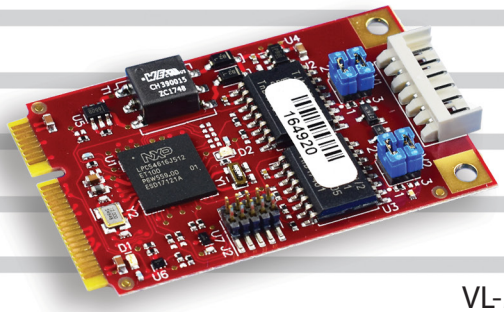
Dual Channel CAN Bus Module

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.

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
- **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**

VERSALOGIC CORPORATION

Dual Channel CAN Bus Module

Product Data Sheet | Mini PCIe Module

Specifications

General	
Board Size	Mini PCIe standard (full size): 30 x 52.55 x 10.18 mm (1.18 x 2.07 x 0.40")
Weight	6.4 grams (.226 oz.)
Power Requirements	3.3V ±5% @ 570mW Typical (supplied by the Mini PCIe socket)
Regulatory Compliance	RoHS (EU 2015/863). Conflict Minerals compliant.
Mini PCIe Signal Type	USB 2.0

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

Device I/O	
CAN Interface	- 2 channels - CAN-FD and CAN 2.0 protocols - Galvanic isolation (2.5 kV) - ISO11898 compliant
Connectors	2 mm 6-pin Molex Micro-Latch.
Signaling	- 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

Software	
Drivers	Compatible with Linux

** Contact VersaLogic Sales.

† MIL-STD-202H shock and vibe 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.

Ordering Information

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

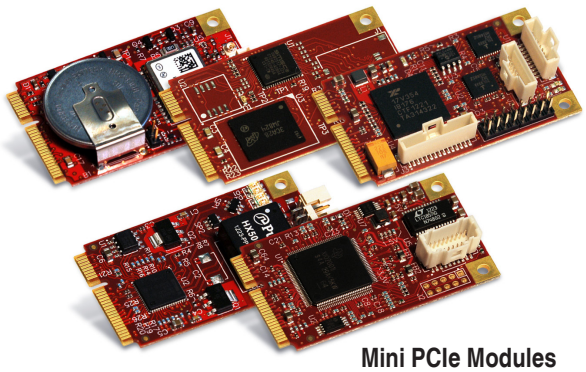
Accessories

Part Number	Description
Cables	
VL-CBR-0603	CAN bus cable, two channels, 2 mm 4-pin MicroClasp to 2x DB9 connector, 0.5 m
Hardware	
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.

02/26/24