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SPLT-.53K-LM45-2XN3B-PW-TLR7-2XPTZ-20X-2TB-W4G-V2

13.5' to 45' Portable Solar Security Tower - 14' Trailer - (2) PTZ Cameras - 2TB NVR - GPS/Router - NDAA

Product ID: 266541

Please see last page for supporting documentation for this product(certificates, CAD files & drawings, IES files, wiring diagrams, etc).



Larson Electronics LLC manufactures a wide variety of products, including custom built to spec designs. The pictures displayed for this unit are a general representation of form factor for the product line and may not accurately represent this exact configuration in every detail due to custom builds and changes between similar products in our standard catalog. The specifics for this configuration are listed in the specification table and supporting documentation (CAD files, Dimensional Drawing, Name Plate Diagram, Wiring Diagram, etc.). This means that specific details (receptacles, plugs, wires, connections, mounting brackets, external finishes, etc.) may not be accurately represented in images vs specifications. Please review specifications and do not order based solely on images.

SPLT-.53K-LM45-2XN3B-PW-TLR7-2XPTZ-20X-2TB-W4G-V2 Trailer Mounted Solar Security Mast

Mast Specs

Tower Length: 13.5` to 45`
Stages: 5
Mast Head Length: 44"
Materials: Steel
Finish: Powder Coated - Gloss Blue
Operation: (1) 1,000lbs Hand Winch
Mast Cable: 3/16" Galvanized Aircraft Cable
Cable Sheath: Sealtight Coiled Tubing

Solar Specs

Panels: (2) 300 Watt panels
Method of Deployment: Fixed Mount - No Sliders
System Voltage: 12 Volts
Solar Charge Controller: 40A MPPT
Battery Bank: (6) 40aH Lithium-ion Batteries
Battery Capacity: 240aH Total / 240aH Usable
Battery Charger: NA
Inverter: NA

PTZ Camera Specs

Camera Type: PTZ Security Camera - NDAA Compliant

Quick Summary

National Defense Authorization Act (NDAA) Compliant
13.5` to 45` Solar Surveillance Tower
Steel Construction
Powder Coated Finish
Removable Mast Head
125 mph Wind Resistance
Manual or Optional Electric Operation
A-Frame for mounted (2) 300 Watt Solar Panels
Fully Solar, No Fuel Needed
(2) PTZ IP Cameras w/ Motion Detection
De-fog Viewing (Rain and Fog)
360° Rotation, -15°~90° Tilt
2 TB NVR
Wireless 4G Hotspot
GPS Tracking
Foldable Tongue

Camera Qty: (2)

Single-camera Dimensions: 14.38" H x 7.12" D

Total Watts: 51 (Max)

Single-camera Watts: 25.5 (Max)

Voltage: 24V AC (PoE - 802.3at)

Image Sensor: CMOS

Connectors: 1.0Vp-p, 75 Ohm, BNC

Effective Pixels: 2.1 MP, 1920 x 1080 Resolution
Min. Illumination: 0.02 Lux @ F1.6 AGC On, 0 Lux w/ IR
Electronic Shutter: 1 ~ 1/10,000s
Lens: 4.7-94mm Varifocal Lens
Angle of View: 58.3° (Wide) ~ 3.2° (Tele)
Optical Zoom: 20x
Day/Night: ICR
IR Distance: 492` (850 nm)
Video Framerate: 1080p @ 30fps
Video Offload: MP4
Video Output: (2) BNC

Language: English

Live/Remote Viewing: Yes, NVR

Monitoring Plans for After Hours: NA

Language: English

Ambient Temperature Range: -22°F to 149°F

Housing Materials: Aluminum

Lens Material: Polycarbonate

Color: Beige/Black

Network Video Recorder Specs
Storage Capacity: 2 TB SATA Hard Drive (Expandable up to 2 Devices)
Channels: 8
Camera Resolution Support: Up to 8 MP
Installation Type: Plug and Play
Incoming/Outgoing Bit Rate: : 40 Mbps/80 Mbps
Frame Rate (fps): 60 fps per Channel
Recording Modes: Continuous, Schedule, Event, Motion Detection and VCA
Export Format: MP4
Video Outputs: (1) RCA, (1) VGA, (1) HDMI, (1) USB 2.0 (Front), (1) USB 3.0 (Rear)
PoE: = 120W, Supported Standards- 802.3af and 802.3at
Alarm Input: 4x (Rear Panel), Camera Dependent
Alarm Output: 1x (Rear Panel), Camera Dependent
Protocols: IPv4, TCP/IP, UDP, HTTP, UPnP, RTSP/RTP/RTCP, SMTP, FTP, DHCP, NTP, DNS, ONVIF, HTTP Multipart
Materials: Aluminum

