



LOCKHEED MARTIN 
We never forget who we're working for®

Self Powered Adhoc Networks (SPAN)
Ultra-Low Power, Remote Unattended, Ground Sensing Surveillance System



About SPAN

Persistent surveillance for intrusion detection can prove to be a daunting challenge for military and security forces. Whether the mission is nearby a forward operating base or protecting remote critical assets and borders, Lockheed Martin’s Self Power Adhoc Networks (SPAN) situational awareness system will meet your mission requirements.

Introducing Lockheed Martin SPAN. SPAN is a low-cost, imperceptible micro-sensing and reporting system designed to detect, characterize and disseminate situational awareness. SPAN combines microelectronics, distributed signal processing, low power, energy harvesting, and wireless mesh networking into a single integrated persistent surveillance capability system for force protection, intrusion detection and border monitoring.

SPAN leverages technological advances in the areas of perpetual power management, mesh networking, and embedded micro-sensor and processing technology optimized for users who demand rapid deployment with low cost solutions, low probability of intercept, and reliable and persistent surveillance.

Equipped with “palm-size” sensor nodes to ease concealment of deployed sensors for imperceptible surveillance operation, the system is powered by thin film energy cells coupled with energy harvesting for a self-recharging nearly perpetual operational life without changing batteries. SPAN is small and lightweight for single-person portability, and the low-cost COTS approach allows the system to be considered expendable as dictated by various sensitive missions.

SPAN: “Field-and-Forget Remote” Surveillance System

- Intuitive interface enables rapid deployment and ease of operation.
- No battery maintenance. SPAN utilizes energy harvesting for persistent operational lifetime.
- Small, lightweight nodes can be fitted into rock camouflage enclosure—hard to detect.



- Multiple backhaul communications including SATCOM option.
- Acoustic and seismic sensing.
- Low-power mesh networking reduces EM signature.
- Sensor nodes automatically cooperate to create network.
- Event characterization.
- Onboard data processing minimizes false alarms.
- Affordable through use of COTS components.

Configuration Options

- **Perpetual Power:** includes Sensing nodes and Gateway utilizing energy harvesting and thin film energy battery; ruggedized handheld computer for local monitoring and sensor emplacement.
- **Expendable Power:** includes Sensing nodes and Gateway with replaceable battery; ruggedized handheld computer for local monitoring and sensor emplacement.

SPAN is your one-stop-shop for providing remote, maintenance-free surveillance and intrusion detection to protect your most critical assets.

For more information about SPAN, please contact:

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