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ABRA A7 Portable Computer User Manual

Contents

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About this Concise User Guide

This quick guide is a brief introduction to getting your system started. This is a supplement, and not a substitute for the expanded English language User's Manual in Adobe Acrobat format on the Device Drivers & Utilities + User's Manual disc supplied with your computer. This disc also contains the drivers and utilities necessary for the proper operation of the computer (Note: The company reserves the right to revise this publication or to change its contents without notice).Some or all of the computer's features may already have been setup. If they aren't, or you are planning to re-configure(or re-install) portions of the system, refer to the expanded User's Manual. The Device Drivers & Utilities + User's Manual disc does not contain an operating system.

Regulatory and Safety Information

Please pay careful attention to the full regulatory notices and safety information contained in the expanded User's Manual on the Device Drivers & Utilities + User's Manual disc.© April 2020

Trademarks

Intel is a trademark/registered trademark of Intel Corporation.
Windows is a registered trademark of Microsoft Corporation

FCC Statement

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.
2. This device must accept any interference received, including interference that may cause undesired operation.

Instructions for Care and Operation

The computer is quite rugged, but it can be damaged. To prevent this, follow these suggestions:

- **Don't drop it, or expose it to shock.** If the computer falls, the case and the components could be
- **Keep it dry, and don't overheat it.** Keep the computer and power supply away from any kind of heating This is an electrical appliance. If water or any other liquid gets into it, the computer could be badly damaged.
- **Avoid interference.** Keep the computer away from high capacity transformers, electric motors, and other strong magnetic These can hinder proper performance and damage your data.
- **Follow the proper working procedures for the computer.** Shut the computer down properly and don't forget to save your work. Remember to periodically save your data as data may be ost.

Servicing

Do not attempt to service the computer yourself. Doing so may violate your warranty and expose you and the computer to electric shock. Refer all servicing to authorized service personnel. Unplug the computer from the power supply. Then refer servicing to qualified service personnel under any of the following conditions:

- When the power cord or AC/DC adapter is damaged or frayed.
- If the computer has been exposed to any liquids.
- If the computer does not work normally when you follow the operating instructions.
- If the computer has been dropped or damaged (do not touch the poisonous liquid if the LCD panel breaks).
- If there is an unusual odor, heat or smoke coming from your computer.

Safety Information

- Only use an AC/DC adapter approved for use with this computer.
- Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.
- Do not continue to use a battery that has been dropped, or that appears damaged (e.g. bent or twisted) in any way. Even if the computer continues to work with a damaged battery in place, it may cause circuit damage, which may possibly result in fire.
- Make sure that your computer is completely powered off before putting it into a travel bag (or any such container).
- Before cleaning the computer, make sure it is disconnected from any external power supplies, peripherals and cables.
- Use a soft clean cloth to clean the computer, but do not apply cleaner directly to the computer. Do not use volatile (petroleum distillates) or abrasive cleaners on any part of the computer.
- Do not try to repair a battery pack. Refer any battery pack repair or replacement to your service representative or qualified service personnel.
- Note that in computer's featuring a raised LCD electro-plated logo, the logo is covered by a protective adhesive. Due to general wear and tear, this adhesive may deteriorate over time and the exposed logo may develop sharp edges. Be careful when handling the computer in this case, and avoid touching the raised LCD electro-plated logo. Avoid placing any other items in the carrying bag which may rub against the top of the computer during transport.If any such wear and tear develops contact your service center.

Polymer/Lithium-Ion Battery Precautions

- Note the following information which is specific to Polymer/Lithium-Ion batteries only, and where applicable, this overrides the general battery precaution information.
- Polymer/Lithium-Ion batteries may experience a slight expansion or swelling, however this is part of the battery's safety mechanism and is not a cause for concern.
- Use proper handling procedures when using Polymer/Lithium-Ion batteries. Do not use Polymer/Lithium-Ion batteries in high ambient temperature environments, and do not store unused batteries for extended periods.
- If you are working in areas of low temperature use the AC/DC adapter to power the computer.

