



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

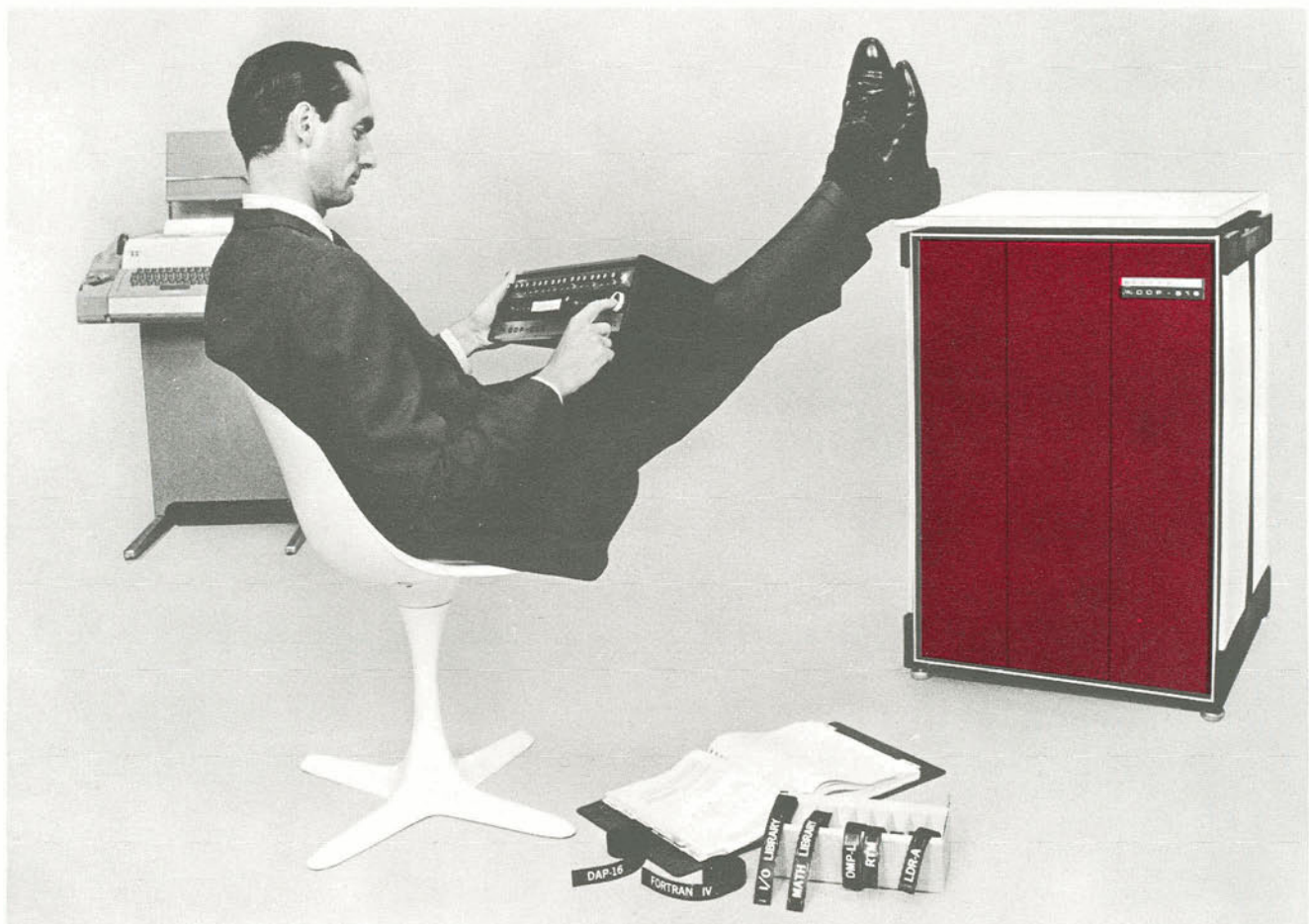
Movable control console

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 main-
tenance 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 avail-
able for your evaluation. Simply
return this card.

102640115

FIELD OFFICES

Alabama

2003 Byrd Spring Rd. SW, Suite 106
Huntsville, Alabama 35802
(205) 881-2711

California

9171 Wilshire Boulevard
CEIR Building, Suite 610
Beverly Hills, Calif. 90210
(213) 278-1901

1041 DiGiulio Road
Santa Clara, Calif. 95050
(408) 241-5650

Connecticut

125 La Salle Road, Room 207
West Hartford, Connecticut 06107
(203) 523-4037

Florida

P.O. Box 5401
3986 Boulevard Center Drive
Jacksonville, Florida 32207
(904) 359-5253
1010 Executive Center Dr. - Suite 115
Orlando, Florida 32803
(305) 841-1570

Georgia

500 Plasters Avenue NE
Atlanta, Georgia 30324
(404) 875-9561

Illinois

3158 Des Plaines Avenue
Des Plaines, Illinois 60018
(312) 824-5186

Maryland

8121 Georgia Avenue
World Building, Room 700
Silver Spring, Maryland 20910
(301) 587-1712

Massachusetts

275 Wyman Street
Waltham, Mass. 02154
(617) 893-2610

Michigan

20441 James Couzens Highway
Detroit, Michigan 48235
(313) 836-7170

Missouri

2146 Hampton Avenue
St. Louis, Missouri 63139
(314) 647-6100

New Mexico

1030 San Pedro NE
Albuquerque, New Mexico 87110
(505) 268-6714

New York

104-70 Queens Boulevard
Forest Hills, New York 11375
(212) 275-6200
3001 James Street
Syracuse, New York 13206
(315) 463-4534

Ohio

1001 E. 55th Street
Cleveland, Ohio 44103
(216) 881-0300
401 Astor Avenue
Dayton, Ohio 45449
(513) 299-8771

Pennsylvania

8367 Bristol Pike
Levittown, Pa. 19054
(215) 943-2210
Bee St. at Greentree Rd.
Pittsburgh, Pa. 15220
(412) 922-4422

Texas

P.O. Box 64776
6000 No. Central Expressway
Dallas, Texas 75206
(214) 363-5441
P.O. Box 66667
3322 Richmond Avenue
Houston, Texas 77006
(713) 529-3163

Washington

24602 B Military Road
Kent, Washington 98031
(206) 878-2520

No
Postage Stamp
Necessary
If Mailed in the
United States

BUSINESS REPLY MAIL

First Class Permit No. 113, Framingham, Mass.

Postage will be paid by . . .

Honeywell

COMPUTER CONTROL DIVISION

OLD CONNECTICUT PATH
FRAMINGHAM, MASSACHUSETTS
01701

Printed in U.S.A. 5-6710