

PCOM-B642VG

7th Gen Intel® Core™ processors (formerly Kaby Lake) based Type VI COM Express module with DDR4 SDRAM on SODIMM slot, VGA, DisplayPort, Gigabit Ethernet, PCIE, SATA and USB



PCOM-B642VG is Portwell's second module with desktop CPU and one of Portwell's new ideas to offer customers higher computing power but lower cost compared to mobile CPU based solutions. It provides customers four important advancements, high performance with affordable cost, DDR 4 memory support, Gen3 PCIe support, and 30% faster graphic performance. Specifically, the Portwell PCOM-B642VG is created to optimize the cost and performance balance with the 7th generation Intel® Core™ desktop processor series which delivers higher computing power but lower cost comparing to the mobile processor series. PCOM-B642VG can support both ECC and non-ECC DDR4 via different PCH series for solutions in various applications. The Gen3 PCIe support provides faster PCIe speed so that the performance of PCIe devices can be better, which is crucial for networking and medical related applications. Moreover, PCOM-B642VG features one PCIe x16, eight PCIe x1 (option to one PCIe x4), four USB 3.0, and four SATA3.

FEATURES

- 7th generation Intel® Core™ desktop processors (codenamed Kaby Lake-S)
- Support 2x DDR4-2400 ECC/Non-ECC SODIMM, up to 32GB
- Support 1x Gen3 PCIe x16, 8x Gen3 PCIe x1 (option to 1x Gen3 PCIe x4)
- Support 4x SATA3 and 4x USB 3.0
- Support VGA for legacy applications
- Support TPM, I2C, SMBus and UART

ORDERING GUIDE

PCOM-B642VG	PCOM-B642VG. TYPE VI. Kaby Lake-S. Basic Form Factor. COM Express Module. ECC/Non-ECC. DDR4
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GENERAL

Processor	– 7 th generation Intel® Core™ desktop processors, 35W TDP – Up to four CPU cores – Smart Cache 4MB to 8MB
Chipset	Intel® Q170, H110 and C236 Express chipsets
Memory	– Up to 32GB DDR4 at 2400 MT/s – Non-ECC and ECC (via C236 chipset) – Dual memory channels
Storage Devices	– 4x SATA3 ports – Intel® Rapid Storage Technology for PCIe storage
BIOS	– AMI Aptio BIOS – Support UEFI, ACPI, SMBIOS, Compatibility Support Module
Ethernet	Intel® Ethernet Controller I219LM
Expansion Interface	– 1x Gen3 PCIe x16 – 8x Gen3 PCIe x1 (option to 1x Gen3 PCIe x4)

I/O INTERFACE

USB	– 4x USB 3.0 – 8x USB 2.0
Audio	Intel® HD Audio
SATA	4x SATA3

DISPLAY

Graphics Controller	Intel® HD Graphics 630
Display Interface	– Three independent displays – DisplayPort (DP), VGA, eDP

Mechanical & Environment

Dimension	125(L) x 95(W) mm; 4.92"(L) x 3.74"(W)
Power Requirement	– Typical: 12V, 5VSB, VBAT – Support AT and ATX mode
Environment	– Operating Temperature: 0°C to 60°C – Storage Temperature: -20°C to 80°C – Relative Humidity: 5-90%

*All information provided is subject to change without notice. Last updated: Mar 21, 2018