



Modular Mini PC *Beehive

Intel® NUC Compute Element inside

PASUNTECH®





About the Beehive

Modular Mini PC *Beehive series products are based on Intel® NUC Compute Element. The compute module is constructed by miniaturized module. Multiple function combination, rich applications. Provide customized services to achieve a variety of commercial and industry solutions.





Products Series (Map)



1 Layer



L Series(Lite)

Lightweight、 Low-cost

2 Layer



Z Series(Classic)

Free replacement

3 Layer



X Series(Premium)

Free replacement、 Function enhance

L Series (Lite)



L Series
(Lite)



Dual HDMI
(PL22_2HDMI)



Dual LAN
(PL22_2LAN)



Z Series (Classic)



Z Series (Classic)

Legacy port



VGA (PZ21_VGA)



COM (PZ21_COM)

NEW!



VGA&COM (PZ21_1V1C)

NEW!



Dual Serial ports (PZ21_2COM)

Network



6*RJ45 Network (PZ21_LAN)

NEW!



5G Network (PZ21_5G)

Multi Display



Up to 10 Displays (PZ21_mDP)



X Series (Premium)



**X Series
(Premium)**

GPU Enhance



Discrete Graphics
(PX22_GPU)

CPU Enhance



Dual CPU System
(PX22_2CPU)

Multi Lan



Discrete Switch/2

Others

Different types I/O
extension module
can combine
Different functions.

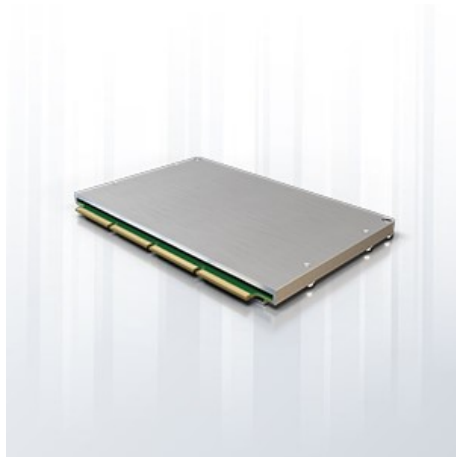


Comparison

	PL22	PZ21	PX22_GPU	PX22_2CPU
CPU	Intel® NUC 8/11/12 Compute Element			
Discrete Graphics	Not supported	Multi display	Intel/NVIDIA	Not supported
Free replacement (Expansion)	Not supported	supported	supported	supported
Dimension	128*128*52mm	128*128*73mm	128*128*97mm	128*128*112mm
Weight	0.7KG	0.9KG	1.3KG	1.35KG



Main Features



CPU Forward Compatible



Small Size



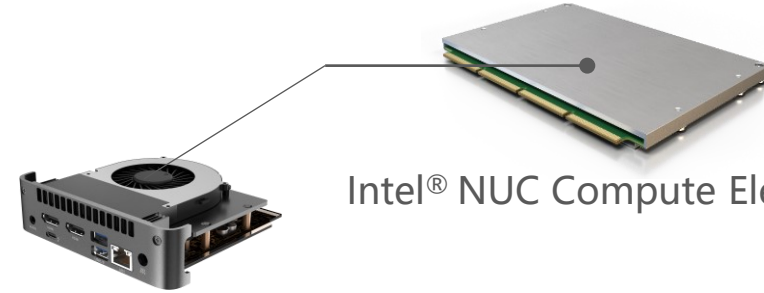
Fast integration



Customized services



Modular Design



Intel® NUC Compute Element Inside



Layer1: Computing layer
Provides base functions.

Layer2: I/O Extension
Provides differential functions.





