



# **BitRaser Hardware Diagnostics**

**User Guide for version 1.0**

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# 1. ABOUT BITRASER HARDWARE DIAGNOSTICS

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**Hardware Diagnostics** is the process of assessing and monitoring the health of a computer system. **BitRaser Hardware Diagnostics** is a comprehensive diagnostic tool designed to detect issues in key computer components, including the **CPU, Memory, Battery, Storage, Ethernet, GPU, Monitor, CMOS, System Board, Keyboard, Microphone, Audio**, and more. Users commonly face hardware problems such as **overheating of the CPU and GPU, memory (RAM) issues, motherboard failures, and overall slow performance**. BitRaser swiftly identifies these issues, providing users with timely insights into their hardware's condition.

This software features a user-friendly interface that presents component scans and diagnostic information in a **grid view** for easy interpretation. For each hardware component, **predefined comprehensive tests** are executed to detect potential issues such as **bad sectors in storage drives, RAM utilization, free space, total memory, CPU usage, and temperature monitoring** of the GPU and CPU. Furthermore, users can access detailed information about their hardware components, including the **processor model, speed, BIOS version, vendor, and sub-vendor details**.

Additionally, BitRaser offers **stress testing** functionality, allowing users to simulate extreme workloads to pinpoint potential hardware failures. Upon completion of diagnostic tests, the software generates a detailed report that includes the number of tests passed and failed. Users can either **save the diagnostic report locally** or download it directly from the **BitRaser cloud console**, providing flexibility and accessibility for future reference.

## Key Features:

1. **Automatic Device Detection:** Automatically detects connected devices and provides information about them.
2. **Customize Test Settings:** Option to select or deselect the predefined tests based on user preferences.

3. **Diagnostic Analysis:** Generates both detailed and short reports of diagnostic tests.
4. **Flexible Testing Options:** Provides support for Quick and Advanced tests.
5. **Access to Multiple Tests:** Runs multiple tests for different components to check their functionality.
6. **Display of Information:** Displays the diagnostic information in a grid view.
7. **Easy Network Connectivity:** Provides options to connect to the internet either using Ethernet (LAN connection) or Wireless connection.
8. **Keyboard Layout:** Supports multiple language keyboard layouts.
9. **Non-Expiring Licenses:** Licenses never get expired- Pay per use.
10. **BitRaser Cloud Integration:** Cloud integration for user management, licenses, and reports. The software saves reports on BitRaser Cloud.
11. **Flexible Report Saving Formats:** Flexibility to save reports in multiple formats such as PDF, CSV, and XML.
12. **Simultaneous Auto and Manual Testing:** Run automatic and manual tests at the same time for increased efficiency.
13. **Language Support:** The product is available in **English** and **Japanese**.

## 2. ABOUT THE GUIDE

**BitRaser Hardware Diagnostics** user guide contains sequential steps to assist you through various functions. Each function is explained in detail in the corresponding sections. It covers the following major topics:

1. [About BitRaser Hardware Diagnostics](#)
2. [About the Guide](#)
3. [Getting Started](#)
4. [How To](#)
5. [Frequently Asked Questions \(FAQ\)](#)
6. [Legal Notices](#)
7. [About Stellar](#)

This guide is helpful if you are using **BitRaser Hardware Diagnostics** application with license information either in the cloud or on a **USB lock key**. There are minor differences in the functionality of **BitRaser Hardware Diagnostics** if you are using **cloud** or a **USB lock key** for accessing the license information. These differences are given in detail in the corresponding topics of this guide.

There are Notes in some topics of this guide for better understanding and ease of work. These Notes are given in *Courier New italics style*.

### Acronyms used in this guide with their definitions:

| ITEM        | EXPLANATION                                                                                                                                                                                        |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>BIOS</b> | BIOS stands for Basic Input / Output System. The BIOS is a computer program embedded on a chip on a computer's motherboard that recognizes and controls various devices that make up the computer. |

| ITEM                      | EXPLANATION                                                                                                                                                                                                                           |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>HDD</b>                | Hard disk drive (HDD) storage is made up of magnetic tape and has mechanical parts inside. This type of drive is cheaper and available with more storage space than SSDs.                                                             |
| <b>HPA / DCO</b>          | The Host Protected Area (HPA) and Device Configuration Overlay (DCO) are features for hiding sectors of a hard disk from being accessible to the end user.                                                                            |
| <b>ISO file</b>           | An ISO file, often called an ISO image, is a single file that's a perfect representation of an entire CD or DVD. The entire content of the disc can be precisely duplicated into a single file.                                       |
| <b>KB, MB, GB, and TB</b> | This measure is used to describe memory capacity and disk storage. A kilobyte (KB) is 1,024 bytes, and one megabyte (MB) is 1,024 kilobytes; one gigabyte (GB) is equal to 1,024 megabytes, while a terabyte (TB) is 1,024 gigabytes. |
| <b>PDF</b>                | Portable Document Format (PDF) is a file format designed to present documents consistently across multiple devices and platforms.                                                                                                     |
| <b>PNG</b>                | Portable Network Graphics (PNG) is a raster-graphics file format for image compression.                                                                                                                                               |
| <b>SSD</b>                | Solid State Drive (SSD) is a flash storage device and has no moving parts whatsoever. As a result, they are smaller and take up less space in a PC.                                                                                   |
| <b>User ID</b>            | Stands for User Identification, which by default is the e-mail address of the user in the guide.                                                                                                                                      |
| <b>XML</b>                | Extensible Markup Language (XML) is a metalanguage that allows users to define their own customized markup languages, especially to display documents on the internet.                                                                |

| ITEM | EXPLANATION                                                                                                                                          |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| ZIP  | ZIP is an archive file format that supports data compression. A ZIP file may contain one or more files or directories that may have been compressed. |

For any query or feedback related to this guide, kindly [contact us](#).

## 3. GETTING STARTED

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Navigate to the different sections of the manual by clicking on the links below:

- 3.1. [System Requirements](#)
- 3.2. [Boot and Run BitRaser Hardware Diagnostics](#)
- 3.3. [Getting Familiar with User Interface](#)
  - 3.3.1. [Getting Familiar with Buttons](#)
- 3.4. [BitRaser Contact Information](#)

### 3.1. SYSTEM REQUIREMENTS

---

Before you start the installation process, make sure that your system meets the following requirements.

#### Minimum System Requirements:

- **Processor:** x86 or x64 Processor.
- **RAM:** 4 GB minimum.
- **Optical Drive**, if you are using an optical disk (**CD/DVD**) to boot your computer.
- **USB PORT 2.0 / 3.0** with an option in the BIOS to boot the computer from USB device, if you are using a USB to boot your computer.

#### Notes:

- For the **BitRaser Hardware Diagnostics** with cloud licensing, you need an active internet connection.
- If you are using a **BitRaser Lock Key (USB)** for licensing, you need two USB ports - one for **bootable USB** device and another for **BitRaser Lock Key**.

## 3.2. BOOT AND RUN BITRASER HARDWARE DIAGNOSTICS

To boot and run **BitRaser Hardware Diagnostics** on your computer or laptop, you will need bootable media with **BitRaser Hardware Diagnostics** ISO file installed on it. An ISO file combines all the **BitRaser Hardware Diagnostics** installation files into a single, uncompressed file.

**For the BitRaser Hardware Diagnostics edition with licenses on BitRaser Cloud, you can receive the software in two ways:**

- You can receive a **BitRaser Hardware Diagnostics** bootable media (USB drive or DVD), or you can receive a link to download a **BitRaser Hardware Diagnostics** ISO file.
- If you have downloaded the **BitRaser Hardware Diagnostics** ISO file, you can create bootable media. To do so, copy the ISO file onto your drive and then burn the ISO onto a USB drive or DVD using any third-party software.

Now boot **BitRaser Hardware Diagnostics** onto your computer directly from your USB or DVD drive, following the steps given below.

For the **BitRaser Hardware Diagnostics** edition with licenses on a lock key (USB), you will receive a USB device called the **BitRaser Lock Key** for licenses and bootable media (USB drive or DVD) when you purchase the software. Using the bootable media, you can boot and run **BitRaser Hardware Diagnostics** following the steps given below:

**Note:** *The **BitRaser Hardware Diagnostics** application boots and runs using the RAM of your computer, which means **BitRaser Hardware Diagnostics** does not occupy space on your computer's hard drive.*

*This also means a single session of **BitRaser Hardware Diagnostics** is only valid until your system reboots. Upon rebooting, you must boot and run **BitRaser Hardware Diagnostics** again using the bootable media for another session.*

## Steps to Boot and Run BitRaser Hardware Diagnostics:

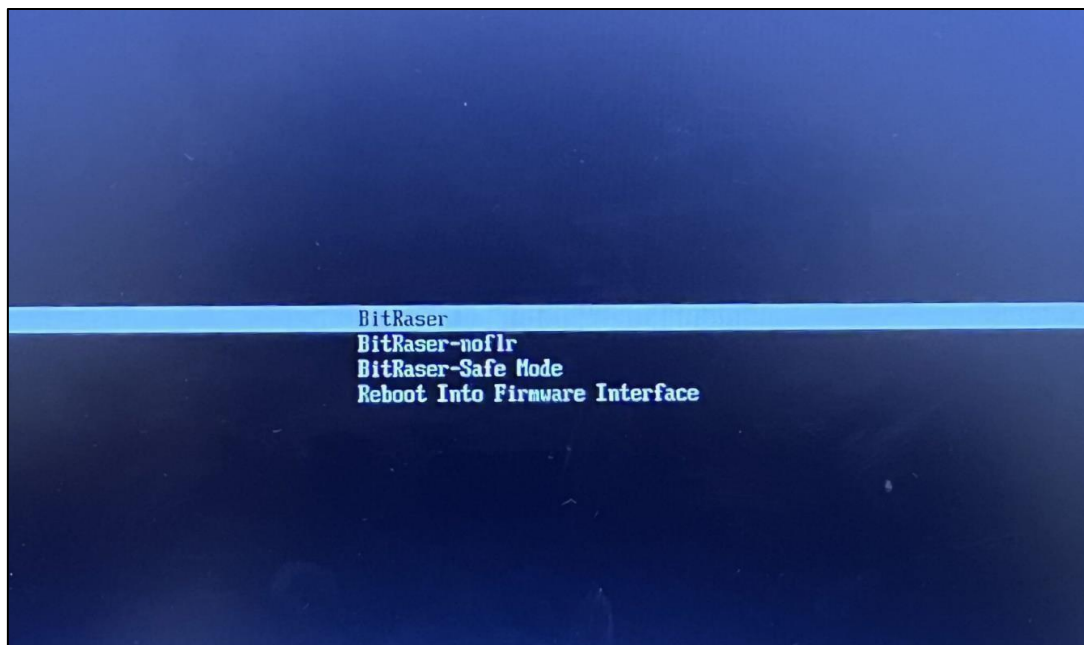
Verify that the **BitRaser Hardware Diagnostics** bootable media is connected to your computer and follow the steps below:

**Note:** Also, connect the **BitRaser Lock Key** at this stage if you have licenses on **BitRaser Lock Key**.

1. Power on your computer and check the BIOS boot options to boot from the bootable media (USB drive or DVD).

**Note:** To know how to check the BIOS boot options, refer to the manufacturer's documentation that came with your computer.

2. Once the computer boots, you will see the **BitRaser Boot menu** screen.



3. This screen has the following options:
  - a. **BitRaser:** This is the default option to run **BitRaser Hardware Diagnostics**. This option runs **BitRaser Hardware Diagnostics** automatically in the most commonly used system configuration.

**Note:** It is recommended that you use this option to run the **BitRaser Hardware Diagnostics** successfully.

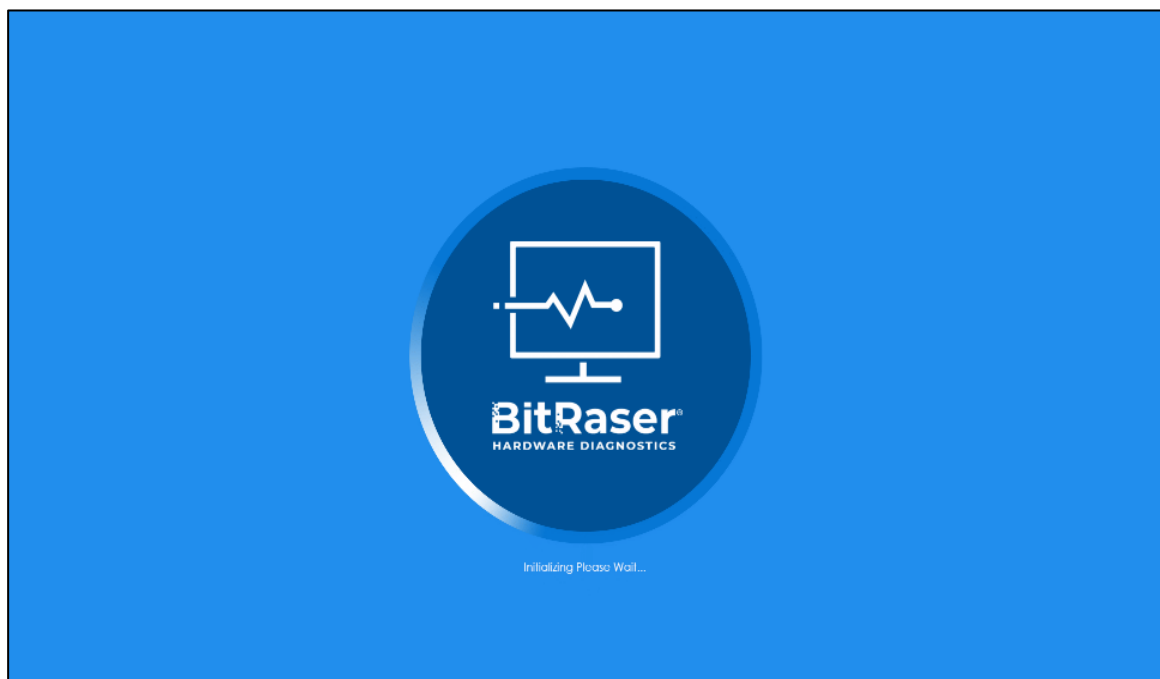
- b. **BitRaser NOFLR:** This option uses NOFLR functionality and is mostly used if the **BitRaser Hardware Diagnostics** fails to run using the first option.

c. **BitRaser Safe Mode:** This option uses safe mode functionality and boots up the **BitRaser Hardware Diagnostics** with minimum resources required to run the application.

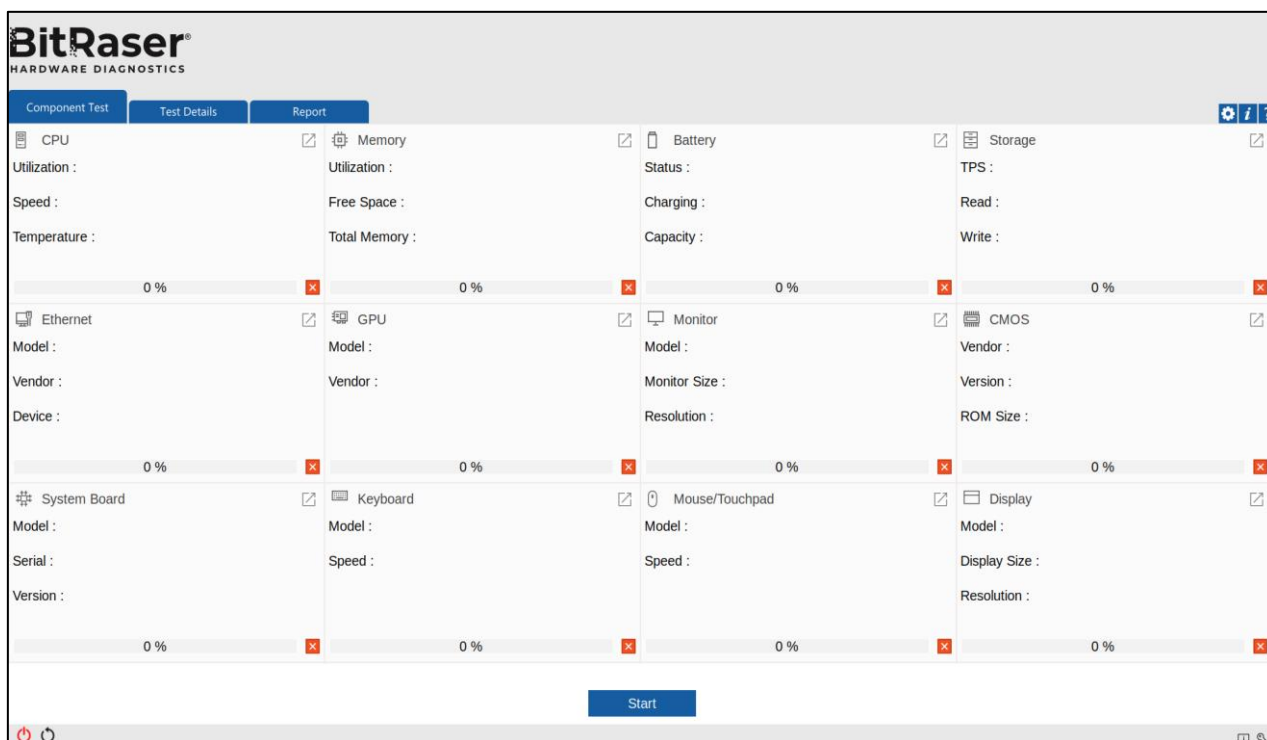
d. **BitRaser Into Firmware Interface:** This option is used to restart the PC. Click on this option if you want to restart the PC and then use any of the options above to start **BitRaser Hardware Diagnostics** application.

***Note:** BitRaser Hardware Diagnostics automatically runs using the first option if there is no input from the user within 30 seconds. Use the arrow keys on your keyboard to cancel the action within 30 seconds.*

4. The **BitRaser Hardware Diagnostics** now starts to boot and load from the bootable media. The following screen appears:

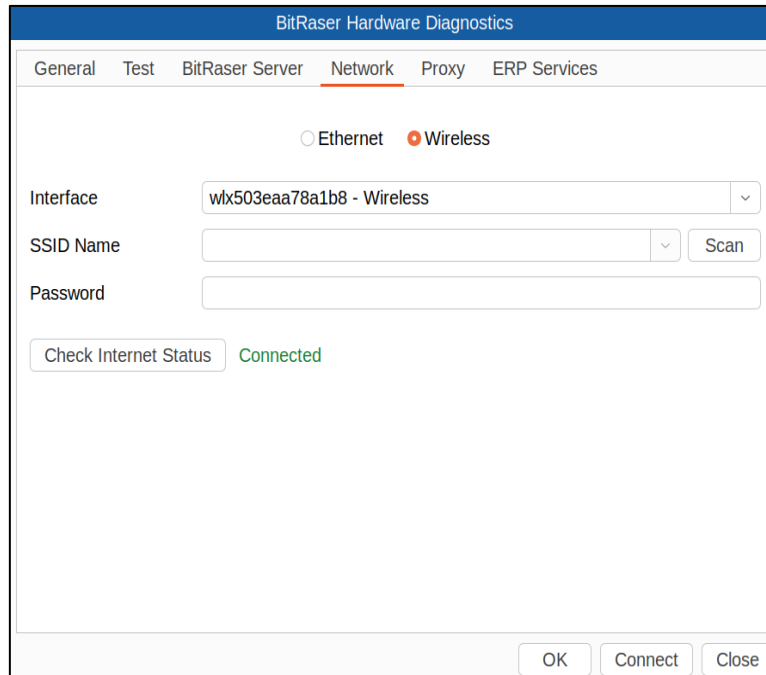


- After the system finishes the boot process, the main screen appears, as shown below:



- Then, click on  **Settings** in the top-right corner of the main screen. **BitRaser Hardware Diagnostics** screen appears.
- General** tab is selected by default. Select **Network** tab. It provides two options to connect to the network: **Ethernet** or **Wireless**, as shown below:
  - Ethernet:** This option has the following fields:

- **Wireless:** This option has the following fields:

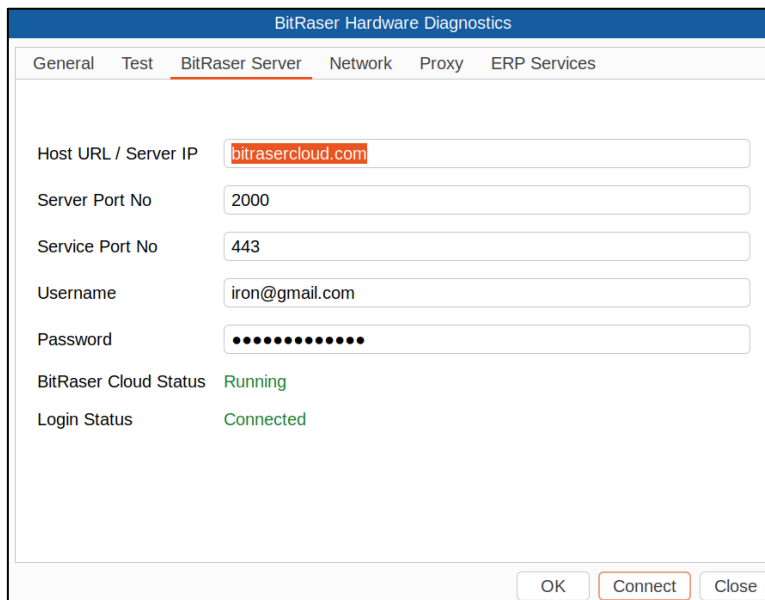


The screenshot shows the 'BitRaser Hardware Diagnostics' window with the 'Network' tab selected. At the top, there are tabs for 'General', 'Test', 'BitRaser Server', 'Network' (highlighted), 'Proxy', and 'ERP Services'. Below the tabs, there are radio buttons for 'Ethernet' and 'Wireless', with 'Wireless' being selected. The 'Interface' field is a dropdown menu showing 'wlx503eaa78a1b8 - Wireless'. The 'SSID Name' field is a dropdown menu with a 'Scan' button next to it. The 'Password' field is a text input box. At the bottom left, there is a 'Check Internet Status' button and a green 'Connected' status indicator. At the bottom right, there are 'OK', 'Connect', and 'Close' buttons.

- **Interface:** Click on the drop-down menu to select the interface device you wish to use for wireless network connection.
- **SSID Name:** Click on the SSID Name drop-down menu to select the Wi-Fi network you wish to connect to.  
***Note:** Click **Scan** next to **SSID Name** field if the required Wi-Fi network is not listed.*
- **Password:** Enter the password of the wireless network you connected to.

***Note:** You will not see any network in the **SSID Name** drop-down menu if the wireless adapter is switched off or is not configured correctly.*

- After connecting to the network, select the **BitRaser Server** tab, enter the server details, and then click **Connect** button to connect to the cloud server and fetch the licenses. Click **OK**.



BitRaser Hardware Diagnostics

General Test **BitRaser Server** Network Proxy ERP Services

Host URL / Server IP

Server Port No

Service Port No

Username

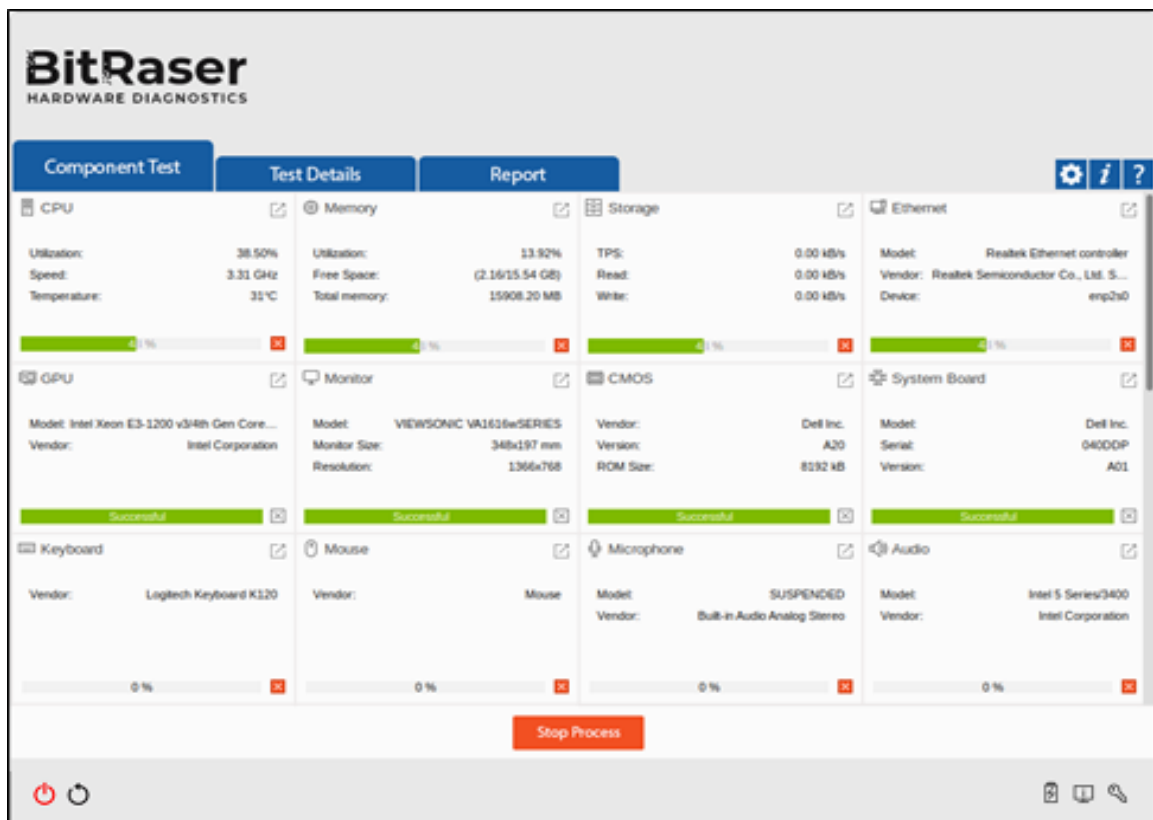
Password

BitRaser Cloud Status Running

Login Status Connected

OK **Connect** Close

- Once the license is fetched, click **Start**, and it shows the **BitRaser Hardware Diagnostics** running on the screen, as shown below:



BitRaser  
HARDWARE DIAGNOSTICS

Component Test Test Details Report

**CPU** Utilization: 38.50% Speed: 3.31 GHz Temperature: 31°C

**Memory** Utilization: 13.92% Free Space: (2.16/15.54 GB) Total memory: 15908.20 MB

**Storage** TPS: 0.00 MB/s Read: 0.00 MB/s Write: 0.00 MB/s

**Ethernet** Model: Realtek Ethernet controller Vendor: Realtek Semiconductor Co., Ltd. S... Device: emp2s0

**GPU** Model: Intel Xeon E3-1200 v3/4th Gen Core... Vendor: Intel Corporation

**Monitor** Model: VIEWSONIC VA1636wSERIES Monitor Size: 348x197 mm Resolution: 1366x768

**CMOS** Vendor: Dell Inc. Version: A20 ROM Size: 8192 KB

**System Board** Model: Dell Inc. Serial: 040DDP Version: A01

**Keyboard** Vendor: Logitech Keyboard K120

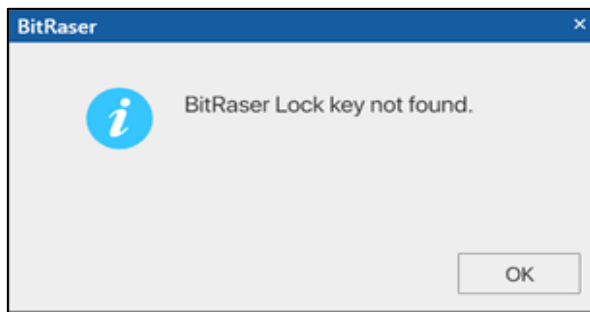
**Mouse** Vendor: Mouse

**Microphone** Model: SUSPENDED Vendor: Built-in Audio Analog Stereo

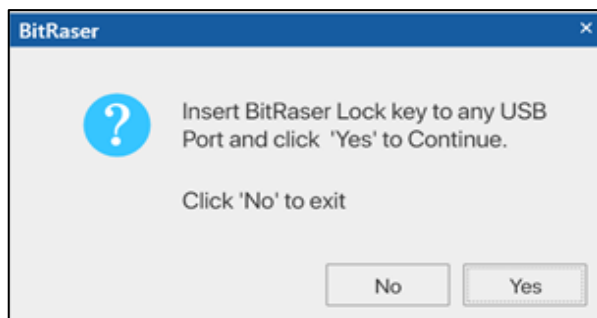
**Audio** Model: Intel 5 Series/3400 Vendor: Intel Corporation

Stop Process

**Note:** If you have **BitRaser Lock Key** and the key is not connected, you will see an error message as shown below:



Click **OK**, and the following dialog box appears:



Connect the **BitRaser Lock Key** to the USB port of your computer and click **Yes**.

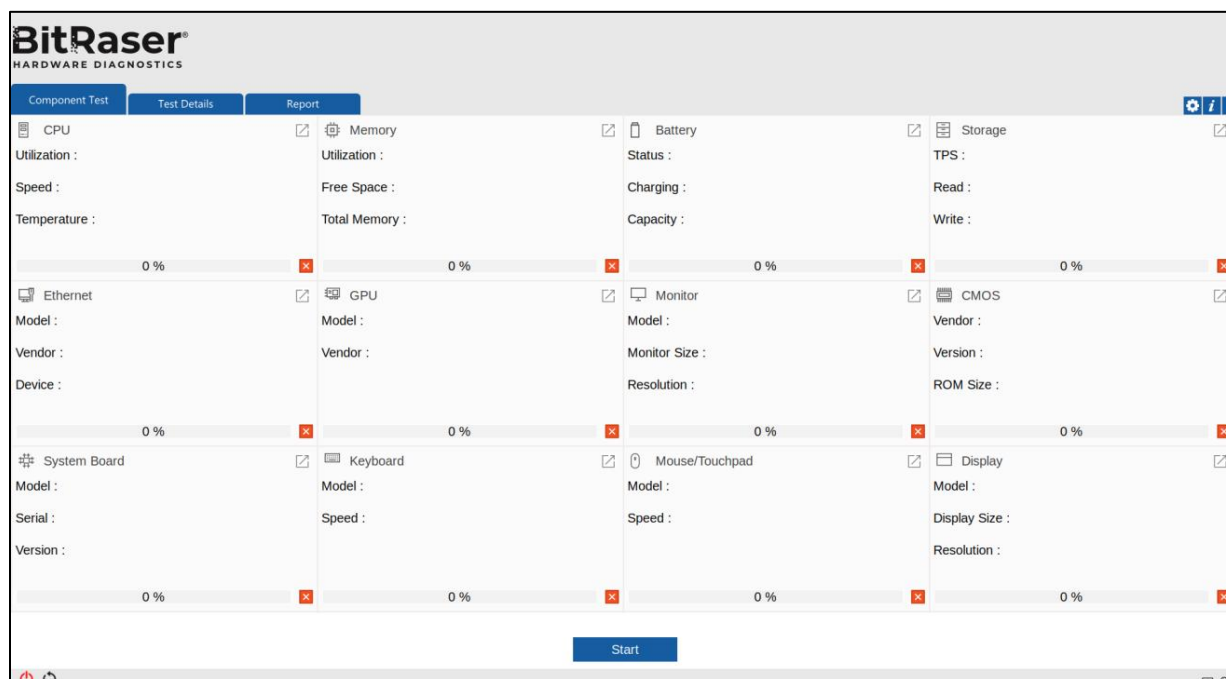
### 3.3. GETTING FAMILIAR WITH USER INTERFACE

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The user interface consists of three tabs, each tailored to accomplish a specific function:

1. **Component Test:** This tab allows users to view the information generated after scanning the components of the computer. Here, users can also view the detailed analysis of their devices.
2. **Test Details:** This tab allows users to enter various details to be included in reports.

3. **Report:** This tab provides **BitRaser Hardware Diagnostics** report and various options for working on Reports.

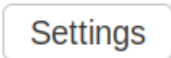
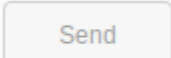


The user interface contains [buttons](#) that help you access various features of the software with ease.

### 3.3.1. GETTING FAMILIAR WITH BUTTONS

| Icon                                                                                | Description                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>Settings</b><br>Click on this button to update various settings available for <b>BitRaser Hardware Diagnostics</b> .                                                                                |
|  | <b>About</b><br>Click on this button to see information about <b>BitRaser Hardware Diagnostics</b> and system information. The <b>About</b> page also has buttons for Support and License information. |

| Icon                                                                                | Description                                                                                           |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
|    | <b>Help</b><br>Click on this button to open this help guide from the application.                     |
|    | <b>Shutdown</b><br>Click on this icon to shut down the machine.                                       |
|    | <b>Restart</b><br>Click on this button to restart the machine.                                        |
|    | <b>Battery Information</b><br>Hover over this icon to see the device's battery percentage.            |
|  | <b>System Information</b><br>Hover over this icon to learn about the device's RAM and Processor info. |
|  | <b>License left</b><br>This shows the number of licenses left to perform diagnosis.                   |
|  | <b>Start</b><br>Click on this button to start the diagnostic process of the components.               |
|  | <b>Stop Process</b><br>Click on this button to stop the diagnostic process of the components.         |
|  | <b>Test Again</b><br>Click on this button to test the components again.                               |

| Icon                                                                              | Description                                                                      |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
|  | <b>Next</b><br>Click on this button to move to the next manual test.             |
|  | <b>Skip</b><br>Click on this button to skip the current manual test.             |
|  | <b>Settings</b><br>Click on this button to open the advanced settings window.    |
|  | <b>Send</b><br>Click on this button to send report to the BitRaser cloud server. |

### 3.4. BITRASER CONTACT INFORMATION

Our Technical Support professionals will provide solutions for all your queries related to **BitRaser Hardware Diagnostics**.

