

# PC-Doctor Service Center™ Data Sheet

PC-Doctor Service Center is the diagnostic toolkit used by repair organizations, IT professionals, system builders, recyclers, and others to troubleshoot and isolate hardware issues, and to verify system integrity on servers, desktops, notebooks and mobile devices. The Service Center Kit includes diagnostics for Windows, Android, Chrome OS, and an offline Bootable Diagnostics operating system that includes support for PCs and Intel-based Macs.

Each kit contains a bootable USB key, CD and DVD test media, loopback adapters for serial, parallel, audio, and RJ45 ports, and a professional carrying case. In addition, the Service Center Premier Kit includes a power supply tester and PCI and miniPCI POST cards with remote display.

## What's New?

- All new, smaller and faster SuperSpeed USB key
- Intel Tiger Lake, Rocket Lake, and Alder Lake support
- AMD Ryzen 5xxx topology detection
- Android 12 support
- Windows 11 support
- Improved support for Intel RST and VMD controller
- Added storage support for NVMe namespaces, Intel VROC attached NVMe drives, NVMe-specific SMART attributes, and MMC write-protected partitions
- Added audio support for Intel SST and CMedia devices
- New Vulkan-based memory testing in Windows, Bootable Diagnostics, and Chrome OS
- Diagnostic refresh – newer drivers, diagnostics and chipsets support
- And more...

## Features

### Sessions

Automatically saves system information, test results and system snapshots to the Multipurpose USB Device (MUD) or to the cloud via Service Center Remote:

- Organize by session name, ticket ID, or system
- Store test results from multiple test environments in one place as organized by your choice of session

### My Links

Create shortcuts to the most used utilities, test scripts, or websites: The first five links are added to the main application screen for easy access.

### System Snapshots

Snapshots provide a one-click solution to save a detailed system inventory on PCs, Macs, and Chromebooks. Compare two system snapshots to visually display all hardware and driver changes—great for auditing and building customer confidence.

### Reporting

Create and save professional and printable reports for your customers. Customize the report to include:

- Report header with your company information and logo
- System Information: a quick summary or a more detailed view
- Tests performed and their Pass/Fail status
- System Snapshot comparisons for PCs, Macs, and Chrome OS devices
- Print customer reports in multiple languages (English, Danish, Finnish, French, Norwegian, Portuguese, and Swedish)
- Save, view and print reports in the cloud using a free Service Center Remote account!

# Personal Computers (PCs)

## Hardware and Tests

The following information highlights key hardware support and tests. A complete list of all 400+ diagnostics is available at:

<https://www.pcdservicecenter.com/diagnostics.php>

### CPU

Support of the latest Intel and AMD chipsets.

Available testing:

- Instruction Sets – MMX, SSE, SSE2, SSE3, SSSE3, SSE4.1, SSE4.2, SSE4A, AVX, AVX2
- 19 CPU tests

### Memory

Verify system memory using the same proven test algorithms used for years by PC-Doctor.

Available testing:

- 13 testing algorithms for maximum coverage
- Five testing algorithms that implement research done in conjunction with the University of Nevada, Reno (view here): <https://tinyurl.com/pcdmemory>

### Storage

Supported controllers: PATA, SATA, SCSI, SAS

Supported devices:

- Hard Drives, Solid State Drives, SCSI Drives, USB Drives, Card Readers, MMC, Floppy Drives, NVMe Drives, SAS Drives
- Optical Drives:
  - Blu-ray/BD-R/BD-RE
  - CD-ROM/-R/-RW/+R/+RW
  - DVD-ROM/+R DL/-R DL/+R/-R/RAM/+RW/-RW

Available testing:

- S.M.A.R.T. Status and Conveyance Tests, Short and Long Self-Tests
- Targeted Read Test algorithm created from a hard drive study done in conjunction with an OEM: <https://tinyurl.com/hddcasestudy>
- Test individual hard drives within RAID configurations
- 68 Hard Drive, including 14 rotational Hard Drive, 14 Solid State Drive, 8 SCSI, 7 MMC Storage, 5 Removable Storage, 8 NVMe Drive, 1 Optane, 3 NVDIMM
- 56 Optical Drive
- 10 Floppy Drive

## System Board

Supported for latest Intel and AMD chipsets.

