NPM Nippon Pulse
Your Partner in Motion Control

CMD-4EX-CR
Commander 4-Axis Controller Core Module

Advanced OEM 4-Axis Programmable Stepper Motion Controller Module

Specifications

- Core motion module for custom solutions
- USB communication using HID
- RS485 serial communication
- Standalone programmable
- Encoder feedback
- Coordinated motion (linear and circular)
- Continuous buffered motion
- Home/+Limit/-Limit for each axis
- Up to 40 general purpose digital IO
- Connector: 3 x 50 pin 1.27mm space headers

Motion Control:
- 3M Pulse output rate
- Linear interpolation (XYZU)
- Arc / Circular interpolation (Any two axes)
- Helix/Tangent interpolation (XYZ)
- Continuous contouring (XYZ – 100 move buffer size)
- External Start/Stop for additional axes interpolation
- Closed-loop algorithm (StepNLoop)

Digital IO:
- 4 x Pulse/Dir/Enable outputs
- 4 x Home/-Limit/+Limit inputs
- 4 x EA/EB/EZ Encoder inputs
- 32 x Configurable IO
- 4 x PWM outputs (open-collector)

Analog IO:
- 2 channel 10-bit analog input 0 to 3.3V

Communication:
- USB 2.0, HID compatible
- RS-485
- 1 x I2C bus for external IC interface
- 2 x SPI bus for external IC interface
- Can run in both PC-based and stand-alone modes

Programming:
- C, C++, VB, VB.net, Linux, Labview, Matlab support with Examples
- Stand-alone programmable
- Multi-threading program support
- BASIC-like text based programming language (AScript)
- IF/ELSE/WHILE loop control
- Sub routine support
- Math function support
- 100 non-volatile variables

Power
- 3.3VDC input 500mA

The Commander development board utilizes the Commander Core Module for an easy-to-use four-axis motion controller development board with a full software package included. Reduce development time and investment with the Commander.

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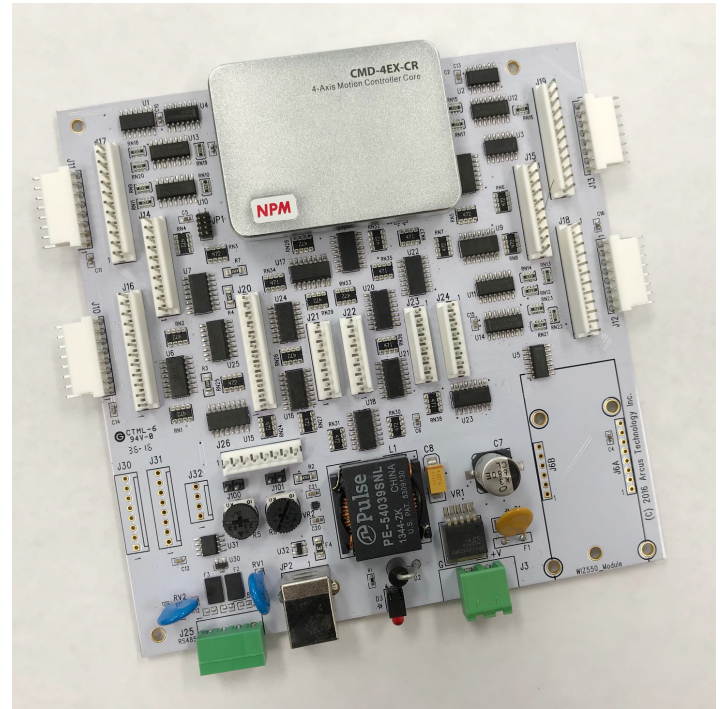- Closed-loop algorithm (StepNLoop)

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Power:
- +12VDC to +24VDC, 2.0A
- 5 x 5.6 inch (139.7 x 142.25 mm) board with 3 x 50 pin 1.27mm space headers connectors

Use with:
- Wall mounted power supply
- Motors