



# SR10-SCHX3

MIL-STD-810G 19" Rackmount Fanless  
Computer with Intel® Core i7- 8700T,  
1 x DP, 1 x HDMI, 1 x DVI, 6 x USB,  
12V to 24V DC-in



**User's Manual**

Revision Date: Feb.1.2019



## Safety Information

### Electrical safety

- To prevent electrical shock hazard, disconnect the power cable from the electrical outlet before relocating the system.
- When adding or removing devices to or from the system, ensure that the power cables for the devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.
- Before connecting or removing signal cables from the motherboard, ensure that all power cables are unplugged.
- Seek professional assistance before using an adapter or extension cord. These devices could interrupt the grounding circuit.
- Make sure that your power supply is set to the correct voltage in your area.
- If you are not sure about the voltage of the electrical outlet you are using, contact your local power company.
- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your local distributor.

### Operation safety

- Before installing the motherboard and adding devices on it, carefully read all the manuals that came with the package.
- Before using the product, make sure all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.
- To avoid short circuits, keep paper clips, screws, and staples away from connectors, slots, sockets and circuitry.
- Avoid dust, humidity, and temperature extremes. Do not place the product in any area where it may become wet.
- Place the product on a stable surface.
- If you encounter any technical problems with the product, contact your local distributor

### Statement

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## Specifications

### SYSTEM

High Performance Processor	Intel® 8th Gen Core™ i7-8700T (Frequency 2.4GHz, Turbo Boost Frequency up to 4.0GHz), 6-Core, 12 Thread Support, 12MB SmartCache. Build-in UHD Graphics 630 for excellent 3D, Turbo Boost Technology 2.0, VPro and Hyper-Threading support
Memory type	Up to 16GB DDR4 RAM
Chipset	Intel® Q370 Chipset

### DISPLAY

GPU	Intel® UHD Graphics 630
Display Port	Resolution up to 4096x2304@60Hz
HDMI	Resolution up to 4096x2160@30Hz
DVI-D	Resolution up to 1920x1200 @ 60Hz

### STORAGE

Storage Device	1 x 2.5" Solid State Disk (SSD) 1 x mSATA Rugged Industrial NAND Flash mSATA Storage w/ Rugged -40/+85C High Capacity, optional Pre-loaded with Linux or Windows OS. 64 / 128 / 256 / 512GB /1TB / 2TB Innodisk 3MG2-P Series MLC SATA III 6Gb/s Flash SSD, Rated for 520 MB/sec Sequential Read ; 350 MB/sec Write Max.
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### ETHERNET

Ethernet	2 x Intel Gigabit Ethernet LAN Interfaces (10/100/1000Mbps)
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### REAR I/O

Display Port	1 x 20Pin DisplayPort connector (Female)
HDMI	1 x 19Pin HDMI connector (Female)
DVI-D	1 x 20Pin DVI-D connector (Female)
Ethernet	2 x RJ45 Gigabit Ethernet LAN Interfaces
Serial Port	1 x DB9 connector (RS-232)
USB Port	4 x USB3.1 Gen2 standard-A connectors
Audio Port	1 x Line-Out, 1 x MIC-In connector
DC-IN	4P Rugged Terminal connector

### FRONT I/O



Button	1 x Power Button w/Indicator LED
Indicator LED	1 x HDD LED
USB Port	2 x USB2.0 standard-A connectors
Serial Port	2 x DB9 connectors (1 x RS-232, 1 x RS232/422/485)

## APPLICATIONS, OPERATING SYSTEM

Applications	Energy/Smart Grid/Power Plant Management, Intelligent Automation and manufacturing applications
Operating System	Windows 10 64bit Ubuntu16.04, Ubuntu14.04, Fedora 28

## PHYSICAL

Dimension (W x D x H)	308 x 149 x 65.2mm
Weight	3.21Kg
Chassis	Aluminum Alloy, Corrosion Resistant
Finish	Anodic aluminum oxide (Color Iron gray)
Cooling	Natural Passive Convection/Conduction. No Moving Parts
Connectors	DC-IN : PHOENIX CONTACT 1776715 RJ45 Ethernet : RTB-19GB9J1A COM: FEN YING SM10-09P DVI : FOXCONN QH11121-DA4E-4F HDMI + DP : JKCR Display and HDMI Female
Ingress Protection	Dust Proof (Similar to IP50)

