

# SPC-4600/4500

Intel Atom<sup>®</sup> x7-E3950 Processor (Apollo Lake)  
Ultra-compact Fanless PoE<sup>+</sup> Embedded Box PC

- Quad Core Intel Atom<sup>®</sup> x7-E3950 SoC (Apollo Lake-I) supports lower power consumption
- Fanless, -40°C to 85°C operating temperature
- DVI-I and DisplayPort dual display supports up to 4K resolution
- Supports DDR3L 1866MHz memory, up to 8GB
- 2 Independent GigE PoE<sup>+</sup> LAN support IEEE 802.3at & IEEE 1588 (PTP)
- 16 Isolated DIO, 4 USB 3.0, 4 COM RS-232/422/485
- External SIM socket supports WiFi/4G/3G/LTE/GPRS/UMTS
- 12V DC Power Input, optional supports 9V to 36V wide range DC power input
- Configurable Ignition Power Control
- TPM 2.0 supported



Vehicle Computing



Factory Automation



Intelligent Control



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
USB	4 USB 3.0 (External)
DIO	16 Isolated DIO : 8 DI, 8 DO (SPC-4600 only)
LED	Power, HDD, Wireless, PoE
SIM	1 SIM Card Socket (External)

## Expansion

Mini PCIe	2 Mini PCIe Socket : - 1 Mini PCIe for PCIe/USB/SIM Card - 1 Mini PCIe for PCIe/USB/Optional mSATA
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## Graphics

Graphics Processor	Intel® HD Graphics 505
Interface	- DVI-I : DVI up to 3840 x 2160 @60Hz - DP : Up to 4096 x 2160 @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 Line-out

## Ethernet

LAN 1	<b>SPC-4600</b> : GigE IEEE 802.3at (25.5W/48V) PoE* by Intel® I210, IEEE 1588 supported <b>SPC-4500</b> : Intel® I210 GigE LAN supports IEEE 1588
LAN 2	<b>SPC-4600</b> : GigE IEEE 802.3at (25.5W/48V) PoE* by Intel® I210, IEEE 1588 supported <b>SPC-4500</b> : Intel® I210 GigE LAN supports IEEE 1588

## Power

Power Input	<b>SPC-4600</b> : Wide range 9V to 36V DC Power Input <b>SPC-4500</b> : Single 12V DC Power Input
Power Interface	3-pin Terminal Block : V+, V-, Frame Ground
Ignition Control	16 Mode (Internal, SPC-4600 only)
Remote Switch	3-pin Terminal Block : On, Off, IGN (SPC-4600 only)

## 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	<b>SPC-4600</b> : 106mm x 150mm x 63mm (4.17" x 5.91" x 2.48") <b>SPC-4500</b> : 106mm x 150mm x 59mm (4.17" x 5.91" x 2.30")
Weight	<b>SPC-4600</b> : 1.2 kg (2.65 lb) <b>SPC-4500</b> : 0.9 kg (1.98 lb)
Mounting	- Wallmount by mounting bracket - DIN Rail Mount (Optional) - 2U Rackmount (Optional)

## Environment

Operating Temp.	-40°C to 85°C (-40°F to 185°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

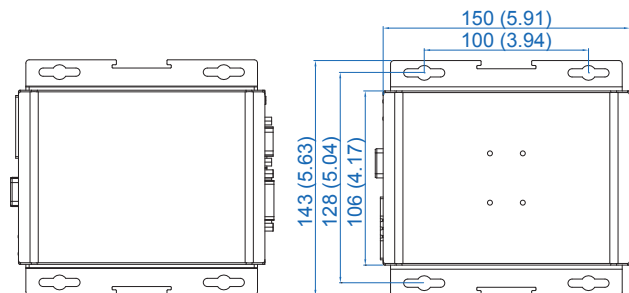
Model Name	CPU	PoE*	GigE LAN	USB 3.0	COM	SSD	SIM	Isolated DIO
SPC-4600	Intel Atom® x7-E3950	2	-	4	4	1	1	16
SPC-4500		-	2	4	4	1	1	-

## Accessories

DDR3L8G	Certified DDR3L-1866/1600 8G RAM
DDR3L4G	Certified DDR3L-1866/1600 4G RAM
PWA-160W-WT	160W, 24V, 85V AC to 264V AC Power Adapter with 3-pin Terminal Block, Wide Temperature -30°C to +70°C
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	120W, 24V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
PWA-120W-12V	120W, 12V, 90V AC to 264V AC Power Adapter with 3-pin Terminal Block
DIN-RAIL	DIN Rail Kit
TMK2-20P-100	Terminal Block 20-pin to Terminal Block 20-pin Cable, 100cm
TMK2-20P-500	Terminal Block 20-pin to Terminal Block 20-pin Cable, 500cm
TMB-TMBK-20P	Terminal Board with One 20-pin Terminal Block Connector and DIN-Rail Mounting
4G Module	Mini PCIe 4G/GPS Module with Antenna
WiFi & Bluetooth	WiFi & Bluetooth Module with Antenna

# Dimensions & Drawing

Unit : mm (inch)



SPC-4600

SPC-4500

