

Preliminary

SOM-P101



Spotlight Features

- BGA1296 for Intel® Apollo Lake SoC
 - SOM-P101D (N4200)
 - SOM-P101L (N3350)
- Intel® HD Graphics 505
- Supports Single Channel DDR3L 1333/1600/1867 MHz, 1 x SO-DIMM, up to 8GB system memory
- 1 x HDMI
- 1 x USB 3.0 compatible with USB 2.0 , 1 x SATA3
- 1 x MIOe , 1 x Mini PCIe and mSATA combo
- 1 x M.2(Key E)
- Gigabit LAN : 1 x Intel LAN
- 12V DC-in

Specifications

Processor System

| | |
|-------------|------------------------------------|
| Dimension | PICO-ITX (3.9-in x 2.8-in) |
| CPU | BGA1296 for Intel® Apollo Lake SoC |
| Core Number | (By CPU, Max 4) |
| Max Speed | (By CPU) |
| L2 Cache | (By CPU) |
| Chipset | (By CPU) |
| BIOS | UEFI |

Expansion Slot

| | |
|-----------|---|
| MIOe | HDMI or DP, 2 x USB3.0, 1 x USB2.0, 3 x PCIe x1, Line out, LPC bus, SMBus |
| Mini PCIe | 1 (combo with mSATA, full size, Mini PCIe mode supports PCIe x1 and USB device) |
| M.2 | 1 x M.2 Slot (Key E), supports type 2230 for WiFi + BT Module |
| mSATA | 1 (combo with Mini PCIe, full size, mSATA mode supports SATA and USB device) |

Memory

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|------------|--------------------------|
| Technology | DDR3L 1333/1600/1867 MHz |
| Max. | 8GB |
| Socket | 1 x SO-DIMM |

Graphics

| | |
|---------------|--|
| Controller | Intel® HD Graphics 505 |
| VRAM | Shared Memory |
| VGA | No |
| LVDS | Supports max resolution up to 1920 x 1200@60Hz |
| eDP | No |
| HDMI | Supports max resolution up to 4096 x 2160@30Hz |
| DVI | No |
| DisplayPort | No |
| Multi Display | Yes (Dual Display ,LVDS + HDMI) |

Ethernet

| | |
|------------|------------------|
| Interface | 10/100/1000 Mbps |
| Controller | 1 x Intel I210T |
| Connector | 1 x RJ45 |

SATA

| | |
|------------------------|-----------------|
| Max Data Transfer Rate | SATA3 (6.0Gb/s) |
|------------------------|-----------------|

Rear I/O

| | |
|-------------|-------------------------------------|
| VGA | 0 |
| DVI | 0 |
| HDMI | 1 |
| DisplayPort | 0 |
| Ethernet | 1 |
| USB | 1 x USB 3.0 compatible with USB 2.0 |
| Audio | 0 |
| Serial | 0 |
| PS/2 | 0 |

Internal Connector

| | |
|---------------------|---|
| USB | 2 x USB 2.0 (1 x 2.00 pitch header) |
| LVDS/inverter | 1/1 |
| eDP | 0 |
| VGA | 0 |
| Serial | 2 x COM (COM1 supports RS-232/422/485 , COM2 supports RS232 only) |
| SATA | 1 |
| mPCIe | 1 (combo with mSATA) |
| Parallel | 0 |
| mSATA | 1 (combo with mPCIe) |
| IrDA | 0 |
| GPIO | 4GPI + 4GPO |
| SATA PWR Output Con | 1 |
| Speaker Header | 1 |

Watchdog Timer

| | |
|----------|----------------------------------|
| Output | From Super I/O to drag RESETCON# |
| Interval | 256 segments, 0,1,2...255sec/min |

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 Temperature | 0°C – 60°C |
|-----------------------|------------|