

RUGGED TABLET

DP8

USER'S GUIDE



Revision History

Revision	Date	Changes	Author
1.0.0	2026/08/06	Initial Release	Annabelle Wu



Important:

- *Please read the entire User's Guide before using the tablet.*
- *Please pay more attention when you see these notices:*
 - **Warning:** *Failure to follow instruction may cause in personal injury or death.*
 - **Caution:** *Failure to follow instruction may cause damage to tablet or equipment.*
 - **Note:** *It reminds the user of certain instructions.*

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FCC (Federal Communications Commission) regulatory compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

FCC 47 CFR Part 15 Subpart B

FCC 47 CFR Part 15 Subpart C

FCC 47 CFR Part 15 Subpart E

FCC§2.1093 (SAR)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to workstation or peripheral devices).

FCC Radiation Exposure Statement

FCC Radiation Exposure Statement This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 3.25 centimeters between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. Transmitters in the 5.925-7.125 GHz band are prohibited from operating to control or communicate with unmanned aircraft systems.

EU Declaration of Conformity



The device is hereby confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to the Electromagnetic Compatibility Directive (2014/30/EU), Radio Equipment Directive (2014/53/EU), and Low Voltage Directive (2014/35/EU), if used for its intended use and that the following standards have been applied:

1. Safety

Applied Standard(s):

EN 62368-1:2024+A11:2024

2. Health

Applied Standard(s):

EN 62311 (2020)

3. Radio Frequency Spectrum Usage

Applied Standard(s):

ETSI EN 300 328 V2.2.2 (2019-07)

ETSI EN 301 893 V2.2.1 (2024-11)

ETSI EN 303 413 V1.2.1 (2021-04)

4. Electromagnetic Compatibility Directive

Applied Standard(s):

EN 55032: 2015+A11:2020 Class B

EN 61000-3-2:2019+A2:2024 Class A

EN 61000-3-3:2013+A2:2021+AC:2022-01

EN 55035: 2017+A11:2020

ETSI EN 301 489-1 V2.2.3 (2019-11)

ETSI EN 301 489-17 V3.3.1 (2024-09)

ETSI EN 301 489-19 V2.2.1 (2022-09)

5. Union Harmonisation Legislation

Applied Standard(s):

EN 18031-1:2014

EN IEC 62680-1-2:2025

EN IEC 62680-1-3:2025



The device is hereby confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility Directive 2016, Radio Equipment Directive 2017, and UKCA-Electrical Equipment (Safety) Regulation 2016, if used for its intended use and that the following standards have been applied:

1. Safety

Applied Standard(s):

BS EN 62368-1: 2024+A11:2024

2. Health

Applied Standard(s):

BS EN 62311: 2020

3. Radio Frequency Spectrum Usage

Applied Standard(s):

ETSI EN 300 328 V2.2.2 (2019-07)

ETSI EN 301 893 V2.2.1 (2024-11)

ETSI EN 303 413 V1.2.1 (2021-04)

4. Electromagnetic Compatibility Directive

Applied Standard(s):

BS EN 55032: 2015+A11:2020 Class B

BS EN 61000-3-2: 2019+A1:2021 Class D

BS EN 61000-3-3 (2013+A1:2019)

BS EN 55035: 2017+A11:2020

ETSI EN 301 489-1 V2.2.3 (2019-11)

ETSI EN 301 489-17 V3.3.1 (2024-09)

ETSI EN 301 489-19 V2.2.1 (2022-09)



The device is hereby confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility Directive 2015, Radio Equipment Directive 2017, and RCM(C-tick)-Electrical Equipment (Safety) Regulation 2018, if used for its intended use and that the following standards have been applied:

1. Safety

Applied Standard(s):

AS/NZS 62368-1:2022

2. Health

Applied Standard(s):

AS/NZS 2772.2:2016 A1(SAR)

3. Radio Frequency Spectrum Usage

Applied Standard(s):

AS/NZS 4268:2017 A1:2021

4. Electromagnetic Compatibility Directive

Applied Standard(s):

AS/NZS CISPR 32 2015 / A1: 2020

Power Safety



Warning:

- To avoid injury, read **Power Safety** and **Battery Precautions** before using the tablet.
- Before any upgrade procedures, make sure to turn off the power and disconnect all cables (including telephone lines). Also, it is recommended that you remove the battery to prevent accidentally turning on the tablet.

There are specific power requirements for your device:

- Only use an approved AC Adapter designed for this tablet.
- There is a 3-prong grounded plug for the AC Adapter. The 3rd prong is an important mechanism for ensuring product safety. Please do not neglect the importance of this mechanism. If you are unable to access a compatible electrical outlet, please hire a qualified electrician for the outlet installation.
- When unplugging the AC power cord, please make sure to disconnect the cord by pulling from the plug head instead of pulling the cable to prevent wire damage.
- Make sure the power outlet and any other extension cord(s) you use can support the total current load of all the connected devices.
- Before cleaning the tablet, please make sure it is disconnected from any external power source.

Battery Precautions



Caution:

- *Batteries are consumable products and have a limited warranty period.*
- *All batteries are covered by ONE (1) year warranty support.*

- Only use batteries designed for this tablet. Using incompatible battery types may cause explosion, leakage, or damage to the tablet.
- Do not continuously use a battery that has been dropped, or that appears damaged (e.g., bent or twisted) in any way. Even if the tablet is able to continuously work with a damaged battery, the circuit damage may occur and possibly cause a fire.
- Always use the charger designed for this tablet to recharge the battery. Incorrect recharging may cause the battery to explode.
- Do not attempt to service a battery by yourself. For battery service or replacement, please contact your service representatives.
- Please dispose of the damaged battery promptly and carefully. Explosion or leakage may occur, if the battery is exposed to fire, improperly handled, or discarded.

Note:

- *For safety purposes, charging will stop if the internal battery temperature is out of range (<10°C or >45°C). Discharging will stop if the internal battery temperature is out of range (<0°C or >60°C). Please note that charging or discharging may stop before the ambient temperature reaches these limits, as the internal battery temperature is not equal to the ambient temperature.*

Water Resistance

The tablet has a standard rating of IP65 under IEC standard 60529 (Spray and water splash from maximum distance of 3 meter up to 3 min) and was tested under controlled laboratory conditions. Although it has excellent protection, please do not use it as a diving equipment. Splash, water, and dust resistance are not permanent conditions when using the product continuously in extreme environments and resistance might decrease as a result of normal wear. Also, please do not disassemble any part of your tablet as it might damage the resistance ability of your tablet.

Note

- *IP65 protection is guaranteed only when all protective caps are properly installed.*
- *IP65 protection is not guaranteed if caps are removed or when cables are attached.*
- *IP65 protection is void if the device is disassembled by the user.*

Environmental Information, Material Safety & Recycling

All materials used in the manufacturing of this tablet are recyclable or environmentally friendly. Please recycle the packing materials in accordance with local regulations at the end of the product's service life.

Notice:

- The tablet may contain an insignificant amount of hazardous substances to health and the environment below the control level.
- To avoid releasing such substances into the ecosystem and to minimize the pressure on the natural environment, reuse or recycle most of the materials in a safe way after the product's service life is encouraged.
- For more information on the collection, reuse and recycle of materials, please consult local or regional waste administrations. You can also contact your dealer for more information on the environmental details of the tablet.
- The crossed-out wheeled bin symbol indicates that the product (electrical and electronic equipment) should not be treated as a municipal waste. Please refer to local regulations for the disposal instructions.



Note:

- *This product contains battery. At the end of the product's service life, the tablet and battery should be disposed separately from household waste. The disposal should be in accordance with the local environmental laws and guidelines.*

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Chapter One - Getting Started

Unpacking



Caution:

- *Fully charge the battery before using it for the first time.*
- *Make sure that the battery is installed or the tablet is connected to AC power.*
- *Safety instructions are provided in related sections throughout the User's Guide. Please read through the manual and any accompanying documents before starting to use the product.*

The following components come with your tablet computer and may vary by configuration. If there is any missing or damaged, please notify your sales representative immediately.

- Tablet Unit
- USB Type C-Type C Cable
- Quick Guide



Note:

- *Specifications may vary by configuration and availability.*

Appearance Overview

Front

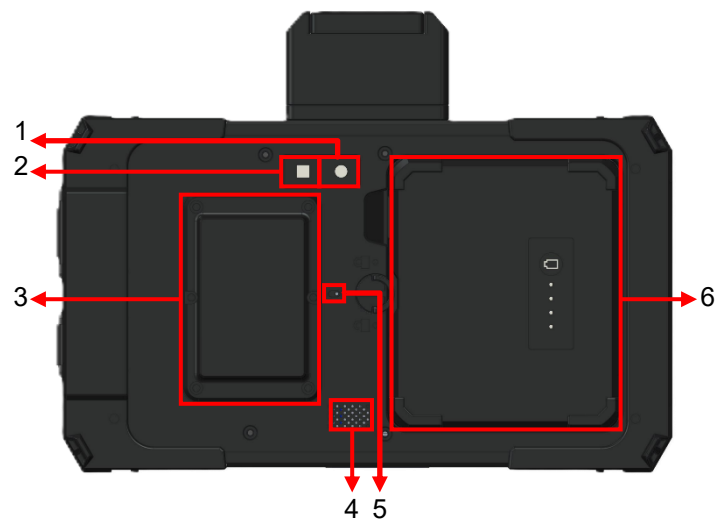


No	Component	Description
1	Display	Show the display output of the tablet.
2	Light Sensor	Detect the light from the environment.
3	Battery Indicators	- Light Flashing Orange during low battery. - Light Orange during charging. - Light OFF when fully charged.
4	Function Keys	Use to operate specific system functions.
5	Power Button	Press to turn the system ON/OFF.
6	Embedded Digital Mic	Capture sound from communication.

Note:

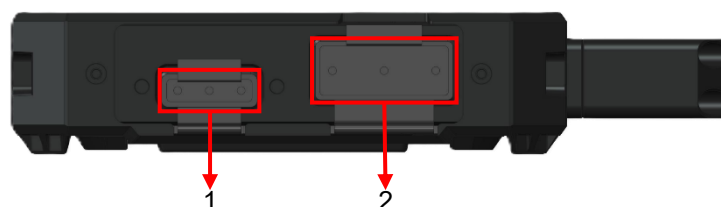
- The device's default display orientation is portrait. Users can change the display orientation to landscape through the Settings menu.

Rear



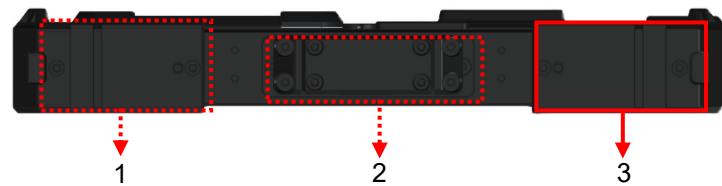
No	Component	Description
1	Rear Camera	Allow to use the camera function
2	Flash Light	Enhance brightness for clearer photos in low-light conditions.
3	Bridge Battery	Sustain the system power when hot swapping the main battery.
4	Speaker	Deliver clear audio for music, voice, and notifications.
5	Bridge Battery Indicator	Light Red when the battery level is low. Light OFF when battery is in use.
6	Battery	Supply power to the tablet.

Right



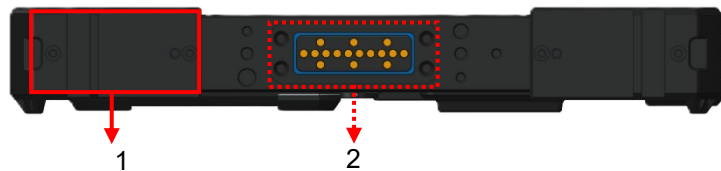
No	Component	Description
1	USB 3.2 Gen. 2 Type-C	Connect a USB device and input of power supply.
2	USB 3.2 Gen. 2 Type-A	Connect a USB device.

Top



No	Component	Description
1	Optional GNSS Antenna	Provide positioning and navigation.
2	Optional T24 Module	Provide wireless solution for industrial sensor applications.
3	WLAN/Bluetooth® Main Antenna	Allow wireless network connectivity. Enable short-range wireless communication.

Bottom



No	Component	Description
1	WLAN/Bluetooth® Aux. Antenna	Allow wireless network connectivity. Enable short-range wireless communication.
2	Docklite Connector (16-pin POGO)	Connect to an external dock. Support signals of LAN, USB2.0, 5V, Va 19V, GND

Chapter Two - Operating Information

Workplace

**Warning:**

- *Avoid direct skin contact with the tablet when operating in extreme weather conditions.*
- *The tablet may become uncomfortably warm when used in high temperatures. Avoid placing it on your lap or touching it during such situations.*

A clean and moisture-free environment is preferred. Make room for air circulation. Remember to avoid areas from:

- Temperature beyond operating range.
- Moisture or water environment beyond its waterproof rating.
- Dusty or dirty environments that exceed the tablet's dust-proof specifications.
- Electromagnetic fields (near a television set, motor rotation area, etc.).

Place the tablet on a flat and steady surface when operating, dropping might damage the tablet.

Connecting to AC Adapter

1. Plug the USB-C Jack into the charging port of the tablet.

**Thumb screws fixation available in Rugged 60W USB-C AC Adapter.*

2. The charge indicator lights orange when charging and turns off when fully charged.



Note:

- *To ensure system stability, please connect your tablet to external power source when operating below 0°C and above 60°C ambient temperature.*
- *The AC Adapter's indicator lights green when the AC power is attached.*
- *For the tablet without battery, Boot Up is recommended after the tablet is attached to the AC Adapter for approximately 3 seconds, so to ensure the power has been delivered to it.*

Hot Swapping the Battery

**Caution:**

- *Hot swapping is not recommended when the bridging battery indicator is red.*
- *Hot swapping is not recommended at ambient temperatures below 10°C or above 60°C.*
- *The hot-swapping mechanism is activated when the battery lock is unlocked.*
- *If the battery replacement takes longer than 30 seconds, the tablet may shut down and any unsaved data could be lost.*
- *Display brightness may be reduced during hot swapping.*
- *System performance may decrease during hot swapping.*
- *All unsaved files should be saved before swapping the battery to prevent data loss.*

To hot swap the battery

1. Check the power supply.
 - Whether the AC Adapter is connected; or
 - Whether the bridge battery indicator lights OFF.
2. Turn the battery lock counterclockwise to unlock it.
3. Replace the battery.
4. Fasten the battery lock clockwise.

