



LAND



SEA



AIR

CLOUD 15-PX6

15" Rugged Smart Display with
6 (up to 20) Programmable function keys



USER MANUAL



Safety Information

Electrical safety

- To prevent electrical shock hazard, disconnect the power cable from the electrical outlet before relocating the system.
- When adding or removing devices to or from the system, ensure that the power cables for the devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.
- Before connecting or removing signal cables from the motherboard, ensure that all power cables are unplugged.
- Seek professional assistance before using an adapter or extension cord. These devices could interrupt the grounding circuit.
- Make sure that your power supply is set to the correct voltage in your area.
- If you are not sure about the voltage of the electrical outlet you are using, contact your local power company.
- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your local distributor.

Operation safety

- Before installing the motherboard and adding devices on it, carefully read all the manuals that came with the package.
- Before using the product, make sure all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.
- To avoid short circuits, keep paper clips, screws, and staples away from connectors, slots, sockets and circuitry.
- Avoid dust, humidity, and temperature extremes. Do not place the product in any area where it may become wet.
- Place the product on a stable surface.
- If you encounter any technical problems with the product, contact your local distributor

Statement

- All rights reserved. No part of this publication may be reproduced in any form or by any means, without prior written permission from the publisher.
- All trademarks are the properties of the respective owners.
- All product specifications are subject to change without prior notice

Table of content

Safety Information	01
1. Prodcut Introductio	04
1.1Front view.....	04
1.2Rear view.....	04
1.3ME dimension.....	05
2. Components	06
2.1 Location.....	06
2.2 Ruggedness.....	06
2.3 Power supply.....	06
2.4 Display Panel.....	06
2.5 Touch screen.....	07
3. Specification	07
3.1 System specification.....	07
3.2 Interface.....	09
3.2.1 (X1) 2x 1GbE LAN & Cable kit connector	09
3.2.2 (X2) 2x USB2.0 + 1x RS485 & Cable kit connector	10
3.2.3 (X3) 1x Mini-DP connector.....	11
3.2.4 (X4) 1x Power-IN & Cable kit connector.....	11
4. Operations Introduction	12
4.1 F1~F6 Function Keys.....	12
4.2 Power Button.....	12
4.3 LED indicator.....	12
4.4 Brightness Up or Down	12
4.5 Fn-Key backlight on/Off.....	13
4.6 NVIS Mode	13
5 BIOS Setup	13
5.1 Main Page	13
5.2 Advanced Page.....	16
5.2.1 Onboard Device	18
5.2.2 CPU configuration.....	21
5.2.3 Trusted Computing	23

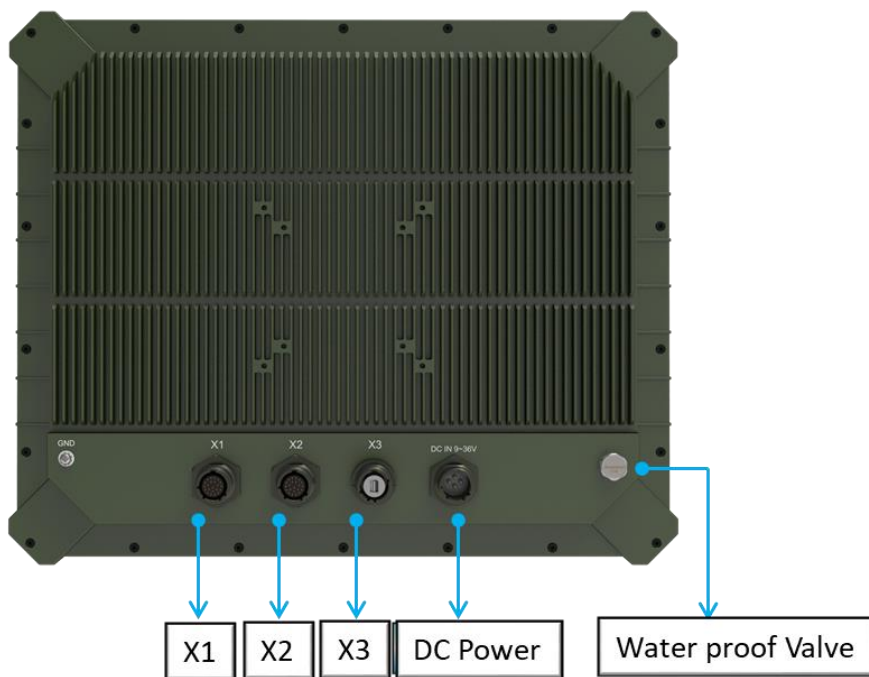
5.2.4	NCT6126D Super IO Configuration	24
5.2.5	Serial Port 1 Configuration	25
5.2.6	Serial Port 2 Configuration	26
5.2.7	Serial Port 3 Configuration	27
5.2.8	Serial Port 4 Configuration	28
5.2.9	Hardware Monitor	29
5.2.10	RTC Wake Settings	30
5.2.11	Network Stack Configuration	31
5.2.12	NVMe Configuration	32
5.3	Event logs	33
5.3.1	Enabling/Disabling Options	34
5.3.2	View Smbios Event log	35
5.4	Security Page.....	36
5.4.1	HDD Security	37
5.4.2	Secure Boot	38
5.4.3	Key Management (Secure Boot Mode set to Custom)	39
5.4.4	BIOS Update	42
5.4.5	Boot Page	43
5.4.5.1	(List Boot Device Type) Drive BBS Priorities	45
5.4.6	Save & Exit Page	46
6	Programable function key setup	47
	PreFace	47
6.1	Start Hot Key International Version	47
6.2	Introduction to Hotkey Trigger Mode Operation.....	48
6.2.1	Hotkey Trigger Mode - Save Cmd	48
6.2.2	Hotkey Trigger Mode - Delete Step	49
6.2.3	Hotkey Trigger Mode – Cancel Edit	50
6.3	Introduction to Key combination Mode Operation.....	51
6.3.1	HotKey Key combination Mod - Save Cmd	51
6.3.2	HotKey Key combination Mod - Delete Step	54
6.3.3	HotKey Trigger Mode – Cancel Edit	55

Chapter 1: Product Introduction

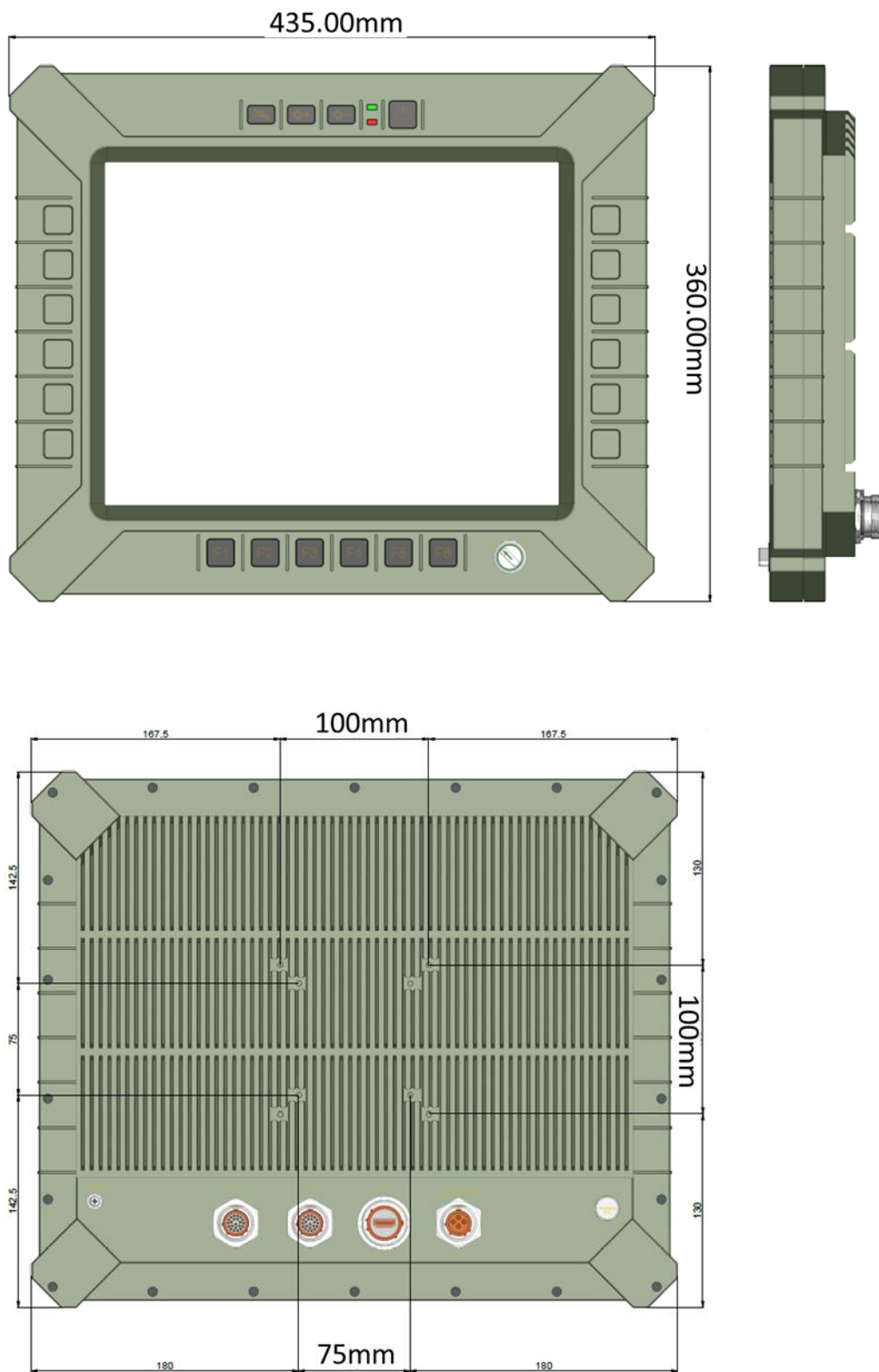
1.1 Front View



1.2 Rear View



1.3 ME Dimension



Chapter 2: Components

2.1 Location

A clean and moisture free environment is preferred. Make room for air circulation. Avoid areas with:

- Sudden or extreme changes in temperature.
- Extreme heat.
- Strong electromagnetic fields.
- Dust or high humidity.

If it is necessary to work in a hostile environment, please regularly maintain your display by cleaning dust, water, etc. to keep it in optimal condition.

2.2 Ruggedness

The display is designed with rugged features such as vibration, shock, dust and rain/water protection. However, it is still necessary to provide appropriate protection while operating in harsh environments. NEVER immerse the unit in water. Doing so may cause permanent damage. All connectors will corrode if exposed to water or moisture. Corrosion is accelerated if the system's power is ON. Please take proper water-resistant measures for cable connections.

The DC jack and cables are sealed and may be operated with water splashing while attached. All port covers should be in place when no cable is attached.

2.3 Power supply

The display can be powered via DC-IN (9~36V)

Optional: 6~36V DC-IN (150W max) MIL-STD-461, MIL-STD-1275

2.4 Display Panel

The panel of the CLOUD15 series is a 4:3,1024 x 768 XGA panel with typical 1000 cd/m² brightness, a contrast of 2000:1 and a LED backlight.

2.4.1 Brightness

The brightness of the display can be changed by simple pressing the brightness up/down keys in normal operational mode.

2.5 Touch screen

CLOUD15 series is equipped with a 15" G.F.G touch screen. The touch screen PC can be connected and used with an external LCD panel via the mini-DP (DP by cable kit) interface. It is designed to meet requirement and environmental specifications dictated by the nature of military systems.

15" TFT LCD Display & Resistor Touch screen

Resolution	1024x768 XGA	Brightness	1000 Nits
Aspect Ratio	4:3	Contrast Ratio	2000
Touch Panel	Glass-Film-Glass 5-Wire resistor touch panel (Optional)		

Chapter 3: Specification

3.1 System SPEC

CPU	11st Gen Tiger Lake UP3 Intel® Core™ i /Celeron ULV Processor i3-1115G4E (Dual Core, 6MB Cache, up to 3.90 GHz) i7-1185G7E (Quad Core, 12MB Cache, up to 4.40 GHz)
Memory type	1x DDR4 3200 MHz, 1x 260-pin SO-DIMM, up to 32GB, Non-ECC memory
Graphics	Intel® Iris Xe Graphics
Display interface	Mini-DP (DP by Cable kit)
Storage	1 x SATA III/1x SATA power header; 1 x M.2 B Key SATA III/USB2.0/PCIe x1
Ethernet	Intel® I225-LM 2.5GbE LAN + Intel® I219-LM Giga LAN
Audio	Realtek® ALC256/ALC888S
I/O Chipset	Nuvoton NCT6126D
TPM	Nuvoton NPCT750AABYX TPM2.0
Triple Mode	Day Mode: Ultra-Brightness 1000 nits Night Mode: NVIS (Dimmable under 1% Nits) Invisible Mode: Backlight off
OSD	Backlight Dim+ Backlight Dim- Function key backlight On/Off
Function Keys	6 Soft programmable function Buttons + 1 power button (On/Off)
DC-IN	9V ~ 36 V, 12V DC-IN Optional:18V~36V, MIL-STD-461, MIL-STD-1275,

Connectors

IO Ports	[X1] 2x 1GbE LAN Amphenol TV07RW-13-35S
	[X2] 2x USB2.0 + 1x RS485 Amphenol TV07RW-13-35S
	[X3] 1x Mini-DP Amphenol MDPFTV7AGF312
	[X4]: 1x Power-IN Amphenol TVS07RF-11-5P

Applications

Applications Marine, Naval, Ground and Airborne environment.

OS Windows® 11 64-bit, Linux (Support by request)

Physical

Dimension 435 x 360 x 65 mm (W x H x D), Weight: 4.5kg,

Finish Anodic aluminum oxide

Chassis Aluminum Alloy, Corrosion Resistant. **Ingress Protection** IP65 Dust /water Proof

MIL Compliance

MIL-STD-810 (Operation Test)

Low Temp.	Method 502.5	9 Exposure(24h x 3 cycle) at -10°C min.
High Temp.	Method 501.5	60°C for 2 hrs after temperature stabilization
Humidity	Method 507.5	RH -95%. Test cycles: ten 24-hrs , functional test after 5th and 10th cycles
Vibration	Method 514.6	10-500Hz 1.04Grms Test duration: 1 hr x 3 axis (total 3 hrs)
Shock	Method 516.6	20G, 11mSec, 3 per axis

MIL-STD-810 (Non-Operating Tests)

Low Temp.	Method 502.5	Exposure(24h x 7 cycle) at -20°C min.
High Temp.	Method 501.5	71°C for 2 hrs after temperature stabilization.
Vibration	Method 514.6	200 to 2000Hz Test duration: 1hr per axis; rms = 7.7 gs
Shock	Method 516.6	20G, 11mSec, 3 per axis

MIL-STD-461

CE102	2 MHz - 30 MHz
RE102	1.5 MHz -30 MHz - 5 GHz
RS103	1.5 MHz - 5 GHz

Environmental Qualifications

Regulatory CE ,FCC Compliance

Operation Temp. -40°C~60°C (ambient with air flow)

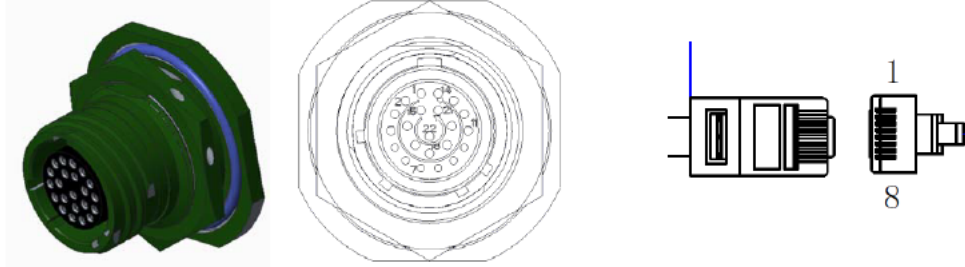
Storage Temp. -40~+85°C

Green Product RoHS, WEEE compliance

3.2 Interface

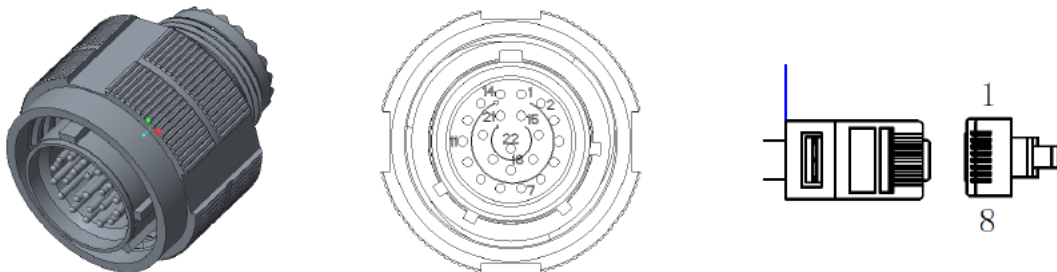
3.2.1 (X1) 2x 1GbE LAN & Cable kit connector

