

Version 1.0

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7.2.1 BIOS 15

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1.1

JEC-5510 BOX Intel Alder Lake-U/Raptor Lake-U

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- Intel Alder Lake-U/Raptor Lake-U
- 1 x SO-DIMM DDR5 32GB
- 1 x M.2 2230 Wi-Fi + BT
- 1 x M.2 3042/3052 4G/5G
- HDMI + DP
- 4 x Ÿ ÿ POE
- 4 x USB3.0 2 x COM
- DIDO/CAN/PoE
- DC IN 12-36V

1.2

* GBC*22.- * BLU ℓ Ī * Fk t bi >iabo

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2.1

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2.2

-40 85
5% 95%

10cm

50cm

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ÿ ÿ 12

2.3

2.3.1

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-
-
-

2.4

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-
- 50mm 100mm
- (ÿ
-
- I/O 0.5V

5

5.1

5.2 IO

b.eDP

1	NC	2	GND
3	EDP0_TXN1	4	EDP0_TXP1
5	GND	6	EDP0_TXN0
7	EDP0_TXP0	8	GND
9	EDP0_AUX_P	10	EDP0_AUX_N
11	GND	12	EDP_LCD_VCC
13	EDP_LCD_VCC	14	NC
15	GND	16	GND
17	EDP0_HPD	18	GND
19	GND	20	GND
21	GND	22	EDP_BL_EN
23	EDP_BL_PWM	24	NC
25	NC	26	BKL_EDP
27	BKL_EDP	28	BKL_EDP
29	BKL_EDP	30	NC

