

# PCOM-B638VG

Intel® Kaby Lake-U/Skylake-U Core™ i7/i5/i3 processor based on Type VI Compact-COM Express 2.0 module with DDR4 SDRAM on SO-DIMM slots, VGA, LVDS, Display-port, Gigabit Ethernet, PCIe, SATA, USB, and OTG



## FEATURES

- Kaby Lake-U / Skylake-U is the 7<sup>th</sup> / 6<sup>th</sup> Generation Intel® Core™ Processor with 14nm and brand new architecture provide more performance
- Support DDR4-2133 MT/S Non-ECC SDRAM on one SO-DIMM slots, up to 16 GB
- Two SO-DIMM slots, up to 32GB
- One VGA, two DDI(one default optional) and LVDS
- Wide voltage support, from 6V to 18V



PCOM-B638VG brings three important factors, DDR4 memory support, Gen3 PCIe support, and 30% faster graphic performance. The Gen3 PCIe support provides faster PCIe speed so that the performance of PCIe expansion card will be better. It is crucial for Networking and Medical related applications. The enhanced graphic performance brings 4K support. The OTG support gives customer more flexibilities on developing new applications in different usages.

## General

General				
Product	PCOM-B638VG			
Form Factor	Type 6, Compact Form Factor Com Express® (95 x 95mm)			
Processor	Intel® Celeron®	Intel® Core™		
	3955U	i3-6100U	i5-6300U	i7-6600U
Core	2	2	2	2
Freq.	2.00 GHz	2.30 GHz	2.40 GHz	2.60 GHz
Turbo	NA	NA	3.00 GHz	3.4 GHz
Cache	2MB	3MB	3MB	4MB
Processor Graphics	Intel® HD Graphics 510	Intel® HD Graphics 520	Intel® HD Graphics 520	Intel® HD Graphics 520
Graphics Base Frequency	300 MHz	300 MHz	300 MHz	300 MHz
Graphics Max Dynamic Frequency	900 MHz	1.00 GHz	1.00 GHz	1.05 GHz
HW Encoding				
HW Decoding	N/A			
HW Acceleration				
Processor TDP	15W	15W	15W	15W
BIOS	AMI BIOS			
ECC Memory Supported	NO			
Memory	2 SO-DIMM DDR4 up to 32GB 2133MHz			

## I/O Interface

SATA	2 x SATA III (Port 0/1) 1 x SATA III (Port 2) (Optional)		
USB	8 x USB2.0 (Port 0~7) USB OTG (Optional) (Port 7) 4 x USB3.0 (Port 0/1/2/3)		
Ethernet	Intel® I219LM		
Serial I/O	GPIO	8 GPIO	
	I <sup>2</sup> C	Baud Rate : 400KHz	
	SMBus	Baud Rate : 100KHz	
	UART	2x UART	
PEG	1x PCies x4 Gen3		
PCI Express	1x PCIe x4 Gen2		
	1x PCIe x1 Gen2		
Display	VGA	VGA	1920x1200@60 Hz
	LVDS	LVDS	1920x1600@60Hz
	HDMI	DP	4096x2160@60Hz
		HDMI	3840x2160@30Hz (Optional)
Security	TPM		

## MECHANICAL & ENVIRONMENT

Dimension	95 x 95mm
Power DC IN	Normal: +12V DC Wide range: +8 VDC ~ +18 VDC AT/ ATX mode
Storage Temperature	0°C to 60°C
Operation Temperature	0°C to 60°C
Certification	Contact us
MTBF	Over 100,000 hours at 40° C
Vibration	Random 5Hz to 2KHz, 7.7 grms, 10min in each of 3 axes
OS	Windows 7/ 8/ 8.1/ 10/ Microsoft Windows 2008 R2 SP1/ 2012/ 2012 R2 Linux Fedora 22/ Ubuntu 15.04

## BLOCK DIAGRAM

## ORDERING GUIDE

Product	Ordering P/N	Status
PCOM-B638VG-6600U	AB1-3E39	Available
PCOM-B638VG-6300U	AB1-3E38	Available
PCOM-B638VG-6100U	AB1-3E32	Available
PCOM-B638VG-3955U	AB1-3E77	Available
PCOM-B638VG-7600U	AB1-3G88	Available
PCOM-B638VG-7300U	AB1-3G87	Available
PCOM-B638VG-7100U	AB1-3G86	Available
PCOM-B638VG-3965U	AB1-3G85	Available

Accessory	Ordering P/N	Status
PCOM-C605 carrier board	AB1-3998	Available
PCOM-B638VG Cooler	B9971380	Available
PCOM-B638VG Heat Sink	B8308660	Available
PCOM-B638 Heat Spreader	B8308500	Available

## PCOM-B638VG

COM Express® Type 6 Compact Module 95x95mm AT / ATX Mode 0° C ~ +60° C