AMPHENOL TV07RW-13-35S



TV07RW-13-35S	RJ45			TV07RW-13-35S	RJ45		
1	1	WHITE / ORANGE	TP1+	8	1	WHITE / ORANGE	TP1+
2	2	ORANG	TP1-	9	2	ORANG	TP1-
3	3	WHITE / GREEN	TP2+	10	3	WHITE / GREEN	TP2+
4	6	GREEN	TP2-	11	6	GREEN	TP2-
5	4	WHITE / BLUE	TP3+	12	4	WHITE / BLUE	TP3+
6	5	BLUE	TP3-	13	5	BLUE	TP3-
15	7	WHITE / BROWN	TP4+	19	7	WHITE / BROWN	TP4+
16	8	BROWN	TP4-	20	8	BROWN	TP4-
7				14			
17				21			
18				22			
SHELL	SHELL		SHELL GND	SHELL	SHELL		SHELL GND

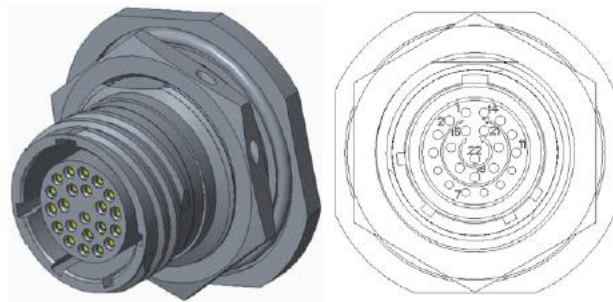
AMPHENOL TV06RW-13-35P



TV06RW-13-35P	RJ45			TV06RW-13-35P	RJ45		
1	1	WHITE / ORANGE	TP1+	8	1	WHITE / ORANGE	TP1+
2	2	ORANG	TP1-	9	2	ORANG	TP1-
3	3	WHITE / GREEN	TP2+	10	3	WHITE / GREEN	TP2+
4	6	GREEN	TP2-	11	6	GREEN	TP2-
5	4	WHITE / BLUE	TP3+	12	4	WHITE / BLUE	TP3+
6	5	BLUE	TP3-	13	5	BLUE	TP3-
15	7	WHITE / BROWN	TP4+	19	7	WHITE / BROWN	TP4+
16	8	BROWN	TP4-	20	8	BROWN	TP4-
7				14			
17				21			
18				22			
SHELL	SHELL		SHELL GND	SHELL	SHELL		SHELL GND

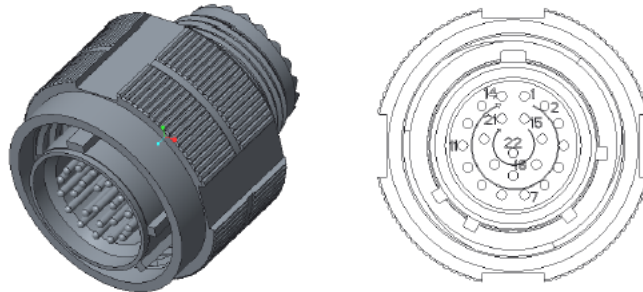
3.2.2 (X2) 2x USB2.0 + 1x RS485 & Cable kit connector

AMPHENOL TV07RW-13-35SB



TV07RW-13-35SB	USB2.0	RS485	TV07RW-13-35SB	USB2.0	RS485
1	VBUS		8	VBUS	
2	DATA-		9	DATA-	
3	DATA+		10	DATA+	
4	GND		11	GND	
5		D-	12		N.C.
6		D+	13		N.C.
7		N.C.	14		N.C.
16		N.C.	19		N.C.
17		GND	20		N.C.
15	GND		21	GND	
18	GND		22	GND	
SHELL	SHELL		SHELL	SHELL	

AMPHENOL TV06RW-13-35PB



TV06RW-13-35PB	USB2.0	RS485	TV06RW-13-35PB	USB2.0	RS485
1	VBUS		8	VBUS	
2	DATA-		9	DATA-	
3	DATA+		10	DATA+	
4	GND		11	GND	
5		D-	12		N.C.
6		D+	13		N.C.
7		N.C.	14		N.C.
16		N.C.	19		N.C.
17		GND	20		N.C.
15	GND		21	GND	
18	GND		22	GND	
SHELL	SHELL		SHELL	SHELL	

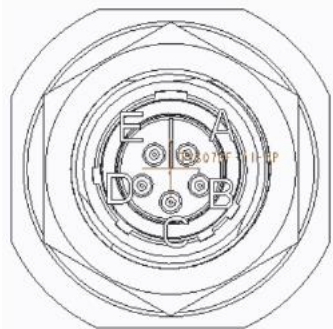
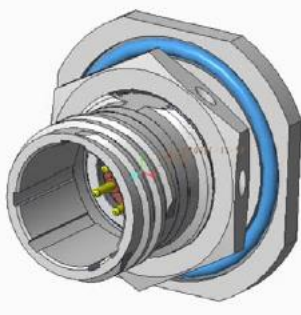
3.2.3 (X3) 1x Mini-DP connector

AMPHENOL MDFTV7AG312



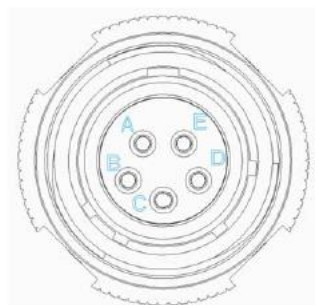
3.2.4 (X4) 1x Power-IN & Cable kit connector

AMPHENOL TVS07RF-11-5P



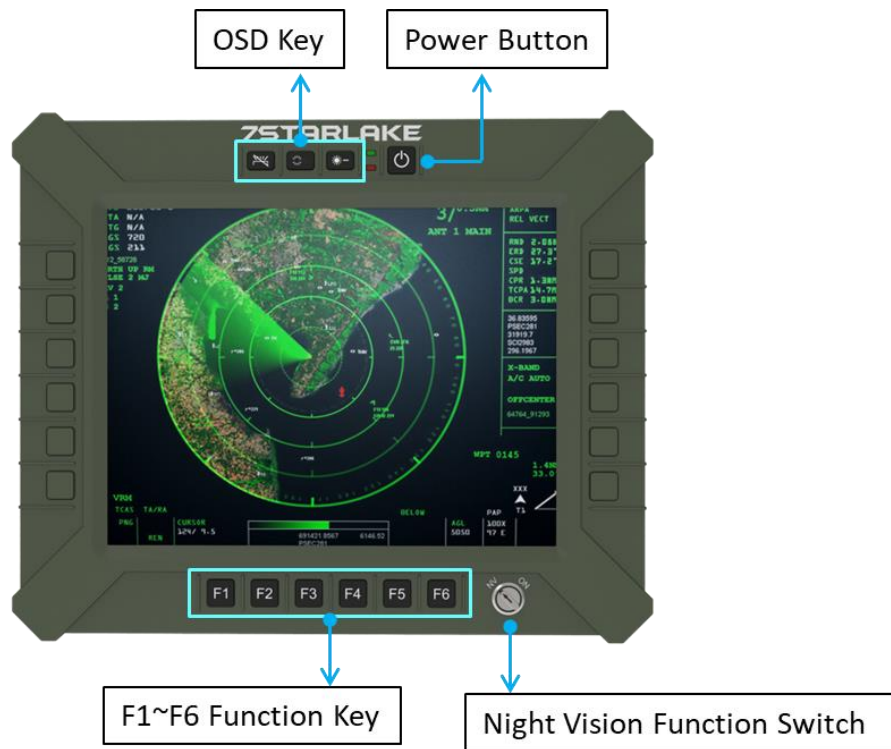
Cable color	TVS07RF-11-5P	Pin define
YELLOW	A	Vin +
YELLOW	B	Vin +
N.C.	C	N.C.
BLACK	D	Vin -
BLACK	E	Vin -
	Shell	Shell GND

AMPHENOL TVS06RF-11-5 S



Cable color	TVS06RF-11-5S	Pin define
YELLOW	A	Vin +
YELLOW	B	Vin +
N.C.	C	N.C.
BLACK	D	Vin -
BLACK	E	Vin -
	Shell	Shell GND

Chapter 4: Operation Introduction



4.1 F1~F6 Function Keys

Programming function keys could be customized depend on customer's requirement.

4.2 Power Button

Turn the Panel PC power on by pressing the power button. Turn the display Off by pressing the power button again.

PS: When ambient temperature is under -20 °C, heater will be enabled automatically to increase ambient temperature until over than -20°C, system power boot up automatically.

4.3 LED Indicators

Blue: When adapter is connected to DC connector.

Red: When heater is enabled.

4.4 Brightness Up or Down

Dim+:LCD backlight increase

Dim-:LCD backlight decrease

4.5 Fn-key backlight on off

Turn the Fn-key backlight on/off by pressing the Fn-key backlight on/off button.

4.6 NVIS Mode

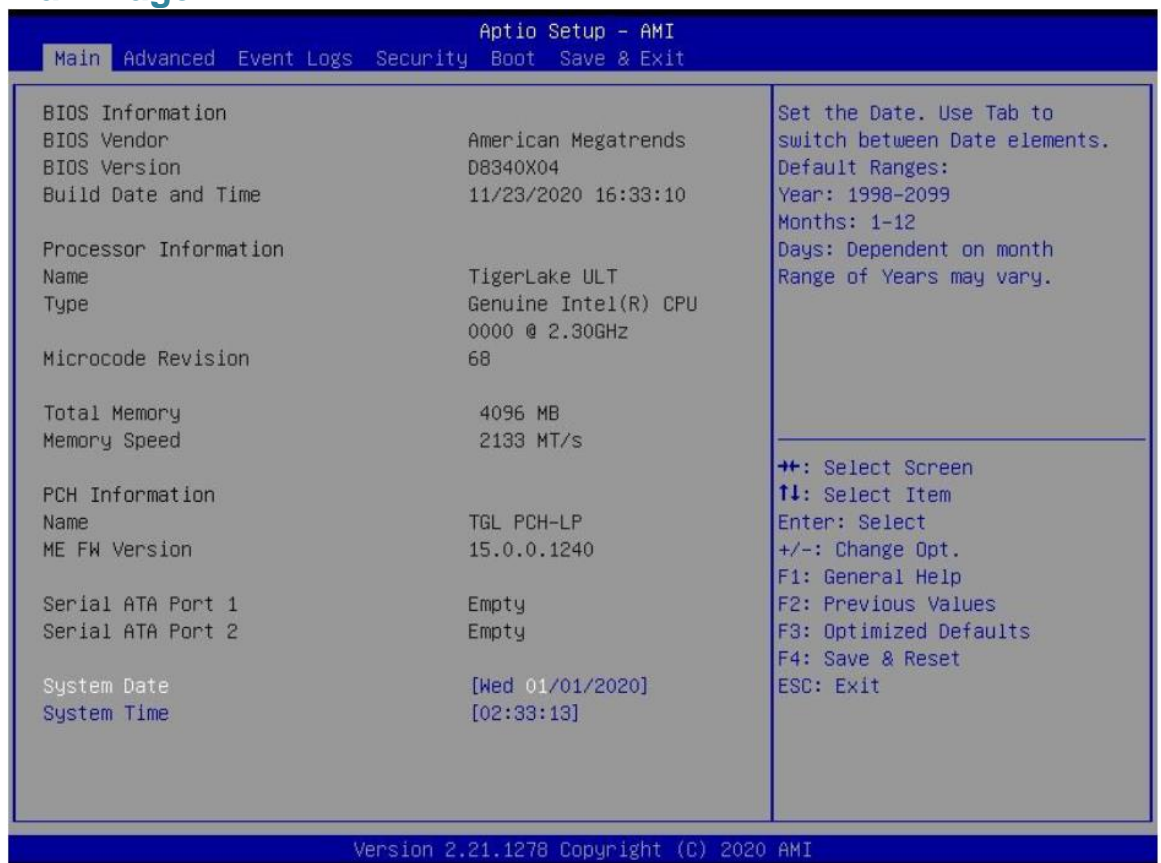
NVIS: LCD Backlight<1.7 nits, keypad backlight and Led indicator off.

On: LCD Backlight 0~1000 nits, keypad backlight and led indicator on and can be controlled formally.

Off: LCD Backlight off, keypad backlight and led indicator off.

Chapter 5: BIOS Setup

5.1 Main Page



Field Name	BIOS Vendr
Default Value	American Megatrends
Comment	This field is not selectable. There is no help text associated with it.

Field Name	BIOS Vendr
Default Value	Display the version of the BIOS
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Build Date and Time
Default Value	Display build date of the BIOS
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Processor Information
Value	Display the installed CPU brand.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Microcode Version
Value	Display the CPU microcode revision.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Total Memory
Value	Display the installed memory size.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Memory Speed
Value	Display the installed memory Frequency
Comment	This field is not selectable. There is no help text associated with it.

Field Name	PCH Information
Value	Display PCH family
Comment	This field is not selectable. There is no help text associated with it.

Field Name	ME FW Version
Value	ME Firmware Version.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Serial ATA Port 1
-------------------	--------------------------

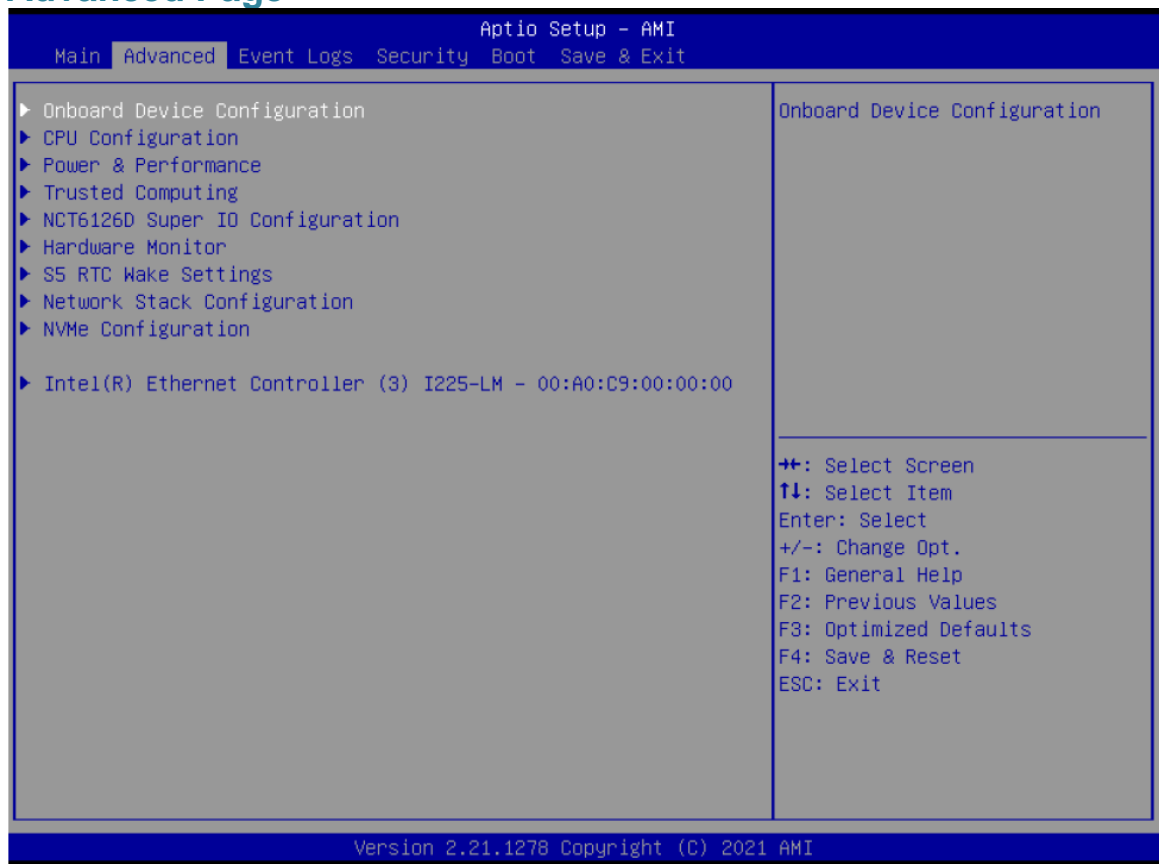
Value	Display the installed SATA device model/size of port 1.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Serial ATA Port 2
Value	Display the installed SATA device model/size of port 2.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	System Date
Default Value	[Www mm/dd/yyyy]
Possible Value	Www : Mon/Tue/Wed/Thu/Fri/Sat/Sun mm : 1-12 dd : 1-31 yyyy : 1998-2099"
Help	Set the Date. Use Tab to switch between Date elements. Default Rangers: Year : 1998-2099 Months : 1-12 Days : Dependent on month Range of Years may vary."

