

Service Center 13 Test List

PC

Windows Diagnostics

Storage

- **Blu-Ray Drive**
 - Funnel Seek
 - Linear Read Compare
 - Linear Seek
 - Random Seek
 - Read Performance
- **BD-R Drive**
 - Read/Write
- **BD-RE Drive**
 - Read/Write
- **Removable Storage**
 - Pattern
 - Linear Read
- **CD-ROM Drive**
 - CD Audio
 - Funnel Seek
 - Linear Read Compare
 - Linear Seek
 - Random Seek
 - Read Performance
- **CD-R Drive**
 - Read/Write
- **CD-RW Drive**
 - Read/Write
- **DVD Drive**
 - Funnel Seek
 - Linear Read Compare
 - Linear Seek
 - Random Seek
 - Read Performance
- **DVD+R DL Drive**
 - Read/Write
- **DVD-R DL Drive**
 - Read/Write
- **DVD+R Drive**
 - Read/Write
- **DVD-R Drive**
 - Read/Write
- **DVD-RAM Drive**
 - Funnel Seek
 - Linear Seek
 - Pattern
 - Random Seek
 - Linear Read Compare
 - Read Performance
- **DVD+RW Drive**
 - Read/Write
- **DVD-RW Drive**
 - Read/Write
- **OBIST Drive**
 - DRAM
 - Flash ROM
 - Main IC
 - Opu
 - Spindle
 - Tray In
 - Tray Out
- **Floppy Drive**
 - Funnel Seek
 - Linear Seek
 - Pattern
 - Random Seek
 - Linear Read
- **Hard Drive**
 - Linear Seek
 - Random Seek
 - Funnel Seek
 - Linear Read
 - Pattern

- Cache
- Targeted Read
- **SCSI Command Set**
 - Self-Test
 - Background Short Self-Test
 - Background Extended Self-Test
- **Solid State Drive**
 - Linear Read
 - Pattern
 - Random Seek
 - Wear Level
 - Intel Wear Level
 - Targeted Read
 - SCSI Wear Level
- **NVMe Drive**
 - NVMe Status
 - NVMe Wear Level
- **NVDIMM**
 - Status Test
- **HD DVD Drive**
 - Funnel Seek
 - Linear Read Compare
 - Linear Seek
 - Random Seek
 - Read Performance
- **SMART**
 - Conveyance Self-Test
 - Extended Self-Test
 - Short Self-Test
 - Status
 - Thresholds
- **Tape Drive**
 - Backup
 - Linear Seek
- **Zip Drive**
 - Pattern
 - Linear Read

System

- **PCMCIA Bridge**
 - Status
- **CardBus Bridge**

- Status
- **IEEE 1394**
 - Bus Reset
 - Config ROM
- **Battery**
 - Life
 - Status
- **CMOS**
 - Checksum
 - Pattern
- **CPU**
 - Level 2 Cache
 - Math Register
 - MMX
 - Register
 - SSE
 - SSE2
 - SSE3
 - SSSE3
 - SSE4A
 - SSE4.1
 - SSE4.2
 - AVX
 - AVX2
 - Stress
 - Floating Point Unit
 - Prime Number Generation
- **Memory**
 - Address
 - Advanced Pattern
 - Auxiliary Pattern
 - Bit High
 - Bit Low
 - Checkerboard
 - Modulo20
 - Moving Inversion
 - Nibble Move
 - Walking One Left
 - Walking One Right
 - Windows Memory
- **Parallel Port**
 - External Read and Write

- Internal Read and Write
- **PCI Express**
 - Status
- **PCI**
 - Configuration
- **Smart Card**
 - APDU
 - Answer To Reset
 - Card Attributes
- **Serial Port**
 - External Loopback
 - External Register
 - Internal Control Signals
 - Internal Register
 - Internal Send and Receive
- **System Board**
 - RTC Accuracy
 - TPM Self-Test (NEW)
- **USB**
 - Status
- **USB Ports**
 - Status
- **Standby/Hibernate**
 - Standby Test
 - Hibernate Test
 - Simple Hibernation
 - Simple Modern Standby
 - Simple Standby