Available testing:

- CMOS, TPM
- PCI, PCIe, miniPCI, miniPCIe, PCMCIA, PCMCIA Detection, CardBus
- 8042 keyboard controller, USB
- IEEE1394, USB
- 10 serial port tests
- 4 parallel port tests

## Multimedia

Verify advanced audio and video capabilities through Windows or basic audio and video capabilities through Bootable Diagnostics:

- DirectX (support through DX12), CUDA and Vulkan memory tests, video ports, NVIDIA G-Sync and AMD FreeSync
- Audio testing up to 7.1 surround sound
- TV tuner cards – analog and digital
- Multi-Touch Touchscreen
- Webcam
- RealSense 3D Camera

Available testing:

- 22 Video Card tests
- 20 CUDA Video Memory tests
- 4 Vulkan Video Memory tests
- 2 TV Tuner Card tests
- 6 Touchscreen tests
- 8 Sound Card tests
- 3 Microphone tests
- 17 Webcam tests
- 4 Display tests
- 2 Video Port tests

## Communication

Support for latest wireless and wired protocols:

- Wired: 10/100/1000Mb/10Gig
- Wireless: 802.11a/b/g/n/ac/ax
- Bluetooth 1.0-5.3

Available testing:

- 18 Network Card tests
- 1 WiFi Signal Strength test

# Personal Computers (PCs) Continued

Available testing continued:

- 3 Bluetooth tests
- 9 Modem tests
- 2 Mobile broadband tests
- 2 NFC tests

## Sensors

Verify the connected sensors produced expected data in Windows.

Available testing:

- 1 Accelerometer test
- 1 Ambient Light Sensor test
- 1 Gyrometer test
- 1 Magnetometer test
- 3 GPS tests
- 1 Fingerprint Reader test
- 1 Eye Tracker test
- 1 Biometrics Camera test
- 1 Proximity Sensor test

## Power State

Verify Windows driver issues that can arise during power state changes.

Available testing:

- 2 Hibernate tests
- 2 Standby tests
- Simple tests to change power state
- Advanced tests to check for missing devices

## Miscellaneous

- 1 AlienFX test
- 4 Digitizer Stylus tests
- 3 Keyboard tests
- 2 Mouse tests
- 2 Touchpad tests
- 1 Track Point test
- 1 Lid Sensor test
- 1 Joystick test
- 1 Printer test
- 1 USB Ports test
- 4 Battery tests
- 4 IPMI tests

## Drive Erase

- Certified NIST 800-88r1 Compliant for media sanitization
- 2 ATA Secure Erase methods
- 3 ATA Sanitize Erase methods
- 2 NVMe Secure Erase methods
- 2 NVMe Sanitize Erase methods
- 3 SAS Sanitize Erase methods
- 1 MMC Secure Erase method
- 1 Block Erase method
- Erase multiple drives simultaneously
- Automatically selects most secure erasure method

## Automation

Using built-in command-line and boot functions, you can:

- Launch test scripts or individual tests
- Save test logs and reports

## System Events

Conveniently locate problems reported by Device Manager or the Windows Event Log, including devices without an installed driver, Application Crashes, and OS Crashes (BSOD). BSOD entries with available Windows dump files are analyzed to root cause the device driver that caused the BSOD.

## Test Scripts

Test scripts are sequences of tests that run sequentially or in parallel, which can be saved for reuse. Create scripts in Windows or Bootable Diagnostics using the Script Editor to:

- Perform testing in parallel—put extra load on the system to better locate intermittent issues and speed up test time
- Specify minimum time per test or number of times to run each test
- Customize testing parameters—default values have been set to balance accuracy and speed

## Intel-Based Apple Macs

### Hardware and Tests

The following information highlights key hardware support and tests. A complete list of all 177 diagnostics is available at:

<https://www.pcdservicecenter.com/diagnostics.php>

# Intel-Based Apple Macs Continued

## CPU

Support of the latest Intel chipsets.

CPU testing:

- Instruction Sets – MMX, SSE, SSE2, SSE3, SSSE3, SSE4.1, SSE4.2, SSE4A, AVX, AVX2
- 9 CPU tests

## Memory

Verify system memory using the same proven test algorithms used for years by PC-Doctor.