- You can either call us or go online to our [support section](#).
- Chat Live with an [Online Technician](#).
- Search in our extensive [Knowledgebase](#).
- Submit a query from [here](#).
- E-mail BitRaser Support at: [techsupport@stellarinfo.com](mailto:techsupport@stellarinfo.com)

## 4. HOW TO

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These sections describe how the software works. Navigate to these sections to get a deeper understanding of the software.

### 4.1. [Perform Diagnostic Process](#)

#### 4.1.1. [Manual Test](#)

#### 4.1.2. [Auto Test](#)

### 4.2. [Configure Test Details](#)

#### 4.2.1. [Enter General Details](#)

#### 4.2.2. [Enter Asset Tag Details](#)

#### 4.2.3. [Enter Custom Fields](#)

### 4.3. [Work on Reports](#)

#### 4.3.1. [View and Customise Report](#)

#### 4.3.2. [Save Report](#)

#### 4.3.3. [Export Report](#)

#### 4.3.4. [Import Report to Cloud](#)

### 4.4. [Perform System Configuration](#)

#### 4.4.1. [General Settings](#)

#### 4.4.2. [Test Settings](#)

#### 4.4.3. [BitRaser Server Settings](#)

#### 4.4.4. [Network Settings](#)

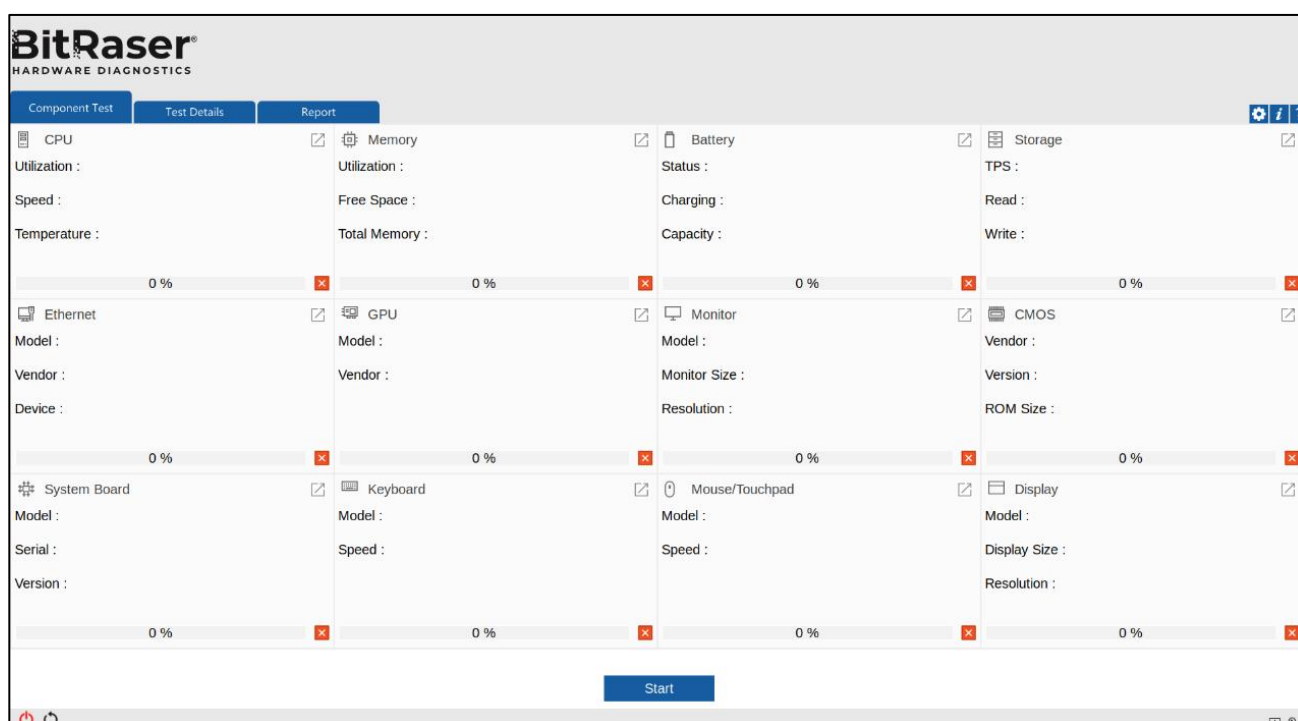
#### 4.4.5. [Proxy Settings](#)

#### 4.4.6. [ERP Services](#)

## 4.1. PERFORM DIAGNOSTIC PROCESS

**BitRaser Hardware Diagnostics** is used to analyze and assess the functionality of your components. In this section, you will get an overview of how the diagnosis of the components takes place.

1. Run **BitRaser Hardware Diagnostics**. The main screen appears as shown below:



2. Then, click on  **Settings** in the top-right corner of the main screen. **BitRaser Hardware Diagnostics** screen appears.

3. **General** tab is selected by default. Select **Network** tab. To connect to the network, select either **Ethernet** or **Wireless** option, as shown below:

- **Ethernet**

The screenshot shows the 'BitRaser Hardware Diagnostics' window with the 'Network' tab selected. The 'Ethernet' radio button is selected. The configuration fields are as follows:

| Field         | Value             |
|---------------|-------------------|
| Interface     | enp8s0 - Ethernet |
| Configuration | Automatic (DHCP)  |
| IP Address    | 192.168.20.241    |
| Subnet Mask   | 255.255.255.0     |
| Gateway       | 192.168.20.255    |
| Primary DNS   | 8.8.8.8           |
| Secondary DNS | 4.4.2.2           |

At the bottom, there is a 'Check Internet Status' button and a green 'Connected' status indicator. The 'OK', 'Connect', and 'Close' buttons are at the bottom right.

- **Wireless**

The screenshot shows the 'BitRaser Hardware Diagnostics' window with the 'Network' tab selected. The 'Wireless' radio button is selected. The configuration fields are as follows:

| Field     | Value                      |
|-----------|----------------------------|
| Interface | wlx503eaa78a1b8 - Wireless |
| SSID Name |                            |
| Password  |                            |

There is a 'Scan' button next to the SSID Name field. At the bottom, there is a 'Check Internet Status' button and a green 'Connected' status indicator. The 'OK', 'Connect', and 'Close' buttons are at the bottom right.

- After connecting to the network, select the **BitRaser Server** tab, enter the server details, and click **Connect** to connect to the cloud server and fetch licenses. Click **OK**.

The image shows the 'BitRaser Hardware Diagnostics' window with the 'BitRaser Server' tab selected. The window contains the following fields and status indicators:

| Field                 | Value             |
|-----------------------|-------------------|
| Host URL / Server IP  | bitrasercloud.com |
| Server Port No        | 2000              |
| Service Port No       | 443               |
| Username              | iron@gmail.com    |
| Password              | ••••••••          |
| BitRaser Cloud Status | Running           |
| Login Status          | Connected         |

At the bottom right, there are three buttons: 'OK', 'Connect' (highlighted with a red border), and 'Close'.

- Once the license is fetched, click **Start**, and it shows that **BitRaser Hardware Diagnostics** will run on the screen, as shown below:

The image shows the 'BitRaser Hardware Diagnostics' window with the 'Component Test' tab selected. The screen displays a grid of component test results, each with a progress bar and a status indicator (green for successful, red for failed).

| Component    | Test Details                                                                                     | Status           |
|--------------|--------------------------------------------------------------------------------------------------|------------------|
| CPU          | Utilization: 38.50%, Speed: 3.31 GHz, Temperature: 35°C                                          | 41% (Successful) |
| Memory       | Utilization: 13.92%, Free Space: (2.16/15.54 GB), Total memory: 15908.20 MB                      | 41% (Successful) |
| Storage      | TPS: 0.00 KB/s, Read: 0.00 KB/s, Write: 0.00 KB/s                                                | 0% (Successful)  |
| Ethernet     | Model: Realtek Ethernet controller, Vendor: Realtek Semiconductor Co., Ltd. S..., Device: enp2s0 | 0% (Successful)  |
| GPU          | Model: Intel Xeon E3-1200 v3/4th Gen Core..., Vendor: Intel Corporation                          | Successful       |
| Monitor      | Model: VIEWSONIC VA1636wSERIES, Monitor Size: 348x197 mm, Resolution: 1366x768                   | Successful       |
| CMOS         | Vendor: Dell Inc., Version: A20, ROM Size: 8192 KB                                               | Successful       |
| System Board | Model: Dell Inc., Serial: 040DDP, Version: A01                                                   | Successful       |
| Keyboard     | Vendor: Logitech Keyboard K120                                                                   | 0% (Successful)  |
| Mouse        | Vendor: Mouse                                                                                    | 0% (Successful)  |
| Microphone   | Model: SUSPENDED, Vendor: Built-in Audio Analog Stereo                                           | 0% (Successful)  |
| Audio        | Model: Intel 5 Series/3400, Vendor: Intel Corporation                                            | 0% (Successful)  |

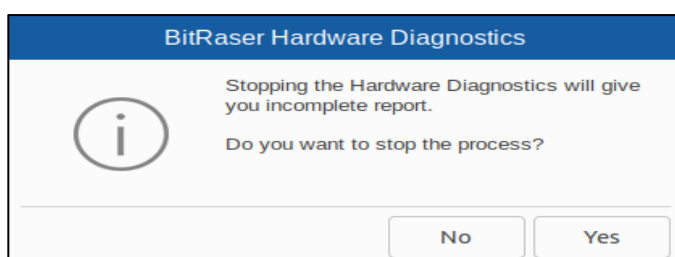
At the bottom center, there is a red 'Stop Process' button. At the bottom left, there are power and refresh icons. At the bottom right, there are icons for settings, help, and a key.

- Initially, the **auto tests** are run, followed by **manual tests** on the components currently present in the system.

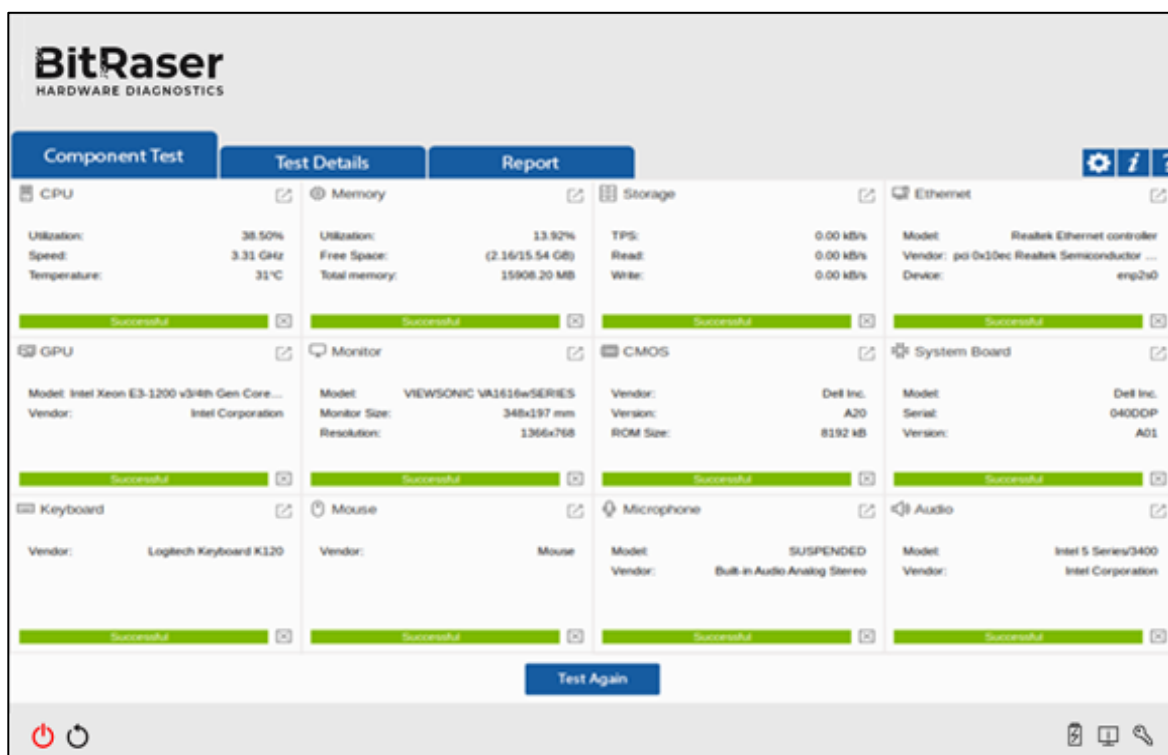
## Notes:

- Auto-tests are run on **CPU, Memory, Ethernet, Battery, GPU, System Board, CMOS, Monitor, Storage**. To view the automated tests' detailed diagnosis, refer to [Auto Test](#).
- Refer to [Manual Test](#) to know the process of manual testing.
- The software shows the process is **Successful** if no errors are found in the component; else shows **Failed**.

- Click **Stop Process** to stop the diagnostic process of all the components. **BitRaser Hardware Diagnostics** dialog box appears, prompting you to confirm the action. Click **Yes**.



- Once the diagnosis of all the components is completed, the main screen appears as shown below. Click **Test Again** to restart the scanning of components.



## 4.1.1. MANUAL TEST

In this section, users will get an overview of the process of running manual tests in **BitRaser Hardware Diagnostics**. Users have to perform manual diagnosis on components such as **keyboard**, **Microphone**, **Audio**, **Display**, **Webcam**, **Wi-Fi**, **Bluetooth** and **Accessories and Grading**, **touchscreen**, **fingerprints**, **mouse**, etc.

### Steps to run Manual Tests:

1. Run **BitRaser Hardware Diagnostics**.

**Note:** When you start the auto tests, they run in the background, allowing the manual tests to run simultaneously.

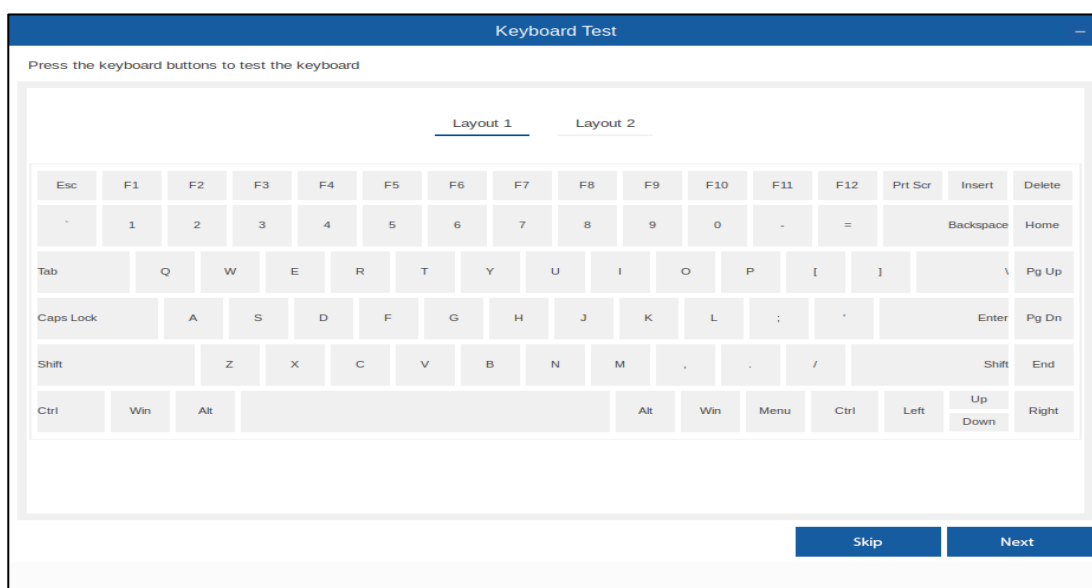
### Manual Tests:

- **Keyboard**

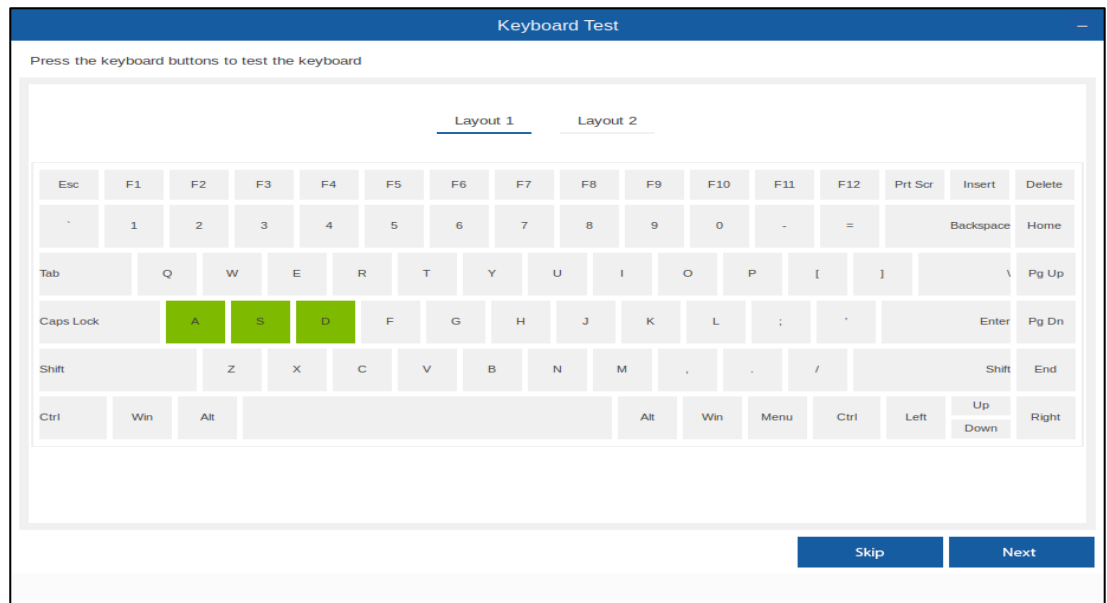
1. **Keyboard Test** screen appears, displaying two layouts that you can use to test the keyboard. Both layouts are shown below:

#### Layout 1:

- a. Layout 1 displays the laptop keyboard. Select Layout 1 to test whether the keyboard keys are working properly.

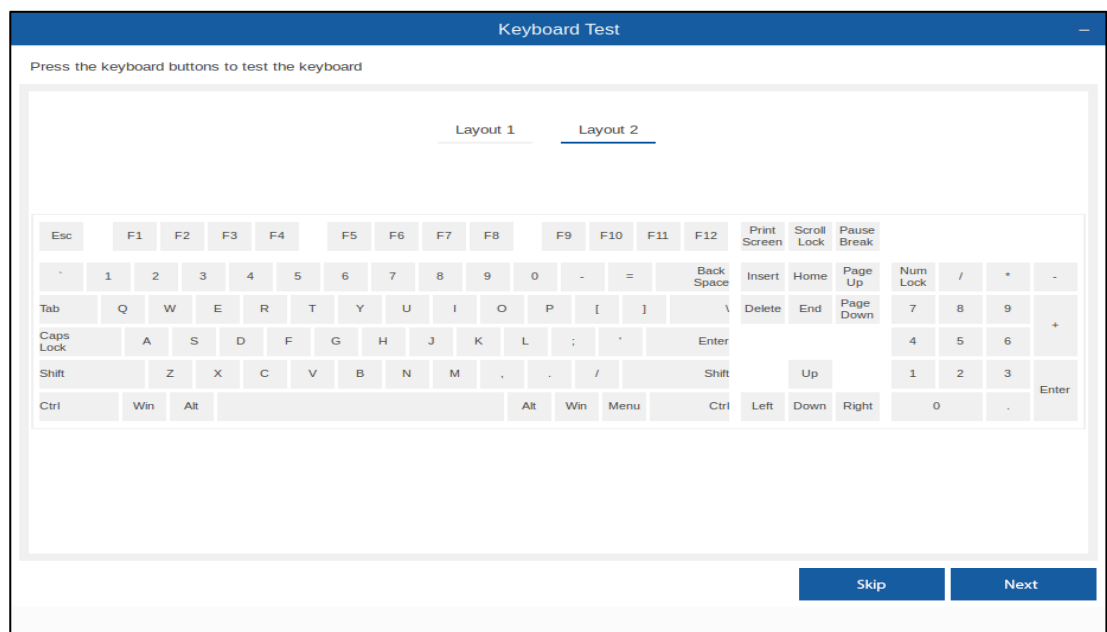


- b. Once you press the keys, they will turn green.

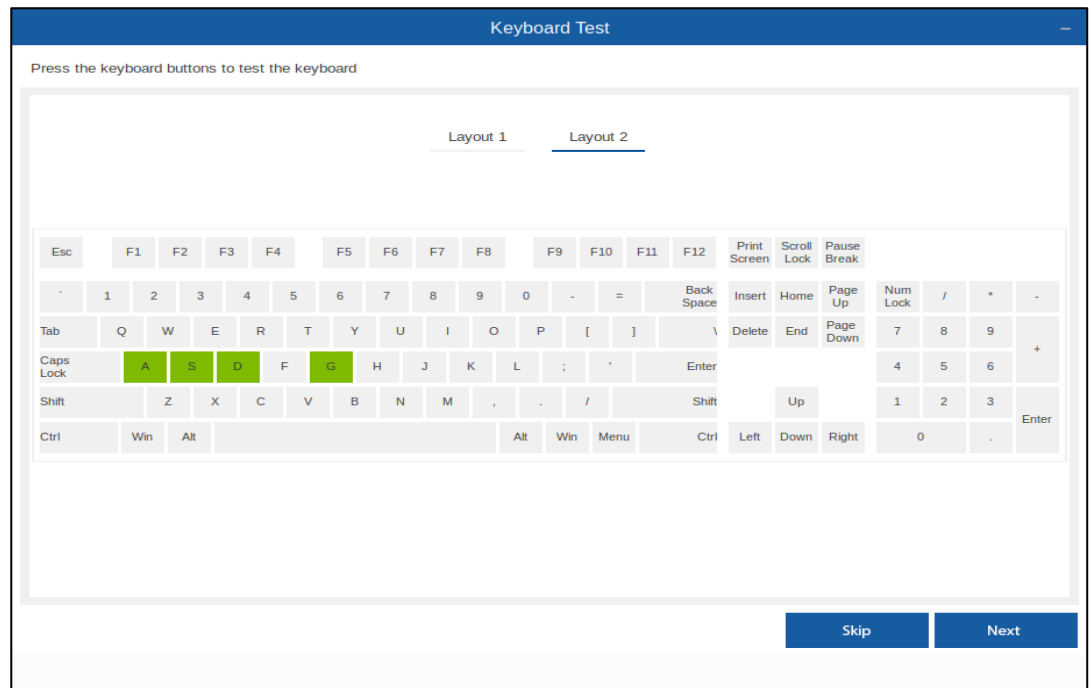


## Layout 2:

- a. Layout 2 displays an external keyboard. Select Layout 2 to test whether the keyboard keys are working properly.



- b. Once you press the keys, they will turn green.

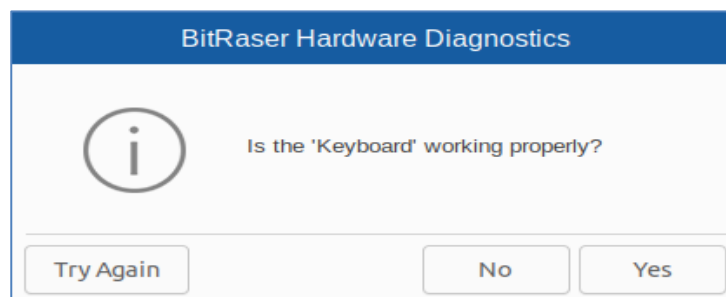


**Note:** The green color indicates that the keyboard keys are working properly.

3. Click **Next** to proceed to the next manual test.

**Note:** Click **Skip** if you wish to skip the **Keyboard test**.

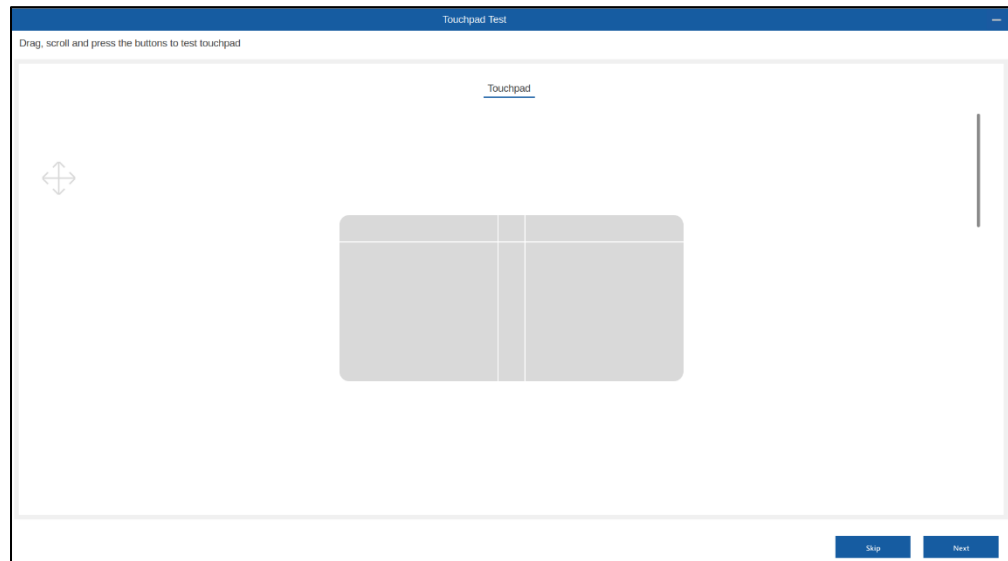
4. **BitRaser Hardware Diagnostics** dialog box appears on the screen with a message: "Is the 'Keyboard' working properly?" Click **Yes** if the component is functioning properly or **No** if it is not.



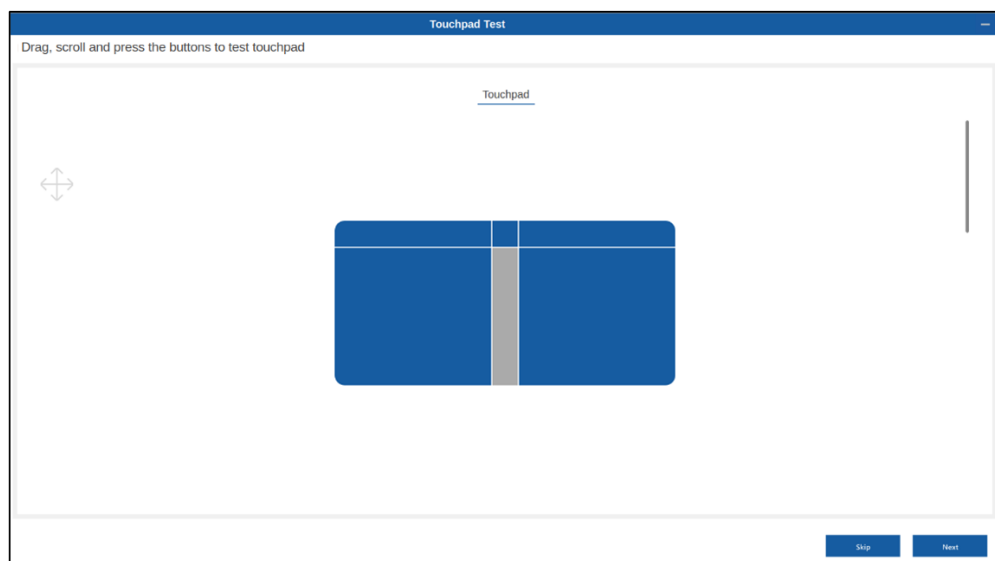
**Note:** Click **Try Again** to re-conduct the test.

- **TouchPad Test**

1. **TouchPad Test** screen appears. Click **TouchPad** tab.



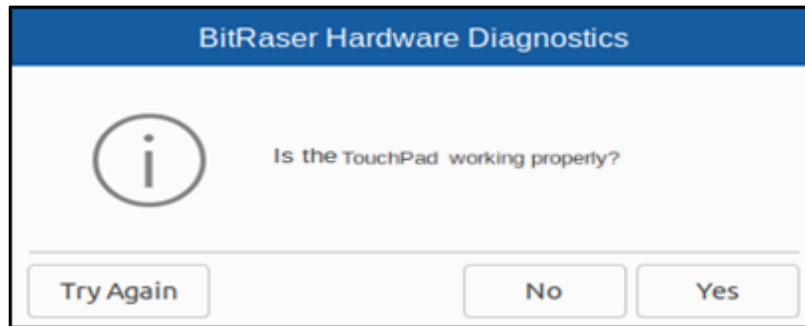
2. Tap, scroll, and swipe to check for responsiveness and ensure all areas of the touchpad are working properly.



**Note:** Click **Skip** to skip the **Touchpad Test**.

3. Click **Next**.

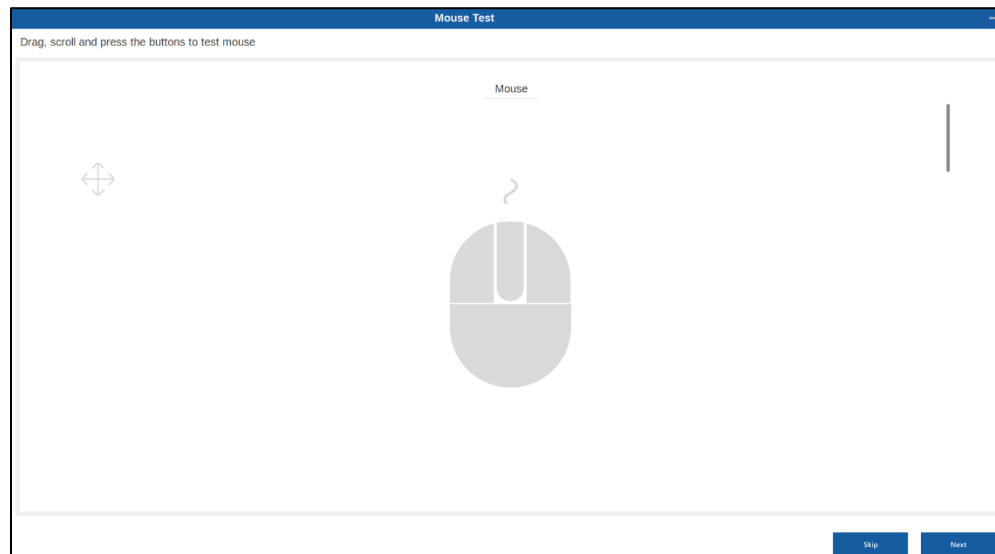
4. **BitRaser Hardware Diagnostics** dialog box appears on the screen with a message: "Is the 'TouchPad' working properly?" Click **Yes** if the component is functioning properly or **No** if it is not.



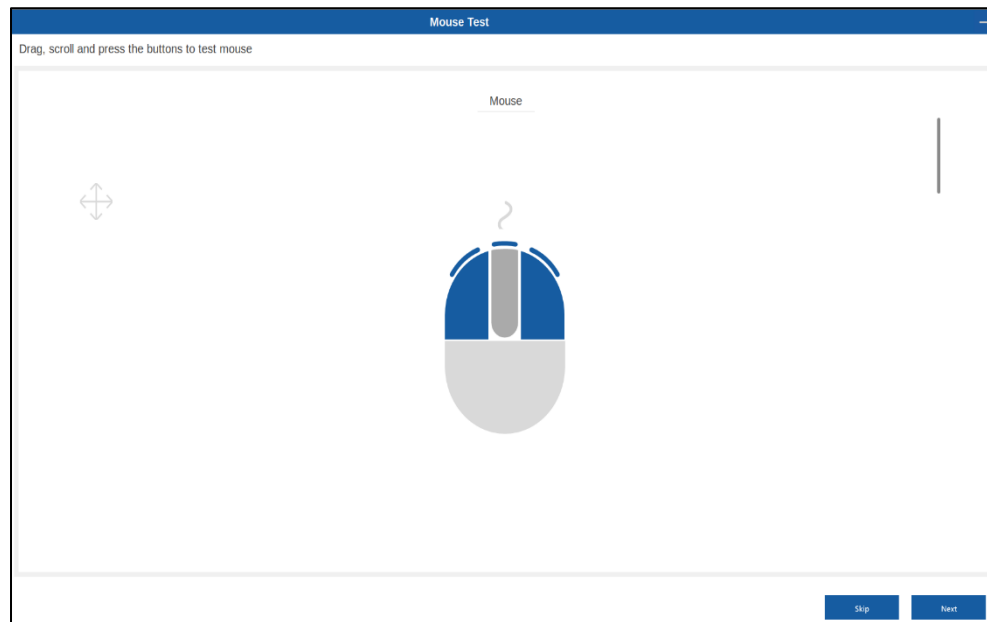
**Note:** Click **Try Again** to re-conduct the **Mouse** test.

