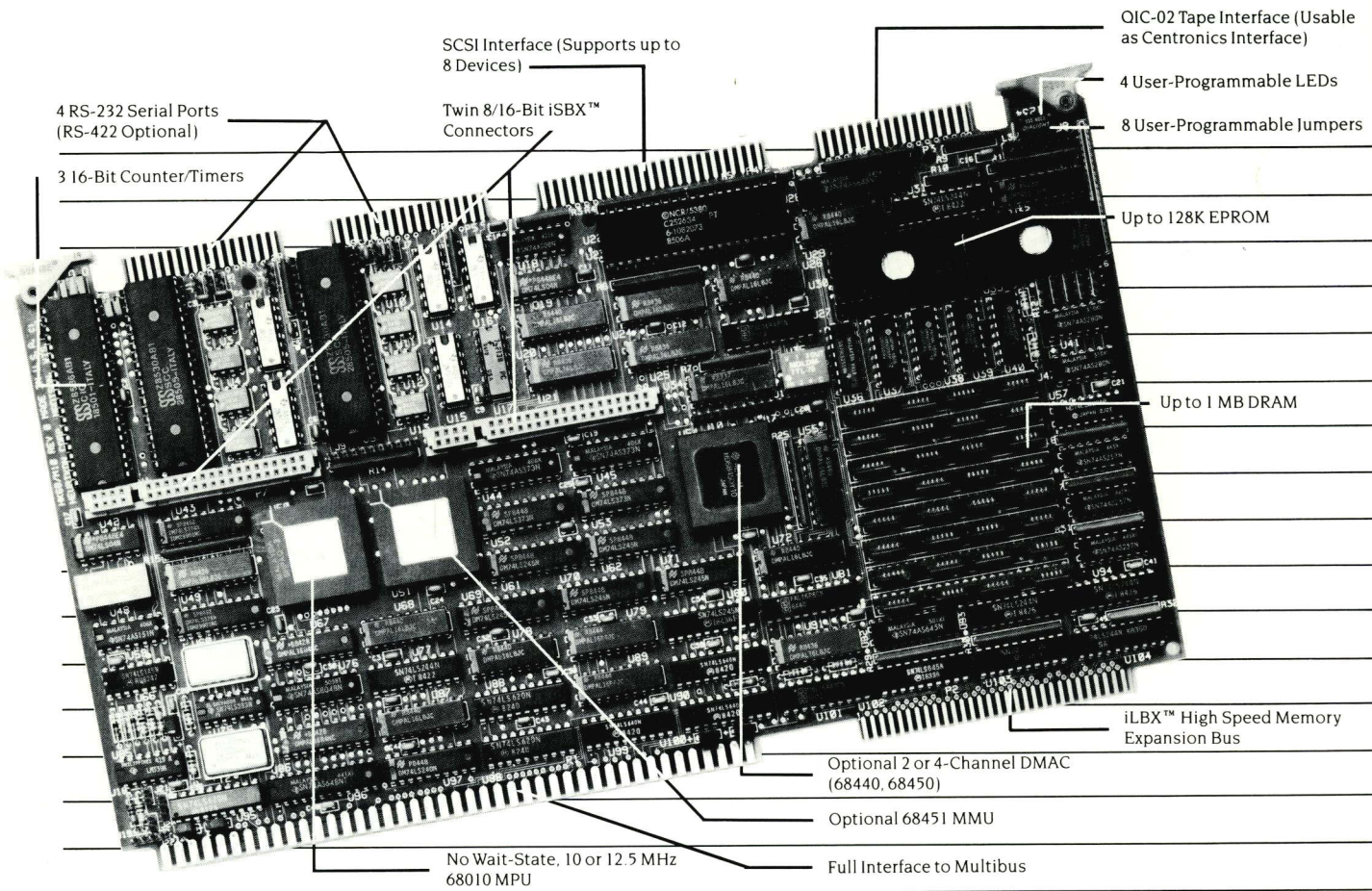


HEURIKON CORP



HK68/M™ Multibus™ Family

HK68/M10

Powerful Single Board Microcomputer for UNIX™ and Sophisticated Applications.

Heurikon is proud to introduce the HK68/M10 microcomputer, designed for those applications requiring high processor performance, as well as memory management and high speed memory expansion capability. The M10 is available as a basic processor with several options which allow you to choose the level of sophistication necessary to achieve your application goals.

Key features include:

- No wait-state, 10 or 12.5 MHz Motorola 68010 MPU
- Up to 1 MByte of on-board, dual access DRAM with parity

- Up to 128K EPROM
- Optional 2 or 4-channel DMAC
- Optional Memory Management Unit
- Optional 68881 Floating Point Processor (via iSBX™ module)
- iLBX™ high speed memory expansion bus
- ANSI compatible full SCSI interface
- Four RS-232 serial ports (RS-422 optional)
- QIC-02 tape interface (also usable as Centronics interface)
- Twin 8/16-bit iSBX connectors
- Full master/slave interface to Multibus (IEEE-796) with 16-bit data path and 24-bit addressing
- Militarized versions available

Like the HK68/ME, a related product serving real-time applications, the M10 incorporates the quality, performance and reliability resulting from over 13 years experience in microcomputer design and manufacturing. The HK68/M10 is but one member of the HK68/M Family of Multibus products and complementary software. For more information, please consult your Heurikon representative or call Heurikon directly.

