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SPLT-.53K-LM45-ISGG-ACC-TLR7-2XPTZ-20X-2TB-W4G-M1

45' Portable Solar Security Tower - 7.5' Trailer - (2) IP Cameras, 2TB NVR - Router/4G Hotspot - Backup Gas Gen

Product ID: 242860

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-ISGG-ACC-TLR7-2XPTZ-20X-2TB-W4G-M1 Trailer Mounted Solar Generator Security Mast

Mast Specs

Tower Length: 13.5` to 45`
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) 265 Watt panels
Method of Deployment: Fixed Mount
System Voltage: 12 Volts
Battery Bank: (2) 12V 8D 250aH batteries
Battery Capacity: 500aH Total / 250aH Usable
Battery Charger Voltage: 120V AC

Gas Generator Specs

Unit Type: Gas-powered Generator
Engine: 420CC 15 HP OHV
Rated Power: 7,000W output, 9,000W peak
Fuel Capacity: 6.5 gallons
Voltage: 120V 20A, 120/240V 30A, 120V 30A, 12V DC

Quick Summary

13.5` to 45` Mast
Steel Construction
Powder Coated Finish
Removable Mast Head
(4) 1,000lb Outriggers
125 mph Wind Resistance
Manual or Optional Electric Operation
A-Frame for mounted (2) 265 Watt Solar Panels
Fully Solar, No Fuel Needed
Low Noise Operation
IP66 Waterproof Cameras
Day/Night Monitoring
De-fog Viewing (Rain and Fog)
360° Rotation, -15°~90° Tilt
492` IR Distance
Full-HD, 20x Optical Zoom
Motion Detection
CE, FCC, RoHS, UL Listed NVR
Embedded Linux Operating System
CAT5E Networking Cable
Professional Grade Router
Extended Coverage via External Antenna
Verizon 4G Hotspot

Starting System: Recoil & Electric

Backup Gas Generator
Battery Charger

IP Camera Specs

Unit Type: (2) Security Camera

Camera Dimensions: 14.38" H x 7.12" D

Camera Weight: 9 lbs

Total Watts: 51 (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: (1) BNC
Language: English

Ambient Temperature Range: -22°F to 149°F
Housing Materials: Aluminum
Lens Material: Polycarbonate
Mounting: Tower

Connectivity Specs
Connectivity: LTE
Router: Dual Band - GSM or CDMA Service Providers
Access Point: Built-in

NVR Specs

Device Type: Network Video Recorder

Storage Capacity: 2 TB SATA Hard Drive

Channels: 8

Camera Resolution Support: Up to 8MP

Installation Type: Plug and Play

Incoming Bit Rate: 40Mbps
Outgoing Bit Rate: 80Mbps
FPS: 60fps Per Channel
Compression Format: H.265, H.264, H.264 OVC
Recording Modes: Continuous, Schedule, Event, Motion Detection, VCA
Export Format: MP4
Video Outputs: (1) RCA, (1) VGA, (1) HDMI, (1) USB 2.0 (Front), (1) USB 3.0 (Rear)
Two-way Audio Input: 1-ch, RCA
Power Over Ethernet: = 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
Power Requirements: 100 ~ 240V AC
Housing Material: Aluminum
Operating Temp: 14°F ~ 131°F
Networking Cable: CAT5E

Router/Antenna Specs
Router Type: Pepwave Surf SOHO Router
WAN Interface: 1x 100/1000M Ethernet Port, 1x USB 2.0 Interface, Wi-Fi as WAN
LAN Interface: 4x 100/1000M Ethernet Ports, Simultaneous Dual-Band 11ac Wi-Fi AP
Wi-Fi AP Operating Frequency: 2412 - 2472MHz and 5180 - 5825MHz
Wi-Fi Data Rates: 3x3 MIMO, 2.4GHz: 450Mbps or 5GHz: 1300Mbps
Wi-Fi Antenna: 3x External Wi-Fi Antenna
Router Throughput: 120 Mbps

Power Input: DC Jack: 10V - 24VDC AC Adapter: AC Input 100V - 240V, DC Output 12V, 3A
Power Consumption: 26W (w/ USB WAN), 22W (w/o USB WAN)
Dimensions: 9.17` x 5.6` x 1.18`
Weight: 0.86 lbs
Humidity: 15% - 95% (Non-condensing)
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: 7.5`L` x 7`W trailer bed- 10.75 total length
Hitch: 2" Ball Coupler
Wiring: 7-Pin Flat
Axle: 3,500lb
Suspension: 3,500 Lb 4-Leaf Double Eye Springs
Outriggers: (4) 1,000 Manual Crack Leveling Jacks
Wheels: (2) 15" 5x4.5 Steel Rims
Tires: ST205/75/D15 H188
Weight: +-600 lbs
Shipping: Common Freight
Shipping Dimensions: 8`-L x 8`-W x 12`-H
Shipping Weight: +-600 lbs
Options: Length- Mounting-Fixtures/ Call Us for Special Requirements

