WINTER 1984

QUADRAM QUIPS

NEW IMPROVED QUADBOARD®

Quadram™ Corporation's new, expanded Quadboard combines nine of the most useful microcomputer functions on one board (including memory expansion up to 384K) to get the most out of IBM® Personal Computers.

Quadram's new multifunction Quadboard, inserted into one IBM expansion slot, leaves the other slots free to connect printers, plotters, modems, and other peripheral devices.

Quadboard is now expandable to 384K RAM (using 64K increments) and has full parity checking. With a fully populated system board, the PC user can have a total of 640K RAM to take care of the most demanding business needs with plenty of memory left over for educational programs or games.

Quadboard also includes: a parallel port to operate most printers and other parallel devices; a serial port to connect modems, printers and other serial devices; a chronograph, an extremely accurate, battery-powered, real time clock to automatically keep the PC up-to-date; a game port, which supports joysticks or game paddles; and an I/O bracket, which snaps onto the back of the PC to organize the PC expansion port connectors.

Quadboard also comes with new, advanced, easy-to-use menu driven software, which includes a diagnostic testing program that thoroughly checks out the Quadboard's hardware and indicates failure spots.

Quadram's expanded Quadboard features nine of the most useful functions.

The QuadMaster II disk includes a program called QuadRAM Drive, which allows the PC user to set up multiple solid-state RAM drives, a feature especially useful for users who need frequent, quick access to files. QuadRAM Drive is also a handy feature for programming and compiling purposes.

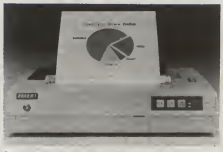
The new QuadMaster II Disk also includes disk caching to instantly access frequently used files without waiting for the microprocessor to search through the directory.

MasterSpool, an advanced print buffer, also is included to allow the PC user to set up the amount of buffer space needed so that he can continue computing without waiting for the computer to send data to the printer. This program allows the PC user to pause, back up, or move forward at any time in a file to print a whole document or whatever portion is desired.

QuadMaster II also includes Qswap, which allows PC users to change line printers 1 and 2 back and forth as often as needed. For example, a PC user may want a printout from a dot matrix printer for his own personal use but may need a letter quality print-out for business purposes.

Built with Quadram Quality, Quadboard retails for $295 (no memory), $395 (64K RAM), $675 (256K RAM), and $795 (384K RAM).

QUADRAM LAUNCHES QUADJET™



Quadjet uses an advanced drop-on demand ink-jet printing system.

Quadjet from Quadram Corporation is a compact, lightweight, low cost ink-jet printer that will make high quality printouts in up to seven sharp colors at 40 characters per second.

Quadjet uses an advanced drop-on-demand ink jet printing system that delivers 640 dots per line of high-resolution color text or graphics.

Quadjet's bi-directional line scanner will print 80 characters per line for standard characters and 40 characters per line for enlarged characters.

Quadjet uses disposable ink cartridges that simply snap in and out and print about 4 million characters each before needing to be replaced.

Quadjet is so quiet it's hardly noticeable (measuring less than 50 dB). In fact, Quadjet is even quieter than an IBM PC with two disk drives and a color monitor (56 dB).

Quadjet has both image printing and CRT hard copy functions and uses almost any 8 1/2-inch sheet of paper.

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Because of its small size, 15 3/4 inches (W) by 11 5/8 inches (L) by 4 1/4 inches (H), Quadjet fits comfortably beside almost any personal computer, whether an IBM or an Apple, and weighs only 12.3 lbs.

Accessory kits are available to adapt Quadjet to IBM and Apple personal computers. Accessory kits for other microcomputers will be available soon.

The IBM accessory kit contains two different software programs. One works as a screen dump, meaning that Quadjet will print exactly whatever appears on the screen.

The other program allows the user to modify the colors of the graphics or text before sending the image to Quadjet.

Using Quadjet software on the IBM PC is simple. The instructions explain each step of the program and all that is required is that Quadjet be properly linked to the PC system.

Quadjet is available at authorized Quadram dealers and retails for $895.

QUADDISK™ – THE FASTEST, QUIETEST, HIGHEST CAPACITY HARD DISK DRIVE ON THE MARKET

Quadram Corporation now offers a sophisticated line of hard disk drives that bring microcomputers up to the level of main frame computers.

Quadram's QuadDisk is the fastest, easiest-to-use hard disk drive on the market for the IBM PC, and PC compatible microcomputers. QuadDisk is completely integral with the PC and, unlike other hard disk drives, requires no noisy external power supplies or cumbersome cabinets, some of which are as big as the PC itself.

Built with Quadram Quality, QuadDisk has a 99.5 percent reliability factor, making it the most trouble-free disk subsystem on the market.

Quadram's QuadDisks are available in capacities that range from six to 72 megabytes — that means from six to 72 million bytes of information or 36,000 pages of text.

By comparison, a standard 5 1/4 floppy disk (using 1.1 DOS) holds only 320,000 bytes of information or 80 pages.

QuadDisk's lightning fast access time is from 30 to 50 milliseconds, which is three to five times faster than other comparable hard disk drives.

One of QuadDisk's most desirable features is its easy menu driven operating system, which eliminates the need for users to know complicated DOS commands to operate the system.

With QuadDisk's menu, a user simply places the monitor's cursor at the program or utility he wishes to work on. All programs and files can be erased, re-named, copied, backed up and reviewed through this simple menu.

QuadDisk brings microcomputers up to level of main frames.

