# EVC-7210

Version 1.0

1 ..... 1
1.1 ..... 1
1.2 ..... 1
2 ..... 3
2.1 ..... 3
2.2 ..... 3
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# 1

## 1.1

| | |
|---|---|
| LED | - 1 Power LED, 1 HDD LED |
| | - 2 RS232/422/485(DB9), |
| | - 1 Mini-PCIe SIM 4G/5G ) |
| Watch Dog | - 1 to 255 sec/min. per step |
| BIOS | - AMI UEFI/Legacy BIOS |
| | - Win7/Win10/Linux |
| | - : -10 50 ; : 0% 95%, |
| | - : -40 85 ; : 0% 95%, |
| | - With SSD:2Grms, IEC 60068-2-64, random 5~500Hz 1 hr/axis |
| | - With SSD: 15G, IEC 60068-2-27, half sine, 11ms duration |
| | - EVC-7210 : 12V to 24V DC-in, 2Pin<br>- EVC-7211/7213: 24V DC in |
| | - / |
| W x H x D | - EVC-7210 63.5mm(W)*200mm(H)*150 mm(D)<br>- EVC-7211/7213/7214: 78mm(W)*200mm(H)*150 mm(D)<br>- EVC-7216: 82mm(W)*200mm(H)*150 mm(D) |

