

VXI Event Detector Module

The VX405C1xx are 32 or 64 channel input modules that sample and selectively store up to 64 bits of data along with a 31 bit time tag at rates up to 5 MSPS. These modules have the ability to store all data at the specified sample rate or to selectively store input values based upon changes in state on one or more of the inputs. With the OCXO options a more precise sample clock is achievable or a reference input may be supplied to other system elements to enable tracking of event detector inputs relative to other monitored functions within the overall system.

Specifications:

Number of Channels: 32 or 64

Sample Rate: up to 5 Msps

Input Debounce: 0 to 128 ms
Software selectable

Input Specifications:

Threshold Resolution 100mV
Threshold Range 0 to 25.6V
Threshold Accuracy $\pm 0.5\%$ of FS
Max. Input Voltage 48V
Input Hysteresis 25mV
Input Impedance $> 100K\Omega$
Input Current $< 300mA$

Input Masking:

Allows selection of bits to be monitored

Local Memory:

32K deep (data and 31 – bit timestamp)

Input Polarity: Software Selectable

Sampling Strobe:

- Internal: to 5 MHz
- Front Panel: to 5 MHz
- Backplane Trigger: to 5 MHz
- Source and prescaler software programmable

Interrupts:

- Data Stored
- FIFO Half-Full
- FIFO Full
- Time-Stamp Rollover
- Change of State
- Level Transition
- Bit Pattern

I/O Connectors:

- 44 pin DSUB

Indicators:

MODID
SYSFAIL
Module Access

Temperature:

Operating 0° C to 50° C
Storage -40° C to 70° C

VXIbus Compliance

Complies with ANSI/IEEE Std. 1014-1987, IEC821, and VXIbus Rev. 1.4 for C-Size VXI Modules

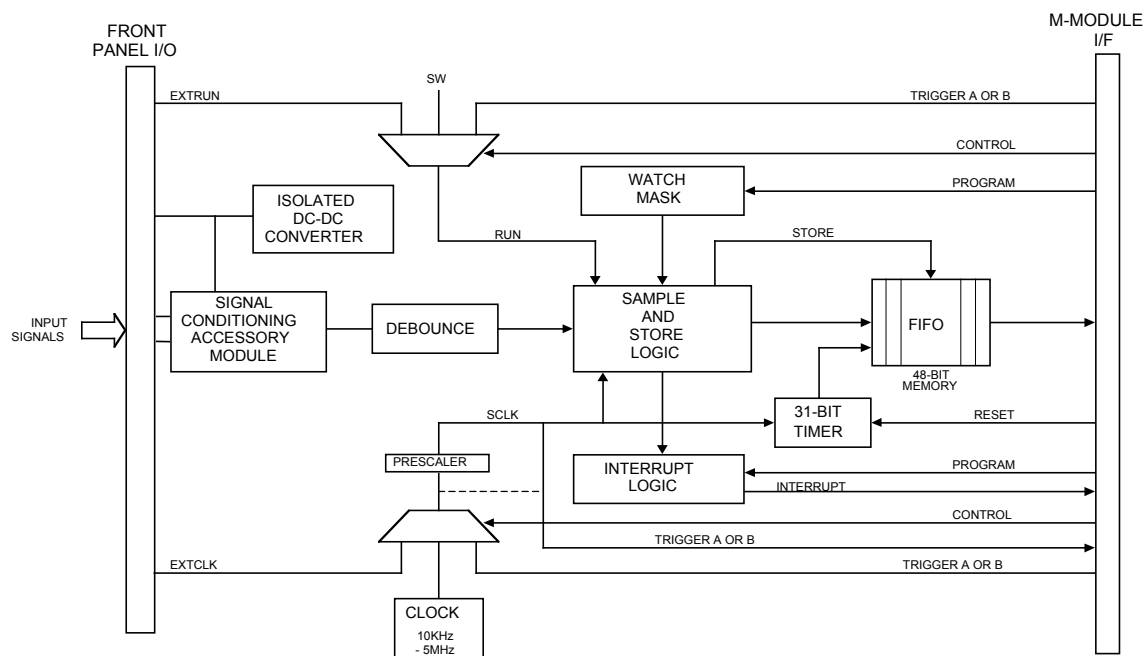
Addressing	A16/24/32
Data	D8/16/32, slave
SYSFAIL	supported
Interrupts	supported
BRX tied to BGX	
VXI TTL Triggers	supported
Form Factor	Size C

Applications

- Acquisition of transient signals
- Real-time data compression
- Logic Analysis
- Event counting

Additional Information

User Manuals for this carrier and C&H M-modules can be found on our website at www.chtech.com.



Specifications:

Implementation:

- All versions use either two (2) or four (4) ANSI/VITA Standard 16 Channel M-Modules (MA203), each of which have the block diagram shown above
- OCXO versions also include an embedded settable OCXO routed to one channel of the Event Detector (remove cable if this feature is not to be used)

Trigger/Sample Strobe Features:

- An external clock may be routed through one mezzanine to a VXI trigger and back to the Event Detector triggers to minimize skew between channels
- One mezzanine's clock may be used as a master in a similar manner
- A VXI trigger clock source can be routed to the Event Detector triggers on all mezzanines so as to minimize skew between channels
- The optional OCXO may be used (up to 5 MHz) as the primary strobe by routing to the Event Detector triggers.

Ovenized Oscillator Option:

Nominal frequency:

Stability (Freq. vs. temp.)

Aging (Freq. vs. time)

First Year

10 years

Calibration (Freq. vs. Control)

Warm Up

5 minutes

30 minutes

10 MHz

±0.01 ppm

±0.1 ppm

±1.0 ppm

±1.0 ppm

±0.1 ppm

±0.01 ppm

OCXO Function Controls:

- Divide nominal frequency by any integer from 2 to 16383
- M-Trigger A/B Output Enable
- Front Panel Output Enable
- Front Panel Output Impedance

Software Driver:

- Lab Windows/CVI
- VXIplug&play (WIN95/WINNT Frameworks)
- LabView

Conformance:

- These modules are CE compliant for Emissions, Immunity and Safety

Ordering Information:

32 Channel Event Detector:

Model VX405C103

P/N 11028740-0001

32 Channel Event Detector with OCXO:

Model VX405C104

P/N 11028760-0001

64 Channel Event Detector:

Model VX405C115

P/N 11029980-0001

64 Channel Event Detector with OCXO:

Model VX405C100

P/N 11028620-0001