A PC user can store whatever program he wishes on the hard disk and call it up instantaneously with QuadDisk's cache buffering feature, which allows the hard disk microprocessor to go directly to a program through RAM without taking time to search through the hard disks's directory.

Quadram also offers a six megabyte removable hard disk cartridge for users, such as some government employees, physicians, or lawyers who are concerned about the physical security of their files.

QuadDisk comes with software that allows nine programs or jobs to run concurrently and simultaneously on a PC.

With this feature a single PC can do such tasks as: start a program compiling, then while it is compiling, start another compiling, and while that is compiling, enter word processing and type the documentation, and while the documentation is printing, enter financial modeling to check some projections, and so on.

Prices for QuadDisk are: 6 Mb fixed ($1,995), 6 Mb removable ($2,195), 12 Mb ($2,250), 27 Mb ($2,895), 72 Mb ($6,500).

QUADVUE™ OFFERS MONOCHROME VIDEO DISPLAY PLUS FONT EDITOR

Quadram's Quadvue, a six function monochrome display card, allows an IBM PC user to do word processing in up to four different fonts and comes with a unique software disk called QuadScriber to take full advantage of Quadvue's advanced features.

Standard features on Quadvue are: monochrome character display generation, IBM compatibility, serial port, parallel port, chronograph, and an optional second serial port.

With Quadvue, a PC user will get a consistent character set transfer from the screen to the printer, meaning that the PC user will get an exact duplication of whatever appears on the PC's screen.

QuadScriber allows the PC user to switch back and forth between the standard Quadvue font — ROM font — and the three other RAM fonts.

Also included on QuadScriber is a program that allows the PC user to create his own character fonts, which open up possibilities for creating characters in Japanese, script, scientific notation, or whatever is needed.

Quadvue retails for $345.

QUADRAM LINKS APPLE® SOFTWARE TO IBM® HARDWARE

Quadram Corporation has forged a vital connection between two computer giants with Quadlink™, a revolutionary new board designed to allow Apple software to be used in the IBM Personal Computer.

Quadlink is functionally equivalent to an Apple computer on one board. Once installed in one IBM PC expansion slot, Quadlink makes bushels of Apple programs available to IBM PC and XT users.

Capable of accessing and executing Apple-compatible software, Quadlink is like having an Apple 64K computer inside an IBM. There is is no need to convert or reformat any disks.

To run an Apple compatible program, simply load the program disk into the IBM and press one key. When ready to switch back, just press a different key.

With Quadlink, most programs designed for the Apple II®, Apple II Plus®, or Apple IIe® are compatible with the IBM PC or XT.

Quadlink allows use of all IBM enhancements (printers, buffers, etc.) while running Apple-compatible software. And, if a monitor is being used with Quadlink, there is no need to plug or unplug cables. Apple-compatible programs will appear on an IBM monochrome or color monitor just as clearly as on an Apple Screen — even with Apple's high resolution color graphics.

With Quadlink most programs designed for the Apple II, Apple II Plus, or Apple IIe are compatible with the IBM PC or XT.

Quadlink, a complete computer system, comes standard with 64K of memory, a game port (both Apple and IBM compatible) for a variety of entertainment options and a display adapter that offers five display modes, including high resolution color graphics.

Quadlink works with most installed I/O devices designed to enhance the IBM PC, such as a parallel port for printers and parallel devices and/or a serial port for connecting printers and other serial accessories.

Quadlink makes available the best of both worlds for IBM PC owners and virtually eliminates software limitations. Quadlink's suggested retail price is $680.

QUADCOLOR™ OFFERS MORE COLORS AND MORE OPTIONS THAN ANY OTHER COLOR BOARD ON THE MARKET

A new series of color graphics boards from Quadram Corporation of Norcross, Georgia will turn the IBM Personal Computer into a powerful graphics tool and offers an amazing 136 colors — more than any other color graphics board on the market.

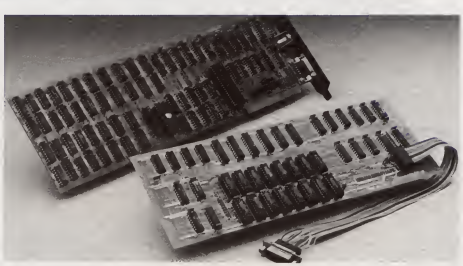
Quadram's new line of color graphics boards includes: Quadcolor I (32K) and Quadcolor II (64K).

Quadcolor I's hardware and software are plug compatible with IBM's Color Graphics Adapter, and Quadcolor offers twice as much memory as IBM's board: (32K compared to 16K).

In the text mode, this extra memory allows twice as many active and visual pages as IBM's Color Graphics Adapter: 16 in 40-column, 8 in 80 column.

In the graphics mode, the extra memory provided by Quadcolor I allows the PC user to create two complete pages. Because of its limited memory, IBM can offer only one page in the graphics mode.

While working in this graphics mode, the IBM PC user can display one page while creating a second page in memory. With a single BASIC instruction, the PC user can instantaneously swap the two pages. This feature allows the user to create animated displays.



Quadram's Quadcolor I and II

Quadcolor I easily is upgradable with a piggyback board that contains 64K (QCII) for higher resolution bit mapped graphics.

Quadcolor II also comes with BASICQ, a software package that modifies BASICA graphics commands to use Quadcolor's enhanced features.

Additional screen modes supported by BASICQ when QC II is installed include:

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320 by 200 pixels with 128 colors; 640 by 200 pixels with 16 colors.

