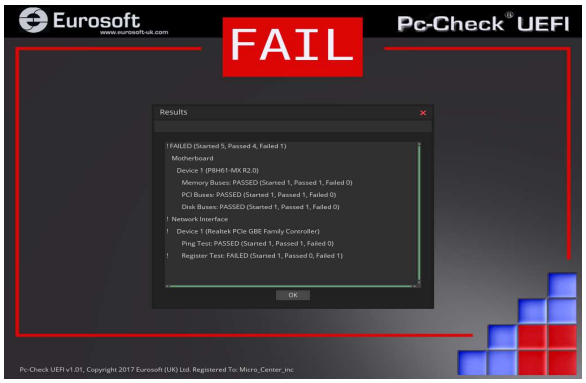
Pc-Check® UEFI Diagnostic Software

Pc-Check UEFI, combined with Pc-Check, challenges the widest testing landscape with 'bare-metal testing' dedicated to all your PC assembly, integration, services, installations, repair and refurbishing.

Unreliable testing of computers cost companies and technicians valuable time and money. Inaccurate test results impact operations, leading to more technical support calls, unnecessary rework, product returns and customer dissatisfaction.



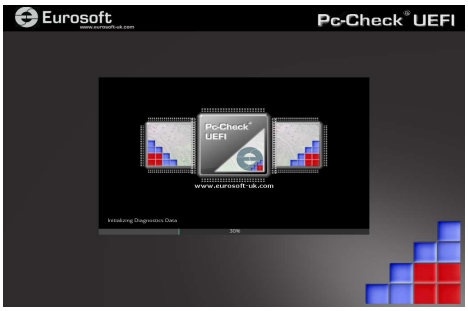
Fully compatible with UEFI hardware, Pc-Check® UEFI includes Pc-Check® self-boot, providing a testing advantage with both legacy and the latest computers. Unlike other so called "native" UEFI diagnostics, Pc-Check UEFI delivers **direct, legacy free hardware testing regardless of BIOS.** Independently test hardware – not the drivers – directly accessing essential UEFI components. No operating system in the way – no Linux, no Windows, no secure boot or BIOS interference – **only pure UEFI testing in real UEFI mode.** Giving you the latest tests you can count on, Pc-Check UEFI masters all UEFI PC problems with state-of-the-art diagnostics that solve testing dilemmas.

Pc-Check UEFI finds the hardware faults that other test products can't *or won't* reveal.

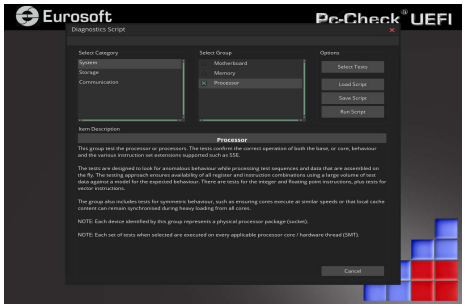
Dual testing advantage for old and new systems	✔ **Including Pc-Check** as part of the package, Pc-Check® and Pc-Check® UEFI form the **ultimate testing solution for legacy, and new UEFI based PCs.**
Direct test access to UEFI enabled hardware	✔ **Fastest loading, true native UEFI testing** for the latest PCs. Pre-boot diagnostics run even with Secure Boot enabled**.**
'Bare metal' hardware testing	✔ Test the hardware, not the drivers. **No operating system, interference** or updating Linux and Microsoft.
Test the fullest range of installed components and storage	✔ **Identify the individual memory stick from 256 DIMM** up to **2-Exabytes;** and drives with **'Multi-Exabyte' sizes; plus CPU packages to 1024** under UEFI**.**
Large detection of hardware device testing, specialist test groups, unlimited scripting	✔ Validate the PC products and services you sell, support and service: **servers, embedded, laptops, notebooks, desktops.**
Microsoft® digitally signed boot loader	✔ No need to rely on 3rd party boot solutions like Linux. Maintain the 'chain of trust' avoid infection from malware and viruses.
Scripting or selected: Component and Burn-in tests, Duration, any Number of passes	✔ ***Total control of your diagnostic process – you define the test requirements. Reveal hard-to-find intermittent errors. Proves working hardware.***

Use true UEFI tests to fully validated components

Native UEFI diagnostics



Diagnostic Test Scripts

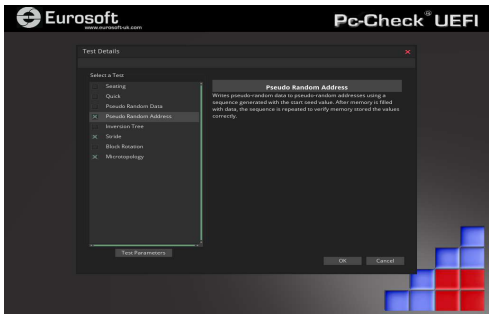


Comprehensive System Information

True 64 Bit UEFI tests

No resource

Fast test load—under 20 seconds



Legacy free

BIOS independent

Test outside of operating systems with Self–Booting UEFI diagnostics

No concern of OS driver stack filtering or blocking commands.

