

## QY-P8270



### Products Features:

1. Industrial-Grade Embedded Fanless design Panel PC
2. 27 inch LED Screen, 1920\*1080 Resolution
3. Capacitive Touch Screen
4. Intel Celeron and Core 4/6/7/8/10th-i3 / i5 / i7 CPU
5. 2\*LAN, 4\*USB, 6\*COM, 1\*HDMI
6. 1\*Multifunction Daughter card slot
7. 1\*Mini PCIE Expansion Slot, Support 4G and WIFI Module
8. -30°C~70°C Temperature Can Keep 24/7 Work Stably
9. DC 9-36V Power Input with Overvoltage Protection
10. Anti-Static, Anti-Pulse, Anti-Surge, Anti-Radiation

 **Windows 7**  **Windows 10**  **Windows 11**

**Linux** 

**FC**

**IEC**

**RoHS**

**CE**

**EAC**

## 1-1.Mother Board Specification:

|                        |  |
|------------------------|--|
| Model                  | QY-P8270   |
| CPU                    | J1900  |
| Memory                 | 1*DDR III RAM Slot, Up to 8GB                              |
| Storage                | 1*MSATA SSD Slot<br>1*SATA SSD Slot                        |
| Display <sup>[1]</sup> | 1*HDMI: Resolution up to 4090*2160@24Hz                    |
| Expansion              | 1*Mini PCIE Slot, Support 4G and WIFI module               |
| Ethernet               | 2*Intel i210V LAN chip (10 / 100 / 1000 Mbps, RJ-45)       |
| USB                    | 1*USB 3.0 (Type-A)<br>3*USB 2.0 (Type-A)                   |
| COM                    | 2*RS-485 / 422 / 232 (DB9 type)<br>4*RS-232 (DB9 type)     |
| Audio                  | 1*Line-out   |
| Daughter Card          | Support expansion more I/O interfaces and functional slots |

### Notes:

[1]: The maximum resolution that can be output by the display interface depends on the CPU, please refer to the Intel official website for detailed output resolution.

## 1-2.Mother Board Specification:

|                        |  |
|------------------------|--|
| Model                  | QY-P8270   |
| CPU                    | i3: 4010U<br>i5: 4260U<br>i7: 4650U                        |
| Memory                 | 2*DDR III RAM Slots, Up to 16GB                            |
| Storage                | 1*MSATA SSD Slot<br>1*SATA SSD Slot                        |
| Display <sup>[1]</sup> | 1*HDMI: Resolution up to 4090*2160@24Hz                    |
| Expansion              | 1*Mini PCIE Slot, Support 4G and WIFI module               |
| Ethernet               | 2*Intel i210V LAN chip (10 / 100 / 1000 Mbps, RJ-45)       |
| USB                    | 4*USB 3.0 (Type-A)   |
| COM                    | 2*RS-485 / 422 / 232 (DB9 type)<br>4*RS-232 (DB9 type)     |
| Audio                  | 1*Line-out   |
| Daughter Card          | Support expansion more I/O interfaces and functional slots |

### Notes:

[1]: The maximum resolution that can be output by the display interface depends on the CPU, please refer to the Intel official website for detailed output resolution.

## 1-3.Mother Board Specification:

|                        |  |
|------------------------|--|
| Model                  | QY-P8270   |
| CPU                    | J6412<br>i3: 7100U<br>i5: 6200U / 7200U / 8260U / 10210U<br>i7: 7500U / 10610U |
| Memory <sup>[1]</sup>  | 2*DDR III RAM Slots, Up to 32GB  |
| Storage <sup>[2]</sup> | 1*MSATA SSD Slot<br>1*SATA SSD Slot (Support RAID 1)                           |
| Display <sup>[3]</sup> | 1*HDMI: Resolution up to 4090*2160@24Hz  |
| Expansion              | 1*Mini PCIE Slot, Support 4G and WIFI module                                   |
| Ethernet               | 2*Intel i210V LAN chip (10 / 100 / 1000 Mbps, RJ-45)                           |
| USB                    | 4*USB 3.0 (Type-A)   |
| COM                    | 2*RS-485 / 422 / 232 (DB9 type)<br>4*RS-232 (DB9 type)                         |
| Audio                  | 1*Line-out   |
| Daughter Card          | Support expansion more I/O interfaces and functional slots                     |

### Notes:

[1]: The maximum resolution that can be output by the display interface depends on the CPU, please refer to the Intel official website for detailed output resolution.

