ECM-RPLP

13th Gen Intel Raptor Lake processor onboard

User's Manual

Ver. 1.5

Revision History

Rev.	Content	Change Owner	Date
1.0	Initial Version	Marc Tsai	2023/12/28
1.1	Remove BIOS revision history	Marc Tsai	2024/01/18
1.2	Add connector vendor and MPN information	Marc Tsai	2024/01/31
1.3	Add notes for clearing CMOS in page #12	Marc Tsai	2024/03/01
1.4	Update BIOS setup specification by following latest requirements	Marc Tsai	2024/07/08
1.5	Remove related 28W processor support Update Header information	WK	January 31, 2025

CONTENTS

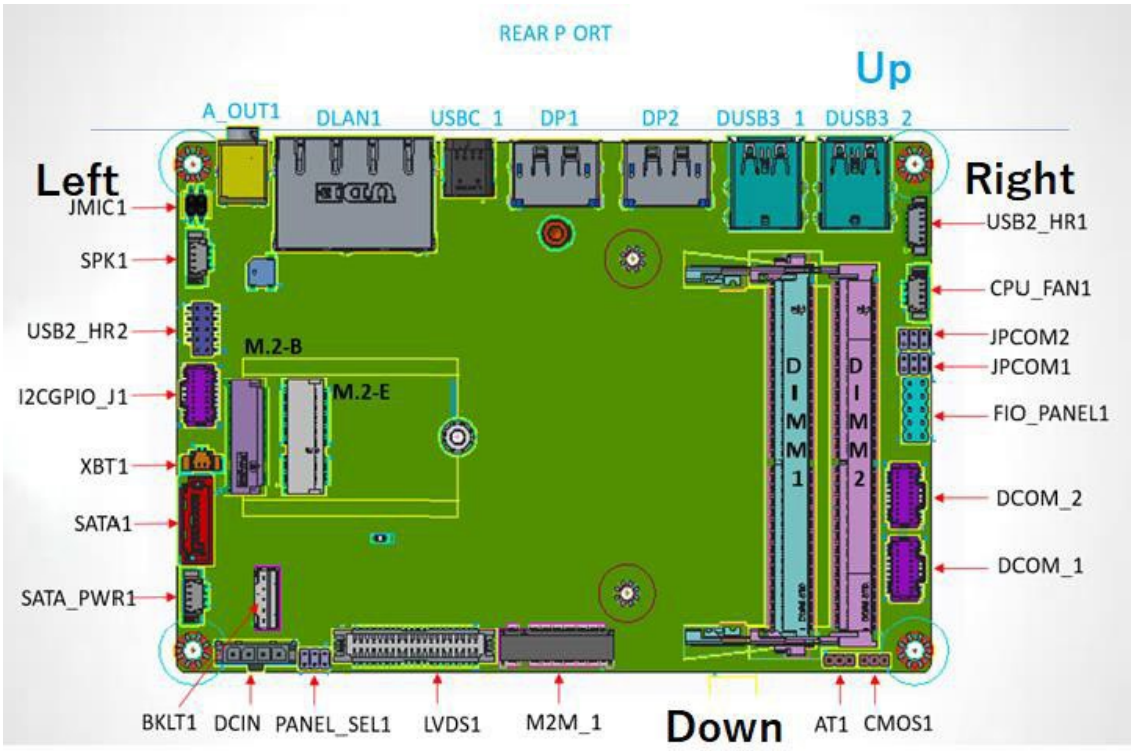
1. Hardware Specification

Hardware Specification	
Processor	**Intel® Raptor Lake-P Core i7, i5, i3 & Celeron SoC** i3-1315UE (2P + 4E) i5-1335UE (2P + 8E) i5-1345UE (2P + 8E) i7-1365UE (2P + 8E)
Memory	2 x DDR5 4800Mhz SO-DIMM Socket, up to 32GB (Maximum)
iAMT	16.0 (CPU Dependent)
CSE ME	16.1.30.2269
Integrated Graphics	**Intel® Iris Xe Graphic**
Display Interface	2 x DisplayPort 1.4a @60Hz (4096x2160)
	18/24 bits Dual Channel LVDS Co-Lay eDP (BOM Option)
LVDS	**Chrontel® CH7513A-BF**
Type	eDP to LVDS Bridge Controller
Embedded Controller	**Nuvoton® NCT6126D**
COM Ports	2 x RS-232/422/485 Port (with 5V/12V/RI)
	2 x RS-232 Port (with 5V/12V/RI)
WatchDog Timer	1 Sec ~ 255 Sec
H/W Monitor	Yes
TPM	**Infineon® SLB9672 VQ2.0 FW15.23**
Type	eSPI TPM 2.0
Ethernet 1	**Intel® i226-LM**
Type	1 x PCIe 2.5 Gigabit Ethernet
Ethernet 2	**Intel® i226-LM**
Type	1 x PCIe 2.5 Gigabit Ethernet
Audio	**Realtek® ALC888S**
Type	HD Audio Codec
Amplifier	3W Per Channel Amplifier
BIOS	**AMI® UEFI BIOS**
Type	256Mb SPI BIOS
Expansion	
M.2	1 x 2230 M.2 E Key with CNVi Support (PCIe x1 Channel & USB2.0 Signal)
	1 x 2280 M.2 M Key NVMe (with Gen 4 PCIe x4)
	1 x 3042 M.2 B Key with Nano SIM Socket (with PCIe x2, SATA, & USB2.0 Signal)
Internal I/O Connectors	
COM	2 x RS-232/422/485 Header
	2 x RS-232 Header
I^2C	1 x I^2C Header
GPIO	1 x 8 bits GPIO Headers (4 In/4 Out)
USB	2 x USB 2.0 Header (4 x USB 2.0 Ports)
LVDS	1 x LVDS Header
eDP	1 x eDP Header (Optional)

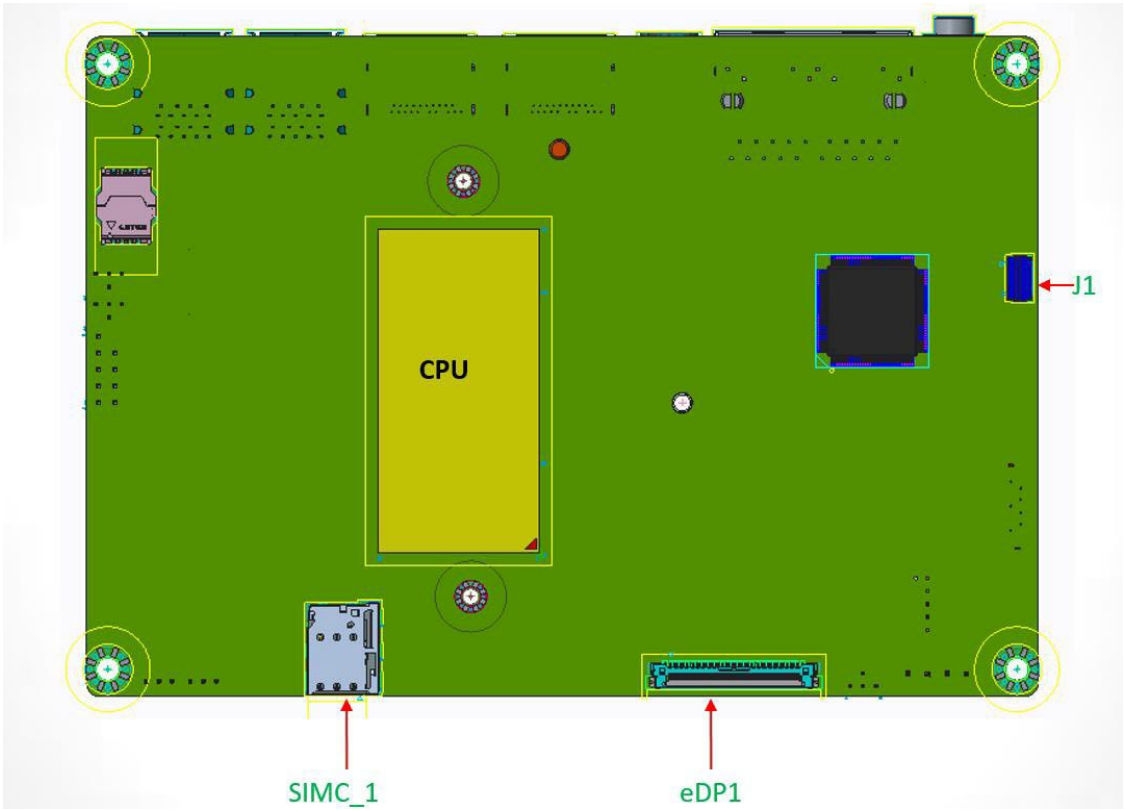
Backlight	1 x Backlight Header
Fan	1 x 4 Pin CPU Fan Header
SATA	1 x SATA III Connectors (Red)
SATA Power	1 x 4 pin SATA Power Connector
Front Audio	1 x Front Audio Header
Front Panel	1 x Front Panel Header
Amp	1 x Amplifier Locking Type Header
Buzzer	1 x Onboard Buzzer
CMOS Battery	1 x Cable Type CM2032 Battery
DC-In	1 x 4 Pin DC-In Connector
Rear I/O Connectors	
DisplayPort	2 x DisplayPort++ Connectors
LAN	2 x RJ-45 Connectors
USB	4 x USB 3.2 Type A Connectors
Thunderbolt	1 x USB Type C Thunderbolt 4 Connector
Power & Connector	12V-24V DC-In[Notes1&2] (4-pin header) *Notes 1: Minimum power adaptor power budget must to be over 95W for enough system power consumption* *Notes 2: It's normal behavior to have around 1 minute to boot to POST when power on system*
Form Factor	3.5"
Cooling	Passive Heatsink (15W)
Regulatory Compliance	FCC Class B/CE
	RoHS and REACH Compliant
	Conflict Minerals Survey
Operation Environment	
Temperature	0 C to 60 C (@ 60C with air flow 0.7m/s)
Humidity	5% to 85% non-condensing
Storage Environment	
Temperature	-10 C to 80 C
Humidity	5% to 85% non-condensing
Accessories	
SATA Power	1 x SATA Power Cable
DC-in Cable	1 x DC-in cable with Barrel Type DC-In Connector (ID 2.5mm/OD 5.5mm)
Packaging	Bulk Pack
Supported OS	Microsoft Windows 10/Windows 11 64-bit, Linux Ubuntu

2. Placement and Header Pinout

2.1 Top View



2.2 Bottom View



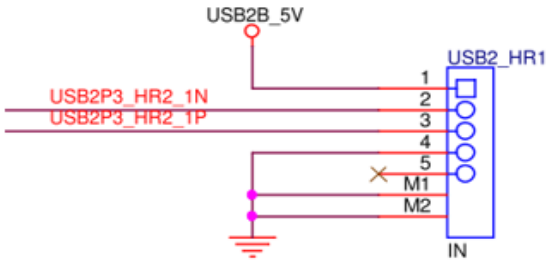
2.3 Connectors and Headers naming table

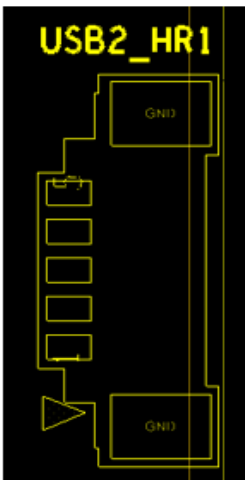
U1	DUSB3_2	R1	USB2_HR1	L1	JMIC1	D1	CMOS1	I1	DIMM2
U2	DUSB3_1	R2	CPU_FAN1	L2	SPK1	D2	AT1	I2	DIMM1
U3	DP_2	R3	JPCOM2	L3	USB2_HR2	D3	M2M_1	I3	M2E_1
U4	DP_1	R4	JPCOM1	L4	I2CGPIO_J1	D4	LVDS1	I4	M2B_1
U5	USBC_1	R5	FIO_PANEL1	L5	XBT1	D5	PANEL_SEL1	B1	SIMC_1
U6	DLAN1	R6	DCOM_2	L6	SATA1	D6	DCIN_H1	B2	EDP1
U7	A_OUT1	R7	DCOM_1	L7	SATA_PWR1	D7	BKLT1	B3	J1(debug)

2.4 Header & Jumper Pinout

2.4.1 R1 (USB2_HR1)

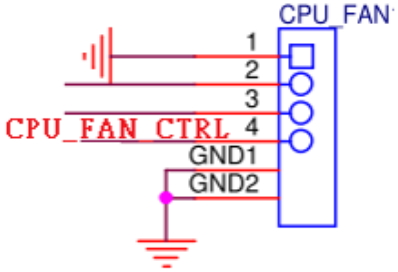
R1	USB2_HR1
1	USB_5V
2	USB2_N
3	USB2_P
4	GND
5	N

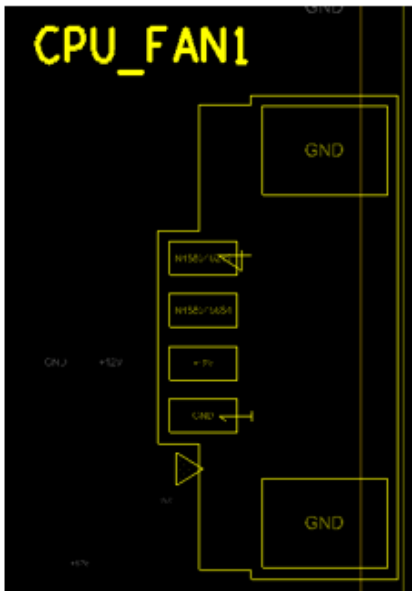




2.4.2 R2 (CPU_FAN1)

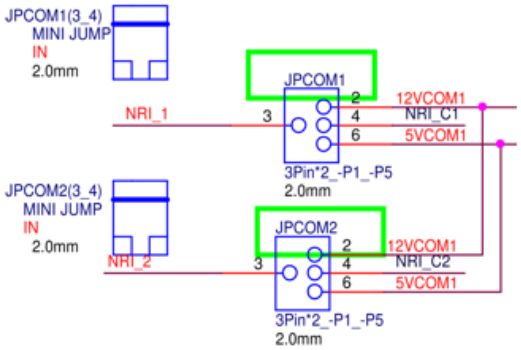
R2	CPU_FAN1
1	GND
2	+12V
3	FAN_TACH
4	FAN_CTRL

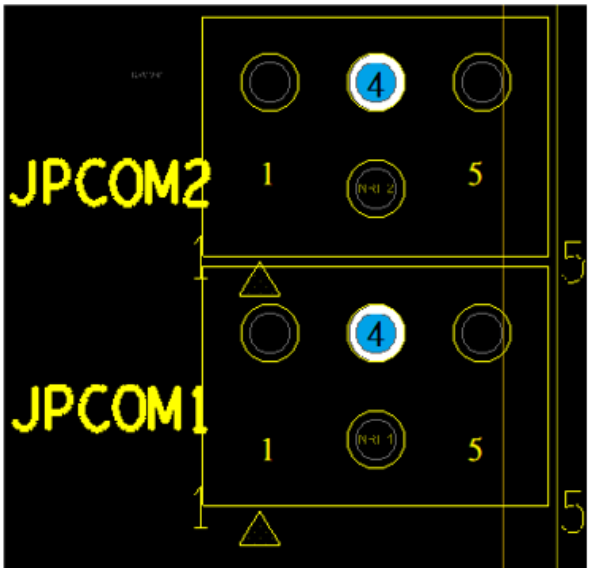




2.4.3 R3/R4 (JPCOM1, JPCOM2)

R3-R4: JPCOM1, JPCOM2: Power/ Ring Selection			
NA	1	2	12V
RING	3	4	RI-SELECT
NA	5	6	5V

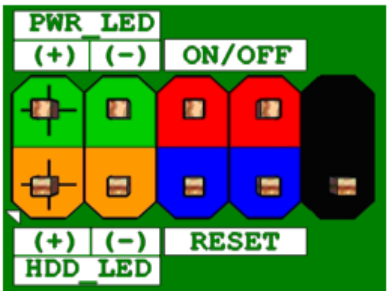




2.4.4 R5 (FIO_PANEL1)

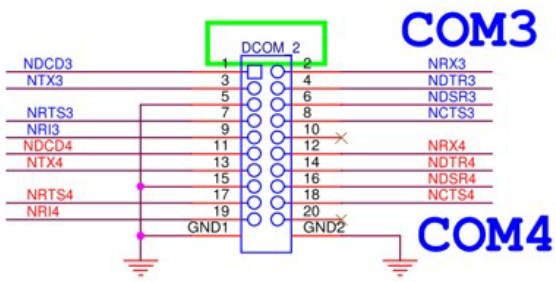
R5	FIO_PANEL1

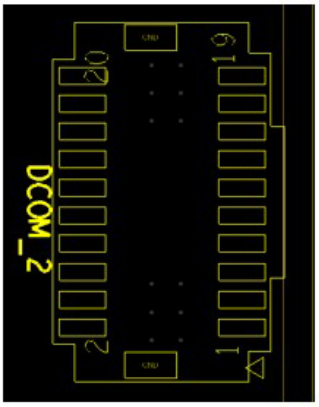
Pin	Signal Name	Description	Pin	Signal Name	Description
1	HDD_POWER_LED	Pull-up resistor (510Ω) to +5V	2	POWER_LED_MAIN	[Out] Front panel LED (main color)
3	HDD_LED#	[Out] Hard disk activity LED	4	POWER_LED_ALT	[Out] Front panel LED (alt color)
5	GROUND	Ground	6	POWER_SWITCH#	[In] Power switch
7	RESET_SWITCH#	[In] Reset switch	8	GROUND	Ground
9	VCC(+5V)	Power	10	KEY	No pin



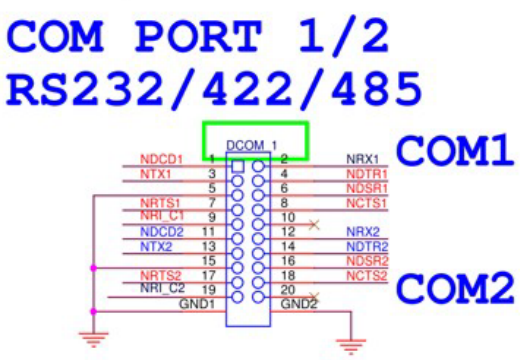
2.4.5 R6/R7 (DCOM_2/DCOM_1)

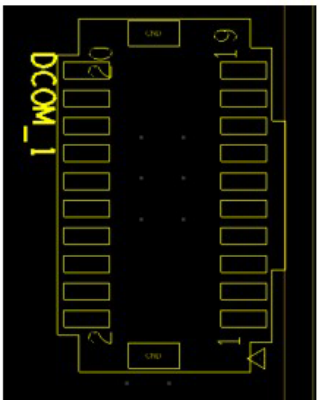
R6 DCOM_2

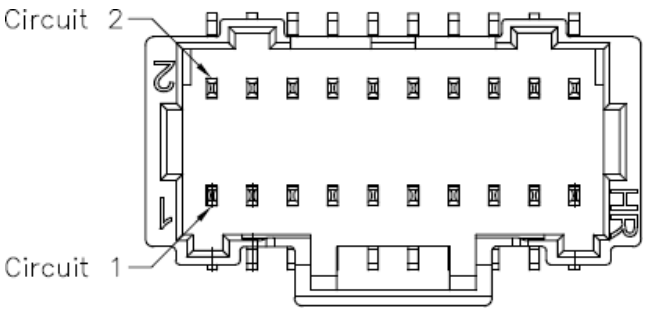




R7 DCOM_1







R6	DCOM_2							
Define	pin	RS232	RS422	RS485	pin	RS232	RS422	RS485
COM3	1	DCD	No support RS422	No support RS485	2	RX	No support RS422	No support RS485
	3	TX			4	DTR		
	5	GND			6	DSR		
	7	RTS			8	CTS		
	9	RI			10	none		
COM4	11	DCD	No support RS422	No support RS485	12	RX	No support RS422	No support RS485
	13	TX			14	DTR		
	15	GND			16	DSR		
	17	RTS			18	CTS		
	19	RI			20	none		

R7	DCOM_1							
Define	pin	RS232	RS422	RS485	pin	RS232	RS422	RS485
COM1	1	DCD	TX-	DATA-	2	RX	TX+	DATA+
	3	TX	RX-	NC	4	DTR	RX+	NC
	5	GND	GND	GND	6	DSR	NC	NC
	7	RTS	NC	NC	8	CTS	NC	NC
	9	RI	NC	NC	10	none	none	none
COM2	11	DCD	No support RS422	No support RS485	12	RX	No support RS422	No support RS485
	13	TX			14	DTR		
	15	GND			16	DSR		
	17	RTS			18	CTS		
	19	RI			20	none		

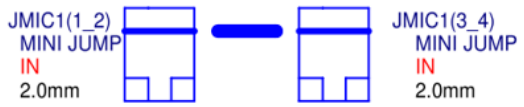
2.4.6 L1 (JMIC1)

L1	JMIC1

MIC selection by Jump connection: CITA or OMTP type.

CTTA		1-2 & 3-4	
1	MIC_R_JACK	2	MIC_RC1
3	GND	4	MIC_L_JACK

OMTP		1-3 & 2-4	
1	MIC_R_JACK	2	MIC_RC1
3	GND	4	MIC_L_JACK

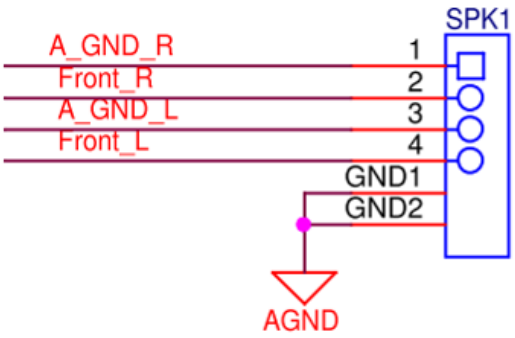


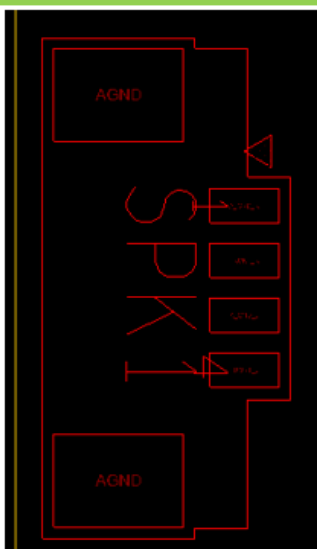
JMIC1			
iPhone-type	(1-2)+(3-4)	CITA	Default
Nokia-type	(1-3)+(2-4)	OMTP	

2.4.7 L2 (SPK1)

L2	SPK1

1	AGND_R
2	Front_R
3	AGND_L
4	Front_L

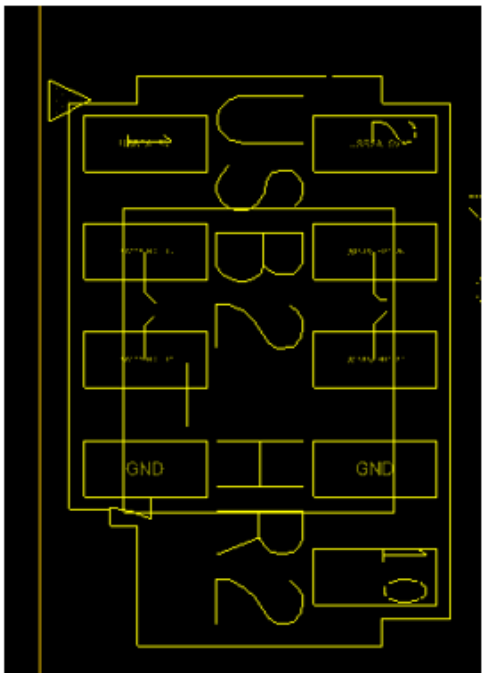




2.4.8 L3 (USB2_HR2)

L3	USB2_HR2

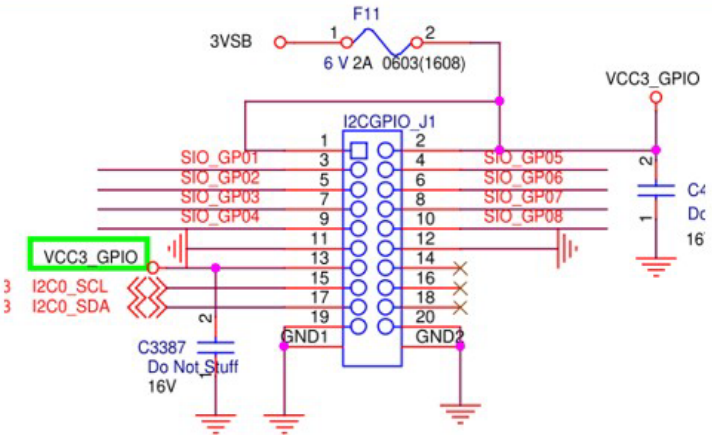
Pin	Signal	Pin	Signal
1	+5V DC	2	+5V DC
3	Data (negative)	4	Data (negative)
5	Data (positive)	6	Data (positive)
7	Ground	8	Ground
9	Key (no pin)	10	No Connect

