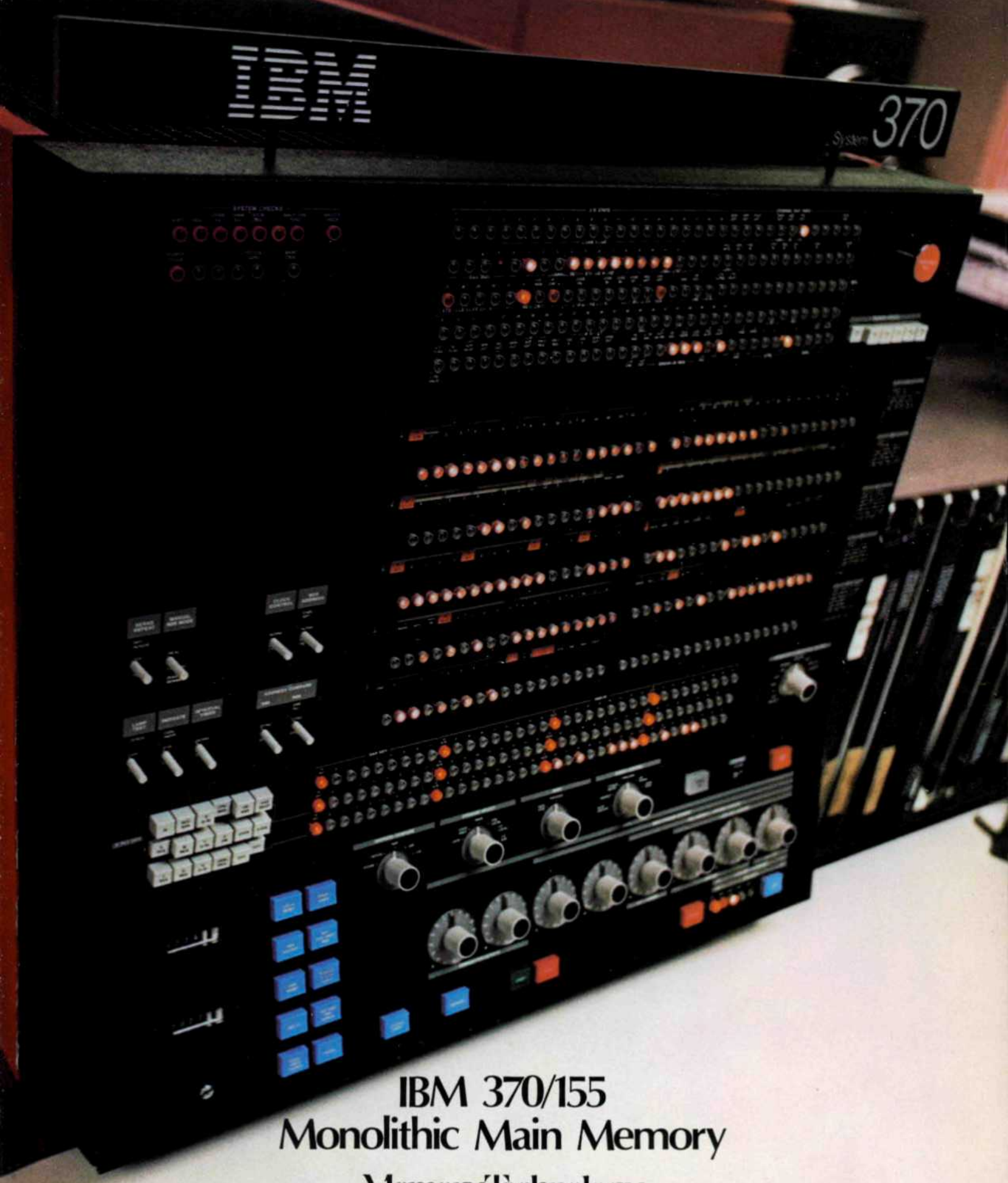

IBM 370/155
Monolithic Main Memory

Memory Technology
Incorporated

New Model MTI-755 Offers Low Cost, High Reliability Monolithic Main Memory for IBM 370/155 Users.

Introduction

The 370/155 user now has a lower cost, more reliable alternative for memory storage. The significant cost savings is reason enough to use the MTI-755. In addition, designed-in reliability, self-diagnostic hardware and plug-for-plug compatibility make it easy to understand why the MTI-755 was the first 370/155 monolithic main memory purchased by a user.

