Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

## Contact us

# ARK-DS306

## AMD G-Series Fanless Digital Signage Player

### Features

- AMD G-series T40N (DC 1.0 GHz) + A50M FCH, 1 x DDR3 SODIMM, supports up to 4 GB

- DirectX® 11, 2D/3D acceleration, dual display: HDMI, VGA

- Built-in Mini-PCIe slot for easy expansion

- Supports 2 Gigabit LAN connectors, HD audio, 2 x COM, 2 x USB I/O interfaces

- Storage: 1 x 2.5" SATA HDD drive bay, 1 x CFast slot

- Supports VESA mounting (Optional)

- Supports WebAccess/IMM for intuitive signage content managing, remote monitoring and control

**Acronis** (intel) Security

**WISE-PaaS/RMM** **WebAccess/IMM** **iManager**

## Introduction

The ARK-DS306 is powered by an AMD Embedded G-Series APU with the AMD A50M Fusion Controller Hub system chipset, and provides a power-efficient platform for high-performance multi-media content delivery. Based on this new APU platform, ARK-DS306 offers an outstanding visual experience with full multi-media capability, while maintaining very low power consumption. It is an excellent high performance solution for versatile digital signage applications.
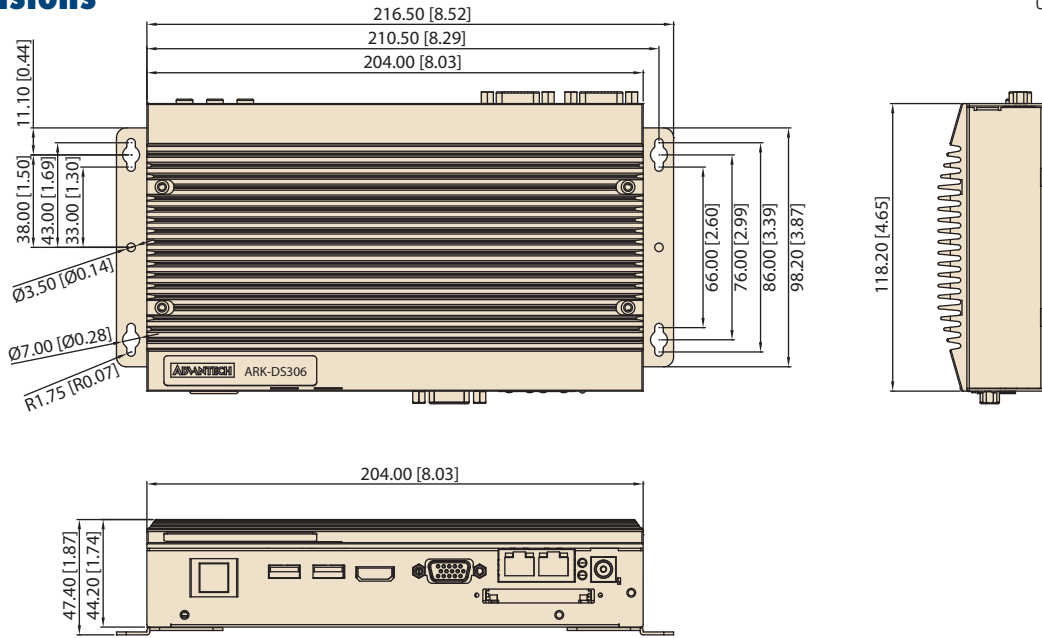
## Specifications

