SOLARBEAM
WIRELESS PERIMETER SECURITY

SOLARBEAM™ SLIMLINE & XTREME SERIES TOWERS

GENERAL OVERVIEW

2015

Slimline & Xtreme Security Systems

The Slimline and Xtreme series are rugged solar and battery powered stand-alone towers designed to provide day-night and all-weather security in remote areas and extreme climates.

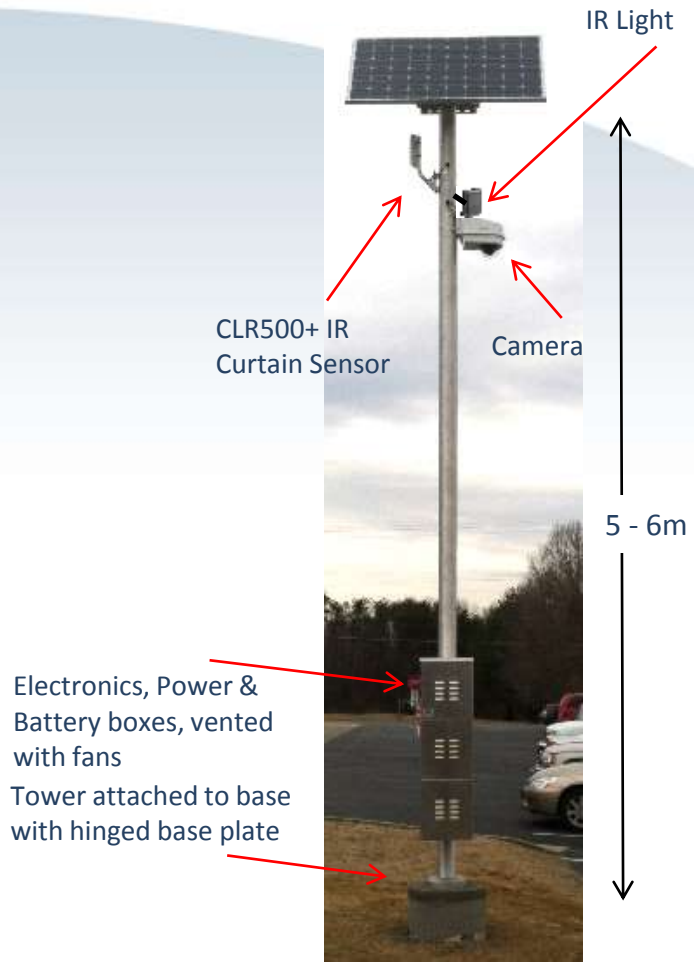
They are superior platforms for radar, cameras, IR beams, IR curtains and other security sensors. High-output solar and battery technology combined with patented power management features allows use in remote and high-latitude scenarios - with extended non-solar operation provided by batteries. Both towers require only a simple mounting base and provide extreme capability and value.

Solarbeam – providing solutions when no one else can!

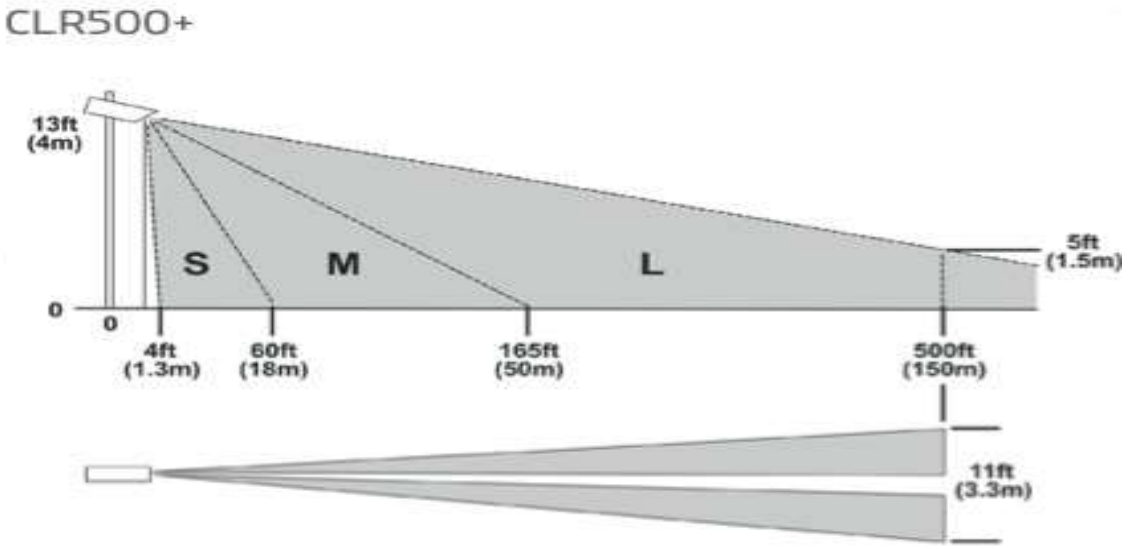
Slimline Series Solar Powered System

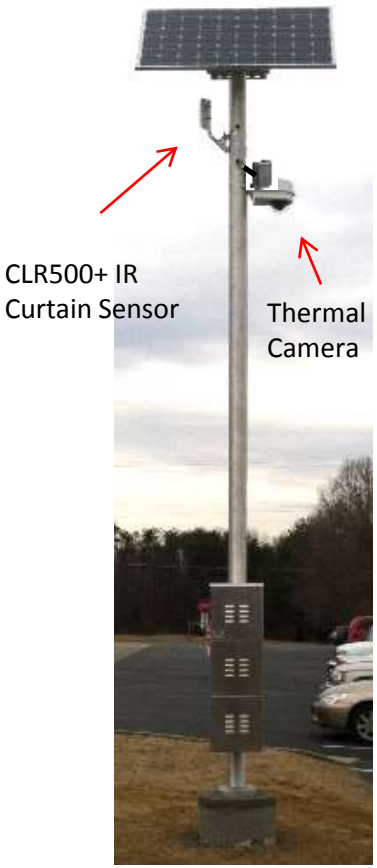
The Slimline series is a solar powered platform capable of supporting remote security sensors in all-weather, severe climates and both day and night operations.

- **Sensors:** Spotter Shield radar, PTZ cameras, thermal cameras, IR curtain sensors, IR beams, and cameras with IR illuminators
- **Modular Design (to include airport frangibility):** allows for flexible design for demanding scenarios and easy access to components
- **Solar Powered with 5+ days battery backup:** 12VDC, +200 AHr capacity varying with the sensors package
- **Tower Height:** 16'-20' with a hinged base for easy maintenance
- **Precast Concrete Base:** cement mounting base poured in-place and aprox 25" dia x 40" deep, installed partially above ground
- **Detection (4 Poles/site):** efficient detection by combining two sensor technologies such as the IR curtain and analytic thermal camera from multiple overlapping poles or sites
- **Threat Detection Outside the Fence Line:** efficient design and planning allows for pre-emptive detection outside protected areas



