

Technical specification

Product Name & Storage Media Type	Description
<p>PC-3000 UDMA System</p> <p>for HDDs based on PATA/SATA interface</p>	<ol style="list-style-type: none"> 1. The device should have the special microchips which are developed for the purpose for working with damaged HDDs 2. Allows to work with the HDDs directly, avoiding the Operation System influence 3. Capable to work with damaged HDDs in a special technological (factory) mode 4. Has a specialized analyzer of all existing file systems to read data from the drives with seriously damaged magnetic surfaces 5. Specialized mode to build head map/object map to read the data only from the working heads skipping damaged ones 6. Integrated functionality for logical analysis: <ul style="list-style-type: none"> ▶ Head map building ▶ Object map building ▶ Raw recovery (carving) 7. Capable to work with <i>Logical Issues</i>: <ol style="list-style-type: none"> a. Firmware Issues (in Service Area): <ul style="list-style-type: none"> ▶ Slow Responding Issue ▶ Corrupted Translator ▶ SMART Issues ▶ Password Locked Issues ▶ Self Encrypting Drives ▶ ROM Issues b. File System Issues: <ul style="list-style-type: none"> ▶ Encrypted Drives (File Vault, BitLocker, True Crypt) ▶ Deleted Files ▶ Formatted Partitions ▶ Different file system issues, such as damaged partitions and metadata 8. Capable to work with <i>Physical Issues</i>: <ul style="list-style-type: none"> ▶ Head Issues ▶ Surface Issues (Bad Blocks) ▶ PCB Issues 9. Form factor: Embedded PC expansion board which uses one slot 10. Interface type: One-channel PCI Express 2.5 GB/s 11. Diagnostic ports (location): 2-SATA (external), 1-PATA (internal) 12. Processing modes: <ul style="list-style-type: none"> ▶ SATA - UDMA133/100/66/33, PIO4/3/2/1/0 ▶ PATA - UDMA100/66/33, PIO4/3/2/1/0 13. Power adapter: Two-channel power adapter with protection from overvoltage and current overloading. HDD Connectors are external 14. Supported HDD: 500 MB-18 TB: 3.5", 2.5", 1.8", 1.0" 15. OS Platforms: Windows 7, Windows 8, Windows 10; x86, x64, Windows 11 x64 16. Supported file Systems and Storage Systems: FAT, exFAT, NTFS, HFS+, APFS, EXT2/3/4, XFS, ReiserFS, BtrFS, VMFS, UFS1/2, ZFS 17. DVR Files Systems: DHF4.1, WFS0.x 18. Supported VM images: Flat (file-image), VMDK (VMWare), VHD, VHDX, DMG 19. Interface: PCI Express 1x 20. Ports: 2 SATA, 1 PATA 21. Reading modes: UDMA133/100/66/33, PIO4/3/2/1/0 22. The maximum number of working tasks for damaged HDDs: 2

PC-3000 UDMA RAID System

for HDDs based on PATA/SATA interface and RAID based on PATA/SATA interface

PC-3000 UDMA SSD System

for HDDs based on PATA/SATA interface and SSDs based on SATA/microSATA/mSATA/M.2/PATA/UF/ZIF interface

23. Supported SATA/PATA HDDs:

Visit our official blog to see the [latest supported SATA/PATA models](https://blog.ancelab.eu.com/list-of-supported-hdd.html).
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PC-3000 UDMA RAID System includes the functionality of the **PC-3000 UDMA System** and the **Data Extractor RAID Edition utility**.

1. Opportunity to recover data when one or several drives have not only logical (deleted partitions, virus attacks, etc.) but also serious physical damages
2. Opportunity to easily determine configuration and recover data with both automatic and advanced manual methods
3. Automatically identifies standard RAID levels, supports combined levels and optional configs, plus ZFS RAID (RAID-Z and others), Btrfs RAID, WSS
4. Powerful interactive mode to analyze and detect non-standard RAID configuration in sophisticated cases
5. Connects to any type of RAID members, works even with physically damaged HDDs inside RAID imaging them on-the-fly
6. Emulation of a RAID controller:
 - ▶ Mounting of virtual RAID to Operating System for further analysis
 - ▶ High speed of readout, analysis and imaging
 - ▶ Recovering data from redundant arrays — even with bad sectors or damaged members
7. **Possible array members:**
 - ▶ Up to 2 HDDs connected to the PC-3000 UDMA ports
 - ▶ HDDs connected to computer ports in a standard way
 - ▶ Image-files
 - ▶ Previously created Data Extractor tasks with copying to file
 - ▶ Previously created virtual RAIDs
 - ▶ HDDs connected to the PC-3000 UDMA ports
8. **8. Maximum number of damaged HDDs per one task:** 2 HDDs connected to the PC-3000 UDMA ports
9. **Supported virtual RAID levels:**
 - ▶ 0 (Stripe), 1 (Mirror), 1E Offset and Adjacent, JBOD, 4, 5, 5E, 5EE, 6 and 6-Adaptec
 - ▶ Various combined levels: 10, 50, 51, 60 and others (due to the possibility to use virtual RAID array as a member)
 - ▶ Software-based RAID and multi-disk storage systems: LDM and mdadm structure analysis, WSS (Windows Storage Spaces), ZFS RAID-Z, Btrfs RAID, Apple Fusion Drive (HFS+, APFS)
 - ▶ Custom configurations that are set by user with the tabular (matrix) presentation

PC-3000 UDMA SSD System includes the functionality of the **PC-3000 UDMA System** and the **PC-3000 SSD utility**.

1. **System's functionality:**
 - ▶ Repair functions
 - ▶ Data recovery functions
 - ▶ Service and diagnostic functions
 - ▶ Perform service operations, re-write the drive microcode, get a direct access to memory chips, carry out low-level formatting blocking the damaged cells and placing their addresses into the defect table
 - ▶ Search for the damaged memory chips, perform low-level formatting, reset S.M.A.R.T. parameters and more
 - ▶ View and reset the password previously set on an SSD
 - ▶ Get direct access to the content of memory chips and user data — without soldering
2. **SSD operation modes:**
 - ▶ UDMA, PIO, Terminal

3. Supported interfaces:

- ▶ PATA
- ▶ SATA
- ▶ mSATA (if there is an adapter)
- ▶ M.2 (NGFF) (if there is an adapter)

4. Working techniques:

- ▶ Standard technological modes for SSD
- ▶ The System's proprietary advanced technological modes
- ▶ The possibility of working with dumps in the manual mode

5. Supported SSDs:

Visit our official blog to see the [latest supported SSD models](#).

<https://blog.ancelab.eu.com/pc-3000-ssd-list-of-supported-ssd-drives-regularly-updated.html>

PC-3000 UDMA Ultimate System

for HDDs based on PATA/SATA interface, SSDs based on SATA/microSATA/mSATA/M.2/PATA/UF/ZIF interface and RAID based on PATA/SATA interface

PC-3000 UDMA Ultimate System includes the functionality of the **PC-3000 UDMA SSD System** and the **PC-3000 UDMA RAID System**.