Available testing:

- 12 memory tests for maximum coverage
- Five testing algorithms that implement research done in conjunction with the University of Nevada, Reno (view here): <https://tinyurl.com/pcdmemory>

## Storage

Supported controllers: SATA, SCSI, SAS

Supported devices:

- Hard Drives, Solid State Drives, SCSI Drives, USB Drives, Card Readers, MMC, Floppy Drives, NVMe Drives, SAS Drives
- Optical drives:
  - Blu-ray/BD-R/BD-RE, HD DVD
  - CD-ROM/-R/-RW/+R/+RW
  - DVD-ROM/+R DL/-R DL/+R/-R/RAM/+RW/-RW

Available testing:

- S.M.A.R.T. Status and Conveyance Tests, Short and Long Self-Tests
- Targeted Read Test algorithm created from a hard drive study done in conjunction with an OEM: <https://tinyurl.com/hddcasestudy>
- 37 Hard Drive, including 7 rotation, 7 Solid State Drive, 4 SCSI, 6 MMC, 3 Removable Storage, 4 NVMe Drive, 1 NVDIMM
- 5 Optical Drive
- 5 Floppy Drive

## Miscellaneous

- 2 Keyboard tests
- 1 Mouse test
- 1 Touchpad test
- USB Ports
- 2 Battery tests

## Multimedia

Verify audio and video capabilities through Bootable Diagnostics.

Available testing:

- 4 Video Card tests
- 10 CUDA Video Memory tests
- 2 Vulkan Video Memory tests
- 8 Webcam tests
- 5 Sound Card tests
- 1 Microphone test
- 2 Display tests
- 3 Touchscreen tests
- 1 Video Ports test

## Communication

Support for latest wireless and wired protocols:

- Wired: 10/100/1000Mb/10Gig
- Wireless: 802.11a/b/g/n/ac/ax
- Bluetooth 1.0-5.3

Available testing:

- 8 Network tests
- 4 Modem tests
- 2 Bluetooth tests

## Drive Erase

- Certified NIST 800-88r1 Compliant for media sanitization
- 2 ATA Secure Erase methods
- 3 ATA Sanitize Erase methods
- 2 NVMe Secure Erase methods
- 2 NVMe Sanitize Erase methods
- 3 SAS Sanitize Erase methods
- 1 MMC Secure Erase method
- 1 Block Erase method
- Erase multiple drives simultaneously
- Automatically selects most secure erasure method

## Automation

Using Bootable Diagnostics automated option, you can:

- Launch test scripts or individual tests
- Save test logs and reports

# Intel-Based Apple Macs Continued

## Test Scripts

Test scripts are sequences of tests that run sequentially or in parallel, which can be saved for reuse. Create scripts in Bootable Diagnostics using the visual Script Editor to:

- Perform testing in parallel – put extra load on the system to better locate intermittent issues and speed up test time
- Specify minimum time per test or number of times to run each test
- Customize testing parameters – the default values have been set to balance accuracy and speed

## Android Devices

### Hardware and Tests

The following information highlights key hardware support and tests. A complete list of all 52 diagnostics is available at:

<https://www.pcdservicecenter.com/diagnostics.php>

Supported Devices:

- Android version 6.0 – 12.0
- All form factors

### CPU

Supports latest ARM and ARM64 chips.

- Instruction Set – A32, A64, VFP, VFPV3, NEON
- 4 CPU tests

### Storage

Verify internal device storage is working correctly.

Available testing:

- 1 internal storage test

### Memory

Verify system memory using the same proven test algorithms used for years by PC-Doctor.

Available testing:

- 12 memory tests
- Five testing algorithms that implement research done in conjunction with the University of Nevada, Reno (view here): <https://tinyurl.com/pcdmemory>

## Multimedia

Verify basic audio and video capabilities:

- Display screens of all sizes
- Up to 10-point multi-touch testing
- Multiple cameras

Available testing:

- 3 Touchscreen tests
- 10 Camera tests
- 2 Sound Card tests
- 1 Microphone test
- 2 Video Card tests
- 2 Display tests

## Sensors

Verify the connected sensors produced expected data in Android.