## ENVIRONMENTAL

MIL-STD-810G Test	Method 507.5, Procedure II (Temperature & Humidity) Method 516.6 Shock-Procedure V Non-Operating (Mechanical Shock) Method 516.6 Shock-Procedure I Operating (Mechanical Shock) Method 514.6 Vibration Category 24/Non-Operating (Category 20 & 24, Vibration) Method 514.6 Vibration Category 20/Operating (Category 20 & 24, Vibration) Method 501.5, Procedure I (Storage/High Temperature) Method 501.5, Procedure II (Operation/High Temperature) Method 502.5, Procedure I (Storage/Low Temperature) Method 502.5, Procedure II (Operation/Low Temperature) Method 503.5, Procedure I (Temperature shock)
Operating Temperature	-20 to 60°C (ambient with 0.7m/s airflow)
Storage Temperature	-40 to 85°C

# SR10-SCHX3 User's Manual

Revision Date: Feb.1.2019



EMC

CE and FCC compliance

## Revision History

Revision	Date (yyyy/mm/dd)	Changes
Version 1.0	2019/02/01	Initial release

## Packing list

- SR10-SCHX3 19" Rackmount Fanless System
- CD (Driver + Quick Installation Guide)
- Bracket Ear x 2
- Screw for fixing Bracket Ear

## Ordering information

Model Number	Description
<b>SR10-SCHX3</b>	MIL-STD-810G 19" Rackmount Fanless System with Intel® Core i7- 8700T, 1 x DP, 1 x HDMI, 1 x DVI, 6 x USB, 12V to 24V DC-in, Operating Temp. -20 ~60°C



If any of the above items is damaged or missing, please contact your local distributor.



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## Chapter 1: Product Introduction

