

SOLAR-X



SOLAR-X Highlights

- ✕ Advanced Integrated Platform
- ✕ Rapid Deployment with minimal tools required
- ✕ Outstanding Power Generation (Solar)
- ✕ Simplified Solid State Storage (up to 16TB)
- ✕ Multiple Camera and Mount Options
- ✕ Ai-Embedded Support with Analytics
- ✕ Embedded and Fully Integrated Loud Speaker
- ✕ Two-Way Talk and Announce
- ✕ Red/Blue Flashing Deterrent Lights
- ✕ Lockable and Secure
- ✕ Advanced Communication over LTE Signals
- ✕ Always Connected (Mobile App!)

Available Analytics

- ✕ Advanced Motion Detection
- ✕ Player / Vehicle Meta Data Capture
- ✕ Facial Recognition Support
- ✕ Abandoned / Missing Object
- ✕ Tripline & Intrusion Detection
- ✕ Auto Tracking
- ✕ Plus More...

SOLAR-X

Discover the future of mobile security with our fully integrated single-axle solar trailer. Designed for diverse applications from events to construction sites, this self-sustaining solution offers unmatched reliability and efficiency, ensuring continuous operation even in remote locations. It meets **NDAA** standards, ensuring continuous operation even in remote locations while adhering to stringent regulatory requirements.



Rapid Deployment and Setup

- **Efficient Setup:** Ladder-Free assembly for quick, hassle-free setup.
- **Comprehensive Integration:** Control lights, speakers, integrate with third-party systems and cloud services effortlessly.
- **Simplified Storage:** All components fit into the storage assembly; no ladder or other parts required for setup.
- **Quick Configuration:** Single Plug-in, no additional wire needed. Use QR Scan Technology to configure via the App - No Local Interfaces are needed.

Embedded Solar Compute Node

- **Command and Control:** Acts as the centralized hub, directing the operation of cameras, lights, and speakers which bridge the hardware with our software.
- **Communication Interface:** Ensure Smooth operation and integration by facilitating seamless communication between the unit(s) and the platform.
- **Health Monitoring:** Continuously monitors and manages the health of the unit to maintain optimal functionality.
- **Data Pre-Processing:** Handles the initial processing of data from the unit; thus streamlining the analysis and response process.

How to Deploy the Solution

1. **Position the Trailer:** Position the trailer and manually extend the folded solar panels before turning the system on.
2. **Install Cameras and Speakers:** Attach all cameras and speakers with the pre-wired connectors onto the mast using the ethernet cables.
3. **Configure:** Scan the QR code on the trailer to configure the platform via Mobile App.



