

DATAWAY TEST MODULE

MODEL DTM-399

DESCRIPTION

The DTM-399 Dataway Test Module was designed to monitor all dataway operations and power supply voltages plus crate temperature. This module is a hardware and/or software oriented diagnostic, test and display aid for trouble shooting within CAMAC.

Status and Dataway conditions can be seen at a glance, also computer controlled systems can run self diagnostics through to the dataway level. This may be used to increase the confidence level for system programming.

There are two display modes available, Track or Latch, and are selectable via the front panel switch located at the top of the panel. A third momentary contact on this same switch provides a manual LAM reset. This is especially useful in testing crate and/or software LAM handling capability.

SIGNAL DESCRIPTION

Track Mode: The display tracks the status of all dataway signals continuously. Status signals Strobe 1, Strobe 2, Busy, and LAM are displayed in a stretched, [200 ms] manner. This allows them to be more easily observed.

Latch Mode: The status signals Strobe 1, Strobe 2, Busy, and LAM are displayed as above. All other status, control signals and write data for the previous dataway operation are latched into registers for read back on command for system self diagnosis.

Initialize and Clear are latched at S2, all other signals are latched at S1 time. LED display information will reflect the contents of the latched data.

Read Inhibit (I) on the dataway is a static signal and is displayed directly in either mode.

The position of the TRACK/LATCH switch (or state of I) can be read at any time with the Read Status command. (Read Bit 17) as a query to move the switch to the latch position prior to running a self test diagnostic.

Failure or "glitch" on any of the power supply voltages will be latched and remain so until the fault is cleared and re-initialized under software control. Glitches as fast as 1 ms will be "caught".

The crate temperature can be monitored by setting the "Temp" trip point slightly above ambient, thus any crate temperature rise or fan failure will be caught before causing damage to the system.

Any single voltage failure will not cause the monitoring system to become inoperative, however, if the -6 volt supply fails, there will be indication of a "Temp" fault also.

Major system voltages ± 6 and ± 24 are also displayed continuously by LEDs on the bottom of the front panel.

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