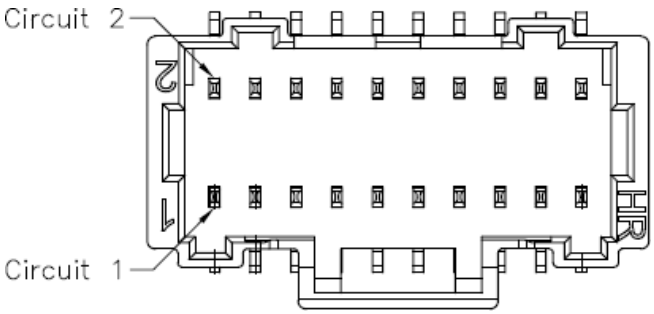


2.4.9 L4 (I2CGPIO_J1)

L4	I2CGPIO_J1

pin	Define	pin	Define
1	VCC3_GPIO	2	VCC3_GPIO
3	SIO_GPIO1	4	SIO_GPIO5
5	SIO_GPIO2	6	SIO_GPIO6
7	SIO_GPIO3	8	SIO_GPIO7
9	SIO_GPIO4	10	SIO_GPIO8
11	GND	12	GND
13	VCC3_GPIO	14	NC
15	I2C0_SCL	16	NC
17	I2C0_SCL	18	NC
19	GND	20	GND

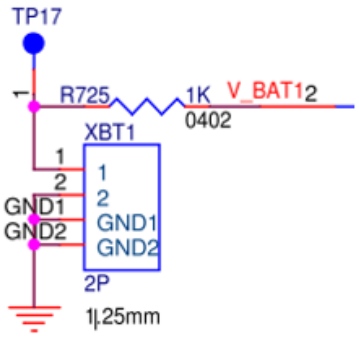


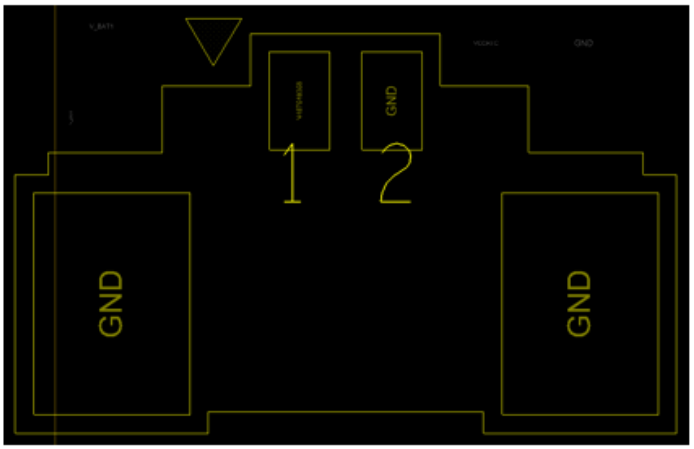


2.4.10 L5 (XBT1)

L5	XBT1

Pin	Define
1	V_Battery
2	GND





2.4.11 L7 (SATA_PWR1)

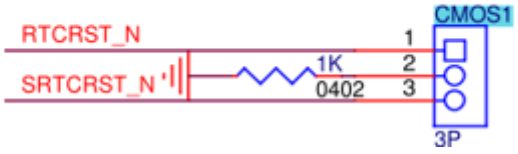
L7	SATA_PWR1

pin	Define
1	VCC3
2	GND
3	VCC
4	+12V

2.4.12 D1 (CMOS1)

D1	CMOS1	WORK by Short action

pin	Define
1	RTCRST
2	GND
3	SRTCRST

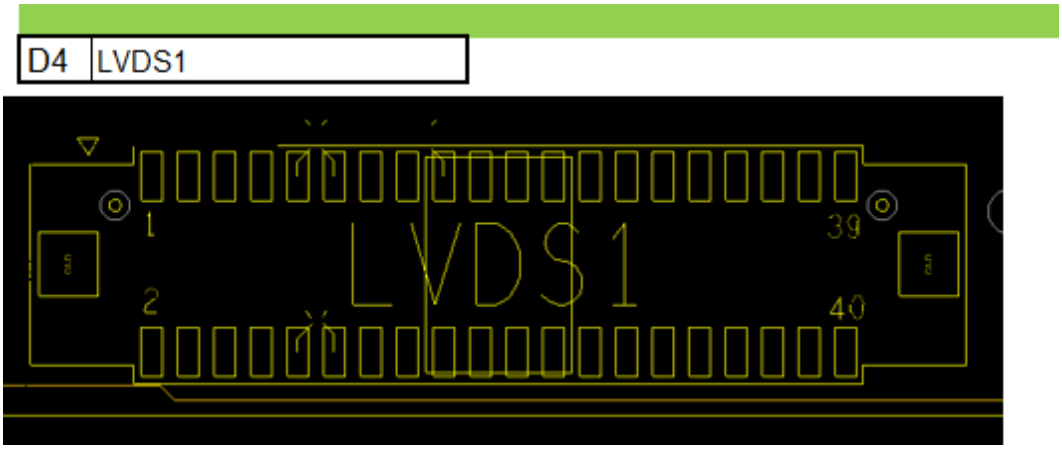


Notes* After clear CMOS or remove coin battery in system power on status, it will not auto reboot. Please press power button to power on or set to AT mode to auto power on if any request.

2.4.13 D2 (AT1)

D2	AT1	
Pin	**Signal Name**	**Description**
1	PSON_AT_N	Power on signal(Always on)
2	PWRBT_N	Power switch signal
3	NC	No connection(default)

2.4.13 D4 (LVDS1)

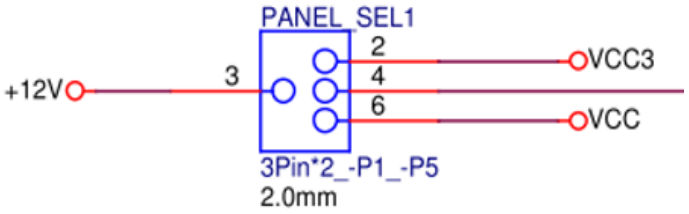


PIN	LVDS Define	PIN	LVDS Define
1	VCC3	2	PANEL_PWR
3	VCC3	4	PANEL_PWR
5	LVDS_DDC_SCL	6	LVDS_DDC_SDA
7	CABLE_ID1	8	GND
9	LVDS0_LINK1_CON_DP	10	LVDS0_LINK0_CON_DP
11	LVDS0_LINK1_CON_DN	12	LVDS0_LINK0_CON_DN
13	GND	14	GND
15	LVDS0_LINK3_CON_DP	16	LVDS0_LINK2_CON_DP
17	LVDS0_LINK3_CON_DN	18	LVDS0_LINK2_CON_DN
19	GND	20	GND
21	LVDS1_LINK1_CON_DP	22	LVDS1_LINK0_CON_DP
23	LVDS1_LINK1_CON_DN	24	LVDS1_LINK0_CON_DN
25	GND	26	GND
27	LVDS1_LINK3_CON_DP	28	LVDS1_LINK2_CON_DP
29	LVDS1_LINK3_CON_DN	30	LVDS1_LINK2_CON_DN
31	GND	32	GND
33	LVDS1_CLK_CON_DP	34	LVDS0_CLK_CON_DP
35	LVDS1_CLK_CON_DN	36	LVDS0_CLK_CON_DN
37	GND	38	GND
39	+12V_BL	40	+12V_BL

2.4.14 D5 (PANEL_SEL1)

D5	PANEL_SEL1

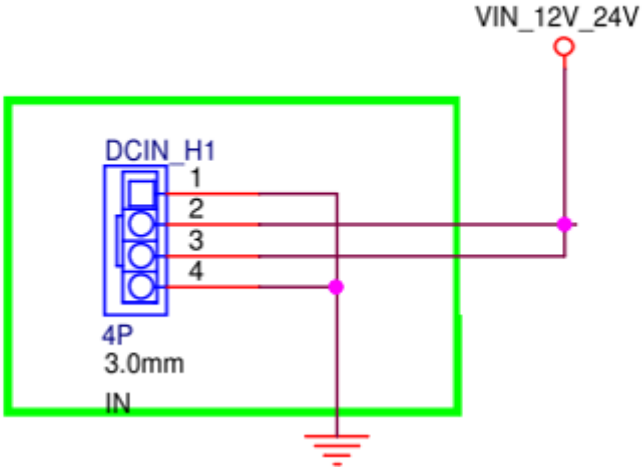
PANEL_SEL1			
NA	1	2	VCC3
+12V	3	**4**	**SELECT**
NA	5	6	VCC



2.4.15 D6 (DCIN_H1)

D6	**DCIN_H1**

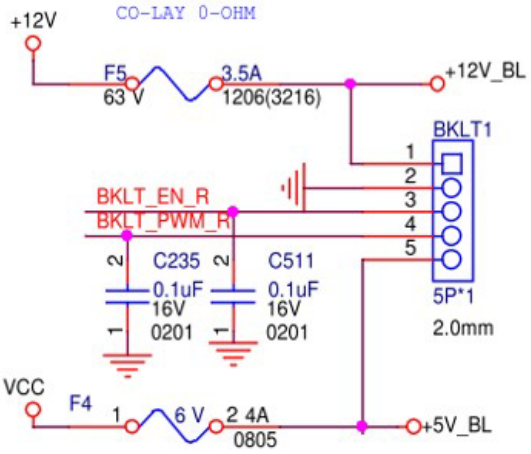
PIN	LVDS Define
1	GND
2	DC IN: 12-24V
3	
4	GND



2.4.16 D7 (BKLT1)

D7	**BKLT1**

PIN	Define
1	+12V_BL
2	GND
3	Backlight _Enablle
4	Backlight _PWM control
5	GND

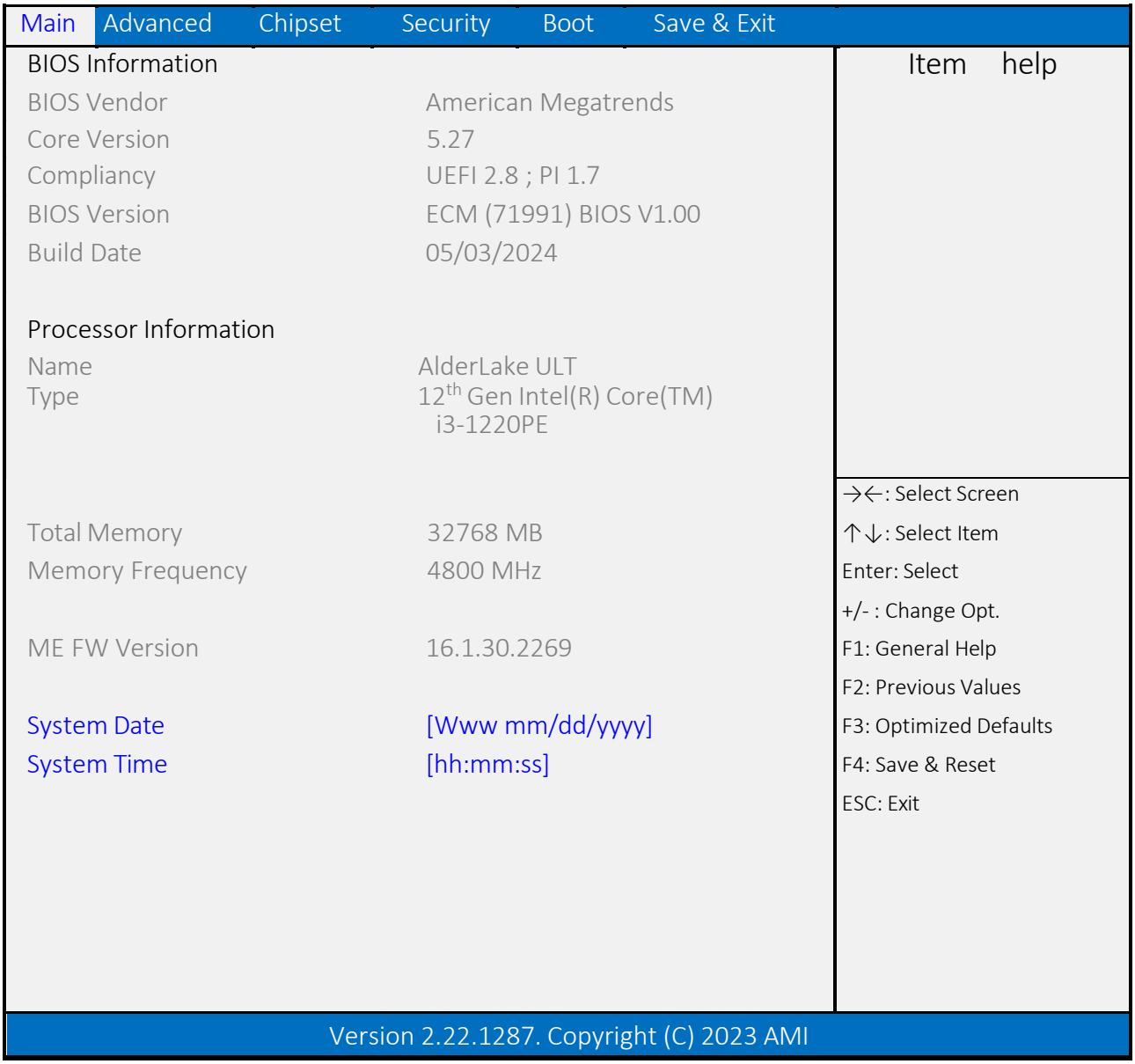


2.5 Connector Vendor and MPN information

	Internal I/O Connectors	**Location**	**Vender**	**Vender PN**
1	COM port	DCOM_1, DCOM_2	MOLEX LTD.	501190-2017 or Equivalent
2	GPIO_Header	I2CGPIO_J1	Joint Tech	A1014WV-S-2X10P or Equivalent
3	internal Dual USB 2.0 port	USB2_HR1, USB2_HR2	MOLEX LTD.	53398-0571 or Equivalent
4	LVDS connector	LVDS1	Joint Tech	A1252WV-SF-2X20PD01 or Equivalent
5	Backlight Header	BKLT1	FOXCONN	HF5505E-C1 or Equivalent
6	AT-ATX mode select	AT1	ACES	60090-00331-001 or Equivalent
7	Clear CMOS	CMOS1	Joint Tech	A2015WV-03P6T or Equivalent
8	FAN	CPU_FAN1	Joint Tech	A1250WV-S-04PD20 or Equivalent
9	Internal speaker header	SPK1	ACES	85205-04701 or Equivalent
10	SATA PWR header	SATA_PWR1	SUPERIOR TECH CO.,LTD.	WRBB-SS004G1NNNI-C or Equivalent
11	SATA connector	SATA1	FOXCONN	LPL1071-855D4-4H or Equivalent
12	Front Panel Header	FIO_PANEL1	SUPERIOR TECH CO.,LTD.	PHED-DS010G1AZONA-N157 or Equivalent
13	CMOS Battery	XBT1	MOLEX LTD.	53398-0271 or Equivalent
14	DC IN Header	DCIN_H1	MOLEX LTD.	43650-0416 or Equivalent

3. BIOS Setup Specification

1 Main Page



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

Field Name	Core Version
Default Value	5.27
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Compliancy
Default Value	UEFI 2.8 ; PI 1.7
Comment	This field is not selectable. There is no help text associated with it.

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

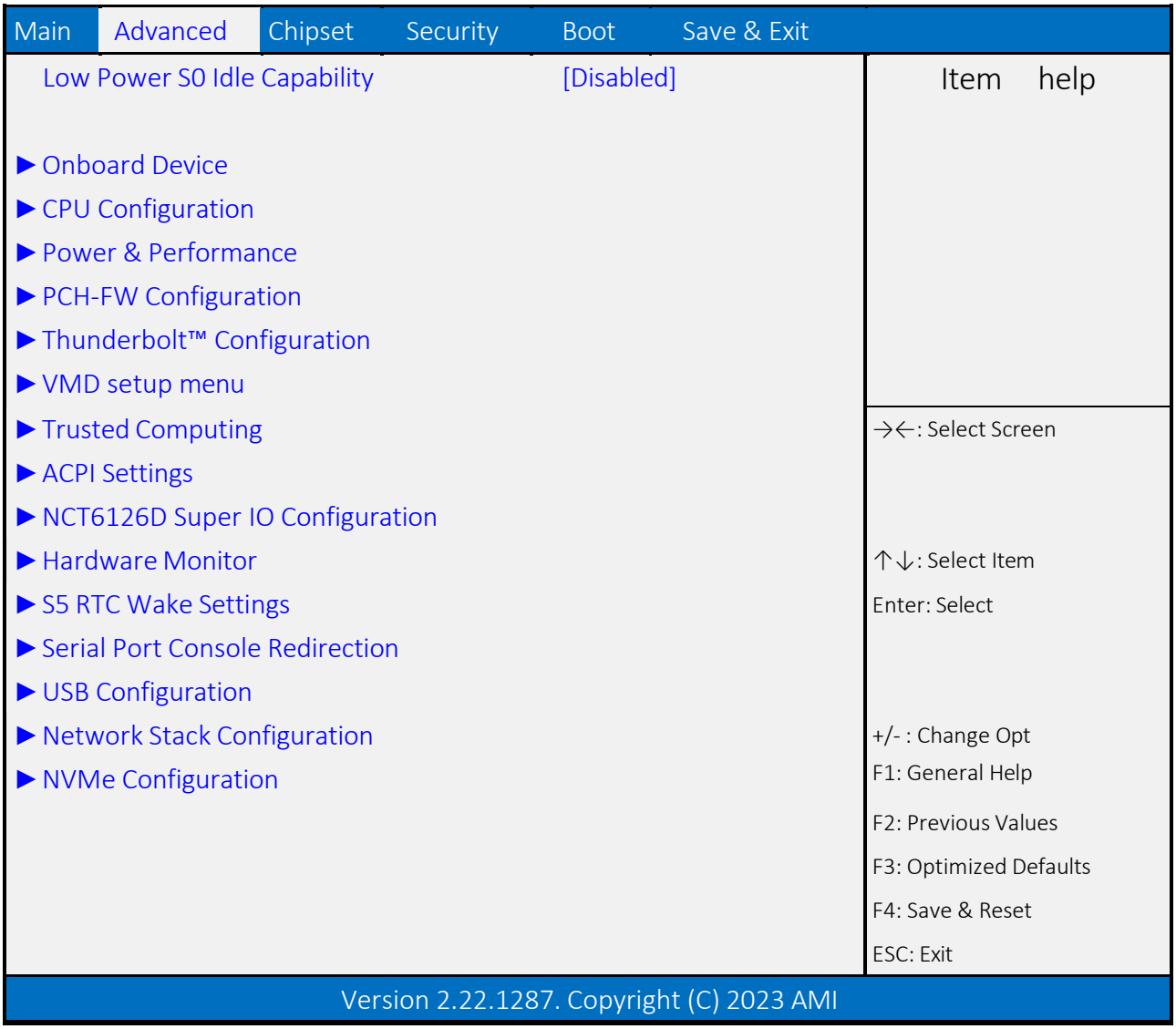
Field Name	Memory Frequency
Value	Display the installed memory frequency.
Comment	This field is not selectable. There is no help text associated with it.

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	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 : 1998-9999
Help	Set the Date. Use Tab to switch between Date elements.

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.

2 Advanced Page



Field Name	Low Power S0 Idle Capability
Default Value	[Disabled]
Possible Value	Enabled Disabled
Help	This variable determines if we enable ACPI Lower Power S0 Idle Capability (Mutually exclusive with Smart connect). While this is enabled, it will support modern standby not S3.

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	PCH-FW Configuration
Help	Configure Management Engine Technology Parameters.
Comment	Press Enter when selected to go into the associated Sub-Menu.

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

Field Name	VMD setup menu
Help	VMD Configuration settings.
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	ACPI Settings
Help	System ACPI Parameters.
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	Hardware 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.

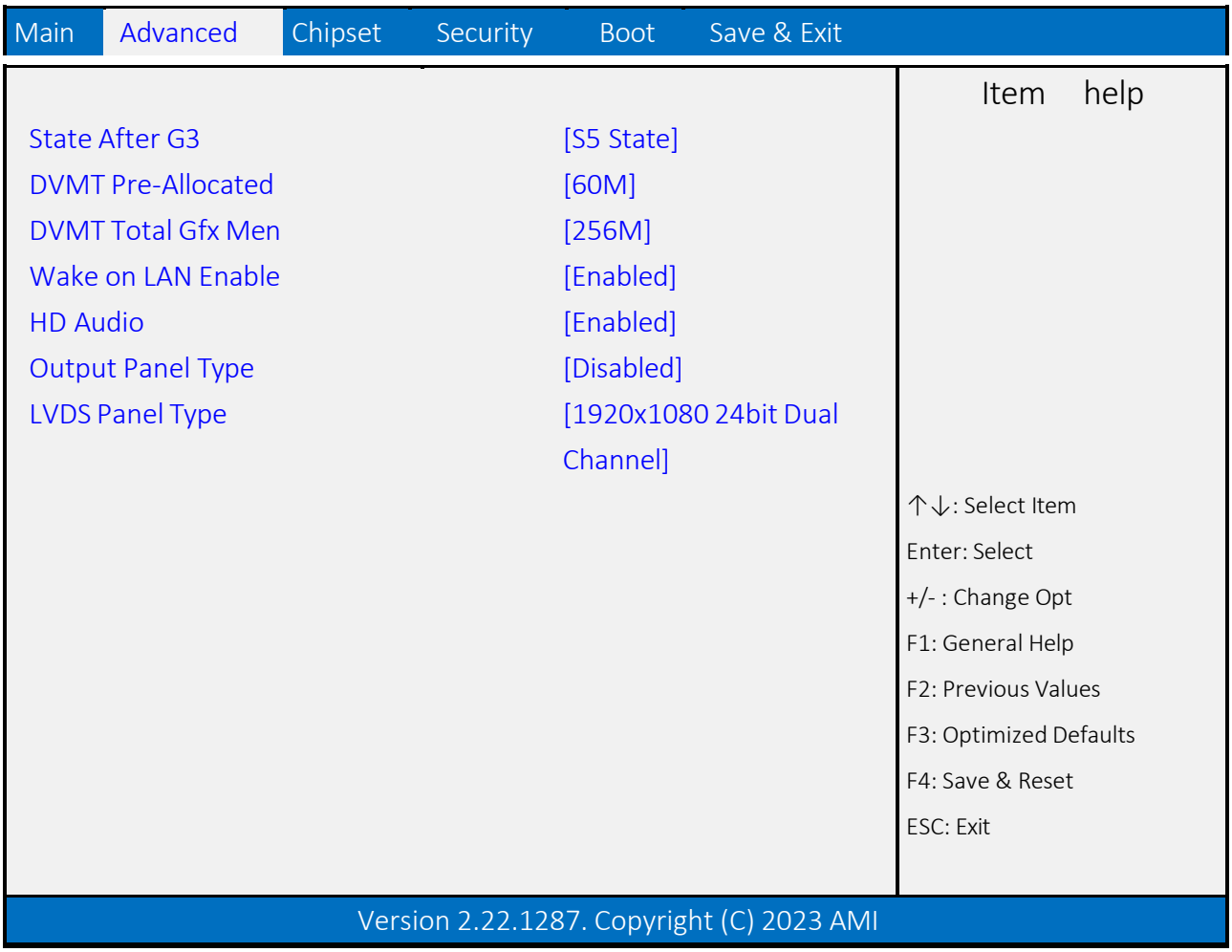
Field Name	Serial Port Console Redirection
Help	Serial Port Console Redirection
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	USB Configuration
Help	USB Configuration Parameters.
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.

2.1 Onboard Device



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

Field Name	DVMT Pre-Allocated
Default Value	[60M]
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.

