



PC-3000 Express Systems

24-CHANNEL ADC FOR OSCILLOSCOPE MODE

SATA PORTS x4

PC-3000 EXPRESS HAS NEW SERIAL ATA 3.0 GB/S BRIDGES WITH A NEW POWER SCHEME. DUE TO THESE ENHANCEMENTS, THE DATA TRANSFER SPEED AND STABILITY OF SATA PORTS HAVE BEEN INCREASED.

POWER OUT x4

TO POWER THE HDDS, THE NEW INTELLIGENT POWER SUPPLY UNIT IS USED. IN ADDITION TO POWER CONTROL AND POWER SUPPLY FUNCTIONS, THE NEW UNIT ALLOWS TO MEASURE INSTANTANEOUS CURRENTS ON EACH OF THE FOUR CHANNELS (CH0...CH3) VIA +5V AND +12V.

BUILT-IN PROTECTION ENSURES POWER-OFF IN CASE OF SHORT CIRCUIT OR EXCEEDING THE PERMISSIBLE VALUE OF THE CURRENT CONSUMPTION BY THE DRIVES, AS WELL AS IF THE NOMINAL VALUE OF THE +5V AND +12V OUTPUT VOLTAGES WILL GO BEYOND $\pm 20\%$.

SATA POWER CONNECTORS

THE POWER SUPPLY UNIT USES NEW POWER SATA PORTS FOR MORE RELIABLE POWER CONNECTION AND BETTER COMPATIBILITY WITH MODERN PC POWER SUPPLY UNITS.

POWER PROTECTION

IF THE OVERCURRENT PROTECTION IS ACTIVATED, YOU WILL HEAR A BEEPING SOUND. THIS SOUND INDICATES THE NUMBER OF THE CHANNEL WHICH HAS BEEN POWERED OFF.

Professional data recovery solutions for the digital forensic labs
with a big flow of cases

6-port*
tester-board

4 HDD/SSD/RAID
members

4 SATA
ports
with speed up to
150 MB/s

+

2 PATA
ports
with speed up to
133 MB/s

can be connected to the PC-3000 Express at the same time. Thus, you can restore either 4 SATA drives or 2 SATA and 2 PATA drives or 3 SATA and 1 PATA drives.

The total number of connected RAID members can be increased with motherboard ports, image files and the PC-3000 Hybrid System.

The PC-3000 Express is a hardware-software solution intended for diagnosing and repairing damaged SATA/IDE HDDs. Together with other ACE Lab's software products, it forms the fastest, most efficient and powerful systems to recover data from SATA/IDE HDDs, RAID and SSD that ever existed:

- ▶ PC-3000 Express System (PC-3000 Express + Data Extractor Express)
- ▶ PC-3000 Express RAID System (PC-3000 Express + Data Extractor Express RAID Edition)
- ▶ PC-3000 Express SSD System (PC-3000 Express + Data Extractor Express + PC-3000 SSD)
- ▶ PC-3000 Express Ultimate System (PC-3000 Express + Data Extractor Express RAID Edition + PC-3000 SSD)

*SATA0 and SATA1 are the primary ports, SATA2 and SATA3 ports are switchable with the PATA ports (PATA0 and PATA1).

What’s special about PC-3000 Express Rev. 2.0.

- ▶ Broad support of all generations of SATA/PATA HDD (500MB-8TB) with proven over time hardware platform
- ▶ More efficient HDD diagnostics due to the oscilloscope functions of the new Intelligent Power Supply Unit
- ▶ Better compatibility with modern PC power supply units as a result of substitution of the old 4-pin PATA Power Connectors with SATA Power connectors
- ▶ The increase of the data transfer rate and improvement of the SATA ports stability thanks to the new circuit design of the Serial ATA 3.0 GB/s bridges

The PC-3000 Express System Kit:



1. PC-3000 Express controller	– 1 pc.	14. PC-WD 2.5" adapter	– 1 pc.
2. PC-USB PWR adapter	– 1 pc.	15. ATCS, ATDA probe unlock	– 1 pc.
3. PC USB TERMINAL 3 adapter	– 2 pcs.	16. USB 2.0 cable	– 2 pcs.
4. PC-2" adapter	– 1 pc.	17. SATA RAID edition (100 cm) cable	– 4 pcs.
5. SATA-micro SATA adapter	– 1 pc.	18. UDMA80 (80 cm) flat cable	– 2 pcs.
6. MX-SAFE adapter	– 1 pc.	19. IDC10 (30 cm) cable	– 2 pcs.
7. PC-FUJ.SATA adapter	– 1 pc.	20. MX-SAFE power cable	– 1 pc.
8. PC-QUANTUM adapter	– 1 pc.	21. SATA HDD (100 cm) power cable	– 2 pcs.
9. PC-SAMSUNG adapter	– 2 pcs.	22. PATA HDD (85 cm) power cable	– 2 pcs.
10. PC-SEAG.SATA adapter	– 2 pcs.	23. PATA-SATA (15 cm) power adapter	– 2 pcs.
11. PC-SEAGATE adapter	– 2 pcs.	24. PC-3000 Express software, resource database	– 1 pc
12. PC-TOSH.SATA adapter	– 2 pcs.	25. User manual	– 1 book
13. PC-WD 3.5" adapter	– 1 pc.		



