# ARK-11

## Intel Celeron N3350 DC SoC with 4K Dual HDMI/Dual LAN/M.2 DIN-Rail Fanless Box PC

## Features

- Intel Celeron N3350 Dual Core 1.1 GHz
- DIN-Rail system with essential I/O ports on front-side bezel
- I-Grade 4G DDR3L memory and 64G SSD built-in
- Windows 10 IoT Enterprise built-in
- 60W adaptor bundled in the accessory box
- Dual HDMI display up to 4K resolution
- 1 x full-size mPCIe with SIM holder and 1 x M.2 2230 for WIFI #1
- 12V ~ 28V wide range power input
- -30 ~ 70 °C extended operating temperature
- Advantech WISE-DeviceOn support

Windows Embedded **WISE-DeviceOn SUSI API**

## Specifications

| Model Name | | ARK-11-S1A3 |
|---|---|---|
| Processor System | CPU | Intel Celeron N3350 Dual Core SoC |
| | Frequency | 1.1 GHz, turbo burst up to 2.4 GHz |
| | Core Number | 2 |
| | BIOS | AMI EFI 64 Mbit |
| Memory | Technology | DDR3L 1866 Mhz |
| | Max capacity | 8GB, 1 x 4GB memory (-40 ~ 85 °C) built-in |
| | Socket | 2 x 204-pin SO-DIMM |
| Graphics | Chipset | Intel HD Graphics 500, CPU integrated |
| | Graphic Engine | Gen9 Low Power; 18 Execution Units Media Codec Supported: H.264, MPEG2, MVC, VC-1, WMV9, H.265 / HEVC, VP8, JPEG / MJPEG<br>3D HW Acceleration: OpenGL 4.4, DirectX* 12, OpenCL* 2.0 |
| | HDMI | HDMI1 : 3840 x 2160 @ 30Hz<br>HDMI2 : 3840 x 2160 @ 30Hz |
| | Dual Display | HDMI1 + HDMI2 |
| Ethernet | LAN1 | 10/100/1000 Mbps Intel i210GbE, support Wake On LAN |
| | LAN2 | 10/100/1000 Mbps Intel i210GbE, support Wake On LAN |
| Audio | Interface | Realtek ALC888S, High Defination Audio, Mic-in, Line-out |
| I/O Interface | Seriel Ports | 2 x RS-232/422/485 with auto flow control, COM2 with 5V/12V power supply |
| | USB Ports | 4 x USB 3.0 |
| | GPIO | 8-bit Programmable DIO (Optional) |
| Expansion | Mini PCIe | 1 x Full-size mPCIe with SIM holder #1 |
| | M.2 | 1 x M.2 2230 E key for WIFI module #1 |
| Storage | SSD/HDD | 1 x 2.5" 64G MLC SSD (-40~85°C) built-in |
| | mSATA | 1 x Full-size mSATA (*share with mPCIe slot) |
| Other | WatchDog Timer | 255 levels timer interval, setup by software |
| Software Support | Microsoft Windows | Windows 10 IoT Enterprise built-in |
| | Linux | Support by project |
| Power Requirement | Power Type | ATX/AT |
| | Power Input Voltage | 12 ~ 28 $V_{DC}$ |
| | Power Adaptor | AC to DC, 24V/2.5A 60W adaptor built-in |
| Power Consumption | Typical | 6.4W |
| | Max. | 18.1W |
| Mechanical | Construction | Aluminum housing |
| | Mounting | DIN-rail/Wall Mount |
| | Dimensions (W x H x D) | 53.5 x 158 x 114 mm (2.11" x 6.22" x 4.49") |
| | Weight | 1.2 kg (2.65lb) |
| Environment | Operating Temperature | With extended temp. peripherals: -30 ~ 70 °C (-22 ~ 158 °F) with 0.7 m/s air flow<br>With 2.5 inch hard disk: 0 ~ 40 °C (32 ~ 104 °F) with 0.7 m/s air flow |
| | Storage Temperature | -40 ~ 85 °C (-40 ~ 185°F) |
| | Relative Humidity | 95% @ 40 °C (non-condensing) |
| | Vibration during Operation | With SSD: 3 Grms, IEC60068-2-64, random, 5~500 Hz, 1hr/axis |
| | Shock during Operation | With SSD: 30 G, IEC-60068-2-27, half sine, 11 ms duration |
| | EMC | CE/FCC Class B, CCC, BSMI |
| | Safety | UL, CB, CCC and BSMI |

#1 SIM holder and M.2 slot are hardware interfaces for wireless communication integration only. System level RF certification is not available.

