Smart Digital Signage Solutions
Enable an Immersive Visual Experience

Value Proposition
Product Portfolio
Software
Case Studies
Selection Guide

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Empowering Smart Digital Signage

Digital signage has evolved into an interactive and personalized communication tool to connect advertisers with viewers for more direct engagement and viewing experiences. Advantech's smart digital signage solutions support most business requirements, from single store to centralized management, and commercial to industrial applications. All systems are bundled with content management, device monitoring, and content security software, and can be integrated with wireless modules for flexible communication capabilities.

Key Benefits

- **Compact and Secure Design**
  - Cable-free design
  - Optimized thermal solution
  - Proven modular compatibility

- **Value-Added Integration**
  - AI acceleration modules
  - Displays and Wi-Fi modules
  - Technical expertise

- **Simplified Management**
  - Content management
  - Device management
  - AI acceleration toolkit

Solution Ready Platforms

**Entry Level**
- **DS-100**
  - Rockchip RK3399 processor

**Ultra Slim**
- **DS-370**
  - Intel® Celeron® J1900 quad-core processor
- **DS-066**
  - Intel® Celeron® J1900 quad-core processor
- **DS-081**
  - 6th gen. Intel Core i3/i5 & Celeron 7th gen. Intel Celeron
- **DS-082**
  - AMD Ryzen™ V1000/R1000 processor
Built-In Management

**WISE-DeviceOn**

- Device status monitoring
- Remote screenshot tool
- Proactive notification of exception messages

**Remote Device Management**

- Self-ordering kiosk
- eMenu board

**Transportation**

- Self-service kiosk
- In-store signage
- Video wall
- Self-service kiosk

**Entertainment**

- Player tracking
- Multimedia broadcasting

**Content Management**

- Content editing and dispatch
- Schedule daily/weekly/monthly broadcasts
- Templates available

**Multi-Display SDM/OPS**

- DS-580
  - Intel® Atom™ E3950 processor
  - nVIDIA GT Graphics
- DS-780
  - 6th gen Intel® Core™ i3/i5/i7/Celeron® processor
- DS-980
  - 6th/7th gen Intel® Core™ i3/i5/i7/Celeron® processor
- DS-200
  - 8th gen Intel® Core™ i3/i5/i7/Celeron® processor
- DS-211
  - Rockchip RK3399 processor
- DS-280
  - 6th gen Intel Core i3/i5/i7 & Celeron
Application Stories

Enhancing the Customer Experience with Self-Ordering Kiosks

Self-ordering kiosks are becoming more prevalent in quick-service restaurants because of their easy-access menus that ensure prompt order processing at peak times. Our customer, one of the leading QSR brands, adopted the DS-081 digital signage player for their self-ordering kiosks because of its ultra-slim design, high performance, five-year warranty, UL compliance, and custom BIOS to provide a semi-customized turnkey computing solution.

Key Benefits
- Slim design for easy integration
- Supports dual UHD/FHD outputs
- UL certification ready
- Customizable configuration

Increasing Passenger Engagement and Retail Sales in Subway Stations

In Japan, digital signage displays are deployed everywhere in subway stations and underground shopping malls to provide traveler information and broadcast advertising. Advantech's DS-100 digital signage player was selected for this project because of its ultra-compact design, optimized graphics, and high cost-effectiveness. The fanless signage player is powered by an ARM Cortex-A72 processor and equipped with Android OS, which facilitated easy integration and wide-scale installation.

Key Benefits
- ARM-based cost-effective solution
- Ultra compact design for space-limited installation
- Fanless & cable-less design
- Wireless connectivity via M.2
- Supports Android 7.1 & Linux Kernel 4.4
Casino Digital Signage for Player Tracking and Data Visualization

Casinos are increasingly deploying digital signage to improve the customer experience. Our customer deployed the DS-580 digital signage player to advertise and share up-to-date local winner data. Equipped with an NVIDIA graphics card, Advantech DS-580 supports up to four displays - one was used for the management system and the others for advertisement broadcasting and player tracking. The player can also be integrated with TPM 2.0 for guaranteed data security and to prevent cyber attacks. Finally, DS-580 was preloaded with Advantech's WISE-PaaS/DeviceOn software to enable remote device management.

Key Benefits
- Supports up to four displays
- Reliable fanless design
- Built-in NVIDIA GT1030 card for enhanced video graphics
- Supports TPM 2.0 for hardware-based security
- Integrated with DeviceOn software for remote management

Streamlining the Delivery of Passenger Information in Airports

Advantech's display signage solutions have been adopted for 88% of the flight information display systems (FIDS) in China due to their high stability and high performance. Advantech is continuously working to increase FIDS efficiency and customer satisfaction through ongoing system upgrades. Advantech's DS-211 digital signage player equipped with Intel's Open Pluggable Specification (OPS) and extended HDMI outputs can support two independent displays and satisfies the customer's low power, high performance requirements. Additionally, the ARM-based DS-211 is preloaded with Android 7.1.2 to ensure quick and easy system integration.

Key Benefits
- Intel® OPS design for easy integration
- Rockchip RK3399 processor
- Built-in ARM Mali-T860 GPU for advanced graphics
- Supports dual LAN and console ports for remote manageability
- Compatible with Android 7.1.2 and Linux Debian 9 OS
Digital Signage Solutions

### Multimedia Management Software

**Entry-Level Series**

<table>
<thead>
<tr>
<th>Model Name</th>
<th>DS-100</th>
<th>DS-100 Lite</th>
<th>DS-370</th>
<th>DS-066</th>
<th>DS-081</th>
<th>DS-082</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Processor</strong></td>
<td>Rockchip RK3399</td>
<td>Rockchip RK3399</td>
<td>Intel® Celeron® J1900</td>
<td>Intel® Celeron® J1900</td>
<td>Intel® Celeron® J1900</td>
<td>AMD Ryzen™ V1807B</td>
</tr>
<tr>
<td><strong>BIOS</strong></td>
<td>-</td>
<td>-</td>
<td>AML uEFI 64 Mbit</td>
<td>AML uEFI 64 Mbit</td>
<td>AML uEFI 64 Mbit</td>
<td>AML uEFI 128 Mbit</td>
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<tr>
<td><strong>Chipset</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Memory Technology</strong></td>
<td>LPDDR3 1600MHz</td>
<td>LPDDR3 1600MHz</td>
<td>DDR3L 1333MHz</td>
<td>DDR3L 1333MHz</td>
<td>DDR4 2133MHz</td>
<td>DDR4 2400MHz</td>
</tr>
<tr>
<td><strong>Max. Capacity</strong></td>
<td>2 GB on board</td>
<td>2 GB on board</td>
<td>8 GB (4 GB per SODIMM)</td>
<td>8 GB (4 GB per SODIMM)</td>
<td>32 GB (16 GB per SODIMM)</td>
<td>32 GB (16 GB per SODIMM)</td>
</tr>
<tr>
<td><strong>Socket</strong></td>
<td>-</td>
<td>-</td>
<td>2 x 204-pin SODIMM</td>
<td>2 x 204-pin SODIMM</td>
<td>2 x 260-pin SODIMM</td>
<td>2 x 260-pin SODIMM</td>
</tr>
</tbody>
</table>

**Display**

| **Controller** | - | - | - | - | - | - |
| **Graphics Memory** | - | - | Shared system memory | Shared system memory | Shared system memory | Shared system memory |
| **Multiple Display** | 2 | 2 | 2 | 2 | 2 | 2 |
| **Interface** | 1 x HDMI 2.0, 1 x HDMI 1.4 | 1 x HDMI 2.0, 1 x HDMI 1.4 | 1 x HDMI, 1 x DP++, 1 x VGA | 2 x HDMI 1.4 | 2 x HDMI 1.4 | 4 x HDMI 2.0 (V series) |
| **Max. Resolution** | 3840 x 2160 @ 60Hz | 3840 x 2160 @ 60Hz | 2048 x 1280 @ 60Hz | 2048 x 1280 @ 60Hz | 4096 x 2304 @ 24Hz | 4096 x 2304 @ 60Hz |

