

HYDRA REMOTE IMAGING SENSOR

Visual imagery is a key capability required for effective remote surveillance and target identification. Utilising the Hydra wireless sensing network, imaging sensor nodes allow real-time video streams to be remotely viewed from visual band and Infrared cameras.

KEY BENEFITS

- Utilises common Hydra node
- Remote “eyes on” capability
- Real-time video over a secure wireless network
- Compatible with most video sensors
- Facilitates remote recognition and identification
- Remote control of focus, pan, tilt and zoom
- Automatic cross cueing activation of camera by sensor network
- User configurable compression ratios
- 24 hour coverage with IR band cameras
- Self locating.

REMOTE ‘EYES ON’

Remote detection and classification of activity in an area of surveillance has its limitations. Where “eyes on” and clear identification of activity is required, Hydra imaging

sensor nodes provide this step change in remote wireless sensing capability. Imagery can be provided as a real-time continuous feed, activated by other detection sensors or recorded to local storage for retrieval on request.

REAL-TIME VIDEO SURVEILLANCE

Multiple video cameras can be remotely viewed in real-time with full control over compression levels, imaging parameters, frame rate and focussing. Fixed or pan and tilt cameras can be deployed with remote control in real-time.

CROSS-SENSOR NETWORK CUEING

Where complementary Hydra detection sensors are deployed, they can be used to automatically cue and point the video sensors, alerting the operator with clear imagery of any threat.

POST EVENT ARCHIVE FACILITY

Full resolution imagery can be stored in the sensor node local store and can be remotely recalled on demand, over the wireless sensing network.

SECURE ROBUST WIRELESS SENSING NETWORK

The Hydra imaging sensor utilises the very latest video compression standards, allowing multiple real-time video streams to be efficiently distributed over the Hydra wireless sensing network. Coupled with the Hydra network’s novel bandwidth management, important events never go undetected.

HYDRA Remote Imaging Sensor



Imaging sensors nodes allow real-time video streams to be remotely viewed from visual band and Infrared cameras

TECHNICAL SPECIFICATIONS

Hydra sensor node

Operating Temp (standard)	-20 °C to +65 °C
Operating Temp (extended)	-40 °C to +85 °C
Humidity	< 95% non condensing

Video capability

Input format	Composite x 2 or Y/C
Standard	PAL, NTSC, SECAM
Compression	JPEG 2000
Compression level	User configurable
Frame rate	16 fps
PTZ drive direct	PTZ motor drive
PTZ drive serial	Pelco-D RS422 Camera
Power output	12V nominal
Local video archive	> 2 hours

SELEX GALILEO offers a range of visual band and infrared cameras for use with the Hydra imaging sensor node. Furthermore these cameras can be either static or combined with a pan and tilt platform. In all cases SELEX GALILEO will work with customers to choose the most appropriate imaging sensors for their needs.

Alternatively, Hydra's standard camera interface allows virtually any imaging device to be used with the imaging sensor node. This allows customer's existing inventory equipment to be interfaced with no modification required.



HYDRA situational awareness tool

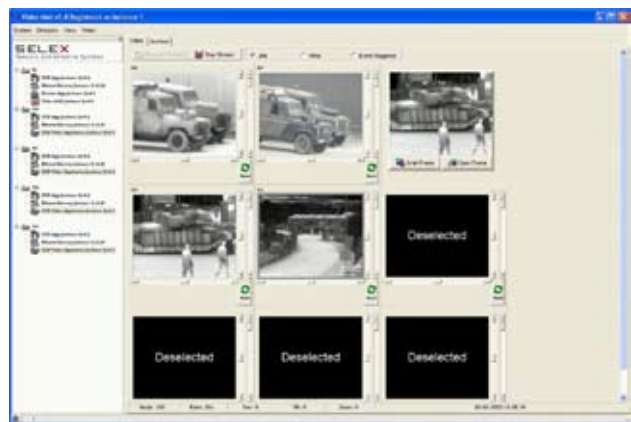


Hydra network sensing scenario

The figure above shows remote sensor nodes deployed to provide detection and identification of targets approaching a key asset or forward observation base. The outlying ring of sensors provide initial perimeter protection utilising PIR nodes.

The inner nodes provide full imaging coverage. At the point when an intruder is detected an alert is issued over the sensing network. This will cause the imaging nodes to cue and point the sensors to the area of interest. As the user receives the alert they will be able to view the collected imagery and determine the level of threat that exists.

Additionally, they can view the live video streams, or choose to retrieve archive imagery.



Hydra video MMI showing multiple remote video streams

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