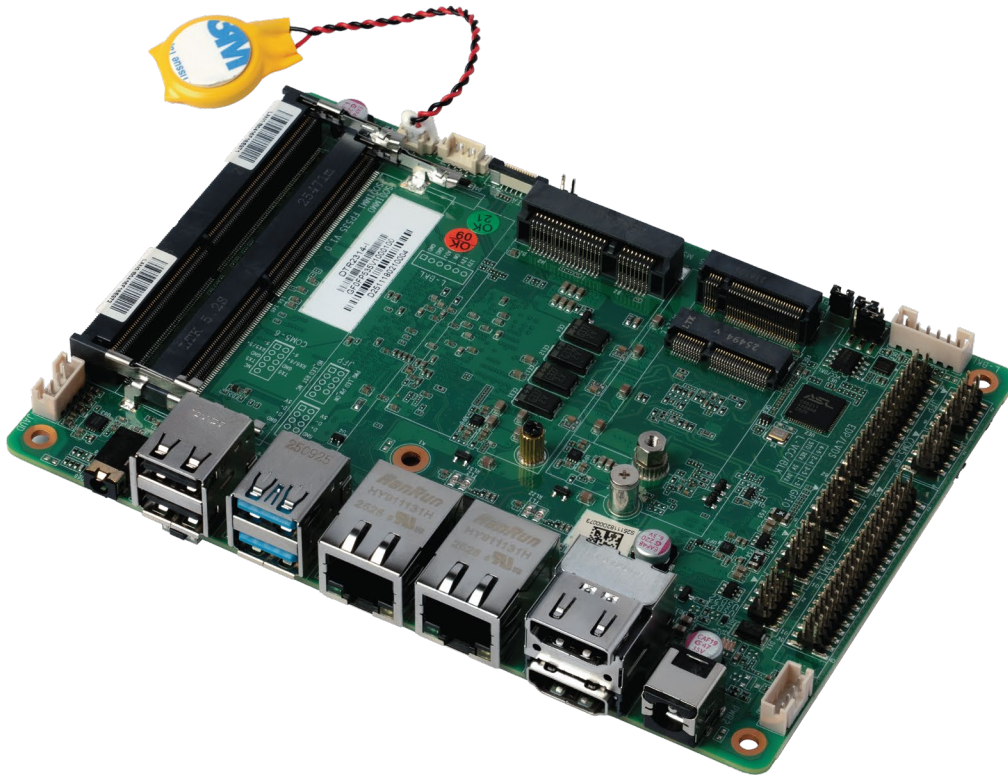


# FP535

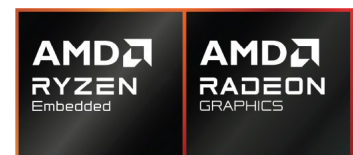
AMD Ryzen™ Embedded R2000 Series Processor  
based Single Board Computer



## Features

- CPU: AMD Ryzen™ Embedded R2000 Series Processor
- Memory: Dual Channel SO-DIMM DDR4 up to 64GB
- GPU: AMD Radeon™ Graphics, displays via 2 x HDMI, eDP/LVDs
- Ethernet: 2 x RTL8111H, 10/100/1000Mbps
- Storage: mSATA, M.2 Key B for 4G/5G/SATA SSD, SATA FPC
- Expansion: M.2 Key E for WiFi & BT
- Power: 9-35V DC-IN

**AMD**  
together we advance\_



## Introduction

The FP535 is a compact 3.5" single board computer powered by the AMD Ryzen™ Embedded R2000 Series processor, delivering 4 cores and 4 threads with clock speeds up to 3.5 GHz. With integrated AMD Radeon™ Graphics, dual HDMI 2.0, and eDP/LVDS display support, it is designed to handle multi-display digital signage, industrial control, and edge computing applications with ease. Its AMI UEFI BIOS, robust hardware monitoring, and wide operating temperature range of -20°C to 60°C ensure stability and reliability in demanding environments.

