

SEC-2000 Series

Intel Atom® x7-E3950 Processor (Apollo Lake)
Expandable Fanless Embedded System

- Quad Core Intel Atom® x7-E3950 SoC (Apollo Lake-I) supports lower power consumption
- Compact & Fanless design, -40°C to 75°C Operation
- Supports Lockable HDMI & VGA Dual Display, up to 4K resolution
- DDR3L 1866MHz memory supports up to 8GB
- 2 GigE LAN support IEEE 1588 (PTP)
- 4 COM RS-232/422/485 with 2 Isolated
- 4 USB, 16 GPIO, 1 SIM Socket
- 2 PCI/PCIe Slot, 2 Mini PCIe, 1 SATA III
- SIM Socket for WiFi/4G/3G/LTE/GPRS/UMTS
- 12V DC Power Input
- TPM 2.0 supported



Smart Manufacturing



Intelligent Surveillance



Factory Automation



Robotic Control



Specifications

System

Processor	Intel Atom® x7-E3950 Processor (Apollo Lake-I)
BIOS	AMI
SIO	IT8786E
Memory	1 DDR3L 1866MHz SO-DIMM, up to 8GB
OS	Windows 10, Linux

I/O Interface

Serial	4 COM RS-232/422/485 with 2 Isolated
USB	- 2 USB 3.0 (External) - 4 USB 2.0 (2 External, 2 Internal)
DIO	16 GPIO
LED	Power, HDD, Wireless
SIM	1 Internal SIM Card Socket

Expansion

Mini PCIe	2 Mini PCIe Socket : - 1 Mini PCIe for PCIe/USB/SIM Card - 1 Mini PCIe for PCIe/USB/Optional mSATA
PCI/PCIe	- SEC-2220 : 2 PCIe x16 Slot (PCIe x1 Signal supported) - SEC-2211 : 1 PCI Slot, 1 PCIe x16 Slot (PCIe x1 Signal supported)

Graphics

Processor	Intel® HD Graphics 505
Interface	- HDMI : Up to 3840 x 2160 @30Hz - VGA : Up to 1920 x 1440 @60Hz

Storage

SATA	1 SATA III (6Gbps)
mSATA	1 SATA III (Mini PCIe Type, 6Gbps)
Storage Device	1 2.5" SSD/HDD Bracket (Internal)

Audio

Audio Codec	Realtek ALC892, 5.1 Channel HD Audio
Audio Interface	1 Mic-in, 1 Line-out

Ethernet

LAN 1	Intel® I210 GigE LAN supports IEEE 1588
LAN 2	Intel® I210 GigE LAN supports IEEE 1588

Power

Power Input	Single 12V DC Power Input
Power Interface	3-pin Terminal Block : V+, V-, Frame Ground
Remote Switch	2-pin Terminal Block

Others

TPM	Optional Infineon SLB9665 supports TPM 2.0, LPC Interface
Watchdog Timer	Reset: 1 to 255 sec./min. per step
HW Monitor	Monitoring temperature, voltages. Auto throttling control when CPU overheats.

Mechanical

Dimensions	125mm x 210mm x 160mm (4.92" x 8.27" x 6.30")
Weight	3.5 kg (7.7 lb)
Mounting	Wallmount by mounting bracket

Environment

Operating Temp.	-40°C to 75°C (-40°F to 167°F)
Storage Temp.	-40°C to 85°C (-40°F to 185°F)
Humidity	5% to 95% Humidity, Non-condensing
Relative Humidity	95% at 85°C
EMC	CE, FCC, EN50155, EN50121-3-2

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Order Information

Model Name	CPU	GigE LAN	PCIe x1	PCI	USB	COM (Isolated)	SIM	GPIO
SEC-2220	Intel Atom® x7-E3950	2	2	-	4	4 (2)	1	16
SEC-2211		2	1	1	4	4 (2)	1	16

Accessories

DDR3L8G	Certified DDR3L-1866/1600 8G RAM
DDR3L4G	Certified DDR3L-1866/1600 4G RAM
PWA-160W-WT-12V	160W, 12V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
PWA-120W-12V	120W, 12V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
4G Module	Mini PCIe 4G/GPS Module with Antenna
WiFi & Bluetooth Module	WiFi & Bluetooth Module with Antenna
FAN Module	Non-Adjustable Fan Module for SEC Series

Dimensions & Drawing

Unit : mm (inch)