5.5.2 JLCD_VCC1

1	+3.3V	1-2 3.3V 2-3 5V
2	EDP_LVDS_LCD_VCC	
3	+5V	

5.5.3 JBAT1

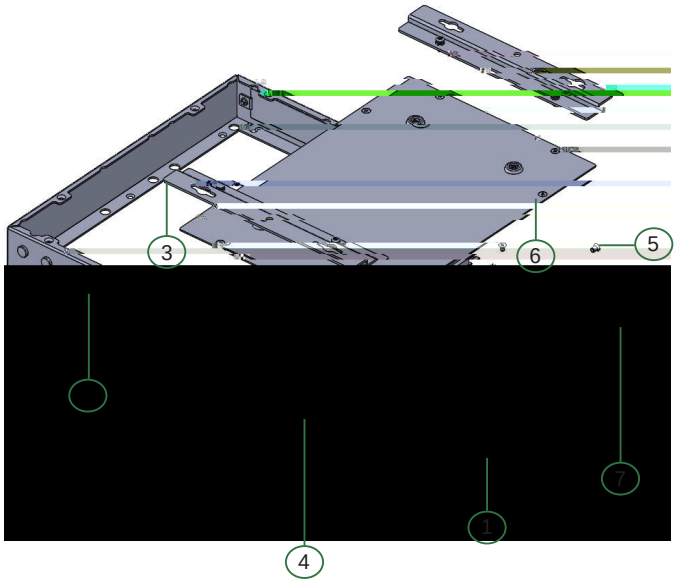
OPEN	NORMAL
SHORT	CLEAR CMOS

5.5.5 F_USB1

1	VCC	2	VCC
3	USB_D1N	4	USB_D2N
5	USB_D1P	6	USB_D2P
7	GND	8	GND
9			

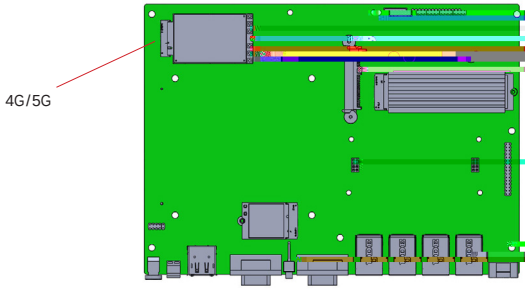
6

6.1 JEC-5510



1		2		3	
4		5	M3X5_	6	
7					

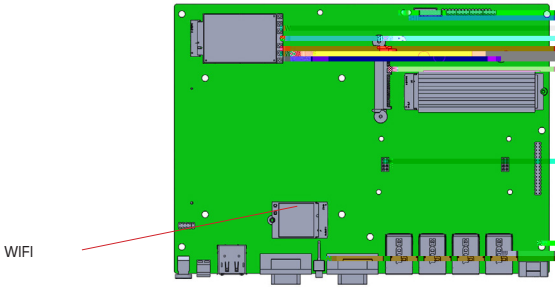
6.4 4G/5G



4G/5G G

4G/5G 30° G

6.5 WIFI



WIFI G

WIFI 30° G

7 BIOS

7.1 BIOS

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

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

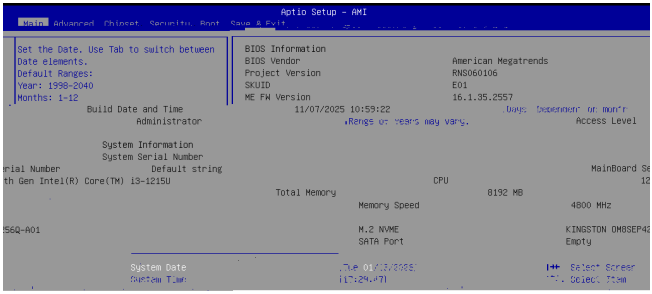
7.2 BIOS

BIOS Setup ɢ BIOS
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7.3 BIOS

Main		BIOS
Advanced		BIOS
Chipset		
Security		
Boot		
Save & Exit		BIOS

7.4 Main



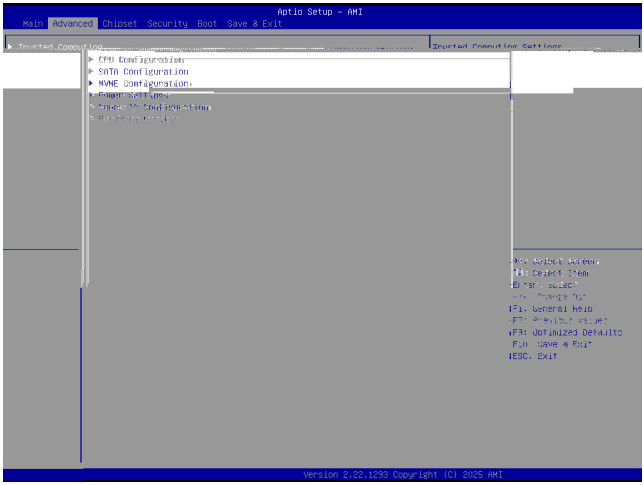
System Date ( )

, d , / / d G

System Time

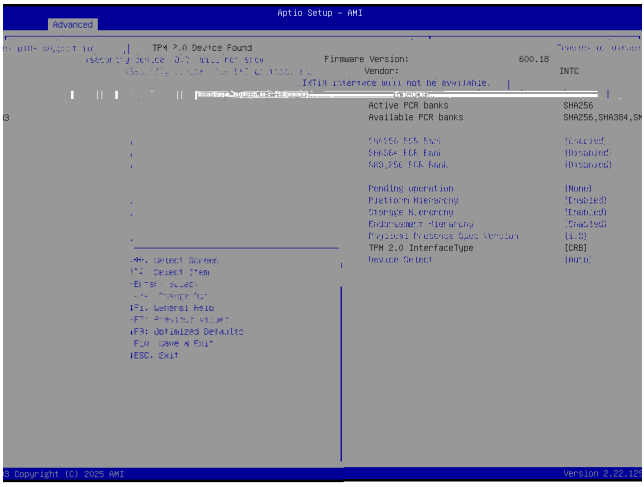
< >< >< > G

7.5 Advanced



Trusted Computing		
CPU Configuration	CPU	
SATA Configuration	SATA	
NVME Configuration	NVME	
Power Settings		
Super IO Configuration	Super IO	
Hardware Monitor		

- Trusted Computing <Enter> G



Security Device Support

G Enable,Disable.

SHA256 PCR Bank

SHA256 PCR Bank G Enabled,Disabled.

SHA384 PCR Bank

SHA384 PCR Bank G Disabled,Enabled.

SM3_256 PCR Bank

SM3_256 PCR Bank G Disabled,Enabled.

Pending operation

G None,TPM Clear.

Platform Hierarchy

G Enabled,Disabled.

Storage Hierarchy

G Enabled,Disabled.

