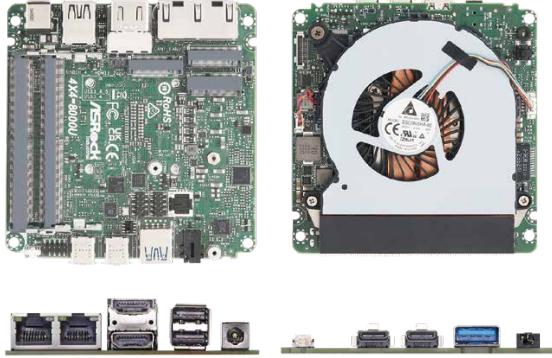


# 4X4 8040 Motherboard Series

## 4X4-8840U, 4X4-8640U

### 4X4 Motherboard

#### KEY FEATURES



- AMD Ryzen™ 8040U-Series
- 2 x 262-pin SO-DIMM DDR5 5600 MHz, up to 96GB (48GB per DIMM)
- 2 x USB4, 1 x USB 3.2 Gen2, 2 x USB 2.0, 2 x M.2 Key M, 1 x M.2 Key E
- 1 x Realtek Gigabit LAN, 1 x Realtek 2.5 Gigabit LAN
- Supports Quad display, 2 x HDMI 2.1, 2 x DP 1.4a (from Type-C)
- 12V~24V DC-In

#### SPECIFICATIONS

##### Form Factor

|            |  |
|------------|--|
| Dimensions | 4X4 (4.09-in x 4.02-in x 1.4-in, 10.4 cm x 10.2 cm x 3.6 cm) |
|------------|--|

##### Processor System

|      |   |
|------|---|
| CPU  | AMD Ryzen™ 8040U-Series<br>- AMD Ryzen™ 7 8840U (Max Speed up to 5.1GHz)<br>- AMD Ryzen™ 5 8640U (Max Speed up to 4.9GHz) |
| BIOS | AMI SPI 256 Mbit  |

##### Memory

|            |                            |
|------------|----------------------------|
| Technology | Dual Channel DDR5 5600 MHz |
| Capacity   | 96GB (48 GB per DIMM)      |
| Socket     | 2 x 262-pin SO-DIMM        |

##### Graphics

|              |   |
|--------------|---|
| Controller   | AMD Radeon™ Graphics                                    |
| HDMI         | 2 x HDMI 2.1<br>Max resolution up to 7680 x 4320@60Hz   |
| DisplayPort  | DisplayPort 1.4a<br>Max resolution up to 4096x2160@60Hz |
| MultiDisplay | Max 4 display (included 2 outputs from Type-C)          |

##### Expansion Slot

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

##### Audio

|           |                                       |
|-----------|---------------------------------------|
| Interface | Realtek ALC256, High Definition Audio |
|-----------|---------------------------------------|

##### Ethernet

|                   |  |
|-------------------|--|
| Controller/ Speed | LAN1: Realtek RTL8125BG with 10/100/1000/2500 Mbps<br>LAN2: Realtek RTL8111H with 10/100/1000 Mbps |
| Connector         | 2 x RJ-45  |

##### Front I/O

|       |   |
|-------|---|
| USB   | 1 x USB 3.2 Gen2 (Type-A)<br>2 x USB4 (Type-C, 5V/3A, supports DP1.4a display output) |
| Audio | 1 (headphone & microphone jack)   |

##### Rear I/O

|          |  |
|----------|--|
| HDMI     | 2 x HDMI 2.1                           |
| Ethernet | 1 x 1 Gigabit LAN, 1 x 2.5 Gigabit LAN |
| USB      | 2 x USB 2.0                            |
| DC Jack  | 1                                      |

##### Storage

|     |   |
|-----|---|
| M.2 | 1 x M.2 (KEY M, 2242/2280) with PCIe Gen4x4 for SSD<br>1 x M.2 (KEY M, 2242) with PCIe Gen4x4 for SSD |
|-----|---|

##### Internal Connector

|     |        |
|-----|--------|
| COM | TTL-3V |
|-----|--------|

##### Security

|     |            |
|-----|------------|
| TPM | AMD FW TPM |
|-----|------------|

##### Watchdog Timer

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

##### Power Requirements

|           |   |
|-----------|---|
| Input PWR | 12V~24V DC-In 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 - 70°C   |
| Storage Temp       | -40°C - 85°C |
| Operating Humidity | 5% - 90%     |
| Storage Humidity   | 5% - 90%     |

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