

exenta

Intel® J4125/ Core 8/9/10th Panel PC

CTXN SERIES

User Manual

Disclaimer

The Company reserves the right to change this manual, subject to subsequent changes without notice. It shall not be responsible for any direct, indirect, intentional or unintentional damage or hidden danger caused by improper installation, improper use or overspecification use.

Before ordering the product, please ask the dealer to see whether the product performance meets your ne

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1 Product introduction

CTXN is the new Exenta Series of Panel PC with the Intel J4125 and Core i3/i5/i7 processor, SO DIMM DDR4 Memory, Support for double display, Dual SSD storage, Wide voltage of 9-36V input, With a compact, fanless, high computing performance characteristics, Front panel protection class IP65, die-cast aluminum alloy body and full plane 5-line resistance or capacitive touch screen, With the waterproof and dustproof function. Applicable to the harsh industrial environment.

Applications

factory automation
System monitor
Self-service terminal
Wind power monitoring
Environmental monitoring
Coal mine monitoring
mechanical equipment
petroleum drilling
Pharmaceutical equipment
vehicle

1.1 Packaging content

Make sure that the following items are included randomly before calling on. If any of the following items is missing or damaged, please contact your sales representative.

Standard parts provided within product box

Panel PC CTXN

.52-Inch hard disk bracket

The AC power supply adapter

Install snap, remote switch terminals and screws

Touchpen

Optional devices

Options

United States standard power cable

European standard power cable

Daily standard power line

wireless network adapter

VESA75 Stent

1.2 Product specifications (Standard versions in Italy)

| Common CTXN features - Fanless | | |
|--------------------------------|---|---|
| Available versions | Celeron J4125 | Intel Core i5 8260U e i7 8565U |
| Screen size | 10" wide, 12" 4:3, 15" 4:3, 15.6" wide, 17" 4:3, 19" 4:3, 21.5" wide | |
| Touch screen | Resistive 5 wires or capacitive multitouch | |
| RAM memory | DDR4 standard 8GB | DDR4 up to 6GB (standard 8GB for i5 and 16GB for i7) |
| Storage | 1xM.2 2242/2260/2280 SATA, 1x 2.5" SATA, 1xM.2 2280 NVME (storage standard 256GB SSD) | |
| Expansion slot | 1* Mini PCIE full size for SIM 3G/4G/5G or half size for WiFi and Bluetooth (WiFi built in as standard) | |
| Ethernet | 2* 10/100/1000 Mbps controller INTEL I225V (+ 2 optional ports) | |
| I/O | 2* USB 3.0 + 4* USB 2.0 | 4* USB 3.0 + 2* USB2.0 |
| | 6 serial communication ports + 1* 10 bit GPIO | |
| | HDMI VIDEO OUT | |
| Power supply | DC 9-36V, connector 4 pin aviation. External power supply included | |
| Environmental conditions | Standard operating temperature -10/60°C relative humidity 95% at 40°C. | |
| Mechanical features | Front protection IP65 - Panel or VESA mounting. Full aluminium case | |
| Certifications | CE/FCC/ROHS/CCC | |
| OS | Standard Windows 10 IOT Enterprise - Windows 10 Professional - Linux | |

| SYSTEM | |
|----------------|---|
| processor | Celeron J4125 (standard) Intel® Core i5-8260U 1.6GHz ,up to 3.9GHz (standard) Intel® Core i 7-10210U 1.6GHz ,up to 4.2GHz Intel® Core i 7-10610U 1.8GHz ,up to 4.9GHz Intel® Core i 7-1135G7 2.4GHz ,up to 4.2GHz Intel® Core i 7-1165G7 2.4GHz ,up to 4.7GHz |
| System memory | DDR4 S O-DIMM X 2 |
| Network | 2x 2.5 GbE RJ45 Intel ® i225V (4 x 2.5GbE RJ45 Intel i225V) |
| I/O joggle | 2 x 3-wire COM3 & COM4 RS-232 / 485 Phoenix terminal 4 x USB2.0 , 2 x USB3.0 (J4125/J6412) 2 x USB2.0,4 x USB3.0 (8th / 10th / 11th Gen intel Core i5 / i7) 2 x DB-9 COM1&COM2,RS-232/422/485 1 x Audio Line-out 2 x 8Ω 1W power amplifier output (optional) The 1 xAT / ATX dial-up switch 1 x HDMI 1 x extended IO: integrated 4-line 3-line COM, 10-line GPIO, 1 remote switch |
| memory | 1 x M.2 2242/2260/2280 SATA 1 x SATA(2.5" SATA) 1 x M.2 2280 (Support for NVME protocol) |
| expansion slot | 1 x M.2 3042 / 3052 3G / 4G / 5G module, onboard SIM card slot 1 x M.2 2230 WiFi by Bluetooth |
| support system | Windows ® 10/11, WES 10, LINUX |
| Power Source | |
| power input | 9 ~ 36 VDC insertion |

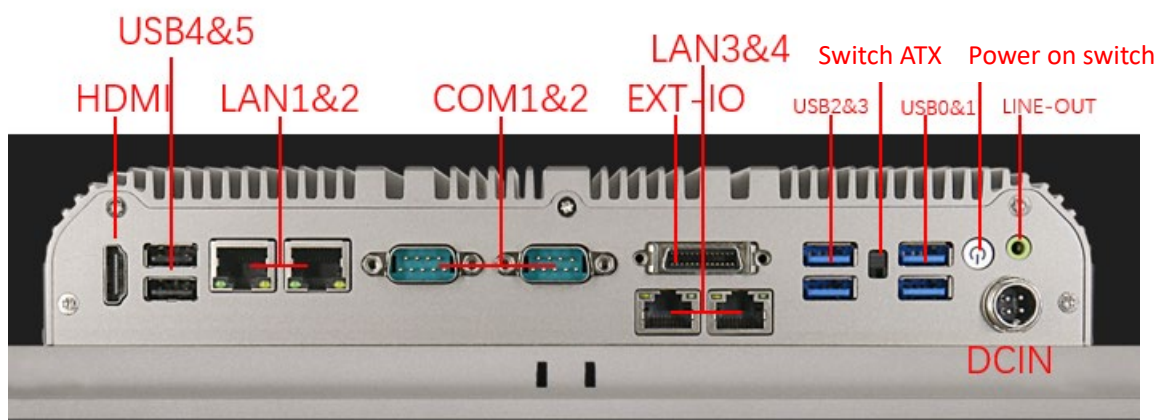
| Construction | |
|--------------------------|------------------------------------|
| front panel | alufur |
| back panel | alufur |
| IP levels of protection | Front panel, IP65 |
| Environmental conditions | |
| working temperature | -10°C to 60°C |
| Storage temperature | -30°C to +70°C |
| Store humidity | 10~90% @30°C, with no condensation |
| Certification | |
| safety standard | CE |
| EMC | CE |

remarks:

- (1) With the CPU configuration, I / O panel has 4 USB2.0 ports, 2 USB3.0 ports; Core series CPU, with 4 USB3.0 ports and 2 USB2.0
- (2) Configure Celeron series CPU products, memory has a DDR 4 memory slot; Core series CPU products, memory has two DDR 4 memory slot

1.3 Interface description

CTXN provides rich I / O interfaces. The functions of each interface are described below, including a flexibly configured I/O interface.

