

ACORN EYE

**Intelligent
Surveillance Anywhere
– Powered by Fortix AI**



The ACORN Eye, powered by Fortix AI, is a rugged, all-in-one 4G surveillance system built for rapid deployment in remote or infrastructure-limited environments. Designed for flexibility and resilience, it captures ultra-high-definition 4K video and crystal-clear 20 MP images, streaming seamlessly to the Fortix AI cloud platform for intelligent analysis, instant event detection, and real-time alerts.

From rural monitoring to temporary site protection, the ACORN Eye brings the power of AI-driven security anywhere it's needed. No fixed power or network required.

ACORN Eye - Rapid Deployment Smart Camera

Powered by Fortix AI Cloud Intelligence

The ACORN Eye is a rugged, self-contained 4G rapid deployment camera designed for fast installation in challenging environments. Combined with Fortix AI, it delivers intelligent, real-time video analytics for detecting, alerting, and recording incidents — without the need for fixed power or network infrastructure.



Built to withstand harsh environments

A waterproof, rugged form factor with IP68 protection

Dual infrared (850 nm / 940 nm) night vision for discreet monitoring up to ~25 m detection

Flexible power options (battery-powered or external DC), with low-power modes for extended deployment

GPS tagging, timestamping, and embedded metadata for all captures

When integrated with Fortix AI

- ✓ Real-time object detection and behaviour analysis (e.g. vehicle, human, suspicious activity)
- ✓ Automated evidence capture and curated clips, enabling enforcement or investigation workflows
- ✓ Instant alerts via email, SMS, or app when incidents are detected
- ✓ Remote management of camera settings, firmware, and view monitoring through a central cloud dashboard

General Specifications

	SPECIFICATIONS
Connectivity	4G LTE / 3G / GSM cellular data; SMS & MMS fallback; GPS geotagging
Image Sensor	20 MP CMOS; 4K UHD video; fast trigger speed < 0.5 s
Lens Options	52° (standard) / 100° (wide-angle)
Night Vision	Dual IR (850 nm / 940 nm), up to 25 m range
Power	8 × AA batteries / DC 12 V input / solar option
Battery Life	Up to 3 months (depending on activity and upload frequency)
Storage	microSD (8 GB – 256 GB); automatic cloud upload via Fortix AI
Weatherproofing	IP68 rated - dustproof and waterproof
Operating Temp.	−20 °C to +60 °C
Dimensions	145 × 80 × 60 mm (approx.)
Weight	< 400 g without batteries

DEPLOYMENT

- Mount on walls, poles, or tripods.
- Activate with SIM card and Fortix AI account.
- Go live within minutes - no cabling required.
- Powered by battery, DC, or solar kit options.
- Rugged, weather-sealed design for any environment.
- Manage and monitor remotely via the Fortix AI dashboard.



Fortix AI Cloud Integration

CAPABILITY	DESCRIPTION
REAL-TIME DETECTION	4G Rapid Deployment Smart Camera with Fortix AI Integration
AUTOMATED ALERTS	Includes solar panel & mounting system for extended deployment
SMART CLIPPING	Automated capture and storage of incident video or image evidence
ANALYTICS DASHBOARD	Cloud-based interface for monitoring camera status, events, and alerts
REMOTE MANAGEMENT	Over-the-air firmware updates, configuration control, and live streaming
SECURITY & STORAGE	AES-256 encryption, EU/UK data centres, and multi-factor access control

FORTIX AI CONTACT

 fortixai.com

 sales@fortixai.com

Ordering Information

MODEL	DESCRIPTION
ACORN EYE-4G	4G Rapid Deployment Smart Camera with Fortix AI Integration
ACORN EYE-4G + SOLAR KIT	Includes solar panel & mounting system for extended deployment

APPLICATIONS



VISION EDGE SERIES

**Intelligent
Surveillance Anywhere
– Powered by Fortix AI**



4G / 5G LTE



WIREGUARD VPN



AI ANALYTICS



AWS STORAGE



PTZ ZOOM



EVENT TRIGGERS



REMOTE CONFIG



IP67 RATED

The Fortix VisionEdge Series represents the next generation of connected surveillance — combining 4G and 5G RTSP/RTMP video cameras with the advanced analytics power of Fortix AI.

Engineered for rapid deployment, intelligence, and security, the VisionEdge lineup offers flexible configurations - from fixed and PTZ models to the dedicated LPR (License Plate Recognition) variant - all supporting optional WireGuard VPN encryption for fully protected, end-to-end data transmission. When paired with the Fortix AI Cloud Platform, VisionEdge cameras deliver real-time analytics, event-based alerts, remote management, and secure video streaming, even in remote or infrastructure-poor environments.