The useful function of text and graphics overlaying is also possible because each Quadcolor video display card has its own memory and its own set of IRGB outputs which can be turned off or on independently of each other.

Thus, a graphics image (such as a bar or pie chart) can be displayed on Quadcolor II and text (chart labels and other supportive copy, for example) can be created with Quadcolor I, and the two boards' outputs can be mixed to create a single screen image.

Additional features of Quadcolor are:

· Display memory can be accessed at any time by the microprocessor without causing glitches on the screen. With other systems, including the IBM's Color Graphics Adapter, the microprocessor must wait for the horizontal retrace period to access display memory.
· Two true colors (one of 16 colors for the foreground and one of 16 colors for the background) in the IBM high resolution graphics mode (Screen II). IBM also claims to offer two "true" colors in this mode but those "colors" are black and white.
· Special character ROM options which include:

1) ROMs with two character sets that are software selectable, and
2) The ability to create characters with up to 16 scan lines per character instead of the 8 used by IBM.

· Support for a light pen, and
· Connection for an RF modulator to allow use with a home TV.

Quadcolor I will drive almost any RGB monitor or composite video monitor, and Quadcolor II contains an IBM compatible game port.

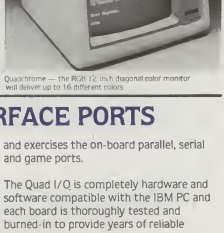
The suggested retail price for Quadcolor I is $275 and $295 for upgrade kit to obtain Quadcolor II capabilities.

QUADRAM OFFERS COLOR BRILLIANCE FOR GRAPHICS

Quadram has the only color monitor IBM Personal Computer users may ever need.

Quadchrome™ will deliver up to 16 different, brilliant colors, inviting you to explore the possibilities of using color for business, graphics, word processing, and entertainment applications.

The RGB 12-inch diagonal color monitor is designed with a special NEC .31mm dot pitch tube to deliver up to 690 horizontal dots by 480 vertical lines resolution for a sharp, state-of-the-art screen image. Word processing and accounting are just a few of the business needs this versatile monitor can fulfill. FCC and UL approved, Quadchrome retails for $695.



Quadchrome — the RGB 12-inch diagonal color monitor will deliver up to 16 different colors

QUAD I/O™ OFFERS FIVE POPULAR INTERFACE PORTS

The Quad I/O board from Quadram Corporation of Norcross, Georgia is a half-slot expansion card that combines five of the most popular interface ports on one board for the IBM Personal Computer, PC II or XT.

Quad I/O contains a Centronics standard parallel port which can be configured as line printer 1 or line printer 2, up to two fully programmable RS-232C serial ports, and a game port which supports two joysticks (or game paddles), and a chronograph (a battery powered real time clock that automatically keeps the PC up-to-date).

Also included on the Quad I/O are sockets for adding a second serial port. If a serial port is already installed in the IBM PC, Quad I/O will allow a user to configure his system as COM I, II, or III to utilize three different serial devices (printers, modems, etc.) at the same time.

The Quad I/O also comes with a complete software package called Quadmaster that contains programs to set the chronograph and exercises the on-board parallel, serial and game ports.

The Quad I/O is completely hardware and software compatible with the IBM PC and each board is thoroughly tested and burned-in to provide years of reliable service.

Quad I/O is available at authorized Quadram dealers worldwide and retails for $245 without the additional serial port or $285 with the additional serial port.

EXPANSION CARD FROM QUADRAM INCREASES MEMORY OF TI PROFESSIONAL COMPUTER™

Quadram Corporation now manufactures a high quality, low cost expansion board called the TI RAM for the Texas Instruments Professional Computer.

TI RAM was designed for reliability and performance and is inserted inside the Professional Computer's three-inch expansion slot located at the front left edge of the computer's system board.

TI RAM will increase the random access memory (RAM) of the Professional Computer from 64K (already installed) up to 256K.

This 192K of extra memory can be used to run long, complicated programs, or as a solid state RAM Drive when combined with software written for such an application.

The board contains three 64K banks made up of 10 chips per row. Eight chips in each row are data memory bits, one is for parity checking, and the last chip is for system interface circuitry.

A fully populated board allows for a total expansion of 192K RAM with parity checking TI RAM provides memory configurations of 64K, 128K, or 192K of additional RAM, and also meets all access time specifications of the Professional Computer.

TI RAM is completely hardware compatible

with the Professional Computer and each card is "burned in" and tested for quality control before being shipped.

Retail prices for TI RAM are $275 (64K) and $425 (192K).

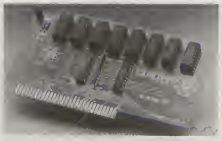
eRAM 80™ OFFERS MORE BYTES OUT OF AN APPLE

eRAM 80 from Quadram Corporation is a low cost enhancement card designed to double the amount of text that can be displayed on the Apple IIe's monitor screen and improve its memory.

eRAM 80 allows the Apple IIe user to switch back and forth between two formats: either the standard 40-column, or extended 80-column text display.

Depending on which text format is being used, eRAM 80 provides the Apple IIe with either 64K or 63K bytes of memory in addition to the 64K already installed on the Apple's main logic board.

When the regular 40-column format is used, eRAM 80 provides the entire 64K bytes of RAM for auxiliary memory. With the 80-column format, 1K of eRAM 80's memory is used to store the extra characters per line, so 63K bytes are available as auxiliary memory. Retail price for the eRAM 80 card is $135.



Quadram's eRAM 80 gives Apple IIe users not only an 80 column text mode, but also 63K of additional RAM.

