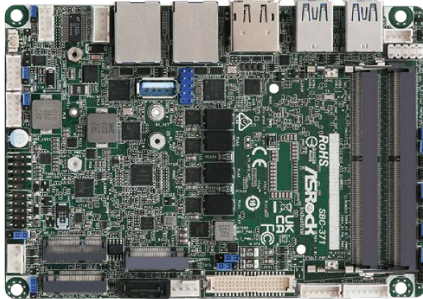


# SBC-371

3.5" SBC Motherboard



## KEY FEATURES

- Intel® 13th Gen Raptor Lake-P Processors
- 2 x 260-pin SO-DIMM DDR4 3200 MHz, up to 64 GB (32GB per DIMM)
- 1 x PCIe x1 (Gen3), 2 x USB 3.2 Gen2x2, 3 x USB 3.2 Gen2, 2 x USB 2.0, 1 x M.2 Key M, 1 x M.2 Key E, 1 x M.2 Key B, 3 x COM, 1 x SATA3
- 2 x Intel 2.5 Gigabit LAN
- Supports Quad display, 1 x HDMI 2.0b, 3 x DP 1.4a (2 from Type-C), 1 x LVDS or eDP
- TPM 2.0 onboard IC
- Supports Intel® vPro (SBC-371P/SBC-371M), VMD RAID 0/1
- 12~36V DC-In PWR/ 12V DC-In only (BOM option)

## SPECIFICATIONS

### Form Factor

|            |                                                                 |
|------------|-----------------------------------------------------------------|
| Dimensions | 3.5" SBC (5.8-in x 4-in x 0.94-in, 14.7 cm x 10.2 cm x 2.40 cm) |
|------------|-----------------------------------------------------------------|

### Processor System

|      |                                                                                                                                               |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| CPU  | Intel® 13th Gen (Raptor Lake-P) Core™ Processors<br>SBC-371P (i7-1365UE, 2P+8E)<br>SBC-371M (i5-1335UE, 2P+8E)<br>SBC-371V (i3-1315UE, 2P+4E) |
| BIOS | AMI SPI 256 Mbit                                                                                                                              |

### Memory

|            |                            |
|------------|----------------------------|
| Technology | Dual Channel DDR4 3200 MHz |
| Capacity   | 64GB (32GB per DIMM)       |
| Socket     | 2 x 260-pin SO-DIMM        |

### Graphics

|              |                                                                           |
|--------------|---------------------------------------------------------------------------|
| Controller   | Intel® Iris® Xe Graphics                                                  |
| HDMI         | HDMI 2.0b<br>Max resolution up to 4096 x 2160@60Hz                        |
| DisplayPort  | DP 1.4a<br>Max resolution up to 4096 x 2160@60Hz                          |
| LVDS         | Dual channel 24 bit up to 1920 x 1200@60Hz<br>(Connector shared with eDP) |
| eDP          | Max resolution up to 1920 x 1080@60Hz<br>(Connector shared with LVDS)     |
| MultiDisplay | Quad display (Included 2 output from Type-C)                              |

### Expansion Slot

|            |                                                                                                                                                                           |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PCIe       | 1 x PCIe x1 Gen3 (supports up to 10W)                                                                                                                                     |
| M.2        | 1 x M.2 (Key E, 2230) with PCIe Gen3 x1, USB 2.0 and CNVi for Wireless<br>1 x M.2 (Key B, 3042/3052) with PCIe Gen3 x1 or SATA3 and USB 3.2 and USB 2.0 and SIM for 4G/5G |
| SIM Socket | 1 x SIM socket connected to M.2 key B                                                                                                                                     |

### Audio

|           |                                                            |
|-----------|------------------------------------------------------------|
| Interface | Realtek ALC256 HD, High Definition Audio. Line-out, Mic-in |
|-----------|------------------------------------------------------------|

### Ethernet

|                   |                                                                                                                                                                                                                                                    |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Controller/ Speed | SBC-371P/SBC-371M<br>LAN1: Intel® I226LM with 10/100/1000/2500 Mbps, supports vPro<br>LAN2: Intel® I226V with 10/100/1000/2500 Mbps<br>SBC-371V<br>LAN1: Intel® I226LM with 10/100/1000/2500 Mbps<br>LAN2: Intel® I226V with 10/100/1000/2500 Mbps |
| Connector         | 2 x RJ-45                                                                                                                                                                                                                                          |

### Rear I/O

|             |                                                                                        |
|-------------|----------------------------------------------------------------------------------------|
| HDMI        | 1 x HDMI 2.0b                                                                          |
| DisplayPort | 1 x DP 1.4a                                                                            |
| Ethernet    | 2 x 2.5 Gigabit LAN                                                                    |
| USB         | 2 x USB 3.2 Gen2<br>2 x USB 3.2 Gen2x2 (Type-C, 5V/3A, support DP 1.4a display output) |

### Internal Connector

|                 |                                                       |
|-----------------|-------------------------------------------------------|
| USB             | 1 x USB 3.2 Gen2<br>2 x USB 2.0 (1x2.54 pitch header) |
| COM             | COM1, COM3, COM4 (RS-232/422/485)                     |
| GPIO            | 4 x GPI, 4 x GPO                                      |
| LVDS            | 1 (Connector with LVDS/eDP signal, switch by BIOS)    |
| SATA PWR Output | 1                                                     |
| Speaker Header  | 1                                                     |

