



athena A1 Kit

AIoT Kit



KEY FEATURES

- Intel® Apollo Lake J3455 Processor
- 1 x IP camera (2MP, 1080P@30fps, H.264)
- 1 x Movidius Myriad X (Optional)
- Supports LPDDR4 2400MHz 4GB, up to 8GB
- 2 x USB 3.1 Gen1, 1 x M.2 Key B, 1 x M.2 Key E
- 1 x Realtek 1 Gigabit LAN
- 1 x micro-HDMI 1.4b
- 1 x micro SD card slot
- 1 x 32GB EMMC
- 1 x SIM socket
- 1 x DMIC (Optional)
- TPM 2.0 onboard IC
- 12V DC-In / PoE (PD) with 25.5W

SPECIFICATIONS

Form Factor

Dimensions	6.5-in x 3.8-in
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Processor System

CPU	Intel® Atom Apollo Lake J3455 processor
Chipset	SoC
Socket	N/A
BIOS	AMI SPI 128 Mbit

Memory

Technology	Onboard LPDDR4 2400 MHz
Capacity	4 GB, up to 8GB
Socket	N/A

Graphics

Controller	SoC integrated graphics
HDMI	micro-HDMI 1.4b Max resolution up to 3840x2160@30Hz
DisplayPort	N/A
VGA	N/A
LVDS	N/A
eDP	N/A
DVI	N/A
MultiDisplay	N/A

Expansion Slot

PCIe	N/A
PCI	N/A
mini-PCIe	N/A
M.2	1 x M.2 (Key E, 2230) with PCIe x1 and USB 2.0 for Wireless
SIM Socket	1 x micro SIM Socket connected to M.2 Key B 3042

Audio

Interface	N/A
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Ethernet

Controller/ Speed	LAN: 1 x Realtek® RTL8111G with 10/100/1000 Mbps (PoE (PD) with 25.5W)
Connector	1 x RJ-45

Rear I/O

HDMI	1 x micro-HDMI 1.4b
DisplayPort	N/A
VGA	N/A
DVI	N/A
Ethernet	1 x 1 Gigabit LAN, PoE (PD) with 25.5W
USB	1 x USB 3.1 (Gen1)
Audio	N/A
COM	N/A
PS2	N/A
others	1 x Micro SD connector

Internal Connector

USB	1 x USB 2.0 header 1 x USB 3.1 (Gen 1) Connector for Movidius module
COM	N/A
Parallel	N/A
GPIO	N/A
TPM	TPM 2.0 onboard IC
LVDS	N/A
eDP	N/A
VGA	N/A
SATA PWR Output	N/A
Speaker Header	N/A
IPCAM interface	LAN signal 1x6 header Power 1x2 header

Storage

M.2	1 x M.2 (Key B, 3042) with PCIe x1 and shared SATA3 for SSD, and USB 3.0, USB 2.0
mSATA	N/A
SATA	N/A
eMMC	Onboard eMMC 32GB

Watchdog Timer

Output	From Super I/O to drag RESETCON#
Interval	256 Segments, 0, 1, 2, ...255sec

Power Requirements

Input PWR	12V DC-In (DC Jack) PoE (PD) with 25.5W (LAN Port)
Power On	AT/ATX Supported - AT : Directly PWR on as power input ready - ATX : Press button to PWR on after power input ready

Environment

Operating Temp	0°C ~ 50°C
Storage Temp	-40° C ~ 85° C
Operating Humidity	10% ~ 90%
Storage Humidity	10% ~ 90%

Others

IP camera	2MP, 1080P @30fps, H.264
Movidius	1 x USB Type A Myriad X (Optional)
Mic-in	1 x DMIC (Optional)
Adapter	1 x AC-in 100~240V, DC-out 12V
OS Support	Linux Ubuntu 16.04
Accessories	1 x USB 2.0 Extension Cable 1 x micro-HDMI Converter Cable 1 x Heatsink Fan 8 x Standoffs