 Battery Disposal & Caution

The product that you have purchased contains a rechargeable battery. The battery is recyclable. At the end of its useful 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 if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used battery according to the manufacturer's instructions.

System Startup

1. Remove all packing materials.
2. Place the computer on a stable surface.
3. Insert the battery and make sure it is locked in position.
4. Securely attach any peripherals you want to use with the computer (e.g. keyboard and mouse) to their ports.
5. When first setting up the computer use the following procedure (as to safeguard the computer during shipping, the battery will be locked to not power the system until first connected to the AC/DC adapter and initially set up as below):
6. Attach the AC/DC adapter cord to the DC-In jack on the rear of the computer, then plug the AC power cord into an outlet, and connect the AC power cord to the AC/DC adapter. The battery will now be unlocked.
7. Use one hand to raise the lid/LCD to a comfortable viewing angle (do not e xceed 130 degrees); use the other hand (as illustrated in Figure 1) to support the base of the computer (Note: Never lift the computer by the lid/LCD).
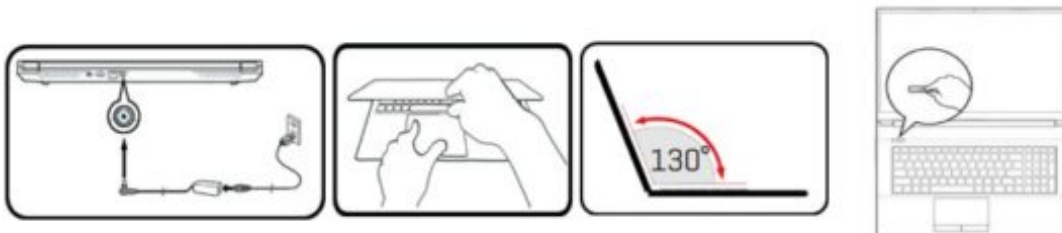8. Press the power button to turn the computer "on".

Figure 1

System Software

Your computer may already come with system software pre-installed. Where this is not the case, or where you are reconfiguring your computer for a different system, you will
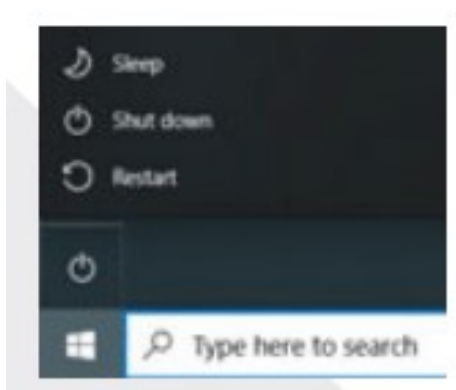find this manual refers to Microsoft Windows 10.

Intel® Optane™/RAID Support

Note that your system can be set up as a RAID OR to support Intel® Optane™, but it cannot be set to support both systems. You need to setup Intel® Optane™ or RAID before installing your Windows 10 operating system.

Shut Down

Note that you should always shut your computer down by choosing the Shut down command in Windows (see below).
This will help prevent hard disk or system problems.

1. Click the Start Menu icon .
2. Click the Power item .
3. Choose Shut down from the menu.

Intel® Optane™ Setup

Intel® Optane™ is a combination of a compatible memory device and Intel Rapid Storage
Technology software. This combination is designed to speed up your system performance y caching boot data, executables, frequently accessed data and system page files to a non volatile, low latency Intel® Optane™ SSD. Contact your distributor or supplier to see if your system supports this technology.

Intel® Optane™ Setup Procedure

You need to setup Intel® Optane™ before installing your Windows 10 operating system, and you will need to prepare the following in order to do so.

- The Microsoft Windows 10 OS on a DVD or USB flash drive.
- An Intel® Optane™ SSD installed in your system.
- The Device Drivers & Utilities + User's Manual disc.

