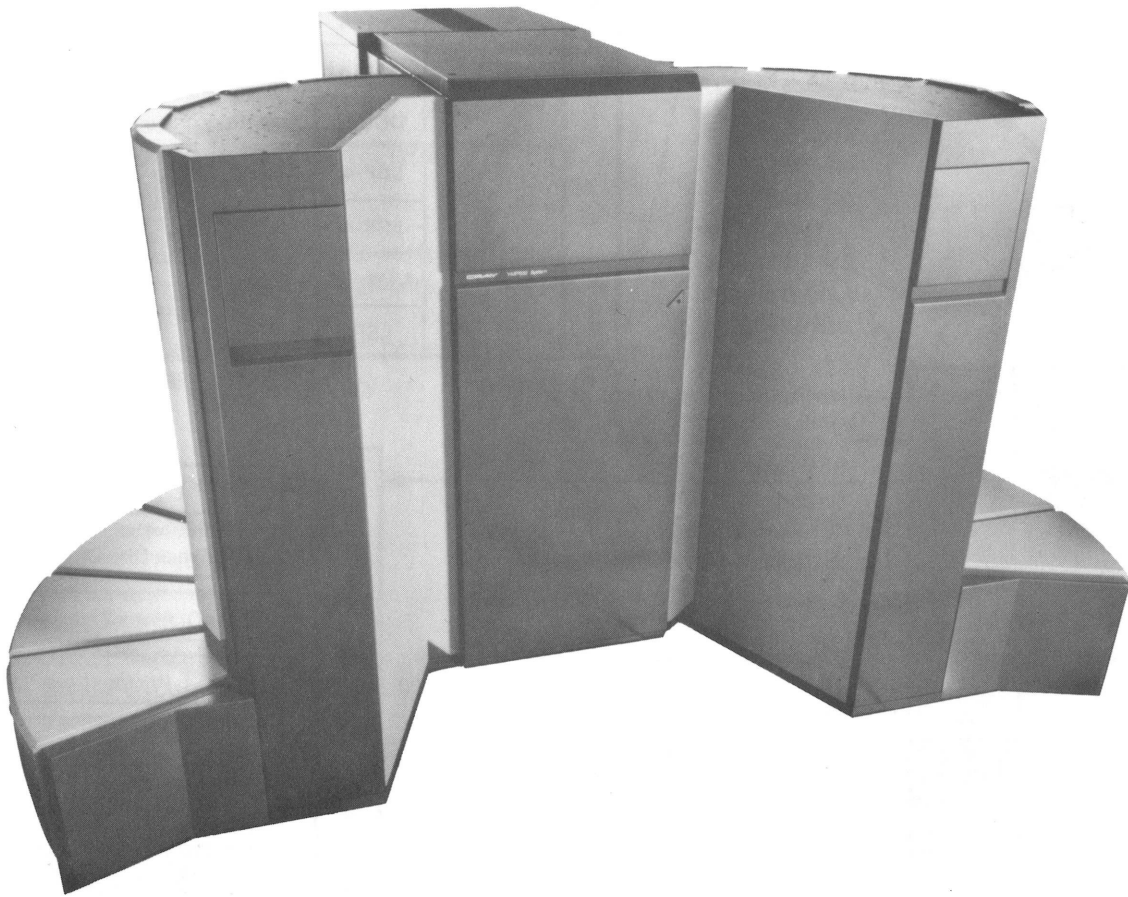


CRAY Y-MP8 COMPUTER SYSTEM

Model Numbers

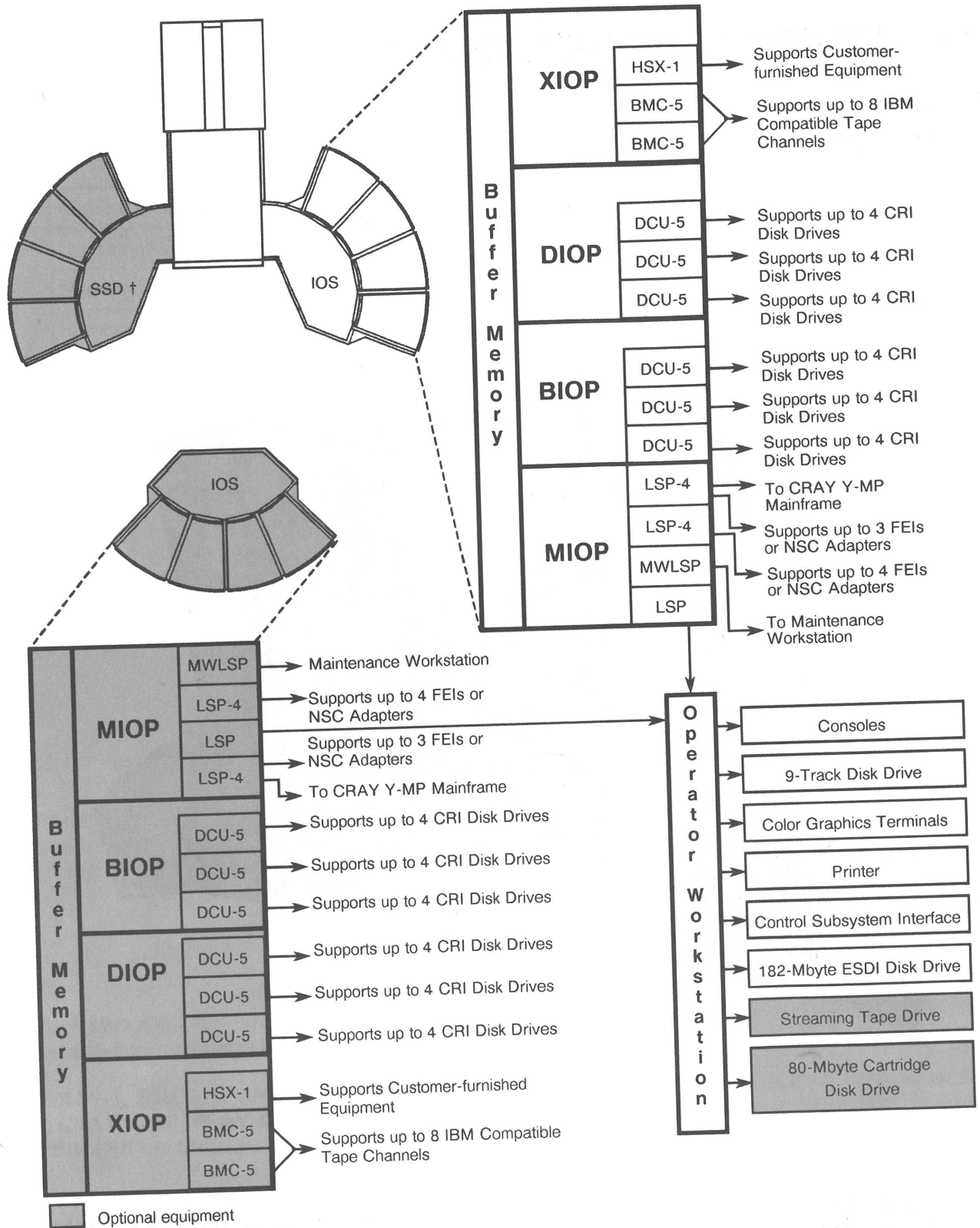
CRAY Y-MP8/832, CRAY Y-MP8/864

CRAY Y-MP8/432, CRAY Y-MP8/464



CRAY
RESEARCH, INC.

Specification Sheet
HR-4004



† The CRAY Y-MP8 computer system may be configured with the following model numbers: SSD-3I, SSD-5I, SSD-5, SSD-6, and SSD-7.

CRAY Y-MP8 Computer System Maximum Configuration

CRAY Y-MP8 SPECIFICATIONS

CRAY Y-MP8 MAINFRAME FEATURES

System Clock

Speed 6.0 ns

CPU Specifications

Number of CPUs 4, 8

Number of registers per CPU:

- Address (A) registers 8
32 bits each (Y-mode),
24 bits each (X-mode) 8
- Intermediate address (B) registers,
32 bits each (Y-mode), 64
24 bits each (X-mode) 8
- Scalar (S) registers, 64 bits each 8
- Intermediate scalar (T) registers,
64 bits each 64
- Vector (V) registers, 64 bits per element,
64 elements per register 8

Number of functional units per CPU:

- Address addition 1
- Address multiplication 1
- Scalar addition 1
- Scalar shift 1
- Scalar logical 1
- Scalar population/parity leading zero 1
- Vector addition 1
- Vector shift 1
- Full vector logical 1
- 2nd vector logical 1
- Floating-point addition 1
- Floating-point multiplication 1
- Floating-point reciprocal approximation . 1

Shared Resources

I/O section:

- 1000-Mbyte/s channels 2