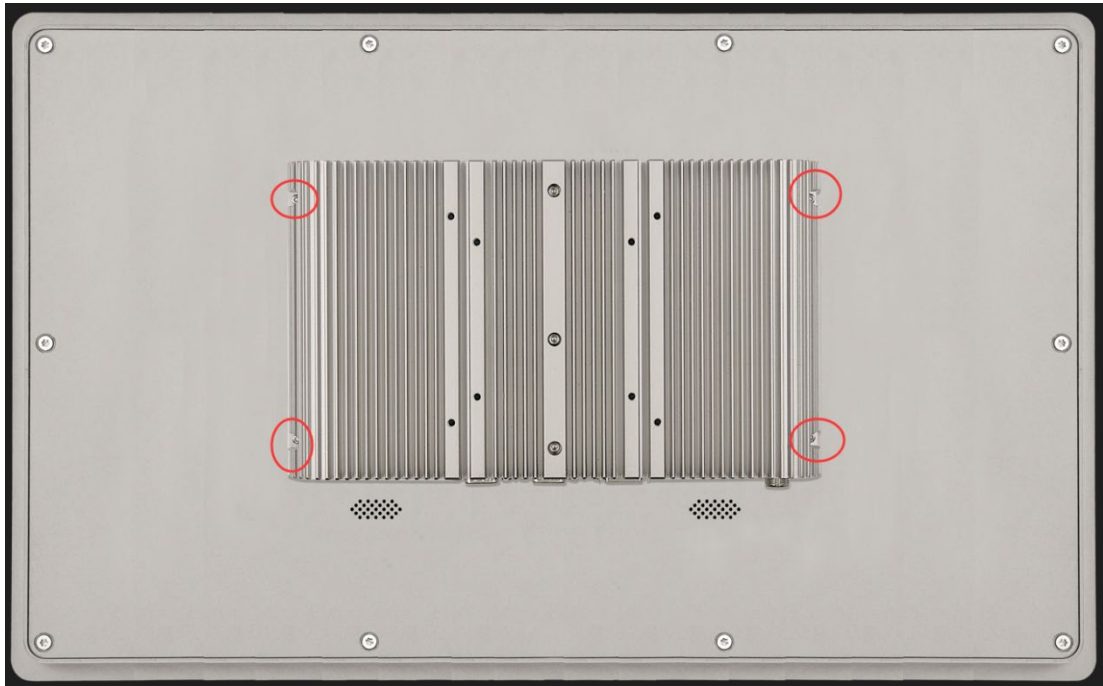


| CODICE | FUNZIONE |
|--------|---|
| HDMI | HD display interface |
| USB4&5 | USB2.0 X 2 |
| LAN1&2 | Intel I225 2.5G Ethernet interface x2 |
| COM1&2 | COM1, COM2 interface, can be configured as RS232 / 422 / 485 via BIOS |
| EXT-IO | Hybrid interface COM3~6 (R S232), GPI 1 ~ 5, GPO 1 ~ 5 |

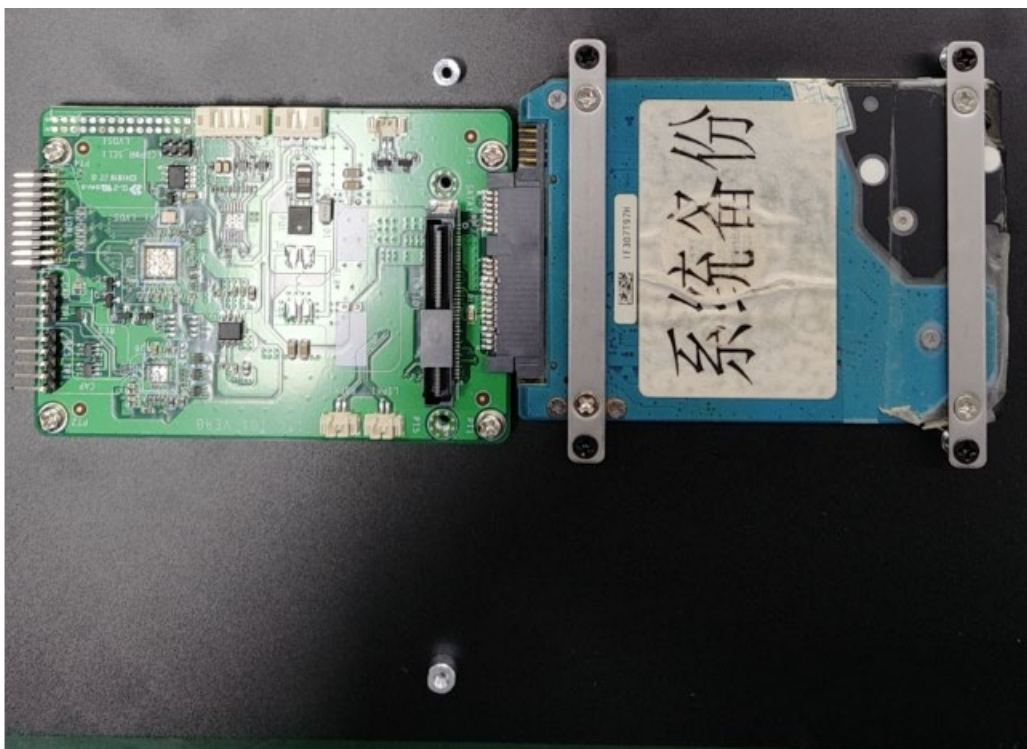
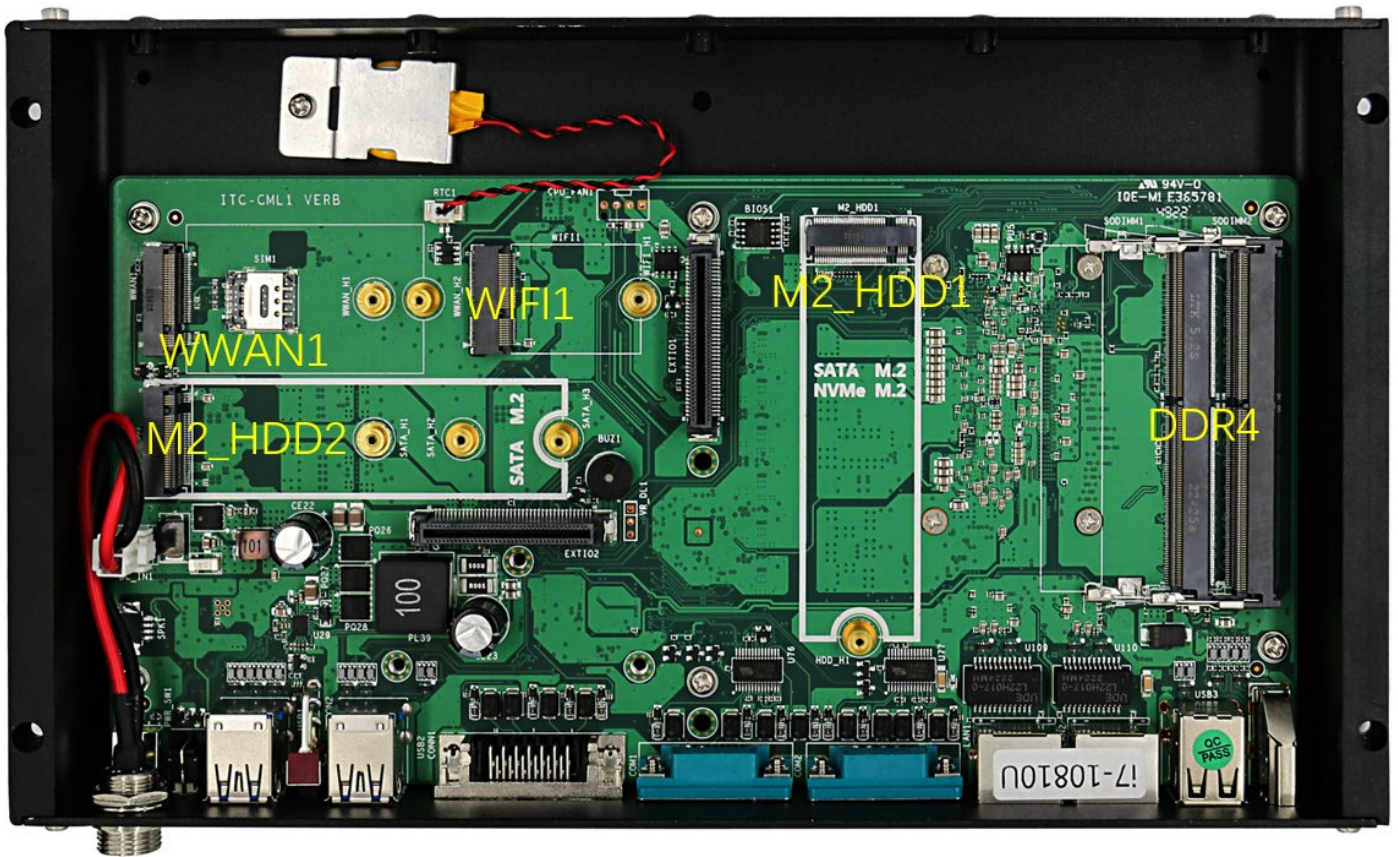
| | |
|-----------------|---|
| LAN3&4 | Intel I 225 2.5G Ethernet interface x2 (optional) |
| USB2&3 | USB3.0 X 2 |
| USB0&1 | USB3.0 X 2 |
| Dial switch | AT / ATX switching switch audio output interface |
| Power ON switch | Boot button |
| LINE-OUT | Audio output |
| DC-IN | Power interface |
| 13 | The SSD hard disk interface |
| 14 | Power amplifier output horn 1W 8 Ω (Optional) |
| 15 | power light |

