EVC-5610



Version 1.0

1 1
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1.2 1
2 3
2.1 3
2.2 3
2.3 3
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1

1.1

EVC-5610 Intel Core Ultra Processors (Series 2) AI
POE 4 /8 USB3.0
CPU GPU NPU AI
99TOPS AI YOLOv8/v11 E f cientNet
NPU OCR
AI

1.2

	- EVC-5610	- EVC-5611	- EVC-5613	- EVC-5614	- EVC-5616	- EVC-5617
	- BOX					
	- Intel® Core™ Ultra Processors (Series 2)					
	- Intel® Arrow Lake H SoC					
NPU	- Intel® AI Boost 13TOPS Int8					
GPU	- Intel® Arc™ 140T GPU					
AI	- CPU+GPU+NPU 99TOPS Int8 AI					
	- 16GB/32GB LPDDR5 (64GB					
	- Intel CPU (CPU)					
	- VGA+HDMI					
	- 1 x mSATA, 1 x M.2 2280 NVMe SSD					
	- NA	8DI8DO (NPN/ PNP) ; 4 PWM 4 120W	8DI8DO (NPN/PNP) ; 8 PWM 2	- 4 x USB3.0	- 2 x 10GbE	- 8 GMSL

2

2.1

2.2

-40 85

0% 95%

3

3.1 EVC-5610~5617

□ 19″ □ □