Slimline with IR Curtain & Camera

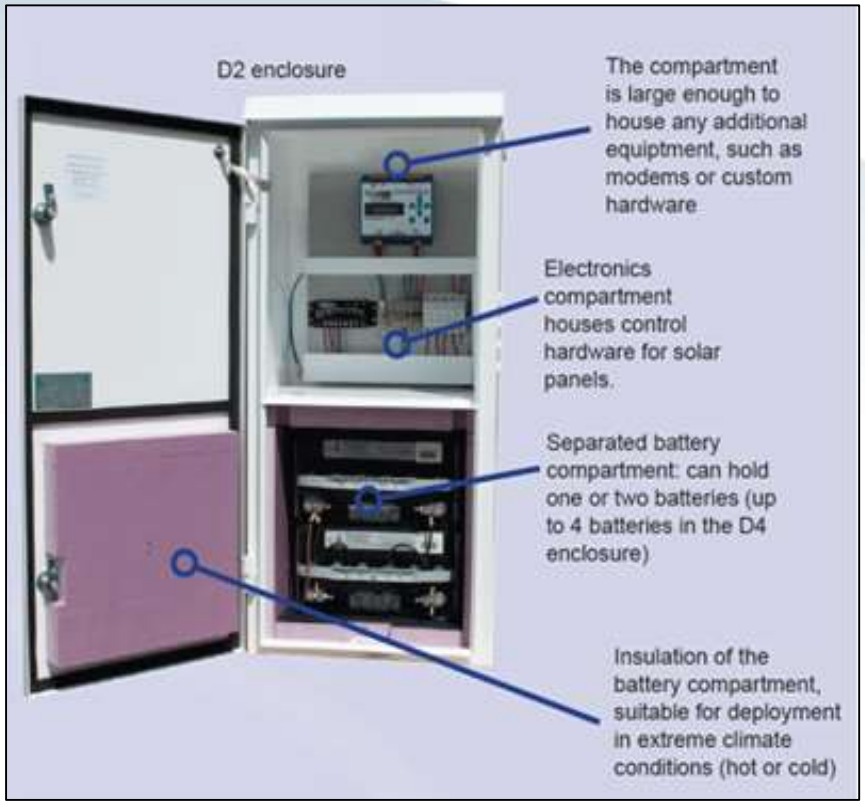




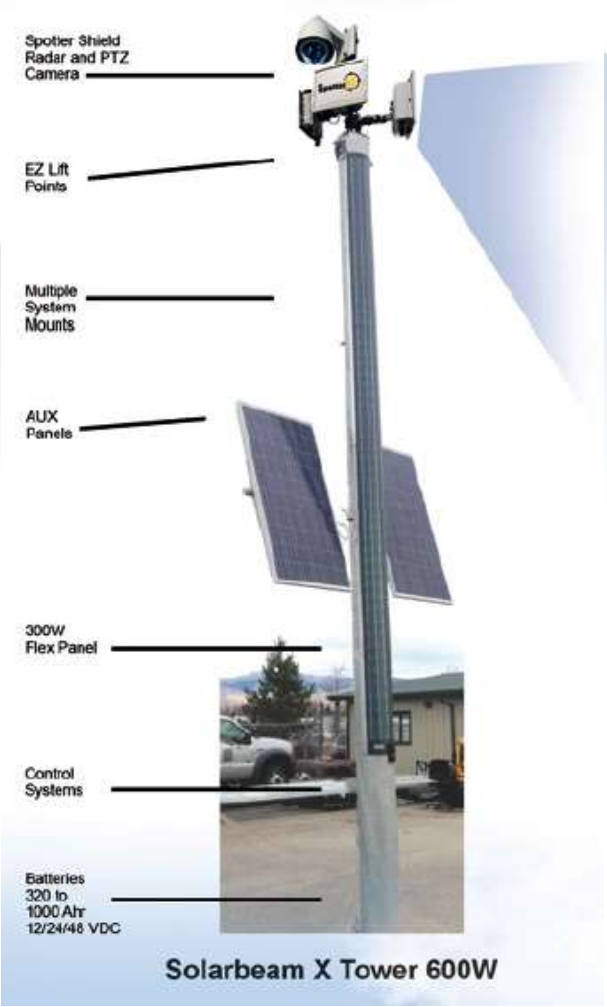
CLR500+ IR curtain sensor detection profile provides *"curtain-like"* linear perimeter protection and can be combined with thermal cameras to provide overlapping coverage of critical areas or pre-emptive, *outside-the-fence* capability

Slimline Enclosures for Class 1 Div 2

- High efficiency UL Listed, Class I Div II rated solar panels with 20+ year warranty
- Heavy-duty aluminum pole mounting structure with stainless steel hardware
- Solar array Class I Div II approved conduit wiring harness kit
- NEMA 3R durable powder-coated white aluminum battery control and component enclosure, lockable, includes sticker on inside door with specific Class I Div II certification
- Sealed gel cell, maintenance free, deep-cycle, non-spillable batteries, UL recognized
- Advanced PWM Charge Control, Class I Div II rated, with low voltage load protection and temperature compensated battery charging
- Room for expansion equipment – ample room to add your own Class I Div II rated SCADA, radio, GPS, telemetry, VSAT, Wi-Fi or other electronic equipment.
- CSA Approved Class I, Div. II hazardous location safety rating



Xtreme Series Solar Powered System



Solarbeam X Tower 600W

Sensor options for all-weather, day-night capability

- Spotter RF Shield (off-the-shelf military technology)
- Radar directed PTZ camera tracking systems
- FLIR & thermal camera solutions
- Multiple sensor capability per tower

High Output Solar Power

- 20W – 600W continuous solar collection & charging
- 3 – 10 days non-solar replenished battery power

Rugged Design & Easily Installed

- Rapid deployment & easily re-locatable
- Rolled galvanized steel tower requires a base only
- Variable height options for sensors of 20’-25’
- Supports sensors in -35C to 55C temperatures
- Field tested sensors for maximum durability
- Superior stability for sensor & camera mounting