1. Start-up your notebook computer and press F2 to enter the BIOS and go to the Setup Utility.
2. Select the Advanced menu

3. Select VMD Mode, press Enter and select Intel RST Premium… and select <OK>.
4. Press F10 to "Save and Exit" and select <Yes>, however note below.

    • Make sure the Windows 10 OS (DVD) is in the attached DVD drive or on a USB flash drive and as the computer starts up it will automatically boot from the Windows 10 OS DVD or USB flash drive

5. Click Next > Install Now to continue installing the operating system as normal (see your Windows documentation if you need help on installing the Windows OS)
6. Select Custom: Install Windows only (advanced).
7. It is recommended that you select and then delete existing partitions.
8. Click New to create a partition for Windows.
9. It is very important to make sure that when you create the partition, leave at least a minimum of unallocated space of 5MB. This space is required for any drive that is being accelerated (System or Data Drive)
10. Follow the on-screen instructions to install the Windows 10 operating system.
11. Install the Windows drivers. Make sure you install the Intel® Rapid Storage Technology (IRST) driver.
12. Run the Intel® Optane™ Memory and Storage Management application.
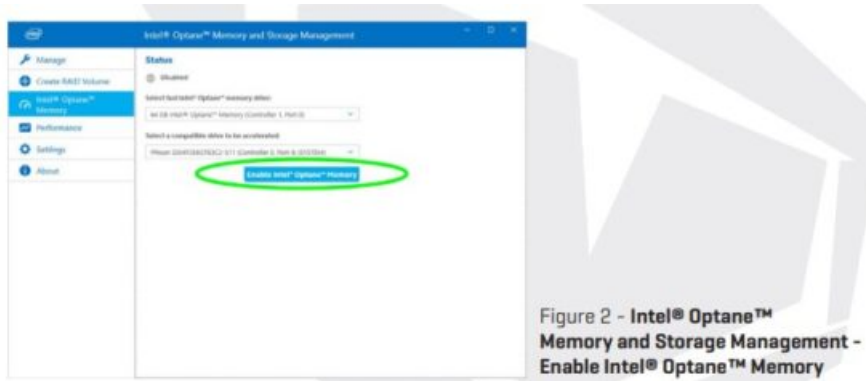13. Click Enable Intel® Optane™ Memory.

Figure 2 - **Intel® Optane™ Memory and Storage Management - Enable Intel® Optane™ Memory**

14. A warning will pop up to notify you that all data on the Optane Memory Module will be erased, and if this is OK then click Enable.
15. The system will prepare and enable the Optane drive, and when finished you can then click Restart.
16. The system will then optimize the Optane Memory upon restart.
17. Run the Intel® Optane™ Memory and Storage Management application.
18. The system status will then be displayed

Disabling Intel® Optane™

If you wish to disable an existing Intel® Optane™ setup then follow the procedure below to do so.

1. Run the Intel® Optane™ Memory and Storage Management application.
2. Click Intel® Optane™ Memory and then click Disable.
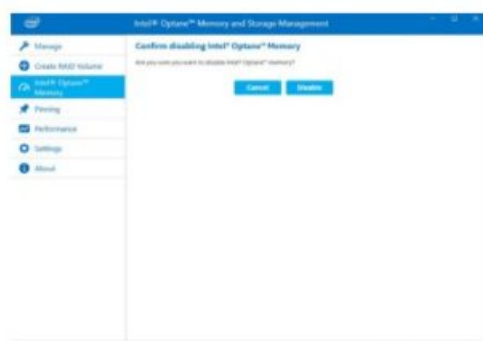3. Click Disable when you see the following message.

