SR700-X3

IP65 MIL-STD-810G Rugged Computer
with Intel® Core i7-6820EQ,GTX950M,
9V to 36V DC-in, Extended Temp
-40 to 70°C

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

Revision History

Revision	Date (yyyy/mm/dd)	Changes
Version 1.0	2019/10/16	Initial release

Packing list

- ☐ **SR700-X3 Rugged Fanless System**
- ☐ **CD (Driver + Quick Installation Guide)**
- ☐ **Testing Cable**

Ordering information

Model Number	Description
SR700-X3	IP65 MIL-STD-810G Rugged Computer with Intel® Core i7-6820EQ, GTX950M, 9V to 36V DC-in, Extended Temp -40 to 70°C

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

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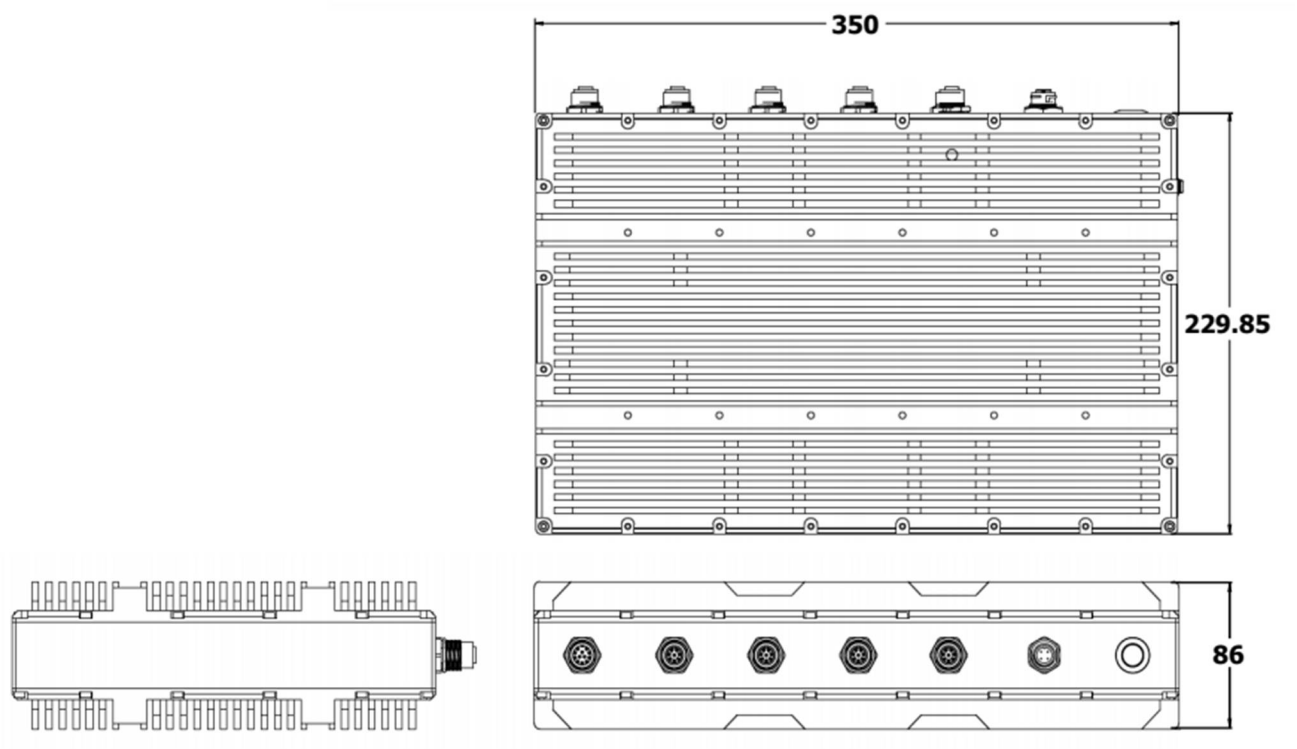
Chapter 1: Product Introduction