■ □ VESA □
■ □ _____

3.2

3.2.1 EVC-5610

mm



3.2.2 EVC-5611

mm



3.2.3 EVC-5613

mm



3.2.4 EVC-5614

mm



3.3

3.3.1 EVC-5610



3.3.2 EVC-5611

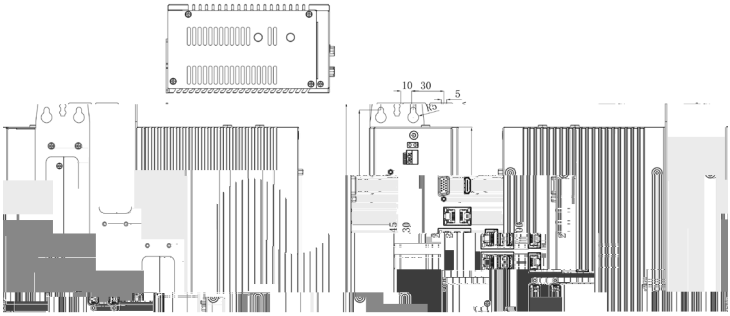
3.3.3 EVC-5613



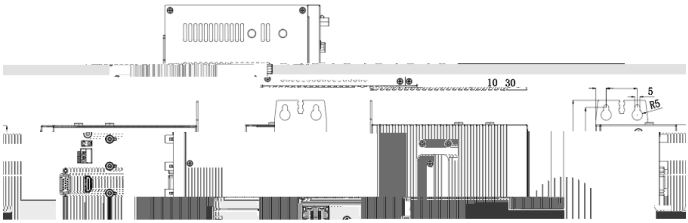
3.3.4 EVC-5614



3.3.5 EVC-5616



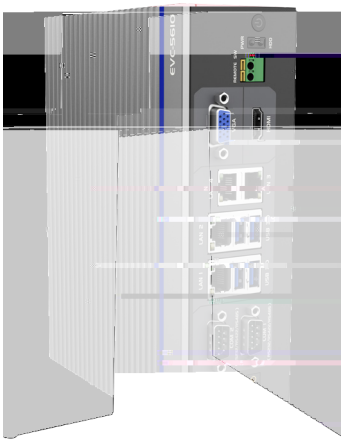
3.3.6 EVC-5617

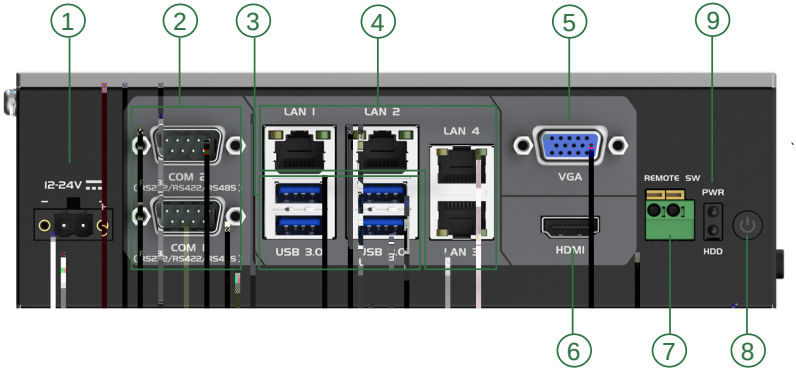


4.3

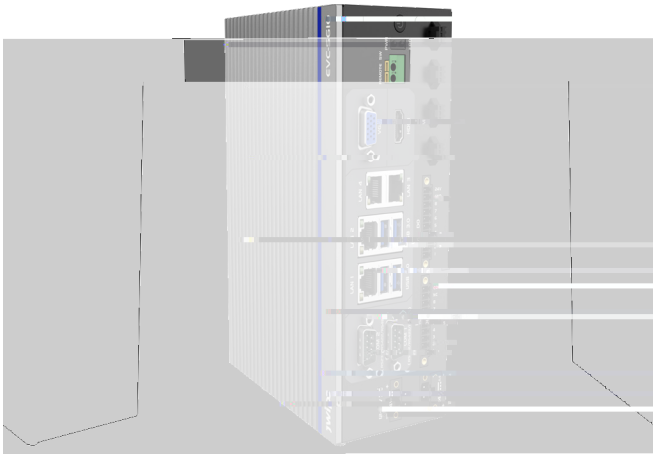
5

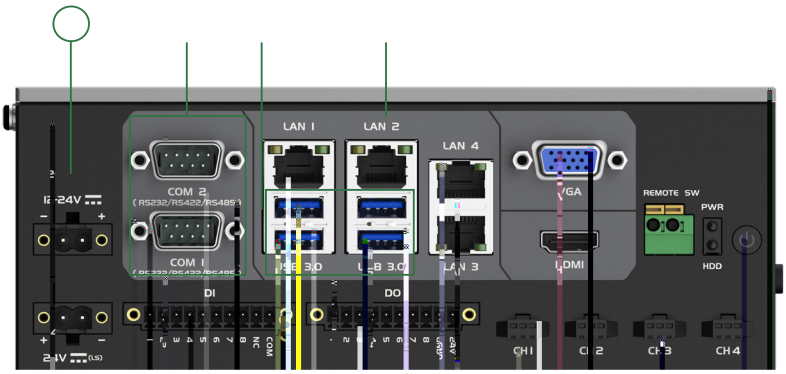
5.1 EVC-5610




1
2
3
4
5
9
12-24V
COM 2
COM 1
LAN 1
LAN 2
LAN 4
USB 3.0
VGA
HDMI
REMOTE SW
PWR
HDD
6
7
8

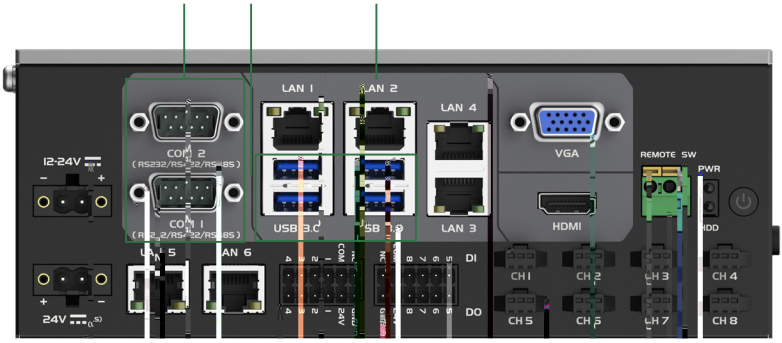
5.2 EVC-5611




LAN 1
LAN 2
LAN 4
COM 2
COM 1
VGA
HDMI
REMOTE SW
PWR
HDD
DI
DO
CH1
CH2
CH3
CH4

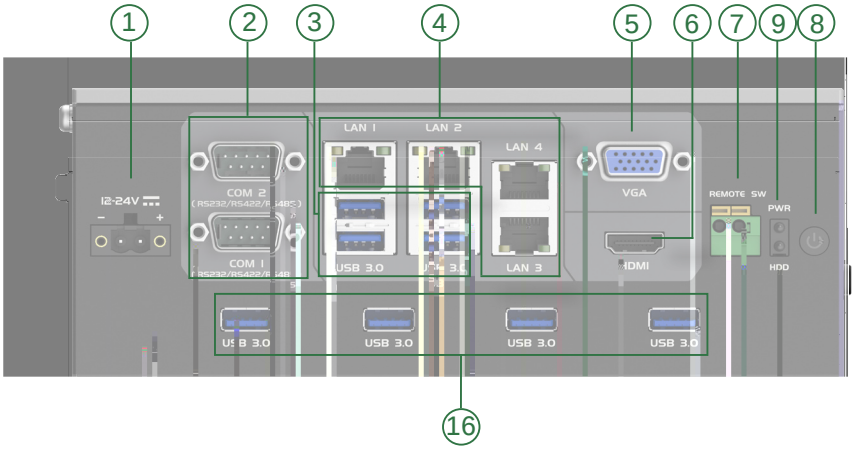
5.4 EVC-5613



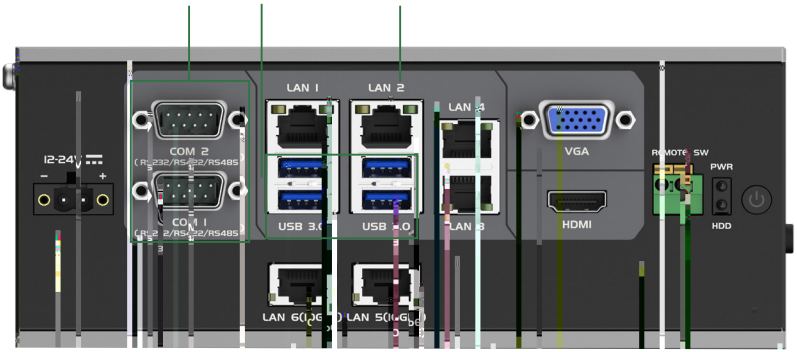

LAN 1
LAN 2
LAN 4
VGA
