



μ-COMP DDP-516 General Purpose I/C Digital Computer

Honeywell

 **COMPUTER CONTROL DIVISION**

From the house that built the first 16-bit compact and the first commercial I/C computer... μ -COMP DDP-516

INTRODUCTION

The μ -COMP DDP-516 is a third generation general purpose digital computer — a natural product of 3C's complete digital systems capability . . . a new computer system at once new in terms of speed, high-performance I/C hardware and reliability, yet with immediately deliverable field-proven software.

The DDP-516 customer receives a system backed by a dozen successful years in the digital electronics industry, by programming and maintenance courses conducted by 3C experts, by a continuous exchange of information and ideas as a member of our computer users' group and by the resources, integrity and continuing support of Honeywell.

BACKGROUND

μ -PAC — 3C's standard I/C logic module line, used throughout the DDP-516, offers high reliability, low cost per logic function, and ease of maintenance.

μ -STORE ICM-40 Core Memory — The heart of the DDP-516, this compact, high speed system has been field proven in a variety of installations including the DDP-124.

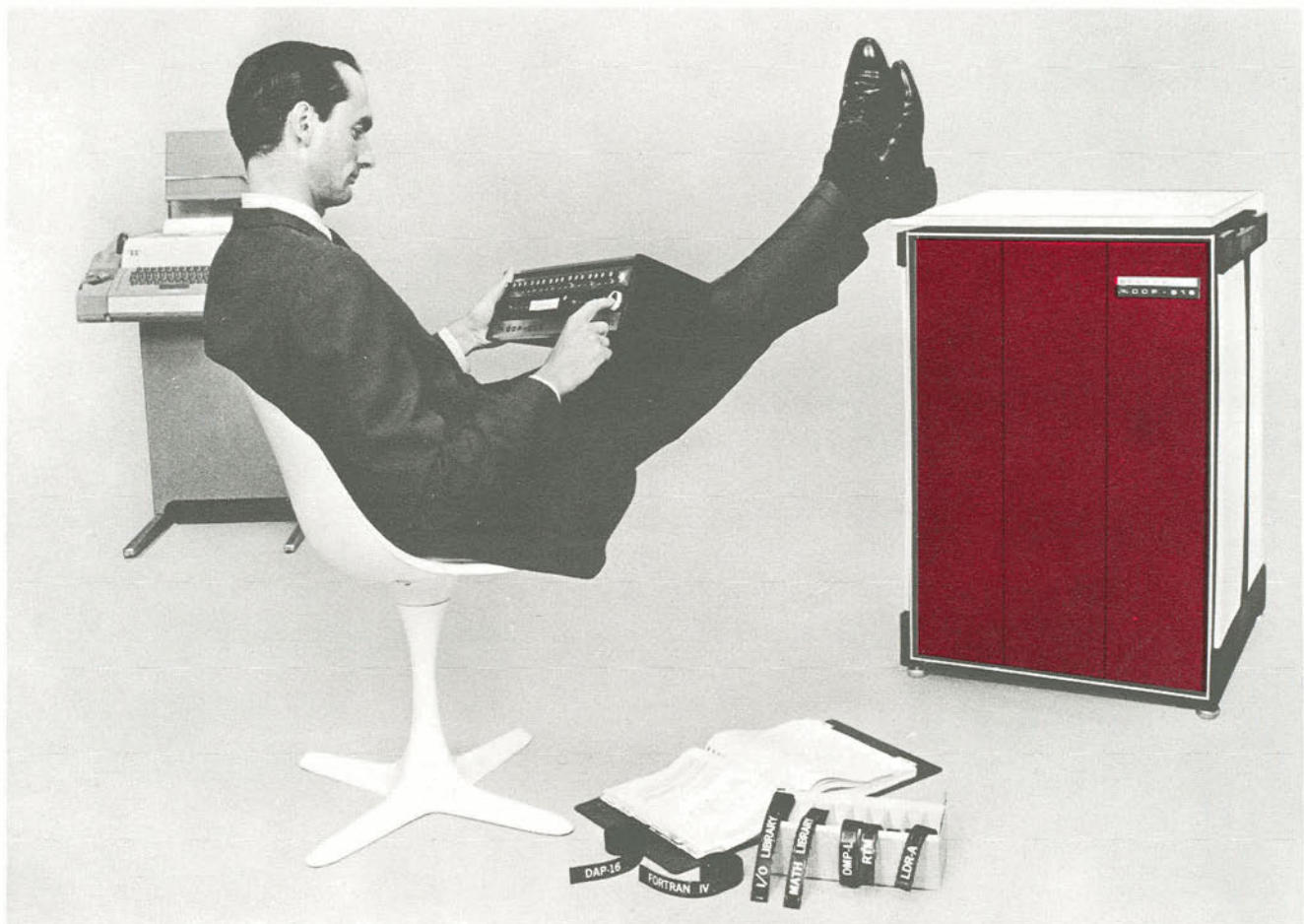
μ -COMP DDP-124 — Introduced in 1965, the DDP-124 was the first truly I/C computer commercially available. The DDP-516 is a natural extension of

