

# PC-Doctor Service Center™ Data Sheet

PC-Doctor Service Center™ is the diagnostic toolkit used by repair organizations, IT professionals, system builders 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, DOS, bootable diagnostics that NOW offer support for Intel-based Macs, and Android diagnostics.

Each kit contains 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?

- Fully compatible with Windows 10
- Expanded memory and CPU testing in 64-bit Windows
- Updated Android diagnostics with support for versions 2.3-5.1.1
  - Support included for ARM, 64-bit ARM and Intel x86 based devices and for all form factors
  - Device Factory Reset option
  - AVX testing
- Updated Bootable diagnostics with support for Intel-based Apple Macs
- Support of SLI configurations in Windows video testing
- Near Field Communications (NFC) testing
- Interactive GPS testing
- RealSense 3D Camera testing

## Features

### Sessions

Automatically saves system information, test results and system snapshots to the Multipurpose USB Device (MUD):

- Organize by customer, system or other desired parameters
- Store test results from multiple test environments in one place as organized by your choice of sessions

### 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 and Macs:

- All hardware devices
- (Windows) OS, virus protection, web browser, Windows startup programs and device drivers

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 and Macs

## Personal Computers (PCs)

### Hardware and Tests

The following information highlights key hardware support and tests. A complete list of all 453 diagnostics is available at:

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

# Personal Computers (PCs) Continued

## CPU

Chipset support:

- Support of the latest Intel and AMD chipsets

CPU/CoProcessor testing:

- Instruction Sets – MMX, SSE, SSE2, SSE3, SSSE3, SSE4.1, SSE4.2, SSE4A, AVX, AVX2
- Buffer, Cache, Commands, Exceptions, Floating Point Unit, Interrupts, Operations, Prime Number Generation, Registers
- Stress test

## Memory

- New Windows module for improved coverage
- Extended memory
- 17 testing algorithms for maximum coverage
- Low-level testing in protected-mode:
  - Supports 96GB+
  - Five testing algorithms that implement research done in conjunction with the University of Nevada, Reno (view here): <http://tinyurl.com/pcdmemory>

## Storage

Supported controllers: PATA, SATA, SCSI, SAS

Supported devices:

- Hard Drives, Solid State Drives, SCSI Drives, USB Drives, Card Readers, Floppy Drives, Zip 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, Log Viewer
- Targeted Read Test algorithm created from a hard drive study done in conjunction with an OEM (view here): [http://www.pc-doctor.com/images/files/case\\_study\\_hdd\\_testing.pdf](http://www.pc-doctor.com/images/files/case_study_hdd_testing.pdf)
- Test individual hard drives within RAID configurations
- 56 Hard Drive, 22 Solid State Drive, 6 SCSI, 75 Optical Drive, 19 Floppy Drive, 5 Flash Storage, 7 Removable Storage tests

## System Board

Supported chipsets: AMD, ATI, Intel, nVidia, SiS, VIA

Available testing:

- BIOS Timer, CMOS, CMOS RAM, RTC
- DMA Channels, IRQ Controller, RAM Refresh, SMBus, System Timer
- PCI, PCIe, miniPCI, miniPCIe, PCMCIA, PCMCIA Detection, CardBus
- 8042 keyboard controller, USB
- IEEE1394, USB
- 14 serial port tests
- 6 parallel port tests

## Multimedia

Verify advanced audio and video capabilities through Windows or basic audio and video capabilities through Bootable/DOS diagnostics:

- DirectX (support through DX11) and CUDA video cards, Video Ports
- Audio testing up to 7.1 surround sound
- TV tuner cards – analog and digital
- Multi-Touch Touch Screen
- Webcam
- RealSense 3D Camera

Available Windows testing:

- 25 Video Card tests
- 6 TV Tuner Card tests
- 3 Touch Screen tests
- 3 Sound Card tests
- 9 Webcam tests
- 2 Display tests
- 1 Video Port test

Available Bootable Diagnostics/DOS testing:

- 10 Video Card tests
- 9 Webcam tests
- 7 Audio tests
- 1 Display test

# Personal Computers (PCs) Continued

## Communications

Available testing:

- 28 Network tests:
  - o Wired tests (10/100/1000Mb/10Gig)
  - o Wireless tests (802.11a/b/g/n)
- 5 Bluetooth tests
- 9 Modem tests
- 2 Mobile broadband tests
- 2 NFC tests

## Sensors

- Accelerometer
- Ambient Light Sensor
- Gyrometer
- Magnetometer
- GPS
- Fingerprint Reader

## Miscellaneous

- 13 Interactive tests
  - o Alien FX LED Verification
  - o Digitizer Stylus
  - o Keyboard
  - o Mouse
  - o Trackpad
  - o Trackpoint
  - o Lid Sensor
  - o Microphone
  - o Joystick
  - o Printer
  - o Standby
  - o Hibernate
  - o USB Ports
- 4 Battery tests

## Drive Erase

- Three methods to erase in Bootable Diagnostics (based on DoD 5022 guideline) and custom methods available
  - o 1-pass
  - o 3-pass
  - o 7-pass

## Drive Erase Continued

- Two methods to erase in DOS (based on DoD 5022 guideline)
  - o Clear – single pattern
  - o Sanitize – three patterns + verify
- Stores erasure progress: power failures no longer mean starting over
- Erase multiple drives simultaneously

## 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 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 113 diagnostics is available at:

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

## CPU

Chipset support:

- Support of the latest Intel chipsets

CPU/CoProcessor testing:

- Instruction Sets – MMX, SSE, SSE2, SSE3, SSSE3, SSE4.1, SSE4.2, SSE4A, AVX
- Buffer, Cache, Commands, Exceptions, Floating Point Unit, Interrupts, Operations, Prime Number Generation, Registers
- Stress test

## Memory

- Same proven test algorithms used for years by PC-Doctor
- 12 memory tests

## Storage

Supported controllers: SATA, SCSI, SAS

Supported devices:

- Hard Drives, Solid State Drives, SCSI Drives, USB Drives, Card Readers
- 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, Log Viewer
- Targeted Read Test algorithm created from a hard drive study done in conjunction with an OEM (view here): [http://www.pc-doctor.com/images/files/case\\_study\\_hdd\\_testing.pdf](http://www.pc-doctor.com/images/files/case_study_hdd_testing.pdf)
- 15 Hard Drive, 11 Solid State Drive, 3 SCSI, 26 Optical Drive, 5 Flash Storage, 5 Removable Storage tests

## Multimedia

- 3 Video Card tests
- 9 Webcam tests
- 5 Audio tests
- 1 Display Test

## Communications

- 16 Network tests:
  - Wired tests (10/100/1000Mb/10Gig)
  - Wireless tests (802.11a/b/g/n)
- 2 Bluetooth tests

## Miscellaneous

- 4 Interactive tests
  - Keyboard
  - Mouse
  - Microphone
  - USB Ports
- 2 Battery tests

## Drive Erase

- Three methods to erase in Bootable Diagnostics (based on DoD 5022 guideline) and custom methods available
  - 1-pass
  - 3-pass
  - 7-pass
- Erase multiple drives simultaneously

## Automation

Using built-in and boot functions, you can:

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

## Test Scripts

Test scripts are sequences of tests that run sequentially or in parallel, which can be saved for reuse. Create scripts 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 66 diagnostics is available at:

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

Supported Devices:

- Android version 2.3 – 5.1.1
- All form factors

## CPU

Supports ARM, 64-bit ARM, and Intel x86.

- 4 ARM CPU tests
- 9 x86 CPU tests

## Storage

- 1 internal storage test

## Memory

- Same proven test algorithms used by PC-Doctor for years, ported to Android
- 12 tests

## Multimedia

- 6 Screen tests including support for screens of all sizes, up to 10-point multi touch
- 9 Webcam tests including support for multiple cameras
- 3 Audio tests

## Sensors

- Accelerometer
- Gyroscope
- Ambient Light
- Magnetic Field Sensor
- Proximity
- Vibration

## Communications

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

## Miscellaneous

- 3 Battery tests
- 2 Button tests
- 1 PCI test

## Drive Erase

- Device Factory Reset

## Information and Ordering

For more information and to order, visit:

[www.pcdservicecenter.com](http://www.pcdservicecenter.com)

To speak with an account manager, call:

**United States:** 1-866-289-7237

**International:** 1-775-336-4000

or email:

[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.