

QY-P8121

Products Features:

1. Industrial-Grade Embedded Fanless Panel PC
2. 12.1inch LED Screen, Resolution:1024*768
3. Support Capacitive and Resistive Touch Screen
4. Intel Celeron/Atom/Core4/7/8/10/12/13th-i3/i5/i7CPU
5. 2*RJ-45, 4*USB, 6*COM, 1*HDMI
6. 1*Expansion Slot, Support 4G/5G and WIFI module
7. DC 9-36V Power Input with Overvoltage Protection
8. -20°C~50°C Temperature Can keep 24/7 work stably
9. 1*Multifunctional daughter card slot
10. Anti-Static, Anti-Pulse, Anti-Surge, Anti-Radiation



1.Mother Board Specification:

Model	QY-P8121		
CPU	J1900	J6412	N95/N100
	i3-4010U	i3-7100U/8130U/10110U	i3-1215U/1315U
	i5-4260U	i5-7200U/8250U/10310U	i5-1235U/1335U
	i7-4650U	i7-7500U/8550U/10710U	i7-1255U/1270P/1355U
Memory ^[1]	2*DDRIIIIRAMSlots,Upto16GB	2*DDRIIIIRAMSlots,Upto32GB	2*DDRIIIIRAMSlots,Upto64GB
Storage	1*MSATA SSD Slot 1*SATA SSD Slot		1*M.2 NVME SSD Slot
Display ^[2]	1*HDMI: Resolution up to 4096*2106@60Hz		
Expansion	1*MiniPCIESlot		2*M.2Slots
	Support 4G/5G and WIFI Module		
Ethernet	2*Intel LAN Chip (10 / 100 / 1000 Mbps, RJ-45 Type)		
USB	4*USB 3.0 (Type-A) 1*USB 2.0 (Type-A, Built-in)		
COM	2*RS-232 / 422 / 485 (DB9 type) 4*RS-232 (DB9 type)		
Audio	1*Line-Out		
Daughter Card	Support expansion more I/O interfaces and functional slots		

Notes:

[1]: The maximum memory capacity and the maximum capacity per strip supported by this motherboard depend on the CPU.

[2]: The maximum resolution and frame rate of the display interface output depends on the CPU.

2.Screen Specification:

Screen Size	12.1 inch TFT LED Screen, 4:3 Size	
Resolution	1024*768	
Brightness	350nits	
Largest Colorful	16M	
Touch Screen Type	Capacitive	Resistive
Transmittance	More than 95%	More than 95%
Touch Life	50 million times	35 million time
Response Time	<5ms	<5ms
Touch Hardness	7 Mohs	
Protection	Front Panel IP65 Water Proof	

3.Device Specification:

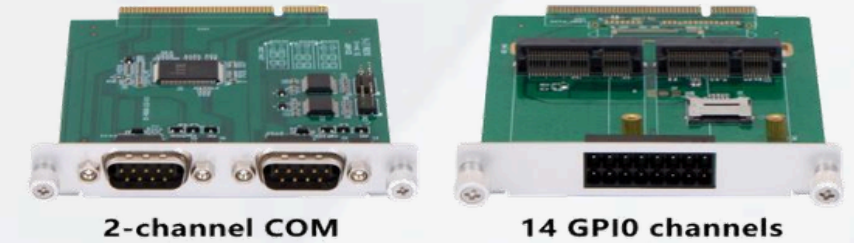
Power Input	DC 9-36V with over-voltage protection
	Support auto-start
	2 Pin Phoenix Terminal type DC Plug
Structure	Fully Enclosed Aluminum Alloy Material
Heat Dissipation	Fanless Design, Conduction Heat Dissipation
Installation	Desktop / Embedded / Wall Mount
Size	298.3mm*238.3mm*68mm
System	Windows and Linux

4.Optional Specification:

Screen	Brightness	Optional 1000 nits LED screen
		Optional brightness auto adjustment function
	Anti-Glare	Optional
	Camera	Optional 200w or 500w camera (Built-in front panel)
	Full Lamination	Optional

5. Daughter Card Specification:

COM Port-2	2*RS-232 / 485 (DB9 type)
COM Port-6	4*RS-232 / 485+2*RS-232 (Phoenix terminal type)
Ethernet Port-2	2*Intel i211V LAN Chip (RJ-45 type)
Ethernet Port-4	4*Intel i211V LAN Chip (RJ-45 type,POE function optional)
10G Ethernet Port-2	2*10Gbps Ethernet Ports
USB Port-4	4*USB 3.0 (Type-A)
GPIO Port-14	14 ports GPIO, 7*GPI+7*GPO, 0-3.3V (Phoenix terminal type)
DIDO Port-16	16 ports DIDO, 8*DI+8*DO, 24V, Isolation (Phoenix terminal type) Comes with 4*RS-485 COM ports (Phoenix terminal type)
Mini PCIE Slot-2	2*Mini PCIE slots, Support 4G and WIFI module
M.2 Slot-1	1*M.2 Key-B slot, Support 5G module
M.2 NVME SSD Slot-1	1*M.2 NVME SSD slot
SATA SSD Slot-1	1*SATA 3.0 SSD Slot, Support RAID 1
CAN Port-2	2*CAN interfaces (Phoenix terminal type)
UPS battery	1.2AH or 4.8AH