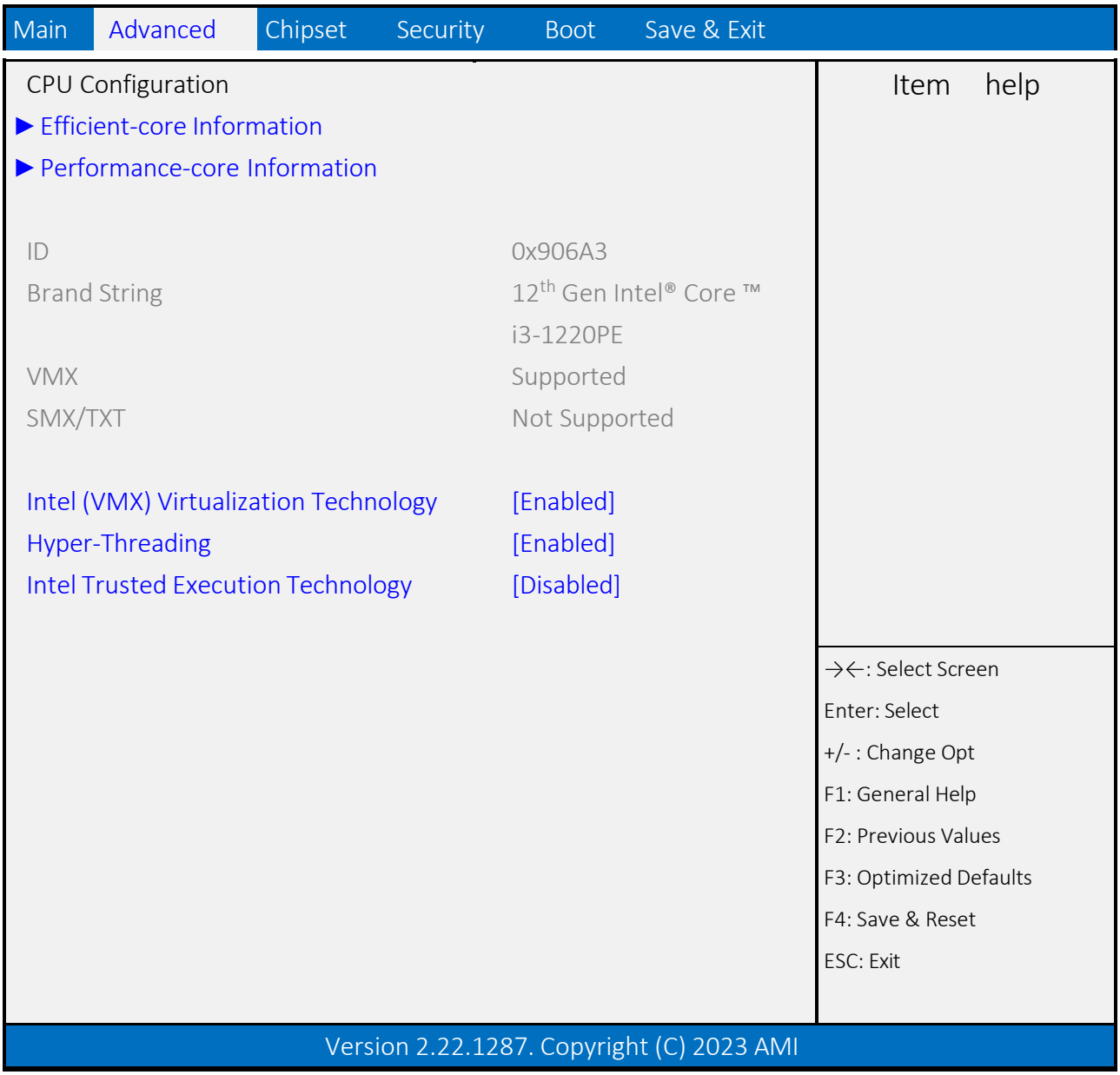
Field Name	Wake on LAN Enable
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	Enable/Disable integrated LAN to wake the system.

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	Output Panel Type
Default Value	[Disabled]
Possible Value	LVDS eDP Disabled
Help	Select Output Panel Type.

Field Name	LVDS Panel Type
Default Value	[1920x1080 24bit Dual Channel]
Possible Value	800x600 18bit Single Channel 1024x768 18bit Single Channel 1024x768 24bit Single Channel 1280x768 18bit Single Channel 1280x800 24bit Single Channel 1280x960 18bit Single Channel 1280x1024 24bit Dual Channel 1366x768 18bit Single Channel 1366x768 24bit Single Channel 1440x900 24bit Dual Channel 1440x1050 24bit Dual Channel 1600x900 24bit Dual Channel 1680x1050 24bit Dual Channel 1600x1200 24bit Dual Channel 1920x1080 24bit Dual Channel 1920x1200 24bit Dual Channel
Help	Select LVDS panel used by Internal Graphics Device by selecting the appropriate setup item.

2.2 CPU Configuration



Field Name	Efficient-core Information
Help	Display the E-Core Information.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Performance-core Information
Help	Display the P-Core Information.
Comment	Press Enter when selected to go into the associated Sub-Menu.

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

Field Name	Brand String

Default Value	Displays the brand string
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.

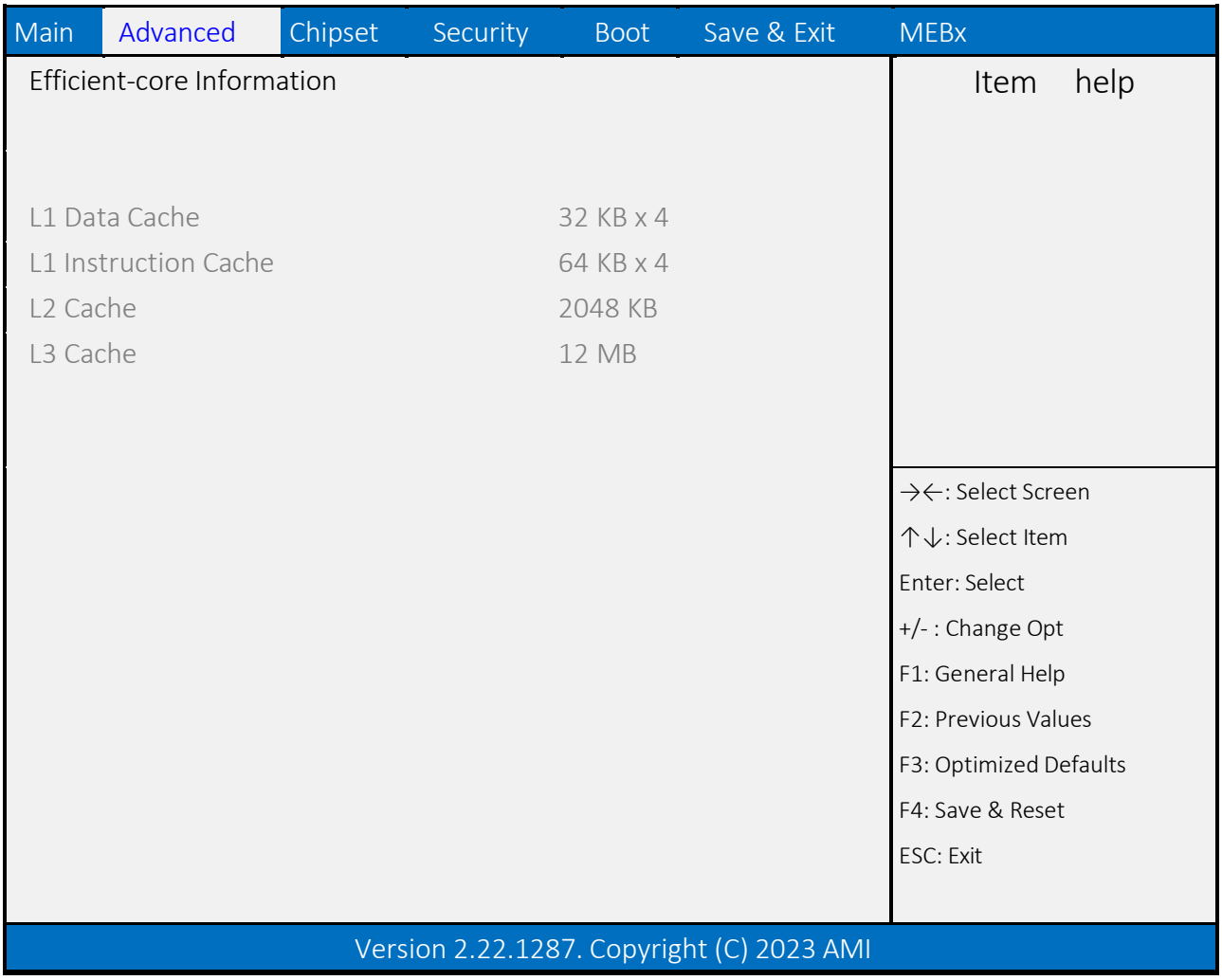
Field Name	SMX/TXT
Default Value	SMX/TXT Supported or Not
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Intel (VMX) Virtualization Technology
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	When enabled, a VMM can utilize the additional hardware capabilities provided by Vanderpool Technology.

Field Name	Hyper-Threading
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	Enable or Disable Hyper-Threading Technology.

Field Name	Intel Trusted Execution Technology
Default Value	[Disabled]
Possible Value	Enabled Disabled
Help	Enables utilization of additional hardware capabilities provided by Intel (R Trusted Execution Technology. Changes require a full power cycle to take effect.

2.2.1 Efficient-core Information



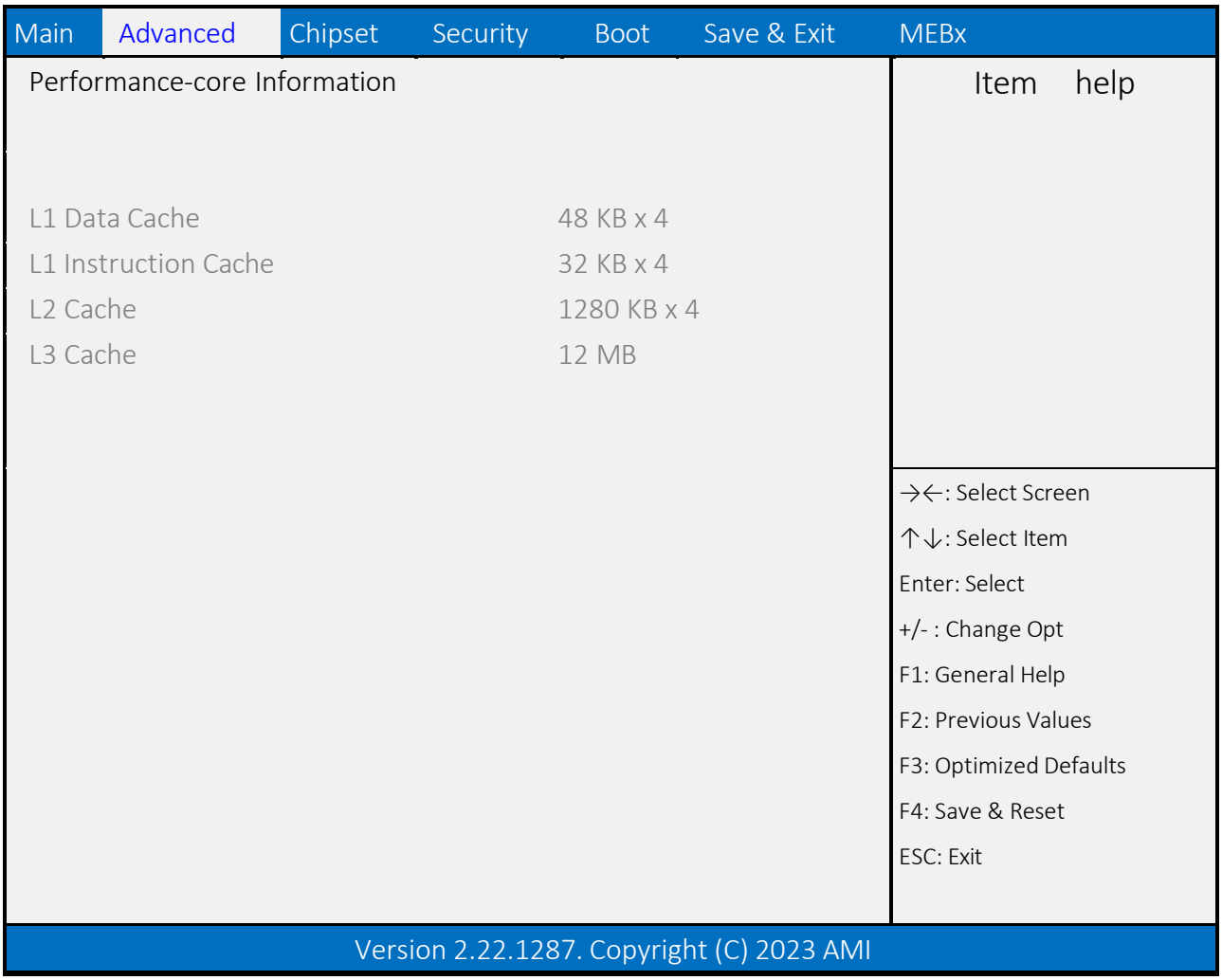
Field Name	L1 Data Cache
Default Value	Displays CPU L1 cache
Comment	This field is not selectable. There is no help text associated with it.

Field Name	L1 Instruction Cache
Default Value	Displays CPU L1 instruction cache
Comment	This field is not selectable. There is no help text associated with it.

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

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

2.2.2 Performance-core Information



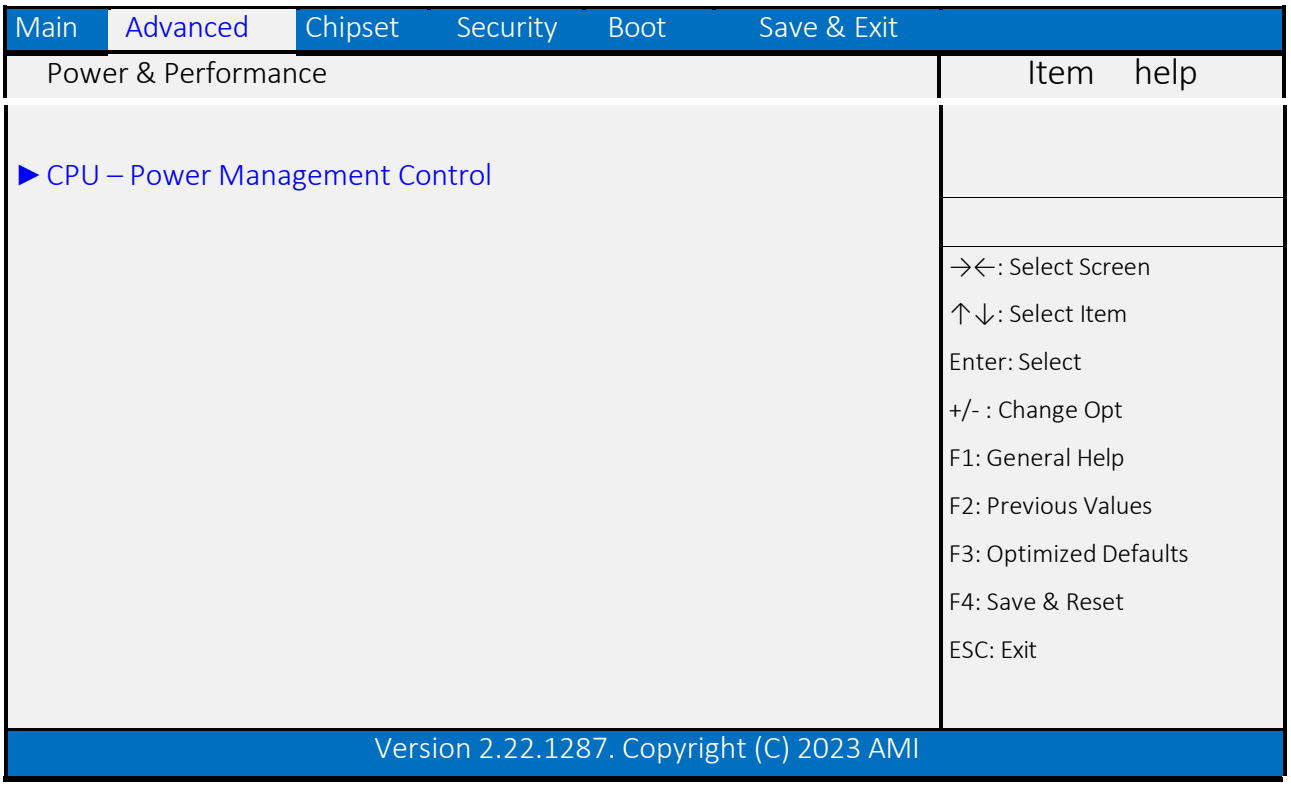
Field Name	L1 Data Cache
Default Value	Displays CPU L1 cache
Comment	This field is not selectable. There is no help text associated with it.

Field Name	L1 Instruction Cache
Default Value	Displays CPU L1 instruction cache
Comment	This field is not selectable. There is no help text associated with it.

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

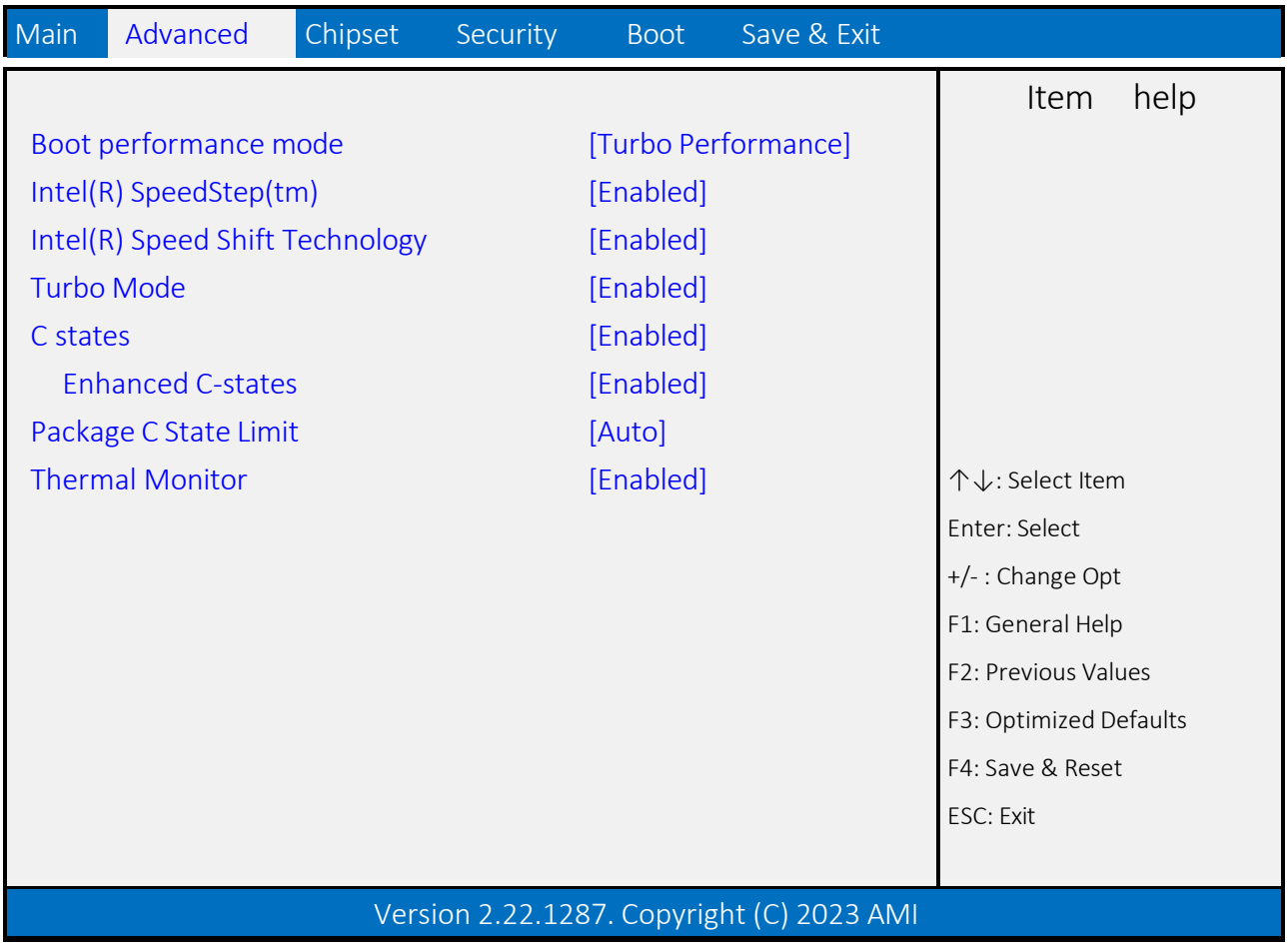
Field Name	L3 Cache
Default Value	Displays CPU L3 cache
Comment	This field is not selectable. There is no help text associated with it.

2.3 Power & Performance



Field Name	CPU - Power Management Control
Help	CPU - Power Management Control Options
Comment	Press Enter when selected to go into the associated Sub-Menu.

2.3.1 CPU – Power Management Control



Field Name	Boot performance mode
Default Value	[Turbo Performance]
Possible Value	Max Battery Max Non-Turbo Performance Turbo Performance
Help	Select the performance state that the BIOS will set starting from reset vector.

Field Name	Intel(R) SpeedStep(tm)
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Allows more than two frequency ranges to be supported.

Field Name	Intel(R) Speed Shift Technology
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable/Disable Intel(R) Speed Shift Technology support. Enabling will expose the CPPC v2 interface to allow for hardware controlled P-states.

Field Name	Turbo Mode

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

	AUTO means enabled.

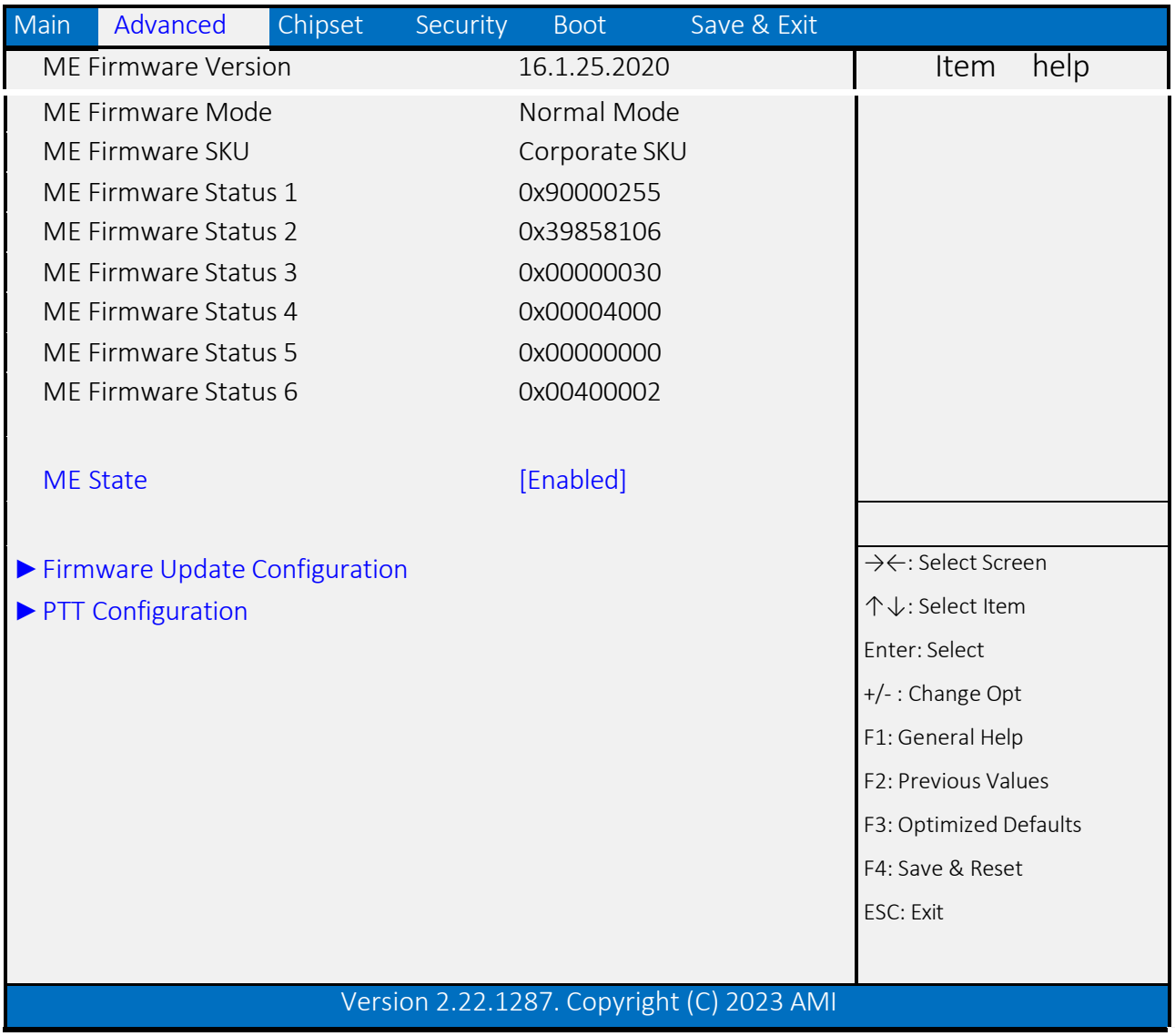
Field Name	C states
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable/Disable CPU Power Management. Allows CPU to go to C states when it's not 100% utilized.

Field Name	Enhanced C-states
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable/Disable C1E. When enabled, CPU will switch to minimum speed when all cores enter C-State.

Field Name	Package C State Limit
Default Value	[Auto]
Possible Value	C0/C1 C2 C3 C6 C7 C7S C8 C9 C10 Cpu Default Auto
Help	Maximum Package C State Limit Setting. Cpu Default: Leaves to Factory default value.Auto: Initializes to deepest available Package C State Limit.

Field Name	Thermal Monitor
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable/Disable Thermal Monitor

2.4 PCH-FW Configuration



Field Name	ME Firmware Version
Default Value	ME version value by BIOS release
Comment	This field is not selectable. There is no help text associated with it.

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

Field Name	ME Firmware SKU
Default Value	ME SKU by BIOS release
Comment	This field is not selectable. There is no help text associated with it.

Field Name	ME Firmware Status 1
Default Value	0x90000255
Comment	This field is not selectable. There is no help text associated with it.

Field Name	ME Firmware Status 2

Default Value	0x39858106
Comment	This field is not selectable. There is no help text associated with it.

Field Name	ME Firmware Status 3

Default Value	0x00000030
Comment	This field is not selectable. There is no help text associated with it.