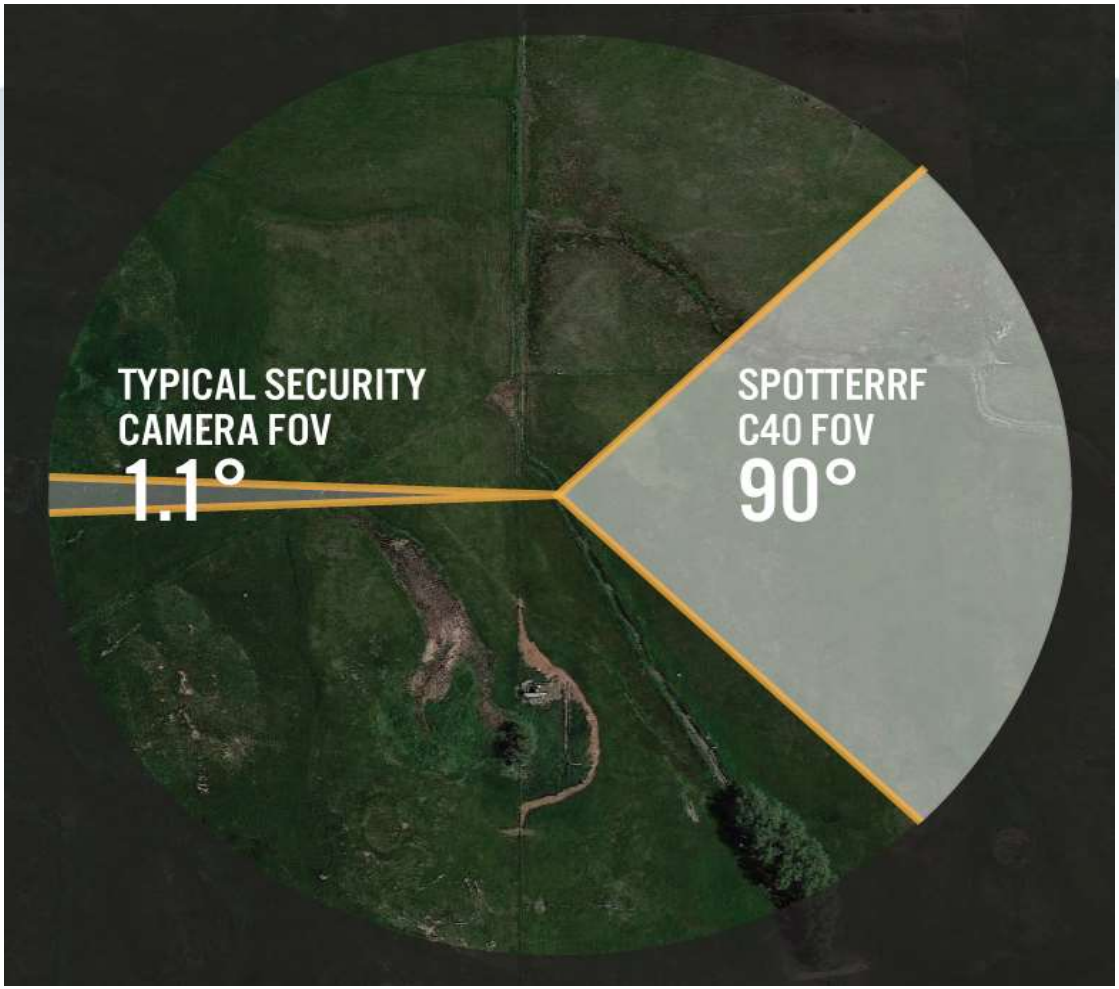
Xtreme & Slimline Radar Sensors

RADAR – Spotter Shield RF Detection

- Robotic, existing off-the-shelf military radar and camera technology
- Multiple radar & sensor capability per tower
- Radar Detection Range 300m – 1.25 km
- Radar volume 20 – 40 acres
- Radar-to-camera tracking “slew to cue”
- EO / thermal / FLIR verification at 350-500m
- Analytic camera solutions available
- Approved for -35ºC to 55ºC temperatures
- Suitable for uneven, rough terrain
- Web-user & cellular interface included

FOV: Spotter RF Radar Volume

FOV: Spotter RF vs Camera



Patent Summary

United States Patent US 8,193,936 B2 was awarded to Solarbeam, a Trademarked protected company, on June 5 2012. This patent provides for protection of the unique application of solar powered towers and solar powered security systems used to detect intruders.

As found on pages 37, 41 and 42, the patent protects the embodiment of using solar powered towers or systems that wirelessly transmit their signals and utilized IR or photo beams, microwave signals, laser, radars, acoustic sensors, ultrasound, sonar and cameras that include processing units to detect intruders.

This specifically addresses solar powered systems using cameras with analytics used for intruder detection. For further information on this patent and others, please contact Solarbeam International.

Xtreme & Slimline Systems

- Cost effective remote security
- Completely autonomous operation
- Optimized solar platforms
- Proven radar & camera performance
- Verification of perimeter alarms
- Minimum environmental impact