- **Mouse Test**

1. Click **Mouse** tab.

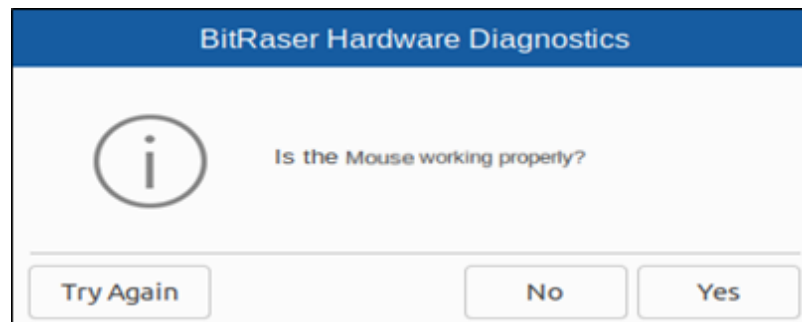


2. Drag, scroll, and press the buttons to test whether the mouse is working properly.



**Note:** Click **Skip** if you wish to skip the **Mouse Test**.

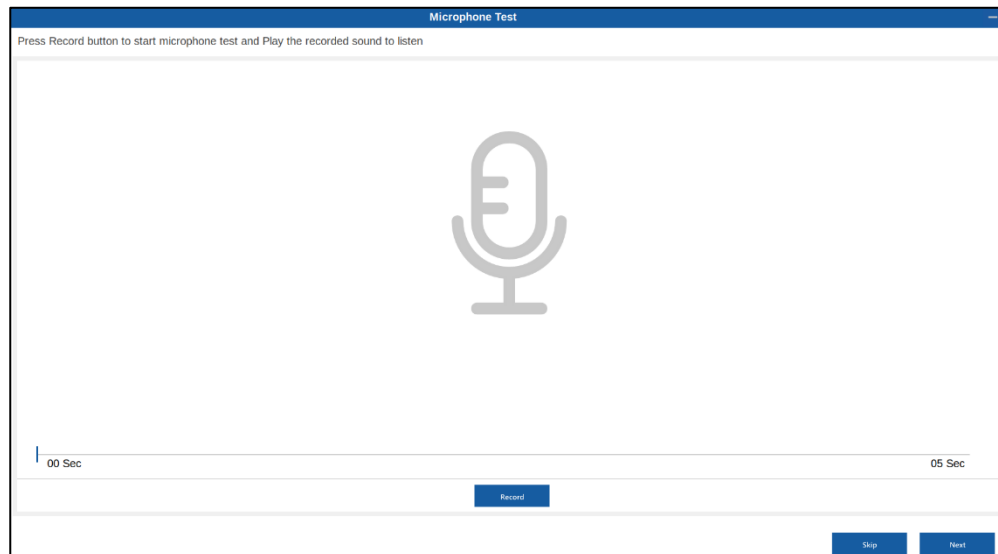
3. Click **Next**.
4. **BitRaser Hardware Diagnostics** dialog box appears on the screen with a message: "Is the 'Mouse' working properly?" Click **Yes** if the component is functioning properly or **No** if it is not.



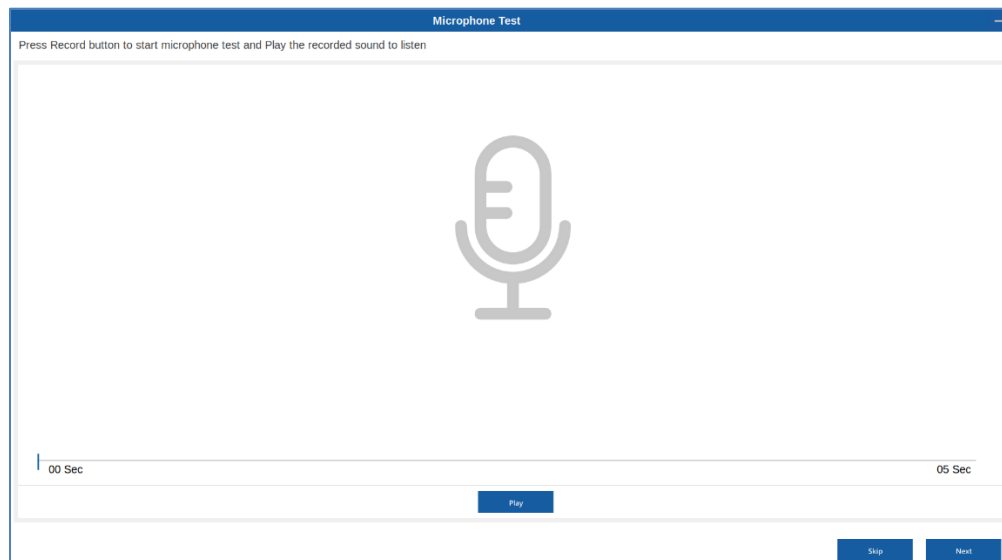
**Note:** Click **Try Again** to re-conduct the **Mouse test**.

- **Microphone**

1. **Microphone Test** screen appears. Click **Record** button to start the microphone test.



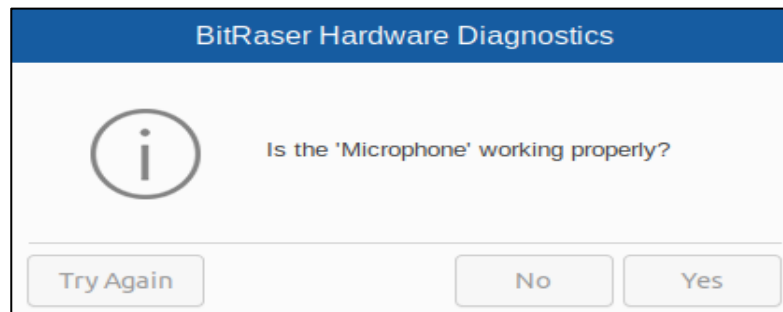
2. Click on **Play** button to listen to the recorded sound.



3. Click **Next** to proceed to the next manual test.

**Note:** Click **Skip** if you wish to skip the **Microphone test**.

4. **BitRaser Hardware Diagnostics** dialog box appears on the screen with a message: "Is the 'Microphone' working properly?" Click **Yes** if the component is functioning properly or **No** if it is not.

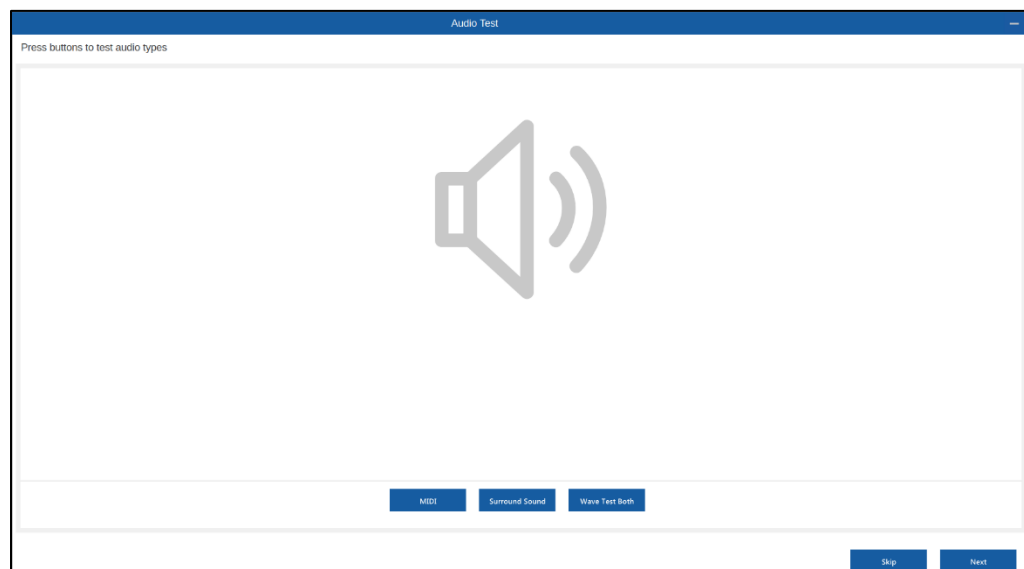


**Note:** Click **Try Again** to re-conduct the test.

- **Audio Test**

1. **Audio Test** screen appears. Click each sound button to test all audio types.

**The audio types that you can test are explained below:**



**a. MIDI** - It is used to test the functionality of MIDI devices.

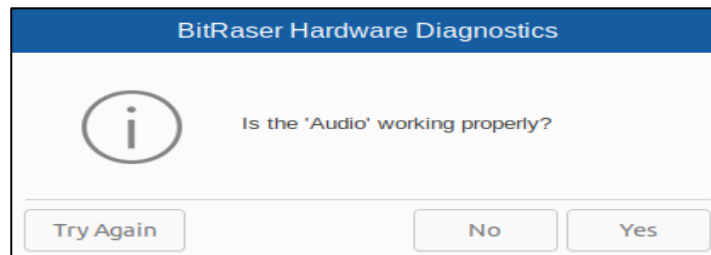
**b. Surround Sound** - It is used to test the configuration and operation of surround sound audio systems.

**c. Wave Test Both** - It is used to test whether voice is picked up correctly by audio input devices.

2. Click **Next** to proceed to the next manual test.

**Note:** Click **Skip** to skip the **Audio Test**.

3. **BitRaser Hardware Diagnostics** dialog box appears on the screen with a message: "Is the 'Audio' working properly?" Click **Yes** if the component is functioning properly, or **No** if it does not.

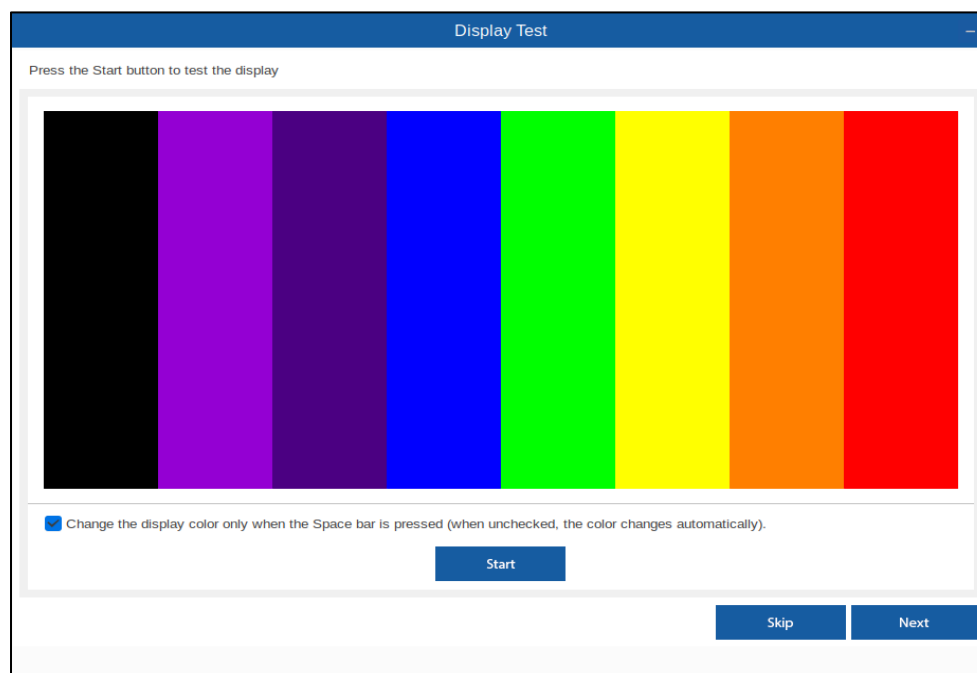


**Note:** Click **Try Again** to re-conduct the test.

#### ○ Display Test

1. **Display Test** screen appears. Click **Start** button to start the display diagnosis.

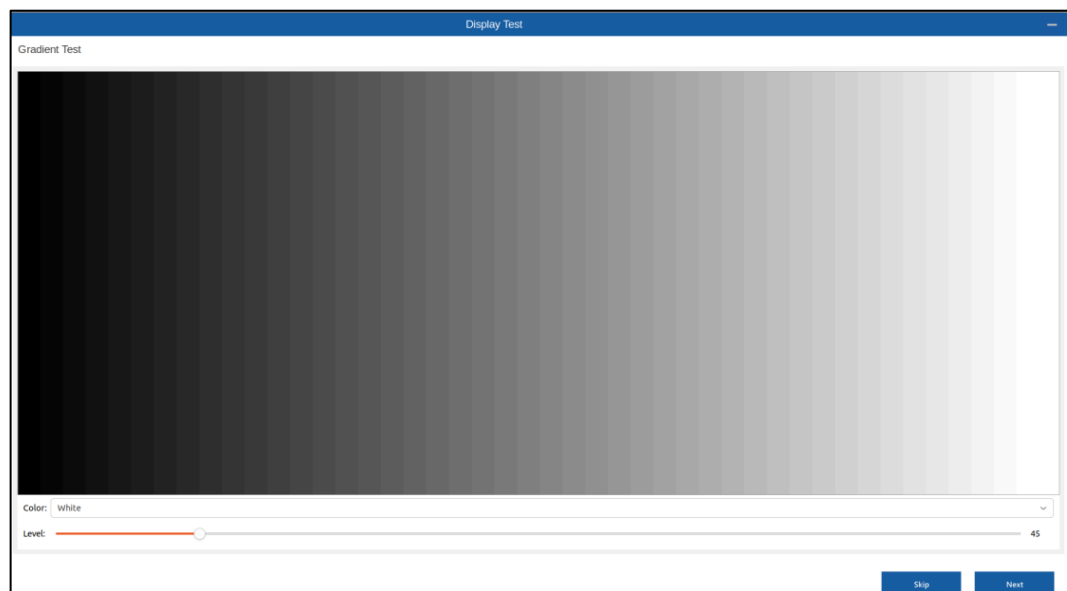
**Note:** To change the display color by pressing the spacebar, select the checkbox labelled 'Change the display color only when the Space bar is pressed (when unchecked, the color changes automatically)'. It will be checked by default.



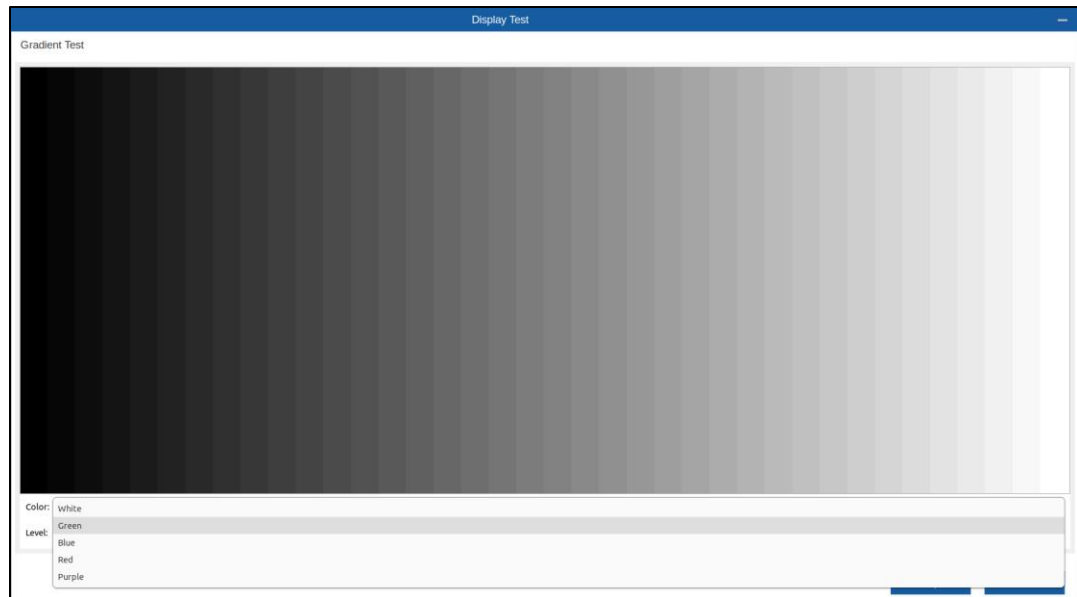
**Note:** To change the display color automatically, uncheck the labelled '**Change the display color only when the Space bar is pressed (when unchecked, the color changes automatically)**' checkbox.



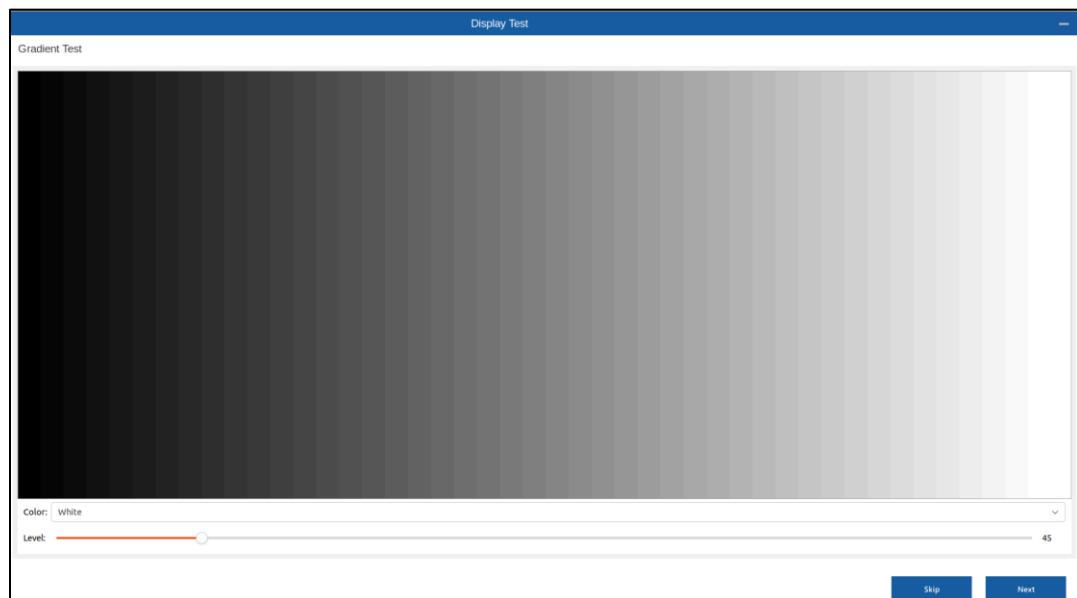
2. Click **Start** button.
3. The screen color changes automatically without any user input or command.
4. A screen appears displaying a **gradient test** pattern on the screen to check proper display functionality, which is shown below:



5. Select the **gradient test** color from the **Color** drop-down menu. The **Color** drop-down menu provides the following options: **White, Green, Blue, Red, and Purple**.

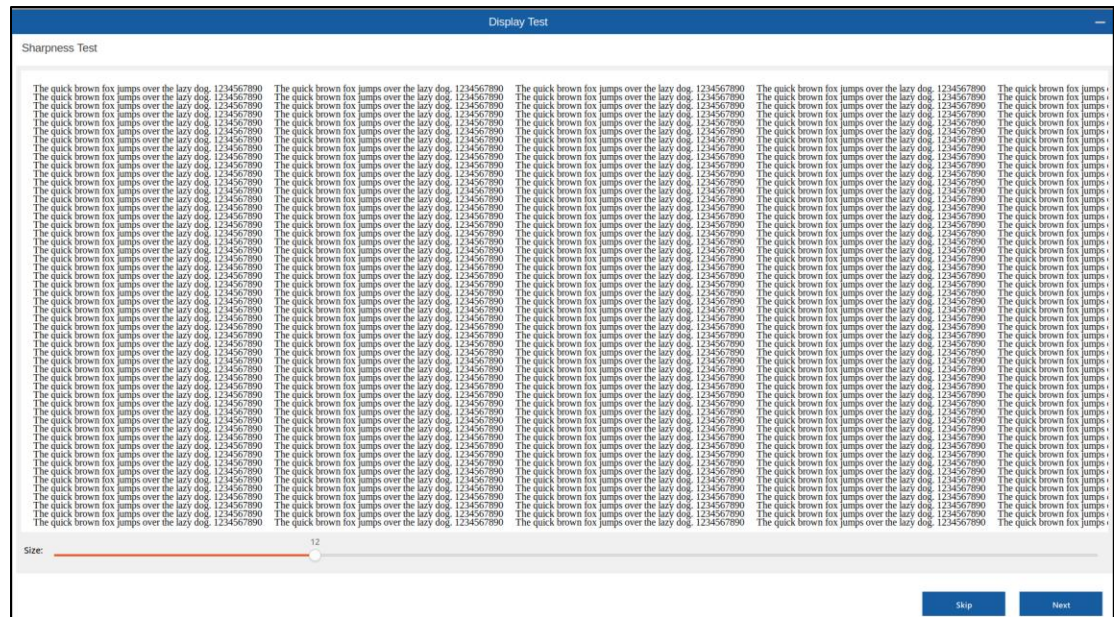


6. The screen **gradient level** changes automatically without any user input or command.



**Note:** Click **Skip** to skip the **Gradient Test** of the display.

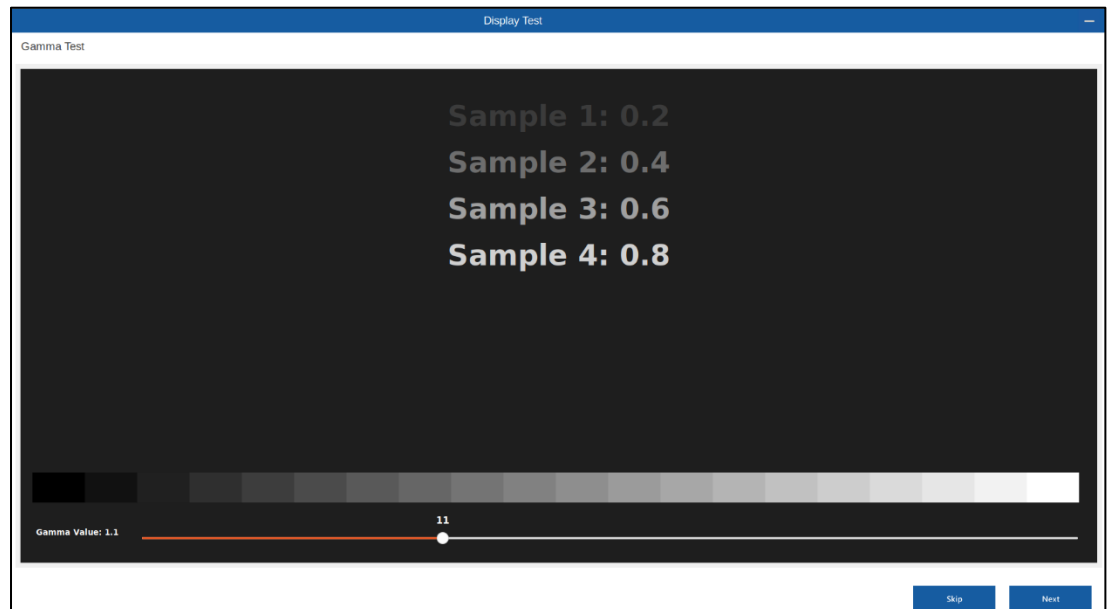
- A screen appears displaying text on the screen to check the **sharpness** of the display, which is shown below:



- The screen text size changes automatically without any user input or command.

**Note:** Click **Skip** to skip the **Sharpness Test** of the display.

- A screen appears where you can perform **Gamma** test to check the display's luminance performance, as shown below:

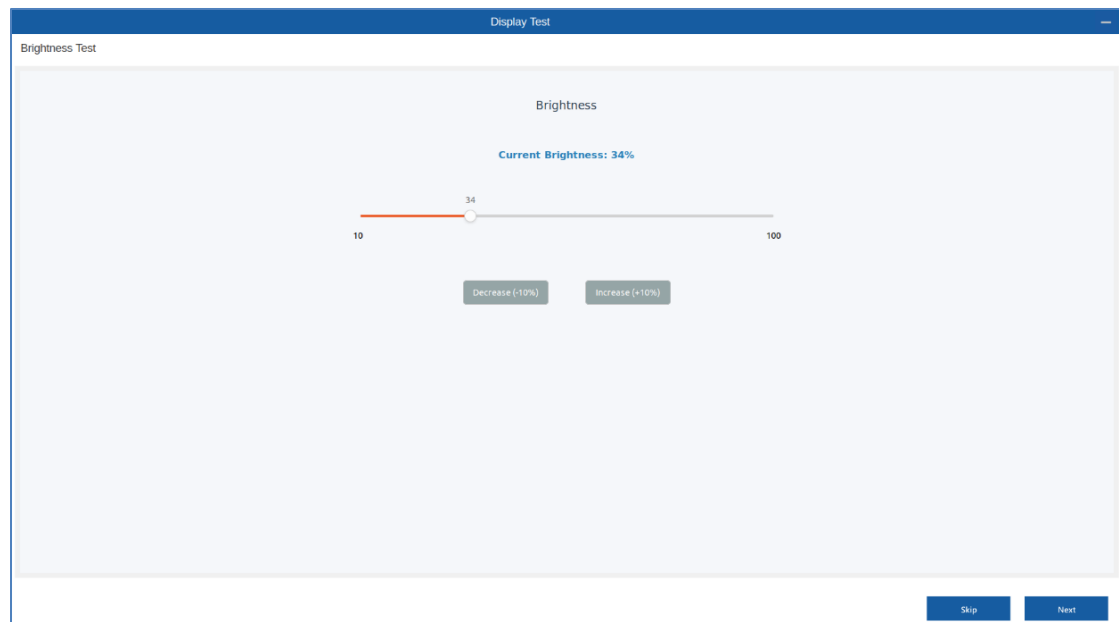


10. The screen **Gamma Value** changes automatically without any user input or command to check the luminance performance of the display.

**Notes:**

- Click **Skip** to skip the **Gamma Test** of the display.
- Each display test runs for only 10 seconds and then automatically switches to the next.

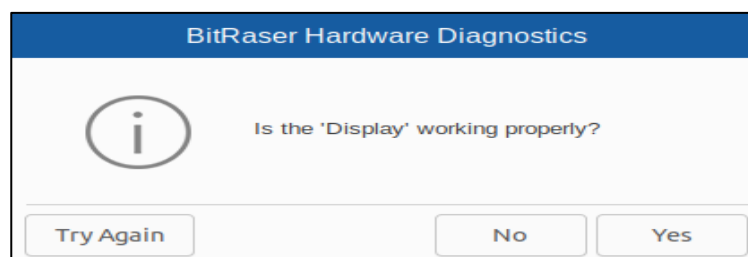
11. A screen appears where you can perform a **brightness test** to check the display's brightness, as given below:



12. Adjust the display brightness using the **slider** or the **Decrease** and **Increase** buttons.
13. Click **Next** to proceed to the next manual test.

**Note:** Click **Skip** to skip the display's **Brightness Test**.

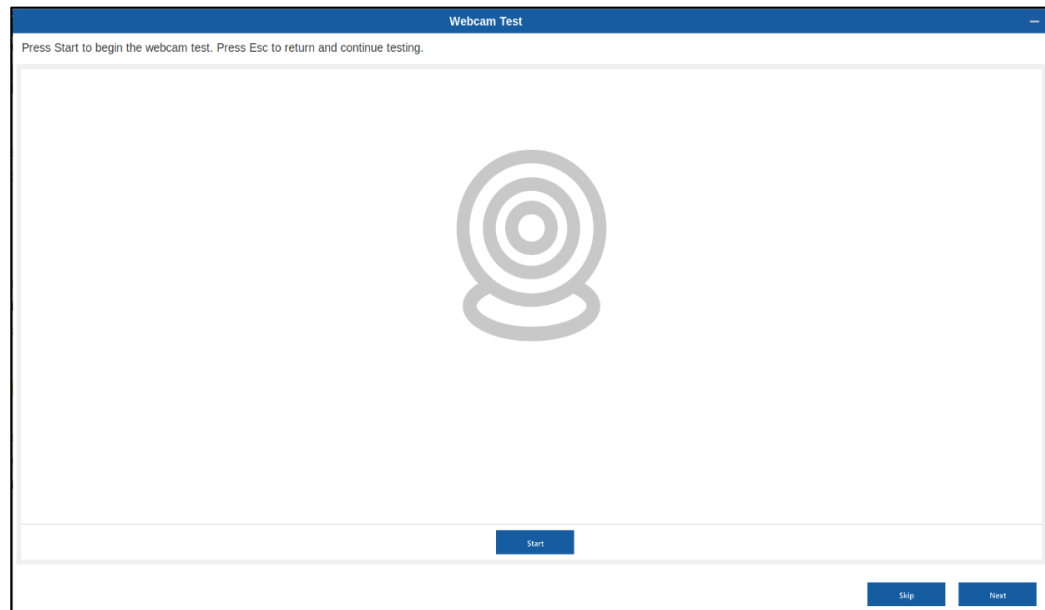
14. **BitRaser Hardware Diagnostics** dialog box appears on the screen with a message: "Is the 'Display' working properly?" Click **Yes** if the component is functioning properly or **No** if it is not.



**Note:** Click **Try Again** to re-conduct the test.

- **Webcam Test**

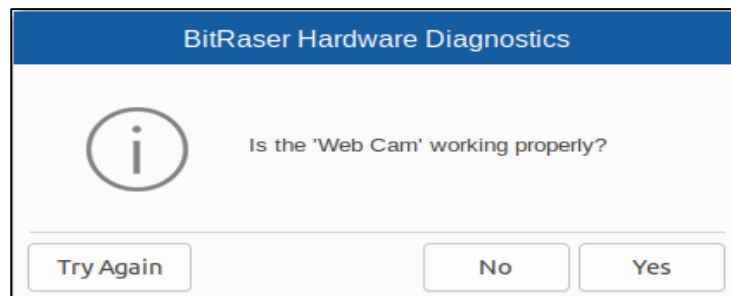
1. **Webcam Test** appears. Click **Start** button to test the webcam.



2. Click **Next** to proceed to the next manual test.

**Note:** Click **Skip** if you wish to skip the **Webcam Test**.

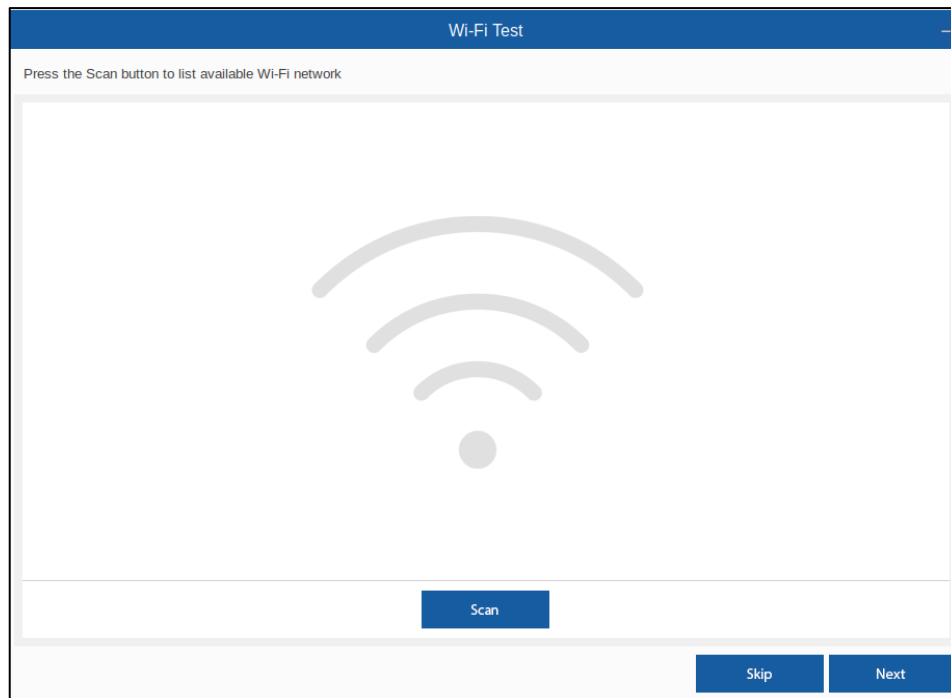
3. **BitRaser Hardware Diagnostics** dialog box appears on the screen with a message: "Is the 'Web Cam' working properly?" Click **Yes** if the component is functioning properly or **No** if it is not.



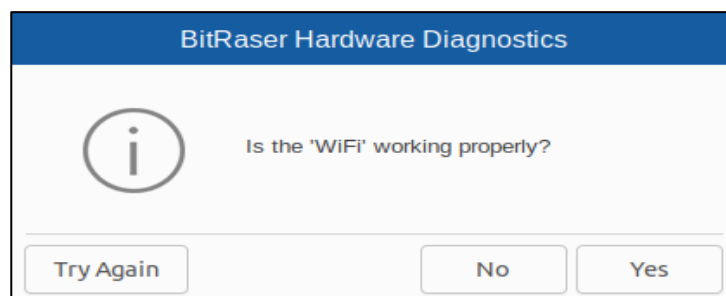
**Note:** Click **Try Again** to re-conduct the test.