Router/Antenna Specs
Wireless Router Type: Pepwave MAX BR1 MK2 Router w/ CAT6 LTE Advanced Modem (Wireless Access Network and Cell Network)
WAN Interface: (1) GE, (1) Embedded LTE-A Modem
LAN Interface: (1) GE
Wi-Fi Interface: 802.11ac/a/b/g/n 2x2 MIMO Simultaneous Dual-Band, Wi-Fi WAN & AP
Router Throughput: 100Mbps
4G Bands: FDD LTE- B1, B2, B3, B4, B5, B7, B8, B12, B13, B20, B25, B26, B29, B30, B41
3G Bands: WCDMA/HSPA+/DC-HSPA+- B1, B2, B3, B4, B5, B8
Recommended Users: 1-60
GPS Tracking: Built-in
SIM Slots: (2)
Cellular and GPS Antenna Connector: (2) SMA Antenna Connectors, (1) SMA GPS Antenna Connector, (2) Wi-Fi Connector
Power Input: DC Jack/Terminal Block: 10V – 30V DC
Power Consumption: 16W (Max)
External Antenna Frequency: 690~960 MHz, 1710~2170 MHz, 2500~2700 MHz
External Antenna Gain: 5dB

External Antenna Height: 12`

Trailer Specs
Materials: Steel
Trailer Dimensions: 10`L x 6`W (Trailer Bed) - 14`L (Tow Length)
Trailer Footprint: 14.65`L x 12.91`W
Wiring: 7-Pin Flat
Axle: 3,500lb
Suspension: 3,500 Lb 4-Leaf Double Eye Springs
Leveling Jacks: (4) 1,000 Manual Crack Leveling Jacks
Wheels: (2) 15" 5x4.5 Steel Rims
Tires: ST205/75/D15 H188
Hitch: 2" Ball Coupler
Weight: +-1200 lbs
Shipping: Common Freight
Shipping Dimensions: 14`L x 10`W x 12`H
Shipping Weight: +-600 lbs
Options: Length- Mounting-Fixtures/ Call Us for Special Requirements

Special Orders - Special Requirements
Contact us for special requirements

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Made in the USA

The Larson Electronics SPLT-.53K-LM45-2XN3B-PW-TLR7-2XPTZ-20X-2TB-W4G-V2 Portable Solar Security Tower provides a safe and effective way for operators to monitor locations from elevated positions between 13.5` to 45`. This solar security assembly features a telescoping tower with a rotating boom that allows 360° rotation and a removable mast head for storage when not in use. Two full-HD PTZ security cameras can be used to record images, which is supported by a 2TB NVR. An included router facilitates wireless access point and cell network connections. This unit features two 300-watt solar panels and a 240aH capacity lithium-ion battery bank.

PLEASE NOTE: ANY FREE SHIPPING OFFERS DO NOT APPLY TO LIGHT MASTS OR LIGHT TOWERS

The SPLT-.53K-LM45-2XN3B-PW-TLR7-2XPTZ-20X-2TB-W4G-V2 is a complete, portable solar-powered surveillance system for outdoor and remote locations. This unit consists of a 13.5` to 45` mast, two 300-watt solar panels, lithium-ion battery bank, solar charge MPPT controller, a router with an external antenna, 2TB NVR and two full-HD PTZ IP security cameras with live/remote viewing capabilities. All components are mounted on a single-axle trailer. This system does not come with monitoring plans.

Operation:

- (2) 300W solar panels w/ solar MPPT charge controller
- (6) 40aH lithium-ion batteries - 240aH total battery bank/240aH usable
- (2) PTZ security cameras
- 2TB network video recorder - expandable up to (2) devices
- Router - wireless access point or cell network
- All system components secured to a DOT-approved trailer
- Trailer comes with (4) leveling jacks and vin#

Lights: This solar-powered system does not come with lights. We can add flood lights, spotlights or additional infrared lights to this unit upon request and with additional costs.

PA System: This unit does not have a PA system. We can add a one-way or two-way system upon request and with additional costs.

