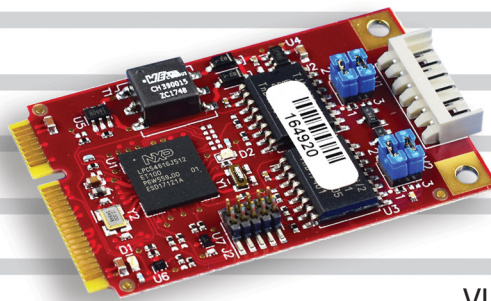


# Dual Channel CAN Bus Module

## Mini PCIe Module



VL-MPEu-C1E

Actual Size!

## Overview

The 'C1' module is an extremely small and rugged CAN Bus add-on interface. This standard sized Mini PCIe module provides a simple way to add dual isolated CAN Bus interfaces to most embedded computer systems.

The C1 features operation over the full industrial temperature range (-40° to +85°C) and is shock and vibration tested for worry-free use in industrial and military applications. It uses a latching I/O connector for higher reliability in the field and it provides 2.5 kV of signal isolation to protect the host computer.

The C1 module supports the CAN-FD protocol and a wide range of signaling speeds. CAN-FD is fully compatible with CAN 2.0 A and CAN 2.0 B. It supports numerous CAN functions including message acceptance filter and listen-only mode.

In addition, the module supports the high level CANopen protocol and is compatible with popular operating systems including Windows and Linux.

Like other VersaLogic products, the C1 is designed and validated for operation in unforgiving environments, and for long term availability (10+ year lifecycle).

## Highlights

- **Two independent CAN channels**
- **CAN 2.0B and CAN-FD**  
Supports high speed signaling
- **CANopen high level protocol**
- **2.5 kV Galvanic Isolation**  
To protect host system
- **Industrial temperature operation**  
Full -40° to +85°C rated for harsh environments
- **MIL-STD-202H tested**  
For high shock and vibration environments
- **10+ Year production lifecycle**

# Dual Channel CAN Bus Module

Product Data Sheet

Mini PCIe Module

## Specifications

General	
<b>Board Size</b>	Mini PCIe standard (full size): 30 x 52.55 x 10.18 mm (1.18 x 2.07 x 0.40")
<b>Weight</b>	6.4 grams (.226 oz.)
<b>Power Requirements</b>	3.3V ±5% @ 570mW Typical (supplied by the Mini PCIe socket)
<b>Regulatory Compliance</b>	RoHS (2011/65/EU)
<b>Mini PCIe Signal Type</b>	USB 2.0

Environmental	
<b>Operating Temperature</b>	-40° to +85°C
<b>Storage Temperature</b>	-40° to +85°C
<b>Thermal Shock</b>	5°C/min. over operating temperature
<b>Humidity</b>	Less than 85%, noncondensing.
<b>Vibration, Sinusoidal Sweep †</b>	MIL-STD-202H method MIL-STD-202-204, Condition A: 2g
<b>Vibration, Random †</b>	MIL-STD-202H method MIL-STD-202-214, Condition A: 5.35g rms
<b>Mechanical Shock †</b>	MIL-STD-202H method MIL-STD-202-213, Condition G: 20g half-sine

Device I/O	
<b>CAN Interface</b>	- 2 channels - CAN-FD and CAN 2.0 protocols - Galvanic isolation (2.5 kV) - ISO11898 compliant
<b>Connectors</b>	2 mm 6-pin Molex Micro-Latch.
<b>Signaling</b>	- 11-bit and 29-bit identifiers - CAN 2.0B baud rates: 100/125/250/500/800/1000K - CAN-FD baud rates: up to 5 Mbps
<b>High Level Protocol Support</b>	CANopen

Software	
<b>Drivers</b>	Compatible with Windows and Linux

\*\* Contact VersaLogic Sales.

† MIL-STD-202H shock and vbe levels are used to illustrate the ruggedness of this product in general. Testing to higher levels and/or different types of shock or vibration methods can be accommodated per the specific requirements of the application. Contact VersaLogic Sales for further information.

Specifications are subject to change without notification. PCI Express is a registered trademark of the PCI-SIG. All other trademarks are the property of their respective owners.

## Ordering Information

Model	Function	Operating Temp.
VL-MPEu-C1E	CAN bus. Dual channel.	-40° to +85°C

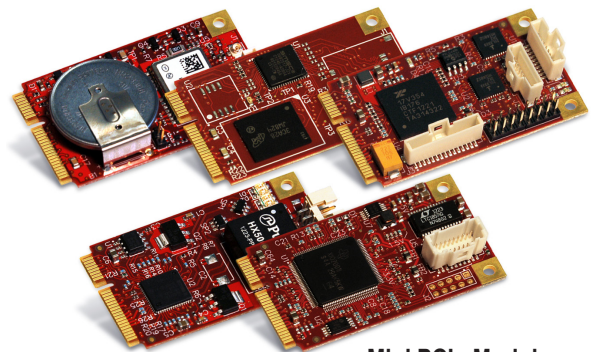
## Accessories

Part Number	Description
<b>Cables</b>	
VL-CBR-0603	CAN bus cable, two channels, 2 mm 4-pin MicroClasp to 2x DB9 connector, 0.5 m
<b>Hardware</b>	
VL-HDW-108	Mini PCIe module hold-down screws (10) for use with 2.5 mm standoffs
VL-HDW-110	Mini PCIe module hold-down screws (10) for use with 2.0 mm standoffs

## Other VersaLogic Mini PCIe Modules

Model	Function	Signaling
VL-MPEe-A1E	Analog input (12-bit resolution)	PCIe
VL-MPEe-A2E	Analog input (16-bit resolution)	PCIe
VL-MPEe-E3E	Gigabit Ethernet adapter	PCIe
VL-MPEe-E4E	Gigabit Ethernet Over Fiber Module	PCIe
VL-MPEe-E5E	Dual Channel Gigabit Ethernet Adapter	PCIe
VL-MPEe-U2E	Four Serial ports. Twelve GPIO lines.	PCIe
VL-MPEe-V5E	Video Display Adapter. VGA and LVDS interfaces	PCIe
VL-MPEe-FW1	1394 Firewire Module, industrial temperature	PCIe
VL-MPEs-F1Exx	mSATA drive (4/16/32 GB)	SATA
VL-MPEs-S3E	SATA adapter	SATA
VL-MPEu-G2E	GPS receiver	USB
VL-MPEu-G3E	Advanced GPS receiver	USB

Call VersaLogic Sales at (503) 747-2261 for more information!



Mini PCIe Modules

## Modify a Module to Your Exact Requirements

COTS modifications are available in quantities as low as 100 pieces. Options include conformal coating, application-specific testing, BOM revision locks, special labeling, and more.