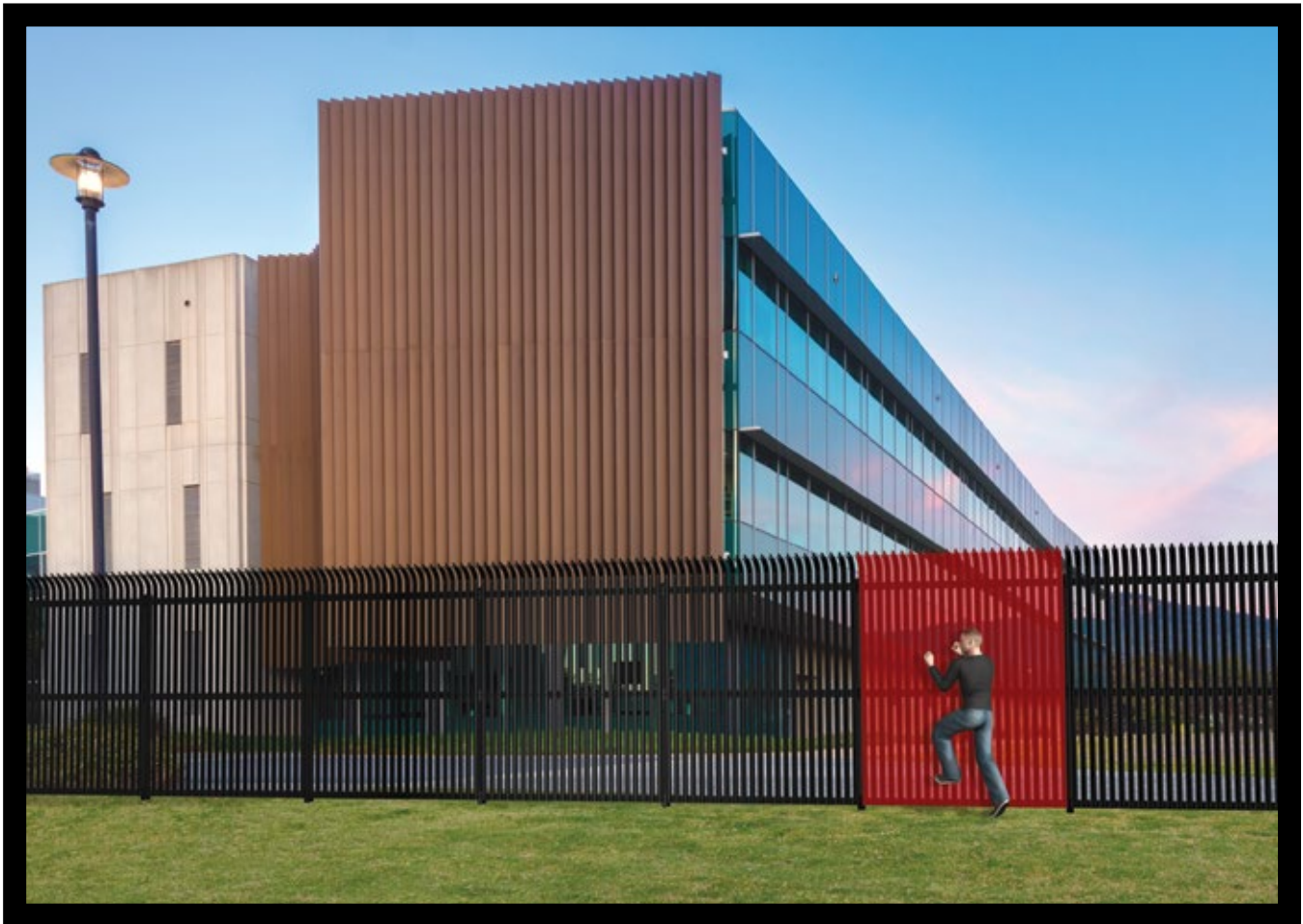


INTREPID™ MicroPoint™-POE

IP-BASED POWER OVER ETHERNET (POE) FENCE DETECTION SYSTEM



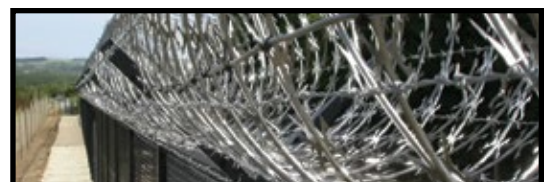
INTREPID™ MicroPoint™-POE is a perimeter fence detection system ideal for applications with cut-or-climb intrusion risks. Proprietary Digital Signal Processing (DSP) algorithms precisely locate intrusion attempts to within 3 m (10 ft) while ignoring harmless disturbances caused by wind, rain or vehicle traffic, producing superior probability of detection (PD) and a low nuisance alarm rate (NAR). This IP-based solution couples the field-proven performance of MicroPoint™ II with TCP/IP network integration via a single Ethernet cable, providing installation and maintenance convenience, system design flexibility and lower infrastructure costs.

With a coverage area of 400 m (1312 ft) per processor, the MicroPoint™-POE system consists of a Processor Module and two sensor cables that are tie-wrapped to a perimeter fence or topper wire. The system's unique calibration process (Sensitivity Leveling™) ensures uniform detection performance across various fence fabrics and tensions, making MicroPoint™-POE an ideal solution for challenging applications or harsh environmental conditions.

Through proprietary Free Format Zoning™ functionality, detection zones can be assigned via web browser anywhere along the detection cable, regardless of processor location, to efficiently tailor zoning to a site's unique