Field Name	System Time
Default Value	[hh:mm :ss]
Possible Value	hh : 0-23 mm : 0-59 ss : 0-59"
Help	Set the Time. Use Tab to switch between Time elements.

5.2 Advanced Page



Field Name	Onboard Device
Help	Onboard Device Configuration.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	CPU Configuration
Help	CPU Configuration Parameters.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Power & Performance
Help	Power & Performance Options.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Trusted Computing
Help	Trusted Computing Settings
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	NCT6126D Super IO Configuration
Help	System Super IO Chip Parameters.

Comment	Press Enter when selected to go into the associated Sub-Menu.
---------	---

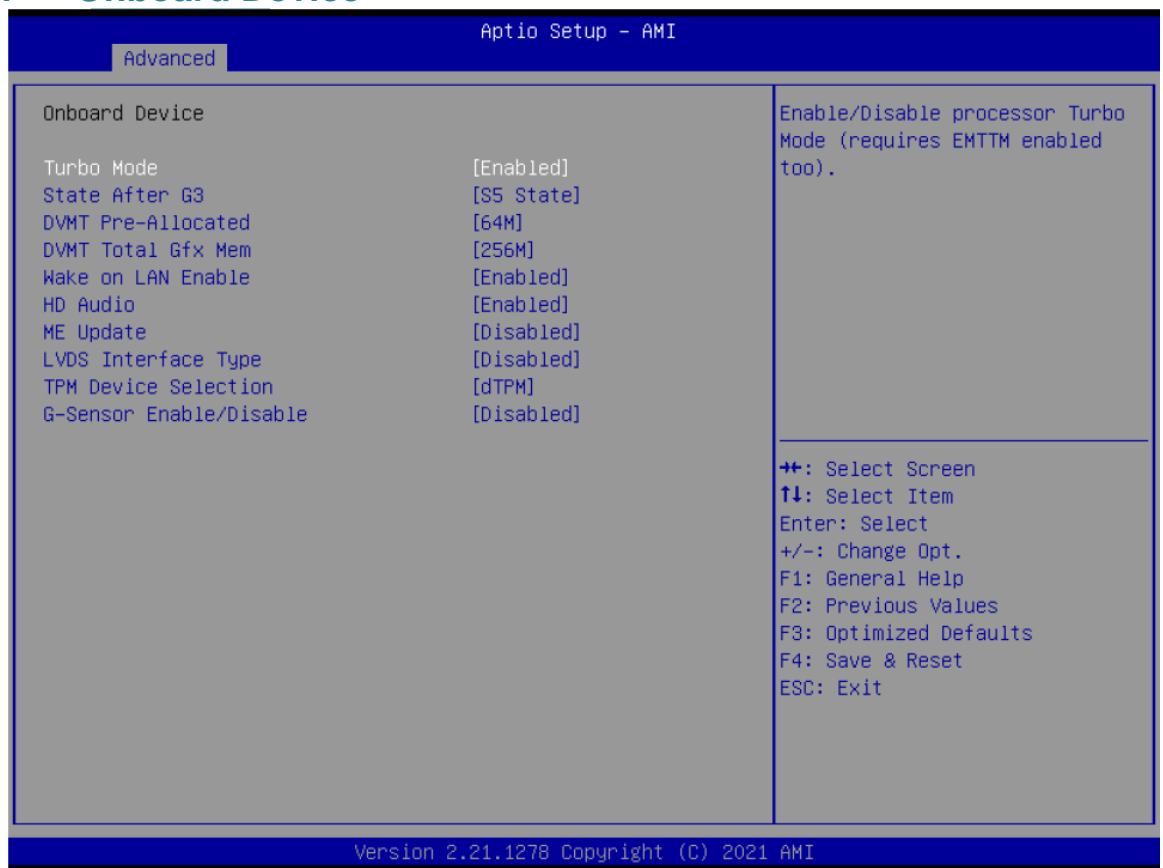
Field Name	HW Monitor
Help	Monitor hardware status
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	S5 RTC Wake Settings
Help	Enable system to wake from S5 using RTC alarm
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Network Stack Configuration
Help	Network Stack Settings.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	NVMe Configuration
Help	NVMe Device Options Settings .
Comment	Press Enter when selected to go into the associated Sub-Menu.

5.2.1 Onboard Device



Field Name	Turbo Mode
Default Value	[Enable]
Possible Value	Enabled Disabled
Help	SetEnable/Disable processor Turbo Mode (requires EMTTM enabled too)

Field Name	State After G3
Default Value	[S5 State]
Possible Value	S0 State S5 State
Help	S Specify what state to go to when power is re-applied after a power failure (G3 State)

Field Name	DVMT Pre-Allocated
Default Value	[64M]
Possible Value	64M 32M/F7 36M

	40M 44M 48M 52M 56M 60M
Help	Select DVMT 5.0 Pre-Allocated (Fixed) Graphics Memory size used by the Internal Graphics Device.

Field Name	DVMT Total Gfx Mem
Default Value	[256M]
Possible Value	128M 256M MAX
Help	Select DVMT5.0 Total Graphic Memory size used by the Internal Graphics Device.

Field Name	Wake on LAN Enable
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	Enable/Disable integrated LAN to wake the system.

Field Name	HD Audio
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	Control Detection of the HD Audio device. Disabled = HDA will be unconditionally disabled Enabled = HDA will be unconditionally enabled.

Field Name	ME Update
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	Temporary disable Intel CSME for ME FW Update. Enabled = Intel CSME disabled after first time reboot only.

Note: Visible in LVDS SKU.

Field Name	LVDS Interface TypeD Audio
Default Value	[Disabled]
Possible Value	8 bit-VESA Single Channel 8 bit-VESA Dual Channel 6 bit-VESA Single Channel 6 bit-VESA Dual Channel 8 bit-JEIDA Single Channel 8 bit-JEIDA Dual Channel
Help	Sets LVDS connectivity.

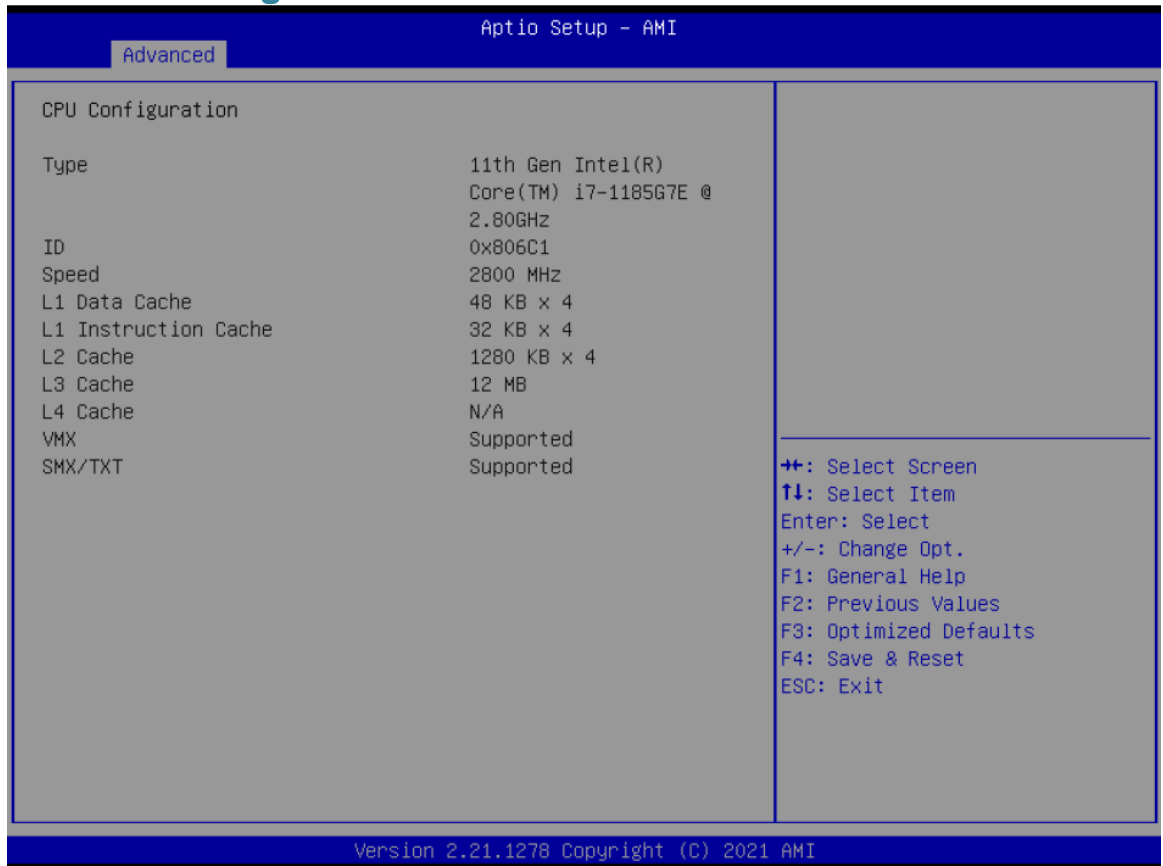
Note: Visible when LVDS Interface Type not set to disable.

Field Name	LVDS Panel Type
Default Value	[1920x1080 LVDS]
Possible Value	1024x768 LVDS 1366x768 LVDS 1920x1080 LVDS
Help	Select LVDS panel used by Internal Graphics Device by selecting the appropriate setup item. .

Field Name	TPM Device Selection
Default Value	[dTPM]
Possible Value	PTT dTPM
Help	Select TPM device: PTT or dTPM. PTT- Enables PTT in SkuMgr dTPM1.2 - Disables PTT in SKuMgr Warning! - PTT/dTPM will be disabled and all data saved on it will be lost.

Field Name	G-Sensor Enabled /Disable
Default Value	[Disabled]
Possible Value	Enabled Disabled
Help	MS-26CAD-T10 Gsensor on/off Notice. If G-sensor enabled will reserve 2 pin from DIO.

5.2.2 CPU Configuration



Field Name	Type
Default Value	[Intel CPU Brand String]
Comment	This field is not selectable. There is no help text associated with it.

Field Name	ID
Default Value	Displays CPU Signature.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Speed
Default Value	Displays the CPU speed.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	L1 Data Cache
Default Value	L1 Data Cache Size
Comment	This field is not selectable. There is no help text associated with it.

Field Name	L1 Instruction Cache
Default Value	L1 instruction Cache Size

Comment	This field is not selectable. There is no help text associated with it.
---------	---

Field Name	L2 Cache
Default Value	L2 Cache Size
Comment	This field is not selectable. There is no help text associated with it.

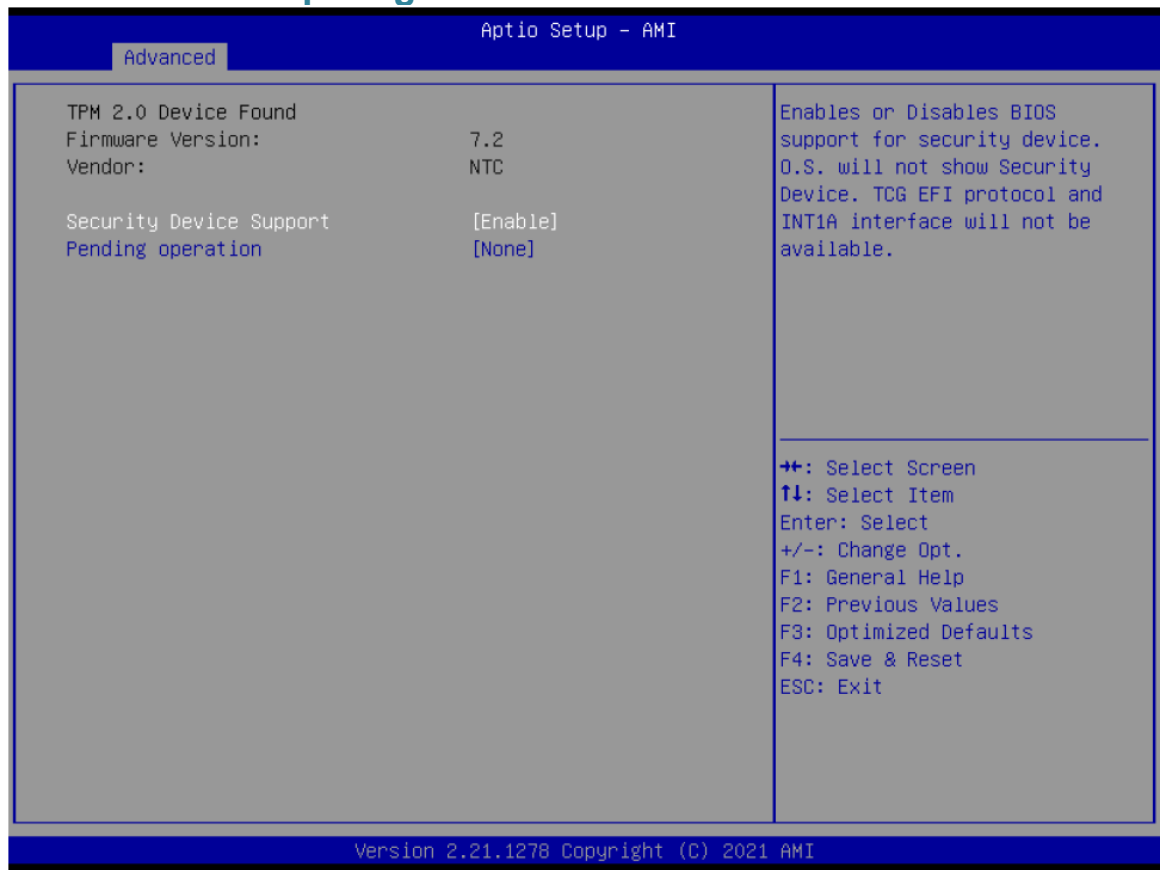
Field Name	L3 Cache
Default Value	L3 Cache Size
Comment	This field is not selectable. There is no help text associated with it.

Field Name	L4 Cache
Default Value	L4 Cache Size
Comment	This field is not selectable. There is no help text associated with it.

Field Name	VMX
Default Value	VMX Supported or Not
Comment	This field is not selectable. There is no help text associated with it.

Field Name	SMX/TXT
Default Value	SMX/TXT supported or Not.
Comment	This field is not selectable. There is no help text associated with it.

5.2.3 Trusted Computing



Field Name	Firmware Version
Default Value	TPM module version
Comment	This field is not selectable. There is no help text associated with it.