Installing Operating System

The tablet is designed to operate with Microsoft Windows 10/Windows 11 IOTG Operating System. Please connect the tablet with an external USB-interface drive and follow the installation process.

Note:

- *An external USB device may be required during installation. As the system USB port may not supply enough power, please attach the USB hub with an extra power supply to complete the installation.*
- *Though Intel IOTG has not yet announced to support Windows 11 LTSC, in-house Windows 11 tests have been done and confirmed passed.*

Boot Up and POST

The standard operating procedure to turn on the tablet is via the power button. Press the power button, and then the tablet will boot up and start with the Operating System (OS).

Boot Up

After pressing the power button, the tablet will turn on and load the Operating System (OS) into the system memory. This start-up procedure is called “boot up”.

ROM BIOS Power on Self-Test (POST)

Each time the tablet powers on, the BIOS will automatically perform a self-test of its memory and hardware devices.

Shut Down and Force Shut Down



Caution:

- *Before shutting down, remember to save any unsaved work and close the applications to prevent your SSD from suffering possible data loss or damage.*

Shutting down will turn OFF the power of the tablet. To turn the tablet OFF, please shut down directly by

Click **[Start]** → Click **[Power]** → Click **[Shut down]**

Force Shut Down

In the event that your tablet hangs or stops responding, you can perform a force shut down by pressing and holding the power button for 4~5 seconds. Please note that any unsaved work or data may be lost this way.

Sleep and Hibernate

Sleep

In sleep mode, the system saves the current work in memory (RAM) and enters a low-power state. You can enter sleep mode by briefly pressing the Power Button (about 1 second) or by Click **[Start]** → Click **[Power]** → Click **[Sleep]**

To resume operation, press the Power Button again or double-tap the screen.

Note

- *Wake-on-LAN (WOL) is not supported under sleep mode in Windows 11.*

Hibernate

Under hibernate mode, the system will save your work into SSD. If you wish to start your tablet again, please press the power button to resume. Please enter this mode directly by Click **[Start]** → Click **[Power]** → Click **[Hibernate]**

To resume operation, press the Power Button again.

ACPI Support

The tablet supports ACPI (Advanced Configuration and Power Interface) for power management. With ACPI and an ACPI-compliant operating system (such as Microsoft Windows), this feature will allow you to reduce the power consumption and conserve energy. By supporting ACPI, the AC adapter LED and the Power indicator LED will show in different ways. The followings are detailed descriptions of LED indicators and their meanings:

While connecting with power,

Sleep:

Power LED indicator breathing Green; Charge LED indicator lights Orange

Hibernate:

Power LED indicator is OFF; Charge LED indicator lights Orange

Shut down:

Power LED indicator is OFF; Charge LED indicator lights Orange

Function Keys

The tablet is designed with backlight function keys for easy and quick operations.

Function Keys

Icon	Functions
	Programmable Key
	Programmable Key
	Windows
	Brightness Up
	Brightness Down
	Input Lock

Input Lock key

Press the Input Lock key to prevent accidental input. When the Input Lock key is enabled, the LED indicator lights green, and all input devices, including the function buttons and touchscreen, are disabled. Press the key again to unlock..

Touchscreen



Caution:

- *Navigate the touchscreen with your finger for proper operation. Sharp edges or hard objects may damage the screen.*

The system automatically detects rain or glove mode and adjusts the touch sensitivity accordingly.

Action	Description
Select an item	Tap
Scroll	Place two fingers on the screen and slide horizontally or vertically
Zoom in or out	Place two fingers on the screen and pinch in or stretch out.
Show more commands (like right-clicking)	Press and hold the item.
Show all open windows	Swipe with three fingers up on the screen
Show the desktop	Swipe with three fingers down on the screen
Switch to the last open app.	Swipe with three fingers to the left or right on the screen.
Open Notification Center	Swipe with one finger from the right edge of the screen.
Switch desktops	Swipe with four fingers to the left or right on the screen.

Note

- *Depending on the type of gloves, touchscreen operation may be unresponsive.*
- *Depending on water drop conditions, touchscreen operation may be unresponsive. Please dry the touchscreen to restore normal operation.*
- *These situations are not malfunctions.*

Adaptive Brightness

The light sensor automatically adjusts the display backlight based on ambient lighting conditions.

To enable or disable Adaptive Brightness by

Click **[Start]** → Click **[Settings]** → Click **[System]** → Click **[Display]** → Click **[Brightness]** → Click **[Change brightness automatically when light changes]**

Installing Micro SD Card Slot

The tablet is equipped with a Micro SD card slot for data storage and transfer. The Micro SD Card Slot is designed beneath the battery slot on the rear side.

1. Remove the battery.
2. Peel off the I/O board adhesive.

To insert a MicroSD Card

3. Insert the card, with metal contacts facing downward.
4. Push the card in.

To eject a MicroSD Card

5. Press and hold the card in File Explorer, then select **[Eject]**.
6. The SD card slot is spring-loaded. Gently push the SD card to release it for removal.
7. Stick back the I/O board adhesive.
8. Install the battery.



Note:

- Do not attempt to force the card into the incompatible card slot, each card slot is specified for its respective card only.

WLAN/ Bluetooth® Module

With a WLAN and Bluetooth® module, the system can connect to a network wirelessly within a limited range, providing internet access and enabling communication between devices without physical cables.

To connect to a WLAN Network by

Click **[Settings]** → Click **[Network & Internet]** → Click **[WLAN]** → Toggle the switch **[On]** → Click **[Show available networks]** → Select the desired network → Click **[Connect]**

To connect to a Bluetooth® Device by

Click **[Settings]** → Click **[Bluetooth & devices]** → Toggle the switch **[On]** → Click **[Add device]** → Select the desired device

Optional GNSS Module

The tablet could be upgraded with a GNSS module, which helps determine the locations and timing data of the laptop by receiving accurate information from GPS, GLONASS, Galileo, and BeiDou satellites.

To turn ON/OFF GNSS

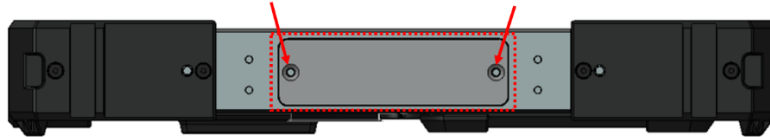
Click **[Settings]** → Click **[Privacy & security]** → Click **[Location]** → Toggle the Location services **[ON/OFF]**

Optional T24 Module

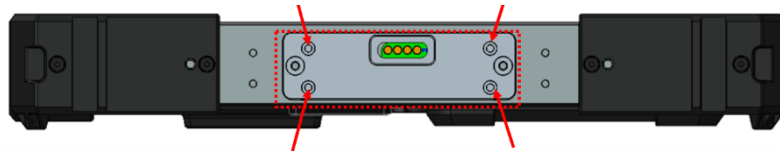
The T24 is a radio module that provides wireless solution for industrial sensor applications.

To install the T24 Module

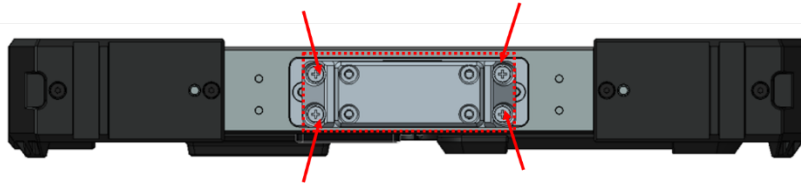
1. Remove the M2.6*4 screws x 2 and remove the Top Plate.



2. Secure the USB Adapter Bracket using M2.6*8 screws x 4.



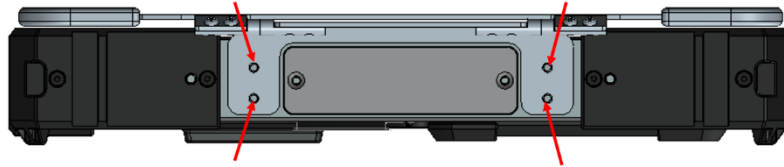
3. Align the T24 Module with the guide holes and tighten the captive screws on the module.



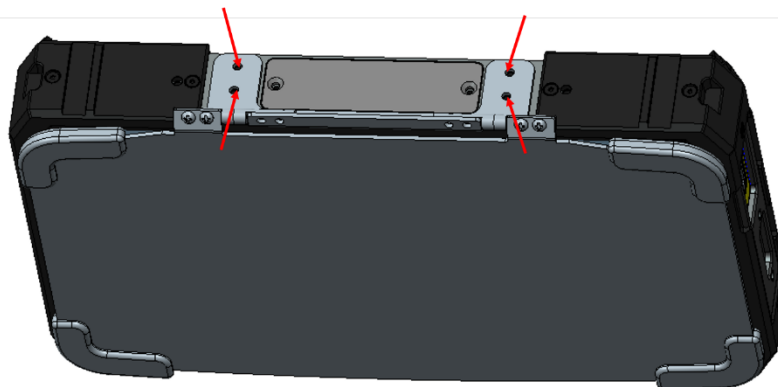
Optional Sunshield

The Sunshield is designed to reduce glare and improve screen visibility under direct sunlight.

1. Align the Sunshield with the screw holes.



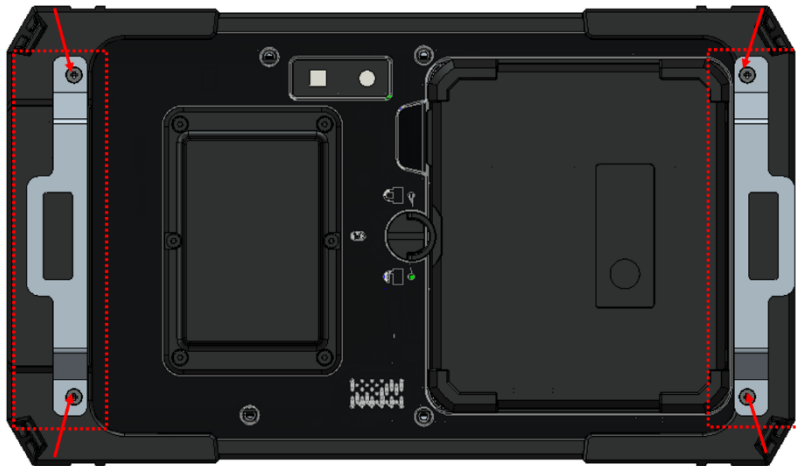
2. Secure the Sunshield using M2.6*5 screws x 4.



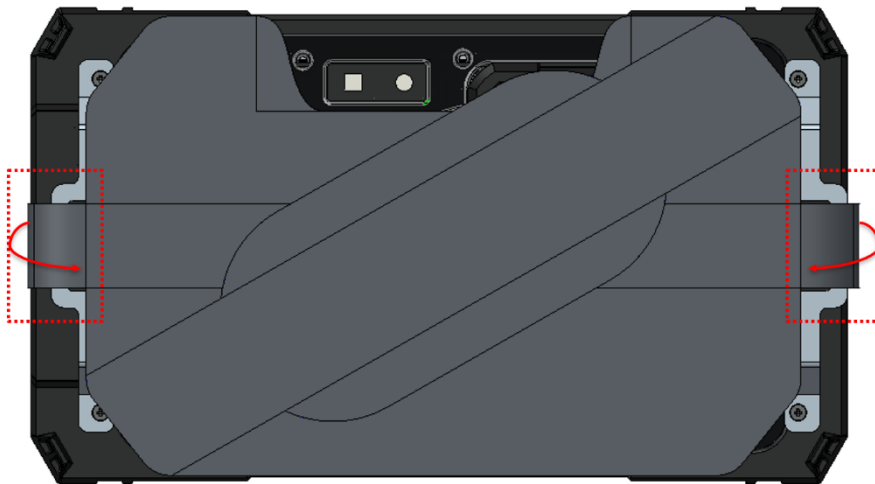
Optional Hand Strap

The hand strap makes operating the tablet easier and carrying it more convenient. It is adjustable to fit most hand sizes.

1. Align the Brackets x 2 with the screw holes and secure them using M+3*8 screws x 2 each.



2. Thread the Hook-and-loop Strap through each Bracket and fasten it.

**Note:**

- Ensure that the cutoff side of the hand strap faces upward to avoid blocking the camera lens.

Chapter Three - Managing Power

AC Adapter

The power input includes:

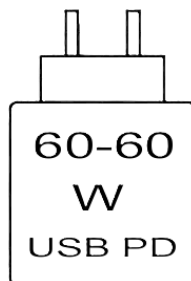
1. Fast Charging via Type-C: 60W, 100~240VAC, 50/60Hz

The AC Adapter automatically detects the AC voltage supply (110V or 220V) and adjusts accordingly. It serves to power the tablet from an external AC source and charges the installed battery.

Recommended for the AC adapter:

- Use a properly grounded AC outlet.
- Use one AC outlet exclusively for the tablet. Having other appliances on the same line may cause interference.
- Use a power cable with built-in surge protection.

Power Requirements



Wattage for charging:

Minimum: 60 W

Maximum: 60 W

Battery

Battery Duration

Device	Battery Life
When power is ON	Approximately 6 hours (Playing video) or 8 hours (Idle) with an 100% battery (BDP82A) equipped. The operating time depends on how and where the tablet is applied. Playing multimedia, setting backlight brightness high, and utilizing the tablet in a low temperature environment may be considerably power-consuming.
When power is OFF	Approximately 180 days with an 50% battery equipped. Though Shutdown Mode is designed, it is still suggested that the battery be charged every 3 months so to avoid over discharging.

Battery Percentage & Level

The tablet will automatically switch to battery when the external power source (AC adapter or vehicle adapter) is disconnected. You may check the battery level from Windows or via the LED indicators on the battery. Each indicator corresponds to 25% battery level.

- LED Indicator on Battery

Each indicator corresponds to 25% battery level.

Indicator (Right to Left)	Battery Percentage
1	<25%
2	25% ~ 50%
3	50% ~ 75%
4	>75%



Note

- Press the  to show the battery indicator.
- The battery gauge is for reference only. Please do not expect it to show the exact amount of the power remaining. There is no memory effect on Lithium-Ion battery cells. However, discharging the battery to nearly empty every month will help to calibrate the internal gauge.
- To show the correct battery percentage under Windows, it is recommended to power ON after the battery is installed.

