MSU-GLED

Electric / diesel hybrid

An electric/diesel mobile surveillance unit accepting 120 VAC or 240 VAC shore power, with 4 kW or 8 kW integrated diesel generator options. Its 23 ft mast supports surveillance and communications; runtime is up to approximately 218 hours at light-tower load, dependent on configuration.

Configuration is subject to final confirmation by Mirtek before procurement. Component ratings apply only to the named component.

Model overview

Power	Electric / diesel hybrid
Standard cameras	2 × AXIS P3748-PLVE
Mast height	23 ft maximum
Mast rotation	360°
Communications	CAT4 LTE; up to 150 Mbps downlink / 50 Mbps uplink
Audio	15 W outdoor IP horn
Generator options	4 kW or 8 kW
Generator runtime	Up to approximately 218 hours at light-tower load; configuration dependent

Platform & power

Power source	120/240 VAC shore power / utility connection and/or integrated diesel generator
Input voltage	120 VAC or 240 VAC
Frequency	60 Hz
Shore-power configuration	120 V and 240 V configurations available
Generator options	4 kW or 8 kW integrated diesel generator options
Operating concept	Hybrid electric/diesel; operate from shore power or onboard diesel generation

Mast height	23 ft maximum
Mast rotation	360°
Lifting system	Manual winch
Stabilizers	4 manual stabilizers
Power-unit dimensions	Configuration dependent
Generator package weight	Configuration dependent
Maximum wind rating	100 kph (62 mph)
Fuel	Diesel
Fuel tank capacity	Configuration dependent; up to 170 L (45 US gal) on 8 kW-class configuration
Generator run time	Up to approximately 218 hours at light-tower load, configuration dependent
Secondary fluid containment	110%
Structure	Heavy-duty trailer-mounted enclosure with multi-stage telescoping mast

Standard surveillance cameras

Quantity	2
Camera model	AXIS P3748-PLVE
Sensor configuration	4 × 8 MP sensors per camera
Video resolution	4 × 3840 × 2160 (4K) per camera
Frame rate	Up to 12.5/15 fps per channel
Horizontal field of view	360° total (103°–41° per sensor)
Pan / tilt / roll	Remote PTRZ adjustment
Low-light performance	IR illumination; 0 lux B/W with IR on
IR range	20 m at 0 lux; 30 m at 0.2 lux

WDR	Forensic WDR up to 120 dB, scene dependent
Video compression	H.264, H.265 and Motion JPEG
Analytics	Edge-based AI analytics including human/vehicle detection, line crossing, object-in-area, occupancy and motion scenarios
Environmental rating	IP66 / NEMA 4X / IK10
Camera operating temperature	-40°C to 50°C; PTR functionality to -30°C
Camera power	PoE, IEEE 802.3af/802.3at Type 2 Class 4; typical 10.9 W, max 23.6 W per camera

LTE communications

Gateway type	CAT4 LTE IoT Ethernet gateway
Cellular performance	Up to 150 Mbps downlink / 50 Mbps uplink over air
LTE bands	B2, B4, B5, B12, B13, B14, B66, B71
WCDMA bands	B2, B4, B5
Ethernet	10/100/1000 Mbps Gigabit Ethernet
USB	USB 2.0
Networking	IPv4 / IPv6, TCP, UDP, DHCP, HTTP, SNMP, FTP, DNS, MQTT and related network protocols
Security	Firewall, ACLs, VPN, IPSec, GRE / VPN tunnelling, HTTPS and access controls
GPS	Integrated GPS support; up to 5 Hz update rate
Operating temperature	-40°C to +85°C
Dimensions	Approx. 1.75 × 1.75 × 1.35 in

Video control & alarm bridge

Video channels	8

Video alarm zones	8
Alarm handling	Real-time video alarms and notifications
Integration	ONVIF event messaging; integration with AI cameras and server platforms
Audio	IP and analog audio output
Central monitoring	Supports live video monitoring, live audio broadcasts and remote control with additional hardware
Network	10/100 Ethernet, RJ45
Power	12 VDC or PoE, IEEE 802.3af Class 3
Peak power consumption	10.5 W
Security	TLS / SSL
Dimensions	150 × 98 × 35 mm (5.9 × 3.86 × 1.38 in)
Weight	265 g (0.6 lb)

Audible warning & communication

Speaker type	15 W outdoor IP horn speaker
Environmental protection	IP67 waterproof
Maximum SPL	113 dB
Frequency response	300 Hz–8 kHz
Amplifier	Built-in 15 W amplifier
Network interface	10/100 Base-TX, RJ45
Protocols	SIP, ONVIF, HTTP, IPv4, DHCP, RTSP, RTP, TCP, UDP and related network protocols
Audio	Network audio with support for multiple common audio codecs
Alarm input	1 channel

Power	PoE or 12–24 VDC
Operating temperature	-30°C to +60°C
Humidity	5–85%
Dimensions	285 × 205 × 290 mm
Weight	1.3 kg

On-board computer

Computer type	Fanless mini PC
Processor	4-core / 4-thread processor, up to 3.6 GHz, 8 W TDP
Memory	16 GB RAM
Storage	512 GB SSD
Storage expansion	M.2 2280 SATA/NVMe expansion; microSD support
Networking	Dual-band Wi-Fi 5, Bluetooth 5.1, Gigabit Ethernet
Video outputs	2 × HDMI 2.0 plus USB-C video output
Data I/O	USB 3.2, USB 2.0, USB-C, RJ45 Ethernet, 3.5 mm audio
Unattended operation	Auto power-on, Wake-on-LAN, PXE/iPXE boot and RTC wake support
Physical dimensions	Approx. 5.2 × 3.2 × 0.7 in
Weight	Approx. 0.44 lb

Lighting & warning

LED strobe lights	Integrated LED strobe warning lights
Tower lighting	Integrated LED tower lighting; lighting package is configuration-dependent

System integration

Standard configuration	2 × AXIS panoramic multi-sensor cameras + CAT4 LTE gateway + 8-channel video control bridge + 15 W IP horn + on-board fanless mini PC + LED strobe lights
Camera customization	Camera quantity, model and analytics configuration can be customized
LTE customization	LTE hardware and connectivity configuration can be customized
Monitoring	Networked surveillance and alarm architecture suitable for integration with remote monitoring services

Notes & limitations

1. Specifications describe the stated configuration and are subject to configuration, component availability and manufacturer revisions. Confirm the final configuration with Mirtek before procurement.

2. Component ratings apply to the named component, not to the entire assembled surveillance unit. Cellular throughput is a stated maximum; actual speeds depend on coverage, carrier and network conditions.

3. Final weight varies with generator package and installed equipment. Typical weights stated in the document: 4 kW — 1,316 lb; 8 kW — 1,907 lb.

4. Fuel tank capacity is configuration dependent, up to 170 L (45 US gal) on the 8 kW-class configuration.

Discuss your configuration

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