THE FORTIX VISIONEDGE PTZ

The Fortix VisionEdge PTZ 5G 4K 8.0 MP Smart Camera delivers exceptional image clarity with 20× optical and 10× digital zoom, powered by a high-performance Taiwan MStar chipset and H.265+ video compression for smooth, efficient streaming. Designed for precision monitoring, it captures fine detail even at long distances ideal for perimeter surveillance, traffic enforcement, and high-security environments.



Typical Use Case Workflow

Captures and streams video or still frames via RTMP

(Optional) WireGuard VPN encrypts transmission to Fortix servers.

Fortix AI performs real-time object and behaviour analytics.

Generates alerts and clips sent via dashboard, email, SMS, or app.

Generate AI summary reports on violations for detailed analysis.

Use Cases & Applications

- ✓ Detect and track unauthorized human movement in real time
- ✓ Monitor large areas and detect intrusions from long range
- ✓ Ideal for city centres, parks, and event venues requiring wide coverage
- ✓ Secure farms, construction sites and industrial sites
- ✓ Track activity across vast or hard-to-access zones

THE FORTIX VISIONEDGE BULLET

The Fortix VisionEdge 5G 12.0 MP AI Smart Camera features a high-quality Taiwan MStar chipset with advanced H.265+ compression for ultra-clear, efficient video streaming. Equipped with AI Human Recognition and Detection, it accurately identifies and tracks people in real time — delivering reliable, intelligent surveillance for security, access control, and monitoring applications.



Typical Use Case Workflow

Captures and streams video or still frames via RTMP

(Optional) WireGuard VPN encrypts transmission to Fortix servers.

Fortix AI performs real-time object and behaviour analytics.

Generates alerts and clips sent via dashboard, email, SMS, or app.

Generate AI summary reports on violations for detailed analysis

Use Cases & Applications

- ✓ Monitor people flow in transport hubs, events, or public areas
- ✓ Enhance gate and building entry monitoring with AI-based human identification
- ✓ Identify personnel and detect restricted-area breaches
- ✓ Automate human detection where no on-site staff are present
- ✓ Provide accurate alerts for human activity near protected assets

THE FORTIX VISIONEDGE PTZ PRO

The Fortix VisionEdge PTZ PRO 5G 4K 8.0 MP Smart Zoom Camera delivers ultra-high-definition performance with a powerful 20× optical and 300× digital zoom, providing exceptional long-range detail and clarity. Powered by a Taiwan MStar chipset and H.265+ compression, it ensures efficient, low-bandwidth 4K streaming over 5G or wired networks, making it ideal for traffic monitoring, perimeter security, and large-area surveillance.



Typical Use Case Workflow

Captures and streams video or still frames via RTMP

(Optional) WireGuard VPN encrypts transmission to Fortix servers.

Fortix AI performs real-time object and behaviour analytics.

Generates alerts and clips sent via dashboard, email, SMS, or app.

Generate AI summary reports on violations for detailed analysis

Use Cases & Applications

- ✓ Remote perimeter security (farms, nature reserves, border zones)
- ✓ Track movement and detect intrusions over wide or remote areas
- ✓ Temporary event surveillance (festivals, construction sites)
- ✓ Capture license plates and vehicle activity across long distances
- ✓ Record incidents clearly from a safe distance

Technical Specifications

	SPECIFICATIONS
Video Resolution	Up to 4K / 8MP / 12MP depending on model
Lens / Zoom	Fixed (e.g. 4×) or PTZ models (5×, 20×, 30× optical + digital zoom)
Video Format / Codec	RTMP streaming, H.265 / H.265+
Encryption / Security	WireGuard VPN (AES-256, modern cipher suite) over UDP
Connectivity	5G & 4G LTE (multi-band), fallback logic, SIM slot
Local Storage	microSD slot (e.g. up to 128 GB or more)
Power	12 V DC or PoE (depending on model); some may support solar / battery setups
Environmental Rating	IP66 / IP67 (weatherproof), operating temp ranges typical (e.g. -20 °C to +60 °C)
PTZ Performance	Pan 355°, Tilt up to 90°, variable pan/tilt speeds (depending on model)
Trigger / Detection	Built-in PIR / motion sensors, configurable detection zones
Latency	RTMP over 5G + VPN adds minimal overhead; design for <1 s where the network allows
Data Consumption	Dependent on settings (bit rate, resolution, motion detection), but efficient H.265 helps reduce usage

THE FORTIX VISIONEDGE LPR

The Fortix Vision EEDGE LPR 4G 5MP 4G/PoE Smart LPR Camera combines AI-powered License Plate and Human Recognition with 4x optical zoom and H.265+ compression for sharp, efficient video. Built on a Taiwan MStar chipset, it supports RTMP streaming and multiple VPN protocols (N2N, PPTP, L2TP, WireGuard) for secure, real-time monitoring over 4G or wired connections — ideal for car parks, access control, and perimeter security.



