

HORUS428A

Embedded Server



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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- All product specifications are subject to change without prior notice

Revision History

Revision	Date (yyyy/mm/dd)	Changes
Version 1.0	2017/11/01	Initial release

Packing list

- HORUS428A Fanless Rugged System
- CD (Driver + Quick Installation Guide)

Ordering information

Model Number	Description
HORUS428A	Intel® Q170 Skylake Rugged server, 8 x 2.5" easy swap trays, 12V DC-in, Operating temperature -20 to 50°C



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

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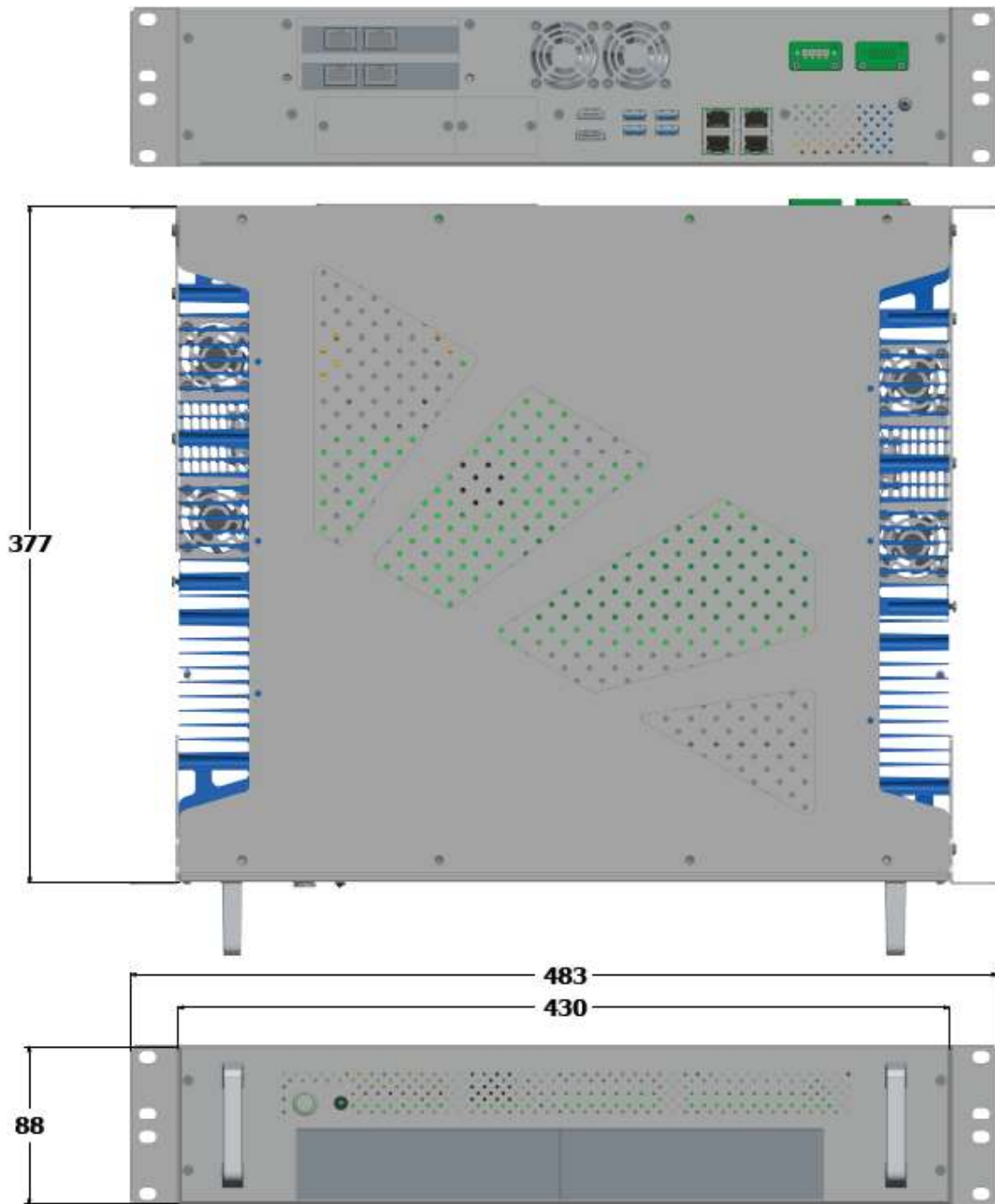
Chapter 1: Product Introduction