REMOTE SW
PWR
12-24V
COM 2
(RS232/RS422/RS485)
COM 1
(RS232/RS422/RS485)
USB 3.0
USB 3.0
LAN 3
HDMI
LAN 5
LAN 6
DI
DO
CH 1
CH 2
CH 3
CH 4
CH 5
CH 6
CH 7
CH 8
24V

5.5 EVC-5614



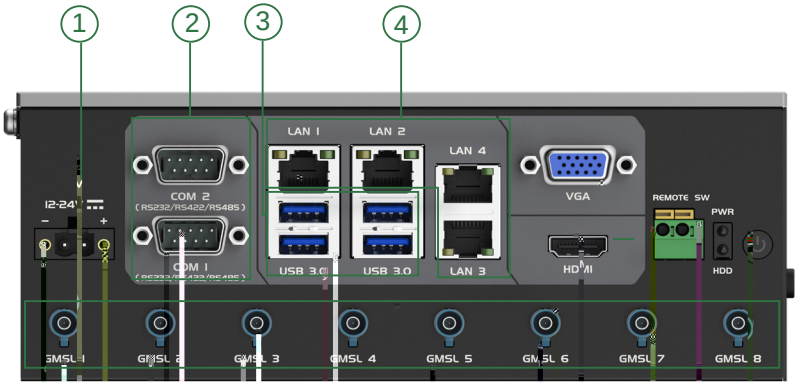

1
2
3
4
5
6
7
9
8
12-24V
COM 2
COM 1
LAN 1
LAN 2
LAN 4
LAN 3
USB 3.0
VGA
HDMI
REMOTE SW
PWR
HDD
USB 3.0
USB 3.0
USB 3.0
16

5.6 EVC-5616



5.7 EVC-5617

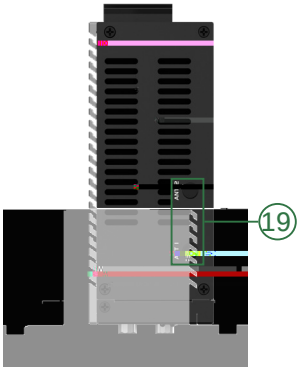




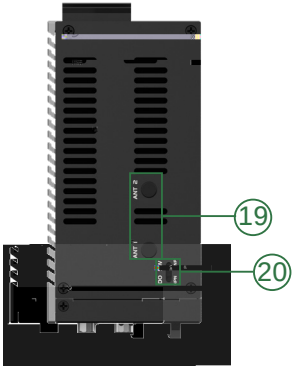
18

5.8 EVC-5610

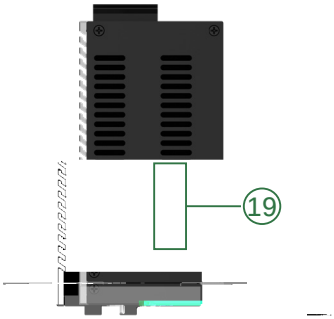
5.8.1 EVC-5610



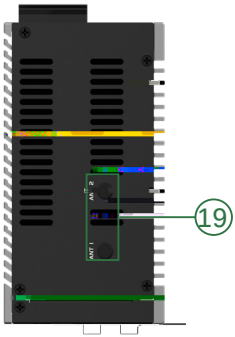
5.8.2 EVC-5611/5613



5.8.3 EVC-5614/5617



5.8.4 EVC-5616

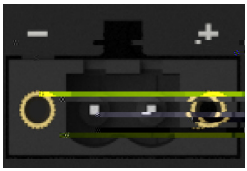


1. DC_IN DC

		LED	
POWER	PC		
			PC
HDD			

5.10

2pin

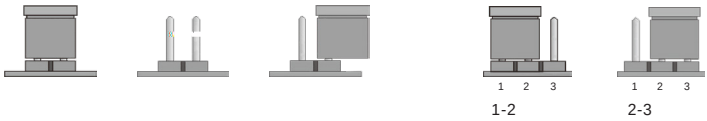
	1	DC-
	2	DC+

5.11

5.11.1

2

3 1 2 2 3



1-2 2-3

1

1. "1" 1
2.

