→ SPYNEL Critical Infrastructure Surveillance

Spynel-M
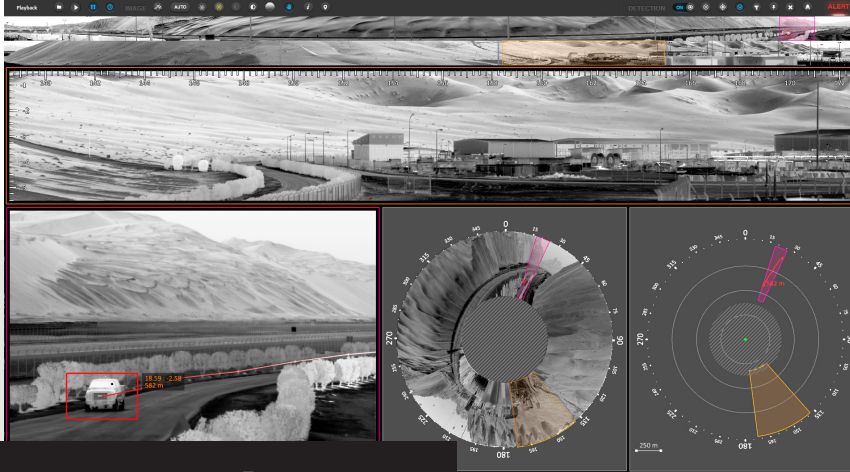
INFRARED RADAR | for WIDE AREA SURVEILLANCE

→ SPYNEL-M
INFRARED RADAR

LIGHTWEIGHT PANORAMIC THERMAL SURVEILLANCE SYSTEM

SPYNEL-M is the latest in the SPYNEL series and benefits from HGH's 15-year expertise in automatic intrusion detection and tracking systems, for wide area surveillance applications. SPYNEL-M is a high-resolution panoramic thermal camera, acting as an infrared radar. Robust, lightweight, transportable, SPYNEL-M is easily carried in a backpack. It can be fixed on top of a building, or quickly and discreetly deployed on a light mast, to perform multi-event detection over extremely large areas in total darkness. Consuming only 8 watts of power, it can be operated with solar or alternate power supply systems to allow remote, disconnected operation. Requiring no maintenance, SPYNEL-M brings the highest technology at a fair cost for the surveillance of critical infrastructures.

HIGH-END SITE PROTECTION DEPLOYED IN MINUTES

SPYNEL-M continuously captures full panoramic images every second, or can perform sector scanning at a higher rate, to bring real-time security against conventional and asymmetrical threats. It can also operate in staring mode at fastest rate, for target recognition. A single SPYNEL-M sensor can perform 24/7 early human intrusion alerts over a 1.5km-diameter area and can be quickly deployed and configured. Any threat will be tracked at any time from any direction, including hardly detectable targets such as: crawling men, RHIBs, low altitude air targets, UAVs and stealth aircrafts. SPYNEL-M can replace up to 16 traditional cameras in one single sensor head. As a completely passive system, the SPYNEL-M is invisible to intruders, requires no additional illumination and cannot be tricked by camouflage nor jamming.

APPLICATIONS

• Critical infrastructure protection (power stations, data centers, dams, prisons, water treatment stations, solar and wind farms, oil depots, ammunition dumps...);
• 24/7 perimeter security
• 360° detection of asymmetrical threats
• Airport / Port surveillance
• Special Operation Forces
• VIP and event security
• Fire detection

