

The VCDS is a single-width, C-size VXI module that adapts most B size VME modules for use in a VXI mainframe.

The VCDS is a functional replacement for the Colorado Data Systems Model CDS 73A-851.

## TYPICAL APPLICATIONS

High-performance ATE  
High-performance data acquisition and control  
Embedded data acquisition

## VCDS VME to VXI Adapter



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## FEATURES

- Single-width, C-size adapter that adapts most B size VME modules to VXI
- Functional replacement for the Colorado Data Systems Model CDS 73A-851
- Mounts the VME module's front panel flush with the front of the adapter
- Provides direct access to the VME module's front panel I/O connections
- Supports VME devices that use D8, D16, D32 and D64 transfers
- Provides buffered data, access, and trigger lines (TTL and ECL)
- VME module installed in adapter may act as a bus master or slave
- Provides shielding for the installed VME module
- Robust construction, electrical characteristics and strict VXI standards implementation



## GENERAL DESCRIPTION

The VCDS is a single-width, C-size VXI module that adapts most B size VME modules for use in a VXI mainframe. The VCDS is a functional replacement for the Colorado Data Systems Model CDS 73A-851.

The VCDS adapter maintains the VMEbus environment, timing, and backplane by buffering the VME address bus, data bus, and control signals and routing them to the installed VME module.

The VCDS supports seven interrupt levels, IRQ1 through IRQ7. The VCDS has an Interrupt Select Switch for each level on the VXIbus. The switches determine if the installed VME module will act as an interrupt handler or an interrupter, for each of the VXIbus interrupt levels.

The VCDS supports eight TTL trigger lines, TTLTRG0 through TTLTRG7. The VCDS has a TTL Trigger Direction switch for each TTL trigger line on the VXIbus. The switches indicate if the TTL trigger line will be an input to or output from the module. The VCDS also supports two ECL trigger lines, ECLTRG0 and ECLTRG1. The VCDS has an ECL Trigger Direction switch for each ECL trigger line. Trigger lines are accessed through mezzanine modules.

The VCDS has a SYSRESET Direction Switch to indicate whether the module can drive or monitor SYSRESET.

## VMEBUS INTERFACE

Data Transfer bus: D8, D16, D32 or D64.

Address bus: A16, A24 or A32

The module installed in the VCDS may act as a bus master or slave or both. VMEbus monitor modules that are neither masters nor slaves on the VME bus are not supported by the VCDS.

The module installed in the VCDS may be an interrupter or interrupt handler, but not both, on any given interrupt level. The module may be an interrupter on one level and an interrupt handler on another level. If the installed module has bus master capability, the VCDS converts the module's bus request protocol to the Fair Requestor [the Request or No Request (RONR)] protocol specified by the VXIbus specification. The installed module must generate bus requests on a single bus request level.

## TRIGGERING

VXIbus TTL trigger protocol synchronous, asynchronous, and start/stop are supported. TTL semi-synchronous protocol is not supported.

VXIbus ECL trigger protocol synchronous, asynchronous, and start/stop are supported. ECL semi-synchronous protocol is not supported.

## NUMBER OF SLOTS

One slot is required.

## RADIATED EMISSIONS

The VCDS provides shielding for the installed VME module. The user must verify compliance with the VXIbus Radiated Emissions specifications.

## CONDUCTED EMISSIONS

The VCDS provides ac isolation from the dc power busses on the VXIbus backplane. The user must verify compliance with the VXIbus Conducted Emissions specification.

## POWER REQUIREMENTS

All required dc power is provided by the Power Supply in the VXIbus chassis.

Voltage:

+5 volt supply	+4.75 V dc to +5.25 V dc
+24 volt supply	+23.5 V dc to +24.5 V dc
-24 volt supply	-23.5 V dc to -24.5 V dc

Current (Peak Module,  $I_{PM}$ ):

With no VME module installed:

5 volt supply	2.5 A
-5.2 volt supply	270 mA
-2.0 volt supply	96 mA

## WEIGHT

1 kg. (2.13 lb).

## MOUNTING POSITION

Any orientation.

## MOUNTING LOCATION

Installs in an instrument module slot (slots 0-12) of a C- size VXIbus chassis.

## ENVIRONMENTAL AND MECHANICAL

Temperature range:

Operational:	0°C to +50°C
Storage:	-25°C to +75°C

Relative humidity: 0 to 85%, non-condensing to 40°C

Cooling requirements: 10 CFM

Dimensions: 340 mm x 233.35 mm x 30.48 mm (C-size VXIbus)

Front-panel potential: Chassis ground



#### **EQUIPMENT SUPPLIED**

- 1 – VCDS card
- 1 – Extraction Tool

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To find your local sales representative or distributor or to learn more about KineticSystems' products visit:

**[www.kscorp.com](http://www.kscorp.com)**

#### **ORDERING INFORMATION**

Model VCDS-AA11      VME to VXI Adapter

Specifications contained within this data sheet are subject to change without notice.

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