

Nippon Pulse Advanced OEM 4-Axis Hybrid IC Motion Controller for Custom Solutions development kit

CMD-4CR-EV

Nippon Pulse

Since 1952, Nippon Pulse has provided a wide array of motion control solutions, including industry-leading stepper motors, the innovative Linear Shaft Motor, controllers, drivers and networks. With several customization options,

NPM provide products that can be utilized in an extensive number of applications. From standard industrial sectors to high-level electronics,

CMD (COMMANDER):

Advanced OEM 4-Axis Hybrid IC Motion Controller for Custom Solutions

Commander is a powerful, four-axis hybrid IC motion controller that bridges the gap between off-the-shelf and design-from-scratch controllers. Reduce development time and get your design to market faster, with Commander's advanced multi-axis functionality. Available options include the Commander core module, the Commander development board, or a kit with both that includes all the cabling and programming materials you'll need.

Commander is:

- Secure
- Flexible
- Easy to use
- Easily scalable from prototype to production
- Cost-effective for high-volume applications
- Bridges the gap between off-the-shelf motion controllers and design-from-scratch controllers
- Faster path to market • Fits a large range of applications
- Easily scalable from prototype to production with no software changes required



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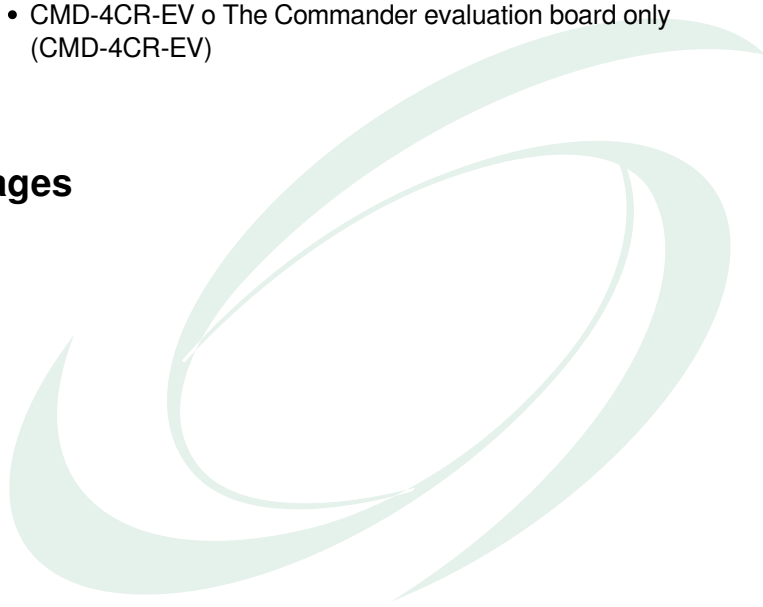
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- Simple to use
- Cost-effective
- Based on Nippon Pulse's PCL6045BL motion control LSI, and an ARM Core processor

Option: The following evaluation boards and kits are available from Nippon Pulse::

- **CMD-4CR-EV-Advanced o Advanced Kit includes the Commander core (CMD-4CR), evaluation board (CMD-4CR-EV), development kit with reference designs, and a complete cable set for all connectors**
- CMD-4CR-EV-Basic o Basic Kit includes the Commander core (CMD-4CR) and evaluation board (CMD-4CR-EV).
- CMD-4CR-EV o The Commander evaluation board only (CMD-4CR-EV)

Images



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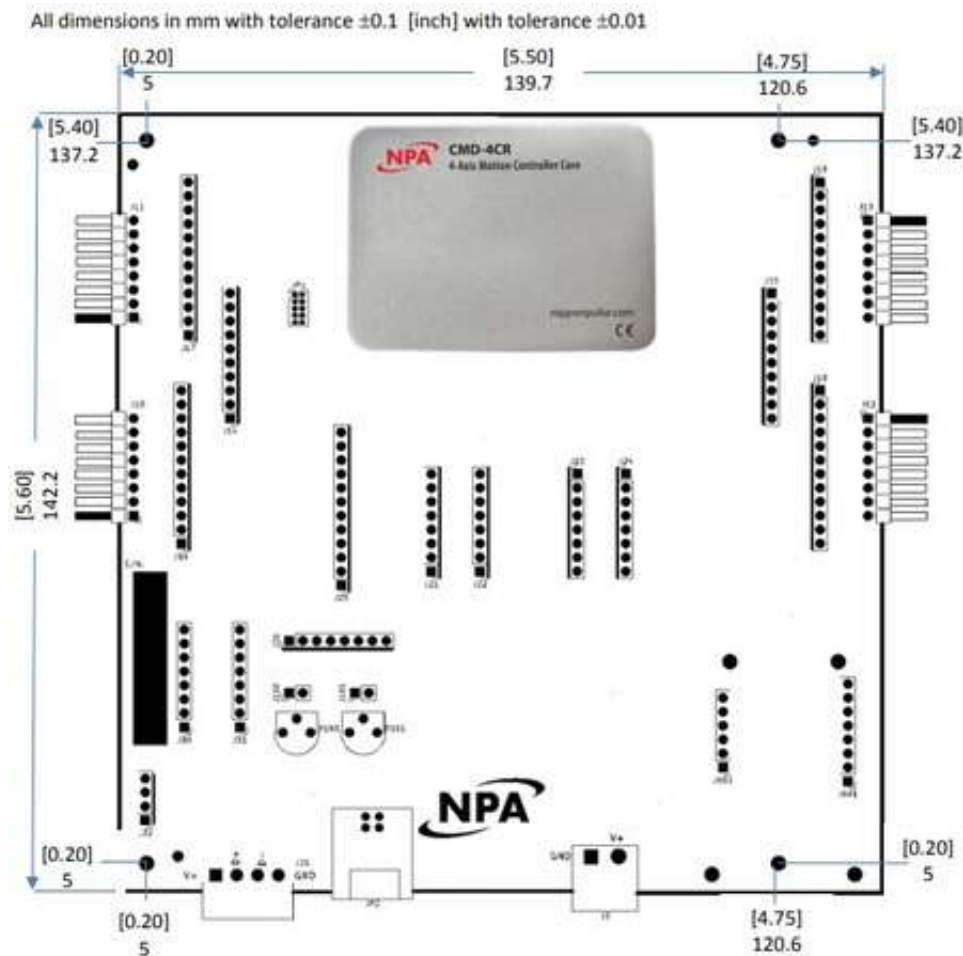
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Details

CMD-4CR-EV Advanced OEM 4-Axis Hybrid IC Motion Controller for Custom Solutions development kit

CMD-4CR-EV is an advanced 4 axis Development Kit, designed to allow quick testing of the Commander core motion controller's (CMD-4CR) features. Communication to the CMD-4CR-EV and thus CMD-4CR, is established over USB, or RS-485 network. This documentation covers the hardware specifications of the CMD-4CR-EV. Refer to the Commander, Command Reference, and Software Utility Manuals for more information.

The Commander evaluation board allows for faster prototyping and evaluation, so OEMs can ramp up production. This

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part number only includes the evaluation board, and not the core module.

- Power • +12VDC to +48VDC
- power input o +5Vdc and +3.3Vdc
- power supply onboard
- Communication interface •
- USB 2.0 communication •
- RS-485 ASCII communication •
- Available for future expansion o I2C bus [1 channel] o SPI bus [2 channels] o 10/100 Mbps Ethernet communication, ASCII over TCP/IP Input/Output Buffering •
- Digitally buffered outputs limited to 3MHz o Pulse, direction, enable, error clear, and sync •
- Digitally buffered inputs limited to 3MHz o In-position, servo alarm, encoder, MPG, and latch •
- Optocoupled outputs limited to 500Hz o General-purpose outputs •
- Optocoupled inputs limited to 500Hz o Limits, home, slowdown, emergency stop, simultaneous start, and general-purpose inputs Motor interface • Stepper motor interface with pulse, direction, and enable outputs
- Servo motor interface with pulse, direction, enable, in-position, servo alarm, and error clear outputs
- Inputs/Outputs
- A/B/Z encoder inputs (TTL Compatible)
- A/B MPG inputs for (TTL Compatible)
- 4 x high speed inputs / latching inputs
- 4 x high speed outputs / sync outputs
- +Limit/-Limit/Home inputs for XYZU
- Simultaneous start input
- Emergency stop input
- 16 general purpose inputs
- 16 general purpose outputs
- 2 x analog input o 2 analog input potentiometers
- 2 x PWM output

Specifications

Product type	Controller	Supplier	Nippon Pulse	AC/DC	DC
Level	Board	No of axes	4	Max output frequency	3M
Bus type	USB, I2C bus, SPI bus	Driver/Controller	Controller		

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