TECHNICAL SPECIFICATIONS

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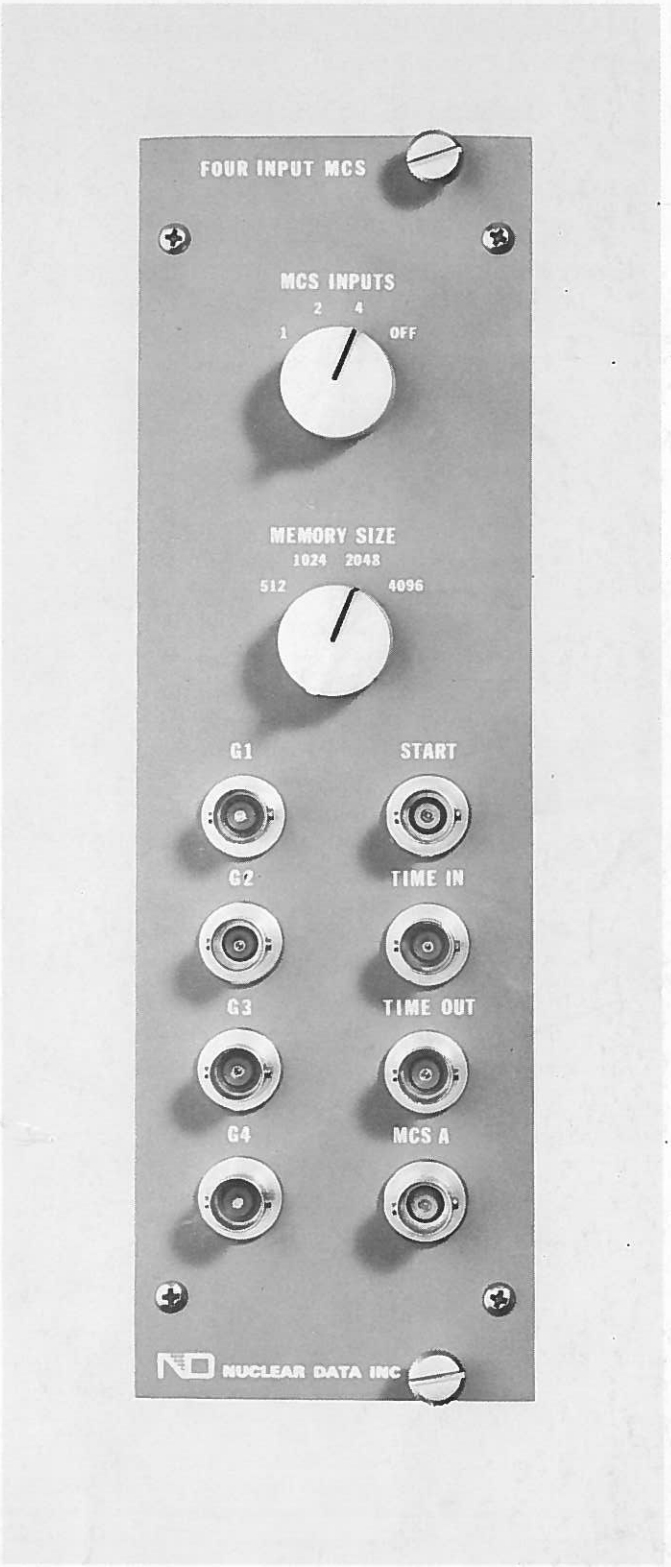

Four Input Multichannel Scaler Module

General Description

Nuclear Data's Four Input Multichannel Scaler Module facilitates concurrent multichannel scaling from up to four inputs when used in conjunction with a Nuclear Data Multichannel Analyzer System. During multiple input multichannel scaling operation, each input is assigned to a separate memory group as selected by a front panel switch. The result is a separate record representing the data derived from each input with each record indicating the individual characteristics of its related source.

Operation

Multichannel scaling input pulses from up to four sources are applied to front panel BNC's. Each accepted input is stored in the current channel of the respective memory group. Two front panel switches provide selection of 1, 2 or 4 multichannel scaling inputs and memory sizes of 512, 1024, 2048 or 4096 channels. The number of channels per input (scan) is the selected memory size divided by the number of inputs. Dwell time per channel is selected by an external ND536 Clock Time Base (Nuclear Data part number 88-0354) or similar timer. Initiation of a multichannel scaling scan is accomplished by applying a start signal to a front panel BNC. Front panel BNC's are also provided for dwell time input and an output which indicates when a multichannel scaling operation is in progress.

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Technical Specifications

Operating Modes: 1, 2 or 4 input multichannel scaling or OFF mode. In the OFF mode, normal pulse height analysis is enabled if an ADC is connected through the module into the Analyzer System.

Count Inputs: Number - 1, 2 or 4. Input Impedance - Nominally 750 ohms. Pulse Amplitude - +3 to +10V. Pulse Width - 200 nsec, minimum. Rate - A function of the data acquisition storage cycle and number of inputs serviced. Count Capacity - A function of the data acquisition channel capacity.

Memory Storage Allocation: 512, 1024, 2048, or 4096 channels, switch selectable. Memory storage selection is dependent upon memory capacity of analyzer system.

Dwell Time Selection: Dwell time per channel is selected by an external ND536 Clock Time Base or similar timer.

Scan Initiation: A multichannel scaling scan is initiated by applying an appropriate start signal to a front panel BNC.

Start Input: Signal characteristics - Dc level, +4 ±1V to start, +0.25 ± 0.25V quiescent. Duration - 200 nsec, minimum. Maintaining the +4 ± 1V level or an open circuit causes free running repetitive multichannel scaling scans.

Power Requirements: +5 Vdc @ 500 mA. −12 Vdc @ 50 mA.

Dimensions: 8.71 in. h. x 2.68 in. w. x 9.7 in. d. (NIM compatible two width module).

Part Number: 88-0574.

NUCLEAR DATA INC

Specifications subject to change.
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