Battery Low**Caution:**

- When the battery is drained, the tablet will shut down automatically and any unsaved data might be lost.
- Please make sure to save all unsaved files before swapping the battery to prevent any data loss.
- Hot swapping should be avoided if the bridge battery indicator lights red.

The tablet shows the following “Battery Low” warnings when the battery is nearly exhausted:

- Windows shows battery low warning.
- The battery indicator flashes orange.

Once “Battery Low” warnings occurs, please follow the instructions below to avoid data loss.

- Save and close the files you are currently working on.
- Plug in the AC Adapter to charge the battery.
- Replace the battery with a fully charged one.

Battery Charging Time

The system is compatible with fast charging via USB-C. Connect to the AC Adapter to start the battery charging. The charge indicator lights orange when charging. When the battery charging is completed, the indicator will automatically OFF, and the sense circuitry will stop high current charge within several minutes.

Charging Time		Battery BDP82A
AC Adapter	System ON	4 hours
	System OFF	4 hours

Note:

- *Use only the AC adapter designed for the tablet to charge the battery.*
- *The actual charging time depends on the operating environment of the tablet.*
- *For safety purpose, charging will stop if the internal battery temperature is out of range ($<10^{\circ}\text{C}$ or $>45^{\circ}\text{C}$). Discharging will stop if the internal battery temperature is out of range ($<0^{\circ}\text{C}$ or $>60^{\circ}\text{C}$). Please note that charging or discharging may stop before the ambient temperature reaches these limits, as the internal battery temperature is not equal to the ambient temperature.*
- *[Battery Charging Protection](#) can be enabled in BIOS. The tablet will stop charging when battery percentage is above 80%.*

Battery Shutdown Mode

The battery is designed with a shutdown mode and automatically enters this mode to extend storage life and prevent over-discharge. Shutdown Mode will be activated:

- When the battery itself is not in use for over 45 days

The battery in Shutdown Mode may be sustained for approximately 180 days. To deactivate shutdown mode, connect the battery to the tablet and then to the AC adapter, or connect it to the battery charger. When the charge indicator lights orange, shutdown mode has been deactivated.

Battery Recalibration

Battery recalibration allows a user to calibrate the GAUGE IC parameter of the battery pack. When the battery stays fully charged or in a low charge state for a long period of time, it causes the battery gauge to have some minor discrepancies. Therefore, users are recommended to carry out battery recalibration to ensure the accuracy of battery GAUGE IC. To perform battery recalibration, please follow the steps below:

1. Update BIOS & EC to the latest version.
2. Mount the battery to the tablet, and connect it to the AC Adapter.
3. Enter the BIOS → Choose “Advanced menu” → Choose “Battery Recalibration” → Press “Enter”.
4. When the “Start Battery Recalibration” pop-up appears, press “Yes” to continue.
5. The recalibration is now processing. You can see the following recalibration status on the screen:
 - Calibration Frequency: How many times the calibration is processed
 - Battery Capacity: Current battery capacity
 - Battery Charge Mode: Charge/ Discharge
 - Battery Learning Mode: Normal (charge)/ Learn (discharge)
6. A pop-up appears when the calibration has been completed. Then, click “OK”.
7. Press “Yes” to reboot the laptop when the “Reset Without Saving” pop-up appears.

Note

- *Neither turn off the LCD nor remove the AC adapter during the calibration.*
- *Each cycle of recalibration process indicates “Charge to Full → Start Learn Mode → Discharge → Complete Learn Mode → Charge to Full”. It will take approx. eight hours to complete a cycle.*
- *It requires five cycles to complete the battery recalibration. Then the recalibration will stop automatically.*
- *If you want to terminate the calibration, simply shut down the laptop by pressing the Power Button; or, restart the laptop via the external keyboard by pressing “CTRL+ALT+DEL”.*

Battery Storage Recommendations

Battery power will decrease gradually in storage. Self-discharge rate of rechargeable battery is approximately 1% per day; however, this rate may vary according to the storage environment. High humidity and high temperature accelerate discharge, while very low temperature may “freeze” the battery chemicals thus decreasing the capacity. The following are guidelines for battery maintenance:

- Remove the battery if the tablet will not be used for an extended period (approximately one month).
- Charge the battery to approximately 50% before removing it from the tablet and storing it separately.
- During storage, maintain the battery at around 50% charge based on the storage temperature to prevent over-discharge.

Storage Temperature	Battery Charging Frequency
-20°C ~ +20°C	Every 6 months
-20°C ~ +45°C	Every 3 months
-20°C ~ +60°C	Every month

- A battery that has not been used for more than two years may degrade due to aging and is not recommended for use.

Power Conservation

It is recommended the power saving functions be enabled even when not running on battery power. Power Management will not degrade performance while saving power.

Power Saving Tips

This tablet comes with an intelligent power-saving feature. You may extend the battery life by

- Set up power saving functions in **[Settings] → [System] → [Power & battery] → [Energy recommendations]**.
- Lower the intensity of the display in brightness control.
- Turn the tablet into standby (by Sleep or Power button) when it is temporarily not in use.
- Shut down the tablet when it will not be used for a period of time.

Chapter Four - BIOS Setup



Caution:

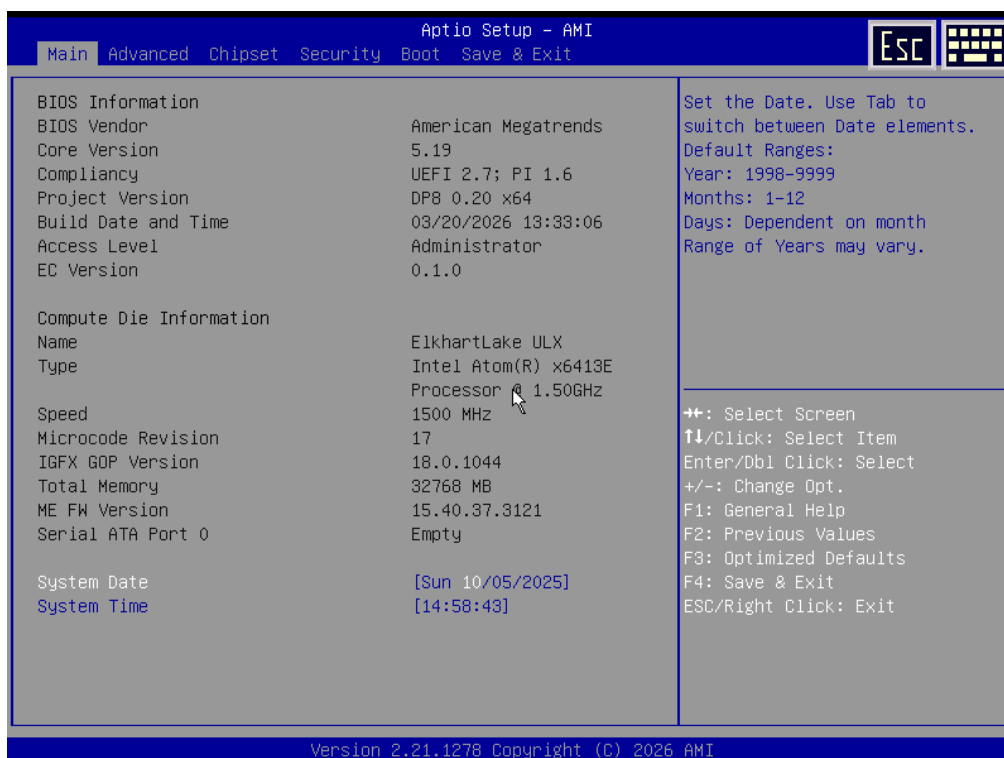
- *Incorrect settings may cause system malfunction. To correct it, restore the Optimized Defaults with [F3].*

Press [F2] at boot up to enter BIOS setup. Use arrow keys to select options and [+/-] to modify them. When finished, move to “Exit” and press [Enter] then confirm save by pressing [Y].

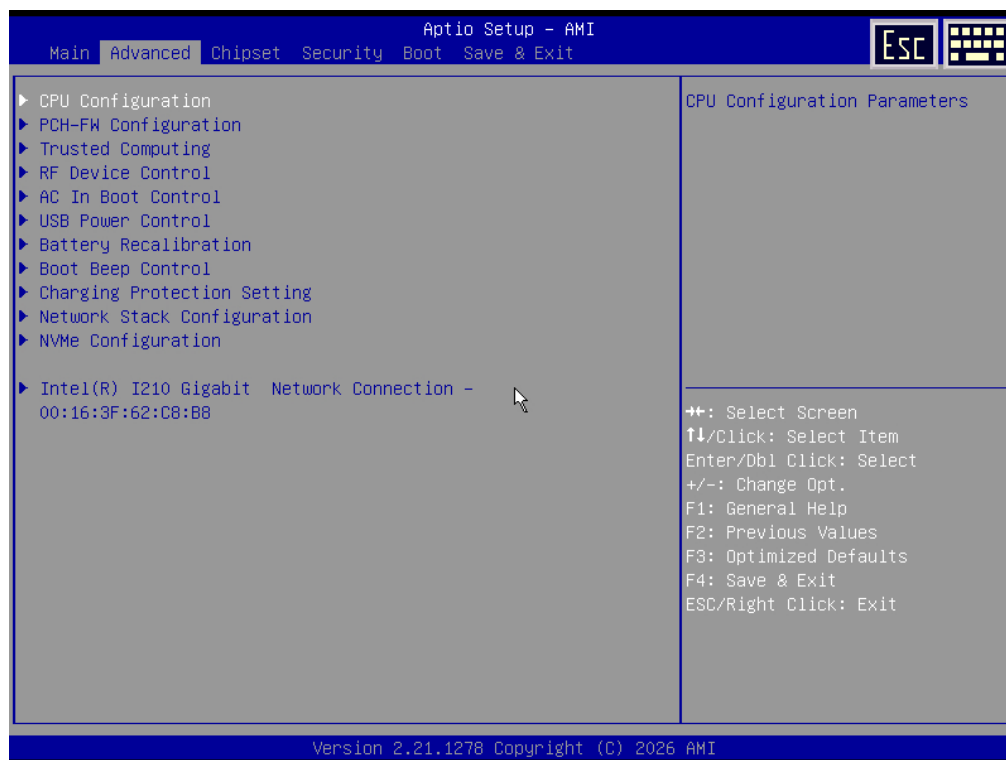
Note:

- *The contents may vary on configurations.*
- *Use the touchscreen or an external keyboard to select options.*

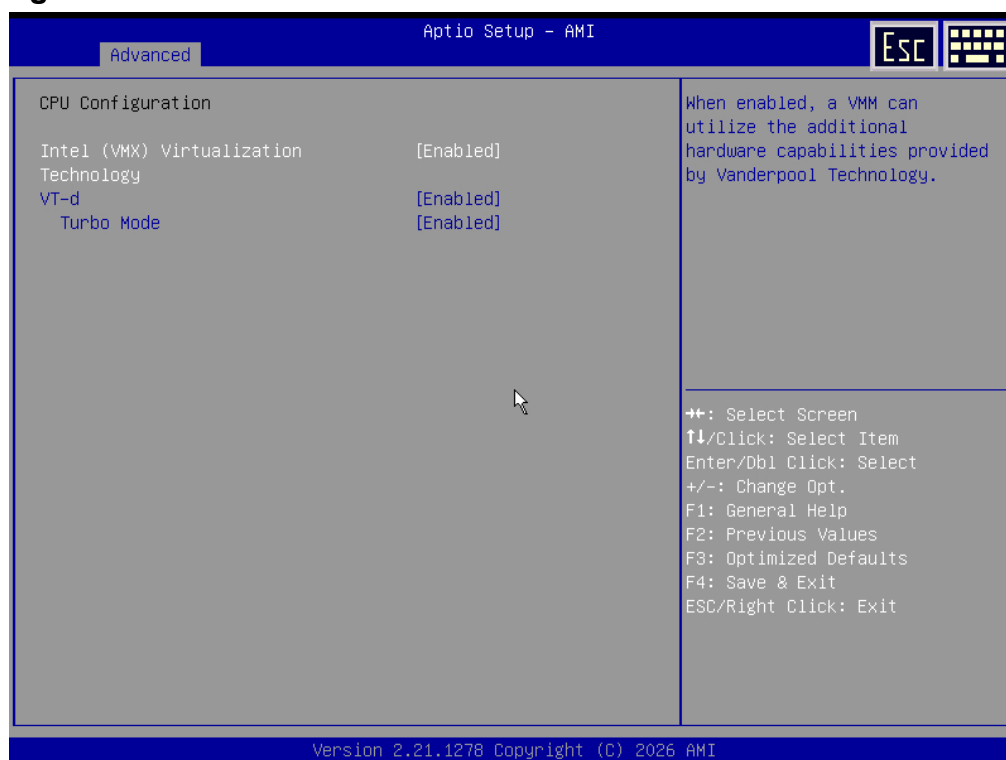
Main Menu



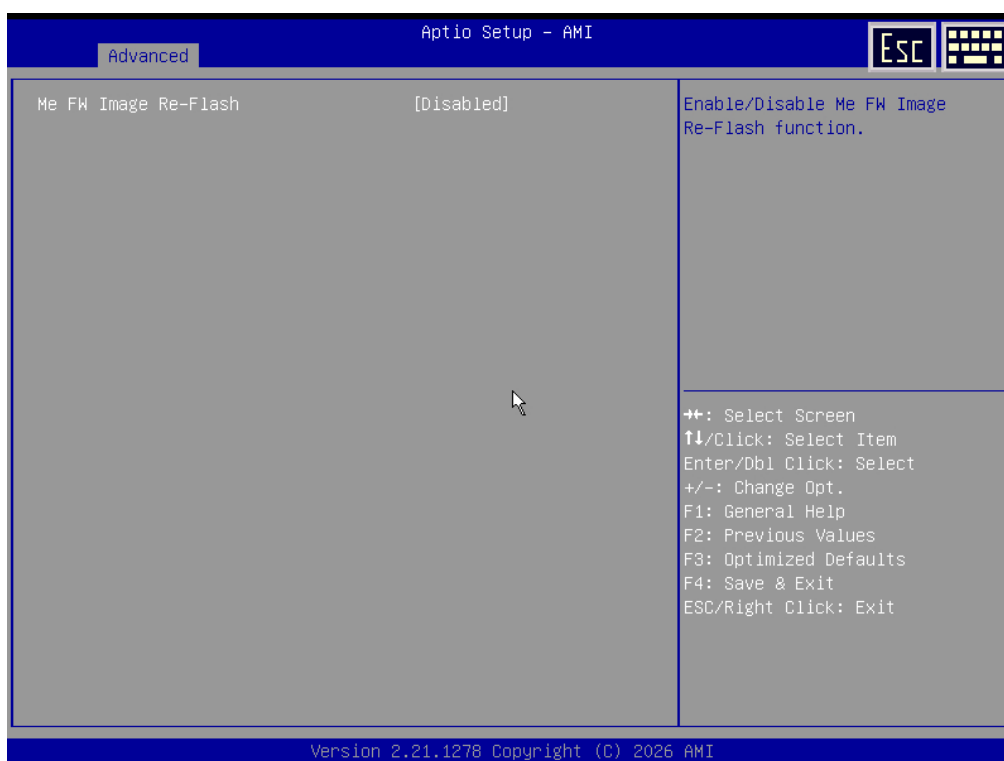
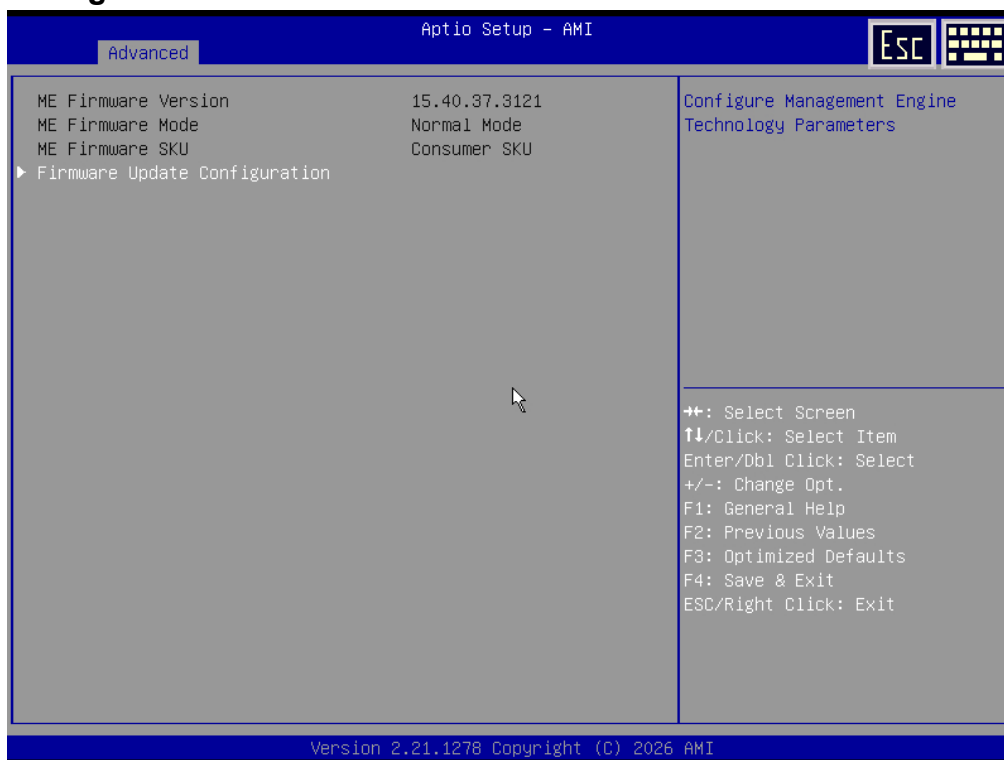
Advanced Menu



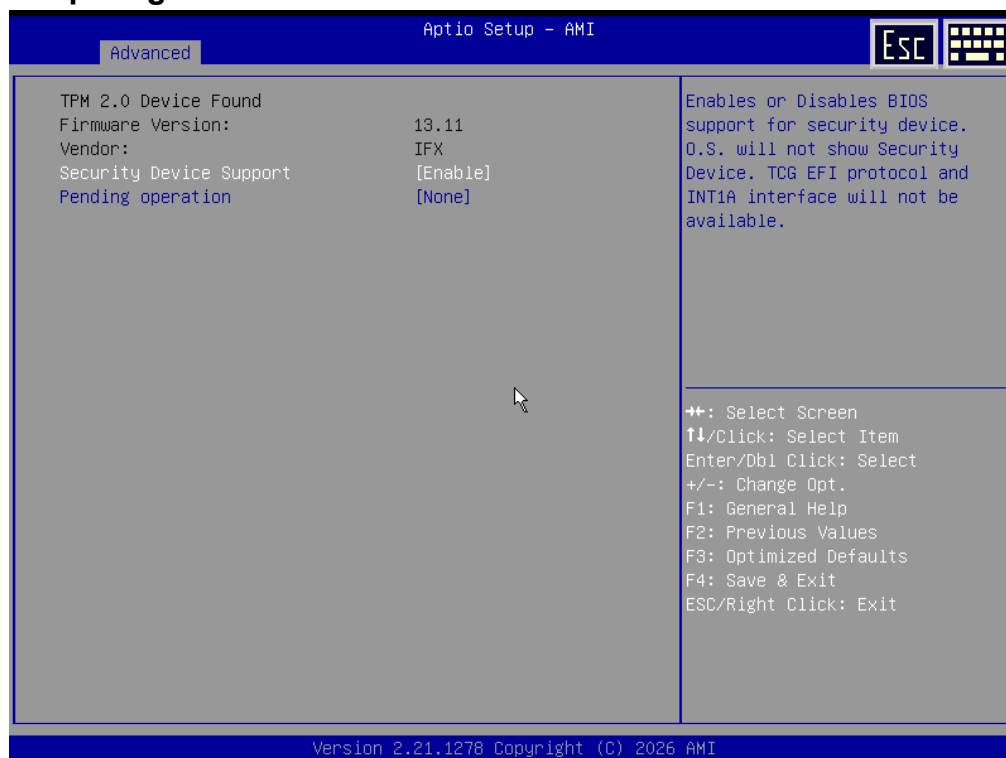
CPU Configuration Sub-Menu



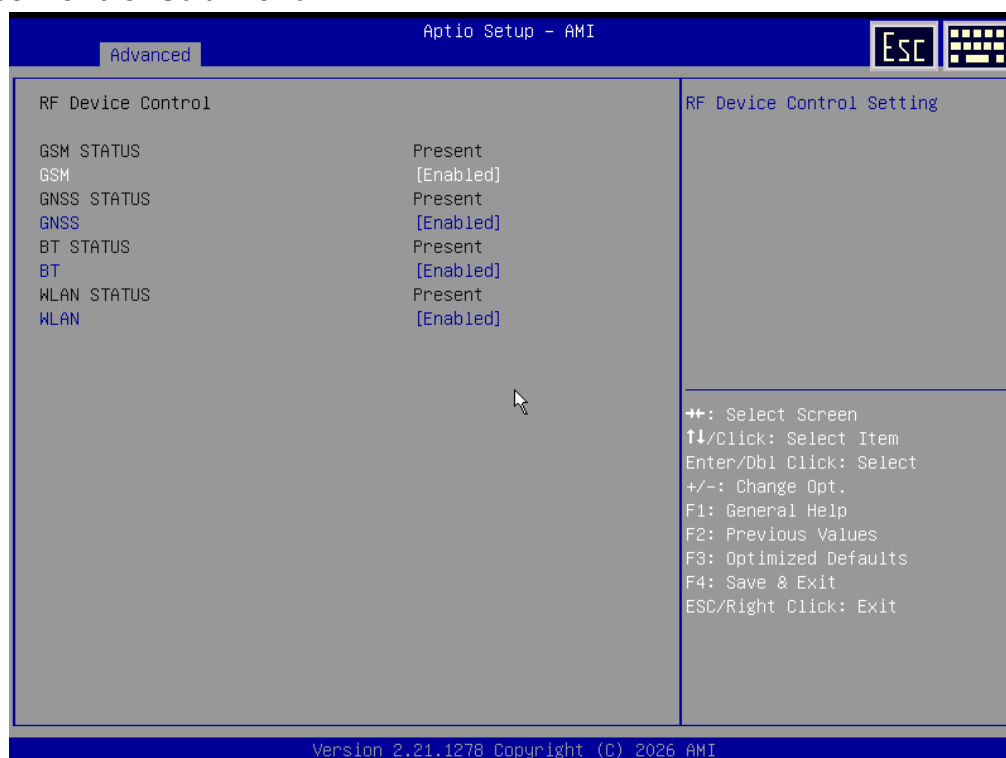
PCH-FW Configuration Sub-Menu



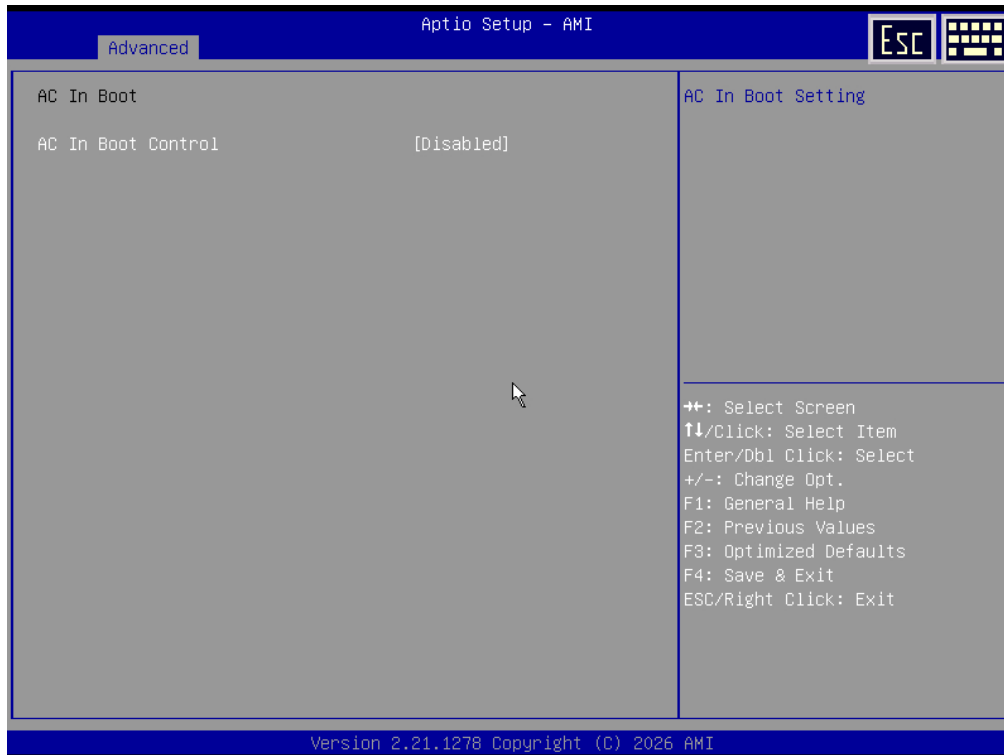
Trusted Computing Sub-Menu



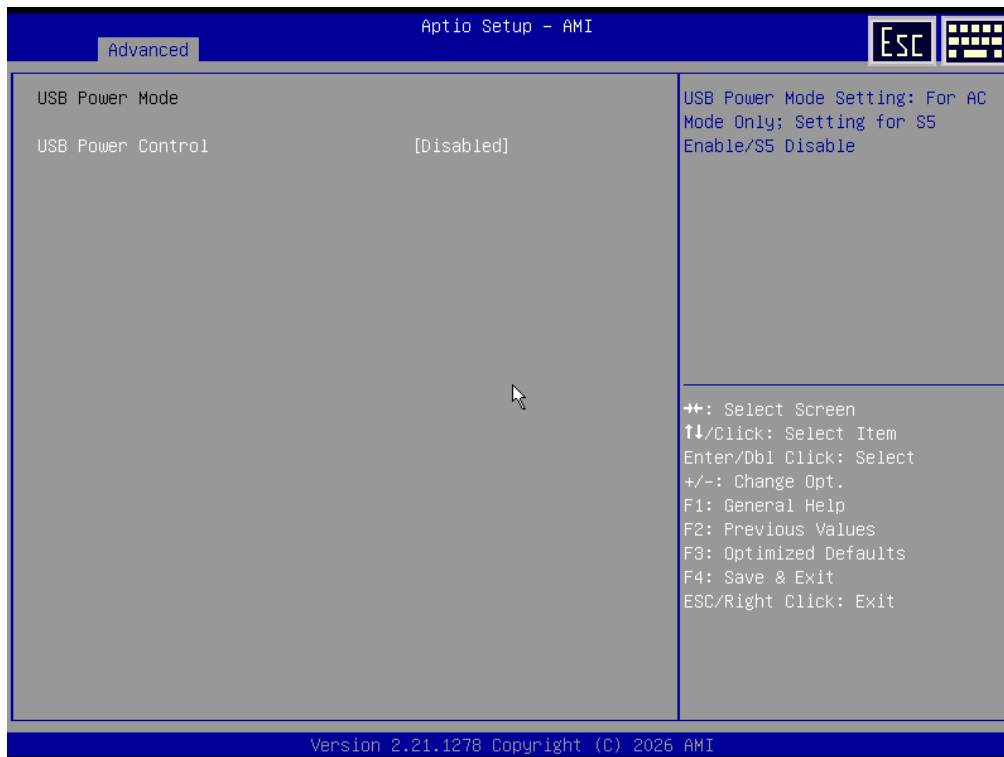
RF Device Control Sub-Menu



AC In Boot Control Sub-Menu



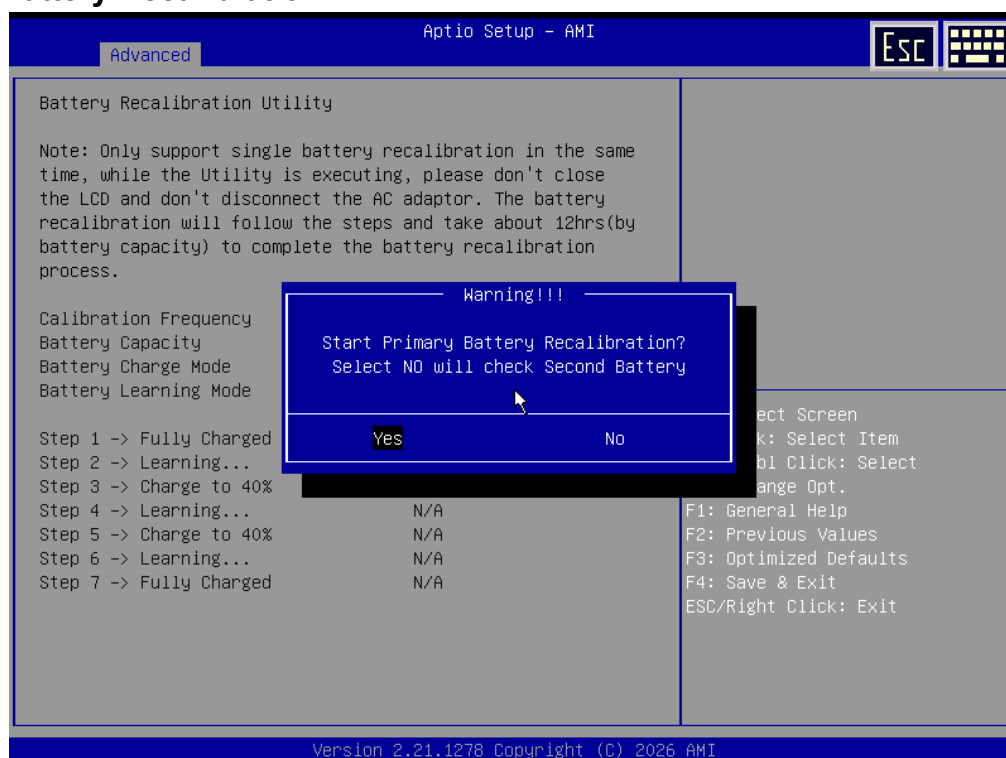
USB Power Control Sub-Menu



Battery Recalibration Sub-Menu



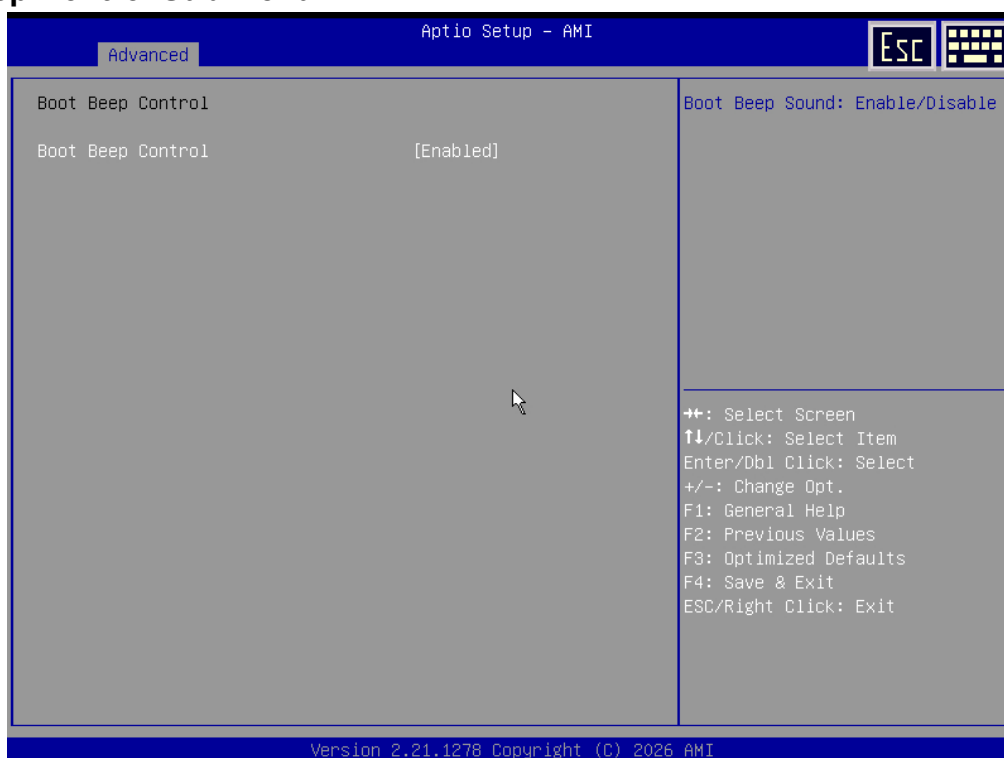
Primary Battery Recalibration



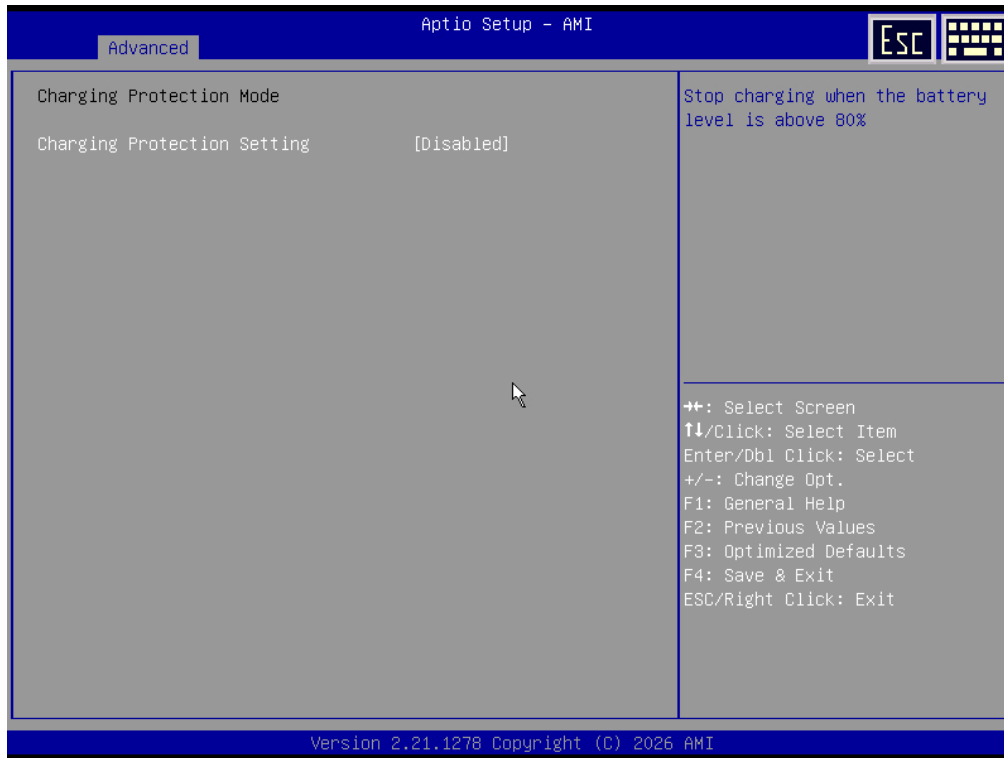
No Battery Detected



Boot Beep Control Sub-Menu



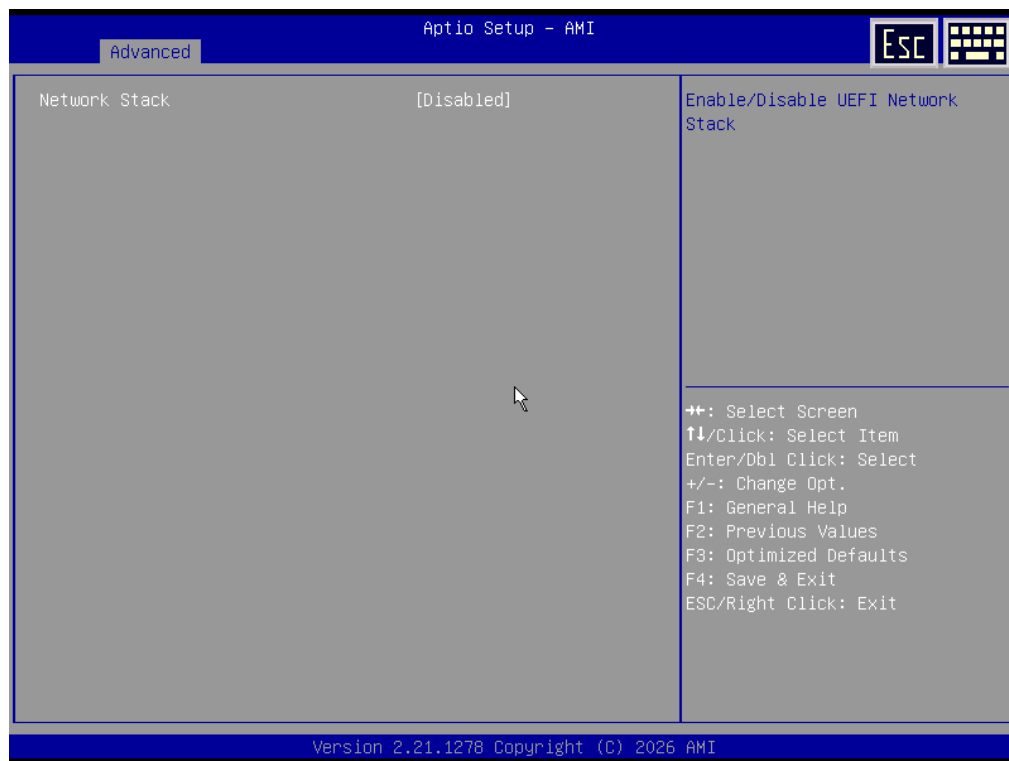
Charging Protection Setting Sub-Menu

**Note:**

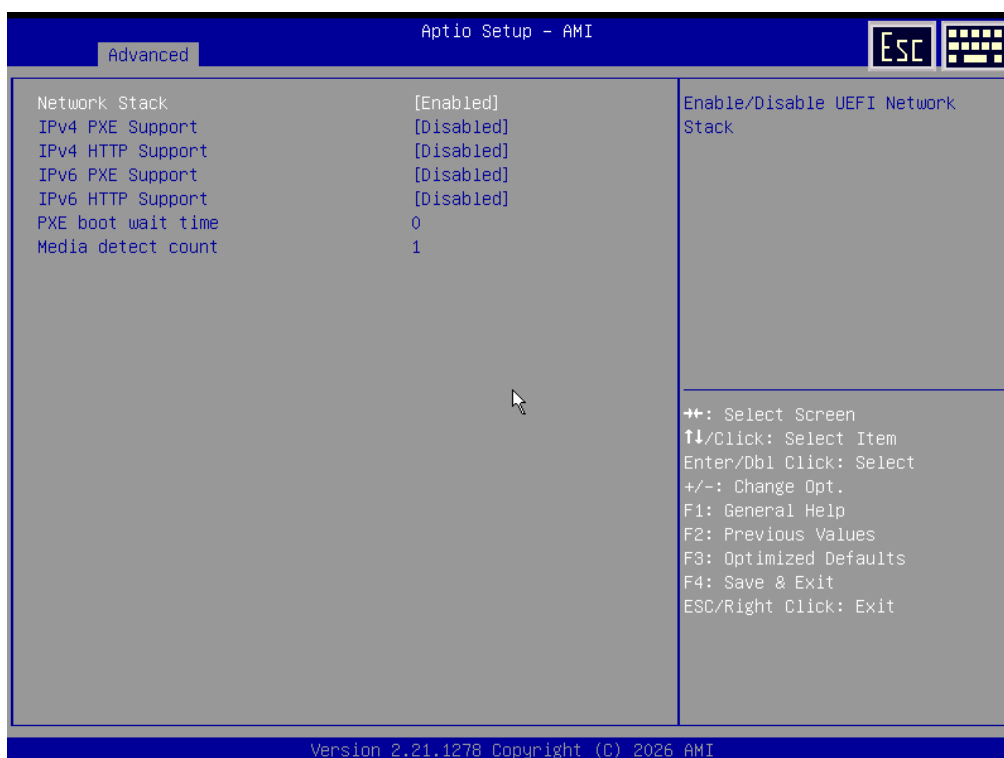
- To extend the battery life cycle, you may enable the charging protection.

Network Stack Configuration Sub-Menu

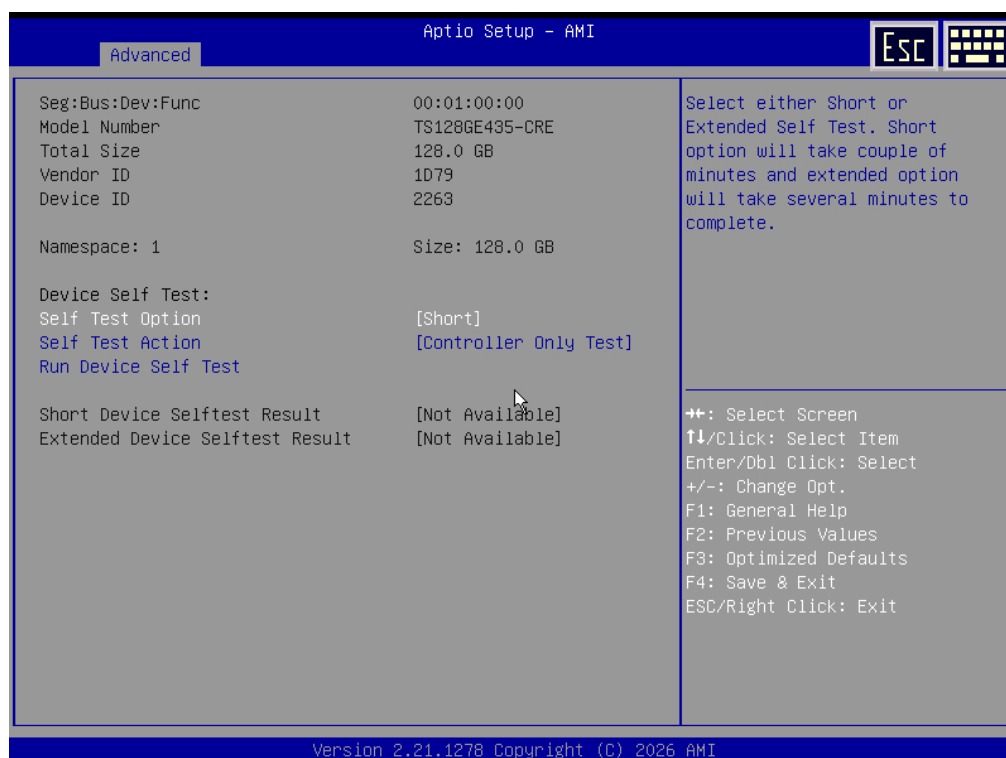
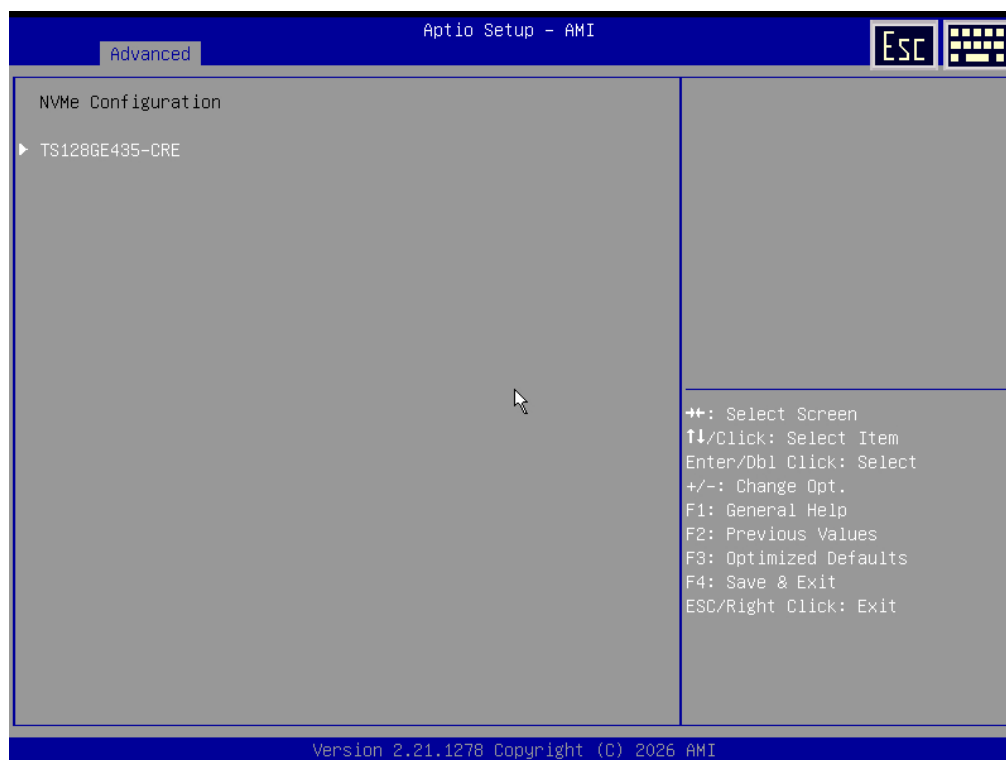
➤ Disabled



➤ Enabled



NVMe Configuration Sub-Menu



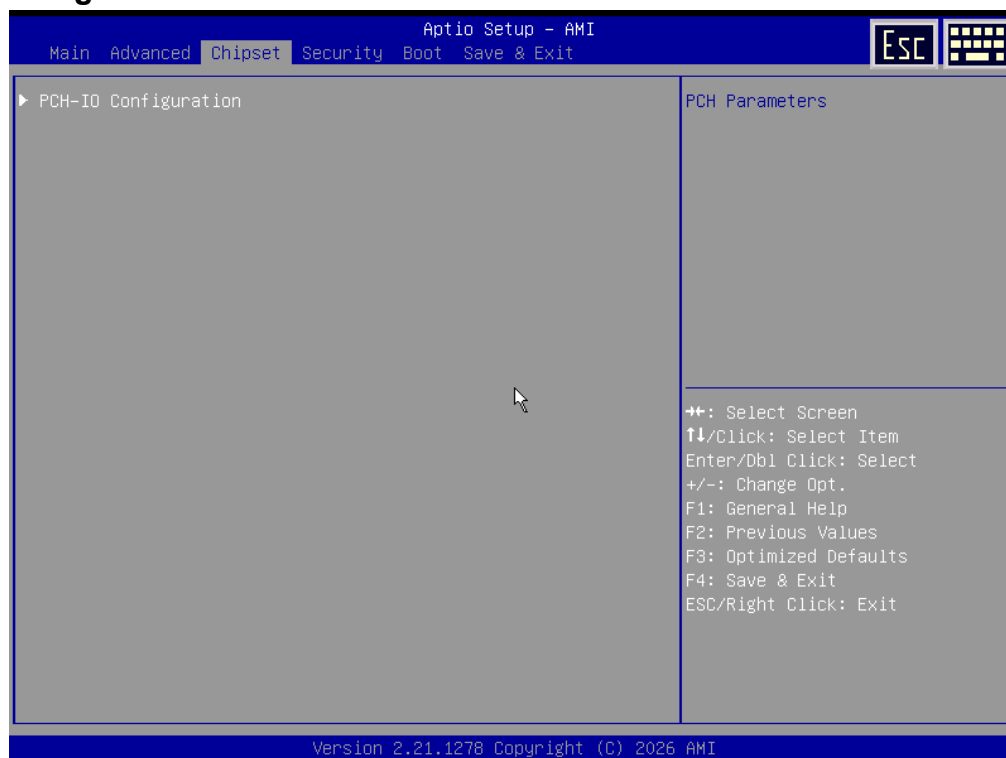
Intel® I210 Gigabit Network Connection Sub-Menu

Aptio Setup - AMI		ESC	
Advanced			
▶ NIC Configuration		Click to configure the network device port.	
Blink LEDs	0		
UEFI Driver	Intel(R) PRO/1000 6.9.07 PCI-E		
Adapter PBA	000200-000		
Device Name	Intel(R) I210 Gigabit Network Connection		
Chip Type	Intel i210		
PCI Device ID	1533		
PCI Address	02:00:00		
Link Status	[Disconnected]	↔: Select Screen ↑↓/Click: Select Item Enter/Dbl Click: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC/Right Click: Exit	
MAC Address	00:16:3F:62:C8:B8		
Virtual MAC Address	00:00:00:00:00:00		

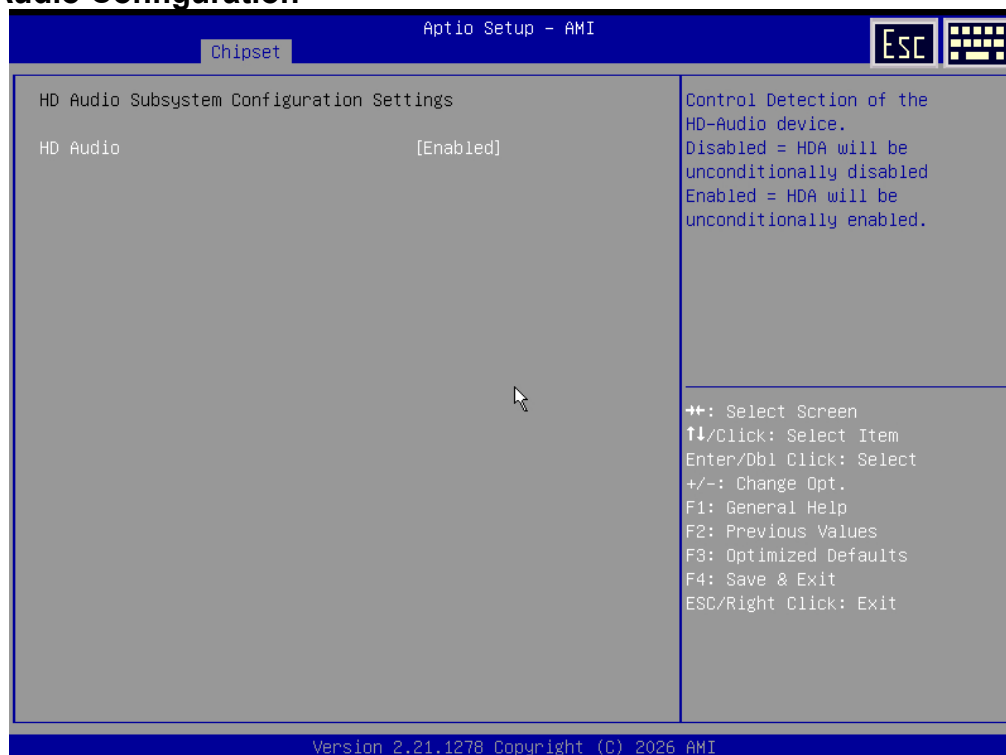
Version 2.21.1278 Copyright (C) 2026 AMI

Chipset Menu

PCH-IO Configuration Sub-Menu



➤ HD Audio Configuration



Security Menu



➤ HDD Security Configuration Sub-Menu



Setting & Resetting Passwords

**Caution:**

- *Master Password must be set in advance than the User Password.*
- *Clearing Master Password in the BIOS setup clears the current User Password simultaneously.*

Setting Password:

1. Once you set HDD passwords successfully, you must enter the user password to boot in the future. The master password provides an alternative entry in case the user password is lost.
2. Clearing the master password in the BIOS setup will also clear the current user password. The master password served as a backup key, and is suggested not to be changed frequently.
3. You can set your master password and user password with a length between 3 and 20 characters. If you want to clear current password, type nothing when creating a new password.
4. After you set a password, "Pwd Status" will change from "NOT INSTALLED" to "INSTALLED", and the "security enabled" status will change to "YES".
5. Your setting will take effect after reboot.

Resetting Password:

1. After typing an invalid user password three times, a message will show "HDD is locked". Pressing "Enter" will leave the screen message.
2. Press "F2" immediately to enter the BIOS setup where the lost user password could be cleared with the master password.
3. Once the HDD is locked, users have no right to access. You can only re-enter with the correct user password or clear it with the master password.
4. A warm boot will cause HDD Security Frozen in the selection. Only a cold boot can lift the HDD Security frozen and allow further operations in the BIOS setup. (After a cold boot, users can try to enter again with the correct user password or just reset it with the master password).

Boot Menu

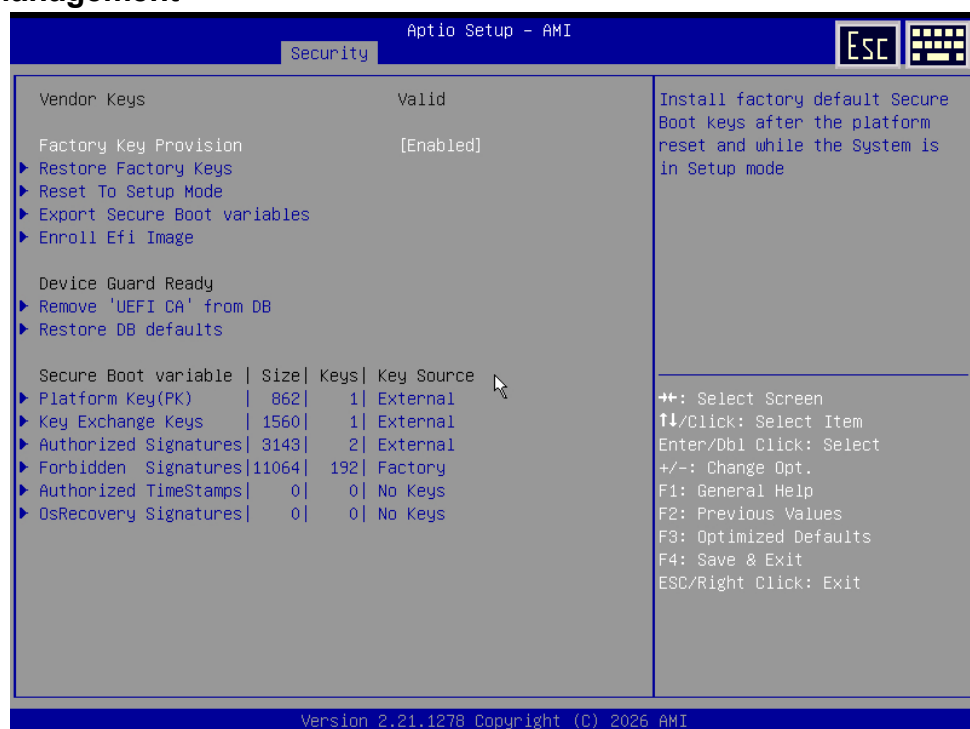


Caution:

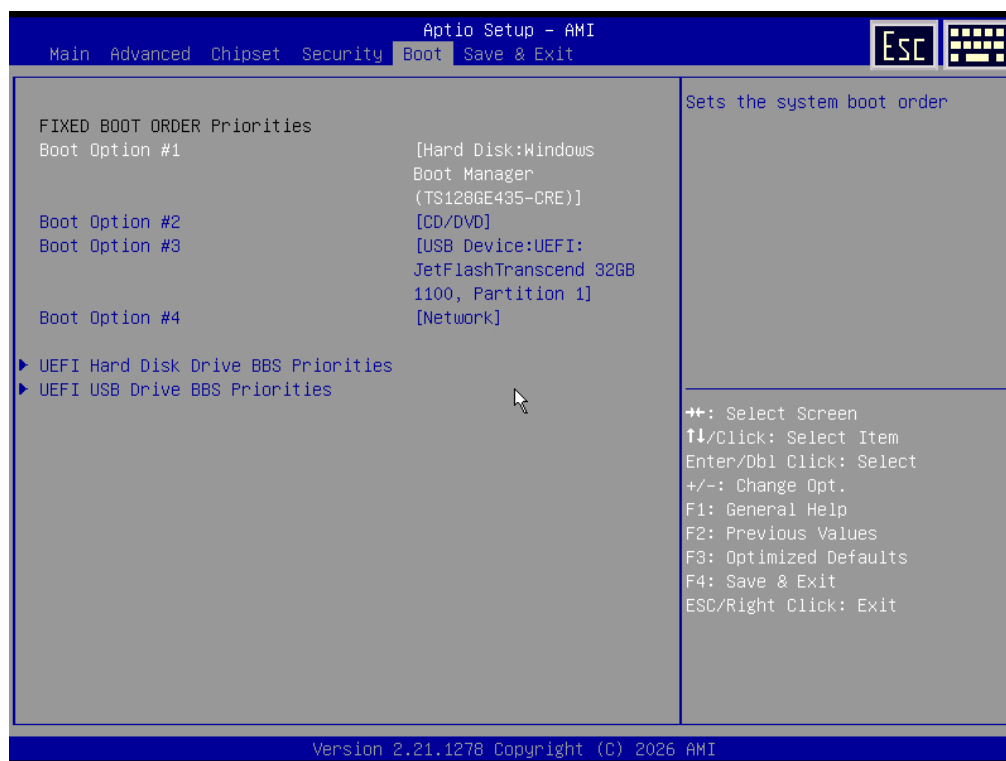
- *Restore Factory Keys: Install factory default security boot keys.*
- *Reset to setup mode: Delete all security boot keys.*
- *Key Management: Set up of preference security boot keys.*



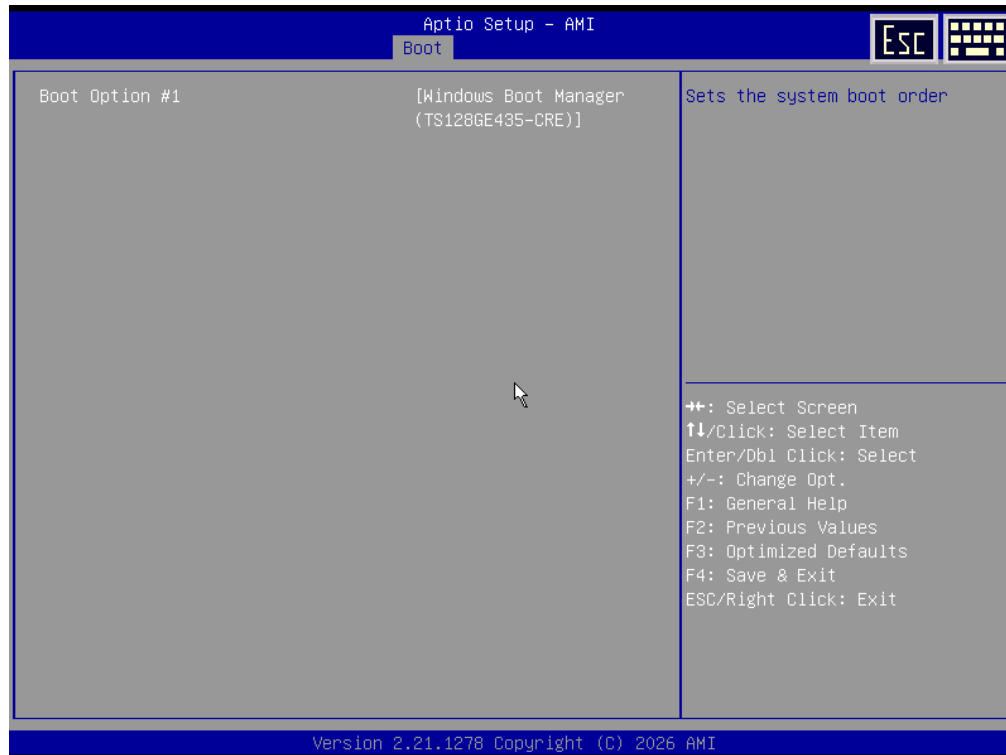
➤ Key Management



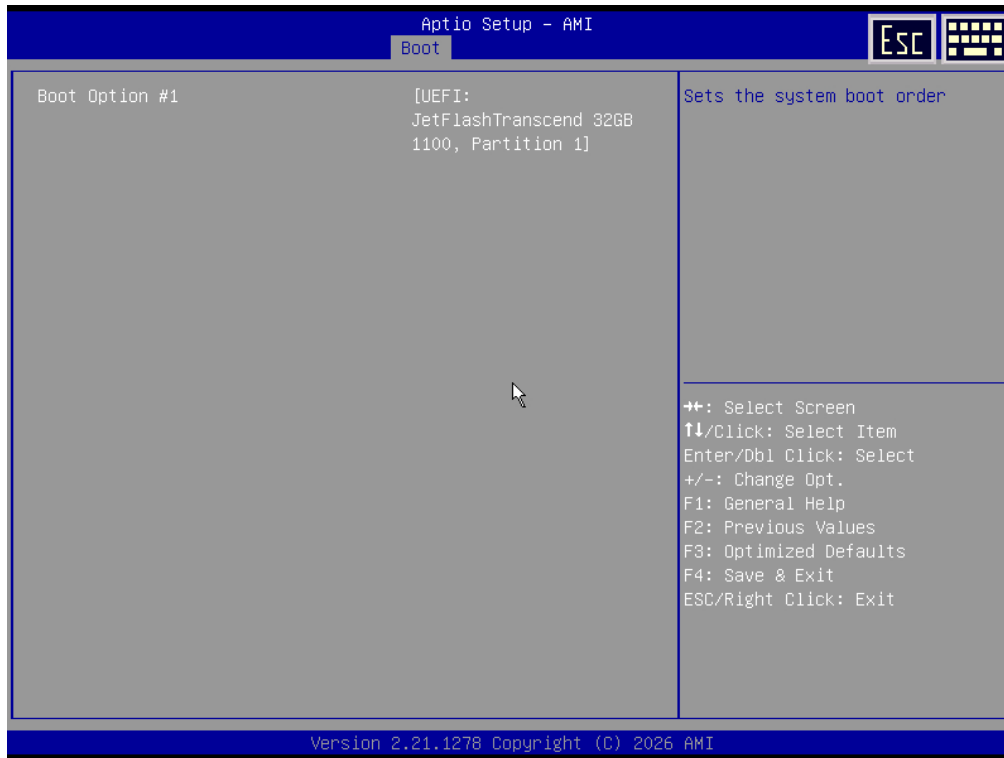
Boot Menu



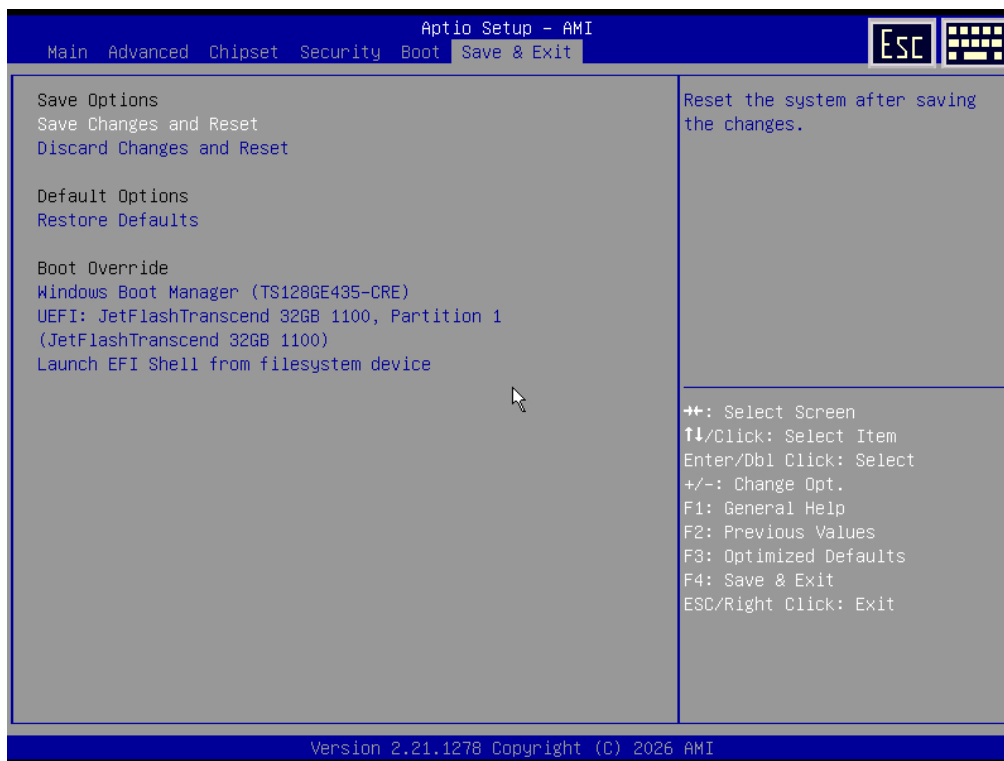
➤ UEFI Hard Disk Drive BBS Priorities



➤ UEFI USB Drive BBS Priorities



Save & Exit Menu

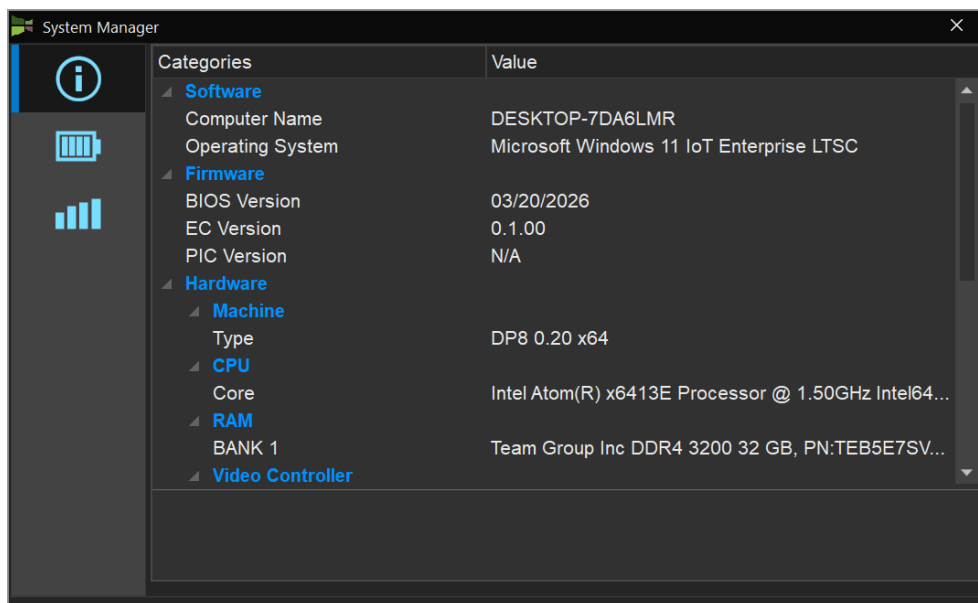


Chapter Five – System Manager & Hotkey Manager

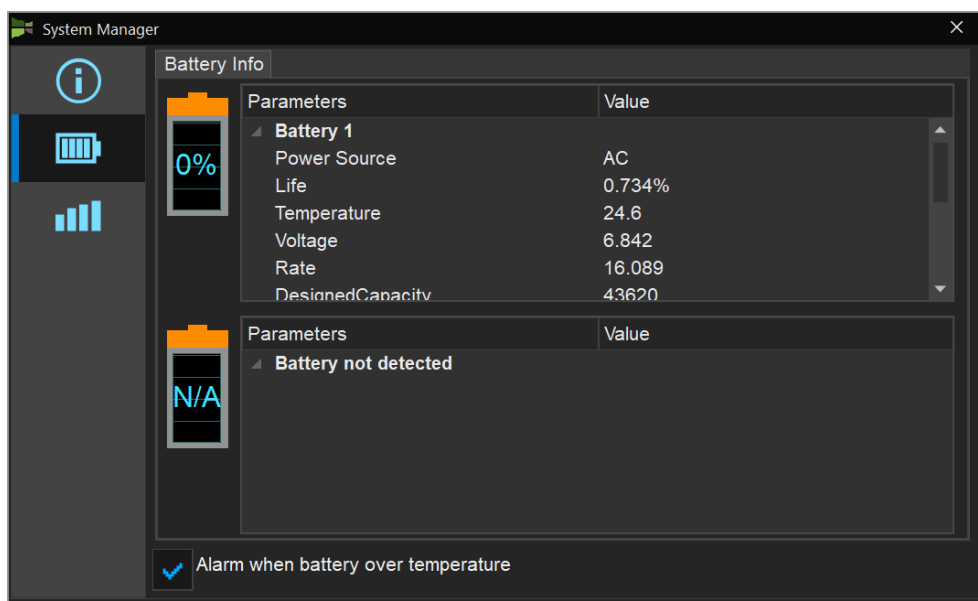
System Manager

System Manager  is an application which allows users to set the programmable function keys access information of the tablet and set RF devices.

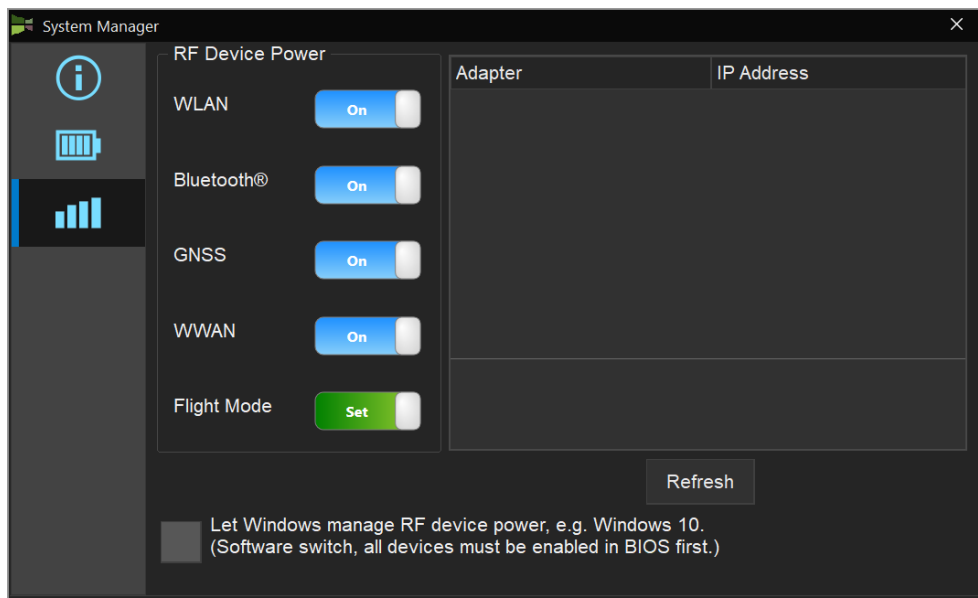
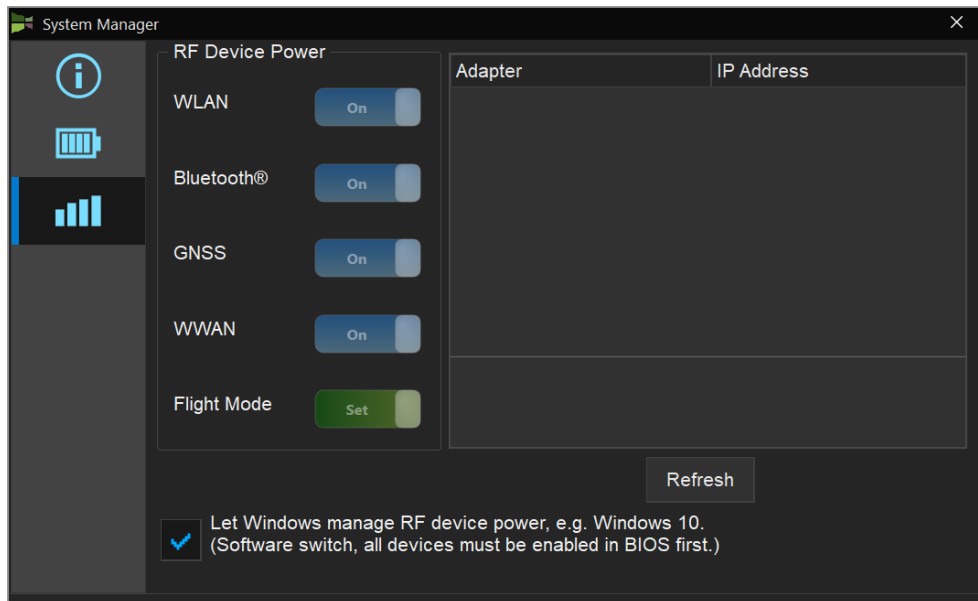
System information



