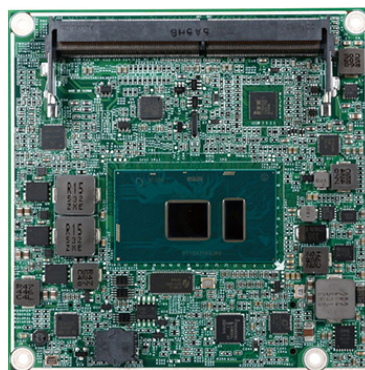# PCOM-B638VG

6th Generation Intel® Core™ Processor (Skylake-U) based Type VI Compact COM Express Module (COM.0 rev 2.0) with DDR4 SDRAM on SO-DIMM, VGA, LVDS, DisplayPort, Gigabit Ethernet, PCIe, SATA, USB and OTG

Fanless | 1 GbE | USB 3.0 | GPIO | Watch DOG | SATA 3.0 | EC

Designed with the 6th generation Intel® Core™ processor family (formally Skylake), the PCOM-B638VG features DDR4 memory support, Gen3 PCIe interface, and 30% faster graphic performance. Specifically, Gen 3 PCIe supports greater PCIe performance, crucial for networking and medical applications. Also, the enhanced graphic feature supports 4K performance. Furthermore, the OTG support provides customer greater flexibility on developing applications to suit different usage environments.

FEATURES

- 6th generation Intel® Core™ processors with 14nm process and brand new architecture delivering greater performance

- Low-profile solution but with high performance and low power

- Support faster I/O interfaces on five PCI Express Gen3 lanes (four x1 can be configured to one x4 lane)

ORDERING GUIDE

Contact Us	PCOM-B638VG. TYPE VI. 6th Gen Intel Core Skylake-U. Compact Form Factor. COM Express Module. DDR4. SATA 3.0. USB

GENERAL

Processor	- 6th generation Intel® Core™ processors with 14nm process - Turbo mode - SMT: 2~4 threads/core
Chipset	N/A
BIOS	- AMI Aptio BIOS - Support UEFI, ACPI, SMBIOS, Compatibility Support Module
Memory	Support non-ECC dual-channel memory up to 32GB DDR4 on two 204-pin SO-DIMM sockets
Storage Devices	- 2x SATA 3.0 - Optional 3rd SATA 3.0 by disabling one PCIe x1 from row C/D
Watchdog Timer	Programmable via S/W from 1 sec to 255 min
Hardware Monitoring	CPU, voltage and temperature
Expansion Interface	- Five PCI Express x1 (Gen 3.0), four x1 can be configured to one x4 lane - One PCI Express x4 (Gen 3.0) - I2C interface - SMBus interface - TPM interface - LPC interface - UART interface

I/O INTERFACE

Super I/O	N/A (on carrier board)
Audio	HDA controller integrated
Ethernet	Onboard Intel I219LM
Serial Port	One serial RX/TX supported from onboard EC (embedded controller)
USB	- Eight USB 2.0 ports (one port can be programmed as OTG) - Four USB 3.0 ports
Keyboard & Mouse	KBC controller integrated in embedded controller
GPIO	8bit configurable controlled by embedded controller

DISPLAY

Graphic Controller	Intel® HD Gen9 graphics, supporting 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) - 3x DisplayPort, resolution up to 4K x 2K

Mechanical & Environment

Dimension	- 95mm (L) x 95mm (W)
Power Supply	- Typical: 12V, 5VSB, VBAT - Support AT and ATX mode
Environment	- Operating Temperature: 0~60°C - Storage Temperature: -20~80°C - Relative Humidity: 5~90%, non-condensing