[2]: It needs add a SATA SSD expansion card and CPU generation needs more than 7th if you want built RAID 1.

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

## 2.LED Screen Specification:

|                     |  |
|---------------------|--|
| Screen Size         | 27 inch TFT LED Screen, 16:9 Size      |
| Resolution          | 1920*1080                              |
| Brightness          | 350nits                                |
|                     | Support optional 500 / 700 / 1000 nits |
| Contrast            | 800:1                                  |
| Largest Colorful    | 16M                                    |
| Touch Screen Type   | Capacitive                             |
| Light Transmittance | More than 95%                          |
| Touch Life          | 50 million times                       |
| Response Time       | < 5ms                                  |
| Touch Hardness      | 7 Mohs                                 |

### 3.Device Specification:

|                     |   |
|---------------------|---|
| BIOS                | AMI UEFI BIOS (Support Watch Dog Timer)     |
| Watch Dog           | Support                                     |
| Power Input         | DC 9-36V with overvoltage protection        |
|                     | Support AT / ATX                            |
|                     | 2*Pin Phoenix Terminal DC Plug              |
| Working Temperature | -30°C~70°C, Support 24/7 Working            |
| Size                | 650mm*390mm*75.8mm                          |
| Structure           | Fully Enclosed Aluminum Alloy Material      |
| Heat dissipation    | Fanless Design, Conduction Heat Dissipation |
| Installation        | Desktop / Embedded / Wall-Mounted           |
| System              | Windows 7 / 10 / 11 and Linux               |

## 4. 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 <sup>[1]</sup>     | 4*Intel i211V LAN Chip, Support POE function (RJ-45type)   |
| USB Port-4 <sup>[2]</sup>          | 4*USB 3.0 (Type-A)   |
| GPIO Port-14                       | 14 ports GPIO, 7*GPI+7*GPO, 3.3V (Phoenix terminal type)   |
| DIDO Port-16                       | 16 ports DIDO, 8*DI+8*DO, 24V (Phoenix terminal type)<br>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 <sup>[3]</sup> | 1*M.2 NVME SSD slot  |
| SATA SSD Slot-1 <sup>[4]</sup>     | 1*SATA 3.0 SSD Slot, Support RAID 1  |
| CAN Port-2 <sup>[5]</sup>          | 2*CAN interfaces (Phoenix terminal type)   |
| UPS battery                        | 1.2AH or 4.8AH   |

### Notes:

[1] : When using POE function, it needs 24V 5A adapter to supply power.

[2]: J1900 CPU not support it.

[3]: J1900 and 4th CPU not support it.

[4]: J1900 CPU not support it. It needs CPU generation more than 7th if you want to built RAID 1.

[5]: CAN module is optionally available.

## 5.Ordering Information:

| Model    | CPU                 | LAN | USB | COM | Display | RAM     | Storage           | Expansion   | Power Input |
|----------|---------------------|-----|-----|-----|---------|---------|-------------------|-------------|-------------|
| QY-P8270 | J1900               | 2   | 4   | 6   | 1*HDMI  | 1*DDR 3 | 1*MSATA<br>1*SATA | 1*Mini PCIE | DC 9-36V    |
|          | 4th                 |     |     |     |         | 2*DDR 3 |                   |             |             |
|          | J6412               |     |     |     |         | 2*DDR 4 |                   |             |             |
|          | 6th/7th<br>8th/10th |     |     |     |         |         |                   |             |             |

