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An Unclonelike Clone of PC XT: Small and Fast, But Awkward

BY STEPHEN SATCHELL REVIEW BOARD

Apricot Computers has introduced a most unclonelike clone of the IBM PC XT, with an unorthodox blend of IBM PC-compatible and incompatible features. This is by far the smallest desktop machine we have tested that boasts so much capability, but the nonstandard keyboard makes it difficult to use with existing IBM PC applications.

FEATURES: The Apricot F10 system unit is much smaller than the IBM PC XT. Apricot advertises it as "one-third smaller." The Apricot uses the Intel 8086 chip and runs at 4.67 MHz. This chip uses a 16-bit data path between memory and the rest of the system, while the IBM PC uses the 8088, which has an 8-bit data path. It's possible to make such a system highly IBM PC-compatible despite the difference in chips, but Apricot did not design this computer to be compatible at the hardware level. One positive result is that the Apricot is designed for a maximum random-access memory (RAM) space of 768K, compared to the IBM PC's 640K limit.

The 3½-inch floppy disk drive is much like the Apple Macintosh drive, except that the Apricot F10 uses a double-sided disk that holds 711K of data. The Apricot F10 also comes with a built-in 10-megabyte Winchester hard disk drive.

The keyboard and pointing device supplied with the machine are unique. Both units send information via infrared beam, similar to how the PCjr operates. A fiber optics light pipe (a kind of plastic tube) is available as an alternative to either the keyboard or pointer.

Both keyboard and pointing units are battery powered; the batteries are good for about six months of normal use. Apricot also offers an expansion chassis for hardware options.

The F10 keyboard bears little resemblance to the IBM PC keyboard. It consists of the standard Qwerty key locations, calculator pad, cursor control arrows (separate from the calculator pad), nine programmable function keys, and five system-specific keys.

The Apricot pointing device gives you an option: you can either use it as a mouse or as a trackball (a ball inset on the system's console, which is rotated in order to move the cursor around the screen).

The 9-inch color monitor provided with our F10 was the same size as that of the Apple Macintosh. The monitor and display adapter can display four colors in high-resolution graphics mode and 16 colors in medium-resolution graphics mode; this is equivalent to the color graphic capabilities of the IBM PC.

The Apricot's add-on board slots use European-style connectors, and as a result can't use IBM PC add-on boards. This will be a disadvantage for some users.

be a disadvantage for some users.

Apricot bundles MS-DOS 2.11 and GW
Basic from Microsoft and GEM (Graphics
Environment Manager), GEM Write, and
GEM Draw from Digital Research. In
addition, Apricot has included an asynchronous telecommunications package written
in compiled Basic.

SETUP: We found initial hardware

Stephen Satchell has been involved in computing since 1971 as a systems designer and product programmer.



The Apricot F10, an IBM PC XT clone, is smaller than the PC XT and uses the Intel 8086 chip with a 16-bit data path. It runs at 4.67 MHz and can handle 768K RAM.

setup of this machine to be easy, even though we couldn't lock in the serial port cable; the threads for the connector were too deep. This was easily solved.

Software setup turned out to be the sore point, however. It took a call to Apricot to find out how to install the software from the distribution disks onto our hard disk. (The install batch file was on disk three, not disk one). And we found no place in the documentation that told us how to set up the hard disk.

Apricot told us that the dealer normally sets up the hard disk for each buyer, but we feel there should still be sufficient documentation so that users can redo the system setup should anything happen to the hard disk.

EASE OF USE: Once we got over the hurdle of installing the hard disk, Apricot did a good job of teaching us the basics. We applaud Apricot's efforts to integrate its software into the GEM desktop environment; when using GEM, setting up our preferences for screen color, speaker

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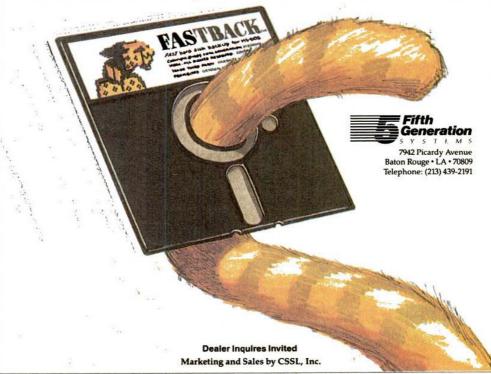
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volume, and port parameters was a breeze.