CPU Module

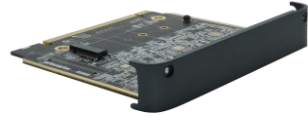


CPU Module	Intel® NUC 8/11/12 Compute Element
12 th Gen	Intel® i7-1255U/16GB LPDDR5(32GB/vPro Option)
	Intel® i5-1235U/8GB LPDDR5(16GB/vPro Option)
	Intel® i3-1215U/8GB LPDDR5(16GB Option)
	Intel® Celeron® 7305/4GB LPDDR5(8GB Option)
11 th Gen	Intel® i7-1165G7/16GB LPDDR4(vPro Option)
	Intel® i5-1135G7/8GB LPDDR4(vPro Option)
	Intel® i3-1115G4/8GB LPDDR4
	Intel® Celeron®6305U/4GB LPDDR4
8 th Gen	Intel® i7-8565U/8GB LPDDR3(vPro Option)
	Intel® i5-8265U/8GB LPDDR3(vPro Option)
	Intel® i3-8145U/4GB LPDDR3
	Intel® Celeron®4305U/4GB LPDDR3/64GB eMMC



I/O Module(Expansion)

1-Slot (Suitable For Z & X Series)



M.2
(1* M.2 @2280 Key M)



VGA/COM
(VGA/COM+4* USB+1* LAN/1*M.2)



Dual Serial
(2* COM+2* LAN)



Multi Display
(6* Mini DP)



Gateway
(6* RJ45)



5G Network

2-Slot (X Series Only)



Discrete Graphics
(2* DP+2* HDMI)



Enterprise Solutions (Customizable)



Appearance



Carrier board



Expansion board



Boot LOGO



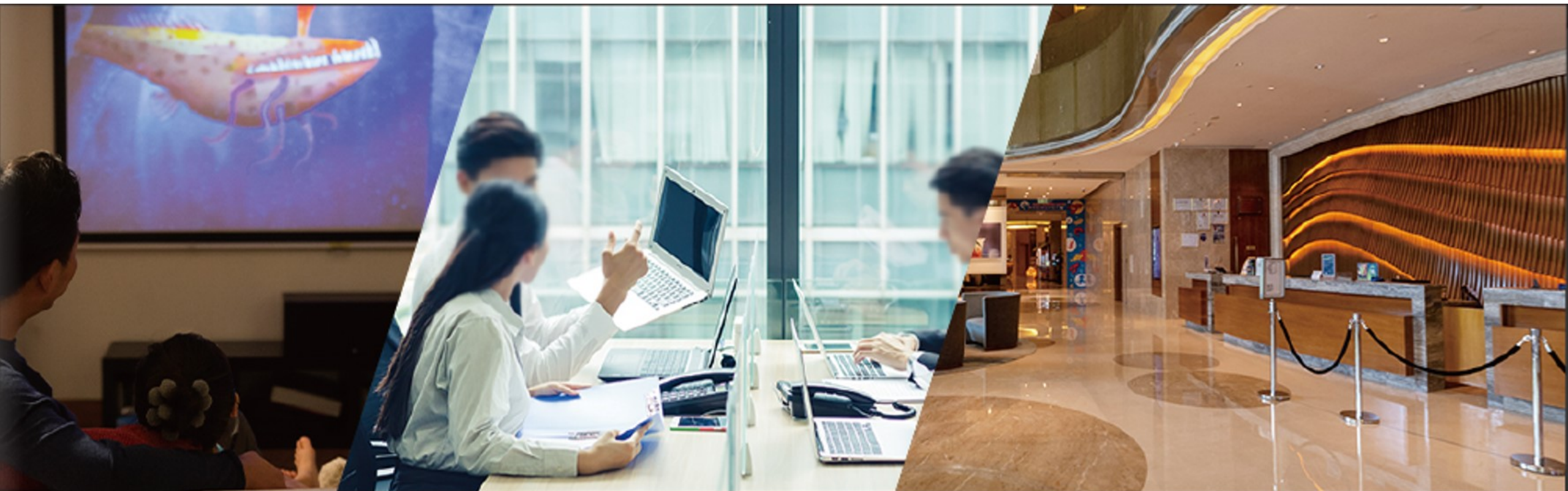
Packing





Applications

Office/Entertainment





Applications

Online course



Education



Office



Retail





Applications

Commercial display



Each screen can display different contents separately.