# 2

## 2.1

## 2.2

-40 85

0% 95%

10cm

50cm

⚠

12

## 2.3

### 2.3.1

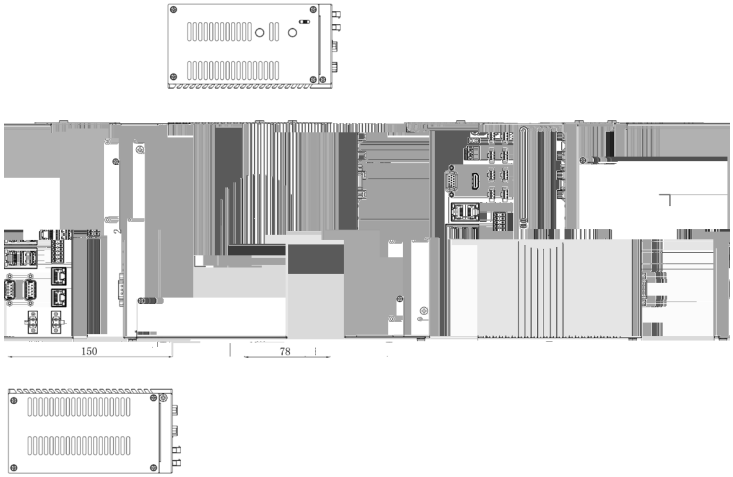
- 
- 
- 
- 

## 2.4

- 
- 
- 
- 50mm 100mm
- (
- 
- I/O 0.5V

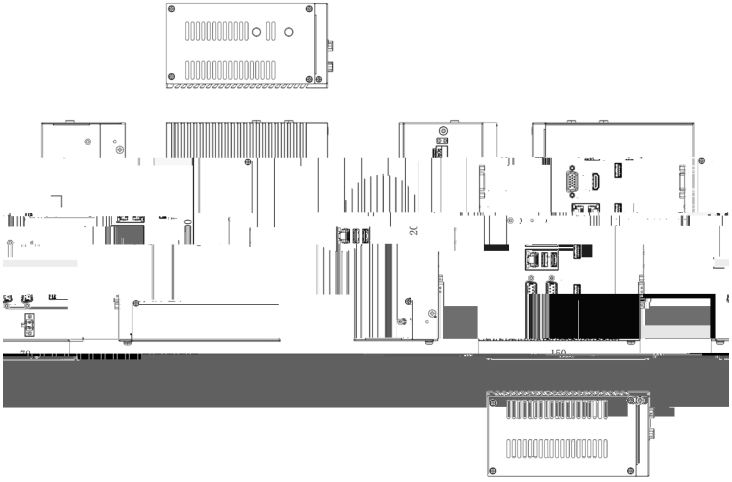
### 3.2.3 EVC-7213

mm



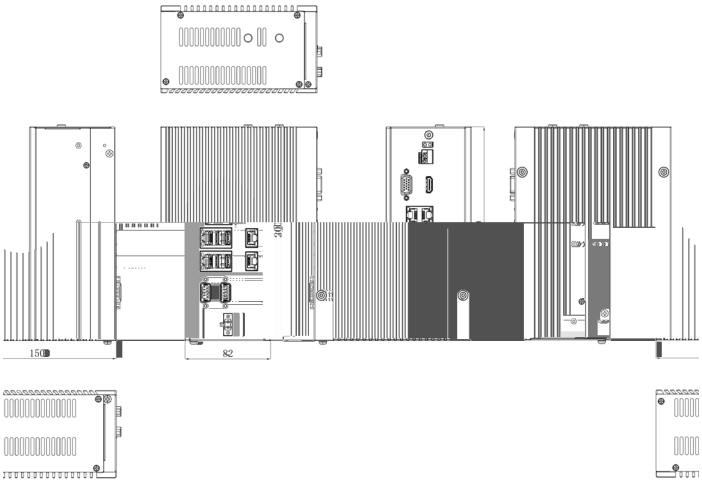

### 3.2.4 EVC-7214

mm



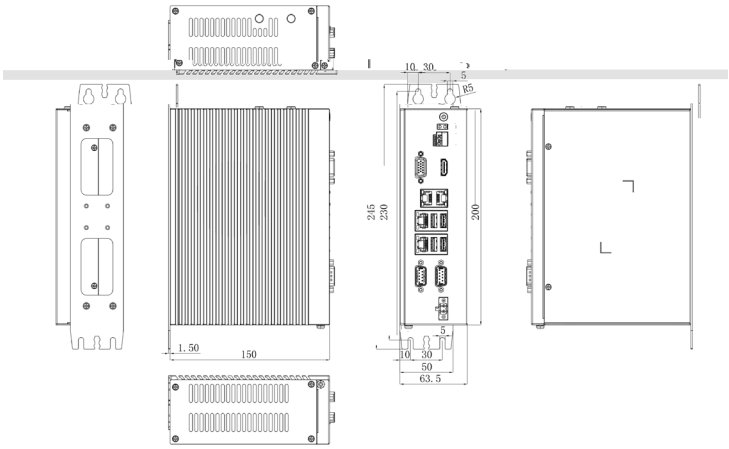
### 3.2.5 EVC-7216

mm

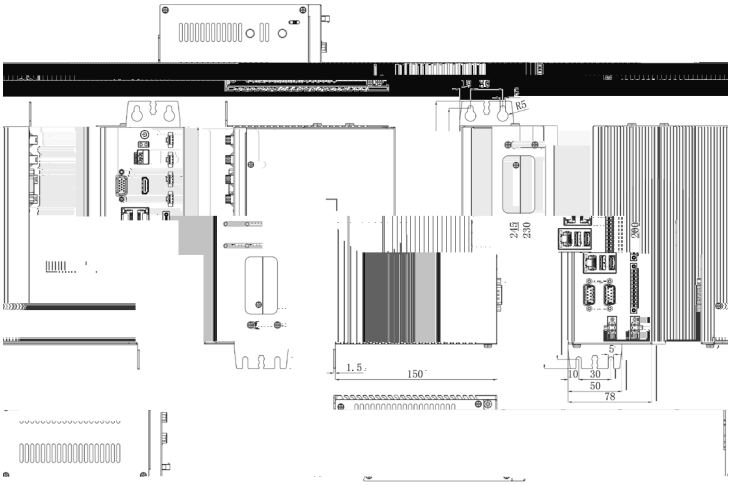



## 3.3

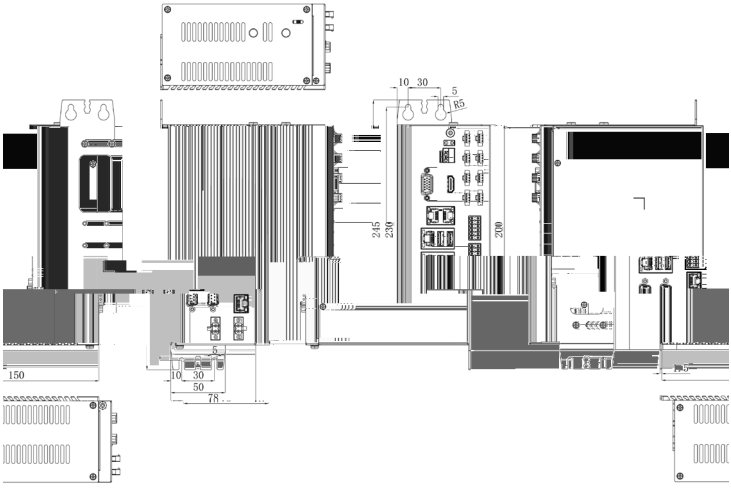
### 3.3.1 EVC-7210



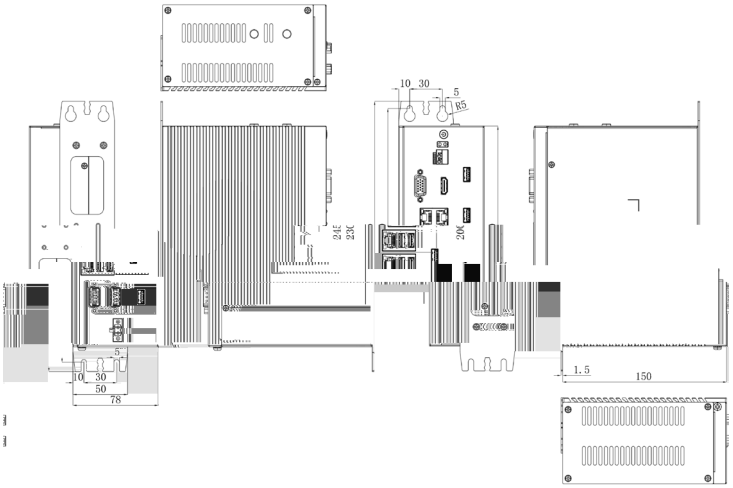
