

The AST Premium Publisher™

AST
RESEARCH INC.



The AST Premium Publisher is the first integrated desktop publishing system for the IBM®-oriented personal computer user. The Premium Publisher combines proven, high-quality, advanced systems components from AST into a powerful document handling system which includes scanning, printing, computing, and text and graphics display capabilities. For the first time, IBM-oriented computer users can combine high-quality text with sophisticated graphics and page layout capabilities as easily and quickly as dedicated systems costing many times more.

The Heart of the Premium Publisher: The AST Premium/286™ Computer

At the center of the Premium Publisher system is the AST Premium/286. This high-performance AT®-compatible computer from AST Research is much more than "just another compatible." Unlike other AT-compatibles, the AST Premium/286 features operation at 10, 8, or 6 MHz, and more importantly, it achieves its fastest operation with zero memory wait-states, while maintaining total compatibility with all existing AT hardware and software. Careful attention to design gives the AST Premium/286 a level of speed, reliability and compatibility beyond other AT compatibles, even those with faster clock rates.

Unique to the AST Premium/286 are its FASTslots™. These are AT-compatible expansion slots with a plus: a third bus connector featuring lightning-quick access time, for use with specially-designed cards from AST. Future upgrades to the AST Premium/286 will use the

FASTslots to accommodate the next generation of high-performance accelerator and enhancement cards.

And of course the AST Premium/286 can handle all your regular PC computing chores, be they word processing, spreadsheets, data base management and more.

The Page Input Device: The AST TurboScan™ Document Scanner

An important part of any page layout system is the ability to merge text and graphics from different sources into a single, camera-ready document. The AST TurboScan scanner allows you to scan virtually any document and convert it into a bit-mapped image.

With the TurboScan, color or black and white photographs, line art, handwriting, text, or anything else that can be rendered on paper can be scanned in a matter of seconds for storage or editing on the AST Premium/286, and printed on the AST TurboLaser printer.

Software: Freedom of Choice

The Premium Publisher combines industry-standard hardware components, allowing you the freedom to choose the desktop publishing software best suited to your applica-

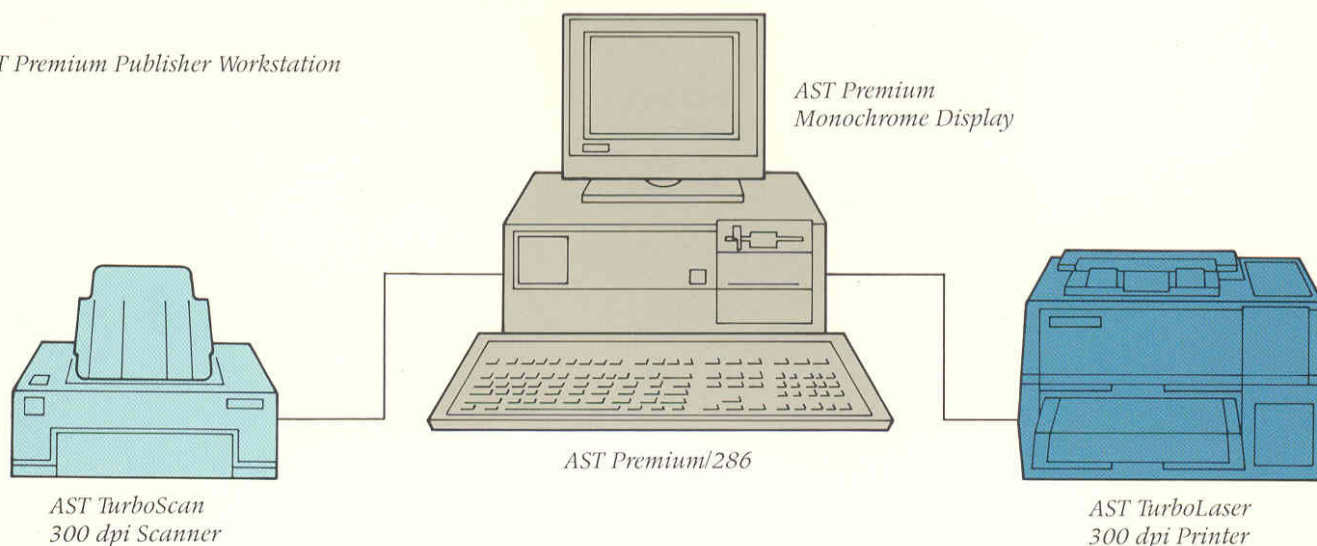
tion. Create graphic images and combine them with text for final page composition.

The Page Output Device: The AST TurboLaser™ Laser Printer

Once you've completed the page composition with the AST Premium/286, you need a high-quality output device to generate the final camera-ready copy. That's where the AST TurboLaser printer comes into play. The TurboLaser is a high-speed, 300 DPI laser printer capable of handling all your text and graphics output with ease.