Step 1



Step 2

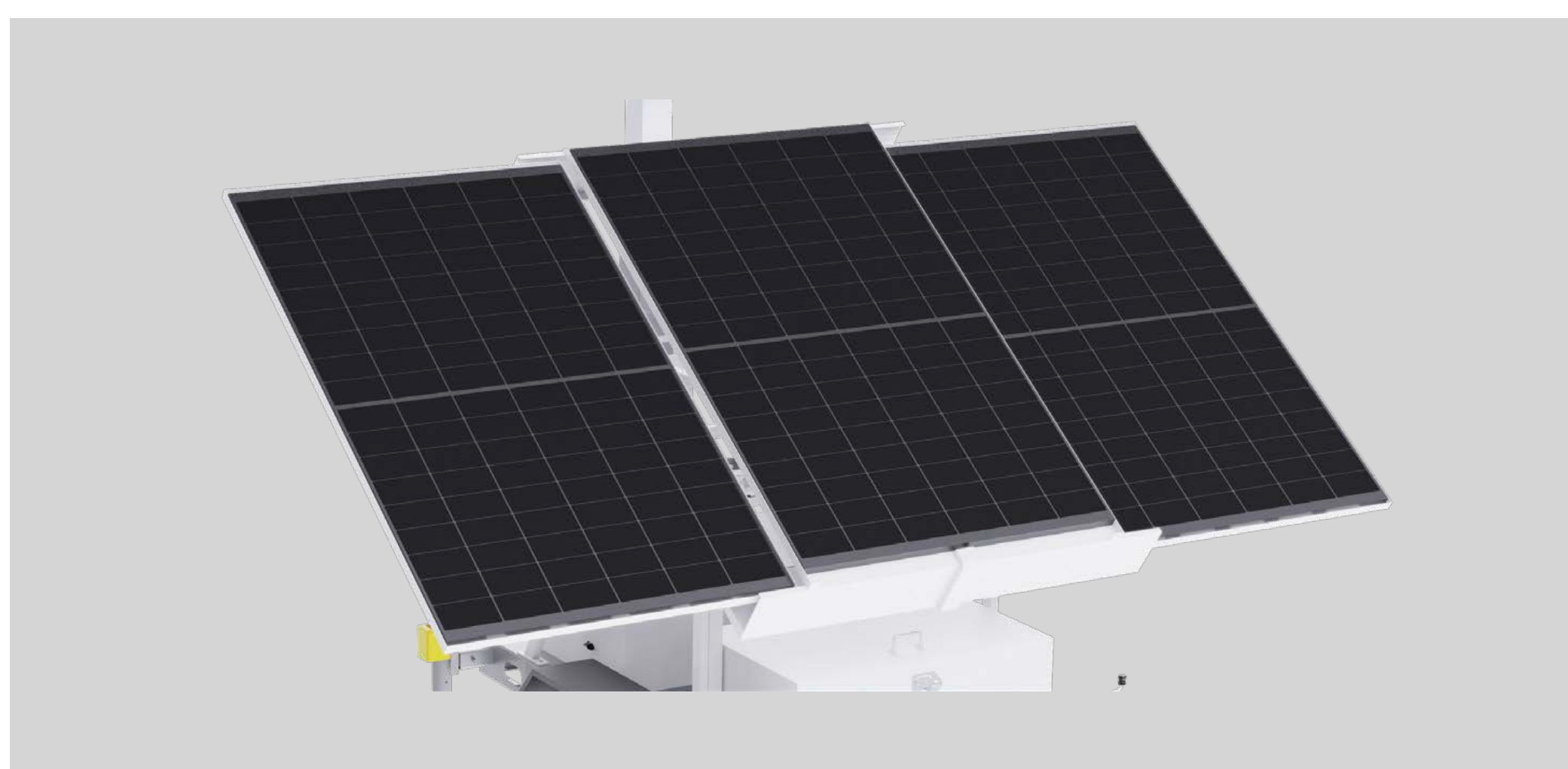


Step 3



Reliable Power - Backup Power

Ultra-Reliable Operation: Four (4) 12.8V Lithium Iron phosphate batteries provide reliable backup and ensure seamless nighttime operation.



High Efficiency Solar Panels

Superior Solar Panels: Three (3) 460-Watt Mono-crystalline Silicon Solar Panels, each equipped with dual independent (MPPT), maximizing efficiency even under variable light or shady conditions.



Robust Construction

The mast extends up to 26 Feet, enabling extensive surveillance coverage from greater heights. Engineered to withstand wind speeds in excess of 73MPH the Solar-X Solution also comes with C5 Corrosion-resistant coating to ensure longevity in harsh environments.



Security Enhancement

The mast mounted control box is located high on the mast (up to 26 Feet) which deters theft and protects against vandalism. The Solution has removable wheels and tow hook to prevent theft and unauthorized transport. The tow hook and wheels can be uniquely stored inside of the unit's lock box when not in use.



Transport and Compliance

The Solar-X Trailer has been optimized for mobility and is capable of being transported at speeds up to 62MPH, Compliant with DOT Standards, and ready for DMV Registration.

General System

System Voltage	48 VDC	Corrosion Class	C5
PV Controller	MPPT 30A, 96.9%		
IP Rating	IP67		3 x Strobe Lights 2 x Speakers 1 x 4G LTE Router
Control	Remote Control	Roof Rack Components	1 x Fill Light 1 x Power Supply Board 12/48VDC 1 x Edge Controller 1 x Hard Drive (1TB)
Battery Supply	Solar Power, Main Electricity		
Charge Time	20 Hours (AC Power)		

Network Video Recording Platform Module

System O/S	Linux Embedded Operating System (Unity ForeSight Mobile)
Video Input	Up to 16 Megapixel real Time Streaming / Recording
Video Decoding (Local)	2 Channels at 16MP / 30FPS or 8 Channels at 4MP / 30FPS
Video Output	Simultaneous HDMI / VGA Configurable
Video Playback	1/4/8 Remote Viewing Capability on Mobile App
Video Bandwidth	256Mbps Streaming incoming / outgoing
Audio Functions	Two-Way Talk, Announcement through Loud Speaker, Siren, Audio Recording / Streaming
Storage (Internal)	1 x SATA Port; Hard Disk up to 16TB
Recording Type	Record on Schedule, Motion Detection, Intelligent Alarms, or Always on 24 x 7
Backup	External USB Backup Connection for Storage Device or Network Backup
Network Interface	Communication (RJ45) 10/100/1000 Mbps
PoE Network Interface	8 x (RJ45) 10/100 Mbps PoE Ports
Supported Protocols	HTTP; HTTPS; TCP/IP; IPv4; IPv6; SNMP; UPnP; UDP; SMTP; NTP; DHCP; DNS; IP Filter; PPPoE; DDNS; FTP; P2P; Auto Register over Network; Alarm Server
Other Interfaces	2 x USB 2.0 Ports; USB Upgrade Port
Pilot Lights	HDD; NET; PWR
Power Consumption	Total Output for NVR < 10W without HDD Total Output for PoE: 100W Total Output for one PoE Port: 25.5W

