

# ABOX-5100

AMD Ryzen™ Embedded V1000 Processor w/  
8 x GbE/ 2 x COM/ 4 x DP/ 4 USB 3.0/ 9-48V Input  
AI GPU Computing

## Features

- AMD Ryzen™ Embedded V1000 Platform
- Vega GPU with up to 11 Compute Units and 4 x DP 1.4
- 8 x GPI, 4 x GPO and 2 x RS-232/422/485
- Dual Hot Swappable SATA Storage
- 9-48V DC Input and Operating Temp.: -40~70°C
- 8 x GbE LAN (Optional for 8 x PoE)



Taiwan Patent No. M447854



Delay Time



Power Ignition



Wide Range



Wireless



Battery Backup

| System            |                                                                                                                                                                    |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU               | AMD Ryzen™ V1807B Quad Core Soc (3.3~3.6GHZ)                                                                                                                       |
| Memory            | 2 x DDR4 2400 MHz SO-DIMM up to 32GB                                                                                                                               |
| LAN Chipset       | Intel i210AT x 2 to LAN Switch Marvell 88E6176-A1 x 2                                                                                                              |
| Watchdog          | 1 ~ 255 Level Reset                                                                                                                                                |
| TPM               | 2.0                                                                                                                                                                |
| I/O               |                                                                                                                                                                    |
| Serial Port       | 3 x RS 232/422/485                                                                                                                                                 |
| USB Port          | 4 x USB 3.0 Ports                                                                                                                                                  |
| LAN               | 8 x RJ45 GbE by 2 x Switch Design (MAC x 2), Optional PoE for the 8 Ports 100W max.                                                                                |
| Video Port        | 4 x DP                                                                                                                                                             |
| DIO Port          | 8 x GPI and 4 x GPO                                                                                                                                                |
| Audio             | 1 x Line-out, 1 x Line-in and 1 x Mic-in                                                                                                                           |
| Expansion Bus     | 3 x Full Mini-PCle Slots and 1x M.2 A-E Key 2230 slot (2 x SIM Card Sockets for 3G/LTE)                                                                            |
| Graphics          |                                                                                                                                                                    |
| Graphics          | AMD Next-generation Graphics Core and Multimedia Vega GPU with up to 11 Compute Units H.2651 (10-bit) Decode & (8-bit) Encode, VP9 Decode Up to 4x DisplayPort 1.4 |
| Resolution        | Max Resolution (DP) : 4096x2160@60Hz                                                                                                                               |
| Power Requirement |                                                                                                                                                                    |
| Power Input       | 9V - 48V DC Power Input                                                                                                                                            |
| Power Protection  | Automatics Recovery Short Circuit Protection                                                                                                                       |
| Power Management  | Vehicle Power Ignition for Variety Vehicle                                                                                                                         |
| Power Off Control | Power off Delay Time Setting by BIOS and Software                                                                                                                  |
| Battery(UPS)      | Internal Battery Kit for UPS (Optional)<br><a href="#">Patent No. : M447854 - Build-in Battery</a>                                                                 |

| Software             |                                                                                                  |
|----------------------|--------------------------------------------------------------------------------------------------|
| Operating System     | Win10 LTSC 1809, Ubuntu 18.04 64bit                                                              |
| Storage              |                                                                                                  |
| Type                 | 2 x 2.5" Drive Bay for SATA Type HDD/SSD                                                         |
| Environmental        |                                                                                                  |
| Operating Temp.      | -40°C ~ 70°C * CPU configure at 25W, ambient w/ 0.6m/s airflow                                   |
| Storage Temp.        | -40°C ~ 80°C                                                                                     |
| Relative Humidity    | 10% RH ~ 90% RH (non-condensing)                                                                 |
| Vibration (random)   | IEC60068-2-64, random, 2.5G@5~500Hz, 1hr/axis with SSD                                           |
| Vibration Operating  | MIL-STD-810G, Method 514.6, Procedure I, Category 4                                              |
| Shock                | Operating: MIL-STD-810G, Method 516.6, Procedure I, Trucks and semi-trailers=15G (11ms) with SSD |
| Certifications       | CE, FCC Class A, E13                                                                             |
| Mechanical           |                                                                                                  |
| Construction         | Aluminum Alloy                                                                                   |
| Mounting             | Wall-mount                                                                                       |
| Weight               | 5220g (Barebone)                                                                                 |
| Dimensions           | 260(L) x 226(W) x 95(H) mm                                                                       |
| Ordering Information |                                                                                                  |
| Part Number          | ABOX-5100-V1807<br>ABOX-5100 P-V1807 (with PoE)                                                  |
| Description          | AMD Ryzen™ Embedded V1000 Processor w/ 8 GbE/ 2 COM/ 9-48V Input AI GPU Computing                |
| State of Origin      | Made in Taiwan                                                                                   |