Field Name	ME Firmware Status 4
Default Value	0x00004000
Comment	This field is not selectable. There is no help text associated with it.

Field Name	ME Firmware Status 5
Default Value	0x00000000
Comment	This field is not selectable. There is no help text associated with it.

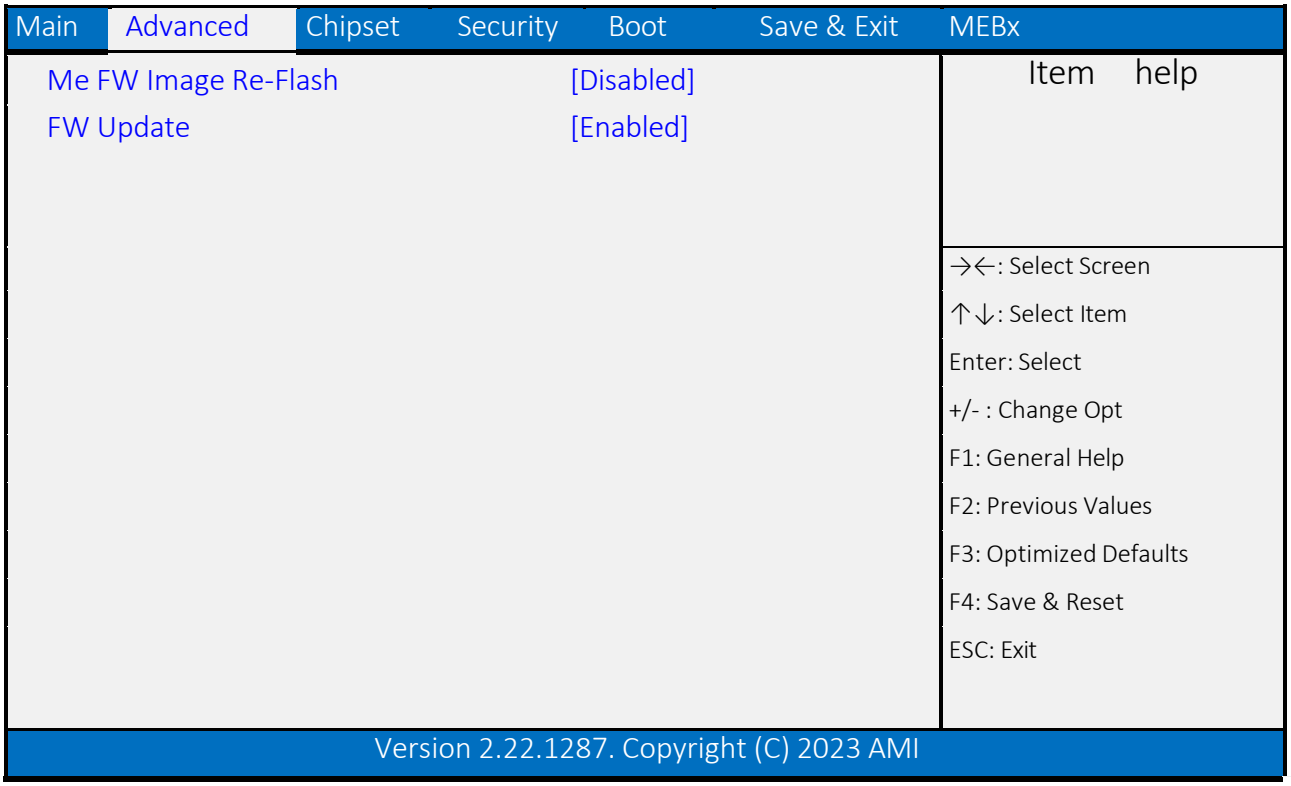
Field Name	ME Firmware Status 6
Default Value	0x00400002
Comment	This field is not selectable. There is no help text associated with it.

Field Name	ME State
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	When Disabled ME will be put into ME Temporarily Disabled Mode.

Field Name	Firmware Update Configuration
Help	Configure Management Engine Technology Parameters
Comment	Press Enter when selected to go into the associated Sub-Menu.

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

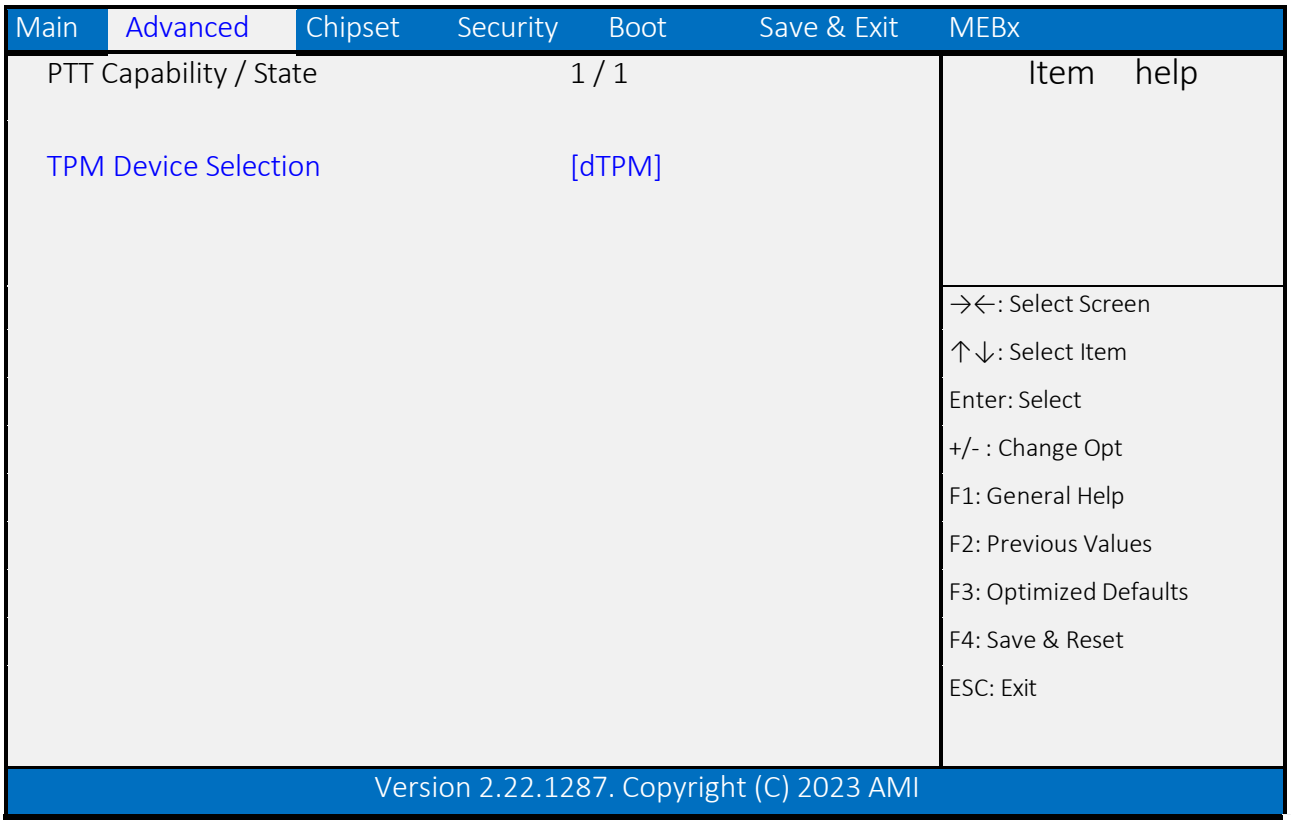
2.4.1 Firmware Update Configuration



Field Name	Me FW Image Re-Flash
Default Value	[Disabled]
Possible Value	Disabled Enabled
Help	Enable/Disable Me FW Image Re-Flash function.

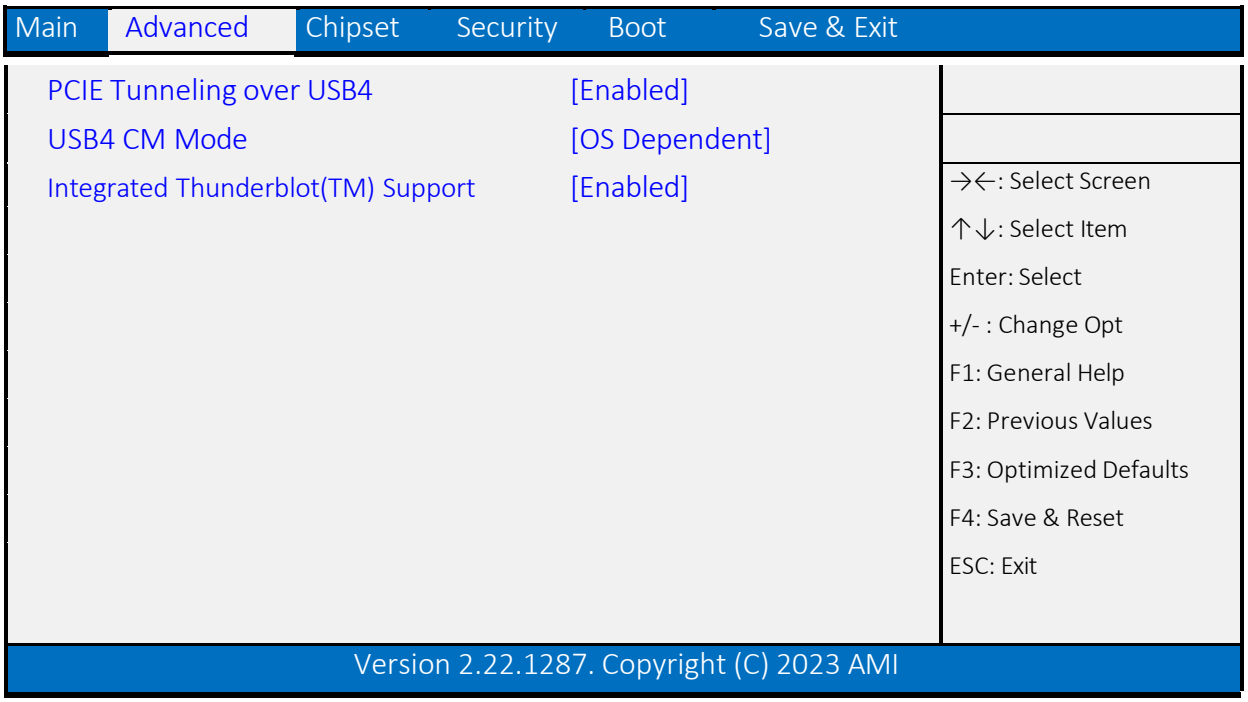
Field Name	FW Update
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable/Disable ME FW Update function.

2.4.2 PTT Configuration



Field Name	TPM Device Selection
Default Value	[dTPM]
Possible Value	dTPM PTT
Help	Selects TPM device: PTT or dTPM. PTT – Enables PTT in SkuMgr dTPM 1.2 – Disables PTT in SkuMgr Warning ! PTT/dTPM will be disabled and all data saved on it will be lost

2.5 Thunderbolt™ Configuration

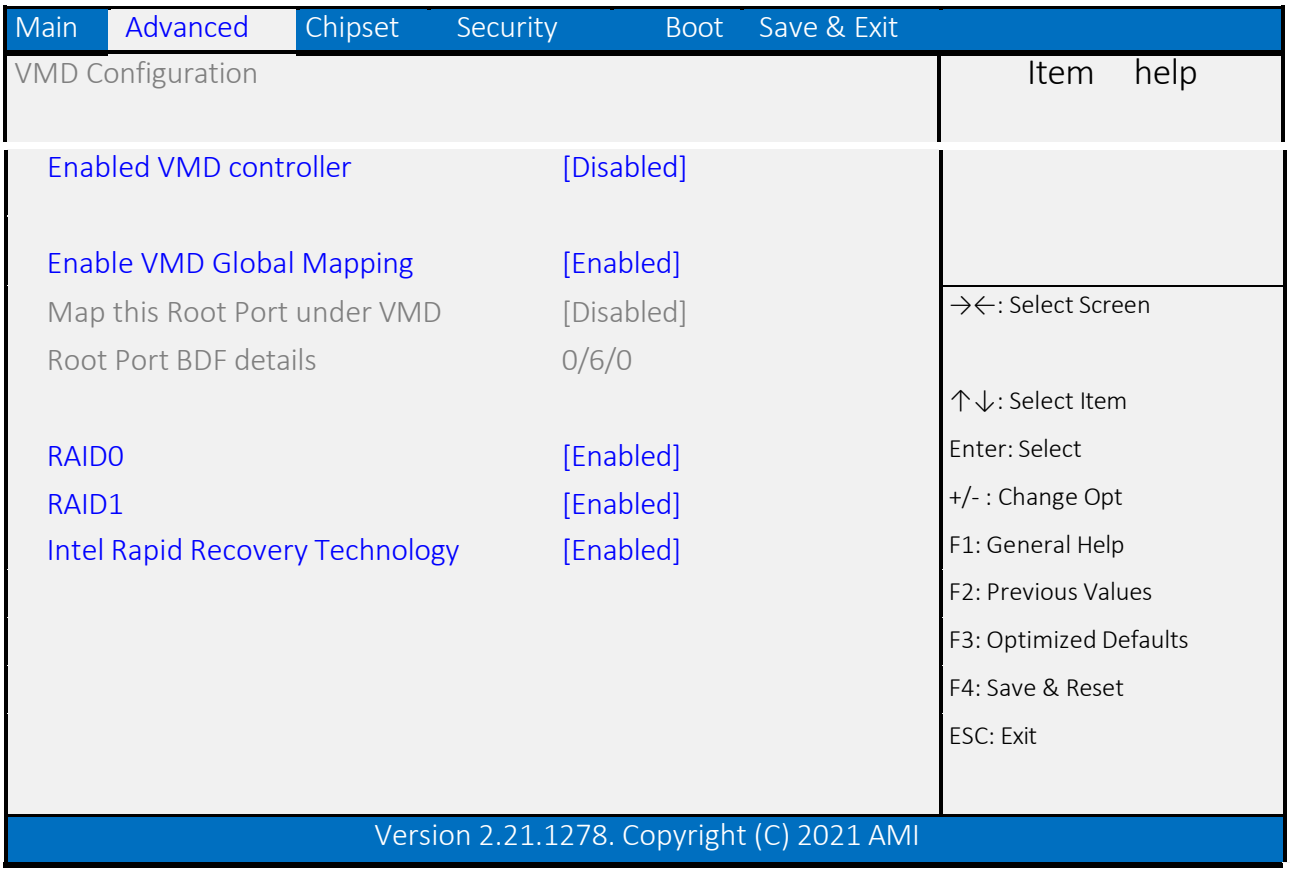


Field Name	PCIE Tunneling over USB4
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or disable PCIE Tunneling over USB4.

Field Name	USB4 CM Mode
Default Value	[OS Dependent]
Possible Value	Firmware CM Only Software CM first OS Dependent CM Debug
Help	FW CM only - The system boots with FW CM only in both BIOS and OS phase. SW CM first - The system boots with SW CM in BIOS phase all the time, then boot to OS based on OS preference for backward and forwar compatible. OS dependent - The system will boot with SW CM in BIOS phase after saving this setting, then boot to OS based on OS preference the reflect to CM setting to next BIOS boot.CM debug - The system with boot without any CM in BIOS phase, then boot to OS with the CM based on OS' preference by every boot.

Field Name	Integrated Thunderbolt™ Support
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or Disable Discrete Thunderbolt™ Support.

2.6 VMD setup menu



Field Name	Enable VMD controller
Default Value	[Disabled]
Possible Value	Disabled Enabled
Help	Enable/Disable to VMD controller

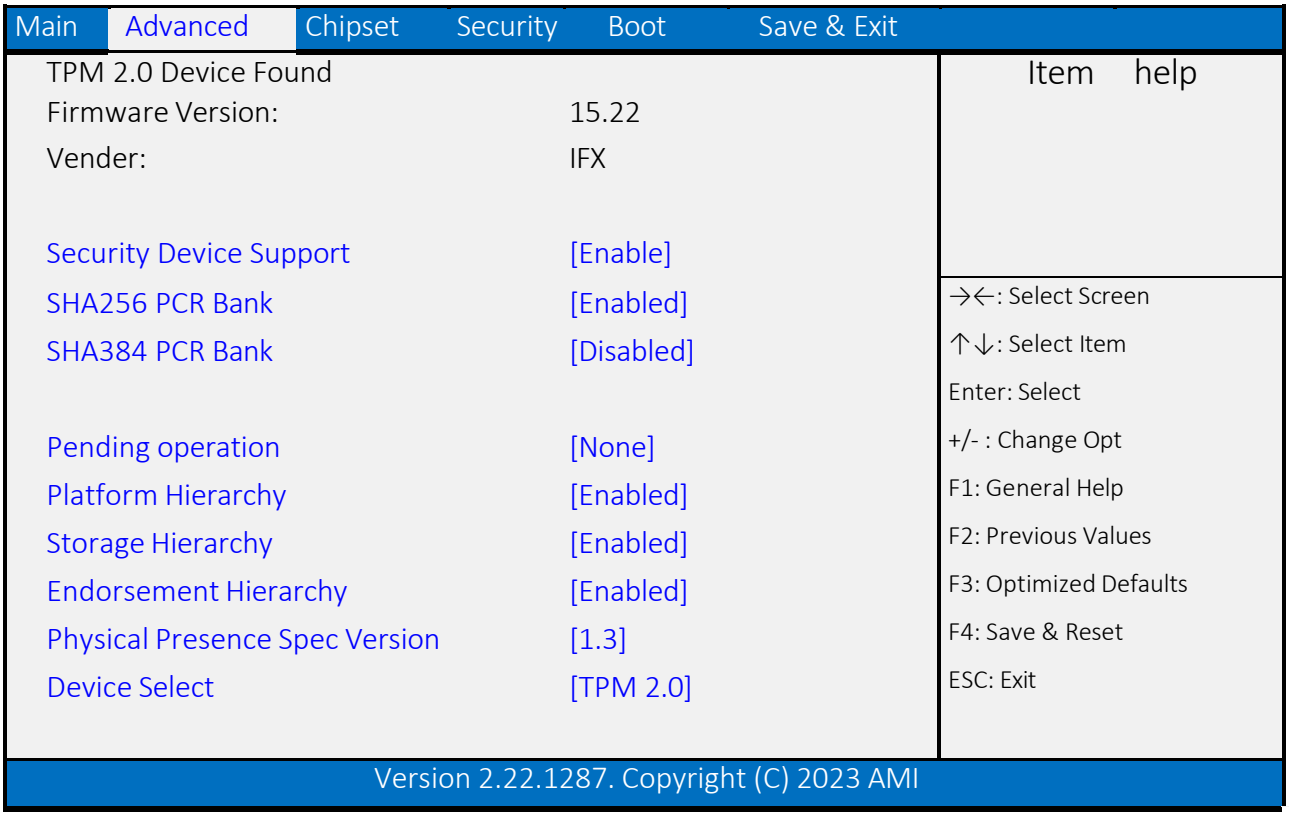
Field Name	Enable VMD Global Mapping
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable/Disable to VMD Global Mapping

Field Name	RAID0
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable/Disable RAID0 support

Field Name	RAID1
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable/Disable RAID1 support

Field Name	Intel Rapid Recovery Technology
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable/Disable Intel Rapid Recovery Technology.

2.7 Trusted Computing



Field Name	Security Device Support
Default Value	[Enable]
Possible Value	Disable Enable
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	SHA256 PCR Bank
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or Disable SHA256 PCR Bank

Field Name	SHA384 PCR Bank
Default Value	[Disabled]
Possible Value	Disabled Enabled
Help	Enable or Disable SHA384 PCR Bank

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.

Field Name	Platform Hierarchy
Default Value	[Enable]
Possible Value	Disable Enable
Help	Enable or Disable Platform Hierarchy

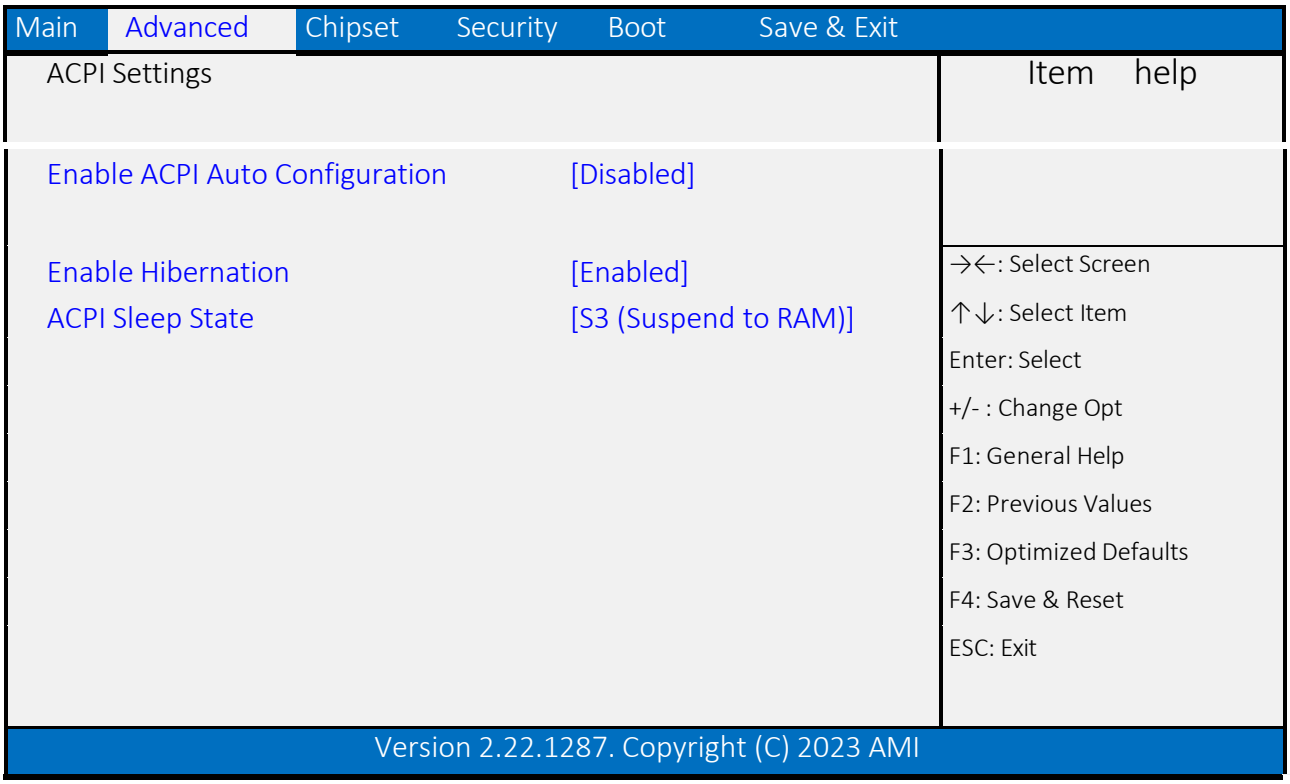
Field Name	Storage Hierarchy
Default Value	[Enable]
Possible Value	Disable Enable
Help	Enable or Disable Storage Hierarchy

Field Name	Endorsement Hierarchy
Default Value	[Enable]
Possible Value	Disable Enable
Help	Enable or Disable Endorsement Hierarchy

Field Name	Physical Presence Spec Version
Default Value	[1.3]
Possible Value	1.2 1.3
Help	Select to Tell O.S. to support PPI Spec Version 1.2 or 1.3. Note some HCK tests might not support 1.3.

Field Name	Device Select
Default Value	[TPM 2.0]
Possible Value	TPM 1.2 TPM 2.0 Auto
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.

2.8 ACPI Settings

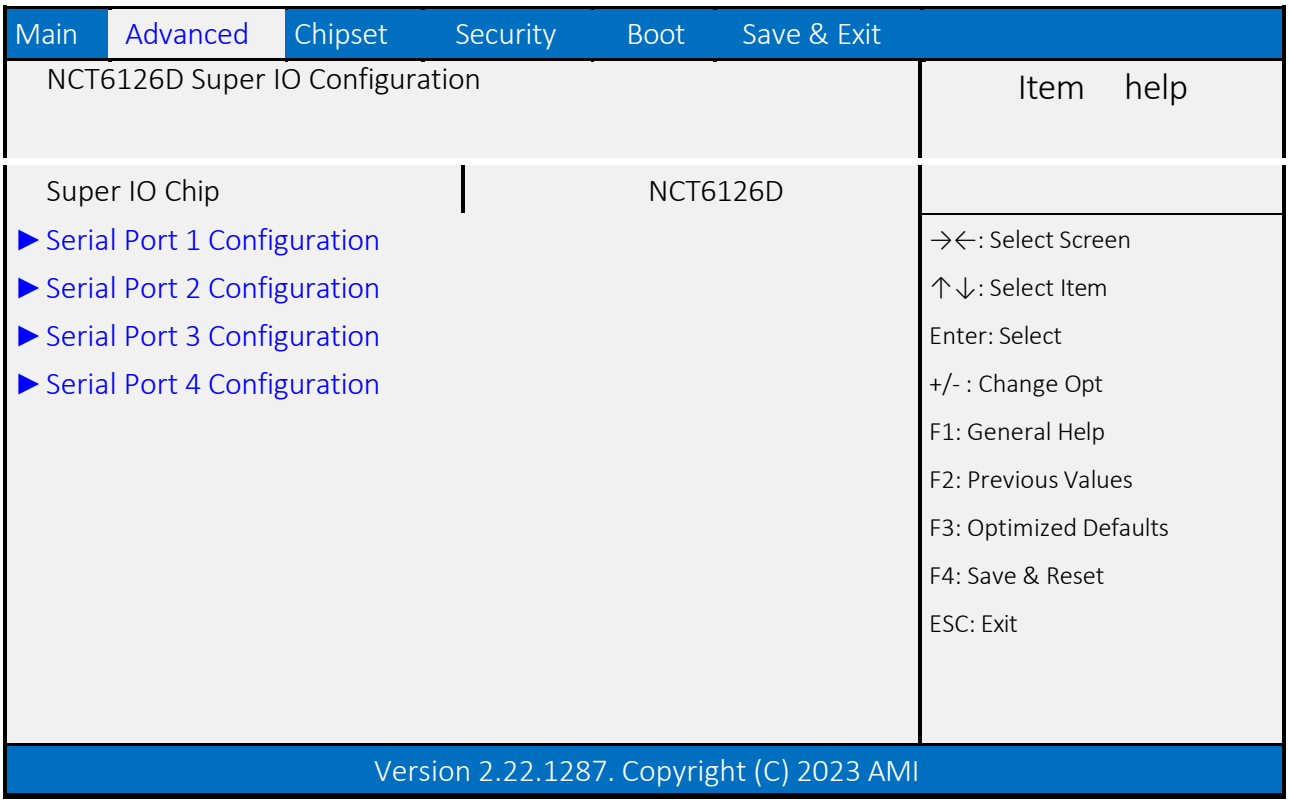


Field Name	Enable ACPI Auto Configuration
Default Value	[Disabled]
Possible Value	Disabled Enabled
Help	Enables or Disables BIOS ACPI Auto Configuration.

Field Name	Enable Hibernation
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enables or Disables System ability to Hibernate (OS/S4 Sleep State). This option may not be effective with some operating systems.

Field Name	ACPI Sleep State
Default Value	[S3 (Suspend to RAM)]
Possible Value	Suspend Disabled S3 (Suspend to RAM)
Help	Select the highest ACPI sleep state the system will enter when the SUSPEND button is pressed.

2.9 NCT6126D Super IO Configuration



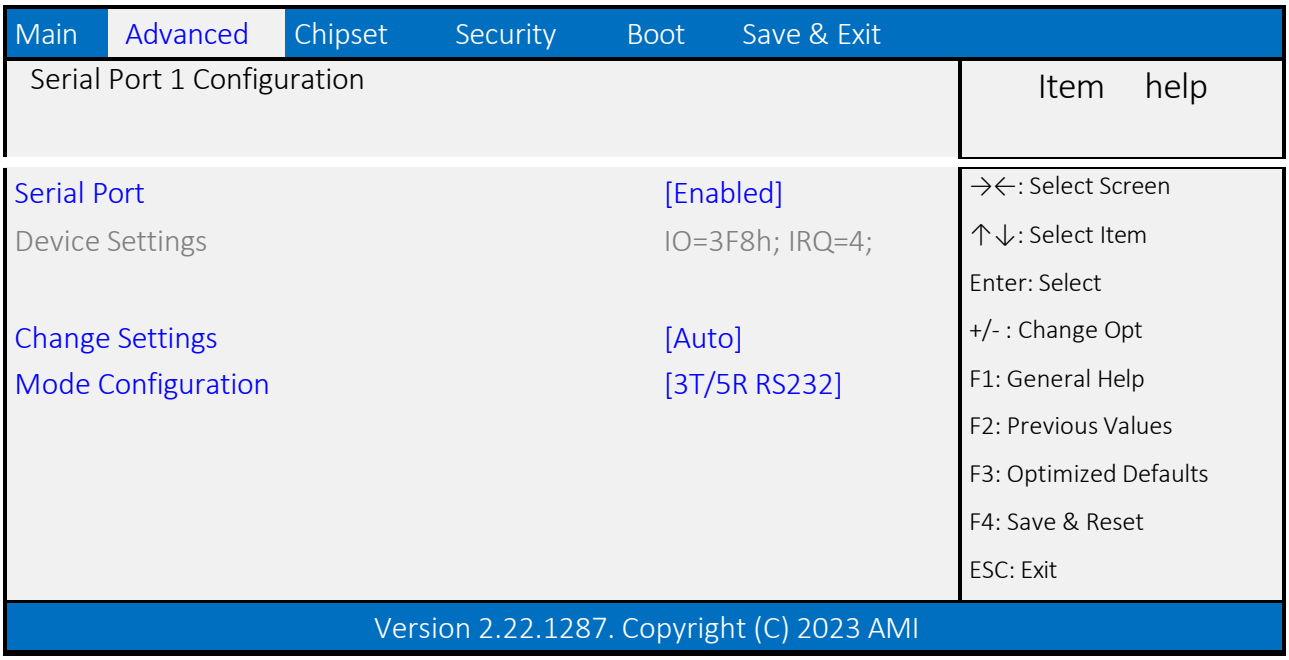
Field Name	Serial Port 1 Configuration
Help	Set Parameters of Serial Port 1 (COMC)
Comment	Press Enter when selected to go into the associated Sub-Menu.

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.

2.9.1 Serial Port 1 Configuration



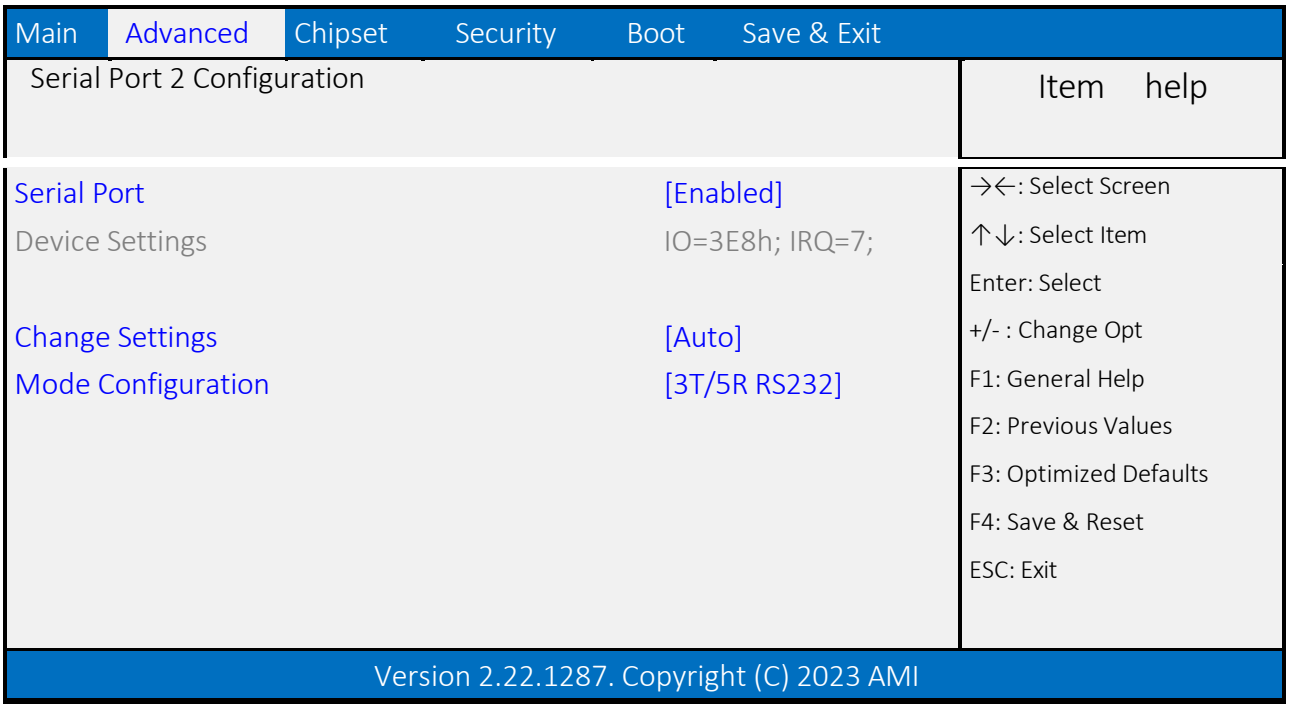
Field Name	Serial Port
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or Disable Serial Port(COM)

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	Change Settings
Default Value	[Auto]
Possible Value	Auto IO=3E8h; IRQ=7; IO=3E8h; IRQ3,4,5,6,7,9,10,11,12; IO=2E8h; IRQ3,4,5,6,7,9,10,11,12; IO=220h; IRQ3,4,5,6,7,9,10,11,12; IO=228h; IRQ3,4,5,6,7,9,10,11,12;
Help	Select an optimal settings for Super IO Device

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 RS485 TX ENABLE High 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.

2.9.2 Serial Port 2 Configuration



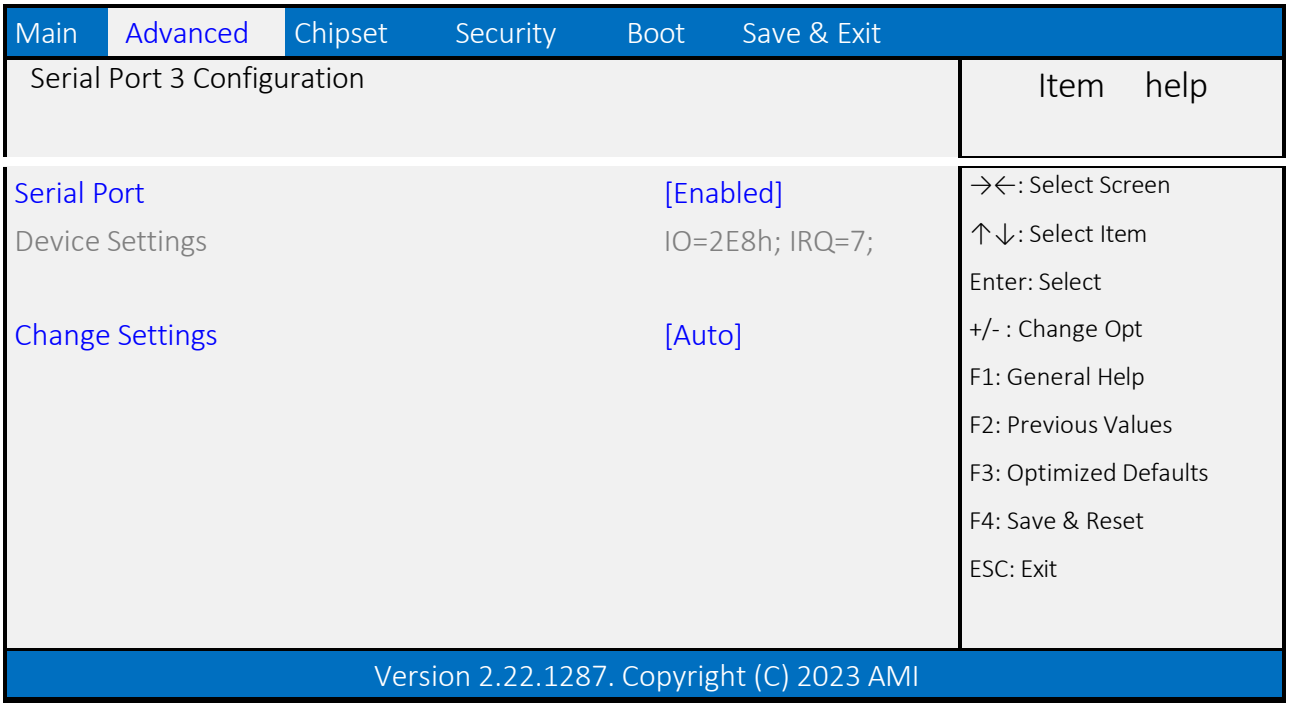
Field Name	Serial Port
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or Disable Serial Port(COM)

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.

Field Name	Change Settings
Default Value	[Auto]
Possible Value	Auto IO=3E8h; IRQ=7; IO=3E8h; IRQ3,4,5,6,7,9,10,11,12; IO=2E8h; IRQ3,4,5,6,7,9,10,11,12; IO=220h; IRQ3,4,5,6,7,9,10,11,12; IO=228h; IRQ3,4,5,6,7,9,10,11,12;
Help	Select an optimal settings for Super IO Device

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 RS485 TX ENABLE High 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.

2.9.3 Serial Port 3 Configuration

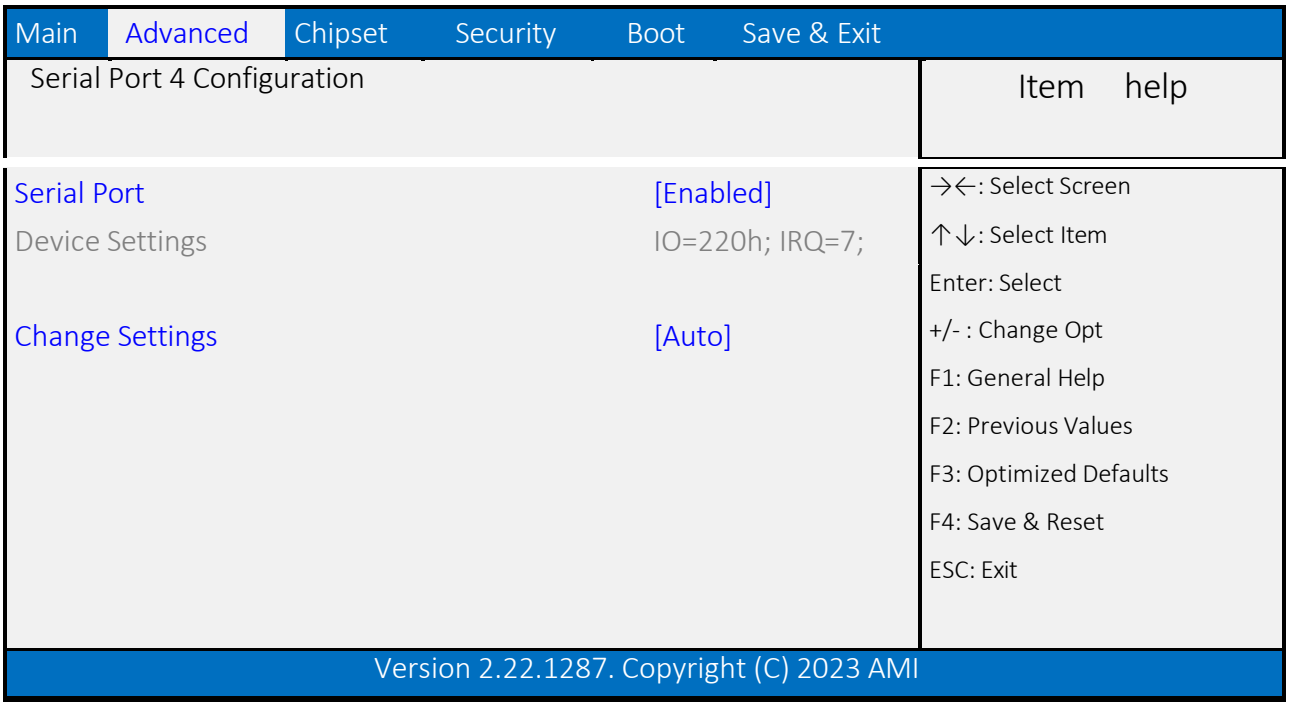


Field Name	Serial Port
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or Disable Serial Port(COM)

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.

Field Name	Change Settings
Default Value	[Auto]
Possible Value	Auto IO=2E8h; IRQ=6; IO=3E8h; IRQ3,4,5,6,7,9,10,11,12; IO=2E8h; IRQ3,4,5,6,7,9,10,11,12; IO=220h; IRQ3,4,5,6,7,9,10,11,12; IO=228h; IRQ3,4,5,6,7,9,10,11,12;
Help	Select an optimal settings for Super IO Device

2.9.4 Serial Port 4 Configuration

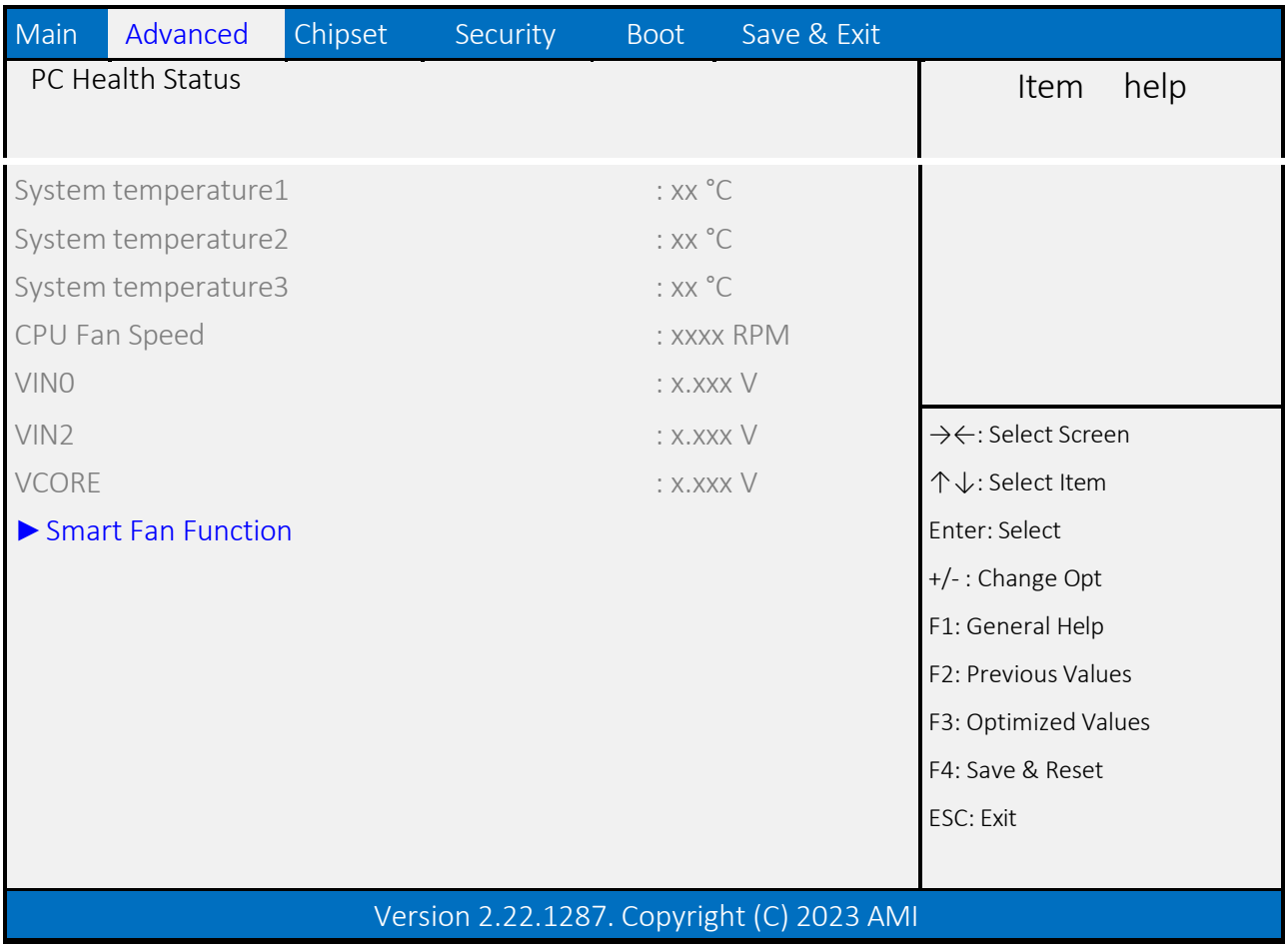


Field Name	Serial Port
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or Disable Serial Port(COM)

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.

Field Name	Change Settings
Default Value	[Auto]
Possible Value	Auto IO=220h; IRQ=10; IO=3E8h; IRQ3,4,5,6,7,9,10,11,12; IO=2E8h; IRQ3,4,5,6,7,9,10,11,12; IO=220h; IRQ3,4,5,6,7,9,10,11,12; IO=228h; IRQ3,4,5,6,7,9,10,11,12;
Help	Select an optimal settings for Super IO Device

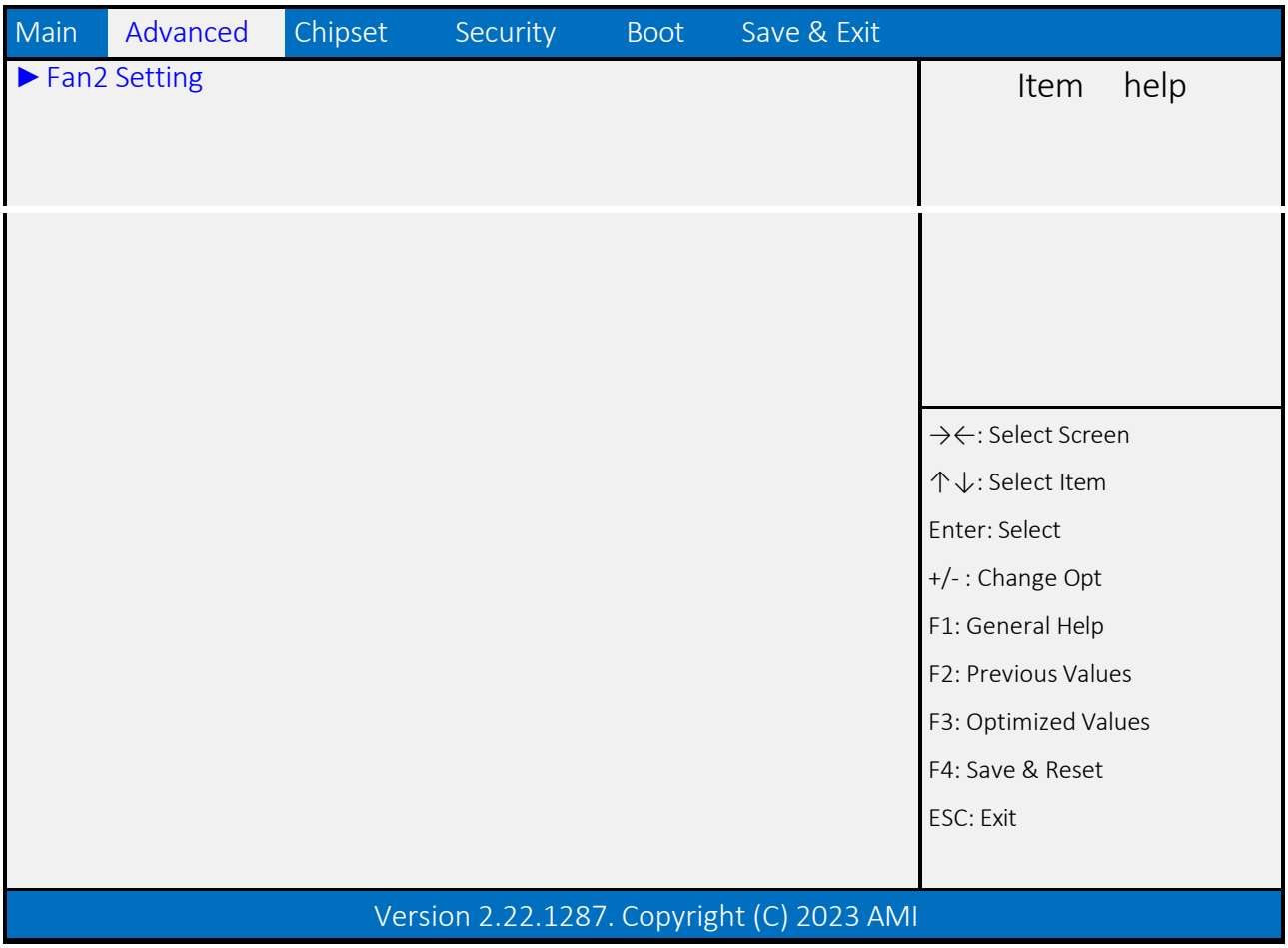
2.10 Hardware Monitor



Type	Range
System temperature1	-20 ~ 120 °C
System temperature2	-20 ~ 120 °C
System temperature3	-20 ~ 120 °C
CPU Fan Speed	There are many kinds of the fan could be installed into the system, so w could only set 0 RPM for the failed fan speed, and there is also no high RPM limitation.
VIN0	0.945V~1.155V (Pin 100 VIN0 => Vref = 1V) [R0A Vref = 1.05V]
VIN2	0.945V~1.155V (Pin 98 VIN2 => Vref = 1V)
VCORE	0V~2V (Pin 101 CPUCORE)

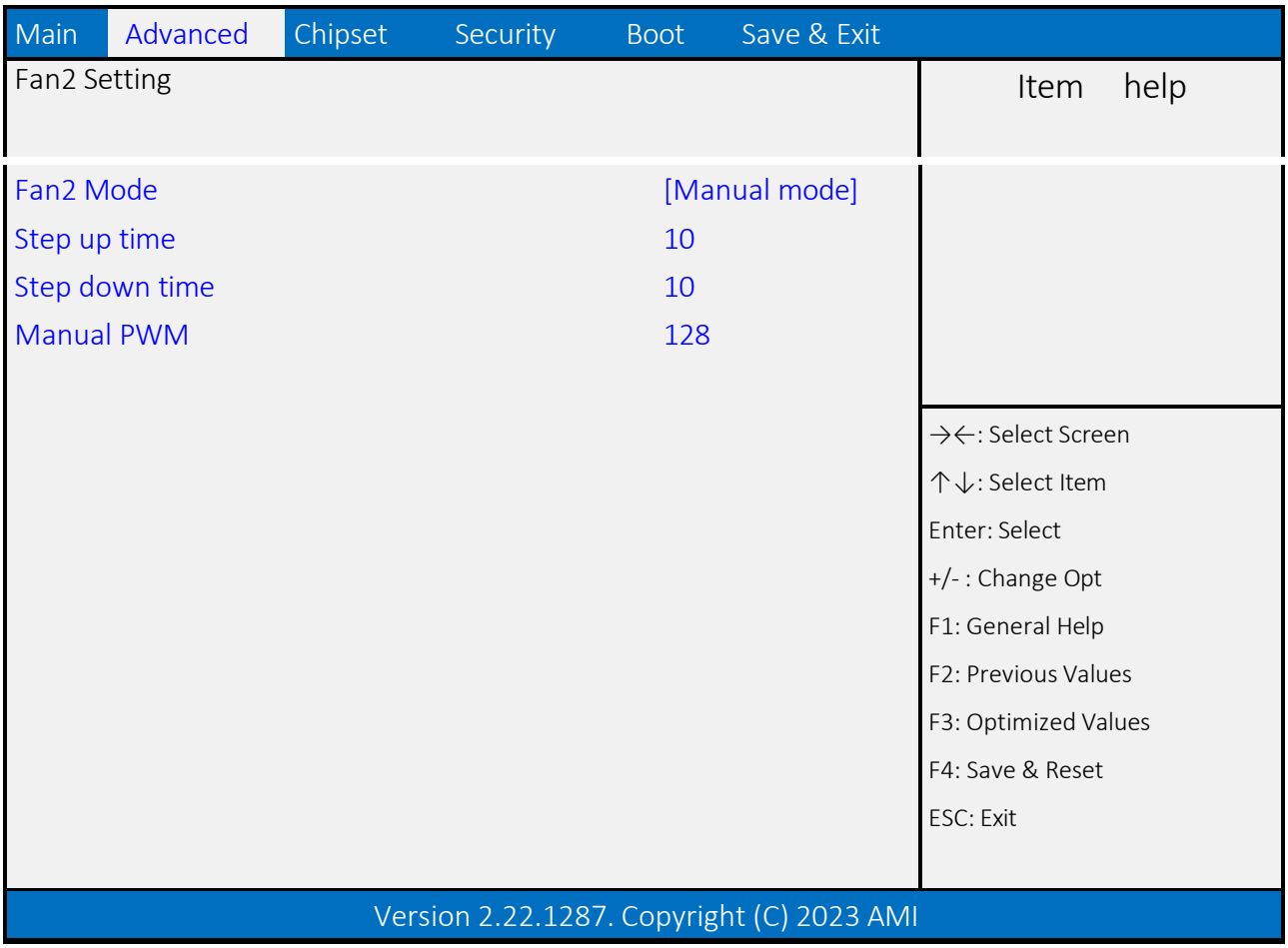
Field Name	Smart Fan Function
Help	Smart Fan function setting
Comment	Press Enter when selected to go into the associated Sub-Menu.