### 3.3.2 EVC-7211



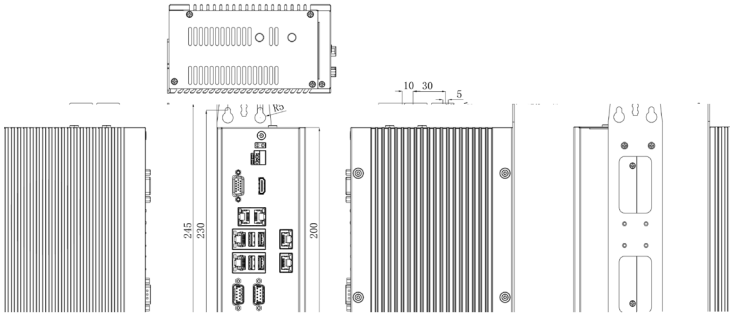

### 3.3.3 EVC-7213



### 3.3.4 EVC-7214




### 3.3.5 EVC-7216



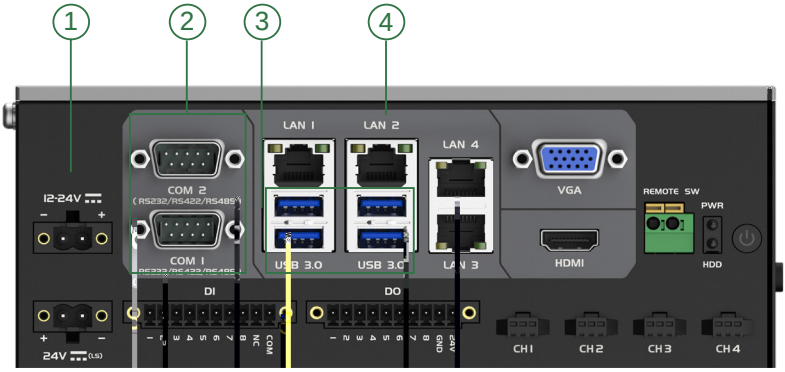
## 4.3

| | |
|---|---|
| DCIN<br>/<br>12V~24V | |

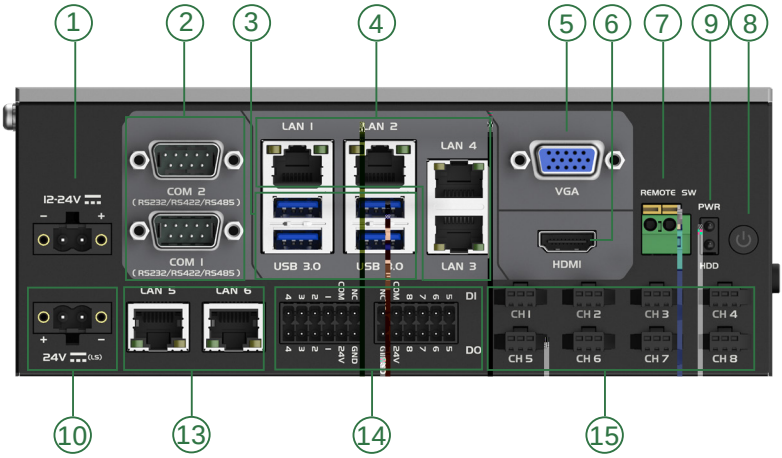
| ⚠ |
|---|
| |

| |
|---|
| |

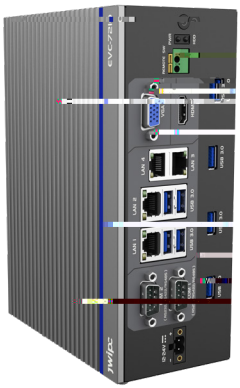
## 5.2 EVC-7211

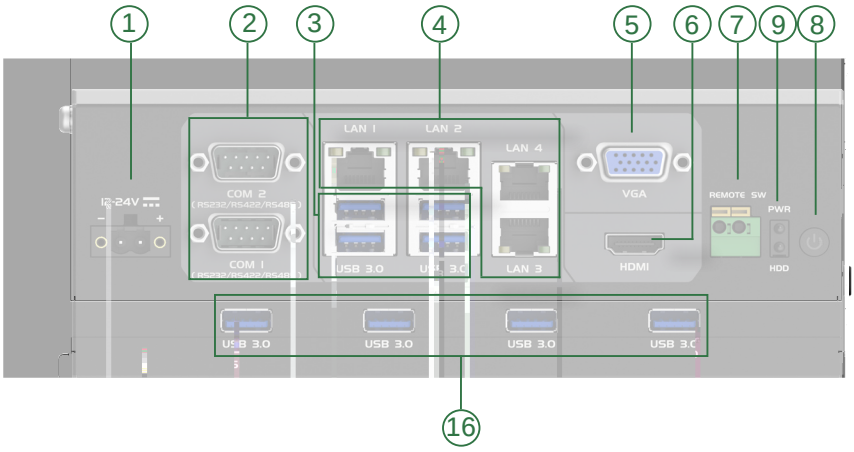

1
2
3
4
12-24V
COM 2
(RS232/RS422/RS485)
COM 1
(RS232/RS422/RS485)
LAN 1
LAN 2
LAN 4
LAN 3
USB 3.0
USB 3.0
VGA
HDMI
REMOTE SW
PWR
HDD
DI
DO
24V (LS)
