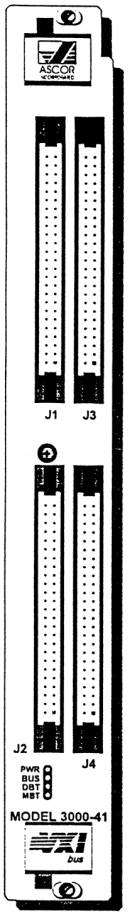
MODEL 3000-41

ASCOR Model 3000-41
VXI Edge Detector Channel Switch



General Description

The ASCOR Model 3000-41 supplies 64 channels of edge detection in a single VXI slot. The motherboard supports 32 channels and the daughterboard supports 32 channels. Each channel can be set to the ±10V or ±50V range. Each channel has a 2K Ohm load, which can be switched in. Each channel voltage comparator has hysteresis, which can be switched in to control comparator 'chatter.' Each channel has a digital debounce circuit, which provides up to 2 seconds of filtering.

Each card has a 16-bit DAC, which supplies the reference voltage for the 32 comparators. On the ±10V range, the DAC bit weight is 20/65536 = .305mV. On the ±50V range, the DAC bit weight is 100/65536 = 1.526mV.

There is a 2K by 32-bit FIFO on each card for storing events (note 1). When an edge is detected on any of the 32 channels, the state (note 2) of all 32 channels is written to the FIFO along with a 32-bit time stamp. The FIFO has the capacity to time stamp a maximum of 1024 events with one microsecond resolution. At the maximum edge detection rate of once every microsecond, the FIFO can be filled in 1.024 milliseconds. At the other extreme, without time stamp overflow, the FIFO can store events for 1.2 hours (an average of one event every 4.2 seconds).

The 3000-41 supports VXI interrupts. Mask and polarity registers permit selection of rising or falling edges of one or more channels. When the selected edge occurs, an interrupt can be generated.

Each card has a 12-bit ADC for channel waveform digitizing. Any one of the 32 channels can be routed to the ADC, with the digital data being stored in a 32K deep money. The digital rate can be set to 2MSPS, 1MSPS, 500KSPS, 200KSPS, 100KSPS, 50KSPS, 20KSPS and 10Ksps.

Features:

- ***64 channels of edge detection with time stamping.***
- ***1 microsecond resolution on edge to edge measurements.***
- ***Pulse width measurements down to 2 microseconds.***
- ***3 pins provided at the front panel for every channel: input (+), input (-), and shield (analog ground).***
- ***Input signal can be differential or single-ended with ±10V or ±50V ranges.***
- ***Each channel has debounce filtering which can be set from 1 us to 2 seconds.***
- ***16-bit DAC to set channel comparator threshold.***
- ***12-bit ADC can digitize any channel at up to 2 million samples per second.***

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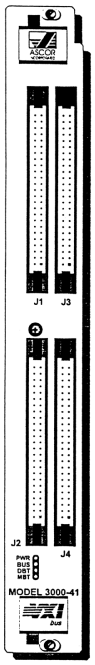

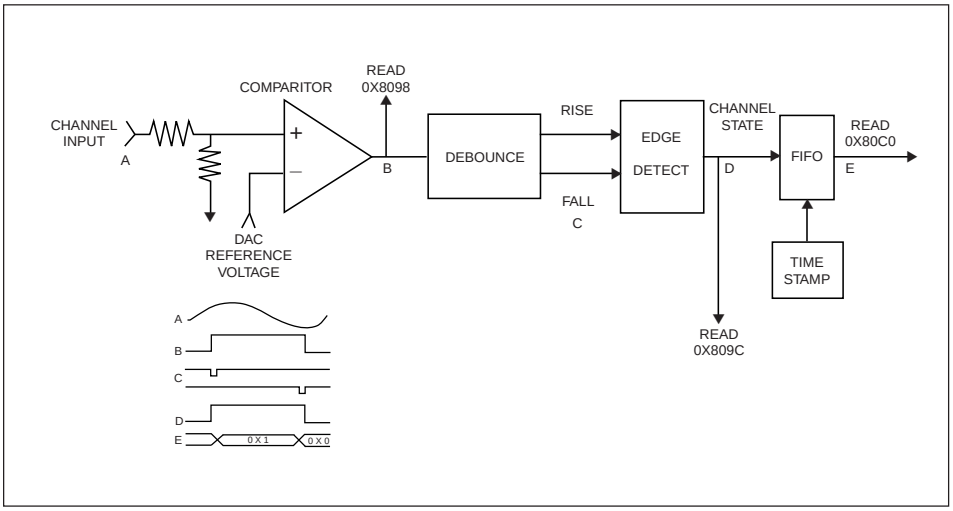

Typical Model 3000-41 Edge Detector Channel

Self Testing

Like all ASCOR VXI Modules, the Model 3000-41 incorporates internal self test hardware which provides the ability to test, read back and verify the integrity of the relay control circuitry.

All ASCOR VXI Modules also feature a unique built-in service record, for tracking repairs to the Module by time and date the repair was actually performed.

ASCOR also provides a 3 year limited warranty on all ASCOR VXI Modules.

Protecting Your Investment With VXIMAX™ 16/32

To address tomorrow's applications, requiring even greater capabilities, ASCOR's 3000-41 supports either 16-bit or 32-bit data bus paths through its VXIMAX 16/32 VXIbus interface.

3000-41 customers can upgrade to 32-bit from 16-bit with VXIMAX's field upgradability.

CE The CE Mark indicates that the product has completed and passed rigorous testing in the area of RF Emissions, Immunity to Electromagnetic Disturbances and complies with European electrical safety standards.

Quiet Ideas. Powerful Solutions.
ASCOR, founded in 1987 and headquartered in California's Silicon Valley, provides a complete line of VXI Switching and Digital Modules for industrial, medical, scientific and governmental automatic test applications. ASCOR VXI products are the quietest, cleanest, highest density VXI modules commercially available.

ASCOR INCORPORATED
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