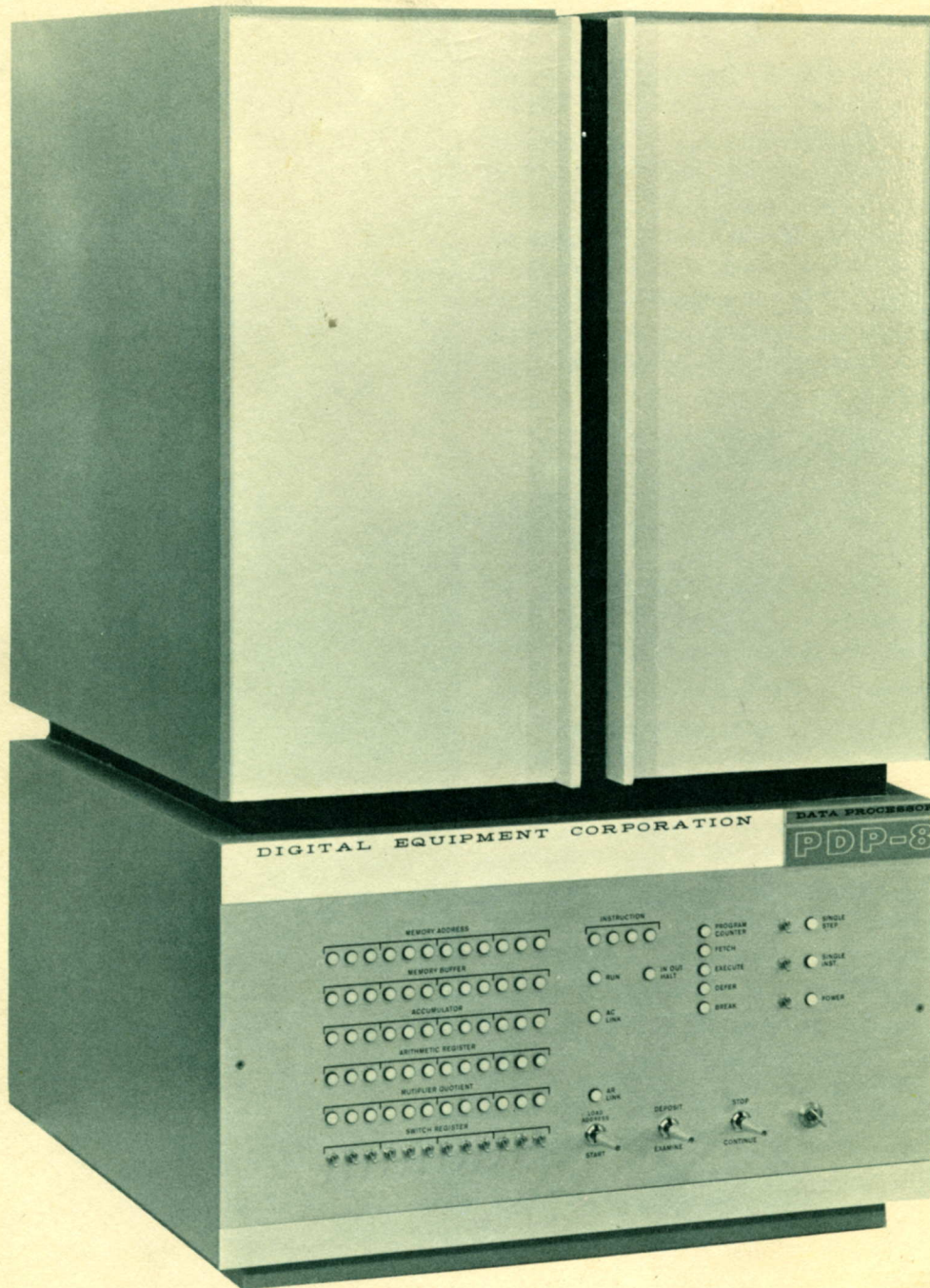


# PDP-8

THE \$18,000 DIGITAL COMPUTER



DIGITAL EQUIPMENT CORPORATION • MAYNARD, MASSACHUSETTS

## FEATURES

**Customer Tested Software** — already used in over 70 PDP-5 installations

**One-Pass FORTRAN Compiler** — now ready and working (includes Dynamic Error Correcting mode for tape modification without recompiling)

**Integrated All-Silicon Circuits** — from Digital's popular new FLIP CHIP™ Module line

**1.6  $\mu$ sec Cycle Time** — gives the PDP-8 an add time of 3.2  $\mu$ sec for a maximum computation rate of 314,000 additions per second

**Fast Throughput** — with an input-output transfer rate of 625,000 words or 7½ million bits per second

**Fully Parallel Arithmetic Operation** — simplifies maintenance and increases reliability

**Continuous Display of Active Registers** — including memory address and memory buffer registers, accumulator register and Link, instruction register, program counter, and optional multiply/divide register

**Economical DECTape System** — plus IBM-compatible tape system and magnetic drum system for easy memory expansion

**Flexible Mechanical Design** — allows table-top operation or mounting in any 19-inch rack

**Simplified I/O Device Connection** — through an input/output bus system without changes to the processor

**Micro-Programmable Instructions** — include 49 operate instructions plus input/output commands and automatic multiply/divide instructions

**Indirect Addressing** — simplifies subroutine linkage

**Auto-Indexing** — facilitates program searching, multiple input/output list processing, and sorting operations

**Single Step Instruction Modes** — permit machine state to be examined at each step of the program

**Program Interrupt** — permits an input/output device to interrupt an operating program

**High Speed Data Interrupt** — enables transfer of 12-bit words to or from memory at 1.6  $\mu$ sec per word

**Buffered Input/Output** — allows input/output devices to operate simultaneously at their maximum speed (central processor does not wait for device to complete its cycle)

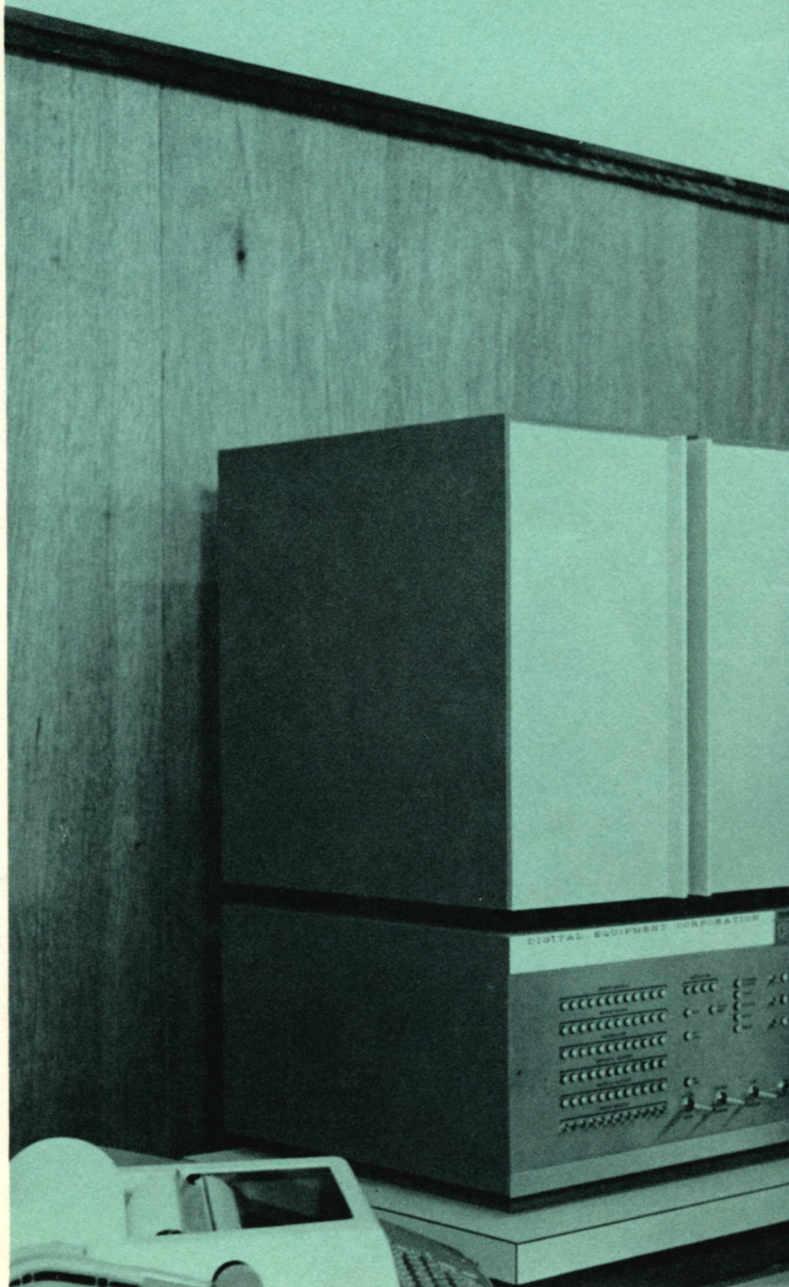
FLIP CHIP is a trademark of Digital Equipment Corporation

