

PERFECTRON

SCN300

**SUBSTATION FANLESS I7-9700TE
COMPUTER**



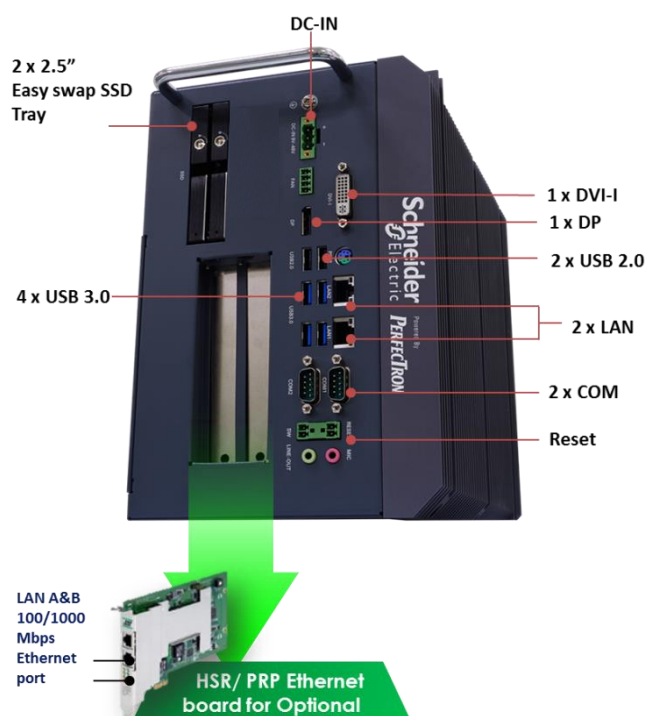
- Intel® Core™ i7-9700TE
- SO-DIMM DDR4 2400/2666 MHz up to 64GB
- 2 x 2.5" Easy swap SSD Tray
- 2 x RJ45 LAN
- 4 x USB3.0, 2 x USB2.0
- 1 x DP, 1 x DVI,
- 2 x COM (RS232/422/485)
- TPM Security on Board
- Extended Operating Temp. :-20°C~60°C

Introduction

SCH300, a sophisticated fanless power substation solution with rich and powerful I/O connectors, such as 4 x PoE (RJ45 or M12), 6 x COM (RS232/422/485) with isolated DIDO (4 x DI, 4 x DO), and also 8 x USB ports. According to your actual requirement, there are flexible options like up to 10 x COM (RS232/422/485), or up to 10 x LAN (RJ45), and even at most 8 x POE (RJ45 or M12) for our energy customers.

Moreover, 9V-48V, an Ultra-Wide DC power input is really crucial for a stable and reliable power substation system. SCH300 allows the system to be utilized in extensive power types. And also, sudden drop or surge of power posts absolutely no threat to this smart and outstanding system.

One more thing, it's the optional HSR/ PRP Ethernet board. Which is an Ethernet Redundancy concept, and allows user to have a more stable and efficient solution for troubleshooting without any delay. As well as its extended operation temperature, -40~60°C, SCH300 is really a best solution of your smart power substation!



Key Features of SCH300



(1) SECURITY REDUNDANCY

(2) NETWORK REDUNDANCY

(3) RICH COMMUNICATION

(4) IEC-61850-3

INTERFACE

(5) COMPREHENSIVE

(6) IEEE-1613

EXTENSION MODULE

(7) EXTREME OPERATING

(8) ULTRA WIDE VOLTAGE

TEMPERATURE

SUPPORT

Key Feature

(1) SECURITY REDUNDANCY

Integrating TPM module, operating systems can require an authentication to protect keys, data or systems.

(3) RICH COMMUNICATION INTERFACE

In advantage of SCH300's diverse I/O, 6 x COM (All support RS232/422/485), 8 x USB, 4 x POE, 2 x LAN, the SCH300 system can meet all clients' communication requirement.

(5) COMPREHENSIVE EXTENSION MODULE

No matter POE or LAN, M12 or RJ45 port, as well as full function RS232/422/485 COM port, SCH300 offers user with variety of options, which can meet all industrial/ energy critical needs.

(7) EXTREME OPERATING TEMPERATURE

Ensure high reliability and stability while operating under a harsh environment such as temperature from -40°C up to 60°C

(2) NETWORK REDUNDANCY

PRP/HSR network is an efficient and cost effective solution to construct a seamless/bumpless communication infrastructure.