Once we picked screen colors that were pleasing to our eyes, we found the system very comfortable to use for long stretches of time. We found the small screen to be as comfortable as the 15-inch color monitor of our IBM PC AT.

The GEM software works on the F10 in the same way that it does on the IBM PC. The asynchronous communications package provided by Apricot, however, uses onne of GEM's windowing capabilities and ignores the mouse/trackball, relying on a cursor key menu system instead. We would like to see Apricot provide a much better telecommunications package, especially since we were unable to find any commercial or public domain packages currently available for this machine. Users have few alternatives to using the bundled package.

When we tried to use software designed to run with the IBM keyboard (this includes GEM, by the way), we ran into problems. Many such packages use all of IBM's 10 function keys, alone or in combination with the shift, control, and alt keys.

While Apricot offers a keyboard emulator program that lets you generate all IBM keyboard codes using the Apricot keyboard, there are some difficulties. The thorniest problems involve trying to emulate IBM's shift, control, and alt key sequences. For IBM's keystrokes, Apricot substitutes combinations of the escape, shift, control, and caps lock keys, but uses them as "toggle" keys: Using escape you "turn on" shift, control, and alt to perform specific functions, and then turn them "off" again when finished. This makes IBM programs difficult to use, since there is no visible indication of whether the keys are on or off at any given time.

Unix users planning to use the Apricot as a part-time terminal should be aware that the keyboard has neither tilde nor

grave accents on the keyboard; and although the PC emulator program will generate them, it is done using awkward keystroke combinations.

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Finding software for this machine will be difficult, since this is an MS-DOS- but not fully IBM PC-compatible computer. Apricot publishes a list of the software that runs on its computers, and the list is growing; as a courtesy to this reviewer, the company sent along copies of Lotus' 1-2-3, Dbase II, and Supercalc packaged specifically for the F series machines.

We should also point out that you won't find much Apricot software being sold through cut-rate mail-order houses, which means you'll be more likely to pay full list price for any software you buy.

PERFORMANCE: As far as performance is concerned, the Apricot F10 is just an IBM PC XT in a much smaller package, according to our benchmark studies.

The manual stated that the mouse uses less battery power if you use the light pipe; however, although the infrared link worked

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APRICOT F10

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Performance			ď		
Documentation					
Ease of Use			œ		
Setup				ď	
Serviceability-			B		
Value			m.		

SUMMARY

The sleek and compact F10 is Apricot's solution to the desktop space problem. The hard disk-based system comes with DRI's GEM and a mouse, performs well, and is reasonably priced. However, it uses 3½-inch disk drives and a troublesome nonstandard keyboard layout and offers only partial IBM PC software compatibility.

PRODUCT DETAILS

List price, \$1995. Model tested includes color monitor, 512K RAM, 10-megabyte hard disk drive, one double-sided 720K 3½-inch floppy disk drive, mouse, GW Basic, MS-DOS 2.1, asynchronous communications software, IBM PC emulator, GEM Write, Desktop, and Paint. Apricot Inc., 47173 Benicia St., Fremont, CA 94538; (800) 228-3926 or (800) 458-3366 in California.

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well with the light pipe, we preferred to keep the keyboard unattached. We also tethered the mouse, so that we could place it where it was most convenient without worrying about lines of sight. The fiber optic cable provided with the keyboard worked just fine, too.

During our torture tests the system ran slightly warm but had no alarming problems. We did discover that there is a small problem with radio frequency interference. Our television set, positioned about 8 feet away (and using a "rabbit ear" antenna, received considerable interference on Channel 2, our television's most sensitive channel.