No concerns of OS modifying or redacting returned system information.

No abstraction or virtualisation of hardware.

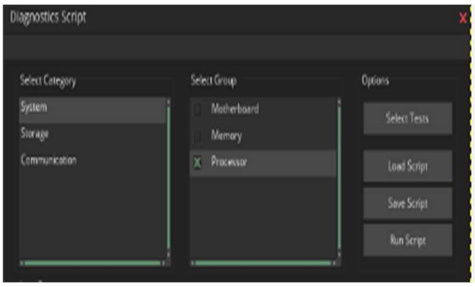
Dual bare metal testing options

Pc-Check® UEFI and Pc-Check® combine for the ultimate bare metal testing solution for legacy, and new UEFI based PCs all in one single package.
Add on Pc-Check® Windows, expanding your range of diagnostics to a perfect 3-point test plan.

Create and Automate Test Tools

Create different diagnostic test routines for manufacture, refurbishing, service and support.

UEFI testing can be started and scripted from a UEFI shell, allowing use along-side other third party UEFI tools.



Maximize profits by reducing hardware return costs

- Reduce asset identification, assembly, upgrade, and repair test workloads.
- Reduce returns and repairs.
- Reduce support calls.
- Increase profitability by improving PC reliability during system manufacturing integration, upgrading and servicing.

Control and contain errors

- Reveal hard-to-find intermittent errors.
- Log faults and unreliable computers.
- Test the bare hardware, no driver intervention.

Increase throughput by reducing human errors

- Standardized test scripts control unauthorised users and test usage.
- Identify hardware faults quickly, save hundreds of man-hours in fault testing.
- Versatile for variable user skill levels

One USB device, two diagnostics solutions

Containing **both Pc-Check and Pc-Check UEFI diagnostic software** the presence of legacy or UEFI compliant hardware is automatically detected.

If the system is a legacy device, Pc-Check will boot and execute; if the device is UEFI compliant, Pc-Check UEFI will boot and execute – even with secure boot turned on.

Diagnostic coverage for all major hardware groups in a native UEFI pre-boot, Self-Boot and Microsoft Windows or Microsoft Windows Preinstallation Environment.

Native UEFI Diagnostics

Network
Ping Test
Self Test
ICMP

Hard Drives
S.M.A.R.T. immediate
S.M.A.R.T. Short Self Test
S.M.A.R.T. Conveyance
S.M.A.R.T. Extended Self Test
Butterfly Seek
Random Read
Linear Read
Standby
Non-Destructive Write
Internal Cache
Intelligent Scan

Solid State Drives
Linear Read
Random Read
S.M.A.R.T. Immediate Test
S.M.A.R.T. Short Self Test
S.M.A.R.T. Extended Self Test
S.M.A.R.T. Conveyance
Internal Cache
Intelligent Scan
S.M.A.R.T. Wear Levelling

Memory
Block Rotation
Quick
Stride
Seating
Inversion Tree
Microtopology
Pseudo-random Data
Pseudo-random Address
BIOS Fault Detection

NVMe Drives
Random Read
Linear Read
Internal Cache
S.M.A.R.T. Health
Intelligent Scan

System Block Devices
Linear Read
Random Read
Intelligent Scan

System Information
System Overview
PCI Information
SMBIOS Information
System Variables (NVRAM)

Graphics Card
Display Memory

Processor
Core Instruction Set
Floating Point Instruction Set
SSE All Revisions
AVX All Revisions
Pairing Symmetry
Execution Symmetry
Cache Coherency
Cache Memory

Serial Ports
Line Control
Handshake
External Loopback
Internal Loopback
FIFO
Divisor Clock
Endurance

Audio
Direct PCM
Stream PCM

Keyboard
Keyboard Test
Keyboard Lights

System
Stress
Boot Variable Check

Trusted Platform Module
Basic Functionality

Optical
Linear Read
Random Read
Butterfly Seek
Deep Read
Laser Refocus

USB
Quick Test
NRZI Max Bit Stuffing
NRZI Glitch Zero
NRZI Oscillation Type 1/2/3/4
Max Disparity
Random Data