- 100-Mbyte/s channels 4, 8
- 6-Mbyte/s channels 4, 8

Shared Resources (continued)

Central memory:

- Word width 64 bits
- SECDED error correction 8 bits
- Memory size 32, 64 Mwords
- Number of banks 256
- Number of modules 32
- Number of ports per CPU 4

Number of clusters 7, 9

Number of shared registers contained in each cluster:

- Shared address (SB) registers,
32 bits each (Y-mode),
24 bits each (X-mode) 8
- Shared scalar (ST) registers,
64 bits each 8
- Semaphore (SM) registers,
1 bit each 32

Real-time clock (64 bits) 1

PHYSICAL DESCRIPTION

Floor space 16 ft² (1.5 m²)
Weight 5,400 lbs (2,450 kg)
Height 6.4 ft (1.91 m)

SUPPORT EQUIPMENT

Refrigeration condensing unit 1
Motor-generator sets 1
Operator workstation 1
Maintenance workstation 1
Heat exchanger unit 1

For individual CRAY Y-MP8 model specifications, refer to the table on the following page.

CRAY Y-MP8 MODEL SPECIFICATIONS

| Specifications | Models | | | |
|-------------------------|--------|-----|-----|-----|
| | 832 | 864 | 432 | 464 |
| Number of CPUs | 8 | 8 | 4 | 4 |
| Number of Clusters | 9 | 9 | 7 | 7 |
| Memory Size (MWords) | 32 | 64 | 32 | 64 |
| Number of I/O Channels: | | | | |
| 1000-MByte/s Channels | 2 | 2 | 2 | 2 |
| 100-MByte/s Channels | 8 | 8 | 4 | 4 |
| 6-MByte/s Channels | 8 | 8 | 4 | 4 |

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