PV Controller

Nominal System Voltage	48 VDC	Relative Humidity	< 95%
Working Voltage Range	8 to 68 VDC	Self-Consumption	< 0.624%
Communication	RS-485 (RJ45 - 5VDC/200mA)	Certifications	FCC, UL



4G CPE

4G	LTE FDD: B1/B2/B3/B4/B5/B6/B7/B8/B9/B12/B13/B17/B18/B19/B20/B25/B26/B28/B66	Power	12V DC 1A
	LTE TDD: B34/B38/B39/B40/B41		
SIM	1.8V/3V SIM / UIM Cards with Built-In 15kV ESD Protection	Operating Temperature	-30°C to 70°C (-22°F to 158°F)
Lan Port	Two (2)	LAN Protocol	ARP, Ethernet
RS-485/232 Port	One (1)	WAN Protocol	IP, DHCP, PPPoE

Solar Panel

Number of Panels	Three (3)	Operating Temperature	-40°C to 80°C (-40°F to 158°F)
Solar Cell Type	Monocrystalline Silicon	Dimensions	1757.0mm x 1134.0mm x 30.0mm (69.2" x 44.6" x 1.2")
Wattage	460W per Panel	Weight per Panel	21.5kg (47.4lb)
Voltage Rangee	10 ~ 40.9 VDC	Life Span	30 Years
Energy Efficiency	23.80%	Certifications	TUV; CQC; CE

Battery

Number of Batteries	Four (4)	Operating Temperature (Normal)	0°C to 60°C (32°F to 140°F)
Cathode Material	Lithium Iron Phosphate	Operating Temperature (Discharge)	-20°C to 60°C (-4°F to 140°F)
Voltage per Battery	12.8V	Weight per Battery	12 kg
Capacity	150 Ah (51.2 VDC 7680 Wh)	Life Cycle	≥ 5,000 Cycles at 25°C, 0.5°C, and 80% DOD

Mast

Height	8.0m (26' Feet) Retractable	Coating	Electrophoretic Preservative
Control	Hand Operated with Removable Crank	Material	Aluminum Alloy
Beaufort Wind Scale	Level 12		

AC Charging (Optional)

Voltage Range	90~264 VAC, 127~370 VDC	Power Factor	> 0.98
Frequency Range	47 to 63 Hz	Operating Temperature	-30°C to 70°C (-22°F to 158°F)
Power	450W	Charging Protection	Low Voltage; Over Current; Over Voltage; Short Circuit; Over Temperature
Output Voltage	42 ~ 80 VDC (Adaptable)	Output Current	6.8 A
Efficiency Rating	93%	Certification	UL, TUV, EAC, CE, CB



Trailer

Trailer Coupler	Suitable for 2" (50mm) Trailer Ball	Packaging Dimensions	2200.0mm x 1600.0mm x 2389.0mm (86.6" x 63" x 941")
Speed Limit	Standard: 80km/h (50 MPH) Maximum: 100km/h (62 MPH)	Product Weight	< 835kg (<1,840.9 lb)
Hand Brake	One (1)	Tire Type	Aluminum Rim 175R13
Support Legs	Four (4) Independant	Product Dimensions	3087.0mm x 3464.0mm x 7941.0mm (121.5" x 136.4" x 312.6")

Ready to Purchase?

Invest in Peace of Mind: Our solar-powered trailer is designed to provide unmatched security, efficiency, and reliability. Quickly deploy security and peace of mind at your construction site, off-site parking lot, extended parking-lot, outdoor events or venue shows. With the Solar-X Solution, it goes where you go. And best of all, it can be accessed 24x7 remotely through Unity’s Foresight Mobile App!

Unity offers several options to purchase, lease, or rent unit(s) that are ready to deploy.

To learn more about Unity Surveillance products, schedule a site assessment, or submit a purchase order please contact sales@unitycore.us to start your D2M relationship today.

Unity Surveillance, Inc.
Phone: +1 (866) 412-8134
Email: sales@unitycore.us
Web: www.unitycore.us