INEXPENSIVE APPLE PARALLEL INTERFACE

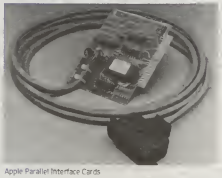
Parallel interface cards with cable are available from Quadram for the Apple II, II Plus, IIe and III.

Two popular cards are offered for the Apple II and II Plus: The APIC/G which allows Apple users full graphic capability for the Epson at a lower cost than Grappler, and APIC, the standard Apple parallel interface card.

The useful features of the APIC/G include: choice of "hi-res" page one or two, inverse, double size, vertical or horizontal centering, block graphics, bell control, margins, perforated skipping, variable line length and text screen dump.

For Apple III, the Quadram APIC/3 parallel interface card is complete with software drivers. APIC/3 drives the popular Epson printers.

APIC/G retails for $105, APIC/3 retails for $120, and APIC retails for $95. The APIC/3 includes an eight-foot round cable.



Apple Parallel Interface Cards

QUADSCREEN™ — THE BIG SCREEN MONITOR

Quadram Corporation breaks the "flat-screen" mold of standard VDT monitors — that lengthy text inevitably must spill off the screen into unseen territory.

With Quadscreen, a high-resolution "big-screen" monitor for the IBM Personal Computer, a microcomputer operator can see his entire work (accounting spread sheets, business letters, etc.) displayed in full — without having to scroll around for bits and pieces of text.

Quadscreen's 17-inch monochrome screen displays 10,240 characters — more than five times the screen capacity of IBM's PC monitor.

Dot addressability, super spread-sheet and split-screen functions are some of the distinctive elements of Quadscreen that maximize graphics capabilities and increase word processing efficiency.

Quadscreen's display controller card has 64K of memory which can be used alone as memory expansion. Character configuration in the text mode is 160 characters wide by 64 lines long using a five-by-seven character matrix. Standard monitors offer only 80 characters wide by 25 lines long in their text modes.

During job application, the nearly half-million dots on the screen can be addressed individually.

Quadscreen's 17-inch monochrome screen displays 10,240 characters — more that five times the screen capacity of IBM's PC monitor.

Bit-mapped graphics allow dot addressable resolution of 960 horizontal dots by 512 vertical lines.

This monitor's hardware has the capacity to display any character font in any size (an infinite user-definable character set).

Quadscreen has full IBM PCDOS/BIOS compatibility, plus added commands for character set determination.

This Quadram product is available with a standard P4 phosphor screen.

Additional features include reverse video and both forwards and backwards smooth scroll. Quadscreen has its own character set, as well as driver firmware in ROM.

The controller board fills only one expansion slot in the IBM PC.

Quadram includes software for the Quadscreen, which can configure characters of any size or shape.

Priced at $1995, Quadscreen includes monitor, cable, software, and display controller board and is available worldwide at consumer electronics and retail computer stores.

INCREASE PRODUCTIVITY WITH HALF-MEGABYTE

Microfazer™ breaks the conspiracy between a computer and printer by serving as a buffer to take over a printing task without tying up computer time. While Microfazer directs the printer, a personal computer user has access to his computer.

This printing enhancer performs the task of a "buffer" or "spooler" without using any of the computer's own memory, and significantly increases the productivity and efficiency of microcomputing in an office or home situation.

Microfazer, the first print buffer with a full half-megabyte, turns a "dumb" printer into a "smart" printer with 8K to 512K RAM.

A half-megabyte (512K) is eight times the memory of most microcomputers and is equivalent to over 250 typewritten 8-1/2 by 11 inch pages.

Now, with a new line of Microfazers, Quadram's any-computer-any-printer buffers may be used with almost any computer and printer, whether serial or parallel.

Microfazer is enclosed in a durable metal case and is equipped with a pause/copy feature allowing additional copies of the buffered information with the push of a button.

LEDs on the front panel indicate pause/copy, ready and error status confirmation. Also, a reset switch is provided to both set the Microfazer and clear its memory. Data rates and handshake signals are user selectable on serial models.

The Microfazer unit is sized to stack with popular modems, disk drives and other peripherals, and some models can plug directly inside or onto the back of the popular Epson MX printer.

Memory is expandable from 8K to 512K by plugging in additional memory chips, or by adding a Microfazer expansion board.

Flexibility is inherent in this concept of buffering since Microfazer is not permanently attached or configured for any specific printer, nor is it dependent on any single computer.

Retail prices for the parallel-to-parallel model (including cable) are: $169 (8K), $189 (16K), $299 (64K), $445 (128K), $895 (256K), $1395 (512K), and $950 (384K).

Serial-to-parallel and parallel-to-serial models are: $199 (8K), $220 (16K), and $330 (64K).

MULTIPLE USES FOR INTERFAZER™ UNIVERSAL CONTROLLER/BUFFER

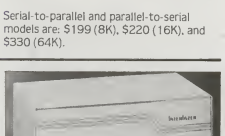
Interfazer from Quadram was designed to keep data flowing in a modern, computerized office and to eliminate problems with enhancements before they arise.

With the ability to buffer up to 128,000 characters of data and direct the printing jobs of up to eight computers, Interfazer lets you use two printers in a network without making mechanical changes.

As a printer buffer, Interfazer stores data and then feeds it to one printer at a time, at the printer's own speed, thus allowing computing and printing to occur simultaneously.

