

Reolink OMVI X16 PoE

Redefine Clarity in Home Security
with Optical Zoom.



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Product Introduction

Reolink OMVI X16 PoE is a Flagship Panoramic AI Security Camera for Large-area Security Monitoring, combining unmatched clarity, powerful optical zoom, all-around coverage, and intelligent AI tracking in one system. It represents Reolink's technical strength in the high-end product line.

Combining a 16MP Dual-Lens Panoramic Camera with a 4K 8MP PTZ Camera, Reolink OMVI X16 PoE delivers both panoramic awareness and flexible detail capture. With 360° endless pan, 16× optical zoom, panoramic-to-PTZ synchronized tracking, and smart AI features, it keeps wide areas and moving subjects clearly in view at all times.

Designed for flexible deployment, Reolink OMVI X16 PoE supports ceiling, wall, and corner mounting. Ideal for large yards, gardens, parking lots, long driveways, streets, warehouses, and commercial spaces. It provides wide coverage and intelligent monitoring, making it the ultimate choice for outdoor surveillance.



Redefine Clarity in Home Security with Optical Zoom.

With 16× true optical zoom, the OMVI X16 PoE brings distant details into sharp, 4K-quality focus, while the upper panoramic camera and lower PTZ camera work seamlessly together to keep both the wide scene and close-up details in view at all times. Even while the PTZ camera moves to capture detail, the panoramic view remains fully visible, eliminating blind spots and keeping the entire area under watch.

Panoramic Camera for Large Areas

16MP Dual-Lens

180° Ultra-Wide View

22° Tilt



PTZ Camera for Distant Details

4K 8MP Clarity

360° Endless Pan

95° Tilt

16× Optical Zoom

Key Features to Highlight

Top Priority Feature:

16× Optical Zoom.

Zoom in without losing clarity

1. OMVI X16 PoE supports 16× true optical zoom, maintaining 4K image quality even when zoomed in.

2. Optical zoom is triggered in two ways:

- ① Manually trigger optical zoom in the app anytime to zoom in on distant details on demand.
- ② With SyncTrack turned on, the PTZ camera uses true optical zoom while auto-tracking a subject — and that same optical clarity carries over into the recorded playback.

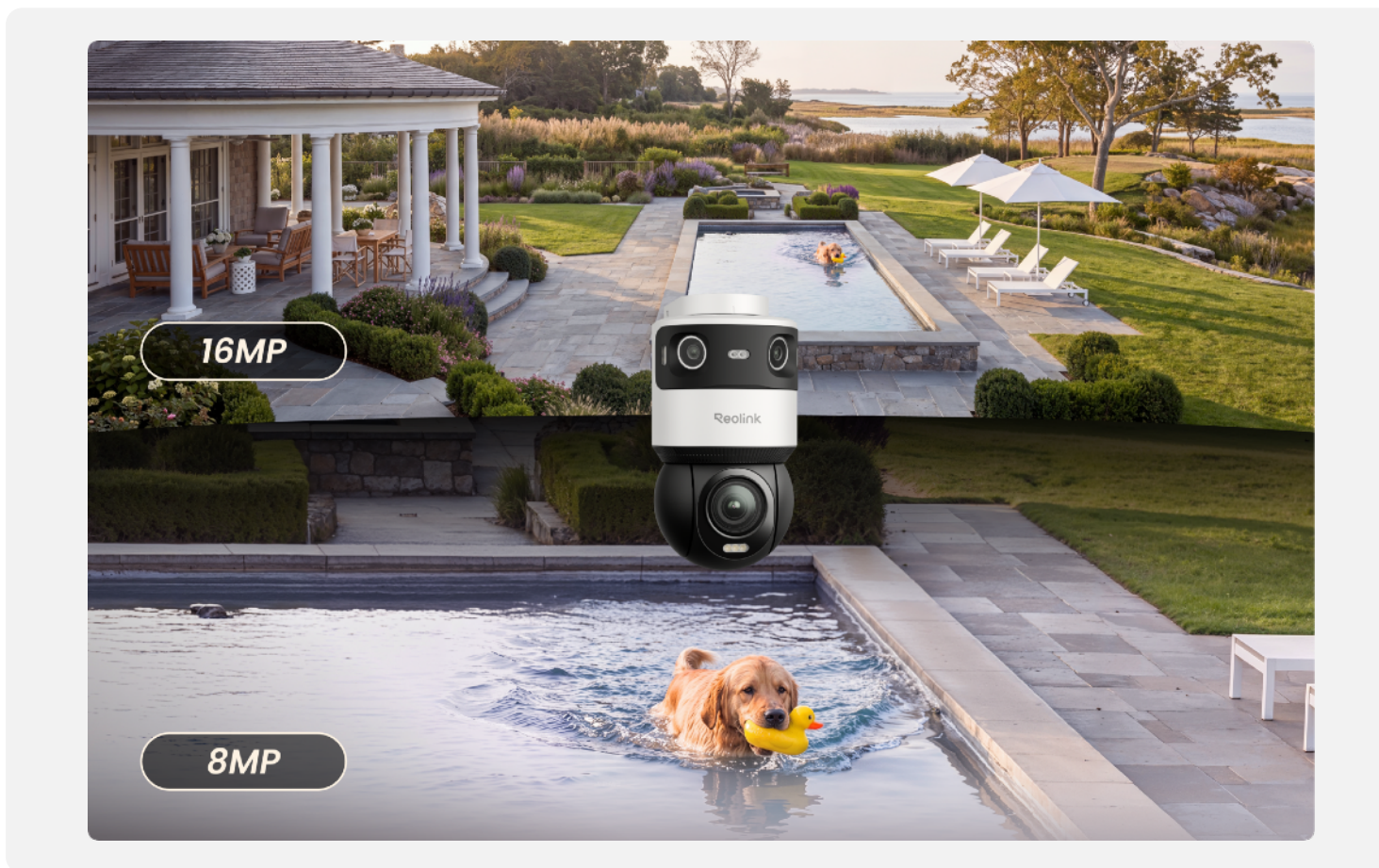
Note: SyncTrack must be manually enabled first for this to apply.



