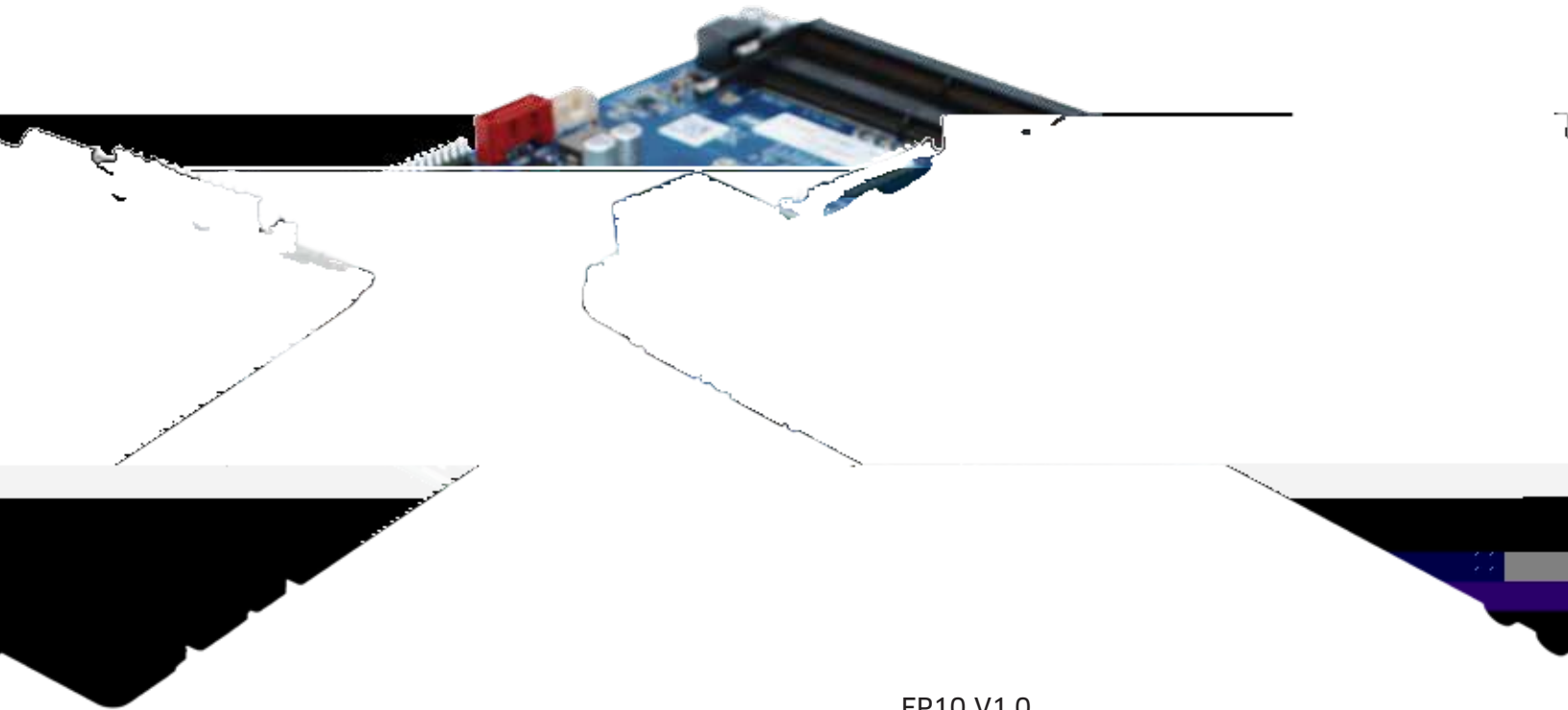


# mITX-FP10

## AMD® Ryzen™ Quad Core Processor-Based Motherboard with 4 DisplayPort



FP10 V1.0

### Features

- CPU: Ryzen™ 5 2500U and Ryzen™ Embedded V1605B
- Memory: Dual channel SO-DIMM DDR4 (max 32 GB)
- Display: Up to 4 DP displays (LVDS/eDP optional)
- Ethernet: Support dual 1GbE ethernet cards
- Storage: SATA3.0, M.2, PCIe X4, PCIe X1
- Power: 12V/19V DC input
- Security: TPM 2.0 supported (optional)