In addition to the large selection of Bitstream® Bestseller fonts supplied with the TurboLaser, a large library of optional fonts is available for the TurboLaser from Straightforward Software, Inc. For your specialized font needs, Straightforward also offers font editing software. Fast raster dump capability is also built into the TurboLaser, for lightning-quick generation of full-page 300 DPI bit-mapped graphics.

AST Premium Publisher Workstation



Standard features of the AST Premium/286 used in the Premium Publisher include:

- 10 MHz 80286 processor.
- 1MB AST FASTRAM™ memory card featuring EMS and EEMS support, and zero wait-state memory for faster operation than the fastest PC AT.
- AST-3G Plus™ multi-mode Enhanced Graphics Adapter (EGA) Card with 256KB video memory. Supports IBM EGA, CGA, Hercules Graphics Card™ (HGC), and IBM Monochrome Display Adapter (MDA) modes.
- AST Premium Monitor, an ergonomically designed, 720 x 348 monochrome display for sharp presentation of text and graphics (EGA and WYSIWYG options also available).
- Fixed disk storage of 40MB with 28 msec access time, expandable through optional SCSI adapter.
- High-capacity 1.2MB floppy drive.
- Standard serial and parallel ports.

Features of the AST TurboScan include:

- 300 Dot Per Inch (DPI) Resolution.
- Scans images up to 8.5" by 11" in size within an input document up to 8.5" by 14" in size.
- Three scanning modes: Line Art, Half-Tone, and Mixed Mode.
- Built-in data compression and Direct Memory Access (DMA) data transfer of scanned data to reduce scanning time and conserve disk storage space.
- Optional Optical Character Recognition (OCR) software available for conversion of text documents into ASCII files ready for editing or printing.
- Scanner output format is compatible with a wide range of standard image processing software packages for the PC.

Features of the AST TurboLaser include:

- Sophisticated text generation, including over 75 standard downloadable

fixed pitch and proportionally spaced typefaces, ranging in size from 6 point to 36 point.

- AST Laser Printer Controller™ (LPC) with Motorola 68000 processor and up to 2MB of dedicated memory for fonts and "emulations".
- The TurboLaser features a fast eight page-per-minute (PPM) heavy-duty print engine with 8.5" by 11" paper handling, collated output. The optional TurboLaser Plus™ features a 15 PPM print engine with dual paper input trays, and legal forms handling capability.
- The following standard emulations are provided: Epson® MX and FX-series printers; Diablo® 630 daisywheel; Hewlett-Packard™ 7475A, 7550A, and other plotters supporting HPGL™; X-630® Extended Diablo text handling language; Extended 300 DPI Epson Graphics; and Lasergraphics Language®.
- Optional HP LaserJet™ and LaserJet+™ emulation available.

Specifications

AST Premium Publisher:

Model 1: AST Premium/286 personal computer, AST TurboLaser printer, AST TurboScan scanner.

Model 2: AST Premium/286 personal computer, AST TurboLaser printer.

AST Premium/286: Standard Equipment

CPU: 10MHz 80286; keyboard-selectable 10, 8, or 6MHz operation. Zero wait-states at 10 MHz.

Coprocessor: 80287 socket supporting 8MHz 80287 coprocessors.

Expansion Slots: 7 total; 1 8-bit, 6 8/16-bit including 2 FASTslots; 4 user slots available in standard models.

Memory: 1 Megabyte FAST-RAM Enhanced Memory, supports conventional, extended, Enhanced EMS, EMS memory modes; expandable up to 4 Megabytes FASTRAM, 8 Mega-

bytes EEMS RAM, 13 Megabytes total RAM per machine using AST options.

Video Adapter: AST-3G Plus multi-mode Enhanced Graphics Adapter, supporting IBM EGA, CGA, MDA, Hercules graphics and text modes; 256 Kbyte video RAM.

Video Monitor: AST 14" Monochrome Monitor (720 x 348). Optional 14" EGA and WYSIWYG monitors.

Diskette Drives: 1.2 Megabyte half-height diskette drive.

Fixed Disk Drive: 40 MB standard, 70 MB optional. Both feature 28 ms access time.

Disk Controller: AT-standard combination disk controller supporting up to 4 devices—diskette drives, fixed disk drives and internal tape drives.

Input/Output Ports: 25-pin asynchronous serial printer port and 25-pin parallel printer port.

Keyboard: AST Premium

Keyboard (101-key) with two-position height adjustment, removable key caps; optional (102-key) version supporting international alphabets.

Front Panel Controls: Cold-boot Reset button; security lock preventing unauthorized keyboard access; indicator lights for 10, 8, 6MHz operating speeds and fixed disk access.