Key Features to Highlight

24MP Clarity. Ultra-High Definition Vision

Total 24MP triple-lens system: Combining a 16MP Dual-Lens Panoramic Camera with a 4K 8MP PTZ Camera.



Key Features to Highlight

360° Coverage. Miss Nothing

1. 180° panoramic view for Large Areas, true 360° PTZ rotation for Distant Details
2. The panoramic camera detects people, vehicles, and animals across the 180° view. Once detected, the PTZ camera automatically locks on and follows the subject, even if it moves beyond the panoramic frame.



Key Features to Highlight

Smooth Tracking & Smart Control. Always on Target

The combination of high speed and smooth control means the camera locks onto moving targets faster and keeps them steadily in view

SyncTrack with Optical Zoom. Always in Sync.

When the panoramic camera spots a person, vehicle, or pet, the PTZ camera automatically tracks in sync — using real optical zoom to keep your target enlarged and perfectly centered, for richer detail every time.

Pinpoint with One Tap

Tap anywhere in the panoramic view and the PTZ camera automatically pans and focuses, making it easy to check lanes, courtyards, or corners.

High-speed PTZ motor and Smart Auto Patrol

OMVI X16 PoE features a high-speed PTZ motor. It supports up to 64 preset positions for instant access, and can run an Auto Patrol route with up to 16 presets.



Key Features to Highlight

Smarter AI, Faster Search, Stronger Protection

Powered by advanced local AI, Reolink OMVI X16 PoE provides more reliable monitoring, faster alerts, and flexible protection tailored to real-world security needs.

Local AI-Powered Video Search

No more scrubbing, guessing, or reviewing hours of video. Just type in key details, a person, a vehicle, even clothing color, and get the moment you're looking for in seconds.

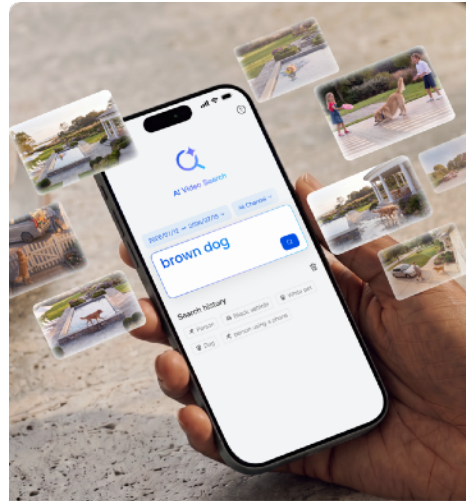
Accurate AI-Powered Detection

Advanced local AI accurately identifies people, vehicles, and animals, reducing false alerts caused by environmental motion such as wind, shadows, or lighting changes.

Customizable Perimeter Protection*

Create virtual fences, configure intrusion detection, set loitering alerts, and define detection zones for more precise monitoring.