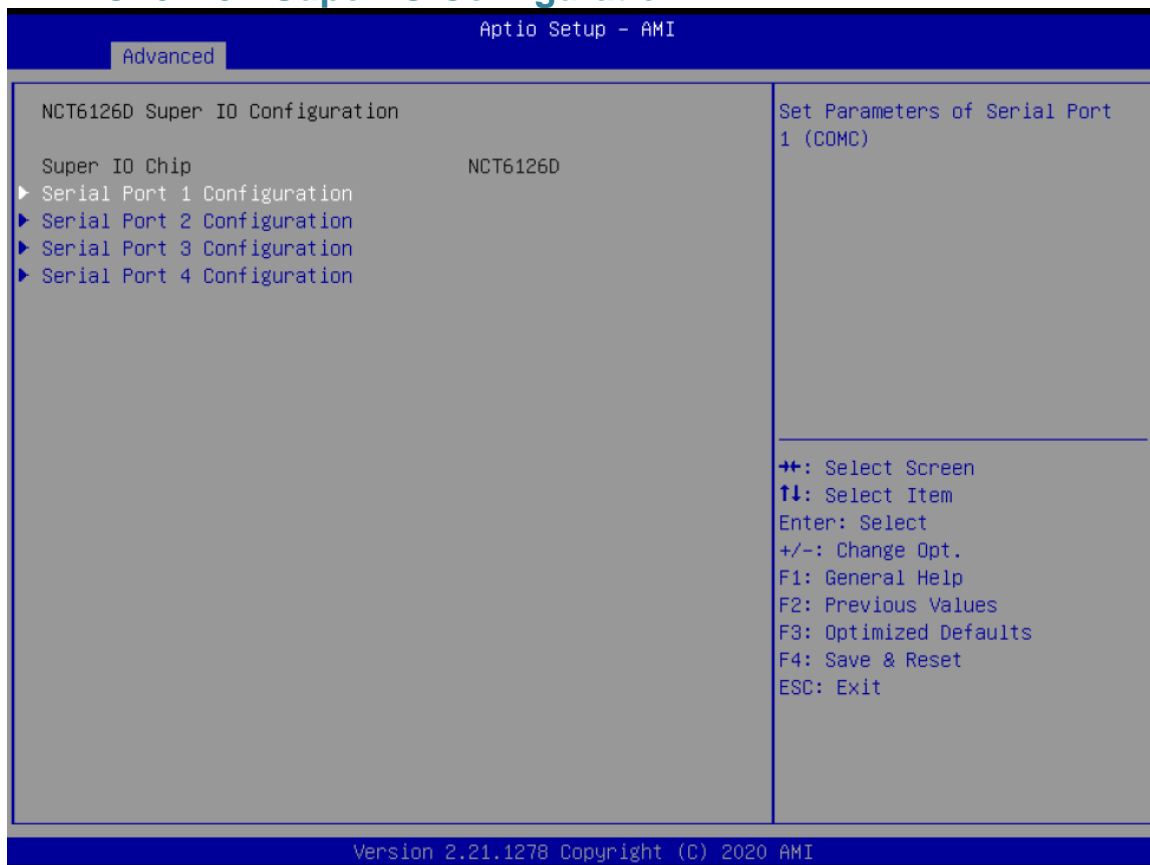
Field Name	Vender
Default Value	TPM module vendor name
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Security Device Support
Default Value	[Enable]
Possible Value	Enable Disable
Help	Enables or Disables BIOS support for security device. O.S. will not show Security Device . TCG EFI protocol and INT1A interface will not be available.

Field Name	Pending operation.
Default Value	[None]
Possible Value	None

	TPM Clear
Help	Schedule an Operation for the Security Device. NOTE: Your Computer will reboot during restart in order to change State of Security Device.

5.2.4 NCT6126D Super IO Configuration



Field Name	Serial Port 1 Configuration
Help	Set Parameters of Serial Port 1 (COMC)
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Serial Port 2 Configuration
Help	Set Parameters of Serial Port 2 (COMD)
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Serial Port 3 Configuration
Help	Set Parameters of Serial Port 3 (COME)
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Serial Port 4 Configuration
Help	Set Parameters of Serial Port 4 (COMA)
Comment	Press Enter when selected to go into the associated Sub-Menu.

5.2.5 Serial Port 1 Configuration



Field Name	Serial Port
Default Value	[Enable]
Possible Value	Enable Disable
Help	Enable or Disable serial Port(COM)

Field Name	Device Settings
Default Value	Device Super IO COM1 Address and IRQ
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Mode Configuration
Default Value	[3T/5R RS232]
Possible Value	1T/1R RS422 3T/5R RS232 1T/1R RS485 TX ENABLE Low Active 1T/1R RS422 with termination resistor 1T/1R RS485 with termination resistor TX ENABLE Low Active Disabled
Help	Configure serial port as RS232/RS422/RS485.

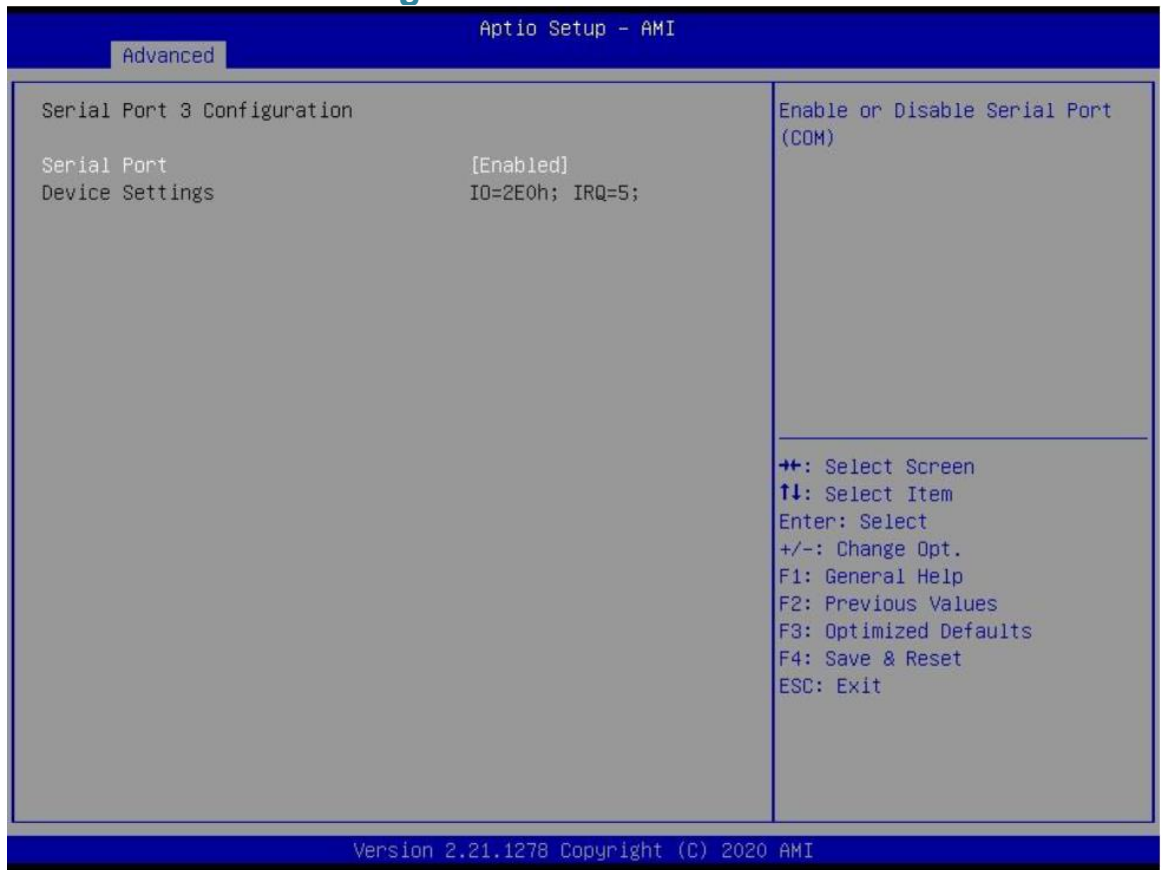
5.2.6 Serial Port 2 Configuration



Field Name	Serial Port
Default Value	[Enable]
Possible Value	Disabled Enabled
Help	Enable or Disable serial Port(COM)

Field Name	Device Settings
Default Value	Device Super IO COM2 Address and IRQ
Comment	This field is not selectable. There is no help text associated with it.

5.2.7 Serial Port 3 Configuration



Field Name	Serial Port
Default Value	[Enable]
Possible Value	Disabled Enabled
Help	Enable or Disable serial Port(COM)

Field Name	Device Settings
Default Value	Device Super IO COM3 Address and IRQ
Comment	This field is not selectable. There is no help text associated with it.

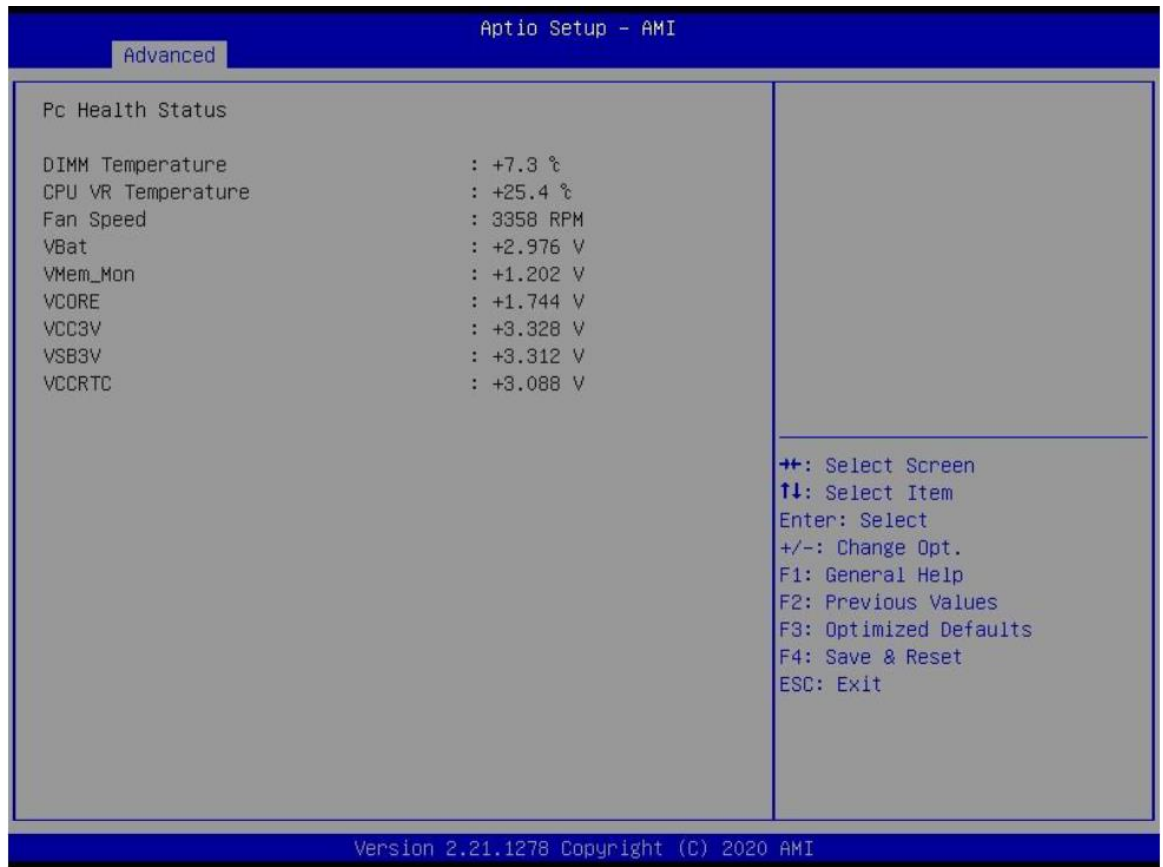
5.2.8 Serial Port 4 Configuration



Field Name	Serial Port
Default Value	[Enable]
Possible Value	Disabled Enabled
Help	Enable or Disable serial Port(COM)

Field Name	Device Settings
Default Value	Device Super IO COM4 Address and IRQ
Comment	This field is not selectable. There is no help text associated with it.

5.2.9 Hardware Monitor



Type	Range
DIMM Temperature	70~-40°C
CPU VR Temperature	70~-40°C
Fan Speed	There are many kinds of the fan could be installed into the system, so we could only set 0 RPM for the failed fan speed, and there is also no high RPM limitation.
VBat	2.0~ 3.65V
VMem_Mon	1.15 ! 1.25V
VCORE	0~2V
VCC3V	3.13~3.65V
VSB3V	3.13~3.65V
VCCRTC	2.0~3.2V

5.2.10 RTC Wake Settings



Field Name	Wake system from S5
Default Value	[Disabled]
Possible Value	Disabled Fixed Time
Help	Enable or disable System wake on alarm event, Select FixedTime, system will wake on the hr::min::sec specified.

Field Name	Wake up hour(Show when Wake system from S5 set to Fixed Time)
Default Value	0
Possible Value	0-23
Help	Select 0-23 For example enter 3 for 3 am and 15 for 3pm

Field Name	Wake up minute(Show when Wake system from S5 set to Fixed Time)
Default Value	0
Possible Value	0-59
Help	Select 0-59 for Minute

Field Name	Wake up second(Show when Wake system from S5 set to Fixed Time)
Default Value	0
Possible Value	0-59

Help	Select 0-59 for second
------	------------------------

5.2.11 Network Stack Configuration



Field Name	Network stack
Default Value	[Disabled]
Possible Value	Disabled Enabled
Help	Enable/Disable UEFI Network stack

Field Name	Ipv4 PXE Support (Available when Network stack Enabled)
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable/Disable Ipv4 PXE Boot Support. If disabled IPV4 PXE boot support will not be available.

Field Name	Ipv6 PXE Support (Available when Network stack Enabled)
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable/Disable Ipv6 PXE Boot Support. If disabled IPV6 PXE boot support will not be available.