Software and Documentation: MS-DOS/BASIC Version 3.1 software and manuals; AST User Diagnostics, AST Utility Software and complete documentation.

Warranty: One-year limited warranty.

Additional Options

Memory: 1 Megabyte high-speed dynamic RAM upgrade kit. Additional memory available with RAMpage 286™, Advantage!® or any of AST's 16-bit PC AT-compatible memory products.

Diskette Drive: 360 Kbyte half-height diskette drive.

Internal Tape Backup: 40 Megabyte half-height internal cassette tape drive.

Other Options: All AST 8- and 16-bit PC enhancement products, including memory, multifunction, graphics, data communications, local area networks; all AST systems-level PC products.

Technical Specifications

Power: Voltage—110 VAC at 60Hz, 220 VAC at 50Hz, external switch selectable; Rating—192 Watts.

OEM and International versions also available. International options include: System unit operation at either 110V or 220V; Monitors in both 110V and 220V versions; International (102-key) keyboards and drivers; Multilingual documentation and messages.

Specifications (continued)

AST TurboLaser:

Configuration: Compact Desktop
Resolution: 300 x 300 dots/inch
Development Process: Dry type electrophotography
Print Speed: 8 originals per minute
Print Width: Max. 8" (203mm)
Warm-up Time: Less than 120 seconds
Paper/Transparencies: Plain cut sheets—letter and A4
Input Paper Feed: Cut sheets automatic feed, single tray capacity 250 sheets
Output Paper Feed: Face down, 250 sheet capacity
Operating Temperature: 50°–90°F (10° to 32°C)
Operating Humidity: 20% to 80% RH
AC Input Voltage: 100V/120V, 220V/240V
Power Requirement: Max. 1 KVA
Input Frequency: 50/60 Hz
Dimensions: 20-8/10" x 16-1/2" x 13" (530 x 420 x 329mm)
Weight: 81.5 lbs. (37kg.)
RAM: 1.5MB
Page Description Package: LGP
Emulations/Interpreter: Printer: Full Epson® Full Diablo® 630, X-630
 Plotter: Full HPGL™ LL®
 Hardware: Parallel ports LPT1, LPT2, LPT3
 Serial ports COM1, COM2
Printer Orientation: Portrait/Landscape
Fonts (standard): Bit-mapped from Bitstream Inc.
 Fixed pitch portrait and landscape:
 Courier 10 pitch—6, 7, 9 and 12 point
 Courier Italic 10 pitch—12 point
 Courier Bold 10 pitch—12 point
 Courier Bold Italic—12 point
 Letter Gothic 12 pitch—7 and 12 point
 Letter Gothic Italic 12 pitch—12 point
 Letter Gothic Bold 12 pitch—12 point
 Letter Gothic Bold Italic—12 point
 Proportionally spaced portrait and landscape:
 Dutch—8, 10 point
 Dutch Italic—10 point
 Dutch Bold—10, 14, 24, 36 point
 Swiss—8, 10 point
 Swiss Italic—10 point
 Swiss Bold—8, 10, 12, 14, 18, 24, 36 point

AST TurboScan:

Maximum Resolution: 300 x 300 dots/inch
Scanning Modes: Line art, halftone and mixed
Contrast Control: Adjustable in 14 steps
Brightness Control: Adjustable in 14 steps
Scaling: Adjustable in 16 steps from 25% to 100%
Maximum Scanning Speed: 9.9 seconds for an 8½" x 11" document (with DMA transfer)
Data Compression Method: One-dimensional algorithm based on CCITT Recommendation T4 (Modified Huffman code)
Document Size: Minimum: 3" x 3" (76 x 76mm)
 Maximum: 8½" x 14" (216 x 356mm)
Document Thickness: Maximum 0.012" (0.3mm)
Document Feed Method: Single-sheet roller feed (with paper guide)
Interface: Parallel—TTL-compatible parallel I/O port with "mailbox" and DMA channels (Uses DMA channel 1)
 Serial—RS-232-C/RS-422 serial I/O port operating at 9600/19200/57600 baud (optional)
Image Sensor: Linear array CCD
Dimensions: 14.96"W x 4.57"H x 17.32"D (380 x 116 x 440mm)
Weight: 18 lbs. (8.2kg)
AC Input Voltage: 110 V to 120 V or 220 V to 240 V Input
Frequency: 50 to 60 Hz, 80 Watts
Operating Temperature: 10 to 40 degrees Centigrade (50 to 104 degrees Fahrenheit)
Storage Temperature: –10 to 60 degrees Centigrade (14 to 140 degrees Fahrenheit)
Relative Humidity: 20 to 80%
Fully FCC Approved

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