Special Orders - Special Requirements
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The SPLT-.53K-LM45-ISGG-ACC-TLR7-2XPTZ-20X-2TB-W4G-M1 from Larson Electronics is a Solar Powered Security Tower that provides a safe and effective way for operators to quickly deploy cameras, security devices, and other equipment to elevations up to 45 feet. This solar security plant features a telescoping tower that folds over for easy transportation, a rotating boom that allows for 360° of rotation and a removable mast head for storage when not in use. This low-noise unit features two, IP outdoor cameras, router/wireless 4G hotspot access, two, 265-watt solar panels, a 400 aH capacity battery bank with 200aH being usable, backup gas generator and a 120 V battery charger. A 2TB NVR can be found at the base of the mast.
PLEASE NOTE: ANY FREE SHIPPING OFFERS DO NOT APPLY TO LIGHT MASTS OR LIGHT TOWERS
This trailer mounted security mast with solar generator has a 12" x 12" x 6" junction box and two, IP outdoor cameras mounted at the top of the mast. The junction box supports the security cameras for a 360° field of view and can be used with other electrical devices for each operator`s specific needs, such as small sensors and monitoring devices. The junction box is mounted to the mast head via a half-moon shaped mounting plate. External sealtite coiled tubing runs around the mast to allow operators to run Ethernet cable to the junction box at the top of the mast. The tubing connects the junction box and base solar component box together. The entire assembly is mounted onto a 7.5` single axle trailer, allowing operators to transport this portable solar tower from location to location. Operators may access a 2TB NVR for network configurations. The system, which supports wireless 4G hotspot access, utilizes CAT5E cable for networking. To ensure reliability, the unit is supported by a backup gas generator and a 120 V battery charger.
Network Cameras: The 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 features H.264 and MJPEG video compression. The PTZ cameras each measure a compact 14.38" x 7.12".

The cutting-edge security devices 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.
NVR: The solar tower contains an 8-channel NVR that can be used with the network cameras. Setup 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) and 2TB of storage, 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. Cameras hooked up to the NVR-POE-8CH-2TB may use power directly via PoE (802.3af / 802.3at) during operation. The NVR runs on 100 - 240 V AC of power and is suitable for use in temperatures between 14°F - 131°F.
NVR Inputs: (1) RCA, 4 Sensor Inputs
NVR Outputs: (1) RCA, (1) VGA, (1) HDMI, (1) USB 2.0 (front), (1) USB 3.0 (rear)
Connectivity: The SPLT-0.6K-LM30-2XWP60E-2XPTZ-2TB-WPP-ISGG-TLR7-M1 operates with LTE. This system is also equipped with a dual-band router that accepts GSM or CDMA service providers. Built-in access point enables devices to connect to the Wi-Fi network. Larson Electronics offers Wi-Fi repeaters for extending the output range of the Wi-Fi signal (additional cost).
Router/Wireless 4G Hotspot: Operators can connect to Verizon 4G internet via a professional-grade router. The unit supports dual-band 2.4 GHz (450 Mbps) and 5 GHz (1,300 Mbps), as well as 3x3 MIMO. Stateful firewall and DoS prevention ensures secure network usage during operation. Settings and configurations are controlled via a cloud-based smartphone app or web-based computer program. 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.


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Solar Powered Security Tower: This continuous-operation solar security tower includes two 265 watt solar panels, solar charging system, battery bank and manual crank up mast mounted on trailer with outriggers. This 0.53 KW solar generator system replenishes amp hours of usable battery capacity per day, assuming 5.5 hours of peak charging sunlight. This system delivers 12 volts for equipment mounted atop the 45` telescoping mast.
Mast: This telescoping five stage steel mast from Larson Electronics is designed to

allow operators to quickly and safely deploy a variety of equipment in locations where it must be elevated to heights up to 45` for effective coverage. This mast can be extended to 45` above the trailer floor for maximum area coverage, and collapsed to 13.5` for applications where a footprint smaller 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 1,000 lb 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 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 resistances and aesthetics.

The LM family of telescoping towers feature a proprietary mast guidance system, which provide increased stability during high winds. Four 1,000 lb hand crank leveling jacks are used for leveling. The jacks can be leveled by hand crank or attachment provided for power drills. These outriggers 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.



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Solar Panel Assembly: This unit is comprised of two 265-watt solar panels, generating a total maximum output of 0.53 KW. The panels are mounted to a stationary assembly. 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. Operators may also access a battery charger that operates on 120 V AC. This component enables the batteries to be recharged via 120V power sources. Operators can also run the unit from such power sources when it is available.

Backup Gas Generator: A backup gas-powered generator is available on the system, which automatically starts when battery voltage drops below acceptable levels. Powered by a 4-stroke OHV single cylinder engine with a forced air cooling system, this unit features a variety of receptacles, including four 120V 20A three-prong receptacles, one 120/240V 30A twist-lock (L14-30), and one 120V 30A twist lock, as well as one 12V DC cigarette lighter style car-charger outlet.

A 6.5-gallon fuel tank provides 9 hours of reliable power at half load and the ability to run electronic devices including lights and other essential appliances needed during power outages. This heavy-duty genset also has low-oil shut down safeguards, which protect the generator from damage by automatically shutting it off, while an integrated circuit breaker protects against system overload. An included digital hour counter keeps

users on a routine maintenance schedule. This gas powered genset also features power indicator lights that notify operators if the outlets are live. These lights are located above each receptacle to make these visual notifications clear. For additional protection, this generator has an included spark arrester, which prevents flammable debris from expelling from the generator by trapping and destroying them. This protects against potential fires that may occur during operation, allowing this unit to meet the standards required by the U.S National Parks and Forests and be used at campgrounds and other outdoor areas. Additionally, an automatic voltage regulator helps this unit produce much cleaner power.

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 7.5` by 7`, single axle trailer via six 1/2" anchor bolts. The two wheel trailer is equipped with 3,500 lb 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 removed for long term deployment. A rugged and waterproof job box is included, safely secured to the trailer. Four outriggers mounted to the corners of the trailer allow operators to level the trailer, and provide stabilization during deployment. All trailer lighting complies with DOT/FMVSS regulations.

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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