requirements. MicroPoint™-POE can be networked with Southwest Microwave's complete range of POE technologies, including INTREPID™ Model 316-POE (CE), Model 334-POE and Model 336-POE Digital Microwave Links and INTREPID™ POE System Controllers.

KEY FEATURES

- INTRUSION LOCATION TO 3 M (10 FT)
- ADVANCED DIGITAL SIGNAL PROCESSING FOR HIGH PD / LOW NAR
- UNIFORM DETECTION SENSITIVITY ALONG THE FENCELINE
- FREE FORMAT ZONING VIA EMBEDDED, BROWSER-BASED SOFTWARE
- INTEGRATION WITH IP/ POE-BASED SECURITY DEVICES AND CAMERAS
- ECONOMICAL PLUG-AND-DEPLOY INSTALLATION
- USER-FRIENDLY CONFIGURATION VIA PC OR MOBILE DEVICE
- ALARM MONITORING VIA SERVER-BASED CONTROLLER OR THIRD-PARTY HLI



INTREPID™ MicroPoint™-POE

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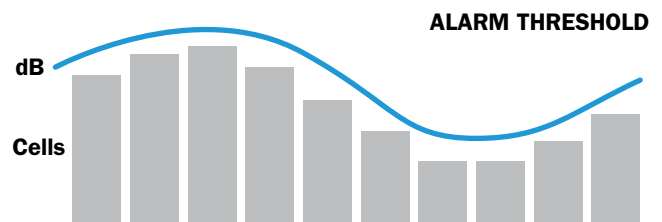
PRINCIPLES OF DETECTION AND LOCATION

Unique, patented detection technology allows MicroPoint™-POE to identify the precise location of an intrusion attempt or event. To initiate detection, the MicroPoint™-POE processor sends a pulse down the sensor cable using the principles of Time Domain Reflectometry (TDR). The pulse is reflected back to the receiver by a disturbance to the fence, providing the precise location of the event detected along the length of the cable.

SENSITIVITY LEVELING™

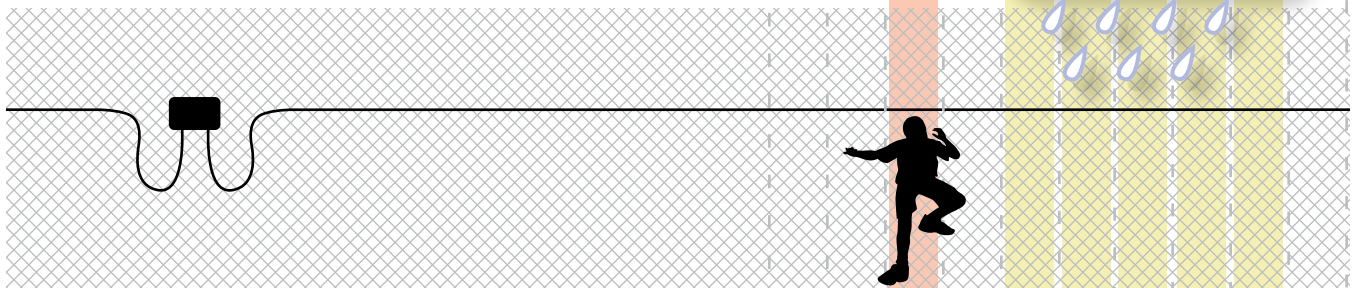
MicroPoint™ sensor cables are divided into cells through the browser-based Installation Service Tool. There are typically 200 cells per 200 m (656 ft) of cable.