Figure 3 - **Intel® Optane™ Memory and Storage Management - Disable**

4. Restart the computer to complete the process.

5. Run the Intel® Optane™ Memory and Storage Management application

6. The Intel® Optane™ Memory Status is indicated in the Window.

RAID Setup

Your solid state drives (SSDs) can be set up in RAID mode (for increased performance or protection). Note that setting up your solid state drives in RAID mode needs to be done prior to installing the Windows OS. Do not change the mode unless you intend to reinstall your operating system, and make sure you back up all necessary files and data before doing so.
To configure your RAID (Redundant Array of Independent Disks) system in Striping (RAID 0) or
Mirroring (RAID 1) mode (see Table 1) you will require two identical solid state drives.

RAID Level	Description
RAID 0 (at lease two SSDs needed)	Identical drives reading and writing data in parallel to **increase performance.** RAID 0 implements a striped disk array and the data is broken into blocks and each block is written to a separate drive.
RAID 1 (at lease two SSDs needed)	Identical drives in a mirrored configuration used to **protect data.** Should a drive that is part of a mirrored array fail, the mirrored drive (which contains identical data) will handle all the data. When a new replacement drive is installed, data to the new drive is rebuilt from the mirrored drive to restore fault tolerance.

Table 1 – RAID Description

Prepare the following before setting up your PCIe SSDs in RAID mode:

- The Microsoft Windows 10 OS on a DVD or USB flash drive.
- An attached external DVD drive.
- Two identical PCIe solid state drives.
- The Device Drivers & Utilities + User's Manual disc.

NOTE

All SSDs in a RAID should be identical (the same size and brand) in order to prevent unexpected system behavior.

RAID Setup Procedure

1. Start-up your notebook computer and press F2 to enter the BIOS and go to the Setup Utility.
2. Select the Advanced menu.
3. Select SATA Mode, press Enter and select Intel RST Premium… and select <OK>.
4. Press F10 to "Save and Exit" and select <Yes>.
5. After the computer restarts press F2 to enter the BIOS again and go to the Setup Utility.
6. Go to Intel(R) Rapid Storage Technology (in the Advanced menu) and select "Create RAID Volume".
7. You can now setup your RAID volume using the installed SSDs.
8. Select "Name" and type a name of your choice for your RAID volume and select <Yes>.
9. Select "RAID Level" and choose the RAID Level required (see Table 1 on page 7) and press Enter.
   - RAID 0 (Stripe)
   - RAID 1 (Mirror)
10. Go to any of the disks listed under Select Disks: and select a disk name.
11. Click on X to select the disk required.
12. You should select two identical SSDs to form your RAID volume.
13. If you have selected RAID 0 (Stripe) then you can adjust the "Strip Size" to your requirements (It is recommended that you set the "Strip Size" to 128KB).
14. Select "Create Volume" (make sure you have selected your disks).
15. The system will list your RAID volume.
16. Press F10 to "Save and Exit" and select <Yes>, however note below.
    - Make sure the Windows 10 OS DVD is in the attached DVD drive and as the computer starts up it will automatically boot from the Windows 10 OS DVD (you will be prompted to press a key to boot from the DVD).
17. Click Next > Install Now to continue installing the operating system as normal (see your Windows documentation if you need help on installing the Windows OS).
18. Follow the on-screen instructions to install the Windows 10 operating system.
19. Install the Windows drivers. Make sure you install the Intel® Rapid Storage Technology (IRST) driver.

