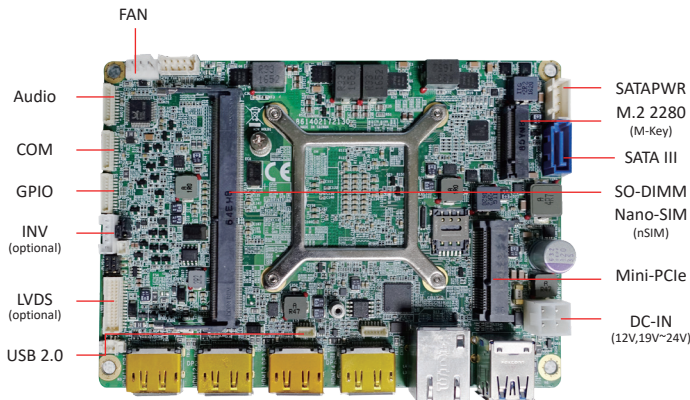
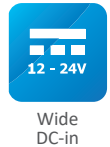


# AECX-R2K1

AMD® Ryzen™ Embedded R2000 Series APU based 3.5" Embedded Board with 4 DP (HDMI)/LVDS, SATA III, COM, 5 USB, Intel® GbE LAN.



## Key Features

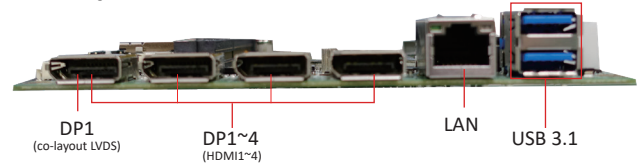
- AMD® Ryzen™ Embedded R2000 series APU onboard
- High Performance “Zen” Core CPU + “VEGA” Graphics GPU
- Two 260-pin SO-DIMMs up to 32GB DDR4 3200MT/s SDRAM
- Multi-Display : 4 DP (HDMI) / LVDS (optional)
- One Intel® Gigabit Ethernet port
- 1 Mini PCIe (full-size, w/ Nano-SIM), 1 M.2 M-key 2280 (SSD) expansion slots
- 1 SATA III, 2 USB 3.1 and 3 USB 2.0 ports
- Supports 4K/2K Resolution Display
- DC-IN 12V or 19V ~ 24V, EuP/ErP 2013 Ready

## Product Specification

|                          |  |
|--------------------------|--|
| System Processor/Chipset |  |
| Processor                | AMD® Ryzen™ Embedded R2000 series APU onboard<br>R2544 (3.35GHz, QC, 8CU, 35-54W)<br>R2514 (2.1GHz, QC, 8CU, 12-35W)<br>R2314 (2.1GHz, QC, 6CU, 12-35W)<br>R2312 (2.7GHz, DC, 3CU, 12-25W) |
| Chipset                  | AMD® Ryzen™ Embedded V1000 APU integrated  |
| BIOS                     | AMI® UEFI Flash ROM  |
| Memory                   |  |
| Technology               | DDR4 SDRAM support ECC, up to 3200 MT/s  |
| Max. capacity            | Up to 32GB   |
| Socket                   | 2 x 260-pin SO-DIMMs   |
| Display                  |  |
| Graphics                 | AMD® VEGA graphics integrated  |
| Display interface        | 4 x DP v1.4 (co-layout HDMI v1.4, 1 w/ co-layout LVDS)<br>1 x LVDS 2-channel 18/24-bit (co-layout DP1, optional)   |
| Multi-display            | Up to four independent displays  |
| Resolution               | DP: Up to 3840 x 2160 @ 60Hz (max.)<br>HDMI: Up to 3840 x 2160 @ 30Hz (max.)<br>LVDS: Up to 1920 x 1200 @ 60Hz (max.)  |
| Ethernet                 |  |
| Interface                | 10/100/1000 Mbps   |
| Controller               | Intel® I211 GbE  |
| Connector                | 1 x RJ45 (rear I/O)  |
| Audio                    |  |
| Interface                | Line-in, Line-out, Mic-in  |
| CODEC                    | Realtek® ALC662 HD Audio Codec   |
| Expansion Slot           |  |
| Mini-PCIe                | 1 x Mini-PCIe (Full-size, w/ Nano-SIM)   |
| M.2                      | 1 x M.2 M-Key 2280 (SSD)   |
| SATA                     |  |
| Max. Data Rate           | 6.0GB/s  |
| Port                     | 1 x SATA III   |
| I/O                      |  |
| Audio                    | Line-in, Line-out, Mic-in (box-header)   |
| COM                      | 1 x RS-232/422/485 (box-header)<br>1 x UART (combo GPIO, box-header)   |
| FAN                      | 1 x CPUFAN 4-pin PWM (wafer-header)  |
| GPIO                     | 1 x 8-bit Programmable GPIO (combo UART, box-header)   |
| SMBus                    | 1 x SMBus (box-header)   |
| USB                      | 2 x USB 3.1 (rear I/O), 3 x USB 2.0 (box-header)   |
| HDMI/DP/LVDS             | 4 x DP (rear I/O, co-layout HDMI, optional)<br>1 x LVDS (box-header, co-layout DP1, optional)  |
| Power Requirement        |  |
| Power connector          | ATX 2x2-pin for Standard or ATX 2x2-Pin R/A (optional)   |

|                       |   |
|-----------------------|---|
| Power type            | DC-IN 12V or DC-IN 19V~24V  |
| Power mode            | AT / ATX (by jumper selection)  |
| Watchdog Timer        |   |
| Interval              | Programmable 1 ~ 255 sec/min  |
| Output                | System reset  |
| Environment           |   |
| Operating temperature | 0°C ~ 60°C (32°F ~ 140°F)<br>-20°C ~ 70°C ( -4°F ~ 158°F) optional<br>-40°C ~ 70°C (-40°F ~ 158°F) optional |
| Storage temperature   | -40°C ~ 80°C (-40°F ~ 176°F)  |
| Relative humidity     | 0% ~ 95% (non-condensing)   |
| Form Factor           |   |
| Dimensions (L x W)    | 3.5" Embedded Board<br>146mm x 102mm (5.75" x 4.01")  |

## Rear I/O



## Dimensions



## Ordering Information

| Part Number    | Description  |
|----------------|--|
| AECX-R2K1-2544 | 3.5",AMD R2000 2544 54W.4DP/LVDS,SATA/COM/USB/LAN.DC(12V,18V~24V)/ATX4P,SAMPLE   |
| AECX-R2K1-2514 | 3.5",AMD R2000 2514 35W.4HDMI/LVDS,SATA/COM/USB/LAN.DC(12V,18V~24V)/ATX4P,SAMPLE |
| AECX-R2K1-2314 | 3.5",AMD R2000 2314 35W.4DP/LVDS,SATA/COM/USB/LAN.DC(12V,18V~24V)/ATX4P,SAMPLE   |
| AECX-R2K1-2312 | 3.5",AMD R2000 2312 25W.3DP/LVDS,SATA/COM/USB/LAN.DC(12V,18V~24V)/ATX4P,SAMPLE   |

## Optional Accessories

| Part Number  | Description              |
|--------------|--------------------------|
| TBD          | I/O Shield               |
| VK00000700A9 | SATA cable               |
| VK00000700A9 | SATA Power cable         |
| 473800000101 | Cooler w/FAN for AMD FP5 |