

Edge AI GPU Computing

# ABOX-5100G

Taiwan Patent No. M447854, M565941

AMD Ryzen™ Embedded V1000 Processor w/ 8 x GbE/ 2 x COM/ 4 x DP/ 4 x HDMI/4 USB 3.0/ AMD Radeon™ E9260 GPU/ 9-48V Input AI GPU Computing

## Features

- AMD Ryzen™ Embedded V1000 Platform
- AMD Embedded Radeon™ E9260 GPU
- 8 x GPI, 4 x GPO and 3 x RS-232/422/485
- Dual Hot Swappable SATA Storage
- 9-48V DC Input and Operating Temp.: -40~60°C
- 8 x GbE LAN (Optional for 8 x PoE)



## Introduction

The ABOX-5100G is powered by AMD Ryzen Embedded V1000 Processor with 8 x GbE/ 2 x COM/ 4 x DP/ 4 x HDMI/ 4 x USB 3.0/ AMD Radeon E9260 GPU/ 9-48V AI GPU Computing. ABOX-5100G offers the optimal solution for customers and can readily be adapted to industrial requirements such as Smart solutions (Smart Patrol, Smart Factory Automation Control System), Surveillance system (Bus Surveillance Fleet Management, Outdoor Video Surveillance System) and Visual management (Automatic License Plate Recognition, Vision Control System, Mining Machines).

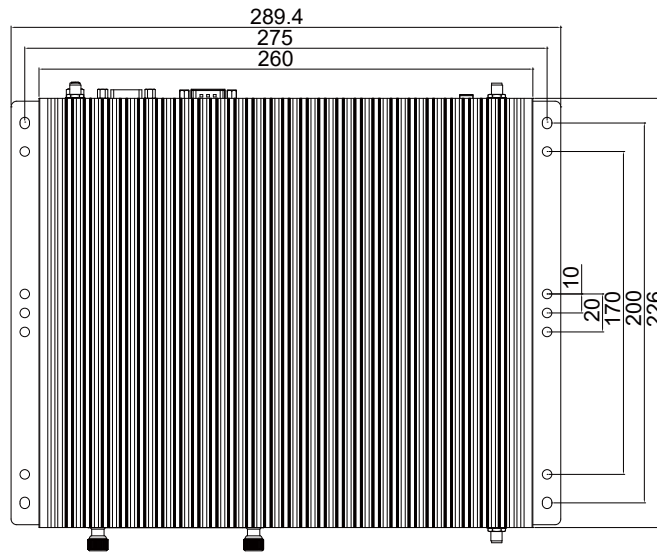
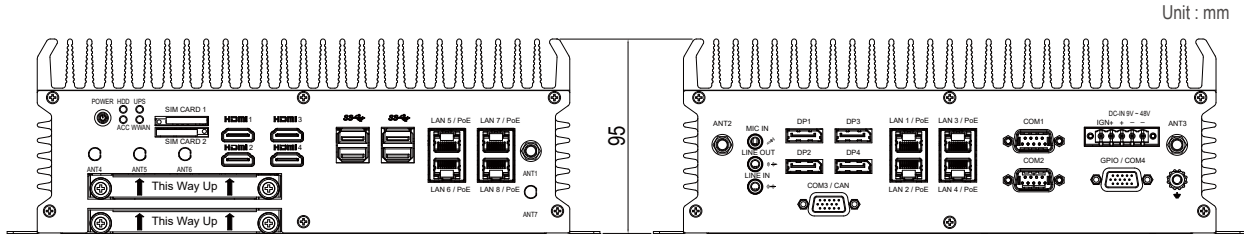
## Specifications

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 (Optional Max 4 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, 4 x HDMI
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-PCIe Slots and 1x M.2 A-E Key 2230 slot (2 x SIM Card Sockets for 3G/LTE)
Software	
Operating System	Win10 LTSC 1809, Ubuntu 18.04 64bit
Graphics	
Graphics	AMD Radeon™ E9260 GPU Support for OpenGL 4.5. and OpenCL™ 2.0. Support for Mantle and AMD LiquidVR™ Support for DirectX® 12 (Feature Level 12_0) features
Resolution	Max Resolution (DP) : 4096x2160@60Hz - AMD CPU Max Resolution (HDMI 2.0b) : 4096x2160@60Hz - GPU E9260

Environmental	
Operating Temp.	-40°C ~ 60°C * CPU configure at 25W, ambient w/ 0.6m/s airflow <a href="#">Patent No. : M565941 - Thermal Cooling</a>
Storage Temp.	-40°C ~ 80°C
Relative Humidity	10% RH ~ 90% RH (non-condensing)
Vibration (with SSD)	IEC60068-2-64, random, 2.5G@5~500Hz, 1hr/axis MIL-STD-810G, Method 514.6, Procedure I, Cat.4, Operating
Shock	Operating: MIL-STD-810G, Method 516.6, Procedure I, Trucks and semi-trailers=15G (11ms) with SSD
Certifications	CE, FCC Class A, E13
Storage	
Type	2 x 2.5" Drive Bay for SATA Type HDD/SSD
Power Requirement	
Power Input	9V - 48V DC Power Input
Power Protection	Automatics Recovery Short Circuit Protection
Power Mgmt.	Vehicle Power Ignition for Variety Vehicle
Power Off Control	Power off Delay Time Setting by BIOS and Software
Battery (UPS)	Internal Battery Kit for 10 Mins Operating (optional) *UPS backup time varies depending on actual overall system power consumption. <a href="#">Patent No. : M447854 - Build-in Battery</a>
Mechanical	
Construction	Aluminum Alloy
Mounting	Wall-mount
Weight	5220g (Barebone)
Dimensions	260(L) x 226(W) x 95(H) mm

All specifications are subject to change without notice.

## Dimensions



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## Ordering Information

<b>Part Number</b>	ABOX-5100G-V1807 ABOX-5100 PG1-V1807 (with PoE)
<b>Description</b>	AMD Ryzen™ Embedded V1000 Processor w/ 8 x GbE/ 2 x COM/ 4 x DP/ 4 x HDMI/4 USB 3.0/ AMD Radeon™ E9260 GPU/ 9-48V Input AI GPU Computing
<b>State of Origin</b>	Made in Taiwan

## Optional Accessories

<b>DRAM</b>	SO-DIMM max.DDR4-2400,4GB-32GB,0~70°C/-40~85°C
<b>SATA SSD</b>	2.5inch MLC/TLC 64GB-1TB 0~70°C/-40~85°C
<b>Wifi</b>	M.2 802.3a/b/g/n/ac
<b>Modem</b>	LTE miniPCle card
<b>GPS</b>	GPS miniPCle card
<b>CANBUS</b>	CANBUS miniPCle card
<b>Battery backup kit</b>	BAT-5200 kit, 5200mA/h, -30~60°C, discharge -20~60°C, operating about 10 mins.
<b>Power adapter</b>	AC/DC 220W/24V or 280W/24V power adaper

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