

TABLET COMPUTER

DE13

USER'S GUIDE



Revision History

Revision	Date	Changes	Author
1.0.4	2022/01/14	Add SunShade and Hand Strap info	Patricia Huang
1.0.3	2021/09/10	Add Battery Charging Time info Revise Battery Recalibration info and add notes Modify Battery Characteristics to Battery Maintenance & Storage Recommendations and revise info	Patricia Huang
1.0.2	2021/08/31	Correct note info in Display	Patricia Huang
1.0.1	2021/04/09	Update CE info Add Kensington Lock Slot info Add Bonding info Add Battery Characteristics info and correct note Add Battery operating temperature info Add E-RMA Service instructions	Patricia Huang

Notice

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Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

RF exposure warning

This equipment must be installed and operated in accordance with provided instructions and antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

Regulatory Information/Disclaimers

Installation and use of this computer must be in strict accordance with the instructions included in the user documentation provided with the product. Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.

The manufacturer is not responsible for any radio or television interference caused by unauthorized modification of this device, or the substitution of the connecting cables and equipment other than manufacturer specified. It is the responsibility of the user to correct any interference caused by such unauthorized modification, substitution or attachment. Manufacturer and its authorized resellers or distributors will assume no liability for any damage or violation of government regulations arising from failing to comply with these guidelines.

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

Note:

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 or more 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.

Important:

Changes or modifications to this product not authorized by MilDef could void the electromagnetic compatibility (EMC) and wireless compliance and negate your authority to operate the product.

In order to maintain compliance with FCC regulations, compliant peripheral devices and shielded cables must be used with this equipment.



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 (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: 2014/A11: 2017

2. Health

Applied Standard(s):

EN 50566

EN 62209-2:2010

3. Radio Frequency Spectrum Usage

Applied Standard(s):

EN 300 328 V2.1.1 (2016-11)

EN 301 893 V2.1.1 (2017-05)

EN 303 413 V1.1.1 (2017-06)

4. Electromagnetic Compatibility Directive

Applied Standard(s):

EN 55032: 2015+AC : 2016 , Class B

EN 61000-3-2: 2014

EN 61000-3-3: 2013

EN 61000-4-2: 2008

EN 61000-4-3: 2010

EN 61000-4-4: 2012

EN 61000-4-5: 2014+A1: 2017

EN 61000-4-6: 2013

EN 61000-4-8: 2009

EN 61000-4-11: 2004+A1: 2017

EN 55024: 2010+ A1: 2015

EN 55035: 2017

EN 301 489-1 V2.1.1 (2017-02)

EN 301 489-17 V3.1.1 (2017-02)

EN 301 489-19 V2.1.0 (2017-03)

Power Conservation

This tablet computer consumes less power compared to conventional consumer computers. The power consumption may be further reduced by properly configuring the Power Management Setup.

It is recommended that the power saving features be enabled even when not running on battery power. Power Management features can conserve power without degrading system performance.

Power Safety

There are specific power requirements for your tablet computer:

- Only use an approved AC adapter designed for this tablet computer.
- 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 outlet, please hire a qualified electrician to install a compatible outlet for you.
- When unplugging the AC power cord, please make sure to disconnect the cord by pulling from the plug head instead of pulling from the wire 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 computer, please make sure it is disconnected from any external power source.



Warning

Before any upgrade procedures, make sure the power is turned off, and all the cables are disconnected (including telephone lines). Also, it is advisable to remove your battery to prevent your tablet computer from accidentally turning on.

Battery Precautions

- Only use batteries designed for this tablet computer. Using incompatible battery types may cause explosion, leakage or damage to the computer.
- Do not remove the battery from the computer while the computer is powered on.
- 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 computer is able to continuously work with a damaged battery, the circuit damage may occur and possibly cause fire.
- Always use the charger designed for this computer to recharge the battery. Incorrect recharging may cause the battery to explode.
- Do not try to service a battery by yourself. For battery service or replacement, please contact your service representatives.
- Please dispose of damaged battery promptly and carefully. Explosion or leakage may occur, if the battery is exposed to fire, improperly handled or discarded.

Notice:

For safety, charging will stop if the internal temperature of the battery is out of range (<0°C; >50°C). Please note that charging could have stopped before the ambient temperature reaching these boundaries because the internal temperature of the battery does not equal to the ambient temperature.



Battery Disposal & Caution

The product that you have purchased contains a rechargeable battery. The battery is recyclable. At the end of its service life, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal. Danger of explosion may possibly occur, if the battery is incorrectly replaced. Replace only with the same or the equivalent battery recommended by the manufacturer. Discard the used battery according to the manufacturer's instructions.

Water Resistance

DE13 has a rating of IP67 under IEC standard 60529 (maximum depth of 1 meters up to 30 minutes) 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 device because it might damage the resistance of your device.

Environmental Information, Material Safety & Recycling

All materials used in the manufacturing of this equipment 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 equipment may contain insignificant amount of hazardous substances for health and environment below control level.
- To avoid spreading such substances into the eco system and to minimize the pressure on the natural environment, you are encouraged to reuse or recycle most of the materials in a safe way after the product's service life.
- For more information on collection, reuse and recycle of materials, please consult local or regional waste administrations for more information. You can also contact your dealer for more information on the environmental details of the equipment.
- The symbol of the crossed out wheeled bin indicates that the product (electrical and electronic equipment) should not be placed in municipal waste. Please check local regulations for disposal of electronic products.



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Chapter 1 - Getting Started

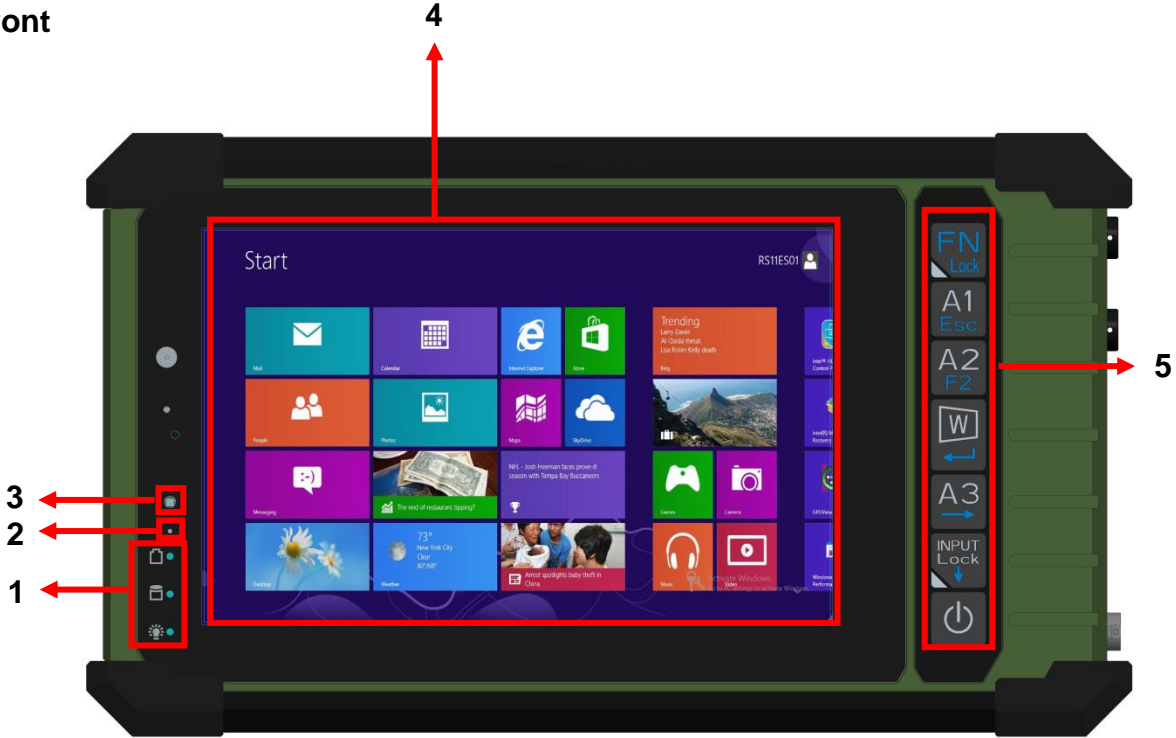
Unpacking

The following components come with your computer. If anything is missing or damaged, please notify the dealer immediately.