Audio

- **Microphone**
 - Microphone Interactive Test
 - Frequency Tone Test
- **Sound Card**
 - Rough Audio
 - Playback Mixer State
 - Sound Interactive Test

Video

- **Video Card**
 - NVIDIA GSync (NEW)

- AMD Free Sync
- Multiple Rendering DX9
- Shader Rendering DX10
- Shader Rendering DX11
- Shader Rendering DX12
- Wireframe Shader Rendering
- Shader Rendering
- Stereo 3D Rendering
- GPU Pipeline Data
- Transformation and Lighting Stress
- Wireframe Stress
- Fixed Transformation and Lighting
- Wireframe Line
- Primary Surface
- Thermal Cycle
- Video Memory
- Address Fault
- Standard Mathematical Operations
- Block Move
- Memory Fault
- Modulo X
- Moving Inversion
- Own Address
- Pattern
- Random Number Sequence
- Advanced Mathematical Operations
- SLI
- **Video Capture**
 - Digital TV Signal
 - Clear QAM Digital Tuner Signal
- **Multimedia**
 - Video Interactive
- **WebCam**
 - Capture To Screen
 - Capture To File
 - RGB Pixel
 - RGB Line Driver
 - RGB Channel
 - RGB Line Amplifier
 - RGB Color Depth
 - Luminance
 - Edge Detection

- **Video Ports**
 - Video Ports Interactive
- **Monitor**
 - Monitor Interactive
 - EDID Checksum
- **Touch Screen**
 - Calibration
 - Coverage
 - Multi-Touch
- **RealSense 3D Camera**
 - RealSense 3D Camera Interactive

Communications

- **Modem**
 - Dial Tone
 - Fax Command
 - Last Call
 - Modem Loopback
 - Modem Self-Testing Loopback
- **Network Card**
 - Network Cable
 - Network External Loopback
 - Network Link
 - TCP/IP Internal Loopback
 - Local Network Communication
 - Wireless Connectivity
 - Wireless Signal Strength
 - Internet Communication
 - Signal Strength
 - Data Transfer Verification
 - Intel Network Combination
- **Bluetooth Port**
 - Bluetooth Interactive Test
- **Mobile Broadband**
 - Connectivity
 - Signal Strength
- **Near Field Communication (NFC)**
 - NFC Read
 - NFC Write

Sensor Devices

- **Biometrics Camera**
 - Face Detection
- **GPS**
 - Communication
 - Lock
 - Interactive
- **Fingerprint Reader**
 - Swipe
- **Ambient Light Sensor**
- **Accelerometer**
- **Magnetometer**
- **Gyrometer**
- **Eye Tracker**
- **Proximity Sensor (NEW)**

Other Devices

- **Joystick**
 - Joystick Interactive
- **Keyboard**
 - Keyboard Interactive
- **Mouse**
 - **Mouse Interactive (NEW)**
 - Touchpad
 - TrackPoint
- **Printer**
 - Printer Interactive
- **Digitizer Stylus**
 - Corners
 - Pressure
 - Stylus Barrel Switch
 - Stylus Eraser
- **AlienFX LED Verification**
 - **AlienFX Interactive (NEW)**
- **Lid Closure**
 - Lid Closure Interactive

DOS Diagnostics

Storage

- **Diskette Drive**
 - Hi-Low Seek
 - Funnel Seek
 - Track to Track Seek
 - Random Seek
 - Linear Verify
 - Random Verify
 - Linear Write/Read
 - Linear Write/Random Read
 - Random Write
- **Fixed Disk**
 - Controller
 - Funnel Seek
 - Random Seek
 - Linear Verify
 - Random Verify
 - SMART Status Check
 - SMART Self-Test Short
 - SMART Self-Test Long
 - SMART Conveyance
 - SMART Attribute Check
 - Inner/Outer Surface Read
 - Read Surface Scan
 - Write Surface Scan
 - Drive Cache
 - Spin Down/Spin Up
- **Optical Drive Scan**
 - Insert Media
 - Linear Seek
 - Random Seek
 - Funnel Seek
 - Remove Media
- **Optical Drive Write**
 - CD-RW Drive
 - DVD-RW Drive
 - DVD+RW Drive
 - DVD-RAM Drive

- HD DVD-RAM Drive
- BD-RE Drive

- **SCSI Fixed Disk**
 - Controller
 - Funnel Seek
 - Track To Track Seek
 - Random Seek
 - Linear Verify
 - Random Verify
 - Read Surface Scan
 - Write Surface Scan
 - Short Self-Test
 - Extended Self-Test
 - Inner/Outer Read Surface Scan
 - Spin Down/Spin Up Test

System

- **CPU/CoProcessor**
 - CPU Registers
 - CPU Arithmetics
 - CPU Logical Operations
 - CPU String Operations
 - CPU Misc Operations
 - CPU Interrupts/Exceptions
 - CPU Buffers/Cache
 - CoProc Registers
 - CoProc Commands
 - CoProc Arithmetics
 - CoProc Transcendental
 - CoProc Exceptions
 - MMX Test
 - SSE
 - SSE2
 - SSE3
 - SSSE3
 - SSE4A
 - SSE4.1
 - SSE4.2

- **System Memory**
 - Memory Fault
 - Address Fault
 - Random Pattern
 - Short Advanced Pattern
 - Extended Advanced Pattern
- **Parallel Port**
 - Command and Data Port
 - External Loopback and IRQ
- **Serial Port**
 - Registers and Interrupts
 - Internal Loopback
 - External Loopback
 - FIFO Buffers (16550A)
- **System Board**
 - System Timer
 - BIOS Timer
 - IRQ Controller
 - DMA Channels
 - RAM Refresh
 - RTC Clock
 - CMOS RAM
 - Keyboard
 - PCI
 - PCMCIA
 - PCMCIA Detection
 - USB Port
 - USB Port External Loop
 - IEEE1394 Controller
 - SMBus

Interactive

- **Keyboard**
- **Video**
- **Internal Speaker**
- **Mouse**
- **Diskette**
- **LCD Panel**
- **System Load**

Utility

- **Edit CMOS RAM**
- **Benchmark System**
- **Memory Debugger**
- **Battery Rundown**
- **Erase Drive Contents**
- **View SMART Logs**
- **View PCDR Host Logs**

Video

- **Video Adapter**
 - Video Memory
 - Video Pages
 - VGA Controller Registers
 - VGA Color-DAC Registers
 - VESA Full Video Memory
 - AGP
 - PCI Express

Bootable Diagnostics

Storage

- **Blu-Ray Drive**
 - Funnel Seek
 - Linear Read Compare
 - Linear Seek
 - Random Seek
- **CD-ROM Drive**
 - CD Audio Digital Extraction
 - Funnel Seek
 - Linear Read Compare
 - Linear Seek
 - Random Seek
- **DVD Drive**
 - Funnel Seek
 - Linear Read Compare
 - Linear Seek
 - Random Seek
- **DVD-RAM Drive**
 - Funnel Seek
 - Linear Read Compare
 - Linear Seek
 - Random Seek
- **Floppy Drive**
 - Funnel Seek
 - Linear Read
 - Linear Seek
 - Pattern
 - Random Seek
- **Hard Drive**
 - Cache
 - Funnel Seek
 - Linear Read
 - Linear Seek
 - Pattern
 - Random Seek
 - Targeted Read
- **SMART**
 - Conveyance Self-Test
 - Extended Self-Test
 - Short Self-Test
 - Status
 - Thresholds
 - Selective Self-Test
- **SCSI Command Set**
 - Self-Test
 - Background Short Self-Test
 - Background Extended Self-Test
- **Solid State Drive**
 - Linear Read
 - Pattern
 - Random Seek
 - Wear Level
 - Intel Wear Level
 - Targeted Read
 - SCSI Wear Level
- **NVMe Drive**
 - NVMe Status
 - NVMe Wear Level
 - NVMe Extended Self-Test
 - NVMe Short Self-Test
- **NVDIMM**
 - Status Test
 - Wear Level
- **DVD Drive**
 - Funnel Seek
 - Linear Read Compare
 - Linear Seek
 - Random Seek
 - Read Performance
- **Removable Storage**
 - Pattern
 - Linear Read
 - Random Read
- **MMC Storage**
 - Linear Read
 - Pattern
 - Random Read
 - Read Speed