5.11.2

JME1

1-2	Disable ME
2-3	Normal default

1-2	

5.11.3 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



5.11.4 SATA_PWR1

1	+V5
2	GND
3	GND
4	+V12

5.11.5 SATA1

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

5.11.6 F_USB1

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

5.11.7 F_AUDIO1

1	MIC1_IN_L	2	GND
3	MIC1_IN_R	4	NC
5	FRONT_OUT_R	6	MIC1_SENSE
7	GND		
9	FRONT_OUT _L	10	FRONT_OUT _SENSE

5.11.8 FAN1

1	GND
2	+12V
3	FAN_TAC
4	FAN_CTL

5.11.9 JRSTBTN1

1	RESET_BUT
2	GND

5.11.10 JPOE

1	48V_1-	2	48V_1+
3	48V_2-	4	48V_2+
5	48V_3-	6	48V_3+
7	48V_4-	8	48V_4+

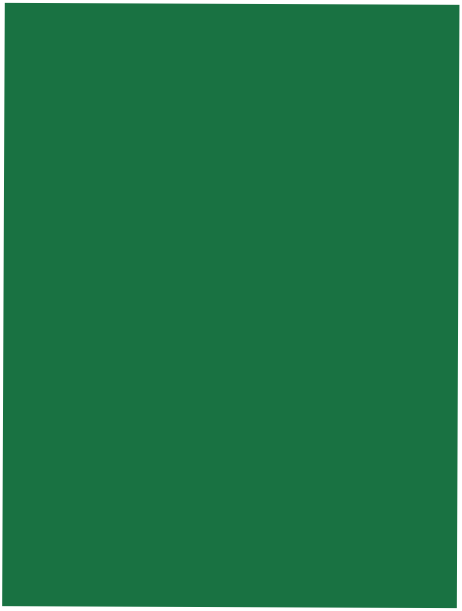
5.11.11 JPOE1

1	GND	2	+V_DCIN
3	GND	4	+V_DCIN
5	GND	6	+V_DCIN
7	GND	8	+V_DCIN

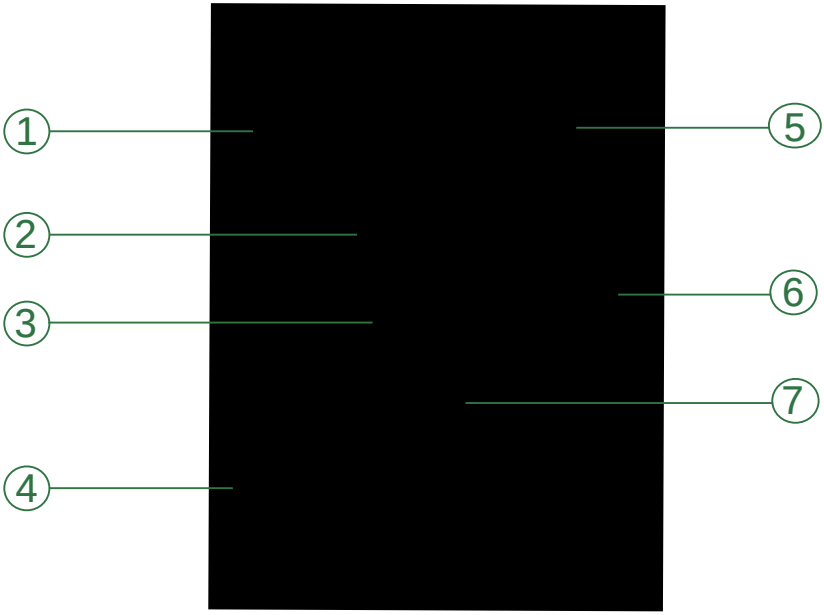
6

6.1

6.1.1 EVC-5610

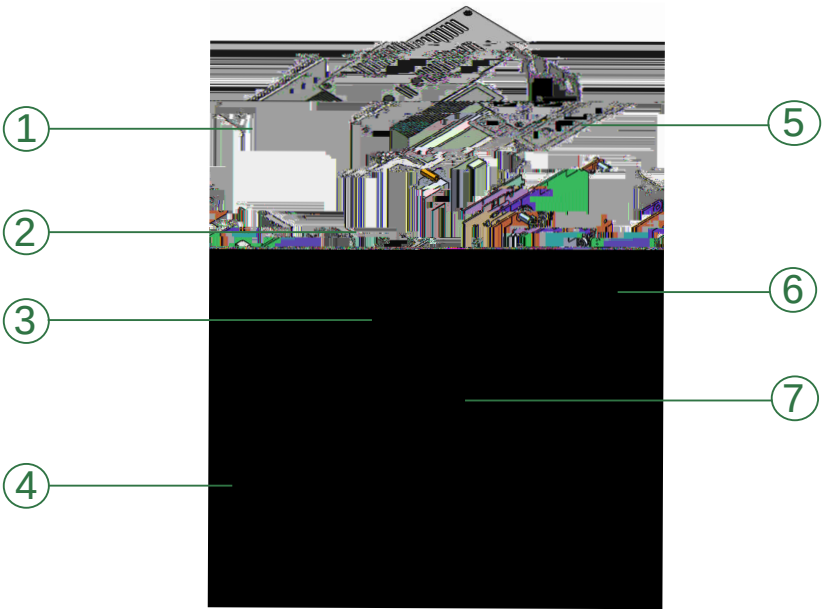


6.1.2 EVC-5611



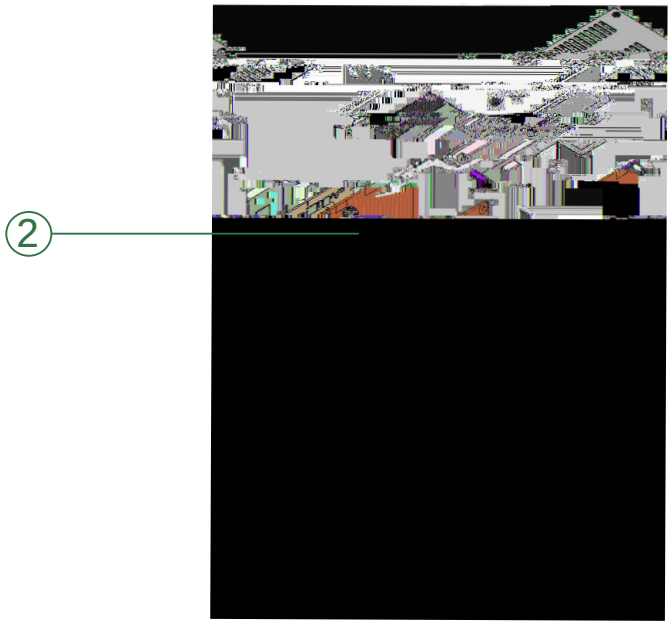
1		2		3	
4		5		6	
7					

6.1.3 EVC-5613

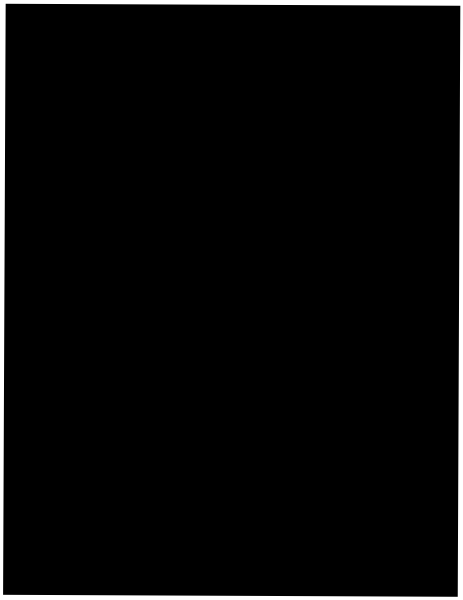


1		2		3	
4		5		6	
7					

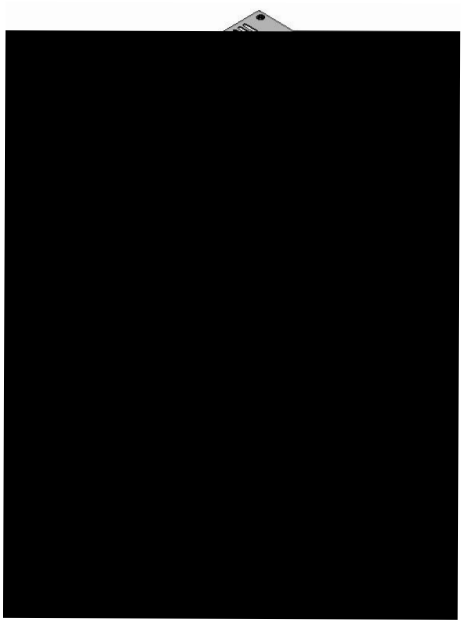
6.1.4 EVC-5614



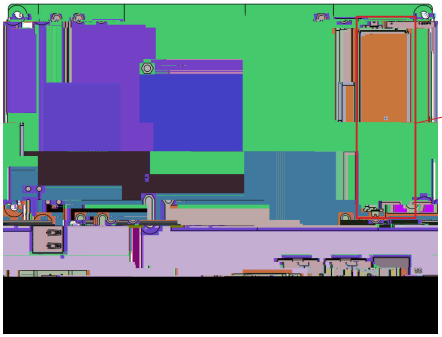
6.1.5 EVC-5616



6.1.6 EVC-5617



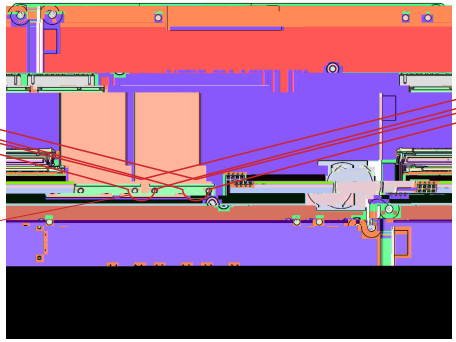
6.2 M.2 2280