- Tablet omputer unit
- AC Adapter
- Quick Guide

Appearance Overview

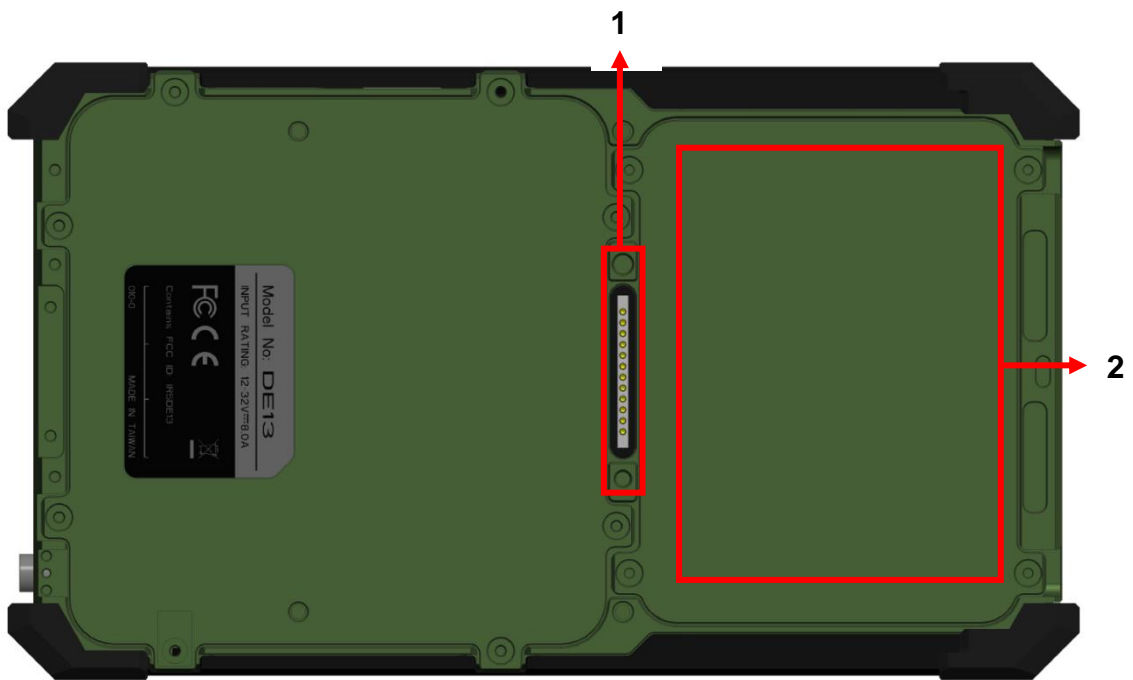
Front



1. LED Indicators
2. Optional Embedded Digital Mic
3. Light Sensor
4. Touch Screen
5. Buttons

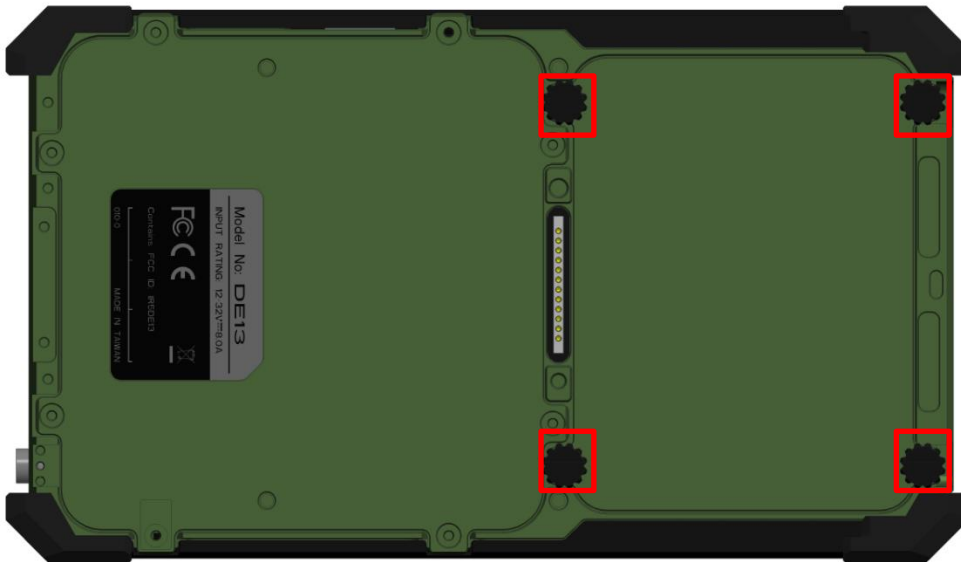
Buttons							
Default Function	FN Lock	Volume Up	Volume Down	Windows	Rotation	Input Lock	Power Button
FN Lock Mode		ESC	F2	Enter	→	↓	
User Settable		✓	✓		✓		

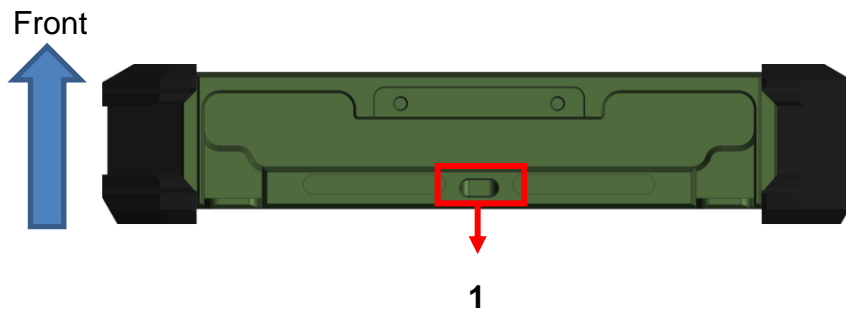
Rear



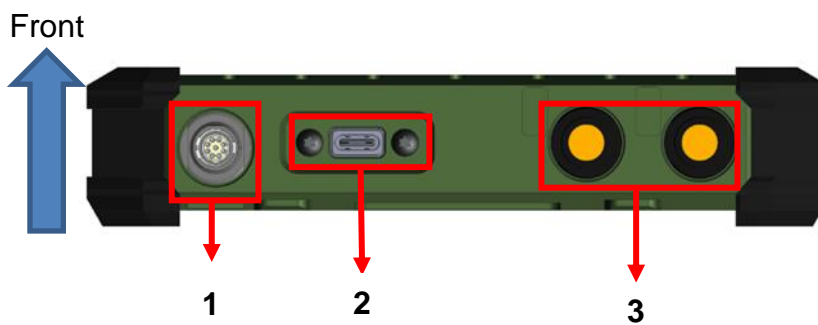
1. Expansion ports
2. Battery slot cover

* Optional IP65 device has thumb screws on the battery slot cover

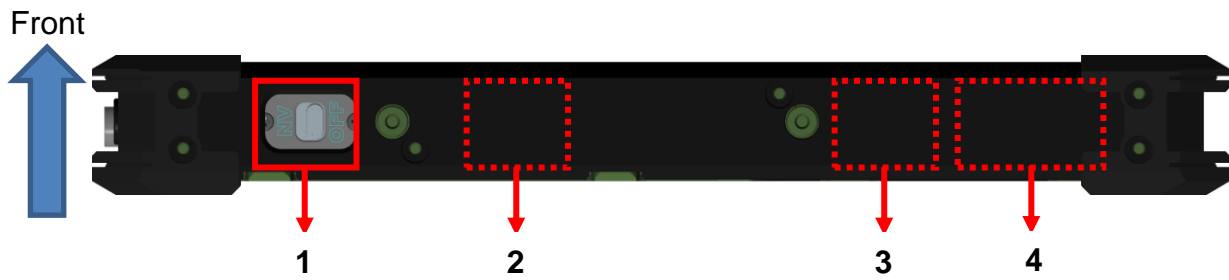


Left

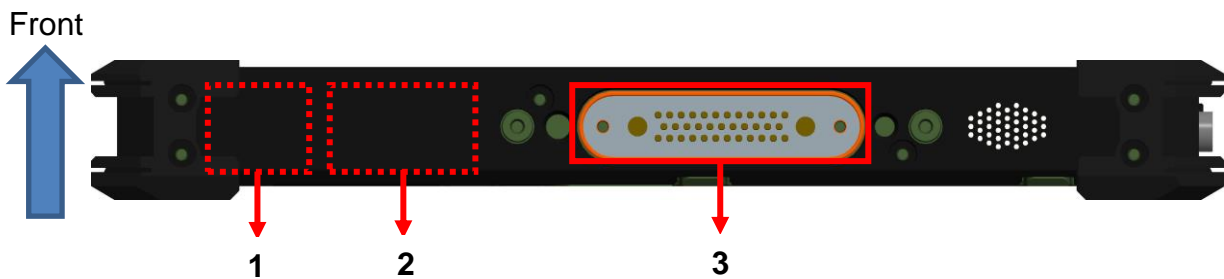
1. Kensington Lock Slot

Right

1. DC-In 12~32V
2. USB 3.1 Type C
3. Optional Fischer I/O:
Choose 2 out of the 5 options listed as below:
 - USB 2.0 x 1
 - GLAN x 1
 - COM x 1 (RS232 x 1/ RS422 x 1)
 - Audio (Headphone out/Mic-in Combo) x 1
 - Sealed Headset (Headphone out/Mic-in Combo) x 1

Top

1. Optional invisible mode on/off
2. GPS Antenna
3. WLAN/BT Main Antenna
4. WWAN Main Antenna

Bottom

1. WLAN/BT Aux Antenna
2. WWAN Aux Antenna
3. Docklite Connector (POGO connector, Ext. ANT Signals x 2)

Chapter2 - Operating Information

Start Using Your Tablet Computer

Always turn on your tablet computer by using the power button. Press the power button about 2 seconds and the tablet will boot up. This is the standard operating procedure to start using your tablet computer. After turning on the power of your tablet computer, it will start with the Operating System (OS) installed.

