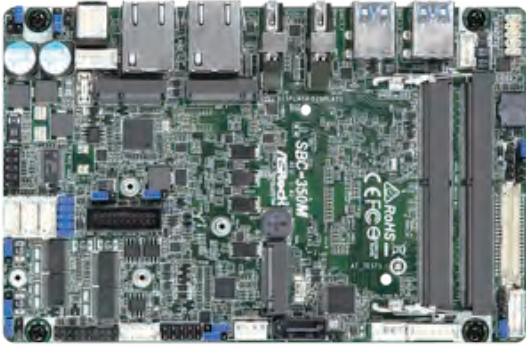


# SBC-350

## 3.5" SBC Motherboard



### KEY FEATURES

- Intel® 8<sup>th</sup> Gen (Whiskey lake-U) Core™ Processors
- 2 x 260-pin SO-DIMM up to 32GB DDR4 2400 MHz (16GB per DIMM)
- 4 x USB 3.2 Gen2, 2 x USB 3.2 Gen1, 2 x USB 2.0, 2 x M.2 Key M, 1 x M.2 Key E, 4 x COM, 1 x SATA3
- 2 x Intel 1 Gigabit LAN
- Supports triple display, 2 x DP1.2 ++, 1 x LVDS
- TPM 2.0 onboard IC (SBC-350P/SBC-350M)
- TPM 2.0 with Bios setting (SBC-350V/SBC-350E)
- 9~36V DC-In

### SPECIFICATIONS

#### Form Factor

|            |                            |
|------------|----------------------------|
| Dimensions | 3.5" SBC (6.3-in x 4.0-in) |
|------------|----------------------------|

#### Processor System

|         |   |
|---------|---|
| CPU     | Intel® 8 <sup>th</sup> Gen (Whiskey lake-U) Core™ Processors<br>SBC-350P (i7-8665UE, QC, 1.7 GHz, 15 W)<br>SBC-350M (i5-8365UE, QC, 1.6GHz, 15W)<br>SBC-350V (i3-8145UE, DC, 2.2GHz, 15W)<br>SBC-350E (CELERON-4305UE, DC, 2.0GHz, 15W) |
| Chipset | MCP   |
| Socket  | N/A   |
| BIOS    | AMI SPI 128 Mbit  |

#### Memory

|            |                            |
|------------|----------------------------|
| Technology | Dual Channel DDR4 2400 MHz |
| Capacity   | 32 GB (16 GB per DIMM)     |
| Socket     | 2 x 260-pin SO-DIMM        |

#### Graphics

|              |  |
|--------------|--|
| Controller   | Intel® Gen9 Graphics DX 12                                   |
| HDMI         | N/A  |
| DisplayPort  | DisplayPort 1.2, DP++<br>Max resolution up to 4096x2160@60Hz |
| VGA          | N/A  |
| LVDS         | Dual channel 24 bit up to 1920x1200@60Hz                     |
| eDP          | N/A  |
| DVI          | N/A  |
| MultiDisplay | Triple Display   |

#### Expansion Slot

|           |  |
|-----------|--|
| PCIe      | N/A  |
| PCI       | N/A  |
| mini-PCIe | N/A  |
| M.2       | 1 x Key E (2230) with PCIe x1, CNVi and USB 2.0 for Wireless |

#### Audio

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

#### Ethernet

|                   |   |
|-------------------|---|
| Controller/ Speed | SBC-350P/M<br>LAN1: 1 x Intel® I219LM with 10/100/1000 Mbps, supports AMT/vPro<br>LAN2: 1 x Intel® I210AT with 10/100/1000 Mbps<br>SBC-350V/SBC-350E<br>LAN1: 1 x Intel® I219V with 10/100/1000 Mbps<br>LAN2: 1 x Intel® I210AT with 10/100/1000 Mbps |
| Connector         | 2 x RJ-45   |

#### Rear I/O

|             |                    |
|-------------|--------------------|
| HDMI        | N/A                |
| DisplayPort | 2 x DP1.2 ++       |
| VGA         | N/A                |
| DVI         | N/A                |
| Ethernet    | 2 x 1 Gigabit LAN  |
| USB         | 4 x USB 3.2 (Gen2) |
| Audio       | N/A                |
| COM         | N/A                |
| PS2         | N/A                |

#### Internal Connector

|                 |   |
|-----------------|---|
| USB             | 2 x USB 3.2 Gen1 (1 x USB 3.2 Gen1 header)<br>2 x USB 2.0 (1 x 2.54 pitch header)       |
| COM             | 1 x COM (RS232/422/485), 3 x COM (RS232)  |
| Parallel        | N/A   |
| GPIO            | 4 x GPI, 4 x GPO  |
| TPM             | TPM 2.0 onboard IC (SBC-350P/SBC-350M)<br>TPM 2.0 with Bios setting (SBC-350V/SBC-350E) |
| LVDS            | 1   |
| eDP             | N/A   |
| VGA             | N/A   |
| Audio           | 2 (Mic-in, Line-out)  |
| SATA PWR Output | 1   |
| Speaker Header  | 1   |

#### Storage

|       |   |
|-------|---|
| M.2   | 1 x Key M (2242/2280) with PCIe x4 and SATA3 for SSD<br>1 x Key M (2242) with SATA3 for SSD |
| mSATA | N/A   |
| SATA  | 1 x SATA3 (6Gb/s), SATA3_1 shared with M.2_Key M  |
| eMMC  | N/A   |

#### Watchdog Timer

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

#### Power Requirements

|           |   |
|-----------|---|
| Input PWR | 9~36V DC-In (DC Jack)   |
| 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     | 0°C ~ 60°C     |
| Storage Temp       | -40° C ~ 85° C |
| Operating Humidity | 5% ~ 90%       |
| Storage Humidity   | 5% ~ 90%       |