A calibration walk is performed to optimize detection sensitivity within each 1.1 m (3.6 ft) cell by accounting for variations in fence fabric or tension. A sensitivity profile is then generated across all cells and the alarm threshold is set.



PRECISE LOCATION OF ALARMS

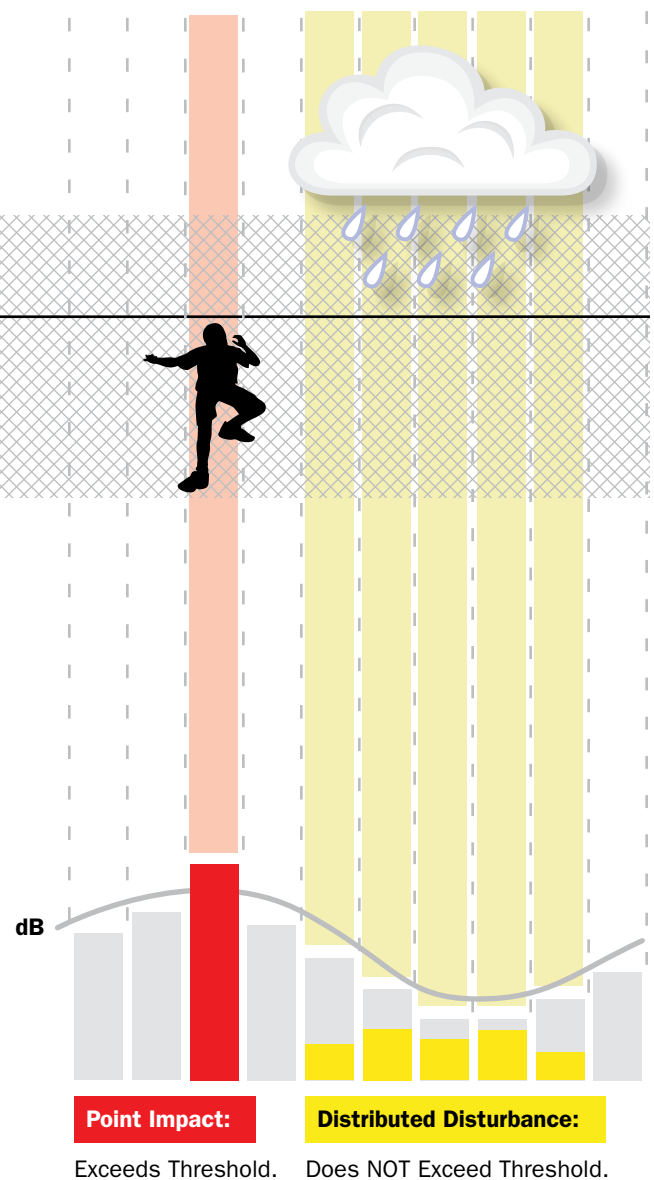
PERIMETER FENCE



POINT IMPACT DISCRIMINATION™

When a target makes contact with the fence, the received signal is sampled to create a signature which describes the reflected pulse. Digital Signal Processing (DSP) measures the location and shape of this pulse. The microprocessor differentiates the shape of a response from a Point Impact (cut-or-climb attempt) vs. a response caused by a Distributed Disturbance (rain, wind, vehicle traffic).

If the target is recognized as a Point Impact and exceeds the threshold, an alarm is declared and its precise location identified. Both the **Sensitivity Leveling** and **Point Impact Discrimination** processes are performance features unique to the MicroPoint™ system.



FEATURES AND BENEFITS

PRECISE TARGET LOCATION

Locates intruders to within 3 m (10 ft) anywhere along the cable.

