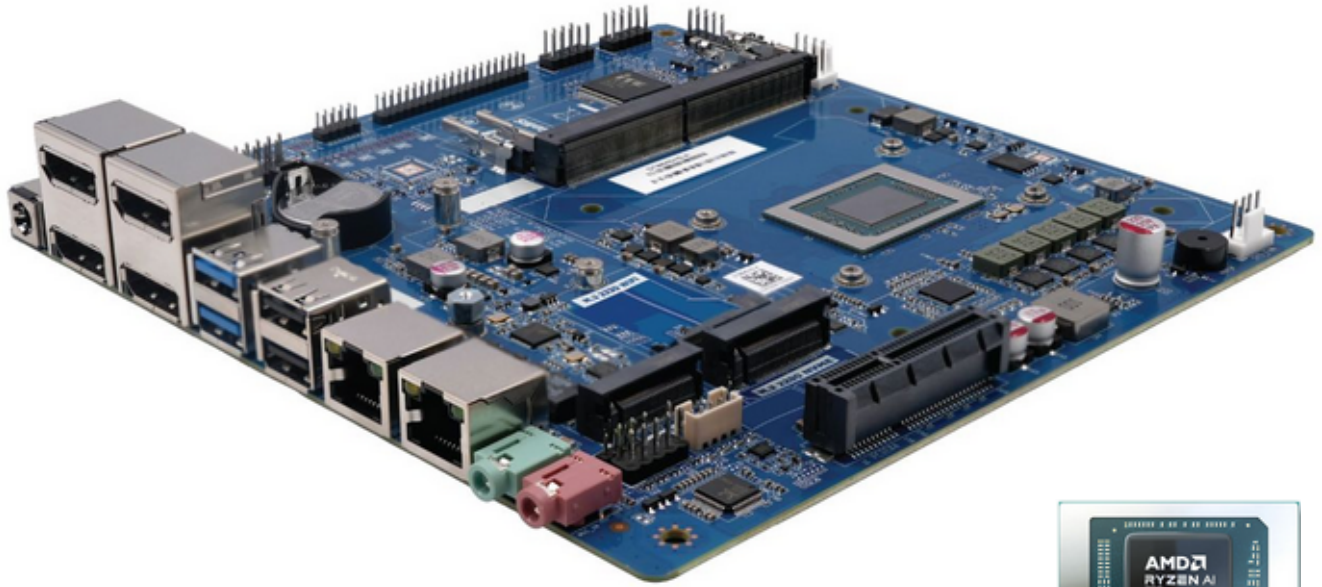




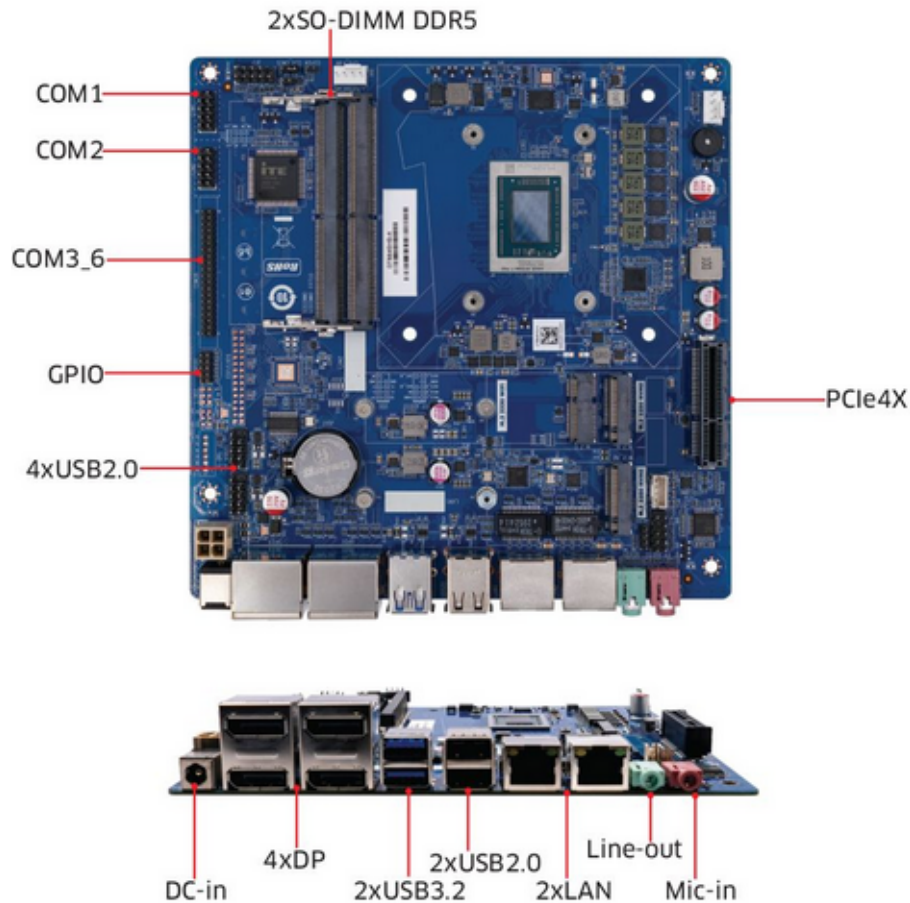
The 1ST-MITX-FP710 is an Thin Mini ITX motherboard with the AMD Ryzen™ 7 8845HS PRO on board. The board supports up to 8 cores and 16 threads, based on the advanced “Zen 4” architecture. With integrated AMD Ryzen™ AI technology and a dedicated Neural Processing Unit (NPU), it delivers powerful AI processing for enhanced productivity, creativity, and next-gen PC experiences. Designed for high performance and energy efficiency, the Mini ITX is an ideal solution for a wide range of **embedded** applications. It also offers optional TPM support for improved security with a rich set of I/O ports.

