

Video Processing Systems

Discover Broadcasting, Imaging,
and Visioning Innovations

- / Intelligent video solutions
- / Video software innovations
- / Live streaming & broadcasting
- / Medical imaging
- / Video surveillance
- / Machine vision



WISE-PaaS/VideoCMS
Video Content Management
Software



WISE-PaaS/RMM
Remote Monitoring
and Management



ADVANTECH

Enabling an Intelligent Planet

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Intelligent Video Processing Systems

Video processing systems require a stream processing architecture that can process video frames (one or more at a time) from a continuous stream. One of the challenges involves the many different types of video interfaces on different equipment, such as HDMI, DP, DVI, VGA or Composite; traditionally it is difficult for a single IPC to accommodate all types of video interfaces. Also, it requires flexible analysis and processing functionality. Advantech provides real-time image and video processing systems, and supports a stream processing architecture with I/O expansion capabilities - iDoor and 2nd layer ARK-Plus modules, video capture cards, and application SDK for system developers build their own application software with greatest ease.

3 Winning Facts



Rich Video Interface supports Real-time Video Processing



Fast Integration and Customization



Intelligent Video Analytics and Management

Multiple, Flexible Video Capture Option

- Two PCIe4 expansion slot for video capture cards.
- iDoor modules for video capture support video interface like HDMI, DVI, SDI, Composite.

Rich System I/O

- Dual display with one 4K 2K HDMI output.
- Expandable display module to achieve triple independent displays.
- Up to four USB 3.0 and dual GbE LAN for camera integration.

Software Integrated Platforms

- Video and remote monitoring software built-in.
- Advantech WISE-PaaS cloud architecture with Microsoft Azure.
- Application SDK for second development.



Video Software Innovations

Advantech provides exclusive WISE-PaaS software services and video SDK to capture, archive, stream and manage video content. Advantech WISE-PaaS/VideoCMS can instead your existing DVR or NVR systems for a comprehensive security system with video analysis capability. WISE-PaaS/RMM serves as an IoT device management platform that manages connected devices remotely. Additionally, partnering with McAfee and Acronis, we offer IoT security solutions to help our customers protect their systems.



Video SDK

- Event streaming application SDK
- Medical imaging application SDK
- Lecture recording application SDK
- Video post editing SDK



Video Content Management Software

- Intelligent video platform and analytics
- Modularized SDK

WISE-PaaS/VideoCMS



Remote Monitoring and Management

- Centralized IoT device HW & SW status management
- Built-in 15+ real-time monitoring widgets

WISE-PaaS/RMM



IoT Security Solutions

- Protects against zero-day-attack
- Monitors data of managed clients
- Backup and recovery solutions

McAfee Acronis

Market Solutions

Live Streaming and Broadcasting

Event organizers are looking for the robust and rugged system solution for event locations and operate reliably in a wide range of environmental conditions for event broadcasting.

Advantech Solutions

- ARK-2230, Intel® Celeron® J1900 performance and reliable embedded system
- MOS-4140S - capture, edit and stream event video via SDI interface
- Event streaming application software development kit (SDK)

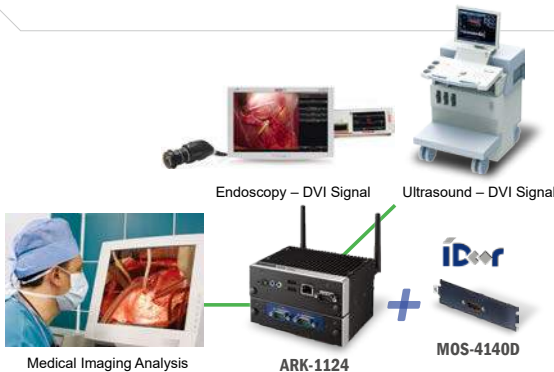


Medical Imaging

Hospitals require systems with video processing capability which could capture medical imaging produced by medical equipment.

Advantech Solutions

- ARK-1124, Intel® Atom™ E3940 QC SoC, design in palm size with brilliant computing. Easy to consist with medical equipment.
- MOS-4140D, Capture and Process Medical Image via DVI interface
- Medical Application Software Development Kit (SDK)

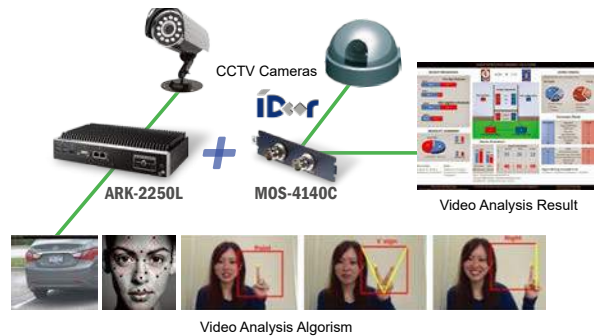


Video Surveillance

The solution provider is looking for the system which is capable of capturing the video from CCTV cameras and then conduct the video analysis for different purposes.

