIS
Minimum Illumination	Color: 0.1Lux / B/W : 0 Lux (IR LED On)
Lens	- Thermal : 4.0mm (F1.0) - Visible :4 mm (F2.0)
Angle of View	- Thermal : H:56°, V:42° - Visible : H:56°, V:42°
Shutter Time	Auto / Manual: 1/30 ~ 1/32,000, Anti-Flicker, Slow Shutter (1/2,1/3,1/5,1/6,1/7.5,1/10)
Day & Night	True Day & Night (Removable IR-cut filter)
Wide Dynamic Range	True WDR 120 dB or above
Detectable Temp. Range	-40°C to 330 40 F to 626 F) 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.
Temperature Accuracy	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.
Smart Capture Technology	WaveCapture: Smart Advanced Wide Dynamic Capture for high details in challenging conditions
S/N Ratio	50 dB

IR ILLUMINATOR

Smart IR	WaveIR :- Advanced Smart IR
IR LED	2 x High Power LED
IR Working Distance	Up to 30m,depend upon object size

VIDEO

Video Compression	H.265, H.264, MJPEG
Profile	H.264 : MP / HP H.265 : MP
Multiple Profile Streaming Performance	Visible:2592x1944/30 + 480p/30 with H.264, H265 + MJPEG Thermal: 320X240/9 with H.264, H265 + MJPEG

Max Resolution	-Visible: 2592 x 1944 - Thermal : 320 X 240 (Upscaling : Up to 640 X 480)
Video Bit Rate	100Kbps ~ 10Mbps Multi-rate for Preview and Recording
Privacy Mask	16 programmable zones
Special Features	WaveStream: Smart Compression Technology based on bit rate Control- Region of Interest
Bitrate Control	Multi Streaming CBR/VBR (Controllable frame rate and Bandwidth)
Digital Noise Reduction	3D-DNR
Other Image Processing	Configurable Exposure, White Balance, Sharpness
Image Orientation	Flip / Mirror / Corridor Mode

AUDIO

Audio Streaming	Two way
Audio Compression	G.711 AAC
Audio input / output	Supply voltage : 3VDC(3mA), Input impedance : 3K Ohm/Line Out, MAX. Output Level : 1Vrms

EVENT

Event Trigger	Motion Alarm, Temperature critical, DI
Smart Edge Analytics*	WaveVCA: Intelligence built-in Cameras Analytics*

NETWORK

Ethernet Standard	10 / 100 / 1000Base-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
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 10.2W, PoE Max 12.5W
Operating Conditions	Humidity 10 ~ 90% RH (non-condensing) [DC12V / PoE] -30°C ~ 50°C (-22°F ~ 122°F)
Approvals	FCC, CE, IP66,,UL
NDAA	Compliant
Weight	1.08 kg
Dimensions (D x H)	106mm(W) x 96.7mm(H) x 216mm(D)

EDGE STORAGE

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

WaveVCA : Intelligence built-in Cameras Analytics

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 an object

Tamper Detection Supported as standard

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

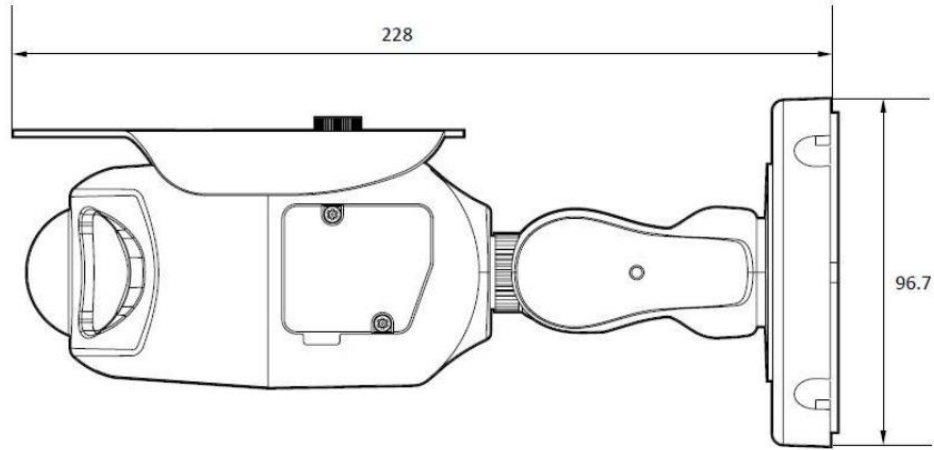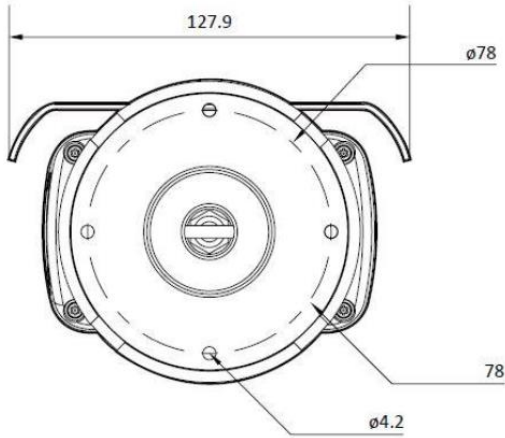| Enter Filter | 3D Calibration | Tailgating Filter |
Appear Filter	Counting	Exit Filter
Dwell Filter	Disappear Filter	Removed Object Filter
Stopped Filter	Direction Filter	Logical Rules
Abandoned Object Filter	Counting Lines	Forensic Search
DL Object tracker	DL People Tracker	Pose Detection

Forensic Search Works with age, sentiment, gender, and ethnicity estimation

Forensic Search

Dimensions

ACCESSORIES

BP01

BCO01

BJC07