Boot Up

When you turn on the power, your computer will start to load the OS into the system memory. This start-up procedure is called “boot up”.

Power On Self-Test (POST)

Each time your computer is turned on, the BIOS will automatically perform a self-test of CPU, memory, hardware devices, and so on.

Stop Using Your Tablet Computer

Each time when you finish working with your tablet computer, there are several ways to stop your tablet computer from operating.

Shut down

Directly click “Shut down” from your OS to turn OFF the power of your computer. Before shutting down, please do remember to save unfinished works and close your applications to prevent your SSD from suffering possible data loss or damage. “Shut down” will turn OFF power of your computer. If you want to start your computer again, you need to turn it ON again by pressing the power button.

Sleep

Under “Sleep” mode, the system will temporarily save your work into the computer’s RAM. If you want to start your computer again, please press the power button to resume.

Hibernate

Under “Hibernate” mode, the system will save your work into SSD. If you want to start your computer again, you need to press and hold the power button (approx. 2 sec.) until the SSD indicator lights on.

Force Shut Down

In the event that your tablet computer 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 will be lost this way.

Installing Operating System

Your computer is designed to operate with Microsoft Windows 10 / 64-bit Operating System. Please connect your computer with an external USB-interface drive to start the OS installation.




Note:

- *A USB hub may be required during installation to connect with an external USB-interface ODD, as the System USB port may not supply enough power. Please connect your USB hub with extra power supply to complete the installation.*

Using Indicators and Keypad

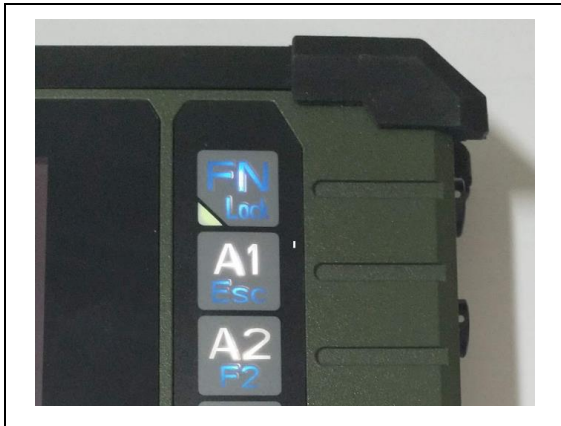
Your tablet computer is designed with backlight buttons for easy and quick operations. Also, each LED indicator shows different meanings. The description of each LED indicator and button functions are provided for your operational reference.

LED Indicators








LED Indicator	Description
	Power/ S3 Indicator: Green/ Flashing Green
	SSD Indicator: Green
	Charge/ Battery Low Indicator: Orange/ Flashing Orange

Fn Lock Key

Fn lock Key is used to switch other buttons into 2nd layer function(Blue legends).



1. Press the Input Lock key.
2. Fn Lock Indicator will light on (Green light).
3. Press the Fn Lock key again to cancel the function.

Buttons							
Default Function	FN Lock	Volume Up	Volume Down	Windows	Rotation	Input Lock	Power Button
FN Lock Mode		ESC	F2	Enter	→	↓	

Input Lock key

To prevent from unexpected input by buttons and touch screen, you can press Input Lock key. When Input Lock function is on, the input from devices including buttons and touch screen will be locked. To cancel the input lock function, just press the Input Lock key again and the indicator will be turned off.

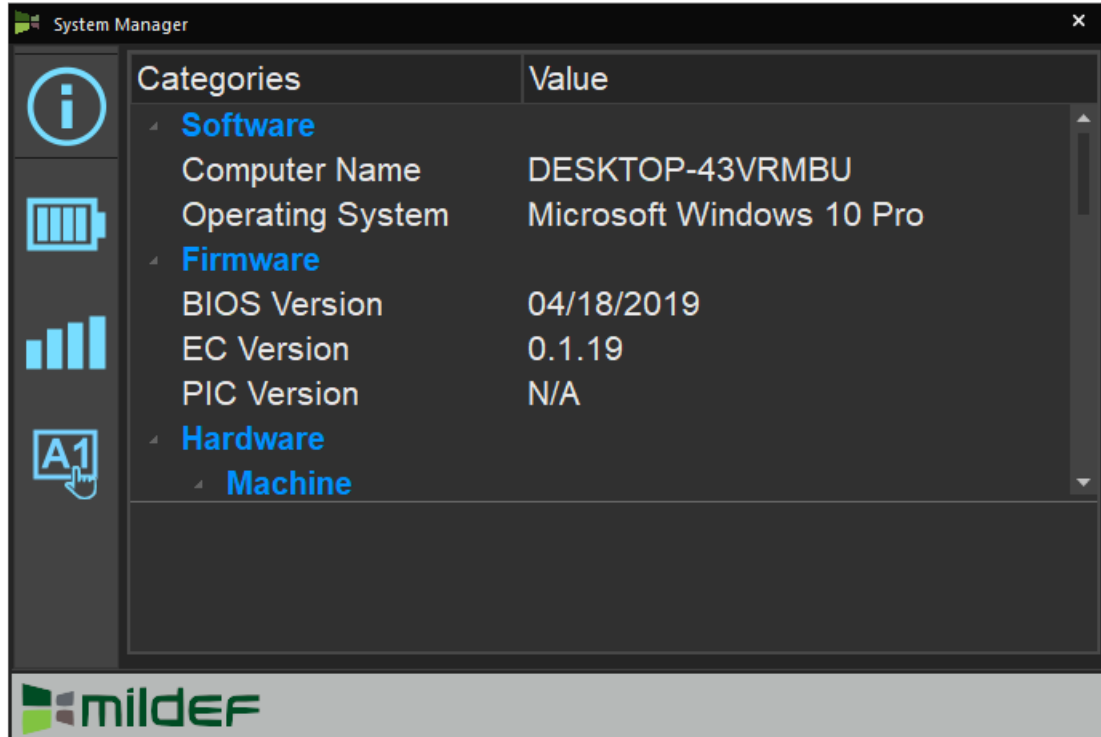


1. Press the Input Lock key.
2. Input Lock Indicator will light on (Green light).
3. Press the Input Lock key again to cancel the function.