1.1 Key Features

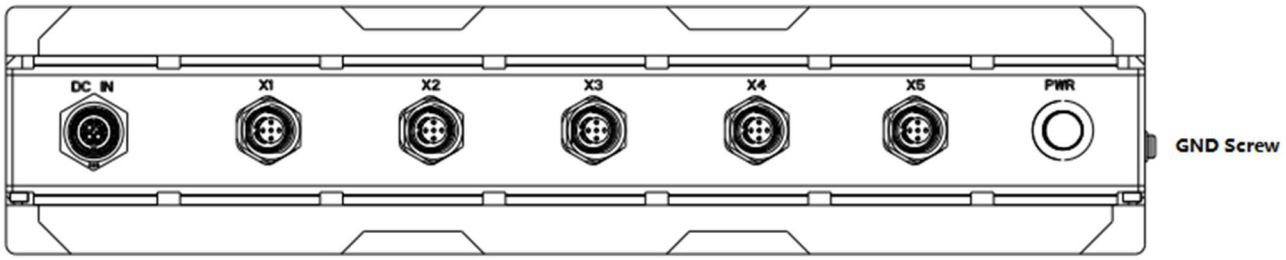
System	
CPU	Intel® Core™ i7-6820EQ Processor (8M Cache, up to 3.50 GHz)
Memory Type	2 x DDR4 SO-DIMM up to 32GB
BIOS	AMI® BIOS
Storage Device	1 x 2.5” SATA SSD
Front I/O	
Power Button	1 x Power Button with LED backlight
DC-In	1
X1	1 x LAN
X2	1 x LAN
X3	2 x USB
X4	1 x VGA
X5	1 x RS232, 1 x RS485
Left Side	
Ground Screw	1 (M4)
Mechanical & Environment	
Construction	Aluminum chassis with fanless design
Power Requirements	9V to 36V DC-in
Dimension (W x H x D)	350 x 230 x 86 mm (13.78" x 9.06" x 3.37")
Operating Temp.	-40 to 70°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

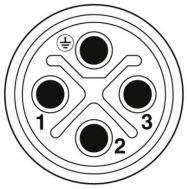


DC-IN	DC-IN 9-36V
X1	1 x Gigabit Ethernet Port
X2	1 x Gigabit Ethernet Port
X3	2 x USB2.0 Ports
X4	1 x VGA Port
X5	1 x RS232, 1 x RS485 Ports

Chapter 2: Connector pin definition

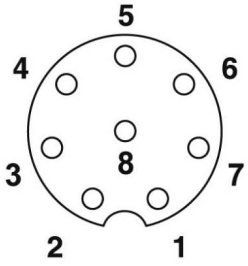
2.1 DC-IN (M12, S-code, 4pin)

Pin	Definition
1	(+)
2	(+)
3	(-)
PE	(-)



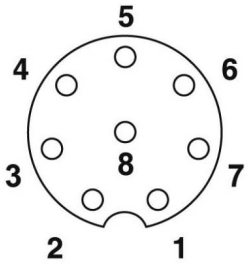
2.2 LAN (X1, X2), (M12, A-code, 8pin)

Pin	Signal
1	D1+
2	D1-
3	D2+
4	D2-
5	D3+
6	D3-
7	D4+
8	D4-



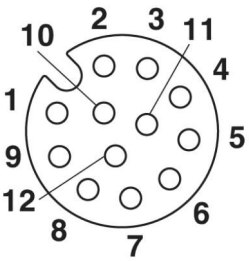
2.3 USB2.0 (X3), (M12, A-code, 8pin)

Pin	Signal
1	VCC
2	Data -
3	Data +
4	GND
5	VCC
6	Data -
7	Data +
8	GND

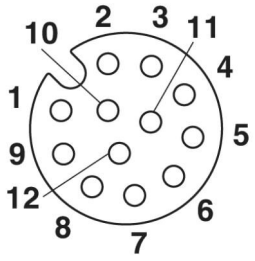


2.4 VGA (X4), (M12, 12pin)

Pin	Signal
1	RED
2	R_Ground
3	GREEN
4	G_Ground
5	BLUE
6	B_Ground
7	H-Sync
8	
9	V-Sync
10	
11	DDC DATA
12	DDC CLOCK



