ioi **image**

intelligent video appliances™

ioi cam xptz100dn

Outdoor Color Day/Night Intelligent-Video IP Dome Camera with Autonomous Tracking

The ioicam xptz100dn is an all-in-one intelligent-video pan-tilt-zoom camera for automated outdoor video surveillance, autonomous tracking, scenario detection, and alarm event responses.

When an alarm occurs, the camera automatically zooms-in and mechanically tracks a person or vehicle to maintain visuals and provide up-close images. Ideal for deployments where obtaining a magnified security usable image and up-to-the-minute intruder locations is a must for identification and scene safety.

It automatically detects intrusion violations on presets during a timed sequence "step-and-stare" rotation.

With built-in web browser and 5 minute scene setup, the xptz100dn is easy to deploy and provides intelligent video that covers large areas and tracks within its panoptic 360° view without requiring any reference camera.

intrusion detection

automatically detects and alarms on forbidden directional movement

modes for detection

- **autonomous PTZ tracking:** self-directed vision-guided commanding of pan tilt and zoom (PTZ) movements of a PTZ camera in order to assure a constant visual on the target for tracking a person or vehicle autonomously and without assistance from a reference camera – tracking starts via self-detection, from handoff by another camera, or by user-selection

- **intrusion in a region:** automatically detects when a person or vehicle moves within a prohibited area

- **tripwire crossover:** automatically detects when a person or vehicle breaches a demarcation line of separation. Detection can be specified to prohibit any crossover or to allow movement in a single direction

- **fence trespass:** automatically detects when a person or vehicle breaches the fence line either on the ground or climbing up and over a fence or wall (supports directional criteria). Fence trespass utilizes a special adjustment on the fence for measuring intruders that are elevated from the ground causing them to be optically larger in the video

competitive edge

- provides wide-area detection that can alert security of suspicious behavior inside and outside of the perimeter

- built-in stand-alone video analysis out-performs high-maintenance network dependant solutions that share processing resources, use up bandwidth, and suffer from network latency

- accepts automated handoff of a detected target of interest from ioimage ioiboxes and ioicams for synchronized PTZ tracking acquisition anywhere within the scene by way of real-time advanced 3D modeling

- detection on presets allows one xptz100dn camera to do the work of several fixed cameras equipped with intelligent video

- provides instant video confirmation and better information for assessment of an alarm event

- detection scheduling and timed rotation of present viewing in step-and-stare tours provides flexibility for 24/7 security coverage and threat detection on any size security site

- provides better coverage than straight-line detectors, such as PIR, infrared fences, fence sensors, ground sensors, laser fences, etc.

Environmental

- Rugged outdoor dome camera
- Weather resistant to IP66 standards (NEMA 4 equivalent) that completely protects against the ingress of dust and water jets
- Operation humidity: within 85% RH
- Operation temperatures -20° to 50°C
- LAN ports: 10/100 base-t, RJ45, 1ea
- LED display: power, link, LAN
- Built-in cooling fan and heater with auto start
- Outdoor cover with sunshade included

Lens general

- Focusing system: auto (sensitivity: normal, low), one-push AF, manual, infinity, interval AF, zoom trigger AF
- Electronic shutter: 1/1 ~ 1/10,000 s, 22 steps

  - 18x Lens
    - Lens: 18x zoom
    - Angle of view (H): 48 (wide end) ~ 2.8 (tele end)
    - Minimum working distance: 35mm (wide end) ~ 800mm (tele end)

