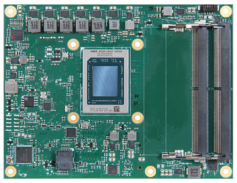
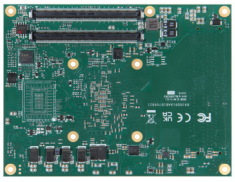
PCOM-B706GT

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 14x 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 14x 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	V3C18I	V3C44	V3C48
Core / Thread Count	4C / 8T	6C / 12T	8C / 16T	4C / 8T	8C / 16T
Base Frequency	2.3 GHz	2.0 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
L2 Cache	2 MB	3 MB	4 MB	2 MB	4 MB
L3 Cache	8 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	45 W	45 W
cTDP (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	-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
	I²C	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 or 2x PCIe x2 or 4x PCIe x1,Max PCIe Gen4 [PCIe #0 ~ #3] 1x PCIe x2 or 2x PCIe x1,Max PCIe Gen4 [PCIe #4 ~ #5]	
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	AB1-3R17	Available
PCOM-B706GT-V3C44	AB1-3R15	Available
PCOM-B706GT-V3C18I	AB1-3R19	Available
PCOM-B706GT-V3C16	AB1-3R16	Available
PCOM-B706GT-V3C14	AB1-3R14	Available

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

BLOCK DIAGRAM

PCOM-B706GT

COM Express® Type 7 COM Basic Module 95x125mm | AT / ATX Mode | -40˚C ~ +85˚C

