Get the Big Picture from Puls Ltd

Monitor Large Areas with Sentry*Scope*™

133 ft. (41m)

580 ft. (177m)

320 ft. (98m)

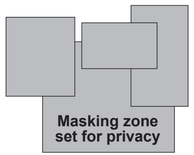
175 ft. (54m)

Typical Sentry*Scope* image. To show full detail, this picture would needed to be printed over twelve feet wide (3.7m).

145 ft. (44m)

108 ft. (33m)

102 ft. (31m)



160 ft. (49m)

Capture all the Details

- Always records the entire area, even when zoomed into live or recorded video
- A full 90º horizontal field-of-view
- Up to 21 million pixels per image; over 250 times the resolution of typical CCTV

Manage Stored Images

- Record all images, only those with motion or external trigger, or on a weekly schedule
- Rapid Search quickly locates recorded events of interest by time, area, motion or triggers
- Export images as bitmaps or CD video clips

Customize the Field-of-View

- Increase the recording time and image rate by only viewing essential areas
- Adjust the image width from 36º to 90º to precisely match the monitored region
- Define up to 4 masking zones for privacy

Use on a Network or Stand-Alone

- Easily attaches to your LAN/WAN network
- Network mode connects multiple users to multiple cameras, with full control & security
- Minimal network bandwidth requirements–typically only 0.5 Mbits/sec per user

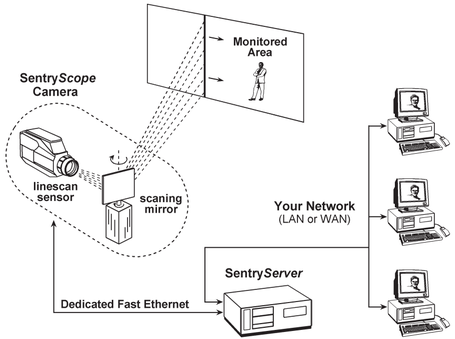
Alert Security Personnel of Events

- Monitor up to 4 zones for image movement
- Monitor up to 4 external hardware triggers (e.g. door switches, motion sensors, etc.)
- Set off audible alarms, dry contact closure, zoom to region, additional recording, etc.

The Power of Linescan

Sentry*Scope* is a whole new approach to surveillance video. Unlike conventional cameras that take an entire image at once, Sentry*Scope* uses advanced *linescan* technology, acquiring each image one line at a time. Military aircraft and satellites have long used this method for ultra-high resolution reconnaissance and weather observation.

The Sentry*Scope* camera contains a linescan image sensor and a precisely controlled scanning mirror. At each instant of time the sensor records only a narrow vertical line in the monitored area. The motion of the scanning mirror causes this vertical line to sweep across the area from left-to-right in about one second. Up to 10,240 vertical lines are recorded during the scan, forming the full image. The result? ***Unmatched image clarity and detail***.



Use on a Network or Stand-Alone

Sentry*Scope* has been designed from the ground up using advanced digital technology. A dedicated Fast Ethernet link connects the main camera to its control unit, Sentry*Server*, located in the security office or other protected area. All adjustments to the camera are made electronically from this remote point, not at the camera location. Sentry*Server* controls the camera, records the video, and manages the display of both live and stored images.

Simply attach a keyboard, monitor and mouse to Sentry*Server* for stand-alone operation. For the most power, place Sentry*Server* on your Local or Wide Area Network (LAN or WAN). Network operation allows an almost unlimited number of cameras to be viewed and controlled from multiple locations.

The SentryScope Camera

Advanced Display Software

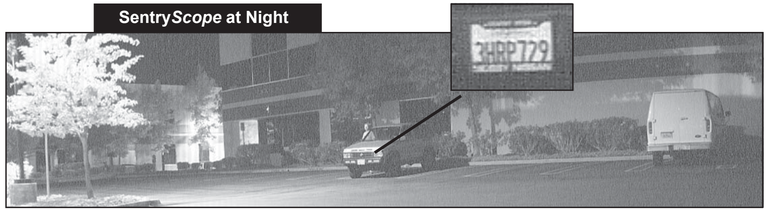
Three software packages allow easy viewing of the ultra-high resolution video. Sentry*Ware* is run on Sentry*Server* for viewing images in the stand-alone mode. Sentry*Manager* is used on network computers running Windows 98 or later, providing control and image access to any Sentry*Scope* camera on the network. A simple program, Sentry*Viewer*, displays clips of saved video, such as evidence stored on CD.

All three programs are simple to install and use. Familiar "point and click" commands control the viewing of live or recorded video. State-of-the-art image display tools extract every drop of information. Video and images can be exported as bitmaps or CD video clips.