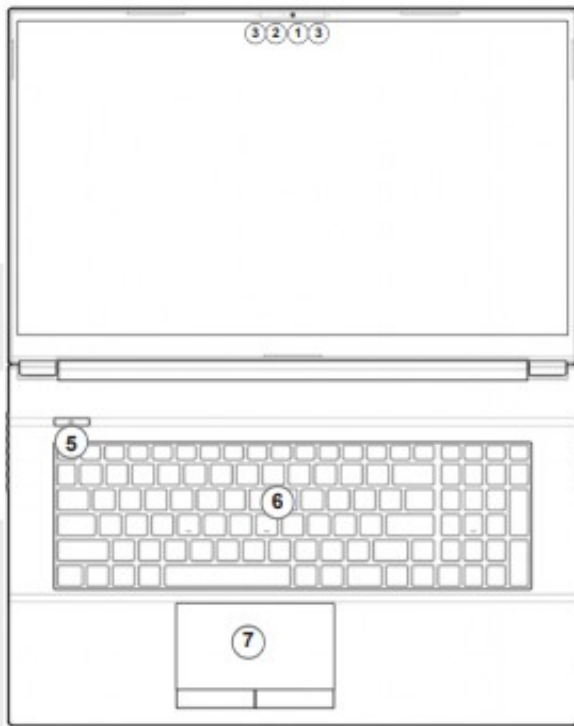## System Map: Front View with LCD Panel Open

Figure 3 - **Front View with LCD Panel Open**

1. PC Camera
2. *Camera LED

   *When the camera is in use, the LED will be illuminated.
3. Built-In Array Microphone
4. Display
5. Power Button
6. Keyboard
7. Touchpad & Buttons

LED Indicators

The LED indicators on the computer display helpful information about the current status of the computer.
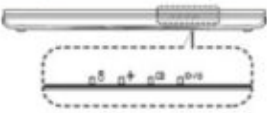
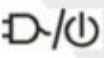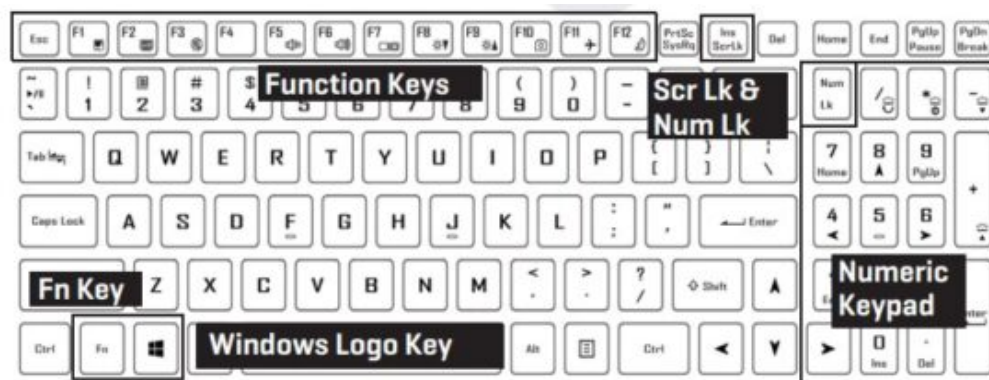| Icon	Color	Description
	Green	The Hard Disk is in use
	Green	**Airplane Mode is ON** (the WLAN and Bluetooth Modules are OFF)
	Orange	The Battery is Charging
	Green	The Battery is Fully Charged
	Blinking Orange	The Battery Has Reached Critically Low Power Status
	Orange	The AC/DC Adapter is Plugged In
	Green	The Computer is On
	Blinking Green	The Computer is in **Sleep** Mode

Table 2 - **LED Indicators**

 Wireless Device Operation Aboard Aircraft

The use of any portable electronic transmission devices aboard aircraft is usually prohibited.
Make sure the wireless modules are OFF if you are using the computer aboard aircraft by putting the system in to Airplane Mode.

Keyboard & Function Keys

The keyboard includes a numeric keypad for easy numeric data input. Pressing Num Lk turns on/off the numeric keypad. It also features function keys to allow you to change operational features instantly. The function keys (F1 – F12 etc.) will act as hot keys when pressed while the Fn key is held down. In addition to the basic function key combinations, some visual indicators are available when the Control Center driver is installed.

