

AI POE SWITCHES FOR SURVEILLANCE AND WI-FI

AI6024-250W

24-Port 100 Mbps AI PoE Switch with Gigabit Uplink

Plug and Play

250 W PoE Budget

500 m on Ports 17–24

6 kV Surge Protection



Front panel — 24 PoE ports, 2 gigabit uplinks, SFP combo and the AI mode button

The AI6024 is a plug-and-play PoE switch for larger camera and access-point installations. Twenty-four 100 Mbps PoE ports feed the devices — ports 17 to 24 reach 500 metres with a long-distance splitter — while two gigabit RJ45 ports and a gigabit SFP combo carry the aggregate. A 250 W budget covers a full rack of standard cameras, and four AI modes on a front-panel button handle isolation, reach, video priority and device recovery.

24

100M PoE ports

250 W

PoE power budget

500 mPorts 17–24 with
splitter**8.8 Gbps**

Switching capacity

250 m

AI Extend, ports 1–8

6 kV

Surge protection

Key Capabilities

Plug and Play, Zero Configuration

No console, no web login, no VLAN plan. Power it, patch the cameras in, and it forwards — power is negotiated automatically for each connected device. The four AI modes are set by a front-panel button, not by a configuration file.

250 m on Ports 1–8

AI Extend switches the first eight ports to long-reach mode: power and data travel up to 250 metres on Cat 5e or better — two and a half times the 100 m limit that normally forces a mid-span cabinet.

Video Gets Priority Under Load

AI QoS identifies video traffic and schedules it ahead of everything else when the uplink saturates, so recordings stay smooth on the channel that matters instead of degrading evenly across all of them.

500 Metres on the Last Eight Ports

Ports 17 to 24 carry 100 Mbps up to 500 metres when paired with a long-distance splitter — a gate camera, a car-park pole or a perimeter run reached on plain copper, with no fibre and no mid-span cabinet.

The Camera That Hangs, Restarts Itself

AI PoE watches every powered port. When a camera or access point stops passing traffic, the switch cuts its power and restores it — the single most common site visit on a surveillance network, removed.

6 kV Surge Protection on Every Port

Camera runs leave the building and come back on the same copper. Every port carries 6 kV lightning protection, with short-circuit, over-current and over-temperature protection on the power stage.

Typical Applications

CCTV & surveillance

Hotels & serviced apartments

Factory dormitories

Campuses & student housing

Wi-Fi AP and IP-phone feeds

Technical Specifications — Hardware

Product model	AI6024-250W
Network interface	24 × 10/100 Mbps RJ45 PoE ports — ports 17–24 support 500 m transmission with a long-distance splitter · 2 × 10/100/1000 Mbps RJ45 ports · 1 × Gigabit SFP combo port
Standards	IEEE 802.3, 802.3i, 802.3u, 802.3x, 802.3z, 802.3ab, 802.3af, 802.3at
Switching capacity	8.8 Gbps (non-blocking)
Packet forwarding rate	6.5 Mpps
MAC address table	8 K
Forwarding mode	Store and forward
Switching architecture	Non-blocking · wire-speed forwarding on every port · 802.3x flow control · Auto MDI/MDIX
PoE standards	IEEE 802.3af / IEEE 802.3at
PoE power	250 W total system budget · 30 W maximum per port
PoE pinout	1/2 (+), 3/6 (–)
Protection	6 kV surge on all ports · PoE short-circuit, over-current and over-temperature protection · over-voltage and surge-current protection
LED indicators	1 × Power · 26 × Link/Act · 24 × PoE
Input power	AC 100–240 V, 50/60 Hz
Dimensions (L×W×H)	440 × 180 × 44 mm
Operating temperature	0 °C to 40 °C
Storage temperature	–40 °C to 70 °C
Operating humidity	10 % – 90 % RH, non-condensing
Storage humidity	5 % – 90 % RH, non-condensing
Certification	CE · RoHS · FCC

Four AI Modes, One Front-Panel Button

A button on the front panel enables each mode instantly — no console, no configuration.

AI VLAN

Isolates the access ports from one another, suppressing broadcast storms and lifting network performance.

AI Extend

Ports 1–8 switch to long-reach mode and carry power and data up to 250 m on Cat 5e or better.

AI PoE

Watches each powered device and cuts then restores power automatically when one stops responding.

AI QoS

Gives identified video traffic priority under congestion so camera streams stay smooth.

Panel Reference

Ports 1 – 16	10/100 Mbps RJ45 with PoE output
Ports 17 – 24	10/100 Mbps RJ45 with PoE — 500 m reach with a long-distance splitter
Gigabit uplinks	2 × 10/100/1000 Mbps RJ45
SFP combo	Gigabit fibre uplink
AI button	Cycles AI VLAN · AI Extend · AI PoE · AI QoS
Power	Internal supply, AC 100–240 V

Ordering Information

MODEL	DESCRIPTION
AI6024-250W	24 × 10/100 Mbps PoE RJ45 + 2 × Gigabit RJ45 + 1 × Gigabit SFP combo · plug and play · 250 W PoE budget

Recommended Optical Modules

MODEL	TYPE	REACH
SF310M-LC-500M	Gigabit SFP · multimode · 850 nm · LC · DDM	up to 500 m
SF312A-LC-10KM	Gigabit SFP · single-mode · 1310 nm · LC · DDM	up to 10 km

The uplink slots are Gigabit SFP. 10 Gigabit SFP+ modules (SF410M-LC-300M, SF412A-LC-10KM) are not compatible.

Related Foredge AI PoE Switches

MODEL	ACCESS PORTS	UPLINK	POE BUDGET	MANAGEMENT
AI6016	16 × 100M PoE	1 × SFP combo + 2 × GE	150 W	Plug and play
AI6024	24 × 100M PoE	1 × SFP combo + 2 × GE	250 W	Plug and play
AI1016G	16 × GE PoE	2 × GE SFP	150 W	Plug and play
AI2010GX	8 × GE PoE	2 × GE SFP	96 W	Managed L2

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Warranty & Support

Warranty	Two years from date of purchase
Stock & replacement	Held in Riyadh · replacement within 48 hours
Technical support	Pre-sales design, configuration assistance and firmware from the distributor
Country of manufacture	China — Shenzhen Fengrunda Technology Co., Ltd.

Notes

- The twenty-four access ports are 100 Mbps, not gigabit. They suit 2 MP cameras and access points; for 4 MP and above, specify a gigabit AI PoE switch instead.
- The 500 m reach on ports 17–24 requires the matching long-distance splitter at the far end; AI Extend on ports 1–8 reaches 250 m on Cat 5e without extra hardware.
- Specifications are taken from the manufacturer's published data and are subject to change without notice.
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