

The V110 is a single-width, register-based, C-size, VXI module that can be used as a general-purpose, read/write memory on VXIbus or can interface with the family of I/O modules from KineticSystems that uses the Digi-bus™ protocol.

TYPICAL APPLICATIONS

Acoustic/vibration measurements
Sonar (hydro-acoustics)
Automotive safety testing
Transient recording
Local storage of data

4 to 128 Megabyte Memory V110

A versatile read-write RAM memory

FEATURES

- Available either as a general-purpose, read/write memory, as a data source for output modules, or as data storage for input modules
- Compatible with I/O modules that use the Digi-bus™ protocol
- Memory size options are available from 4 Mbytes to 128 Mbytes
- Can be used as a circular buffer for transient recorder applications with programmable pre- and post-trigger sample sizes
- Built-in self-test

GENERAL DESCRIPTION

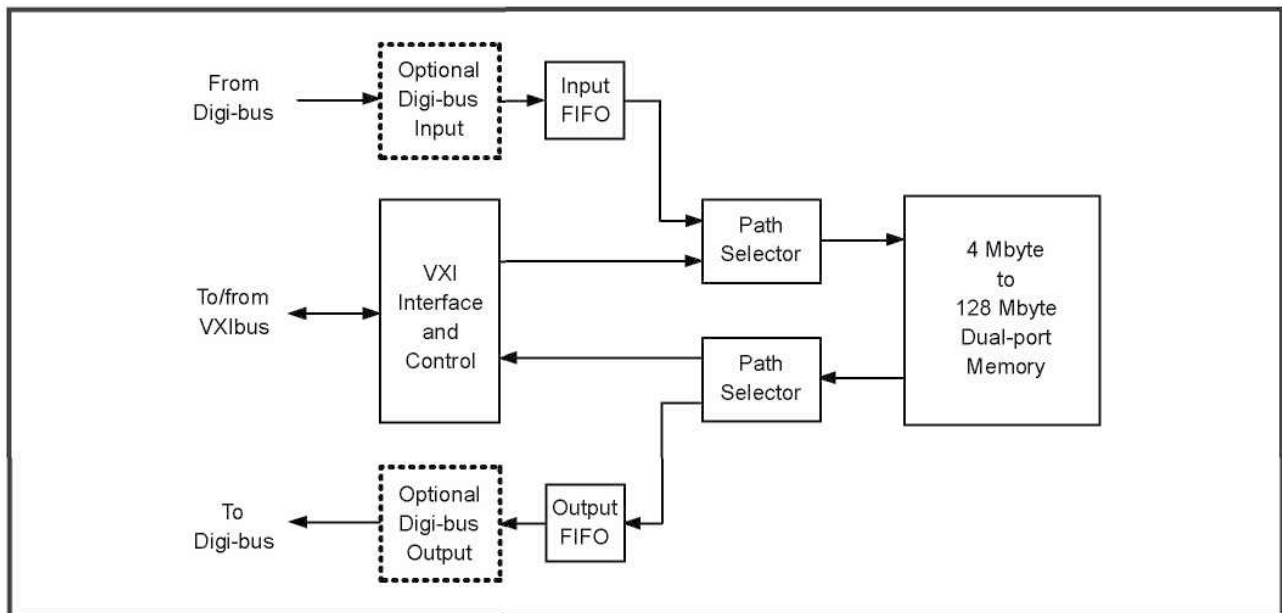
The V110 is a single-width, register-based, C-size, VXI module that can be used as a general-purpose, read/write memory on VXIbus or can interface with the family of I/O modules from KineticSystems that uses the Digi-bus™ protocol. Options of the V110 are available which provide a memory-based data source for output modules such as the V285 Arbitrary Waveform Generator or the V387 Discrete I/O modules (with output options installed); data storage for input modules such as the V207 ADC Subsystem with its family of signal conditioning modules; or VXIbus only operation (no Digi-bus interface). The physical path for the Digi-bus communications is the VXI Local Bus on the backplane P2 connector. Data can be read or written over Digi-bus from the V110 at a peak rate of 10 Mbyte/s. The actual average transfer rate may be limited by the associated I/O modules and their clock rate settings.

The memory on the V110 VXIbus memory module is dual-ported:

- When a Digi-bus OUT module option is used, one buffer on the V110 can be written from VXIbus while a second buffer is supplying data over Digi-bus to a V285 Arbitrary Waveform Generator, for example. When that second buffer is empty, the module begins reading data from the first buffer, allowing the second buffer to be filled from VXIbus.
- When a Digi-bus IN module option is used, one buffer on the V110 can be read from VXIbus while a second buffer is receiving data over Digi-bus from a V207 ADC Subsystem, for example. When that second buffer is full, Digi-bus begins writing data to the first buffer, allowing the second buffer to be read from VXIbus.
- With all options of the V110, it can be used as a general-purpose, read/write memory via VXIbus.

The Digi-bus input option of the V110 can also be used as a transient data recorder memory. When this feature is programmed, the memory is configured as a circular buffer. The logical size of the memory can be programmed to be the entire physical memory or a portion of it. In operation, data from an ADC module begins to be stored in the V110 prior to an "event." The logical memory size can be divided into pre-trigger and post-trigger samples. When an event trigger is received, the memory will continue recording until all post-trigger samples have been received.

The V110 supports both static and dynamic configuration capabilities. It may be accessed using A32/A16, D32/D16 data transfers. A built-in self-test is provided which performs a full memory test at power up.



Item	Specification
Power Requirements +5V	6.9 A, maximum
Environmental and Mechanical Temperature range Operational Storage Relative humidity Cooling requirements Dimensions Front-panel potential	0°C to 50°C -25°C to +75°C 0 to 85%, non-condensing, to 40°C 10 CFM 340 mm x 233.35 mm x 30.48 mm (C-size VXIbus) Chassis ground



RELATED PRODUCTS

Model V165	Digital Signal Processor
Model V207	16-bit, 500,000 Sample/second ADC Subsystem
Model V208	16-bit, 200,000 Sample/second ADC Subsystem
Model V285 Generator	8 or 16-channel, 16-bit, 500 kHz DACWaveform
Model V387	128-channel Discrete Input/Output
Model 5919-Z1A	Connector—SMB Cable-type

ORDERING INFORMATION

MODEL	DESCRIPTION
V110-wx11	w: Digi-bus options A = no Digi-bus option B = Digi-bus input (The V110 can read data from Digi-bus) C = Digi-bus output (The V110 can write data to Digi-bus) x: Memory size A = 4 Mbyte memory B = 8 Mbyte memory C = 16 Mbyte memory D = 32 Mbyte memory E = 64 Mbyte memory F = 128 Mbyte memory

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