2114C COMPUTER

- **EXPANDABLE MAINFRAME MEMORY**
  Lets you choose up to 16K

- **PLUG-IN INTERFACE**
  Simplifies the job of connecting peripherals and instruments

- **REGISTER REFERENCE MICROINSTRUCTIONS**
  Permit the combining of instructions to simplify and speed programming

- **COMPREHENSIVE SOFTWARE**
  Includes a complete package of proven software for generating and executing your programs

- **FULL INTERRUPT SYSTEM**
  Permits you to easily establish and change interrupt priority for *all* channels

- **VERSATILE ADD-ONS**
  Allow you to add such extra capabilities as direct memory access, multiplexed I/O, and memory parity check

- **FLEXIBLE ADDRESSING**
  Directly addresses 2048 words (2 pages), indirectly addresses all of memory

DESCRIPTION

The HP 2114C can answer your need for a small, general-purpose computer. The use of integrated circuits reduces the size and cost of the 2114C. Added to this are powerful software, HP quality, and full customer support. The result is a highly cost-effective computer that can meet your data processing needs today, continue meeting them, and grow with you as your needs expand.

In its lowest-cost form, the 2114C provides you with a 4096-word memory, self-contained power supplies, and six input/output channels. Core memory can be expanded to 8K, 12K, or 16K — all in mainframe. Through the use of an extender the number of I/O channels can be increased to 23.

A number of important options are available to you. Through the use of an HP multiplexed I/O channel, you can design an I/O system that will handle up to 56 devices. An optional high-speed channel further permits your multiplexed data to be transferred directly to or from memory at the rate of 500,000 16-bit words per second. If you need a similar high-speed transfer with the standard I/O system, you can obtain a Direct Memory Access channel. Under control of this option you can transfer data between memory and any mainframe channel at the rate up to 500KHz.

SPECIFICATIONS

MEMORY
Type: Magnetic Core
Size: 4096 16-bit words (8192, 12,288, and 16,384 words optional)
Page Size: 1024 words
Direct Addressing: Current page and Base page (2048 words)
Indirect Addressing: All pages
Cycle Time: 2.0 microseconds

ARITHMETIC
Parallel, two's complement binary

COMPUTE SPEED

	Microseconds
Add	4.0
Subtract	6.0
Multiply	140*
Divide	438*
Floating Point Add	608*
Floating Point Subtract	588*
Floating Point Multiply	995*
Floating Point Divide	1986*

*Subroutine — time approximate

INPUT/OUTPUT
Number of prewired input/output slots: 6 (23 with extender)
Transfer mode: 16-bit parallel

PHYSICAL SPECIFICATIONS
Ventilation. Intake at rear, exhaust at sides. 2-inch recommended minimum exhaust clearance at sides.
Installation. May be used on table, or installed in standard 19-inch rack with furnished rackmount adapters.
Dimensions. 12 inches (304,8mm) high, 16-3/4 inches (425,5mm) wide, 24-3/4 inches (628.7mm) deep
Weight. Net 102 lb (46 kg), shipping, 150 lb (68 kg)
Power Required. 115V (7 amp.) ± 10%, 50 to 60 Hz. 230V (3.5 amp.) operation requires external transformer.
Power Consumption. 500W minimum (with Teleprinter Option) to 800W maximum depending on number of I/O interfaces installed.
Environmental Conditions
Ambient Temperature: +10° to +40°C (+50° to +104°F)
Relative Humidity: 80% at 40°C

OPTIONS

POWER FAIL INTERRUPT WITH AUTOMATIC RESTART
Interrupt Priority: Highest priority interrupt channel
Failure Mode: Can be used to automatically shift control to a power failure subroutine which can save the contents of all computer registers in the event of power failure.
Automatic Restart: Restoring power causes execution of restart procedure returning control to the user's program.

DIRECT MEMORY ACCESS
Capacity: Single channel
Maximum Data Transfer Rate: 500,000 16-bit words/second
8-Bit Byte Transfer Time: 2 microseconds (Does not pack bytes)
16-Bit Word Transfer Time: 2 microseconds
Block Transfer Length: 1 to 16,384 16-bit words
Cycles Required to Initiate Block Transfer: 6
Cycles Stolen from Main Program per word transferred: 1

HIGH SPEED I/O CHANNEL
Capacity: Single input/output channel for use with multiplexed I/O.
Maximum Data Transfer Rate: 500,000 16-bit words/second
8-Bit Byte Transfer Time: 2 microseconds
16-Bit Word Transfer Time: 2 microseconds
Block Transfer Length: 1 to 8192 16-bit words
Cycles Required to Initiate Block Transfer: 1
Cycles Stolen from Main Program per word transferred: 1
Memory Addressing: Random access to any location, in core or sequential access from a specific starting address. Address register loaded externally.

MULTIPLEXED I/O
Number of possible external channels: 56
Data Transfer: Bidirectional through the computer's input/output (IOB) lines.
Driver and Receiver Gates: OR-tieable through the user's controller
Signal Timing and Delays: Must be synchronized with the 2114 I/O backplane.
High Speed I/O: Can be used with high speed I/O channel.
Priorities: Full interrupt capabilities for all 56 channels.

MEMORY PARITY CHECK WITH INTERRUPT
Checks: Verifies parity of all words transferred in or out of memory.
Indication: Front panel parity error indicator
Response: Selected computer response provides for either the parity error halt mode or the parity error interrupt mode.
Interrupt Response: Stores memory location of parity error for either mode of parity operation.

HEWLETT hp PACKARD