2 Installation mode

The inner hexagon screwdriver removes the 4 screws from the rear baffle and the front panel



2.1 Hard disk, WIFI, 4G, memory installation



M 2 _ HDD 1 supports M.2 (SATA) Hard disk, M.2 (NVM e) Hard drive 2280

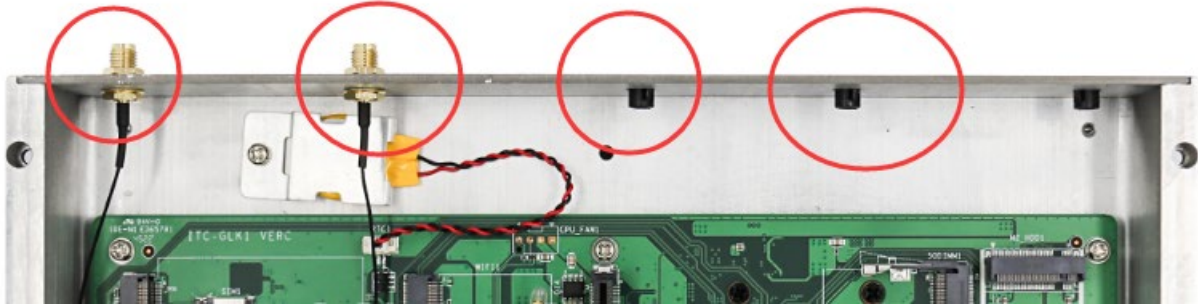
M 2 _ HDD 2 supports M.2 (SATA) hard drives 2240,2260,2280

WIFI1 Supports the M interface WIFI (Bluetooth) module

WWAN1 Support for M.2 Interface 4G or 5G modules (like RM500Q)