Motherboard
Memory Buses
PCI Buses
Disk Buses
Non-Volatile Storage
Real Time Clock

Monitor
Panel Test
Active EDID

Touch Device
Touch Test

Mouse
Mouse Test

Self-Boot Legacy Diagnostics

Memory
Module Seating
Inversion Tree
Stride Isolation
Small Block Stride
Chaotic Addressing
Block Rotation
Microtopology
Microtopology (Quick)
Microtopology (long)

Hard Drives
Read Quick/Standard/Full/Custom
Read Verify Quick/Standard/Full/Custom
Non-Destructive Write Quick/Standard/Full/Custom
Destructive Write Quick /Standard/Full/Custom
Mechanics Stress Quick /Standard/Full /Custom
Internal Cache
Standby/Performance
Standby
S.M.A.R.T. Immediate
S.M.A.R.T. Short
S.M.A.R.T. Extended
S.M.A.R.T. Conveyance

SSD Drives
Read Quick/Standard/Full/Custom
Read Verify Quick/Standard/Full/Custom
Non-Destructive Write Quick/Standard/Full/Custom
Destructive Write Quick/Standard/Full/Custom
S.M.A.R.T. Immediate
S.M.A.R.T. Short
S.M.A.R.T. Extended
S.M.A.R.T. Conveyance
Performance

NVMe Drives
Read Quick/Standard/Full/Custom
Read Verify Quick/Standard/Full/Custom
Non-Destructive Write Quick/Standard/Full/Custom
Destructive Write Quick/Standard/Full/Custom
S.M.A.R.T. Immediate
S.M.A.R.T. Short
S.M.A.R.T. Extended
S.M.A.R.T. Conveyance
Performance

Processor
Core Instruction Set
AMD64 Core
Intel64 Core
Coprocessor Core
Known Design Faults
3DNow! Extensions
MMX Extensions
SSE (SIMD) Extensions
Multi Processor Symmetry

Motherboard
DMA Controller
System Timer
Interrupt Controller
Keyboard Controller
PCI Bus
Real-Time Clock Chip

Trusted Platform Module
Self Test
Subversion Attempt

Input Peripherals
Keyboard
Mouse

Video Memory
Inversion Tree
Stride Isolation
Small Block Stride
Chaotic Addressing
Inverse Mesh
Block Rotation
Microtopology

FireWire
Controller Test

Cache Memory
Inversion Tree
Stride Isolation
Chaotic Addressing
Block Rotation
Microtopology

PCI Express
Link Width Configuration

Component Audit
Compare

Audio
Real-time PCM
Streaming PCM
SPDIF Run DMA

Internal Speaker
Beep Test

Video Adapter
Colour Purity
True Colour
Alignment
LCD
Test Card

Optical
Transfer
Random Seek
Test Disc Read
Laser Refocus

ATA Controller
Parallel
Serial

Serial Ports
Line Control
Handshake
Loop-back
Internal FIFO
Internal Loop-back
Divisor Clock

Windows Diagnostics

Parallel Ports
Data Port/ External Loop-back
Status Register

Memory
Quick
Pseudo Random Data
Walking Bit Left/ Right
Inverse Walking Bit Left/Right
Chequerboard
Bit Stuck High/Low
Pseudo Random Address
Microtopology
Memory Mismatch
Data Route
Windows Built-in Diagnostics

Gyroscope
Quick Status/Core Recognition
Simple Roll Test/Gyroscope Roll
Noise

Accelerometer
Core Recognition/Quick Status
Acceleration/Noise

Location
Core Recognition/Quick Status
Location

Bluetooth
Device Search
Device Pairing

Network
Configuration
IPv4 Connection
Wireless Strength
Wireless Connection
System Connected
Ethernet Connectivity
Loopback
Intel Adapter ID
Intel Hardware EPROM/FIFO/Register/
Interrupt
Intel Loopback Connection
Intel external Loopback
Intel Link Speed Duplex
Intel Link Speed Duplex Offline
Intel Cable Length
Intel Cable Polarity
Intel Local Receiver
Intel Cable Quality
Intel Ping

Hard Drives
Butterfly Seek
Random Read,/Linear Read
S.M.A.R.T. Failure/S.M.A.R.T. Short
S.M.A.R.T. Conveyance
S.M.A.R.T. Extended
Idle Temperature
Instantaneous Temperature
S.M.A.R.T. Threshold
S.M.A.R.T. Custom
Drive Health/Drive Overall Health
Intelligent Scan