Advantech Solutions

- ARK-2250L, 6th Gen Intel® Core™ i7 performance featuring slim size and multi I/O embedded system
- MOS-4140C, capturing video from two CCTV cameras simultaneously
- Almost Zero Latency (< 50ms) to capture video for video analysis



On Board Surveillance

The primary purpose of installing an on-board vehicle surveillance solution is to monitor and record video footages of on-going events in the vehicle.

Advantech Solutions

- ARK-2250V, 6th Gen Intel® Core™ i7 transportation system
- PoE/PoE+ ports for supporting mainstream IP cameras
- Shock resistant, video-grade 2.5" SSD with hot swappable function ensured reliable storage of video records and flexible storage exchange



Machine Vision

Automated Optical Inspection (AOI) systems are becoming the quality control method of choice to replace manual checks.

Advantech Solutions

- ARK-3520, 6th Gen Intel® Core™ i7, extreme performance embedded system
- PCIE-1674E and PCIE-1672E, quick, synchronous image capture
- WebAccess/SCADA enables real-time factory monitoring and data integration



Product Offerings

Video Processing Platforms



ARK-1124

- Intel® Atom™ E3940 QC/SoC
- Ultra small fanless solution with essential I/O
- 1 channel HD preview and recording
- Optional 12V-24V wide range power input



ARK-2230

- Intel® Celeron® J1900 QC/SoC
- Modular iDoor/ARK Plus for quick expansion
- Upgradable 9-36VDC wide range power input
- -20~60°C wide operating temperature support



ARK-2250

- 6th Gen. Intel® Core i7
- Multiple lockable I/Os in compact dimensions
- 1 channel HD preview, recording and video analysis
- Extendable versatile I/Os by modular ARK-Plus



ARK-3520

- 6th Gen Intel® Core i7
- 45W high performance CPU supported
- Multi-channel video processing by PCIe4 interfaces
- Two removable high capacity 2.5" drive bays for RAID

Mobile NVR/DVR Platforms



ARK-2250V

- E-Mark 6th Gen Intel® Core i7-6822EQ QC/i5-6442EQ QC In-vehicle Fanless System, up to 8 PoE



ARK-2250R

- EN50155 6th Gen Intel® Core i7-6822EQ QC/i5-6442EQ QC Rolling Stock Fanless System, up to 8PoE



ARK-2231R

- EN50155 Intel® Atom E3845 SoC Rolling Stock Fanless System, up to 4PoE

I/O Expansion Modules



MOS-4140H

- 1 x HDMI Video In
- 1080P 30/25 Capture
- Window/Linux supported



MOS-4140V

- 1 x VGA Video In
- 1080P 30/25 Capture
- Window/Linux supported



MOS-4140S

- 1 x SDI Video In /Out
- 1080P 30/25 Capture
- Window/Linux supported



MOS-4140C

- 2 x Composite In
- 720x480 Capture
- Window/Linux supported



MOS-4140D

- 1 x DVI Video In
- 1080P 30/25 Capture
- Window/Linux supported

Video Capture Cards



DVP-7013HE

- 1-ch H.264/MPEG4 Low-Power PCIe Video Capture Card with SDK
- 60/50 fps (NTSC/PAL) at up to full HD resolution for recording and display
- PCIe x1 (Gen2) host interface



DVP-7011HE

- 1-ch Full HD H.264/MPEG4 PCIe Video Capture Card with SDK
- 60/50 fps (NTSC/PAL) at up to 1920 x 1080p resolution for recording and display
- PCIe x 1 host interface

Machine Vision Cards & Camera



PCIe-1674E / PCIe-1672E

- 4-port 10/100/1000 (PCIe-1674E)
- 2-port 10/100/1000 (PCIe-1672E)
- BaseT(X) 802.3af



QUARTZ

- 0.3-10.0 Mega Pixel PoE Industrial Camera

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Please verify specifications before ordering. This guide is intended for reference purposes only.

All product specifications are subject to change without notice.

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