2.5 COM, RS232+485 (X5), (M12, 12pin)

Pin	Signal	Function	
1	DCD	RS-232	
2	RXD		
3	TXD		
4	DTR		
5	GND		
6	DSR		
7	RTS		
8	CTS		
9	RI		
10	RXD(D+)	RS-485	
11	GND		
12	DCD(D-)		

Appendix

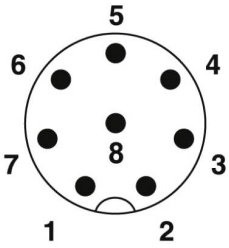
1. TEST Power cable (M12, S-code, 4pin)

Pin	Definition
1	(+)
2	(+)
3	(-)
PE	(-)

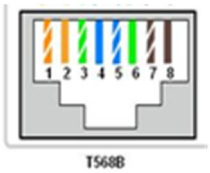
Cable color
Red
White
Black
Green

2. TEST LAN cable (M12, A-code, 8pin)

M12	
Pin	Signal
1	D1+
2	D1-
3	D2+
4	D2-
5	D3+
6	D3-
7	D4+
8	D4-

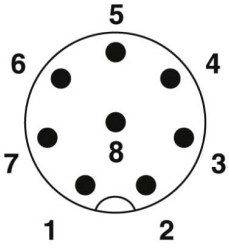


RJ45	
Pin	Signal
1	D1+
2	D1-
3	D2+
6	D2-
5	D3+
4	D3-
7	D4+
8	D4-



3. TEST USB2.0 cable, (M12, A-code, 8pin)

M12	
Pin	Signal
1	VCC
2	D-
3	D+
4	Ground
5	VCC
6	D-
7	D+
8	Ground

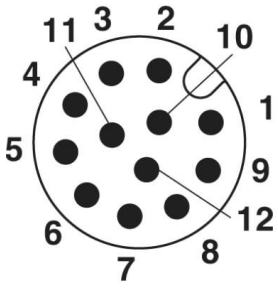
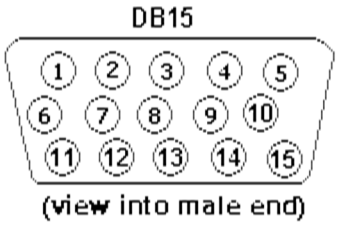


USB	
Pin	Signal
1	VCC
2	D-
3	D+
4	Ground
5	VCC
6	D-
7	D+
8	Ground

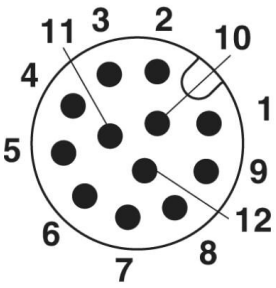
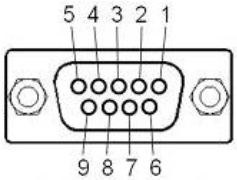
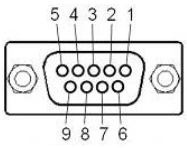
(Port1)

(Port2)

4. TEST VGA cable, (M12, 12pin)

M12			DB15	
Pin	Signal		Pin	
1	RED		1	
2	R_Ground		6	
3	GREEN		2	
4	G_Ground		7	
5	BLUE		3	
6	B_Ground		8	
7	H-Sync		13	
8	Ground		10	
9	V-Sync		14	
10	Ground		11	
11	DDC DATA		12	
12	DDC CLOCK		15	

5. TEST COM Port cable, (M12, 12pin)

M12(P)		Pin define	DB9(M)	
	1	DCD	1	
	2	RXD	2	
	3	TXD	3	
	4	DTR	4	
	5	GND	5	
	6	DSR	6	
	7	RTS	7	
	8	CTS	8	
	9	VCC	9	
	10	RXD(D+)	2	
	11	GND	5	
	12	DCD(D-)	1	

D-SUB 9P(M)
RS232

RS485(M)