Engineered for flexibility, the FP535 supports up to 64 GB DDR4 dual-channel memory and offers versatile expansion options including mSATA, M.2 (Key E for Wi-Fi/Bluetooth, Key B for SATA SSD/4G/5G), and a SIM slot for mobile connectivity. It also integrates rich I/O with 6 COM ports, 2 Gigabit Ethernet ports (RTL8111H), 2 USB 3.2, 5 USB 2.0, and TPM 2.0 security.

With its 9-35V DC-IN wide-range power input, rugged design, and OS compatibility with Windows 10/11 and Linux 64-bit, the FP535 is an ideal solution for industrial automation, IoT, and embedded computing applications.



H/W Monitor



Watchdog



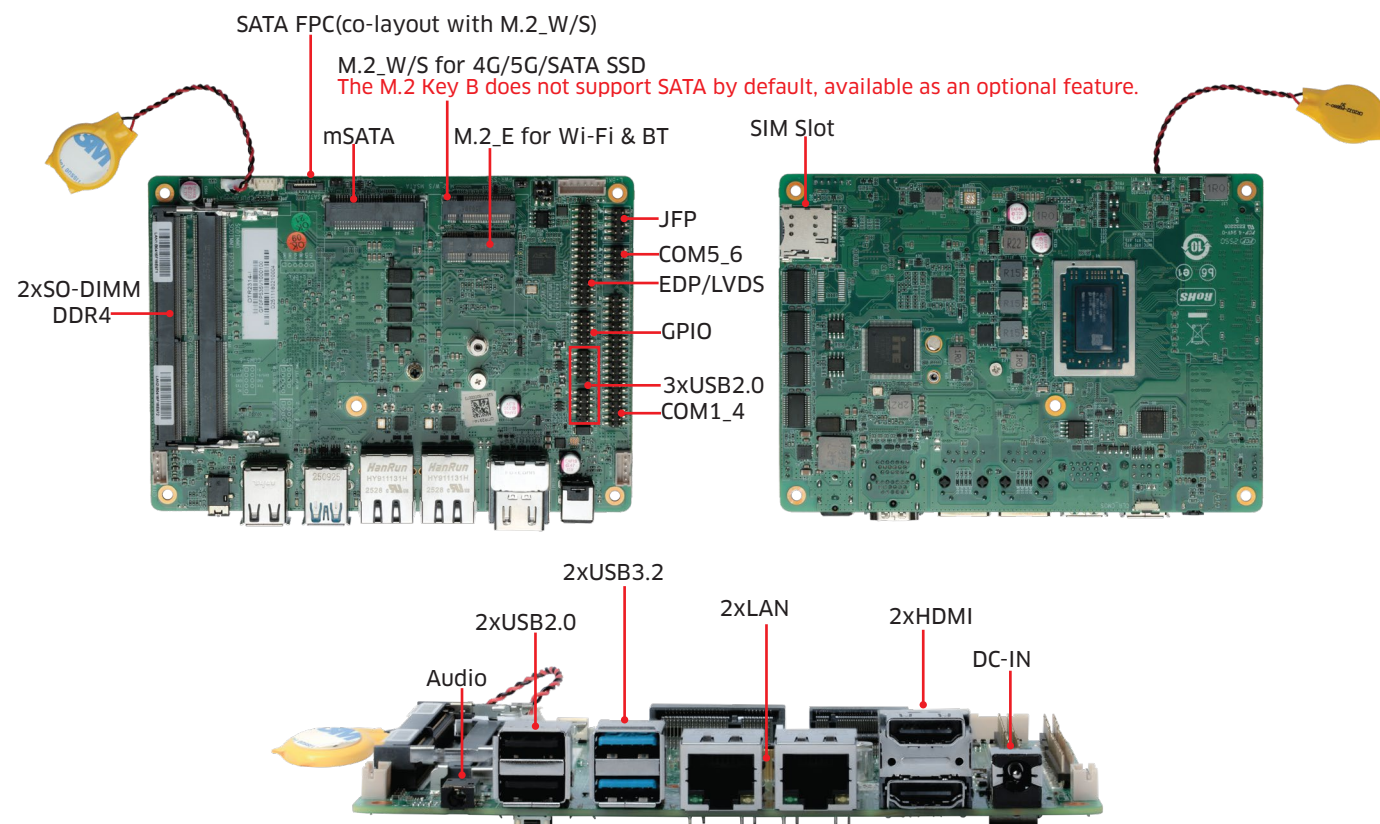
GPIO



Brightness



## I/O Interfaces

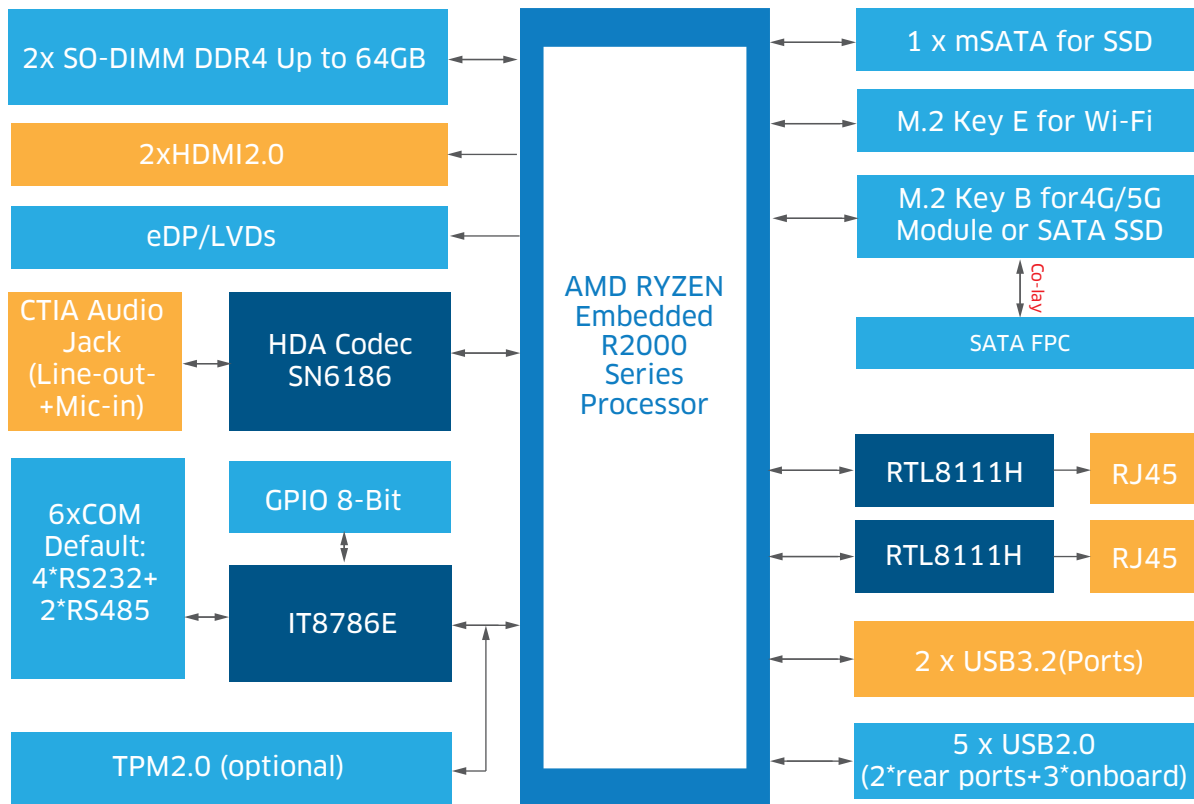


## Technical Specifications

|                     |                     |                                                                         |         |         |
|---------------------|---------------------|-------------------------------------------------------------------------|---------|---------|
| Processor           | AMD Ryzen™ Embedded | R2312                                                                   | R2314   | R2514   |
|                     | Total Cores/Threads | 2C/4T                                                                   | 4C/4T   | 4C/8T   |
|                     | Base Frequency      | 2.70GHz                                                                 | 2.10GHz | 2.10GHz |
|                     | Max Frequency       | 3.50GHz                                                                 | 3.50GHz | 3.70GHz |
|                     | Total L3 Cache      | 4MB                                                                     | 4MB     | 4MB     |
|                     | TDP                 | 15W                                                                     |         |         |
|                     | GPU                 | AMD Radeon™ Graphics                                                    |         |         |
|                     | BIOS                | AMI UEFI BIOS                                                           |         |         |
| Memory              | Type                | Dual Channel SO-DIMM DDR4                                               |         |         |
|                     | Max. Capacity       | 64GB                                                                    |         |         |