Security Camera: Two PTZ outdoor security cameras provide operators with crisp 1080p full-HD high resolution images. A 4.7-94mm varifocal lens automatically adjusts focus, providing operators with precise 20x optical zoom levels. Integrated long-range IR LEDs, with a wavelength measurement of 850 nm, enable the

day/night cameras to see distances up to 492` under nighttime conditions. The units offload videos in MP4 format and feature H.264 and MJPEG video compression.

The outdoor security cameras complies with the 2019 National Defense Authorization Act (NDAA). The regulation bans federal governments, their contractors and businesses with national security interests from buying and using surveillance equipment made by specific major China-based manufacturers, including Hikvision, Dahua and their OEMs. Security products sold by Honeywell, Bosch, Panasonic, ADT, Flir and many more are affected by the ban. NDAA compliance also includes a ban on ZTE, Huawei and Hytera telecommunication equipment.

The IP security cameras are designed to perform in outdoor locations and rainy conditions. The IP66-rated units resist the negative effects of non-corrosive liquids. De-fogging features enable the units to operate in rainy and foggy conditions. The devices are capable of operating in temperatures between -22°F and 149°F.

Network Video Recorder: This solar security assembly comes with a 2TB, 8-channel network video recorder. Installation only takes minutes via plug-and-play, which automatically detects, displays and configures system components. With multiple recording modes (Schedule, Continuous, Motion Detection and Event), users could capture hours of footage with ease. The remote configurable network recorder features a bit rate of 40Mbps incoming and 80Mbps outgoing at up to 60fps per channel. To maximize storage, the unit supports H.265, H.264, and H.264 OVC video compression. The network recorder is compatible with two-way audio streaming (camera dependent) and includes 9 ethernet ports (RJ-45 interface). During recording, the unit handles the following data: activity log, email notification, event log, event notification, video analytics and event search. This device offloads videos in MP4 format.

Router/Wireless 4G Hotspot: Operators can connect to wireless access points or cellular networks via a professional-grade router. The unit supports WAN, LAN and Wi-Fi interfaces with 100Mbps throughput capabilities. Recommended for 1-60 users, this device works with all major carriers (CDMA/GSM/LTE). An external antenna is available for signal boosting and extending hotspot coverage. The antenna measures 12` and offers compatibility with the following frequencies: 690~960 MHz, 1710~2170 MHz and 2500~2700 MHz.

GPS Tracking: The router is equipped with built-in GPS fleet tracking. This feature enables operators to monitor the location of the solar-powered system easily. Cloud-based management tools enable access to the wireless network from compatible devices.

LED Strobe: The SPLT-.53K-LM45-2XN3B-PW-TLR7-2XPTZ-20X-2TB-W4G-V2 does not come with a security LED strobe light. We can add a blue, red or white LED strobe light at an additional cost (combination of colors is also possible).



Click Photo to Enlarge



Click Photo to Enlarge

Surveillance Tower: This telescoping five stage steel security mast from Larson Electronics is designed to allow operators to quickly and safely deploy a reliable monitoring system in locations where it must be elevated to heights up to 45` for effective coverage. This security tower can be extended to 45` above the trailer floor for maximum area coverage, and collapsed to 13.5` for applications where a smaller footprint is required. The tower is constructed of square steel tubing with a base section 6.6` in length and 6" by 6" by 3/16" thick, lower section 6.78` in length and 5" by 5" by 3/16" thick, middle section 6.93` in length and 4" by 4" by 1/8" thick, upper section 7.08` in length and 3" by 3" by 1/8" thick, and top

section 7.58` in length and 2" by 2" by 1/8" thick. Each section has a 1`+ overlap. The mast is extended to its full height using an included 1,000lb rated hand winch with 3/16" galvanized steel cable. Junction boxes are mounted at the top of the first stage and at the very top of the mast for equipment setup, connection, and deployment.
A 44" wide and 2" by 2" by 1/4" thick mounting plate is attached to the upper section of the mast which provides a strong and stable platform for the equipped IP security cameras. A half-moon shaped mounting plate on the top of the mast head provides a secure mounting platform for the NEMA 3R 12" x 12" x 6" junction box, where operators can mount cameras, indicator lights, and route electrical cabling. When elevated to its full upright position, the mast can be rotated a full 360°. By loosening the T-Handle, operators can rotate the mast with easy in either direction. The mast can be positioned in one of four different positions, and locked back in place by re-tightening the T-handle. The mast itself spins freely with easy, and can typically be rotated with a single hand. The LM series of towers are powder coated with glossy blue finish for corrosion resistance and aesthetics.
The LM family of telescoping towers feature a proprietary mast guidance system, which provide increased stability during high winds. Four 1,000 lbs hand crank leveling jacks are used for leveling. The jacks can be leveled by hand crank or attachment provided for power drills. These components can be extended 2` out from the side of the trailer for added stability. When lowered to 13.5`, the mast can withstand winds up to 125 mph. Custom builds can be provided for higher wind speed resistance when fully raised.