2.10.1 Smart Fan Function



Field Name	Fan2 Setting
Help	Smart Fan function setting
Comment	Press Enter when selected to go into the associated Sub-Menu.

2.10.2 Fan2 Setting



Field Name	Fan2 Mode
Default Value	[Manual mode]
Possible Value	Manual mode Thermal Cruise Speed Cruise SMART FAN IV
Help	Fan control mode select

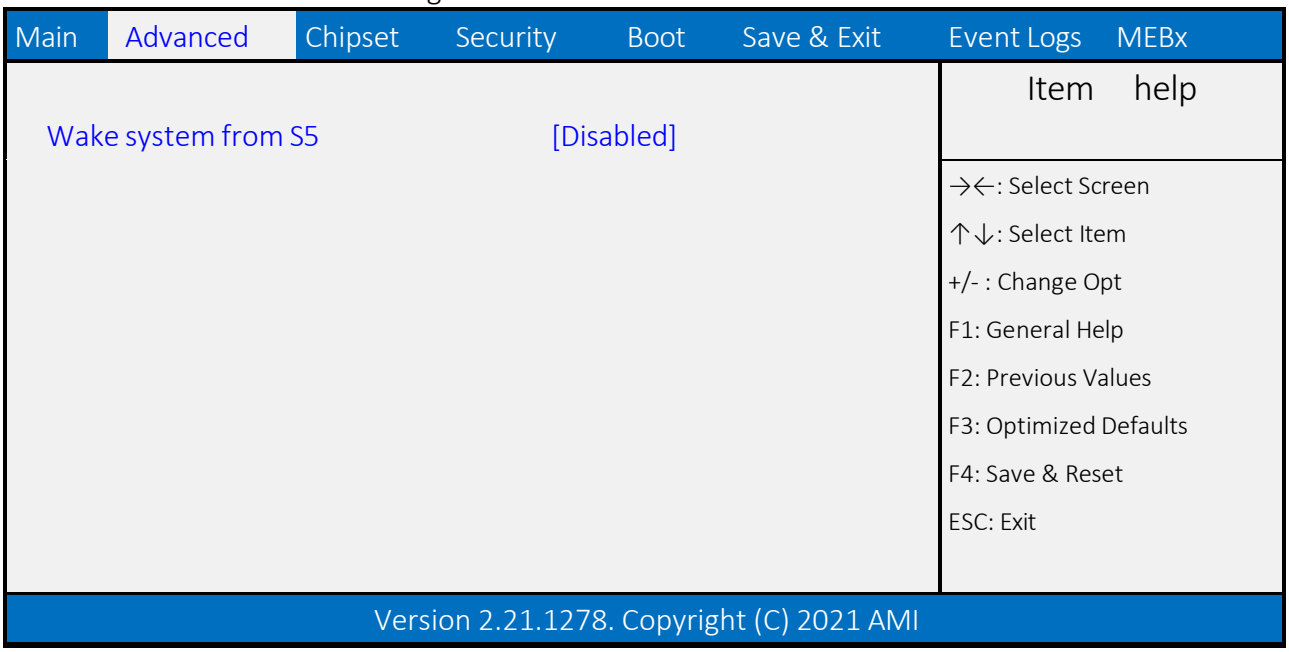
Field Name	Step up time
Default Value	10
Possible Value	0-99
Help	The amount of time Fan takes to increase its value by one step.(Units are intervals of 0.1 second)

Field Name	Step down time
Default Value	10
Possible Value	0-99
Help	The amount of time Fan takes to decrease its value by one step.(Units are intervals of 0.1 second)

Field Name	Manual PWM
Default Value	128

Possible Value	0-255
Help	Fan will work with this Manual PWM Value(0~255 for 0%~100%)

2.11 S5 RTC Wake Settings



Field Name	Wake system from S5
Default Value	[Disabled]
Possible Value	Disabled Fixed Time Dynamic Time
Help	Enable or disable System wake on alarm event. Select FixedTime, system will wake on the hr::min::sec specified. Select DynamicTime , System wil wake on the current time + Increase minute(s).

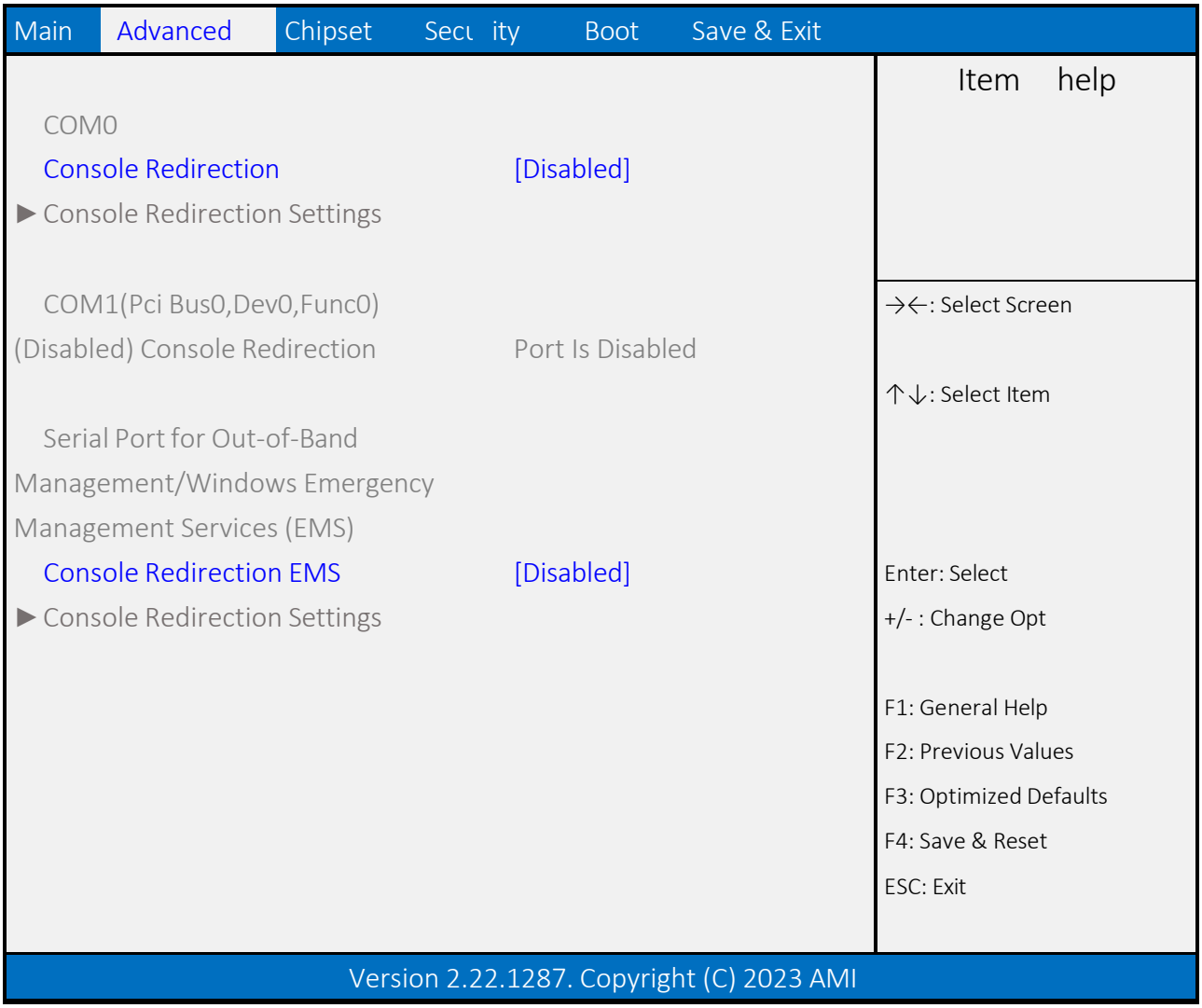
Field Name	Wake up hour
Default Value	0
Possible Value	0-23
Help	Select 0-23 For example enter 3 form 3am and 15 for 3pm

Field Name	Wake up minute
Default Value	0
Possible Value	0~59
Help	Select 0-59 for minute

Field Name	Wake up second
Default Value	0
Possible Value	0~59
Help	Select 0-59 for second

Field Name	Wake up minute increase
Default Value	1
Possible Value	1~5
Help	1-5

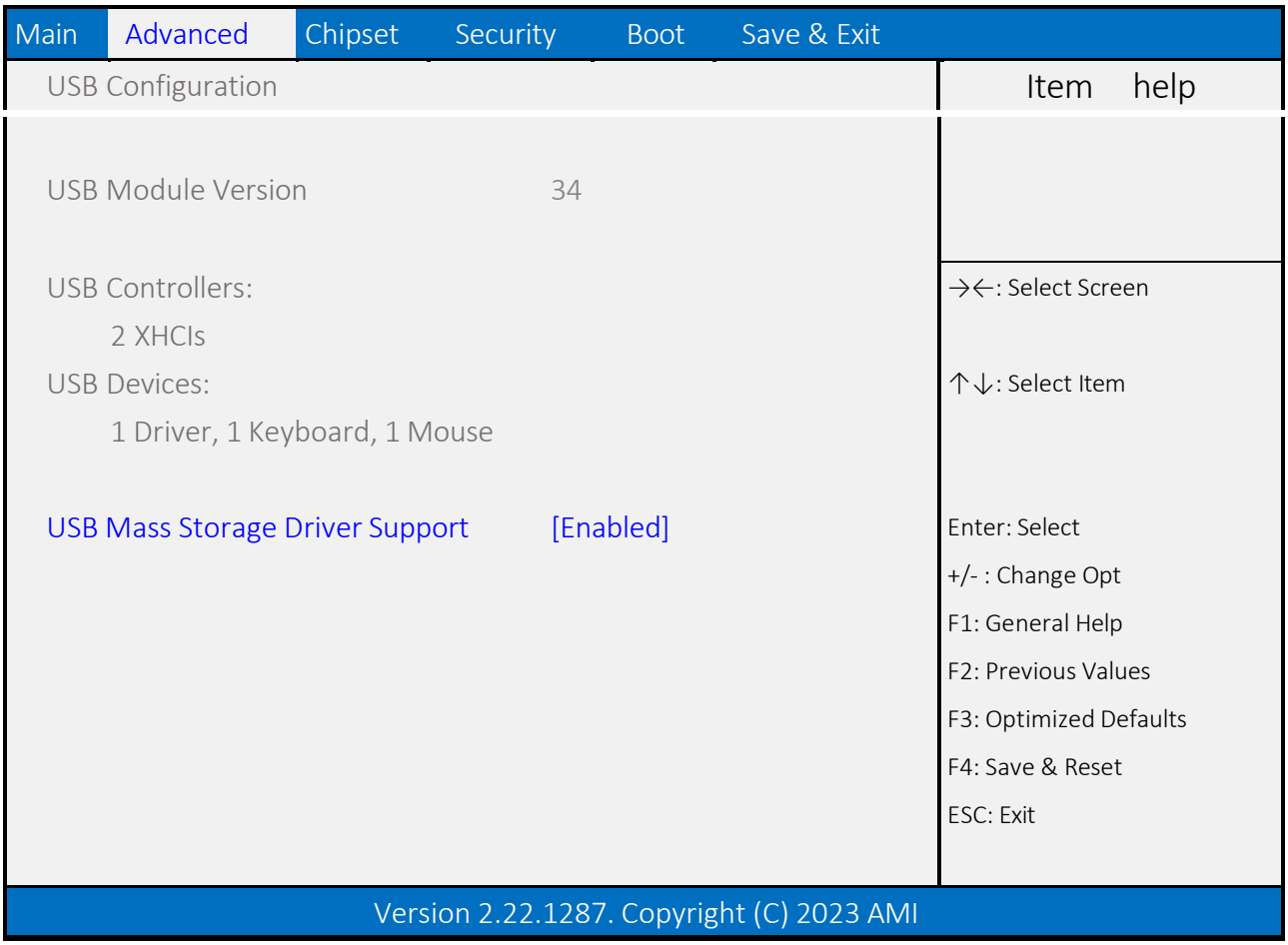
2.12 Serial Port Console Redirection



Field Name	Console Redirection
Default Value	[Disabled]
Possible Value	Disabled Enabled
Help	Console Redirection Enable or Disable.

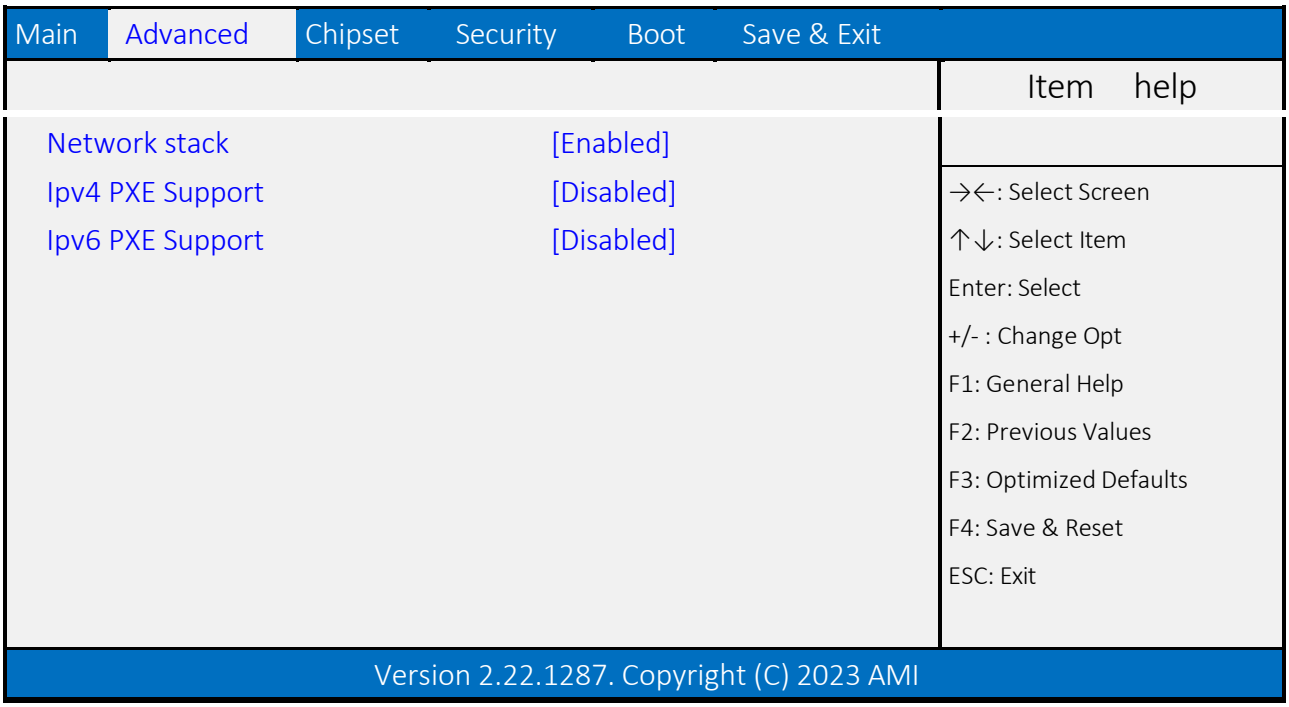
Field Name	Console Redirection EMS
Default Value	[Disabled]
Possible Value	Disabled Enabled
Help	Console Redirection Enable or Disable.

2.13 USB Configuration



Field Name	USB Mass Storage Driver Support
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable/Disable USB Mass Storage Driver Support.

2.14 Network Stack Configuration

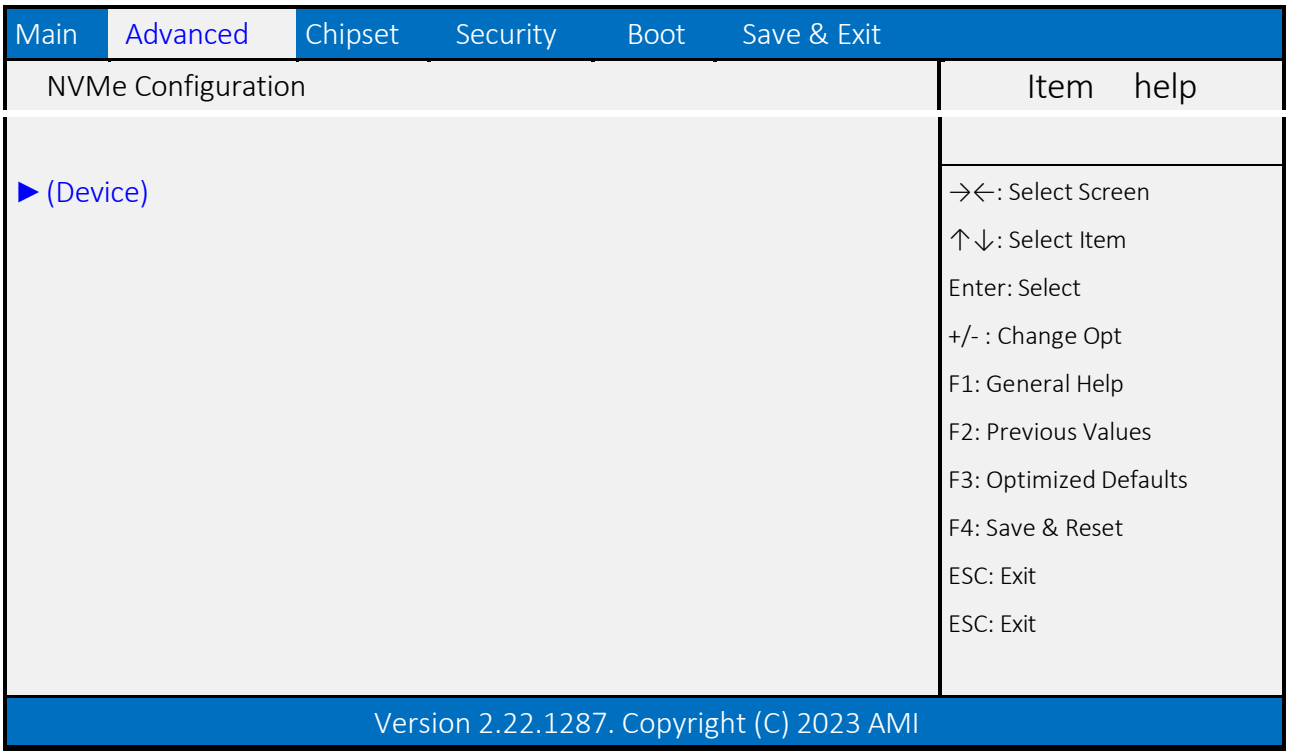


Field Name	Network stack
Default Value	[Disabled]
Possible Value	Disabled Enabled
Help	Enable/Disable UEFI Network stack.

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

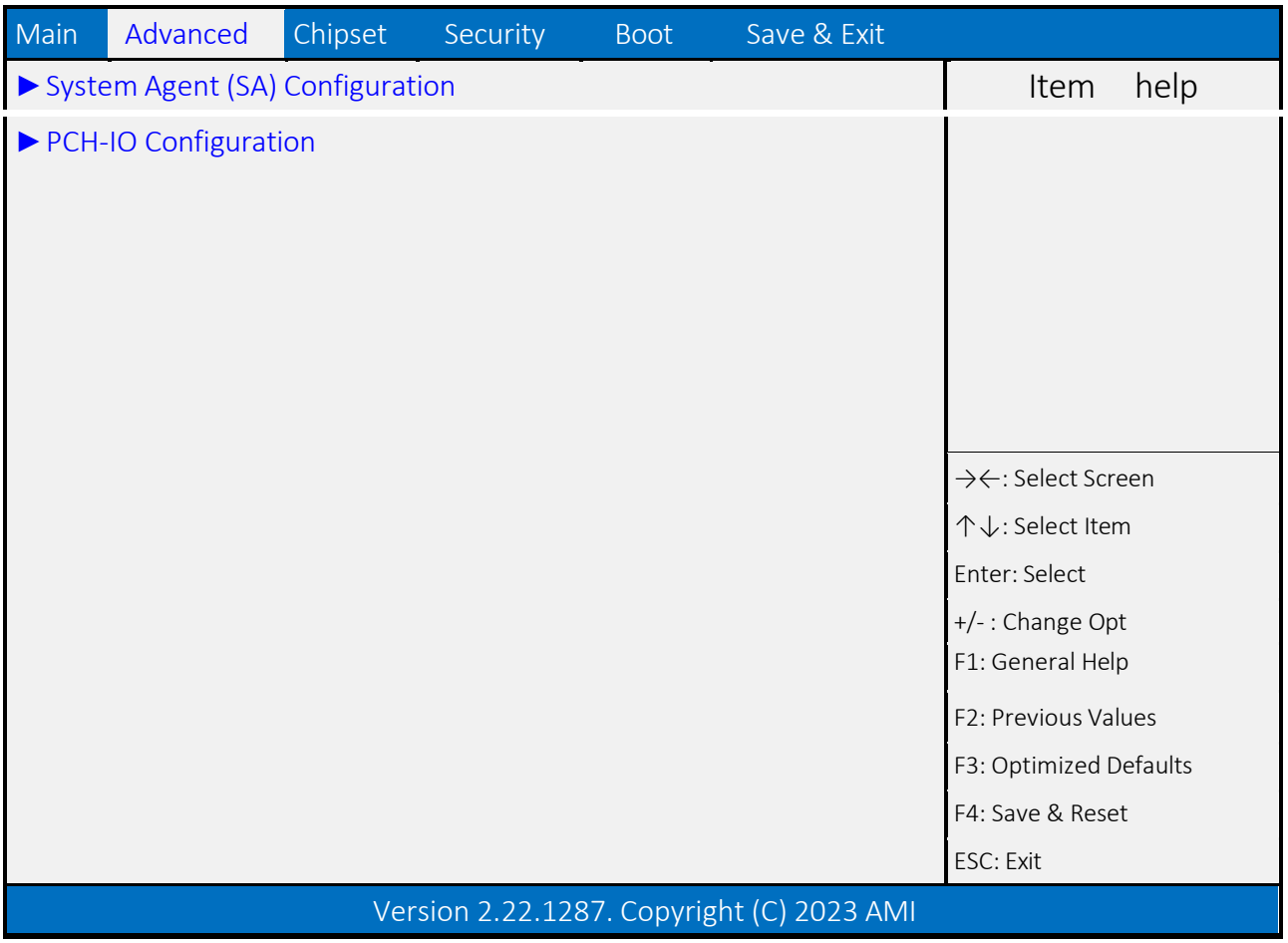
Field Name	Ipv6 PXE Support (Available when Network stack Enabled)
Default Value	[Disabled]
Possible Value	Disabled Enabled
Help	Enable/Disable Ipv6 PXE Boot Support. If disabled IPV6 PXE boot suppor will not be available.

2.15 NVMe Configuration



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

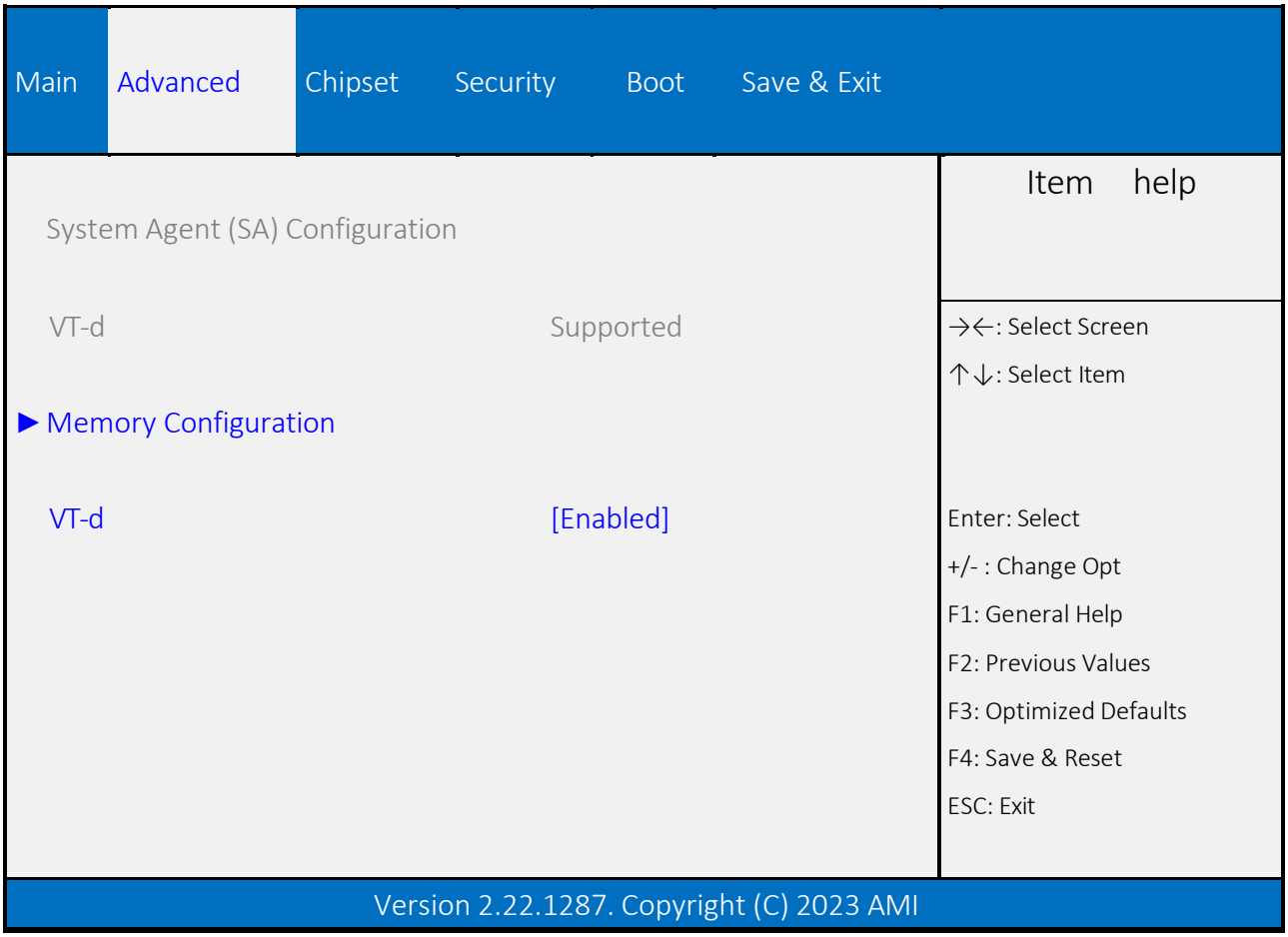
3 Chipset Page



Field Name	System Agent (SA) Configuration
Help	System Agent (SA) Parameters
Comment	Press Enter when selected to go into the associated Sub-Menu.

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

3.1 System Agent (SA) Configuration

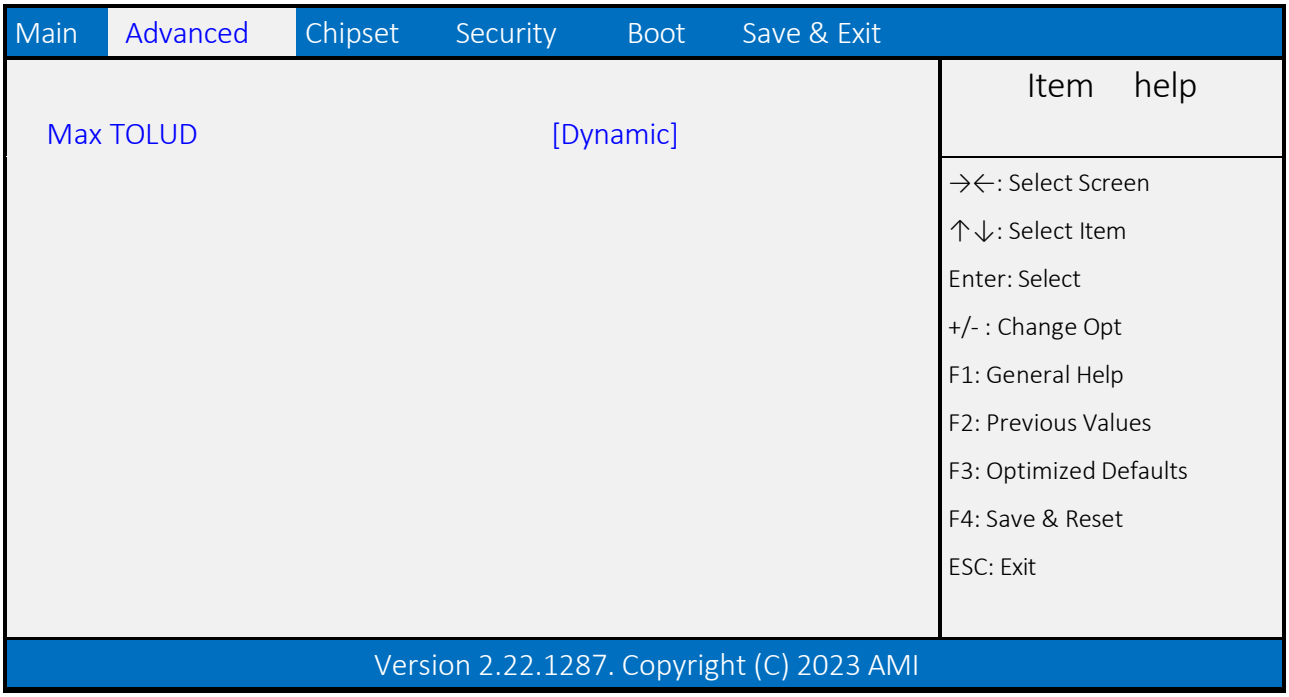


Field Name	VT-d
Default Value	Displays VT-d capability
Comment	This field is not selectable. There is no help text associated with it.

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

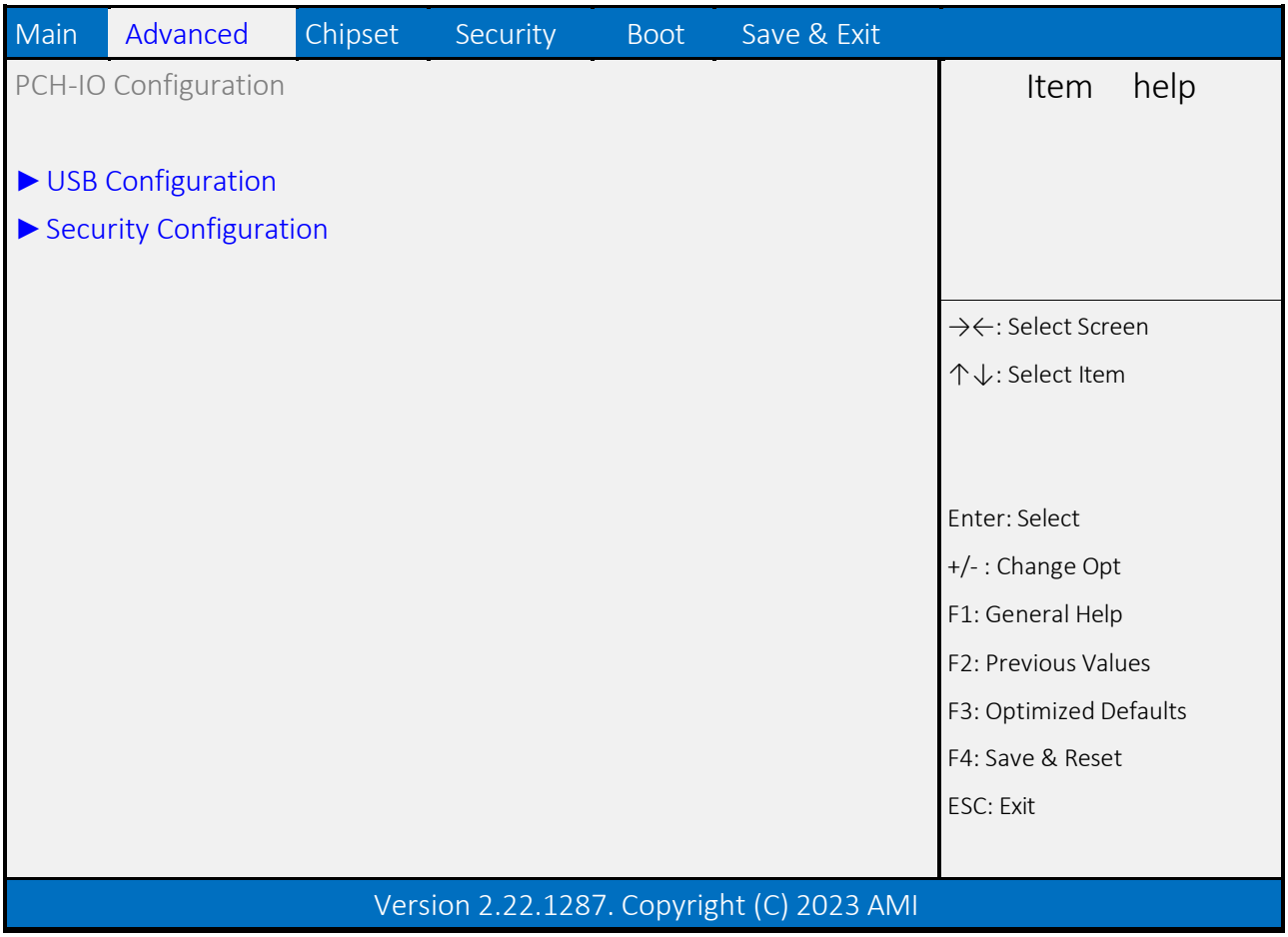
Field Name	VT-d
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	VT-d capability

3.1.1 Memory Configuration



Field Name	Max TOLUD
Default Value	[Dynamic]
Possible Value	Dynamic 1 GB 1.25 GB 1.5 GB 1.75 GB 2 GB 2.25 GB 2.5 GB 2.75 GB 3 GB 3.25 GB 3.5 GB
Help	Maximum Value of TOLUD. Dynamic assignment would adjust TOLUD automatically based on largest MMIO length of installed graphic controller

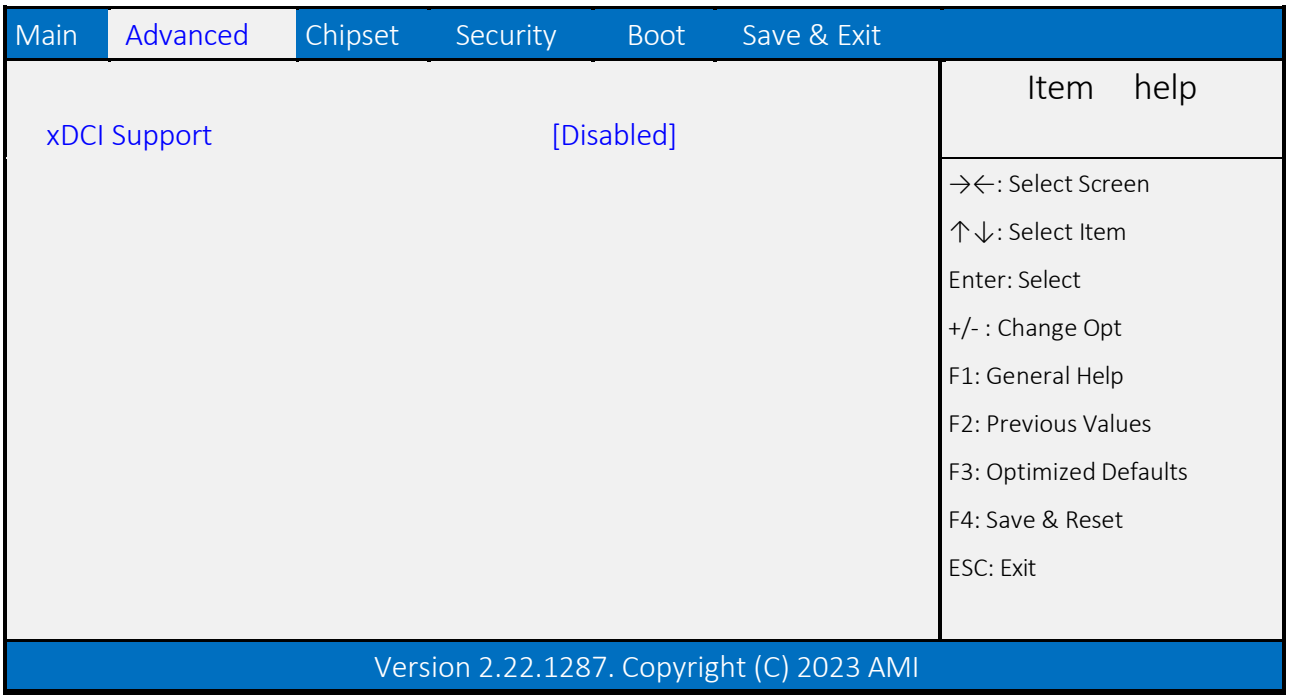
3.2 PCH-IO Configuration



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

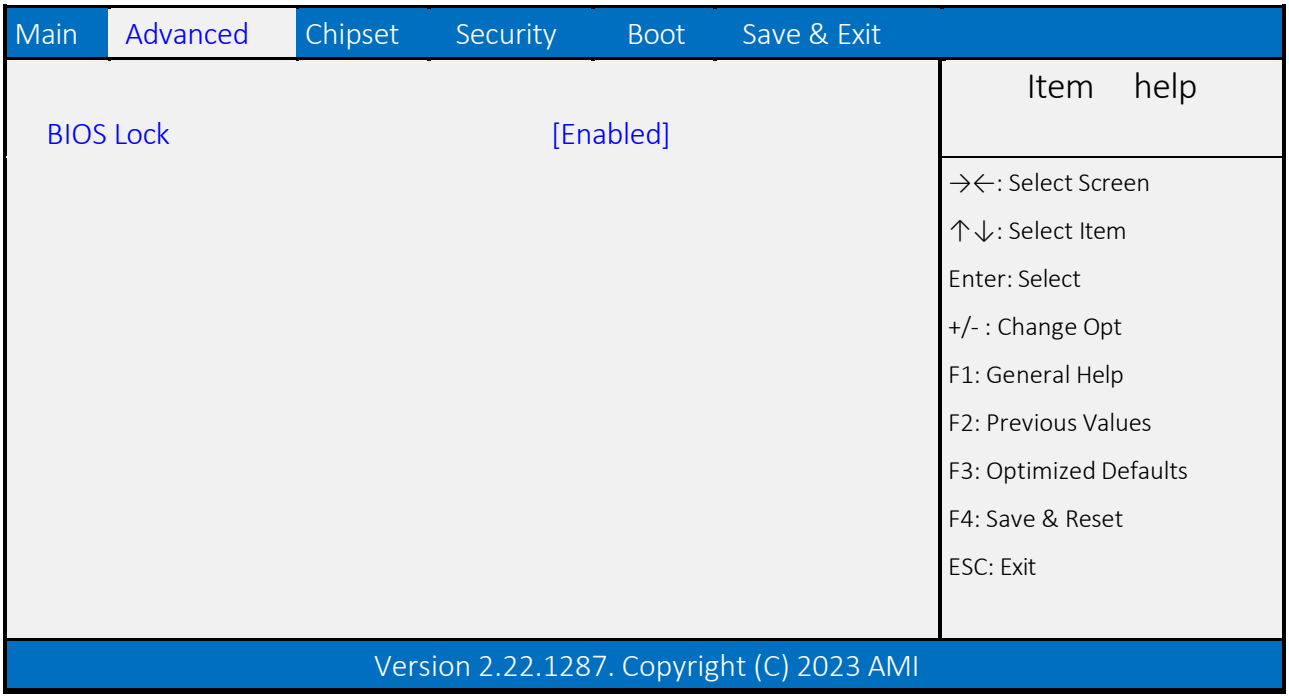
Field Name	Security Configuration
Help	Security Configuration settings
Comment	Press Enter when selected to go into the associated Sub-Menu.

3.2.1 USB Configuration



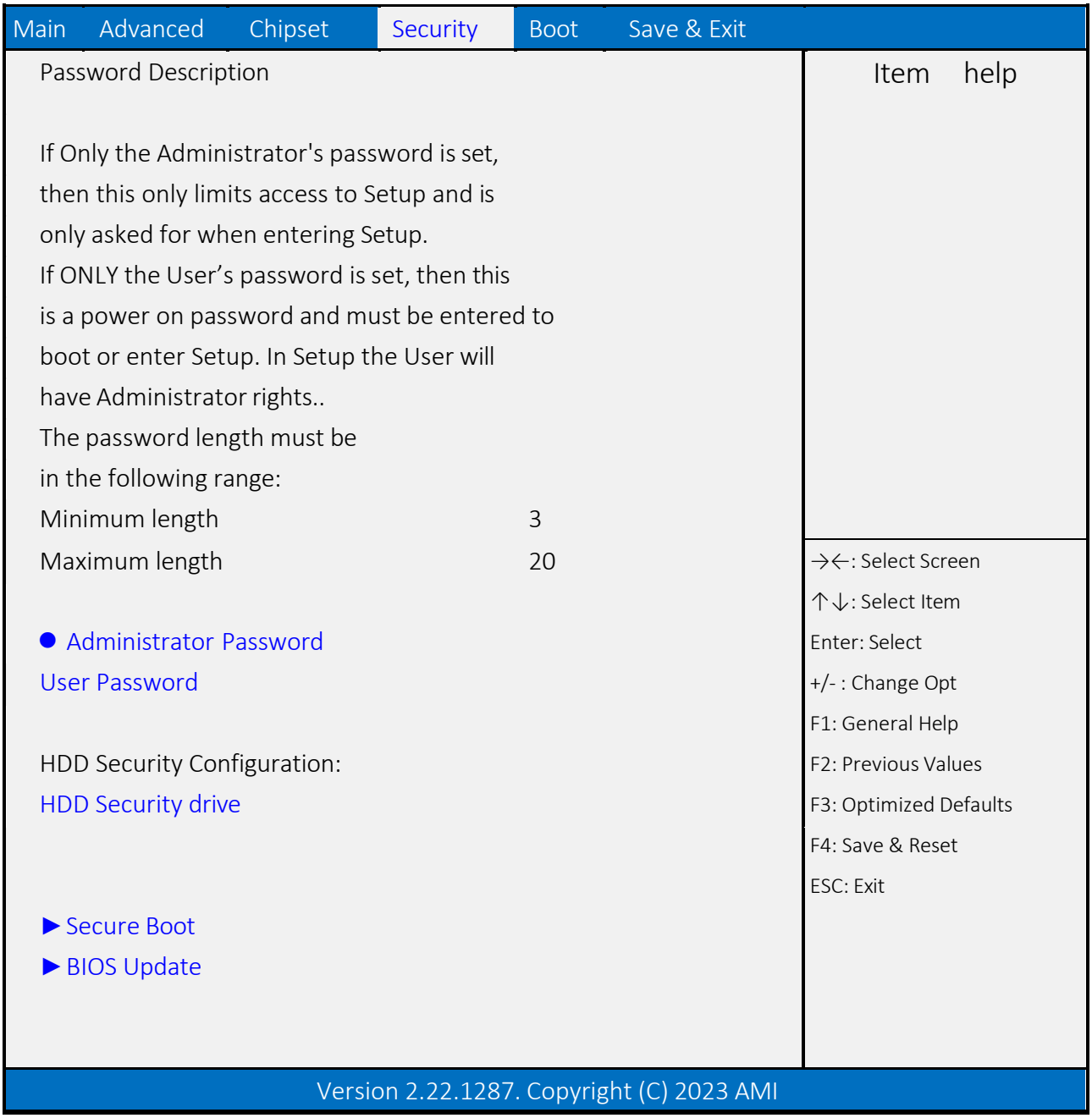
Field Name	xDCI Support
Default Value	[Disabled]
Possible Value	Disabled Enabled
Help	Enable/Disable xDCI (USB OTG Device).

3.2.2 Security Configuration



Field Name	BIOS Lock
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable/Disable the PCH BIOS Lock Enable feature. Required to be enabled to ensure SMM protection of flash.

4 Security Page



Field Name	Administrator Password
Help	Set Administrator Password

Field Name	User Password
Help	Set User Password.