Optical
Linear Read/Random Read
Advanced Movement
Media Erase
Directory Write/ISO Image Write
Media Eject

NVMe Drive
Random Read/Linear Read
S.M.A.R.T. Failure/Idle Temperature
Instantaneous Temperature
Intelligent NVM Scan

USB
Detected Devices
Connectivity
Quick Test
NRZI Max Bit Stuffing
NRZI Glitch Zero
NRZI Oscillation Type 1/2/3/4
Max Disparity/Random Data/Speed
Connection Verification

Floppy Drives
Butterfly Seek/ Linear Read
Read Write/Media Change
Write Protect

Monitor
Red /Green/Blue Purity
Mesh/Inverse Mesh
White MEME/ Green MEME
Tonality /Grid/ LCD Dead Pixel
Monitor Count
Internal Monitor Count
VGA/DVI/HDMI Monitor Count
Display Port/USB-C Monitor Count
Wireless Monitor Count
EDID Checksum
Monitor Brightness

Serial Ports
Configuration Registers
Quick Loop-back/Baud Rates
Sustained Loop-back
Priority Transmit/Endurance

Removable Media
Linear Read/Random Read
Connectivity/Media Bad sector
Fake Detection

System
Stress/Sleep/Hibernate
Quick Blue Screen Dump
Lid Detect
Convertible System
Operator Response
Blue Screen Event

Battery
Voltage/Performance/Quick State
Core Recognition
Advanced State
Charge Level/Charge Life

Compass
Core Recognition /Quick Status
Direction

Optical
Linear Read/Random Read
Advanced Movement
Media Erase
Directory Write/ISO Image Write
Media Eject

Trusted Platform Module
TPM Presence Test/Self Test

Processor
Core Instruction Set
Floating Point Instruction Set
SSE/2/3 /4.1/4.2/4A Instruction Set
Cache Functionality
Multi-core/Multi-processor
Core Priority
Thermal Stress/Power Stress
CPU Fan Test
CPU Temperature
AVX Instruction Set
SSSE3 Instruction Set
FMA3/FMA4 Instruction Set
CLMUL Instruction Set
AES Instruction Set

Audio
Audio Connection
Loop-back Count
Advanced Quality
Quick Microphone
Quick System Sound
Volume Change/Playback

Graphics Card
Linear Memory
Microtopology Memory
Chaotic Addressing Memory
Hardware Acceleration
Graphics Card Temperature
Default Driver
OpenCL Bandwith
OpenCL Walking Zeros/Ones
OpenCL Moving Inversion
OpenCL Integer Logic
OpenCL Integer Logic -Local Memory
OpenCL Random
OpenCL Modulo
CUDA Bandwidth
CUDA Walking Zeros/Ones
CUDA Moving Inversion
CUDA Integer Logic
CUDA Integer Logic - Local Memory
CUDA Random
CUDA Modulo
CUDA Compute
CUDA Stress
GPU Driver Crash

Video Capture
Capture Driver
Composite Capture Driver
S-Video Capture Driver
TV Capture Driver
RGB Capture Driver
Capture/Composite Capture
S-Video Capture
TV Capture/RGB Capture
Image Quality
IR Camera Presence

Biometric
Core Recognition

RAID
Linear Read

FireWire
IEEE 1394

Motherboard
North-bridge/South-bridge
CMOS Clock/CMOS Checksum
CMOS Battery
System Fan
Voltage Core Detection
System Temperature

Operating System
License/Event Log
Kernel Response
Driver/Signed Driver
Security Support
Time Service Check
System Files check
Windows 11 Compatability

Hardware Monitor
System Temperature
CPU Temperature
CPU Fan
System Fan
Voltage Core Detection Test
Drive Temperature
Graphics Card Temperature
Graphics Card Temperature

Solid State Drives (SSD)
Linear Read/ Random Read
S.M.A.R.T. Failure/S.M.A.R.T. Short
S.M.A.R.T. Conveyance
S.M.A.R.T. Extended
Idle Temperature
Instantaneous Temperature
S.M.A.R.T. Threshold
S.M.A.R.T. Custom
Wear Range Delta
Drive Health/Drive Overall Health
Intelligent Scan

Touch Screen
Pen Grid/Pen Axis/ Pen Accuracy
Touch Multi-Touch/ Ghost-Touch
Touch Path Continuity
Touch Curve Continuity
Touch Primary Touch
Touch Width/Touch Grid
Touch Axis,/Touch Accuracy
Touch Gesture

