Edge AI GPU Computing

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EBOX-7000

Taiwan Patent No. M447854, M592609, M601447

Intel 9th Gen Core i7/ Intel 8th Gen Core i7/i5/i3 CPU w/ 6 x RJ45 GbE (optional 4 x PoE Max. 100W) / 4 x COM / 1 x DP/ 1 x HDMI/ 1 x DVI-I/ 4 x USB 3.2 Gen 1x1/ 9-48V Edge AI GPU Computing

Features

- **Intel 9th Gen Core i7/ Intel 8th Gen Core i7/i5/i3**
- **1 x PCIe 3.0 x16 Interface Expansion (optional 2 x PCIe 3.0 x8 Interface)**
- **6 x RJ45 GbE (optional 4 x PoE Max. 100W)**
- **8 x DI, 4 x DO and 2 x RS-232/422/485**
- **1 x DP + 1 x HDMI + 1 x DVI-D (Single Link w/o Analog Video)**
- **Dual Hot Swappable SATA Storage RAID 0,1,5**
- **9-48V DC Input and Operating Temp.: -40~70°C**
- **TPM 2.0**

Please Scan The QR Code For More Information
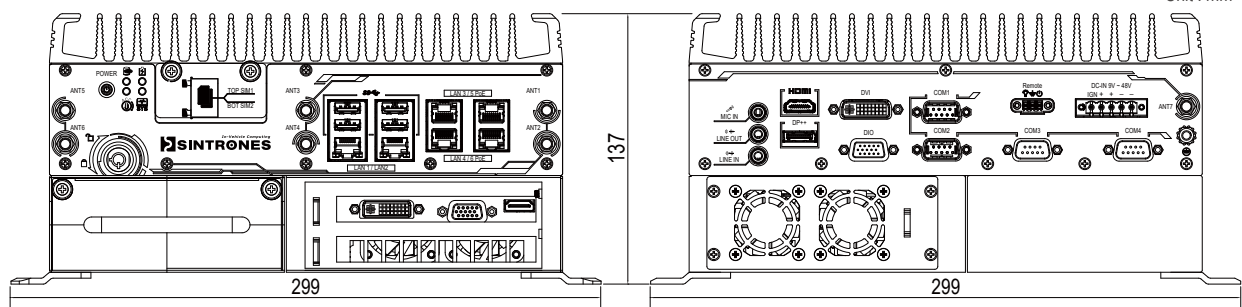
Introduction

The EBOX-7000 Edge Computing is suitable for various factory automation and Industrial Internet of Things (IIoT) control system in large-scale processes such as mining and manufacturing. It is powered by Intel 9th Gen Core i7/ Intel 8th Gen Core i7/i5/i3 CPU with 6 x RJ45 GbE (optional 4 x PoE Max. 100W).

EBOX-7000 features TPM 2.0 and memory 2 x DDR4 2400/2666 MHz SO-DIMM up to 64GB. Furthermore, the environmental tolerance continually maintains a wide range of operating temperatures (-40 ~ 70 ºC). In addition, it provides Intel® UHD Graphics 630 with max resolution (HDMI): 4096x2304@24Hz.

All specifications are subject to change without notice.

EBOX-7000

Dimensions

Unit : mm

299

137

299

Specifications

System

CPU	Intel Gen9 Core i7-9700TE (12M Cache 1.8GHz up to 3.8GHz)
	Intel Gen8 Core i7-8700T (12M Cache 2.4GHz up to 4.0GHz)
	Intel Gen8 Core i5-8500T (9M Cache 2.1GHz up to 3.5GHz)
	Intel Gen8 Core i3-8100T (6M Cache 3.1GHz)
	Intel Gen8 Celeron G4900T (2M Cache 2.9GHz)
Memory	2 x DDR4 2400/2666 MHz SO-DIMM up to 64GB
LAN Chipset	5 x Intel i210-AT and 1 x i219 (iAMT9.5 w/ i5, i7 only) Gb/s Ethernet Controllers Onboard Support PXE and WOL
Watchdog	1 ~ 255 Level Reset
TPM	2.0

