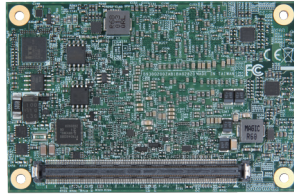
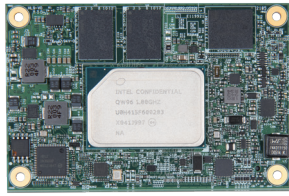


# PCOM-BA02GL

Intel Atom® x6000E series SoC based Type 10 Compact COM-Express® module with LPDDR4 SDRAM



## FEATURES

- Intel Atom® Processor x6000E Series (Formerly Elkhart Lake)
- On Board LPDDR4 SDRAM up to 8GB, with In-Band ECC support
- Low Power Consumption (4.5 to 12W), dual 4K display
- Optional for Industrial temperature range from -40°C to 85°C
- Support Intel® TCC/TSN with 2.5GbE



PCOM-BA02GL, a Type 10 Mini COM Express® (84 x 55mm) module is based on Intel Atom® x6000E and Pentium® N and J Series Processors, featuring LPDDR4-3200 MT/s on board memory, dual 4K displays, 2.5GbE, 4x PCIe 3.0 x1, 2x USB 3.1, 8x USB 2.0 and 2x SATA III devices. It also supports turbo mode up to 3.0GHz, wide voltage input from 4.75V to 20V and extended temperature from -40°C to 85°C. With ultra low power consumption (4.5 to 12W), it enables energy saving and high effective performance. Portwell's PCOM-BA02GL is ideal for versatile applications, such as industrial automation, military, transportation and much more.

## General

General					
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 <sup>th</sup> 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	Yes
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 via GPY215 PHY				
Serial I/O	GPIO		8 GPIO		
	I <sup>2</sup> 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	
	LVDS	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-BA02GL-J6426-8G	TBD	Contact us
PCOM-BA02GL-X6211E-8G	TBD	Contact us
PCOM-BA02GL-X6413E-8G	TBD	Contact us
PCOM-BA02GL-X6425E-8G	AB1-3K47Z	Contact us
PCOM-BA02GL-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

