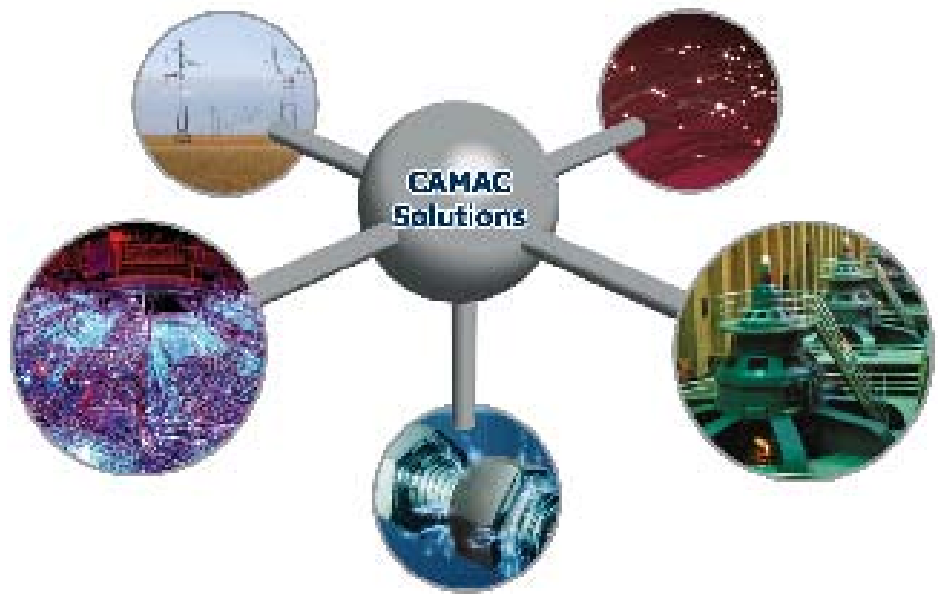


## CAMAC Equipment

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.

## 3992 Serial Highway Driver



The Model 3992 is a three-wide CAMAC module which transmits and receives signals on the CAMAC Serial Highway.

### FEATURES

- Operates as a module in a CAMAC system
- Complies with CAMAC specifications IEEE-583 and IEEE-595
- Bit-serial and byte-serial modes to five megahertz
- Crystal-controlled and variable-frequency clock sources
- Flexible means for selecting clock frequency
- Separate buffers for incoming demand and reply messages
- Lost-sync indication
- 12-bit LAM register with mask and front-panel LED display
- Seven internal registers
- Four internal status signals
- Q-scan mode
- Reply timeout



## GENERAL DESCRIPTION

The Model 3992 is a three-wide CAMAC module which transmits and receives signals on the CAMAC Serial Highway. It fully complies with CAMAC specifications IEEE-583 and IEEE-595. Bit-serial and byte-serial ports for data and clock are provided for transmitting command messages and for receiving Reply and Demand messages.

All functions of the module are controlled by the Dataway. Serial messages are initiated by Dataway operations involving Command and Data register. Transverse-parity and longitudinal-parity are checked on incoming messages.

The output clock can be controlled by a crystal or a variable-frequency oscillator or from an external source. Means for selecting frequencies from one kilohertz to five megahertz are provided for both the crystal-controlled and variable-frequency oscillators. The external source can range from arbitrarily slow to five megahertz.

Twelve-bit LAM and LAM Mask register provide flexible interrupt capability. The LAM register can be cleared and selectively cleared, and the LAM Mask register can be written, cleared, selectively set, and selectively cleared.

The module is set to a predefined state upon power-up.

## OPERATIONAL FEATURES

Six registers provide communication between the Dataway and the Serial Highway. Message transmission is initiated by:

1. Writing the Command register with a serial Read or command function, or
2. Writing the Write Data register while the Command register contains a serial Write function.

Loading the Command register with serial Write command does not initiate transmission.

Serial Read data is retrieved by F(0)•A(0) command after the Reply message has been received. The serial Q and X signals (SQ and SX) are transmitted on the Dataway Q and X lines to the crate controller along with the Read data.

SQ and SX for serial non-Read operations are retrieved by reading the Status register. A new transfer cannot be initiated while the serial transmitter is in the Process of sending out a message. Attempts to write the Data and Command register while the transmitter is busy are inhibited, and Q = 0 will be returned. Programmed utilization of the Serial Highway may contain from one to 62 crates, each of which may or may not have a three-byte delay switched in, the timing of the receipt of Reply messages may range from coincidental with the issuance of serial command space-bytes to as many as 186-bytes following completion of the Serial Command. Condition flags are provided which can be tested by software to determine when message transmission is complete or when a reply has been received.

## BLOCK TRANSFER OPERATION

The 3992-Z1B contains rear connectors for operation as part of a 3994 Block Transfer Serial Highway Driver. The 3994 is not recommended for new design. Contact KineticSystems Corporation for additional information.

## POWER REQUIREMENTS

+6 volts — 2800 mA  
-6 volts — 50 mA

## WEIGHT:

1.6 kg. (3 lb. 8 oz.)



#### ACCESSORIES

Model 5800-Axyz or Model 5800-Bxyz  
Model 5801-Axyz  
Model 3933, 3936, 3938, or 3939  
Model 6311-0AAC

Bit-serial Highway Cables  
Byte-serial Highway Cable  
U-Port Adapter  
RSX-11 M PLUS Software Driver for  
3920/3923 with 3992

#### ORDERING INFORMATION

| MODEL    | DESCRIPTION           |
|----------|-----------------------|
| 3992-Z1A | Serial Highway Driver |

Updated June 6th, 2005

Copyright © 2005 KineticSystems Company, LLC. All rights reserved.

### KineticSystems Company, LLC

900 N. State St.  
Lockport, IL 60441-2200

#### Toll-Free (US and Canada):

phone 1-800-DATA NOW  
1-800-328-2669

#### Direct:

phone +1-815-838-0005  
fax +1-815-838-4424

#### Email:

mkt-info@kscorp.com

To find your local sales representative  
or distributor or to learn more about  
KineticSystems' products visit:

**[www.kscorp.com](http://www.kscorp.com)**