BENEFITS

• Cost effective, low power consumption and reliable

• Full 360° panoramic coverage with a single sensor

• Day and night scrutiny even in adverse weather conditions

• Fully passive system, totally undetectable unlike radar

• Fast deployment and easy installation

• Automatic tracking of all threats with superior image quality

• Uncooled IR technology, maintenance-free.
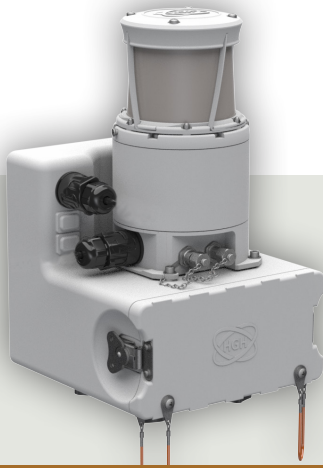
→ Infrared panoramic detection and tracking
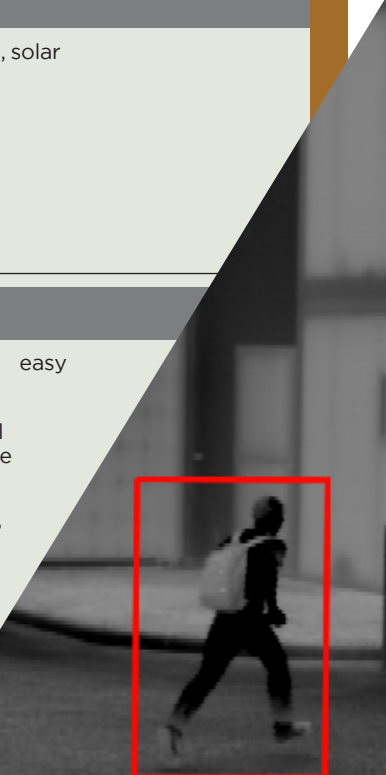
> **Spynel-M**

INFRARED RADAR | **for WIDE AREA SURVEILLANCE**

→ SPYNEL-M's Mobile Deployment Kit
(battery, wireless link, rugged tablet)

TECHNICAL

Fixed installation at the top of a mast →

> **SENSOR**

	Spynel-M 300 W	Spynel-M 300 N	Spynel-M 600 W	Spynel-M 600 N
Horizontal Field of View	360°	360°	360°	360°
Vertical Field of View	30°	18°	36°	18°
Vertical Adjustable Tilt	-18°/+18°	-18°/+18°	-18°/+18°	-18°/+18°
Scanning Rate	1 Hz (360° / 1sec)	0.5 Hz (360° / 2sec)	1 Hz (360° / 1sec)	0.5 Hz (360° / 2sec)
Sector Scan Rate	1.5 Hz on 180-degree sector 2.5 Hz on 90-degree sector ...	0.8 Hz on 180-degree sector 1.5 Hz on 90-degree sector ...	1.5 Hz on 180-degree sector 2.5 Hz on 90-degree sector ...	0.8 Hz on 180-degree sector 1.5 Hz on 90-degree sector ...
Detector Format (Horizontal)	>300 pixels	>300 pixels	>600 pixels	>600 pixels
Image Resolution	0.7 Mpixels	1.4 Mpixels	2.6 Mpixels	5.2 Mpixels
Video Output and Control	TCP/IP	TCP/IP	TCP/IP	TCP/IP
Optional Communication	Wireless	Wireless	Wireless	Wireless
Dimensions (Diam. x Height)	125 mm x 200 mm	125 mm x 200 mm	125 mm x 200 mm	125 mm x 200 mm
Weight	1.8 kg	1.8 kg	1.8 kg	1.8 kg
Power Supply	24 V / Power over Ethernet	24 V / Power over Ethernet	24 V / Power over Ethernet	24 V / Power over Ethernet
Power Consumption	8 W	8 W	8 W	8 W
Operating Temperature Range	-40°C / +55°C	-40°C / +55°C	-40°C / +55°C	-40°C / +55°C
Protection Standard	IP 66	IP 66	IP 66	IP 66
Detection Range For				
Human :	Up to 250 m	Up to 400 m	Up to 400 m	Up to 700 m
Car :	Up to 600 m	Up to 900 m	Up to 900 m	Up to 1,500 m

Detection ranges according to Johnson criterium and STANAG standards

> **CONTROL AND DISPLAY SOFTWARE**

Software functions: Get full advantage of Spynel sensor with Cyclope software. Cyclope provides, at a glance, **real time panoramic display** (360° strip, annular, radar & zoom views), **3D detection** capabilities, **unlimited targets designation and tracking**, immediate **threat location** (azimuth, elevation, distance), GPS, AIS and radar **data integration**, automatic **control of PTZ** systems for target identification, **forensic capabilities** (timeline, sequence storage and playback), spatial and temporal bookmarks, multiple **threats displayed on situation map**, fine **image stabilization** and more...

Above information is subject to changes without notice