研伟科技 15323776600

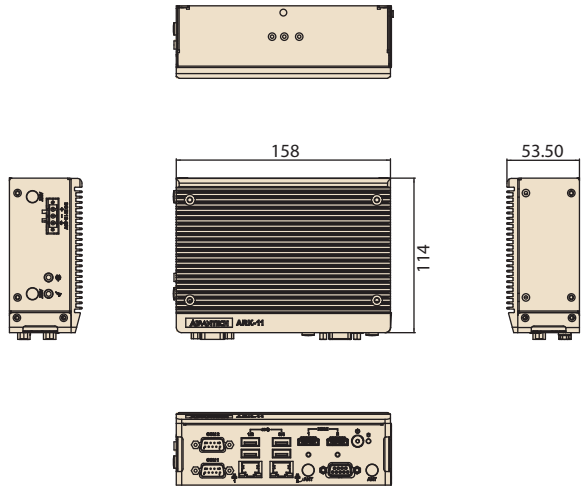


All product specifications are subject to change without notice.

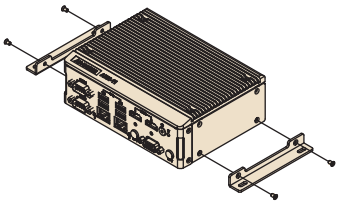
Last updated: 22-Jan-2021

## Dimensions

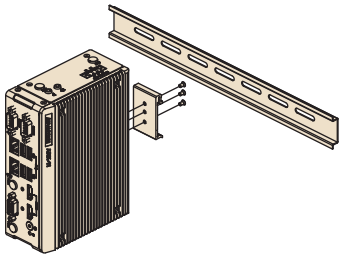
Unit: mm



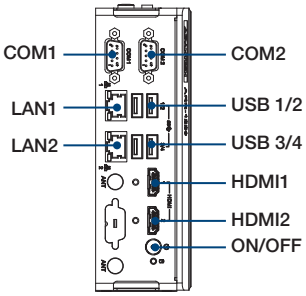

**Wall Mount**



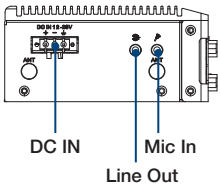
**DIN Rail**



### Front Panel External I/O Mechanical Layout/Drawing




### Top Panel External I/O Mechanical Layout/Drawing




## Ordering Information

| Part No. | CPU | RAM | HDMI | GbE | USB 3.0 | RS-232/ 422/485 | Audio | Full-size MiniPCIe | SIM | M.2 | 2.5" SATA III HDD Bay | mSATA | Power Input | Operating Temp. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ARK-11-S1A3 | Intel Celeron N3350 1.1 GHz SoC | 4GB built-in | 2 | 2 | 4 | 2 | Mic-in, Line-out | 1 | 1 | 1 | 64GB SSD built-in | 1 (shared w/ mPCIe) | 12~28 $V_{DC}$ | -30 ~ 70 °C |

## Packing List

| Part Number | Description |
|---|---|
| - | 1 x ARK-1220L Unit |
| - | 1 x User Manual (Simplified Chinese) |
| - | Wrench for top cover |
| 1960015198T011 | 1 x DIN-rail bracket |
| 1652004519 | 1 x 3-pin terminal block |
| 96PSA-A60W24T2-3 | 24V/2.5A 60W adaptor |

## Embedded OS

| Part Number | Description |
|---|---|
| 20706WX9ES0108 | Win10 IoT Ent 2019 LTSC 64bit, English (14.7GB) |

## Optional Items

| Part Number | Description |
|---|---|
| 1702002600 | Power cable 3-pin 183cm, USA type |
| 1702002605 | Power cable 3-pin 183cm, EU type |
| 1702031801 | Power cable 3-pin 183cm, UK type |
| 1700000237 | Power cable 3-pin 183cm, PSE type |
| 1700023855-01 | 1M lockable HDMI cable |
| 1700023856-01 | 3M lockable HDMI cable |
| 1700019967 | GPIO cable, F Cable 2*5P-2.0/D-SUB 9P(F) 15CM |
| AMK-W003 | ARK-1220L wall mount kit |