5.2.12 NVMe Configuration



Field Name	(Device)
Comment	Press Enter when selected to go into the associated Sub-Menu

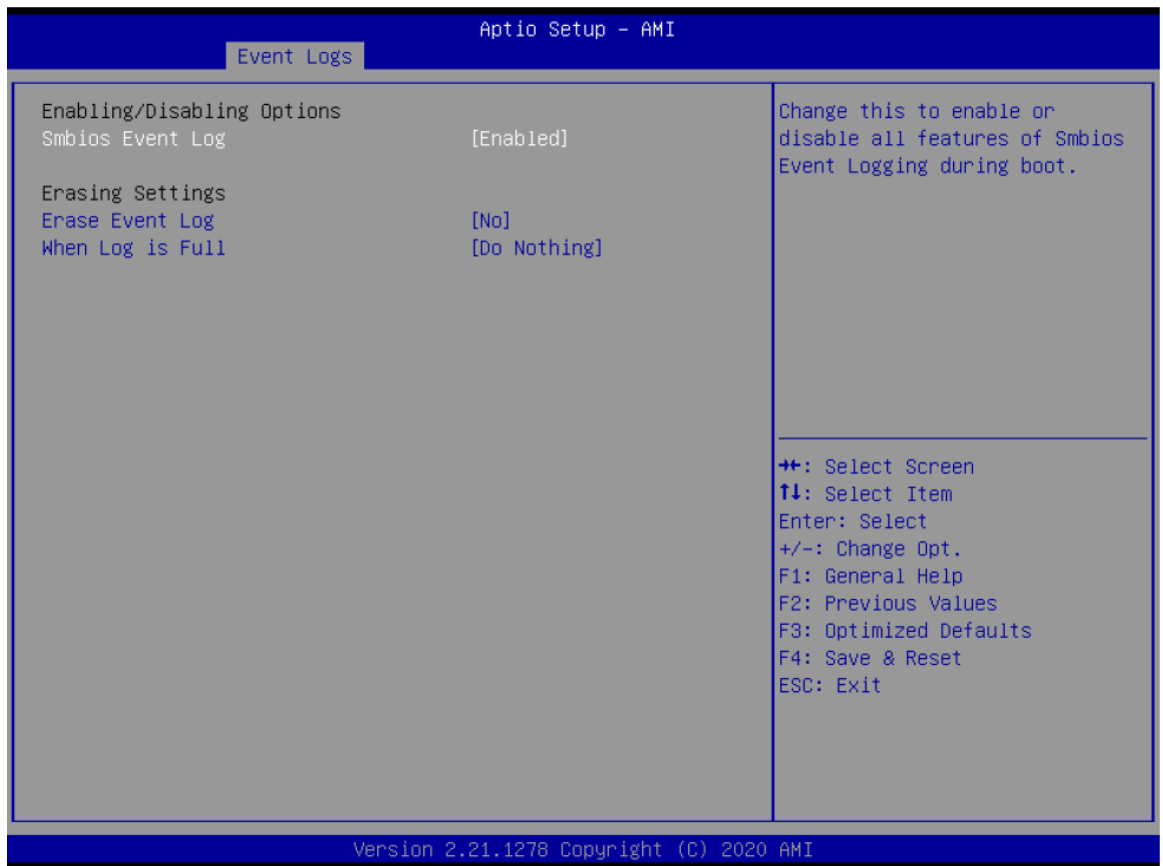
5.3 Evnet logs



Field Name	Change Smbios Event Log Settings
Help	Press <Enter> to change the Smbios Event Log configuration.
Comment	Press Enter when selected to go into the associated Sub-Menu

Field Name	View Smbios Event Log
Help	Press <Enter> to view the Smbios Event Log records
Comment	Press Enter when selected to go into the associated Sub-Menu

5.3.1 Enabling/Disabling Options

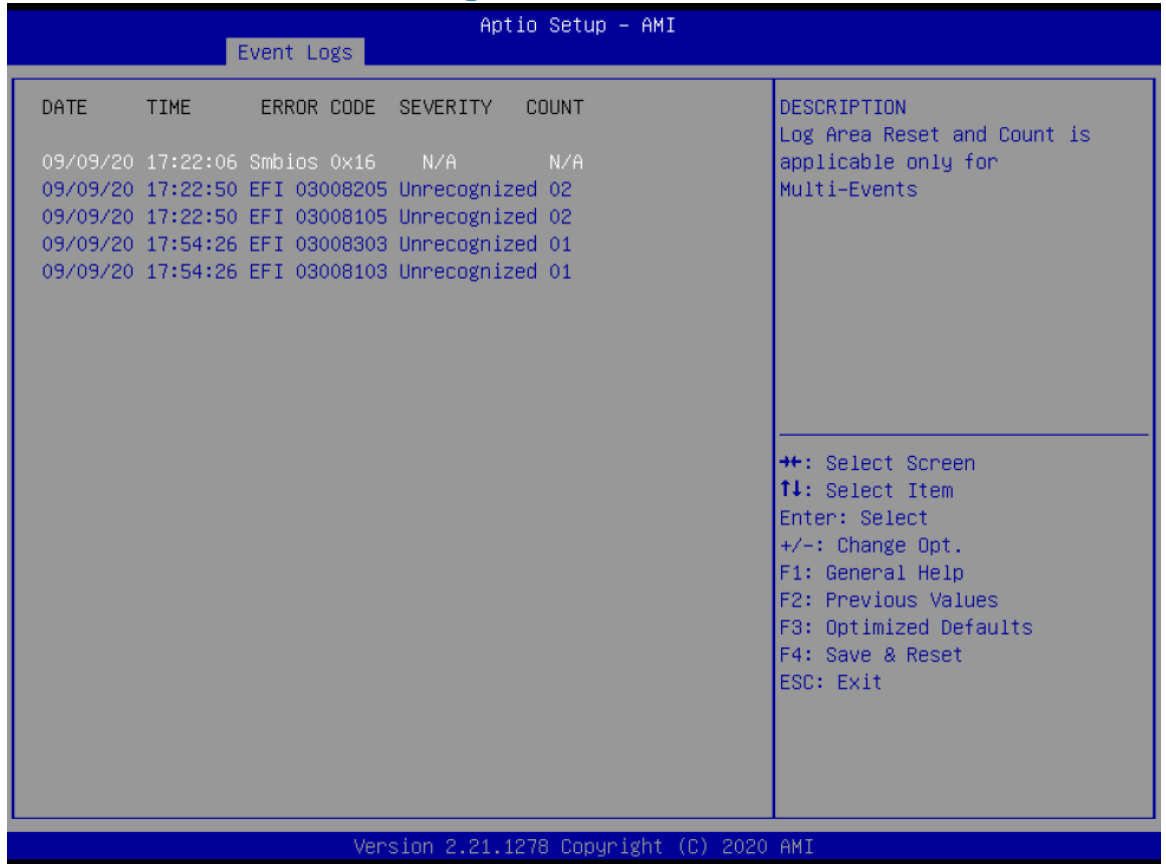


Field Name	Smbios Event Log
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Change this to enable or disable all features of Smbios Event Logging during boot.

Field Name	Erase Event Log
Default Value	[No]
Possible Value	No Yes, Next reset Yes, Every reset
Help	Choose options for erasing Smbios Event Log. Erasing is done prior to any logging activation during reset.

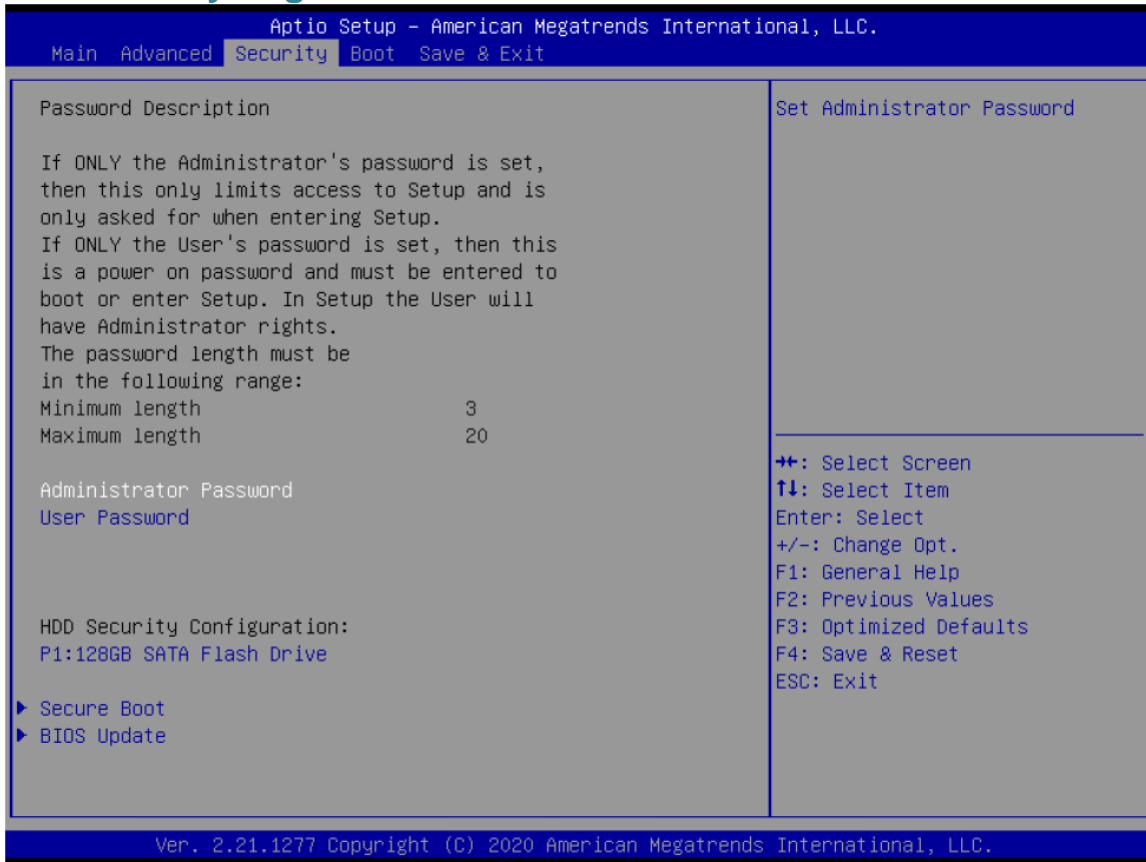
Field Name	When Log is Full
Default Value	[Do Nothing]
Possible Value	Do Nothing Erase Immediately
Help	Choose options for reactions to a full Smbios Event Log.

5.3.2 View Smbios Event log



Field Name	DATE / TIME / ERROR CODE / SEVERITY / COUNT
Default Value	MM/DD/YY HH:MM:SS Smbios 0x16 N/A N/A
Possible Value	By Events
Help	By Events

5.4 Security Page



Field Name	Administrator Password
Help	Set Administrator Password

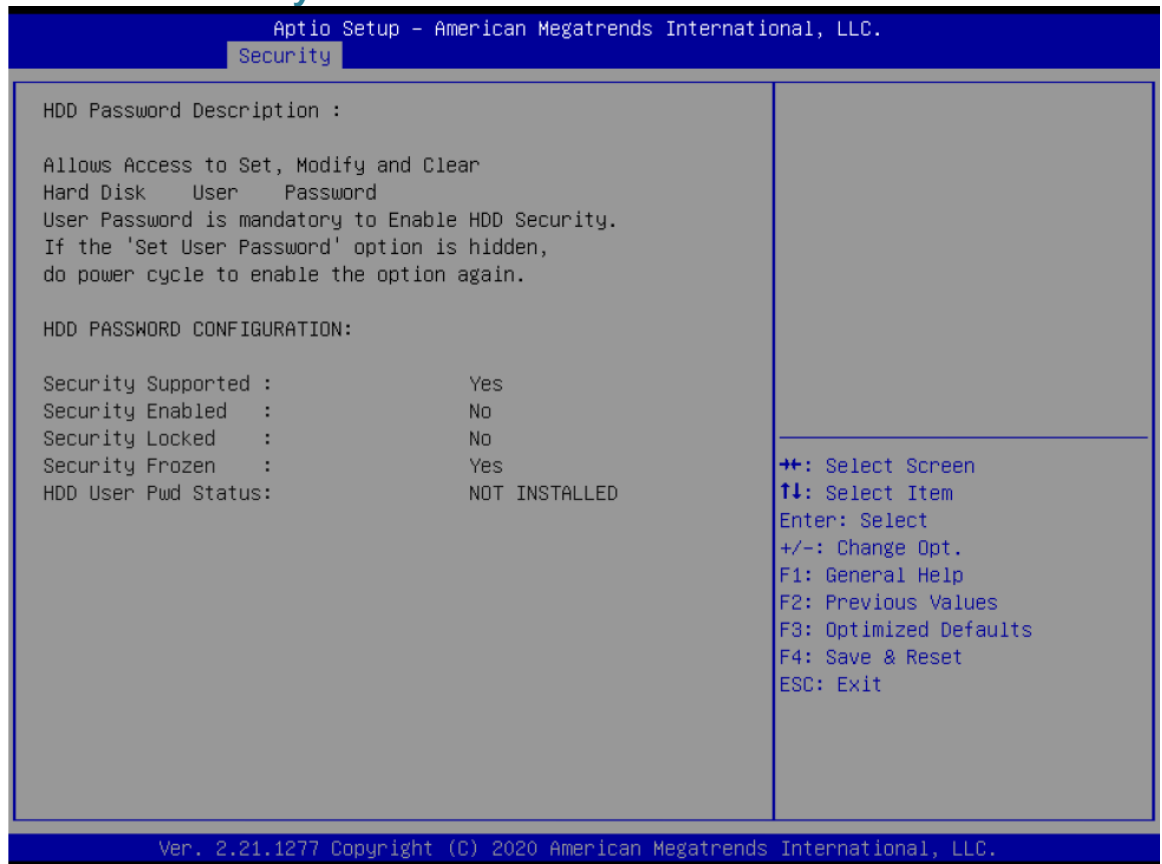
Field Name	User Password
Help	Set User Password.

Field Name	HDD Security drive
Help	HDD Security Configuration for selected drive
Comment	Press Enter when selected to go into the associated Sub-Menu

Field Name	Secure Boot
Help	Secure Boot Configuration
Comment	Press Enter when selected to go into the associated Sub-Menu

Field Name	BIOS Update
Help	BIOS Update support
Comment	Press Enter when selected to go into the associated Sub-Menu

5.4.1 HDD Security



Field Name	Set User Password
Help	Set HDD User Password. *** Advisable to Power Cycle System after Setting Hard Disk Passwords ***.Discard or Save changes option i n setup does not have any impact on HDD when password is set or removed. If the 'Set HDD User Password' option is hidden, do power cycle to enable the option again

5.4.2 Secure Boot



Field Name	Secure Boot
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	Secure Boot feature is Active if Secure Boot is Enabled,Platform Key(PK) is enrolled and the System is in User mode.The mode change requires platform reset

Field Name	Secure Boot Mode
Default Value	[Standard]
Possible Value	Standard Custom
Help	Secure Boot mode options:Standard or Custom.In Custom mode, Secure Boot Policy variables can be configured by a physically present user without full authentication

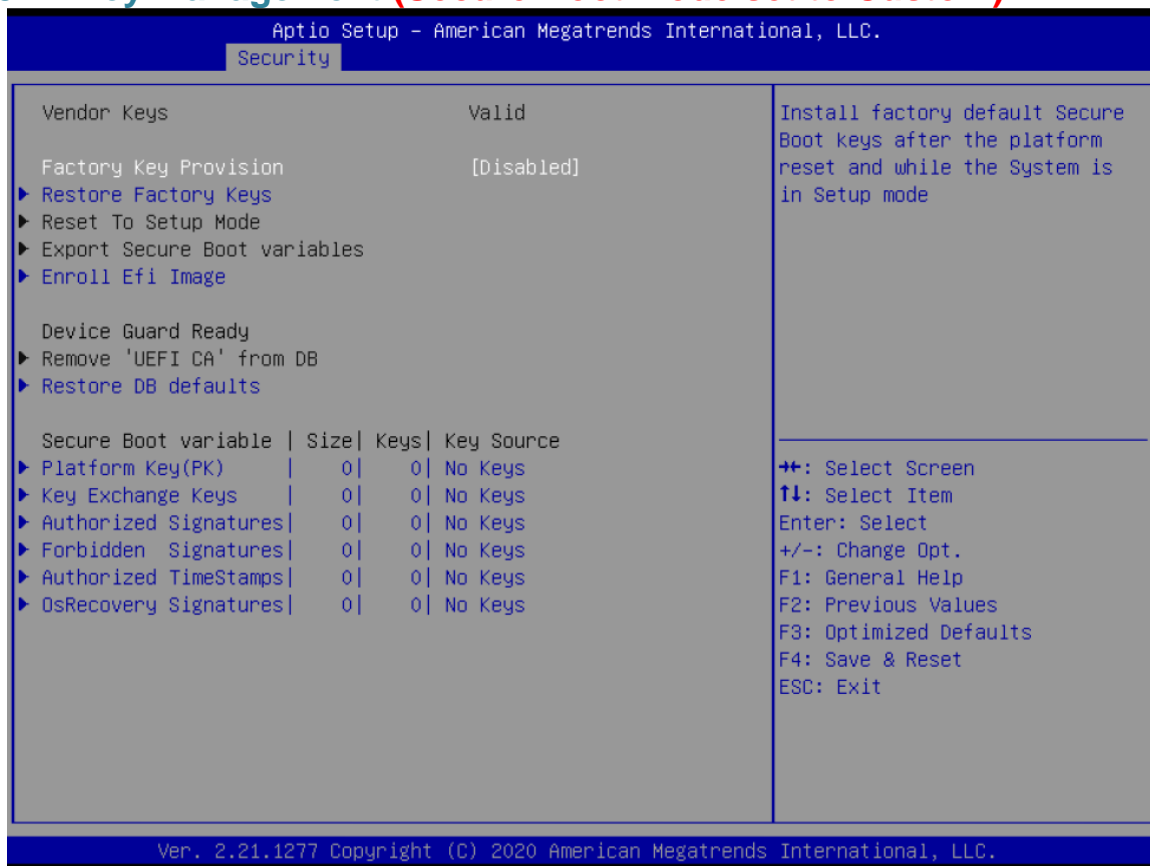
Field Name	Restore Factory Keys (Secure Boot Mode set to Custom)
Help	Force System to User Mode. Install factory default Secure Boot key databases

Field Name	Reset to Setup Mode (After Restore Factory keys Provision)
Help	Delete all Secure Boot key databases from NVRAM

Field Name	Key Management
Help	Enables expert users to modify Secure Boot Policy variables without full authentication

Comment	Enables expert users to modify Secure Boot Policy variables without full authentication.
---------	--

5.4.3 Key Management (Secure Boot Mode set to Custom)



Field Name	Factory Key Provision
Default Value	[Disabled]
Possible Value	Disabled Enabled
Help	Install factory default Secure Boot keys after the platform reset and while the System is in Setup mode

Field Name	Restore Factory Keys
Help	Force System to User Mode. Install factory default Secure Boot key databases

Field Name	Reset to Setup Mode
Help	Delete all Secure Boot key databases from NVRAM

Field Name	Export Secure Boot variables
Help	Copy NVRAM content of Secure Boot variables to files in a root folder on a file system device

Field Name	Enroll Efi Image
Help	Allow the image to run in Secure Boot mode. Enroll SHA256 Hash certificate of a PE image into Authorized Signature Database (db)

Field Name	Remove 'UEFI CA' from DB
Help	Device Guard ready system must not list 'Microsoft UEFI CA' Certificate in Authorized Signature database (db)

Field Name	Restore DB defaults
Help	Restore DB variable to factory defaults

Field Name	Platform Key (PK)
Default Value	Size:0, Keys:0, Key source: No Keys
Help	Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHAXXX 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source: Factory,External,Mixed
Comment	Press Enter when selected to go into the associated Sub-Menu "Key Management".