CH1
CH2
CH3
CH4

## 5.4 EVC-7213

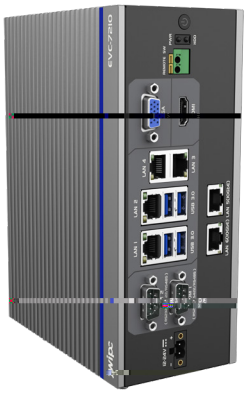

1
2
3
4
5
6
7
9
8
12-24V
COM 2
(RS232/RS422/RS485)
COM 1
(RS232/RS422/RS485)
LAN 1
LAN 2
LAN 4
LAN 3
USB 3.0
USB 3.0
VGA
HDMI
REMOTE SW
PWR
HDD
LAN 5
LAN 6
24V
DI
DO
CH 1
CH 2
CH 3
CH 4
CH 5
CH 6
CH 7
CH 8
10
13
14
15

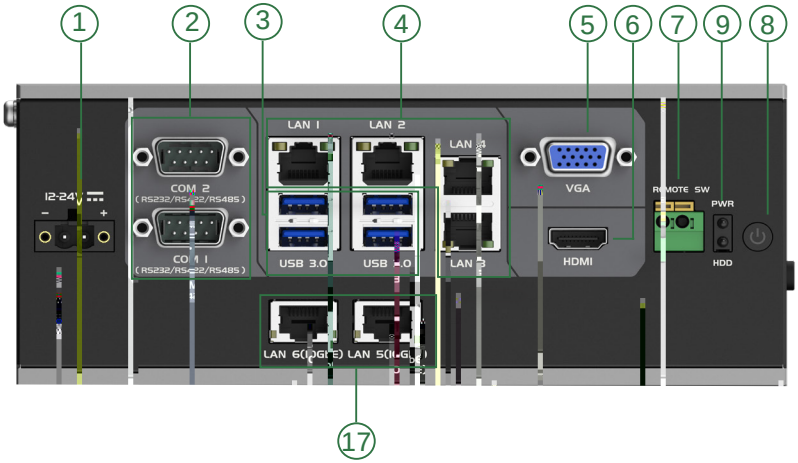
## 5.5 EVC-7214




1
2
3
4
5
6
7
9
8
16
+24V
COM 2
(RS232/RS422/RS485)
COM 1
(RS232/RS422/RS485)
LAN 1
LAN 2
LAN 4
LAN 3
USB 3.0
USB 3.0
VGA
HDMI
REMOTE SW
PWR
HDD
USB 3.0
USB 3.0
USB 3.0
USB 3.0

