KineticSystems

3976
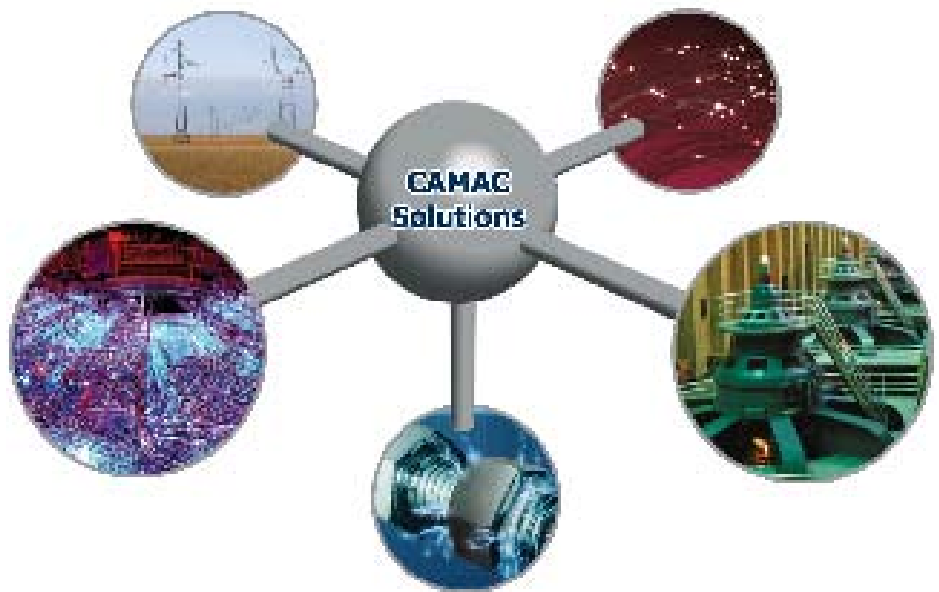## 68EC030 Auxiliary Crate Controller

CAMAC Equipment

CAMAC, Computer Automated Measurement And Control, is an IEEE-standard (583), modular, high-performance, realtime data acquisition and control system concept.

Since 1969, CAMAC has been used in many thousands of scientific, industrial, aerospace, and defense test systems around the world.

APPLICATIONS

Closed loop control
Signal processing
Data monitoring

CAMAC Solutions

The Model 3976 is a single-board auxiliary crate controller based on a Motorola 68EC030 40 MHz processor and floating point co-processor.

FEATURES

- 68EC030-based auxiliary crate controller (40 MHz with floating point co-processor)
- 1 or 4 Mbyte RAM with Dataway access
- 512 Kbyte EPROM
- On-board timer
- CAMAC LAM generation and Semaphore flags
- ROM monitor with self-test

GENERAL DESCRIPTION

The Model 3976 is a single-board auxiliary crate controller based on a Motorola 68EC030 40 MHz processor and floating point co-processor. The 68EC030 processor is a high-speed version of the 68030 without memory management, and is ideal for "single user" embedded applications. The 3976 is also available with the standard 25 MHz 68030 processor.

The RAM memory is addressable from both the processor and the CAMAC Dataway and provides the capability of sharing data between the 3976 and any other processor (e.g., the main crate controller). The 3976 crate controller interface is program controlled and provides access to all the I/O modules in the crate by the 68EC030 processor.

The 3976 provides the capability of asserting CAMAC LAM under program control for asynchronous signaling of a "host" computer for service. Also, a set of semaphore flags are implemented with Dataway access to facilitate "locking" of shared data structures for exclusive use by the 68EC030 or other processors with Dataway access. Two serial ports are provided on the 3976, and can be use for driving monitors, keyboards, and other RS-232 devices.

SOFTWARE SUPPORT

Cross development tools are available for the 3976. These tools include:
- C compiler and linker
- Source debugger with decompiler and download
- Host download utility
- Target CAMAC I/O library

The software development tools are geared toward supporting the development of single, dedicated task, high performance applications that do not require services of a multi-tasking operating system.

POWER REQUIREMENTS

+6 volts — 4.8 Amps

ORDERING INFORMATION

MODEL	DESCRIPTION
3976-Z1A	68EC030 Auxiliary Crate Controller with 1 MByte RAM
3976-Z2A	68EC030 Auxiliary Crate Controller with 4 MByte RAM

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