Features

- Low cost
- Up to 2 million bytes of storage
- Complete System / 370 compatibility- no CPU modification required.
- Increased Reliability
- Internal self test and fault diagnosis (to isolate memory from CPU for maintenance).
- Replaceable memory array cards for rapid, simplified maintenance.
- All standard 370/155 memory upgrades available.
- Field upgradeable to larger memory sizes.
- Up to *77%* floor space saving
- 50% less power required.
- 370 level of diagnostic and maintenance capability.

General Description

The MTI-755 Monolithic Main Memory System is a plug-for-plug equivalent to the IBM 3360 Basic Storage Module used on the 370/155 computer. The memory connects directly to the Storage Adapter in the 3155, without Central Processor modification. All standard storage increments, from 256K bytes to 2 million bytes are offered. All memory specifications of the IBM 3360 are met or exceeded by the MTI-755. Monolithic Semiconductor technology provides a five fold increase in reliability.

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Technology of the 70's
Monolithic Semiconductor is clearly the technology of the 70's - already chosen by IBM for its 370/135 and 145 memories. MTI's Monolithic Semiconductor design results in the over-riding purchase consideration: *significant cost savings.*

Increased Reliability - In addition, Monolithic Semiconductor reliability surpasses other main memory approaches because of the substantially fewer components and fewer wired interconnections.

Reduced Power Consumption - Less than half that of IBM memory - minimizes power requirements and reduces air conditioning loads.

Space Savings up to *77% are* made possible by MTI's Monolithic Semiconductor technology - up to 2 million bytes can be contained in the same amount of floor space required for 512K bytes of conventional core storage.

Memory Upgrades
Field expansion of the MTI-755 to meet increasing capacity requirements is also greatly simplified. MTI's approach allows complete flexibility from an additional 256K bytes to the full 2 million bytes. For example, field expansion from 256K bytes to 512K bytes is accomplished by simply plugging in additional array cards into the pre-wired connectors in the MTI-755.

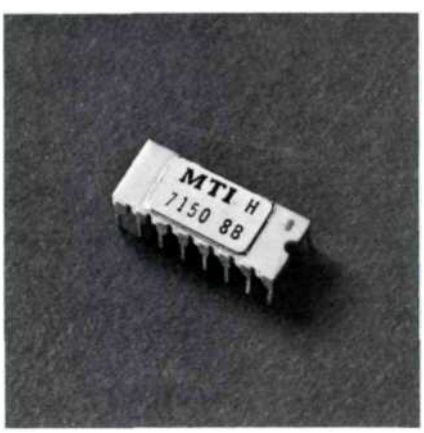
For capacities larger than 1 million bytes a second enclosure is used.

Compatibility
The MTI-755 is attached directly to the existing IBM Memory Cables, and operates at the same speed as the IBM 3360. When replacing a 3360, no CPU modifications are required.

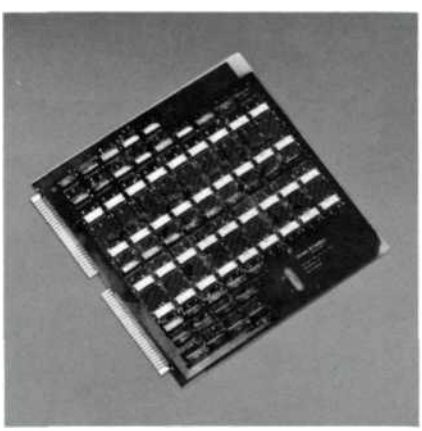
Maintainability
Complete hardware diagnostic capability is an integral part of the MTI-755. This feature enables the Customer Engineer to locate faults quickly, and to identify individual array cards in the system for easy replacement. Fewer components and the organization of monolithic semiconductor components on the Array Cards not only help simplify circuitry, but also minimize down time.

MTI-755 enclosure houses up to 1,024K bytes of storage.

Monolithic semiconductor device stores 2,048 bits.



Semiconductor memory card in the MTI-755 stores 16K bytes of information.



SPECIFICATIONS

Size: 31½" d x 30" w x 60" h cabinet (Half IBM size).
Maximum Capacity: 1 million bytes per cabinet
Power: 2,500 watts per cabinet
Weight: 975 lbs. (maximum)

Modularity

All standard increments, including bump storage, are provided as shown below:

Model	*Capacity*	*Number of Cabinets*
MTI-755/H	256K bytes	1
MTI-755/HG	384K bytes	1
MTI-755/I	512K bytes	1
MTI-755/IH	768K bytes	1
MTI-755/J	1M bytes	1
MTI-755/JI	1.5M bytes	2
MTI-755/K	2M bytes	2

Performance

Access Time: 800 nanoseconds
Cycle Time: 2.1 microseconds
Heat Output: 5,250 BTU/hr. per 512K bytes.