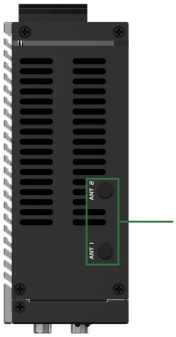
## 5.6 EVC-7216



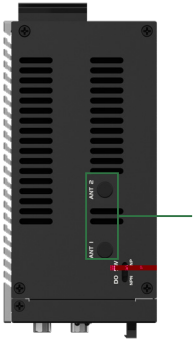

1
2
3
4
5
6
7
9
8
12-24V
COM 2
(RS232/RS422/RS485)
COM 1
(RS232/RS422/RS485)
LAN 1
LAN 2
LAN 4
USB 3.0
USB 3.0
LAN 3
VGA
HDMI
REMOTE SW
PWR
HDD
LAN 6(10GbE) LAN 5(10GbE)
17

## 5.7 EVC-7210

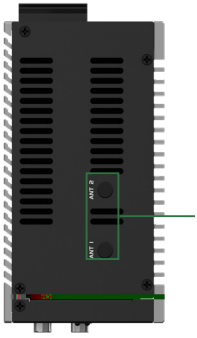
### 5.7.1 EVC-7210




### 5.7.2 EVC-7211/7213




### 5.7.3 EVC-7214



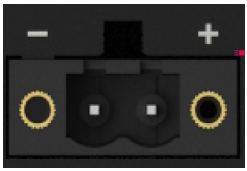
1. DC_IN DC
2. COM1/2: ⌣ ⌣ 1ή ή ’ 1 ο ⌫

## 5.8

| | | LED | |
|---|---|---|---|
| POWER | PC | | |
| | | | PC |
| HDD | | | |
| | | | |

## 5.9

2pin

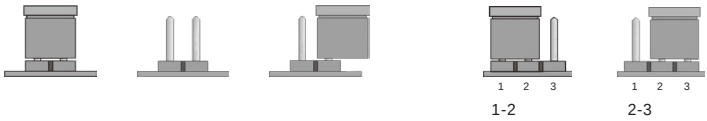
| | | |
|---|---|---|
|  | 1 | DC- |
| | 2 | DC+ |

## 5.10

### 5.10.1

2

3 1 2 2 3




1-2 2-3

1

1. "1" 1
2.

### 5.10.2

JME1

| | |
|---|---|
| 1-2 | Disable ME |
| 2-3 | Normal default |

ATX_M1

| | |
|---|---|
| 1-2 | ATX MODE default |
| 2-3 | AT MODE |

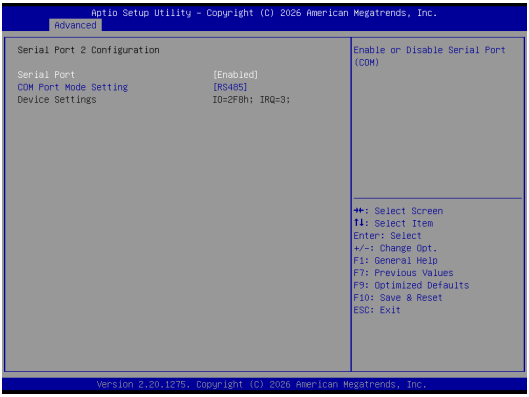
JP1

| | |
|---|---|
| 1-2 | 5G supply 3.8V default |
| 2-3 | 5G supply 3.3V |

### 5.10.3 COM1/2

| | | | |
|---|---|---|---|
| PIN | RS232 | RS422 | RS485 |
| 1 | / | 422TX- | 485- |
| 2 | SIN | 422TX+ | 485+ |
| 3 | SOUT | 422RX+ | / |
| 4 | / | 422RX- | / |
| 5 | GND | / | / |
| 6 | / | / | / |
| 7 | RTS | / | / |
| 8 | CTS | / | / |
| 9 | / | / | / |

RS232/422/485 BIOS




### 5.10.4 SATA_PWR1

| | |
|---|---|
| 1 | +V5 |
| 2 | GND |
| 3 | GND |
| 4 | +V12 |

### 5.10.5 SATA1

| | |
|---|---|
| 1 | GND |
| 2 | SATA_TX_P |
| 3 | SATA_TX_N |
| 4 | GND |
| 5 | SATA_RX_N |
| 6 | SATA_RX_P |
| 7 | GND |

### 5.10.6 F_USB1

| | | | |
|---|---|---|---|
| 1 | +V5 | 2 | +V5 |
| 3 | USB2_N1 | 4 | USB2_N2 |
| 5 | USB2_P1 | 6 | USB2_P2 |
| 7 | GND | 8 | GND |
| | | 10 | GND |