  - 26x Lens
    - Lens: 26x zoom
    - Angle of view (H): 42.2 (wide end) ~ 1.6 (tele end)
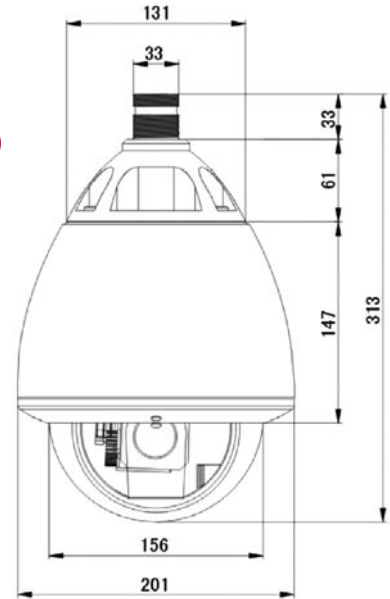   - Minimum working distance: 35mm (wide end) ~ 910mm (tele end)

Mounting Options

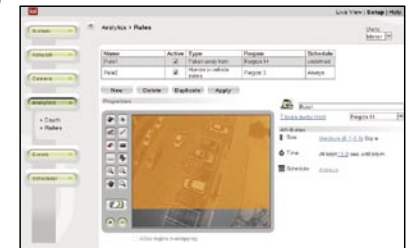- Wall mount / pole mount / ceiling mount / corner mount

Housing Dimensions (W/H/D)

- (WxHxL) 201x313x201cm

Low Light

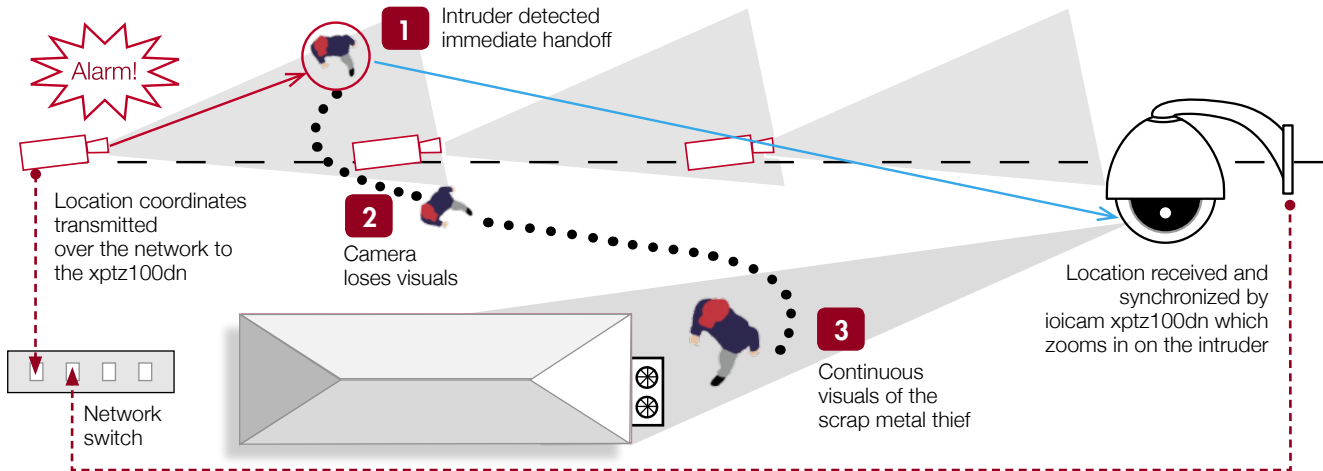- Minimum illumination: 1.0Lux (F1.6~3.8) (Color Mode) ~ 0.001 Lux (B/W mode)

web based setup

PTZ Synchonization and Handoff Scenario

Typical perimeter stationary camera coverage
PTZ synchronized handoff and tracking follows beyond stationary camera limitations

Alarm!

1 Intruder detected immediate handoff

2 Camera loses visuals

3 Continuous visuals of the scrap metal thief

Location coordinates transmitted over the network to the xptz100dn

Network switch

Location received and synchronized by ioicam xptz100dn which zooms in on the intruder

- Typical stationary cameras are limited to reporting only what is visible in their field of view. From point 1 to 2 there is information. From point 2 and beyond, security becomes uninformed and has no recorded account of an intruder's actions. Additionally the stationary cameras are limited in their ability to capture magnified images of the intruder's face or vehicle.