### Storage

|      |                                                                                               |
|------|-----------------------------------------------------------------------------------------------|
| M.2  | 1 x M.2 (Key M, 2242/2260/2280) with PCIe Gen4 x4 for SSD                                     |
| SATA | 1 x SATA3 (6Gb/s)                                                                             |
| RAID | Intel® VMD RAID 0/1<br>**supported by PCIe interface<br>PCIe interface: M.2 Key B + M.2 Key M |

### Security

|     |                    |
|-----|--------------------|
| TPM | TPM 2.0 onboard IC |
|-----|--------------------|

### Watchdog Timer

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

### Power Requirements

|           |                                                                                                                           |
|-----------|---------------------------------------------------------------------------------------------------------------------------|
| Input PWR | 12~36V DC-In with 4-pin wafer PWR cable<br>12V DC-In only (BOM option)                                                    |
| Power On  | AT/ATX Supported<br>- AT : Directly PWR on as power input ready<br>- ATX : Press button to PWR on after power input ready |

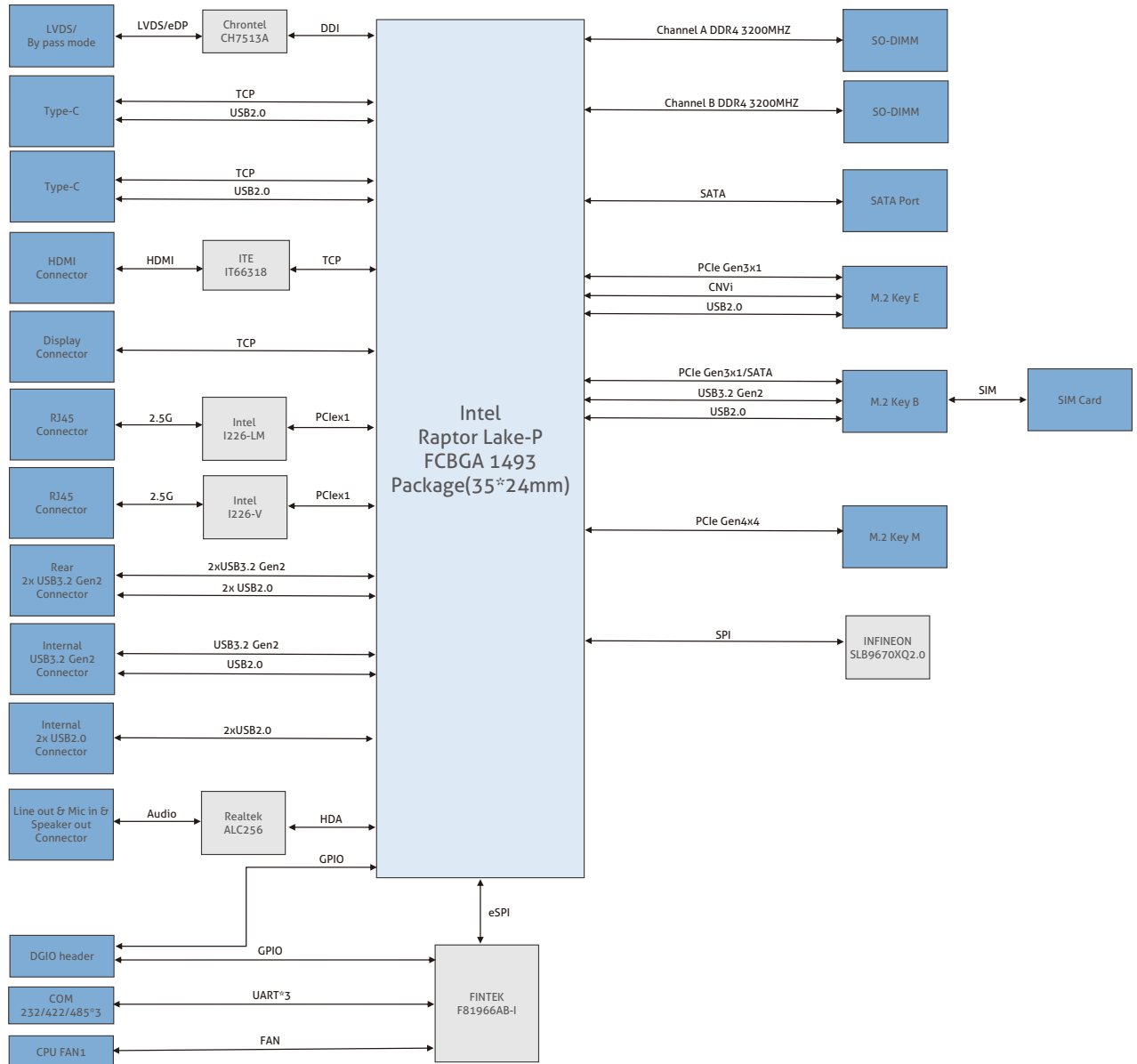
### Environment

|                    |                |
|--------------------|----------------|
| Operating Temp     | -20°C ~ 70°C   |
| Storage Temp       | -40° C ~ 85° C |
| Operating Humidity | 5% ~ 90%       |
| Storage Humidity   | 5% ~ 90%       |

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3.5" SBC Motherboard

## BLOCK DIAGRAM



## 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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