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

1. 30°
2. M.2 2242 M.2 2280 M.2 2242

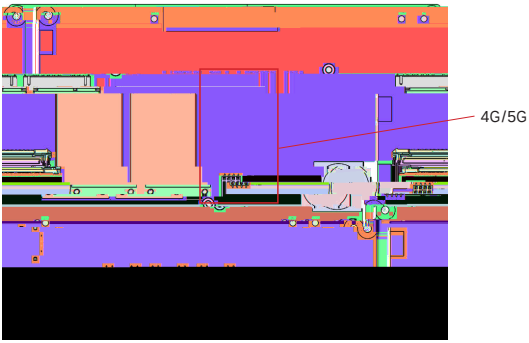
6.3 mSATA SSD



mSATA 2 mSATA mSATA SSD

30°

6.4 4G/5G



4G/5G

4G/5G 30°

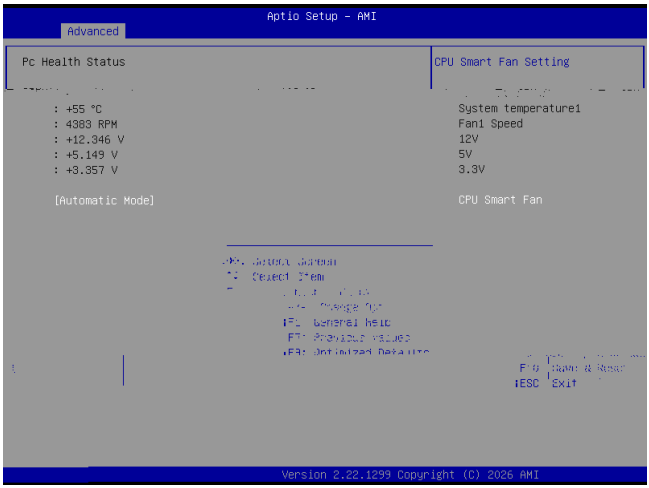
7 BIOS

7.1 BIOS

AMI BIOS BIOS Basic Input Output System (
ROM Read-Only Memory) BIOS

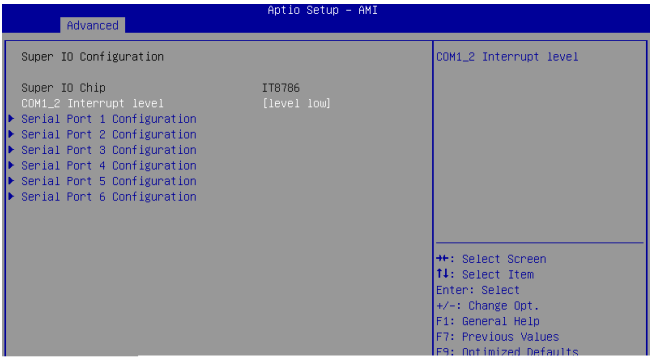
a. POST(Power On Self Test)
b.
c.
d. SETUP
BIOS CMOS RAM

Hardware Monitor <Enter>



CPU Smart Fan

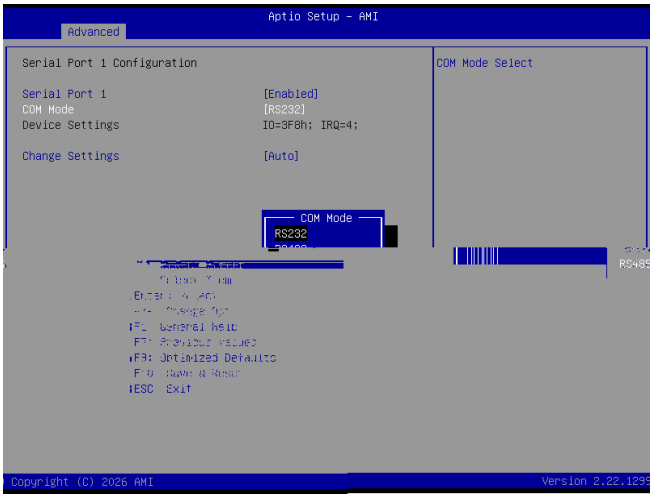
Super IO Con f guration <Enter>



COM1_2 Interrupt level

COM1 COM2 level low,level high.

