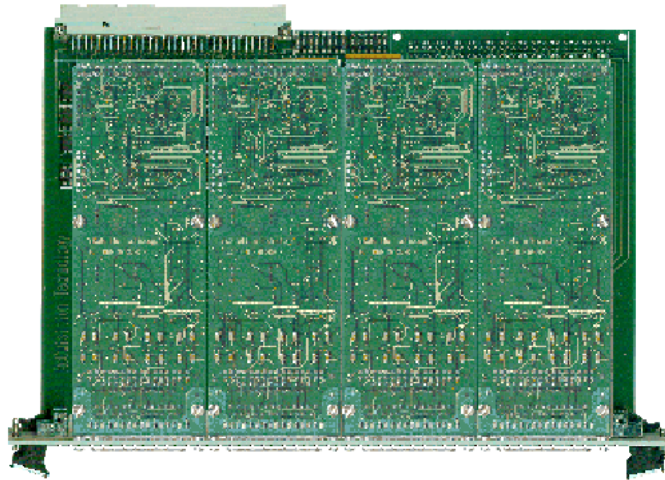


64 Channel ADC for VMEbus

By AcQ Inducom



The VME392 features 64 self-contained ADC channels with a resolution of either 12 or 16-bit (see ordering information). This product is ideally suited for mass acquisition with high accuracy for reasonable cost. The 64 channels are grouped into four sections of 16 channels each. Each section behaves completely independent from the other sections. Each channel can be individually enabled for operation. All enabled channels are scanned continuously at maximum rate. Each channel 'owns' a memory location that is constantly refreshed with new conversion data. This memory can be read by the host CPU to obtain the most recent conversion value. Local DSPs (one per 16 channels) perform all functionality like calibration. User specific functions can be added for customized operation.

This VMEbus board has a 6U form and is also available as 3U VMEbus board.

Features:

- > 4x 100kSPS ADC with 16-bit or 12-bit resolution
- > Channels can be enabled/disabled individually
- > No potentiometers
- > 64 single ended input channels
- > On-board filtering with 1kHz cut-off frequency
- > Analog front-end is optically isolated
- > On-board DC/DC converter for isolated power supply
- > Data acquisition handled by 4x TMS320C203 DSPs, transparent for user
- > Calibration data stored in EEPROM
- > Measurement values continuously updated in dual-ported SRAM
- > Update rate up to 50kHz
- > A16/A24, D16 VMEbus Slave Interface

VMEbus Interface

- * The VMEbus slave interface of the VME392 is compliant with the VMEbus Specification Rev C.1.
- * It supports standard or short addressing (A24/A16), D16/D08(EO) data transfer capabilities and configurable interrupt level (I(x)).

Input Characteristics

- * 16 common-mode inputs
- * Optical isolation
- * Uni-polar input range: 0V .. +5V / 0V .. +10V
- * Bi-polar input range: -5V .. +5V / -10V .. +10V
- * Input ranges are software programmable
- * 2nd order input filter with 1kHz cut-off frequency

Conversion Characteristics

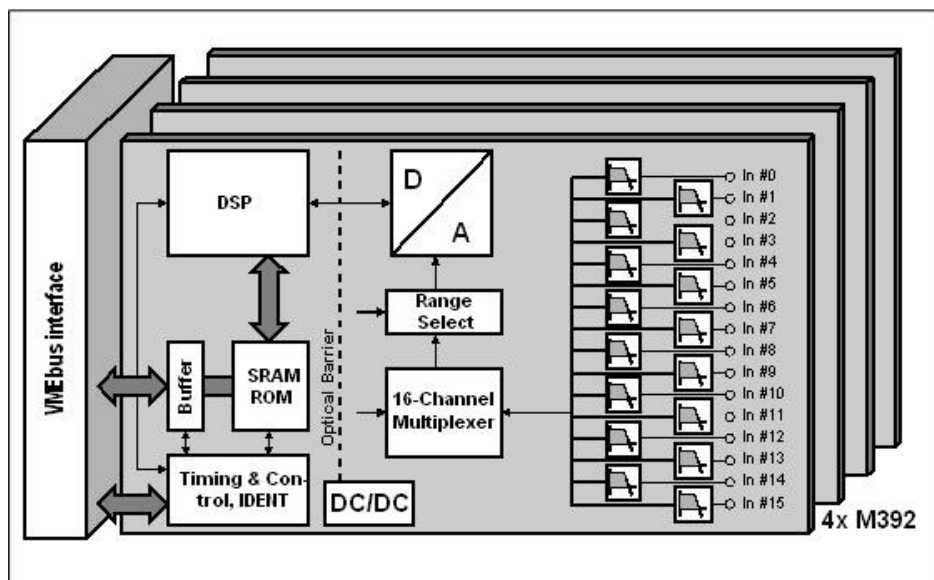
- * 12-bit or 16-bit conversion accuracy (see ordering information)
- * Typical acquisition time of 10 microseconds per channel
- * All enabled channels are converted continuously
- * Conversion data can be read from shared memory by host
- * Local DSP (4x TMS320C203) performs acquisition sequences. User-specific features (e.g. running average) can be implemented on request

Ordering Information

- * **VME1392/T03** 3U 16-channel analog input, common mode, 12-bit resolution, without DCDC
- * **VME1392/T01** 3U 16-channel analog input, common mode, 12-bit resolution, with DCDC
- * **VME1392/T04** 3U 16-channel analog input, common mode, 16-bit resolution, without DCDC
- * **VME1392/T02** 3U 16-channel analog input, common mode, 16-bit resolution, with DCDC

Ordering Information

- * **VME392/T03** 6U 64-channel analog input, common mode, 12-bit resolution, without DCDC
- * **VME392/T01** 6U 64-channel analog input, common mode, 12-bit resolution, with DCDC
- * **VME392/T04** 6U 64-channel analog input, common mode, 16-bit resolution, without DCDC
- * **VME392/T02** 6U 64-channel analog input, common mode, 16-bit resolution, with DCDC
- * **VME(1)392/SW** APIS based software
- * **VME(1)392/MAN** manual on paper



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