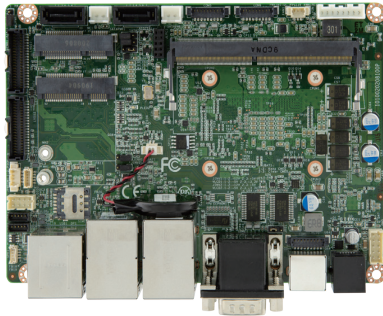




# EmCORE-a10R2

AMD Ryzen Embedded R1000 R1102G Processor 3.5" Compact Board



## Features

- Soldered onboard AMD R1102G APU processor
- Dual Gigabit Ethernet ports
- DisplayPort and two dual-channel LVDS ports
- Integrated micro SIM Socket for mobile telecommunication

## System

|                |                                                                           |
|----------------|---------------------------------------------------------------------------|
| CPU            | Soldered onboard AMD Ryzen R1102G 1.2GHz (Base)/ 2.6GHz (Turbo) Processor |
| Memory         | 1 x DDR4 SO-DIMM socket, supporting 2400MHz SDRAM up to 16GB              |
| BIOS           | AMI UEFI BIOS                                                             |
| Watchdog Timer | 1~255 levels reset                                                        |

## I/O

|                  |                                                                                                        |
|------------------|--------------------------------------------------------------------------------------------------------|
| Super I/O        | Fintek F81866                                                                                          |
| USB Port         | 2 x USB 3.0/2.0 ports<br>6 x USB 2.0 ports                                                             |
| Serial Port      | 6 x COM ports                                                                                          |
| Expansion        | 2 x Mini-Card Sockets (1 x Full size, 1 x Half size)<br>1 x Micro SIM socket (for Full size Mini-card) |
| Storage          | 2 x Serial ATA ports with 600MB/s HDD transfer rate                                                    |
| Ethernet Chipset | 2 x Realtek RTL8111 PCIe GbE controllers                                                               |
| Digital I/O      | 8-bit Programmable                                                                                     |
| Audio            | Realtek ALC269 2.1 Channel HD Audio CODEC, MIC-in/ Line-in/ Line-out                                   |

## Display

|                   |                                          |
|-------------------|------------------------------------------|
| Graphic Chipset   | Integrated Vega Core Graphics controller |
|                   | 2 x Dual Channel 24-bit LVDS             |
| Graphic Interface | 1 x DisplayPort                          |
|                   | Total display: choose two from three     |

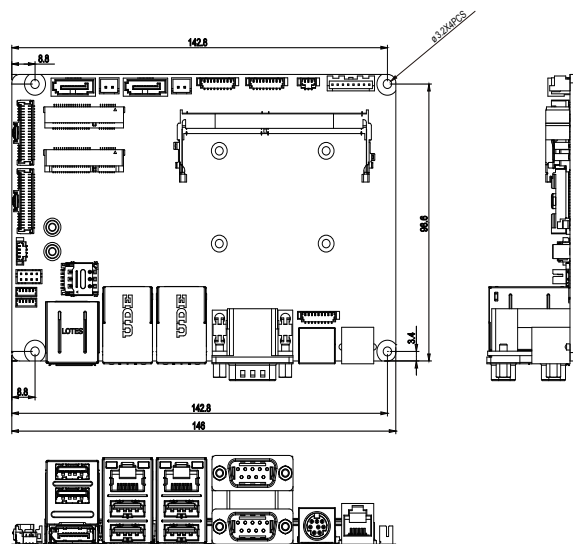
## OS Support

Windows 10 IoT 64-bit  
Linux Ubuntu

## Mechanical & Environmental

|                    |                                  |
|--------------------|----------------------------------|
| Power Requirement  | +8V - 13.2V DC-In                |
| Power Consumption  | 1.53A@12V (Typical)              |
| Operating Temp.    | -20 ~ 70°C (-4 ~ 158°F)          |
| Operating Humidity | 10 ~ 95% @ 70°C (non-condensing) |
| Dimensions (L x W) | 146 x 102 mm (5.7" x 4.0")       |

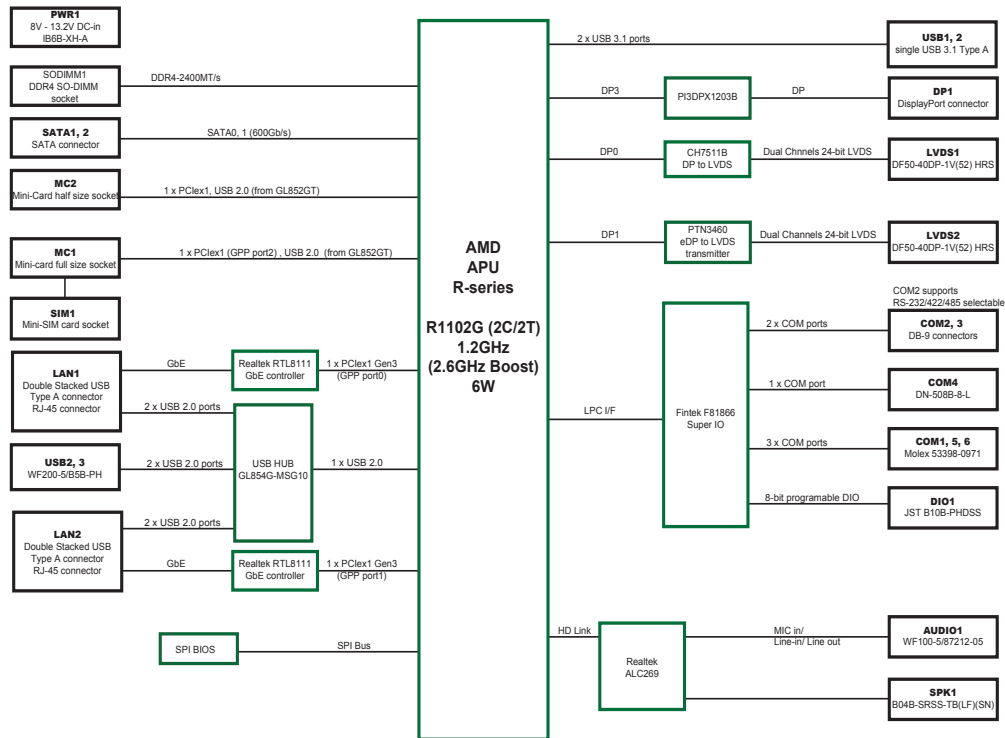
## Dimensions



Unit: mm



## Block Diagram



## Ordering Information

EmCORE-a10R2-1102G AMD Ryzen R1000 R1102G compact board

## Optional Accessories

|                |                                    |
|----------------|------------------------------------|
|                | Cable kit                          |
|                | 2 x USB 2.0 cables (1 port/ cable) |
|                | 3 x COM ports cables               |
|                | 1 x AUDIO cable                    |
|                | 2 x SATA & Power cables            |
| CBK-08-10R2-00 |                                    |

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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