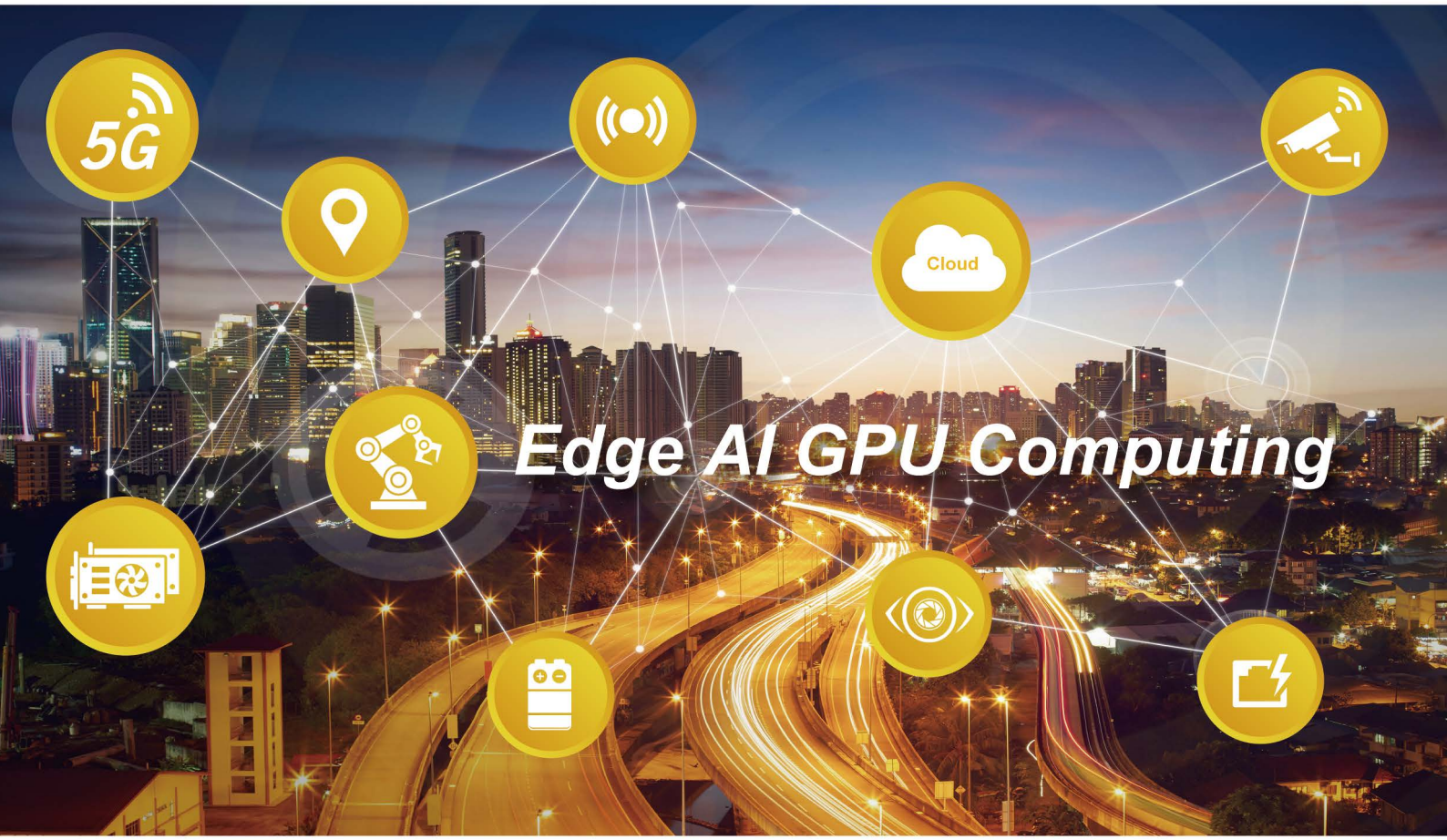


SD7010

Intel Gen 10th i9/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 1/ 9-48V Edge Computing

Features

- **Intel Gen 10th i9/i7/i5/i3 CPU**
- **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-I (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**

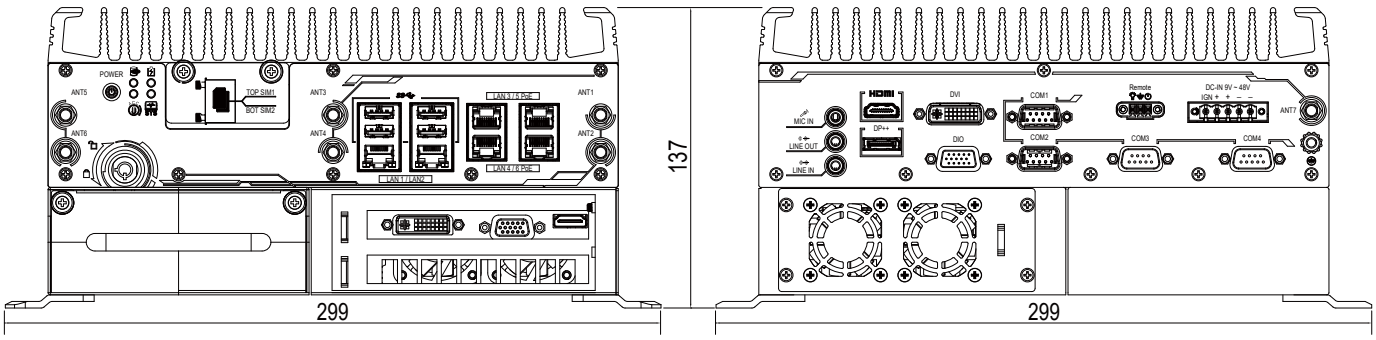
Introduction

The SD7010 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 10th Gen Core i9/i7/i5/i3 CPU (Comet Lake) with 6 x RJ45 GbE (optional 4 x PoE Max. 100W).

SD7010 features TPM 2.0 and memory 2 x DDR4 2666/2933 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.

Dimensions

Unit : mm



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 2666/2933 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 1 Ports
LAN	6 x RJ45 GbE (optional 4 x PoE Max. 100W)
Video Port	1 x DP + 1 x HDMI + 1 x DVI-I (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 19V * DC 19V 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 LTE

Software	
Operating System	Win 10, Ubuntu 18.04 64bit

Graphics	
Graphics	Intel® UHD Graphics 630
Resolution	Max Resolution (DP) 4096x2304@60Hz (HDMI) : 4096x2304@24Hz

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
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 1 when removed 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 operating time varies depending on PCIe cards w/ different power consumption

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

Ordering Information

Part Number	SD7010XYY-ZZ (X= P= w/PoE, X= Empty= w/o PoE, YY= E1= w/1 x PCIe x 16 interface, YY= E2= w/2 x PCIe 3.0 x8 interface, ZZ= i9= i9-10900TE, ZZ= i7= i7-9700TE, ZZ= i5= i5-10500TE, ZZ= i3= i3-10100TE, ZZ= C1= G5900TE)
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 1/ 9-48V Edge Computing
State of Origin	Made in China

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
Wifi	M.2 2230 A-E key 802.3 a/b/g/n/ac
Modern	M.2 3042 B key 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 w/o considering PCIe card power consumption
Power adapter	AC/DC 220W/24V or 280W/24V power adapter