

# SOM-P101 / SOM-P102

Pico-ITX Motherboard



## KEY FEATURES

- Intel® Apollo Lake SoC Processor
- 1 x 204-pin SO-DIMM up to 8GB DDR3L 1866 MHz
- 1 x USB 3.1 Gen1, 2 x USB 2.0, 1 x M.2 Key E, 2 x COM, 1 x mSATA/mini-PCIe, 1 x SATA3
- 1 x MIO slot (SOM-P101)
- 1 x Intel 1 Gigabit LAN
- Supports dual display, 1 x HDMI 1.4b, 1 x LVDS
- 12V DC-In

## SPECIFICATIONS

Form Factor	SOM-P101	SOM-P102
Dimensions	PICO-ITX (3.9-in x 2.8-in)	

### Processor System

CPU	SOM-P101	SOM-P102
	Intel® Apollo Lake SoC Processor SOM-P101J (J3455, QC, 1.5 GHz, 10 W) SOM-P101D (N4200, QC, 1.1 GHz, 6 W) SOM-P101L (N3350, DC, 1.1 GHz, 6 W)	Intel® Apollo Lake SoC Processor SOM-P102J (J3455, QC, 1.5 GHz, 10 W) SOM-P102D (N4200, QC, 1.1 GHz, 6 W) SOM-P102L (N3350, DC, 1.1 GHz, 6 W)
Chipset	SoC	
Socket	FCBGA1296	
BIOS	AMI SPI 128 Mbit	

### Memory

Technology	Dual Channel DDR3L 1866 MHz
Capacity	8 GB
Socket	1 x 204-pin SO-DIMM

### Graphics

Controller	Intel® Gen9 Graphics DX 12
HDMI	HDMI 1.4b Max resolution up to 4096 x 2160@24Hz
DisplayPort	N/A
VGA	N/A
LVDS	Dual channel 24 bit up to 1920x1200@60Hz
eDP	N/A
DVI	N/A
MultiDisplay	Dual Display

### Expansion Slot

PCIe	N/A
PCI	N/A
mSATA/mini-PCIe	1
M.2	1 x Key E (2230) with PCIe x1 and shared USB 2.0 for Wireless
MIO	1, (HDMI or DP, 1 x USB3.0, 1 x USB2.0, 3 x PCIe x1, Line out, LPC bus, SMBus)

### Audio

Interface	Realtek ALC887, High Definition Audio. Line-out, Mic-in
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### Ethernet

Controller/ Speed	1 x Intel® I210IT with 10/100/1000 Mbps	1 x Intel® I210AT with 10/100/1000 Mbps
Connector	1 x RJ-45	

Rear I/O	SOM-P101	SOM-P102
HDMI	1 x HDMI 1.4b	
DisplayPort	N/A	
VGA	N/A	
DVI	N/A	
Ethernet	1 x 1 Gigabit LAN	
USB	1 x USB 3.1 Gen1	
Audio	N/A	
COM	N/A	
PS2	N/A	

### Internal Connector

USB	1 x USB 2.0 (2 x 2.54 pitch header)
COM	1 x COM1 (RS-232/422/485), 1 x COM2 (RS232)
Parallel	N/A
GPIO	4 x GPI + 4 x GPO
TPM	N/A
LVDS	1
eDP	0
VGA	N/A
SATA PWR Output	1
Speaker Header	1

### Storage

M.2	N/A
mSATA	1 x Full size with SATA3 and USB 2.0
SATA	1 x SATA3 (6Gb/s)
eMMC	N/A

### Watchdog Timer

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

### Power Requirements

Input PWR	12V DC-In
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 ~ 60°C
Storage Temp	-40° C ~ 85° C
Operating Humidity	5% ~ 90%
Storage Humidity	5% ~ 90%

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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