## 6.CPU Information:

| CPU       | Specification  |
|-----------|--|
| J1900     | 4 core, 4 total threads, 2.00 GHz to 2.42GHz, 2 MB cache   |
| J6412     | 4 core, 4 total threads, 2.00 GHz to 2.60GHz, 1.5 MB cache |
| i3-4010U  | 2 core, 4 total threads, 1.70 GHz, 3 MB cache              |
| i5-4260U  | 2 core, 4 total threads, 1.40 GHz to 2.70GHz, 3 MB cache   |
| i7-4650U  | 2 core, 4 total threads, 1.70 GHz to 3.30GHz, 4 MB cache   |
| i5-6200U  | core, 4 total threads, 2.30 GHz to 2.80GHz, 3 MB cache     |
| i3-7100U  | 2 core, 4 total threads, 2.40 GHz, 3 MB cache              |
| i5-7200U  | 2 core, 4 total threads, 2.50 GHz to 3.10 GHz, 3 MB cache  |
| i7-7500U  | 2 core, 4 total threads, 2.70 GHz to 3.50 GHz, 4 MB cache  |
| i5-8260U  | 4 core, 8 total threads, 1.60 GHz to 3.90 GHz, 6 MB cache  |
| i3-10110U | 2core, 4 total threads, 2.10 GHz to 4.10 GHz, 4 MB cache   |



|           |   |
|-----------|---|
| i5-10210U | 4 core, 8 total threads, 1.60 GHz to 4.20 GHz, 6 MB cache |
| i7-10610U | 4 core, 8 total threads, 1.80 GHz to 4.90 GHz, 8 MB cache |

## 7.System Information:

| CPU                | Specification             |
|--------------------|---------------------------|
| J1900              | Windows 7 / 10 and Linux  |
| 4th / 6th          | Windows 7 / 10 and Linux  |
| 7th <sup>[1]</sup> | Windows 7 / 10 and Linux  |
| J6412              | Windows 10 / 11 and Linux |
| 8th / 10th         | Windows 10 / 11 and Linux |

## 8.Fittings Information:

|                           |                      |  |
|---------------------------|----------------------|--|
| RAM <sup>[2]</sup>        | DDR 3                | 4GB / 8GB  |
|                           | DDR 4                | 4GB / 8GB / 16GB   |
| Storage <sup>[3]</sup>    | MSATA                | 64GB / 128GB / 256GB / 512GB / 1TB                               |
|                           | SATA                 | 128GB / 240GB / 256GB / 480GB / 512GB / 960GB<br>1TB / 2TB / 4TB |
|                           | M.2 NVME             | 128GB / 256GB / 512GB / 1TB / 2TB / 4TB                          |
| GSM Module <sup>[4]</sup> | 4G                   | 4G+GPS   |
|                           | 5G                   | 5G+GPS   |
| WIFI Module               | Intel 7260AC / AX210 |  |
| CAN Module <sup>[5]</sup> | 2*CAN interfaces     |  |

## 9.Package List:

|                            |                  |
|----------------------------|------------------|
| Adapter <sup>[6]</sup>     | 1*12V 5A adapter |
| Power Cable <sup>[7]</sup> | 1*Power Cable    |

### Notices:

[1]: The windows 7 system doesn' t have the USB 3.0 driver.

[2][3]: By default the industrial grade for RAM and SSD are used, and the minimum configuration is recommended to be 4+64GB.

[4]: Different countries and regions are applicable to different versions, please inform the business staff in advance when ordering.

[5]: Please inform the business staff in advance which system you are using the CAN module (it cannot be adapted to both Windows and Linux systems)

[6]: CPU low than 8th equipped 5A adapter, More than 8th equipped 7A adapter

[7]: Different countries and regions use different types of power cord plugs, please inform the business personnel in advance.

## 10.Dimensions:

