



PC Expansion Cards

Aleph One Limited

The Aleph One PC Expansion Card family accelerates applications written for IBM PC/XT/AT and compatibles running MS-DOS, DR-DOS or OS/2 on all Acorn 32-bit RISC computers with at least one vacant podule expansion slot.

Two models are available. The 386PC includes a powerful 80386SX processor which runs most programs around 10 to 15 times faster than Acorn's software PC emulator does.

The 486PC includes a 486SLC processor offering performance double that of the 386PC. Both cards have a clock speed of 25MHz.

In addition to PC functionality and speed far in advance of Acorn's software PC Emulator, Aleph One PC cards offer a high degree of integration between the PC and Acorn worlds on your desktop.

Swapping text and graphics between PC and Archimedes is as simple as cutting and pasting—imagine pasting text from PC-only CD-ROMs directly into your RISC OS word processor or database files.

When the optional Windows driver is installed, the two processors work together with the ARM CPU acting as a powerful graphics coprocessor.

The cards work in two modes. In multi-tasking mode they operate in a RISC OS window as an application

complying with Acorn's user-interface guidelines. In single-tasking mode the PC takes over the whole screen. A single click or keypress transfers you between modes.

The 386PC

The 386PC's powerful 386SX processor allows it to run applications too advanced for Acorn's software emulator; all major PC applications tested so far can be run on the card. That includes WordPerfect, AutoCAD, Lotus 1-2-3, dBase, and SIMS. Any software 'dongles' can be attached to the printer port.

The 386 PC Card provides a PC on a card using a 80386SX processor, optional 80387SX coprocessor, 1 MB or 4MB RAM, integrated PC chipset and custom BIOS. Extended and expanded memory provision is made using the LIM 4.0 standard.

The 486PC

The 486PC features the Cyrix 486SLC processor, used in many desktop and portable PC clones.

This card offers the same degree of PC compatibility that we have achieved on the 386PC card, but its increased performance makes it more suitable for the more demanding PC user.

The 486PC is available with either 1 MB or 4MB RAM and supports an optional 80387SX coprocessor.

Our tests show that our 486PC card operates on average around twice as fast as our 386PC card.

Windows™

The PC world itself is fast moving towards graphical user interfaces. Microsoft Windows 3.1 and all applications available for it also run on the 386PC and 486PC cards—the only way you'll get the latest from the PC world on to your RISC OS desktop.

An optional Windows driver is available which dramatically improves the performance of the cards when running Microsoft Windows. The graphics power of the ARM chip inside your Acorn computer is harnessed to perform all Windows' graphics tasks and reduce the workload of the 386 or 486 processor.

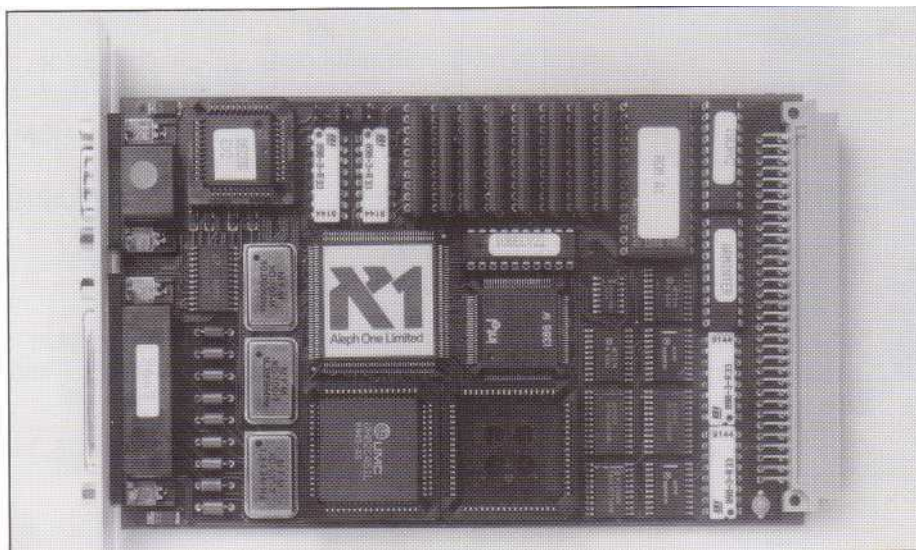
For graphics-intensive Windows work this can add a further 20-fold performance improvement over the standard 386PC or 486PC. In effect, the Windows driver gives you a powerful PC with a powerful graphics accelerator—the ARM.

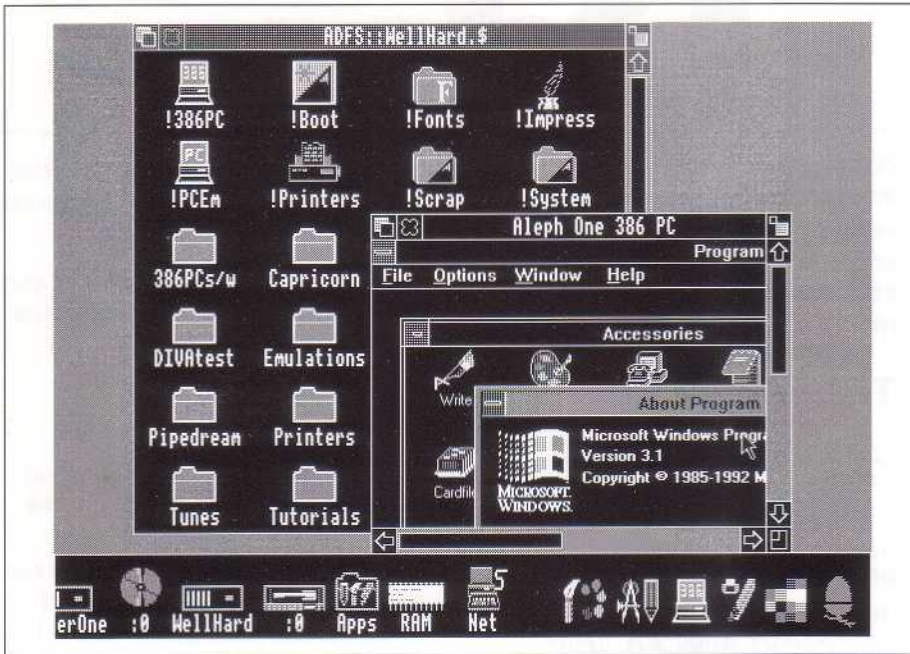
Software extensions

Optional software extensions allow you to extend the functionality of your 386PC or 486PC, and to use your existing Archimedes peripherals with it. Planned extensions include:

- Disc cache
- RAM disc
- Novell network support
- RISC OS printer support
- RM Nimbus emulator

A Developers' Kit is also available which allows any Archimedes peripheral or add-on to be interfaced to the cards. Contact Aleph One to discuss any special requirements.





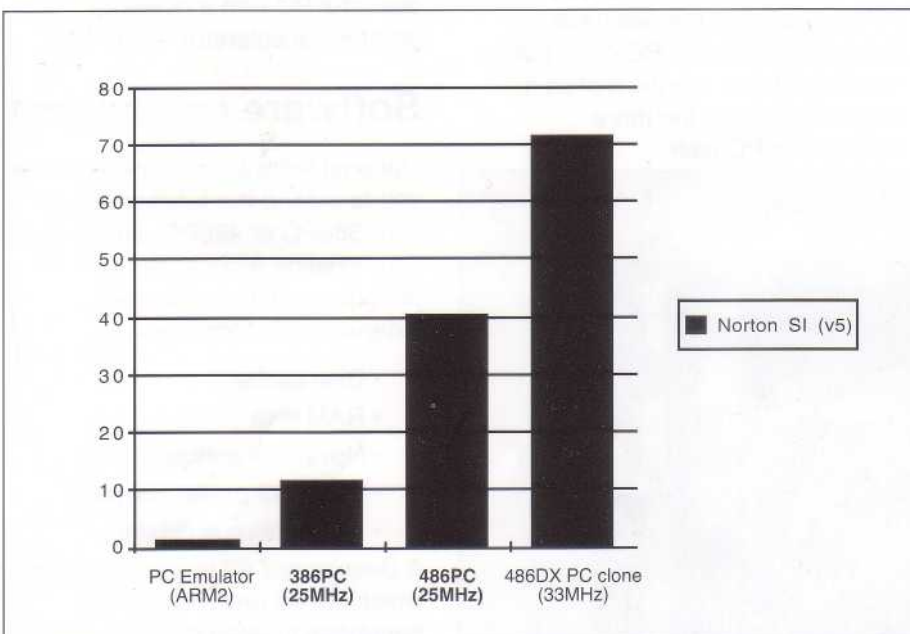
Compatibility

Both cards will work on any Acorn Archimedes with a suitable free podule expansion slot. They cannot be fitted to the A4 portable, the A3010, A3020 and A4000.

The cards will automatically use the keyboard, mouse, real-time clock, and drives in your computer.

The specification of your Archimedes affects the performance of the 386 PC in the following way:

Floppy drive: A300, A400 and A3000 can read and



write 720K DOS disks, A5000 adds 1.44M DOS disk support.

Hard drive: Recommended. Any RISC OS hard drive-SCSI, ST506 or IDE is supported. You may create a PC partition up to the RISC OS limit of 512MB.

CD-ROM: Any drive which works under RISC OS will allow you to access PC CD-ROM discs using the 386PC or 486PC.

Monitor: A VGA or multi-frequency screen is needed to use VGA in single-tasking mode.

ARM CPU: An ARM3 will improve the speed at which the 386PC and 486PC can draw the screen.

Memory: Requires 640K RAM free on Archimedes for maximum configuration.

You will need a copy of the Acorn PC Emulator, version 1.6 or later.

Technical data

CPU (386PC):25MHz 80386SX
 CPU (486PC):25MHz 486SLC
 Coprocessor: 25MHz 80387SX or equivalent (optional)

RAM: 1 MB or 4MB

EMS: LIM/EMS 4.0 in hardware

Serial port: 9-pin connector

Parallel port: 25-pin connector bidirectional port

BIOS: Fully custom, RAM loaded

Display: MDA/CGA/EGANGA

This information concerns a product under continuous development. Aleph One reserves the right to alter its specification without notice. All trademarks acknowledged. E&OE. 10/92