Typical Use Case Workflow

Captures and streams video or still frames via RTMP

(Optional) WireGuard VPN encrypts transmission to Fortix servers.

Fortix AI detects people, vehicles, and plates in real time.

Generates alerts and clips sent via dashboard, email, SMS, or app.

Footage and data accessible through the Fortix Cloud Dashboard.

Use Cases & Applications

- ✓ Automated license plate recognition for entry and enforcement
- ✓ Detect and alert on human or vehicle activity.
- ✓ Identify vehicles, incidents, and congestion
- ✓ Covert or mobile surveillance in areas without wired connectivity
- ✓ Capture evidence in remote areas

Product Range	
MODEL	DESCRIPTION
VisionEdge BULLET -4G/5G	High-definition RTSP/RTMP camera with low-latency live streaming and full Fortix AI integration. Ideal for perimeter and remote site surveillance.
VisionEdge LPR-4G	Dedicated License Plate Recognition camera optimiSed for vehicle detection and plate reading. Integrates with Fortix AI for classification, alerting, and evidence logging.
VisionEdge PTZ-4G/5G	Pan-Tilt-Zoom model supporting optical zoom (5×, 20×, 30×), AI analytics, and remote control through the Fortix cloud dashboard.
VisionEdge THERMAL-4G	Pan-Tilt-Zoom thermal camera supporting optical zoom 33× + digital zoom 16×, AI analytics, and remote control through the Fortix cloud dashboard.
VisionEdge PTZ PRO-5G	Pan-Tilt-Zoom model supporting optical zoom 20× + digital zoom 300×, AI analytics, and remote control through the Fortix cloud dashboard.

VisionEdge LPR Features	
FEATURE	DESCRIPTION
AI-Powered License Plate Recognition	Accurate plate reading under variable lighting and weather conditions.
Vehicle Classification	Identifies vehicle types for analytics and enforcement.
Infrared Night Mode	Captures clear images up to 25 m in darkness.
Smart Evidence Handling	Auto-uploads recognized plates and event data to Fortix AI.
Applications	Enforcement, access control, parking, and road monitoring.

Product RangeCamera Compatibility & Core Features
4G & 5G multi-band connectivity for global deployment.
RTSP / RTMP streaming for low-latency live video.
H.265 / H.265+ compression for bandwidth efficiency.
AI detection modules: human, vehicle, fire, and object recognition.
Optional WireGuard VPN ensures encrypted transport using AES-256.
Local storage (microSD) with automatic cloud sync via Fortix AI.
Rugged IP66/IP67 housings for outdoor use.
PTZ models with wide coverage and optical/digital zoom.

THE FORTIX VISIONEDGE THERMAL

The Fortix Multi-Sensor Thermal & Visible Smart Camera combines dual-spectrum imaging for all-weather, day-and-night monitoring. Featuring 33x optical and 16x digital zoom, it delivers precise long-range detection across both thermal and visible channels. Powered by a Taiwan MStar chipset with H.265+ compression, and supporting 4G or wired PoE connectivity, it provides clear, efficient video streaming for critical surveillance applications such as perimeter protection, industrial safety, and remote site monitoring.

Typical Use Case Workflow

Captures and streams video or still frames via RTMP

(Optional) WireGuard VPN encrypts transmission to Fortix servers.

Fortix AI performs real-time object and behaviour analytics.

Generates alerts and clips sent via dashboard, email, SMS, or app.