Error Correction and Control (ECC)

ECC storage bits are provided for each byte of memory including bump storage. These bits are used by the Storage Adapter to make single bit error corrections and to detect double bit errors.

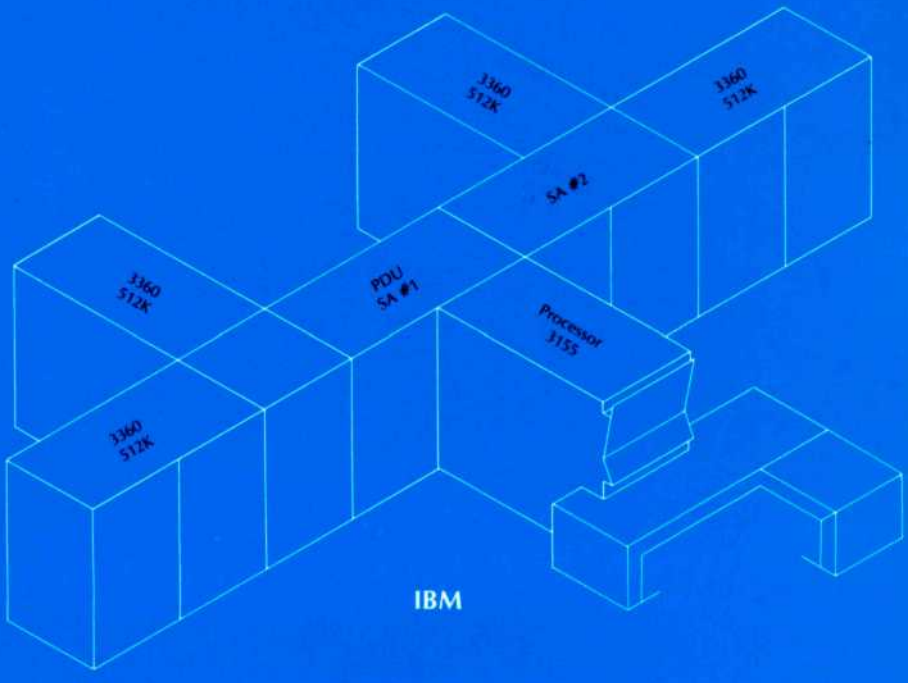
Maintenance Panel

A maintenance panel is provided which includes self test controls, test displays, ECC light, and power on-off control.

Floor Space Savings Over Conventional Storage

Capacity	*Savings*
256K bytes	50%
384K bytes	50%
512K bytes	50%
768K bytes	75%
1M bytes	75%
1.5M bytes	66%
2M bytes	77%

CONFIGURATIONS



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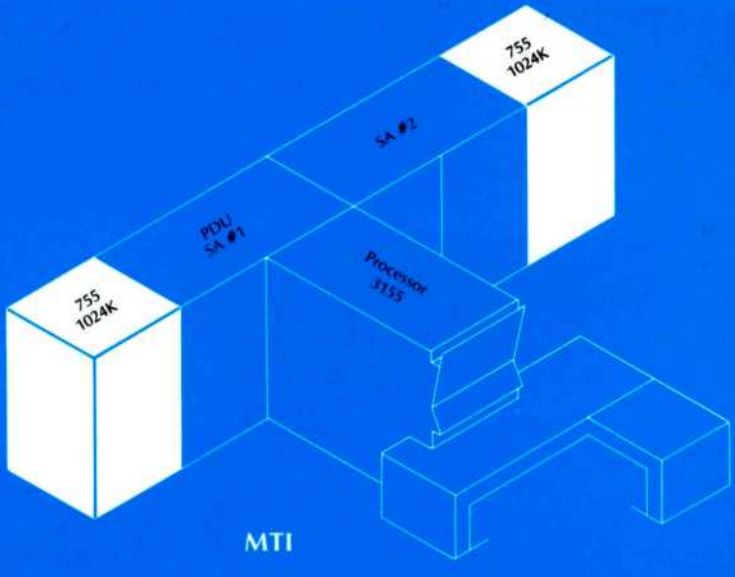

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Memory Technology is a six-year-old American Research and Development Company engaged in the design and manufacture of memory systems for the computer industry and the computer user. Over 9,600 memory systems have been delivered, including READ-Only memories, minicomputer add-on memories, RAM systems, and main memories. Over 2,000 of these memories are being used in IBM plug-to-plug compatible controllers.

Technologies developed and implemented by MTI have involved proprietary core techniques as well as MOS and bi-polar semiconductor technologies. The 700 Series of plug to plug compatible System 370 Main Memory Systems developed by MTI demonstrate the Company's continuing commitment-and capability-to provide the memory technology of the 70's.

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