Serial Port 1/2 Con f guration



º Serial Port 1/2

Enabled,Disabled.

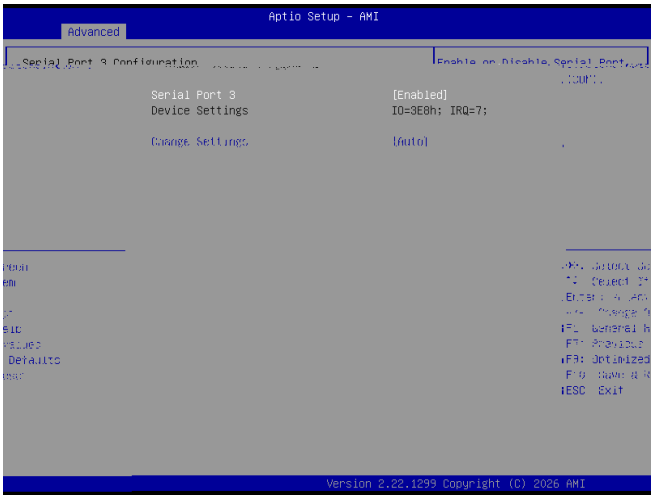
º COM Mode

RS232,RS485.

- Serial Port 3/4/5/6 Configuration
  - Serial Port 3/4/5/6

    Enabled,Disabled.
  - Change Settings

    Auto.



- <Esc> “ Advanced ”

CPU Con f guration <Enter>



Turbo Mode

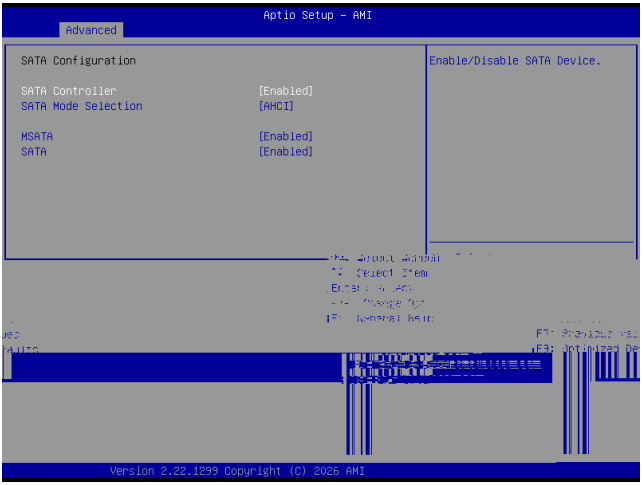
Turbo Disabled,Enabled.

C states

CPU Disabled,Enabled.

- <Esc> “ Advanced ”

SATA Con f guration <Enter>



SATA Controller

SATA Enabled,Disabled.

SATA Mode Selection

SATAg AHCI.

MSATA

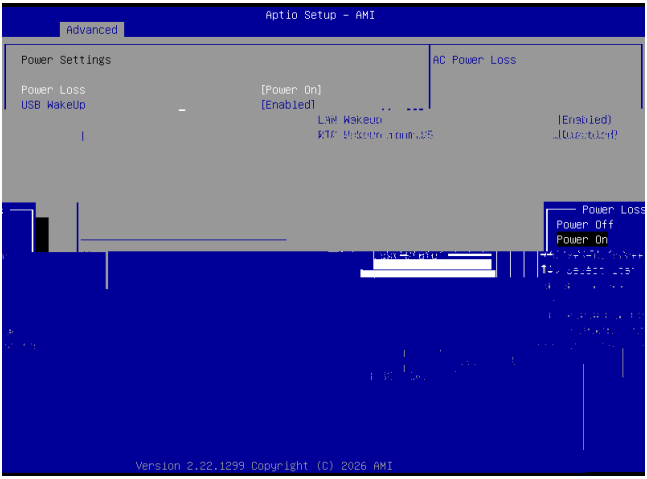
MSATA Enabled,Disabled.

SATA

SATA Enabled,Disabled.

- <Esc> “ Advanced ”

Power Settings <Enter>



Power Loss

/ / AC

Power Off, Power On,Last State.

USB Wakeup

USB Enabled,Disabled.

