

# PCOM-B700G-NS

Intel® Xeon® D-1600 series SoC based on Type 7 Basic COM Express® module



## FEATURES

- Intel® Xeon® D-1600 Series Processor (Hewitt Lake)
- 3x DDR4 SO-DIMM
- TDP 35w to 45w consumption
- Selected SKU support -40°C to 85 °C wide temperature
- Support Intel® QuickAssist Technology (Intel® QAT)



PCOM-B700G-NS, a Type 7 COM Express® basic size(125 x 95 mm) module which based on Intel® Hewitt Lake Xeon® D-1600 series processors. In this architecture, it could provide up to 8 cores and up to 16 threads processors within the TDP from 35w to 45w, and 4x 10G KR ports and up to 30 Gbps of cryptography offload with Intel® QuickAssist Technology (Intel® QAT), it's also extending 24x PCIe 3.0 and 8x PCIe 2.0 lanes, 4x USB 3.2 Gen1, and 2x SATA III ports. A selected SKU (D-1649N) support wide-temperature range. PCOM-B700G-NS offer an effective upgrade path for solutions already using the previous D-1500 COM Express modules. Portwell want to promotes PCOM-B700G-NS as vertical solution to aim in the different versatile applications, such as edge computing, automation, military, transportation and so on.

## General

Product	PCOM-B700G-NS			
Form Factor	Type 7, Basic Form Factor COM-Express® ( 125 x 95 mm)			
Processor	Intel® Xeon®			
	D-1649N	D-1633N	D-1623N	D-1627
Core	8	6	4	4
Freq.	2.3 GHz	2.5 GHz	2.4 GHz	2.9 GHz
Turbo	3.0 GHz	3.2 GHz	3.2 GHz	3.2 GHz
Cache	12 MB	9 MB	6 MB	6 MB
Processor Graphics	N/A			
Graphics Base Freq.	N/A			
Ethernet	4x 10G KR 1x GbE LAN			
Intel® QAT (Gbps)	20 Gbps	10 Gbps	10 Gbps	N/A
Processor TDP	45 W	45 W	35 W	45 W
BIOS	AMI BIOS			
Memory	3x DDR4 SO-DIMM			
Temperature Range	-40°C to 85 °C	0°C to 60 °C	0°C to 60 °C	0°C to 60 °C

## I/O Interface

SATA	2 x SATA III	
USB	8 x USB 2.0 4 x USB 3.2 Gen1	
Ethernet	4x 10G KR 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	24x PCIe 3.0 8x PCIe 2.0	
Display	N/A	
Security	TPM 2.0, Intel®AES	

# PCOM-B700G-NS

## MECHANICAL & ENVIRONMENT

Dimension	125 x 95mm
Power DC IN	12v ±5%
Storage Temperature	-40°C to 85°C
Operation Temperature	0°C to 60°C ( selected SKU -40°C to 85 °C )
Certification	Contact us
MTBF	TBD
Vibration	TBD
OS	Windows 10 Linux Wind River7/Ubuntu/Yocto RTOS Windriver

## ORDERING GUIDE

Product	Ordering P/N	Status
PCOM-B700G-NS-D1649N	AB1-3K99	Contact us
PCOM-B700G-NS-D1633N	AB1-3L02	Contact us
PCOM-B700G-NS-D1623N	AB1-3L00	Contact us
PCOM-B700G-NS-D1627	AB1-3L01	Contact us
PCOM-B700G-NS-D1533N	AB1-3G95	TBD
Accessory	Ordering P/N	Status
Cooler	B9972000	Contact us
Heat Sink	TBD	in design
Heat Spreader	TBD	in design

## BLOCK DIAGRAM

# PCOM-B700G-NS

COM Express® Type 7 Basic Size 125x95mm AT / ATX Mode -40° C ~ +85° C (Selected SKUs)