- 1x 2,5GbE RJ45 Realtek® RTL8125, 1x 1GbE RJ45 RTL8111H
- GPU: AMD Radeon™ 780M Graphics
- 2x DDR5 SO-DIMM slot for up to 96GB
- Display: 4x DP1.4 for four independent 4K displays
- 2x USB3.2, 6x USB 2.0, 6x COM, 8 bit GPIO
- Expansion: M.2 for WiFi/Bluetooth, PCIe x4
- Storage: 2x M.2 for NVMe SSD

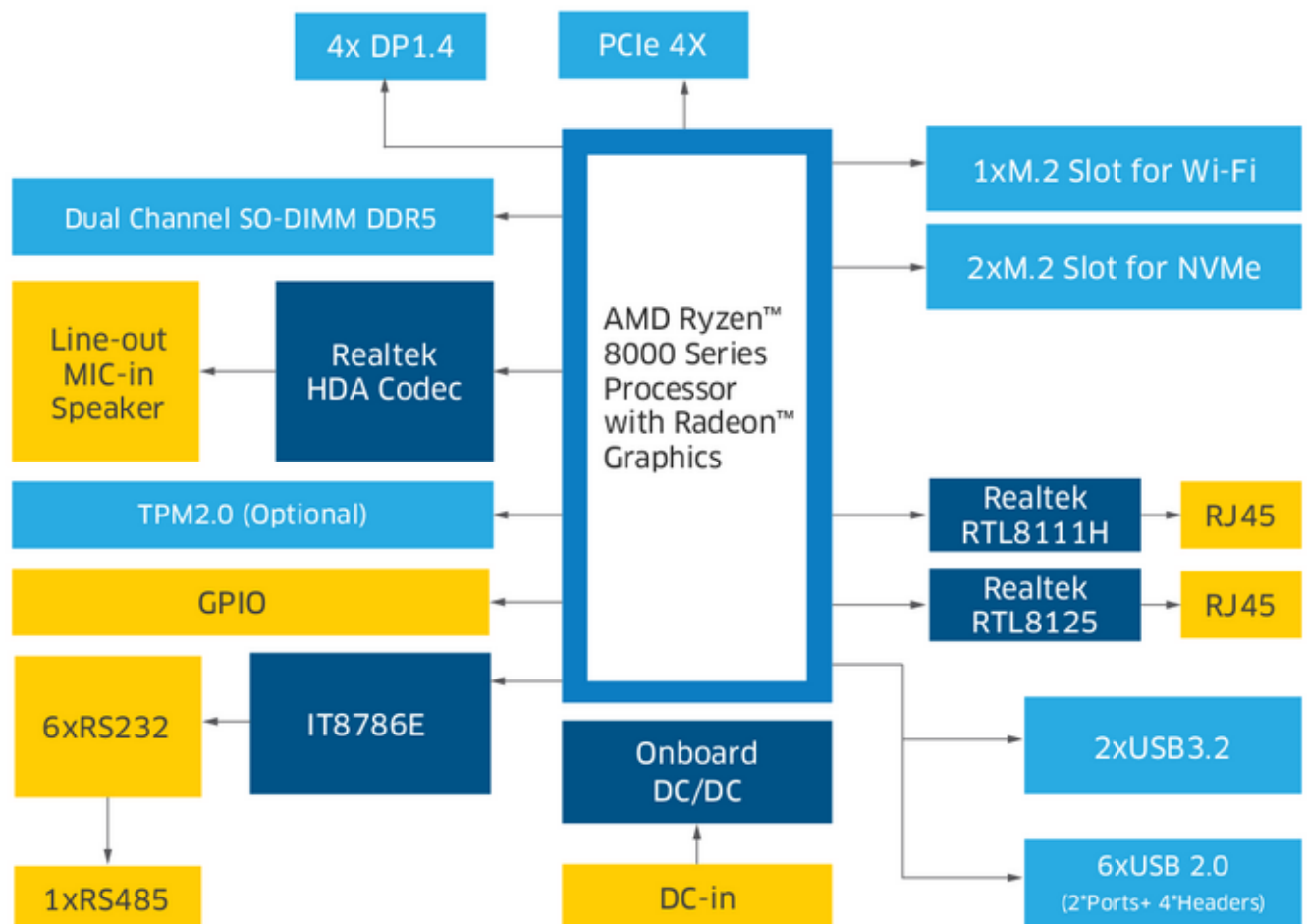
The 1ST-MITX-FP710 delivers the performance and connectivity modern industries demand for uninterrupted 24/7 operation.