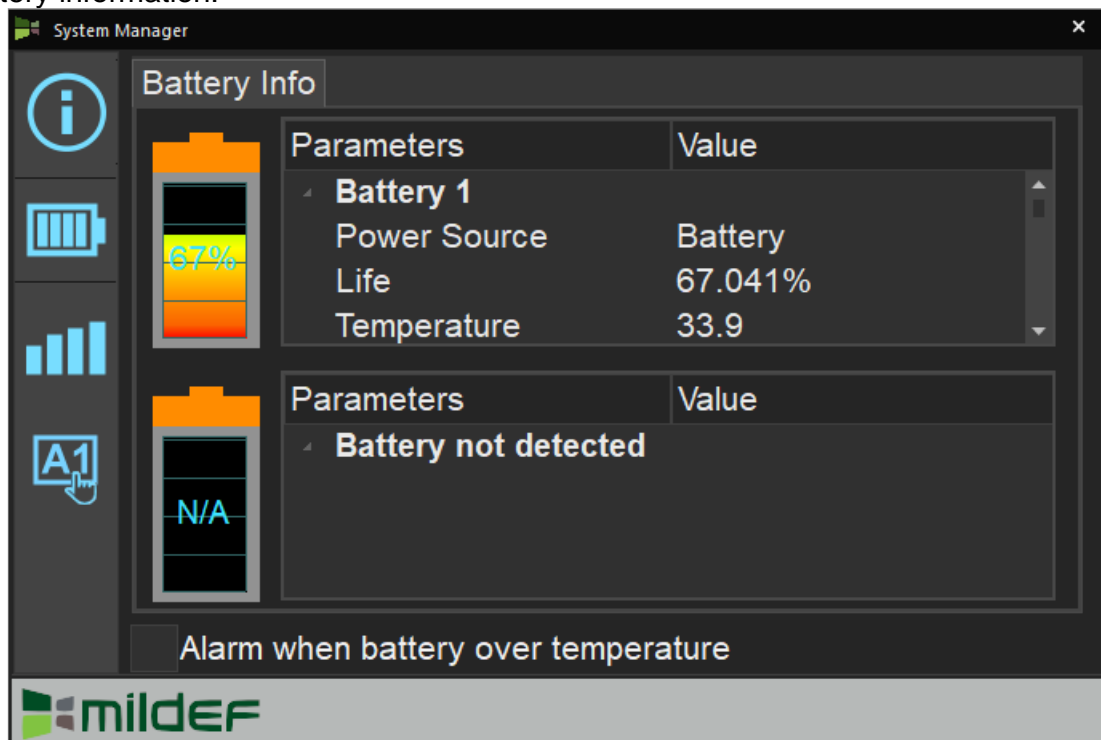
System Manager

System Manager is an app which allows user to access information(System, battery),and set RF device, function keys easily.

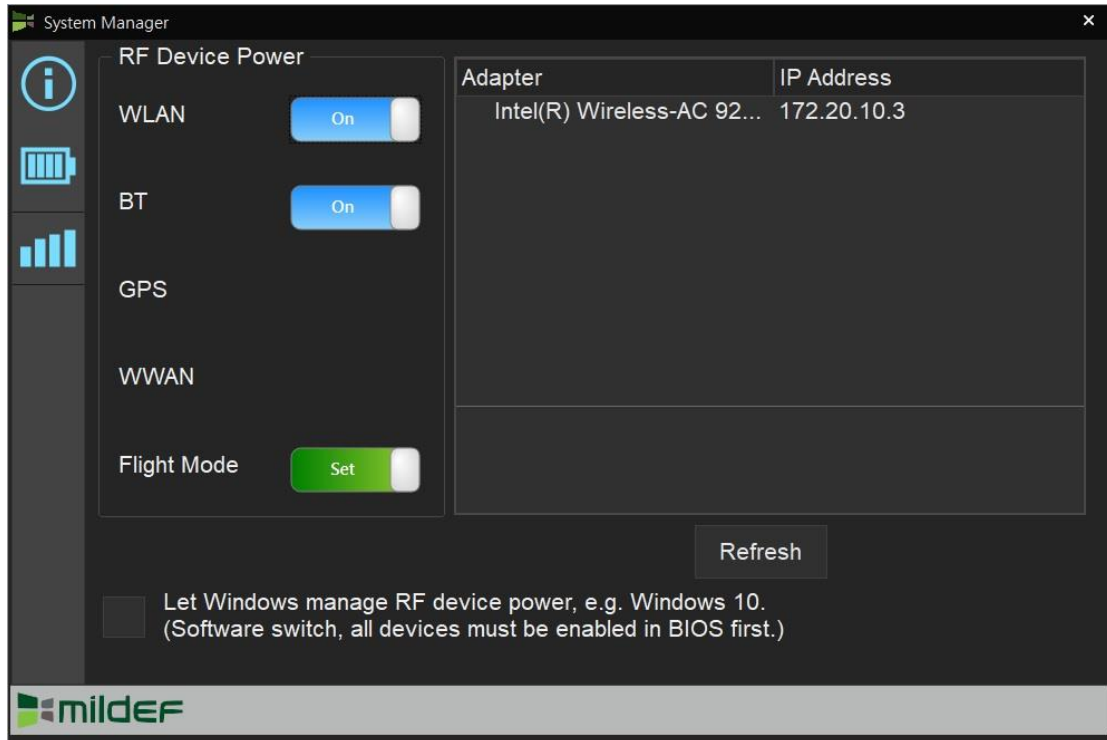
1. System information:



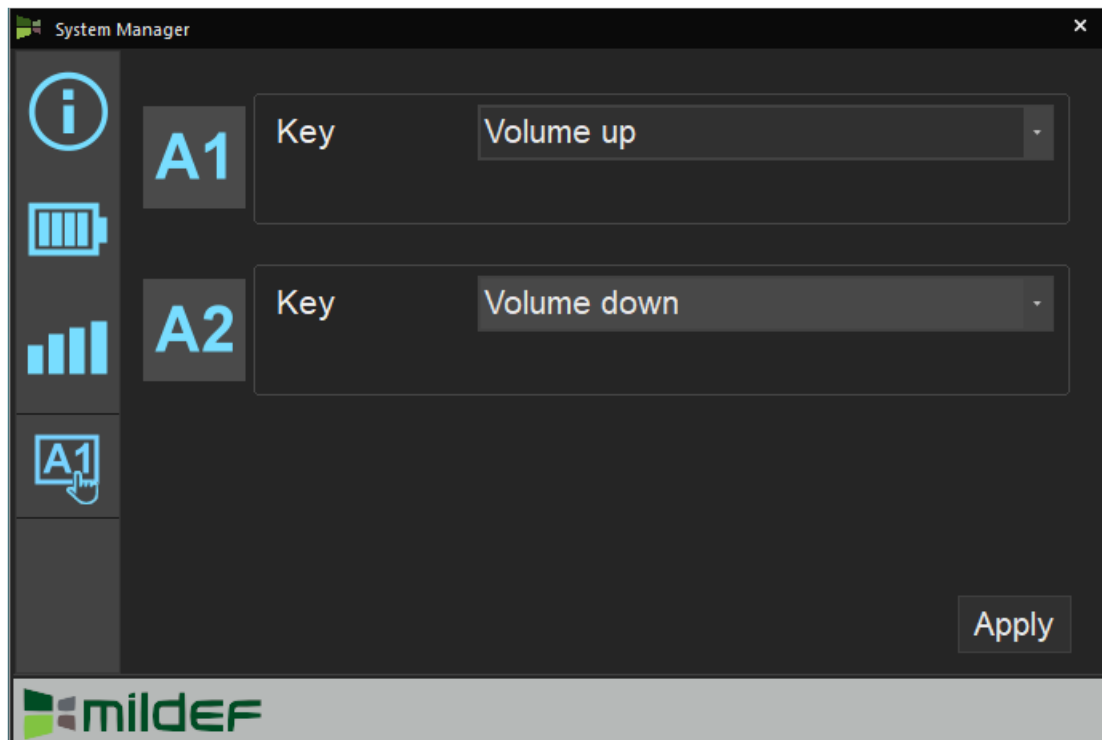
2. Battery information:



3. RF Device control panel:



4. Function key control panel.



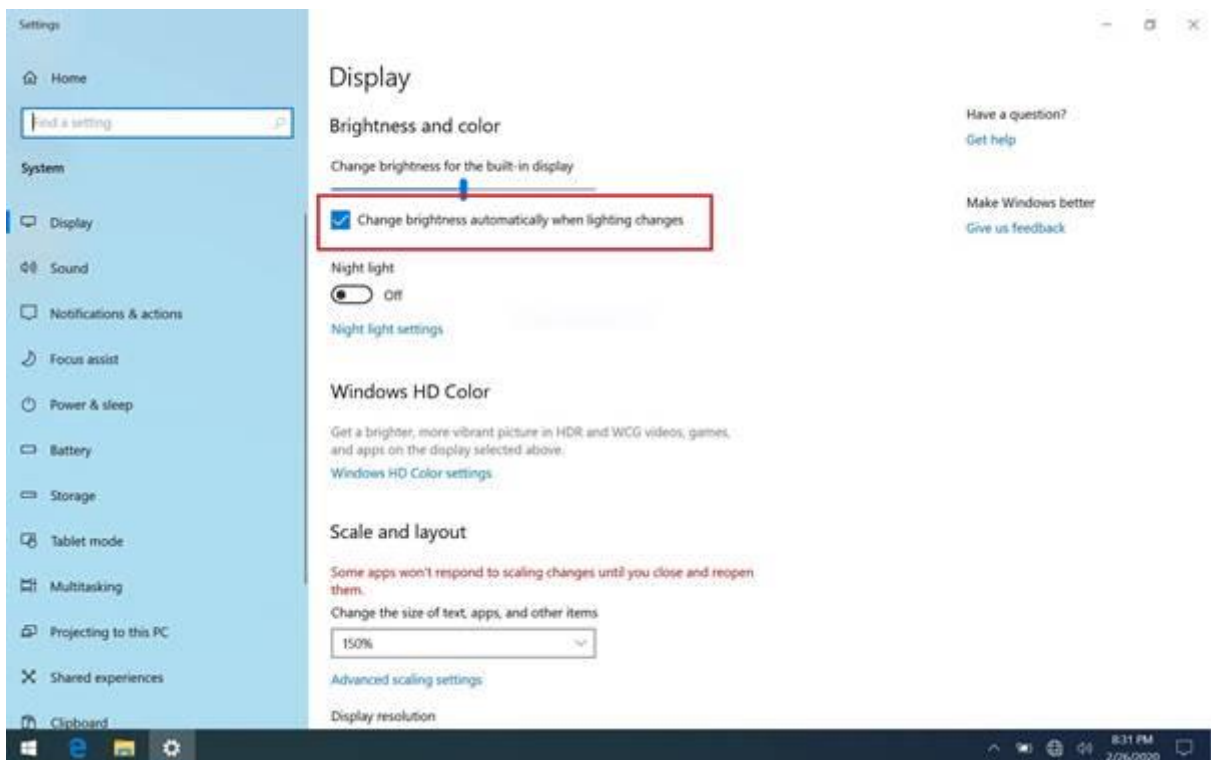
Available Function Items List

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

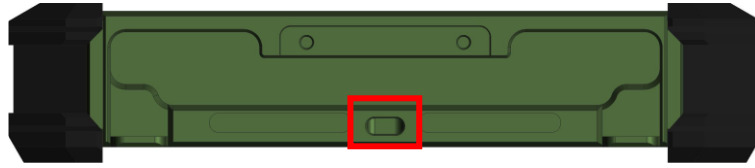
Setting Light Sensor

Light sensor mainly is to modify the LCD backlight by dynamically monitoring the brightness of the environment. Under Windows 10, you can enable/ disable light sensor by directly clicking:

Move the cursor to the upper-right or lower-right corner of the screen, and then click “Settings” => Click “Display” => Click “Change brightness automatically when light changes”



Using Kensington Lock Slot



Loop the lock cable around a stationary object such as a table and plug the Kensington Lock into the Kensington Lock Slot to lock it.

Note:

- *Kensington Lock is a widely available 3rd party product.*

Installing SunShade

To cater different needs under various environments, SunShade is adjustable and it offers the protection for screen reflection to the maximum extent.

To install SunShade

1. Ensure screw holes are properly aligned.
2. Fix the screws.
3. Unfold the covers.
4. Adjust the covers according to needs.

**Note:**

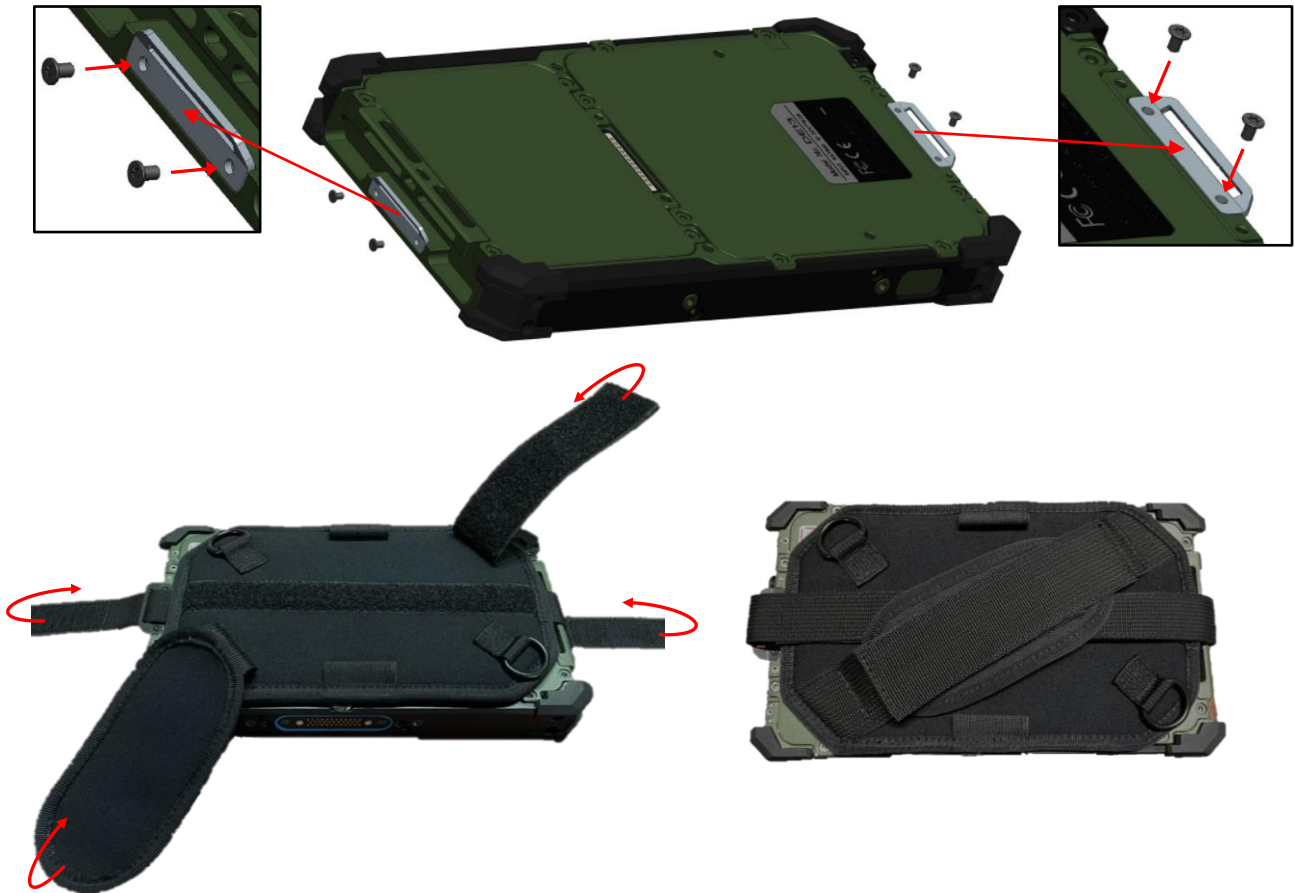
- *The color of drawing shown is for illustration purpose only.*

Installing Hand Strap

Hand Strap allows users to hold and carry the device with one hand.

To install Hand Strap

1. Ensure brackets are properly aligned.
2. Fix the screws for brackets.
3. Align properly and attach the Hand Strap to the device.
4. Press the hooks and loops together.



Chapter3- Managing Power

AC Adapter

The AC adapter performs two functions:

- It powers the computer from an external AC source.
- It charges the computer battery.

The adapter automatically detects the AC line voltage (110V or 220V) and adjusts accordingly.

The following are recommended when using the AC adapter:

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

Connect the AC adapter:

- Plug the AC cord to the adapter.
- Plug the other end of the AC cord into the wall outlet. Make sure the green LED on the adapter turns on.
- Attach the DC plug into the power jack of the computer.

AC Adapter Indicator

The green LED indicates that AC power is ready.

Battery

The computer will automatically switch to battery when the external power source (AC adapter or optional vehicle adapter) is disconnected.

Battery Power Saving Tips

The computer comes with an intelligent power-saving feature. You may extend the battery life by:

Setup power saving functions in Operating System Power Management options (e.g. Windows Power Options).

Lower the intensity of the display by brightness control.

Turn the computer into standby (by Sleep or Power button) when it is temporarily not in use.

Shut down the computer when it will not be in use for longer period of time.

Battery Low

When the battery is nearly exhausted, the computer gives the following “Battery Low” warnings:

Windows battery low warning.

The power LED flashes.

Once the “Battery Low” warning occurs, please:

Save and close the files you are currently working on then shut down the computer.

Plug in AC or vehicle adapter to recharge the battery.

Charging the Battery

Plug in the AC adapter to start the battery charging. If the battery is already full, the sense circuitry will stop high current charge within several minutes.

Charge indicator turns ON when the battery is charging and turns OFF when the battery charging is completed.

Battery Charging Time

Charging Time		DE13
AC adapter	System ON	3 hours
	System OFF	3 hours
Vehicle adapter	System ON	3 hours
	System OFF	3 hours

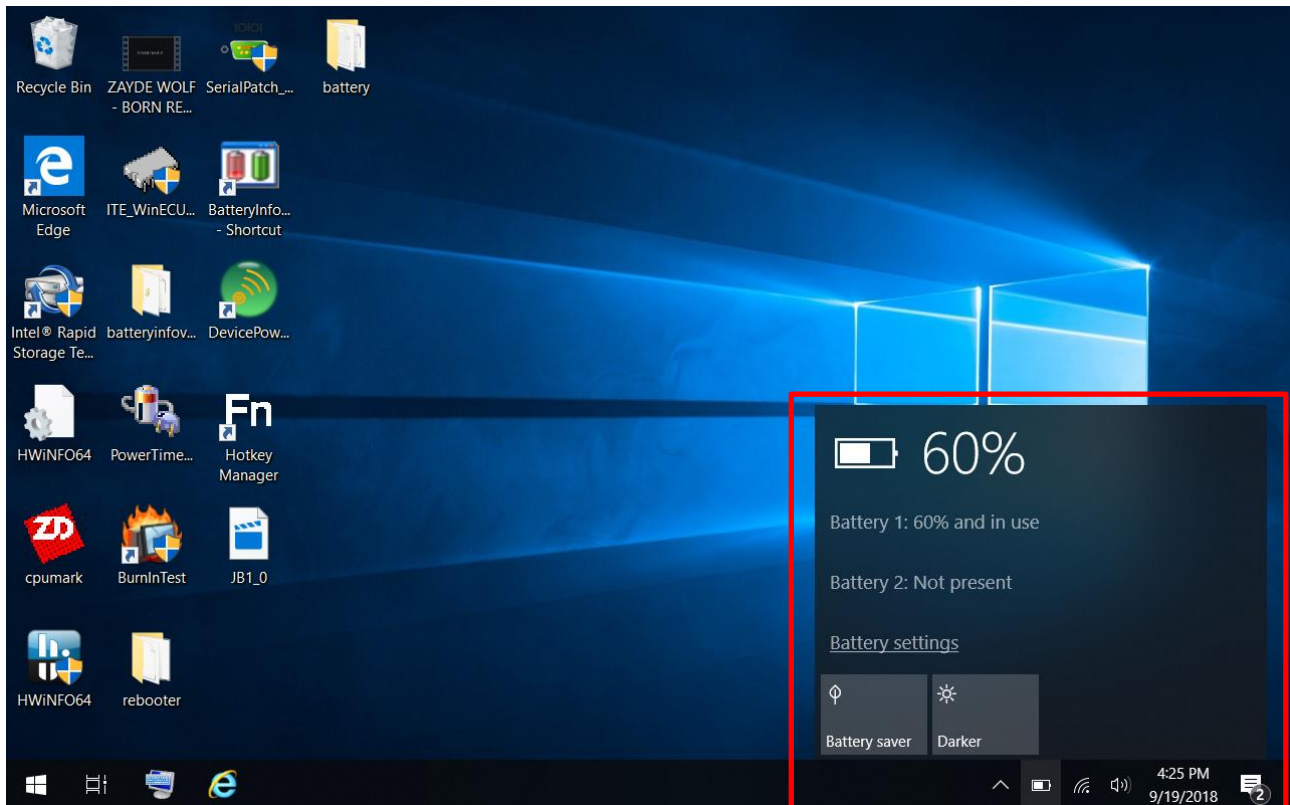
Battery Maintenance & Storage Recommendations

Battery power will decrease gradually in storage. The rate depends on “self-discharge rate” and the storage environment. Self-discharge rate of rechargeable batteries is approximately 1% per day. High humidity and high temperature accelerate discharge. Very low temperature may “freeze” the battery chemicals thus decrease the capacity. The following are guidelines for battery maintenance:

- The battery life with system off is approximately 60 days, so it is suggested that the battery be charged every two months so to avoid over discharging.
- The battery should be removed if it will not be used for a long period of time (approximately one month).
- The battery should have 50% charge remaining before it is removed and be stored in the temperature range of -20°C to 20°C.
- The battery without using for more than 2 years may result in battery aging and it is not recommended to use.
- Self-discharge rate is related to storage temperature. The following recommendations may show how often a battery removed from the device needs to be charged in different storage temperatures.
 - In -20°C ~ 20°C environment, it is recommended to charge the battery every year;
 - In -20°C ~ 45°C environment, it is recommended to charge the battery every three months;
 - In -20°C ~ 60°C environment, it is recommended to charge the battery every month.

Battery Level

You may check battery status from Operating System. In Windows, you can click the power/battery icon to reveal the battery gauge window. The following is the illustration of Battery Gauge in Windows OS.



Note:

- *The battery gauge should only be used as a reference. 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, discharge the battery to nearly empty every month will help calibrating the internal gauge.*

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 correctly calibrate the battery GAUGE IC. To perform battery recalibration, please follow the steps as below:

1. Update BIOS & EC to the latest version.
2. Insert the battery to the computer, and connect it to 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. (Before you run the battery calibration, please make sure that the battery level must be LOWER than 95% ; otherwise, the calibration cannot work.)
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 is completed. Then click "OK".
7. Press "Yes" to reboot the computer when "Reset Without Saving" pop-up appears.

Note:

- *Do not turn off the LCD and do not remove AC adapter during the calibration.*
- *One cycle of recalibration process indicates "Charge to Full => Start Learn Mode => Discharge => Complete Learn Mode => Charge to Full". It will take approx. eight hours for a cycle.*
- *It requires five cycles to complete the battery recalibration. Then the recalibration will stop automatically.*
- *If you want to terminate the calibrating, simply shut down the computer by pressing Power Button or just press "CTRL+ALT+DEL" to restart.*

ACPI Support

Your computer 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:

Sleep:

AC adapter LED is ON (while connecting with power)

Power LED indicator is flashing Green; other LED indicators are OFF

Hibernate:

AC adapter LED is ON (while connecting with power)

Power LED indicator is OFF; other LED indicators are OFF

Shut down:

AC adapter LED is ON (while connecting with power)

Power LED indicator is OFF; other LED indicators are OFF

Chapter 4 - BIOS Setup

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]**.

Main Menu

Aptio Setup Utility	
Main	Advanced
BIOS Information BIOS Vendor Core Version Compliancy Project Version Build Date and Time Access Level EC Version Processor Information Name Type Speed Microcode Revision Total Memory ME FW Version Serial ATA Port 0 Serial ATA Port 1 System Date System Time	Boot Save & Exit Set the Date. Use Tab to switch between Date elements. →←: Select Screen ↑↓: Select Item Enter: Select -/+: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit

Note:

- The contents may vary depending on computer configurations.
- Incorrect settings may cause system malfunction. To correct it, restore the Optimized Defaults with F3.

Advanced Menu

Aptio Setup Utility					
Main	Advanced	Chipset	Boot	Security	Save & Exit
<ul style="list-style-type: none"> ▶ CPU Configuration ▶ PCH-FW Configuration ▶ Platfrom Settings ▶ Intel® Ethernet Connection I219-LM ▶ Trusted Computing ▶ RF Device Control ▶ EC Thermal Control ▶ AC In Boot Control ▶ USB Power Control ▶ Battery Recalibration ▶ IT8760 Super IO Configuration ▶ Network Stack onfiguration ▶ CSM Configuration 				Configure Management Engine Technology Parameters	
				→←: Select Screen ↑↓: Select Item Enter: Select -/+ : Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit	

Advanced Menu Selections

You can make the following selections on the Advanced Menu.

Feature	Options	Description
CPU Configuration	Disabled Enabled	CPU Configuration Parameters
PCH-FW Configuration	Firmware update Configuration	Configure Management Engine Technology Parameter
Platform Settings	EU USA	Platform related settings
Intel® Ethernet Connection I219-LM	Link Speed	Auto Negotiated 10 Mbps Half 10 Mbps Full 100 Mbps Half 100 Mbps Full
	Wake On LAN	Disabled Enabled
Trusted Computing	Security Device Support	Disabled Enabled
	Pending operation	None TPM Clear
	PH Randomization	Disabled Enabled
RF Device Control	Disabled Enabled	GSM, GPS, BT, WLAN
EC Thermal Control	60 C 65C 70C 75C 80C 85C	EC Thermal Control Setting
AC In Boot	Disabled Enabled	AC In Boot Setting
USB Power Control	Disabled Enabled	USB Power Mode Setting: For AC Mode Only; Setting for S5 Enable/S5 Disable
Battery Recalibration	Yes No	Start Battery recalibration function
IT8760 Super IO Configuration	Serial Port Configuration 1	Enable / Disable Serial Port (COM)
	Serial Port Configuration 2	Enable / Disable Serial Port (COM)
Intel® Bios Guard Technology	Disabled Enabled	Enable/ Disable Intel Bios Guard Support
Network Stack Configuration	Disabled Enabled	Enable / Disable UEFI Network Stack
CSM Configuration	Disabled Enabled	Enable / Disable CSM support