I/O

Serial Port	4 x RS 232/422/485 (Auto Direction Control)
USB Port	4 x USB 3.2 Gen 1x1 Ports
LAN	6 x RJ45 GbE (optional 4 x PoE Max. 100W)
Video Port	1 x DP + 1 x HDMI + 1 x DVI-D (Single Link w/o Analog Video)
DIO Port	8 x DI (5~48VDC) and 4 x DO (5VDC, 100mA)
Audio	1 x Line-out, 1 x Line-in and 1 x Mic-in
Expansion Bus	Riser card w/ 1 x PCIe x16 slot (1 x PCIe 3.0 x16 interface w/ 1 x ATX 6 Pin Power Output) Optional riser card w/ 2 x PCIe x16 slot (2 x PCIe 3.0 x8 interface w/ 1 x ATX 6 Pin Power Output) *Supports up to 185mm in length and 112mm in height PCIe cards *Maximum power supply from PCIe slot and ATX 6 pin combined @ 150W when DC power source is above 15V *DC 15V or above power source is suggested when graphics cards are installed
	2 x Full Mini-PCIe Slots
	1x M.2 A-E Key 2230 slot, 1 x M.2 B Key 3042 slot w/ 2 x SIM Card Sockets for WWAN **Patent No. : M592609 - Automatic SIM Card Detection**

Graphics

CPU Built-in Graphics	Intel® UHD Graphics 630 for i7/i5/i3, Intel® UHD Graphics 610 for G5900T
	Max Resolution (DP1.2) : 4096x2304@60Hz, (HDMI1.4b) : 4096x2304@24Hz

Software

Operating System	Win 10, Ubuntu 18.04 64bit

Environmental

Operating Temp.	-40°C ~ 70°C, with SSD and ambient w/ air flow 0.6m/s (System only, not including PCIe cards)
	-20°C ~ 60°C with BAT-5200-E1 Battery Kit *Operating temp. spec of PCIe cards installed affects overall system operating temp. spec
Storage Temp.	-40°C ~ 80°C
Relative Humidity	10% RH – 90% RH (non-condensing)
Certifications	CE, FCC Class A, RoHS (Self declaration)

Storage

Type	Hot Swappable 2 x 2.5" Drive Bay for SATA Type HDD/SSD RAID 0, 1, 5 w/ External Accessibility via USB 3.2 Gen 1x1 when removed **Patent No. : M601447 - Removeable Storage Device**
	1 x M.2 M key 2280 slot supports NVMe and SATA SSD *Thermal heatsink is required for M.2 storage. Please contact sales window for more information.

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 and cannot be installed with PoE module) *UPS backup time varies depending on actual overall system power consumption. **Patent No. : M447854 - Build-in Battery**

Mechanical

Construction	Aluminum Alloy
Mounting	Wall-mount
Weight	7600g (Barebone)
Dimensions	260(L) x 250(W) x 137(H) mm

Ordering Information

Part Number	EBOX-7000xyy-zz (x= P= w/PoE, x= Empty= w/o PoE, yy= E1= w/1 x PCIe x16 interface, yy= E2= w/2 x PCIe 3.0 x8 interface, zz= i7R= i7-9700TE, zz= i7= i7-8700T, zz= i5= i5-8500T, zz= i3= i3-8100T, zz= C1= G4900T)
Description	Intel 9th Gen Core i7/ Intel 8th Gen Core i7/i5/i3 CPU w/ 6 x RJ45 GbE (optional 4 x PoE Max. 100W) / 4 x COM / 1 x DP/ 1 x HDMI/ 1 x DVI-I/ 4 x USB 3.2 Gen 1x1/ 9-48V Edge AI GPU Computing
State of Origin	Made in Taiwan

Optional Accessories

DRAM	DDR4-2933 MHz SO-DIMM, 4GB~32GB, 0~70°C/-40~85°C
SSD	M.2 2280 B-M key NVMe TLC -40~85°C 64GB~1TB w/ Heatsink
	M.2 2280 B-M key SATA TLC -40~85°C 64GB~1TB w/ Heatsink
	2.5 inch SATA TLC -40~85°C 64GB~2TB
PCIe Graphics Card	GTX 1650 4GB GDDR5 w/ 1 x DP1.4a, 1x HDMI2.0b, and 1x DVI-D Dual Link
Wifi	M.2 2230 A-E key 802.3 a/b/g/n/ac

Modem	M.2 3042 B key 5G&LTE module
GPS	MiniPCIe GPS module
CANBUS	MiniPCIe CANBUS module
Battery backup kit	BAT-5200-E1 Battery Kit, 5200m/h, -30~60°C, discharge -20~60°C, operating about 10 mins
External cable	280W/24V power adaper
Power adapter	N/A

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