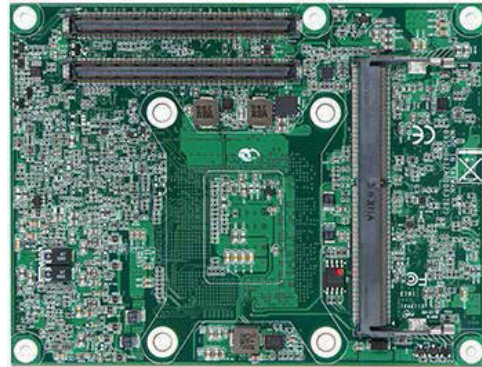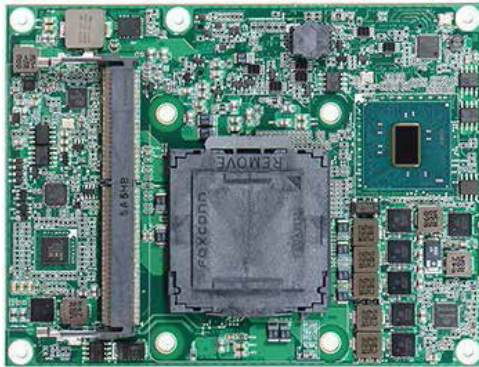# PCOM-B637VG

Intel® 6th Core™ processors (Skylake-S) based on Type VI Compact-COM Express2.0 module with DDR4 SDRAM on SO-DIMM slot, VGA, LVDS, Display-port, Gigabit Ethernet, PCIE, SATA and USB

PCOM-B637VG is Portwell's first module with desktop CPU. It provides customers four important factors, high performance with affordable cost, DDR 4 memory support, Gen 3 PCIe support, and 30% faster graphic performance. The desktop CPU on module is a new idea which offers customer higher computing power but lower cost comparing to mobile solutions. The DDR4 support is also another important point for higher performance. PCOM-B637VG can support both ECC and Non-ECC DDR4 by different PCH SKUs. This is good for different applications. The Gen 3 PCIe support provides faster PCIe speed so that the performance of PCIe devices will be better. It is crucial for Networking and Medical related applications. PCOM-B637VG provides one PCIex16, eight PCIex1 (Option to one PCIex4), four USB 3.0, and four SATA3.

FEATURES

- 6th generation Intel® Core™ Processors Support (Skylake-S 35W)

- Support DDR4-2133 ECC/Non-ECC SO-DIMM, up to 32GB

- Support 1x Gen3 PCIe x16, 8x Gen3 PCIe x1 (Option to 1x Gen3 PCIe x4)

- Support 4x SATA3 and 4x USB3.0

- Support VGA and LVDS for legacy applications

- Support TPM, I2C, SMBUS, and UART

ORDERING GUIDE

Contact us	PCOM-B637VG. TYPE VI.Skylake-S.Basic Form Factor.Com Express Module.ECC/Non-ECC.DDR4

GENERAL

Form Factor	- Type VI, Basic Form Factor COM Express
Processor	- 6th generation Intel® Core™ processors (Skylake-S 35W) - LGA1151 - Up to 2.4GHz, 8M Cache, 4 Cores, 8 Threads
BIOS	- AMI Aptio BIOS - Support UEFI, ACPI, SMBIOS, Compatibility Support Module
Memory	- Support dual-channel memory up to 32GB DDR4-2133 on two 204-pin SO-DIMM sockets
Storage Devices	- 4x SATA3 ports up to 6.0 Gb/s - Intel® Rapid Storage Technology for PCIe Storage
Watchdog Timer	- Programmable via S/W from 1 sec to 255min
Ethernet	- Intel® I219M Gigabit LAN x 1
Audio	- Intel® High Definition Audio
Expansion Interface	- 1x Gen3 PCI Express x16 (Option to 2x PCIe x8, or 1x PCIe x8 + 2x PCIe x4) - 8x Gen3 PCI Express x1 (Option to 1x PCIe x4) - 4x USB 3.0 ports - 8x USB 2.0 ports
Hardware Monitors	- ITE8528: CPU, Voltage and Temperature
Power Requirement	- Typical: 12V, 5VSB, VBAT - Support AT and ATX mode
Dimension	- 125mm(L) x 95mm(W)
Environment	- Operation Temperature: 0~60°C - Storage Temperature: -20~80°C - Relative Humidity: 5~90%

Display

Graphic Controller	Intel® HD Gen9 Graphics, Support DX 11/12, OpenGL 4.3/4.4, ES 2.0, OpenCL 2.x
Graphic Memory	Dynamic share system memory up to 1GB of 2GB system memory
Display Interface	VGA, LVDS/eDP, 2x DDI (DP/HDMI/DVI)