Evidence recovery from HDD

```
0x0000: 46 49 54 20 20 20 20 20
0x0010: 41 30 09 00 9D 00 10 00
0x0020: B3 00 42 4F 4F 54 53 45
0x0030: 02 00 46 49 54 20 23 20
0x0040: 04 00 4D 4 9 53 54 20
0x0050: 00 00 46 53 49 20 20 20
0x0060: 9B 00 53 56 5F 54 42 4C
0x0070: B4 00 52 52 30 5F 54 42
0x0080: B5 00 52 45 53 4F 5F 54
0x0090: 68 00 46 44 54 5F 54 42
0x00A0: 0C 00 43 48 4E 5F 54 42
0x00B0: 06 00 43 4F 4E 46 49 47
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DATA EXTRACTOR
THE BEST... EVER

Recovers more data than any other tool in the world

The Data Extractor professional software product is an essential part of the PC-3000 hardware-software systems intended for recovering data from SATA (Serial ATA), ATA (IDE) HDDs 3.5", 2.5", 1.8", 1.0", SAS (Serial Attached SCSI), SCSI, USB HDD, SSHD (Solid State Hybrid Drive), etc.

PC-3000 Systems allow reading only necessary data due to the powerful integrated functionality for logical analysis of file systems. This advanced technology greatly reduces the volume of the read data, the workload on damaged HDDs and the time required for data recovery. Thus, you can read the data even if a drive has considerable physical damage

Supported SATA/IDE HDDs:

Damaged (physically and logically), encrypted and healthy SATA/IDE HDDs of various vendors:

- ▶ Western Digital
- ▶ Seagate
- ▶ Samsung
- ▶ Maxtor
- ▶ Toshiba
- ▶ Quantum
- ▶ Fujitsu
- ▶ Hitachi

To recover data from HDD you need one of the following Systems:

- ▶ PC-3000 Express Systems
- ▶ PC-3000 UDMA Systems
- ▶ PC-3000 Portable Systems
- ▶ PC-3000 SAS Systems

Supported SAS/SCSI HDDs:

Damaged (physically and logically), encrypted and healthy SAS/SCSI HDDs of various vendors:

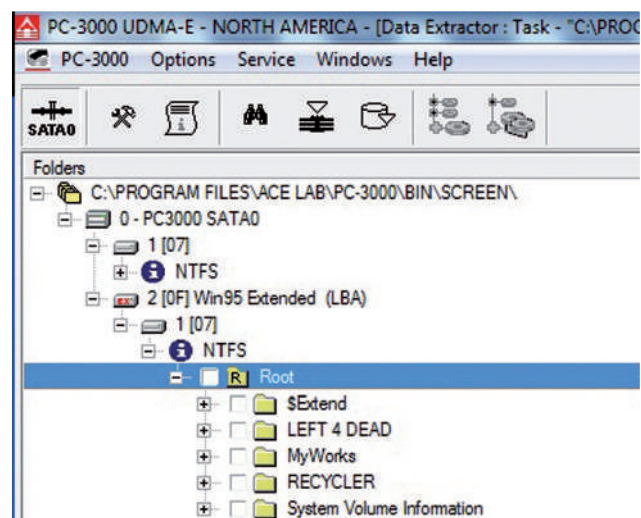
- ▶ IBM
- ▶ Seagate
- ▶ Hitachi GST
- ▶ Maxtor
- ▶ Fujitsu

Supported file and storage systems:

File systems: FAT, exFAT, NTFS, ReFS, HFS+, APFS, EXT2/3/4, XFS, F2FS, ReiserFS, BtrFS, VMFS, UFS1/2, ZFS

DVR Files Systems: WFS0.4, DHFS4.1

Virtual drives: flat (raw image), vhd, vhdx, vmdk, dmg





Evidence Recovery from SSD

PC-3000 SSD DRIVE THE CHANGE

NAND CHIPS ID:

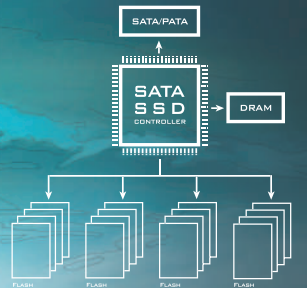
CHANNEL 0:
CE 0: LOGIC CHIP
CE 1: LOGIC CHIP
CE 2: LOGIC CHIP
CE 3: LOGIC CHIP

CHANNEL 3:
CE 0: 0x2C8B044B
CE 1: 0x2C8B044B
CE 2: 0x2C8B044B
CE 3: 0x2C8B044B
> ■

SSD DETECTED

TECHNOKEY : DETECTED!
CAPACITY : 256 GB
NUMBER OF CHANNELS : 8

CHANNEL 0:
CE 0: LOGIC CHIP
CE 1: LOGIC CHIP
CE 2: LOGIC CHIP
CE 3: LOGIC CHIP



CHANNEL 1:
CE 0: 0x2C8B044B
CE 1: 0x2C8B044B
CE 2: 0x2C8B044B
CE 3: 0x2C8B044B

CHANNEL 2:
CE 0: 0x2C8B044B
CE 1: 0x2C8B044B
CE 2: 0x2C8B044B
CE 3: 0x2C8B044B

The leading-edge unique solution for recovering SSD in technological mode

The PC-3000 SSD Software is a professional product intended for restoring SSD and recovering data from them.

To recover evidence from SSD you need one of the following Systems:

- ▶ PC-3000 Express SSD/Ultimate System
- ▶ PC-3000 UDMA SSD/Ultimate System
- ▶ PC-3000 Portable SSD/Ultimate System

Key Features for SSD Diagnosis, Repair and Data Recovery

- ▶ Diagnose an SSD in technological mode
- ▶ View the logs of hidden defects (P-page, G-page)
- ▶ Perform low-level formatting to hide the discovered defects
- ▶ Reset the logs and S.M.A.R.T. parameters
- ▶ Search for the damaged memory chips
- ▶ Provide direct access to the content of memory chips so that you do not need to unsolder the chips
- ▶ Emulate the translator operation in order to get an access to user data
- ▶ Load the microcode into the drives RAM
- ▶ Read and write the content of the SSD ROM
- ▶ Verify and restore the SSD service information
- ▶ View the password and reset the password that was earlier set on the SSD
- ▶ Turn off background processes in the SSD to prevent data damage
- ▶ Work with the Data Extractor