- **Wi-Fi Test**

1. **Wi-Fi Test** screen appears. Click **Scan** button to test the Wi-Fi network.



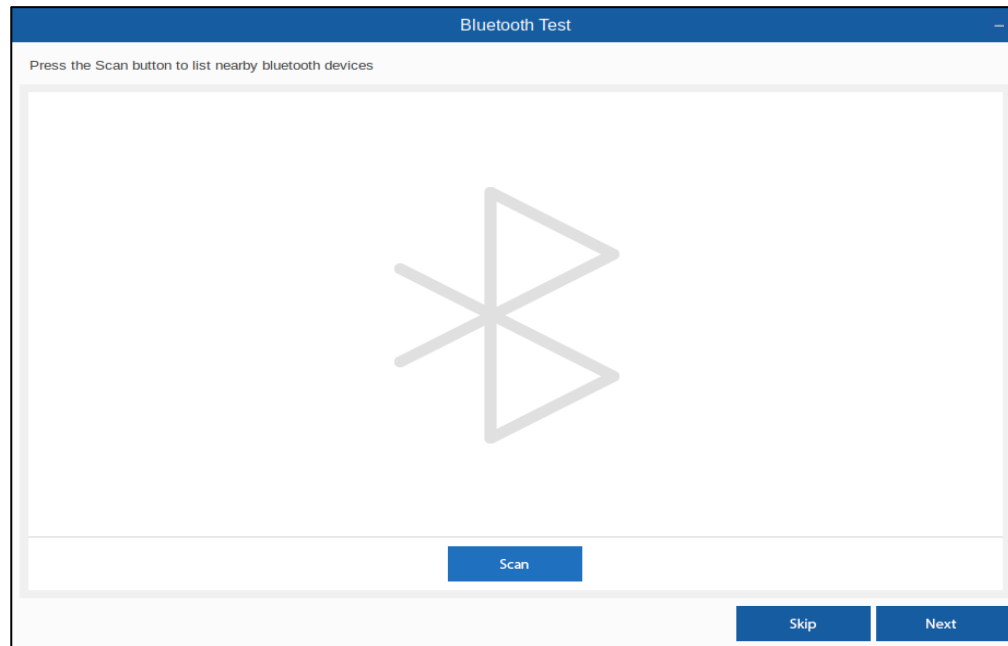
2. Click **Next** to proceed to the next manual test.  
***Note:** Click **Skip** if you wish to skip the **Wi-Fi Test**.*
3. **BitRaser Hardware Diagnostics** dialog box appears on the screen with a message: "Is the WiFi working properly?" Click **Yes** if the component is functioning properly, or **No** if it is not.



***Note:** Click **Try Again** to re-conduct the test.*

- **Bluetooth Test**

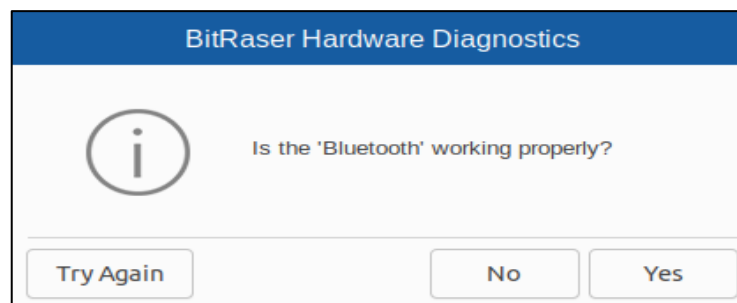
1. **Bluetooth Test** screen appears. Click **Scan** button to list nearby Bluetooth devices.



2. Click **Next** to proceed to the next manual test.

**Note:** Click **Skip** if you wish to skip the **Bluetooth Test**.

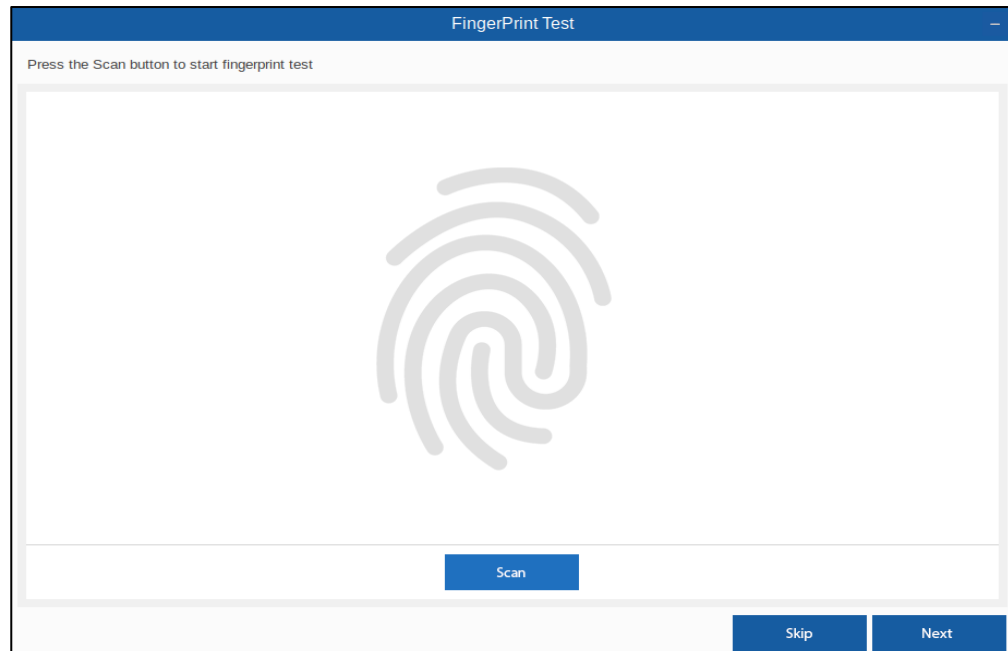
3. **BitRaser Hardware Diagnostics** dialog box appears on the screen with a message: "Is the 'Bluetooth' working properly?" Click **Yes** if the component is functioning properly, or **No** if it is not.



**Note:** Click **Try Again** to re-conduct the **Bluetooth test**.

- **FingerPrint Test**

1. The **FingerPrint Test** screen appears. Click **Scan** button to start the fingerprint test.



2. Click **Next** to proceed to the next manual test.

**Note:** Click **Skip** if you wish to skip the **Fingerprint Test**.

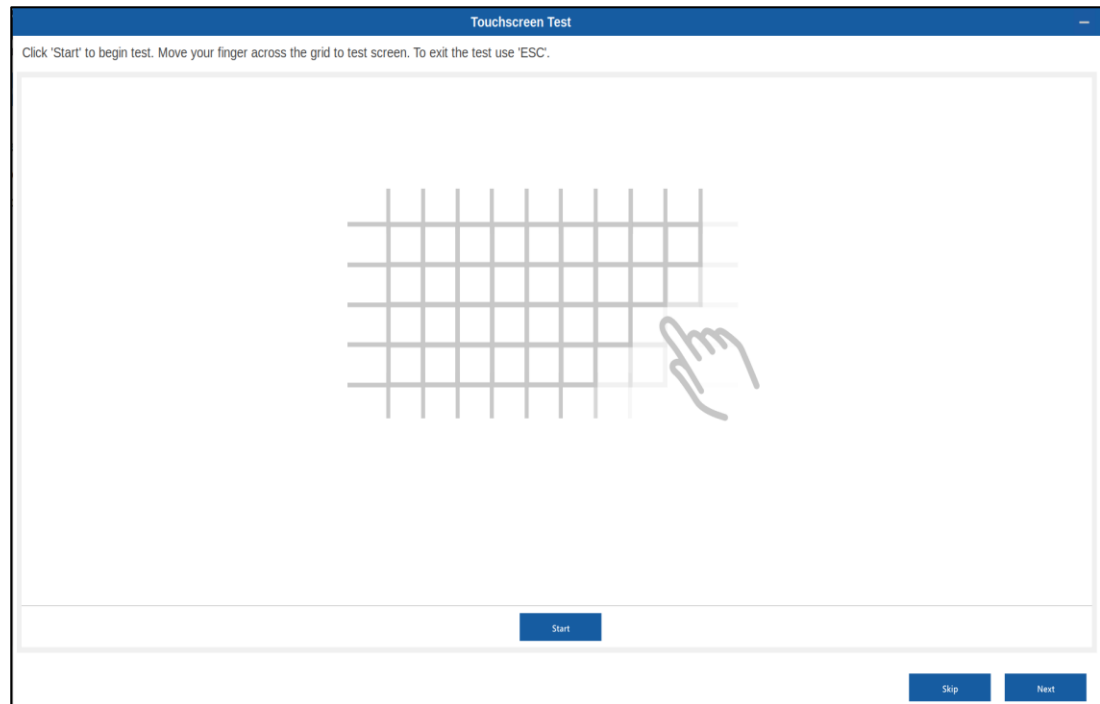
3. **BitRaser Hardware Diagnostics** dialog box appears on the screen with a message: "Is the 'Finger Print' working properly?" Click **Yes** if the component is functioning properly, or **No** if it is not.



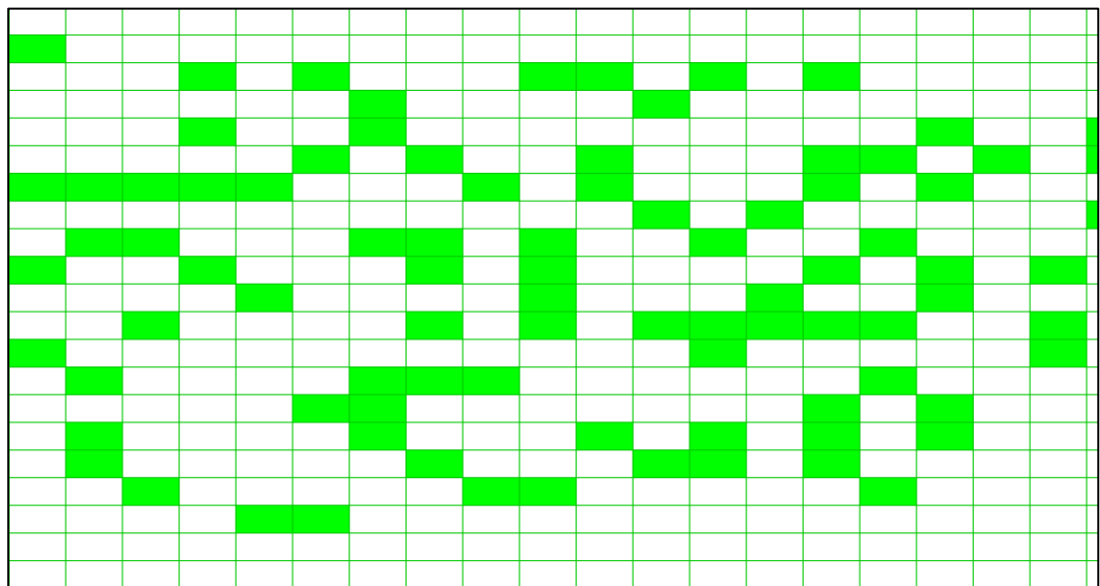
**Note:** Click **Try Again** to re-conduct the **Finger Print Test**.

- **Touchscreen Test**

1. **Touchscreen Test** screen appears. Click **Start** button to begin the test.

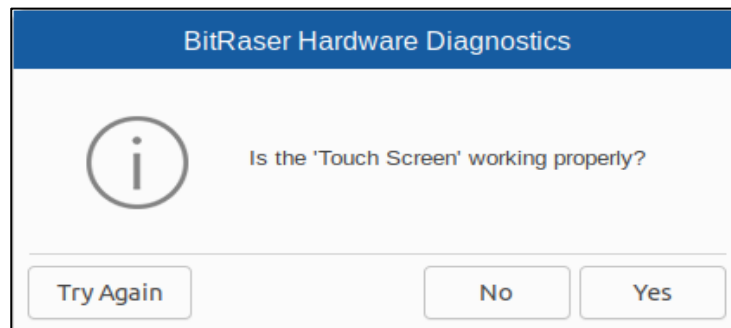


2. When you touch the screen, green boxes indicate that the touch is functioning as shown below. Click **Next**



**Note:** Click **Skip** if you wish to skip the **Touchscreen Test**.

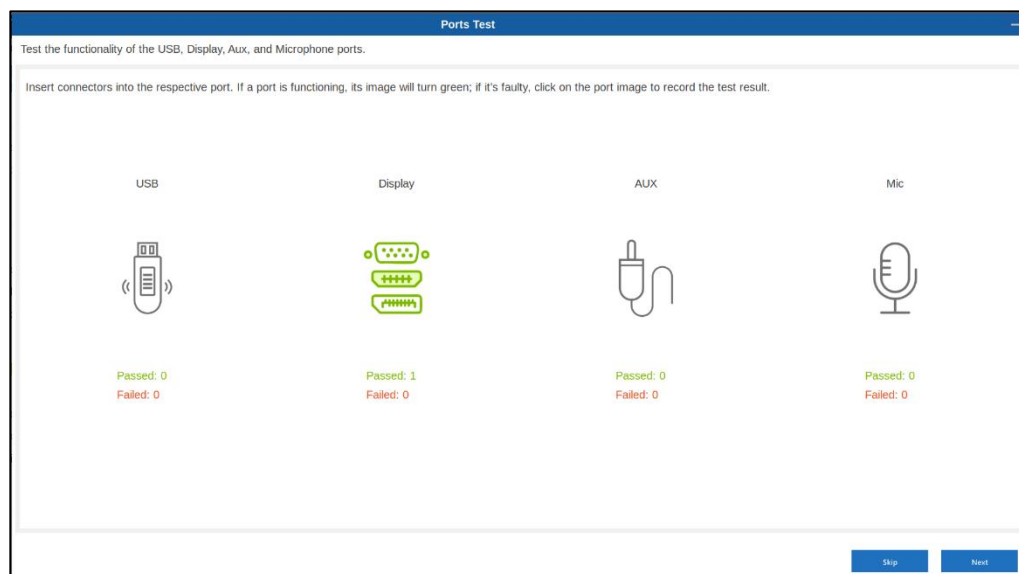
3. **BitRaser Hardware Diagnostics** dialog box appears on the screen with a message: "Is the 'Touch Screen' working properly?" Click **Yes** if the component is functioning properly, or **No** if it is not.



**Note:** Click **Try Again** to re-conduct the **Touchscreen Test**.

#### ○ **Ports Test**

1. The **Ports Test** window appears. Insert the connector into the respective port to test the functionality of the **USB**, **Display**, **Aux**, and **Mic** ports. If a port is functioning, its image will turn green.



You can test the functionality of various ports, as described below:

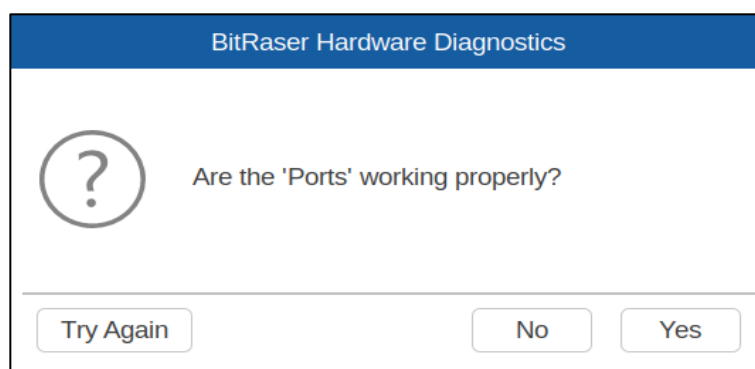
- a) **USB:** Connect a USB device (like a flash drive or mouse) to ensure data transfer or power delivery works properly.
- b) **Display:** Connect a monitor using a VGA cable to check for proper video output.
  - **VGA:** Plug in a VGA cable to VGA port to verify video transmission.

- **HDMI:** Plug in an HDMI cable to an HDMI port to verify video transmission.
  - **DP(DisplayPort):** Plug in DP cable to DP port to verify video transmission.
- c) **AUX:** Plug in headphones to test AUX port.
- d) **Mic:** Plug in the microphone to test mic port.

**Notes:**

- *If the port test passes, the indicator turns green and displays the total number of successful test attempts. If it fails, click the given images to manually set the indicator to red and display the number of failed attempts.*
- *Click **Skip** if you wish to skip the **Ports Test**.*

2. **BitRaser Hardware Diagnostics** dialog box appears on the screen with a message: "Is the 'Ports' working properly?" Click **Yes** if the component is functioning properly, or **No** if it is not.



○ **Accessories and Grading**

**Accessories and Grading** screen appears. It is divided into three primary sections, where each section serves a specific purpose and is organized as follows:

**Accessories:**

1. **Charger** - Select the checkbox if you are provided with a charger.
2. **Original Packing** - Select the checkbox if your accessories are originally packed.

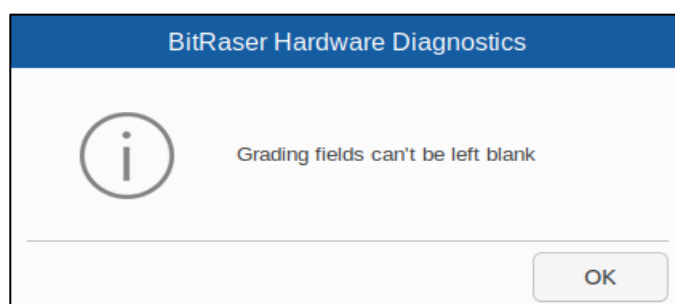
**Grading:**

1. **Body Grade** - Select the drop-down to give a grade to the body of the component from the available options, i.e., (A+, A, B+, B, C+, C).
2. **Display Grade** - Grade the display of the component from the available options, i.e., (A+, A, B+, B, C+, C).
3. **Overall Grade** - Grade the overall condition of the component from the available options, i.e., (A+, A, B+, B, C+, C).

**Remarks:**

You can enter any additional comments or observations in the **Remarks** text box.

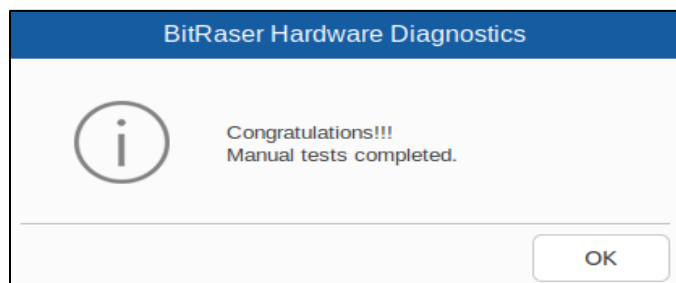
**Note:** You are required to select the grading. When you do not select the grading, a dialog box appears on the screen with the message **"Grading fields can't be left blank"**, which is shown below:



4. Click **Next** to proceed to the next manual test.

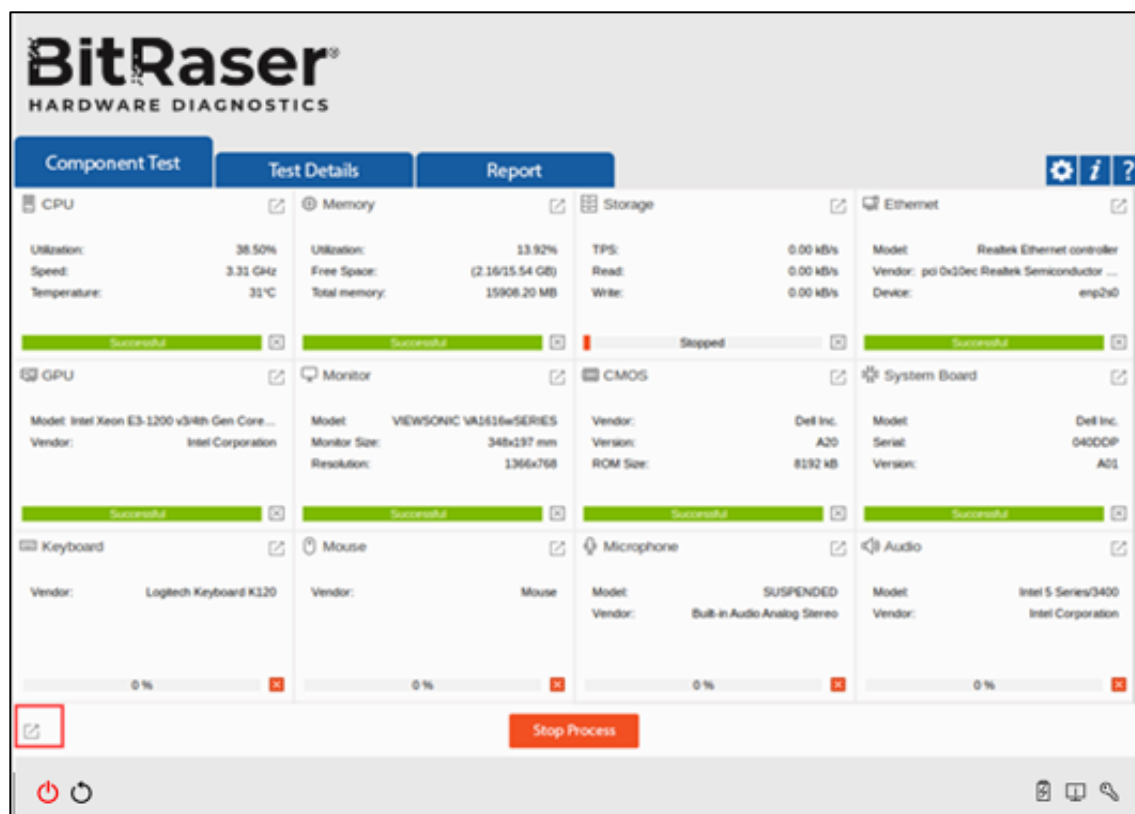
**Note:** Click **Skip** if you wish to skip the **Accessories and Grading Test**.

5. **BitRaser Hardware Diagnostics** dialog box appears on the screen with a message "**Congratulations!!! Manual tests completed**". Click **OK**.



**Note:**

- The storage test runs in the background, as it typically takes more time to complete. This allows users to continue with other tasks or tests without interruption.
- You can minimize the test screen using  and reopen it using . It is highlighted in the red box in the image below:



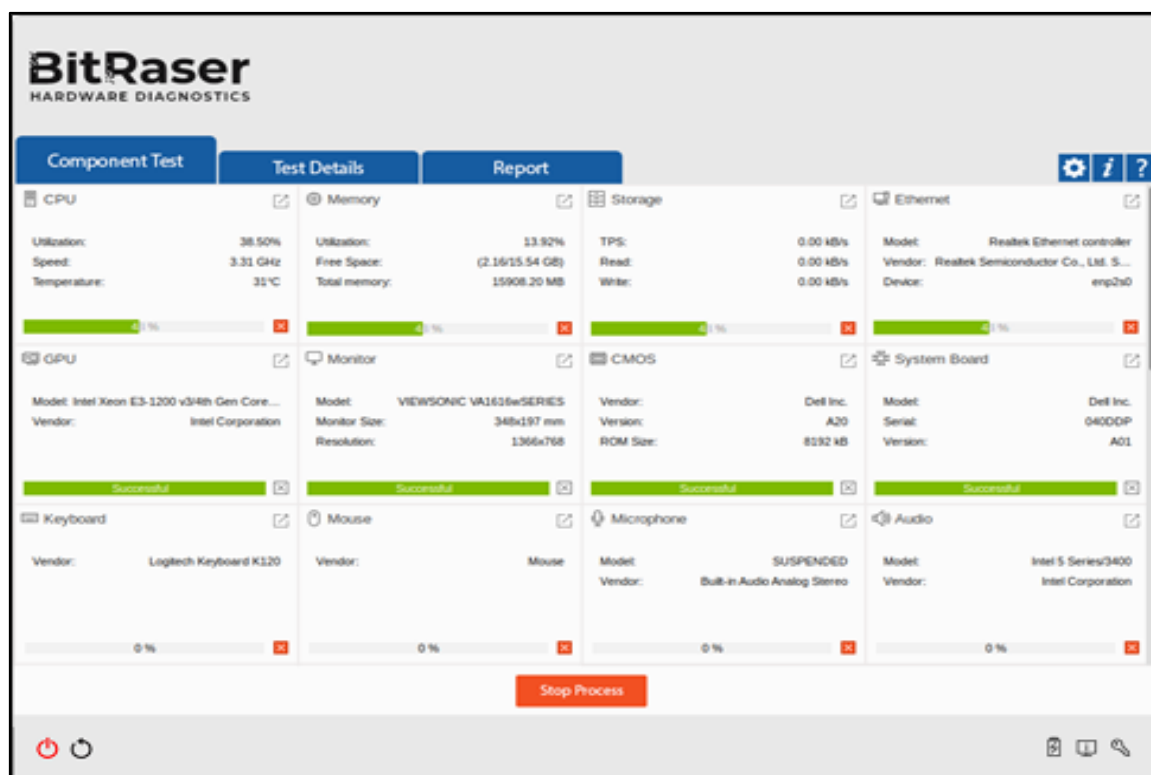
## 4.1.2. AUTO TEST

This section provides information on the detailed diagnosis of the automated tests running on the components. The **detailed diagnosis** shows all the tests carried out for each component.

**Note:** Refer to [Diagnostic Process](#) to know the diagnostic process of the components.

### Steps to view automated tests:

1. Run **BitRaser Hardware Diagnostics**.
2. Then, click on  **Settings** in the top right corner of the main screen. **BitRaser Hardware Diagnostics Settings** screen appears. **General** tab is selected by default.
3. Select **Network** tab. To connect to the network, select either **Ethernet** or **Wireless** option.
4. After connecting to the network, select the **BitRaser Server** tab, enter the server details, and then click the **Connect** button to connect to the cloud server and fetch the licenses.
5. Once the license is fetched, **BitRaser Hardware Diagnostics** starts running on the screen.
6. Click  within any component grid.



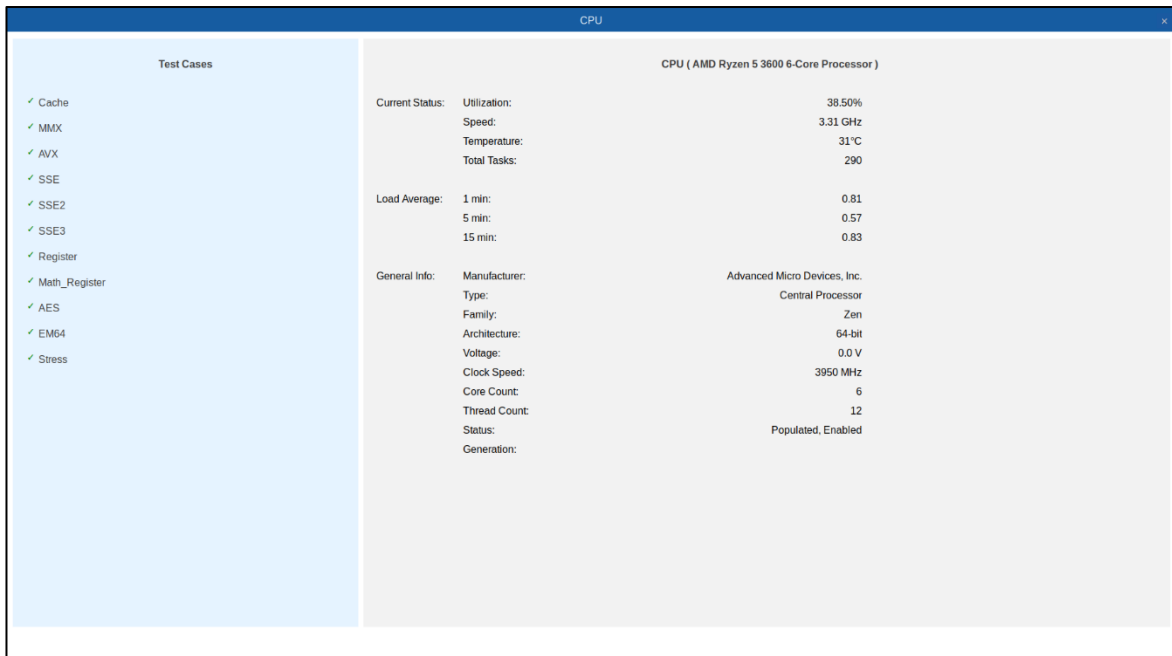
- A detailed diagnostic screen appears for each component. The screen is divided into two parts, where one part is dedicated to the tests that are conducted on the components, and the other part gives a detailed description of the component.

**Note:**

- These tests are predefined and cannot be modified by the user.*
- Here, **section 1** contains all the **tests** that run on the component, and **section-2** contains all the **general information** about the component.*

The detailed diagnosis of each component is given below:

-  CPU:



| Test Cases      |  | CPU ( AMD Ryzen 5 3600 6-Core Processor ) |                                            |
|-----------------|--|-------------------------------------------|--------------------------------------------|
| ✓ Cache         |  | Current Status:                           | Utilization: 38.50%                        |
| ✓ MMX           |  |                                           | Speed: 3.31 GHz                            |
| ✓ AVX           |  |                                           | Temperature: 31°C                          |
| ✓ SSE           |  |                                           | Total Tasks: 290                           |
| ✓ SSE2          |  | Load Average:                             | 1 min: 0.81                                |
| ✓ SSE3          |  |                                           | 5 min: 0.57                                |
| ✓ Register      |  |                                           | 15 min: 0.83                               |
| ✓ Math_Register |  | General Info:                             | Manufacturer: Advanced Micro Devices, Inc. |
| ✓ AES           |  |                                           | Type: Central Processor                    |
| ✓ EM64          |  |                                           | Family: Zen                                |
| ✓ Stress        |  |                                           | Architecture: 64-bit                       |
|                 |  |                                           | Voltage: 0.0 V                             |
|                 |  |                                           | Clock Speed: 3950 MHz                      |
|                 |  |                                           | Core Count: 6                              |
|                 |  |                                           | Thread Count: 12                           |
|                 |  |                                           | Status: Populated, Enabled                 |
|                 |  |                                           | Generation:                                |

## Section 1-

- Cache:** Small, high-speed memory, known as cache memory, is located close to the processor cores. It stores frequently used data and instructions, significantly reducing the time required to retrieve this information from the main memory (RAM). By doing so, cache memory enhances overall system performance and efficiency by minimizing latency and improving the speed at which the processor can execute tasks.

2. **MMX:** MMX stands for **Multimedia Extensions** and is a set of instructions added to Intel's microprocessor architecture to enhance the performance of multimedia and communication applications.
3. **AVX:** AVX stands for **Advanced Vector Extensions** and is an instruction set extension for x86 architecture CPUs. AVX enhances the capabilities of **SIMD** (Single Instruction, Multiple Data) by extending the size of registers and the complexity of instructions, which significantly boosts the performance of floating-point and integer operations in various applications, including scientific simulations, 3D modelling, and multimedia processing.
4. **SSE:** SSE stands for **Streaming SIMD Extensions** and is a **SIMD** (Single Instruction, Multiple Data) instruction set extension for x86 architecture CPUs. **SSE** was designed to enhance the performance of multimedia, gaming, and scientific applications by allowing the processor to execute operations on multiple data points at once. **SSE** extends the capabilities of the earlier MMX instruction set by adding new instructions and 128-bit XMM registers.
5. **SSE 2:** SSE2 stands for **Streaming SIMD Extensions 2** and is an extension of the original **SSE** (Streaming SIMD Extensions) instruction set. **SSE2** expands the capabilities of **SSE** by adding support for additional data types and operations, which significantly enhances the performance of applications involving multimedia, scientific computations, and other data-intensive tasks.
6. **SSE 3:** SSE3 stands for **Streaming SIMD Extensions 3**, also known as **Prescott New Instructions** (PNI), and is an extension of the **SSE2** instruction set. **SSE3** adds a set of new instructions designed to improve the performance of applications that benefit from **SIMD** (Single Instruction, Multiple Data) operations, particularly in multimedia, gaming, and scientific computing.
7. **Registers:** Small, high-speed storage locations in the CPU used to hold data and instructions temporarily during processing. They are integral to the CPU's

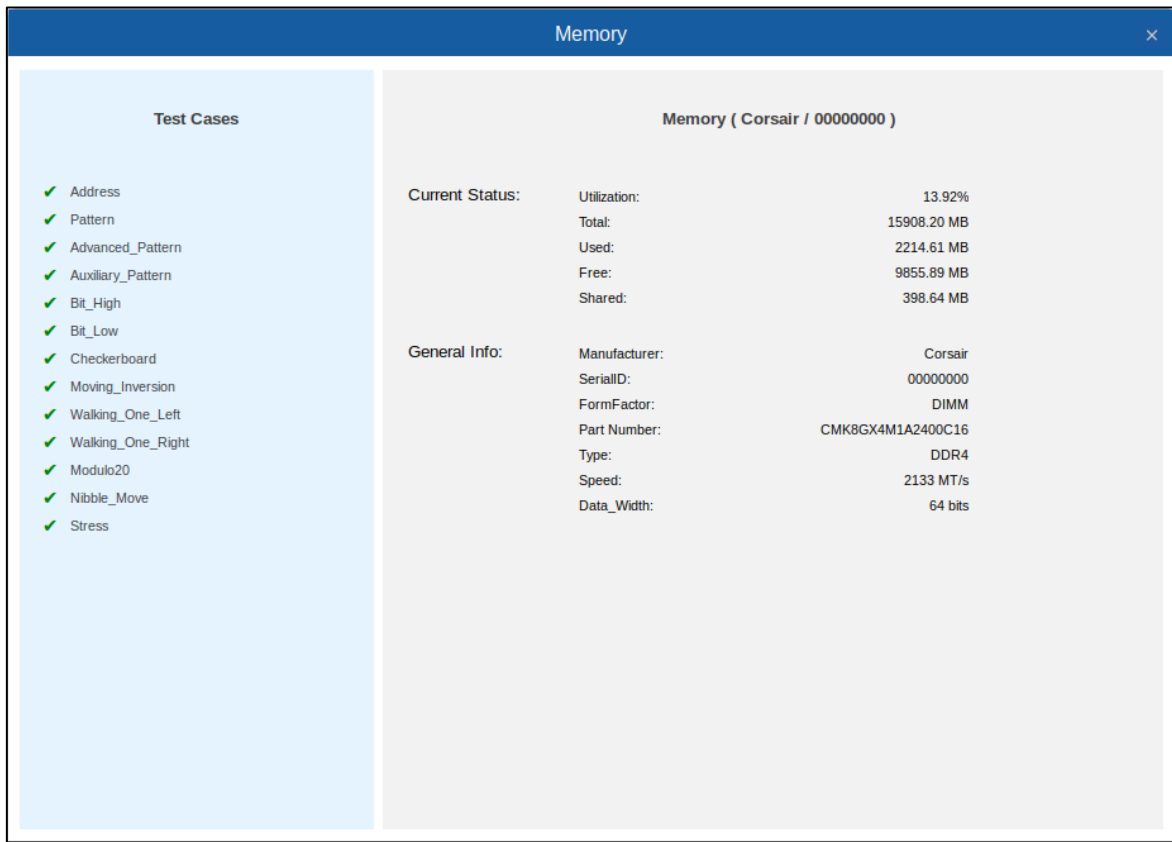
operation, enabling it to execute instructions efficiently by providing quick access to frequently used data and control information.