Field Name	Key Exchange Keys
Default Value	Size:0, Keys:0, Key source: No Keys
Help	Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHAXXX 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source: Factory,External,Mixed
Comment	Press Enter when selected to go into the associated Sub-Menu.

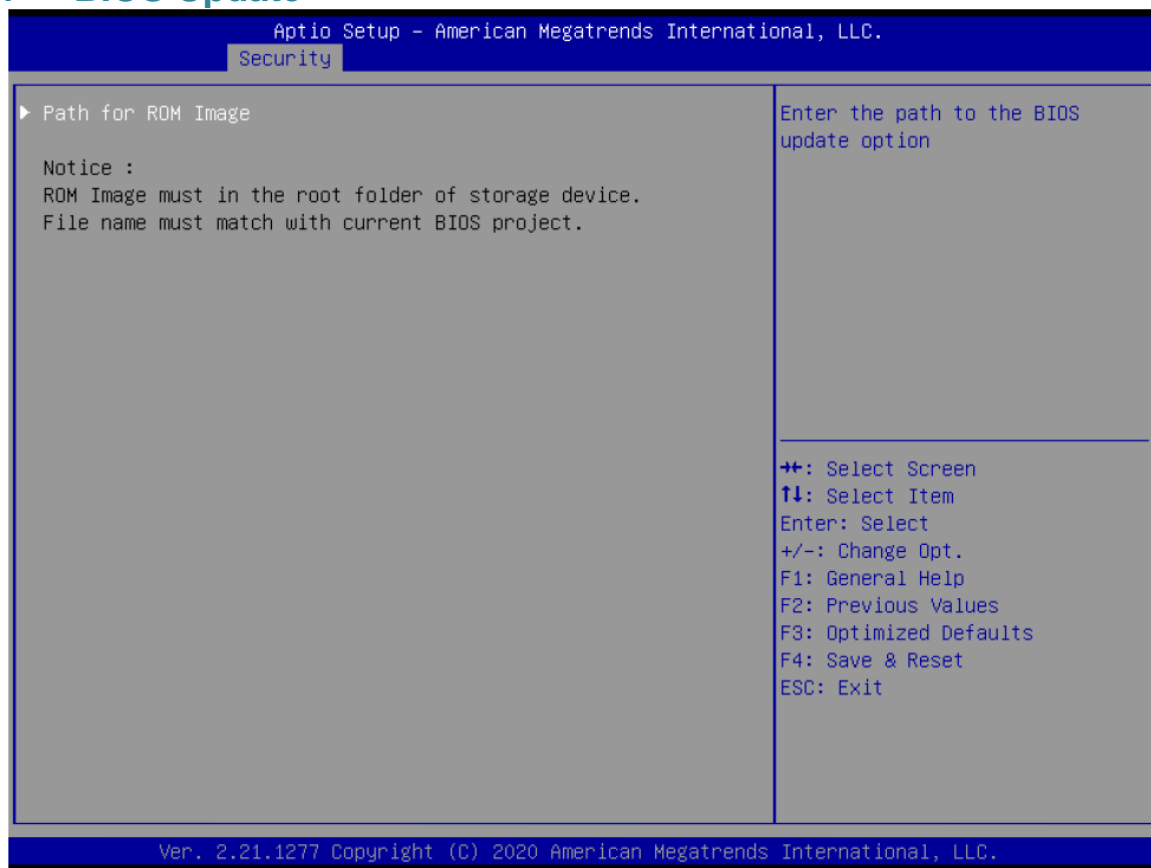
Field Name	Authorized Signatures
Default Value	Size:0, Keys:0, Key source: No Keys
Help	Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER) c)EFI_CERT_RSA2048 (bin) d)EF I_CERT_SHAXXX 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source: Factory,External,Mixed
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Forbidden Signatures
Default Value	Size:0, Keys:0, Key source: No Keys
Help	Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHAXXX 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source: Factory,External,Mixed
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Authorized TimeStamps
Default Value	Size:0, Keys:0, Key source: No Keys
Help	Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHAXXX 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source: Factory,External,Mixed
Comment	Press Enter when selected to go into the associated Sub Menu.

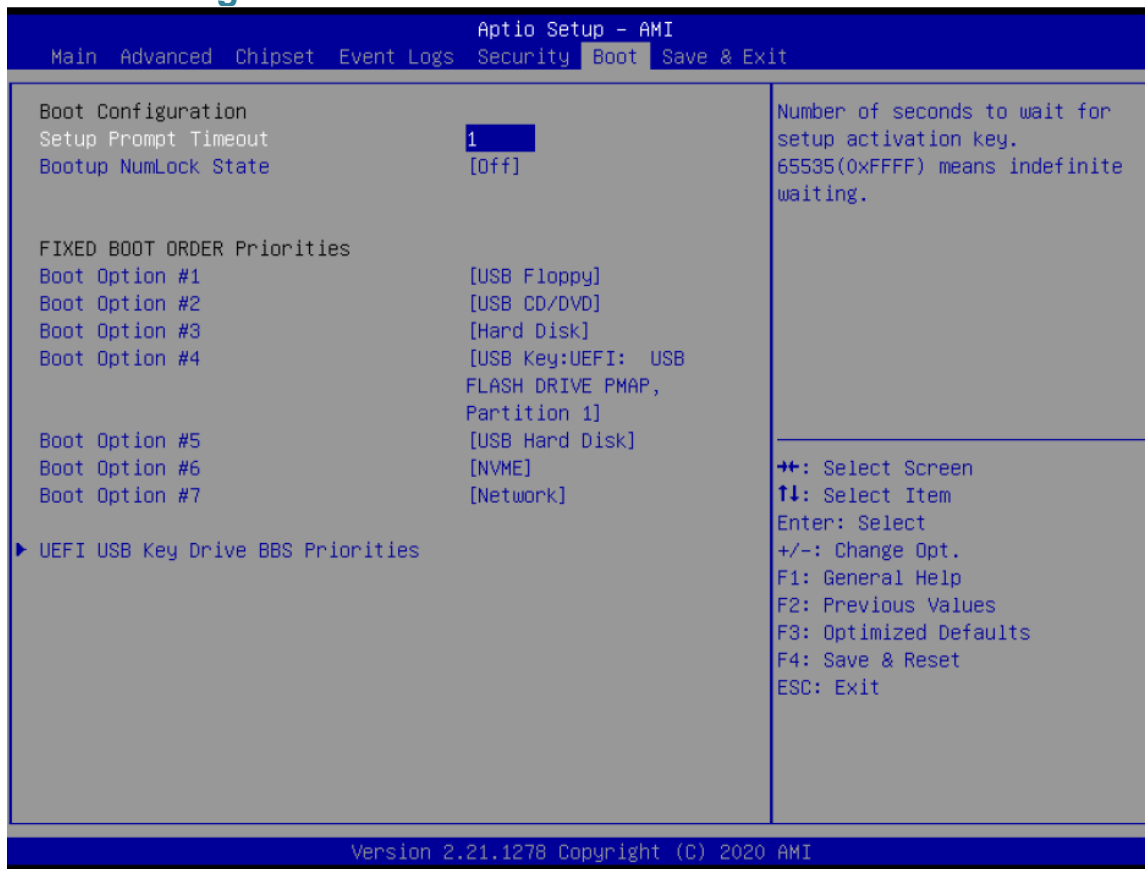
Field Name	OsRecovery Signatures
Default Value	Size:0, Keys:0, Key source: No Keys
Help	Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHAXXX 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source: Factory,External,Mixed
Comment	Press Enter when selected to go into the associated Sub-Menu.

5.4.4 BIOS Update



Field Name	Path for ROM Image
Help	Enter the path to the Secure flash option

5.4.5 Boot Page



Field Name	Setup Prompt Timeout
Default Value	1
Possible Value	1~65535
Help	Number of seconds to wait for setup activation key. 65535(0xFFFF) means indefinite waiting.

Field Name	Bootup NumLock State
Default Value	[Off]
Possible Value	On Off
Help	Select the keyboard NumLock state

Field Name	Boot Option #1
Default Value	[USB Floppy]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk, NVME, Network, Disabled
Help	Sets the system boot order

Field Name	Boot Option #2
Default Value	[USB CD/DVD]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk, NVME,

	Network, Disabled
Help	Sets the system boot order

Field Name	Boot Option #3
Default Value	[Hard Disk]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk, NVME, Network, Disabled
Help	Sets the system boot order

Field Name	Boot Option #4
Default Value	[USB Key]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk, NVME, Network, Disabled
Help	Sets the system boot order

Field Name	Boot Option #5
Default Value	[USB Hard Disk]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk, NVME, Network, Disabled
Help	Sets the system boot order

Field Name	Boot Option #6
Default Value	[NVME]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk, NVME, Network, Disabled
Help	Sets the system boot order

Field Name	Boot Option #7
Default Value	[Network]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk, NVME, Network, Disabled
Help	Sets the system boot order

Field Name	(UEFI) USB Floppy Drive BBS Priorities
Help	Specifies the Boot Device Priority sequence from available USB Floppy Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	(UEFI) USB CDROM/DVD ROM Drive BBS Priorities
Help	Specifies the Boot Device Priority sequence from available USB/CDROM/DVD Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	(UEFI) Hard Disk Drive BBS Priorities
Help	Specifies the Boot Device Priority sequence from available Hard Disk Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	(UEFI) USB KEY Drive BBS Priorities
Help	Specifies the Boot Device Priority sequence from available USB Key Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	(UEFI) USB Hard Disk Drive BBS Priorities
Help	Specifies the Boot Device Priority sequence from available USB Hard Disk Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	(UEFI) NVME Drive BBS Priorities
Help	Specifies the Boot Device Priority sequence from available NVME Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	(UEFI) NETWORK Drive BBS Priorities
Help	Specifies the Boot Device Priority sequence from available NETWORK Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

5.4.5.1 (List Boot Device Type) Drive BBS Priorities



Field Name	Boot Option #1
Default Value	
Possible Value	Boot Device Name 1 of this type, Disable

Help	Sets the system boot order
------	----------------------------

5.4.6 Save & Exit Page



Field Name	Save Changes and Reset
Help	Reset the system after saving the changes.

Field Name	Discard Changes and Rest
Help	Reset system setup without saving any changes.

Field Name	Restore Defaults
Help	Restore/Load Default values for all the setup options.

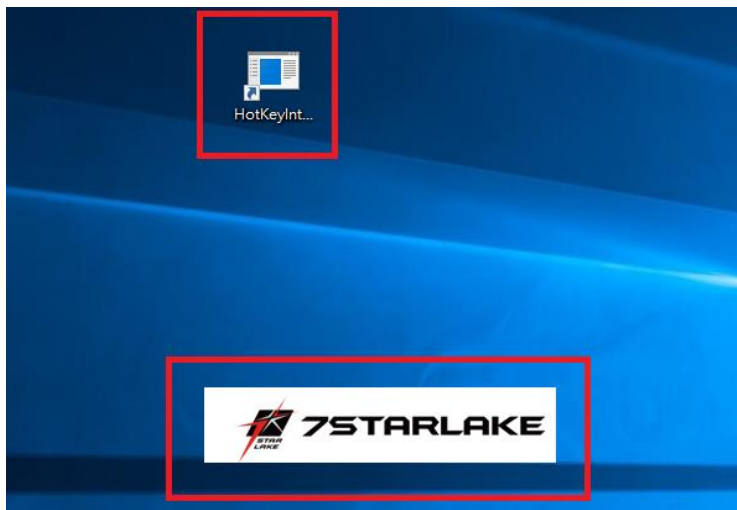
Chapter 6: Programable Function Key Setup

PreFace

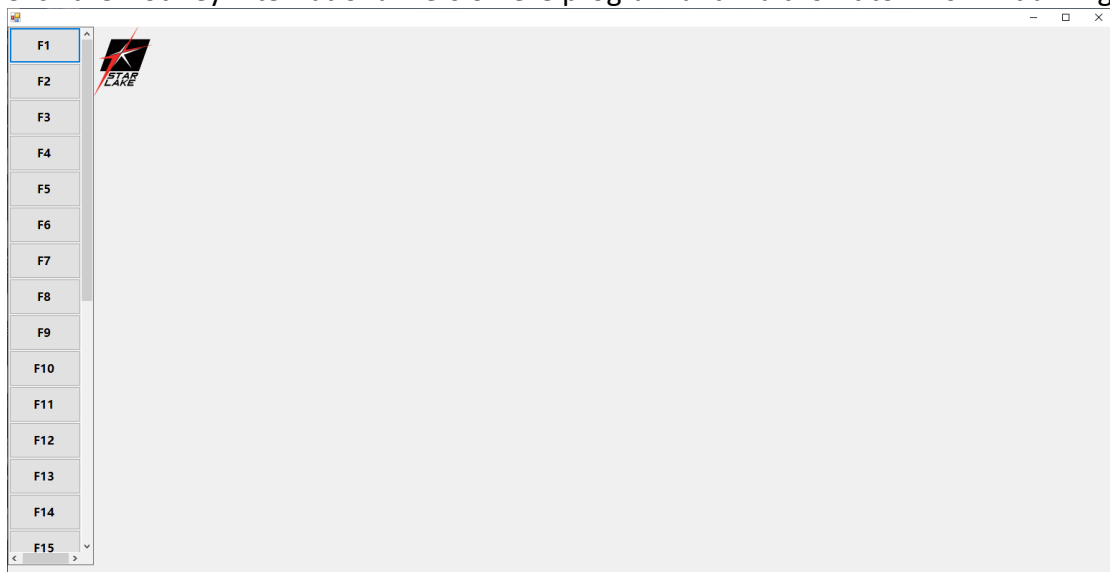
All operations within this document must be performed with the HotKey hardware connected in order to function properly.

6.1 Start Hot Key International Version

Click the Hot Key International Version.exe program and wait for it to finish initializing. Once the program interface appears, it means that the initialization is complete and you can proceed with the operations. If the hardware is not connected or cannot be connected properly, an error message "Hardware Connect Fail" will appear.

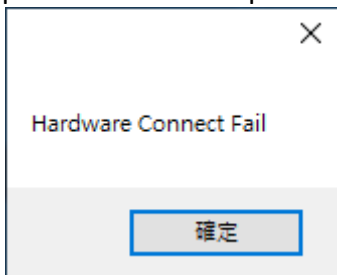


Click the Hot Key International Version.exe program and wait for it to finish initializing.



Once the program interface appears, it means that the initialization is complete and you can

proceed with the operations.



