

**20' Solar Security Tower - 7.5' Trailer - (2) 265W Panels (3) Cameras, 8TB NVR- 4G Router**

Part #: [SPLT-.53K-LM20-EW-TLR7-ACC-2XPTZ.23X-1XFE-4TB-W4G](#)



The Larson Electronics SPLT-53K-LM20-EW-TLR7-ACC-2XPTZ.23X-1XFE-4TB-W4G solar powered security tower provides a safe and effective way for operators to quickly deploy equipment to elevations up to 20 feet. This solar security plant features a telescoping tower that folds over for easy transportation, a rotating boom that allows for 360° rotation and a removable mast head for storage when not in use. The low-noise unit features three outdoor cameras, router/wireless 4G hotspot access (requires customer-provided 4G plan), two 265-watt solar panels and a 400aH capacity battery bank with a 120V battery charger and 25' of 16/3 SOOW cord terminated in a 5-15P waterproof shore power cord cap. An 8TB 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 three 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 sealite 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 with DOT-listed running lights, allowing operators to transport this portable solar tower from location to location. Operators may access an 8TB NVR for network configurations. The system, which supports wireless customer-provided 4G hotspot access, utilizes CAT5E cable for networking.

**Network Cameras:** Two 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 23x optical zoom levels. Integrated long-range IR LEDs, with a wavelength measurement of 850 nm, enable the day/night cameras to view objects at 328' minimum under nighttime conditions. The PTZ devices features endless 360° panning and 190° (minimum) tilt control. The units offload videos in MP4 format and features H.264 and MJPEG video compression.

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.

A secondary fisheye camera is available for monitoring the trailer's surrounding environment. Equipped with motion detection capabilities, the unit provides 192° x 192° field of view with simple focus and built-in infrared for viewing targets 49' away (minimum).

**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 8TB 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 may use power directly via PoE (802.3af / 802.3at) during operation. The NVR runs on 100 - 240V AC of power and is suitable for use in temperatures between 14°F - 131°F. This unit is supported by a 14" HD screen with an anti-glare monitor and mouse. Remote monitoring is possible using a customer-provided 4G service.

**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)

**Router/Wireless 4G Hotspot:** Connectivity features are facilitated by a 4G/LTE ruggedized router. Equipped with built-in security, the unit offers 600 Mbps internet speeds (minimum). The internal router can be utilized to monitor uptime and for real-time alerts. Customers must provide their own 4G service/plan for the router, as the system does not come with an internet plan. 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 electric mast mounted on trailer with outriggers. This 0.53KW 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 20' telescoping mast. Operators can use an included 120V battery charger to charge the batteries when sunlight is unavailable, using 25' of 16/3 SOOW cord with a 5-15P waterproof shore power cord cap.

**Mast:** This telescoping three 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 20' for effective coverage. This mast can be extended to 20' above the trailer floor for maximum area coverage, and collapsed to 12' for applications where a footprint smaller is required. The tower is constructed of square steel tubing with a lower section 12 feet in length and 4 inches in diameter, a middle section 8 feet in length and 3.5 inches in diameter, and an upper section 6 feet and 3 inches in diameter. Each section has 2' of overlap.

The mast is extended to its full height using an 850-watt, 600-lb capacity electric 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 lbs 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 12', 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. An included solar charge controller features an LCD display, which provides information surrounding charge status and real-time (current) status.

**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 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 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. The trailer is equipped with complete DOT-listed running lights.

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.

**Specifications / Additional Information****SPLT-.53K-LM20-EW-TLR7-ACC-2XPTZ.23X-1XFE-4TB-W4G  
Trailer Mounted Solar Generator Security Mast****Mast Specs****Tower Length:** 12` to 20`**Stages:** 3**Mast Head Length:** 44"**Materials:** Steel**Finish:** Powder Coated - Gloss Blue**Operation:** (1) 850W 600lbs Capacity Electric 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**Solar Charge Controller:** LCD Display - Charge/Real-time Status**Battery Bank:** (2) 12V 8D 250aH batteries**Battery Capacity:** 500aH Total / 250aH Usable**Battery Charger:** 120V**Cord:** 25` 16/3 SOOW Cord w/ Cord Cap**Cord Cap:** 5-15P Waterproof Shore Power**PTZ Camera Specs****Unit Type:** (2) Security Cameras**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**Quick Summary**

12` to 20` Mast

Steel Construction

Powder Coated Finish

Removable Mast Head

(4) 1,000lb Outriggers

125 mph Wind Resistance

Electric Operation

A-Frame for Mounted (2) 265 Watt Solar Panels

Fully Solar, No Fuel Needed

Low Noise Operation

Day/Night Monitoring

328` IR Distance

Full-HD, 23x Optical Zoom

Motion Detection

CE, FCC, RoHS, UL Listed NVR

Embedded Linux Operating System

CAT5E Networking Cable

4G/LTE Router

Extended Coverage via External Antenna

Customer-provided 4G Service

NEMA 3R Job Box w/ Padlock

**Lens:** 4.7-94mm Varifocal Lens

**Angle of View:** 58.3° (Wide) ~ 3.2° (Tele)

**Pan:** Endless, 360°

**Tilt Control:** 190° Minimum

**Optical Zoom:** 23x

**Day/Night:** ICR

**IR Viewable Distance:** 328` (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

#### **Secondary Camera Specs**

**Unit Type:** Fisheye Camera

**Megapixels:** 5MP

**Angle of View:** 192° x 192° w/ Simple Focus

**Built-in Infrared Distance:** 49` (Minimum)

**Operation:** Motion Detection

#### **NVR Specs**

**Device Type:** Network Video Recorder

**Storage Capacity:** 8 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

**Monitor:** 14" HD Screen w/ Anti-glare Monitor

**Mouse:** Included

**Power Requirements:** 100 ~ 240V AC

**Housing Material:** Aluminum

**Operating Temp:** 14°F ~ 131°F

**Networking Cable:** CAT5E

**Remote Connectivity:** Yes w/ Customer-provided 4G Service

#### Router/Antenna Specs

**Router Type:** 4G/LTE Ruggedized Router

**Modem:** 600 Mbps Minimum

**Built-in Security:** Yes

**Monitoring:** Uptime w/ Real-time Alerts

**4G Plan/Service:** Customer Provided

**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:** 3,500 lbs

**Suspension:** 3,500 Lb 4-Leaf Double Eye Springs

**Outriggers:** (4) 1,000 Manual Crack Leveling Jacks

**Lights:** DOT Listed - All Running Lights

**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 **E-mail:** sales@larsonelectronics.com

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Links (Click on the below items to view):

- [Hi-Res Image 1 - 20ft Portable Solar Light Tower on 7.5ft Trailer Extended Angle](#)