Jamming Countermeasures

Jamming technology continues to gain prevalence with cargo thieves. While the sophistication varies widely throughout the global market, jamming technology has the potential to inhibit the tracking of cargo and foil the recovery of stolen goods.

The SensiGuard™ Supply Chain Intelligence Center (SCIC) has been tracking jamming incidents for more than a decade. Through the global intelligence collected, Sensitech has made, and continues to make, significant investments in rigorous jamming countermeasures. While criminal technology continues to evolve, Sensitech continues to innovate to circumvent disruption in clients’ supply chains. Experience tells us that effective jamming countermeasures require a multi-layered security program that includes jamming detection technology, the ability to transmit through jamming interference, and customer-centric responses from the SensiGuard Global Command and Control Center (C3).

How the Technology Works
SensiGuard’s global tracking devices use sophisticated listening and filtering techniques to identify the unique interference signatures that jamming devices produce. When a jamming event is detected, the device switches to an enhanced transmit mode in order to facilitate message delivery through the jamming event.

New Jamming Countermeasure Technology

Detection
The VizComm™ Prime and F5 trackers can be configured to detect potential jamming threats by recognizing the interference signatures generated by jamming devices.

Alert
The tracking device will attempt to send an alert through a “forced message” to the SensiGuard™ Tracks application when interference is detected.

Response
Trained C3 operators follow standard operating procedures (SOPs) to investigate and act on this knowledge. Responses vary depending on customer requirements and documented SOPs. Specific jamming risks in a region of operation are also taken into consideration and applied to the response protocol.

Response by the SensiGuard Global Command and Control Centers

A layered-security response is the recommended defense against jamming technology. The SensiGuard Shield monitoring solution has been developed to combat and respond to potential jamming threats. Developed around industry-specific, best practices, SensiGuard Shield solutions are regionally focused to ensure that customer-specific programs are in unison with regional trends that may have taken hold. Our online tracking and monitoring application, SensiGuard Tracks, notifies C3 operators of a potential jamming event. The operator then investigates the event though a variety of methods including sensor readings, location of the tracking device, and whether it’s moving or reporting location information. C3 operator response may include direct communication with the driver or dispatcher. Based on the investigation and the customer’s SOPs, a C3 operator will determine and report if the shipment is at risk, and escalate the event up to and including a law enforcement response.
A Better Offense

The best offense against jamming technology is just like any other security threat: a well-orchestrated defense through a multi-layered security program. A SensiGuard solution would include: the utilization of strong intelligence to fully understand the threat, technology to properly leverage the device placement, configuration, and the deployment of technical jamming countermeasures in regions where the risk is significant, and operational policies and procedures put into place to recognize jamming threats and to encourage quick, well-constructed, and targeted responses.

Our Services Extend Around the World

Customers operating in Brazil, Mexico, parts of Europe, and South Africa are at a heightened risk for jamming. SensiGuard’s jamming countermeasures are available in all of these high-risk areas for immediate implementation. Solutions are also available for the lower and more moderate risk regions for customers who have a low-risk tolerance and would like to address the jamming issue head-on before the problems grows.