* Supported on the upper panoramic camera.



Local AI Video Search



Smart Person/Vehicle/Animal Detection



Line Crossing Alert



Zone Intrusion Alert



Zone Loitering Alert

Key Features to Highlight

Remote Tilt Adjustment. No Reinstall

Unlike traditional fixed-angle panoramic lenses, the upper panoramic camera supports motorized vertical tilt adjustment (0–22°). If the installation angle is off, there's no need to climb back up or reinstall — simply adjust remotely via the App or NVR panel to correct the coverage angle.



Product Claims

Claims	Conditions / Limitations	Do Not Say
Clearly identify distant object details	① Manually trigger optical zoom in the app to zoom in on distant details on demand. ② With SyncTrack turned on, the PTZ camera uses true optical zoom while auto-tracking a subject — and that same optical clarity carries over into the recorded playback.SyncTrack must be manually enabled first for this to apply.	Must not imply that optical zoom applies during auto-tracking without SyncTrack enabled. Must not claim "equally clear at unlimited distance."
See every detail in ultra-high definition	Must be stated as "Total 24MP."	Must not state "24MP" alone (may be misread as a single-lens spec). Must not directly compare to a competitor's single-lens spec.
Cover the entire area without losing sight	① Vertical tilt range of the two lenses: -Panoramic camera: 0°–22° tilt -PTZ camera: -5°–90° tilt ② Due to the panoramic camera's limited downward tilt, areas directly below the device or along the wall base may be blind spots.	Must not say "360° panoramic" (the panoramic view is 180°; 360° refers to the PTZ rotation range). Must not say "zero blind spots" (downward tilt is limited).

Product Claims

Claims	Conditions / Limitations	Do Not Say
Track moving subjects quickly and keep them steadily in view	Tracking performance is affected by target speed, lighting conditions, and distance.	Must not say "never loses the target" or "100% tracking accuracy." Must not promise "zero latency" or "instant lock-on."
Use smart AI to detect key subjects and instantly find key moments	① Perimeter Protection is supported on the upper panoramic camera only — not supported on the PTZ camera. ② AI Search runs on local processing: it can search event recordings stored locally, can set a customizable time range. On supported NVR models with firmware updated to v3.6.5, AI Search can also cover full 7×24 continuous recordings. Supported NVR models: 1. RLN8-410 (Hardware No.: N7MB01 / NVR_NNT3NA78P) 2. RLN16-410 (Hardware No.: N6MB01 / NVR_NNT4NA716P)	/
Flexible 24/7 recording, no subscription for local storage	① Cloud storage is an optional feature and is "available in select regions only" (not supported in the United States / Costa Rica / Mexico / Puerto Rico). ② Only local storage is free of subscription fees; cloud storage requires payment.	Must not say "supports cloud storage" without stating the regional limitation. Must not say "all storage options are free."

Additional Features

Feature	Description
Flexible Storage Options. No Subscription for Local Storage	Supports microSD card storage (up to 512GB), Reolink NVR, or FTP/NAS servers, as well as Reolink Cloud storage (cloud storage available in select regions only). No subscription is required for local storage features, helping users lower long-term security costs with more predictable, controllable expenses.
AutoSweep. Seamless 360° Coverage	With a single tap, the camera automatically sweeps the surrounding area for complete coverage
Built for Tougher Environments	Full-metal housing. Enhanced durability. Stable outdoor performance. IP66 weather-resistant construction ensures reliable outdoor performance and long-term durability in everyday conditions.

Core Review Angle

Primary Angle(Anchor Message)

A Flagship Panoramic AI Security Camera that redefines clarity in home security with optical zoom.

Clarity refers both to an improvement in image quality (24MP) and to the ability to clearly identify the details of a captured event (16× optical zoom).

Suggested Review Scenarios

1. Optical Zoom vs. Digital Zoom Image Quality Comparison

Option 1: Static Manual Zoom Comparison

- ① A regular camera/phone captures a distant detail (license plate, face) → image becomes blurry after zooming in
- ② On the X16, manually trigger optical zoom in the app while the PTZ camera is static (not on SyncTrack), clearly identifying the license plate/face detail

Option 2: Automatic Optical Zoom During Tracking

- ① A regular camera/phone captures a distant detail (license plate, face) → image becomes blurry after zooming in
- ② The X16's panoramic camera detects the target → the PTZ camera locks on → with SyncTrack manually turned on, optical zoom is automatically triggered during tracking, clearly identifying the license plate/face detail

Required condition: If Option 2 is shown, the footage or captions must clearly indicate that SyncTrack has been manually enabled — this step cannot be omitted.