the design, production and installation experience gained with the DDP-124.

DDP-116 — The extensive software package, developed in over 100 installations of the industry's first 16-bit compact, is compatible with the DDP-516. Result: 250 field-proven programs immediately deliverable.

HIGH PERFORMANCE HARDWARE

- Fully parallel machine organization
- 0.96 μ sec memory cycle
- 1.92 μ sec add
- 4096-word memory, expandable to 32,768
- 16-bit word, two's complement arithmetic
- Two full-word arithmetic registers
- Hardware index register
- Multi-level indirect addressing;
 - pre- or post-indexing
- Large sector size for maximum memory efficiency
- Priority interrupt is standard
- Power failure interrupt is standard
- Movable control console
- Front access for ease of maintenance
- Simple command format;
 - comprehensive instruction repertoire
- Most instructions executed in 1.92 μ secs or less



Commands include 3-way compare, increment memory and skip, interchange memory and accumulator
 Powerful set of shift commands; extensive skip-branch conditions
 Byte manipulation commands
 Operates on normal housepower within 0° to 45°C temperature ranges
 Dimensions: 24" x 24" x 38"; weight: 250 lbs.
 Simplified operator control; comprehensive data display
 Requires no air conditioning, sub-flooring, or other special installations

INPUT/OUTPUT

Designed for real-time systems interface
 Individually buffered I/O devices
 Flexible priority scheme with program settable masks
 Two cycle I/O commands select device, test status, and transfer data
 No I/O hold-off
 Available with either ASR-33 or ASR-35 I/O teletype units
 0.96 μ sec I/O word transfer

OPTIONS

Memory expandable to 32,768 words; 16,384 in standard cabinet
 Memory lockout
 Memory parity
 Direct multiplex control option for economical time-shared I/O
 Direct memory access option for mc I/O rates
 Real-time clock
 Hardware double-precision capability
 5.28 μ sec multiply
 10.56 μ sec divide
 Full line of peripheral equipment

Modular plug-in options
 Full line of compatible I/C modules and accessories

SOFTWARE

Direct addressing of full memory with desectorizing software
 ASA FORTRAN IV
 Selectable one- or two-pass assembler
 Desectorizing loader permits operator to ignore ordinary hardware restrictions
 Fixed and floating point subroutine library
 Program compatible with DDP-116 . . . software package field proven in over 100 installations
 Active users' group and service support
 Complete diagnostic package
 Debug program (COP-516)
 Real-time monitor

RELIABILITY

Silicon monolithic integrated circuits
 Designed for continuous operation in hostile environments
 Backed by 12 years' experience in circuit module design and computer/system design
 5 mc circuitry/parallel organization permit wide reliability performance margins
 Rigid inspection, test and over-all quality assurance programs
 MTBF: Over two years under normal 40-hour week operation

Important: when ordering your DDP-516, be sure to schedule your personnel to attend, at no charge, 3C's one-week programming and two-week maintenance courses.

DDP-516 is ideal in real-time on-line systems applications. Quick response to external conditions, ability to process several inputs and outputs simultaneously, and service I/O requests in order of priority without hold conditions add up to unprecedented efficiency in a low cost computer.

Tell me more about the NEW 16-BIT I/C COMPUTER . . . μ -COMP DDP-516

- Send me your complete DDP-516 catalog which contains detailed documentation and specifications.
- Have your computer expert call me for an appointment.

Name _____ Title _____
 Company _____
 Address _____
 City _____ State _____ Zip _____
 Telephone No. () _____ Ext. _____

Please . . . what application do you have in mind for the DDP-516?

Complete documentation and specification information is available for your evaluation. Simply return this card.

102640115

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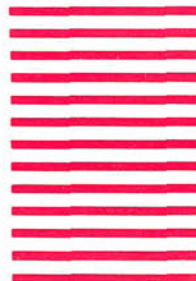
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