A screen shot from Sentry*Manager* is shown below, illustrating its ability to monitor and control multiple Sentry*Scope* cameras from a single remote location. See the Sentry*Manager* brochure for more details.

Sentry*Manager* Screen Shot

Sentry*Scope* at Night



Nighttime image taken with a single street light for illumination, without frame averaging

Powerful Digital Image Enhancement

VISIT WWW.PULS-LTD.COM FOR MORE INFORMATION

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Specifications

Image resolution: *(with internal 85mm lens)*
Horizontal: up to 10,240 pixels, FOV adjusts 36° to 90°
Vertical: 2,048 pixels over a fixed 18° field-of-view

Image resolution: *(with internal 50mm lens)*
Horizontal: up to 6,144 pixels, FOV adjusts 36° to 90°
Vertical: 2,048 pixels over a fixed 30° field-of-view

Field-of-view adjustment: *The vertical field-of-view is determined by the installed lens (50mm or 85mm). The horizontal field-of-view is user adjustable from 36° to 90°*

Digital zoom: *Up to 100x (a 96x64 pixel zoom image taken from a 10,240x2048 pixel full image)*

Image rate: *50 to 120 images per minute, depending on the lens used and horizontal field-of-view adjustment*

Image storage: *Typically 70 Gbytes per day required for continuous recording with good image quality; provides 14 day recording with 1 Tbyte internal digital storage*

Light level: *Digital AGC adjusts sensitivity for streetlight illumination (0.8 lux) to the brightest sunlight; AGC dynamic range is greater than 500,000. Nighttime frame averaging views stationary objects with less than 0.1 lux.*

Focusing: *Remotely controlled from the operator station; automatic or manual focusing*

Third party access: *Third-party systems (DVRs, license plate recognition software, etc.) can access recorded and live video over the SentryServer network connection.*

Connectivity: *Uses a dedicated Fast Ethernet connection between the camera and SentryServer. (CAT5 cable or fiber optic connection; high-speed wireless planned for Q2 2005).*

Physical: *Rugged all-weather cast aluminum housing; 16 lbs (7.3 kg); 15.25 x 7.5 x 5.25" (38.7 x19.0 x 13.3 cm)*

Electrical: *18-28 VDC, 3A; external power supply for 120/240v 50/60Hz operation is included*

Operating temperature: *-20 to 65°C (-4 to 150°F)*

Internal heater: *60 watts; software controlled; maintains camera up to 35°C (63°F) above outside temperature (outside mount option only)*

Sentry*Server*: *Integrated digital video recorder and camera controller. Operates under Windows XP using factory installed SentryWare. Everything needed to place the SentryScope camera on your network (SentryManger is sold separately). Operates with a fixed or assignable IP address. Adding a monitor, keyboard and mouse to SentryServer forms complete stand-alone system.*

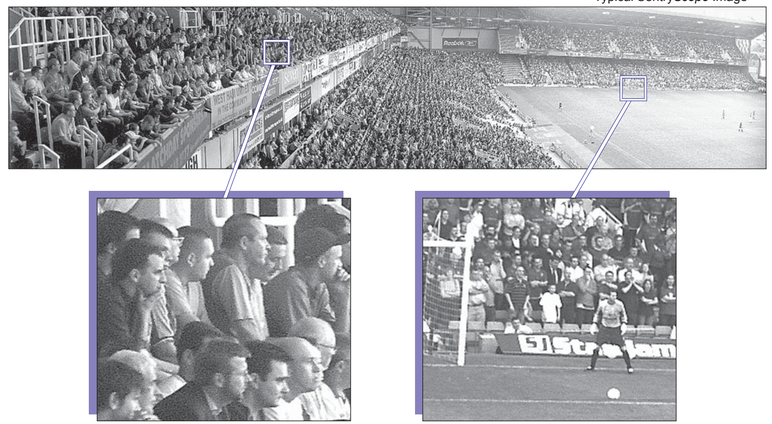
Warranty: *3 years*

Specifications subject to change without notice.

Sentry*Scope*™—

Always pointed in the right direction;
Always zoomed to the correct level;
No operator required.

Typical Sentry*Scope* Image



Sentry*Scope* is a true breakthrough in security video.

Conventional PTZ systems can monitor large areas in high resolution, but only if the operator continually points the camera in the right direction and zooms to the correct level. If the operator misses a critical event, so does the recorded video. Sentry*Scope* solves this problem by recording the entire region in ultra-high resolution, 100% of the time.

SPECTRUM San Diego, Inc.

Key Features

- **Wide Panoramic Images**
  Monitor up to a full 90° field-of-view
- **Ultra-High Resolution**
  21 million pixels per image; recognize faces and license plates to 200 feet (60m)
- **Unmanned Operation**
  Records the complete field-of-view in the finest detail, even when security officers are distracted or not present