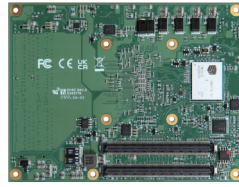
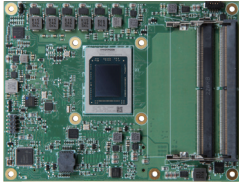


# PCOM-B706GT

COM-Express® Type 7 Basic module with AMD® Embedded Ryzen™ V3000 CPU Family equipped on-module NVME SSD



## FEATURES

- AMD® Embedded Ryzen™ V3000 CPU featuring "Zen 3" core
- 2x DDR5 4800 MT/s SO-DIMM, 2x 10G KR/SFI port ( support SFP+ and RJ45 with external PHY)
- 10W ~ 54W cTDP with -40 ~ 85 °C support on selected SKU
- Up to 16x PCIe Gen 4 lanes for high speed interconnection
- Optional on-module PCIe x2 NVME storage



PCOM-B706GT is a Type 7 COM Express® basic size (125mm x 95mm) module based on the AMD® Embedded Ryzen™ V3000 CPU family. It provides up to 8 cores and 16 threads processors with cTDP from 10W to 54W, and 2x 10G KR/SFI ports which can support both SFP+ and RJ45 (via external PHY). The module delivers PCIe Gen4 lanes with a 16.0 GT/s transfer rate to meet the demands of throughput on different applications. The PCOM-B706GT offers 16x PCIe lanes, 4x USB 3.2 Gen2, and 2x SATA III ports, fully compliant with COM Express Type 7 specifications. Additionally, it integrates an on-module high-speed SSD storage chip for compact embedded systems with security requirements. A selected SKU (V3C18I) supports a wide temperature range while maintaining powerful computing performance with 8 cores / 16 threads, making it ideal for critical edge applications. The PCOM-B706GT provides a seamless upgrade path for compute-intensive tasks such as software-defined networking, edge computing, automation, military, and transportation systems.

## General

Product	PCOM-B706GT					
Form Factor	Type 7, Basic Form Factor COM-Express® ( 125 x 95 mm)					
Processor Model	AMD® Embedded Ryzen V3000 CPU					
	V3C14	V3C16	V3C18	V3C18I	V3C44	V3C48
Core / Thread Count	4C / 8T	6C / 12T	8C / 16T	8C / 16T	4C / 8T	8C / 16T
Base Frequency	2.3 GHz	2.0 GHz	1.9 GHz	1.9 GHz	3.5 GHz	3.3 GHz
1T Boost Frequency	3.8 GHz	3.8 GHz	3.8 GHz	3.8 GHz	3.8 GHz	3.8 GHz
L2 Cache	2 MB	3 MB	4 MB	4 MB	2 MB	4 MB
L3 Cache	8 MB	16 MB	16 MB	16 MB	8 MB	16 MB
Ethernet	2x 10G KR/SFI ( Support SFP+ and RJ45 with external PHY) 1x GbE LAN					
Nominal TDP (W)	15 W	15 W	15 W	15 W	45 W	45 W
cTDP (W)	10 ~ 25 W	10 ~ 25 W	10 ~ 25 W	10 ~ 25 W	35 ~ 54 W	35 ~ 54 W
BIOS	AMI BIOS					
Memory	2x DDR5 SO-DIMM Up to 4800 MT/s					
Temperature Range	0 ~ 60 °C	0 ~ 60 °C	0 ~ 60 °C	-40 ~ 85 °C	0 ~ 60 °C	0 ~ 60 °C

## I/O Interface

SATA / Storage	2x SATA III or 1x on-module PCIe x2 NVME (Optional)	
USB	4x USB 2.0 4x USB 3.2 Gen2	
Ethernet	2x 10G KR/SFI ( Support SFP+ and RJ45 with external PHY) 1x GbE LAN	
Serial I/O	GPIO	8 GPIO
	I <sup>2</sup> C	Baud Rate: 400KHz
	SMBus	Baud Rate: 100KHz
	UART	2 Serial Port (Tx/Rx)
PCI Express	1x PCIe x8 or 2x PCIe x4, Max PCIe Gen 4 [PCIe #16 ~ #23] 1x PCIe x4 + 3x PCIe x1 or 2x PCIe x2 + 3x PCIe x1, w/ on-module GbE LAN [PCIe #0 ~ #7] 1x PCIe x8 or 1x PCIe x4 + 4x PCIe x1 or 2x PCIe x2 + 4x PCIe x1, w/o on-module GbE LAN [PCIe #0 ~ #7]	
Security	TPM 2.0	

# PCOM-B706GT

## MECHANICAL & ENVIRONMENT

Dimension	125mm x 95 mm
Power DC IN	12v ±5%
Storage Temperature	-40°C to 80°C
Operating Temperature	0°C to 60°C ( Selected SKU -40°C to 85 °C )
Certification	Contact us
MTBF	TBD
Vibration	TBD
OS	Linux Ubuntu 20.04.3 LTS / Yocto

## ORDERING GUIDE

Product	Ordering P/N	Status
PCOM-B706GT-V3C48	AB1-3R17Z	In design
PCOM-B706GT-V3C44	AB1-3R15Z	In design
PCOM-B706GT-V3C18I	AB1-3R19Z	In design
PCOM-B706GT-V3C18	AB1-3R18Z	In design
PCOM-B706GT-V3C16	AB1-3R16Z	In design
PCOM-B706GT-V3C14	AB1-3R14Z	In design

Accessory	Ordering P/N	Status
Cooler (54W TDP)	B9972190	In design
Cooler (25W TDP)	B9972200	In design
Heat-Sink	B830C080	In design
Heat Spreader (54W TDP)	B830C090	In design
Heat Spreader (25W TDP)	B830C100	In design

## BLOCK DIAGRAM

### PCOM-B706GT

COM Express® Type 7 COM  
Basic Module 95x125mm

AT / ATX Mode

-40° C ~ +85° C

