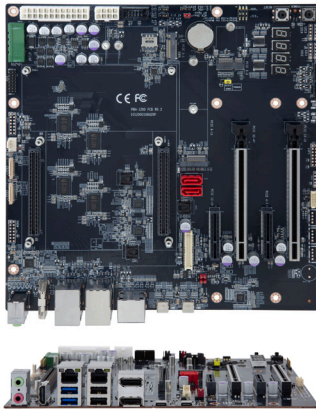


# PBH-1200

## COM-HPC Client Type Module Evaluation Board



### Features

- COM-HPC® Evaluation Board Support COM-HPC® Client Type Modules (Type A/B/C)
- Micro-ATX Form Factor with Full PCI Express Expansions
- Support Multiple Independent Displays: DP, HDMI, eDP and USB Type C (DP Alt mode)
- Multiple I/O Expansion: 2.5 GbE, PCIe Gen5, USB4 & USB3.2 Gen2, SATA 3.0, MIPI CSI
- Wide-range voltage input: 8V ~ 20V

### I/O

	2 x MIPI CSI (11 x 2P) Connectors
	1 x SMBus (5 x 1P) Pin Header
Serial Bus	2 x I <sup>2</sup> C Bus (5 x 1P) Pin Headers
	2 x UART Bus (5 x 1P) Pin Headers
	1 x GP_SPI (7 x 2P) Pin Header
	2 x USB 4.0 Type-C ports (w/ DP Alt Mode)
	2 x USB 3.2 Gen2 Type-A ports (Combo connector with RJ45)
USB	2 x USB 2.0 Type-A ports (Combo connector with RJ45)
	2 x USB 2.0 ports (5 x 2P) Pin Headers (Shared USB 2.0 with M.2 B-Key and M.2 E-Key slots)
	2 x PCIe x16 slots
	2 x PCIe x4 slots
Expansion	1 x M.2 M-Key slot 2242, 2260 and 2280
	1 x M.2 B-Key slot 3042, 2242, 2260 and 2280 + micro-SIM card slot
	1 x M.2 E-Key slot 2230 and 3030
Ethernet	2 x 2.5GbE RJ45
Audio	1 x Line-in, Line-out, MIC (Realtek ALC888S Audio Codec)
SATA	2 x Serial ATA 3.0 ports
Fan	1 x 4P Smart Fan Header
BIOS Socket	1 x BOOT_SPI (SPI Socket)
GPIO	1 x GPIO (7 x 2P) Pin Header
System Status LED	4 x 7-Segment Postcode LEDs
Button	Power on/off
	Reset

### Display

	2 x DisplayPort ports
Graphic Interface	1 x HDMI port
	1 x eDP port

### OS Support

	Windows 10 IoT Enterprise 64-bit
System	Windows 11 IoT Enterprise 64-bit
	Linux (Ubuntu 20.04)

### Power Requirement

	ATX: Vin, VSB; AT: Vin
Power Input	Vin: 8V ~ 20V; VSB: 4.75V ~ 5.25V

### Mechanical & Environmental

Operating Temp.	-20 ~ 60°C (-4 ~ 140°F)
Storage Temp.	-40 ~ 85°C (-40 ~ 185°F)
Operating Humidity	40°C @95% relative humidity, non-condensing
Storage Humidity	60°C @95% relative humidity, non-condensing
Dimensions	244 x 244 mm (9.6" x 9.6")

### Ordering Information

PBH-1200	COM-HPC Client Type Module Evaluation Board in Micro-ATX Form Factor
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### Optional Accessories

