



New Generation Fanless Intelligent Systems

360° Intelligence Built-in - Increase Efficiency and Effectiveness Automatically

Advantech embedded platforms have long continued to provide all kinds of system and integrated services, and with the cloud computing era will continue to offer more intelligent platforms. This transformation will enable new user experiences, enhanced productivity, better safety, and improved efficiency for embedded applications. Through new ideas and technologies, Advantech creates a series of innovative software services such as "SUSIAccess" remote device management and "iManger" intelligent self management to make our systems more manageable, power-efficient, and secure. This effectively relieves system developers and users of the complexity of device management and maintenance, and simplifies the operation of embedded devices. Entire systems can be managed easily and remotely to save cost. From front end to back end, Advantech leads the industry in new generation intelligent systems.

360° Intelligent Management Technologies

In order to meet diverse embedded applications in the IoT era, Advantech announced the new fanless intelligent system ARK-35 series. Advantech ARK-35 series combines all the benefits of performance, expansion, and storage in a single unit targeted toward a robust and compact computing platform involving machine automation, industrial plants, and cabinet integration. In addition to the H/W or mechanical design, Advantech ARK-35 series integrates 360° Intelligent Management Technologies, where "360" refers to triple security, six times more than common energy-saving levels, and zero-hassle management.

The triple security refers to white-list protection, backup/recovery, and sentinel hardware key. White-list protection makes use of built-in McAfee security software to designate permitted executable software applications, with all unauthorized applications disabled, which prevents viruses or Trojan horses. Using Acronis-developed software tools that also come with all Advantech systems, the time for automatic backup/recovery can be set without affecting regular operations. The sentinel hardware key allows execution of specific software functions through precisely designated passwords.

The capability of 6 x energy saving is enabled by energy-saving management, highly-efficient time management, and total cost reductions.

Energy-saving management saves power through setting upper or lower load levels or on/off times to let systems run in energy-saving modes when there is little or no other work. Highly-efficient time management updates content by remote control without the manager having to travel to the work site. Total cost reductions are achieved through smart power management and stable data transfer during information exchange (for example, when a public bus passes by a stop, it needs stable data transfer). This reduces total equipment cost.

Zero-distance management means remote monitoring, notification, and control. When a traffic light system, for example, breaks down, the maintenance staff – under conventional management – is always dispatched and asked to repair the system as soon as possible, without first ascertaining the cause of the problem (such as software or component failure, vandalism, or weather conditions). Although the repair will be finished eventually, a lot of social resources may be wasted during the repair process, and harm may be done to the product image. It is a different story with remote monitoring. The firmware provides real-time information on system conditions (such as CPU voltage, frequency, temperature), allowing management personnel to monitor the conditions of systems in different locations. The remote notification function can be set to issue warnings whenever there are abnormal conditions, or directly inform the maintenance staff through text messages, and remote control also allows for real-time diagnosis and operation.

Security	Resource Savings	Manageability
 <p>White List Protection Control what software is installed and run.</p>	 <p>Save Power Batch on/ off per schedule, and on demand for urgent requests.</p>	 <p>Remote Monitoring Status reports on embedded devices in real time.</p>
 <p>Backup and Recovery Live backup without rebooting the machine and schedule system backups on a regular basis. Restore OS image with one click.</p>	 <p>Save Time Remote control, cross state, country and administrator.</p>	 <p>Remote Notification Automatic notifications and alarms in real time.</p>
 <p>Hardware Security Key One utility: detects groupings and applies filters and functions.</p>	 <p>Save Cost Power management, stable data transfer, reduce infrastructure costs.</p>	 <p>Remote Batch Control Remote diagnosis, reboot, and settings, all in real time.</p>

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Integrated Software Services for Active Management

The next big opportunity for technology suppliers, system vendors, and service providers is being defined today by the migration from traditional embedded systems to Intelligent Systems. An Intelligent System centers on the integration of higher plane hardware and software technologies that allow for user reconfiguration, enable autonomous operation, access the internet, and extend the usage model of the system. Advantech ARK-35 series integrates a series of software services for high efficiency, power savings, easy management, and stable performance.

◆ SUSIAccess: Remote Management and Embedded Security

Advantech's SUSIAccess software provides a smart, easy, remote management API so users can monitor, configure, and control a large number of terminals with centralized, real-time maintenance capability. This allows customers to focus on their applications while SUSIAccess helps manage administration. ARK-35 series are also equipped with McAfee® for enhanced security and Acronis® for backup and recovery; these are official licenses, which protect your devices from threat.

◆ iManager: Cross-platform Self-management Services

Advantech iManager F/W technology is an intelligent, cross-platform, self-management tool that monitors system status and takes automatic action if anything is abnormal. iManager provides multi-level programmable watchdogs including IRQ interrupt, ACPI events, reset levels, and can also monitor voltage and temperature to ensure system reliability.

◆ Intel® AMT 8.0 Technology: Built-in Security for Greater Protection

ARK-35 series also support Intel® AMT 8.0 Technology built-in security for greater protection. First is threat management, including protection from rootkits, viruses, and malware. Second is identity and website access point protection, along with confidential personal and business data protection. Third, remote and local monitoring, remediation, and repair of PCs and workstations.

ARK-35 series is comprehensive embedded intelligent systems integrating hardware, firmware, and software. Their high efficiency, power savings, easy management, and stable performance translate into low maintenance costs. These fanless, new generation intelligent systems offer high management efficiency and accelerate time-to-value to meet various industrial or computing requirements.

For more information about ARK-35 and all series:

http://www.advantech.com/products/Box-IPCs/sub_1-2JKEUF.aspx

For more information about SUSIAccess software series:

<http://www.advantech.com/IndustrialCloud/>