Interfazer can accept the printer output from one to eight computers through either RS-232C or parallel input/output (I/O) cards. Interfazer will then buffer the data and send it to the designated printer or other devices without any physical switching. The output device can be parallel or serial and the computer baud rate does not need to match the output baud rate. The unit is controlled with an 8085 microprocessor and contains eight slots for I/O cards and two slots each for 64K RAM. LEDs on the front panel indicate activity status and error messages.

Interfazer operates on a priority port system (first data in, first out) and also



Interfazer...the intelligent printer controller and buffer

functions as an incompatible device interface, computer I/O expander, data transfer rate converter, and additional enhancement buffer.

Retail prices begin at $295 for the base unit, $295 for each 64K of memory, $65 for parallel input/output cards and $65 for serial input/output cards.

QUADRAM'S™ FULL LINE OF IBM PC BOARDS

In addition to Quad 512+, Quadboard, Quadboard II and Quadcolor, these additional IBM PC boards are available from Quadram.

MEMORY EXPANSION BOARDS have memory socketed with parity checking. User expandable, the board is available with 64K ($275) or 192K ($425). Standard 64K dynamic RAM chips are used on the board.

DUAL PORT SERIAL RS-232C ASYNCHRONOUS ADAPTER is software and hardware compatible with the IBM Asynchronous Adapter. This board is available with either single or dual ports. The dual port version contains two INS8250 LSIs which enable the user to operate two devices from one system expansion slot. The Serial Adapter retails for $110 with the optional Dual Port Expansion Kit available for an additional $45.

QUADRAM CHRONOGRAPH (extremely accurate real time clock) eliminates the need to enter the current date at each boot-up. This clock-calendar board comes with software to poll the Time Clock for this information. All current software can be used to access seconds, minutes, hours, month, date and year through normal system and basic commands. A rechargeable NiCad battery is on-board, and is guaranteed for a full five years. Retail price is $110.

PARALLEL INTERFACE CARD (IPIC) has standard Centronics connector, pin-out, and timing with handshaking. Complete with an eight-foot shielded cable, IPIC operates most parallel printers including the Epson and IBM Dot Matrix System Printer. Cable and interface board retail for $110.

SIX-FUNCTION QUADBOARD II™

IBM Personal Computer enthusiasts now have the solution to a large problem.

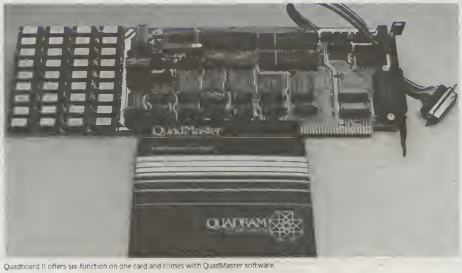
How can they increase computer capacity without filling up the computer's five expansion slots?

Quadram Corporation answers this problem with Quadboard II, an all-on-one board which combines six IBM PC functions in one. This multifunction board combines two serial ports, chronograph, memory expansion, RAM disk and spooler — all compatible with IBM PC hardware.

The two RS-232C async ports can be used for modems, printers, and other serial devices.

Memory expansion is socketed and fully expandable in 64K increments, up to 256K. Full parity generation and checking are standard. DIP switches allow selective addressing on any 64K block.

Quadboard II's chronograph is an extremely accurate real time clock-calendar which eliminates the hassle of manually inputting the date and time at system boot-up. The chronograph is equipped with an on-board lifetime battery that keeps the clock running when the system is off. The battery never needs changing.



Quadboard II offers six function on one card and comes with QuadMaster software.

QuadMaster II™ software is included at no extra cost, and contains QuadRAM Drive™ for simulating a floppy drive in Quadboard II memory (a high speed solid state RAM disk). Spooler, clock routines, diagnostics and utilities are also included on QuadMaster II.

Quadram also manufactures the original Quadboard, the world's top selling multifunction board for the IBM PC.

Quadboard also contains six functions: a serial RS-232C async communications port, a Centronics parallel printer port, up to 256K of RAM, chronograph, and QuadMaster II software with QuadRAM Drive (RAM disk) and spooler.

Quadboard and Quadboard II come with a full one year warranty, and retail for $295 (no memory), $395 (64K RAM) and $595 (256K RAM).

FOUR-FUNCTION QUAD 512+™

The IBM Personal Computer can now do more than ever before, with a new multifunction board from Quadram Corporation.

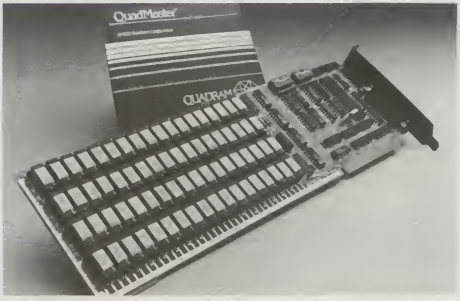
Home and business IBM PC buffs may enjoy faster computing and more capabilities with Quad 512+.

More of the computer's program can be executed from memory rather than constantly referring to a disk, resulting in faster operation of the IBM PC with Quad 512+.

The board combines memory expansion of 512K RAM (a full half-megabyte in increments of 64K, 256K or 512K), a serial port, RAM disk, and spooler, which acts as an internal buffer between the PC and printer. Quad 512+ thus leaves the IBM PC with four of its five slots open for additional boards.

The RS-232C async serial port uses the same chip as the IBM serial board, and is used for connecting modems, printers and other serial devices.

QuadMaster II software with QuadRAM Drive (RAM disk) and spooler are included at no extra charge. QuadRAM Drive simulates a



Quad 512+

floppy disk drive in Quad 512+ — a high-speed single or double-sided solid-state disk.

