



FEATURES

- Intel® Atom® Processor x6000 Series (Elkhart Lake)
- On Board LPDDR4 SDRAM up to 8GB
- Low Power Consumption (4.5 to 12W), 4K Resolution
- Optional for -40°C to 85°C Industrial temperature
- Support Intel® TCC/TSN with 2.5GbE



PCOM-BA02GL, a Type 10 Mini COM Express® (84 x 55 mm) module which based on Intel® Elkhart Lake Atom® x6000 and Pentium® N and J Series Processors. In this architecture, it could provide LVDS, and high quantity HDMI, eDP, DP with 4K resolution. And it also provides turbo mode up to 3.0GHz, with extending 4 x PCIe 3.0 x 1, 2 x USB 3.1, 8 x USB 2.0, and 2 x SATA III devices. With ultra low power consumption(4.5 to 12W), wide-temp support, it could provide very energy saving and high effective performance. Portwell want to promotes PCOM-BA02GL as vertical solution to aim in the different versatile applications, such as automation, military, hospitality, transportation and so on.

General

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Product	PCOM-BA02GL				
Form Factor	Type 10, Mini Form Factor COM-Express® (84 x 55 mm)				
Processor	Intel® Pentium	Intel® Atom			
	J6426	x6211E	x6413E	x6425E	x6425RE
Core	4	2	4	4	4
Freq.	1.8 GHz	1.2 GHz	1.5 GHz	1.8 GHz	1.9 GHz
Turbo	3.0 GHz	3.0 GHz	3.0 GHz	3.0 GHz	N/A
Cache	1.5MB	1.5MB	1.5MB	1.5MB	1.5MB
Processor Graphics	Intel® UHD Graphics for 10 th Gen Intel® Processors				
Graphics Base Frequency	400 MHz	350 MHz	500 MHz	500 MHz	400 MHz
Graphics Max Dynamic Frequency	850 MHz	750 MHz	750 MHz	750 MHz	N/A
HW Encoding	H.264, H.265/HEVC, VP9, JPEG/MPEG				
HW Decoding	H.264, MPEG2, V1-1/WMV9, H.265/HEVC, VP8/9, JPEG/MPEG				
HW Acceleration	Gen 11 LP, DirectX 12, OpenGL4.5, OpenGL ES 3.2, Vulkan				
Processor TDP	10W	6W	9W	12W	12W
BIOS	AMI BIOS				
In-Band ECC	N/A	Yes	Yes	Yes	N/A
Memory	On board LPDDR4 SDRAM up to 8GB 3200 MT/s				

I/O Interface

SATA	2 x SATA III				
USB	2 x USB 3.1, 8 x USB 2.0				
Ethernet	2.5 GbE PHY with GPY215				
Serial I/O	GPIO		8 GPIO		
	I ² C		Baud Rate: 400KHz		
	SMBus		Baud Rate: 100KHz		
	UART		2 Serial Port (Tx/Rx)		
PEG	N/A				
PCI Express	4 x PCIe 3.0 x 1				
Display	Default	Options		Resolution	
	DDI0	LVDS(24bit, dual channel)		up to 2560x 1600 @ 60Hz	
		eDP		up to 4096x 2160 @ 60Hz	
	DDI1	DP		up to 4096x 2160 @ 60Hz	
HDMI		up to 4096x 2160 @ 60Hz			
Security	TPM 2.0, Intel®AES				

MECHANICAL & ENVIRONMENT

Dimension	84 x 55 mm
Power DC IN	+4.75VDC to +20VDC, AT/ATX Mode
Storage Temperature	-40°C to 85°C
Operation Temperature	-40°C to 85°C
Certification	Contact us
MTBF	TBD
Vibration	TBD
OS	Windows 10, Android 10 Linux Wind River7/Ubuntu/Yocto RTOS Windriver

ORDERING GUIDE

Product	Ordering P/N	Status
PCOM-B645VGL-J6426-8G	TBD	Contact us
PCOM-B645VGL-X6211e-8G	TBD	Contact us
PCOM-B645VGL-X6413e-8G	TBD	Contact us
PCOM-B645VGL-X6425e-8G	AB1-3K47Z	Contact us
PCOM-B645VGL-x6425RE-8G	TBD	Contact us

Accessory	Ordering P/N	Status
Heat Sink (J/N-sku)	TBD	Contact us
Heat Sink (X-sku)	TBD	Contact us
PCOM-CA00 (Micro-ATX Carrier board)	AB1-3917	Available

BLOCK DIAGRAM

PCOM-BA02GL

COM Express® Type 10
Mini Module 84x55mm

AT / ATX Mode

+4.75~+20VDC

-40° C ~ +85° C