8. **Math-Registers:** General-purpose registers available in the CPU, and they are used to hold operands and intermediate results during arithmetic and logical operations.
9. **AES:** AES is a symmetric encryption algorithm used to securely encrypt and decrypt data. It uses a single key and supports 128, 192, and 256-bit key sizes.
10. **EM64:** EM64 is Intel's 64-bit processor architecture that enables 64-bit computing. It allows systems to access more than 4 GB of memory and run 64-bit applications.
11. **Stress:** CPU performance test where the CPU is operated at maximum speed and utilization for a certain period. This test evaluates the overall reliability of the processor under high-stress conditions.

## Section 2-

1. **Current Status:** It displays the utilization of the CPU, its speed, temperature, and total tasks performed.
2. **Load Average:** It displays the workload on a system for a certain amount of time.
3. **General Info:** It displays the general information about the CPU, such as manufacturer, type, family, etc.

## 2. Memory



| Test Cases          |  |
|---------------------|--|
| ✓ Address           |  |
| ✓ Pattern           |  |
| ✓ Advanced_Pattern  |  |
| ✓ Auxiliary_Pattern |  |
| ✓ Bit_High          |  |
| ✓ Bit_Low           |  |
| ✓ Checkerboard      |  |
| ✓ Moving_Inversion  |  |
| ✓ Walking_One_Left  |  |
| ✓ Walking_One_Right |  |
| ✓ Modulo20          |  |
| ✓ Nibble_Move       |  |
| ✓ Stress            |  |

| Memory ( Corsair / 00000000 ) |               |                   |
|-------------------------------|---------------|-------------------|
| Current Status:               | Utilization:  | 13.92%            |
|                               | Total:        | 15908.20 MB       |
|                               | Used:         | 2214.61 MB        |
|                               | Free:         | 9855.89 MB        |
|                               | Shared:       | 398.64 MB         |
| General Info:                 | Manufacturer: | Corsair           |
|                               | SerialID:     | 00000000          |
|                               | FormFactor:   | DIMM              |
|                               | Part Number:  | CMK8GX4M1A2400C16 |
|                               | Type:         | DDR4              |
|                               | Speed:        | 2133 MT/s         |
|                               | Data_Width:   | 64 bits           |

### Section 1-

1. **Address:** This method is used to verify the integrity and reliability of memory modules by systematically testing memory addresses for read and write operations.
2. **Pattern:** **Pattern** test in memory, also known as a **pattern sensitivity test**, is a method used to evaluate the reliability and integrity of memory modules by systematically writing specific patterns of data to memory locations and then reading back the data to check for errors. The goal of pattern testing is to detect potential faults or defects in memory hardware, such as defective memory cells, data corruption, or issues with memory addressing.
3. **Advanced\_Pattern:** **Advanced pattern** test in memory is used to evaluate the reliability and integrity of memory modules. This type of test typically involves writing complex patterns of data to memory locations and then

reading back the data to check for errors. The goal is to detect a wider range of potential faults or defects in memory hardware, including subtle issues that may not be detected by simpler pattern tests.

4. **Auxiliary-Pattern: Auxiliary pattern** test involves additional or specialized patterns and testing techniques that complement primary pattern tests and provide additional coverage or sensitivity to certain types of faults. These tests are often used to target specific fault mechanisms or to enhance the effectiveness of primary pattern tests.
5. **Bit\_High:** Checks for stuck-at faults in memory cells where the fault causes a bit to always read as "**high**" or "**1**", regardless of the data written to the cell or the address accessed.
6. **Bit\_Low:** Detects stuck-at faults in memory cells where the fault causes a bit to always read as "**low**" or "**0**", regardless of the data written to the cell or the address accessed. It is essentially the opposite of a bit-high test.
7. **Checkerboard: Checkerboard test** in memory involves writing specific patterns of alternating bits (typically ones and zeros) to memory locations in a checkerboard-like pattern. The goal of the checkerboard test is to detect various types of memory faults, including stuck-at faults, cross-talk between memory cells, and pattern-sensitive faults.
8. **Moving\_Inversion:** Detects specific types of faults, such as coupling effects, adjacent cell interference, and pattern-sensitive faults, in memory modules. This test involves writing a repeating pattern of ones and zeros to adjacent memory locations and then shifting the pattern by one bit for each subsequent address. The memory is then read back, and the data is compared against the expected pattern to identify any deviations or errors.
9. **Walking\_One\_Left:** Specific type of memory testing technique used to detect specific types of faults, particularly those related to adjacent memory cells or

address line coupling. In this test, a repeating pattern of binary ones (1s) is written to memory, with each bit shifting left by one position for each subsequent address. After writing the pattern, the memory is read back, and the data is compared against the expected pattern to identify any deviations or errors.

10. **Modulo20:** Memory testing technique that involves writing specific patterns of data to memory locations in a cyclic manner, with the pattern repeating every 20 memory addresses. This test is designed to detect various types of faults in memory modules, including stuck-at faults, coupling effects, and pattern-sensitive faults.

11. **Nibble\_Move: Nibble Move** test is a memory testing technique that involves moving a nibble (a group of 4 bits or half a byte) of data through memory in a systematic manner to detect certain types of faults.

12. **Stress:** CPU performance test where the CPU is operated at maximum speed and utilization for a certain period. This test evaluates the overall reliability of the processor under high-stress conditions.

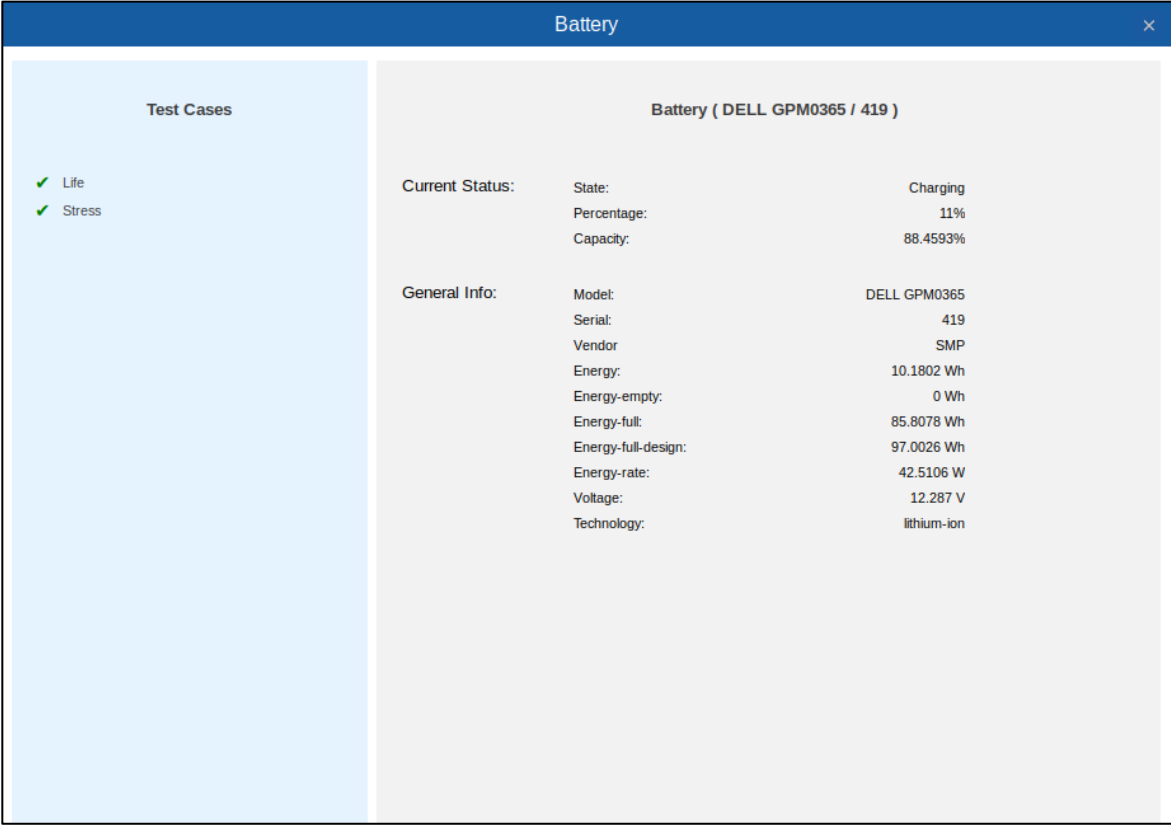
13. **Walking\_One\_Right:** Detects faults in memory cells, particularly those related to adjacent memory cells or address line coupling. In this test, a repeating pattern of binary ones (1s) is written to memory, with each bit shifting right by one position for each subsequent memory address. After writing the pattern, the memory is read back, and the data is compared against the expected pattern to identify any deviations or errors.

## Section 2-

1. **Current Status:** It displays information about the utilization of the memory, free space, used space, etc.

2. **General Info:** It shows general information about the memory such as its manufacturer, speed, serial ID, etc.

### 3. Battery:



| Battery ( DELL GPM0365 / 419 ) |                     |              |
|--------------------------------|---------------------|--------------|
| Current Status:                | State:              | Charging     |
|                                | Percentage:         | 11%          |
|                                | Capacity:           | 88.4593%     |
| General Info:                  | Model:              | DELL GPM0365 |
|                                | Serial:             | 419          |
|                                | Vendor              | SMP          |
|                                | Energy:             | 10.1802 Wh   |
|                                | Energy-empty:       | 0 Wh         |
|                                | Energy-full:        | 85.8078 Wh   |
|                                | Energy-full-design: | 97.0026 Wh   |
|                                | Energy-rate:        | 42.5106 W    |
|                                | Voltage:            | 12.287 V     |
|                                | Technology:         | lithium-ion  |

#### Section 1-

1. **Life:** It determines the life or duration of the battery.
2. **Stress:** In this test, a load is put on the battery to check how well it handles it.

#### Section 2-

1. **Current Status:** It displays information about the battery's current status, i.e., state, percentage of battery left, and capacity.
2. **General Info:** It shows the general information such as the model no, vendor, energy, technology, etc.

4.  Storage:

| Storage                                                                                                |                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Test Cases</b><br>✓ Funnel_Seek<br>✓ Linear_Seek<br>✓ Random_Seek<br>✓ Linear_Read<br>✓ Target_Read | <b>Disk: 0 (WDC WD10EZEX-22MFCA0 / WD-WCC6Y4HARCY6)</b>                                                                                                                                                                                                                  |
|                                                                                                        | <b>Current Status:</b>                                                                                                                                                                                                                                                   |
|                                                                                                        | Tps: 12.88 KB/s<br>Read: 24.67 KB/s<br>Write: 157.77 KB/s                                                                                                                                                                                                                |
|                                                                                                        | <b>General Info:</b>                                                                                                                                                                                                                                                     |
|                                                                                                        | Model: WDC WD10EZEX-22MFCA0<br>Serial: WD-WCC6Y4HARCY6<br>Media Type: SATA<br>Size: 931.51 GB<br>Total Sectors: 1953525168<br>Bytes Per Sector: 512<br>Sectors Per Track: 255<br>Total Cylinders: 121601<br>Total Tracks: 63<br>Tracks Per Cylinder: 255<br>Health: 100% |

**Section 1-**

- Funnel\_Seek:** In this test, data is read or written across the storage device sequentially, bit by bit, starting from the outermost tracks and gradually moving towards the innermost tracks. This pattern resembles a funnel, hence the name.
- Linear\_Seek:** This test is used to assess the performance and reliability of storage devices, particularly **hard disk drives** (HDDs) or **solid-state drives** (SSDs). This test involves seeking data across the storage device in a linear manner, typically from the outermost tracks to the innermost tracks or vice versa, to evaluate seek time, access latency, and overall read/write performance.
- Random\_Seek:** In **Random Seek** test, data is accessed across the storage device in a non- sequential manner, meaning that the data access patterns are random rather than following a predetermined sequence. This simulates real-world usage scenarios where data access may occur randomly.

- **Linear\_Read: Linear Read** in storage refers to the sequential retrieval of data from a storage device, such as a **hard disk drive** (HDD) or **solid-state drive** (SSD), in which data is read sequentially in the order it is stored on the device.
- **Target\_Read:** It is a specific type of read operation performed on a storage device, where the reading process is focused on retrieving a particular subset or specific set of data from the storage medium. Unlike sequential or linear reads that retrieve data in a continuous manner, targeted reads are more selective and aim to access only the required data.
- **Cache:** Small, high-speed storage area that temporarily holds frequently accessed or recently used data. This cache sits between the main storage medium (such as a hard disk drive or SSD) and the accessing system (like a computer or server), serving as a buffer to accelerate data access and improve overall system performance.
- **Status:** It updates user about the functioning of the storage.
- **Thresholds:** It focuses on performance metrics related to storage devices such as read/write speeds, latency, IOPS (input/output operations per second), throughput, and response times.
- **Wear-Level:** It is a durability test performed on flash-based storage devices, such as solid-state drives (SSDs), to assess their ability to evenly distribute write and erase cycles across the memory cells. This test is particularly important for NAND flash memory, which has a limited number of program-erase (P/E) cycles before it starts to **degrade**.
- **Short\_Self\_Test:** Short self-test, also known as a short drive self-test, is a diagnostic procedure performed by storage devices, particularly hard disk drives (HDDs), to quickly assess their overall health and detect any potential issues with the drive's functionality. This test is designed to provide a rapid

evaluation of the drive's basic operational status and is typically initiated by the user or the device itself through diagnostic software or built-in firmware.

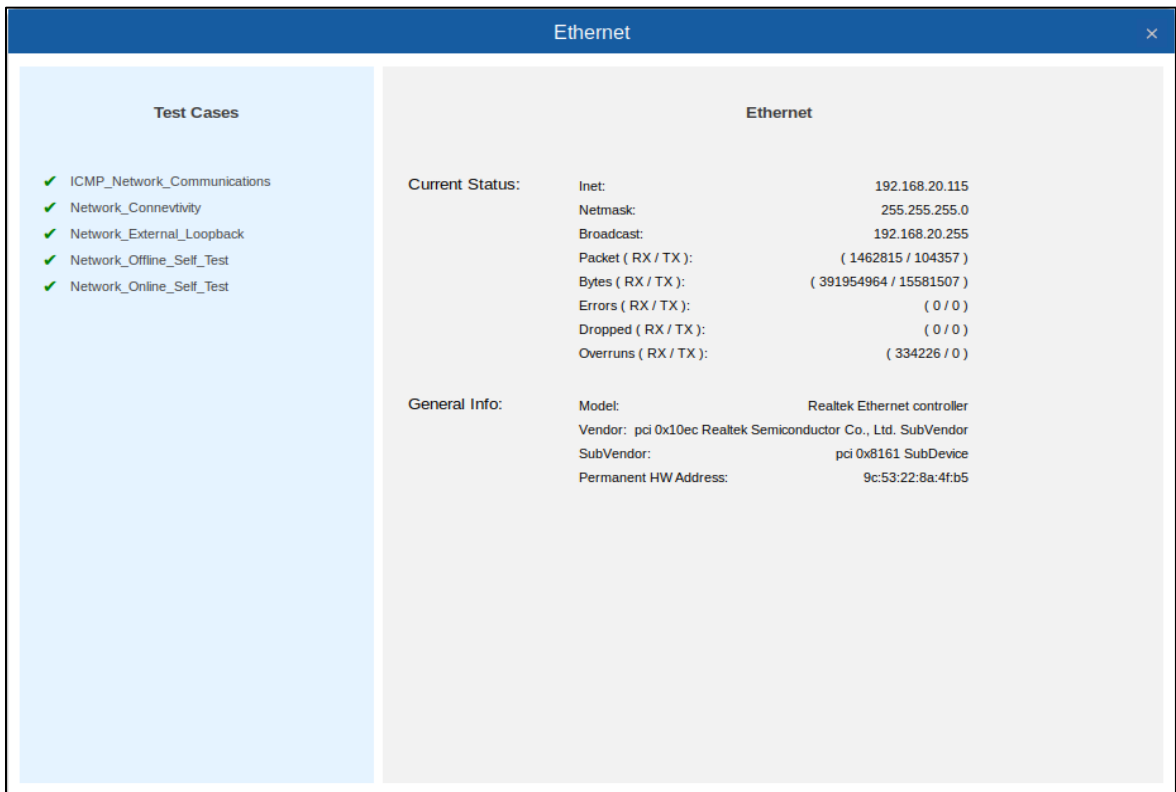
- **Extended\_Self\_Test:** Extended self-test is a more thorough and comprehensive diagnostic procedure performed by storage devices, particularly hard disk drives (HDDs) and solid-state drives (SSDs). This type of self-test delves deeper into the health and functionality of the storage device, identifying potential issues that may not be detected by shorter, more basic tests.

## Section 2-

**1. Current Status:** It shows **TPS** (transactions per second) and rate at which reading and writing operations occur.

**2. General Info:** It shows general information about the storage device, such as its Model, Serial, Size, Sectors, etc.

**Note:** *The number of test cases will display as per your drive.*

5.  Ethernet:


| Test Cases |                             |
|------------|-----------------------------|
| ✓          | ICMP_Network_Communications |
| ✓          | Network_Connectivity        |
| ✓          | Network_External_Loopback   |
| ✓          | Network_Offline_Self_Test   |
| ✓          | Network_Online_Self_Test    |

| Ethernet               |                                                      |
|------------------------|------------------------------------------------------|
| <b>Current Status:</b> |                                                      |
| Inet:                  | 192.168.20.115                                       |
| Netmask:               | 255.255.255.0                                        |
| Broadcast:             | 192.168.20.255                                       |
| Packet ( RX / TX ):    | ( 1462815 / 104357 )                                 |
| Bytes ( RX / TX ):     | ( 391954964 / 15581507 )                             |
| Errors ( RX / TX ):    | ( 0 / 0 )                                            |
| Dropped ( RX / TX ):   | ( 0 / 0 )                                            |
| Overruns ( RX / TX ):  | ( 334226 / 0 )                                       |
| <b>General Info:</b>   |                                                      |
| Model:                 | Realtek Ethernet controller                          |
| Vendor:                | pci 0x10ec Realtek Semiconductor Co., Ltd. SubVendor |
| SubVendor:             | pci 0x8161 SubDevice                                 |
| Permanent HW Address:  | 9c:53:22:8a:4f:b5                                    |

**Section 1-****1. ICMP\_Network\_Communications: ICMP** (Internet Control Message

Protocol) network communication test is a diagnostic procedure used to assess the reachability, latency, and overall health of network connections. ICMP is a protocol used by network devices, like routers and hosts, to send error messages and operational information indicating success or failure when communicating with another IP address.

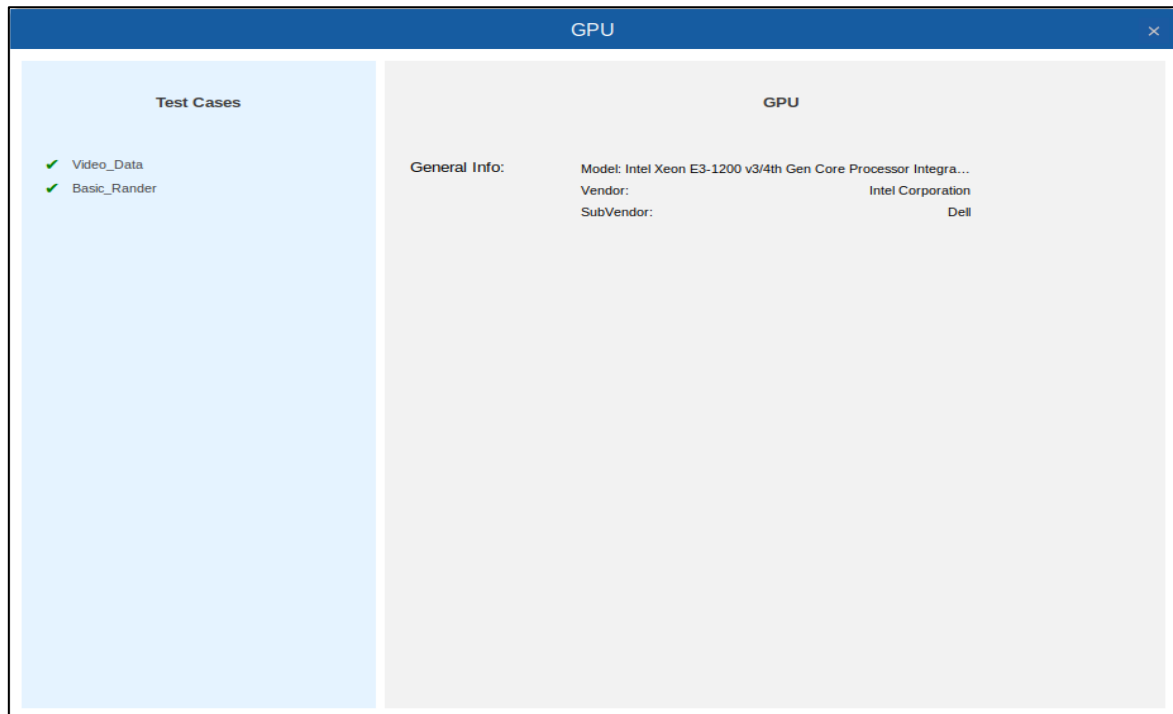
**2. Network\_Connectivity:** It checks whether the device can connect with other devices on the same network.**3. Network\_External\_Loopback:** A network external loopback is a diagnostic test used to verify the functionality and performance of network equipment by routing data from a device through the network and back to the original device. This test checks the integrity of the entire transmission path,

including the device's network interface, cabling, intermediate networking hardware (like switches and routers), and the return path.

4. **Network\_Offline\_Self\_Test: Network Offline Self-Test** is a diagnostic procedure performed on network devices, such as switches, routers, or network interface cards (NICs), while they are not actively connected to a live network or during a maintenance window when the device is not handling live traffic. This type of test aims to evaluate the hardware and software components of the network device to ensure they are functioning correctly without impacting the operational network.
5. **Network\_Online\_Self\_Test: Network Online Self-Test** is a diagnostic procedure performed on network devices (such as switches, routers, or network interface cards) while they are actively connected to and operating within a live network. The purpose of an online self-test is to assess the health, performance, and functionality of network devices without taking them offline or disrupting normal network operations.

## Section 2-

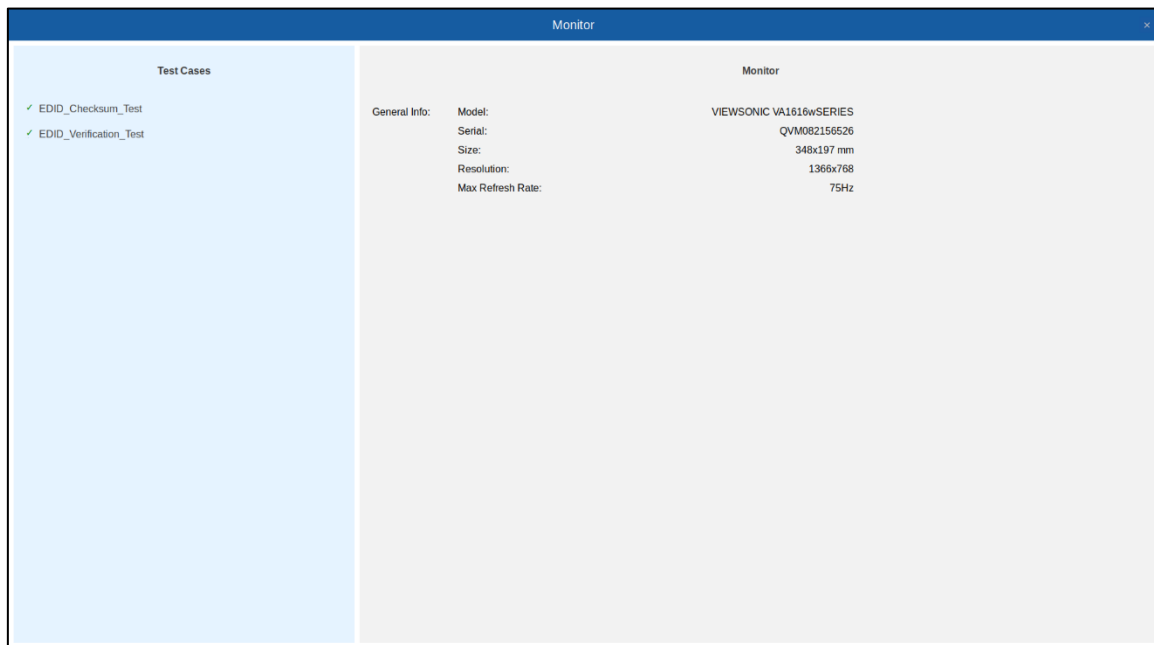
1. **Current Status:** It shows netmask, packets received and sent on network, broadcast address, etc.
2. **General Info:** It displays general information about the Ethernet, such as its Model, Vendor, sub-vendor, etc.

6.  GPU:**Section 1-**

- **Video\_Data: Video Data** test on a **GPU** is a diagnostic procedure used to evaluate the GPU's ability to handle video-related tasks, such as decoding, encoding, and rendering video content. This test is essential for ensuring that the GPU can effectively process video streams, which is critical for applications like **video playback**, **video editing**, and **streaming**.
- **Basic\_Render: Basic Render** test of a **GPU** (Graphics Processing Unit) is a diagnostic procedure used to evaluate the performance and functionality of a graphics card by rendering graphics or performing compute tasks. This type of test helps determine if the GPU can handle graphical workloads, identifies any potential issues, and ensures that the GPU is operating correctly.

**Section 2-**

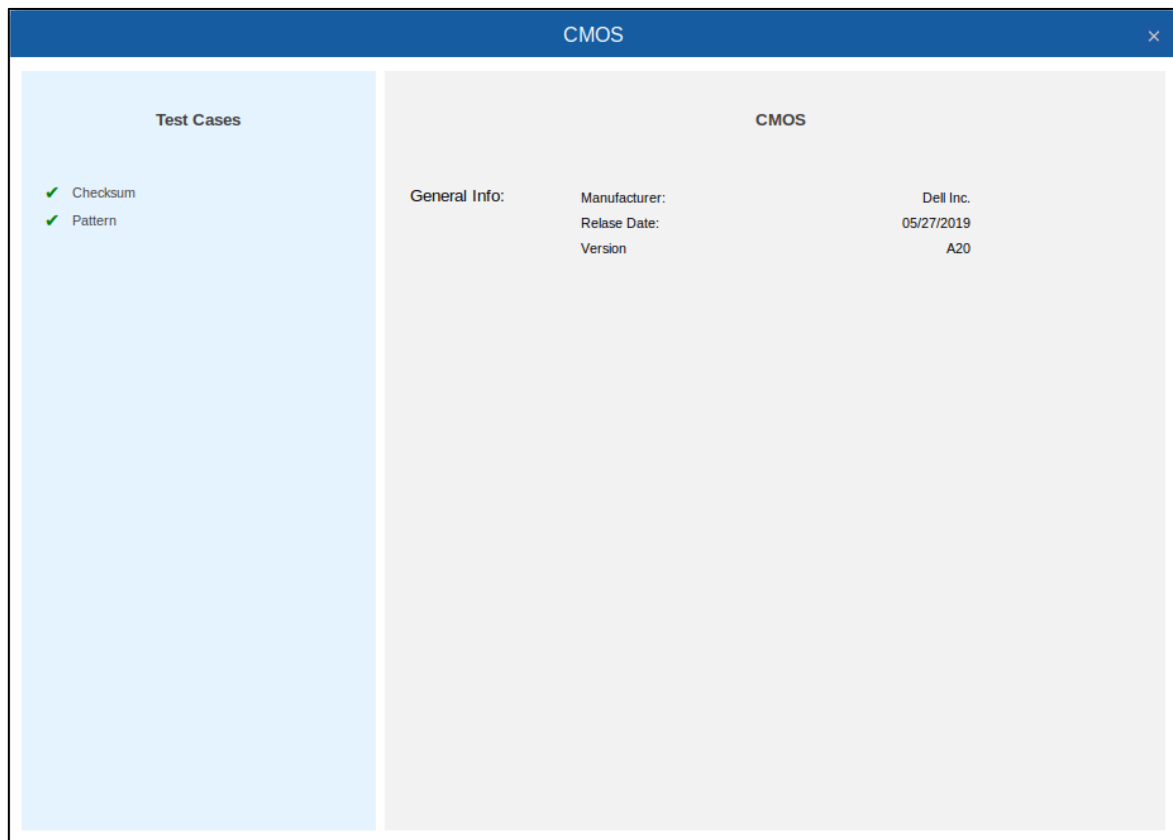
1. **General Info:** It displays general information about GPU, such as its model, vendor, and sub-vendor.

7.  Monitor:**Section 1-**

- 1. EDID\_Checksum\_Test:** An EDID (Extended Display Identification Data) checksum test is a diagnostic procedure used to verify the integrity of the EDID information provided by a display device, such as a monitor or television. EDID is a standardized data format that a display sends to a connected graphics card or other video source to communicate its capabilities, such as supported resolutions, refresh rates, and audio formats. The checksum is a part of the EDID data structure that ensures the data has not been corrupted.
- 2. EDID\_Verification\_Test:** The verification test ensures that this data is correct and that the display can properly communicate its capabilities to the video source.

**Section 2-**

- 1. General Info:** It provides general information about the monitor, such as its Model, Serial, Size, and Resolution.

8.  CMOS:**Section 1-**

1. **Checksum: Checksum** test in **CMOS** (Complementary Metal-Oxide-Semiconductor) is a diagnostic procedure used to verify the integrity of data stored in the CMOS memory of a computer. The CMOS memory holds system configuration settings and hardware parameters that the BIOS (Basic Input / Output System) uses during the boot process. These settings include system time and date, hardware settings, boot sequence, and other critical information.
2. **Pattern: Pattern** test in **CMOS** (Complementary Metal-Oxide-Semiconductor) refers to a diagnostic procedure used to verify the integrity and reliability of the CMOS memory, which stores system configuration settings and hardware parameters for the BIOS (Basic Input / Output

System). This type of test involves writing specific patterns of data to the CMOS memory and then reading them back to ensure they match the expected patterns. The purpose is to detect any faults or errors in the memory cells.

## Section 2-

1. **General Info:** It shows general information about the CMOS, such as its Manufacturer, Release Date, and Version.

## 9. System Board:

| System Board |                  |                                  |
|--------------|------------------|----------------------------------|
| Test Cases   | System Board     |                                  |
|              | General Info:    | Model: 040DDP                    |
|              |                  | Serial: /ZV0GH92/CN7016359N05Z7/ |
|              |                  | Manufacturer: Dell Inc.          |
|              |                  | Asset Tag: Not Specified         |
|              |                  | Version: A01                     |
|              | PCIe Slots Info: | Total Slots: 3                   |
|              |                  | Available Slots: 2               |
|              |                  | Slots in Use: 1                  |
|              |                  | Unavailable Slots: 0             |

## Section 1-

### 1. **RTC\_IRQ\_Accuracy: RTC (Real-Time Clock) IRQ (Interrupt Request)**

**Accuracy** test on a system board is a diagnostic procedure used to verify the precision and reliability of the interrupts generated by the RTC. The RTC is a critical component in a computer system, responsible for keeping track of the current time and date, even when the computer is powered off. It generates periodic interrupts to signal the CPU to perform time-related tasks.