- Read Write Speed

System

- **IEEE 1394**
 - Bus Reset
 - Config ROM
- **Battery**
 - AC
 - Life
- **CMOS**
 - Checksum
 - Pattern
- **CPU**
 - Cache
 - MMX
 - Math Register
 - Register
 - SSE2
 - SSE3
 - SSE
 - AVX
 - Stress
- **Memory**
 - Address
 - Advanced Pattern
 - Auxiliary Pattern
 - Bit High
 - Bit Low
 - Checkerboard
 - Modulo20
 - Moving Inversion
 - Nibble Move
 - Walking One Left
 - Walking One Right
 - Pattern
- **Parallel Port**
 - Loopback
 - Register
- **PCI**
 - Configuration
- **PC Card**
 - CIS Validation

- **Serial Port**
 - External Loopback
 - External Register
 - Internal Control Signals
 - Internal Register
 - Internal Send and Receive
- **System Board**
 - RTC IRQ Accuracy
 - **TPM Self-Test (NEW)**
- **USB**
 - USB Standard Device Requests
 - USB Device Enumeration
 - USB Port Detection
 - Read Speed
 - Read Write Speed
- **IPMI**
 - Chassis Identify
 - Chassis Status
 - Controller Communication
 - Self-Test

Audio

- **Microphone**
 - Microphone Recording
- **Sound Card**
 - Midi
 - Surround Sound
 - Wave Test Both
 - Wave Test Left
 - Wave Test Right

Video

- **Video Card**
 - Video Data
 - Video Memory
 - Video Text
 - AGP Configuration
 - Basic Render
- **Monitor**
 - Monitor Interactive
 - **EDID Checksum (NEW)**

- **Touch Screen**
 - Multi-Touch
 - Calibration
 - Coverage
- **Webcam**
 - Capture To Screen
 - RGB Pixel
 - RGB Line Driver
 - RGB Channel
 - RGB Line Amplifier
 - RGB Color Depth
 - Luminance
 - Edge Detection
- **NVIDIA Graphics (CUDA)**
 - Address Fault
 - Advanced Mathematical Operations
 - Block Move
 - Memory Fault
 - Modulo X
 - Moving Inversion
 - Own Address
 - Pattern
 - Random Number Sequence
 - Standard Mathematical Operations

Communications

- **Modem**
 - Dial Tone
 - Fax Command
 - Modem Loopback
 - Modem Specific
- **Network Card**
 - ICMP Network Communications
 - Network Connectivity
 - Network External Loopback
 - Network Offline Self-Test
 - Network Online Self-Test
 - Wireless Connection
 - Wireless Scan
- **Intel Network Card**
 - Intel NIC AMT Test
 - Intel NIC EEPROM

- Intel NIC FIFO
- Intel NIC IP Security
- Intel NIC Interrupt
- Intel NIC Link
- Intel NIC Loopback
- Intel NIC Register
- Virtual LAN
- **Bluetooth Port**
 - Bluetooth Communication
 - Bluetooth Detection

Other Devices

- **Keyboard**
 - Key Test
- **Mouse**
 - Mouse Interactive Test (NEW)

Other Utilities

- **Drive Erase**
 - ATA Enhanced Secure Erase
 - ATA Sanitize Block Erase
 - ATA Sanitize Crypto Erase
 - ATA Sanitize Overwrite
 - ATA Secure Erase
 - Drive Wipe
 - MMC Secure Erase
 - NVMe Secure Erase
 - NVMe Advanced Secure Erase
 - NVMe Sanitize Block Erase
 - NVMe Sanitize Crypto Erase
 - SCSI Sanitize Block Erase
 - SCSI Sanitize Crypto Erase
 - SCSI Sanitize Overwrite
- **Network Configuration Utility**