The Quad 512+ fully supports IBM communications software, and has eight 64K memory banks which may be addressed individually by a DIP switch. Full parity generation and checking are standard.

Quad 512+ comes with a full one year warranty. Retail prices for the multifunction board are $325 (64K), $550 (256K), and $895 (512K).

QUADRAM'S NEW IMPROVED QUADBOARD, QUADBOARD II AND QUAD 512+ OFFER NEW QUADMASTER SOFTWARE

Quadram's new, improved Quadboard now comes with a sophisticated software package called QuadMaster II™. A single program featuring an easy-to-use menu, QuadMaster II allows an IBM PC user to set up three powerful functions: QuadRAM Drive, MasterCache and MasterSpool.

With QuadMaster II's simple menu format, all the PC user has to do is select from QuadMaster II's choices of possible RAM configurations the amount of memory he wishes to allocate to each function. The rest is automatic!

Shown in the upper portion of the menu are the total amount of memory and the remainder after each QuadMaster II memory selection has been made. With a quick glance, the user knows exactly where he stands with his PC RAM allocation.

QuadMaster II also includes a feature for finding out how much RAM has been designated for each QuadMaster II function and how much is available to store additional information.

Included on the QuadMaster disk is the QuadRAM Drive feature, which allows a PC user to set up an electronic disk drive in RAM for instant access to files. This feature is especially useful to a PC user who has only one disk drive but needs two or more to run popular programs such as WordStar.

By copying system and application programs to the electronic disk and placing a data disk in the disk drive, the PC user is ready to do word processing, financial modeling or whatever other task he wishes to handle on his microcomputer.

The QuadMaster II menu allows the PC user to conveniently select the size of the electronic disk. QuadMaster II automatically determines which DOS (Disk Operating System) is being used and gives the appropriate choices for setting up blocks of memory for the RAM disk — OK to 320K in 32K blocks for DOS 1.1 and OK to 360K in 36K blocks for DOS 2.0.

MasterCache is a pool of RAM that holds the most recently used data from the disk(s). The QuadMaster II menu allows the user to select the amount of RAM desired for disk cache — OK to 320K in blocks of 32K.

MasterCache speeds up processing in any program that must frequently read from a disk (e.g., word processing, financial modeling, etc.).

The MasterCache management routine in QuadMaster II intercepts all system requests for disk data. If the data requested is already in the disk cache RAM, the data is retrieved from there and the disk (which is much slower to read) does not have to be accessed.

If the requested data is not in the disk cache RAM, the data is retrieved from the disk and placed in the next available spot in the cache RAM, where it can be called up instantly.

If the data to be accessed is already installed in QuadRAM Drive, MasterCache will not use up any of its memory to store information already in RAM. In other words, Master Cache automatically determines which drive is being accessed and is selective about what to put in the cache memory.

When the cache RAM is full, the oldest data in the cache is overlayed with the most recently accessed data, thus allowing faster program processing.

QuadMaster II also allows the PC user to set up a software controlled print buffer to allow printing and computing to occur simultaneously. Called MasterSpool, this print spool feature works by allocating a portion of RAM as a holding area for print data that is then fed to the printer at the printer's own speed.

QuadMaster II's advanced spooling capabilities give the user maximum control and use over the print buffer by allowing him to move forward and backward in the buffer, to pause or resume printing at any time, and to clear the entire buffer (i.e., all pending print data).

In addition, a feature called Qswap allows the PC user to direct the spooled print information to any of four devices: LPT1, LPT2, COM1, or COM2. For instance, if the user has two printers (a fast dot matrix and slow letter quality models), the PC user can easily send print data to whichever printer is needed without reconnecting cables.

QuadMaster with QuadRAM Drive, MasterCache, MasterSpool, Qswap and a program to read Quadboard's power-up clock is included at no extra charge with the purchase of the new improved Quadboard, Quadboard II and Quad 512+, available at authorized Quadram dealers.

QUADRAM CELEBRATES OPEN HOUSE

Quadram Corporation, a two-year old microcomputer enhancement manufacturer, held an open house recently to celebrate its new 60,000 square foot building at 4355 International Boulevard in Norcross, Georgia.

Quadram's rapid market success is reflected by its expanding work force, which one year ago numbered 35 and today totals over 300 employees.

The keynote address was given by Jack Welsh, assistant commissioner of Georgia's Department of Industry and Trade. Mr. Welsh commented upon the growing high tech industry in Georgia and the worldwide attention that Quadram has gained in the microcomputer enhancement field.

Leland Strange, co-founder of Quadram and president of Intelligent Systems Corp., Quadram's parent company, also spoke and thanked the employees for helping to make Quadram the leading microcomputer enhancement manufacturer today.

Reverend Dick Baker, pastor of the Duluth Baptist Church, gave the invocation.

Other official representatives of Quadram at the open house were Tim Farris, president and co-founder of Quadram, and Otis Jones, vice president of operations, who served as master of ceremonies. Attendees included over 300 Quadram employees, members of the press, and invited guests. A brunch was served after the ribbon cutting ceremony and guests were given tours by Quadram employees.