Battery information

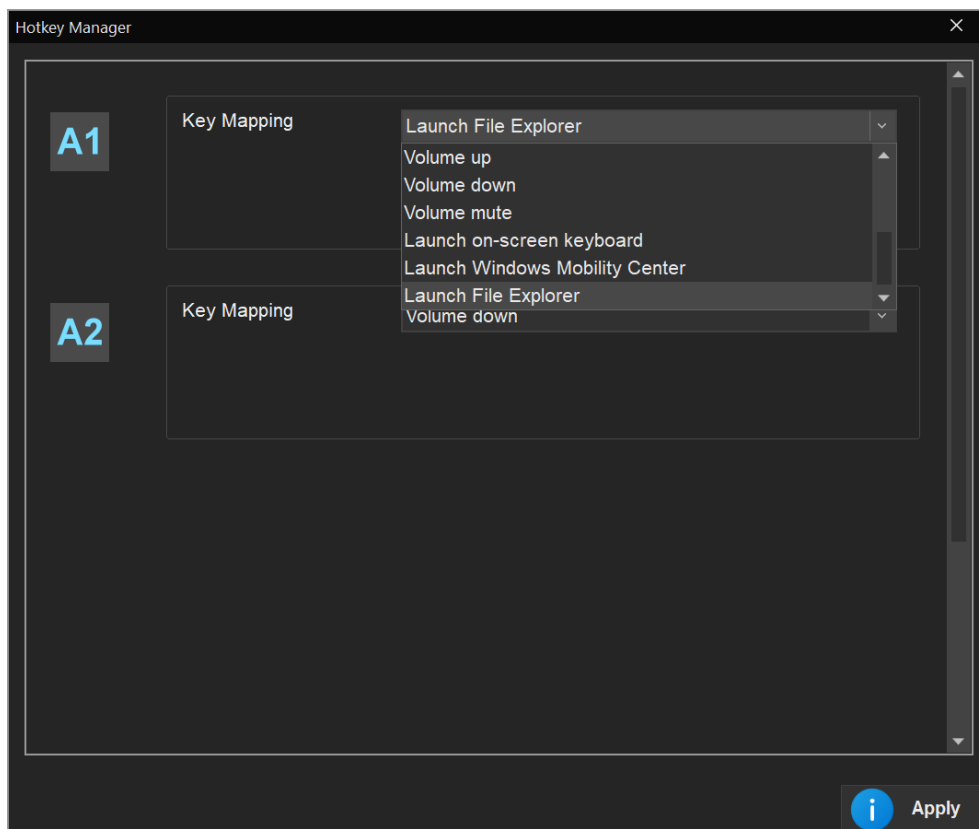
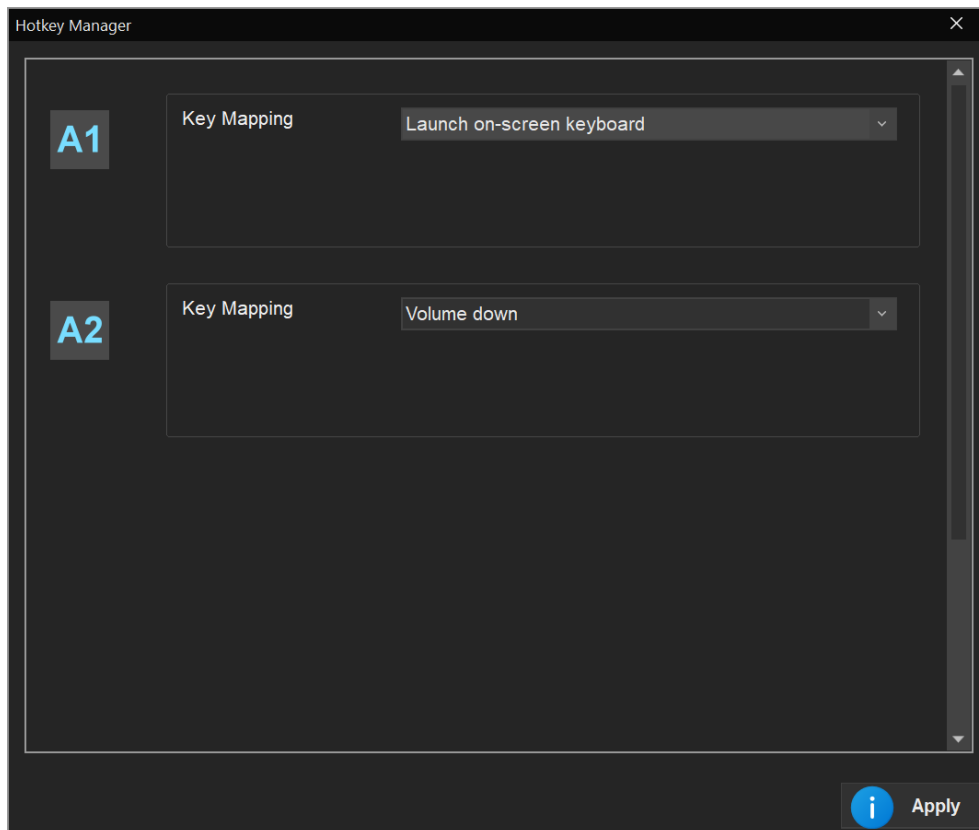


RF Device control panel



Hotkey Manager

Hotkey Manager  is an application which allows users set programmable function keys.



Function Keys Control Panel

None
Open / Execute a selected file
Open URL in default browser
Change display output
Change display orientation
Brightness up
Brightness down
Volume up
Volume down
Volume mute
Launch on-screen keyboard
Launch Windows Mobility Center
Launch File Explorer

Chapter Six – Drivers and Applications

The latest drivers and utilities will be available on MilDef Crete's website. To download the drivers and utilities, please follow the instructions below by

Visit MilDef Crete's website www.mildefcrete.com → Partner Access → SERVICE/SUPPORT menu → Drivers & Utilities

**Caution:**

- *Please install the chipset driver first.*

Via Device Manager in Windows, you may perform "Driver Update" and check if there are drivers needed to be installed for your tablet. If any driver is missing, please consult your dealer.

Note

- *If the system requests for a reboot after installing drivers, please reboot accordingly before installing other drivers.*

Chapter Seven – Specifications

Specifications

Items	Descriptions
Platform	– Intel® Elkhart Lake Platform
Operation System	– Windows11 Optional: – Windows 10
Processor	– Intel® Atom® x6413E Processor – 1.5M Cache, up to 3GHz
Graphic	– Intel® UHD Graphics
Display	– 8" (1920 x 1200) LCD – Optical Bonding – Capacitive Multi-Touch Screen – Brightness: 1000 nits
Memory	– 16GB DDR4-3200 x 1
Storage	– 128GB M.2 2242 PCIe 3.0 SSD x 1 Optional: – 256GB/512GB/1TB M.2 2242 PCIe 3.0 SSD x 1
Camera	– Rear Camera
Audio	– HD Audio Codec and Amplifier – Mono Speaker – Embedded Digital Mic
Sensor	– Ambient Light Sensor
Function Keys	– 6 Function keys with 2 programmable keys
LED Indicators	– Power: System ON/S3 (Green/Breathing Green) – Battery: Charging/ Low (Orange/Flashing Orange)
Security	– Password Security (Administrator Password, User Password) – TPM2.0
Case	– CNC milled Aluminum and Engineering Plastics
Color	– Black
Environmental Specifications	– Operating Temperature: -20°C ¹ ~ +60°C ² – Storage Temperature: -40°C ~ +70°C
Dimensions³	– 240 x 140 x 37 mm (with bumpers)
Weight³	– Approx. 1250g

Power	
Battery⁴	– Battery Pack BDP82A: – Li-Ion 7.2V/6300mAh
Input Power	– Fast Charging via Type-C – 60W, 100~240VAC, 50/60Hz

Wireless & Communications	
LAN	Optional: – 10/100/1000 base-T Ethernet ⁵
WLAN/ Bluetooth®	– Intel® Wi-Fi 6 AX210 (Wi-Fi 4, 5, 6) – Bluetooth®5.3
GNSS	Optional: – GPS/GLONASS/Galileo/Beidou
Radio Module	Optional: – T24 Module (Receiver) ⁶

I/O Interfaces	
Top	– 4-pin POGO Connector ⁶ x 1
Bottom	Optional: – 16-pin POGO Connector ⁵ x 1
Right	– USB 3.2 Gen. 2 Type-C x 1 – USB 3.2 Gen. 2 Type-A x 1
Rear	– Battery slot x 1 – Micro SD card slot x 1 – Micro SIM card slot ⁷ x 1

Accessories	
Protection Film	– Available
Battery Charger	– Multi Battery Charger SGC10 (Under Development)
AC Adapter	– Rugged 60W USB-C AC Adapter – 60W, 100V-240V 50/60Hz
Sunshield	– Available
Hand Strap	– Available

Certifications	
Certifications	– CE/FCC/UKCA/RCM – WEEE – REACH – POPs – RoHS – IP65 – MIL-STD-810H (1.5m drop test) – MIL-STD-461G (Ground Navy) ⁷

¹Instant Cold Boot via AC Mode

²via AC Mode

³Varies from configurations and optional accessories.

⁴Hot-swappable.

⁵LAN available via 16-pin POGO Connector.

⁶Radio Module Slot via 4-pin POGO Connector.

⁷Contact your sales representative for more details.

Chapter Eight – Maintenance and Service

Cleaning

**Caution:**

- *ALWAYS turn OFF the power, unplug the power cord and remove the battery before cleaning.*

The exterior of the system and display may be wiped with a clean, soft, and lint-free cloth. If there is difficulty removing dirt, apply non-ammonia, or non-alcohol-based glass cleaner to the cloth and wipe.

An air gun is recommended for cleaning water and dust. If exposed to salt water, rinse with fresh water and then dry with an air gun.

Troubleshooting

If the tablet fails to function properly, follow the troubleshooting steps below.

Power Problems

- **When I cannot turn on the tablet**

If you are using AC power, ensure that the AC adapter is the correct one and connected properly.

If you are using battery power, ensure that the battery is activated and installed properly.

- **When I cannot return from Hibernation while on battery power**

The battery might be drained. Please plug the tablet into the AC power.

Hard reset the system by pressing the power button for 4 seconds

- **An unexpected or improper shutdown may reset the BIOS to optimized defaults.**

This could be a power problem. Please connect the AC power adapter to fix the abnormal shutdown problem.

Networking Problems

- **When I cannot connect to another device with Bluetooth network**

Ensure that the function is enabled on both devices.

Ensure that the settings are consistent across all devices on the network.

Ensure that the IP address and subnet mask settings are correct.

- **When I cannot connect to another device with WLAN network**

Ensure that the function is enabled on both devices.

Ensure that the settings are consistent across all devices on the network.

Ensure that the IP address and subnet mask settings are correct.

- **When I cannot connect to Global Navigation Satellite System (GNSS)**

Ensure that the function has been activated.

If you are outdoors, please move away from buildings or obstructions, and expose the tablet to open sky.

If you are indoors, please move closer to a window.

Display Problems

- **When the device is on, nothing shows on the screen**

Ensure that the system is not in Sleep mode.

- **When the display brightness is dim**

Ensure that the brightness is set as desired in the operating system.

Ensure that the battery power and bridging battery power are not low.

If the system is upgraded with Night Vision, ensure that the Night Vision Switch is off.

RMA & E-RMA Service

If troubleshooting solutions are unsuccessful, consult your dealer for RMA.

Shipping instructions

1. Remove any personal add-on devices or other media.
2. Use the original shipping container and packing materials, if possible.
3. If the original packing materials are not available, wrap the equipment with soft material (e.g., PU/PE foam) then put the wrapped equipment into a hard cardboard shipping box.
4. Include a sheet with the following information: (Note: Please keep a copy of this sheet for your records.)
 - Name
 - Address
 - Unit serial number
 - Place and date of purchase or the original invoice number
 - Date of failure
 - A DETAILED description of the problems you have encountered including: The operating system, the add-on device installed (if any), the application software, the failure phenomenon, etc.
 - A list of the hardware/software configuration, if applicable.
5. Clearly mark the outside of the shipping box with the RMA #. If an RMA # is not present on the shipping box, receiving will be unable to identify it and it might be returned.
6. Unless prior arrangements have been made, the customer is responsible for all shipping costs. Unauthorized use of the company's shipping accounts is not permitted.

E-RMA Instructions

1. Contact your dealer and provide users' names and passwords for authorization to E-RMA service.
2. Login E-RMA service platform

Instructions: **Crete's website** www.mildefcrete.com → **SERVICE/SUPPORT** menu → **E-RMA**

3. Fill out the RMA Request Form to apply for an RMA number.

*Please follow the instruction below for RMA Form Example:

SERVICE/SUPPORT menu → **E-RMA** → **Category** → **RMA Form Example**

4. Check the status on the website after you receive the issued number.

Status descriptions

Status	Description
Approved	RMA number has been issued.
RCV	The device is received.
CHK	The device is in check.
REP	The device is in repair.
RPD	The device has been repaired.
FQC	The device is in function testing.
SHP	The device has been shipped.