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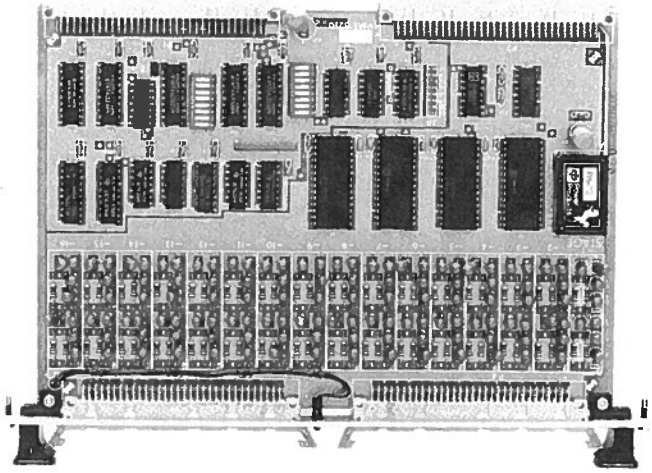
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VMIVME-3210
64-CHANNEL ANALOG INPUT MULTIPLEXER BOARD



FEATURES

- ±10 V INPUT RANGE
- CURRENT SENSE INPUT OPTION (4 TO 20 mA)
- 64 SINGLE-ENDED CHANNELS OR 32 DIFFERENTIAL CHANNELS
- DOUBLE EUROCARD FORM FACTOR WITH FRONT PANEL
- OVERVOLTAGE PROTECTED
- 10 µs SETTLING TIME
- FAIL-SAFE WITH POWER-OFF
- UP TO 16 ANALOG INPUT MULTIPLEXERS MAY BE CONNECTED TO ONE ADC
- USER SELECTABLE INPUT FILTERS
- VxWorks™ DRIVER AVAILABLE (1)
- REQUIRES VMIC ANALOG BACKPLANE (AMXbus™)
- REQUIRES VMIC ADC COMPATIBLE BOARD

(1) VxWorks™ is a trademark of Wind River Systems.

VME MICROSYSTEMS INTERNATIONAL CORPORATION
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Huntsville, Alabama 35803-3308
(205) 880-0444 Fax: (205) 882-0859
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VMIVME-3210
64-CHANNEL ANALOG INPUT MULTIPLEXER BOARD

SPECIFICATIONS

FUNCTIONAL CHARACTERISTICS

Compatibility:	The 64-channel single-ended, 32-channel differential analog multiplexer board is a standard, double-height printed circuit board which is compatible with the VMEbus.
Board Address:	The address for the board is selected by 15 DIP switches. The board can be plugged into any available slot on the VMEbus, except slot 1.
Channel Selection:	In the single-ended mode, Control Status Register (CSR) bits 0 through 5 are used to select which of the 64 channels on the analog multiplexer board is to be switched to the Analog-to-Digital converter board. In the differential mode, CSR bits 0 through 4 determine which of 32 differential pairs are gated to the converter (CSR bit 5 has no effect in the differential mode).
VMEbus Access:	Address modifier bits are decoded to support non-privileged short I/O or supervisory short I/O access. A single jumper is provided to support the option. The board is factory configured for supervisory short I/O access.
VMEbus Reply:	The board generates a DTACK reply in response to a data strobe (DS0 or DS1) and a decoded board address.
Data Transfer Type:	D8, D16
Mode Selection:	Other operational modes of the board may be selected as specified below: D00 to D05 - Selects channel D06 - Selects single-ended or differential inputs
Board Function:	The VMIVME-3210 is a low-cost multiplexer expansion board for the VMIVME-31XX series of Analog-to-Digital (AD) boards. VMIC's wide variety of P2 analog backplanes (AMXbus™) supports up to 16 expansion multiplexers on a single bus utilizing a single AD board.
Sample Release:	The analog sample gated to the Analog-to-Digital converter (ADC) is automatically released by the EOC signal from the converter board.
Analog Inputs:	Inputs can be single-ended, pseudo-differential, differential, or current sense. The board processes low level inputs (±100 mv) in the differential mode. Full scale ranges are -10 V to +10 V. The current sense input range is from 0 to 20 mA.

