

Liberty Motion Module

Programmable motion controller

This ultra-compact programmable controller and driver is offered with optional interface boards, motors, and starter kit to speed your motion system design and development.



Product at a glance

Liberty Motion Module (LMM) is a programmable motion controller with powerful H-bridge driver. LMM delivers the ultra-compact size and flexibility of a chipset, but with the power and features of leading Liberty MDrive integrated motors, including MCode programming language.

Product features include:

- Ultra-compact modular design
- Up to 48 VDC power supply voltage
- 1.5 Amp (RMS), 2.1 Amp (Peak) bridge driver current¹
- I/O points include: 4 inputs², 3 outputs², encoder input
- Fully programmable motion control with MCode language; CANopen control version option
- Standard PCI Express edge card connector³
- Development boards, 1- and 4-axis
- Motors, offered in a range of sizes to match requirements
- Starter kit

¹ Custom power ranges available; may require heatsinking. Min quantities apply.

² I/O points are user programmable.

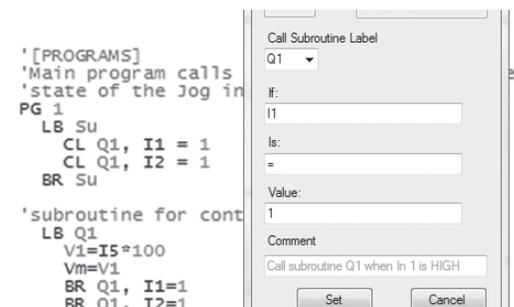
³ Mates with PCI Express 98 position receptacle, such as Molex P/N 0877159206

MCode

MCode delivers programming portability.

Intuitive and easy to use, MCode motion programming language supports a range of motion products — from leading MDrive integrated motor products to the LMM / Liberty Motion Module board level solution.

This complete motion control environment allows you to apply the programs you develop via a common platform to the hardware best suited for each application.



MCode software, represented above, can be downloaded at www.novantaims.com

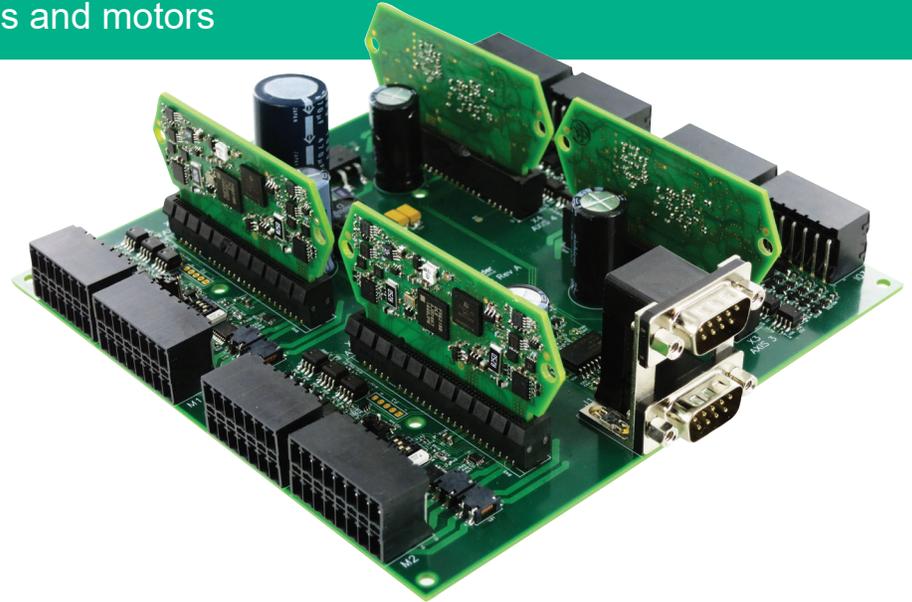
LMM Systems

PCB module, development boards and motors

Development boards

Development boards facilitate rapid prototyping and design verification. Both 1- and 4-axis development boards are available.