POINT IMPACT DISCRIMINATION™

Identifies localized attempts to cut or climb the fence, but ignores distributed fence noise generated by wind, rain or vehicle traffic - solving nuisance alarm problems that plague conventional fence sensors.

SENSITIVITY LEVELING™

A proprietary calibration process accounts for variations in fence fabric or tension to provide uniform detection sensitivity along the fenceline.

FREE FORMAT ZONING

Detection zones are assigned via web browser - independent of processor location - keeping hardware costs low and offering maximum flexibility. The number and location of zones can be easily altered to meet changing site conditions.

IP/POE-BASED SOLUTION

Using a single cable for data and power transmission, each MicroPoint™-POE sensor operates as a secure element that seamlessly integrates with other IP/POE-based intrusion detection devices - such as IP cameras and access control systems - for greater system design flexibility, reduced installation costs, networked power and the convenience of local or remote monitoring and servicing.

BROWSER-BASED INSTALLATION SERVICE TOOL

An embedded, browser-based INTREPID™ MicroPoint™-POE Installation Service Tool enables local or remote configuration and management of the system. Reporting features include enhanced visual scatter graphs showcasing events and alarms for at-a-glance decision-making and trend analysis.

REMOTE DIAGNOSTICS

Monitor and control system status, detection parameters and alarm information via remote laptop or mobile device for easy troubleshooting or adjustment.

SCALABLE SYSTEM CONTROLLERS

INTREPID™ POE system controller options are available to manage INTREPID™ POE sensors via TCP/IP network communications protocol using a standard Ethernet connection. An SDK is available to developers for high-level integration of INTREPID™ POE sensors into custom monitoring and control applications.