Endorsement Hierarchy

G Enabled,Disabled.

Physical Presence Spec Version

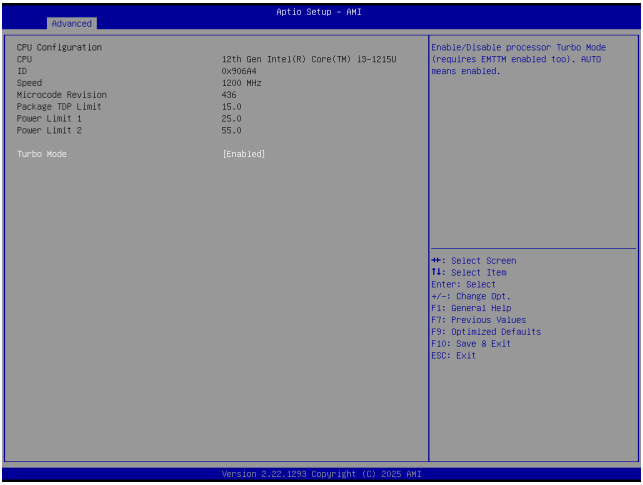
PPI 1.2 1.3 G 1.2,1.3.

Device Select

TPM 1.2 TPM 1.2 TPM 2.0 TPM G

TPM 1.2,TPM 2.0,Auto.

- CPU Configuration <Enter> G



Turbo Mode

Turbo G Enabled,Disabled.

- SATA Configuration <Enter> G



SATA Controller

SATA G Enabled,Disabled.

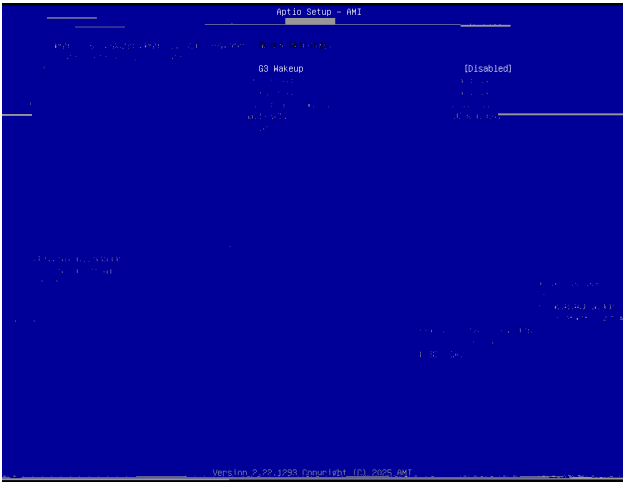
- NVMe Configuration <Enter> G



NVME Device

NVME G Enabled,Disabled.

- Power Settings <Enter> G



G3 Wakeup

G3 G Enabled,Disabled.

USB Wakeup

USB G Enabled,Disabled.

LAN Wakeup

G Enabled,Disabled.

RTC Wakeup from S5

RTC G Disabled,Enabled.

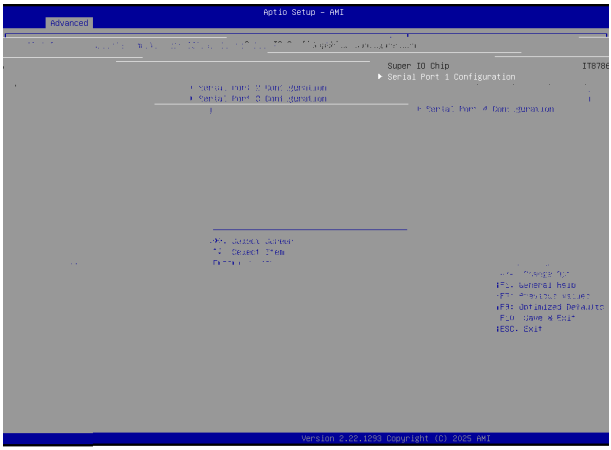
POST WDT

G Disabled,Enabled.

Timer

G 6.

- Super IO Configuration <Enter> G



Serial Port 1/2/3/4 Configuration

.

- Hardwari

7.6 Chipset

Vbt Select

LVDS G NORMAL /INVERT/ROTATE/INVERT AND ROTATE.

WIFI

WIFI G Enabled,Disabled.

