

2917 VMEbus Interface w/DMA

FEATURES

- VMEbus interface for 3922 crate controller
- Controls up to eight CAMAC crates
- Bus lengths up to 90 meters (300 feet)
- RS-485 balanced-line signaling between the 2917 and 3922s
- 1.04 Mbyte/s throughput 24-bit Double Buffer Read
- 16 kbyte command list memory
- Full VMEbus master capabilities
- Supports 16-bit VMEbus transfers
- Flexible interrupt structure

APPLICATIONS

- Integrate CAMAC with VME systems
- General-purpose data acquisition and control
- Laboratory automation
- Industrial process control
- Flight simulation systems

GENERAL DESCRIPTION

The Model 2917 interfaces between a VMEbus system and as many as eight CAMAC crates using Model [3922](#) Parallel Bus Crate Controllers. Connection between the 2917 and the 3922s is made via a Model 5843-Txyz 40-conductor, twisted-pair ribbon cable. (Order this cable separately.) Balanced RS-485 signaling enhances performance and provides noise immunity. Data throughput rates for a 16-bit data transfer, using a 5 meter cable between the 2917 and a 3922, result in 920 kbyte/s for CAMAC Double Buffer Read operations; 890 kbyte/s for CAMAC Write operations can be achieved. The maximum total signaling distance of the interconnection bus is 90 meters (300 feet). The last 3922 terminates the Parallel Bus with a termination card (provided with the 3922).

CAMAC operations are executed from a 16-bit 8192 word deep, on-board command list memory. CAMAC data to and from the VMEbus can be transferred with the 2917 acting as either bus master or slave. All data transfers between the 2917 and the VMEbus are 16 bits wide. 32-bit addresses are generated by the 2917 during DMA transfers. Block transfers based on the CAMAC Q-response are supported.

The 2917 can generate an interrupt on the VMEbus when a CAMAC Look-At-Me (LAM) occurs or when the entire command list has been executed. The request level at which the interrupt is made is programmable from VMEbus, as is the generated interrupt vector.

Software support is available in the form of device drivers and subroutine libraries for Microware Systems' OS-968000™, Version 2.3 operating system.

ORDERING INFORMATION

Model 2917-Z1A — VME Adapter with DMA for 3922

ACCESSORIES

Model 5843-Txyz — Series Interface Bus Cable (one required)

Model [3922-Z1A](#) — Parallel Bus Crate Controller

System V/68 — Software Support Package

OS-9/68000 — Software Support Package

TMSystem V/68 is a trademark of Motorola Incorporated

TMOS-9/68000 is a trademark of Microware Systems Corporation