1.1 Key Features

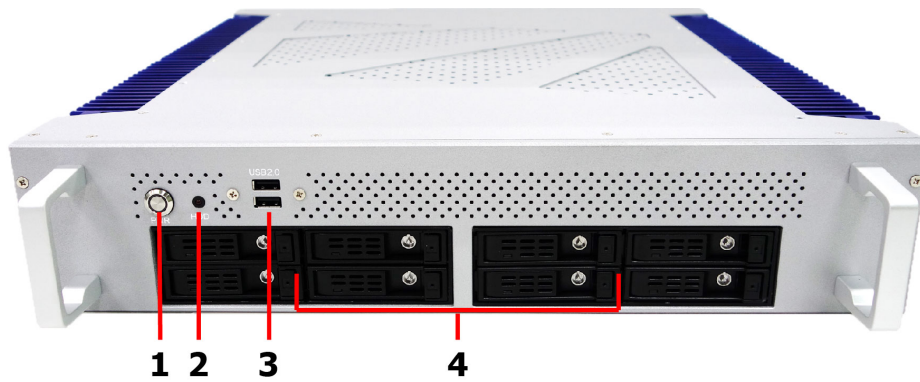
System	
CPU	Intel® 14 nm Skylake-S Intel® Core™ i7-6700TE Processor (8M Cache, 2.40/3.40 GHz)
Chipset	Intel® Q170
Memory Type	4 x XR-DIMM DDR4 up to 64GB
BIOS	AMI® BIOS
Expansion Slot	1 x PCIe x4 single slot
	4 x mPCIe, 2 with mSATA support
Storage Device	2 x mSATA (mPCIe3, mPCIe4)
	Areca ARC-1226-8I SAS RAID card
	8 x 2.5" SAS/HDD/SSD
Front I/O	
Power Button	1 with backlight
HDD LED	1
USB	2 x USB2.0
2.5" Disk Tray	8 x 2.5" Disk trays
Handle	2
Rear I/O	
Disk Power Switch	1 Notice: Please turn this switch on before turn system on.
Fan Power Switch	1 Notice: For longer system life time, please keep these fans running when ambient temperature is over 45°C.
USB	4 x USB3.0
Ethernet	4 x RJ45 GbE LAN
DisplayPort	1
HDMI	1
Exhaust Fan	2, could be control by Fan power switch
Ground Screw	1
DC-IN	1 x 8-pin terminal block, 12V DC input
Mechanical & Environment	
Construction	Aluminum chassis with fanless design
Power Requirements	12V DC-in
Dimension (W x H x D)	430 x 88 x 377mm (17.93" x 3.46" x 14.84")
Operating Temp.	-20 to 50°C (ambient with air flow)
Storage Temp.	-40 to 85°C
Relative Humidity	5% to 95%, non-condensing

* Specifications are subject to change without notice*

1.2 Dimensions

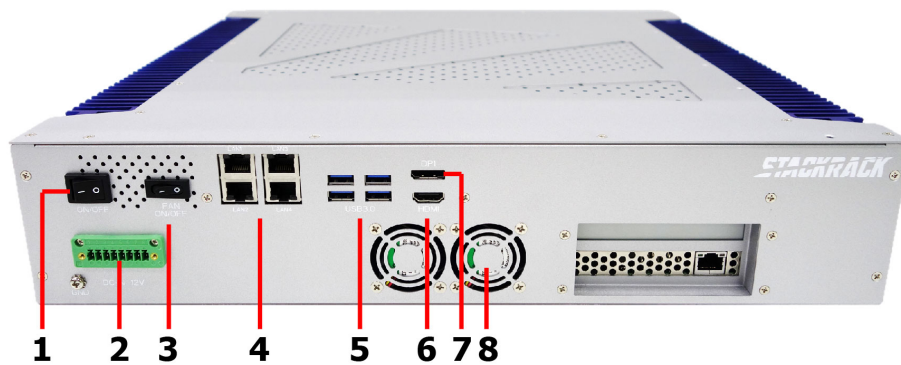


1.3 Front Panel Component



1	Power button with backlight
2	HDD LED
3	2 x USB2.0
4	8 x easy swap 2.5" disk tray

1.4 Rear Panel Component



1	Disk power switch
2	12V DC input
3	Fan power switch
4	4 x RJ45 GbE LAN
5	4 x USB3.0
6	HDMI
7	DisplayPort
8	2 x Exhaust fan