### 5.10.12 EVC-7211

MUART1 mcu log

| | |
|---|---|
| 1 | RX |
| 2 | TX |
| 3 | GND |

MBOOT1 mcu 2-3

| | |
|---|---|
| 1 | 3.3V |
| 2 | MCU_BOOT |
| 3 | GND |

MSWD1 mcu

| | |
|---|---|
| 1 | 3.3V |
| 2 | SWDIO |
| 3 | SWCLK |
| 4 | NRST |
| 5 | GND |

### 5.10.13 EVC-7213

MUART1 mcu log

| | |
|---|---|
| 1 | RX |
| 2 | TX |
| 3 | GND |

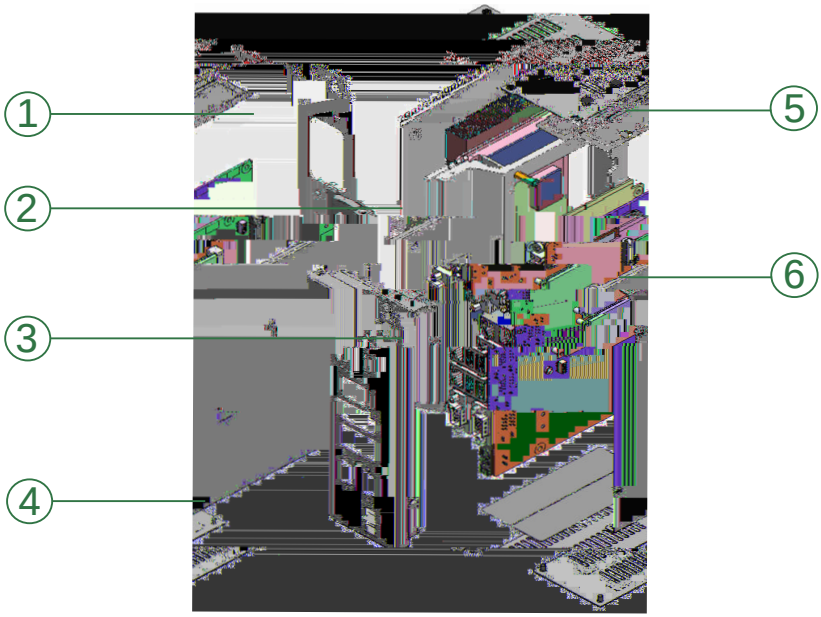
MSWD1 mcu

| | |
|---|---|
| 1 | 3.3V |
| 2 | SWDIO |
| 3 | SWCLK |
| 4 | NRST |
| 5 | GND |

# 6

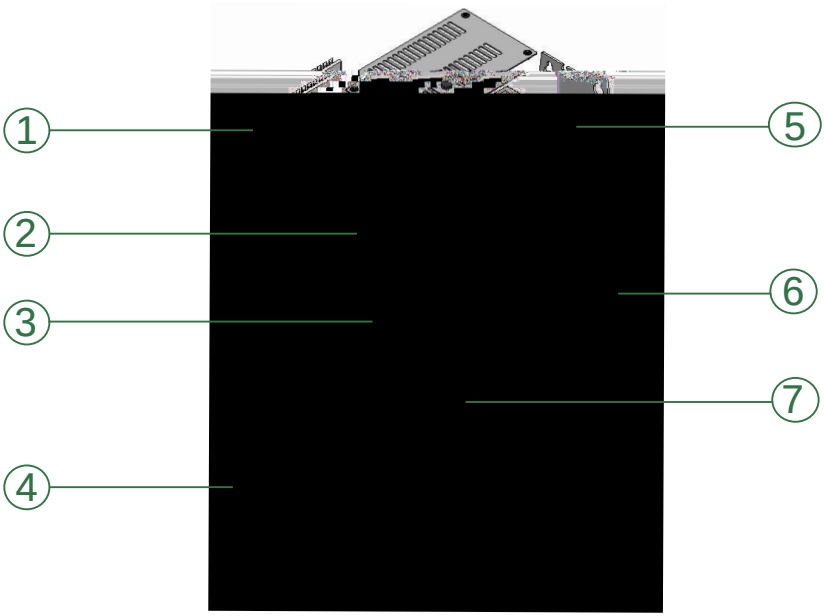
## 6.1

### 6.1.1 EVC-7210



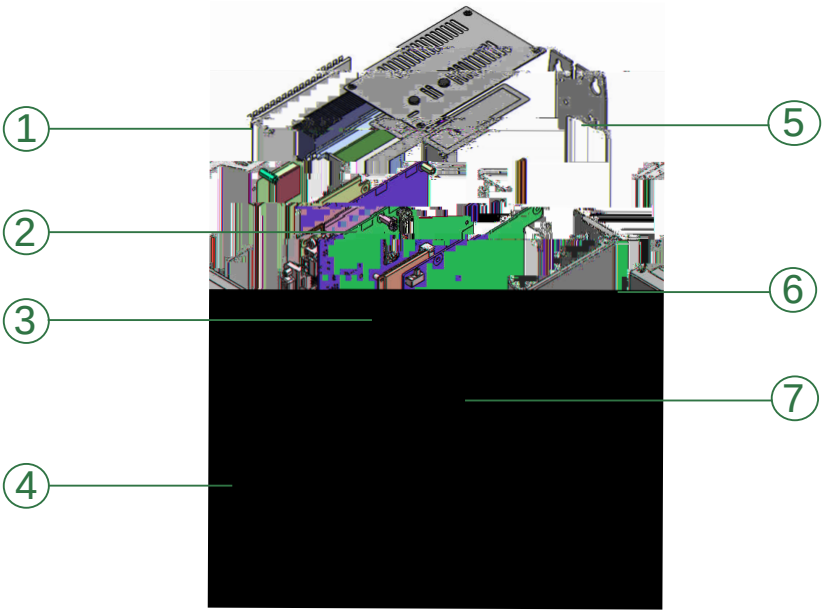

| | | | | | |
|---|---|---|---|---|---|
| 1 | | 2 | | 3 | |
| 4 | | 5 | | 6 | |

6.1.2 EVC-7211



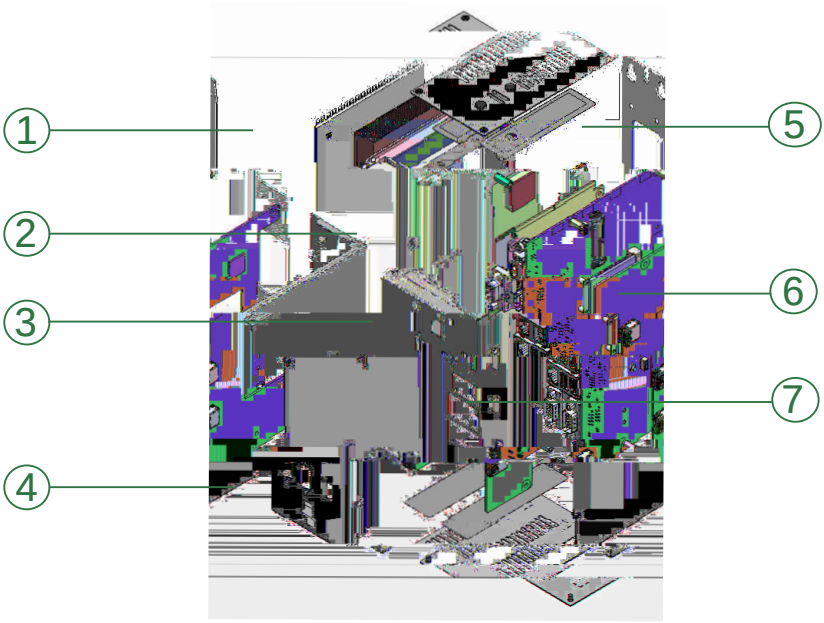

| | | | | | |
|---|---|---|---|---|---|
| 1 | | 2 | | 3 | |
| 4 | | 5 | | 6 | |
| 7 | | | | | |

6.1.3 EVC-7213



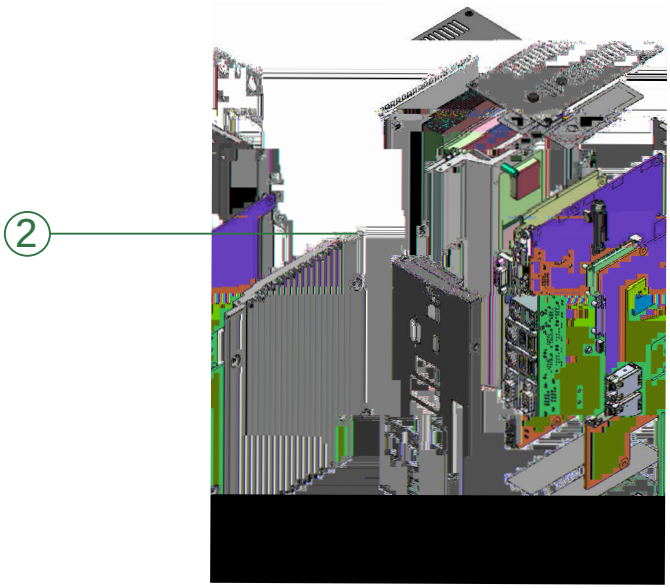

| | | | | | |
|---|---|---|---|---|---|
| 1 | | 2 | | 3 | |
| 4 | | 5 | | 6 | |
| 7 | | | | | |

6.1.4 EVC-7214



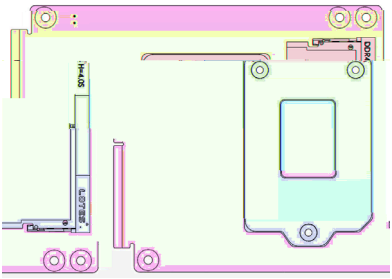

| | | | | | |
|---|---|---|---|---|---|
| 1 | | 2 | | 3 | |
| 4 | | 5 | | 6 | |
| 7 | | | | | |

