



7STARLAKE

1U, 2U FANLESS REDUNDANT SERVER

Your Utmost Sustainable 1U and 2U Fanless
Servers in Harsh Environment



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**1U/2U
FANLESS**

7STARLAKE designed 1U and 2U servers to be fanless for better portability and heat dissipation with the adoption of heat pipe.



**REDUNDANT
DC-DC/AC-DC**

DC-DC and AC-DC power redundancy allow systems to be prevented from unexpected shutdown or power outage.



**ANTI-
CORROSION**

Proper anti-corrosion painting is applied to provide systems with essential protection against the exposure to water.



**CONFORMAL
COATING**

The PCB of the server is applied with conformal coating to prevent the system from being corroded and provide protection against outer extremes.

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IEC 61850-3
IEEE 1613



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FANLESS COMPUTER

When it comes to energy utilities, a properly functioning micro-grid control system is important for ensuring all processes work correctly and that energy is always being distributed in an efficient manner. The “Grid” helps connect homes and buildings to central power sources, which allows for the use of appliances, HVAC and electronics.

As a pioneer in rugged computer industry, 7STARLAKE has been eyeing on designing and producing innovative systems to fulfil energy market needs. ROC286-1U ,SCH400-2U rack-mount fanless redundant servers series is the birth of 7STARLAKE’s mastermind.

- This series can support high performance computing (10th Core i9 Comet-Lake) and is durable under extreme environments from -40 up to +70 degree. Given the fact that this trait is rare, this series is commonly used in energy sector which cannot endure accidental shutdown or outage even under harsh conditions.
- In order to prevent the systems from suffering from power outage, features such as the integration of TPM and FDTI to offer dual security and redundant PSU cover from DC-DC and AC-DC to provide power redundancy so that the users can still have a backup when facing power shutdown.
- Applying conformal coating for anti-corrosion material purpose is another highlight that 7STARLAKE ROC286 series rackmount servers have.



1U ROC286



1U ROC286 fanless redundant servers are based on Intel 9th Coffee Lake(R) , with 2 swappable SSD , SSD that provides dual redundancy in data/security/power and communications.

- 1U Fanless
- Redundancy DC-DC (9V~36V / 33V~62V / 67V~143V)
- Redundancy AC-DC 100V~240V
- Conformal Coating for Anti- Corrosion
- Dual SATA 3.0 Hot Swap Tray for RAID 0/1

