

**3705**

Communications  
Controller





3705 Communications Controller

## Product Description

An IBM Programmable Teleprocessing Multiplexor that:

- Performs most IBM 2701, 2702, 2703 functions, as well as selected host access method functions to improve CPU availability.
- Improves CPU throughput by assuming much of the message control functions formerly done by CPU, such as:
  1. Error recovery
  2. Addressing
  3. Data link control
  4. CPU status to active terminals
  5. Buffering incoming data with date and time stamping
  6. code translation

By incorporating the "Writeable Control Storage" concept, individual customising by the customer is possible; this reduces the amount of control hardware required.

The basic 3705 consists of one module which houses the central controller, control panel and 16 K of storage. This module also accommodates a channel adapter, a communications scanner, line interface bases and line sets to allow attachment of up to 64 communication lines and an expansion of 32 K additional memory.

## Optional Features

- Expandable to 240 K bytes core storage.
- Maximum of 352 lines with optional adapters ranging in speed from 45 BPS to 50 K BPS.
- Type 1 Channel — slow speed attachment to CPU.
  - emulation of 2701, 2702, 2703
- Type 2 Channel — high speed attachment to CPU
- Type 1 Communication Scanner — slow speed scanning of TP lines.
- Type 2 Communication Scanner — high speed scanning of TP lines.
- Two Channel Switch — manual switching of machine between two CPU channels.
- Internal Clock — business machine clocking of Modems.

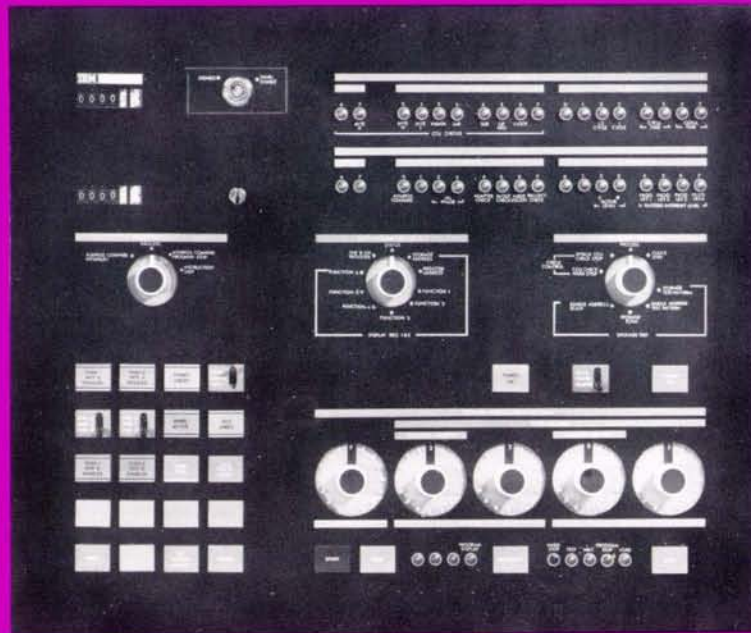
Expansion of the 3705 is accomplished by the addition of up to three expansion frames. Four basic models (A, B, C or D) will be available, depending whether 0, 1, 2 or 3 expansion frames respectively are attached.



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## Maintenance Features

- CE/Operator Console
  - MST Latch Card
  - Indicator Probe
  - Hardware Bring-up Tests
  - OBR/SDR
  - On-Line Testing through TCAM/TOTE
- CE CAREER PATH
- The 3705 will be serviced by General Systems Customer Engineers



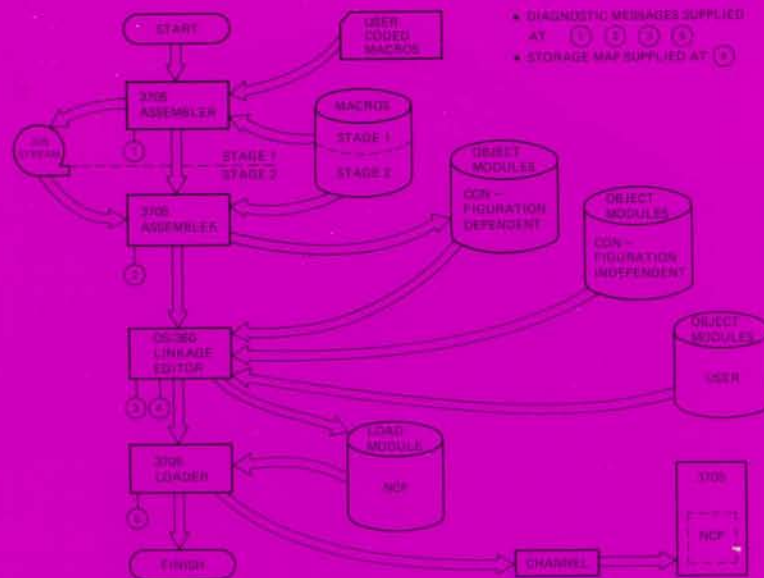
## Technology

- MST — Primary Technology used throughout machine, includes 526 Bytes of ROS storage for IPL.
- Bridge Memory — 16 K for basic machine, expansion in 32 K increments.
- Power System — 3 Phase
  - Silicon Controlled Rectification.
  - Can be used with 180, 208, 235 volts power source without changing transformer taps.
  - Will withstand + or -20 % Power Line Variation (Brownout) while maintaining DC regulation.
  - System will continue to operate if one phase of power is lost.
  - LEDs (Light Emitting Diodes) used for power fault indication.

## Program Support

The 3705 is supported by three program components.

1. System Support Package (SSP) CPU-resident utilities:
  - Assembler
  - System Generation Procedure Loader
  - Dump
2. Network Control Program (NCP) Generated by SSP, loaded into 3705. The NCP drives the communications network.
3. Emulation Program. 3705 resident program emulates functions of 2701, 2702, 2703 transmission control units. Mutually exclusive with Network Control Program.



The Network Control Program or Emulation Program is defined and generated by the user with IBM supplied modules and macro-instructions

- The Network Control Program will interface with TCAM
- The Emulation Program will interface with existing BTAM, QTAM or TCAM programs. (OS/360 and DOS/360)
- 3705 Programming Components have service classification A.

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