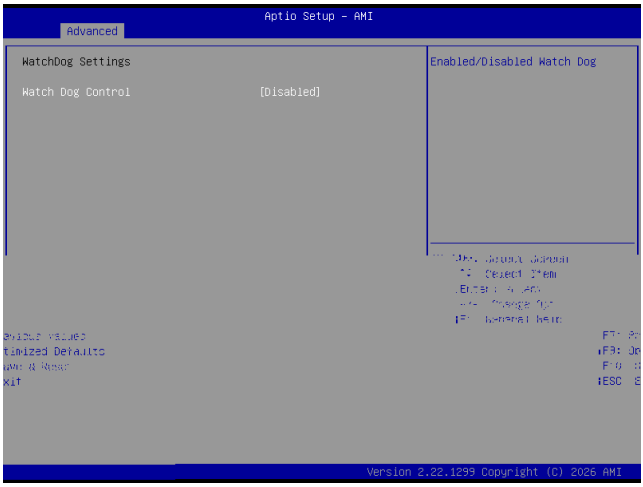
LAN Wakeup

Enabled,Disabled.

RTC Wakeup from S5

/ S5 RTC Disabled.

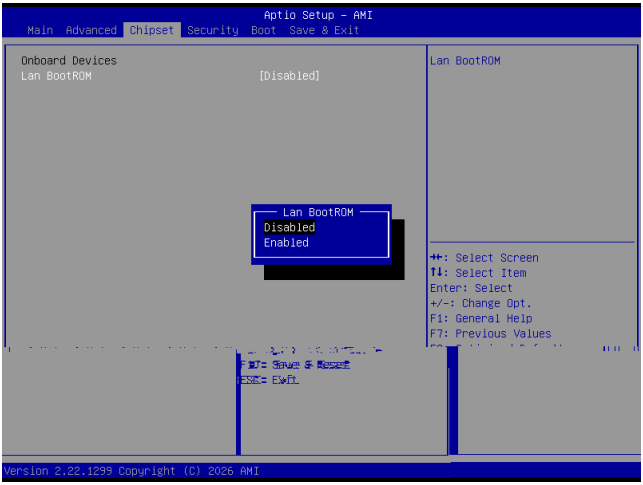
WatchDog Con f guration <Enter>



Watch Dog Control

Enabled,Disabled.

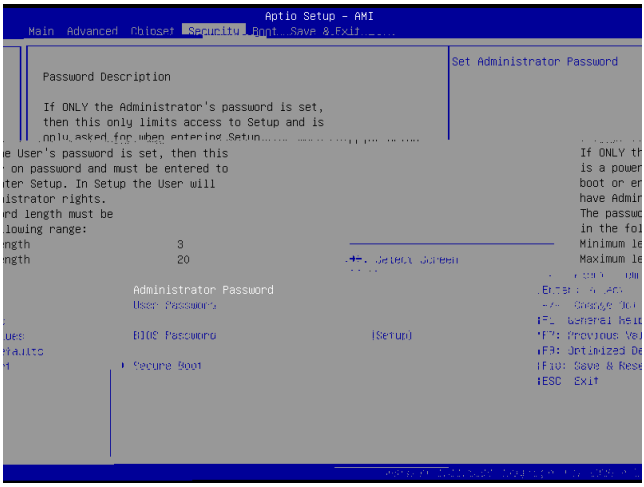
7.6 Chipset



Lan BootROM

PXE Disabled,Enabled.

7.7 Security



Administrator Password

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

<Enter> “ Confrm Password ”

“ Invalid Password! ”

“ Administrator Password ” “ Enter Current Password ”

“ Create New Password ” <Enter>

User Password

BIOS Password

BIOS Setup,Setup&Post.

Secure Boot

<Enter>

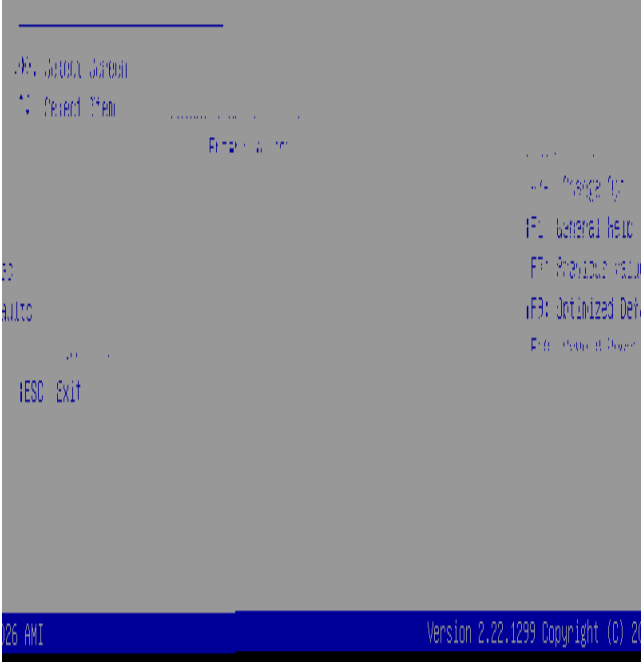


º Secure Boot

Enabled,Disabled.

º Secure Boot Mode

Custom,Standard.


ESC Exit
Version 2.22.1299 Copyright (C) 2

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);
```

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