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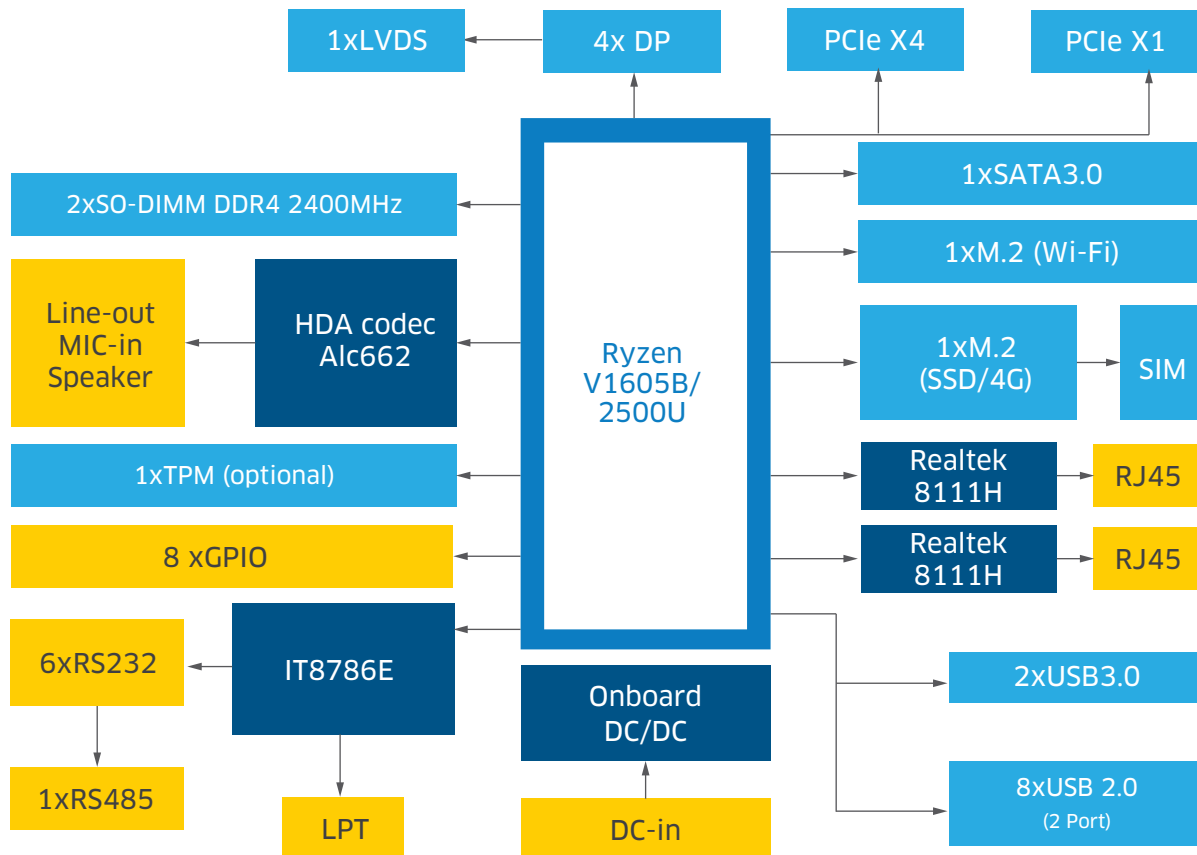
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## Technical Specifications

|                       |                  |                                                          |                   |
|-----------------------|------------------|----------------------------------------------------------|-------------------|
| Processor             | CPU              | V1605B (quad-core)                                       | 2500U (quad-core) |
|                       | Max boost clock  | 3.6 GHz                                                  | 3.6 GHz           |
|                       | Base clock       | 2.0 GHz                                                  | 2.0 GHz           |
|                       | Cache            | 2MB L2                                                   | 2MB L2            |
|                       | BIOS             | AMI 64MB SPI                                             |                   |
| Memory                | Type             | 2 x SO-DIMM DDR4                                         |                   |
|                       | Max capacity     | 32GB                                                     |                   |
| Display               | GPU              | AMD Radeon Vega 8 Graphics                               |                   |
|                       | LVDS/eDP         | 1, colay DP1.0 port (optional)                           |                   |
|                       | Display Port     | 4 x DP1.3, resolution up to 3840x2160 for single display |                   |
|                       | Multiple display | DP+DP+DP+DP/LVDS/eDP                                     |                   |
| Ethernet              | Speed            | 1 GbE                                                    |                   |
|                       | Controller       | RTL8111H                                                 |                   |
|                       | Interface        | RJ-45                                                    |                   |
| Audio                 | Audio codec      | Realtek HD ALC662 (Line-out, Mic-in)                     |                   |
|                       | Interface        | Line-out, mic-in, audio header, amplifier header         |                   |
| Hardware              |                  | CPU system temperature, onboard voltage, watchdog        |                   |
| Wireless connectivity | M.2              | 1xM.2 for Wi-Fi                                          |                   |
| Storage               | M.2              | 1xM.2 for 4G/2280 SSD                                    |                   |
|                       | SATA             | 1xSATA                                                   |                   |
| Expansion             | PCIe X1          | 1                                                        |                   |
|                       | PCIe X4          | 1                                                        |                   |
| Rear I/O              | DP               | 4 (Default)                                              |                   |
|                       | USB              | 2 x USB2.0 + 2 x USB3.0                                  |                   |
|                       | LAN              | 2                                                        |                   |
|                       | Audio            | 1 x line-out + 1 x mic-in                                |                   |
|                       | DC-in            | 1                                                        |                   |
| Internal I/O          | COM              | 6×RS232 (COM2 can be RS485, optional)                    |                   |
|                       | USB2.0           | 6×USB2.0 header                                          |                   |
|                       | I/O              | 8×GPIO                                                   |                   |
|                       | LVDS/eDP         | 1×LVDS/eDP header                                        |                   |
|                       | LPT              | 1×JLPT                                                   |                   |
|                       | PS/2             | 1×PS2_H                                                  |                   |
|                       | TPM2.0           | Onboard, optional                                        |                   |
| Dimension             | Type             | Mini ITX                                                 |                   |
|                       | Size             | 170 mm x 170 mm                                          |                   |
| Power                 | Standard port    | 12V/19V DC-in/4 PIN Power                                |                   |
| Temperature           | Operating Temp.  | -20°C–60°C                                               |                   |
|                       | Storage Temp.    | -40°C–80°C                                               |                   |
| Operating System      |                  | Windows 10 64bit, Linux 64bit                            |                   |

## Functional Block Diagram



## Applications

- Vertical markets: medical imaging, smart school, high-end gaming
- Stock trading: multi-tasking, multi-display
- Industrial controlling: factory controlling and testing, security system
- Digital signage: slip-flat display, shopping mall billboard, scoreboard