***To be implemented with software.**



Applications

Gaming





About Pasuntech



Pasuntech Co. Ltd. is established in 2011, provide industrial and commercial products and provide customized development services, such as mainboard design, system integration, embedded software development etc.

Pasuntech has developed many modular computing products based on INTEL® NUC ELEMENT. Modular computer is easy for integration and maintenance.

Address:

6/F, Block 6A, Baoneng Technical Park, Qingxiang road, Longhua Dist., Shenzhen City, China

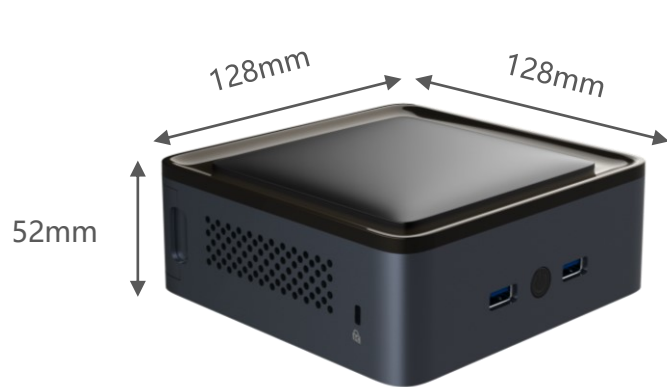
Email:

sales@pasuntech.com

Specification (L Series)

Supported Intel® Compute Element SKUs

- All Intel® NUC 8 Compute Elements SKUs
- All Intel® NUC 11 Compute Elements SKUs
- All Intel® NUC 12 Compute Elements SKUs



I/O Ports (Option A)	2x HDMI out ports 1x Thunderbolt 4 port (11 th /12 th gen CPU option) 2x USB 3.1 type A ports (front) 2x USB 3.1 type A ports 1x 10/100/1000 Mbps RJ45 Ethernet 1x 3.5mm audio combo jack
I/O Ports (Option B)	1x HDMI out port 1x Type-C port (display only) 2x USB 3.1 type A ports (front) 2x USB 3.1 type A ports 1x 10/100/1000 Mbps RJ45 Ethernet 1x 10/100/1000/2500 Mbps RJ45 Ethernet 1x 3.5mm audio combo jack
WIFI & BT	Supported
Storage	1x M.2 22x80 key M slot (NVME&SATA) 1x M.2 22x80 key M slot (NVME)
OS	Windows10、 Ubuntu20.04
Weight	0.7KG
Dimension	128mm*128mm*52mm
Power	19V Adaptor

Specification (Z Series)

Supported Intel® Compute Element SKUs

- All Intel® NUC 8 Compute Elements SKUs
- All Intel® NUC 11 Compute Elements SKUs
- All Intel® NUC 12 Compute Elements SKUs



A



B



C



D



E

I/O Ports (Common)	2x HDMI out ports 1x Thunderbolt 4 port (11 th /12 th gen CPU option) 2x USB 3.1 type A ports (front, from USB 3.1 HUB) 2x USB 3.1 type A ports 1x 10/100/1000 Mbps RJ45 Ethernet 1x 3.5mm audio combo jack
I/O Expansion (Option A)	5G Network Supported
I/O Expansion (Option B)	1x VGA/COM (RS232/RS422/RS485) 4x USB 3.1 type A ports(Share with USB3.1 Hub) 1x 10/100/1000/2500 Mbps RJ45 Ethernet 1x M.2 22x80 key M slot (NVME)
I/O Expansion (Option C)	1x VGA/CAN/COM (RS232/RS422/RS485) 1x CAN/COM (RS232/RS422/RS485) 2x 10/100/1000 Mbps RJ45 Ethernet
I/O Expansion (Option D)	6x RJ45(Share with 1G bps Gigabyte Ethernet)
I/O Expansion (Option E)	6x Mini DP (AMD E8860/2GB)
WIFI & BT	Supported
Storage	1x M.2 22x80 key M slot (NVME&SATA)
OS	Windows10、 Ubuntu20.04
Weight	0.9KG~1.2KG ((PZ21_mDP)
Dimension	128mm*128mm*73mm
Power	19V Adaptor