2U SCH400

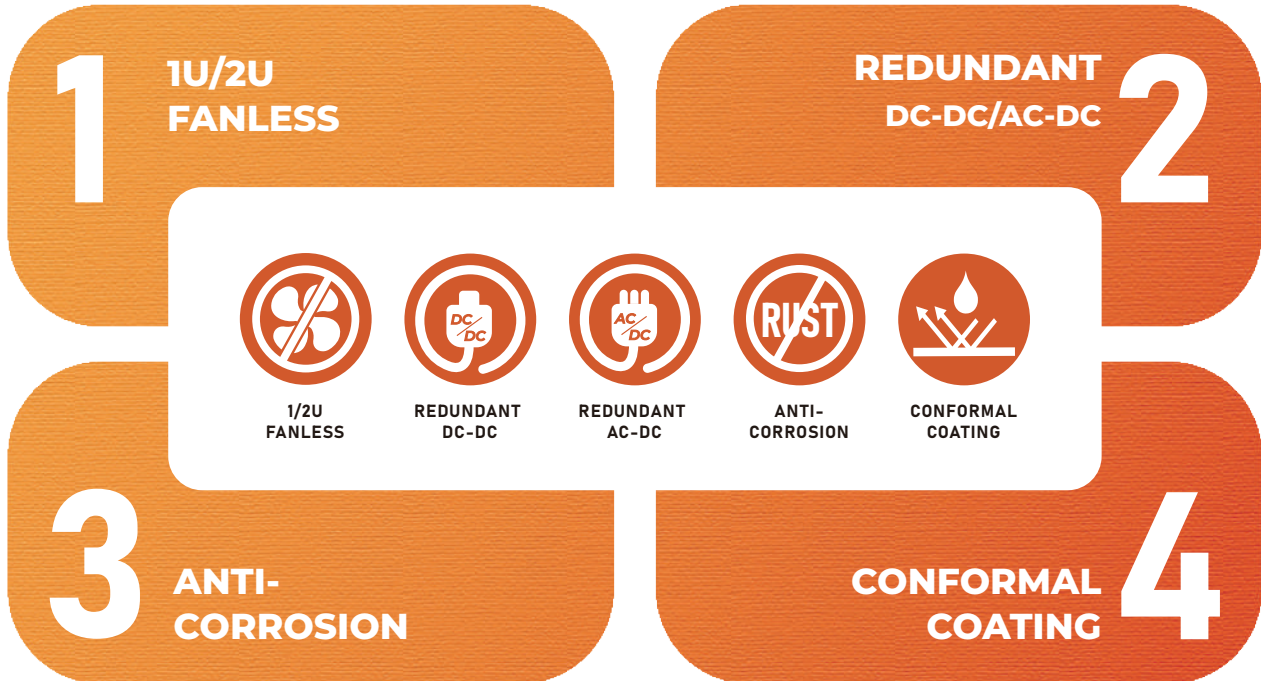


2U SCH400 fanless redundant servers adopt Intel 10th Comet-Lake with 4 swappable SSD that provides dual redundancy in data/security/power and communications.

- 2U Fanless
- Redundancy DC-DC (9V~36V / 33V~62V / 67V~143V)
- Redundancy AC-DC 100V~240V
- 4 x SATA 3.0 Hot Swap Tray for RAID 0/1/5
- Dual Security : The Integration of TPM & FDTI
- IPMI Monitoring
- 10GbE



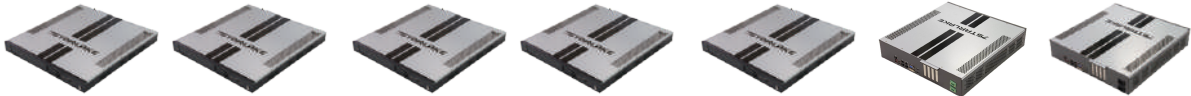
MAIN FEATURES



EXPANDABLE MODULE LIST

PoE Module	MT204 - Intel® I350-AM4 4 x RJ45 POE+ Port, IEEE802.3af - Support 10/100/1000 Mbps per port - PCIe x4 (Gen2 x4 bus) - Total power budget is 75W for 4 output PoE ports with maximum 12.95W per port - Half-length card/Low-profile - Operating systems supported: Windows XP/Vista/7/8/10, Linux
10G SFP+ Module	MT201 - Intel® 82599ES 2 x SFP+ LAN ports - Supports 10Gb/s per port - PCIe x8 (Gen2 x8 bus) - Half-length card/Low-profile - Operating systems supported: Windows 7/8/10
GbE Module	MT202 - Intel® I350-AM4 4 x RJ45 Port - Support 100/1000 Mbps per port - PCIe x4 (Gen2 x4 bus) - Half-length card/Low-profile - Operating systems supported: Windows 7/8/10
Isolated Serial Module	MT205 - XR17V354 UART with 256-byte FIFOs 4 x RS232 or RS232/422/482 ports - Supports Speeds up to 921.6 kbps for extremely fast data transmission - PCIe x1 (Gen2 x1 bus) - Half-length card/Low-profile - Operating systems supported: Windows XP/Vista/7/8/10, Linux

