

LumiWatch Fixed Solar Solution

TW-71A



Key Features

- Remote Device Monitoring and Management With LumiViewer
- Built-In Industrial-Grade 4G Router
- 120W Monocrystalline Solar Panel
- 960wh Lithium Iron Phosphate Battery
- For Pole-Mounted or Wall-Mounted Installations

Certifications and Compliance

- NDAA Compliant
- FCC, IC

Learn More



Learn more about this product's key technologies.

Overview

The **TW-71A** LumiWatch Fixed Solar Solution is a permanently mounted, solar-powered surveillance platform designed to deliver reliable security in locations where traditional power infrastructure is unavailable or cost-prohibitive.

LumiWatch is fully compatible with LumiViewer, enabling users to configure, monitor, and manage the system locally. This makes it an excellent choice for organizations that prefer to keep their surveillance systems on-premises while still benefiting from an intuitive, easy-to-use interface. LumiViewer is supported on Windows®, macOS®, Android™, and Apple iOS®, providing convenient access from virtually any device.

Designed for deployment flexibility, the TW-71A supports up to two fixed cameras or one PTZ camera, allowing customers to tailor the solution to meet their specific surveillance requirements. For enhanced system monitoring, firmware has been upgraded on three select Luminys camera models—N5P-8DA2, N5T-8DA2, and P54-4DB25—to display the solar system's battery status directly through the camera interface, giving operators greater visibility into system health.

To simplify connectivity, the TW-71A features an integrated industrial-grade 4G/LTE router that accepts a SIM card from the customer's preferred cellular service provider. This open approach allows organizations to choose the carrier that offers the best coverage and data plan for their deployment while maintaining a reliable connection to the system.

Key Technologies

Integration with **LumiViewer** allows this device to be remotely added and managed within a single interface. With its easy-to-use interface and seamless integration with the Luminys security ecosystem, LumiViewer allows users to view live video, playback archives, and manage event responses from a desktop client or mobile device. Optional license upgrades allow for flexibility and scalability without the hassle or cost of purchasing unnecessary add-ons.

Specifications

Photovoltaic Panel

Type	Monocrystalline Silicon
Maximum PV Input Power	120 W
Operating Temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Dimensions	789.0 mm x 768.0 mm x 30.0 mm (31.1 in. x 30.2 in. x 1.2 in.)
Weight	6.6 kg (14.6 lb)

Battery

Battery Type	Lithium Iron Phosphate (LiFePO ₄)
Rated Battery Voltage	12.8 V
Battery Capacity	75 Ah / 960 Wh
Rated Charging Current	10 A (Max.)
Operating Temperature	Charging: 0 °C to 60 °C (32 °F to 140 °F) Discharging: -20 °C to 60 °C (-4 °F to 140 °F)
Dimensions	247.0 mm x 175.0 mm x 109.0 mm (9.7 in. x 6.9 in. x 4.3 in.)
Weight	7.0 kg (15.4 lb)

Controller

Type	MPPT
Rated Charging and Discharge Current	10 A
MPPT Tracking Efficiency	≥ 99%
Operating Temperature	-30 °C to 60 °C (-22 °F to 140 °F)

4G Router

Cellular Support	4G LTE (Cat4/6)/3G/2G, Dual SIM for Link Backup
Ethernet	Five (5) x WAN-/LAN-Configurable Ethernet Ports (10/100 Mbps)
Wi-Fi	802.11 b/g/n, 2.4 GHz, AP/Client Mode (≤ 300 Mbps)
VPN and Security	IPsec, L2TP, GRE, OpenVPN, WireGuard, SPI Firewall, DoS Protection, ACL
Reliability	VRRP Hot Standby, Link Detection, Auto-Recovery, Hardware Watchdog
SIM Card Type	Two (2) x Nano SIM
Supported Carriers	US: AT&T, Verizon, T-Mobile, Etc. Canada: Rogers, Bell, Telus, Etc.
Power	9 to 36 VDC
Operating Temperature	-20 °C to 70 °C (-4 °F to 158 °F)

Antenna

4G Antenna (Standard: Two)	Frequency: 690–960 MHz, 1710–2690 MHz VSWR: ≤ 6.43 Gain: ≤ 2.94 dBi Impedance: 50 Ω
Wi-Fi Antenna (Standard: Two)	Frequency: 2400–2500 MHz, 5150–5850 MHz VSWR: ≤ 2.0 Gain: ≤ 2.0 dBi Impedance: 50 Ω

Audio

Loudspeaker	Frequency: 400 Hz–5 kHz Sensitivity: 105 dB Impedance: 8 Ω
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Electrical

Power Output	Three (3) x Ø5.5 mm Coaxial Power Plugs
Signal Output	Two (2) x RJ-45
External Charging Output	24 VDC/5 A (AC/DC Adapter Required)
Power Consumption (Static)	Static: 1.8 to 2.8 W Max.: 4.3 W
Battery Runtime	Up to 48 Hours With 20 W Load* *No Solar Charging or External Power Source
Output Voltage Range	11.1 to 14 VDC

Construction

Net Weight	34.4 kg (75.8 lbs)
Gross Weight	45.5 kg (100.3 lbs)
Package Dimensions (L x W x H)	859.0 mm x 901.0 mm x 340.0 mm (33.8 in. x 35.5 in. x 13.4 in.)
Ratings	IP66
Bracket Material	Galvanized Steel
Battery Indicator	Yes
Battery Switch	Yes
Casing Material	Galvanized Steel
Installation	Pole or Wall Mount
Mounting Pole Diameter	100.0 mm to 300.0 mm (3.9 in. to 11.8 in.)

Certifications and Compliance

Certifications	FCC, IC
Compliance	NDAA

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The components below are provided for reference only. Package contents are subject to change without notice and may differ from those listed.

Quantity	Component
1	Photovoltaic Cell Module
1	Battery Box
1	Angle Adjustment Bracket
1	Pole Mount Bracket
1	Wall Mount Bracket
1	Surveillance Mount Bracket
1	Cable Cover
1	Rear Cover
1	Loudspeaker
2	Waterproof Sleeve
1	Ethernet Cable
5	Metal Clamp
1	Wire Rope
7	M8*18 Screws
30	M6*16 Screws
1	6 mm Hex Wrench
1	5 mm Hex Wrench
1	2.5 mm Hex Wrench
4	M3*8 Screws
2	4G Antenna Masts
2	WiFi Antenna Masts
1	SIM Ejector Pin
1	User Manual
1	Regulatory Information