Footage and data accessible through the Fortix Cloud Dashboard



Use Cases & Applications

- ✓ Remote perimeter security (farms, nature reserves, border zones)
- ✓ Infrastructure monitoring (pipelines, substations, remote sites)
- ✓ Temporary event surveillance (festivals, construction sites)
- ✓ Covert or mobile surveillance in areas without wired connectivity
- ✓ Environment/wildlife monitoring in remote regions

Technical Specifications

Thermal Module	
Sensor	Vanadium Oxide Uncooled Focal Plane Array (384×288, 17μm)
Spectral Range	8–14μm, NETD <30mK
Lens	25mm F1.0, FoV 14.9°×11.2°, min focus 13m
Temperature Range	–20°C to +150°C / 0°C to +550°C
Accuracy	±6°C or 6% (whichever is greater)
Measurement Tools	Up to 10 points, full-screen high/low capture, 12-line/area analysis, isothermal detection
Palettes	18 color modes, auto/manual brightness & contrast
Visible Camera	
Sensor	1/2.7" CMOS (5MP, 2592×1944 @30fps)
Zoom	33× optical + 16× digital, 4.5–148.5mm lens
Low Light	0.01 lux (F1.5, AGC ON) / 0 lux with IR (range up to 150 m)
Defog & WDR	Digital defog, 120 dB WDR, 2D/3D noise reduction

Video & Smart Functions	
Compression	Ultra 265 / H.265 / H.264 / MJPEG
Streams	5MP@30fps main, 1080p@30fps sub
Smart Detection	Intrusion, line crossing, motion tracking, audio detection, object left/moved, tampering alert
Storage	microSD up to 256 GB, ANR network backup
Network	IPv4, RTSP/RTMP, HTTPS, ONVIF (Profiles S/G/T), API, PoE
General	
Power	DC 24V/2A, PoE, 9–40 W (IR on)
Operating Temp	–40°C to +60°C
Protection	IP66, TVS lightning & surge protection
Weight / Size	6.5 kg, Ø230 × 336.5 mm

THE FORTIX VISIONEDGE AURA

The Fortix EDGEVISION Auro 4G is a 5.0 MP solar-powered outdoor camera built for remote, off-grid monitoring. With 4G connectivity and HD timelapse capture, it delivers clear, reliable video anywhere—no cables required.

Featuring Super-Star Night Vision and an intelligent WWM radar sensor, the Auro ensures accurate detection day or night. Its ultra-low-power design and smart wake/sleep mode provide long-lasting operation and instant motion-triggered recording.



Typical Use Case Workflow

Camera wakes up on motion detection and captures video

Captures and streams video or still frames via FTP

Fortix AI performs real-time object and behaviour analytics.

Generates alerts and clips sent via dashboard, email, SMS, or app.

Generate AI summary reports on violations for detailed analysis

Use Cases & Applications

- ✓ Remote perimeter security (farms, nature reserves, border zones)
- ✓ Track movement and detect intrusions over wide or remote areas
- ✓ Temporary event surveillance (festivals, construction sites)
- ✓ Quick installation in remote locations without power
- ✓ Record incidents clearly from a safe distance

Technical Specifications

Image Sensor	1/2.5" 5megapixel CMOS
Sleeping mode	Support sleeping wake up mode, Ultra low power
Time lapse interval	The min. 1Second, Sleeping mode Min. 5minutes
Day/Night	Support super star night vision with dual sensor and dual lens
Lens Mount	CS/M12
Picture Format	Picture Format
Video	H.264
Max. Resolution	2560x1920
Video Parameter	Saturation, Brightness, Contrast adjustable
Protocols	TCP/IP, HTTP, FTP, DHCP, DNS, DDNS, NTP, SFTP
Frequency bands	LTE (FDD): B1, B3, B8 LTE (TDD): B38, B39, B40, B41 DC-HSPA+/HSPA+/HSPA/UMTS: B1, B5, B8, B9 TD-SCDMA: B34, B39 EDGE/GPRS/GSM: 900/1800 MHz
Maximum data transmission rate	DC-HSPA+: Downlink:42 Mbps, Uplink: 5.76 Mbps LTE TDD: Downlink:112Mbps, Uplink: 10Mbps LTE FDD: Downlink:150 Mbps, Uplink: 50 Mbps
Media Transportation	FTP, SFTP

Technical Specifications

Image Sensor	1/2.5" 5megapixel CMOS
PIR interface	Support external PIR, Optional
WWM Radar Detection	1. Integrated Waveform Wake Motion (WWM) radar sensor
Alarm Input	2 channel, optional
Alarm output	1 channel, optional
Local Storage	Support SD card storage, optional
SMS	Support
Basics	Anti-flicker, Heartbeat, Password Protection
Operating Condition	-20°~60° Humidity 90% or less
Weather Proof	IP66
Power Supply	Support DC12V±10% and solar panel powered camera built in libattery directly
Power Consumption	0-10mA, 0.1W sleeping mode; 5W Max. working mode

THE FORTIX VISIONEDGE ORBIT

The Fortix VisionEdge Orbit is a high-performance AI intelligent wireless HD PTZ camera built for outdoor security and emergency response. Featuring powerful 5MP 30x optical zoom, 4G/5G connectivity, GPS and night vision, it delivers crystal-clear video anytime, anywhere. Designed for durability, it supports memory and micro SD card storage, ensuring reliable on-site recording even without a network. Ideal for remote monitoring, traffic control, or rapid deployment scenarios.