### 6.1.5 EVC-7216




| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |

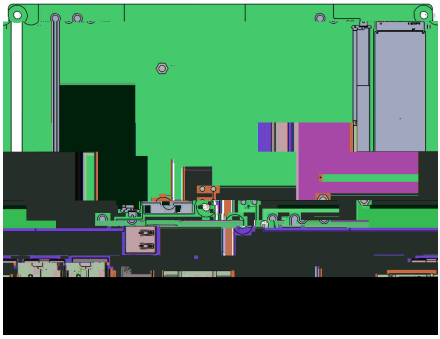
## 6.2



DIMM1 DIMM2

1.
2.
3. 30° DIMM1/2

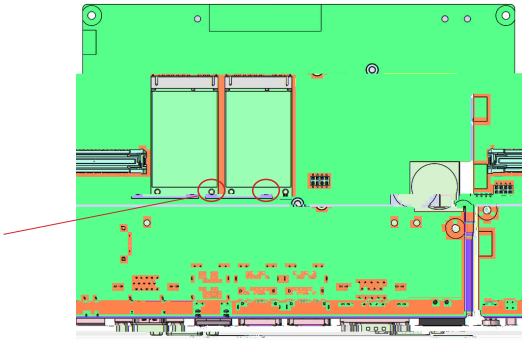
## 6.3 M.2 2242/2280



M.2 1 M2 M.2 2242/2280 NVMe SSD

1. 30°
2. M.2 2242 M.2 2280 M.2 2242

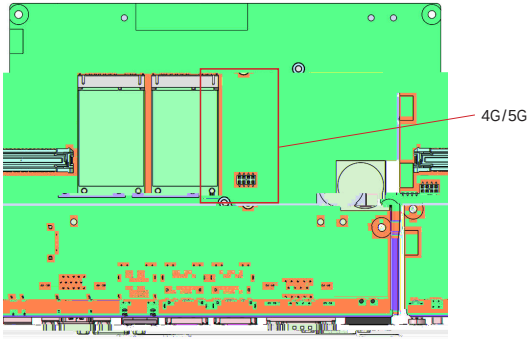
## 6.4 mSATA SSD



mSATA 2 mSATA mSATA SSD

30°

## 6.5 4G/5G




4G/5G

4G/5G 30°

# 7 BIOS

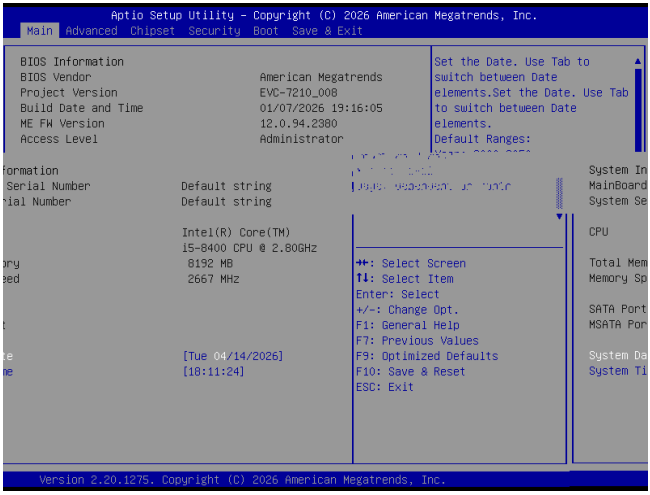
## 7.1 BIOS

AMI BIOS BIOS Basic Input Output System (

## 7.3 BIOS

| | | |
|---|---|---|
| Main | | BIOS |
| Advanced | | BIOS |
| Chipset | | |
| Security | | |
| Boot | | |
| Save & Exit | | BIOS |

## 7.4 Main




System Date ( )

, “ , / / ”

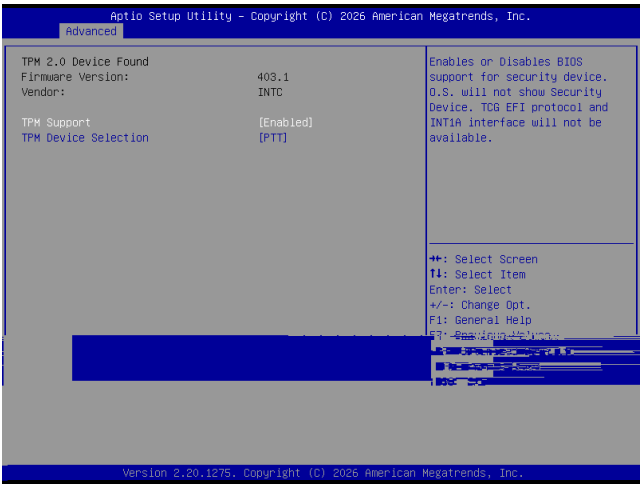
System Time

< >< >< >

## 7.5 Advanced

| | | |
|---|---|---|
| Trusted Computing | | |
| Hardware Monitor | | |
| Super IO Conf guration | I0 | |
| CPU Conf guration | CPU | |
| SATA Conf guration | SATA | |
| Power Settings | | |
| WatchDog Settings | | |
| CSM Conf guration | CSM | |

Trusted Computing <Enter>



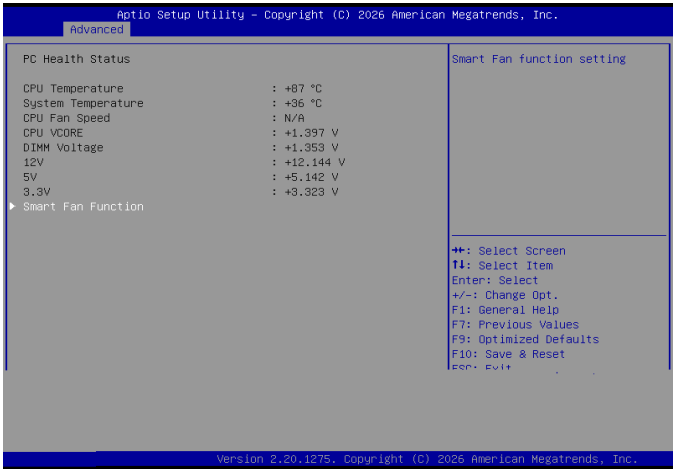

TPM Support

TPM Disable,Enable.

TPM Device Selection

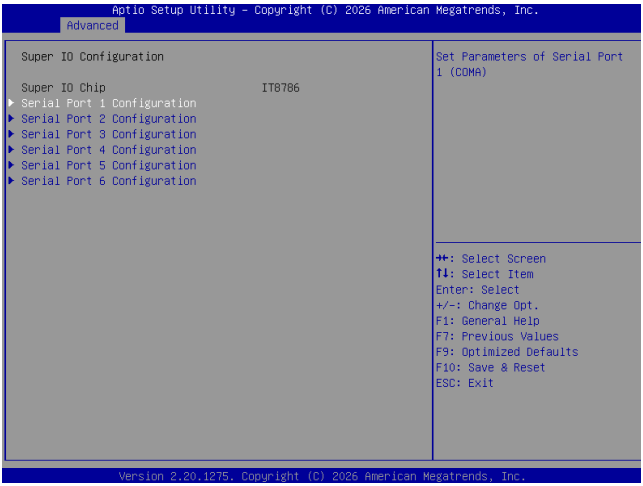
TPM dTPM, PTT.

Hardware Monitor <Enter>



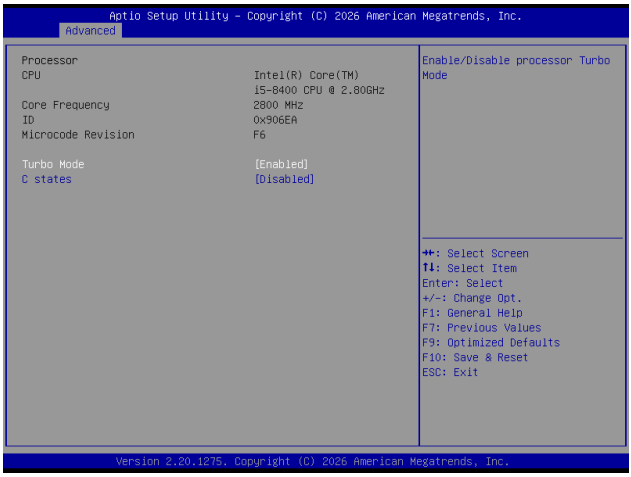

Smart Fan Funtion

Super IO Configuration <Enter>




Serial Port 1/2/3/4/5/6 Configuration

CPU Configuration <Enter>




Turbo Mode

Turbo Disabled,Enabled.

C states

CPU Disabled,Enabled.

SATA Configuration <Enter>

SATA Controller

SATA Enabled,Disabled.

SATA Port

SATA Enabled,Disabled.

MSATA Port

MSATA Enabled,Disabled.

Power Settings <Enter>

Power Loss

/ / AC

Of , On,Last Status.

USB Wakeup

USB Enabled,Disabled.

LAN Wakeup

Enabled,Disabled.

RTC Wakeup

RTC Disabled,Fixed Time,Dynamic Time.

WatchDog Con fguration <Enter>

WatchDog Mode

Enabled,Disabled.

CSM Configuration <Enter>

Launch CSM

CSM Disabled,Enabled.

Launch Storage Oprom

Storage Oprom Do not launch,UEFI,Legacy.

Launch Video Oprom

Oprom Do not launch,UEFI,Legacy.

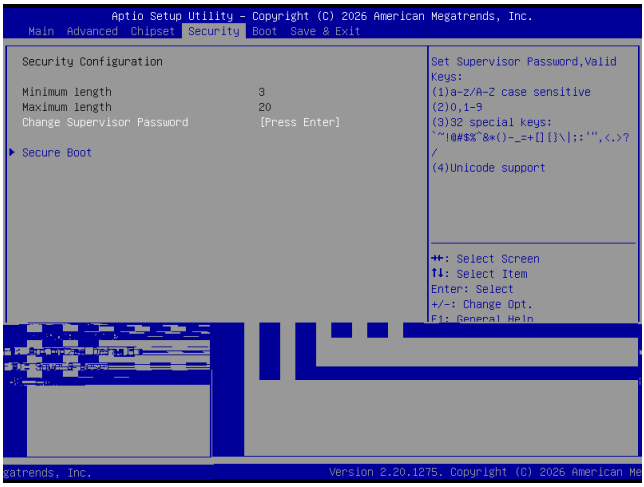
Other PCI devices

PCI Oprom Do not launch,UEFI,Legacy.

## 7.6 Chipset

Onboard Audio Controller

## 7.7 Security




Change Supervisor Password

1. Change Supervisor Password <Enter>
2. “ Create New Password ” 3~20

<Enter> “ Confrm Password ”

“ Invalid Password! ”

“ Change Supervisor Password ” “ Enter Current Password ”

“ Create New Password ” <Enter>

## 7.8 Boot

Setup Prompt Timeout

Bootup NumLock State
Numlock On NumLock
Of Numlock
On,Of.
USB Mass Storage Support
USB

## 7.8 Save & Exit

Save Changes and Reset

Discard Changes and Exit Setup

Load Default Settings

# 8 WDT

## 8.1 WDT

```
#define SuperIo_Index_Port 0x2E
#define SuperIo_Data_Port 0x2F

UINT8 Data8
//a. Enter Super IO Configuration Mode
IoWrite8(SuperIo_Index_Port, 0x87);
IoWrite8(SuperIo_Index_Port, 0x01);
IoWrite8(SuperIo_Index_Port, 0x55);
IoWrite8(SuperIo_Index_Port, 0x55);
//b. Select Logic Device, LDN 7
IoWrite8(SuperIo_Index_Port, 0x07);
IoWrite8(SuperIo_Data_Port, 0x07);
//d. Set WDT mode Second or Minute   Register 0x72 Bit7 value:1-Second;0- Minute
IoWrite8(SuperIo_Index_Port, 0x72);
//Set Second mode
IoWrite8(SuperIo_Data_Port, IoRead8(SuperIo_Data_Port) | 0x80);
// Set Minute mode
// IoWrite8(SuperIo_Data_Port, IoRead8(SuperIo_Data_Port) & 0x7F);
//e.Set WDT Time-out value   5 Second or Minute
IoWrite8(SuperIo_Index_Port, 0x73);
IoWrite8(SuperIo_Data_Port, 0x5);
//Enabled WDT
IoWrite8(SuperIo_Index_Port, 0xF1);
IoWrite8(SuperIo_Data_Port, IoRead8(SuperIo_Data_Port) | 0x44);

//Disabeld WDT
IoWrite8(SuperIo_Index_Port, 0x73);
IoWrite8(SuperIo_Data_Port, 0x0);
IoWrite8(SuperIo_Index_Port, 0xF1);
IoWrite8(SuperIo_Data_Port, IoRead8(SuperIo_Data_Port) & 0xBB);
//f.Exit Super IO Configuration Mode
IoWrite8(SuperIo_Index_Port, 0x02);
IoWrite8(SuperIo_Data_Port, 0x02);
```

10

# 11

## 11.1

| | | |
|---|---|---|
| | | / |
| | | 1<br>2<br>12 |
| | | |
| | “ ” | |
| | | |
| | | 1<br>2<br>3 |
| | | |
| | | Winpe |
| I O | | PCI ISA |
| | BIOS | BIOS<br>Setup BIOS Setup |
| BIOS | | |
| Boot device not found | BIOS | BIOS “ ” (Boot) |
| USB | USB 2.0<br>USB 2.0 | USB 2.0 |
| | USB | 1 USB Legacy<br>Support USB<br>2<br>USB |