### Applications

- Industry 4.0, IoT: control and testing, security and surveillance systems, energy sector
- Interactive digital signage: split display, shopping mall billboard, scoreboard
- Other Applications: POS/POI systems, smart school, electronic gaming machine, thin clients, medical imaging



### 1ST-MITX-FP710 Functional Block Diagram



|                            |                       | Items         | Descriptions                                                                                                                                                                                                   |
|----------------------------|-----------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Processor                  |                       | CPU           | AMD Ryzen™ 7 8845HS PRO (up to 5.1 GHz, 8 Cores/16T CPU, TDP 45W)                                                                                                                                              |
|                            |                       | AMD Ryzen™ AI | Available                                                                                                                                                                                                      |
|                            |                       | BIOS          | AMI SPI BIOS                                                                                                                                                                                                   |
| System Memory              |                       |               | 2x DDR5 SO-DIMM slot for up to 96GB                                                                                                                                                                            |
| GPU                        |                       |               | AMD Radeon™ 780M Graphics                                                                                                                                                                                      |
| Display                    |                       |               | 4x DP1.4 for four independent 4K displays                                                                                                                                                                      |
| Ethernet                   | Controller            |               | 1x 10/100/1000Mbps, Realtek® RTL8111H<br>1x 10/100/1000/2500Mbps, Realtek® RTL8125                                                                                                                             |
|                            | Interface             |               | 2x RJ45                                                                                                                                                                                                        |
| Audio                      |                       |               | Realtek® ALC897 High-definition Audio Codec<br>1x Line-out, 1x Mic-in, support audio header and amplifier header                                                                                               |
| Hardware Monitoring        |                       |               | CPU/System temperature, onboard DC-IN voltage, watchdog                                                                                                                                                        |
| Storage                    |                       |               | 2x M.2_N 2280 Slot for NVMe SSD                                                                                                                                                                                |
| Expansions                 |                       |               | 1x M.2_E 2230 Slot for Wi-Fi/Bluetooth<br>1x PCIe x4                                                                                                                                                           |
| I/O Interface              |                       |               | 6xRS232 (COM2 can be set as RS485 through hardware changes)<br>2x USB3.2<br>6x USB 2.0 (2x port and 4x header)<br>8bit GPIO<br>Buzz_M<br>TPM2.0 onboard, optional<br>Audio 1x Line-out , 1x Mic-in, Realtek HD |
| Power                      | Standard Input        |               | 12V/19V DC-IN Jack (Version 1: 12V / Version 2: 19V)                                                                                                                                                           |
| Mechanical & Environmental | Type                  |               | Mini ITX                                                                                                                                                                                                       |
|                            | Dimensions (LxW)      |               | 170mm x 170mm (LxW)                                                                                                                                                                                            |
|                            | Operating temperature |               | -20°C ~ 60°C non condensing                                                                                                                                                                                    |
|                            | Storage temperature   |               | -40°C ~ 80°C                                                                                                                                                                                                   |
| Supported OS               |                       |               | Windows10/11 64bit, Linux 64bit                                                                                                                                                                                |

## Ordering Information

| Part No.         | Descriptions                                               |
|------------------|------------------------------------------------------------|
| 1ST-MITX-FP710-1 | Thin Mini ITX Motherboard with 12V, NO POWER ADAPTER       |
| 1ST-MITX-FP710-2 | Thin Mini ITX Motherboard with 19V, POWER ADAPTER OPTIONAL |