BASF 7/60 Central Processor

System Highlights

Main memory capacity up to 8 MB, configurable in 1 MB steps

Up to 8 channels having max data-transfer rate 1.5 MB/sec., operating via an independent I/O-Processor

High internal processing speed of 85 ns

Hardware- and software-compatible with IBM /370, 303X and 4300 systems

Uses the state-of-the-art technologies

Enhanced price/ performance ratio

High reliability and availability

BASF

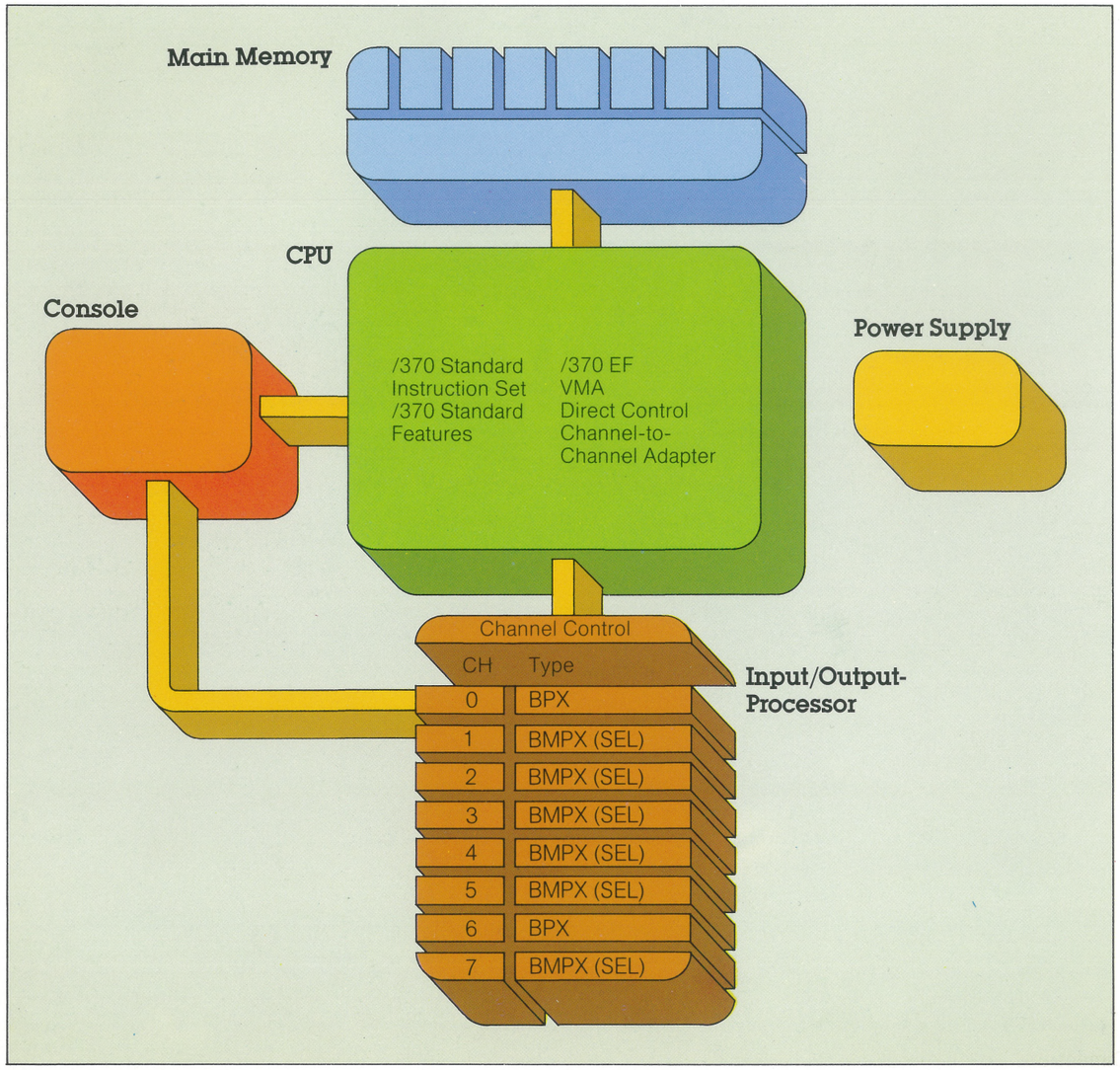
High Internal Performance

The BASF 7/60 processor represents a growth system for mid-range users. A throughput rate previously confined to large systems is obtained by means of high internal processing power. The internal operating speed of 85 ns is achieved by using high-performance, high-reliability components in high packing densities. For effective control of information transfer between main memory, channels and the processor the system provides powerful memory control with dynamic address translation, a very fast buffer memory and instruction buffering.

Flexible Architecture

The system main-memory can be configured in steps of 1 MB to a maximum 8 MB, thus offering good expansion possibilities without system modification. Memory access is two-way interleaved. The Input/Output-Processor controls the channels and regulates their access to main memory independently of the various system functions, leading to an enhanced throughput-rate of the total system. 8 Controllers and 256 I/O-Units may be attached to each of 2 Multiplexor- and 6 Block-Multiplexor-Channels. Concurrent transfer-rate on all channels can reach up to 9 MB/sec. The I/O- and Service Processors also operate as with the central processor under independent microprogramme control. Microprogrammes enhance long-term system flexibility in several ways:

- they guarantee trouble-free modification and ease of installation of new operating-system releases without system change
- new peripheral devices can easily be added to the microprogramme-controlled I/O-Processor without system change
- the microprogramme-controlled Service Processor facilitates effortless integration of future extensions to the control and diagnostic functions



Compatibility

The BASF 7/60 Central Processor Unit supports all current operating systems for machines in this size-range (DOS/VS, DOS/VSE, OS/VSI, MVS, SVS).
IBM Program Products and compatible products from other suppliers can be implemented.
Microprogrammes are also available for extended support of VM and MVS (Virtual Machine Assist and /370 Extended Facility).
BASF peripheral systems or compatible systems from other manufacturers may be attached to the BASF 7/60 Central Processor Unit.

