Case Study

Turnkey Security and Fleet Monitoring Platform for Mass Transit Authorities

(UST500-510-FL)

Unified Security and Fleet Management Solution

Video surveillance and fleet management systems have become a necessity for bus, fleet and railway companies serving thousands of passengers every day. Axiomtek is collaborating with Genetec Inc. to offer hardware adapted to the mass transit market through Genetec™ Streamvault™ appliances. Combining Axiomtek's expertise in designing and manufacturing embedded computer solutions for system integrators, OEMs and ODMs, and state-of-the-art security intelligence and operations solutions from Genetec, the Streamvault turnkey transportation security and fleet monitoring appliance is designed to help mass transit authorities and system integrators efficiently deploy a unified onboard system for bus and railway applications.

Streamvault SVR appliances combining Axiomtek UST500-510-FLembedded system and the Genetec Security Center:

Thanks to this collaborative effort, rugged Streamvault appliances are enabled by Axiomtek UST500-517-FL hardware. It is scalable and powered by choices of 7th/6th generation Intel® Core™ and Pentium® processors. Its integrated 16 PoE ports are available in RJ-45 or M12 connectors for IP

cameras. The UST500-517-FL provides a full scope of power protection that includes intelligent vehicle power management technology for ACC on/off delay, shutdown delay, and over/under voltage protection. This hardware is an excellent example of a purpose-built embedded system from the Axiomtek comprehensive transportation product line. By providing it as a Streamvault appliance, it is pre-validated to work well with Genetec Security Center. This partnership enables streamlined deployment, built-in cybersecurity hardening, assured compatibility and continued software support for all Axiomtek UST500-517-FL units sold through the Genetec Streamvault SVR line of appliances.

Genetec Security Center software delivers true unification of various technologies. The all-in-one software solution can manage surveillance functions and fleet monitoring as well as eliminate the inefficiency of going back and forth between applications. Its comprehensive capabilities include effective tracking of all security events, managing responses from a single location, and delivering valuable insights into its mass transit customers' operations. Among its list of features is the ability to unify system functions, manage onboard video recordings, control station access, and perform license plate recognition tasks. Along with occupancy management and communications, it can also track drivers' behavior and bus or rail route performance including speed and timing.

Advanced Features:

- CE, FCC, E-Mark, EN 50155 and EN 45545-2 certified for safe onboard operation
- Scalable LGA1151 7th/6th gen Intel® Core™ & Pentium® processors (up to 65W) to suit different levels of application complexity
- Rugged, with a wide operating temperature range of -40°C to +70°C and up to 3 Grms vibration endurance
- Flexible LAN selection, up to 16 RJ-45 GbE PoE LAN ports
- 24 VDC power input and intelligent solution of vehicle power management (ACC ignition)
- Unified platform for all data, including security policy management, event monitoring and investigations
- Easy to expand, configure and add on. Create a system that grows with your operations

Axiomtek's UST500-517-FL integrates both hardware and software to perfect the solution

Axiomtek EN-Certified, onboard mass transit controller, the UST500-517-FL, is adapted for the Genetec Stramvault appliance. It is ready for a fast and smooth development process and successful deployment. The kit is an all-in-one solution for developing a variety of onboard applications i.e., bus and train surveillance, people counting/occupancy management, operational control, and passenger communications.

Platform Design	Integration Package	Application-Friendly
Field use optimized (fanless, wide-temp, certificate, long longevity, anti-vibration). Protocol- and connectivity-ready (interface to peripheral, including hardware and driver). Application-oriented and isolated platform and component ability (monitor, PoE switch, PC, board, power buffer).	Full range of functionality uAPl and middleware software packages are available i.e., VoIP, GPS, OBD-11/ CANbus, Accelerometer, DIO, PoE, and wireless. Equipped with many choices of peripheral interfaces for a wide variety of applications.	Rugged, stable & reliable surveillance, fleet management and device monitoring system. Reduce operation, maintenance and manpower costs, increase efficiency and equipment lifespan.

*For detailed specifications, please visit www.axiomtek.com or go to Products > Systems & Platforms>Transportation System>Transportation Embedded System for UST500-517-FL

UST500-517-FL Highlights

The UST500-517-FL is powered by the LGA1151 socket 7th/6th generation Intel® Core™ and Pentium® processors up to 65W with the Intel® Q170 chipset. The integrated 16 PoE ports are available in RJ-45 or M12 connectors for IP cameras. It provides a full scope of power protection that includes intelligent vehicle power management technology for ACC on/off delay, shutdown delay, and over/under voltage protection. Enhanced by its robust structure and system design, the UST500-517-FL is able to operate under a wide temperature range from -40°C to +70°C and vibration endurance up to 3 Grms. This transportation embedded box is in compliance with ISO 7637-2 and EN 50155 for mobile surveillance applications.

Its DVI-D, HDMI and VGA interfaces support three surveillance monitors. Furthermore, its external accessible SIM card slot enables users to easily change SIM card for different telecommunication service. With wireless LAN modules, this user-friendly transportation embedded system can real-time transmits the video to the control center. The two built-in or four swappable SATA hard drives are used for mass storage of video files.

Why Axiomtek

"Axiomtek has been providing us and our customers with scalable choices of reliable hardware solutions for many years. Our collaboration delivers synergy and true value to system integrators and end-users in the mass transit industry," said Shawn Enides, Account Executive, Mobility, Genetec Inc.

Uniting the benefits of Genetec Security Center and Axiomtek's choices of best-in-class transportation-certified and safety-compliant embedded systems, Axiomtek and Genetec offer a unified security platform that promises easy project development and great flexibility for customization.

About Genetec

Genetec is a Leader in IP Video Surveillance, access control and Automatic Licence Plate Recognition. Developing open-platform software, hardware and cloud-based services for the physical security and public safety industry. Its flagship product, Security Center, unifies surveillance, access control and automatic number plate recognition. For more information, visit www.genetec.com to learn more.

About Axiomtek Co., Ltd.

Axiomtek has experienced extraordinary growth in the past 30 years because of our people, our years of learning which resulted in our tremendous industry experience, and our desire to deliver well-rounded, easy-to-integrate solutions to our customers. These factors have influenced us to invest in a growing team of engineers including software, hardware, firmware, and application engineers. For the next few decades, our success will be determined by our ability to lead with unique technologies for AIoT and serve our key markets with innovatively-designed solution packages of hardware and software – coupled with unmatched engineering and value-added services that will help lessen the challenges faced by our systems integrator, OEM and ODM customers and prospects alike. We will continue to enlist more technology partners and increase collaborations with our growing ecosystem who are leaders in their fields. With such alliances, we will create synergy and better deliver solutions, value, and the expertise our customers need.

Axiomtek is a Member of the Intel IoT® Solutions Alliance. A global ecosystem of more than 800 industry leaders, the Alliance offers its members unique access to Intel technology, expertise, and go-to-market support—accelerating deployment of best-in-class solutions.