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Homaxi iQBox X3

All-In-One Outdoor Solar Video Surveillance

The **Homaxi IQBox X3** is an industrial-grade solar-powered remote surveillance system designed for outdoor deployment in environments lacking wired power and internet infrastructure. It combines solar energy generation, intelligent energy management, multiple PoE cameras, active deterrence devices, cellular and local connectivity, and cloud management capabilities into a single, rapidly deployable unit.

The **IQBox X3** is ideal for construction sites, temporary project locations, remote facilities, event security, agricultural sites, and other applications requiring autonomous surveillance with minimal infrastructure.

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iQGuard Management Console

IQGuard
Management Console

- 88 Dashboard
- ⚠ Device Health Alerts
- 🏢 Customer
- ⚙ Settings

SH Support Homaxi

All Customers | Select customer first

All Customers Dashboard

≡ List View | 🗺 Map View

🔍 Search device name... | **Search**

All Devices	Online Devices	Offline Devices	Battery < 30%
29	**29**	**0**	**10**
Total devices	Running and connected	Stopped or disconnected	Low battery warning

DEVICE NAME	ORGANIZATION	SITE	STATUS	BATTERY SOC	BATTERY VOLTAGE	SOLAR POWER	LOAD POWER	ROUTER STATUS	SIGNAL	LAST DATA
IQW-9014 ID: HQ2304XJ4GA	🔒 Nevada Security	📍 Nevada Security Main	running	32.5%	12.85V	0.0W	9.0W	📶 Connected T-Mobile	Poor -75 dBm	1/19/2026. 3:
IQW-9012 - Safestreets ID: HQ24432HWEN	🔒 Evo Smart	📍 main	running	85.0%	13.35V	5.0W	6.7W	📶 Connected T-Mobile	Poor -71 dBm	1/22/2026. 2:
IQW-9026 ID: HQ2407X3TNJ	🔒 Dallas Security Systems	📍 1460 Anna Cade	running	7.6%	11.64V	9.0W	10.5W	📶 Connected T-Mobile	Good -58 dBm	1/22/2026. 2:
IQW-9004 ID: HQ2443XPTQY	🔒 Systech Security	📍 Manor Park	running	100.0%	13.67V	10.0W	19.1W	📶 Connected T-Mobile	Good -52 dBm	1/22/2026. 2:

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📍 All Customers - Site Overview (13 sites on map) | 📈 10 iQWatch | ● 10 Online ● 0 Offline ⚠ 3 Alerts

Map | Satellite

📍 13 locations
✈ Fit All

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Key Features

Solar Power & Energy Management
- Dual 100W solar panel array with redundant design for reliable solar input.
- MPPT solar controller (Victron BlueSolar MPPT 75|15) with up to 98% peak efficiency.
- LiFePO4 deep-cycle battery bank (120 Ah total) for extended autonomy in low-sunlight conditions.
- Real-time energy monitoring and battery health tracking via cloud analytics.

Camera & Detection System
- Dual 100W solar panel array with redundant design for reliable solar input.
- Up to three PoE cameras supported per unit (Homaxi AD Series).
- Standard 4 MP resolution, upgradeable to 8 MP.
- AI-powered event recording with classification (person/vehicle), line crossing, and intrusion detection.
- Hybrid storage: on-device SD + cloud storage.

Active Deterrence
- 15 W IP horn speaker for high-decibel warnings and two-way voice intercom.
- External red-blue strobe light synchronized with audio alerts for high impact visual deterrence.

Network & Communication
- Industrial 4G LTE router (Teltonika RUT241) for wide area connectivity.
- Wi-Fi for local configuration.
- Supports secure VPN (OpenVPN, WireGuard).

Cloud & Management
- IQCloud platform for real-time monitoring, analytics, OTA firmware updates, role-based access, alerts, and multi-site management.
- Standardized protocols: MQTT, HTTPS, AES-256 encryption, OAuth 2.0 authentication.

