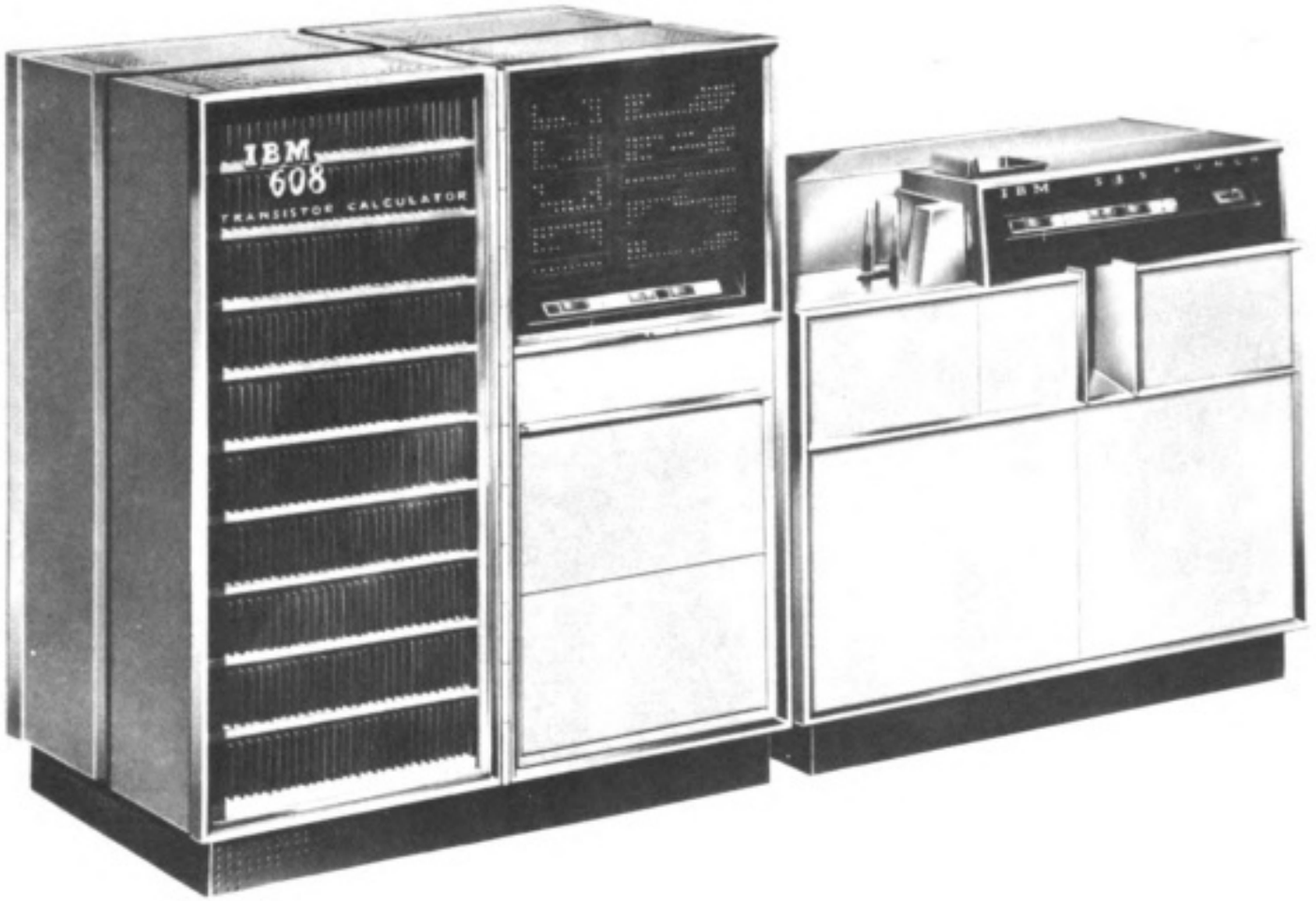
IBM 608

Type 608 Transistor Calculator

MANUFACTURER

International Business Machines Corporation



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APPLICATIONS

Manufacturer
Business and scientific computing.

NUMERICAL SYSTEM

Internal number system	Binary coded decimal
Decimal digits per word	9
Instructions used	12
Arithmetic system	Fixed point
Instruction type	One or two address
Number range	Variable, depending on program

ARITHMETIC UNIT

	Time Microsec
Add (exclud. stor. access)	220
Mult (exclud. stor. access)	11,000 average
Div (exclud. stor. access)	13,420 average

Construction Transistors and cores
Basic pulse repetition rate 100 KC
Arithmetic mode Parallel
Timing Synchronous
Operation Sequential

STORAGE

Media	Words	Digits	Microsec Access
Magnetic cores	40	360	220

Each word may be split into a 3 digit and 6 digit word with separate signs.

INPUT

Media	Speed
Card Reader-Punch	155 cards/min

OUTPUT

Media	Speed
Card Reader-Punch	155 cards/min

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CHECKING FEATURES

Checking possible through control panel wiring.

POWER, SPACE AND WEIGHT

Power, computer	2.3 KVA
Space, computer	160 cu. ft. 30 sq. ft.
Weight, computer	2,400 lbs

PRODUCTION RECORD

Models have been produced. None are in customer service.

COST, PRICE AND RENTAL RATE

Rental rates of basic system $1,600/month and up. Rental rate includes engineering maintenance and parts.

ADDITIONAL FEATURES AND REMARKS

Manufacturer

IBM's new "608", the first completely transistorized calculator for commercial applications, operates without the use of a single vacuum tube.

Transistors -- tiny germanium devices that perform many of the functions of conventional vacuum tubes -- make possible a 50% reduction in computer-unit size and a 90% reduction in power requirements over a comparable IBM tube-model machine. They are mounted, along with related circuitry, on banks of printed wiring panels in the 608.

The machine's internal storage, or "memory", is made up of magnetic cores -- minute, doughnut-shaped objects that can "remember" information indefinitely, and recall it for use in calculations in a few millionths of a second.

For IBM, the 608 marks the achievement of production techniques for the manufacture, on a large scale basis, of computing and data processing equipment combining transistors, printed circuits and other forms of miniaturization.

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