Typical Use Case Workflow

Camera streams video supports face, human and LPR recognition.

Captures and streams video supporting ONVIF protocol.

Fortix AI performs real-time object and behaviour analytics.

Generates alerts and clips sent via dashboard, email, SMS, or app.

Generate AI summary reports on violations for detailed analysis

Use Cases & Applications

- ✓ Remote perimeter security (farms, nature reserves, border zones)
- ✓ Track movement and detect intrusions over wide or remote areas
- ✓ Temporary event surveillance (festivals, construction sites)
- ✓ Quick installation in remote locations without power
- ✓ Record incidents clearly from a safe distance

Technical Specifications

Image Sensor	1/1.8" Progressive CMOS
Pixel	Support sleeping wake up mode, Ultra low power
Time lapse interval	238 MP
Resolution ratio	1920(H)×1080(V)
Illuminance	0.001Lux @(F1.5,AGC ON)Colorful , 0.0001Lux @(F1.5,AGC ON)Black&White
Lens	30x optics; 16 times the electron
Focal length	f=5.6mm(wide end) ~ 168mm(far end)
Parameter adjustment	White balance, AGC, backlight compensation BLC
SNR	≥50db
Electronic shutter	1/25 - 1/100000
Video coding	H.265、 H.264
Resolution ratio	1080P、 720P、 VGA
Audio interface	3.5mm audio interface, support voice intercom (can be paired with microphone)

Technical Specifications

Bluetooth	Support, built-in Bluetooth module can be connected to external Bluetooth headphones or audio
4G/5G	Support 3G/4G Full Netcom/5G optional
WiFi	Support
GPS Positioning	Support GPS、Beidou Positioning
Horizontal range	360°
Horizontal velocity	120°/S
Vertical range	-15°~+90°
Vertical velocity	30°/S
Presetting bit	128
Cruise	8 Times
Lens pattern scanning	3 Groups
Infrared	80 meters maximum irradiation distance
Face capture	Support
Face recognition	Support, built-in 100,000 face library, face comparison analysis

Technical Specifications

Helmet detection	Support, can identify and detect the wearing status of the helmet, and the color of the helmet
License plate detection	Support, the vehicle license plate can be detected and captured
Smart detection	Support, smoking behavior, phone behavior and not wearing work clothes can be detected and captured
Voice broadcast	Support for face recognition results, not wearing a helmet, smoking, phone calls, not wearing work clothes and other behaviors for voice broadcast prompts
Input	Built-in 10Ah lithium battery, lasting up to 8 hours
TF Card	Supports TF interface, adopts card type, dual SD card storage, each maximum capacity supports 256G
Installation	Suction cup/wall mount
Waterproof class	IP66
Size	Φ130mm * 230mm
Ambient temperature	-35°C--55°C
Weight	2.5KG
Ambient humidity	10%-90% (no condensation)

THE FORTIX VISIONEDGE AI EDGE BOX

The Fortix VISIONEDGE AI EDEGE BOX is a compact, high-performance device that brings Fortix's advanced AI video analytics directly to the edge. Pre-installed with the Fortix AI platform, it delivers real-time object detection, behavior analysis, and intelligent alerts without relying on constant cloud access.

Built for reliability and speed, VisionEdge processes multiple CCTV feeds locally—providing sub-second AI insights, reducing bandwidth use, and enhancing privacy. Its rugged, fanless design ensures silent, long-term operation in any environment.



Typical Use Case Workflow

Installed on-site and connected to existing IP cameras

The pre-installed Fortix AI platform performs on-device video analytics

Event detected, the system triggers instant alerts locally and through the Fortix cloud dashboard

Event data, metadata, and snapshots are securely synced to the cloud for storage

Users access the Fortix web platform to view live analytics, receive notifications

Use Cases & Applications

- ✓ Delivers intelligent video analytics and real-time event detection.
- ✓ Enhanced Intelligence for Existing Systems transforming standard CCTV feeds into smart, AI-driven surveillance.
- ✓ Local Processing, Low Latency performing all AI computations on-site.
- ✓ Seamless Integration and Compatibility connects to NVRs via RTSP or ONVIF protocols
- ✓ Enhanced Privacy and Security stays within the local network, maintaining compliance with privacy regulations (GDPR)