Specification(X Series)

Supported Intel® Compute Element SKUs

- All Intel® NUC 8 Compute Elements SKUs
- All Intel® NUC 11 Compute Elements SKUs
- All Intel® NUC 12 Compute Elements SKUs



A



B



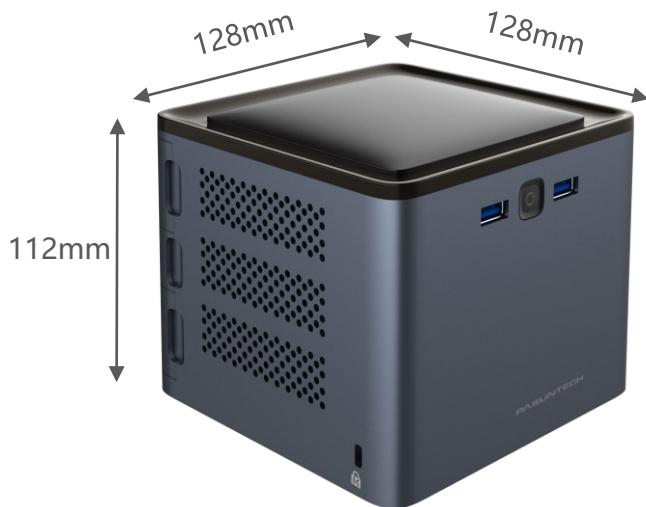
C

I/O Ports (Common)	2x HDMI out ports 1x Thunderbolt 4 port (11 th /12 th gen CPU option) 2x USB 3.1 type A ports (front, from USB 3.1 HUB) 2x USB 3.1 type A ports 1x 10/100/1000 Mbps RJ45 Ethernet 1x 3.5mm audio combo jack
I/O Expansion (Option A)	Intel® A380/6GB or NVIDIA GTX1650/4GB 2x DP 2x HDMI
I/O Expansion (Option B)	12x RJ45
I/O Expansion (Option C)	1x VGA/COM (RS232/RS422/RS485) 4x USB 3.1 type A ports 1x 10/100/1000/2500 Mbps RJ45 Ethernet 6x RJ45 (1GBE to 6 RJ45) 1x M.2 22x80 key M slot (NVME)
I/O Expansion (Others)	For more expansion requirement, please contact us.
WIFI & BT	Supported
Storage	1x M.2 22x80 key M slot (NVME&SATA)
OS	Windows10、 Ubuntu20.04
Weight	1.3KG
Dimension	128mm*128mm*97mm
Power	19V Adaptor

Specification(X Series)

Supported Intel® Compute Element SKUs

- All Intel® NUC 8 Compute Elements SKUs
- All Intel® NUC 11 Compute Elements SKUs
- All Intel® NUC 12 Compute Elements SKUs



A

I/O Ports (Common)	2x USB 3.1 type A ports (front, from USB 3.1 HUB)
I/O Ports (CPU1/CPU2)	2x HDMI out ports 1x Thunderbolt 4 port (11 th /12 th gen CPU option) 2x USB 3.1 type A ports 1x 10/100/1000 Mbps RJ45 Ethernet 1x 3.5mm audio combo jack
I/O Switch module	1x HDMI 2x USB 2.0 type A 1x100Mb/s RJ45
WIFI & BT	Supported
Storage	1x M.2 22x80 key M slot (NVME&SATA)
OS	Windows10、Ubuntu20.04
Weight	1.35KG
Dimension	128mm*128mm*112mm
Power	19V Adaptor