Keys	Function/Visual Indicators			Keys	Function/Visual Indicators		
Fn +	Play/Pause (in Audio/Video Programs)			Fn + F12	Sleep Toggle		
Fn + F1	Touchpad Toggle	TOUCH PAD ON	TOUCH PAD OFF	Num Lk		NUM LOCK ON	NUM LOCK OFF
Fn + F2	Turn Display Backlight Off (Press a key to or use touchpad to turn on)			Fn + Ins Scrlk	Scroll Lock Toggle	SCR LOCK ON	SCR LOCK OFF
Fn + F3	Mute Toggle			Caps Lock	Caps Lock Toggle	CAPS LOCK ON	CAPS LOCK OFF
Fn + F5 F6	Volume Decrease/ Increase			Fn + Esc	Control Center Toggle		
Fn + F7	Change Display Configuration			Fn + ↑	Fan Automatic Control/ Full Power	FAN SPEED AUTOMATIC	FAN SPEED MAXIMUM
Fn + F8 F9	Display Brightness Decrease/Increase			*Note: It is recommended that you use Maximum fan speed when playing games.			
Fn + F10	Camera Power Toggle	CAMERA ON	CAMERA OFF	Fn +	Disable/Enable Flexikey®	Flexikey ON	Flexikey OFF
Fn + F11	Airplane Mode Toggle	Airplane mode off	Airplane mode on	Fn + 3	Power Modes Toggle	Entertainment / Maintenance	Power Saver / Quiet

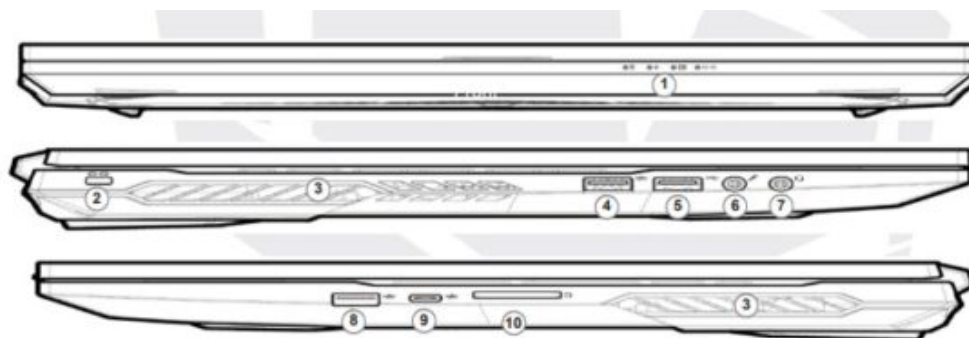## System Map: Front, Left & Right Views

Figure 4 - **Front, Left & Right Views (Model A)**

1. LED Indicators
2. Security Lock Slot
3. Vent
4. USB 3.2 Gen 1 Type-A Port
5. USB 2.0 Port
6. Microphone-In Jack
7. 2-In-1 Audio Jack (Headphone and Microphone)
8. USB 3.2 Gen 2 Type-A Port
9. USB 3.2 Gen 2 Type-C Port
10. Multi-in-1 Card Reader

Overheating

To prevent your computer from overheating make sure nothing blocks any vent while the computer is in use.
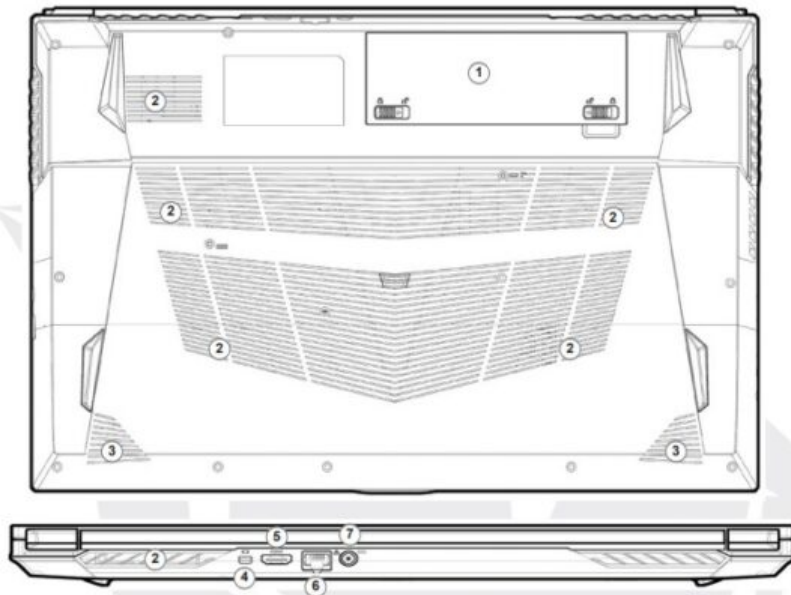
System Map: Bottom & Rear Views