2. **TPM\_Self\_Test: TPM (Trusted Platform Module) Self-Test** is a diagnostic procedure performed to ensure the proper functioning and integrity of the TPM hardware and its internal components. The TPM is a secure crypto-processor used for tasks such as generating, storing, and managing cryptographic keys, ensuring platform integrity, and supporting secure boot processes. The self-test helps verify that the TPM is operating correctly and securely, which is critical for maintaining the overall security posture of the system.

## Section 2-

1. **General Info:** It displays the general information about the System Board such as its Model, Serial, Manufacturer, Asset Tag, and Version.

### **Note:**

- The tests that are passed are shown with , and tests that fail are shown with .
- All the manual tests are self-run; refer to [Manual Test](#) for performing manual tests.

## 4.2. CONFIGURE TEST DETAILS

---

Selecting **Test Details** tab enables users to add custom fields and configure general information about the customer and asset details as per the requirements. The information entered in this section will go to the Diagnostic report and can be modified later if required. The **Test details** configuration is further divided into two sub-sections:

4.2.1. [Enter General Details](#)

4.2.2. [Enter Asset Tag Details](#)

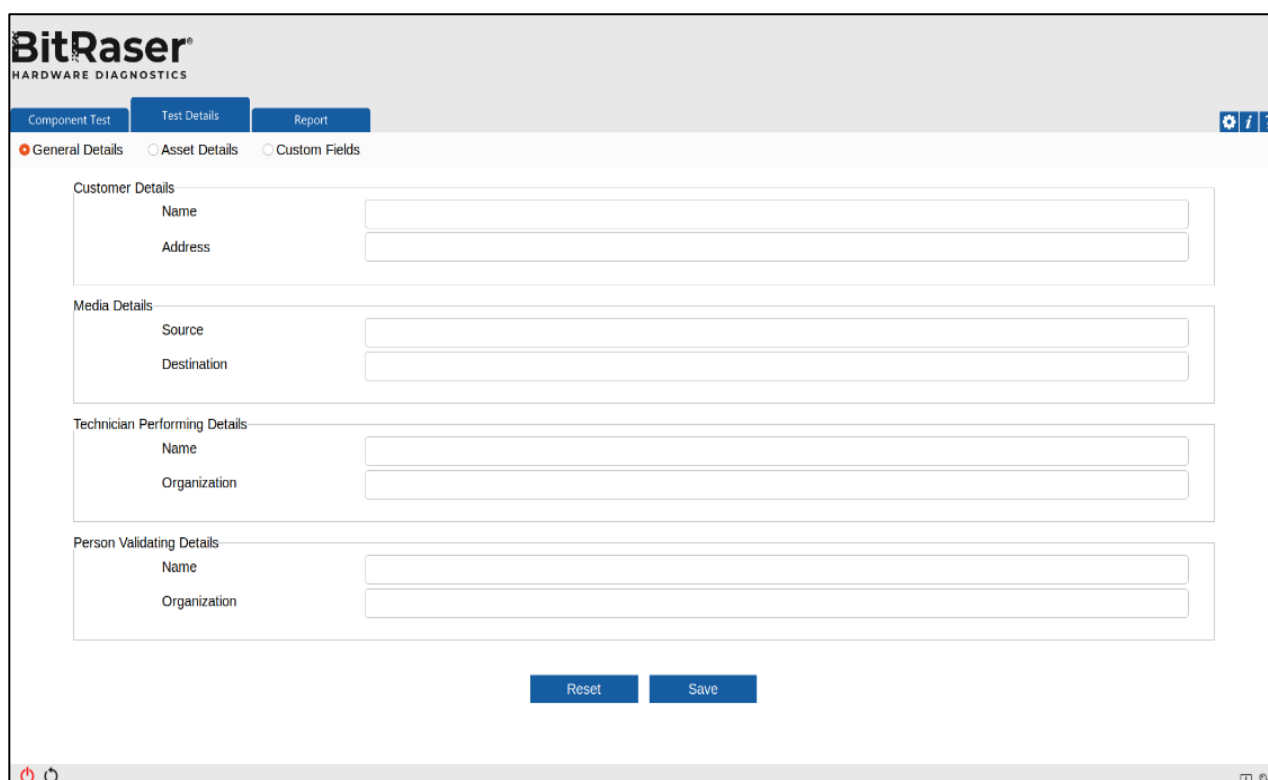
4.2.3. [Enter Custom Fields](#)

## 4.2.1. ENTER GENERAL DETAILS

You can configure general information about the customer, asset details, technician details, and other details like the person validating the diagnostics. The information that you will enter here will be added to the diagnostic report. The report can be modified later as per requirement if required.

### Steps to enter the diagnosis details:

1. Run **BitRaser Hardware Diagnostics**.
2. On the main screen, select **Test Details** tab > **General Details**. (By default, **General Details** ribbon is selected.)



The screenshot displays the BitRaser Hardware Diagnostics application window. The title bar reads "BitRaser® HARDWARE DIAGNOSTICS". The interface features three main tabs: "Component Test", "Test Details", and "Report". The "Test Details" tab is active, and within it, the "General Details" sub-tab is selected. Below the tabs, there are three radio buttons: "General Details" (selected), "Asset Details", and "Custom Fields". The form is organized into four sections, each with a title and two input fields:

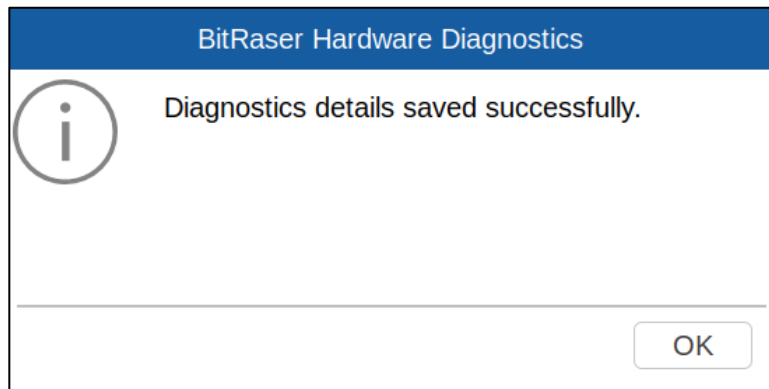
- Customer Details:** Fields for "Name" and "Address".
- Media Details:** Fields for "Source" and "Destination".
- Technician Performing Details:** Fields for "Name" and "Organization".
- Person Validating Details:** Fields for "Name" and "Organization".

At the bottom of the form, there are two buttons: "Reset" and "Save". The application window includes standard OS icons in the top right (gear, info, help) and bottom left (power, refresh, zoom).

3. Specify the required details:
  - **Customer Details:** Enter the details associated with the customer, such as **Name** and **Address**.
  - **Media Details:** Enter the details associated with media, such as the media source and destination.
  - **Technician Performing Diagnostics:** Enter the details of the

technician who will perform the diagnosis process. It contains fields like Technician Name and Organization.

- **Person Validating Diagnostics:** Enter the details of the person who is validating the diagnostic process. It contains fields like Validator Name and Organization.
4. Click **Save** to save the entered information. If required, use **Reset** to reset the fields.
  5. **BitRaser Hardware Diagnostics** dialog box appears with a message, "**Diagnostics details saved successfully**". Click **OK**.



## 4.2.2. ENTER ASSET TAG DETAILS

The Asset Details Tab shows information such as Machine Asset Tag Name; it also shows information about Asset Tag, Model No, Serial No, and the Size of the connected storage device(s). The user can add the same or different asset tags for the disks they want to diagnose.

### Steps to add Asset Tag Details:

1. Run **BitRaser Hardware Diagnostics**.

- On the main screen, select **Test Details** tab > **Asset Details** radio button.

BitRaser<sup>®</sup>  
HARDWARE DIAGNOSTICS

Component Test   Test Details   Report

☐ General Details   ☒ Asset Details   ☐ Custom Fields

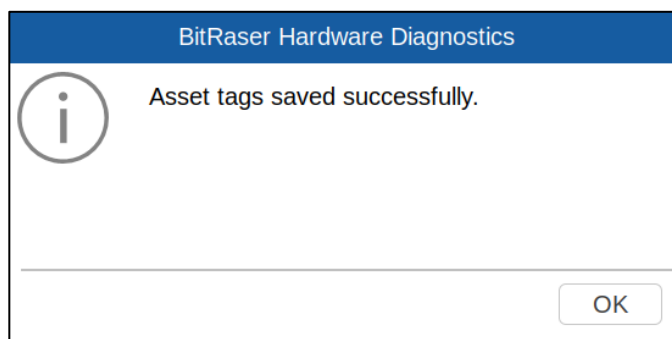
Enter Machine Asset Tag :

Disk Asset Tag :

| Asset Tag | Model No | Serial No | Size |
|-----------|----------|-----------|------|
|-----------|----------|-----------|------|

Reset   Save

- Enter the **Machine Asset Tag** in the provided field.  
*Note: Machine Asset Tag is located at the bottom of the laptop.*
- Disk Asset Tag** section shows information such as **Asset Tag**, **Model No**, **Serial No.**, and **Size**.
- Click on the particular field to enter a different asset tag on a disk.
- Click **Reset** to reset the fields, if required, or click **Save** to save the information.
- BitRaser Hardware Diagnostics** dialog box appears with a message, "**Asset tags saved successfully**". Click **OK**.



## 4.2.3. ENTER CUSTOM FIELDS

The **Custom Fields** tab allows you to add up to 20 sets of customized fields that can be used in creating the diagnostic reports.

### Steps to add Custom Fields:

1. Run **BitRaser Hardware Diagnostics**.
2. On the main screen, select **Test Details** tab > **Custom Fields** radio button.

BitRaser<sup>®</sup> HARDWARE DIAGNOSTICS

Component Test | **Test Details** | Report

☐ General Details ☐ Asset Details ☒ Custom Fields

Custom Fields Set 1

|     | Name | Value |
|-----|------|-------|
| 1.  |      |       |
| 2.  |      |       |
| 3.  |      |       |
| 4.  |      |       |
| 5.  |      |       |
| 6.  |      |       |
| 7.  |      |       |
| 8.  |      |       |
| 9.  |      |       |
| 10. |      |       |

Custom Fields Set 2

|     | Name | Value |
|-----|------|-------|
| 11. |      |       |
| 12. |      |       |
| 13. |      |       |
| 14. |      |       |
| 15. |      |       |
| 16. |      |       |
| 17. |      |       |
| 18. |      |       |
| 19. |      |       |
| 20. |      |       |

Reset Save

3. Specify the **Custom Field Name (s)** and **Custom Field Value (s)**, respectively.

BitRaser<sup>®</sup> HARDWARE DIAGNOSTICS

Component Test | **Test Details** | Report

☐ General Details ☐ Asset Details ☒ Custom Fields

Custom Fields Set 1

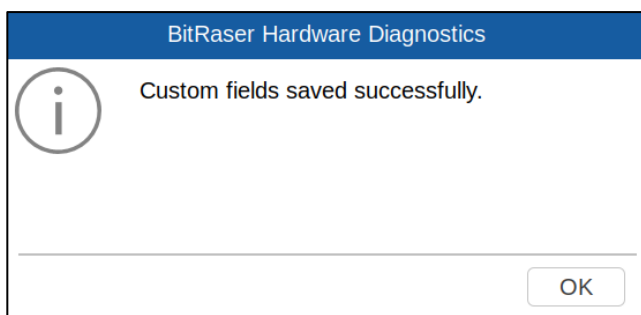
|     | Name          | Value   |
|-----|---------------|---------|
| 1.  | Employee code | M-00012 |
| 2.  |               |         |
| 3.  |               |         |
| 4.  |               |         |
| 5.  |               |         |
| 6.  |               |         |
| 7.  |               |         |
| 8.  |               |         |
| 9.  |               |         |
| 10. |               |         |

Custom Fields Set 2

|     | Name | Value |
|-----|------|-------|
| 11. |      |       |
| 12. |      |       |
| 13. |      |       |
| 14. |      |       |
| 15. |      |       |
| 16. |      |       |
| 17. |      |       |
| 18. |      |       |
| 19. |      |       |
| 20. |      |       |

Reset Save

4. Click **Save** to save the entered information. If required, use **Reset** to reset the fields.
5. **BitRaser Hardware Diagnostics** dialog box appears with a message, "**Custom fields saved successfully**". Click **OK**.



## 4.3. WORK ON REPORTS

**BitRaser Hardware Diagnostics** analyzes the performance and health of the components and summarizes the functionality of each component examined with the help of a Report. The Report provides basic details like the tests conducted on the components, machine information, errors found, custom fields, diagnostics, and validation details, etc. This application provides user with the flexibility to generate two kinds of reports:

1. [Short Report](#)
2. [Detailed Report](#)

### Short Report

You can generate short reports to get brief information about the health of the component. The summary attributes present in the short report are explained below:

- **Report Information:** Report Information contains details such as Report ID, Report Date, Digital Identifier, and Software Version.
- **Customer Details:** Customer Details contains details such as Customer Name and Address.
- **Test Summary:** Test Summary contains Total Test, Test Passed, Test Performed, Test Failed, Start Time, End Time, Duration, and the Status of the test.

- **Hardware Test:** Hardware Test contains details of tests performed on various hardware devices of the system such as system board, memory, CPU, and so on.

| Fields      | Description                                                        |
|-------------|--------------------------------------------------------------------|
| Test        | Shows the components on which the test will be conducted.          |
| Test Type   | Displays the tests as auto or manual.                              |
| Part Exists | Contains the information about whether the component exists.       |
| Tested      | Component information about whether the component has been tested. |
| Result      | Displays the result as either pass or fail.                        |
| Error Found | Indicates the error as either 0 or 1.                              |

- **Machine Information:** Hardware Information lists out the hardware details of the computer, such as manufacturer details, detailed system information, and memory.
- **Custom Fields:** Custom Fields contain the customized information that you have defined using Custom Fields option of **BitRaser Hardware Diagnostics**.

## Detailed Report

Long reports provide extensive detailed information about the performance and health of the component. The summary attributes present in the long report are explained below:

- **Report Information:** Report Information contains details such as Report ID, Report Date, Digital Identifier, and Software Version.
- **Customer Details:** Customer Details contains details such as Customer Name and Address.
- **Test Summary:** Test Summary contains Total Tests, Tests Passed, Tests Performed, Tests Failed, Start Time, End Time, Duration, and the Status of the test.

- **Hardware Test:** Hardware Test contains details of tests performed on various hardware devices of the system such as system board, memory, CPU, and so on.
- **Machine Information:** Hardware Information lists out the hardware details of the computer, such as manufacturer details, detailed system information, and memory.
- **Detailed Device Test:** Contains information about the manufacturing details, functionality, and the tests conducted on each component. The results of the tests contain the following information:

| Fields  | Description                                                                   |
|---------|-------------------------------------------------------------------------------|
| Test    | Contains the tests that will be performed on the component.                   |
| Exists  | Contains the information about whether the test exists for the device or not. |
| Support | Shows whether the test supports the device or not.                            |
| Select  | Indicates whether the test is selected.                                       |
| Result  | Displays whether the tests have passed or failed.                             |
| Error   | Indicates the error, either 0 or 1.                                           |

- **Custom Fields:** Custom Fields contain the customized information that you have defined using Custom Fields option of **BitRaser Hardware Diagnostics**.

For information about viewing and customizing reports, see [View and Customize Report](#). For information about saving a report in PDF, CSV, or XML format, see [Save Report](#).

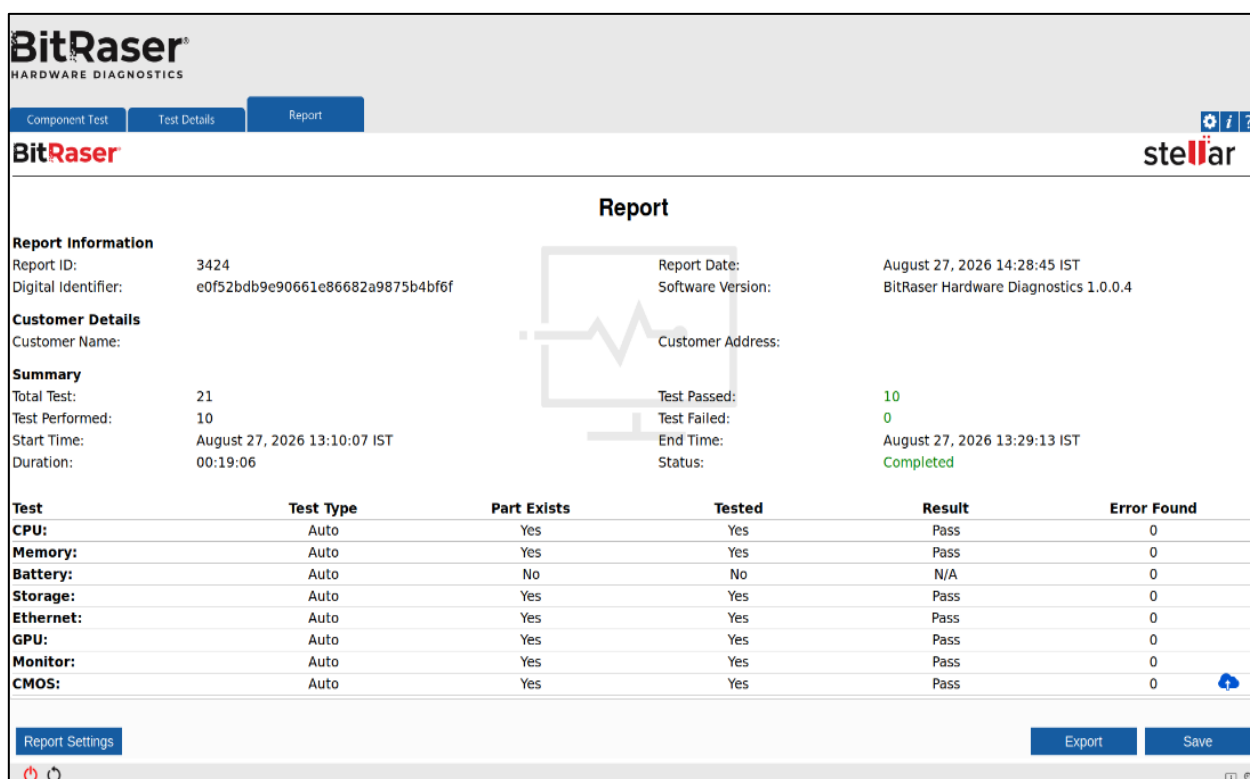
For information about sending a report to **BitRaser server** or exporting a report to media in RPT format, see [Export Report](#) (Applicable only if you have licenses on **BitRaser cloud**).

## 4.3.1. VIEW AND CUSTOMIZE REPORT

**BitRaser Hardware Diagnostics** enables the user to modify the diagnostic reports of the components currently present in the system. Users can add logos, watermarks, and signatures to the Report. In this section, the customization process of the report is explained in detail.

**Steps to view and customize BitRaser Hardware Diagnostics report:**

1. Run **BitRaser Hardware Diagnostics**.
2. On the main screen, select **Report** tab. The screen appears as shown below:



**BitRaser**  
HARDWARE DIAGNOSTICS

Component Test | Test Details | **Report**

**Report**

**Report Information**  
 Report ID: 3424  
 Digital Identifier: e0f52bdb9e90661e86682a9875b4bf6f

**Customer Details**  
 Customer Name:  
 Customer Address:

**Summary**  
 Total Test: 21  
 Test Performed: 10  
 Start Time: August 27, 2026 13:10:07 IST  
 Duration: 00:19:06

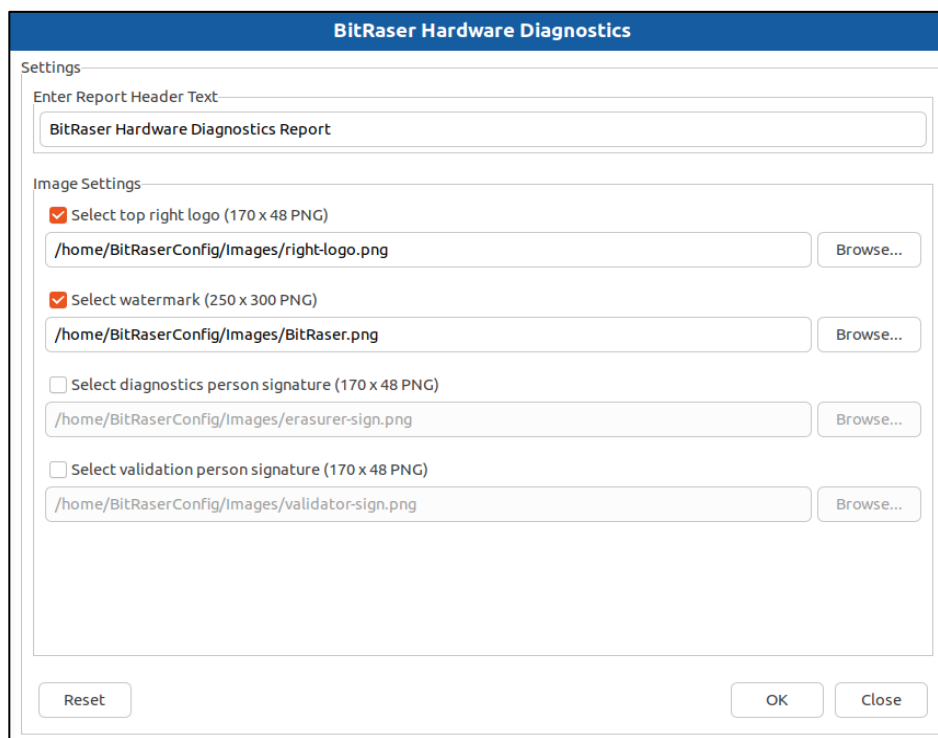
Report Date: August 27, 2026 14:28:45 IST  
 Software Version: BitRaser Hardware Diagnostics 1.0.0.4

Test Passed: 10  
 Test Failed: 0  
 End Time: August 27, 2026 13:29:13 IST  
 Status: Completed

| Test             | Test Type | Part Exists | Tested | Result | Error Found |
|------------------|-----------|-------------|--------|--------|-------------|
| <b>CPU:</b>      | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>Memory:</b>   | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>Battery:</b>  | Auto      | No          | No     | N/A    | 0           |
| <b>Storage:</b>  | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>Ethernet:</b> | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>GPU:</b>      | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>Monitor:</b>  | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>CMOS:</b>     | Auto      | Yes         | Yes    | Pass   | 0           |

Report Settings | Export | Save

- If you want to customize the report, select **Report Settings** button located at the bottom-left corner of the screen.



The image shows a dialog box titled "BitRaser Hardware Diagnostics" with a "Settings" tab. It contains the following fields and controls:

- Enter Report Header Text:** A text input field with the value "BitRaser Hardware Diagnostics Report".
- Image Settings:**
  - ☒ **Select top right logo (170 x 48 PNG)**: A text input field with the value "/home/BitRaserConfig/Images/right-logo.png" and a "Browse..." button.
  - ☒ **Select watermark (250 x 300 PNG)**: A text input field with the value "/home/BitRaserConfig/Images/BitRaser.png" and a "Browse..." button.
  - ☐ **Select diagnostics person signature (170 x 48 PNG)**: A text input field with the value "/home/BitRaserConfig/Images/erasurer-sign.png" and a "Browse..." button.
  - ☐ **Select validation person signature (170 x 48 PNG)**: A text input field with the value "/home/BitRaserConfig/Images/validator-sign.png" and a "Browse..." button.
- Buttons:** "Reset", "OK", and "Close" at the bottom.

- In **Report Settings** dialog box, you can edit the following details:

| Sr. No. | Field Name                                   | Description                                                                                                              |
|---------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| 1.      | <b>Enter Report Header Text</b>              | Enter header text that appears on the header of the report (must be a maximum of 30 characters).                         |
| 2.      | <b>Select top-right logo</b>                 | Select the check-box and click Browse to select the top-right logo of the report (image size and format - 170 x48 PNG).  |
| 3.      | <b>Select watermark</b>                      | Select the check-box and click Browse to select the watermark (image size and format - 250 x300 PNG).                    |
| 4.      | <b>Select diagnostics person's signature</b> | Select the check-box and click Browse to select the person performing diagnostics (image size and format - 170 x48 PNG). |

| Sr. No. | Field Name                           | Description                                                                                                               |
|---------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| 5.      | Select validation person's signature | Select the check-box and click Browse to select the validation person's signature (image size and format - 170 x 48 PNG). |

**Notes:**

- You can reset report settings fields using the **Reset** button located at the bottom left of the **Report Settings** dialog box.
- The top-right logo, watermark, diagnostic person's signature, and validation person's signature must have the same size as specified in **Report Settings**. The top-left logo, footer image, and footer text are set by default. **BitRaser Hardware Diagnostics** accepts images only in the specified size and format. If the image size does not match the specified size, **BitRaser Hardware Diagnostics** continues to use the previously selected images.

5. After making the required changes to **Report Settings**, click **OK** to save.

## 4.3.2. SAVE REPORT

**BitRaser Hardware Diagnostics** provides user with the option to save report and log information with it. The report can be saved in different formats like **PDF**, **CSV**, and **XML**.

**Note:** Insert an external storage device like a **pen drive** to save the report.

### What Information Report Contains

A report saves information about the diagnostic process. All the information about the errors in the components, their presence in the PC, vendor, model, etc., is documented in the Report.

### What Information Log Contains

**Log Report** stores the information about the diagnostic process of the components in

encrypted form, which users can save to an external storage device.

In this section, you will learn how to save the report and log information.

### Steps to save BitRaser Hardware Diagnostics report:

1. Run **BitRaser Hardware Diagnostics**.
2. On the main screen, select **Report** tab. The screen appears as shown below:

**BitRaser**  
HARDWARE DIAGNOSTICS

Component Test | Test Details | **Report**

**Report**

**Report Information**  
 Report ID: 3424  
 Digital Identifier: e0f52bdb9e90661e86682a9875b4bf6f

**Customer Details**  
 Customer Name:  
 Customer Address:

**Summary**  
 Total Test: 21  
 Test Performed: 10  
 Start Time: August 27, 2026 13:10:07 IST  
 Duration: 00:19:06

Report Date: August 27, 2026 14:28:45 IST  
 Software Version: BitRaser Hardware Diagnostics 1.0.0.4

Test Passed: 10  
 Test Failed: 0  
 End Time: August 27, 2026 13:29:13 IST  
 Status: Completed

| Test             | Test Type | Part Exists | Tested | Result | Error Found |
|------------------|-----------|-------------|--------|--------|-------------|
| <b>CPU:</b>      | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>Memory:</b>   | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>Battery:</b>  | Auto      | No          | No     | N/A    | 0           |
| <b>Storage:</b>  | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>Ethernet:</b> | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>GPU:</b>      | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>Monitor:</b>  | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>CMOS:</b>     | Auto      | Yes         | Yes    | Pass   | 0           |

Report Settings | Export | Save

3. Click on **Save** button located at the bottom-right corner of the screen.
4. A **BitRaser Hardware Diagnostics** dialog box appears as shown below.

**BitRaser Hardware Diagnostics**

Save Report | Save Log

Select Report Format:

☒ PDF ☐ CSV ☐ XML

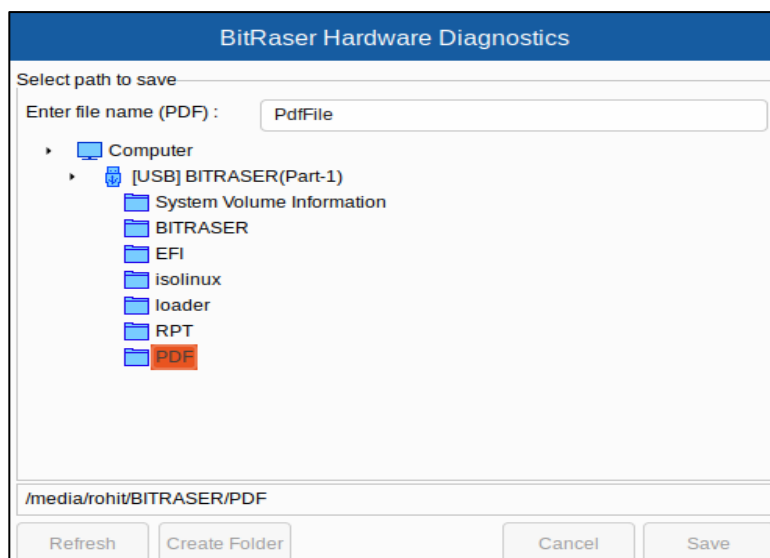
Select destination path :  **Browse**

☐ Generate detailed report instead of short report  
☐ Generate Individual Drive Report

**OK** **Cancel**

5. Click on **Save Report** tab.

6. Select the format in which you want to save the report: **PDF**, **CSV**, or **XML**.
7. Click on **Browse**. The screen appears as shown below:



8. Enter the file name and select the destination folder on the media device where you want to save the file.

**Notes:**

- Check **Generate detailed report instead of short report** option to generate a detailed diagnostic report instead of a short report.
- If you want to generate an individual drive report, select **Generate Individual Drive Report** checkbox.
- Use **Refresh** button to refresh the list of media connected to the computer; click **Create Folder** button to create a new folder at the destination you selected.

9. Click **Save**. Click OK, and the report will be saved.

**Note:** If you have **BitRaser Hardware Diagnostics** licenses on **BitRaser cloud**, the report is sent to **BitRaser server** once the diagnostic process is completed. Make sure your internet connection is active.

## Steps to save the Log Report

1. Run **BitRaser Hardware Diagnostics**.
2. On the main screen, select the **Report** tab. The screen appears as shown below:

**BitRaser**  
HARDWARE DIAGNOSTICS

Component Test | Test Details | **Report**

**Report**

**Report Information**  
 Report ID: 3424  
 Digital Identifier: e0f52bdb9e90661e86682a9875b4bf6f

**Customer Details**  
 Customer Name:

**Summary**  
 Total Test: 21  
 Test Performed: 10  
 Start Time: August 27, 2026 13:10:07 IST  
 Duration: 00:19:06

**Report Date:** August 27, 2026 14:28:45 IST  
**Software Version:** BitRaser Hardware Diagnostics 1.0.0.4

**Customer Address:**

**Test Passed:** 10  
**Test Failed:** 0  
**End Time:** August 27, 2026 13:29:13 IST  
**Status:** Completed

| Test             | Test Type | Part Exists | Tested | Result | Error Found |
|------------------|-----------|-------------|--------|--------|-------------|
| <b>CPU:</b>      | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>Memory:</b>   | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>Battery:</b>  | Auto      | No          | No     | N/A    | 0           |
| <b>Storage:</b>  | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>Ethernet:</b> | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>GPU:</b>      | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>Monitor:</b>  | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>CMOS:</b>     | Auto      | Yes         | Yes    | Pass   | 0           |

Report Settings | Export | Save

3. Click on **Save** button located at the bottom right of the screen. A **BitRaser Hardware Diagnostics** dialog box appears as shown below.

**BitRaser Hardware Diagnostics**

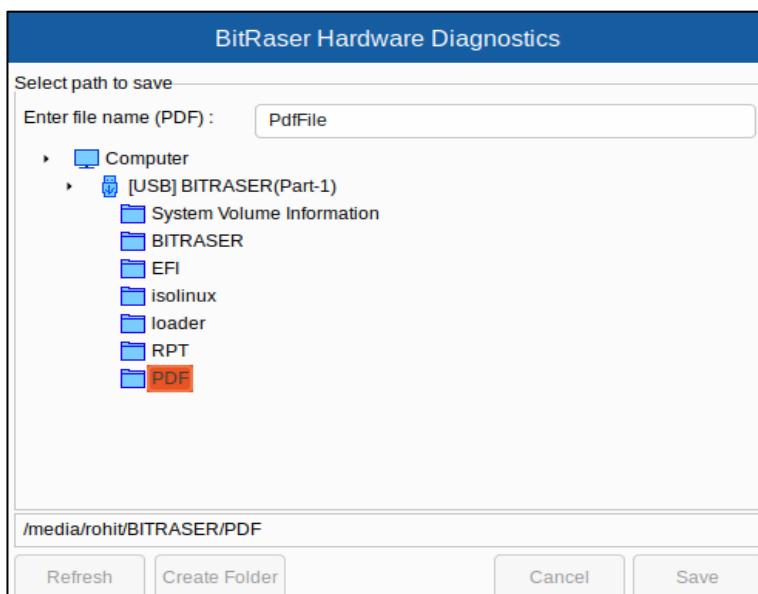
Save Report | **Save Log**

Select path to save log :  
 **Browse**

**OK** **Cancel**

4. Select **Save Log** tab.

- Click on **Browse**. The screen appears as shown below:



- Enter the file name and select the destination folder on the media device where you want to save the file.

**Note:** Use **Refresh** button to refresh the list of media connected to the computer and **Create Folder** to create a new folder at the destination you selected.

- Click **Save** to continue.
- Click **OK**, and the log file will be saved on the storage device.