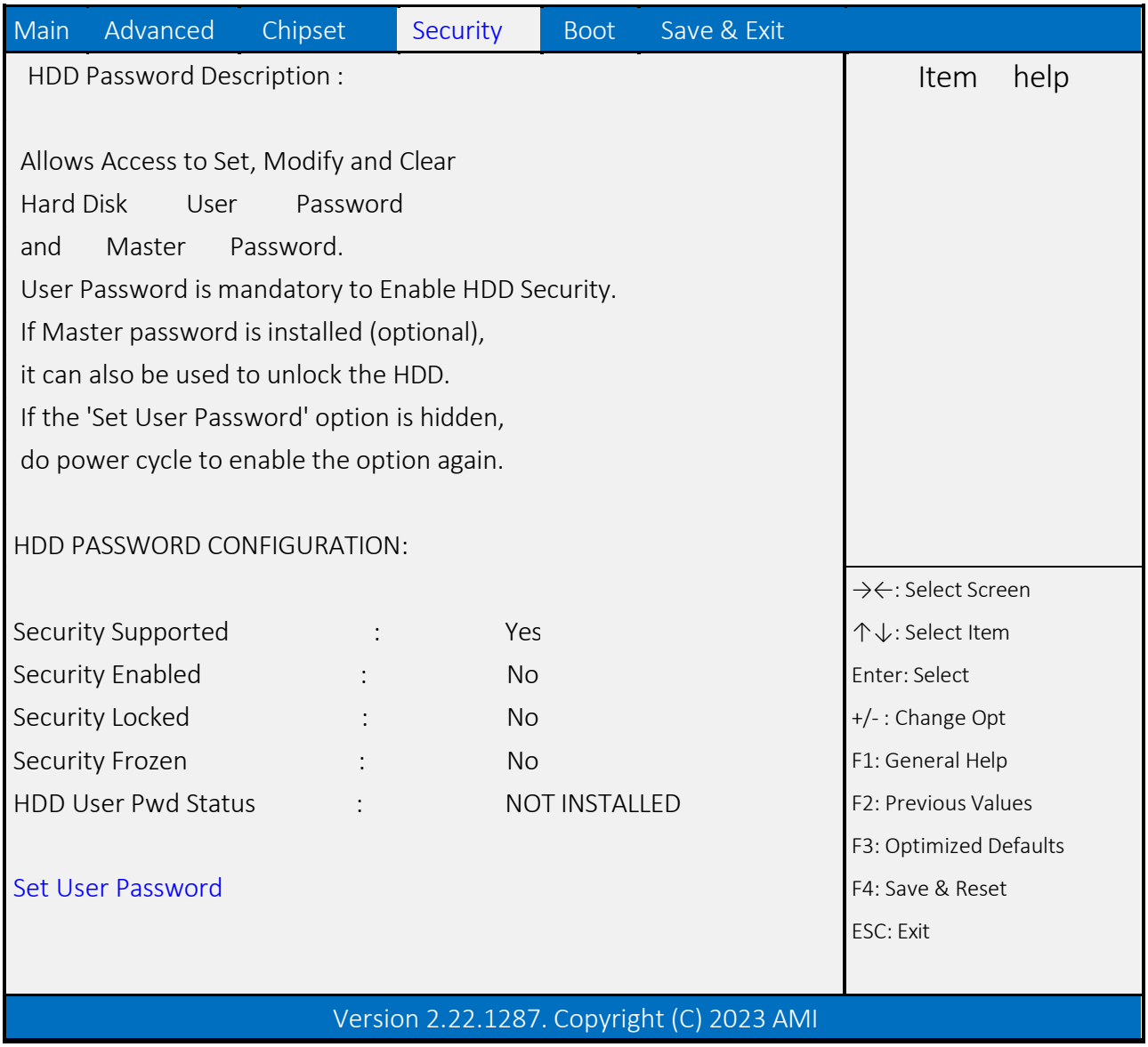
Field Name	HDD Security drive
Help	HDD Security Configuration for selected drive
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Secure Boot

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

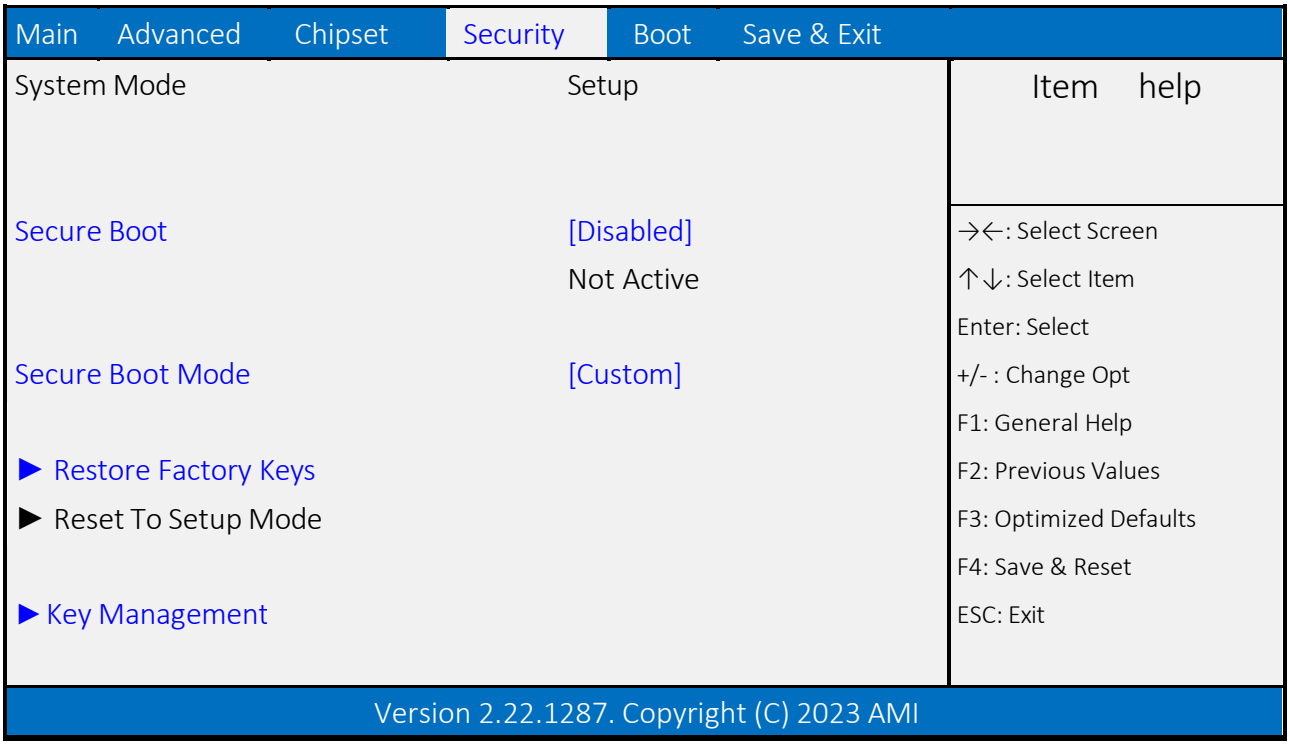
Field Name	BIOS update
Help	BIOS Update Support
Comment	Press Enter when selected to go into the associated Sub-Menu.

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 in 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

4.2 Secure Boot



Field Name	Secure Boot
Default Value	[Disabled]
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

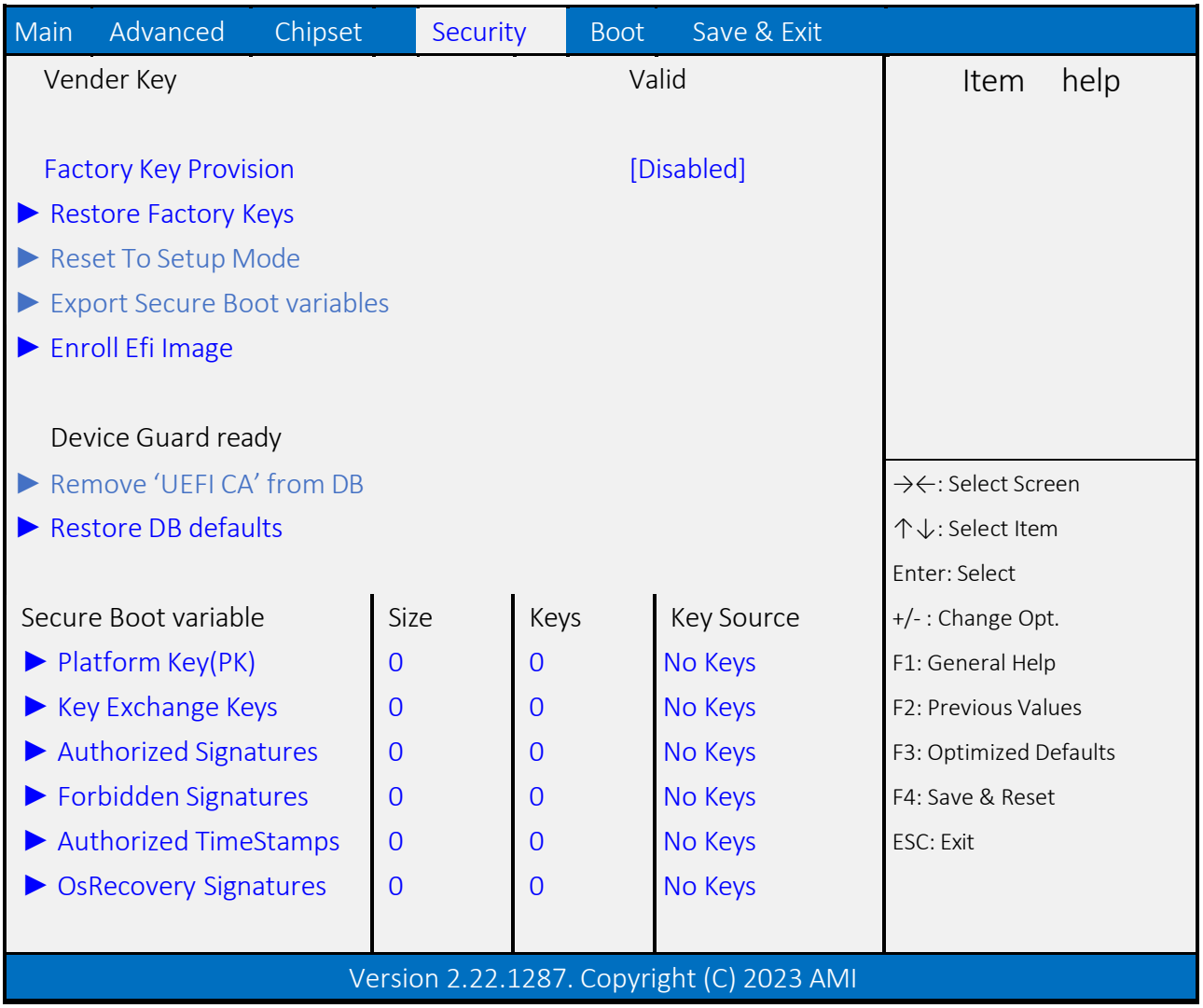
Field Name	Secure Boot Mode
Default Value	[Custom]
Possible Value	Standard Custom
Help	Secure Boot mode options:Standard or Custom.In Custom mode, Secure Boot Policy variables can be configured by a physically present user without full authentication

Field Name	Restore Factory Keys
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	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

4.2.1 Key Management



Field Name	Factory Key Provision
Default Value	[Disabled]
Possible Value	Enabled Disabled
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	Save NVRAM content of Secure Boot variable to a file

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	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)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.

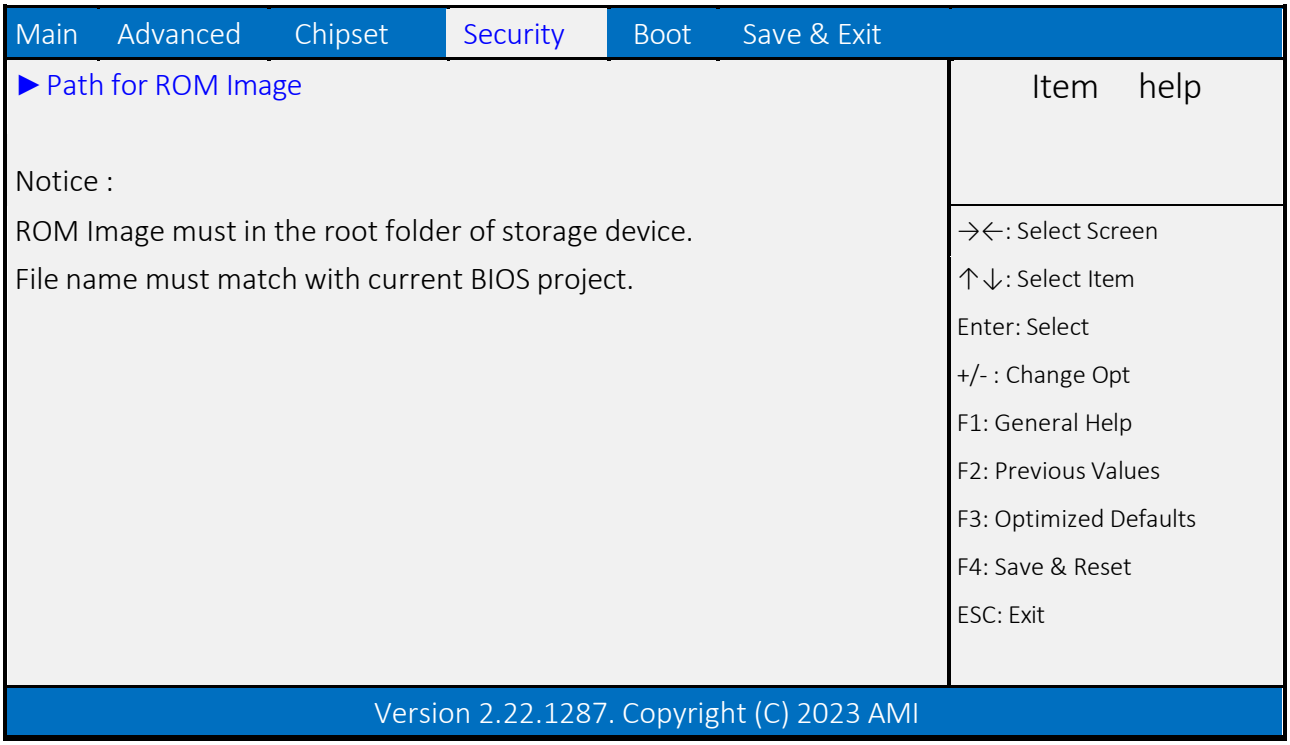
Field Name	Forbidden Signatures
Default Value	Size:0, Keys:0, Key source: No Keys
Help	Enroll Factory Defaults or load certificates from a file: 1. Public Key Certificate: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHAXXX 2. Authenticated UEFI Variable 3. EFI PE/COFF 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.

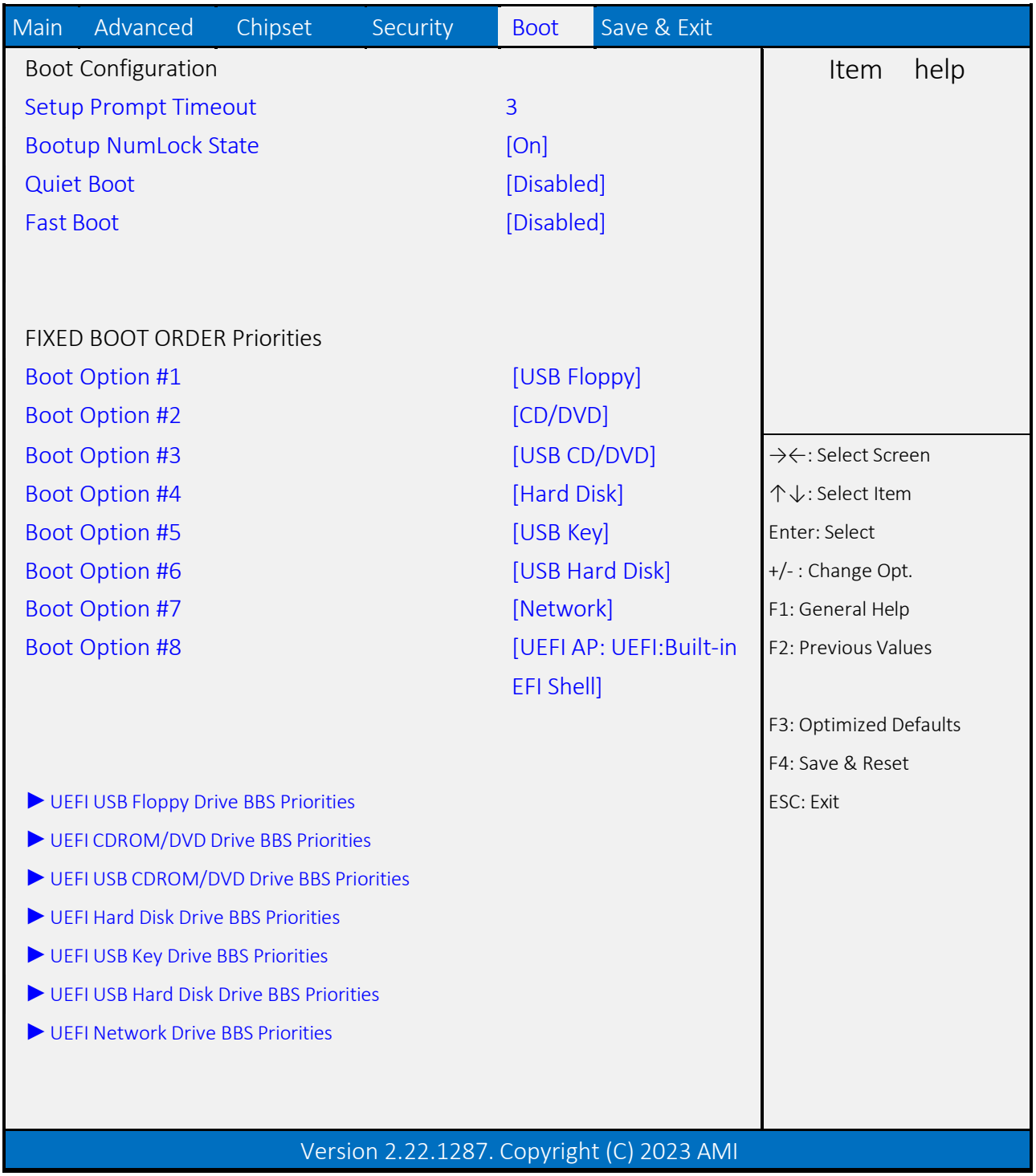
Field Name	OsRecovery Signatures
Default Value	Size:0, Keys:0, Key source: No Keys
Help	Enroll Factory Defaults or load certificates from a file: 1. Public Key Certificate: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHAXXX 2. Authenticated UEFI Variable 3. EFI PE/COFF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

4.3 BIOS Update



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

5 Boot Page



Field Name	Setup Prompt Timeout
Default Value	3
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	[On]

Possible Value	On Off
Help	Select the keyboard NumLock state

Field Name	Quiet Boot
Default Value	[Disabled]
Possible Value	Disabled Enabled
Help	Enables or disables Quiet Boot option

Field Name	Fast Boot
Default Value	[Disabled]
Possible Value	Disabled Enabled
Help	Enables or disables boot with initialization of a minimal set of devices required to launch active boot option. Has no effect for BBS boot options.

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 , Network, UEFI AP: UEFI:Built-in EFI Shell, Disabled
Help	Sets the system boot order

Field Name	Boot Option #2
Default Value	[CD/DVD]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk , Network, UEFI AP: UEFI:Built-in EFI Shell, Disabled
Help	Sets the system boot order

Field Name	Boot Option #3
Default Value	[USB CD/DVD]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk , Network, UEFI AP: UEFI:Built-in EFI Shell, Disabled
Help	Sets the system boot order

Field Name	Boot Option #4
Default Value	[Hard Disk]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk , Network, UEFI AP: UEFI:Built-in EFI Shell, Disabled
Help	Sets the system boot order

Field Name	Boot Option #5
Default Value	[USB Key]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk , Network, UEFI AP: UEFI:Built-in EFI Shell, Disabled
Help	Sets the system boot order

Field Name	Boot Option #6
Default Value	[USB Hard Disk]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk , Network, UEFI AP: UEFI:Built-in EFI Shell, 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 , Network, UEFI AP: UEFI:Built-in EFI Shell, Disabled
Help	Sets the system boot order

Field Name	Boot Option #8
Default Value	[UEFI AP: UEFI:Built-in EFI Shell]
Possible Value	USB Floppy, CD/DVD, USB CD/DVD, Hard Disk , USB Key, USB Hard Disk , Network, UEFI AP: UEFI:Built-in EFI Shell, Disabled
Help	Sets the system boot order

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

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

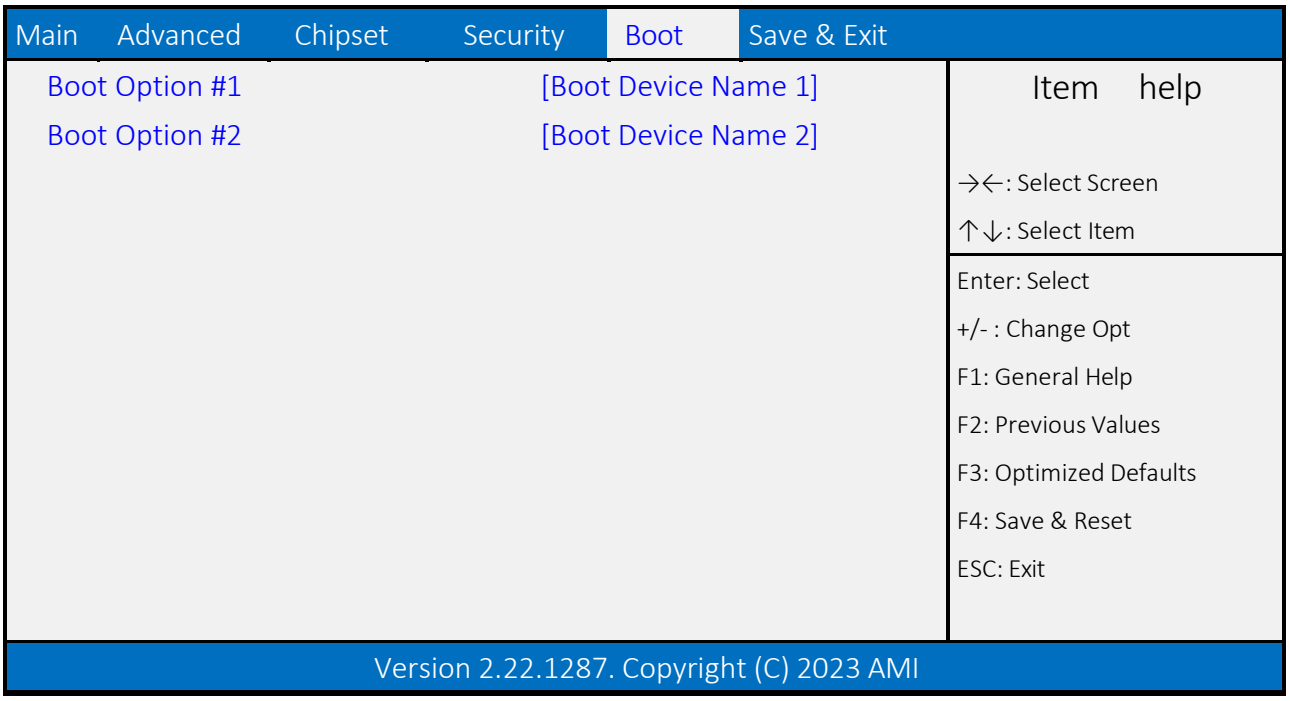
Field Name	UEFI Hard Disk Drive BBS Priorities
Help	Specifies the Boot Device Priority sequence from available UEFI Hard Disk Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

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

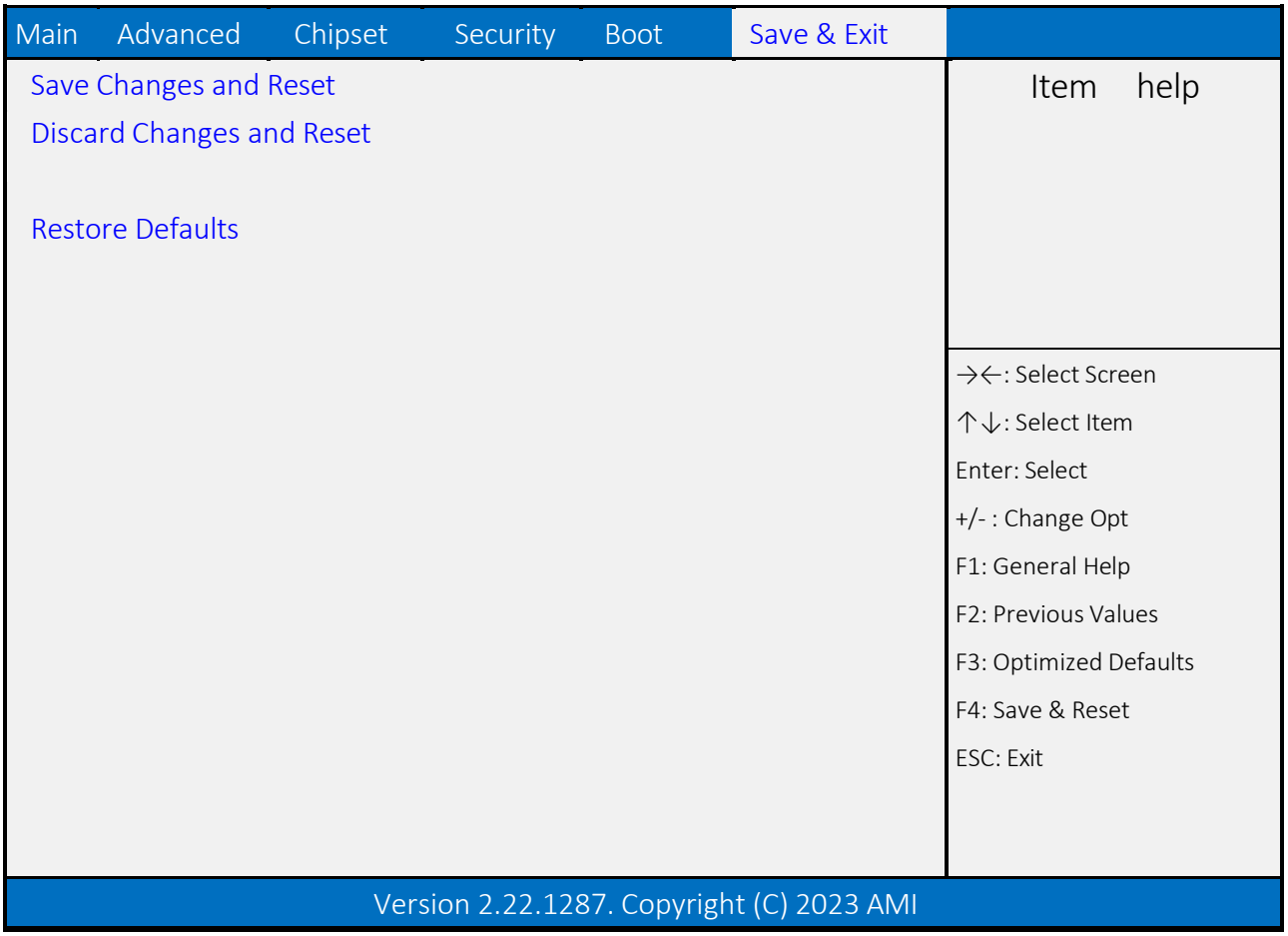
5.1 (List Boot Device Type) Drive BBS Priorities



Field Name	Boot Option #1
Default Value	
Possible Value	Boot Device Name 1 of this type, Disable
Help	Sets the system boot order

Field Name	Boot Option #2
Default Value	
Possible Value	Boot Device Name 2 of this type, Disable
Help	Sets the system boot order

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.