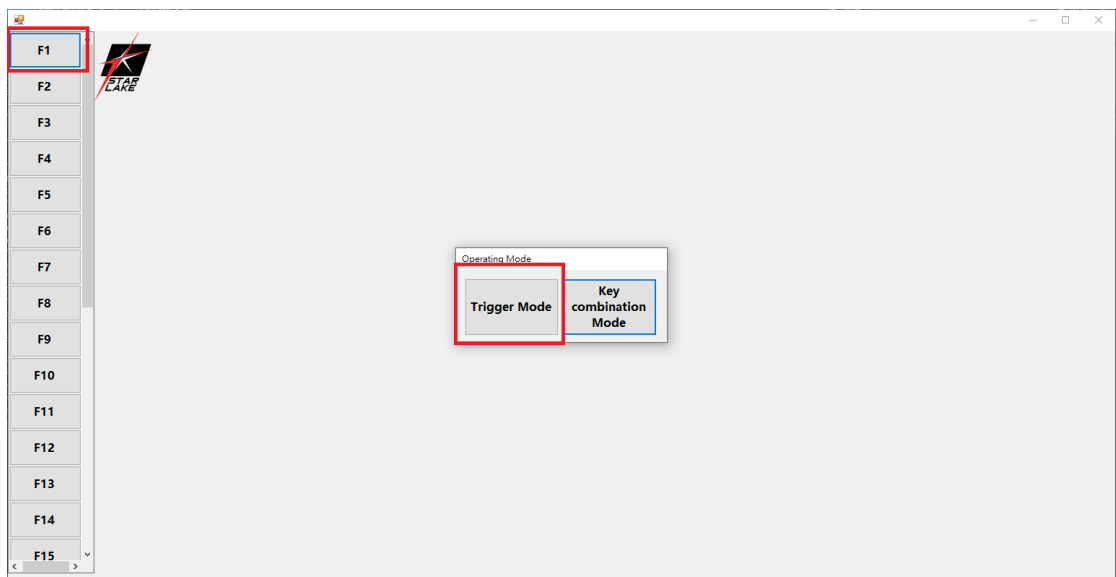
If the hardware is not connected or cannot be connected properly, an error message "Hardware Connect Fail" will appear.

6.2 Introduction to Hotkey Trigger Mode Operation

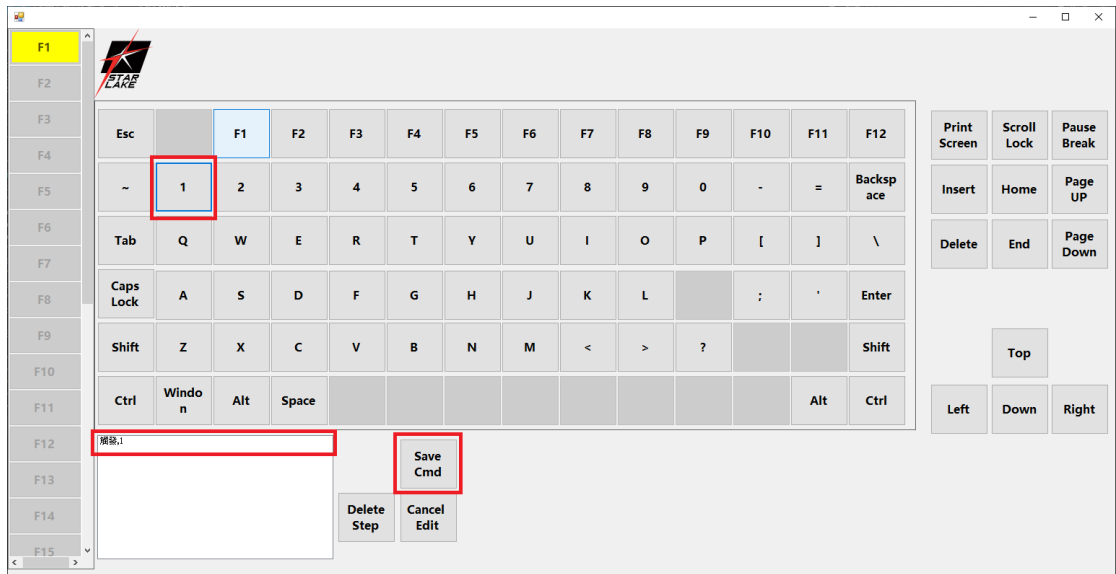
This chapter demonstrates the steps for setting up Trigger mode, including Save Cmd/Delete Step/Cancel Edit.

6.2.1 Hotkey Trigger Mode - Save Cmd

Clicking on the first command "F1" will bring up a window to select Trigger Mode and Key Combination Mode. Select Trigger Mode and then choose "1" after entering Trigger Mode. Press "Save Cmd" to write the command to the hardware.



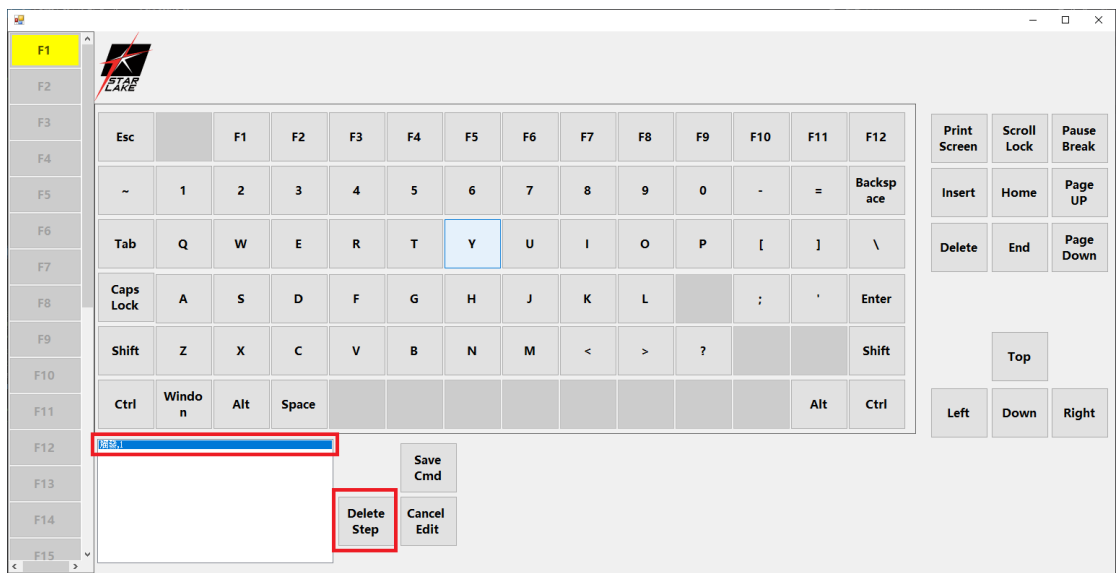
Clicking on the first command "F1" will bring up a window to select Trigger Mode and Key Combination Mode. Select Trigger Mode



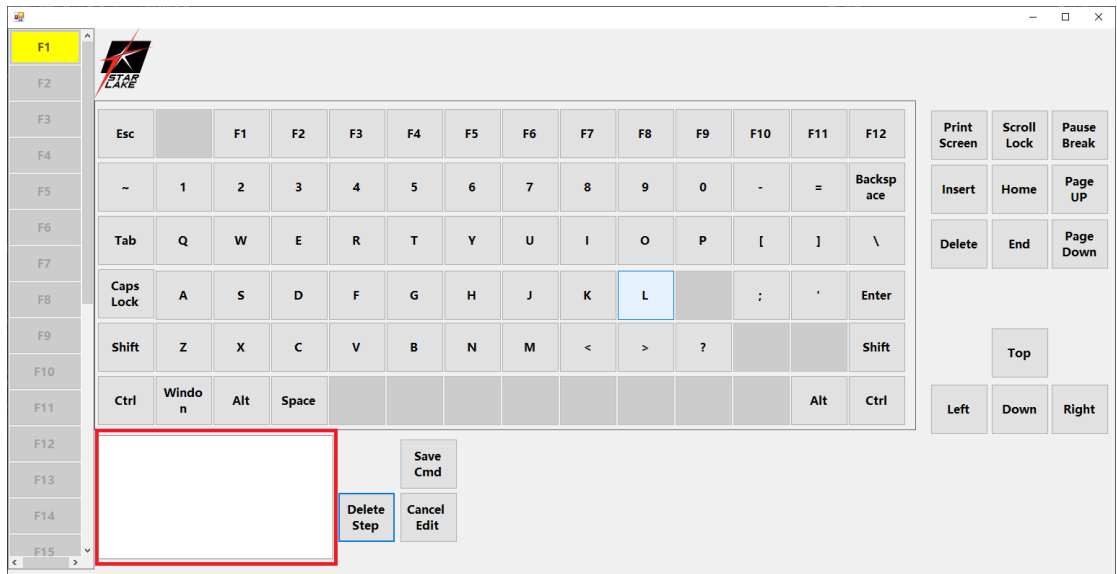
Select Trigger Mode and then choose "1" after entering Trigger Mode. Press "Save Cmd" to write the command to the hardware.

6.2.2 Hotkey Trigger Mode - Delete Step

Select the instruction to be deleted in the instruction display window, and then press "Delete Step". Confirm that the instruction in the instruction display window has been deleted to complete the deletion action.



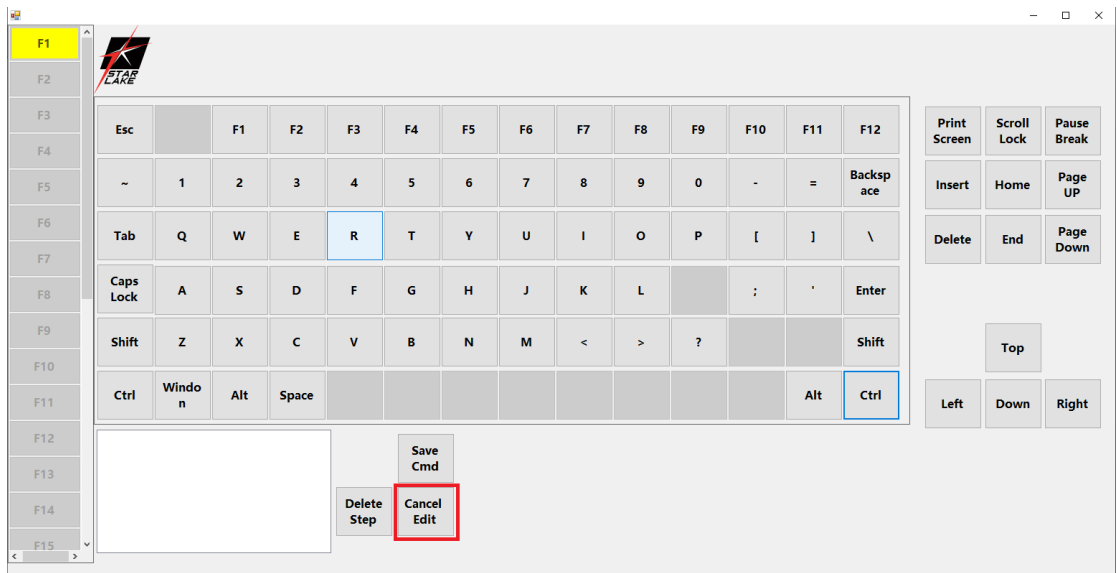
Select the instruction to be deleted in the instruction display window, and then press "Delete Step"



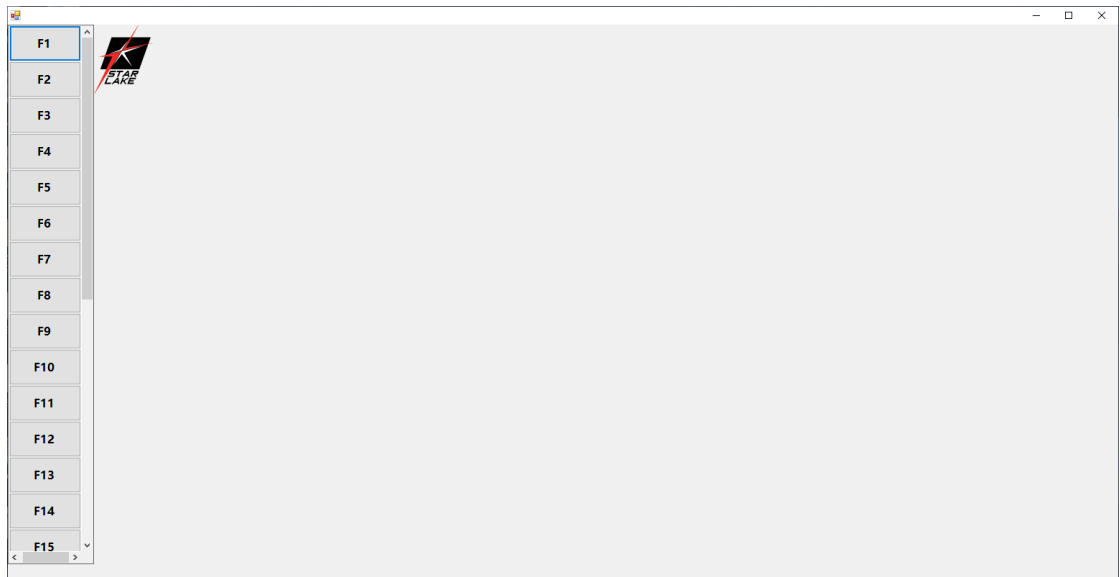
Confirm that the instruction in the instruction display window has been deleted to complete the deletion action.

6.2.3 Hotkey Trigger Mode – Cancel Edit

Click "Cancel Edit" and wait to return to the splash screen to complete the operation.



Click "Cancel Edit" and wait to return to the splash screen



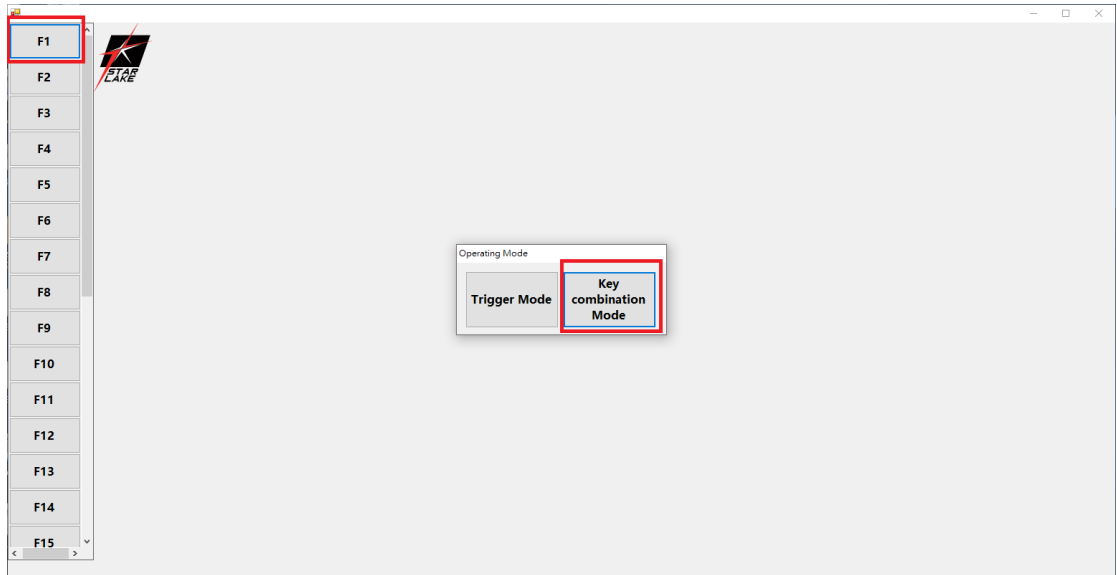
Returning to the splash screen signifies the completion of the operation.