Intel-Based Apple Macs

Bootable Diagnostics

Storage

- **Blu-Ray Drive**
 - Funnel Seek
 - Linear Read Compare
 - Linear Seek
 - Random Seek
- **CD-ROM Drive**
 - CD Audio Digital Extraction
 - Funnel Seek
 - Linear Read Compare
 - Linear Seek
 - Random Seek
- **DVD Drive**
 - Funnel Seek
 - Linear Read Compare
 - Linear Seek
 - Random Seek
- **DVD-RAM Drive**
 - Funnel Seek
 - Linear Read Compare
 - Linear Seek
 - Random Seek
- **Floppy Drive**
 - Funnel Seek
 - Linear Read
 - Linear Seek
 - Pattern
 - Random Seek
- **Hard Drive**
 - Cache
 - Funnel Seek
 - Linear Read
 - Linear Seek
 - Pattern
 - Random Seek
 - Targeted Read
- **SMART**
 - Conveyance Self-Test
 - Extended Self-Test
 - Short Self-Test
 - Status
 - Thresholds
 - Selective Self-Test
- **SCSI Command Set**
 - Self-Test
 - Background Short Self-Test
 - Background Extended Self-Test
- **Solid State Drive**
 - Linear Read
 - Pattern
 - Random Seek
 - Wear Level
 - Intel Wear Level
 - Targeted Read
 - SCSI Wear Level
- **NVMe Drive**
 - NVMe Status
 - NVMe Wear Level
 - NVMe Extended Self-Test
 - NVMe Short Self-Test
- **NVDIMM**
 - Status Test
 - Wear Level
- **DVD Drive**
 - Funnel Seek
 - Linear Read Compare
 - Linear Seek
 - Random Seek
 - Read Performance
- **Removable Storage**
 - Pattern
 - Linear Read
 - Random Read
- **MMC Storage**
 - Linear Read

- Pattern
- Random Read
- Read Speed
- Read Write Speed

System

- **IEEE 1394**
 - Bus Reset
 - Config ROM
- **Battery**
 - AC
 - Life
- **CMOS**
 - Checksum
 - Pattern
- **CPU**
 - Cache
 - MMX
 - Math Register
 - Register
 - SSE2
 - SSE3
 - SSE
 - AVX
 - Stress
- **Memory**
 - Address
 - Advanced Pattern
 - Auxiliary Pattern
 - Bit High
 - Bit Low
 - Checkerboard
 - Modulo20
 - Moving Inversion
 - Nibble Move
 - Walking One Left
 - Walking One Right
 - Pattern
- **Parallel Port**
 - Loopback
 - Register
- **PCI**

- Configuration
- **PC Card**
 - CIS Validation
- **Serial Port**
 - External Loopback
 - External Register
 - Internal Control Signals
 - Internal Register
 - Internal Send and Receive
- **System Board**
 - RTC IRQ Accuracy
- **USB**
 - USB Standard Device Requests
 - USB Device Enumeration
 - USB Port Detection
 - Read Speed
 - Read Write Speed
- **IPMI**
 - Chassis Identify
 - Chassis Status
 - Controller Communication
 - Self-Test

Audio

- **Microphone**
 - Microphone Recording
- **Sound Card**
 - Midi
 - Surround Sound
 - Wave Test Both
 - Wave Test Left
 - Wave Test Right

Video

- **Video Card**
 - Video Data
 - Video Memory
 - Video Text
 - AGP Configuration
 - Basic Render
- **Monitor**