Keyboard
Keyboard Zone/Keyboard LED
Keyboard Dock Detach
Keyboard Map/Ghost Key
Keyboard Connection

Pointing Devices
Quick Mouse/Mouse Button
Movement/Jitter

Ambient Light
Core Recognition/ Quick Status
Ambient Light Level

Server
IPMI System Event Log
IPMI Health/ Sensor/ Alarm
Temperature Sensor
Fan Sensor/Voltage Sensor
Power Sensor/Constant Sensor

The test groups or tests noted in BLUE require a full Windows environment. Example (see above for all): Video | Biometric Devices | Capture Card* | Network Interface tests for wireless network interfaces | System Sleep Test | System Hibernate Test | Battery Voltage Test | Server Group | Sensors *Generic Capture Driver Test available in Microsoft Windows Preinstallation Environment (WinPE). Eurosoft test accessories required for peripheral ports and media trays: USB, serial, audio, DVD/CDROM. Mac® Boot Camp® drivers required in WinPE or use Pc-Check® WinPE Image Creator build tool without drivers (all tests non-native, Intel Architecture only). 3rd-party vendor tools must be UEFI compatible.

Who Uses the Pc-Check® Diagnostic Software Suite?

Solutions for an ever changing landscape...

Testing PCs has financial reward. Starting with a series of simple test steps, you gain immediate cost savings.

Computer manufacturing and system integrating rely on diagnostics to form standard test practices. Repair, services and support are blending with field technicians, backing MSP's who remotely manage all varieties of computers. Critical assessment of systems situated publicly: government, military, education, healthcare, as well as private verticals expect compliant, running systems. Refurbishing has taken off, extracting re-workable components to balance a broad eco-system, recycling where they can't. Everywhere, demand for reliably running PCs is required and expected.

Ensuring reliability requires quality testing. The Pc-Check diagnostic suite takes on the widest testing landscape, instilling quality, combining bare-metal UEFI and legacy testing, plus Microsoft Windows/WinPE too. The end result: components are reliably tested and validated independent of the operating system [and] within the Microsoft Windows environment whether new or old devices. Proven diagnostics, capable of assisting all sizes of companies and skill sets, loads of testing features and unlimited ways of using them. **Testing brings reward.**

Manufacturing OEM/ODM System Builders Assemblers System Integrators	Manufacturers and system integrating of all sizes, those who build fresh and new, use the **PC Builder™ Test Management Suite** and **Pc-Check® diagnostic suite** to validate new hardware and system configurations prior to investing time in loading an operating system, and shipping into the channels.
Refurbishing Microsoft Authorised Refurbishers ITAD Rentals and Leasing Recyclers	Refurbishers, eco-committed, re-manufacturing, repurposing or IT asset disposing PCs, **use PC Builder™** and **Pc-Check® diagnostic** suite to quickly and reliably validate inbound and outbound hardware assets for suitability of reuse, before upgrading, re-imaging and hard drive data erasing with **Eurosoft's ZeroData™ Windows®** drive erasure software. **data erasing with Eurosoft's ZeroData™ Windows drive erasure software.**
Services Break-Fix Operations Field Technicians Computer Shops Consultants	Servicing has a wide commitment, bringing consumers and industry closer to the repair process. The full Pc-Check® diagnostic suite brings portable testing to the PC with pre-boot options, multiple script creation, and recordation, reaching a variety of diverse PC customers**. ZeroData™ Windows® securely clears data.**
Support Network Administrators I.T. Professionals Managed Service Provider Help Desk	Support can involve deployment and online technical sessions. Preventative maintenance, secure hardware platforms and rapid diagnosis for disaster recovery is required. Each **Pc-Check®** program gives a fast and flexible approach to assessing hardware issues at the start, and end point of a support session. **ZeroData™ Windows®** securely clears data**.**

Flexible user and licensing options to perfectly fit your costs and needs.

Eurosoft (UK) Ltd are dedicated to offering a variety of diagnostic and test management solutions as standalone packages, bundled with systems and services, as well as site licenses of all sizes. Fully commercially supported, and maintained to test the widest range of PC-based hardware, regardless of brand. Whether you are responsible for 1, 100 or 1000+ test stations or have as many technicians at your disposal, the Pc-Check diagnostic suite offers flexible testing solutions, giving you maximum reliability over your entire operation.

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Eurosoft computer reliability solutions

Microsoft Partner Silver Independent Software Vendor (ISV)

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