



PSYS-508-Q670

Barebone system with 14th/13th/12th
Generation Intel® Core™ i3/i5/i7/i9
based ATX board



The Portwell PSYS-508-Q670 builds on 14th/13th/12th Generation Intel® Core™ i3/i5/i7/i9 processors and Intel® Q670E chipset, featuring 4x DDR5 memory, multiple displays, 7x SATA ports for storage, and rich expandability. With the 600W 80 Plus Gold ATX PSU, the PSYS-508-Q670 is a flexible platform ideal for applications such as factory automation, automated optical inspection (AOI), vision guided robots (VGR), and surveillance.

FEATURES

- Support 14th/13th/12th Generation Intel® Core™ i9/i7/i5/i3 processors
- Four U-DIMM support DDR5 DRAM up to 128GB
- Support two DP, one HDMI, one VGA display
- Support one M.2 E Key, one M.2 M Key
- Support 1x COM port (1x RS-232/422/485) via external I/O and 5x COM ports (1x RS-232/422/485, 4x RS232) via internal I/O

ORDERING GUIDE

AS1-3382

(R).PSYS-508-Q670.4U Rackmount
Barebone system with RUBY-D813-Q670 &
SSP-600JS PSU



System

M/B	RUBY-D813-Q670E
CPU	14th /13th/12th Gen Intel® Core™ i9/i7/i5/i3/Pentium/Celeron CPU (LGA1700 socket, Max 65W TDP)
BIOS	AMI uEFI BIOS (SPI ROM)
Memory	4x DDR5 U-DIMM, up to 128GB
Storage	7x SATA 6Gb/s ports, supports RAID 0/1/5/10
Watchdog Timer	Yes
TPM	1x SPI TPM header
Expansion	1x M.2 E key, type 2230 (CNVi mode) for WiFi/BT devices (Antenna Kit supported) 1x M.2 M key, type 2242/2260/2280 (PCIe x4/SATA mode) supporting NVMe 1x PCIe 5.0 x16 slot (x16 mode/x8 mode) 1x PCIe 4.0 x4 slot (x4 mode, open slot) 1x PCIe 5.0 x16 slot (x8 mode) 1x PCIe 3.0 x4 slot (x4 mode, open slot) 1x PCIe 4.0 x4 slot (x4 mode, open slot) 2x PCI slots
Internal I/O	5x COM header support 5 COM ports (1x RS-232/422/485, 4x RS232) 2x USB 3.2 Gen1 header supports additional 4x USB 3.2 Gen 1 ports 1x USB 2.0 header support 2x USB 2.0 ports 1x 8-bit GPIO header (Connector Kit supported)

External I/O

Serial Port	1x COM port (1x RS-232/422/485)
Display	2x DP, support DP++ 1.4, up to 3840 x 2160 @ 60Hz 1x HDMI, support 2.1, up to 4096 x 2160 @ 60Hz 1x VGA
USB	6x USB 3.2 Gen 2 (5x Type A + 1x Type C) 2x USB 2.0 (Type A)
Audio	3 (Line in, Line out, Mic In)
Ethernet	1x GbE , 2x 2.5GbE

Power Supply Unit

Power Input	ATX 600W 80 plus gold
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Environmental

Operation Temperature	0°C ~ 40°C
Storage Temperature	-20°C~60°C
Relative Humidity	40°C, 85%RH non-condensing
Operation Vibration	0.75Grms/5Hz-500Hz, IEC 60068-2-6
Operation Shock	10G, 11 msec, IEC 60068-2-27
OS	Win11 IoT LTSC

Mechanical

Dimension	430 (W) x 450 (D) x 177 (H) mm
Weight	18 Kg
Mounting	Rackmount



*All information provided is subject to change without notice. Last updated: November 20, 2024