Technical Specifications

Bus Interface

- Multibus architecture (IEEE 796) with 16-bit data path, 24-bit addressing and 8 bus interrupts assures compatibility with a wide range of peripheral boards serving a variety of applications
- Operates in both Master Mode (Compliance Level: D16 M24 I16 VOL) and Slave Mode (Compliance Level: D16 M24 VOL).

Processor

- No wait-state Motorola 68010 MPU operating at either 10 or 12.5 MHz (1 wait-state with optional MMU).
- Watchdog Timer provided to terminate accesses otherwise causing system deadlock.

Memory

Random Access Memory

- Up to 1 MByte of on-board dual access DRAM with parity in multiples of 128K.

Read-Only Memory

- Up to 128K of EPROM (two 28-pin JEDEC ROM sockets).

Off-Board Memory Expansion

- High speed memory expansion of up to 8 MBytes via iLBX™ Bus.

Direct Memory Access

- Optional 2-channel 68440 or 4-channel 68450 DMAC increase system performance for memory to memory and device to memory data transfers ■ DMAC single-cycle mode operation supported for transfers directly from I/O to memory in a single bus cycle
- Programmable 8 or 16-bit word size.

Memory Management

Optional 68451 MMU supports operating systems such as UNIX™ requiring address translation, segmentation/paging and memory segment protection.

Peripheral Device Interfaces

Small Computer System Interface (SCSI)

- ANSI compatible Small Computer System Interface (SCSI) permits connection of up to 8 independent, SCSI compatible I/O controllers such as disk, tape and a variety of other devices ■ Transfer rates of up to 1.5 MBytes/second supported
- Various device drivers available for UNIX operating system.

Serial I/O

- Four RS-232 serial I/O ports provided via two Z8530 Serial Communications Controllers
- Separate software controlled baud rate generator for each port. All ports support asynchronous or synchronous communications including IBM BiSync, HDLC, SDLC and others ■ RS-232-C standard with EIA RS-422 available on all ports ■ Transfer rates of 38.4K baud asynchronous and 1 Mbit/second synchronous obtainable ■ Number of serial ports expandable via iSBX modules (please refer to section on Expansion Modules)

QIC-02 Tape Interface

- 8-bit interface for direct connect to QIC-02 compatible Streamer Tape Drive ■ Port can be configured for connection to Centronics compatible printer interface.

Counter/Timers

- Three programmable 16-bit Counter/Timer channels available.

Expansion Module Connectors (iSBX)

- Twin 8/16-bit iSBX connectors allow attachment of a variety of plug-in modules for I/O expansion and the addition of peripheral devices for simple, economical tailoring of the HK68/M10 to specific applications. (Heurikon offers a variety of expansion modules including a floppy disk drive controller, quad-channel serial I/O and floating point processor module.)

Floating Point Processor Module

Motorola 68881 Floating Point Processor available via optional iSBX module ■ System performance enhanced via execution of floating point operations in hardware at speeds of up to 100 times that of 68010 ■ **C, Fortran and Pascal compilers generating 68881 in-line code to be available.**

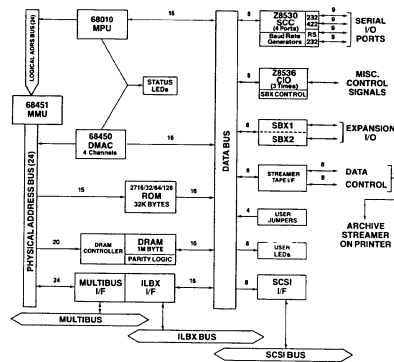
Light Emitting Diodes and Jumpers

- Four user programmable LEDs and eight jumper positions provided.

Operating Systems Supported

- Unisoft Uniplus +™ UNIX System V compatible operating system with Berkeley enhancements ■ Hunter and Ready VRTX® Real-Time Executive. (For complete information on software availability, please contact your Heurikon representative or Heurikon directly.)

HK68/M10 Block Diagram



Board Configuration Options

- MPU—10 or 12.5 MHz Motorola 68010 ■ DRAM—128K, 256K, 512K, 1MB with Parity ■ DMAC—68440, 68450 ■ MMU—68451 ■ Floating Point Processor—68881 on iSBX Module ■ RS-422 on up to 4 serial ports.

Physical and Environmental Characteristics

- Multilayer with ground and VCC planes ■ Board size—30.5 cm x 17.2 cm (12.0 in x 6.75 in) ■ Power Requirements: +5 VDC @ 4.75 A, +12 VDC @ .6 A, -12 VDC @ .2 A
- Operating Range: 0 to 55°C, 100% relative humidity (non-condensing).

For detailed information on the operation of the HK68/M10, please refer to the User's Manual. Specifications subject to change without notice.

For more information, please call:

1.800.356.9602

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