

Smart Digital Signage Solutions

Enable an Immersive Visual Experience

- Value Proposition
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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

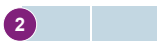


Simplified Management

- Content management
- Device management
- AI acceleration toolkit

Solution Ready Platforms

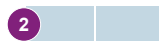
Entry Level



DS-100
Rockchip RK3399 processor



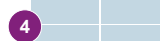
DS-370
Intel® Celeron® J1900 quad-core



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



Quick Service Restaurant

- Self-ordering kiosk
- eMenu board



Retail Stores

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



Transportation

- Passenger information
- Advertisement



Entertainment

- Player tracking
- Multimedia broadcasting

Built-In Management

WISE-DeviceOn



Remote Device Management

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

WISE-PaaS/SignageCMS



Content Management

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

Multi-Display



DS-580
Intel® Atom™ E3950 processor with 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®

SDM/OPS



DS-200
8th gen Intel® Core™ i3/ i5/ 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

Entry-Level Series



Model Name		DS-100	DS-100 Lite	DS-370	DS-066	DS-081	DS-082
Processor	CPU	Rockchip RK3399	Rockchip RK3399	Intel® Celeron® J1900	Intel® Celeron® J1900	Intel® Core™ i5-6300U Intel® Core™ i3-6100U Intel® Celeron® 3965U	AMD Ryzen™ V1807B AMD Ryzen™ V1605B AMD Ryzen™ R1606G
	BIOS	-	-	AMI uEFI 64 Mbit	AMI uEFI 64 Mbit	AMI uEFI 128 Mbit	AMI uEFI 128Mbit
	Chipset	-	-	Integrated with CPU	Integrated with CPU	Integrated with CPU	Integrated with CPU
Memory	Technology	LPDDR3 1600MHz	LPDDR3 1600MHz	DDR3L 1333MHz	DDR3L 1333MHz	DDR4 2133MHz	DDR4 2400MHz
	Max. Capacity	2 GB on board	2 GB on board	8 GB (4 GB per SODIMM)	8 GB (4 GB per SODIMM)	32 GB (16 GB per SODIMM)	32 GB (16 GB per SODIMM)
	Socket	-	-	2 x 204-pin SODIMM	2 x 204-pin SODIMM	2 x 260-pin SODIMM	2 x 260-pin SODIMM
Display	Controller	-	-	Integrated with CPU	Integrated with CPU	Integrated with CPU	Integrated with CPU
	Graphics Engine	Mali-T860MP4	Mali-T860MP4	Intel HD Graphics	Intel HD Graphics	Intel HD Graphics 620/610/520	AMD Radeon HD graphics
	Graphics Memory	-	-	Shared system memory	Shared system memory	Shared system memory	Shared system memory
	Multiple Display	2	2	2	2	2	4 (V series) 3 (R series)
	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 , 1 x VGA	2 x HDMI 1.4	2 x HDMI 1.4	4 x HDMI 2.0 (V series) 3 x HDMI 2.0 (R series)
	Max. Resolution	3840 x 2160 @ 60Hz	3840 x 2160 @ 60Hz	2048 x 1280 @ 60Hz	3840 x 2160 @ 30Hz	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 1 x 2230 E key for Wi-Fi
	Mini PCIe	-	-	2	1	1	-
	PCIe x16	-	-	-	-	-	-
	Micro SD Card	1	1	-	-	-	-
Ethernet	Connector	2 x RJ-45	1 x RJ-45	2 x RJ-45	1 x RJ-45	2 x RJ-45	1 x RJ-45
Audio	Connector	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
WatchDog Timer		Yes	Yes	Yes	Yes	Yes	Yes
Storage	SATA	-	-	1 x 2.5" SATA II HDD/SSD	1 x 2.5" SATA II HDD/SSD	1 x 2.5" SATA III HDD/SSD	-
	mSATA	-	-	Mini PCIe coloy mSATA	-	Mini PCIe coloy mSATA	-
	eMMC	16 GB eMMC on board	16 GB eMMC on board	-	-	-	-
I/O	USB 3.0	1	1	1	1	4	2
	USB 2.0	1	1	3	3	-	2
	COM	1 x Console port	-	2 x RS-232	1 x RS-232	1 x RS-232	1 x RS-232
Power	Power Supply	DC 12V input	DC 12V input	DC 19V input	DC 19V input	DC 19V input	DC 19V input
Environment	Operating Temperature	0 ~ 45°C	0 ~ 45°C	HDD: 0 ~ 40 °C/32 ~ 104 °F SSD: 0 ~ 50 °C/32 ~ 122 °F (with 0.7m/s airflow)	HDD: 0 ~ 40 °C/32 ~ 104 °F SSD: 0 ~ 50 °C/32 ~ 122 °F (with 0.7m/s airflow)	HDD: 0 ~ 40 °C/32 ~ 104 °F (with 0.7m/s airflow)	HDD: 0 ~ 40 °C/32 ~ 104 °F (with 0.7m/s airflow)
Physical Characteristics	Dimensions (L x W x H)	135 x 130 x 29 mm/ 5.31 x 5.11 x 1.14 in	115 x 110 x 20 mm/ 4.52 x 4.33 x 0.78 in	204 x 118.2 x 44.2 mm/ 8.03 x 4.65 x 1.74 in	180 x 190 x 19 mm/ 7.08 x 7.48 x 0.74 in	180 x 190 x 19 mm/ 7.08 x 7.48 x 0.74 in	180 x 190 x 19 mm/ 7.08 x 7.48 x 0.74 in
Operating System		Android 7.1.2, Debian 9 -Linux 4.4 Kernel (optional)	Android 7.1.2, Debian 9 -Linux 4.4 Kernel (optional)	Microsoft Windows, Linux (optional)	Microsoft Windows, Linux (optional)	Microsoft Windows, Linux (optional)	Microsoft Windows, Linux (optional)
Certifications	EMC	CE, FCC Class B, CCC, BSMI	CE, FCC Class B, CCC, BSMI	CE, FCC Class B, CCC, C-Tick, 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

Note: "-" means not applicable.

Integrated Software

WISE-PaaS/SignageCMS

Multimedia Management Software

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

WISE-DeviceOn

Device Monitoring and Management

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

Multi-Display Series



Modular Series



Model Name		DS-580	DS-780	DS-980	DS-200	DS-280	DS-211
Processor	CPU	Intel® Atom™ x7-E3950	Intel® Core™ i7-6600U Intel® Core™ i5-6300U Intel® Core™ i3-6100U Intel® Celeron® 3955U	Intel® Core™ i7-6700TE Intel® Core™ i5-6500TE Intel® Core™ i3-6100TE	Intel® Core™ i5-8400H Intel® Core™ i3-8100H Intel® Celeron® G4930E	Intel® Core™ i7-6822EQ Intel® Core™ i5-6442EQ Intel® Core™ i3-6102EQ Intel® Celeron® G3902E	Rockchip RK3399
	BIOS	AMI uEFI 64 Mbit	AMI uEFI 128 Mbit	AMI uEFI 128 Mbit	AMI uEFI 128 Mbit	AMI uEFI 128 Mbit	-
	Chipset	Integrated in CPU	Integrated in CPU	Intel Q170	Intel QM370	Intel QM170	-
Memory	Technology	DDR3L 1866MHZ	DDR4 2133MHZ	DDR4 2133MHZ	DDR4 2400MHZ	DDR4 2133MHZ	LPDDR4-3200
	Max. Capacity	16 GB (8 GB per SODIMM)	32GB (16GB per SODIMM)	32 GB (16 GB per SODIMM)	32 GB (16 GB per SODIMM)	32 GB (16 GB per SODIMM)	4GB on-board
	Socket	2 x 204-pin SODIMM	2 x 260-pin SODIMM	2 x 260-pin SODIMM	2 x 260-pin SODIMM	2 x 260-pin SODIMM	-
Display	Controller	NVIDIA GeForce GT1030	Integrated with CPU	Integrated with CPU	Integrated with CPU	Integrated with CPU	-
	Graphic Engine	-	Intel HD Graphics 520/510	Intel HD Graphics 530	Intel UHD Graphics 630	Intel HD Graphics 530/510	Mali-T860MP4
	Graphics Memory	2G GDDR5 (on board memory)	Shared system memory	Shared system memory	Shared system memory	Shared system memory	-
	Multiple Display	4	3	3+ (Up to 9 with a graphics card)	3	3	2
	Interface	2 x HDMI 2.0, 2 x HDMI 1.4	2 x HDMI 2.0, 2 x HDMI 1.4	1 x HDMI 2.0, 2 x HDMI 1.4	1 x PCIe x8 (98 pin), 1 x Mini DP**	1 x JAE TX25 (80 pin), 1 x HDMI 2.0, 1 x DP	JAE TX25 80-pin x1 HDMI 2.0 x1
Expansion Interface	Max. Resolution	3840 x 2160 @ 60Hz	4096 x 2160 @ 60Hz	4096 x 2160 @ 60Hz	4096 x 2304 @ 60Hz	4096 x 2304 @ 60Hz	4096 x 2304 @ 60Hz
	M.2	1 x 2230 E key	1 x 2230 E key	1 x 2230 E key	1 x 2242 M key for storage 1 x 2230 E key for Wi-Fi	-	1
	Mini PCIe	1	1	1	-	1	1
	PCIe x16	-	-	1	-	-	-
Ethernet	Micro SD Card	-	-	-	-	-	1
	Connector	2 x RJ-45	2 x RJ-45	2 x RJ-45	1 x RJ-45	2 x RJ-45	2 x RJ-45
Audio	Connector	2 x SPDIF/Line-out, Mic-in with jack sense support	1 x SPDIF/Line-out/Mic-in with jack sense support	2 x SPDIF/Line-out, Mic-in with jack sense support	2 x SPDIF/Line-out/Mic-in with jack sense support	1 x Line-out with jack sense support	-
WatchDog Timer		Yes	Yes	Yes	Yes	Yes	Yes
Storage	SATA	1 x 2.5" SATA III HDD/SSD	1 x 2.5" SATA III HDD/SSD	1 x 2.5" SATA III HDD/SSD (top); 1 x 2.5" SATA III SSD (bottom), supports RAID 0/1	-	1 x 2.5" SATA III HDD/SSD	-
	mSATA	Mini PCIe colay mSATA	Mini PCIe colay mSATA	Mini PCIe colay mSATA	-	Mini PCIe colay mSATA	64 GB eMMC on board
I/O	USB 3.0	2	4	4	5 (4 x via bracket, 1 x SDM connector)	3	1
	USB 2.0	2	-	2	-	-	1
	COM	1 x RS-232	1 x RS-232	1 x RS-232/2 x RS-485/422 with extension cable	1 x RS-232 via SDM connector (Tx/Rx only)	-	1
Power	Power Supply	DC 19V input	DC 19V input	DC 12V input	DC 12V input (via SDM Connection)	DC 12V-19V input (via OPS connector)	DC 12V-19V input (via OPS connector)
Environment	Operating Temperature	HDD: 0 ~ 40 °C/32 ~ 104 °F SSD: 0 ~ 50 °C/32 ~ 122 °F (with 0.7m/s airflow)	0 ~ 40 °C/32 ~ 104 °F (with 0.7m/s airflow)	0 ~ 40 °C/32 ~ 104 °F	0 ~ 55 °C/32 ~ 131 °F	HDD: 0 ~ 40 °C/32 ~ 104 °F SSD: 0 ~ 50 °C/32 ~ 122 °F	0 ~ 60°C
Physical Characteristics	Dimensions (L x W x H)	220 x 150 x 40 mm/ 8.66 x 5.9 x 1.57 in	235 x 175 x 35 mm/ 9.25 x 6.88 x 1.37 in	267.6 x 205 x 88 mm/ 10.53 x 8.07 x 3.46 in	175 x 100 x 20 mm/ 6.88 x 3.93 x 0.78 in (SDM-L compliant)	200 x 119 x 30 mm/ 7.87 x 4.68 x 1.18 in	200 x 119 x 30 mm (OPS compliant)
Operating System		Windows 10, Linux (optional)	Microsoft Windows, Linux (optional)	Microsoft Windows, Linux (optional)	Microsoft Windows, Linux (optional)	Microsoft Windows, Linux (optional)	Android 7.1.2 Debian 9 (Linux 4.4 Kernel)
Certifications	EMC	CE, FCC Class B, CCC, BSMI	CE, FCC Class B, CCC, BSMI	CE, FCC Class B, CCC, BSMI	CE, FCC Class B	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	N/A	UL, CB, CCC	UL, CB, CCC

Note: "-" means not applicable.

AI Acceleration Modules



VEGA-320

M.2 2230 module with one Intel Movidius X VPU onboard



VEGA-330

Mini PCIe module with up to two Intel Movidius X VPUs onboard

Digital Signage Displays



DSD-7055

55" full HD display with Intel SDM compliance



VUE-5000 Series

32"-86" full HD large format displays

Streamline Your Digital Signage Network

WISE-PaaS/SignageCMS

WISE-DeviceOn



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