Specifications

General	
Dimensions (H x W x D)(Body)	17.36″ × 16.67″ × 12.5″(441 × 423.5 × 317.6mm) (excl. bracket, cameras, and speaker)
Operating Conditions	Full Sun/Cloudy/Overcast/Night

Power System	
Solar Panels	2x 100W (200W total) Monocrystalline Silicon
Battery Bank	12V 120Ah Lithium (> 4,000 deep cycles)
Charge Controller	75V 15A Smart Solar Charge Controller with 98% peak efficiency
Autonomy	4 days at full load without sunlight

Surveillance & Deterrence	
Camera Support	2–3 channels of Homaxi Active Deterrence cameras
AI Analytics	Built-in iQSense deep learning algorithm; human/vehicle classification with 95% false-alarm filtering
Visual Deterrence (External)	12V high-intensity red/blue strobe light bar; visible range > 100 m
Audio Deterrence	15W IP horn speaker supports live talk-down and pre-recorded voice playback Camera: built-in microphone & built-in speaker(110dB)

Connectivity & Edge Compute	
4G Router	Industrial 4G LTE Router
Network Standard	4G LTE Cat 4 (DL 150 Mbps / UL 50 Mbps)
Wi-Fi	IEEE 802.11 b/g/n; AP mode for on-site configuration
Edge Controller	32-bit LX7 Dual-core, remotely monitor Solar and Battery status
Internal Switching	5-Port Industrial PoE Switch (powers cameras and speaker)

Physical & Environmental	
Enclosure Material	NEMA 4 / IP66 weather-proof steel enclosure, white powder-coated
Operating Temperature	Discharge: −20 °C to +60 °C (−4 °F to 140 °F) / Charge: 0 °C to +45 °C (32 °F to 113 °F)
Mounting Options	Pole Mount (4″–8″ round or square pole) / Wall Mount (flat surface)

Software Platform	
Dashboard	GIS map management powered by Google Maps
Health Center	Real-time display of Battery SOC (%), Solar Yield (today's generation), and RSSI (4G signal strength)
Low Battery	Automatic email/SMS notification when SOC < 30%
Device Offline	Alert triggered upon heartbeat loss
Remote Operations	Supports remote router reboot and over-the-air (OTA) firmware upgrades

CAMERA	
Sensor	1/2.7″ Progressive scan CMOS Sensor
Focal Length	2.8 mm
FOV	2.8 mm @ F1.0 Horizontal FOV: 103°, Vertical FOV: 55°, Diagonal FOV: 122°
Pan/Tilt/Rotation Range	Pan: 0° ~ 360° Tilt: 0° ~ 75° Rotation: 0° ~ 360°
Shutter Time	Auto / Manual, 1/3~1/100000s
Min. Illumination	0.003 lux (Color), 0 lux (IR on)
Day/Night	IR cut filter
Illumination Distance	30m (IR light) 30m (Warm light)
Wide Dynamic Range	120 dB

VIDEO & AUDIO	
Video Compression	H.264/H.264+/H.265/H.265+/MJPEG
Max. Image Resolution	4MP (2688 × 1520)
Main Stream	50Hz: 25fps 4M (2688 × 1520) 　　　25fps 4M (2560 × 1440) , 25fps 1080P (1920 × 1080) 60Hz: 30fps 4M (2688 × 1520) 　　　30fps 4M (2560 × 1440) , 30fps 1080P (1920 × 1080)
Sub Stream	50Hz: 25fps 720P (1280 × 720) 　　　25fps D1 (704 × 576) , 25fps CIF (352 × 288) 60Hz: 30fps 720P (1280 × 720) 　　　30fps D1 (704 × 480) , 30fps CIF (352 × 240)
Third Stream	50Hz: 25fps CIF (352 × 288) 60Hz: 30fps CIF (352 × 240)
Image Setting	Brightness/Contrast/Saturation/Hue/Sharpness
Audio I/O	1/1