CPU Configuration Sub-Menu

Advanced		Aptio Setup Utility
Intel (VMX) Virtualization Technology	[Enabled]	VT-d capability
VT-d	[Enabled]	
Intel Trusted Execution Technology	[Enabled]	
Turbo Mode	[Enabled]	
		→←: Select Screen ↑↓: Select Item Enter: Select -/+: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit

PCH-FW Configuration Sub-Menu

Advanced		Aptio Setup Utility
ME FW Version		Configure Management Engine Technology Parameters
ME Firmware Mode		
ME Firmware SKU		
AMT BIOS Features	[Disabled]	→←: Select Screen ↑↓: Select Item Enter: Select -/+: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
▶ AMT Configuration		
▶ Firmware Update Configuration		

Platform Settings Sub-Menu

Aptio Setup Utility	
Advanced	
<p>Wireless Regulatory Domain Setting SAR [EU]</p>	<p>Set related parameter based on area.</p>
	<p>→←: Select Screen ↑↓: Select Item Enter: Select -/+: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</p>

Intel ® Ethernet Connection I219-LM Sub-Menu

Aptio Setup Utility	
Advanced	
<p>PORT CONFIGURATION MENU ► NIC Configuration</p> <p>Blink LEDs</p> <p>PORT CONFIGURATION INFORMATION UEFI Driver : Adapter PBA : Chip Type PCI Device ID PCI Address Link Status MAC Address</p>	<p>Click to configure the network device port.</p>
	<p>→←: Select Screen ↑↓: Select Item Enter: Select -/+: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</p>

Trusted Computing Sub-Menu

Advanced		Aptio Setup Utility
TPM20 Device Found Vendor: IFX Firmware Version: Security Device Support [Enabled] Pending operation [None] PH Randomiation [Disabled]		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.
		→←: Select Screen ↑↓: Select Item Enter: Select -/+ : Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit

RF Device Control Configuration Sub-Menu

Advanced		Aptio Setup Utility
RF Device Control GSM STATUS Not Present GPS STATUS Present GPS [Enabled] BT STATUS Present BT [Enabled] WLAN STATUS Present WLAN [Enabled]		RF Device Control Setting
		→←: Select Screen ↑↓: Select Item Enter: Select -/+ : Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit

EC Thermal Control Sub-Menu

Advanced		Aptio Setup Utility
EC Thermal Control		EC Thermal Control Setting
Thermal cooling trip point	[75 C]	→←: Select Screen ↑↓: Select Item Enter: Select -/+: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit

AC In Boot Control Sub-Menu

Advanced		Aptio Setup Utility
AC In Boot		AC In Boot Setting
AC In Boot Control	[Disabled]	→←: Select Screen ↑↓: Select Item Enter: Select -/+: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit

USB Power Control Sub-Menu

Advanced		Aptio Setup Utility
USB Power Mode		USB Power Mode Setting: For AC Mode Only; Setting for S5 Enable/S5 Disable
USB Power Control	[Disabled]	→←: Select Screen ↑↓: Select Item Enter: Select -/+: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit

Battery Recalibration Sub-Menu

Advanced		Aptio Setup Utility
Battery Recalibration Utility		Start Battery recalibration function
Calibration Frequency Battery Capacity Battery Charge Mode Battery Learning Mode		→←: Select Screen ↑↓: Select Item Enter: Select -/+: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Note: While the Utility is executing, please don't close the LCD and don't disconnect the AC adapter. The battery is first fully charged, fully discharged, and then it will be fully charged again to complete the battery recalibration process. About 8hrs is needed for the battery to completely the process.		

IT8760 Super IO Configuration Sub-Menu

Aptio Setup Utility	
Advanced	
<p>IT8760 Super IO Configuration</p> <p>Super IO Chip IT8760</p> <p>Serial Port 1 Configuration</p> <p>Serial Port 2 Configuration</p>	<p>Set Parameters of Serial Port 1 (COMA)</p>
	<p>→←: Select Screen</p> <p>↑↓: Select Item</p> <p>Enter: Select</p> <p>-/+ : Change Opt.</p> <p>F1: General Help</p> <p>F2: Previous Values</p> <p>F3: Optimized Defaults</p> <p>F4: Save & Exit</p> <p>ESC: Exit</p>

Intel ® Bios Guard Technology Sub-Menu

Aptio Setup Utility	
Advanced	
<p>Intel Bios Guard Support [Disabled]</p>	<p>Enable/ Disable Intel Bios Guard Support</p>
	<p>→←: Select Screen</p> <p>↑↓: Select Item</p> <p>Enter: Select</p> <p>-/+ : Change Opt.</p> <p>F1: General Help</p> <p>F2: Previous Values</p> <p>F3: Optimized Defaults</p> <p>F4: Save & Exit</p> <p>ESC: Exit</p>

Network Stack Configuration Sub-Menu

Aptio Setup Utility		
Advanced		
Network Stack	[Enabled]	Enable/Disable Network Stack UEFI
Ipv4 PXE Support	[Enabled]	
Ipv4 HTTP Support	[Disabled]	
Ipv6 PXE Support	[Disabled]	
Ipv6 HTTP Support	[Disabled]	
IP6 Configuration Policy	[Automatic]	
PXE boot wait time	0	
Media detect count	1	
		→←: Select Screen ↑↓: Select Item Enter: Select -/+ : Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit

CSM Configuration Sub-Menu

Aptio Setup Utility		
Advanced		
Compatibility Support Module Configuration		Enable/Disable CSM Support.
CSM Support	[Disabled]	
		→←: Select Screen ↑↓: Select Item Enter: Select -/+ : Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit

Chipset Menu

Aptio Setup Utility					
Main	Advanced	Chipset	Security	Boot	Save & Exit
▶ PCH-IO Configuration			PCH Parameters		
			→←: Select Screen ↑↓: Select Item Enter: Select -/+ : Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit		

PCH-IO Configuration Sub-Menu

Aptio Setup Utility		
Chipset		
PCH-IO Configuration ▶ PCI Express Configuration ▶ HD Audio Configuration		PCI Express Configuration settings
PCH LAN Controller [Enabled] Wake on LAN Enable [Disabled] SLP_LAN Low on DC Power [Enabled]		→←: Select Screen ↑↓: Select Item Enter: Select -/+ : Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit

Security Menu

Aptio Setup Utility	
Main	Advanced
Chipset	Security
Boot	Save & Exit
<p>Password Description</p> <p>If ONLY the Administrator's password is set, then this only limits access to Setup and is only asked for when entering Setup.</p> <p>If ONLY the User's password is set, then this is a power on password and must be entered to boot or enter Setup. In Setup the User will have Administrator rights.</p> <p>The password length must be in the following range;</p> <p>Minimum length 3</p> <p>Maximum length 20</p> <p>Administrator Password</p> <p>User Password</p> <p>HDD Security Configuration:</p> <p>P1: XXXXXXXXXXXXX</p> <p>▶ Secure Boot</p>	
<p>Set Administrator Password</p> <hr/> <p>→←: Select Screen</p> <p>↑↓: Select Item</p> <p>Enter: Select</p> <p>-/+ : Change Opt.</p> <p>F1: General Help</p> <p>F2: Previous Values</p> <p>F3: Optimized Defaults</p> <p>F4: Save & Exit</p> <p>ESC: Exit</p>	

HDD Security Configuration Sub-Menu

Aptio Setup Utility		Security
<p>HDD Password Description:</p> <p>Allows Access to Set, Modify and Clear Hard Disk User and Master Password. User Password need to be installed for Enabling Security. Master password can be Modified only when successfully unlocked with Master Password in POST.</p> <p>If the 'Set HDD Password' option is grayed out, do power cycle to enable the option again.</p> <p>HDD PASSWORD CONFIGRATION:</p> <p>Security Supported : Yes Security Enabled : No Security Locked : No Security Frozen : No HDD User Pwd Status : NOT INSTALLED HDD Master Pwd Status : INSTALLED</p> <p>Set User Password Set Master Password</p>		<p>Set HDD User Password. ***Advisable to Power Cycle System after setting Hard Disk Passwords***.</p> <p>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 grayed out, do power cycle to enable the option again.</p> <p>→←: Select Screen ↑↓: Select Item Enter: Select -/+: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</p>

Setting Password

1. Once you set HDD passwords successfully, you must enter 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 BIOS setup will also clear the current user password. Master password is used as a backup key, it's better not to be changed frequently.
3. You can set your master password and user password with a length between 1 and 32 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.

