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Technical Note TN-252 Version 1.00

Signal Conditioning Boards MSXB 064 and MSXB 065

The MSXB 064 and MSXB 065 expansion boards provide signal conditioning and sample-and-hold amplifiers for 8 channels of differential inputs. In addition, the MSXB 065 also provides anti-aliasing filtering with a low-pass filter for each channel. Refer to the MSXB 064/065 Manual (MSXB064.pdf or MSXB064.hlp) for more information on the signal conditioning boards.

Installation

The backplane models connect directly to the analog backplane of an industrial enclosure via the 68-pin connector J1. The MSXB 064 or MSXB 065 board installs into any available slot on the analog backplane. When installing the expansion board, push the board firmly into the slot and make sure the board is securely connected to the backplane.

Warning: Never connect or disconnect any expansion board from the analog backplane of the Data Acquisition Processor while power is applied to any of them.

Warning: The MSXB 065 board is only compatible with the filter modules MSFM001.

Headers and Connectors

Header	Description	Default Settings
J1	68-pin connector to the DAP	N/A
J2	Enables sample-and-hold amplifiers	With shunt installed; remove shunt to disable
J3	Determines whether the board is externally powered	Traces intact
J4	3-pin Molex connector for external power	N/A
J5	Determines the input address range	All shunts installed for range D0 – D7
J7	DB37 connector for analog inputs and outputs	N/A
J8	Connects analog outputs between J1 and J7	All shunts installed
J10	Determines gain setting and enables input addressing	All shunts installed for unity gain and addressing enabled
J11	Selects channels in a pin group	Shunt on pins 1-2 for even-number channels
J12	Internal use	N/A
J13	Internal use – for programming EEPROM	N/A
J15	Input clock and trigger	N/A
J16	Output clock and trigger	N/A
J18	Internal use	N/A
J19	Connects to filter module for MSXB 065	N/A
J20	Connects to filter module for MSXB 065	N/A
J21	Lower 4 differential signals	N/A
J22	Higher 4 differential signals	N/A