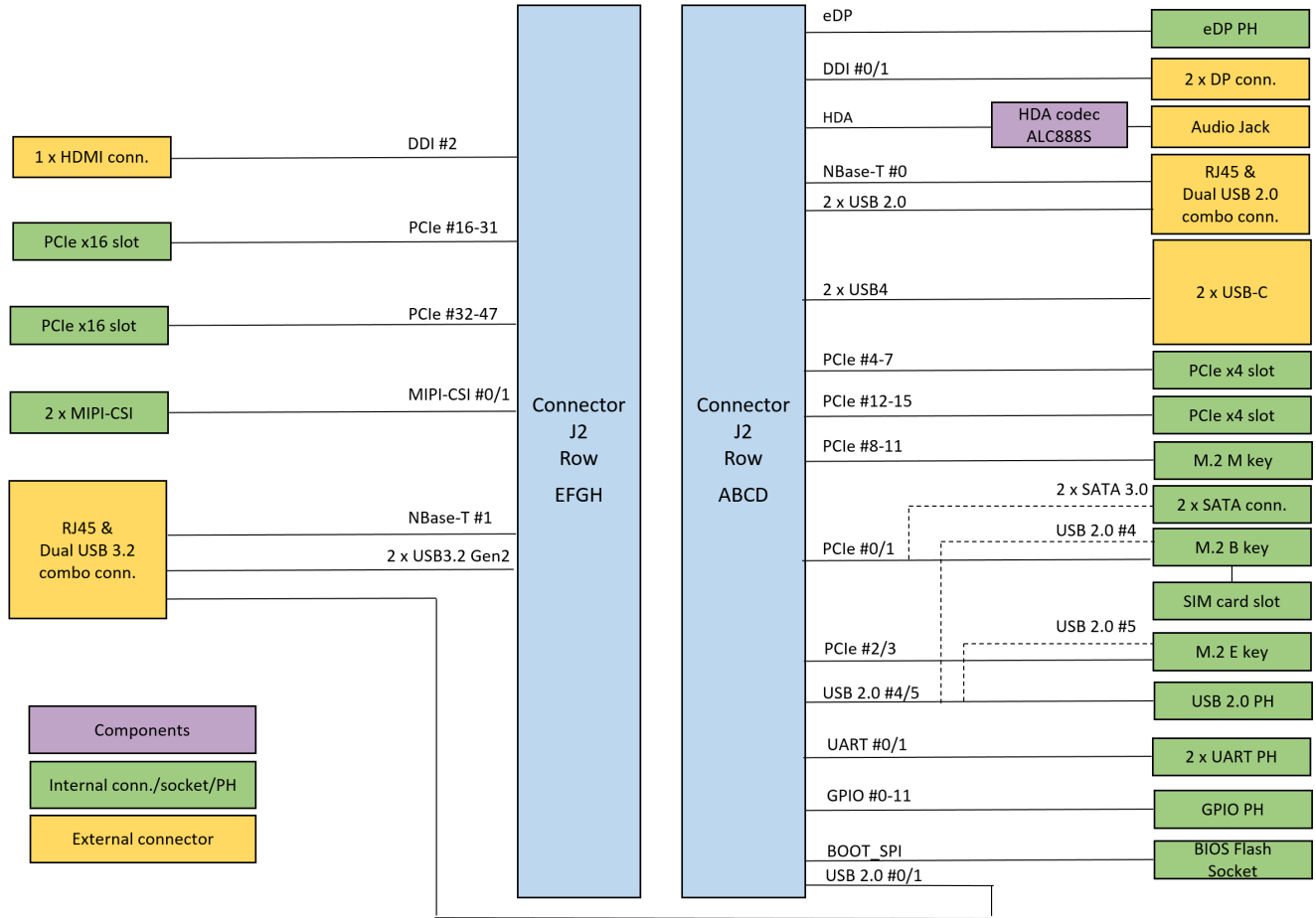
CBK-xx-1200-00	Cable kit
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## COMX-A300 and PBH-1200 Feature List

Feature	Client Module (Min / Max)	PBH-1200	COMX-A300 w/ PBH-1200	Notes
NBASE-T	1/2	2/2	2/2	2 x i226 (2.5G)
Ethernet KR / KX	0/2	0/2	0/2	
SATA	0/2	2/2	2/2	2 x SATA 3.0 share with PCIe 0/1
PCIe 0:47	4/48	48/48	28/48	PCIe 0/1 for M.2 KeyB PCIe 2/3 for M.2 KeyE PCIe 4-7 for PCIe x 4 slot PCIe 8-11 for M.2 KeyM PCIe 12-15 for PCIe x 4 slot PCIe 16/17 default for SATA PCIe 18/19 default for LAN PCIe 32/38 for PCIe x 16 slot <b>Total PCIe 28 lanes</b>
PCIe 48:63	N/A	N/A	NA	
PCIe BMC	0/1	0/1	0/1	
PCIe Target on Module Support	0/2	0/2	0/2	
USB 2.0 Ports 0:7	4/8	8/8	8/8	2 for Type-C ports 2 for USB 3.2 Gen2 ports 2 for USB 2.0 ports 2 for USB 2.0 pin headers
USB 3.2 Gen 1 or Gen 2	0/2	2/2	2/2	2 for USB 3.2 Gen2 ports
USB 3.2 Gen 2x2	0/4	0/4	0/4	
USB 4.0 Support	0/4	2/4	2/4	2 Type-C
eSPI	0/1	1/1	1/1	Header
Boot SPI Interface	1/1	1/1	1/1	
BIOS Select Options	1/1	1/1	1/1	Jumper
Digital Display Interfaces (DDI)	1/3	3/3	3/3	2 x DP 1 x HDMI
eDP	0/1	1/1	1/1	Connector
MIPI Display Serial Interface (DSI)	0/1	0/1	0/1	
MIPI Camera Serial Interface (CSI)	0/2	2/2	2/2	2 x Connectors
Soundwire Audio	0/1	0/1	0/1	
I <sup>2</sup> S Audio / 2" Soundwire / HDA	0/1	1/1	1/1	COMX-A300 support Soundwire and HDA PBH-1200 HDA only
Asynchronous Serial Ports	0/2	2/2	2/2	2 x UART Pin Headers
I <sup>2</sup> C Ports	2/2	2/2	2/2	2 x I <sup>2</sup> C Pin Headers
IPMB	0/1	0/1	0/1	
General Purpose SPI Port	1/1	1/1	1/1	
Power and System Management	1/1	1/1	1/1	
Rapid Shutdown	0/1	1/1	1/1	
Thermal Protection	1/1	1/1	1/1	
System Management Bus	1/1	1/1	1/1	
GPIO	12/12	12/12	12/12	Pin Header
FuSa set of signals	0/1	0/1	0/1	
Module Type Pin Support	1/1	1/1	1/1	
Watchdog Timer	0/1	1/1	1/1	
Secondary Fan Tach and PWM	1/1	1/1	1/1	
VCC pins	28/28	28/28	28/28	
VCC_5V_SBY support	0/2	1/2	1/2	
VCC_RTC	1/1	1/1	1/1	
Connector J1	1/1	1/1	1/1	
Connector J2	0/1	1/1	1/1	
GND	All	All	All	



# Block Diagram



Computer on Module