### 4.3.3. EXPORT REPORT

With **BitRaser Hardware Diagnostics**, you can send the report manually to cloud server. There are two ways to send the report to the server: you can either send the report directly to cloud, or you can export it to an external storage device and then import it to cloud server. In this section, both methods are explained in detail.

#### Steps to export BitRaser Hardware Diagnostics Report:

- Run **BitRaser Hardware Diagnostics**.

- On the main screen, select **Report** tab. The screen appears as shown below:

**BitRaser**  
HARDWARE DIAGNOSTICS

Component Test | Test Details | **Report**

**Report**

**Report Information**  
 Report ID: 3424  
 Digital Identifier: e0f52bdb9e90661e86682a9875b4bf6f

**Customer Details**  
 Customer Name:

**Summary**  
 Total Test: 21  
 Test Performed: 10  
 Start Time: August 27, 2026 13:10:07 IST  
 Duration: 00:19:06

**Report Date:** August 27, 2026 14:28:45 IST  
**Software Version:** BitRaser Hardware Diagnostics 1.0.0.4

**Test Passed:** 10  
**Test Failed:** 0  
**End Time:** August 27, 2026 13:29:13 IST  
**Status:** Completed

| Test             | Test Type | Part Exists | Tested | Result | Error Found |
|------------------|-----------|-------------|--------|--------|-------------|
| <b>CPU:</b>      | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>Memory:</b>   | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>Battery:</b>  | Auto      | No          | No     | N/A    | 0           |
| <b>Storage:</b>  | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>Ethernet:</b> | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>GPU:</b>      | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>Monitor:</b>  | Auto      | Yes         | Yes    | Pass   | 0           |
| <b>CMOS:</b>     | Auto      | Yes         | Yes    | Pass   | 0           |

Report Settings | Export | Save

- Click on **Export** located at the bottom right of the screen.
- Browse to the destination to export the report; the following options are available:

### Send to cloud server

(Applicable only if you have licenses on BitRaser cloud) – This option allows you to send the report to **BitRaser Server** manually. To send reports, select **Send to cloud server** radio button and click **Send** button.

**BitRaser Hardware Diagnostics**

Select destination

☒ Send to cloud server ☐ Export to media

Send Cancel

**Note:** Once the process is completed, the report is automatically sent to the **BitRaser Server** after the licenses are fetched.

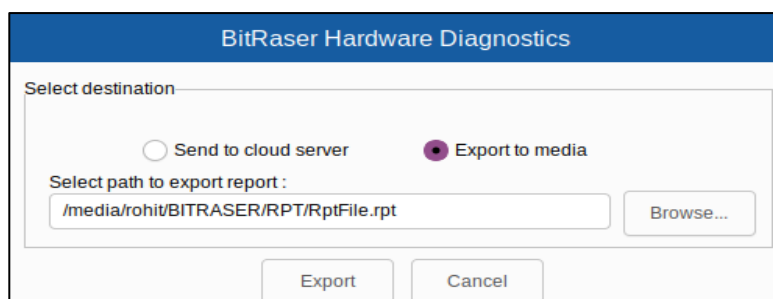
The  icon in the bottom-right corner of the report under **Report** Tab indicates that the report has been successfully sent to **cloud server**.

## Export to media

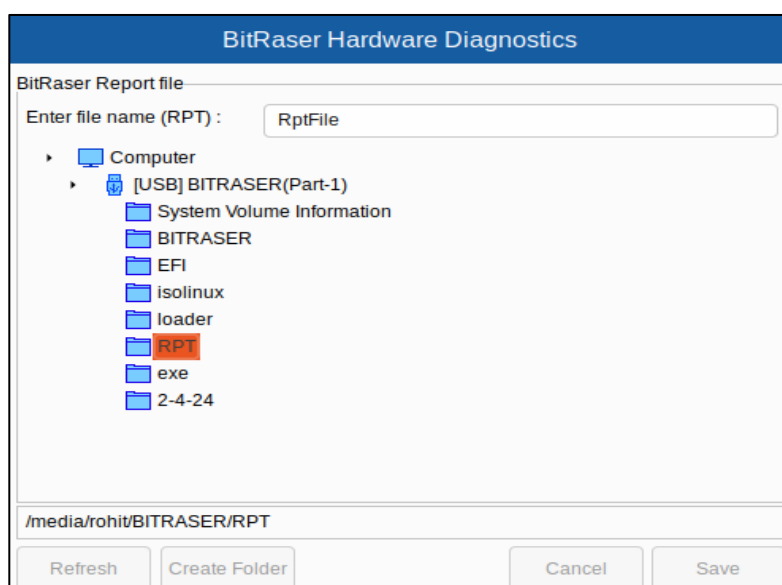
This option allows you to export the report to media device in RPT format. Follow the steps as shown below:

1. Select **Export to media** button.

**Note:** For the **BitRaser Hardware Diagnostics** edition with licenses on a lock key (USB), if you want to transfer the report to **BitRaser Cloud Console**, select **Export to media** option.



2. Click **Browse** to 'Select path to export report'.



3. Enter the filename for **RPT** file in the field provided and select the destination folder where you wish the file to be saved.

**Note:** Use **Refresh** button to refresh the list of media connected to the computer and **Create Folder** button to create a new folder at the destination you selected.

4. Click **Save** to continue.
5. Click **Export** to save the report at the selected destination.

For information about importing report from media device to **BitRaser cloud console**, refer to [Import Report to Cloud](#).

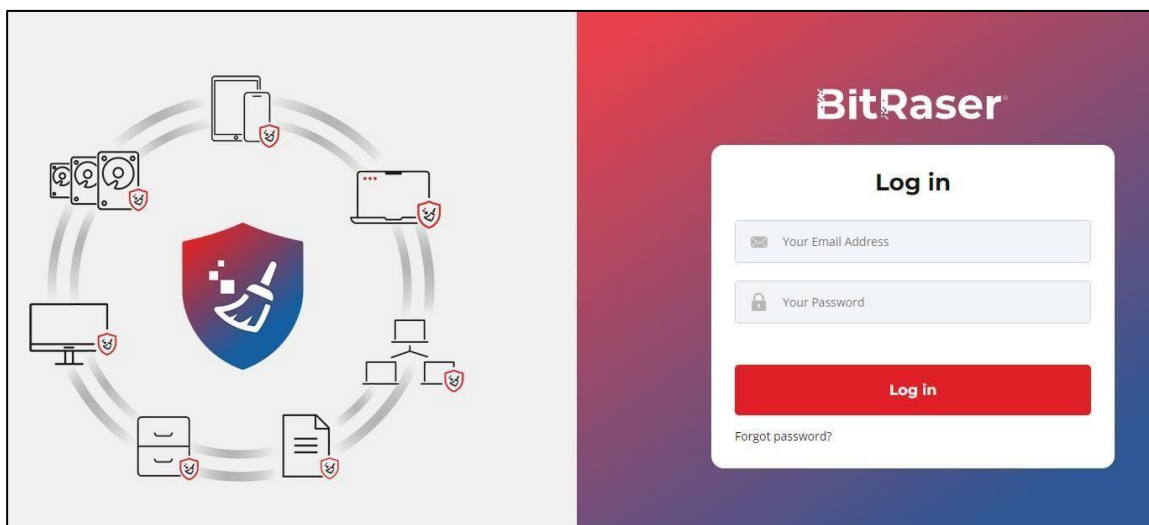
### 4.3.4. IMPORT REPORT TO CLOUD

The report exported to the media device is imported to the **BitRaser cloud** server manually. In this section, you will get an overview of how the report is imported to the cloud console.

**Note:** To know how to export the report to the cloud and media device, refer to [Export Report](#).

**Steps to import the report to the BitRaser cloud console:**

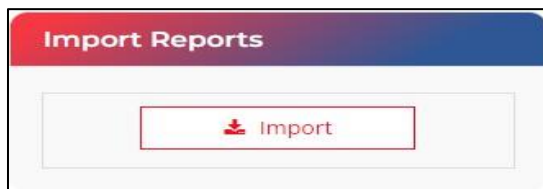
1. Log in to the **BitRaser cloud** application via email address and password.



**Note:** The email address and the password are provided to the user upon the purchase of the software.

2. On the main screen, click on the **Show List** button on the top right side of the main screen.

3. A screen appears with options like "**Available License**", "**My last Recharge**", "**Import Reports**", and "**Consumed License**". Click on **Import** under **Import Reports**.



4. **Import Report** dialog box appears. Click **Choose File** button.
5. Choose the report you exported from the media device. Click on **Import**.
6. Once the report is imported, an alert box appears with the message **Import done successfully**.
7. This will redirect you to BitRaser Hardware Diagnostics Reports. Click **OK**.
8. The report is imported successfully.

## 4.4. PERFORM SYSTEM CONFIGURATION

---

**BitRaser Hardware Diagnostics** enables the user to configure various system settings with the help of the Settings option available at the top right corner of the screen. This window contains various tabs that can be accessed to change various general and default settings of the software. Setting these configurations is either mandatory for setting up the application or for the ease of using the application. The following tabs are used to configure the settings:

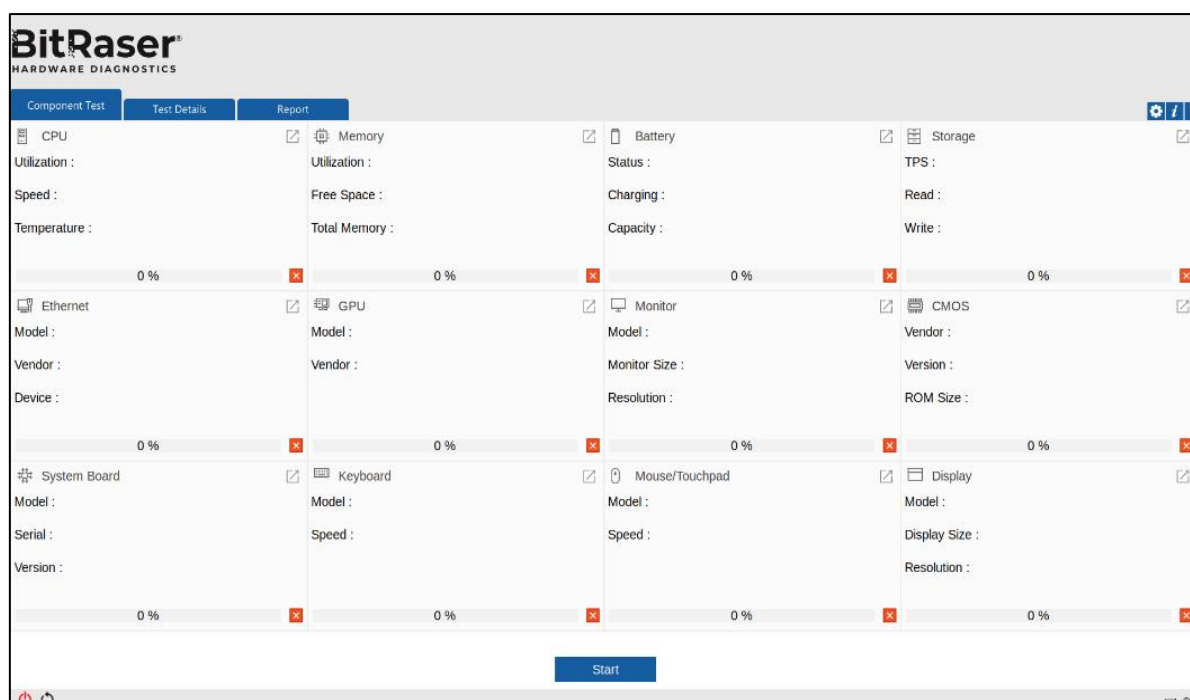
- 4.4.1. [General Settings](#)
- 4.4.2. [Test Settings](#) (Applicable only if you have licenses on BitRaser cloud)
- 4.4.3. [BitRaser Server Settings](#) (Applicable only if you have licenses on BitRaser cloud)
- 4.4.4. [Network Settings](#) (Applicable only if you have licenses on BitRaser cloud)
- 4.4.5. [Proxy Settings](#) (Applicable only if you have licenses on BitRaser cloud)
- 4.4.6. [ERP Services](#) (Applicable only if you have licenses on BitRaser cloud)

## 4.4.1. GENERAL SETTINGS

The **General Settings** tab allows the user to configure some very basic details that are needed in diagnostics process of the components, like the keyboard layout settings and detailed diagnostic report of the health of components.

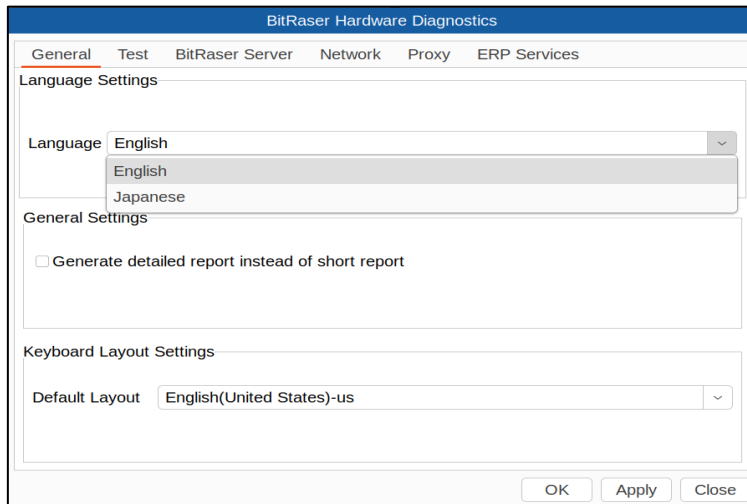
### Steps to Configure General Settings:

1. Run **BitRaser Hardware Diagnostics**. The main screen appears as shown below:



2. Then, click on  **Settings** in the top right corner of the main screen. **BitRaser Hardware Diagnostics** screen appears.

3. Click on **General** tab.



**General Settings:**

- **Language Settings:** Click the **Language** drop-down and select **English** or **Japanese** to change the language of the **BitRaser Hardware Diagnostics** user interface.
- **Generate Detailed Report Instead of Short Report** – Check this field to generate a diagnostic report where health information of each component currently present in the system is explained in detail.
- **Keyboard Settings** - Click **Default layout** drop-down and select the language without changing the language that **BitRaser Hardware Diagnostics** is using on the screen. Changing the keyboard layout settings helps you access accent marks and other specialized characters, or for typing on a keyboard with a different language layout.

The following keyboard Layouts are available with **BitRaser Hardware Diagnostics**:

- Belgian (Belgium) - be
- Chinese (China) - cn
- Danish (Denmark) - dk
- Dutch (Netherlands) - nl

- English (United Kingdom) - gb
- English (United States) - us
- Finnish (Finland) - fi
- French (France) - fr
- French (Canada) - ca
- French (Switzerland) - ch\_fr
- German (Germany) - de
- German (Switzerland) - ch
- Hungarian (Hungary) - hu
- Italian (Italy) - it
- Japanese (Japan) - jp
- Korean (Korea) - kr
- Norwegian (Norway) - no
- Polish (Poland) - pl
- Portuguese (Portugal) - pt
- Portuguese (Brazil) - br
- Spanish (Spain) - es
- Spanish Latam (Latin American) - latam
- Slovak (Slovakia) - sk
- Swedish (Sweden) - se

## 4.4.2. TEST SETTINGS

**BitRaser Hardware Diagnostics** provides you with the option to perform quick and advanced functionality checks on the components currently present in the system. In this section, both tests are explained in detail.

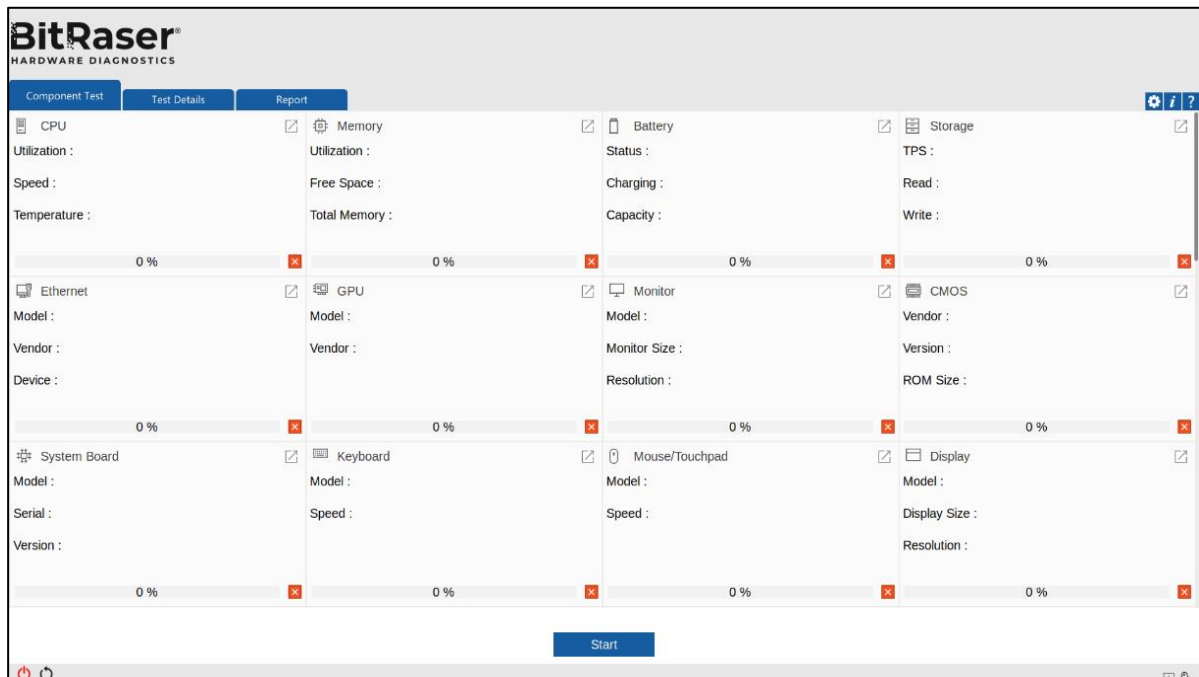
### What are Quick and Advanced tests?

**Quick Test** - It is a diagnostic process that analyses and assesses errors in components in a shorter period of time. It quickly identifies the hardware failures that affect the functionality of the system.

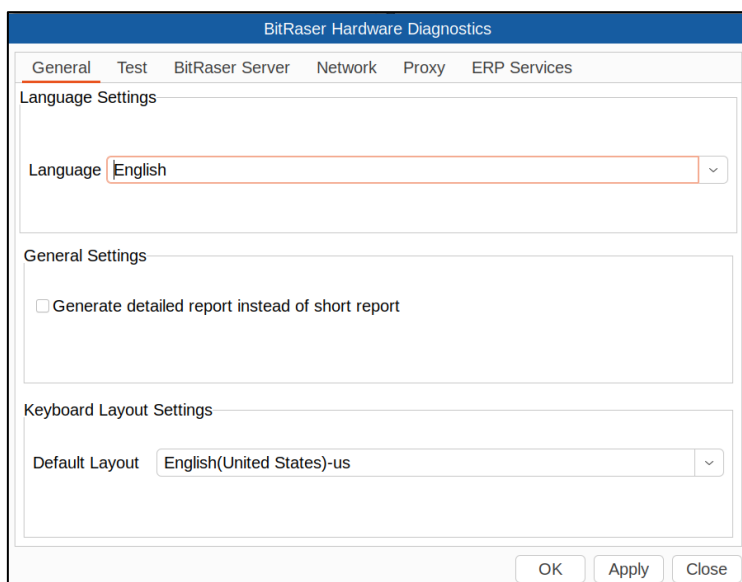
**Advanced Test** - It is a diagnostic process that performs a deep level of analysis of the components over a longer period of time. It executes comprehensive scanning to identify any complex hardware-related issues.

### Steps to perform Quick Testing on the components:

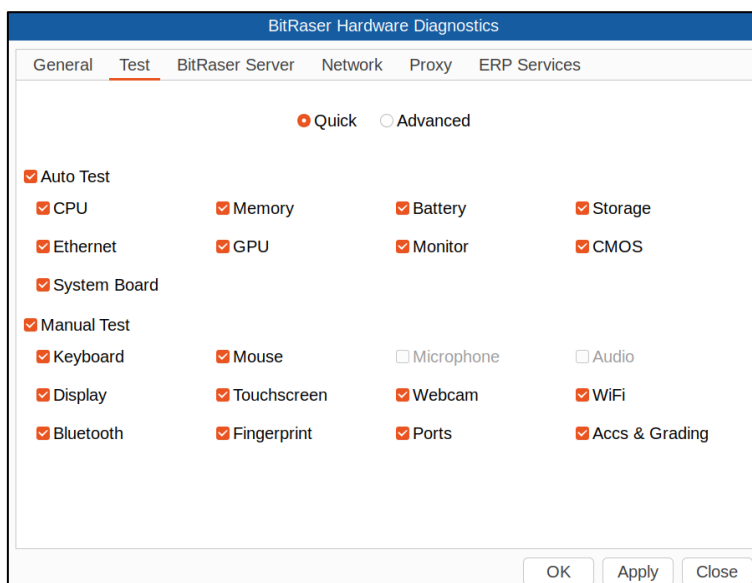
1. Run **BitRaser Hardware Diagnostics**. The main screen appears as shown below:



- Click  **Settings** in the top-right corner of the main screen. The **Settings** window appears.



- Select **Test** tab.



- The **Test** tab provides two options to perform testing on the components: [Quick](#) and [Advanced](#).
- Select the **Quick** Radio Button.
- A screen appears with two options:
  - Auto Test** - Use this option to check all the components for auto- diagnosis.
  - Manual Test** - Use this option to check all the components for manual diagnosis.

### Notes:

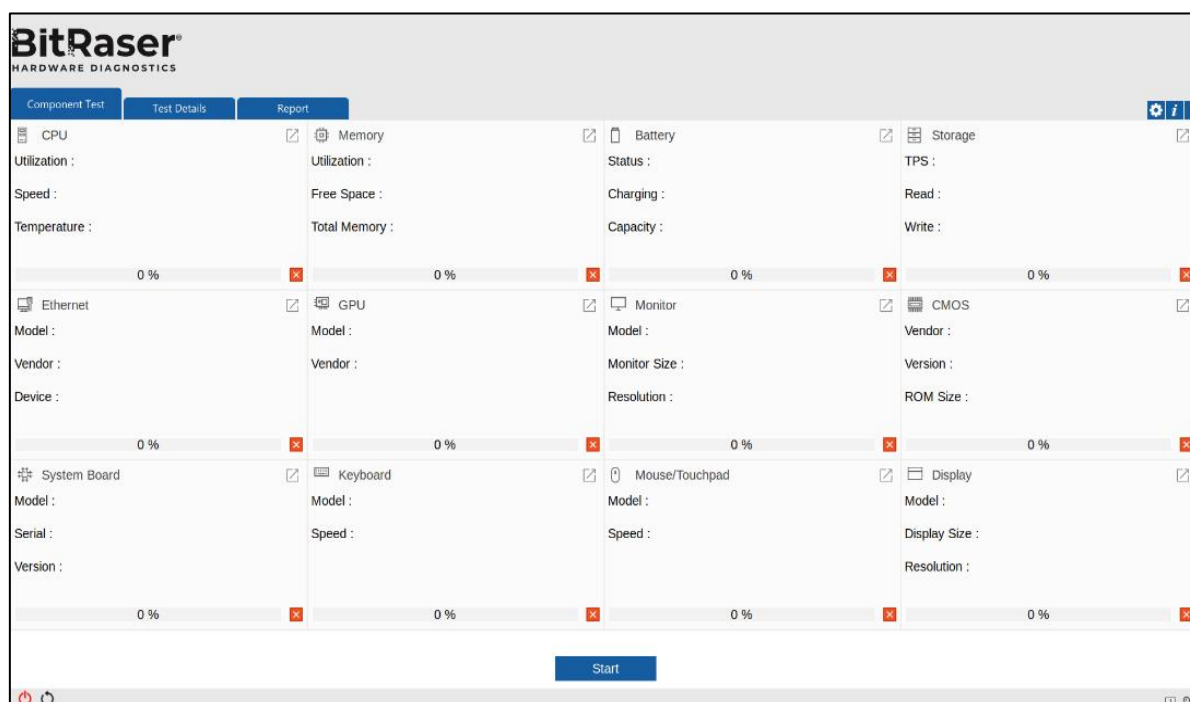
- All the components currently not present in the system are shown as disabled.
- You can also check the components individually if you don't wish to scan all the components.

7. Click **Apply** to save the information.

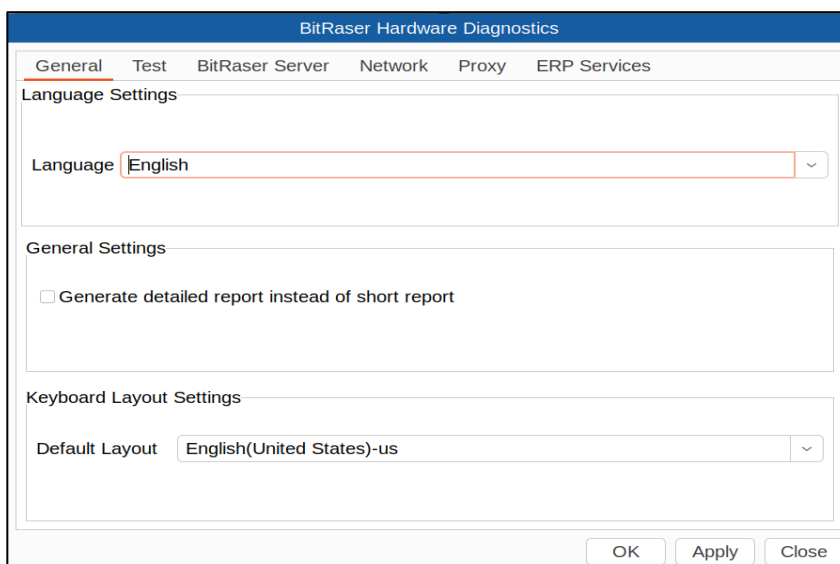
8. Click **OK** to finish the process.

### Steps to perform Advanced Testing on the components:

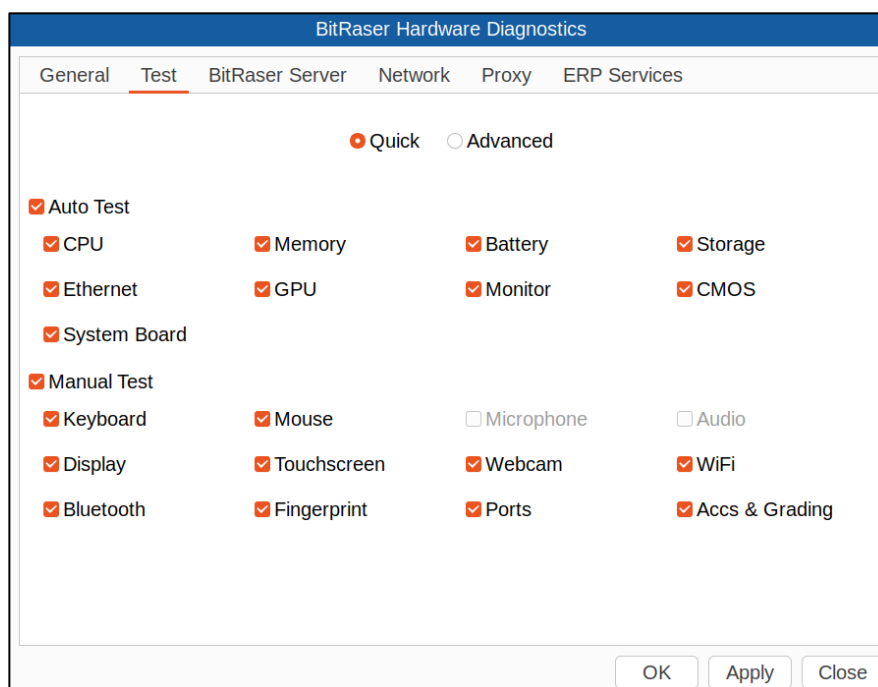
1. Run **BitRaser Hardware Diagnostics**. The main screen appears as shown below:



- Click on  **Settings** in the top-right corner of the main screen. The **Settings** window appears.

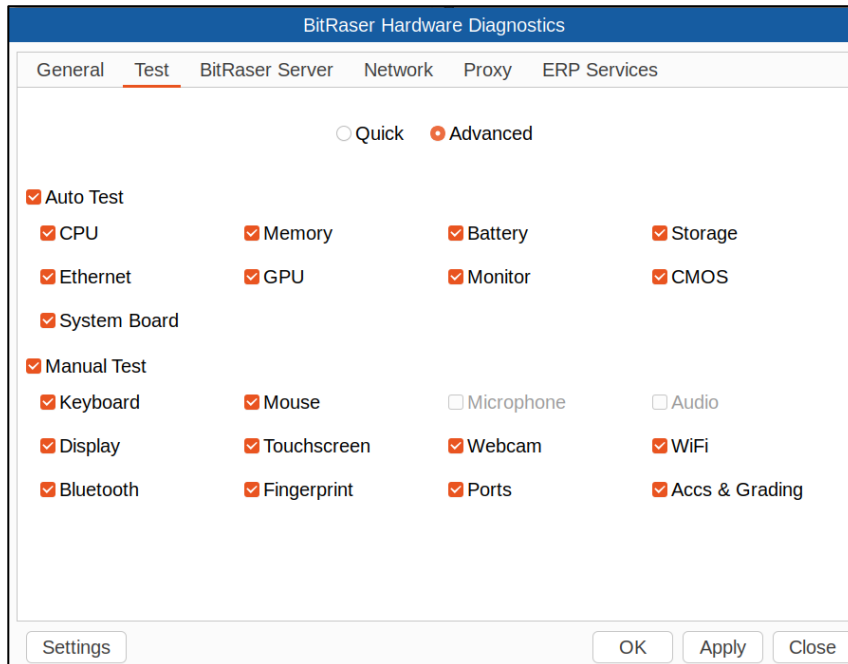


- Select **Test** tab.



- The tab provides two options to perform testing on the components: [Quick](#) and [Advanced](#).

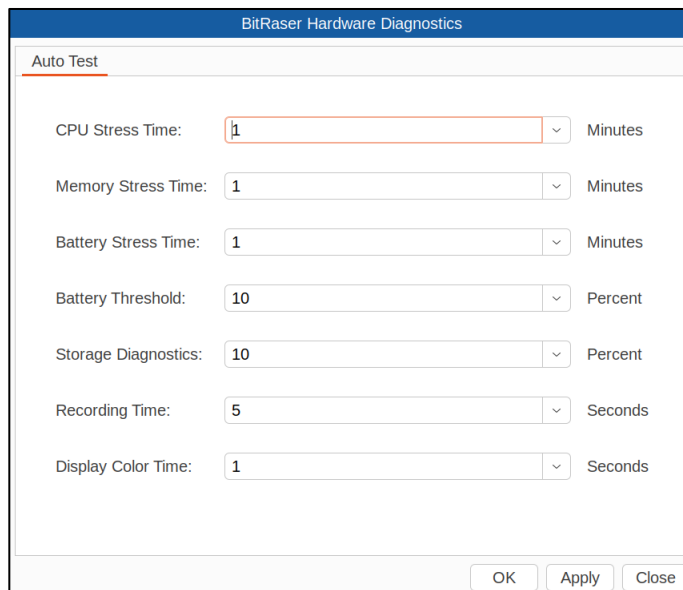
5. Select **Advanced** radio button.



The screenshot shows the 'Test' tab of the BitRaser Hardware Diagnostics window. At the top, there are two radio buttons: 'Quick' (unselected) and 'Advanced' (selected). Below this, there are two main sections: 'Auto Test' and 'Manual Test'. The 'Auto Test' section includes checkboxes for CPU, Memory, Battery, Storage, Ethernet, GPU, Monitor, CMOS, and System Board, all of which are checked. The 'Manual Test' section includes checkboxes for Keyboard, Mouse, Microphone, Audio, Display, Touchscreen, Webcam, WiFi, Bluetooth, Fingerprint, Ports, and Accs & Grading. Most of these are checked, except for Microphone and Audio which are unchecked. At the bottom of the window, there are three buttons: 'Settings', 'OK', 'Apply', and 'Close'.

6. Click on **Settings** button at the bottom-left corner of the **BitRaser Hardware Diagnostics** window.

**A window appears with the following options:**



The screenshot shows the 'Auto Test' settings window. It contains several configuration options, each with a text input field and a unit label: 'CPU Stress Time' (1 Minutes), 'Memory Stress Time' (1 Minutes), 'Battery Stress Time' (1 Minutes), 'Battery Threshold' (10 Percent), 'Storage Diagnostics' (10 Percent), 'Recording Time' (5 Seconds), and 'Display Color Time' (1 Seconds). At the bottom of the window, there are three buttons: 'OK', 'Apply', and 'Close'.

- (i) **CPU Stress Time:** Time duration for which CPU is under maximum load.
- (ii) **Memory Stress Time:** Time duration for testing the memory under maximum load.
- (iii) **Battery Stress Time:** Time duration for testing the battery under maximum usage.

(iv) **Battery Threshold:** The percentage set as the minimum limit for battery testing.

If the battery falls below the minimum, the system marks it as Fail.

