

# ABOX-5100G1

AMD Ryzen™ Embedded V1000 Processor w/  
8 x GbE/ 2 x COM/ 4 x DP/ 4 x HDMI/ 4 x USB 3.0/  
NVIDIA® GeForce GTX 1050 GPU/  
9-48V AI GPU Computing

## Features

- AMD Ryzen™ Embedded V1000 Platform
- NVIDIA® GeForce GTX 1050 GPU
- Support 768 CUDA Cores
- 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.: -40~60°C
- 8 x GbE LAN (Optional for 8 x PoE)



Taiwan Patent No. M447854

Taiwan Patent No. M565941  
for thermal cooling

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, 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)
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) <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

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Delay Time



Power Ignition



Wide Range



Wireless



Battery Backup

Graphics	
Graphics	NVIDIA® GeForce GTX 1050 GPU (768 CUDA Cores) Support for OpenGL 4.5 and OpenCL™ 1.2 Support for DirectX® 12 (Feature Level 12_0) features
Resolution	Max Resolution (DP) : 4096x2160@60Hz - AMD CPU Max Resolution (HDMI 2.0b) : 4096x2160@60Hz - Nvidia GPU GTX1050
Environmental	
Operating Temp.	-40°C ~ 60°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-5100G1-V1807 ABOX-5100 PG1-V1807 (with PoE)
Description	AMD Ryzen™ Embedded V1000 Processor w/ 8 x GbE/ 2 x COM/ 4 x DP/ 4 x HDMI/4 USB 3.0/ NVIDIA® GeForce GTX 1050 GPU/ 9-48V Input AI GPU Computing
State of Origin	Made in Taiwan