

## QY-P8190

### Products Features:

1. Industrial-Grade Embedded Fanless Panel PC
2. 19inch LED Screen, Resolution:1280\*1024
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 cards slot
10. Anti-Static, Anti-Pulse, Anti-Surge, Anti-Radiation



## 1.Mother Board Specification:

|                        |  |                                 |                                 |
|------------------------|--|---------------------------------|---------------------------------|
| Model                  | QY-P8190   |                                 |                                 |
| 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 <sup>[1]</sup>  | 2*DDR III RAM Slots,Up to 16GB                             | 2*DDR III RAM Slots, Up to 32GB | 2*DDR III RAM Slots, Up to 64GB |
| Storage                | 1*MSATA SSD Slot<br>1*SATA SSD Slot                        |                                 | 1*M.2 NVME SSD Slot             |
| Display <sup>[2]</sup> | 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)<br>1*USB 2.0 (Type-A, Built-in)         |                                 |                                 |
| COM                    | 2*RS-232 / 422 / 485 (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 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       | 19 inch TFT LED Screen, 4:3 Size |                 |
| Resolution        | 1280*1024                        |                 |
| 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:

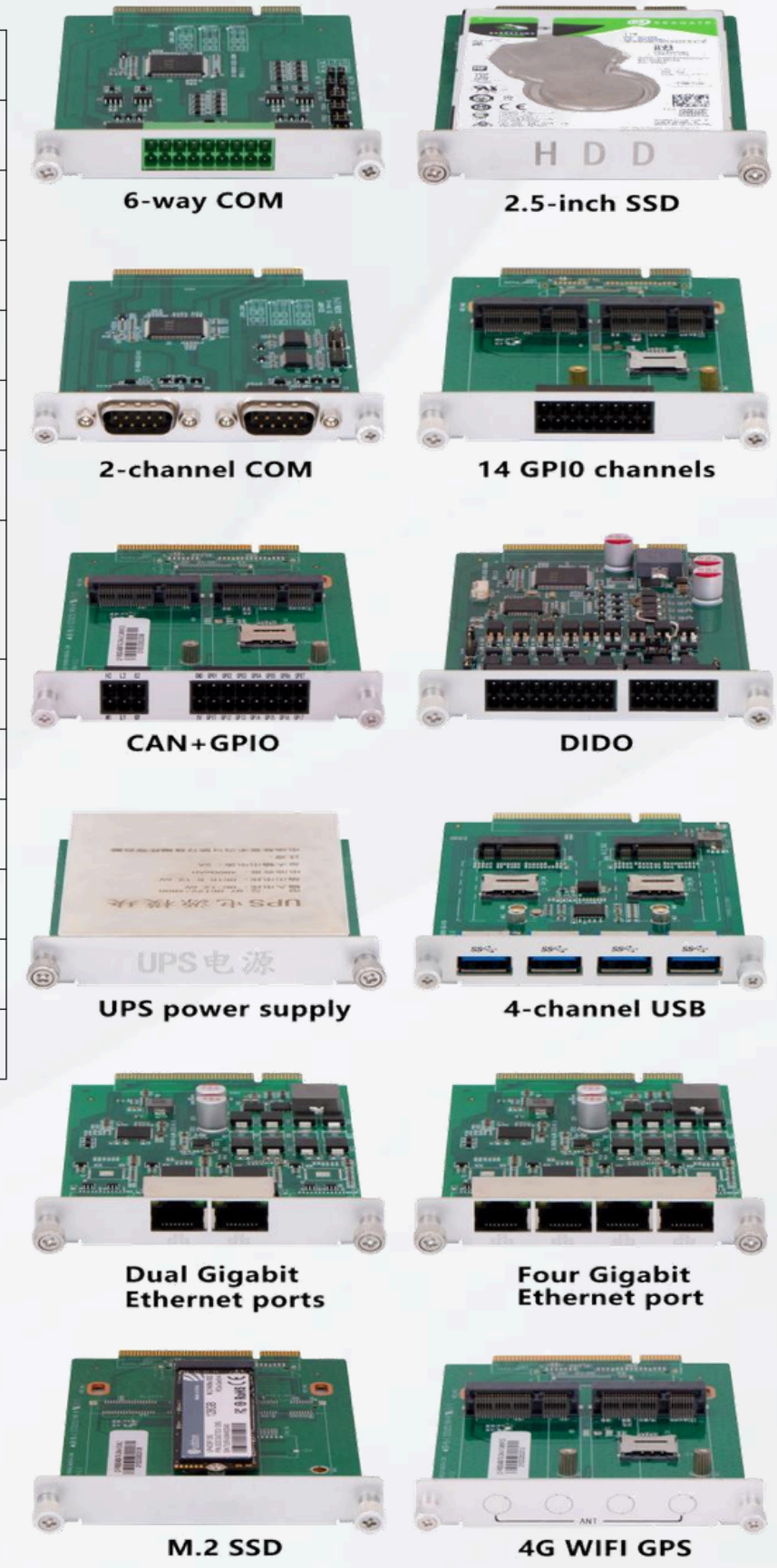
|                  |  |
|------------------|--|
| Power Input      | DC 9-36V with over-voltage protection                  |
|                  | Support auto-start                                     |
|                  | 2 Pin Phoenix Terminal type DC Plug                    |
| Structure        | Fully Enclosed Aluminum Alloy Material                 |
| Heat Dissipation | Fanless Design, Conduction Heat Dissipation            |
| Installation     | Desktop / Embedded / Wall Mount<br>Rack Mount optional |
| Size             | 435.5mm*360.5mm*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)<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 | 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-P8190 | J1900       | 2   | 4   | 2*RS-232/422/485<br>4*RS-232 | 1*DDR 3<br>Up to 8GB  | 1*HDMI  | 1*MSATA<br>1*SATA | 1*Mini PCIE          | DC 9-36V |
|          | 4th         |     |     |                              | 2*DDR 3<br>Up to 16GB |         |                   |                      |          |
|          | J6412       |     |     |                              | 2*DDR 4<br>Up to 32GB |         |                   |                      |          |
|          | 7th / 8th   |     |     |                              | 2*DDR 4<br>Up to 32GB |         |                   |                      |          |
|          | 10th        |     |     |                              | 2*DDR 4<br>Up to 64GB |         | 1*M.2 NVME        | 1*M.2<br>1*Mini PCIE |          |
|          | N95 / N100  |     |     |                              | 1*DDR 4<br>Up to 16GB |         |                   |                      |          |
|          | 12th / 13th |     |     |                              | 2*DDR 4<br>Up to 64GB |         |                   |                      |          |

## 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, 1.10 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:

