

# ARK-DS520

## Advanced (ION2 based) Graphics Digital Signage Platform



### Features

- Integrated NVIDIA GT218 (ION2) graphic module for Full HD playback
- Rich video I/O combination supports dual display (eg: 2 x VGA, VGA + HDMI, HDMI + DVI, VGA+DVI)
- Embedded Intel® Atom™ D525 dual-core (fan) or Intel® Atom™ N455 single-core process (fanless)
- Compact, low-profile design for easy installation
- Highly expandable via internal Mini PCIe interface (eg: WLAN, 3G or TV tuner)
- RS-232 and DIO ports convenient for system integration and applications
- Consumer Electronic Control (CEC) implemented on HDMI (\*1)



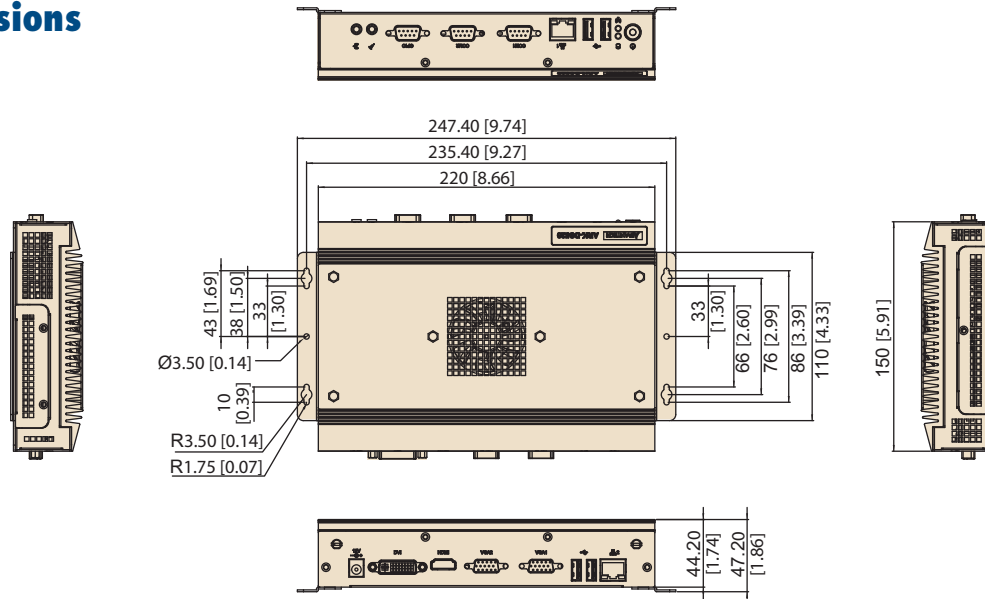
### Specifications

			ARK-DS520L-D6A1E
Processor System	CPU	Intel Atom D525 1.8 GHz, Intel Atom N455 1.66 GHz	Intel Atom D525 1.8 GHz
	System Chipset	Intel Atom D525/N455 + ICH8M	Intel Atom D525 + ICH8M
	L2 Cache	1 MB/512 KB (Depends on CPU Type)	
	BIOS	AMI 16 MB SPI BIOS	
	Front Side Bus	800 MHz/667 MHz	
Memory	Technology	2 x DDR3 204-pin SO-DIMM	1 x DDR3 204-pin SO-DIMM
	Max. Capacity	Max. up to 4 GB (w/D525); or 2 GB (w/N455)	Default 2 GB
Display	Chipset	NVIDIA GT218	
	Memory Size	Independent display memory 512 MB	
	Resolution (Chipset support)	VGA: up to 2048 x 1536 at 60 Hz; DVI-D: single link 1600 x 1200 at 60 Hz; HDMI: Up to 1080P	
	Output	HDMI x 1, DVI-D x 1, VGA x 2	HDMI x 1, VGA x 1
	Dual Display	Any 2 display outputs simultaneously	
Storage	Video Format	Blu-ray, MPEG2, MPEG4 Part 2 Advanced Simple Profile, H.264, VC1, DivX version 3.11 and later (*2)	
	SATA	2.5" SATA HDD (9.5 mm height only)	
Ethernet	CF	CompactFlash socket for type I/II	Default 16GB CF card (MLC)
	Interface	Gigabit LAN Controller	
	Controller	Intel 82567V for LAN 1, Realtek RTL8111E for LAN2	
I/O Interface	Connector	2 x RJ-45	1 x RJ45
	HDMI	1	
	DVI-D	1	N/A
	VGA	2 (D-sub 15-pin)	1
	LAN	2 (RJ-45)	1 (LAN1)
	USB	4 (USB 2.0 compliant)	
	Audio	2 audio phone jacks for Line-out, Mic-in (support Jack Sense)	1 (Line-out)
	Serial	2 x COM (RS-232)	1 (COM1)
	Digital I/O	1 DB9 (Female type)	N/A
	Mini-PCIe (Internal)	2 (for optional expansion modules) (L version supports one)	1
	Power Requirement	Power input	1 DC jack
Management		ACPI 2.0	
Power Consumption Input Voltage		Average 18W, Maximum 30W	
Input Voltage		12 V DC-in (ATX/AT mode, default ATX)	
Watchdog Timer	Other	Supports Boot on Power Back and Scheduled Boot Up functions	
	Output	Interrupt, system reset	
Physical Characteristics	Interval	255-level timer interval, setup by software	
	Mounting	Desktop/Wall Mount	
	Dimensions (W x H x D)	220 x 44.2 x 150 mm	
Environment	Weight	1.7 kg (3.74 lb)	
	Temperature	0 ~ 40° C (32 ~ 104° F), operating -20 ~ 70° C (-4 ~ 158° F), storage	0 ~ 50° C (32 ~ 122° F), operating -20 ~ 70° C (-4 ~ 158° F), storage
	Relative Humidity	95% @ 40° C (non-condensing), operating	
	Vibration Resistance	0.3 Gms, IEC 60068-2-64, Random 5-500Hz, 1hr/axis	
Software Development Kit	Operating System	Supports Microsoft Windows 7, XP with SP3, XP Embedded, Linux	
	EWf & WDT SDK	EWf and WDT library for signage stability design in XPE	
Certification	Linux	Linux Fedora 14	
	Electromagnetic	CE, FCC	
	Safety	UL, CCC, BSMI	

\*1: CEC pin define reserved in HDMI, need software to enable it

\*2: The playback media format is supported by the player software, not provided by Advantech hardware

## Dimensions



## ARK-DS520 External I/O



Front



Rear

## Fanless Option with Intel Atom N455 Single-core CPU



## Accessories

Part Number	Description
AMO-WIFI01E	WIFI 802.11 b/g/n mini PCIe module (w/antenna)
AMO-HSDPA01E	HSDPA Mini PCIe module (w/antenna)

## Packing List

Part Number	Description
-	1 x ARK-DS520 Unit
-	1 x Driver/Utility CD/Manual
-	1 x User Manual (Simplified Chinese)
-	1 x China RoHS
-	1 x Adapter AC 100-240V
-	1 x Mounting plate set

## Power Cord

Part Number	Description
1702002600	3-pin power cord (US)
1700018705	3-pin power cord (EU)
1702031801	3-pin power cord (UK)
1702031836	3-pin power cord (AU)
1700000237	3-pin power cord (JP)
1700000596	3-pin power cord (CCC)

## Ordering Information

Part Number	Description
ARK-DS520F-D6A1E	ARK-DS520, Atom D525, dual display, 2 GbE, 4 USB, 2 COM, DIO, Audio w/2 GB RAM + 160G HDD (Fan-based)
ARK-DS520F-N5A1E	ARK-DS520, Atom N455, dual display, 2 GbE, 4 USB, 2 COM, DIO, Audio w/2 GB RAM + 160G HDD (Fanless)
ARK-DS520B-D6A1E	ARK-DS520, Atom D525 barebone (Fan-based)
ARK-DS520B-N5A1E	ARK-DS520, Atom N455 barebone (Fanless)
ARK-DS520L-D6A1E	ARK-DS520L, Atom D525 HDMI+VGA, 2GB RAM, 16G (MLC) CF, WES7E Eng.

## Embedded S/W

Part Number	Description
2070010411	Image XPE WES2009 ARK-DS520 V4.0 ENG
2070010412	Image XPE WES2009 ARK-DS520 V4.0 24MUI
2070010414	Image WES7E ARK-DS520 V5.0 ENG
2070010415	Image WES7P ARK-DS520 V5.0 ENG
2070010416	Image WES7E ARK-DS520 V5.0 JAP
2070010417	Image WES7E ARK-DS520 V5.0 CHS
2070010418	Image WES7E ARK-DS520 V5.0 CHT