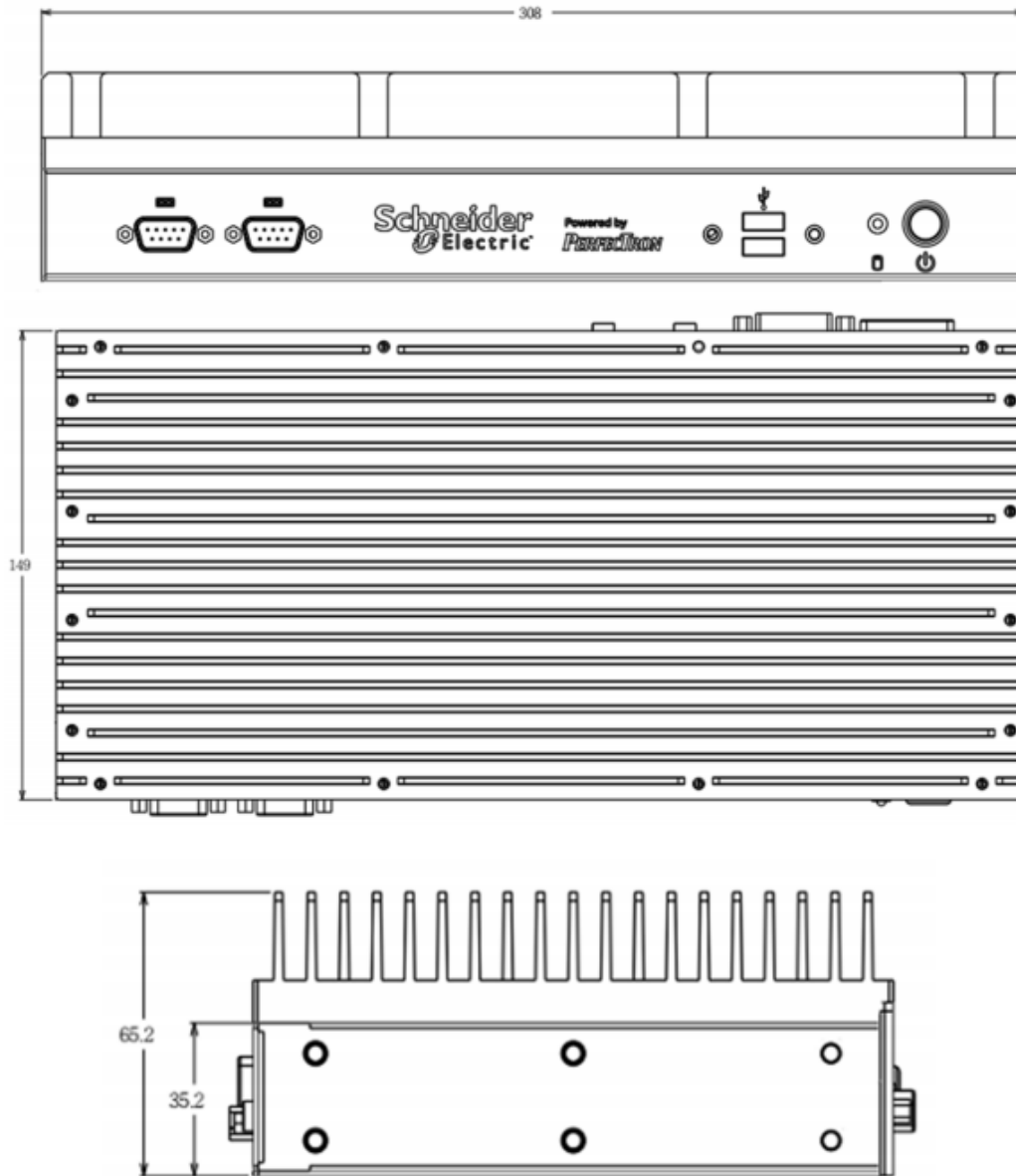
### 1.1 Key Features

System	
CPU	Intel® Core™ i7-8700T Processor (12M Cache, up to 4.00 GHz)
Memory Type	Up to 16GB SDRAM
BIOS	AMI® BIOS
Storage Device	1 x 2.5" SATA SSD
Front I/O	
HDD LED	1 x Red LED
Power Button	1 x Power Button with LED backlight
USB	2 x USB 2.0
COM	2 x RS232
Rear I/O	
DisplayPort	1
HDMI	1
DVI-D	1
COM	1 x RS232
USB	4 x USB 3.1 Gen2
Audio	1 x Mic In, 1 x Line Out
Ethernet	2 x RJ45
System Power DC-IN	1 x 4-pin terminal block, 12~24V DC input
Ground Screw	1
Mechanical & Environment	
Construction	Aluminum chassis with fanless design
Power Requirements	12V to 24V DC-in
Dimension (W x H x D)	308 x 149 x 65.2mm (12.13" x 5.87" x 2.57")
Operating Temp.	-20 to 60°C (ambient with 0.7m/s airflow)
Storage Temp.	-40 to 85°C
Relative Humidity	5% to 95%, non-condensing

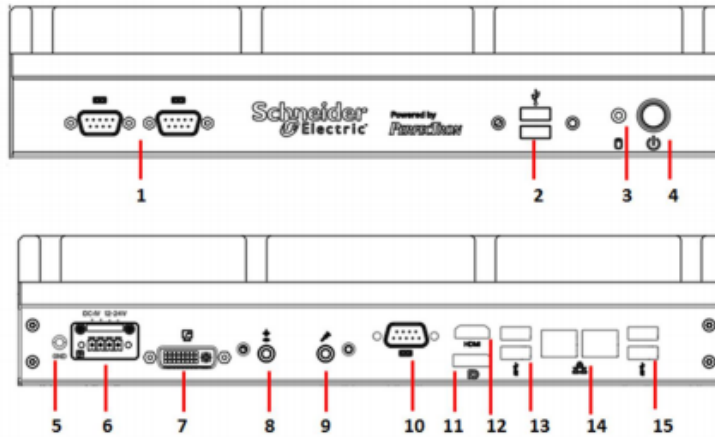
\* Specifications are subject to change without notice\*



## 1.2 Dimensions



## 1.3 Panel Component



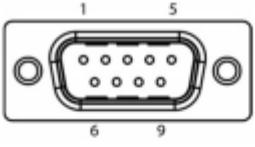
1	2 x RS232
2	2 x USB 2.0
3	1 x HDD LED
4	1 x Power Button with Indicator LED
5	1 x Ground Screw
6	1 x DC-IN 12-24V (4-pin terminal block)
7	1 x DVI-D
8	1 x Line-Out
9	1 x MIC-In
10	1 x RS232
11	1 x DisplayPort
12	1 x HDMI
13	2 x USN3.1 Gen2
14	2 x RJ45 GbE
15	2 x USN3.1 Gen2

## Chapter 2: Jumpers and Connectors Locations

### 2.1 Rear Panel Connector Pin Definitions

**COM: RS232**

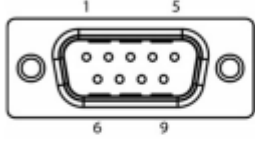
Pin	RS-232
1	DCD-
2	RXD
3	TXD
4	DTR-
5	GND
6	DSR-
7	RTS-
8	CTS-
9	RI



### 2.2 Rear Panel Connector Pin Definitions

**COM: RS232**

Pin	RS-232
1	DCD-
2	RXD
3	TXD
4	DTR-
5	GND
6	DSR-
7	RTS-
8	CTS-
9	RI



**DC-IN: 12~24V DC-in**

Pin	Definition
1	+12~24V
2	+12~24V
3	GND
4	GND