**Expansion Interface**

| **M.2** | 1 x 2230 E key | 1 x 2230 E key | - | - | - | 1 x 2242 M key for storage |
| **Mini PCIe** | - | - | 2 | 1 | 1 | - |
| **PCle x16** | - | - | - | - | - | - |
| **Micro SD Card** | - | - | - | - | - | - |
| **Ethernet** | 2 x RJ-45 | 1 x RJ-45 | 2 x RJ-45 | 2 x RJ-45 | 1 x RJ-45 | 1 x RJ-45 |
| **Audio** | 1 x Line-out | 1 x Line-out | 2 x SPDIF/Line-out, Mic-in with jack sense support | 2 x SPDIF/Line-out, Mic-in with jack sense support | 1 x SPDIF/Line-out/Mic-in with jack sense support | 1 x SPDIF/Line-out/Mic-in with jack sense support |

**Power**

| **Power Supply** | DC 12V input | DC 12V input | DC 18V input | DC 18V input | DC 18V input | DC 18V input |
| **Temperature** | 0 ~ 45°C | 0 ~ 45°C | 0 ~ 45°C | 0 ~ 45°C | 0 ~ 45°C | 0 ~ 45°C |
| **Certifications** | CE, FCC Class B, CCC, BSMI | CE, FCC Class B, CCC, BSMI | CE, FCC Class B, CCC, BSMI | CE, FCC Class B, CCC, BSMI | CE, FCC Class B, CCC, BSMI | CE, FCC Class B, CCC, BSMI |

**Safety**

| **UL, CB, CCC, BSMI** | UL, CB, CCC, BSMI | UL, CB, CCC, BSMI | UL, CB, CCC, BSMI | UL, CB, CCC, BSMI | UL, CB, CCC, BSMI | UL, CB, CCC, BSMI |

Note: "-" means not applicable.

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**Integrated Software**

**WISE-PaaS/SignageCMS**

Multimedia Management Software

**WISE-DeviceOn**

Device Monitoring and Management

System Management
- Web interface, multimedia management, user-friendly interface, remote management

Interactive Content Editing
- Add/edit/delete content, display control management, subtitle support

Dispatch Management
- Remote dispatch, player overview, group dispatch, schedule dispatch, history search

Account Management
- Add/edit/delete user, user name/password/description/main, account permissions

Device Management
- Instant device monitoring and troubleshooting, regular inspections, predictive maintenance, data acquisition, device management

Monitoring & Control
- Real-time monitoring, device list and status, SW/HW health monitoring, HDD predictive maintenance, device events

Update Management
- OTA upgrade support, software remote patching and upgrade, update status report

Alert & Action
- SMS notifications, email notifications, event log
## Model Name Summary

<table>
<thead>
<tr>
<th>Model Name</th>
<th>Multi-Display Series</th>
<th>Modular Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS-580</td>
<td>Intel® Atom™ x7-E3950</td>
<td>Intel® Celeron® G4930E</td>
</tr>
<tr>
<td>DS-780</td>
<td>Intel® Core™ i5-6300U</td>
<td>Intel® Celeron® G4930E</td>
</tr>
<tr>
<td>DS-980</td>
<td>Intel® Core™ i3-6100U</td>
<td>Intel® Celeron® G4930E</td>
</tr>
<tr>
<td>DS-200</td>
<td>Intel® Core™ i3-6100U</td>
<td>Intel® Celeron® G4930E</td>
</tr>
<tr>
<td>DS-280</td>
<td>Intel® Celeron® G4930E</td>
<td>Intel® Celeron® G4930E</td>
</tr>
<tr>
<td>DS-211</td>
<td>Rockchip RK3399</td>
<td></td>
</tr>
</tbody>
</table>

## Processor
- **Model Name**: VEGA-320
  - **Features**: M.2 2230 module with one Intel Movidius X VPU onboard

- **Model Name**: VEGA-330
  - **Features**: Mini PCIe module with up to two Intel Movidius X VPLUs onboard

- **Model Name**: DSD-7055
  - **Features**: 55” full HD display with Intel SDM compliance

- **Model Name**: VUE-5000 Series
  - **Features**: 32”~86” full HD large format displays