| | | |
|---|---|---|
| Processor System | CPU | AMD G-Series, T40N 1.0GHz dual core |
| | System Chipset | A50M FCH |
| | BIOS | AMI EFI 16 Mbit |
| Memory | Technology | 1 x DDR3 204-pin SODIMM |
| | Max. Capacity | **4 GB |
| Display | Chipset | AMD G-Series |
| | Graphic Engine | DirectX 11 graphics with UVD 3.0<br>2D Acceleration, 3D Acceleration, Motion Video Acceleration, Supports DVD, Blu-ray* |
| | Output | HDMI x 1, VGA x 1 |
| | Resolution | VGA: 1920 x 1080 at 60 Hz<br>HDMI: Supports 1920 x 1080p at 60 Hz, 36 bpp, Supports HDMI v1.3, using TMDS data encoding |
| | Dual display | Yes |
| Storage | SATA | 1 x 2.5-inch SATA II HDD/SSD (support 9.5 mm / 7 mm height) |
| | Cfast (socket) | 1 |
| Ethernet | Interface | 2 Gigabit LAN Controller Realtek RTL8111E-VB-GR 10/100/1000Mbps |
| | Connector | 2 x RJ-45 |
| Audio | Chipset | Realtek ALC892, High Definition Audio (HD) |
| I/O Interface | HDMI | 1 |
| | VGA | 1 |
| | LAN | 2 (RJ-45) |
| | USB | 2 (USB 2.0 compliant) |
| | Audio | Line-in, Line-out, Mic-in |
| | Serial | 2 x COM (RS-232) |
| | Mini-PCIe (Internal) | 1 (for optional expansion modules) |
| | Power input | 1 (DC-in Jack) |
| Power Requirement | Management | ACPI 2.0 |
| | Power Consumption | Typical: 9 W (w/o expansion)<br>Max.: 13W (w/o expansion) |
| | Input Voltage | 12V DC-in (ATX/AT mode, default ATX) |
| | Others | Supports boot on power back and schedule boot up function |
| Watchdog Timer | Output | Interrupt, system reset |
| | Interval | 255 levels timer interval, programmable by software |
| Physical Characteristics | Mounting | Easy mounting kits for LCD or Plasma |
| | Dimensions (W x H x D) | 204 x 44.2 x 118.2 mm |
| | Weight | 1.1 kg |
| Environment | Operating Temperature | Operating: 0 ~ 40° C (32 ~ 104° F) (w / HDD); 0 ~ 50° C (32 ~ 122° F) (w / CFast Card) |
| | Relative Humidity | 95% @ 40° C (non-condensing), Operating |
| Software Development Kit | Operating System | Supports Microsoft Windows 8, Windows 7, XP with SP3, XP Embedded |
| | EWF & WDT SDK | EWF and WDT libraries for signage stability design in XPE |
| | Linux | supported by project |
| Certifications | Electromagnetic | CE/FCC Class A, CCC, BSMI |
| | Safety | UL,CB,CCC,BSMI |

* Playback is supported by software not provided by Advantech.
** 4GB 512x8 DRAM is not recommended to use.

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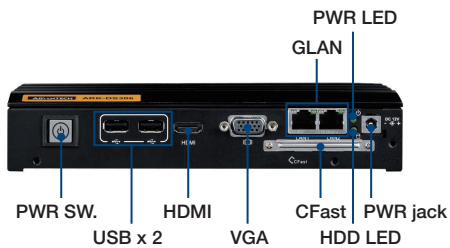**ADVANTECH** **Digital Signage Platforms**

All product specifications are subject to change without notice.

# Dimensions

Unit: mm [inch]

216.50 [8.52]
210.50 [8.29]
204.00 [8.03]

11.10 [0.44]

38.00 [1.50]
43.00 [1.69]
33.00 [1.30]

Ø3.50 [Ø0.14]

Ø7.00 [Ø0.28]

R1.75 [R0.07]

ADVANTECH ARK-DS306

66.00 [2.60]
76.00 [2.99]
86.00 [3.39]
98.20 [3.87]

118.20 [4.65]

204.00 [8.03]

47.40 [1.87]
44.20 [1.74]

# ARK-DS306 External I/O

**Front**

PWR LED
GLAN

PWR SW.
USB x 2
HDMI
VGA
CFast
HDD LED
PWR jack

**Back**

COM x 2
Mic. in
Line in
Line out

## Packing List

| Part Number | Description |
| --- | --- |
| - | 1 x ARK-DS306 Unit |
| - | 1 x Driver/Utility CD/Manual |
| - | 1 x User Manual (Simplified Chinese) |
| - | 1 x 12V Power Adapter |
| - | 1 x China RoHS |
| - | 1 x Mounting plate set |

## Ordering Information

| Part Number | Description |
| --- | --- |
| ARK-DS306B-D0A1E | ARK-DS306 Barebone |
| ARK-DS306F-D0A1E | ARK-DS306, AMD T40N, 2G RAM, 500G HDD |

## Power Cord

| Part Number | Description |
| --- | --- |
| 1700001524 | 3-pin power cord (US) |
| 170203183C | 3-pin power cord (EU) |
| 170203180A | 3-pin power cord (UK) |
| 1700008921 | 3-pin power cord with PSE (Japan) |
| 1700019146 | 3-pin power cord (CCC) |

## Embedded OS

| Part Number | Description |
| --- | --- |
| 2070010844 | XPE WES2009 V4.0 Multi-24 |
| 2070011381 | WES7E, 32-bit, EN/JP/TC/SC |
| 2070012523 | WES7P, 32-bit, EN/JP/TC/SC |
| 2070012483 | WE8S, 32-bit, EN/JP/TC/SC |

## Accessories

| Part Number | Description |
| --- | --- |
| AMO-WIFI06E | Wi-Fi 802.11 b/g/n Mini-PCIe module (w/ antenna) |
| AMO-HSDPA02E | 3.75G HSDPA Mini-PCIe module |
| AMK-V001E | VESA mount kit |
| AMK-V002E | VESA mount kit for ARM |
| AMK-V005E | VESA mount kit (Generic for ARK-DS/DS products) |