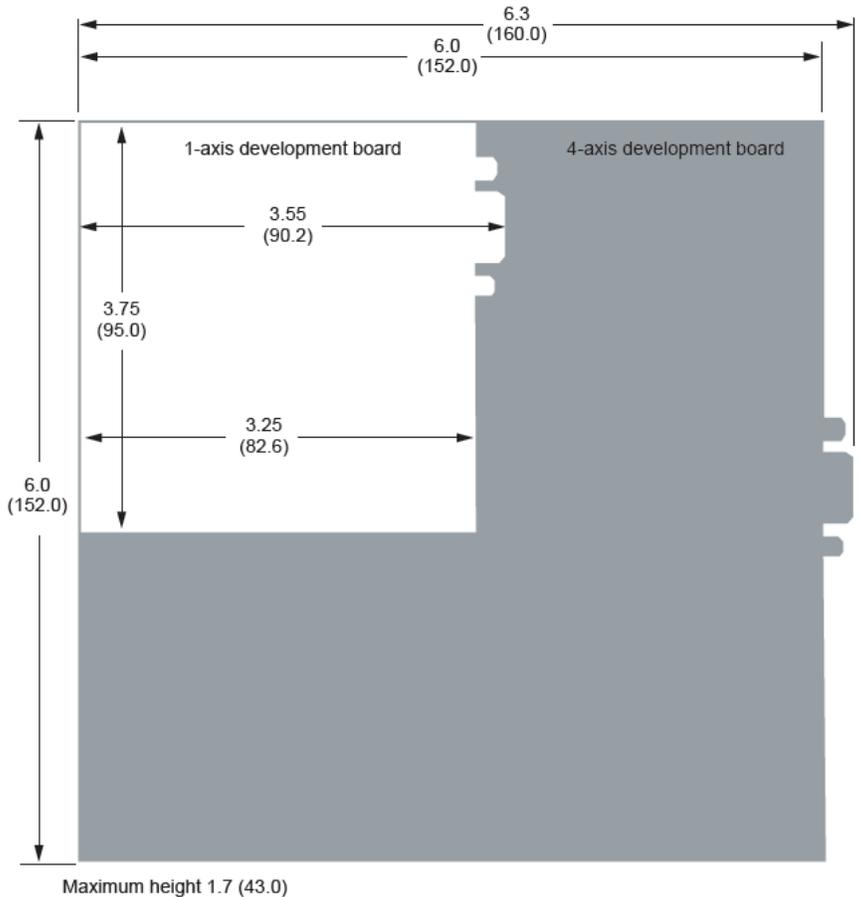
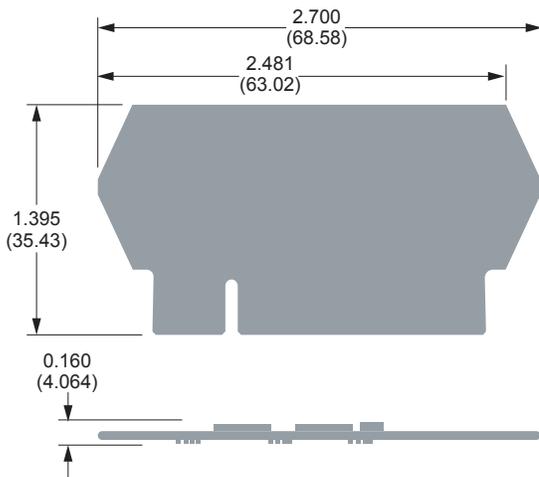
Features include isolated I/O, locking pluggable connectors and serial RS-422/485 programmable motion or CANopen. A serial communication cable with mating DB9 connector is available for plug-n-play USB interface.



Above: 4-axis development board populated with 4 LMM

Dimensions

inches (mm)



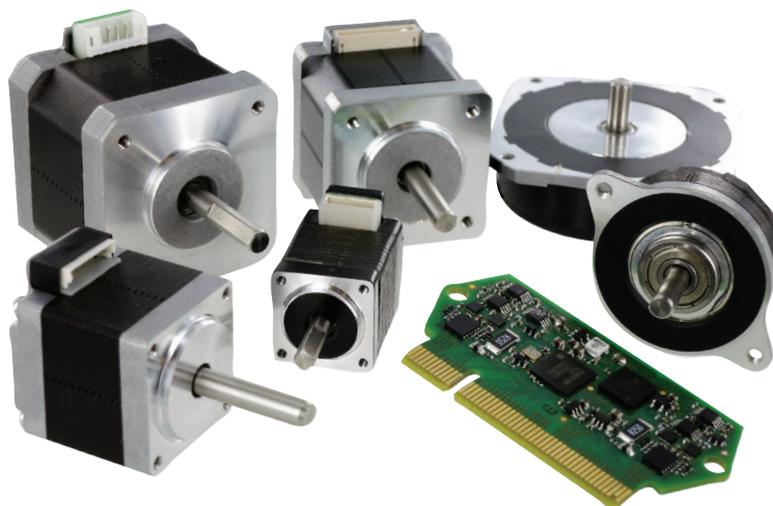
LMM Systems

PCB module, development boards and motors

Motors

A variety of motors are offered to support your LMM application. NEMA sizes 8 (20mm), 11 (28mm), 14 (36mm) and 17 (42mm) are used most frequently with 1.5 Amp LMM units. Other motor sizes are available based on system requirements.

Alternate motor styles – from flat pancake to linear – are also available. Inquiries are welcome.



Above: motors, NEMA sizes 8 to 17, shown alongside an LMM

Starter kit

A 1-axis starter kit is available to speed prototyping and design verification of the LMM.

Each kit includes:

- 1.5 Amp Liberty Motion Module
- 1-axis development board
- communication cable
- 24-volt power supply
- NEMA 17 rotary motor & single-ended encoder
- instructions

Part numbers

Liberty Motion Module	1.5 Amp	Motion Control, serial communication	LMM-15-M
		CANopen	LMM-15-A
Development boards	1-axis	Motion Control, serial communication	LMM-INT1-M
		CANopen	LMM-INT1-A
	4-axis	Motion Control, serial communication	LMM-INT4-M
		CANopen	LMM-INT4-A
Accessories		1-axis starter kit	LMM-KIT1
		serial communication cable with DB9 connector	MD-CC404-000

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