Configurability

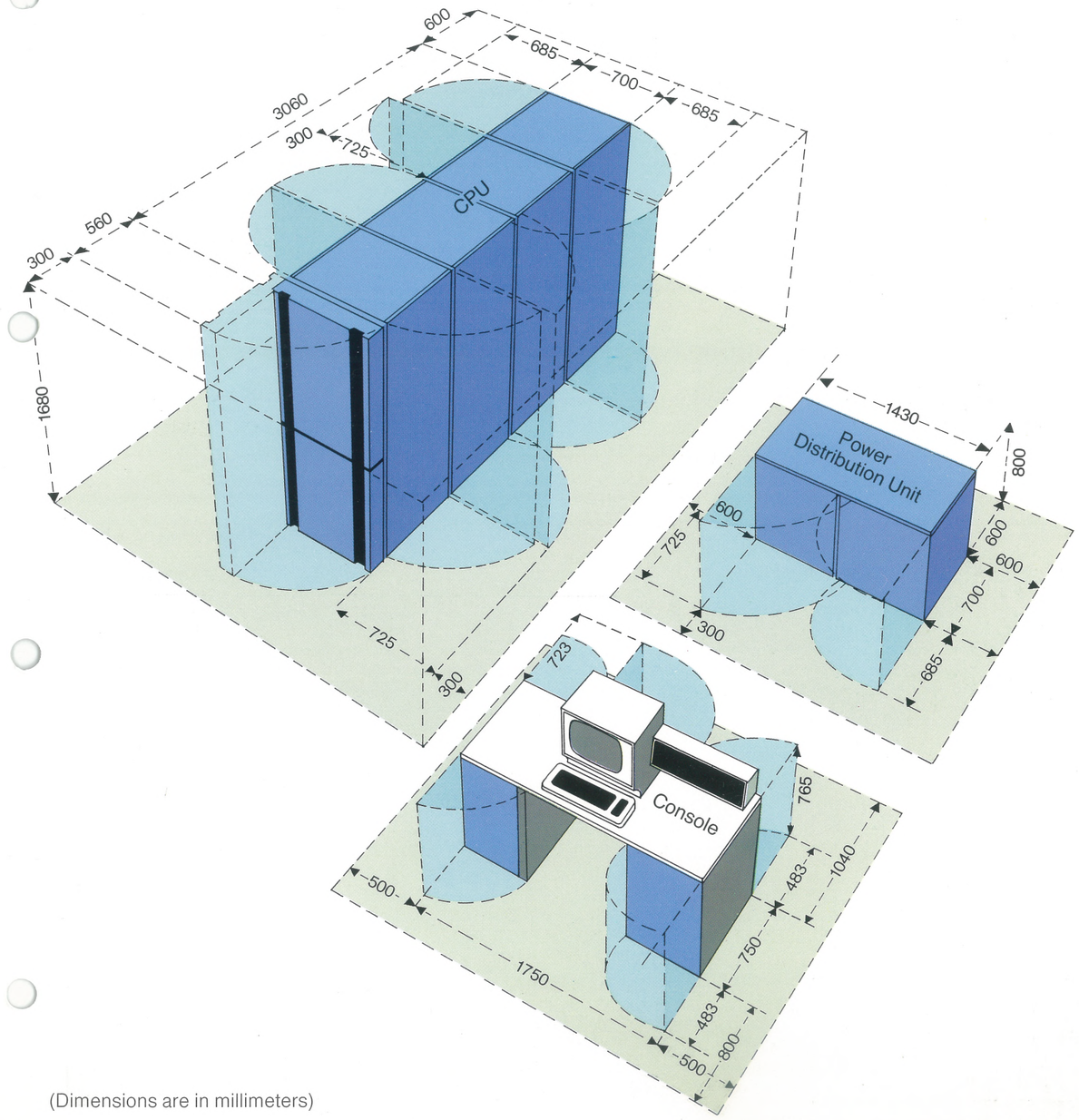
- The main memory can be configured up to 8 MB
- Up to 8 channels can be operated via the I/O-Processor

Improved Operating Environment

Utilisation of the most modern Large Scale Integration circuitry and higher packing densities reduces space requirements and affords very favourable levels of power-consumption, heat output and cooling. The BASF 7/60 CPU is air-cooled. Any variations in voltage supply are continuously controlled and corrected by the power distribution unit. An auxiliary motor-generator is not required.

Service

BASF's customer engineering is always on call. In addition to hardware and software maintenance, BASF's service activities include consultancy and support for both system-generation and for on-going operations.



(Dimensions are in millimeters)

BASF 7/60 Central Processor Unit

Technical Data

Processor

Cycle Time	85 nanoseconds
Buffer Memory	32 Kbytes

Main Memory

Size (MB = Megabytes)	1 – 8, 2 standard
Expansion steps (MB)	1
Technology	16K N-MOS
Datawidth per cycle (Bytes)	8
Interleaving	Two-way

Channels

I/O-Processors	1
Byte Multiplexor Channels	1 standard, 2 maximum
BPX data-rate	70 KB/sec.
Block Multiplexor Channels	3 standard, 6 maximum
BMPX data-rate	1.5 MB/sec.
Total channel throughput	9 Mbytes per second

Physical Data

Area	4.5 sq.m.
Weight	2100 kg.
Power consumption	15.5 kVA
Heat output	13,400 kcal/hr

Standard Features

Normal mode/Extended Control mode
Dynamic Address Translation (DAT)
Program Event Recording (PER)
Byte Alignment
Instruction Retry
Machine Check-Logout
Error Checking and Correction
Storage Protection
Time-of-Day-Clock
Interval Timer
CPU Timer
Store Status
Floating Point
Extended Precision Floating Point
Virtual Machine Assist VMA
Console Unit
Console Printer Adapter
Light Pen
Power Distribution Unit
Motor Generator/Transformer
Standard Colour: Blue

Optional Features

Control Storage Extension
2. Channel Adapter
Channel-to-Channel Adapter
Extended Functions (EF)
Direct Control
Enhanced Sub-Channel

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