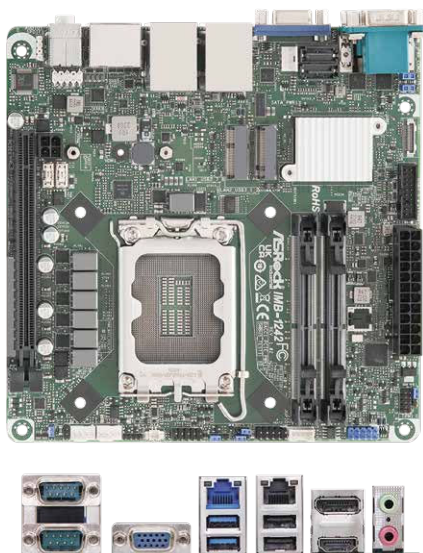




### KEY FEATURES

- Intel® 14th/13th/12th Gen (Raptor Lake-S Refresh/Raptor Lake-S/Alder Lake-S) Core™ Processors with H610 chipset
- 2 x 260-pin SO-DIMM DDR4 3200 MHz , up to 64GB (32GB per DIMM)
- 1 x PCIe x16 (Gen4), 2 x USB 3.2 Gen2, 2 x USB 3.2 Gen1, 4 x USB 2.0, 1 x M.2 Key E, 1 x M.2 Key M, 2 x COM, 2 x SATA3
- 1 x Intel Gigabit LAN, 1 x Realtek 2.5 Gigabit LAN
- Supports Triple display, 1 x HDMI 2.0b, 1 x DP 1.4a, 1 x VGA
- ATX-PWR (24+4-pin) and 12V DC-In co-design

### SPECIFICATIONS

#### Form Factor

|                   |                                                                 |
|-------------------|-----------------------------------------------------------------|
| Dimensions(LxWxH) | Mini-ITX (6.7-in x 6.7-in x 1.4-in, 17.0 cm x 17.0 cm x 3.6 cm) |
|-------------------|-----------------------------------------------------------------|

#### Processor System

|         |                                                                                                          |
|---------|----------------------------------------------------------------------------------------------------------|
| CPU     | Intel® 14th/13th/12th Gen (Raptor Lake-S Refresh/Raptor Lake-S/Alder Lake-S) Core™ Processors, up to 65W |
| Chipset | Intel® H610                                                                                              |
| Socket  | LGA1700                                                                                                  |
| BIOS    | AMI SPI 256 Mbit                                                                                         |

#### Memory

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

#### Graphics

|              |                                                               |
|--------------|---------------------------------------------------------------|
| Controller   | Intel® UHD Graphics                                           |
| HDMI         | HDMI 2.0b<br>Max resolution up to 4096x2160@60Hz              |
| DisplayPort  | DisplayPort 1.4a, DP++<br>Max resolution up to 4096x2160@60Hz |
| VGA          | Max resolution up to 1920x1200@60Hz                           |
| MultiDisplay | Triple Display                                                |

#### Expansion Slot

|      |                                                                   |
|------|-------------------------------------------------------------------|
| PCIe | 1 x PCIe x16 (Gen4)                                               |
| M.2  | 1 x M.2 (Key E, 2230) with PCIe x1, USB 2.0 and CNVi for Wireless |

#### Audio

|           |                                                                |
|-----------|----------------------------------------------------------------|
| Interface | Realtek ALC662/ALC897, High Definition Audio. Mic-in, Line-out |
|-----------|----------------------------------------------------------------|

#### Ethernet

|                   |                                                                                                |
|-------------------|------------------------------------------------------------------------------------------------|
| Controller/ Speed | LAN1: Intel® I219V with 10/100/1000 Mbps<br>LAN2: Realtek RTL8125BG 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 ++                           |
| VGA         | 1                                        |
| Ethernet    | 1 x 1 Gigabit LAN<br>1 x 2.5 Gigabit LAN |
| USB         | 2 x USB 3.2 Gen2, 2 x USB 2.0            |
| Audio       | 2 (Mic-in, Line-out)                     |
| COM         | COM1, COM2 (RS-232/422/485)              |

#### Internal Connector

|                 |                                                                              |
|-----------------|------------------------------------------------------------------------------|
| USB             | 2 x USB 3.2 Gen1 (1 x USB 3.2 header)<br>2 x USB 2.0 (1 x 2.54 pitch header) |
| SATA PWR Output | 1                                                                            |

#### Storage

|      |                                                                |
|------|----------------------------------------------------------------|
| M.2  | 1 x M.2 (Key M, 2260/2280) with PCIe Gen3 x4 and SATA3 for SSD |
| SATA | 2 x SATA3 (6Gb/s)                                              |

#### Security

|     |            |
|-----|------------|
| TPM | TPM Header |
|-----|------------|

#### Watchdog Timer

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

#### Power Requirements

|           |                                                                                                                           |
|-----------|---------------------------------------------------------------------------------------------------------------------------|
| Input PWR | ATX-PWR (24+4-pin) and 12V DC-In co-design                                                                                |
| 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%       |