6. Ordering Information:

Model	CPU	LAN	USB	COM	RAM	Display	SSD	Expansion	Power
QY-P8121	J1900	2	4	2*RS-232/422/485 4*RS-232	1*DDR 3 Up to 8GB	1*HDMI	1*MSATA 1*SATA	1*Mini PCIE	DC 9-36V
	4th				2*DDR 3 Up to 16GB				
	J6412				2*DDR 4 Up to 32GB				
	7th				2*DDR 4 Up to 32GB				
	8th / 10th				2*DDR 4 Up to 64GB		1*M.2 NVME	1*M.2 1*Mini PCIE	
	N95 / N100				1*DDR 4 Up to 16GB				
	12th / 13th				2*DDR 4 Up to 64GB			2*M.2	

7.CPU Information:

CPU	Specification	
J1900	4 core, 4 total threads, 2.00 GHz to 2.42GHz, 2 MB cache	Max to 8GB for 1*DDR 3 Slot
i3-4010U	2 core, 4 total threads, 1.70 GHz, 3 MB Cache	Max to 16GB for 2*DDR 3 Slots
i5-4260U	2 core, 4 total threads, 1.40 GHz to 2.70GHz, 3 MB cache	Max to 16GB for 2*DDR 3 Slots
i7-4650U	2 core, 4 total threads, 1.70 GHz to 3.30GHz, 4 MB cache	Max to 16GB for 2*DDR 3 Slots
J6412	4 core, 4 total threads, 2.00 GHz to 2.60GHz, 1.5 MB cache	Max to 32GB for 2*DDR 4 Slots
N95	4 core, 4 total threads, 3.40 GHz, 6 MB cache	Max to 16GB for 1*DDR 4 Slot
N100	4 core, 4 total threads, 3.40 GHz, 6 MB cache	Max to 16GB for 1*DDR 4 Slot
i3-7100U	2 core, 4 total threads, 2.40 GHz, 3MB cache	Max to 32GB for 2*DDR 4 Slots
i5-7200U	2 core, 4 total threads, 2.50 GHz to 3.10GHz, 3 MB cache	Max to 32GB for 2*DDR 4 Slots
i7-7500U	2 core, 4 total threads, 2.70 GHz to 3.50GHz, 4 MB cache	Max to 32GB for 2*DDR 4 Slots
i3-8130U	2 core, 4 total threads, 2.20 GHz to 3.40 GHz, 4 MB cache	Max to 32GB for 2*DDR 4 Slots
i5-8250U	4 core, 8 total threads, 1.60 GHz to 3.40 GHz, 6 MB cache	Max to 32GB for 2*DDR 4 Slots
i7-8550U	4 core, 8 total threads, 1.80 GHz to 4.00 GHz, 6 MB cache	Max to 32GB for 2*DDR 4 Slots
i3-10110U	2 core, 4 total threads, 2.10 GHz to 4.10 GHz, 6 MB cache	Max to 64GB for 2*DDR 4 Slots
i5-10310U	4 core, 8 total threads, 1.70 GHz to 4.40 GHz, 6 MB cache	Max to 64GB for 2*DDR 4 Slots
i7-10710U	6 core, 12 total threads, 1.60 GHz to 4.70 GHz, 12 MB cache	Max to 64GB for 2*DDR 4 Slots
i3-1215U	6 core, 8 total threads, 3.30 GHz to 4.40 GHz, 10 MB cache	Max to 64GB for 2*DDR 4 Slots
i5-1235U	10 core, 12 total threads, 3.30 GHz to 4.40 GHz, 12 MB cache	Max to 64GB for 2*DDR 4 Slots
i7-1255U	10 core, 12 total threads, 3.50 GHz to 4.70 GHz, 12 MB cache	Max to 64GB for 2*DDR 4 Slots
i7-1270P	12 core, 16 total threads, 3.50 GHz to 4.80 GHz, 18 MB cache	Max to 64GB for 2*DDR 4 Slots
i3-1315U (Coming soon)	6 core, 8 total threads, 3.30 GHz to 4.50 GHz, 10 MB cache	Max to 64GB for 2*DDR 4 Slots

i5-1335U (Coming soon)	10 core, 12 total threads, 3.40 GHz to 4.60 GHz, 12 MB cache	Max to 64GB for 2*DDR 4 Slots
i7-1355U (Coming soon)	10 core, 12 total threads, 3.70 GHz to 5.00 GHz, 12 MB cache	Max to 64GB for 2*DDR 4 Slots

8. System Information:

CPU	System
J1900	Windows 7 / 10 and Linux
4th / 7th	
J6412 / N95 / N100	Windows 10 / 11 and Linux
8th / 10th / 12th / 13th	

9. Fittings Information:

RAM	DDR3	4GB / 8GB
	DDR4	4GB / 8GB / 16GB / 32GB
SSD	MSATA	64GB / 128GB / 256GB / 512GB / 1TB
	M.2 NVME	128GB / 256GB / 512GB / 1TB / 2TB / 4TB
	SATA	120GB / 128GB / 240GB / 256GB / 480GB / 512GB / 960GB / 1TB / 2TB / 4TB
GSM Module	4G	4G+GPS
	5G	5G+GPS
WIFI Module	7260AC / AX210	
CAN BUS Module	2 ports CAN BUS interfaces	

10.Package

Adapter	1*12V 5A Adapter
Power Cable	1*Power Cable
Mount Clamp	4*Mount Clamp

11.Dimensions:

