EVC-7210

Version 1.0

1 1
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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 - EVC-7211/7213: 24V DC in
	- /
W x H x D	- EVC-7210 63.5mm(W)*200mm(H)*150 mm(D) - EVC-7211/7213/7214: 78mm(W)*200mm(H)*150 mm(D) - 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

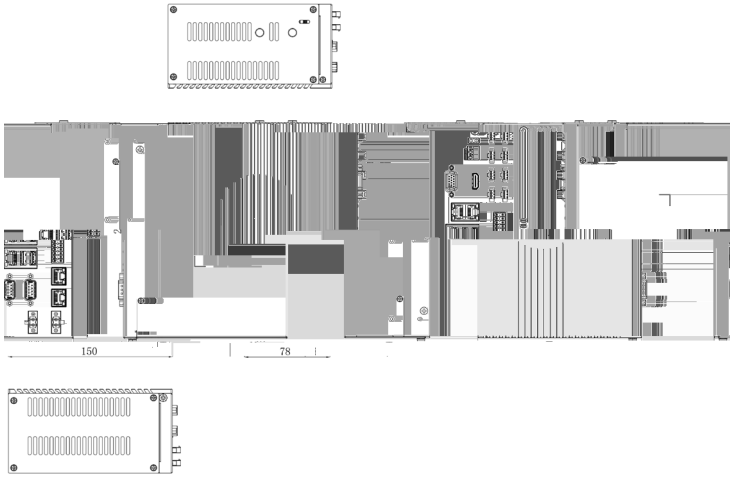
-
-
-
-

2.4

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

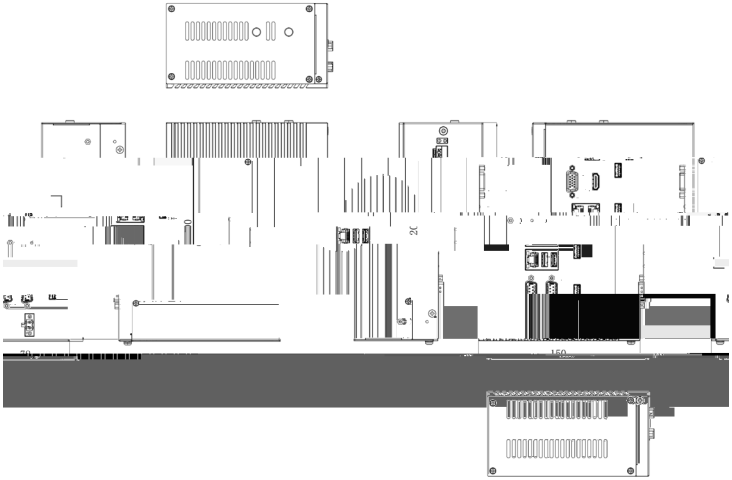
3.2.3 EVC-7213

mm



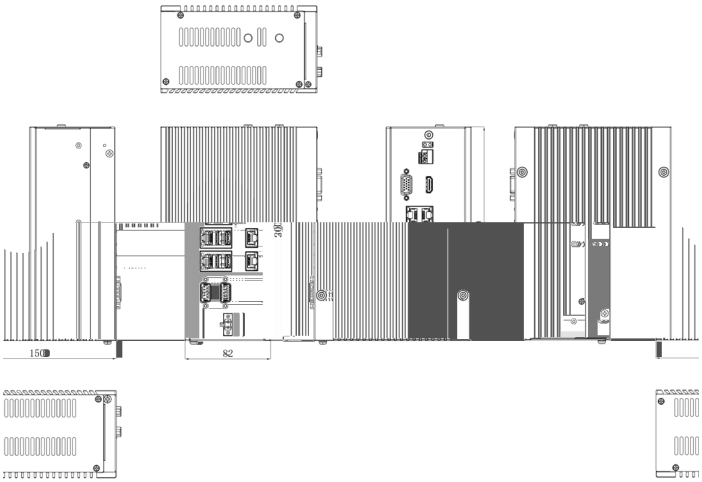
3.2.4 EVC-7214

mm



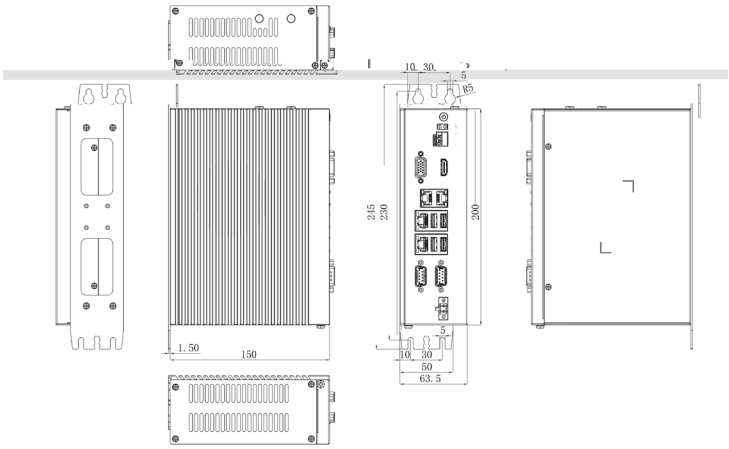
3.2.5 EVC-7216

mm

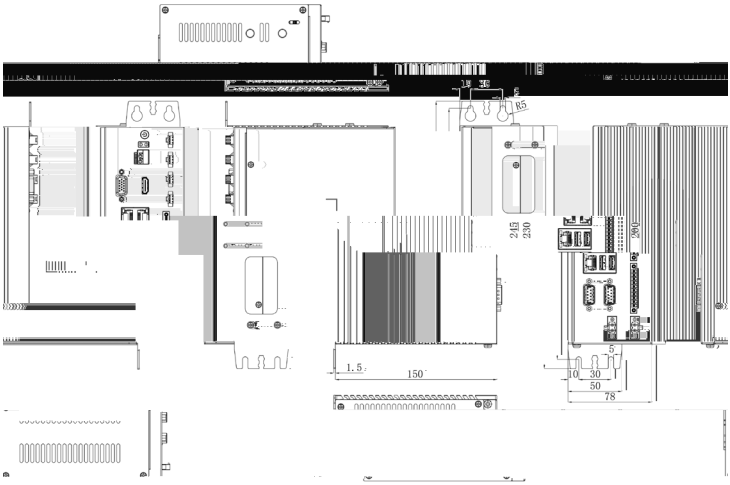


3.3

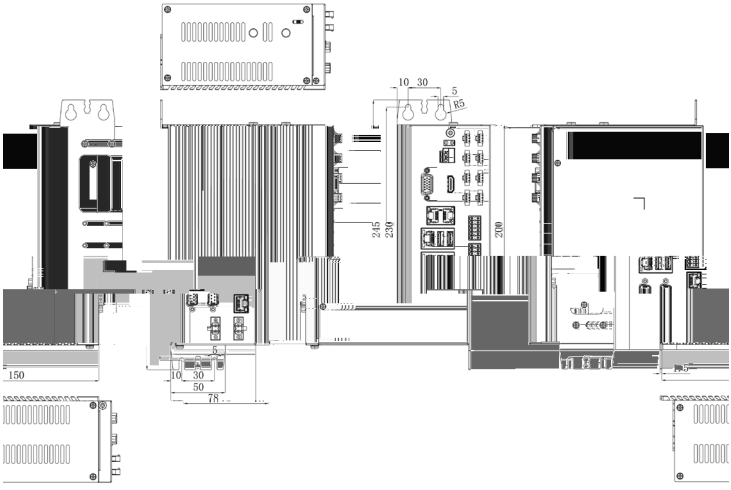
3.3.1 EVC-7210



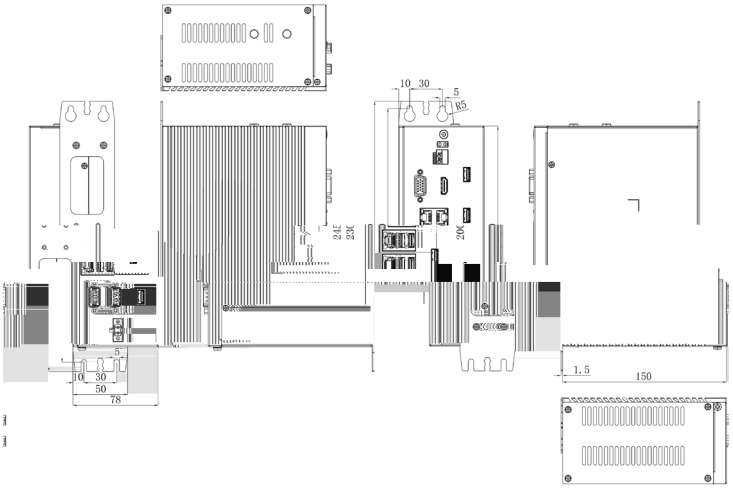
3.3.2 EVC-7211



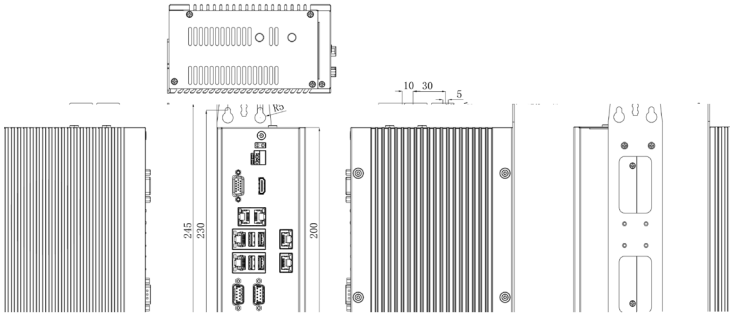
3.3.3 EVC-7213



3.3.4 EVC-7214



3.3.5 EVC-7216

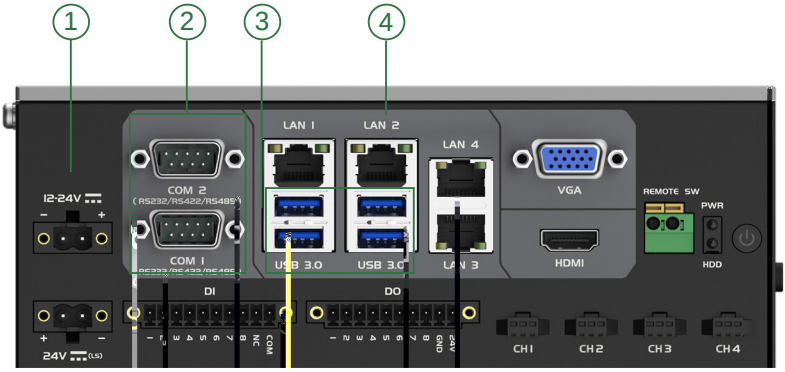


4.3

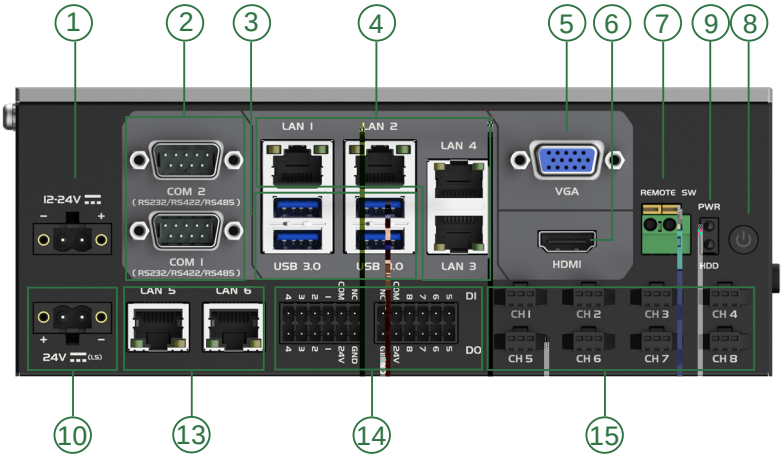
DCIN / 12V~24V	

⚠

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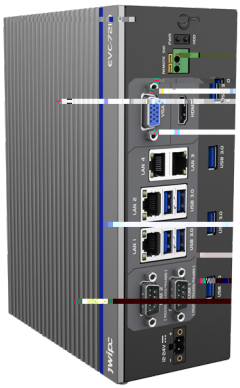
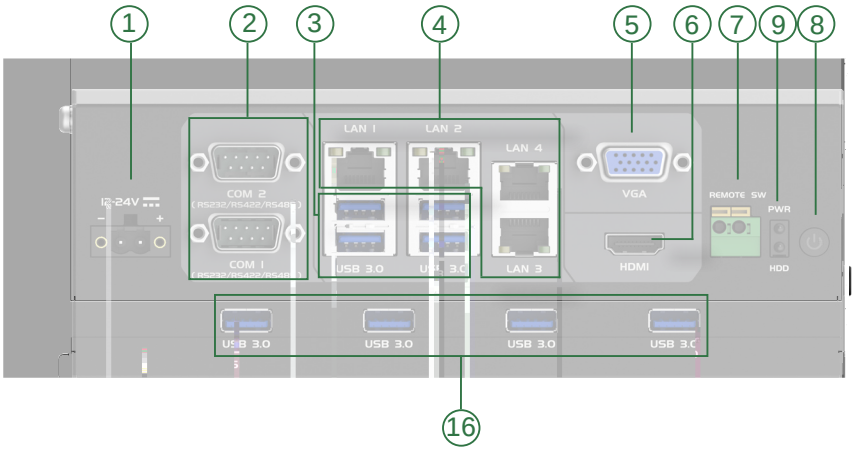
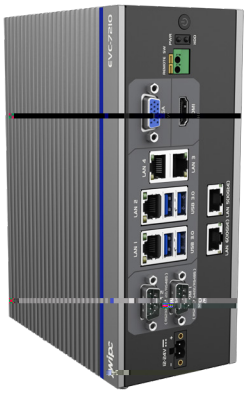
7
9
8
12-24V
COM 2
(RS232/RS422/RS485)
COM 1
(RS232/RS422/RS485)
LAN 1
LAN 2
LAN 4
LAN 3
USB 3.0
USB 3.0
VGA
HDMI
REMOTE SW
PWR
HDD
LAN 5
LAN 6
24V
DI
DO
CH 1
CH 2
CH 3
CH 4
CH 5
CH 6
CH 7
CH 8
10
13
14
15

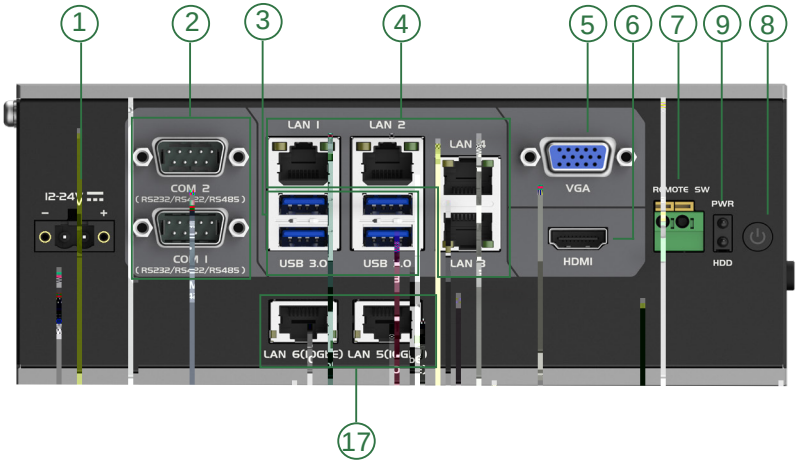
5.5 EVC-7214




1
2
3
4
5
6
7
9
8
16
+24V
COM 2
COM 1
LAN 1
LAN 2
LAN 4
LAN 3
USB 3.0
VGA
HDMI
REMOTE SW
PWR
HDD

5.6 EVC-7216




1
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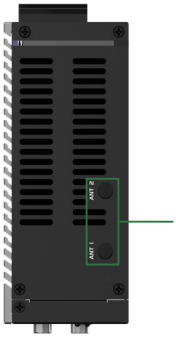
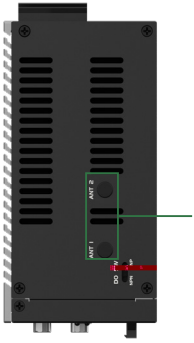
7
9
8
LAN 1
LAN 2
LAN 4
VGA
REMOTE SW
PWR
HDD
USB 3.0
USB 3.0
LAN 3
HDMI
17

5.7 EVC-7210

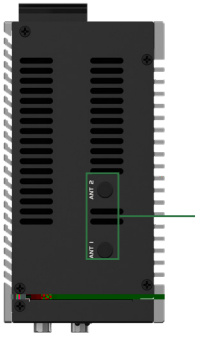
5.7.1 EVC-7210



5.7.2 EVC-7211/7213



5.7.3 EVC-7214



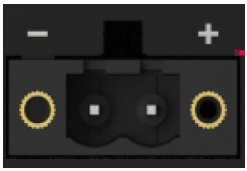
1. DC_IN DC
2. COM1/2: ⌣ ⌣ 1ή ή ’ 1 ο ⌫

5.8

		LED	
POWER	PC		
			PC
HDD			

5.9

2pin

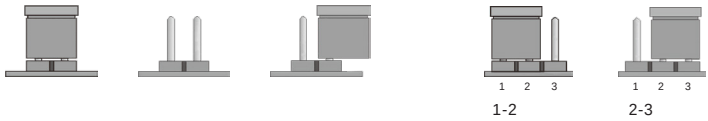
	1	DC-
	2	DC+

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

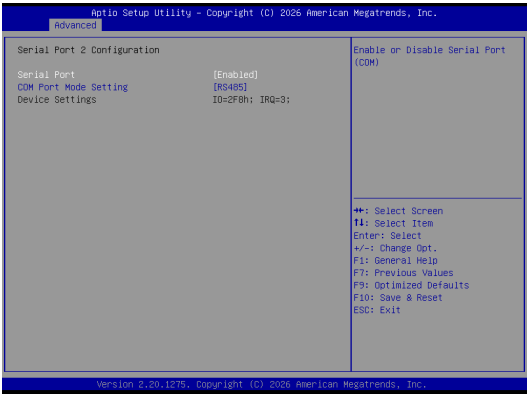
JP1

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

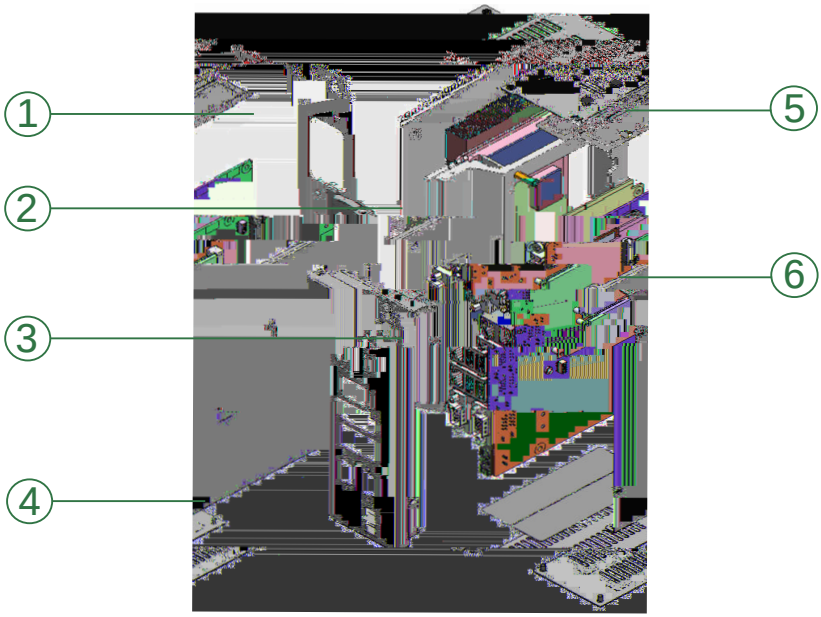
MSWD1 mcu

1	3.3V
2	SWDIO
3	SWCLK
4	NRST
5	GND

6

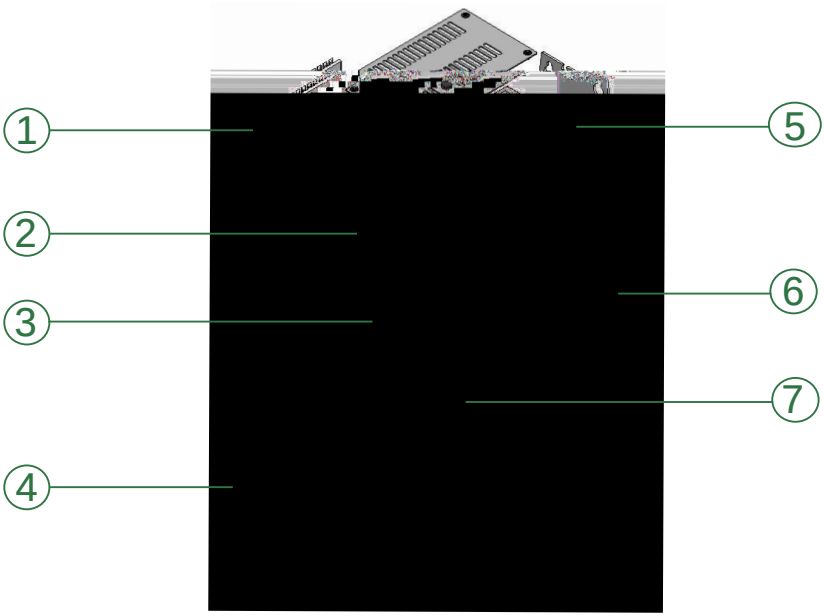
6.1

6.1.1 EVC-7210



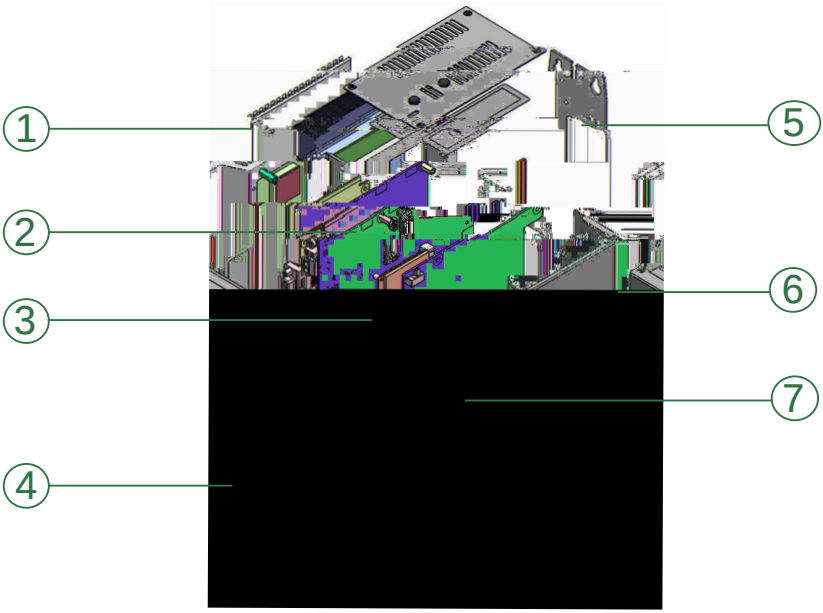
1		2		3	
4		5		6	

6.1.2 EVC-7211



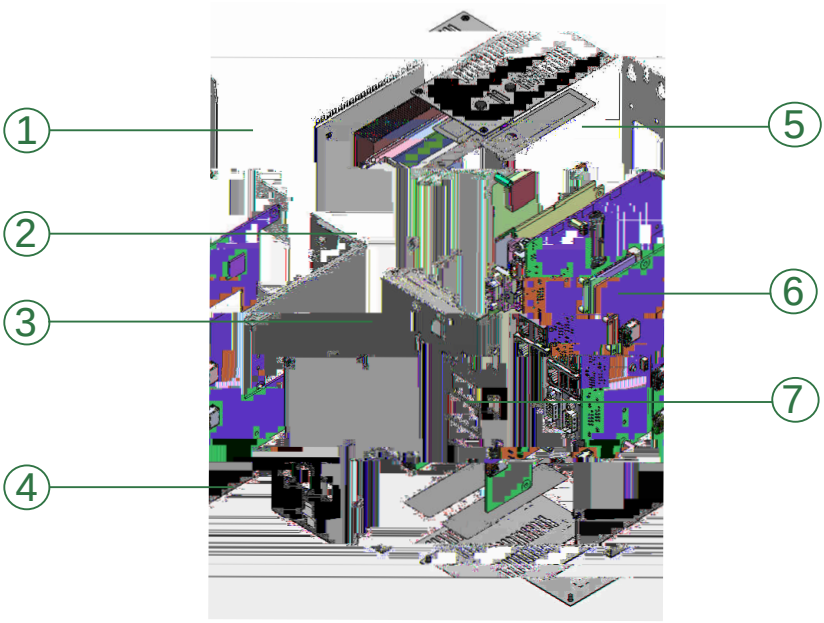
1		2		3	
4		5		6	
7					

6.1.3 EVC-7213



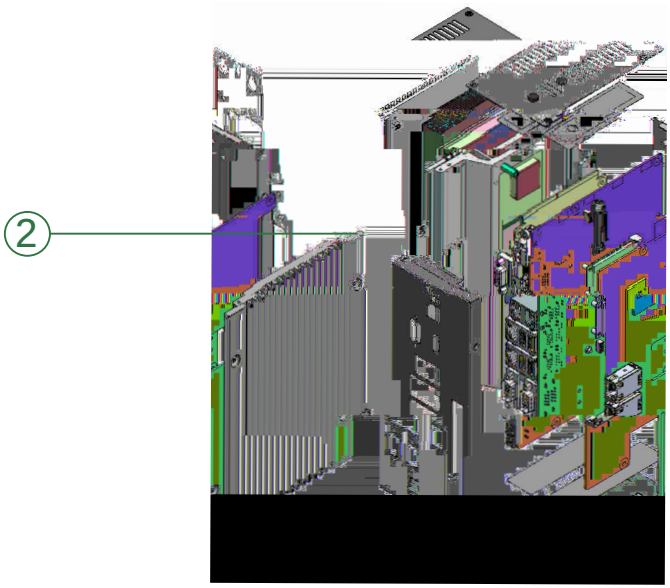
1		2		3	
4		5		6	
7					

6.1.4 EVC-7214

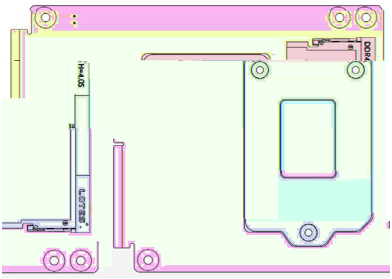


1		2		3	
4		5		6	
7					

6.1.5 EVC-7216



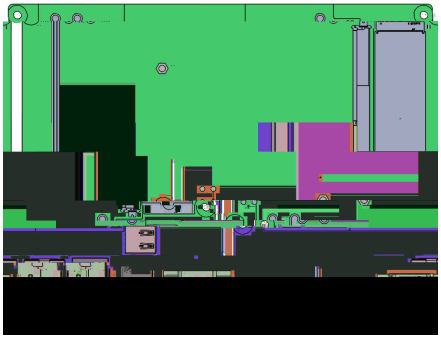
6.2



DIMM1 DIMM2

1.
2.
3. 30° DIMM1/2

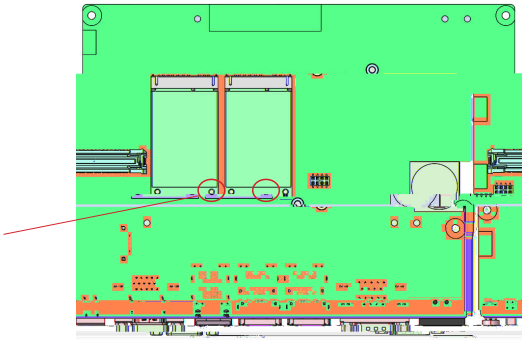
6.3 M.2 2242/2280



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

1. 30°
2. M.2 2242 M.2 2280 M.2 2242

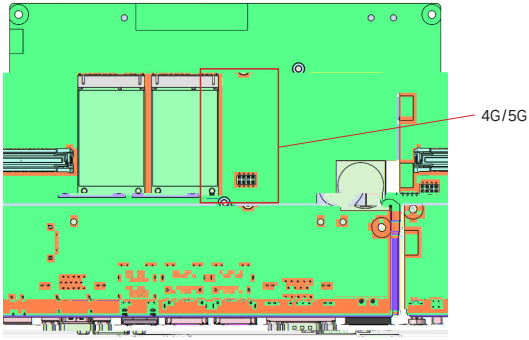
6.4 mSATA SSD



mSATA 2 mSATA mSATA SSD

30°

6.5 4G/5G



4G/5G

4G/5G 30°

7 BIOS

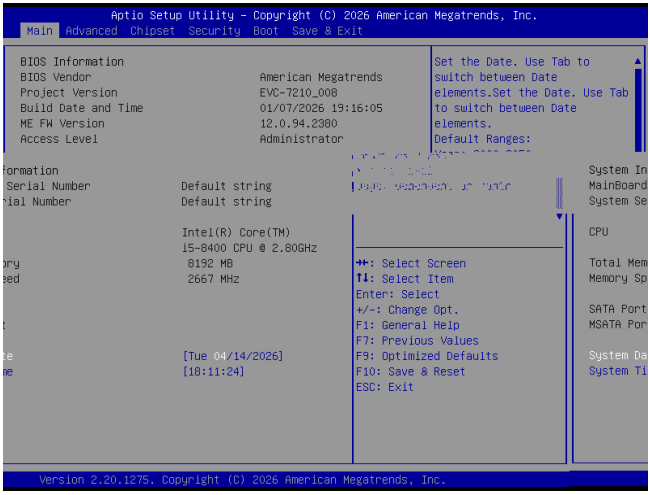
7.1 BIOS

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 ( )

, “ , / / ”