ELECTRICAL SPECIFICATIONS

Full Scale Analog Input:	-10 V to +10 V
Current Sense Input:	A 250 Ω current to voltage sense resistor generates a 1 to 5 V range for 4 to 20 mA inputs.
Module Overall Error[1] (Typ at 25 °C):	±0.025 percent of full scale range ±0.05 percent of full scale range with optional input filters ±0.05 percent of full scale range with optional current sense resistors
Input Overvoltage Protection:	±25 V
Input Single-Pole Filter Options[2] (3dB Attenuation):	6, 9, and 36 Hz

[1] Overall error is calculated assuming 1000 Ω source impedance. The signal is multiplexed to a VMIC 12-bit A/D board with an input impedance of 100 mΩ. Full scale range is equal to 20 V (-10 to +10 V).

[2] Contact VMIC for other filter requirements.

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PHYSICAL/ENVIRONMENTAL SPECIFICATIONS

Temperature:	0 to 55 °C, Operating -20 to +85 °C, Storage
Humidity:	20 to 80 percent relative, non-condensing
Cooling:	Forced air convection
Dimension:	Standard VME double-width board 160 mm x 233.35 mm
Connectors:	P1 and P2 are 96-pin DIN connectors. Refer to ordering information for Analog connector.
POWER REQUIREMENTS:	1 A (maximum) @ +5 V

NOTE

VMIC UTILIZES THE USER I/O PINS ON THE P2 CONNECTOR TO SUPPORT AN ANALOG PRIVATE BUS (AMXBUS™). AMXBUS™ BACKPLANES ARE AVAILABLE IN DIFFERENT SIZE SLOT WIDTHS TO ACCOMMODATE DIFFERENT ANALOG CONFIGURATION REQUIREMENTS.

APPLICATION AND CONFIGURATION GUIDES

TITLE	DOCUMENT NO.
Digital Input Board Application Guide	825-000000-000
Low Level Analog I/O Configuration Guide	825-000000-001
Change-of-State Application Guide	825-000000-002
Digital I/O (with Built-in-Test) Product Line Description	825-000000-003
Synchro/Resolver (Built-in-Test) Subsystem Configuration Guide	825-000000-004
Analog I/O Products (with Built-in-Test) Configuration Guide	825-000000-005
Connector and I/O Cable Application Guide	825-000000-006

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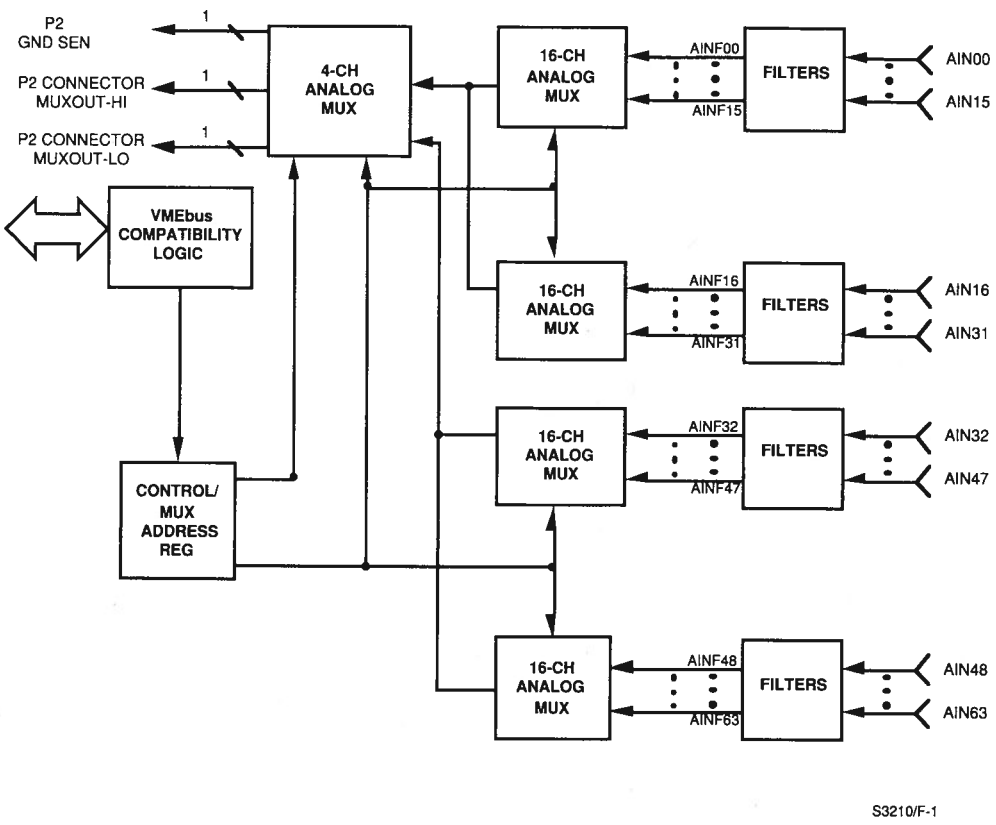