2. Fast Moving Subject

Recommended scenarios: running pet, moving vehicle, person walking across the yard. Demonstrates the PTZ motor's fast response and the ability to keep the target in frame without losing it, staying steadily centered.

3. Split-Screen: Panoramic Overview with PTZ Auto-Lock Tracking

Demonstrates that "seeing everything" and "seeing details clearly" happen at the same time.

- ① A person/vehicle enters the 180° panoramic area
- ② The panoramic camera's detects the target
- ③ The PTZ camera automatically turns and locks on
- ④ Continuous tracking, keeping the target centered in frame

4. One Camera vs Multiple Cameras

Comparison:

A traditional setup requires one panoramic camera + one telephoto/PTZ camera to cover both the overview and the details — and the two devices operate independently, with no coordination between them.

The X16 achieves panoramic coverage + detail identification with a single device, resulting in lower overall cost and simpler device management.

Specifications OMVI X16 PoE

Video & Audio	
Image Sensor	1/2.8"CMOS Sensor
Resolution	Panoramic: 7680 x 2160 (16 megapixels) @20FPS PTZ: 3840 x 2160 (8 megapixels) @20FPS
Lens	Panoramic: f=2.8mm, F=1.6 PTZ: f=5.3-86mm/Max F1.6
Video Compression	H.265/H.264
Zoom	Panoramic: Digital Zoom PTZ: 16X Optical Zoom
Field of View	Panoramic: H:180°(±10°), V: 55° PTZ: H: 54.2°-3.6°,V: 41.7°-2.1°
Color Night Vision	With Spotlights: 9pcs/6W/6500K
Frame Rate	Main Stream: 2fps - 20fps (default: 20fps) Sub Stream: 4fps - 20fps (default: 20fps)
Code Rate (Panoramic)	Main Stream: 3072Kbps -12288Kbps (default: 10240Kbps) Sub Stream: 256-2048Kbps (default: 1024kbps)
Code Rate (PTZ)	Main Stream: 3072-7168Kbps (default: 5120kbps) Sub Stream: 256-2048Kbps (default: 1024kbps)
Audio	Two-Way Audio (Built-in microphone and speaker)
Interface	
Power Port	DC Power Port
Ethernet Port	One 10M/100Mbps; RJ45
Storage	Up to 512 GB microSD Card / Reolink NVR/ Reolink Cloud (Selected Countries)
Reset Button	YES
SD Card Slot	Supports Max. 512GB microSD Card

Pan&Tilt	
Pan &Tilt Range	Panoramic: Tilt: 0°~22° PTZ: 0° to 360° endless, Tilt: -5°~90°
Pan Speed	1.4°~180°/s (configurable)
Tilt Speed	1.4°~56°/s (configurable)
Preset	Suppots 1 guard position & up to 64 preset positions
Auto Patrol	Supports 1 patrol; up to 16 presets per patrol
SyncTrack	YES
AI	
Local AI Video Search	YES
Perimeter Protection (Panoramic Only)	Line Crossing Alert, Zone Intrusion Alert, Zone Loitering Alert
Smart Alarm	Motion Detection/Human Detection/Vehicle Detection/ Animal Detection
Other Features	
Recording Modes	Motion-Triggered Recording (default); Scheduled Recording, 24/7 Recording
Time Lapse	YES
Smart Home Compatibility	Google Assistant
Warranty	
Limited Warranty	2-year limited warranty. For support, visit https://support.reolink.com/hc/en-us/ .

Working Environment	
Operating Temperature	-10°C~-+55°C (14°F~131°F)
Operating Humidity	10% ~ 90%
Waterproof	IP66
Mechanical	
Dimensions	257*167*136MM
Weight	2.85KG
Software	
Browsers Supported	Edge, Chrome, Firefox, Safari
OS Supported	PC: Windows, Mac OS; Smartphone: iOS, Android
Protocols & Standards	HTTPS, SSL, TCP/IP, UDP, HTTP, IPv4, UPnP, RTSP, RTMP, SMTP, NTP, DHCP, DNS, DDNS, FTP, P2P
User Access	Max. 20 Users (1 admin & 19 user); Max.12 simultaneous streams (2 main & 10 sub streams)
Power	
POE	IEEE 802.3at, 48V Active
DC Power	DC 12.0V~3A, <36W

Reolink OMVI X16 PoE



Thank You