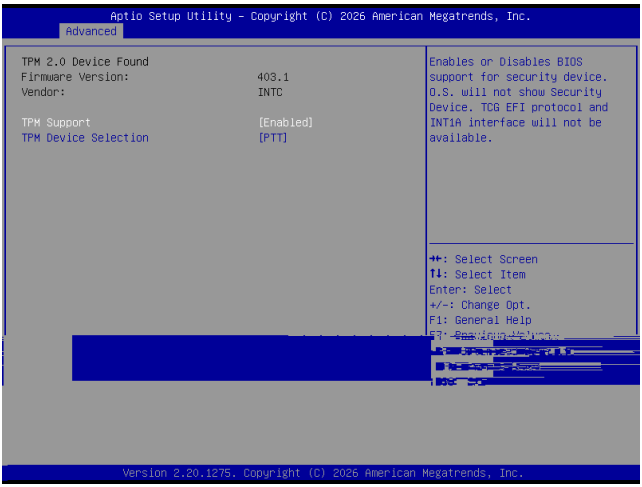
System Time

< >< >< >

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>



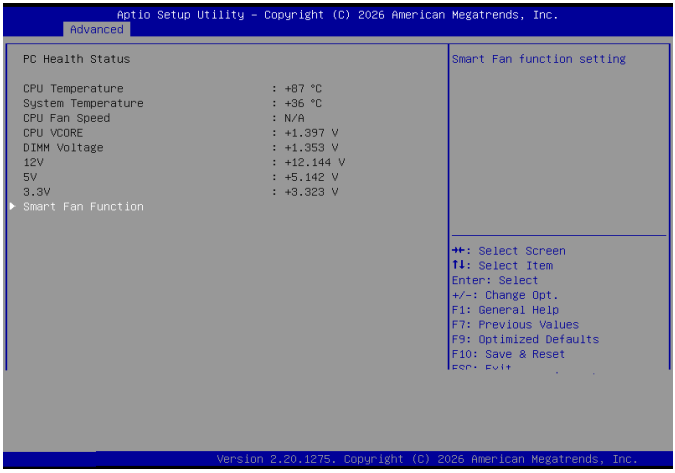
TPM Support

TPM Disable,Enable.

TPM Device Selection

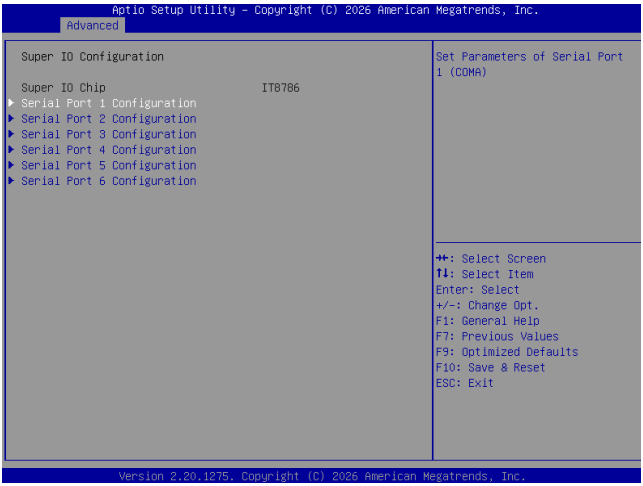
TPM dTPM, PTT.

Hardware Monitor <Enter>



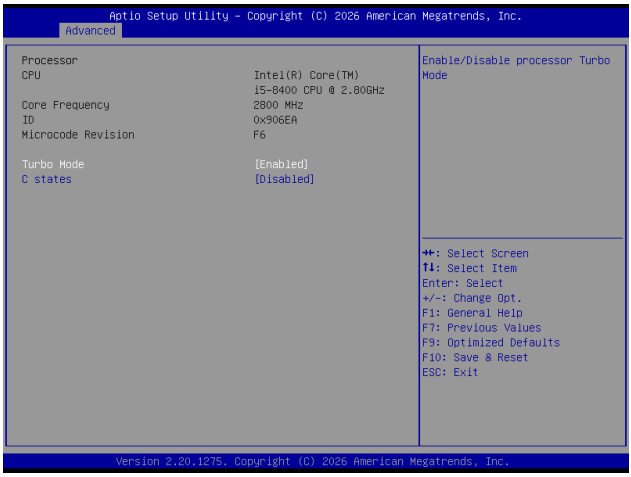
Smart Fan Funtion

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.

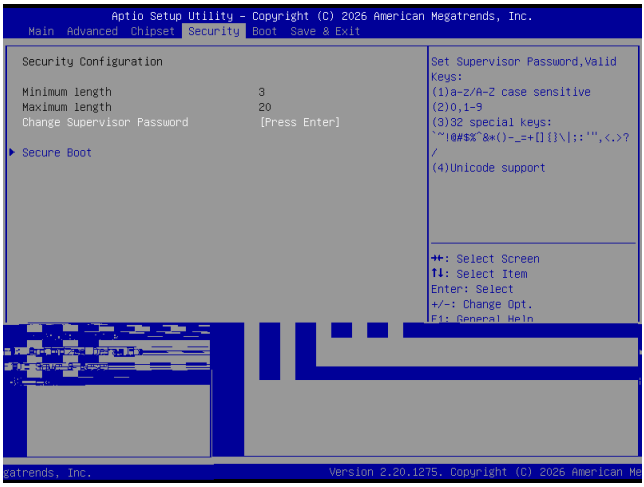
Other PCI devices

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 2 12
	“ ”	
		1 2 3
		Winpe
I O		PCI ISA
	BIOS	BIOS Setup BIOS Setup
BIOS		
Boot device not found	BIOS	BIOS “ ” (Boot)
USB	USB 2.0 USB 2.0	USB 2.0
	USB	1 USB Legacy Support USB 2 USB