The DDR 4 supports the SO-DIMM memory of DDR42133-3200

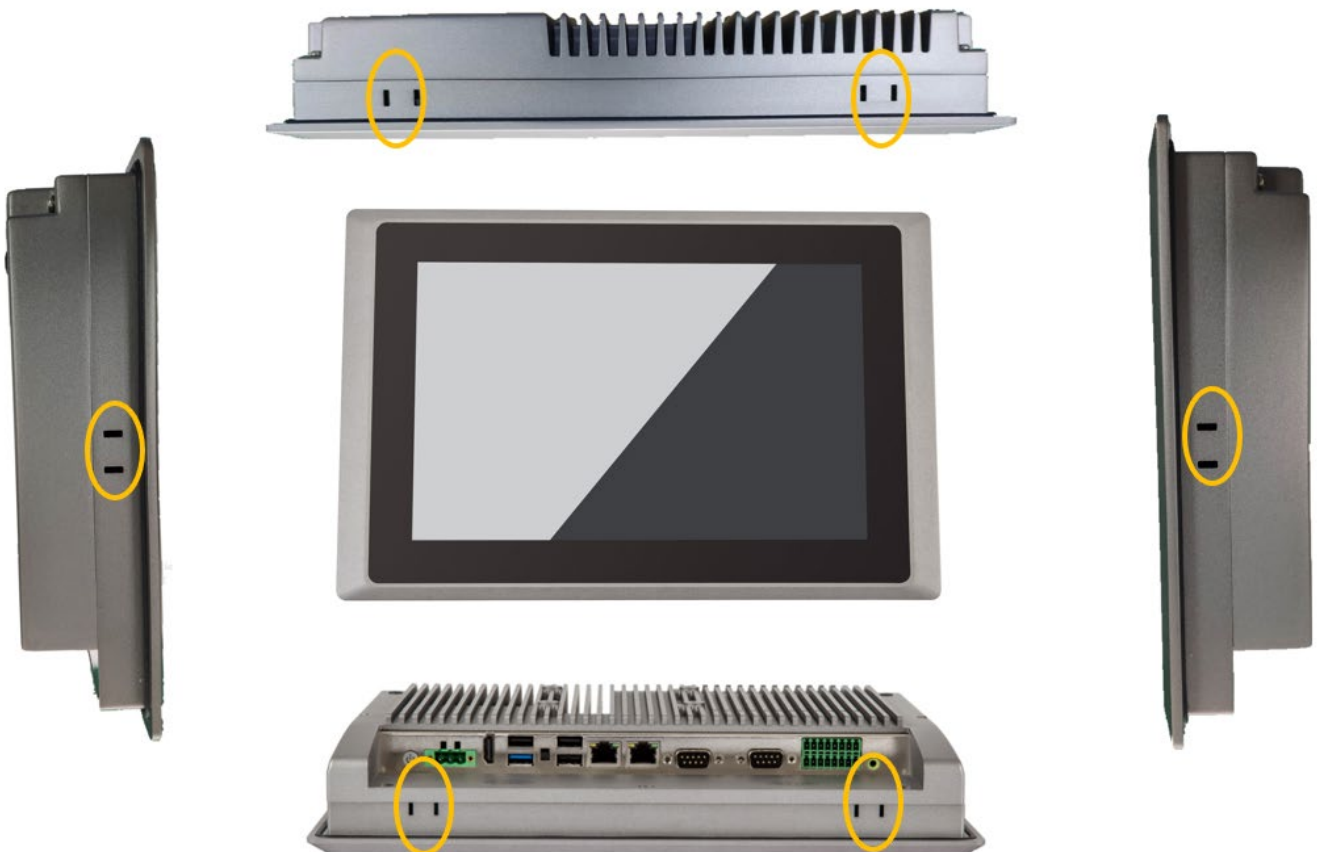
2.2 Antenna installation



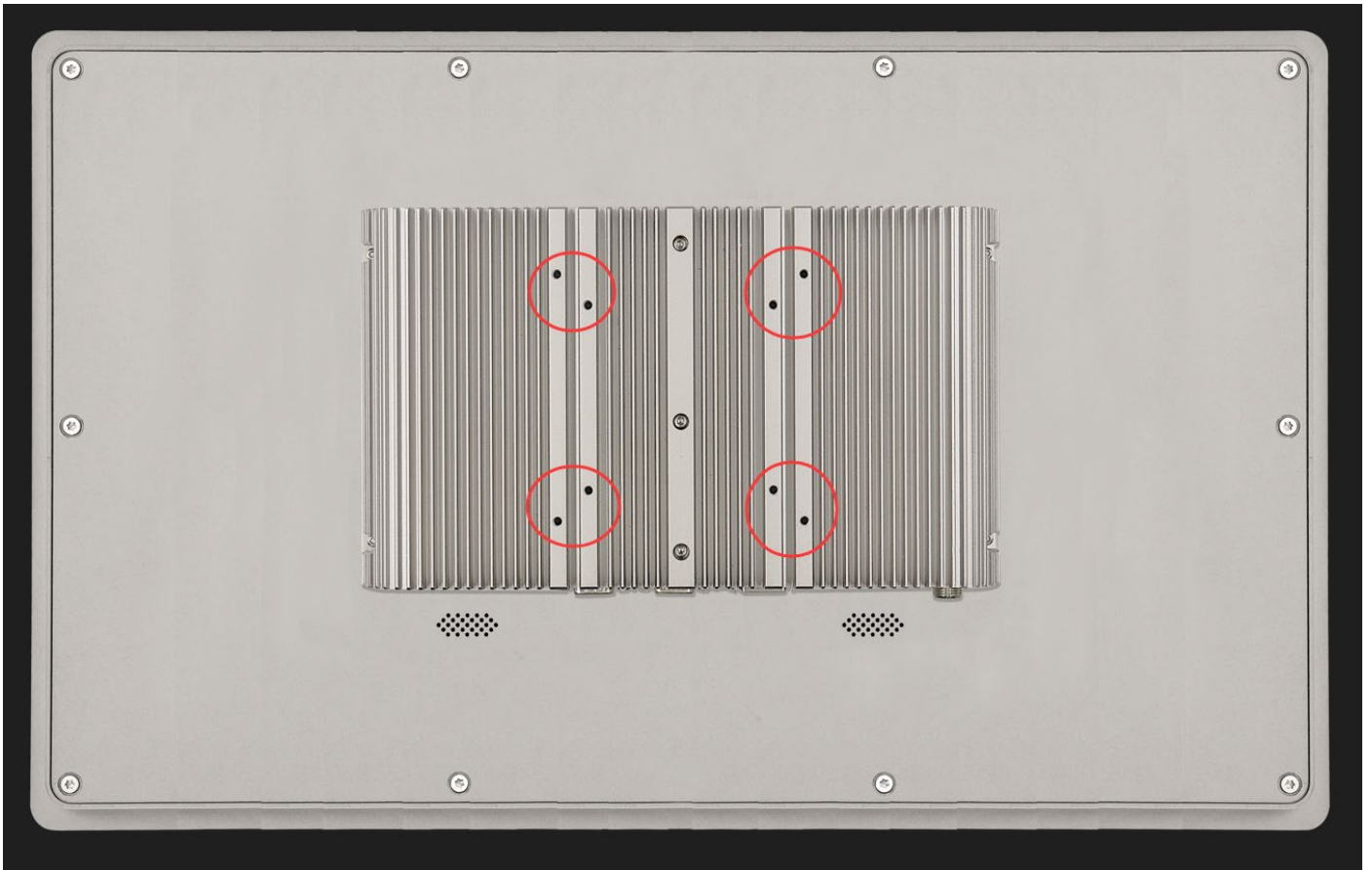
By default, only WIFI, Bluetooth antenna. If the installation of 4G, 5G antenna needs additional consultation

2.3 Installation and fixing of the machine

Take a 10-inch tablet as a model. When installing the panel embedded, there are six butterfly buttons around the machine. When the panel is embedded, these six butterfly buttons are used to fix the fuselage.



VESA75 Installation, on the back of the machine, designed a standard VESA75 installation hole, using this way needs to prepare a VESA75 bracket



3-IO interface

3.1 Serial ports

The CTXN can support up to 6 serial ports, and the following is a list of working modes supported by each serial port:

| gorge line work pattern | COM1 | COM2 | COM3 | COM4 | COM5 | COM6 |
|-------------------------|---------|---------|------------|------------|------------|------------|
| RS232 | support | support | support | support | support | support |
| RS485 | support | support | nonsupport | nonsupport | nonsupport | nonsupport |
| RS422 | support | support | nonsupport | nonsupport | nonsupport | nonsupport |

pay attention to:

COM 3 to 6 is a 3-wire serial port (TXD / RXD / GND)

By default, COM 1 to 6 is factory set to RS232 mode;

The pins corresponding to the different interface types are defined in the following table:

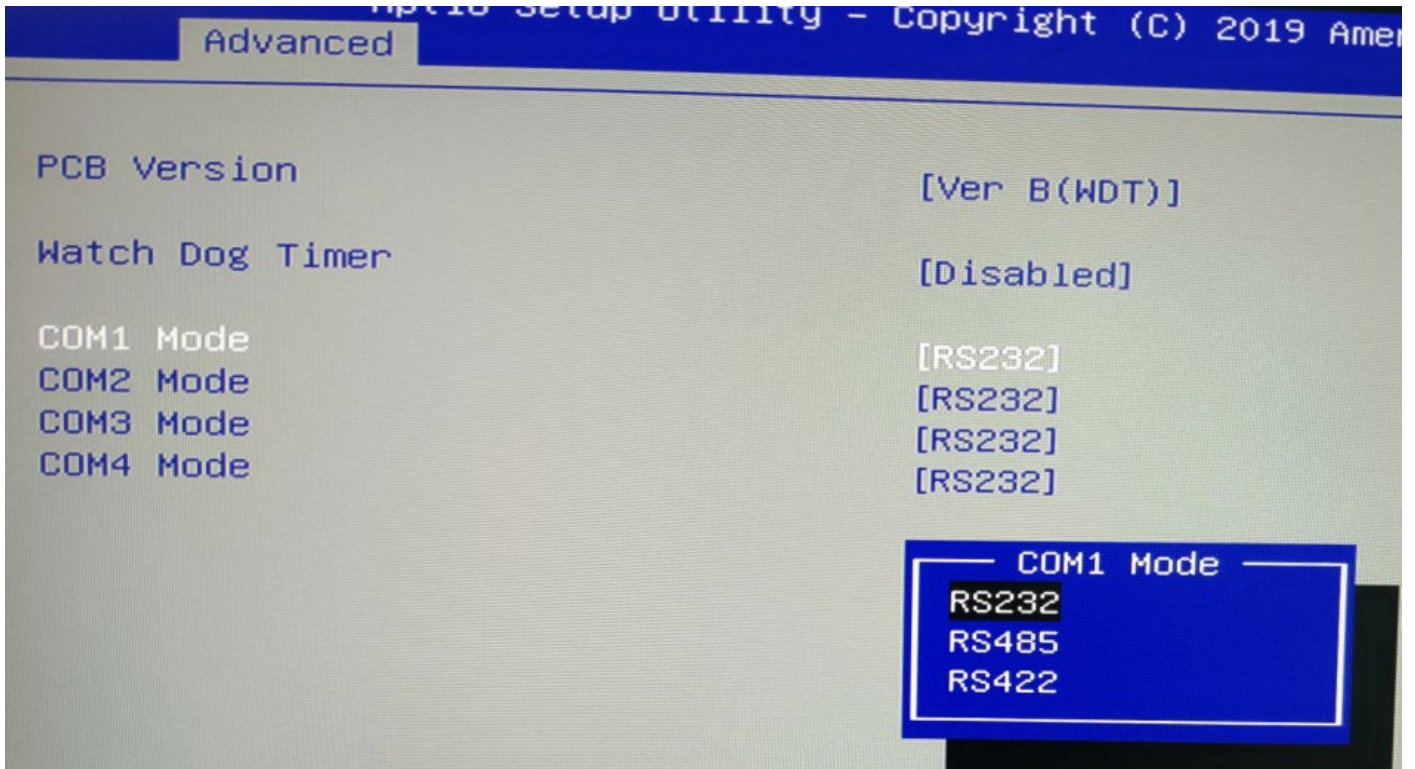
COM1, COM2 pin signal definition

| Mode | DB9 Pin Name | | | | | | | | |
|-------|--------------|--------|-------|-------|-------|-------|-------|-------|-----------------------|
| | Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5 | Pin 6 | Pin 7 | Pin 8 | Pin 9 |
| RS485 | DATA - | DATA + | | | | | | | |
| RS422 | TX - | TX + | RX+ | RX- | | | | | |
| RS232 | DCD# | RXD | TXD | DTR# | GND | DSR# | RTS# | CTS# | RI# Can be charged |

Set up the working mode of COM1,2



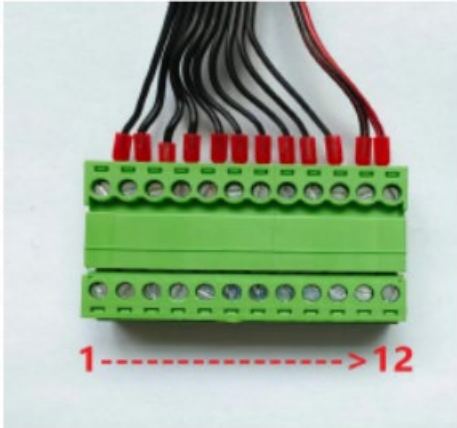
Power up the machine, press the Delete button, enter the BIOS Settings interface, and navigate to the following path:

Advanced SIO MISC Configuration COM1 MODE Select the RS232 / 422 / 485 option;



After the BIOS option is set, press F 10, select [YES] in the pop-up dialog box and exit.

3.2 EXT-IO (with flat plate extension cable)

| <p>配件1 (可选) 4 x DB9 + 2Pin开关 单价: 30RMB</p> |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----|-------|------|-----|---|-------|------|----|-------|------|-------|------|----|-------|------|-------|------|----|-------|------|-------|------|----|-------|------|-------|------|----|-------|------|-------|------|----|-------|------|-------|------|----|-------|------|-------|------|----|-------|------|-------|------|----|-------|------|--------|------|----|-------|------|--------|-----|--|--|--|--------|--------|--|--|--|---|
| <p>配件2 (可选) 4 x DB9 + 10 x GPIO + 2Pin开关 单价: 50RMB</p> |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>GPIO使用说明</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>序号</th> <th>名称</th> <th>默认</th> <th>寄存器</th> <th>位</th> </tr> </thead> <tbody> <tr><td>Pin 1</td><td>GP80</td><td>输入</td><td>0xA07</td><td>bit0</td></tr> <tr><td>Pin 2</td><td>GP81</td><td>输入</td><td>0xA07</td><td>bit1</td></tr> <tr><td>Pin 3</td><td>GP82</td><td>输入</td><td>0xA07</td><td>bit2</td></tr> <tr><td>Pin 4</td><td>GP83</td><td>输入</td><td>0xA07</td><td>bit3</td></tr> <tr><td>Pin 5</td><td>GP84</td><td>输入</td><td>0xA07</td><td>bit4</td></tr> <tr><td>Pin 6</td><td>GP70</td><td>输出</td><td>0xA06</td><td>bit0</td></tr> <tr><td>Pin 7</td><td>GP71</td><td>输出</td><td>0xA06</td><td>bit1</td></tr> <tr><td>Pin 8</td><td>GP72</td><td>输出</td><td>0xA06</td><td>bit2</td></tr> <tr><td>Pin 9</td><td>GP73</td><td>输出</td><td>0xA06</td><td>bit3</td></tr> <tr><td>Pin 10</td><td>GP74</td><td>输出</td><td>0xA06</td><td>bit4</td></tr> <tr><td>Pin 11</td><td>GND</td><td></td><td></td><td></td></tr> <tr><td>Pin 12</td><td>PWRBTN</td><td></td><td></td><td></td></tr> </tbody> </table> | | 序号 | 名称 | 默认 | 寄存器 | 位 | Pin 1 | GP80 | 输入 | 0xA07 | bit0 | Pin 2 | GP81 | 输入 | 0xA07 | bit1 | Pin 3 | GP82 | 输入 | 0xA07 | bit2 | Pin 4 | GP83 | 输入 | 0xA07 | bit3 | Pin 5 | GP84 | 输入 | 0xA07 | bit4 | Pin 6 | GP70 | 输出 | 0xA06 | bit0 | Pin 7 | GP71 | 输出 | 0xA06 | bit1 | Pin 8 | GP72 | 输出 | 0xA06 | bit2 | Pin 9 | GP73 | 输出 | 0xA06 | bit3 | Pin 10 | GP74 | 输出 | 0xA06 | bit4 | Pin 11 | GND | | | | Pin 12 | PWRBTN | | | |  |
| 序号 | 名称 | 默认 | 寄存器 | 位 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pin 1 | GP80 | 输入 | 0xA07 | bit0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pin 2 | GP81 | 输入 | 0xA07 | bit1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pin 3 | GP82 | 输入 | 0xA07 | bit2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pin 4 | GP83 | 输入 | 0xA07 | bit3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pin 5 | GP84 | 输入 | 0xA07 | bit4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pin 6 | GP70 | 输出 | 0xA06 | bit0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pin 7 | GP71 | 输出 | 0xA06 | bit1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pin 8 | GP72 | 输出 | 0xA06 | bit2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pin 9 | GP73 | 输出 | 0xA06 | bit3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pin 10 | GP74 | 输出 | 0xA06 | bit4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pin 11 | GND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pin 12 | PWRBTN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Note: 10路GPIO, 默认为5个输入和5个输出, 也可以在BIOS SETUP配置成10个输入或10个输出</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

GPIO, with port access

Access to the output ports:

Using the function `outportb()`, you can output a byte of data directly to the specified port. To make the corresponding GPO port output low level, write 0 to the corresponding port. For example, the GPO 1 output low level:

```
TEMP = inportb (0x50c); read into the 0x50c port first
TEMP = TEMP & 0 xfe; then put the bit0 of the 0x50c port into 0
outportb (0x50c, TEMP); write the data to the port
```

To make the corresponding GPO port output high level, write 1 to the corresponding port, for example, let the GPO 1 output high level:

TEMP = inportb (0x50c); read into the 0x50c port first
TEMP = TEMP | 0x01; then put the bit0 of the 0x50c port into 1
outportb (0x50c, TEMP); write the data to the port

Access to the input port:

Use the function inportb() to read a byte from the port, and then compare to the table above, and take the corresponding bit.