# PDP-8

The latest in a small, fast computer for real time applications.

PDP-8, it has all the desirable features of the 5 plus features at a much lower cost. These improvements result from the use of FLIP CHIP Modules.

A single address, 12-bit, fixed word-length machine, the PDP-8 has a "Link Bit" to assist multiple precision. It has an expanded instruction set, a complete cycle time of 1.6 microseconds and a maximum throughput of 314,000 additions per second. The complete software package, which includes a FORTRAN compiler, has been fully field tested in over 70 computer installations.



In addition to the Programmed Data Processor line is a high speed, general purpose digital computer designed for real-time applications. As the successor to the popular PDP-7, it offers faster operating speed and more compact packaging at the same price. The use of Digital's new integrated circuit silicon FLIP

The PDP-8 uses 2's complement binary arithmetic with expandable random-access magnetic core memory with a maximum computation rate of 314,000 additions per second. It includes a FORTRAN compiler and an on-line debugging routine, has a price of \$18,000.



## BASIC \$18,000 CONFIGURATION INCLUDES

**Central Processor** — registers, information handling elements and operator console in table-top cabinet or rack-mounted

**Complete Software Package** — including FORTRAN compiler, symbolic assembler, DDT on-line debugging routine, SED on-line symbolic tape editor, floating point arithmetic, and utility routines

**4096-Word Random Access Core Memory** — expandable to 32,768 words

**Full Duplex TTY Model ASR-33** — provides keyboard, pageprinter, paper tape punch, and paper tape reader facilities

**Choice of Packaging** — for table-top operation or panel mounting at no difference in price

**Auto-index Registers** — eight separate index locations for address modification

**Wired-in A/D Converter** — can be implemented economically by addition of required modules

**Liberal Warranty** — on standard equipment and options

**Free Programming School** — includes basic maintenance instruction

**Users Group Membership** — offers opportunity to share in supplementary software development by hundreds of PDP users

## FIELD PROVEN STANDARD OPTIONS

- Automatic Multiply/Divide
- Real-time Clock
- DECtape System
- IBM-compatible Magnetic Tape System
- Drum Systems
- Cathode Ray Tube Displays
- Oscilloscope Displays
- Incremental Plotters
- Light Pen
- High Speed Paper Tape Punch and Reader
- Card Punch and Reader
- Line Printers
- A/D and D/A Converters
- Analog Multiplexers

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