txOne networks

Customer Story

Pioneering adopter of SEMI E187:

GPM Takes the Lead in SEMI E187 Compliance with TXOne Security Portfolio

The Situation

Founded in 1978, Gallant Precision Machining (GPM) has built a successful business with a scope that spans semiconductor fabrication and inspection equipment, display manufacturing equipment, and smart manufacturing integration services. GPM is an ISO 27001 certified company and continues to enhance its core competence in cybersecurity.

In January 2022, SEMI released the first global cybersecurity standard for semiconductor equipment, SEMI E187, aiming to effectively address potential cyber risks within the semiconductor supply chain. The goal is to enhance security right from the initial stages of equipment manufacturing to benefit subsequent production line installations and activities, including on-site services, software patching, and maintenance, thereby preventing the spread of malware into factories. GPM, adhering to its principle of creating value for customers, was among the first to respond to client demands for equipment cybersecurity, actively engaging in SEMI E187 compliance efforts.

"The industrial control field demands high reliability and ease of use," noted Chungping Liu, Senior Director of GPM's IT department. The company is committed to finding ways to embrace SEMI E187 without impacting asset usability, safety, and overall yield rate while semiconductor equipment manufacturers are generally aware of the need for cyber defenses.

GPM

"We are delighted to be one of the pioneering suppliers certified by SEMI E187. TXOne's product design perfectly meets the demands of industrial control, allowing GPM to maintain high efficiency while achieving compliance."

Chungping Liu
Senior Director of IT
GPM

" TXOne's portfolio precisely addresses the security needs, making sure we have everything we need for compliance with the SEMI E187."

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The Solution

GPM successfully complied with the SEMI E187 requirements by utilizing TXOne's Portable Inspector, Stellar, and EdgeIPS to address security inspection, endpoint protection, and network defense, respectively.

Liu, the Senior Director, was tasked with ensuring that the company's equipment met all the cybersecurity standards of SEMI E187, striving to achieve compliance while maintaining the efficiency of the company's products. "TXOne's products played an essential role in achieving SEMI E187 compliance," stated Liu.

Protect Critical Assets Throughout Their Entire Lifecycle

The core idea of SEMI E187 is to build a reliable machine with sufficient security measures prior to shipping. The capabilities of threat prevention and foregoing remediation are spotlighted.

With TXOne's security portfolio, GPM was able to:

- Automate malware-free and vulnerability reports, and elevate the visibility of asset security with **Portable Inspector**.
- Harden the system with anti-malware and manage trusted applications with **Stellar**.
- Establish network security policies with granularity and an extra layer of remediation with **Edge**.

The semiconductor manufacturing process requires an extremely high level of continuity. Once an asset is put online and starts offering operational services, the security measures need to be in place to protect such asset at all stages at service. By collaborating with TXOne's solutions, GPM is able to dedicate its expertise and attention to the core business without compromising on security.

The Result

By implementing the SEMI E187 standard in combination with TXOne products, GPM successfully obtained SEMI E187 professional third-party compliance verification, becoming one of the first global semiconductor equipment suppliers to meet the standard. The products offered by GPM not only set new benchmarks in innovative technology but also established new cybersecurity standards for the industry. This achievement not only solidified GPM's leading position in semiconductor technology but also provided reliable security for the entire semiconductor supply chain.

Reducing Time and Human Resources

GPM's testing and deployment of the Portable Inspector solution was substantially supported by TXOne's expertise. This support significantly reduced the time spent on asset inspections and compliance documentation for both the equipment supplier and their clients.

Providing Lifetime Endpoint Protection for Critical Assets

Stellar offers precise detection under strict conditions with minimal impact on endpoint performance. It effectively protects devices and supports legacy systems like Windows XP, 7, and 2000. Crucially, it ensures operational efficiency in OT settings without requiring internet-based updates, maintaining continuous and secure operations.

Ensuring High Availability and OT Network Security

The Edge series includes many built-in features specifically designed for the semiconductor OT environment, such as fail-safe operation, specialized OT communication protocols, and transparent deployment capabilities. It even provides compensatory measures for critical assets that cannot be patched, ensuring high availability and stability of production lines.

About TXOne Networks

TXOne Networks offers cybersecurity solutions that ensure the reliability and safety of industrial control systems and operational technology environments. TXOne Networks works together with both leading manufacturers and critical infrastructure operators to develop practical, operations-friendly approaches to cyber defense. TXOne Networks offers both network-based and endpoint-based products to secure the OT network and mission-critical devices using a real-time, defense-in-depth approach. Learn more at www.txone.com.