Figure 1. VMIVME-3210 64-Channel Multiplexer Board Functional Block Diagram

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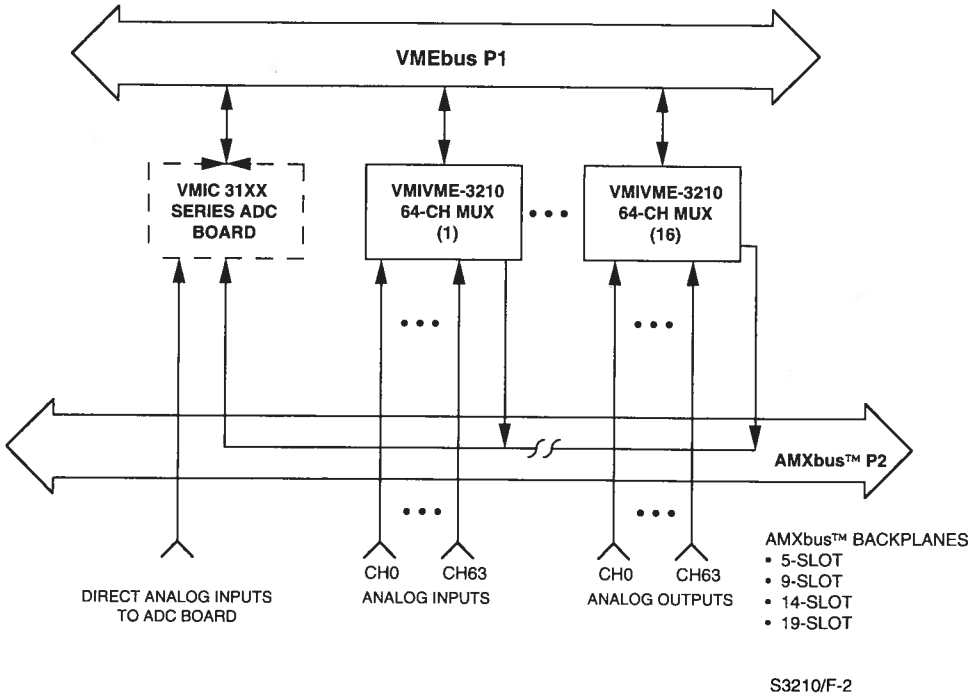


Figure 2. VMIVME-3210 Typical 64-Channel MUX Configuration

64-CHANNEL ANALOG INPUT EXPANSION BOARD

ORDERING INFORMATION

VMIVME - 3210 - A B C

- FILTER OPTIONS
  - 0 = No Filter
  - 1 = 6 Hz Filter
  - 2 = 9 Hz Filter
  - 3 = 36 Hz Filter
- INPUT OPTIONS
  - 0 = Current Sense (32 Channels)
  - 1 = Voltage Source (64 Single-Ended Inputs)
  - 2 = Voltage Source (32 Differential Inputs)
- DATA POLARITY
  - 1 = Positive True
  - 2 = Negative True
- MODEL NO.

CONNECTOR DATA

COMPATIBLE CABLE CONNECTOR	PANDUIT NO. 120-964-435E
STRAIN RELIEF	PANDUIT NO. 100-000-032
P.C. BOARD HEADER CONNECTOR	PANDUIT NO. 120-964-033A

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