3.3 Watch Dog

```
#define SIO_CONFIG_INDEX 0x2E
#define SIO_CONFIG_DATA 0x2F

void WatchDogTimer(UINT16 TimerValue) // 1 < TimerValue < 65535 , Unit = Second
{
// Enter Configuration Mode.
IoWrite8(SIO_CONFIG_INDEX, 0x87);
IoWrite8(SIO_CONFIG_INDEX, 0x01);
IoWrite8(SIO_CONFIG_INDEX, 0x55);
IoWrite8(SIO_CONFIG_INDEX, 0x55);

//=====LDN07=====
//
IoWrite8(SIO_CONFIG_INDEX, 0x07);
IoWrite8(SIO_CONFIG_DATA, 0x07);

//=====WDT=====
//
IoWrite8(SIO_CONFIG_INDEX, 0x72);
IoWrite8(SIO_CONFIG_DATA , 0x90); //Enable WDT

IoWrite8(SIO_CONFIG_INDEX, 0x74);
IoWrite8(SIO_CONFIG_DATA , (UINT8)((TimerValue & 0xFF00)>>8 )); //MSB

IoWrite8(SIO_CONFIG_INDEX, 0x73);
IoWrite8(SIO_CONFIG_DATA , (UINT8)(TimerValue & 0x00FF)); //LSB
}

void DisableWdt()
{
// Enter Configuration Mode.
IoWrite8(SIO_CONFIG_INDEX, 0x87);
IoWrite8(SIO_CONFIG_INDEX, 0x01);
IoWrite8(SIO_CONFIG_INDEX, 0x55);
IoWrite8(SIO_CONFIG_INDEX, 0x55);

//=====LDN07=====
//
```

```

IoWrite8(SIO_CONFIG_INDEX, 0x07);
IoWrite8(SIO_CONFIG_DATA, 0x07);

IoWrite8(SIO_CONFIG_INDEX, 0x72);
IoWrite8(SIO_CONFIG_DATA , 0x00); //Disable WDT

IoWrite8(SIO_CONFIG_INDEX, 0x74);
IoWrite8(SIO_CONFIG_DATA , 0x00); //MSB

IoWrite8(SIO_CONFIG_INDEX, 0x73);
IoWrite8(SIO_CONFIG_DATA , 0x00); //LSB
}

```

4 The BIOS function

4.1 Introduction to UEFI

UEFI (Unified Extensible Firmware Interface: standard scalable firmware interface) is a new generation of computer firmware used to replace the traditional BIOS. UEFI firmware is stored in the flash memory of the motherboard. The main functions include: initializing the system hardware, setting the working state of each system component, adjusting the working parameters of each system component, diagnosing the functions of each component of the system, and reporting faults, providing hardware operation control interface to the upper software system, guiding the operating system, etc. UEFI provides users with a menu-type man-machine interface to configure the system parameters, control the power management mode, and adjust the resource allocation of the system equipment. Setting the parameters of UEFI correctly makes the system work stably and reliably, while also improving the overall performance of the system. Inappropriate or even incorrect UEFI parameter setting will greatly reduce the system performance, make the system work unstable, or even unable to work normally.

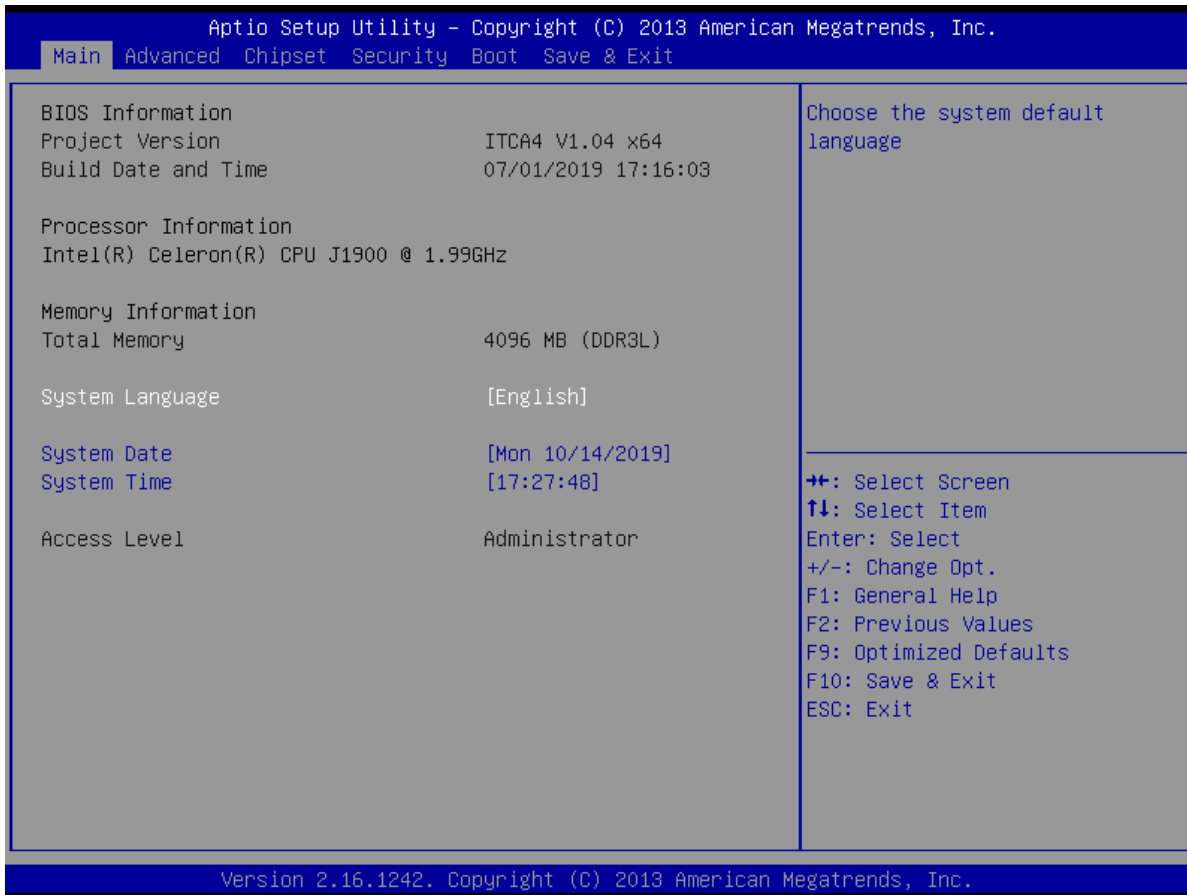
4.2 UEFI, and the parameter setting

Whenever the system is turned on and the power is turned on, the information entering the UEFI setting program can be seen. At this point (no other time is invalid), press the key specified by the prompt message (usually or <F2> key) to enter the UEFI setting program. All setting values (except date, time) modified by the UEFI setting program are stored in the flash memory of the system, with the date and time

Save in the CMOS memory of the system, which is battery powered by the storage, and even if the external power is cut off, its content is not lost unless the CMOS content is cleared. pay attention to! The setting of UEFI directly affects the performance of the computer. The wrong parameters will damage the computer or even boot up. Please use the UEFI built-in default to restore the normal operation of the system. As the company constantly develops and updates UEFI, its Settings interface will be slightly different. The following pictures for your reference may not be exactly the same as the UEFI Settings program you are currently using.