(v) **Storage Diagnostics:** Checks the drive for errors and performance issues. Select the amount of storage you want to diagnose. By default, 10% is selected. You can select up to 100%, in 10% increments.

(vi) **Recording Time:** Time duration for testing the recording time of the system.

(vii) **Display Color Time:** Time duration for which display color settings remain active before changing to default.

**Notes:** *Manual tests such as keyboard, Mouse, Wi-Fi, and Bluetooth tests run automatically.*

- **Keyboard** - *The test is automatically passed when all keys are pressed successfully.*
- **Mouse** - *The test is completed automatically upon detecting movement and button clicks.*
- **Wi-Fi** - *The test runs automatically by scanning for available networks and confirming connectivity.*
- **Bluetooth** - *The test is passed once the system detects nearby Bluetooth devices and successfully connects.*

7. Use the drop-down menu opposite the device's Advanced **settings** to modify the scan time for each component.
8. Click **Apply** to save the information.
9. Click **OK** to finish the process.

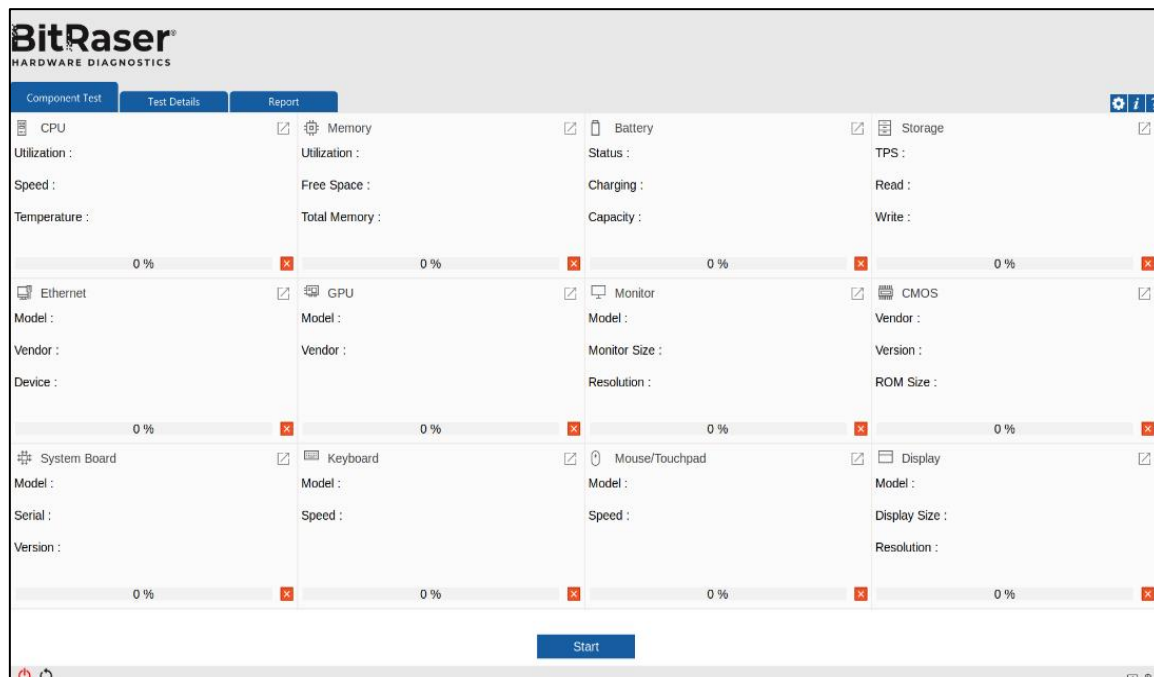
### 4.4.3. BITRASER SERVER SETTINGS

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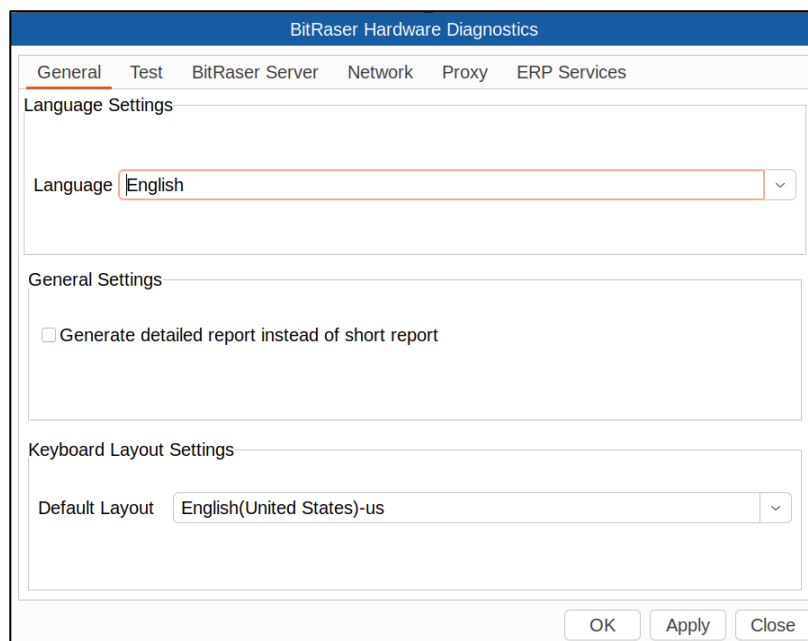
To obtain the **BitRaser Hardware Diagnostics** licenses for the diagnostic process, connect the **BitRaser Hardware Diagnostics** application to the **BitRaser Server**. This section comprises the entire procedure for connecting to cloud console.

## Steps to connect the BitRaser Server:

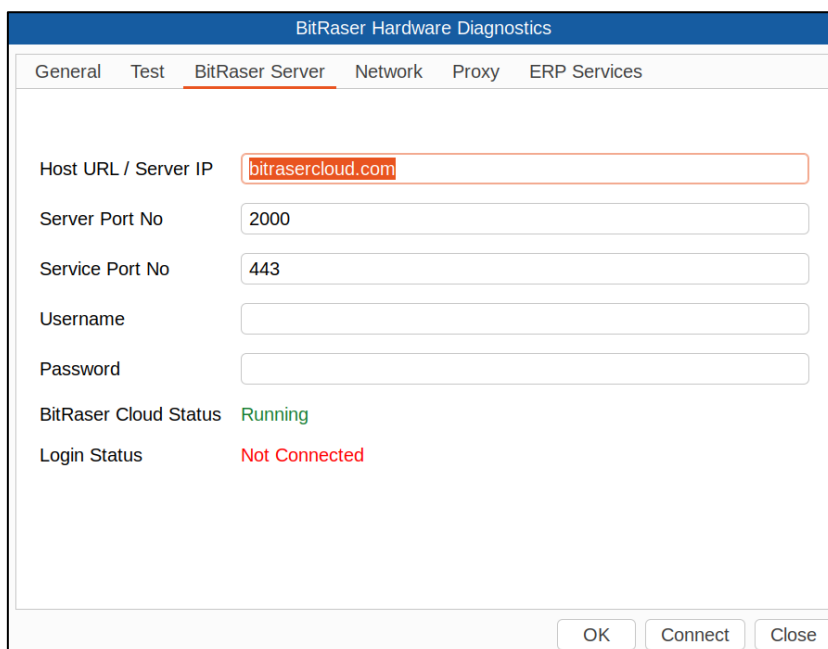
1. Run **BitRaser Hardware Diagnostics**. The main screen appears as shown below.



2. Click on  **Settings** in the top-right corner of the main screen. The **Settings** window appears.



3. Select **BitRaser Server** tab. This tab has the following details to be filled in:



BitRaser Hardware Diagnostics

General Test **BitRaser Server** Network Proxy ERP Services

Host URL / Server IP

Server Port No

Service Port No

Username

Password

BitRaser Cloud Status Running

Login Status Not Connected

OK Connect Close

**Note:** *BitRaser Cloud Status* shows **"No Response"** when **BitRaser Cloud Server** is not accessible from your network; otherwise, it shows **Running**.

| Sr. No. | Field Name                | Description                                                        |
|---------|---------------------------|--------------------------------------------------------------------|
| 1.      | <b>Host URL/Server IP</b> | It is the URL address where the BitRaser Cloud Console is located. |
| 2.      | <b>User Name</b>          | It is the username used to log in to the BitRaser Cloud Console.   |
| 3.      | <b>Password</b>           | It is the password used to log in to the BitRaser Cloud Console.   |

**Note:** The server (**Server Port No**) is listening on port **2000** and providing **HTTPS service (Service Port No)** on port **443** to establish secure communication. These fields are disabled and cannot be modified.

4. After filling in the above details. Click **Connect**.

5. If the application is successfully logged in to the BitRaser Server, the **Login Status** shows **Connected**. If the login is unsuccessful, the **Login Status** shows **Not Connected**.

The screenshot shows the 'BitRaser Hardware Diagnostics' application window with the 'BitRaser Server' tab selected. The window contains the following fields and status indicators:

| Field                 | Value             |
|-----------------------|-------------------|
| Host URL / Server IP  | bitrasercloud.com |
| Server Port No        | 2000              |
| Service Port No       | 443               |
| Username              | iron@gmail.com    |
| Password              | .....             |
| BitRaser Cloud Status | Running           |
| Login Status          | Connected         |

At the bottom right, there are three buttons: 'OK', 'Connect', and 'Close'.

**Note:** If the **Login Status** shows **Not Connected**, check if the details entered are correct and try again.

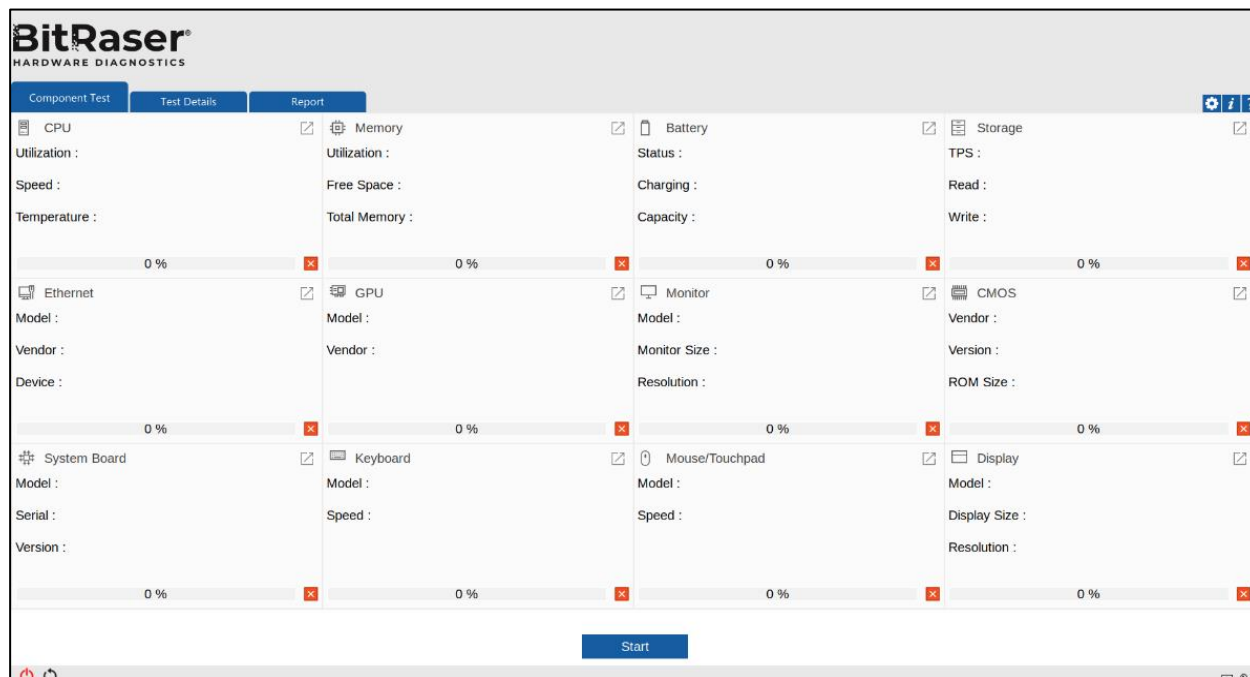
6. Click **OK** to finish the process.

#### 4.4.4. NETWORK SETTINGS

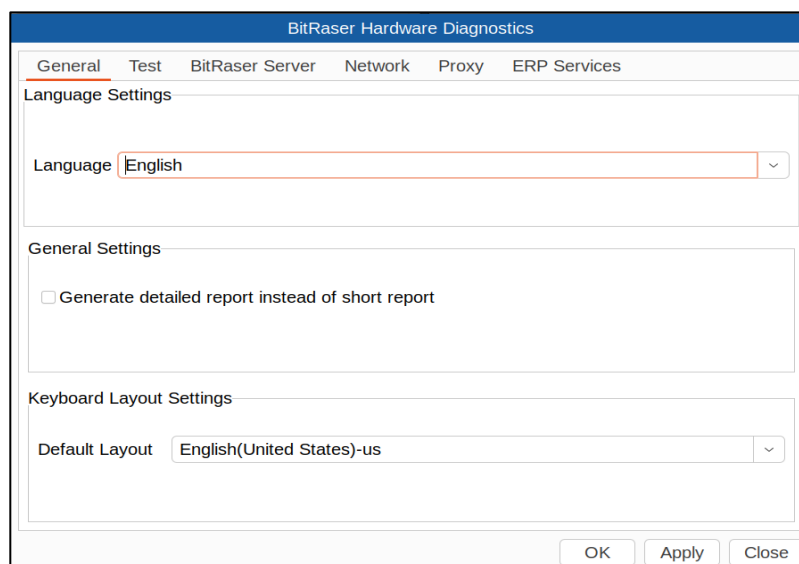
Once the **BitRaser Hardware Diagnostics** application starts, connect it to the internet to fetch license information and generate a hardware diagnostics report.

## Steps to connect to the internet:

1. Run **BitRaser Hardware Diagnostics**. The main screen appears as shown below:



2. Click on  **Settings** in the top right corner of the main screen. The **Settings** window appears.



3. Select **Network** tab. This tab has the following options to connect to the internet.

- [Ethernet](#)
- [Wireless](#)

**Note:** The **Wireless** option will only be available if you have a

wireless network card installed on your computer.

- **Ethernet:** This option has the following fields:

- **Interface:** Click the drop-down button to select the device with which you wish to connect the **BitRaser Hardware Diagnostics** to the internet.
- **Configuration:** Click the drop-down button to select either Automatic (DHCP) or Manual Internet Protocol (IP) configuration as network management protocol.
  1. **Automatic (DHCP) Configuration** - This configuration is selected by default. It fetches the IP address and other details automatically and fills in all the required fields.
  2. **Manual Configuration** - The network settings of each device are configured manually. These are the following fields must be filled:
    - **IP Address:** In the given field, enter the IP address provided by your network administrator. Further, enter the Subnet Mask in the field below it.
    - **Subnet Mask:** In the given field, enter the subnet mask (subnetwork).
    - **Gateway:** In this field, enter the network's gateway IP address.
    - **Primary DNS:** In this field, enter the network's primary DNS IP address.

- **Secondary DNS:** In this field, enter the network's secondary DNS IP address.
- **Wireless:** This option has the following fields:

- **Interface:** Click on the drop-down menu to select the interface device you wish to use for wireless network connection.
- **SSID Name:** Click on the SSID Name drop-down menu to select the Wi-Fi network you wish to connect to.

**Note:** Click **Scan** next to **SSID Name** field if the required Wi-Fi network is not listed.

- **Password:** Enter the password of the wireless network you connected to.

**Note:** You will not see any network in the **SSID Name** drop-down menu if the wireless adapter is switched off or is not configured correctly.

- After filling the above details, click Connect. Configured DHCP/ Network / Wi-Fi connection message appears, showing that settings have been configured.
- Check the internet connectivity by clicking the **Check Internet status** button.
- If the application is successfully connected to the internet, the **Network Status** shows **Connected**. If the connection is unsuccessful, the Network Status shows **Delay in response**. Check the status again.

**Notes:**

- If **Network Status** shows Delay in response, check the **Status** again.
- Check if the LAN cable is properly connected to your computer while using Ethernet.
- Check if the details you have entered are correct.

7. Click **OK** to finish the process.

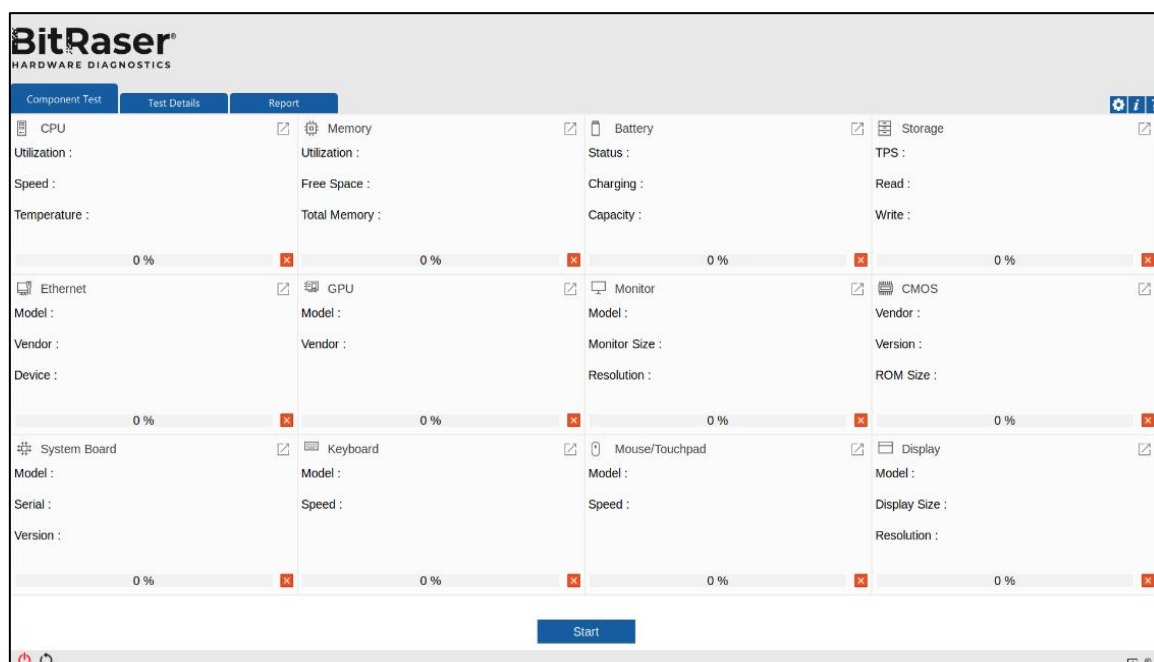
**Note:** If you wish to connect to the internet using a proxy, refer to [Proxy Settings](#).

## 4.4.5. PROXY SETTINGS

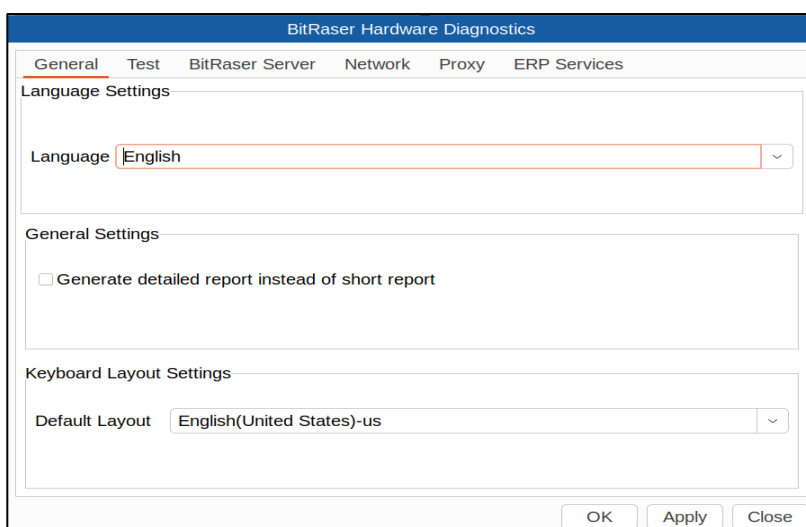
**BitRaser Hardware Diagnostics** provides proxy settings to bypass the network restrictions. Add all the proxy details and then connect to the network to use the application.

### Steps to connect to a Proxy:

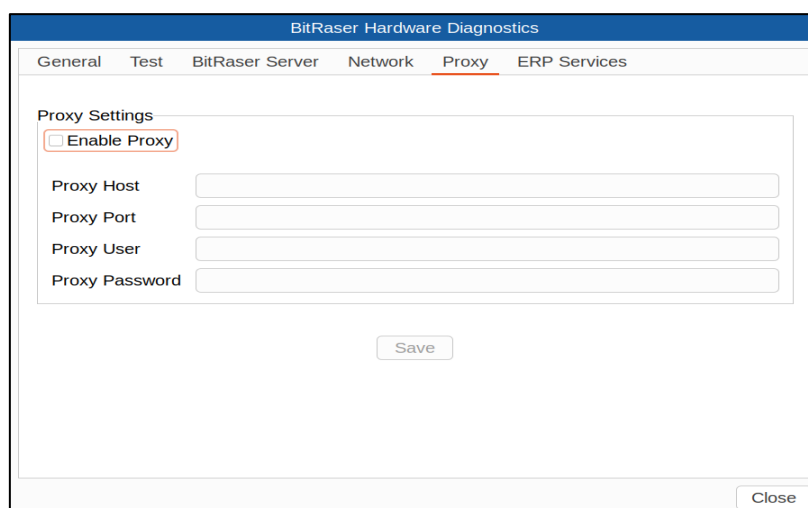
1. Run **BitRaser Hardware Diagnostics**. The main screen appears as shown below:



2. Click on  **Settings** in the top right corner of the main screen. The **settings** window appears.



3. Select **Proxy** tab.



4. Check the **Enable Proxy** checkbox.

**Note:** If you are connected to the internet, selecting **Enable Proxy** will disconnect to the internet.

The following fields are required to be filled:

| Sr. No. | Field Name | Description                                    |
|---------|------------|------------------------------------------------|
| 1.      | Proxy Host | Enter the IP address of the proxy server.      |
| 2.      | Proxy Port | Enter the port no. that the proxy server uses. |

| Sr. No. | Field Name     | Description                                          |
|---------|----------------|------------------------------------------------------|
| 3.      | Proxy User     | Enter the proxy user name.                           |
| 4.      | Proxy Password | Enter the authentication password of the proxy user. |

5. Click **Save** to save the entered proxy server details.
6. Use the [Network tab](#) to connect to the internet with the saved proxy details.

### **4.4.6. ERP SERVICES**

ERP (Enterprise Resource Planning) refers to integrated software systems that help organizations manage and automate key business functions, including finance, HR, manufacturing, supply chain, procurement, inventory, and CRM. By centralizing data, ERP systems provide real-time access to information across departments, improving efficiency and decision-making.

ERP systems integrate business functions, automate tasks like payroll and inventory, and provide data analytics for better decision-making. They are customizable to business needs and scalable for growing with the company.

**BitRaser Hardware Diagnostics** supports integration with **Makor-2.0**. Fill in the required details to connect and import the reports to your preferred server.

## Makor 2.0

The screenshot shows the 'ERP Services' tab in the BitRaser Hardware Diagnostics application. The tab is selected and underlined. The interface includes several dropdown menus and text input fields. The 'Select ERP' dropdown is set to 'Makor-2.0'. The 'Select Data Transfer Type' dropdown is set to 'Rest API'. The 'Select Sync Erasure Status' dropdown is set to 'After completion of process'. Below these are text input fields for 'ERP URL / Server IP', 'Client ID', 'Scope', and 'Client Secret'. At the bottom of the form, there are two status indicators: 'ERP Status' with the message 'URL must be provided.' and 'Login Status' with the message 'Not Connected'. At the bottom right of the window, there are three buttons: 'OK', 'Connect', and 'Close'.

| BitRaser Hardware Diagnostics                                          |                             |
|------------------------------------------------------------------------|-----------------------------|
| General   Test   BitRaser Server   Network   Proxy <u>ERP Services</u> |                             |
| Select ERP                                                             | Makor-2.0                   |
| Select Data Transfer Type                                              | Rest API                    |
| Select Sync Erasure Status                                             | After completion of process |
| ERP URL / Server IP                                                    |                             |
| Client ID                                                              |                             |
| Scope                                                                  |                             |
| Client Secret                                                          |                             |
| ERP Status                                                             | URL must be provided.       |
| Login Status                                                           | Not Connected               |

OK   Connect   Close

## 5. FREQUENTLY ASKED QUESTIONS (FAQs)

### 1. What is Hardware Diagnostics?

It is the process of checking the health and functionality of the components of a PC. A scan is run on each component to check whether it is working properly or not. Then, a diagnostic report is documented containing information about the errors in the component, its model, vendor, sub-vendor, etc. Users can use this tool to identify the issues in their hardware devices and resolve them at the earliest to prevent any future damage.

### 2. What is BitRaser Hardware Diagnostics, and what are its main features?

**BitRaser Hardware Diagnostics** is a PC Diagnostics tool that updates users on the information and health of the components so that early measures can be taken for the smooth operation of the system. Refer to the [Key Features](#) to learn about its main features.

### 3. What is the difference between having licenses on BitRaser Lock Key and having licenses on BitRaser cloud?

**BitRaser Hardware Diagnostics** needs access to license data for the diagnostic process. This license information is stored either on a USB device called the **BitRaser Lock Key** or in **BitRaser Cloud** with BitRaser Server. Both options are available for users at the time of purchase. The major differences are listed as follows:

| Sr. No. | Licenses on BitRaser Cloud                                                            | Licenses on BitRaser Lock Key                                                                |
|---------|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 1.      | Stores information on BitRaser Server.                                                | Stores license information on a USB device.                                                  |
| 2.      | Needs a connection to the internet and BitRaser server while running the application. | Needs the USB device to be connected physically, and an internet connection is not required. |

| Sr. No. | Licenses on BitRaser Cloud                                | Licenses on BitRaser Lock Key             |
|---------|-----------------------------------------------------------|-------------------------------------------|
| 3.      | Automatically delivers reports to BitRaser Cloud Console. | Reports need to be saved on a USB device. |
| 4.      | Cloud integration for user management                     | User management option is not available.  |

#### 4. In how many formats can I save my diagnostic report?

**BitRaser Hardware Diagnostics** allows you to save the diagnostic report in three formats. You can save your diagnostic report in PDF, CSV, or XML format.

#### 5. Does BitRaser Hardware Diagnostics support other languages?

**BitRaser Hardware Diagnostics** is currently available in **English** and **Japanese**. You can change the keyboard layout to your preferred language from **General** Settings.

#### 6. Is it possible to customize the diagnostics report?

Yes, you can customize the diagnostics report of **BitRaser Hardware Diagnostics** as per your requirement. To add details such as customer information, test and validator person details, etc., and to add custom fields, refer to Configure Test Details. To modify report settings such as logos, watermark, and validator person signature, refer to View and Customize Report.

#### 7. I want to hide the diagnostic information of some components. Is it possible?

Yes, it is possible. You can simply hide the diagnostic information of the components from the Test tab. Deselect all the components you wish to hide. Click on Apply. The main screen will appear without the diagnostic information of the components you deselected. For more information, refer to [Test Settings](#).

#### 8. How to view the tests running on the component?

**BitRaser Hardware Diagnostics** performs both automated and manual tests on

different hardware components. To view the automated tests, refer to [Auto Test](#). To view manual tests, refer to [Manual Test](#).

**9. I want to get diagnostic information of multiple drives; is it possible to do so using BitRaser Hardware Diagnostics?**

Yes, of course, you can diagnose multiple drives at the same time. When you click on  in Storage component, it will ask you which drive's information you need. Click on that particular drive to get the information.

**10. I lost my internet connection while performing diagnosis. Will the report still be saved on cloud?**

There is a possibility that the report may or may not be saved because of internet unavailability. Hence, it is recommended to manually send the report to the server. Refer to [Export Report](#) to know how to send the report to the server.

**11. I want to access settings, but when I click on it, I am only able to see the Network and Proxy tab?**

During the hardware diagnostic process, if you click on **Settings** button, you will only see the [Network](#) and [Proxy](#) tab. Hence, click on Stop Process button to stop the scanning of components, then access Settings to view other tabs in it.

## 6. LEGAL NOTICES

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**9.3. No Liability for Customer Environment.** Stellar is not responsible for issues caused by Customer's systems, data, configurations, third-party software, or use outside a Supported Environment.

**9.4. Mandatory Carve-Out.** Nothing in this Section limits liability that cannot be excluded under applicable law.

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**10.3. Data Security.** Stellar will maintain administrative, physical, and technical safeguards designed to protect the confidentiality, integrity, and availability of Customer data processed by

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**10.4. Data Storage & Handling on BitRaser Cloud Console.** If Customer uses the BitRaser Cloud Console, the Cloud Console stores and processes only system-generated outputs and metadata (e.g., device identifiers, erasure reports, certificates, logs, and license usage data) and does not store Customer business data or end-user content. Such outputs may constitute Customer-provided Confidential Information to the extent they contain information supplied by the Customer. Authentication credentials (e.g., username and email address), usage records, and reports may be stored and processed on BitRaser Cloud, which is hosted on BitRaser's approved cloud infrastructure providers.

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## 11. CONNECTIVITY

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- 11.5. Offline Variant.** The Offline variant of the Software is delivered on a USB drive along with a USB port accessible License 'Lock key'. This variant does not require any Internet connection for core functionality and does not access BitRaser Cloud Console.

## 12. TERMINATION

- 12.1. Termination for Cause.** If Customer breaches this EULA and fails to cure such breach within **thirty (30) calendar days** after receiving written notice from Stellar, Stellar may terminate this EULA. Upon termination, **all rights granted to Customer immediately cease**, including the license to use the Software, which shall stand revoked without further action.
- 12.2. Return or Destruction of Software.** Upon termination, Customer shall **return or destroy** all copies of the Licensed Software and, upon Stellar's request, provide **written certification** confirming such destruction. Failure to return or destroy the Software, or failure to provide certification, entitles Stellar to pursue **equitable relief and damages**.

## 13. JURISDICTION AND LAW

- 13.1. Governing Law and Forum.** This EULA is governed by, and will be construed in accordance with, the substantive laws applicable in the **State of Delhi, India**. The **courts at**

**Delhi, India**, shall have **exclusive jurisdiction** over any dispute arising out of or relating to this EULA, the Software, or the license granted hereunder. Customer irrevocably consents to the jurisdiction of the courts at Delhi, India.

- 13.2. Exclusions.** This EULA will not be governed by any conflict-of-law principles or by the **United Nations Convention on Contracts for the International Sale of Goods**, the application of which is expressly excluded.

## 14. GENERAL

- 14.1. Entire Agreement.** This EULA constitutes the **entire agreement** between the parties with respect to the Licensed Software and supersedes all prior or contemporaneous understandings, purchase orders, agreements, communications, or arrangements relating to its subject matter.
- 14.2. Survival.** The exclusions of warranties, limitations of liability, and any provisions that by their nature should survive, shall continue in effect after termination of this EULA. Such survival does not grant Customer any continued right to use the Licensed Software after termination.
- 14.3. Export Compliance.** Customer shall not ship, transfer, export, or use the Licensed Software in any manner prohibited by applicable export control laws, including, where applicable, the United States Export Administration Act and related regulations ("Export Laws"). All rights granted under this EULA are conditioned upon Customer's compliance with the Export Laws, and such rights are automatically forfeited upon any non-compliance.
- 14.4. Reservation of Rights.** All rights not expressly granted to Customer under this EULA are reserved by Stellar. The Licensed Software is protected by the copyright laws of India and other applicable jurisdictions. All ownership rights belong to **Stellar Information Technology Pvt. Ltd., 205 Skipper Corner, 88 Nehru Place, New Delhi 110019, India.**

- 14.5. No Third-Party Beneficiaries.** This EULA does not create any rights for, or confer any benefits upon, any third party.
- 14.6. No Waiver.** Any waiver by Stellar of a breach of this EULA shall not constitute a waiver of any other or future breach of the same or any other provision.
- 14.7. Binding Effect.** This EULA is binding upon, and inures to the benefit of, the parties and their respective successors and permitted assigns. It supersedes all prior or contemporaneous representations, discussions, undertakings, communications, agreements, advertisements, and understandings relating to the Licensed Software.
- 14.8. Amendments.** This EULA may be modified, supplemented, or amended only by a written instrument signed by an authorized officer of Stellar.

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## 7. ABOUT STELLAR

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**Stellar** is a leading data care corporation headquartered in India, with a strong presence in the USA and Europe. An ISO 9001 & ISO 27001 certified organization, Stellar specializes in Data Recovery, Data Erasure, Mailbox Conversion, and File Repair software and services.

**BitRaser is our data erasure software that helps organizations wipe drives and devices securely to maintain compliance.**

Our software products are recognized for their ease of use, innovation, and value, offering practical features to meet both specialized and broad user needs.

For over 30 years, Stellar has consistently focused on developing future-ready solutions that are unrivalled in capability and built with the core purpose of delivering comprehensive data care to consumers and enterprises worldwide.

For more information about us, please visit our corporate website [www.stellarinfo.com](http://www.stellarinfo.com) or product website [www.bitraser.com](http://www.bitraser.com).