- With the xptz100dn automation, it can either detect on its own or can accept a handoff of detected events from stationary cameras. Thus, automatically

following the intruder from point 1 to 2 to 3 and beyond. Security has up-to-the minute location and can see what the intruder is doing. This is important for scene safety, avoidance of concealed-traps and for recording of information that may be vital in decision making or prosecution. Because the xptz100dn autonomously zooms in and follows a person or vehicle intrusion, obtaining important details such as facial identification, vehicle numbers, or armaments is automatically achieved – even if security personnel are away from their post.

simplicity

- easy to install, sets up in minutes – configure the intelligent video detection using a web browser or control software
- automatically adjust for best detection – no ongoing configurations

performance

- detects intruders under harsh weather conditions, low visibility, and poor lighting
- detects camouflaged intruders, extremely slow progression (as slow as 1 ft/5 min), and burst movements
- supports pre-alarm recording for capturing the moments before an alert
- user-defined detection zones on presets and allowed/disallowed directional movements
- high probability of detection, while maintaining a remarkably low rate of false alarms

reliability

- ignores false alarms generated by small animals, swaying branches, cloud shadows, light changes, rain, snow and trivial movements in the scenery
- superior non-flat detection, sees intruders in 3D-scape and at great distances for reliable detection

camera features

- built-in video analytics
- provides two-way audio capabilities
- hybrid support for both analog and IP network streaming MPEG-4 architectures – includes audio, video and detection OSD
- outdoor low light day/night camera that detects in low contrast camouflage intruder scenarios
- auto ICR cutter
- image stabilization while zooming
- focusing system: auto (sensitivity: normal, low), one-push AF, manual, infinity, interval AF, zoom trigger AF
- flicker cancel: auto
- back-light compensation: On/Off
- AE Control: auto, manual, priority mode, bright, EV compensation, back-light compensation
- Gain: Auto/Manual (-3 to 28dB, 2dB steps)
- White Balance: Auto, ATW, Indoor, Outdoor, One-Push, Manual
- minimum illumination: 1.0lux (F1.6~3.8) (color mode) ~ 0.001 lux (B/W mode)
- Optical zoom 18x or 26x available
- RS-485 supports PTZ keyboard
- Dry contacts include alarm input and relay output terminals

ioi cam xptz100dn **specifications**

Camera

- Image sensor: 1/4" SONY Super HAD CCD XView [SONY FCB480CP (18x) / SONY FCB980CP (26x)]
- Best night view quality via IR cutter
- Image stabilization function
- High speed pan/tilt (280°/second)
- S/N ratio: more than 50dB

Analog Video Output

- Standard – NTSC/PAL
- 1 Physical Connector – BNC 75Ω
- Includes Graphical Overlay

Analog Audio Input/Output

- 3.5mm Mini Stereo Jack for Mono input/output
- Audio impedance 10kΩ

Standard Compliance

- ISO/IEC 14496 (MPEG-4)

Network

- Ethernet RJ-45: 2×10/100
- Audio & Video – RTP/IP Multicast
- Alarms/Commands – TCP/IP

Digital Video Output

- 4CIF Max Resolution
- 128Kbps – 4Mbps
- Full Frame Rate
- CBR/VBR

Digital Audio Output

- Standard – ADPCM (G.729)
- 8-96 Kbps
- Frequency response: 20 Hz – 20 kHz, +/- 0.25 dB
- Sampling frequency: 32, 44.1, 48@20 bits/sample
- Audio gain control: -90 dB – 30dB with 8dB level steps

Power Source

- DC12V / 3.0A

Power Consumption

- 18w

Serial I/O

- RS-232/RS-485
- Discrete I/O Interface
- IN – Dry contacts (max. 12V DC 50mA)
- OUT – Relay dry contacts (max. 24V DC 1A, 125V AC 0.5A)

Software

- Integrated web server
- Application Programming Interface (API)
- NVR recording to network PC

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