Click Photo to Enlarge

Solar Panel Assembly: This unit is comprised of two 300-watt solar panels, generating a total maximum output of 0.6 KW. The panels are mounted to a stationary assembly and does not contain sliders. We offer systems with additional panels that deploy outwards using sliders. The panels are wired to the solar charger control box which manages the charging system. The two solar panels are mounted to a frame angled at 45° to capture the intensity of the sun for optimized light intake.
Batteries: This unit contains a battery bank that consists of six, 40aH lithium-ion batteries for a 240aH battery bank (240aH usable). Compared to conventional SLA batteries, these units are 100% usable and lighter in weight. Over time, this results in lower operating and maintenance costs. An included battery level indicator that provides real-time power monitoring for the battery bank.
Solar Charge Controller: The solar-powered system features a 40A MPPT solar charge controller.
Battery Charger: This unit does not come with a battery charger. We can add a 120V, 220V or 240V battery charger to power additional equipment from the solar tower at an additional cost (portable battery chargers are also available).
Inverter: This unit does not come with an inverter. We can add an inverter to power additional equipment from the solar tower at an additional cost.
Backup Generator: This unit does not come with a backup generator. We offer models with gasoline, LPG/LNG or diesel backup gensets (may come with additional costs). For systems with battery chargers and backup generators, the battery charger is connected to the genset by default. It is possible to unplug the battery charger from the generator for local charging.
Component Control Center: All the electrical components are encapsulated in a NEMA 3R job box that is bolted to the trailer. Since most of these components are not rated for high heat, our component cooling system circulates air within the job

box at 1400 CFM when the ambient temperature exceeds 90 degrees Fahrenheit. The job box that contains the component control system includes locks for security purposes.

Trailer Assembly: The entire assembly is mounted to a 10` (trailer length) x 10` (trailer bed) x 14` (tow length), single axle trailer via six 1/2" anchor bolts. Trailer length refers to the measurement from the hitch to the rear bumper. The trailer bed refers to deck space that holds system components and equipment (not including tires, hitch, bumper and external trailer components). This two-wheel trailer is equipped with 3,500 lbs axle and leaf springs with 15" trailer tires. A standard 2" ball coupling, two standard safety chains, and 7-pin flat trailer plug allow for easy hookup and towing. The trailer tongue can be folded up for seamless storage. A rugged and waterproof job box is included, safely secured to the trailer. Leveling jacks on the trailer allow operators to level the trailer, and provide stabilization during deployment. All trailer lighting complies with DOT/FMVSS regulations.

Outriggers vs Leveling Jacks: The solar-powered system features manual-crank leveling jacks. Outriggers help expand the surface area for large equipment or loads. This differs from leveling jacks that are used to stabilize or level systems. Leveling jacks can be mounted to outrigger legs (or the side of the trailer).

Applications: Security, monitoring, live events, law enforcement, military, commercial, industrial facilities, outdoor surveillance, remote locations and more.

At Larson Electronics, we do more than meet your lighting needs. We also provide replacement, retrofit, and upgrade parts as well as industrial grade power accessories. Our craftsmen can custom build any lighting system and/or accessories to fit the unique demands of your operation. A commitment to honesty, quality, and dependability has made Larson Electronics a leader in the lighting and electronics business since 1973. Contact us today at 800-369-6671 or message sales@larsonelectronics.com for more information about our custom options tailored to meet your specific industry needs.

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Frequently Asked Questions (FAQ)

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Product ID: 266541

Export Control Classification Number (ECCN): EAR99

Links (Click on the below items to view):

- **Catalog Page - Product Series**
- **Dimensional Drawing 2D**
- **Operations Manual**
- **Wiring Diagram (Oneline)**
- **HigResPic1**
- **Video1**
- **Video2**
- **Video3**
- **Video4**
- **Video5**
- **ISO 9001 Certification**
- **Business Certificate**
- **Shipping Time Map**