| Display             | Graphics            | Integrated Graphics depends on the CPU model, see GPUs                  |         |         |
|                     | Interfaces          | 2 x HDMI2.0, 1 x eDP/LVDs                                               |         |         |
| Ethernet            | Controller          | 2 x RTL8111H                                                            |         |         |
|                     | Speed               | 10/100/1000Mbps                                                         |         |         |
|                     | Interface           | 2 x RJ45                                                                |         |         |
| Audio               | Wake on LAN         | Yes                                                                     |         |         |
|                     | Audio Codec         | SenaryTech SN6186                                                       |         |         |
|                     | Interface           | 1 x CTIA Audio Jack, Line_out+Mic_in in one, supports power amplifier   |         |         |
| Hardware Monitoring |                     | CPU system temperature, on-board DC-in voltage, watchdog, auto power on |         |         |
| Storage             | mSATA               | 1 x mSATA for SSD                                                       |         |         |
| Expansion           | M.2_E               | 1 x M.2 Key E for 2230 Wi-Fi & BT Module                                |         |         |
|                     | M.2_W/S             | 1 x M.2 Key_B for 3042 4G/ 3052 5G Module or 2242 SATA SSD              |         |         |
|                     |                     | (The M.2 Key B for SATA SSD is optional and not included by default.)   |         |         |
|                     | SATA3.0             | 1 x SATA3.0 FPC co-layout with M.2 Key B Slot,                          |         |         |
|                     | SIM                 | 1 x SIM Slot                                                            |         |         |
| I/O Interface       | COM                 | 6 x COM: default 4*RS232+2*RS485                                        |         |         |
|                     | USB3.2              | 2 x USB3.2(rear ports)                                                  |         |         |