Note:

- *If the master password is lost or it is not set earlier than the user password, losing the user password would make accessing impossible. So please set the master password at first and keep it carefully.*

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 users password could be cleared with the master password.
3. Once the HDD is locked, users have no right to access. You can only enter again by the correct user password or clear it by 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

Aptio Setup Utility	
Main	Advanced
Chipset	Security
Boot	Save & Exit
<p>FIXED BOOT ORDER Priorities</p> <p>Boot Option #1 [UEFI Hard Disk: Windows Boot Manager (P1: XXXXXXXXXXXXXXXX)]</p> <p>Boot Option #2 [UEFI CD/DVD]</p> <p>Boot Option #3 [UEFI USB Device]</p> <p>Boot Option #4 [UEFI Network:UEFI: PXE IP4 Intel® Ethernet Connection I219-LM]</p> <p>Boot Option #5 [Hark Disk]</p> <p>Boot Option #6 [CD/DVD]</p> <p>Boot Option #7 [USB Device]</p> <p>Boot Option #8 [Network]</p> <p>▶ UEFI Hard Disk Drive BBS Priorities</p> <p>▶ UEFI NETWORK Drive BBS Priorities</p>	
<p>Set the system boot order.</p> <p>→←: Select Screen</p> <p>↑↓: Select Item</p> <p>Enter: Select</p> <p>–/+: Change Opt.</p> <p>F1: General Help</p> <p>F2: Previous Values</p> <p>F3: Optimized Defaults</p> <p>F4: Save & Exit</p> <p>ESC: Exit</p>	

The system will try to boot from device on top then the 2nd and so on. If there is more than one device in each category, only the device on top of sub-menu can boot up.

Save & Exit Menu

Aptio Setup Utility					
Main	Advanced	Chipset	Security	Boot	Save & Exit
Save Options Save Changes and Reset Discard Changes and Reset				Reset the system after saving the changes	
Default Options Restore Defaults				→←: Select Screen ↑↓: Select Item Enter: Select -/+ : Change Opt.	
Boot Override Windows Boot Manager (P1: XXXXXXXX) UEFI: PXE IP4 Intekr® Ethernet Connection I219-LM Launch EFI Shell from filesystem device				F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit	

Chapter 5 – Drivers and Applications

The Utility DVD includes all the drivers for the devices installed in your tablet computer. Please consult your dealer if there are any driver missing. Also, you could update the driver or check if there any driver need to be installed by "Windows device manager". Please check the "readme.txt" file on Utility DVD to get the information for driver installation

Chapter 6 – Specifications

Platform

Intel® Kaby Lake-Y Platform

CPU

Intel® 7th Generation Dual Core™ i7-7Y75 Processor (4M Cache, up to 3.60 GHz)

Memory

16GB System Memory (On board)

- Industrial grade
- LPDDR3 1066MHz

Display

- Standard:
 - 7" WXGA
 - Air Bonding
 - Resistive Multi-Touch Screen
 - Resolution: 1280 x 800 pixels
 - Brightness (Min. ~ Typ.): 640~800 nits
- Optional:
 - Invisible mode on/ off
 -

Note:

- *Invisible Mode On/Off controls all light sources on/off, including LCD B/L, LED Indicators & Keypad B/L.*

Storage

- M.2 2280 M key SATAIII SSD
- 128GB/256GB/512GB
- Industrial Grade

Buttons/Function Keys

- Power button (front side)
- Membrane Function Keys with LED Backlight

Audio

- HD Audio and mono Speakers
- Embedded Digital Mic

I/O Ports

Right:

- Jack I/O: Amphenol USB3.1 Type C x 1
- Optional Fischer I/O: Each function can only be chosen once.

Choose 2 out of 5 options listed as below:

- USB 2.0 x1
- GLAN
- COM x 1 (RS232 x1/RS422 x 1)
- Audio (Headphone out/Mic-in Combo) x 1
- Sealed Headset (Headphone out/Mic-in Combo) x1

Note:

➤ *Optional Fischer Audio and Sealed Headset can't coexist.*

Bottom:

- Docklite Connector: 35-pin POGO (Hot Swappable)
- Ext. ANT Signals x2

Case

- CNC milled Aluminum
- Color: Black/ NATO Green

Dimensions and Weight

- Dimensions (mm): 250 (L) x 144 (W) x 30.5 (H)
- Weight: 1.2 kg

Note:

- *Weight includes WLAN/BT Module, GPS, battery x 1, Fishcher Audio, Fishcher USB 2.0.*
- *Weight varies depending on system configurations.*

Power

Battery Pack (BDED2A)

Type:	Prismatic Lithium Ion Cell
Capacity:	7.2V/4700mAh (2S2P)
Operating Temperature	Charge: 0 ~ 40°C Discharge: -20 ~ 60°C
Dimensions:	105 mm (W) x 79 mm (D) x 13 mm (H)
Weight:	Approx. 195 gram

Optional Battery Pack (BDED2B)

Type:	Prismatic Lithium Ion Cell
Capacity:	7.2V/4700mAh (2S2P)
Operating Temperature	Charge: 0 ~ 40°C Discharge: -20 ~ 60°C
Dimensions:	130.2 mm (W) x 108.3 mm (D) x 13 mm (H)
Weight:	Approx. 280 gram

AC Adapter

Input Voltage:	AC 100 - 240V
Frequency:	50/60 Hz
Output Voltage:	DC 19V
Maximum Power:	90 Watts
Dimensions:	133 mm (W) x 58mm (D) x 30mm (H)
Weight:	Approx. 400 g (0.88 lb.)

DC-In

12~32V = 8A
- Fischer 3 pin Connector

Certification

CE, FCC, WEEE, REACH, RoHS2.0, IP65, MIL-STD-810G, MIL-STD-461G, Optional GA

Operating & Storage Temperature

Operating Temp.:

- Standard: -20 °C ~ +60 °C
- Optional: -30 °C ~ +60 °C

*Battery Mode at least -10°C

Storage Temp.: -40 °C ~ +70 °C

Materials and Recycling

Materials of the computer are as follows:

Magnesium case:	AL6061T6
PCB:	FR-4, UL 94V0
Battery:	Rechargeable Lithium Ion cells
Packing:	Carton: Unbleached paper
	Cushion: Recyclable PE
	Carrying bag: Recyclable PE Fiber
	Quick Guide: Paper

Please recycle the parts according to local regulations.

Chapter 7 – Optional Devices

Communication

- WLAN/BT:
 - Intel Dual Band wireless- AC 8265
 - Board Form Factor: M.2 2230 E-key Card
 - WLAN Certified: 802.11 a/b/g/n/ac
 - BT: Supports BT 4.2 (Backward compatible)
 - Interface: PCIe (WLAN)/USB (BT)
- GPS:
 - U-blox M8N (USB interface)

Security

BIOS password and Kensington cable lock slot are available to safely secure your computer. Optional TPM (Trusted Platform Module) version 2.0 is also supported, preventing unauthorized access to your computer.

Mil. Fischer Connector

Optional Fischer connectors provide solutions for users to operate the device in harsh environments. Signals designed for usage include USB2.0, VGA, RS232 or RS422, GLAN, and Audio.

SunShade

SunShade is made with black non-reflective covers, and with flexibly adjustable angles, it offers the protection for screen reflection to the maximum extent.

Dimension (mm): 239 (L) x 138 (W) x 28 (H)

Weight: Approximately 240 g



Hand Strap

Hand Strap is designed to hold the device with single hand, which also provides heat insulation for users.

Dimension (mm): 220 (L) x 135 (W)

Weight: Approximately 140 g



Chapter 8 – Maintenance and Service

Cleaning

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, non-alcohol based glass cleaner to the cloth and wipe.

An air gun is recommended for cleaning water and dust. For salty water please clean with fresh water then blow-dry with an air gun.

Troubleshooting

Should the tablet computer fail to function properly, the troubleshooting steps below may be followed.

- Power Problems:

When I turn on the Tablet computer, it does not respond.

- If you are using battery power, check if the battery is charged
- If you are using AC power, ensure that the connection of AC adapter is correct.

I cannot return from Hibernation while on battery power

- The battery might be drained. Please plug the tablet into AC power.
- Hard reset the device by pressing the power button for 4 seconds

Unexpected or improper shutdown causes BIOS to reset to Optimized Default

- This could be a power problem. Please connect the AC power adapter to fix the abnormal shutdown problem.
- Minimize the configuration, i.e. remove extra peripherals and devices.
- Remove the modules one by one (SSD, Battery, etc.).
- Remove the software suspected.
- Set BIOS fail-safe default.
- Re-install operating system and application software.

RMA Service & E-RMA

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 form) 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.mildef.com.tw => **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.

Statuses are listed as below:

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.

