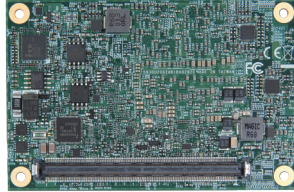
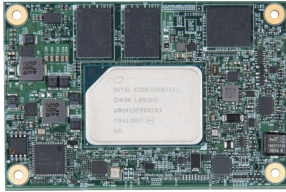


PCOM-BA02GL

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



FEATURES

- Intel Atom® x6000E Series Processor (Elkhart Lake)
- Onboard LPDDR4 SDRAM up to 16GB
Onboard eMMC up to 64GB
- Low power consumption (6W to 12W), 4K display resolution
- Support wide temperature -40°C ~ 85°C (Select SKUs)
- Support Intel® TCC/TSN with 2.5GbE (Select SKUs)



PCOM-BA02GL is a Type 10 Mini COM Express® (84 x 55 mm) module based on Intel Atom® x6000 Series Processors (formerly Elkhart Lake). In this architecture, it could provide LVDS, and multiple display interfaces via HDMI, eDP, DP with 4K resolution. And also it supports turbo mode up to 3.0GHz, as well as various I/O expansion including 4x PCIe 3.0 x1, 2x USB 3.2 Gen2, 8x USB 2.0, and 2x SATA III devices. With ultra-low power consumption (6W to 12W), wide-temp support, it enables efficient energy saving and highly effective performance. Portwell's PCOM-BA02GL is ideal for versatile applications, such as automation, military, hospitality, transportation and more.

General

Product	PCOM-BA02GL			
Form Factor	Type 10, Mini Form Factor COM-Express® (84 x 55 mm)			
Processor	Intel® Atom			
	x6211E	x6413E	x6425E	x6425E
Core	2	4	4	4
Freq.	1.3 GHz	1.5 GHz	2.0 GHz	2.0 GHz
Turbo	3.0 GHz	3.0 GHz	3.0 GHz	3.0 GHz
Cache	1.5MB	1.5MB	1.5MB	1.5MB
Processor Graphics	Intel® UHD Graphics for 10 th Gen Intel® Processors			
Graphics Base Frequency	350 MHz	500 MHz	500 MHz	500 MHz
Graphics Max Dynamic Frequency	750 MHz	750 MHz	750 MHz	750 MHz
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	6W	9W	12W	12W
BIOS	AMI BIOS			
In-Band ECC	Yes	Yes	Yes	Yes
Memory (on board LPDDR4)	4GB 3200 MT/s	8GB 3200 MT/s	8GB 3200 MT/s	16GB 3200 MT/s
Storage (on board eMMC)	16GB	16GB	32GB	32GB
Temperature Range	-40 ~ 85 °C	-40 ~ 85 °C	-40 ~ 85 °C	-40 ~ 85 °C

I/O Interface

SATA	2 x SATA III		
USB	2 x USB 3.2 Gen2 8 x USB 2.0		
Ethernet	2.5GbE with GPY215 (optional support TSN/TCC on select SKU)		
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
	DDI	DP	up to 4096x 2160 @ 60Hz
		HDMI	up to 4096x 2160 @ 60Hz
	LVDS / eDP	LVDS (24bit, dual channel)	up to 2560x 1600 @ 60Hz
		eDP	up to 4096x 2160 @ 60Hz
Security	TPM 2.0, Intel® AES		

MECHANICAL & ENVIRONMENT

Dimension	84 x 55 mm
Power DC IN	4.75V to 20V, AT/ATX Mode
Storage Temperature	-40°C to 85°C
Operation Temperature	0°C to 60°C -40°C to 85°C (Selected SKU)
Certification	Contact us
MTBF	Contact us
Vibration	Contact us
OS	Win 10 IoT Enterprise, Ubuntu, Yocto

ORDERING GUIDE

Product	Ordering P/N	Status
PCOM-BA02GL-x6211E-4G-16G	AB1-3L79	Available
PCOM-BA02GL-x6413E-8G-16G	AB1-3L76	Available
PCOM-BA02GL-x6425E-8G-32G	AB1-3K47	Available
PCOM-BA02GL-x6425E-16G-32G	AB1-3R26	Available

Accessory	Ordering P/N	Status
Heatsink (Atom)	B830B480	Available
Heatsink (Pentium/Celeron)	B830B490	Available
Heatspreader (Atom)	B830B500	Available
Heatspreader (Pentium/Celeron)	B830B510	Available
PCOM-CA00(Micro-ATX Carrier board)	AB1-3917	Available

BLOCK DIAGRAM

PCOM-BA02GL

