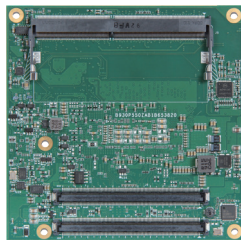
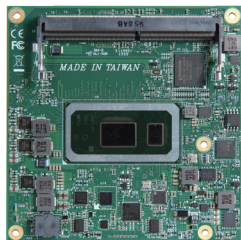


PCOM-B653VGL

Intel® Core™ Whiskey Lake-U i7/i5/i3 series processor based on Type 6 Compact COM-Express® module with 2x DDR4 SD-DIMM Socket



FEATURES

- Intel® Core™ Whiskey Lake-U i7/i5/i3 8000 series processors
- DDR4 SDRAM up to 32GB 2400 MT/s
- Multiple Displays VGA, LVDS/eDP, DP, HDMI
- Widely voltage support 6V to 18V



PCOM-B653VGL, a type 6 compact COM Express® (95 x 95 mm) module which based on Intel® Whiskey Lake-U® i7/i5/i3 and Celeron® processors. In this architecture, PCOM-B653VGL could support VGA, LVDS, HDMI, eDP and DP displays, and turbo mode up to 4.4GHz. And its expandability I/O interfaces will include 5x PCIe 3.0 x 1, 4x USB 3.2 Gen2, 8x USB 2.0, and 2x SATA III devices. With this ultra low power consumption design (15W), PCOM-B638VG could provide a very energy saving solution to the different vertical market, seems like automation, healthcare, transportation and retails.

General

Product	PCOM-B653VGL			
Form Factor	Type 6, Compact Form Factor COM-Express® (95 x 95 mm)			
Processor	Intel® Celeron	Intel® Core™		
	4305UE	i3-8145UE	i5-8365UE	i7-8665UE
Core	2	2	4	4
Freq.	2.0 GHz	2.2 GHz	1.60 GHZ	1.70 GHz
Turbo	N/A	3.9 GHz	4.10 GHz	4.40 GHz
Cache	2MB	4MB	6MB	8MB
Processor Graphics	Intel® UHD Graphics 610	Intel® UHD Graphics 620	Intel® UHD Graphics 620	Intel® UHD Graphics 620
Graphics Base Frequency	300 MHz	300 MHz	300 MHz	300 MHz
Graphics Max Dynamic Frequency	1.00 GHz	1.00 GHz	1.05 GHz	1.15 GHz
HW Encoding	H.264 AVC, MPEG2, HEVC, VP8/9, JPEG			
HW Decoding	H.264 AVC, VC1, MPEG2, VP8/9, JPEG			
HW Acceleration	DX 11.3/12, OpenGL 4.5, OpenCL 2.1			
Processor TDP	15W	15W	15W	15W
BIOS	AMI BIOS			
ECC Memory Supported	NO			
Memory	DDR4 SDRAM up to 32GB 2400 MT/s			

I/O Interface

SATA	2x SATA III		
USB	4x USB 3.2 Gen2 8x USB 2.0		
Ethernet	Intel® Ethernet Controller I219LM		
Serial I/O	GPIO	8 GPIO	
	I²C	Baud Rate : 400KHz	
	SMBus	Baud Rate : 100KHz	
	UART	2 Serial Port (Tx/Rx)	
PEG	4x PCIe 3.0 x 1		
PCI Express	5x PCIe 3.0 x 1 1x PCIe 3.0 x 1(Option)		
Display	Default	Options	Resolution
	eDP	LVDS(24bit, dual channel)	up to 2560x 1600 @ 60Hz
		eDP	up to 4096x 2304 @ 24Hz
	DDI1	DP	up to 3840x 2160 @ 24Hz
		HDMI	up to 4096x 2160 @ 24Hz
	DDI2	VGA	up to 2560x 1600 @ 60Hz
		DP	up to 3840x 2160 @ 24Hz
	HDMI	up to 4096x 2160 @ 24Hz	
Security	TPM 2.0, Intel®AES		

MECHANICAL & ENVIRONMENT

Dimension	95 x 95mm
Power DC IN	Normal : +12V Wide range : +6VDC - +18VDC AT/ATX Mode
Storage Temperature	-20°C to 85°C
Operation Temperature	0°C to 60 °C
Certification	Contact us
MTBF	Over 100,000 hours at 40°C
Vibration	Contact us
OS	Windows 7/ 8/ 8.1/ 10/ Microsoft Windows 2008 R2 SP1/ 2012/ 2012 R2 Linux Fedora 22/ Ubuntu 15.04

ORDERING GUIDE

Product	Ordering P/N	Status
PCOM-B653VGL-8665UE	AB1-3K06	Available
PCOM-B653VGL-8365UE	AB1-3K04	Available
PCOM-B653VGL-8145UE	AB1-3K05	Available
PCOM-B653VGL-4305UE	AB1-3K19	Available

Accessory	Ordering P/N	Status
Cooler	B9971821	Available
Heat Sink	TBD	Contact us
Heat Spreader	B830A560	Available
PCOM-C605(Min-ITX Carrier board)	AB1-3998	Available
PCOM-C60B(ATX Carrier board)	AB1-3G22Z	Contact us

BLOCK DIAGRAM

PCOM-B653VGL

COM Express® Type 6
Compact Module 95x95mm

AT / ATX Mode

12 VDC

0° C ~ +60° C