6.3 Key combination Mode Introduction

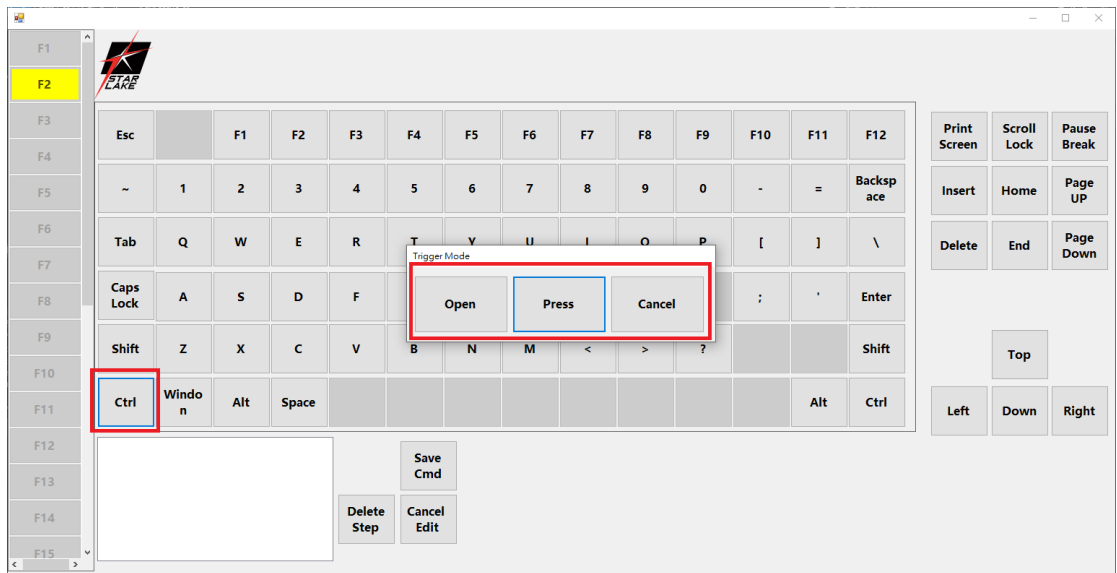
This chapter demonstrates the operation steps for setting up the Key Combination Mode, including Save Cmd/Delete Step/Cancel Edit.

6.3.1 HotKey Key combination Mod - Save Cmd

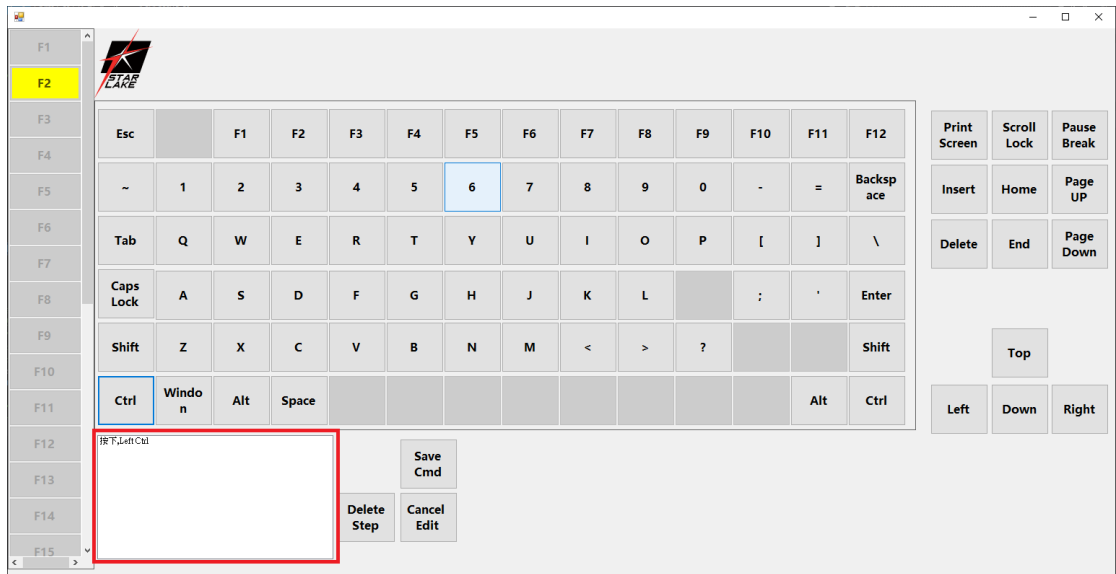
Clicking on the first command "F1" will bring up a window to choose between Trigger Mode and Key Combination Mode. Selecting Key Combination Mode will take you to a window where you can choose "Ctrl" on the left, which will bring up a window with three options: Open, Press, and Cancel. Select "Press" here, where Open indicates releasing the key, Press indicates pressing the key, and Cancel indicates cancelling the action. Once the configuration is complete, the instruction display window will show the configured command. Since the Key Combination Mode is designed to provide combination function, the action to be performed here is to simulate the "Select All" action. Therefore, you need to sequentially configure the "Ctrl" and "A" on the left to be in the "Press" state, followed by configuring the "Ctrl" and "A" on the left to be in the "Open" state, and then click on "Save Cmd" to write the command into the hardware.



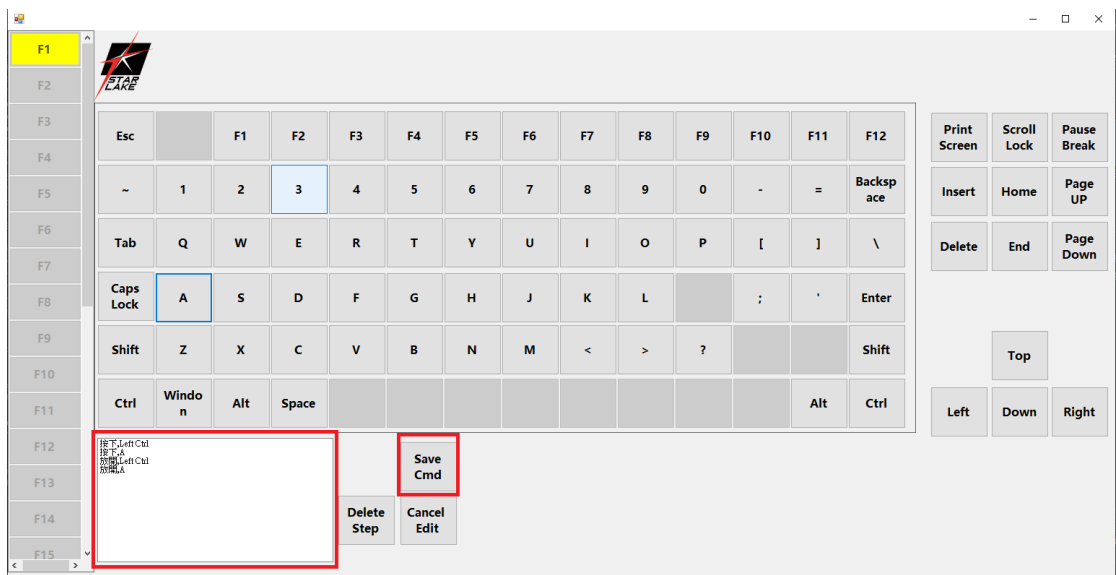
Clicking on the first command "F1" will bring up a window to choose between Trigger Mode and Key Combination Mode.



Choose "Ctrl" on the left, which will bring up a window with three options: Open, Press, and Cancel. Select "Press".



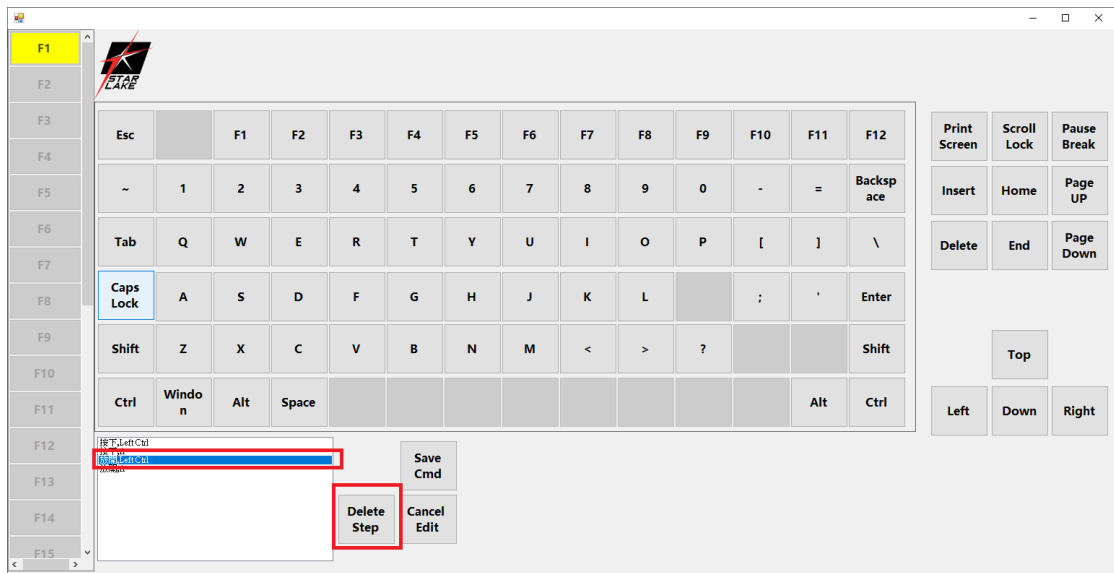
Once the configuration is complete, the instruction display window will show the configured command.



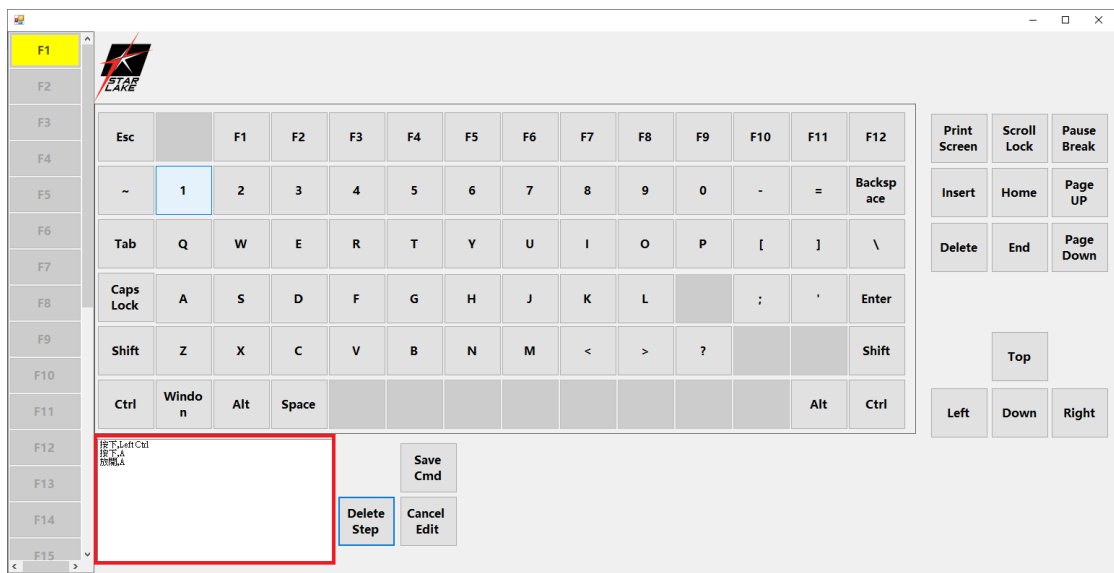
Sequentially configure the "Ctrl" and "A" on the left to be in the "Press" state, followed by configuring the "Ctrl" and "A" on the left to be in the "Open" state, and then click on "Save Cmd" to write the command into the hardware.

6.3.2 HotKey Key combination Mod - Delete Step

In the instruction display window, select the command to be deleted, and then click on "Delete Step". Confirm that the command has been deleted in the instruction display window to complete the deletion action.



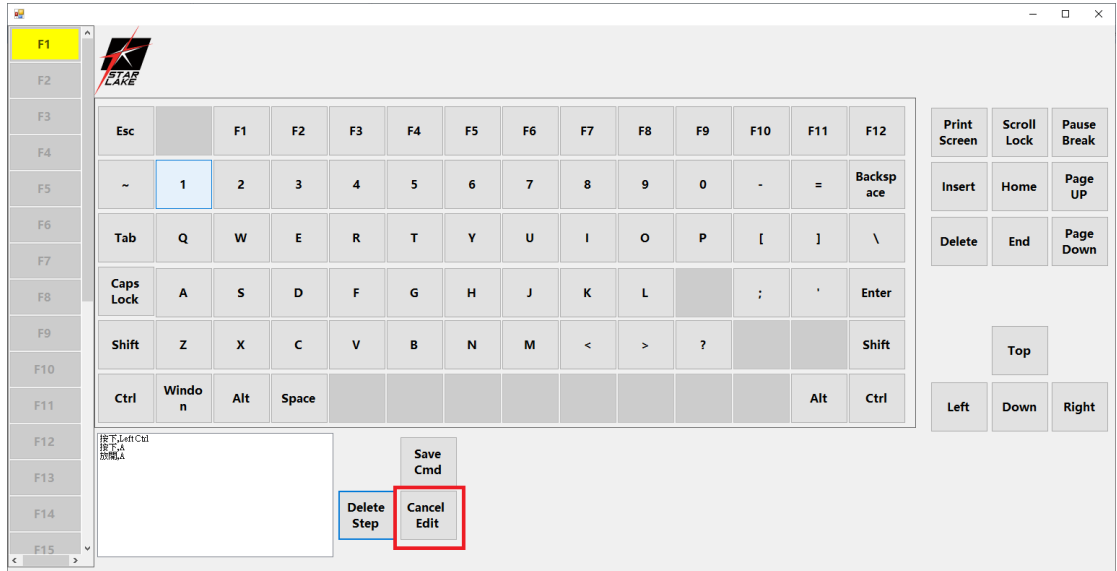
In the instruction display window, select the command to be deleted, and then click on "Delete Step".



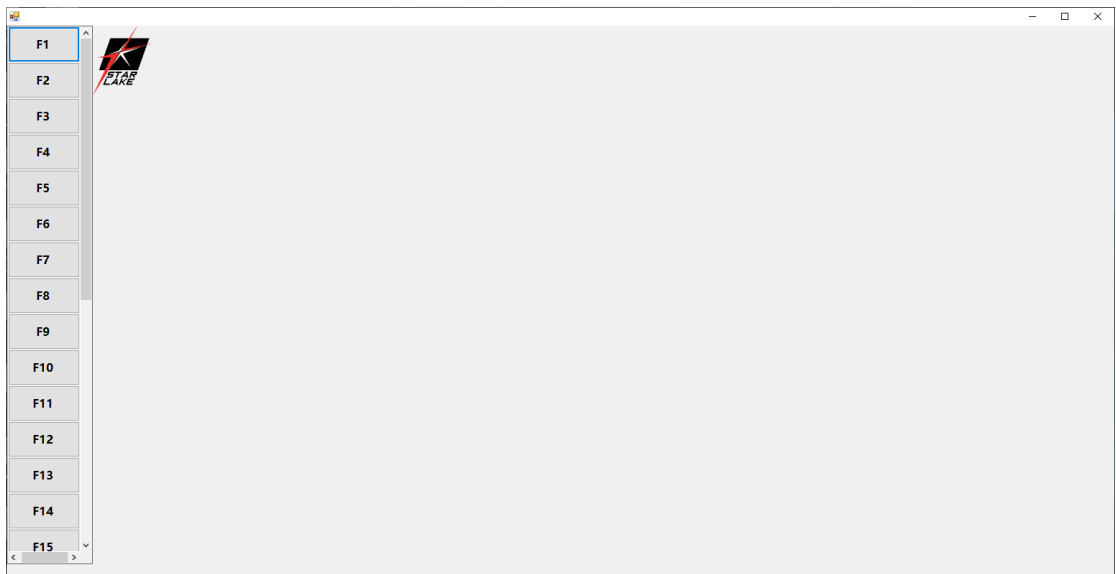
Confirm that the command has been deleted in the instruction display window to complete the deletion action.

6.3.3 HotKey Trigger Mode – Cancel Edit

Click on "Cancel Edit" and wait until you return to the splash screen to complete the operation.



Click on "Cancel Edit" and wait until you return to the splash screen.



Returning to the splash screen signifies the completion of the operation.