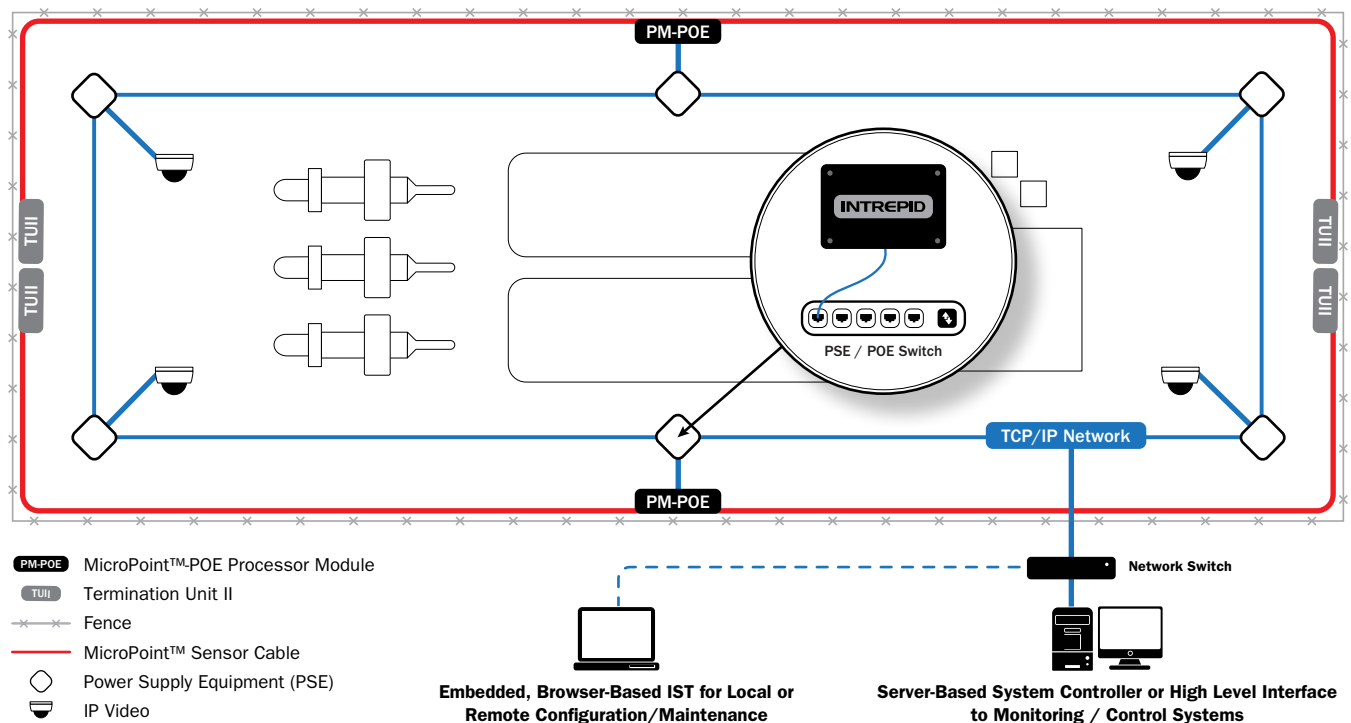
INTEGRATED I/O MODULES

Auxiliary input modules* can be used to incorporate auxiliary devices, such as Southwest Microwave's conventional sensors, gate and door contacts or other alarm contacts. Relay Output Modules* provide simple interface to CCTV, legacy alarm panels, perimeter lighting or other relays if high-level interface is not available.

* See INTREPID™ POE System Controllers data sheet and configuration diagrams for complete specifications.

TYPICAL MICROPOINT™-POE SYSTEM CONFIGURATION DIAGRAM

MicroPoint-POE seamlessly integrates with the TCP/IP network via a single cable for power and data transmission.



INTREPID™ MicroPoint™-POE

SYSTEM COMPONENTS & SPECIFICATIONS



PROCESSOR MODULE-POE (PM-POE)

Each module processes data from two lengths of MicroPoint™ cable (A and B). Each length of transducer cable can be up to 200 m (656 ft) long. Both A and B lengths of transducer cable are terminated in Termination Units.

Size: 268 H x 333 W x 108 D mm (8.59 x 13.11 x 4.26 in)

Weight: 1.81 kg (4 lbs)

Operating Temperature: -40° C to 70° C (-40° F to 159° F)

POE: IEEE 802.3af

Supervised / Unsupervised Inputs: 4

Inputs: 2 MicroPoint™ cables (A and B), 4 Dry Contact Inputs

Ports: RJ45 [1]

Security Protocol: TLS 1.2

INTREPID™ POE SYSTEM CONTROLLERS

POE System Controllers plus available SDK offer scalable IP-based security management solutions to suit any site parameters. Consult **POE System Controllers** data sheet for details.

INSTALLATION SERVICE TOOL (IST)

An embedded, browser-based Installation Service Tool configures INTREPID™ MicroPoint™-POE through supported browsers: Internet Explorer 11, Edge 40, Firefox 54, Chrome 59 or higher.

MICROPOINT™ CABLE (MC-115)

The MicroPoint™ cable is used for intrusion and event detection.

MC-115 Type (Standard)

Size: 4.902 mm (0.193 in) diameter

Jacket: High density polyethylene, UV resistant, black.

Operating Temperature: -40° C to 70° C (-40° F to 159° F)

Minimum Bend Radius: 63.5 mm (2.5 in)

Packaged Size: Packaged Weight:

100 m (328 ft) 4 kg (9 lbs)

220 m (722 ft) 9.1 kg (20 lbs)

MC-315 Type (Armored)

Size: 6.45 mm (0.254 in) diameter

Jacket: High density polyethylene, UV resistant, black.

Operating Temperature: -40° C to 70° C (-40° F to 159° F)

Minimum Bend Radius: 63.5 mm (2.5 in)

Packaged Size: Packaged Weight:

100 m (328 ft) 15 kg (33 lbs)

220 m (722 ft) 26 kg (37 lbs)

TERMINATION UNIT II (TU II)

The Termination Unit II is used at the end-of-line in an open loop configuration to terminate detection process.

Size: 133 H x 64 W x 76 D mm (5.25 x 2.5 x 3.0 in)

Weight: 0.45 kg (1 lb)

Operating Temperature: -40° C to 70° C (-40° F to 159° F)

Inputs: 1 MicroPoint™ cable

ACCESSORIES

- MicroPoint™ Cable Splice Unit II (SU II)
- MicroPoint™ Cut Simulator Tool (26D14875-A01)
- MicroPoint™ Cut Simulator Tool: Painted Coated Fences (26D47132-A01)



Intrepid™ MicroPoint™ is approved for UK Government use. For details contact CPNI.

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