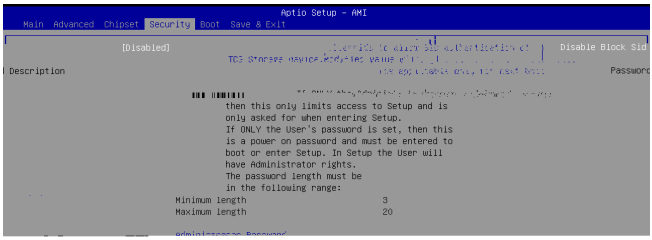
BlueTooth

G Enabled,Disabled.

LAN1/2/3/4 Controller

G Enabled,Disabled.

7.7 Security



Administrator Password

1. Administrator Password <Enter> G
2. d Create New Password d 3~20

<Enter> d Con f rm Password d G

d Invalid Password! d G

d Administrator Password d d Enter Current Password d

d Create New Password d <Enter> G

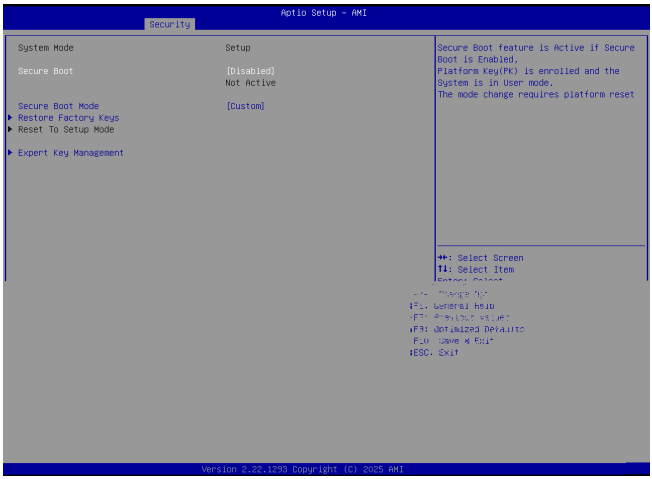
BIOS Password

G Setup&Post,Setup.

Secure Boot

G

- Trusted Computing <Enter> G



Secure Boot

G Disabled,Enabled.

Secure Boot Mode

G Custom,Standard.

7.8 Boot

Setup Prompt Timeout

G

Boot NumLock State

NumLock G On,Of.

Full Screen Logo

G Enabled,Disabled.

Fast Boot

G Disable Link.

USB Mass Storage Driver Suoport

USB G Enabled,Disabled.

Boot Mode Select

G UEFI.

Boot Option #1/2/3/4

1 G NVME,Hard Disk,Network,USB Hard Disk.

8 GPIO

GPIO

(1) GP30/GP31/GP32/GP33/GP34/GP35/GP36/GP37 H
(2) GPIO Group GP3x/4x/6x Logical Device 7 H
(3) GP3x(30~37) Logical Device 7 CR 0xED Bit0~Bit7 H
(4) GP33 /

```
#define SuperIo_Index_Port  0x2E
#define SuperIo_Data_Port   0x2F
#define GPIO_LDN7_DEVICE    0x07
#define GPIO_GROUP_3_IO_REGISTER    0xEC
#define GPIO_GROUP_3_DATA_REGISTER  0xED

//a.        Super IO    Configuration Mode
IoWrite8(SuperIo_Index_Port, 0x87);
IoWrite8(SuperIo_Index_Port, 0x87);
//b.                    GPIO, LDN 7
IoWrite8(SuperIo_Index_Port, 0x07);
IoWrite8(SuperIo_Data_Port, GPIO_LDN7_DEVICE);
//c.        GPIO Group 3            GP33
UINT8 BitOffset = 3;
UINT8 Data8 H

IoWrite8(SuperIo_Index_Port, GPIO_GROUP_3_DATA_REGISTER);
Data8 = IoRead8(SuperIo_Data_Port);
Data8 = Data8 >> BitOffset;
Data8 = Data8 & 0x1;
if (Data8){
return 1;//        GPIO
}else{
  return 0;//        GPIO
}
//d.        Super IO    Configuration Mode
IoWrite8(SuperIo_Index_Port, 0xAA);  //        Super IO Configuration Mode        SuperIO
                        ,                    Configuration Mode G
```

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9.1