PRODUCT LIST

		1U					2U	
		DC	AC	Redundant DC	Redundant AC	Anti-Corision Conformal Coating	Redundant DC	Redundant AC
Model name		ROC286A	ROC286B	ROC286AA	ROC286BB	ROC286CC	SCH400-AA	SCH400-BB
Photo								
Security	TPM	N/A	N/A	N/A	N/A	N/A	YES	YES
	FDTI	N/A	N/A	N/A	N/A	N/A	Options	Options
Main features	IPMI	N/A	N/A	N/A	N/A	N/A	IPMI	IPMI
	10GbE	Options	Options	Options	Options	Options	Options	Options
CPU		9th Coffee Lake	9th Coffee Lake	9th Coffee Lake	9th Coffee Lake	9th Coffee Lake	10th Comet Lake Xeon Comet Lake	10th Comet Lake Xeon Comet Lake
		i3-9100TE i5-9500TE i7-9700TE	i3-9100TE i5-9500TE i7-9700TE	i3-9100TE i5-9500TE i7-9700TE	i3-9100TE i5-9500TE i7-9700TE	i3-9100TE i5-9500TE i7-9700TE	i7-10700TE i9-10900TE XEON W-1270TE XEON W-1290TE	i7-10700TE i9-10900TE XEON W-1270TE XEON W-1290TE
Memory		DDR4- 64GB	DDR4- 64GB	DDR4- 64GB	DDR4- 64GB	DDR4- 64GB	DDR4-128GB	DDR4-128GB
Chipset		Q370	Q370	Q370	Q370	Q370	W480/Q470	W480/Q470
Storage	SATA 3.0	2 x 2.5" hot-swappable SATA SSD	2 x 2.5" hot-swappable SATA SSD	2 x 2.5" hot-swappable SATA SSD	2 x 2.5" hot-swappable SATA SSD	2 x 2.5" hot-swappable SATA SSD	4 x 2.5" hot-swappable SATA SSD	4 x 2.5" hot-swappable SATA SSD
		easy swap tray	easy swap tray	easy swap tray	easy swap tray	easy swap tray	easy swap tray	easy swap tray
	NVMe (M.2 2280)	1x Gen 3.0 (PCIex4)	1x Gen 3.0 (PCIex4)	1x Gen 3.0 (PCIex4)	1x Gen 3.0 (PCIex4)	1x Gen 3.0 (PCIex4)	1x Gen 3.0 (PCIex4)	1x Gen 3.0 (PCIex4)
PSU	Power input	9V~36V DC	100V~240V AC	9V~36V DC	100V~240V AC	9V~36V DC	9V~36V DC	100V~240V AC
		1x 150W	1 x 200W	2x 150W	2 x 200W	2 x 150W	2x 150W	2 x 200W
	Redundancy	N/A	N/A	Redundant DC	Redundant AC	Redundant DC	Redundant DC	Redundant AC
Expansions	PCI-Ex 16	1	1	1	1	1	1	1
	PCI-Ex 8	N/A	N/A	N/A	N/A	N/A	1	1
	PCI-Ex 4	N/A	N/A	N/A	N/A	N/A	1	1
	mPCIe	1	1	1	1	1	1	1
	1 x M.2 2230 (E)	1	1	1	1	1	1	1
I/O	LAN	2 x RJ45	2 x RJ45 GbE LAN	2 x RJ45 GbE LAN	2 x RJ45 GbE LAN	2 x RJ45 GbE LAN	2 x RJ45 GbE LAN	2 x RJ45 GbE LAN
	Display Port	2	2	2	2	2	2	2
	DVI	N/A	N/A	N/A	N/A	N/A	DVI-D	DVI-D
	VGA	N/A	N/A	N/A	N/A	N/A	1	1
	HDMI	1	1	1	1	1	N/A	N/A
	Audio	1 x MIC, 1 x Line-Out	1 x MIC, 1 x Line-Out	1 x MIC, 1 x Line-Out	1 x MIC, 1 x Line-Out	1 x MIC, 1 x Line-Out	1 x MIC, 1 x Line-Out	1 x MIC, 1 x Line-Out
	COM	2 x RS232/422/485	2 x RS232/422/485	2 x RS232/422/485	2 x RS232/422/485	2 x RS232/422/485	N/A	N/A
	USB 3.1	4 x USB 3.1	4 x USB 3.1	4 x USB 3.1	4 x USB 3.1	4 x USB 3.1	4 x USB 3.2	4 x USB 3.2
	USB 2.0	2 x USB 2.0	2 x USB 2.0	2 x USB 2.0	2 x USB 2.0	2 x USB 2.0	2 x USB 2.0	2 x USB 2.0

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