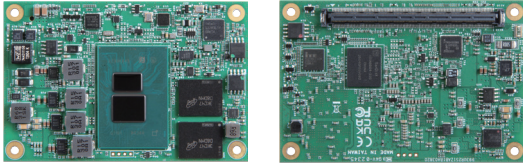


# PCOM-BA03

Intel® Atom® x7000 series SoC based on Type 10 mini COM-Express® module with LPDDR5 SDRAM



## FEATURES

- Intel Atom® x7000E/RE series
- On board LPDDR5 SDRAM up to 16GB
- On board eMMC up to 256GB
- Support wide temperature -40°C ~ 85°C (Selected SKU)
- Support Intel® TCC/TSN with 2.5GbE (Selected SKU)
- Low Power Consumption (6W to 12W), 4K Display resolution



PCOM-BA03, A Type 10 Mini COM Express® (84 x 55 mm) module which based on Intel® Atom® x7000 Series Processors. In this architecture, it could provide LVDS, and high quantity HDMI, eDP, DP with 4K resolution. It also provides turbo mode up to 3.6GHz, with extending 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 could provide very energy saving and high effective performance. Portwell want to promotes PCOM-BA03 as vertical solution to aim in the different versatile applications, such as automation, military, hospitality, transportation and so on.

## General

Product	PCOM-BA03						
Form Factor	Type 10, Mini Form Factor COM-Express® ( 84 x 55 mm)						
CPU Series	Embedded E Series			Industrial RE Series			
	x7211E	x7213E	x7425E	x7211RE	x7213RE	x7433RE	x7835RE
Core	2	2	4	2	2	4	8
Frequency	1.0 GHz	1.7 GHz	1.5 GHz	1.0 GHz	2.0 GHz	1.5 GHz	1.3 GHz
Turbo Frequency	3.2 GHz	3.2 GHz	3.4 GHz	3.2 GHz	3.4 GHz	3.4 GHz	3.6 GHz
Intel® Smart Cache	6 MB						
Intel® Gfx EU	16EU	16EU	24EU	16EU	16EU	32EU	32EU
Graphics Max Freq.	1.0 GHz	1.0 GHz	1.0 GHz	800 MHz	800 MHz	800 MHz	1.0 GHz
Processor TDP	6W	10W	12W	6W	9W	9W	12W
Support Temperature	0°C to 60°C			-40°C~85°C			
PCH	SoC						
Memory (on board LPDDR5)	8GB	16GB	16GB	8GB	16GB	16GB	16GB
ECC Memory Support	In-Band ECC						
Storage (on board eMMC)	32G	32G	64G	32G	32G	64G	256G

## I/O Interface

SATA	2 x SATA III			
USB	2 x USB 3.2 Gen2			
Ethernet	Intel® I226 series			
Serial I/O	GPIO		8 bit GPIO (default 4 input/4 output)	
	I <sup>2</sup> C		Baud Rate: 400KHz	
	SMBus		Baud Rate: 100KHz	
	UART		TX/RX signal only	
PCI Express Gen3	4x PCIe 3.0 x1			
Display	Module display interface		Carrier output options	
	eDP / LVDS (default eDP)		eDP up to HBR3	3840 x 2160@120Hz
			LVDS (24bit, dual channel)	1920 x 1200@60Hz
	DDI		DP up to HBR3	3840 x 2160@120Hz
HDMI 2.1			3840 x 2160@120Hz	
Security	TPM 2.0			

## MECHANICAL & ENVIRONMENT

Dimension	84 x 55 mm
Power DC IN	4.75V to 20V, AT/ATX Mode
Storage Temperature	-40°C to 85°C
Operating Temperature	0°C to 60°C -40°C to 85°C(Industrial SKU)
Certification	Contact us
MTBF	Contact us
Vibration	Contact us
OS	Windows 11 Ubuntu

## ORDERING GUIDE

Product	Ordering P/N	Status
PCOM-BA03-x7425E-16G-64G	AB1-3S29	Available
PCOM-BA03-x7211RE-8G-32G	AB1-3S41	Available
PCOM-BA03-x7213RE-16G-32G	AB1-3S43	Available
PCOM-BA03-x7433RE-16G-64G	AB1-3S44	Available
PCOM-BA03-x7835RE-16G-256G	AB1-3S42	Available
PCOM-BA03-x7211E-8G-32G	AB1-3T24	Available
PCOM-BA03-x7213E-16G-32G	AB1-3T25	Available

Accessory	Ordering P/N	Status
Heatsink (Aluminum)	B830C460	Available
Heatspreader (Aluminum)	B830C470	Available
Heatsink (Copper elastic pad)	B830C690	Available
Heatspreader (Copper elastic pad)	B830C700	Available
PCOM-CA00 (Micro-ATX Carrier board)	AB1-3917	Available

## BLOCK DIAGRAM

### PCOM-BA03

COM Express® Type 10  
Mini Module 84x55mm