4.3 Basic function settings of UEFI

When the SETUP program starts, you can see the main screen as follows:



4.3.1 Main

☒ System Date

Select this option to use the <+> / <-> to set the current date. Prespressed in month / day / year format. The reasonable scope of each project is: Month / month (1-12), Date / day (01-31), Year / year (maximum to 2099), Week / week (Mon.~Sun.).

☒ System Time

Select this option and use <+> / <-> to set the current time. It is expressed in the time / minute / second format. The reasonable range of each item is: Hour / hour (00-23), Minute / minute (00-59), Second / second (00-59).

PS: The RTC time of the 6,7,8 generation core will be adjusted according to the OS.

Advanced

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Main **Advanced** Chipset Security Boot Save & Exit

| | |
|---|---|
| <ul style="list-style-type: none"> ▶ ACPI Settings ▶ Lan PXE Config ▶ SIO MISC Configuration ▶ IT8786 Super IO Configuration ▶ Wakeup Configuration ▶ CPU Configuration ▶ IDE Configuration ▶ Network Stack Configuration ▶ CSM Configuration ▶ USB Configuration | <p>System ACPI Parameters.</p> <hr/> <p> ++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit </p> |
|---|---|

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ACPI Settings

Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.

Advanced

| | |
|--|---|
| <p>ACPI Settings</p> <p>Enable ACPI Auto Configuration [Disabled]</p> <p>Enable Hibernation [Enabled]</p> <p>ACPI Sleep State [S3 (Suspend to RAM)]</p> <p>Lock Legacy Resources [Disabled]</p> | <p>Enables or Disables BIOS ACPI Auto Configuration.</p> <hr/> <p> ++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit </p> |
|--|---|

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Lan PXE Configuration

Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.

Advanced

| | | |
|----------|------------|-------------------|
| PXE Boot | [Disabled] | Enable or Disable |
|----------|------------|-------------------|

++: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

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S IO MISC Configuration

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Advanced

| | | |
|------------------|------------|-----------------------|
| Watch Dog Timer | [Disabled] | Enable or Disable WDT |
| COM1 Mode | [RS232] | |
| COM2 Mode | [RS232] | |
| COM3 Mode | [RS232] | |
| COM4 Mode | [RS232] | |
| GP01 Ouput Value | [Low] | |
| GP02 Ouput Value | [Low] | |
| GP03 Ouput Value | [Low] | |
| GP04 Ouput Value | [Low] | |
| GP05 Ouput Value | [Low] | |
| GP06 Ouput Value | [Low] | |
| GP07 Ouput Value | [Low] | |

++: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

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Watch Dog Timer

When set to Enable, you can set the minutes (seconds)

IT8786 Super IO Configuration

| Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc. | |
|--|---|
| Advanced | |
| IT8786 Super IO Configuration | Set Parameters of Serial Port 1 (COMA) |
| Super IO Chip IT8786 | |
| ▶ Serial Port 1 Configuration | |
| ▶ Serial Port 2 Configuration | |
| ▶ Serial Port 3 Configuration | |
| ▶ Serial Port 4 Configuration | |
| ▶ Serial Port 5 Configuration | |
| ▶ Serial Port 6 Configuration | |
| | ++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit |
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Wake up Configuration

| Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc. | |
|--|---|
| Advanced | |
| Wakeup Configuration | Enable or disable System wake on alarm event. |
| Wake system from S5 [Disabled] | |
| | ++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit |
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CPU Configuration

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Advanced

| CPU Configuration | Socket specific CPU Information |
|---------------------------------|---------------------------------|
| ▶ Socket 0 CPU Information | |
| ▶ CPU Thermal Configuration | |
| CPU Speed | 2001 MHz |
| 64-bit | Supported |
| Active Processor Cores | [All] |
| Limit CPUID Maximum | [Disabled] |
| Execute Disable Bit | [Enabled] |
| Hardware Prefetcher | [Enabled] |
| Adjacent Cache Line Prefetch | [Enabled] |
| Intel Virtualization Technology | [Enabled] |
| Power Technology | [Energy Efficient] |

++: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

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IDE Configuration

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Advanced

| IDE Configuration | Enable / Disable Serial ATA |
|--------------------------|-----------------------------|
| Serial-ATA (SATA) | [Enabled] |
| SATA Test Mode | [Disabled] |
| SATA Speed Support | [Gen2] |
| SATA ODD Port | [No ODD] |
| SATA Mode | [AHCI Mode] |
| Serial-ATA Port 0 | [Enabled] |
| SATA Port0 HotPlug | [Disabled] |
| Serial-ATA Port 1 | [Enabled] |
| SATA Port1 HotPlug | [Disabled] |
| SATA Port0 | |
| kimtigo SSD 12 (128.0GB) | |
| SATA Port1 | |
| Not Present | |

++: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit

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Network Stack Configuration

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Advanced

| | | |
|--|--|--|
| <p>Network Stack [Enabled]</p> <p>Ipv4 PXE Support [Enabled]</p> <p>Ipv6 PXE Support [Enabled]</p> <p>PXE boot wait time 0</p> | <p>Enable/Disable UEFI Network Stack</p> | |
| | | <p>++: Select Screen</p> <p>↑↓: Select Item</p> <p>Enter: Select</p> <p>+/-: Change Opt.</p> <p>F1: General Help</p> <p>F2: Previous Values</p> <p>F9: Optimized Defaults</p> <p>F10: Save & Exit</p> <p>ESC: Exit</p> |

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CSM Configuration

Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.

Advanced

| | | |
|--|------------------------------------|--|
| <p>Compatibility Support Module Configuration</p> <p>CSM Support [Enabled]</p> <p>CSM16 Module Version 07.74</p> <p>GateA20 Active [Upon Request]</p> <p>Option ROM Messages [Force BIOS]</p> <p>INT19 Trap Response [Immediate]</p> <p>Boot option filter [UEFI and Legacy]</p> <p>Option ROM execution</p> <p>Storage [UEFI]</p> <p>Video [Legacy]</p> <p>Other PCI devices [Legacy]</p> | <p>Enable/Disable CSM Support.</p> | |
| | | <p>++: Select Screen</p> <p>↑↓: Select Item</p> <p>Enter: Select</p> <p>+/-: Change Opt.</p> <p>F1: General Help</p> <p>F2: Previous Values</p> <p>F9: Optimized Defaults</p> <p>F10: Save & Exit</p> <p>ESC: Exit</p> |

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USB Configuration

| Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc. | |
|---|--|
| Advanced | |
| USB Configuration | Enables Legacy USB support. AUTO option disables legacy support if no USB devices are connected. DISABLE option will keep USB devices available only for EFI applications. |
| USB Module Version | 8.11.01 |
| USB Devices: | |
| 1 Drive, 1 Keyboard, 2 Mice, 1 Point, 3 Hubs | |
| Legacy USB Support | [Enabled] |
| XHCI Hand-off | [Enabled] |
| EHCI Hand-off | [Disabled] |
| USB Mass Storage Driver Support | [Enabled] |
| USB hardware delays and time-outs: | |
| USB transfer time-out | [20 sec] |
| Device reset time-out | [20 sec] |
| Device power-up delay | [Auto] |
| Mass Storage Devices: | |
| Generic Flash Disk 8.07 | [Auto] |
| ++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit | |

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4.3.2 Chipset

| Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc. | |
|---|-------------------------|
| Main Advanced Chipset Security Boot Save & Exit | |
| ▶ North Bridge ▶ South Bridge | North Bridge Parameters |
| ++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit | |

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North Bridge

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Chipset

| | |
|---|---|
| <p>LCD Control</p> <p>Primary IGFX Boot Display [VBIOS Default] Active LFP [LVDS] LCD Panel Type [1024x768] Backlight Control [PWM Normal] LVDS Channel Select [Single Channel] LVDS Mode [VESA] Brightness Mode Setting [External] Panel Color Depth [24 Bit]</p> | <p>Select the Video Device which will be activated during POST. This has no effect if external graphics present. Secondary boot display selection will appear based on your selection. VGA modes will be supported only on primary display</p> <hr/> <p> ++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit </p> |
|---|---|

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South Bridge

Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.

Chipset

| | |
|---|--|
| <p>▶ USB Configuration ▶ PCI Express Configuration</p> | <p>USB Configuration Settings</p> <hr/> <p> ++: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F9: Optimized Defaults F10: Save & Exit ESC: Exit </p> |
|---|--|

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USB Configuration

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Chipset

| | | |
|----------------------------|------------|--------------------------------|
| USB Configuration | | Enable/Disable USB OTG Support |
| USB OTG Support | [Disabled] | |
| USB VBUS | [On] | |
| XHCI Mode | [Auto] | |
| USB2 Link Power Management | [Enabled] | |
| USB 2.0(EHCI) Support | [Disabled] | |
| USB Per Port Control | [Enabled] | |
| USB Port 0 | [Enabled] | |
| USB Port 1 | [Enabled] | |
| USB Port 2 | [Enabled] | |
| USB Port 3 | [Enabled] | |

++: Select Screen
 ↑↓: Select Item
 Enter: Select
 +/-: Change Opt.
 F1: General Help
 F2: Previous Values
 F9: Optimized Defaults
 F10: Save & Exit
 ESC: Exit

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PCI Express Configuration

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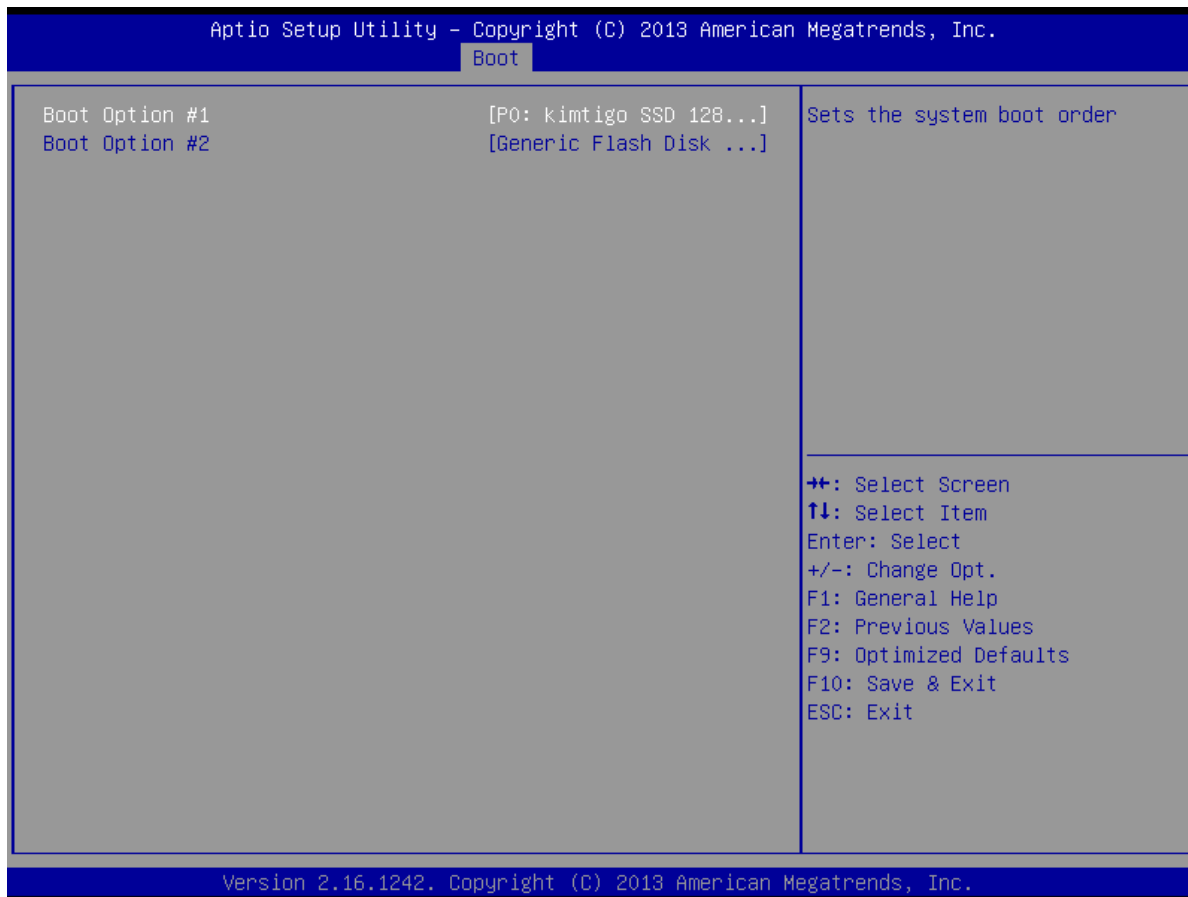
Chipset

| | | |
|-------------------------------|-----------|--|
| PCI Express Configuration | | Enable or Disable the PCI Express Port 0 in the Chipset. |
| PCI Express Port 0 | [Enabled] | |
| Hot Plug | [Enabled] | |
| Speed | [Auto] | |
| Extra Bus Reserved | 1 | |
| Reseved Memory | 10 | |
| Reseved Memory Alignment | 1 | |
| Prefetchable Memory | 10 | |
| Prefetchable Memory Alignment | 1 | |
| Reserved I/O | 4 | |
| PCI Express Port 1 | [Enabled] | |
| Hot Plug | [Enabled] | |
| Speed | [Auto] | |
| Extra Bus Reserved | 0 | |
| Reseved Memory | 10 | |
| Reseved Memory Alignment | 1 | |
| Prefetchable Memory | 10 | |
| Prefetchable Memory Alignment | 1 | |
| Reserved I/O | 4 | |
| PCI Express Port 2 | [Enabled] | |
| Hot Plug | [Enabled] | |
| Speed | [Gen 1] | |
| Extra Bus Reserved | 0 | |

++: Select Screen
 ↑↓: Select Item
 Enter: Select
 +/-: Change Opt.
 F1: General Help
 F2: Previous Values
 F9: Optimized Defaults
 F10: Save & Exit
 ESC: Exit

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4.3.3 BOOT



Save Changes and Reset

This item is used to save the modifications and restart them (F10).

Discard Changes and Reset

This is used to discard the modifications and restart.