Available testing:

- 1 Accelerometer test
- 1 Gyroscope test
- 1 Ambient Light test
- 1 Magnetic Field Sensor test
- 1 Proximity test
- 1 Vibration test
- 2 GPS tests

## Communication

Support for latest wireless and wired protocols:

- Wired: 10/100/1000Mb/10Gig
- Wireless: 802.11a/b/g/n/ac/ax
- Bluetooth 1.0-5.3

Available testing:

- 1 Wireless Network test
- 2 Bluetooth tests
- 3 Mobile Broadband tests
- 2 NFC tests

## Miscellaneous

- 3 Battery tests
- 2 Button tests

## Drive Erase

- Device Factory Reset

# Chrome OS

## Hardware and Tests

The following information highlights key hardware support and tests. A complete list of all 181 diagnostics is available at:

<https://www.pcdservicecenter.com/diagnostics.php>

### CPU

Support of the latest Intel, AMD, and ARM CPUs.

Available testing:

- x86 Instruction Sets – MMX, SSE, SSE2, SSE3, SSSE3, SSE4.1, SSE4.2, SSE4A, AVX, AVX2
- ARM Instruction Set – A32, A64, VFP, VFPV3, NEON
- 9x86 CPU tests
- 4 ARM CPU tests

### Memory

Verify system memory using the same proven test algorithms used for years by PC-Doctor.

Available testing:

- 12 memory tests
- Five testing algorithms that implement research done in conjunction with the University of Nevada, Reno (view here): <https://tinyurl.com/pcdmemory>

### Multimedia

Verify advanced audio and video capabilities:

- OpenGL rendering test, CUDA and Vulkan memory tests, video ports
- Audio testing
- Multi-Touch Touchscreen
- Webcam

Available testing:

- 4 Video Card tests
- 10 CUDA Video Memory tests
- 2 Vulkan Video Memory tests
- 8 Webcam tests
- 5 Sound Card tests
- 1 Microphone test
- 2 Display tests
- 3 Touchscreen tests
- 1 Video Ports test

## Storage

Supported controllers: SATA, SCSI, SAS

Supported devices:

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- Optical Drives:
  - Blu-ray/BD-R/BD-RE, HD DVD
  - CD-ROM/-R/-RW/+R/+RW
  - DVD-ROM/+R DL/-R DL/+R/-R/RAM/+RW/-RW

Available testing:

- S.M.A.R.T. Status and Conveyance Tests, Short, Long and Selective Self-Tests, Thresholds
- Targeted Read Test algorithm created from a hard drive study done in conjunction with an OEM (view here): <https://tinyurl.com/hddcasestudy>
- 40 Hard Drive tests, including 7 rotational Hard Drive, 7 Solid State Drive, 4 SCSI Drive, 6 MMC, 3 Removable Storage, 4 NVMe Drive, 2 NVDIMM
- 17 Optical Drive

## System Board

Supported for latest Intel, AMD, and ARM chipsets.

Available testing:

- CMOS, PCI, PCIe, miniPCI, miniPCIe
- USB, PC Card, IEEE 1394, serial ports, parallel ports

## Communication

Support for latest wireless and wired protocols:

- Wired: 10/100/1000Mb/10Gig
- Wireless: 802.11a/b/g/n/ac/ax
- Bluetooth 1.0-5.3

Available testing:

- 8 Network Card tests
- 4 Modem tests
- 2 Bluetooth tests

# Chrome OS Continued

## Miscellaneous

- 2 Keyboard tests
- 1 Mouse test
- 1 Touchpad test
- 1 Lid Sensor test
- 2 Battery tests
- 4 IPMI tests

## Automation

Using built-in command-line and boot functions, you can:

- Launch test scripts or individual tests
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## Information and Ordering

For more information and to order, visit:  
[www.pcdservicecenter.com](http://www.pcdservicecenter.com)

To speak with an account manager, contact us:  
United States: 1-866-289-7237  
International: 1-775-336-4000  
[sales@pc-doctor.com](mailto:sales@pc-doctor.com)

Founded in 1993, PC-Doctor Inc. is the global leader in reducing PC supplier costs through diagnostic and system information solutions for top PC makers, service centers and IT organizations. Acknowledged by leading PC manufacturers as the de facto standard for diagnostics, our customers load tens of millions of copies of our software on their systems every year.