- Monitor Interactive
- EDID Checksum (NEW)
- **Touch Screen**
 - Multi-Touch
 - Calibration
 - Coverage
- **Webcam**
 - Capture To Screen
 - RGB Pixel
 - RGB Line Driver
 - RGB Channel
 - RGB Line Amplifier
 - RGB Color Depth
 - Luminance
 - Edge Detection
- **NVIDIA Graphics (CUDA)**
 - Address Fault
 - Advanced Mathematical Operations
 - Block Move
 - Memory Fault
 - Modulo X
 - Moving Inversion
 - Own Address
 - Pattern
 - Random Number Sequence
 - Standard Mathematical Operations

Communications

- **Modem**
 - Dial Tone
 - Fax Command
 - Modem Loopback
 - Modem Specific
- **Network Card**
 - ICMP Network Communications
 - Network Connectivity
 - Network External Loopback
 - Network Offline Self-Test
 - Network Online Self-Test
 - Wireless Connection
 - Wireless Scan
- **Intel Network Card**

- Intel NIC AMT Test
- Intel NIC EEPROM
- Intel NIC FIFO
- Intel NIC IP Security
- Intel NIC Interrupt
- Intel NIC Link
- Intel NIC Loopback
- Intel NIC Register
- Virtual LAN
- **Bluetooth Port**
 - Bluetooth Communication
 - Bluetooth Detection

Other Devices

- **Keyboard**
 - Key Test
- **Mouse**
 - Mouse Interactive Test (NEW)

Other Utilities

- **Drive Erase**
 - ATA Enhanced Secure Erase
 - ATA Sanitize Block Erase
 - ATA Sanitize Crypto Erase
 - ATA Sanitize Overwrite
 - ATA Secure Erase
 - Drive Wipe
 - MMC Secure Erase
 - NVMe Secure Erase
 - NVMe Advanced Secure Erase
 - NVMe Sanitize Block Erase
 - NVMe Sanitize Crypto Erase
 - SCSI Sanitize Block Erase
 - SCSI Sanitize Crypto Erase
 - SCSI Sanitize Overwrite
- **Network Configuration Utility**

Android Devices

Android Diagnostics

System

- **Memory**
 - Address
 - Advanced Pattern
 - Auxiliary Pattern
 - Bit High
 - Bit Low
 - Checkerboard
 - Modulo20
 - Moving Inversion
 - Nibble Move
 - Pattern
 - Walking Ones Left
 - Walking Ones Right
- **Battery**
 - Health
 - Temperature
 - USB Charge
- **Buttons**
 - Rotation Lock
 - Volume Keys
- **CPU - ARM**
 - Arithmetic
 - Cache
 - Register
 - Stress
- **CPU - x86**
 - Cache
 - Math Register
 - MMX
 - Register
 - SSE2
 - SSE3
 - SSE
 - Stress
 - AVX
- **PCI - x86**
 - Config
- **Internal Storage**

- Pattern

Multimedia

- **Video Card**
 - Basic Render
- **Screen**
 - Brightness
 - Pixel
 - Touchscreen
 - Touchscreen Coverage
 - Multi-Touch Touchscreen
 - Video Memory
- **Camera**
 - Camera Flash
 - Camera
 - Edge Detection
 - Luminance Depth
 - RGB Channel
 - RGB Color Depth
 - RGB Line Amplifier
 - RGB Line Driver
 - RGB Pixel
- **Sensors**
 - Accelerometer
 - Gyroscope
 - Ambient Light
 - Magnetic Field Sensor
 - Proximity
 - Vibration
- **Audio**
 - Headset Connectivity
 - Microphone
 - Speaker

Communication

- **Bluetooth**
 - Communication
 - Detection
- **Mobile**
 - Cell Signal Strength Test
 - SIM Communication

PC-Doctor Service Center 13 Test List

- SIM Detection
- **GPS**
 - Any Signal
 - Minimum Location Signals
- **NFC**
 - Detection
 - NDEF Read
- **Wireless**
 - Wireless Scan

Other Utilities

- **Device Factory Reset**

PC-Doctor, Inc.

10345 Professional Circle

Reno, NV 89521

775-336-4000

www.pcdservicecenter.com

sales@pc-doctor.com