QUADRAM™ CORPORATION
An Intelligent Systems Company

QQ/0184/50M

4355 International Blvd./Norcross, Ga. 30093
(404) 923-6666/TWX 810-766-4915 (QUADRAM NCRS)

Retail Price List

QUADRAM CORPORATION
An Intelligent Systems Company

December 1, 1983

IBM®, COMPAQ™ AND OTHER COMPATIBLES PERSONAL COMPUTER ENHANCEMENTS

		SUGGESTED RETAIL
QUADLINK FOR IBM® (COMPUTER WITH 64K MEMORY, GAME PORT, DISPLAY GENERATOR, DISC INTERFACE, IBM CABLES, INCLUDING SYSTEM SOFTWARE)		
3000	(Computer with 64K RAM Installed)	$ 680
QUADLINK FOR COMPAQ™ (COMPUTER WITH 64K MEMORY, GAME PORT, DISPLAY GENERATOR, DISC INTERFACE, COMPAQ CABLES, INCLUDING SYSTEM SOFTWARE)		
3010	(Computer with 64K RAM Installed)	$ 695
QUADLINK FOR COLUMBIA™ (COMPUTER WITH 64K MEMORY, GAME PORT, DISPLAY GENERATOR, DISC INTERFACE, COLUMBIA CABLES, INCLUDING SYSTEM SOFTWARE)		
3020	(Computer with 64K RAM Installed)	$ 695
QUADBOARD (1 PARALLEL PORT, 1 SERIAL PORT, CLOCK/CALENDAR, MEMORY EXPANSION AND QUADMASTER SOFTWARE)		
5010	(No Memory)	$ 295
5064	(64K RAM Installed)	395
5256	(256K RAM Installed)	595
NEW EXPANDED QUADBOARD (1 PARALLEL PORT, 1 SERIAL PORT, CLOCK/CALENDAR, MEMORY EXPANSION, GAME PORT, I/O BRACKET AND QUADMASTER SOFTWARE)		
Q85310	(No Memory)	$ 295
Q85364	(64K RAM Installed)	395
Q85356	(256K RAM Installed)	675
Q85384	(384K RAM Installed	795
QUADBOARD II (2 SERIAL PORTS, CLOCK/CALENDAR, MEMORY EXPANSION AND QUADMASTER SOFTWARE)		
4010	(No Memory)	$ 295
4064	(64K RAM Installed)	395
4256	(256K RAM Installed)	595
QUAD 512+ (UP TO 512K MEMORY EXPANSION, 1 SERIAL PORT AND QUADMASTER SOFTWARE)		
6064	(64K RAM Installed)	$ 325
6256	(256K RAM Installed)	550
6512	(512K RAM Installed)	895
QUADCHROME		
CH8400	Color Monitor	$ 695
8440	Tilt Table	49
QUADSCREEN (HI-RES MONITOR DISPLAYING 160 CHARACTERS BY 64 LINES)		
QS8500	Quadscreen Monitor with direct drive video card/software	$1995
QUADCOLOR (HI-RES COLOR VIDEO CARDS)		
QC8201	Quadcolor I	$ 275
QC8202	Upgrade Kit for QC8201 to obtain Quadcolor II capabilities	295
QC8203	Quadcolor II Includes Quadcolor I to give 640 by 200 resolution (Bit Mapped, BASICQ Software)	569
QUADVUE (1 PARALLEL PORT, 1 SERIAL PORT, CLOCK/CALENDAR, SOFT FONT, AND FONT EDITOR SOFTWARE) 2nd Serial Port, Optional		
QV1000	Monochrome Card	$ 345
B320	Second Port Expansion Kit for QV1000	45
QUADDISK (Capabilities listed are the unformatted capacity of the disk drives)		
Q07000	6mb Removable Drive	$2295
Q07006	6mb Fixed Drive	1995
QUADDISK (cont'd)		SUGGESTED RETAIL
Q07012	12mb Fixed Drive	$2250
Q07020	20mb Fixed Drive	2695
Q07027	27mb Fixed Drive	2895
Q07072	72mb Fixed Drive	6500
Q07003	6mb Removable Cartridge	120
QUAD I/O (1 SERIAL PORT, CLOCK/CALENDAR, 1 PARALLEL PORT, GAME PORT, AND QUADMASTER SOFTWARE) 2nd Serial Port, Optional		
B500	Quad I/O	$ 245
B320	Second Port Expansion Kit for B500	45
MEMORY EXPANSION BOARDS		
B064	(64K RAM Installed)	$ 275
B192	(192K RAM Installed)	425
SINGLE PORT ASYNC 2nd Serial Port, Optional		
B315	Serial RS232 Async Adapter	$ 110
B320	Second Port Expansion Kit for B315	45
CHRONOGRAPH		
B410	Clock/Calendar Board	$ 110
PARALLEL INTERFACE BOARD		
IPIC	Printer Interface with 8' Cable	$ 110
64K RAM CHIPS*		
B260	Nine chip upgrade kit for 64K expansion of Quadboards and Memory Boards. *Sold in Kits only.	$ 95

APPLE® COMPUTER ENHANCEMENTS

		SUGGESTED RETAIL
APPLE II, APPLE II PLUS & APPLE IIe®		
eRAM 80	80 Column 64K RAM Card	$ 135
APIC	Parallel Interface Card (cable included)	95
APIC/G	Parallel Interface Card with Graphics (cable included)	105
APPLE III®		
APIC III	Parallel Printer Interface Card with 8' Cable	$ 120

TI PROFESSIONAL COMPUTER™ ENHANCEMENTS

		SUGGESTED RETAIL
TI RAM (MEMORY EXPANSION CARD EXPANDABLE IN 64K INCREMENTS UP TO 192K) Includes QuadMaster Software for TI Professional Computer		
TI64	(64K RAM Installed)	$ 275
TI92	(192K RAM Installed)	425