This was more interference than we get using any of our other computers. According to the manual, the Apricot unit meets the specifications for a Class A (commercial) computing device instead of the stricter Class B (residential) requirements. This poses no problems in an office environment, but this can be troublesome if you take the unit home with you.

you take the unit home with you.

DOCUMENTATION: Except for the lack of information on setting up the hard disk and installing software, we found the documentation to be excellent as a learning aid and good as reference material. Apricot takes its cue from Apple and provides documentation in individual booklets instead of bound volumes. Separate manuals cover machine setup, MS-DOS, GEM Desktop, GEM Write, GEM Paint, and the asyncronous communications program.

Quick-reference cards complete the

bis is by far the smallest desktop machine with so much capability.

printed documentation. We found these cards invaluable, since the shortcuts in GEM are not correctly displayed in the pull-down menus. Unfortunately, this will also be true for other packages originally designed for the IBM PC.

Apricot provided no additional on-line help other than that provided with software. And the only Apricot-made package, the telecommunications program, apparently comes with no help at all. SERVICABILITY: The warranty for

SERVICABILITY: The warranty for the F10 is 90 days for limited parts and labor on both hardware and software media. Service is provided by authorized service centers only; you must pay for transporting costs when sending your system in for repairs.

Should Apricot release a new version of the bundled software within six months of purchase, you are entitled to that software free, simply by returning the originals (at your expense).

VALUE: One of the biggest problems with computers is that they take up valuable desk space. IBM and DEC responded to this problem by getting the PC AT and Rainbow system units, respectively, off users' desks. Apricot's alternate solution is to make the unit as small as possible; the result is a system that is small and easy to place, which will also fit into a wide variety of modular office furniture.

In performance, the F10 is comparable to its chief competitor, the PC XT, and is sold at a comparable price. Balanced against this is the fact that you must be willing to sacrifice a large amount of IBM PC and PC XT compatibility.

and PC XT compatibility.

The Apricot is a sleekly designed MS-DOS computer that works well, but which is only partially compatible with IBM PC software, and not at all compatible with IBM PC hardware.

The ITT Xtra XP: Speed of PC AT Without Losing XT Compatibility

BY STEPHEN SATCHELL REVIEW BOARD

In the October 14, 1985, issue of *InfoWorld*, we examined the Xtra XP computer by ITT ("IBM PC AT Rivals; ITT XP, Televideo AT"). Since the

Stephen Satchell has been involved in computing since 1971 as a systems designer and product programmer.

machine uses the Intel 80286 highperformance microprocessor, we considered it a competitor to the IBM PC AT, and while our review also considered the XP as a competitor for the IBM PC XT, our report card specifically compared it to the IBM PC AT.

ITT, however, insists that this computer is marketed as a competitor to the IBM PC XT, offering faster processing like the AT without sacrificing XT compatibility. Despite the use of an AT-compatible 80286 chip, technical details of the XP, such as its XT-compatible 8-bit add-on board bus (the AT has a 16-bit bus) lend credibility to this argument. We have therefore agreed to evaluate the ITT Xtra XP in a report card that compares it to the IBM PC XT.

Most of the report card items remain the same because setup, ease of use, documentation, and serviceability are not affected by this change. Performance, value, and the overall score are the main areas affected.

PERFORMANCE: As we said in our

original review, the computing power of this machine is much higher than the IBM PC XT. It is even a touch faster (20 percent) than the IBM PC AT. This is good news for users tired of waiting for spreadsheet recalculations.

If the XP is at the top of the heap in computing power, then in hard disk performance it is in the middle, with capability closely matching that of the IBM PC XT. This is bad news for users looking to the ITT Xtra as a home for a large database application.

Overall, while the XP was satisfactory in performance compared to the AT, it is very good in performance compared to the IBM PC XT.

VALUE: Except for its high-speed computational capability, this machine gives you nothing you can't get from a lower priced machine — say, ITT's own Xtra, the predecessor to the Xtra XP. If you need improved disk access, we wouldn't recommend this as a way of getting it, especially at this price. But if you

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This updates and corrects comparisons with MultiMate which appeared previously.

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