|                     | USB2.0              | 5 x USB2.0(2*rear ports+3*onboard headers)                              |         |         |
|                     | GPIO                | 8-bit                                                                   |         |         |
|                     | TPM2.0              | optional                                                                |         |         |
| Dimension           | Size                | 146 mm x 102mm                                                          |         |         |
|                     | Form Factor         | 3.5" SBC                                                                |         |         |
| Power               | Standard Port       | 9-35V DC-IN                                                             |         |         |
|                     | Peripheral Input    | For Fan and SATA                                                        |         |         |
|                     | LED Indicator       | Power Indicator                                                         |         |         |
| Temperature         | Operating Temp.     | -20°C to 60°C                                                           |         |         |
|                     | Storage Temp.       | -40°C to 80°C                                                           |         |         |
| Operating System    |                     | Win10/11 64bit, Linux 64bit                                             |         |         |

\* All specifications and photos are subject to change without notice.

## Functional Block Diagram



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## Order Information

| Model Name | Description                                                        |
|------------|--------------------------------------------------------------------|
| DTR2312-I  | DT AMD R2312 FP535 2DDR4 2LAN(RTL8111H) 4*RS232 2*RS485 2HDMI+LVDS |
| DTR2314-I  | DT AMD R2314 FP535 2DDR4 2LAN(RTL8111H) 4*RS232 2*RS485 2HDMI+LVDS |
| DTR2514-I  | DT AMD R2514 FP535 2DDR4 2LAN(RTL8111H) 4*RS232 2*RS485 2HDMI+LVDS |

\*\*\*For customized options, please consult regional sales. And please confirm the model name and description before purchasing.

\*\*\*The model name and description might vary due to inventory changes.