Figure 5 - **Bottom & Rear Views**

1. Battery
2. Vent
3. Speakers
4. Mini DisplayPort 1.4
5. HDMI-Out Port
6. RJ-45 LAN Jack
7. DC-In Jack

Overheating

To prevent your computer from overheating make sure nothing blocks any vent while the computer is in use.

Bottom Cover Removal Warning

Do not remove any cover(s) and/or screw(s) for the purposes of device upgrade as this may violate the terms of your warranty.
If you need to replace/remove the hard disk/RAM etc., for any reason, please contact your distributor/supplier for further information

Specifications

Core Logic

- Mobile Intel® new generation Express Chipset

Memory

- Dual channel DDR4
- Two 260 pins SODIMM sockets, support DDR4 up to 3200MHz (Real operation frequency depends on processor)
- Expandable memory up to 64GB, depends on 8GB/16GB/32GB SODIMM module

Display

- 17,3" (43,94cm) FHD (1920×1080) 16:9 panel, 3,5mm

Security

- Security (Kensington® Type) Lock Slot
- Intel® PTT for System Without Hardware TPM

Storage

- One changeable 2,5" 7mm(H) HDD / SSD, SATA interface
- One M.2 2280 SSD PCIe Gen4x4 interface & One M.2 2280 SSD SATA/PCIe Gen3x4 interface support PCIe Gen3x4 interface (RAID 0/1)

Audio

- High Definition Audio
- Built in array microphone
- Built in two speakers
- Sound Blaster™ Cinema 6

Keyboard and Pointing Device

- Multi languages Multi-Color illuminated full size keyboard with numeric pad
- Built in touch pad with Microsoft PTP multi-gesture and scrolling function

Specifications

Card Reader

- 6-in-1 Push-Push Card reader
- MMC / RSMMC
- SD / mini SD / SDHC / SDXC

Communication

- Built in 10/100/1000Mb Base-TX Ethernet LAN
- Intel® Dual Band Wi-Fi 6 AX201 2×2 AX + BT CNVi M.2 2230 (Harrison Peak 2)
- 1.0M HD video camera

Power

- Full Range AC adapter, AC in 100~240V, 50~60Hz, DC output 19,5V, 7,7A, 150W
- Removable 4 cells Smart Lithium-Ion battery pack, 41WH
- Battery life: 340 minutes (UMA mode with 41 WH battery)
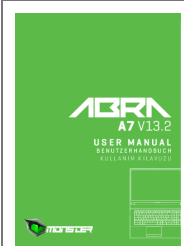
Dimension And Weight

- 395,9 (W) x262 (D) x25,9 (H) mm
- 2,5 kg,including Barebone and 41 WH Battery

Interface

- 1 x USB 2.0 port
- 1 x USB 3.2 Gen 1 port (Type A)
- 1 x USB 3.2 Gen 2 port (Type A)
- 1 x USB 3.2 Gen 2 port (Type C)
- 1 x Mini Display 1.4 port
- 1 x HDMITM output port (with HDCP)
- 1 x 2-in-1 Audio Jack (Headphone / Microphone)
- 1 x Microphone jack
- 1 x RJ-45 LAN port
- 1 x DC-in jack

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