(4) IEC-61850-3

IEC 61850 defines the communication protocols for intelligent electronic devices at electric substations. IEC-61850-3 defines the complete testing requirement for the equipment which conforms to the standard.

(6) IEEE-1613

Detail environment and testing requirements for communications networking devices in electric power substations.

(8) ULTRA WIDE VOLTAGE SUPPORT

9V-48V, a very wide range voltage of DC-input capability, allows users to adopt all kinds of working site and applications scenario.

Specifications

SYSTEM

CPU	9th Generation Intel® Core™ i9/i7/i5 Processors Intel® Core™ i7-9700TE (12M Cache, up to 3.80 GHz) Intel® Core™ i5-9500TE (9M Cache, up to 3.60 GHz) Intel® Core™ i3-9100TE (6M Cache, up to 3.20 GHz)
Memory type	2 x SO-DIMM up to 64GB DDR4-2666MHz

REAR I/O

Storage Device	2 x 2.5" Easy swap SSD Tray
Expansion Slot	2 x PCIe 3.0 X8
Power Input	DC 9V~48V
USB	4 x USB3.1, 2 x USB2.0
Ethernet	2 x RJ45 LAN
DisplayPort	1 x 20Pin DisplayPort connector (Female), resolution up to 4096x2160@60Hz
DVI	1 x 20Pin DVI-I connector, resolution up to 2560x1600@60Hz
COM	2 x RS232 / 422 / 485 (Support Power 5V / 12V)

FRONT I/O

Power Button	1 x (with LED indicator)
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OS SUPPORT LIST

Windows	Win10 IoT Ent LTSC 2016, Win 10 IoT Ent 2019 LTSC
Linux	Ubuntu18.04

MECHANICAL & ENVIRONMENT

Dimension	170 x 264 x 250 mm (W x D x H)
System Design	Fanless
Mounting	Rackmount Cube
Operating Temp.	-20°C to 60°C (35W CPU)
Storage Temp	-40°C to 85°C
Relative Humidity	5% to 95%, non-condensing

CERTIFICATION

EMC	CE, FCC compliant
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MIL-STD-810G Test

Operating Tests

Low Temperature	Method 502.5 Procedure 2	exposure(24h x 3 cycle) at -40°C min.
High Temperature	Method 501.5 Procedure 2	60°C for 2 hours after temperature stabilization.
Humidity	Method 507.5 Procedure 2	RH -95%. Test cycles: ten 24-hours , functional test after 5th and 10th cycles
Vibration	Method 514.6 Category 20	10—500Hz 1.04Grms Test duration: 1 hours x 3 axis (total 3 hours)
Shock	Method 516.6 Procedure 1	20G, 11mSec, 3 per axis

Non-Operating Tests

Low Temperature Storage	Method 502.5	exposure(24h x 7 cycle) at -40°C min.
High Temperature Storage	Method 501.5 Procedure 1	71°C for 2 hours after temperature stabilization.
Vibration	Method 514.6 Category 24	200 to 2000Hz Test duration: One hour per axis; rms = 7.7 gs
Shock	Method 516.6 Procedure V	40G, 11ms, 3 pluse.

Ordering Information

SCH3X1

Substation Fanless Computer with Intel 9th Gen i7-9700TE processor, 8GB Memory, 128GB SSD, 2 x COM, 2 x LAN, 6 USB 3.0. 2 x USB 2.0, 1 x HDMI, 1 x DVI-I, 9-48V DC-IN, Extended range of Temperature -20°C ~ 60°C

SCH301

Substation Fanless Computer with Intel 9th Gen i7-9700TE processor, 8GB Memory, 128GB SSD, 2 x COM, 10 x LAN, 6 USB 3.0. 2 x USB 2.0, 1 x HDMI, 1 x DVI-I, 9-48V DC-IN, Extended range of Temperature -20°C ~ 60°C

SCH302

Substation Fanless Computer with Intel 9th Gen i7-9700TE processor, 8GB Memory, 128GB SSD, 6 x COM, 6x LAN, 8 x DIO, 6 USB 3.0. 2 x USB 2.0, 1 x HDMI, 1 x DVI-I, 9-48V DC-IN, Extended range of Temperature -20°C ~ 60°C



Mechanical Dimensions