PRINTER

		SUGGESTED RETAIL
QUADJET DROP-ON-DEMAND, INK JET PRINTER SYSTEM		
QJ9000	Printer	$ 895
QJ9010	Black Ink	10
QJ9020	Paper (4 rolls/box)	40
QJ9011	Color Ink	17
QJ9025	Accessory Kit for IBM	25
QJ9026	Accessory Kit for Apple	75

Continued on back

PRINTER MEMORIES (BUFFERS/SPOOLERS) AND CABLES

MICROFAZER		SUGGESTED RETAIL
Snap-on parallel for Epson MX or IBM printer with no pause/copy feature (power supply PS1 included)		
ME8	(8K RAM Installed)	$ 169
ME16	(16K RAM Installed)	189
ME64	(64K RAM Installed)	299
Parallel/Parallel with pause/copy feature (power supply PS1 included)		
MP8	(8K RAM Installed)	$ 179
MP16	(16K RAM Installed)	199
MP64	(64K RAM Installed)	299
MP256	(256K RAM Installed)	895
MP512	(512K RAM Installed)	1395
MC128	(128K RAM Expansion Card)	445
MC384	(384K RAM Expansion Card)	950
Serial/Parallel with pause/copy feature (power supply PS1 included)		
MSP8	(8K RAM Installed)	$ 199
MSP16	(16K RAM Installed)	220
MSP64	(64K RAM Installed)	330
Serial/Serial with pause/copy feature (power supply PS1 included)		
MSS8	(8K RAM Installed)	$ 199
MSS16	(16K RAM Installed)	220
MSS64	(64K RAM Installed)	330
Parallel/Serial with pause/copy feature (power supply PS1 included)		
MPS8	(8K RAM Installed)	$ 199
MPS16	(16K RAM Installed)	220
MPS64	(64K RAM Installed)	330

POWER SUPPLIES		SUGGESTED RETAIL
PS-1	110 v. Power Supply for ME, MP, MPS and MSP	$ 15
PS-2	220 v. Power Supply for ME, MP, MPS and MSP	20
EFAZER (INSTALLS INSIDE EPSON MX, FX OR IBM DOT MATRIX PRINTER)		
MEP8	(8K RAM Installed)	$ 99
MEP64	(64K RAM Installed)	199
INTERFAZER CONTROLLER/BUFFER (FROM UP TO 8 MICROCOMPUTERS TO UP TO 2 PRINTERS OR PLOTTERS)		
I100	Basic Interfazer Controller Unit	$ 295
I216	16K RAM Card (16K Installed 64K max)	195
I264	64K RAM Card (64K Installed — 2 cards maximum per Interfazer)	295
I510	Parallel I/O Card	65
I515	Serial I/O Card	65

SUGGESTED RETAIL OF ALL CABLES IS $45.

[illegible]

The following illustrates Quadram cables used to connect Quadram and other products. OUTPUT connectors (parallel or serial) are listed below and INPUT connectors (parallel or serial) are shown at the top right of the chart. If the item(s) you wish to connect are not listed, simply fill in the space applicable to the type connector on the item (whether OUTPUT or INPUT). Then, match it to the opposite type connector (OUTPUT or INPUT) to find the appropriate cable to order.

		[illegible]				[illegible]			
		FEMALE 36 PIN CENTRONICS CONNECTOR	MALE 36 PIN CENTRONICS CONNECTOR	FEMALE DB 25 PIN CONNECTOR	MALE DB 25 PIN CONNECTOR	FEMALE DB 25 PIN* CONNECTOR DTE	FEMALE DB 25 PIN** CONNECTOR DCE	MALE DB 25 PIN* CONNECTOR DTE	MALE DB 25 PIN** CONNECTOR DCE
		Microfazer Epson (ME), Microfazer Parallel (MP), Microfazer Parallel to Serial (MPS)	Printer		Paper Tiger, IDS Prism			Microfazer Serial to Parallel (MSP), Microfazer Serial to Serial (MSS)	
FEMALE 36 PIN CENTRONICS CONNECTOR	Interfazer	CI-1	CP-2	CP-1					
MALE 36 PIN CENTRONICS CONNECTOR	Microfazer Epson (ME) Microfazer Parallel (MP) Microfazer Serial to Parallel (MSP)	CP-2***			CT-2***				
FEMALE DB 25 PIN CONNECTOR	Quadboard IPIC APIC/APIC G	CP-1			CT-1				
MALE DB 25 PIN CONNECTOR									
FEMALE DB 25 PIN* CONNECTOR DTE	Interfazer Apple II Super Serial Card					CS-1	CS-4	CS-2	CS-3
FEMALE DB 25 PIN** CONNECTOR DCE	Microfazer Serial to Serial (MS) Microfazer Parallel to Serial (MPS) Apple II Serial					CS-4	CS-1	CS-3	CS-2
MALE DB 25 PIN* CONNECTOR DTE	Quadboard Quadboard II Port 1 & 2 Quad 512+ Async Port 1– Async Port 2					CS-2	CS-3	CS-5	
MALE DB 25 PIN** CONNECTOR DCE									

*DTE - Sends data on Pin 2 **DCE - Sends data on Pin 3 ***Cables 24"

- Cable Connector Code:
  M-Male, F-Female, S-Shielded, DB25-25 pin RS232 type, C-Centronics connector
- All Cables 8' unless noted otherwise
- Prices are subject to change without notice
- All prices quoted in U.S. dollars

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