

Stepper Motor Controller for PCI

By AcQ Inducom



The PCI321 Intelligent Stepper Motor Controller with amplifiers is an ideal solution for all applications where stepper motors must be controlled with a maximum of flexibility and a minimum of overhead. The local processor handles all high-level commands to provide maximum control for both straightforward as very complex applications.

Features:

- > Controls two 2-phase or one 4-phase motor(s)
- > Firmware compatible with PCI321 intelligent stepper motor controller for external amplifiers
- > Interrupts on position breakpoint, trajectory complete and command complete
- > Each phase delivers 3A@55V and is over-current and thermal protected
- > Programmable hold-current reduction
- > User configurable maximum current
- > Brake support
- > Full-, half- and micro-stepping (up to 16 micro steps per full-step)
- > Two home sensor inputs
- > Step-rates up to 50kHz
- > Programmable acceleration from 50Hz/sec to 5,000kHz/sec.
- > Hardware synchronization lines
- > PCI9050 Controller by PLX (PCI 2.1 compliant)

PCI Interface

- * The PCI321 has a PCI Specification 2.2 compliant target interface and uses a PCI9030 PCI Bus Target Interface Chip by PLX Technology Inc.

Controller

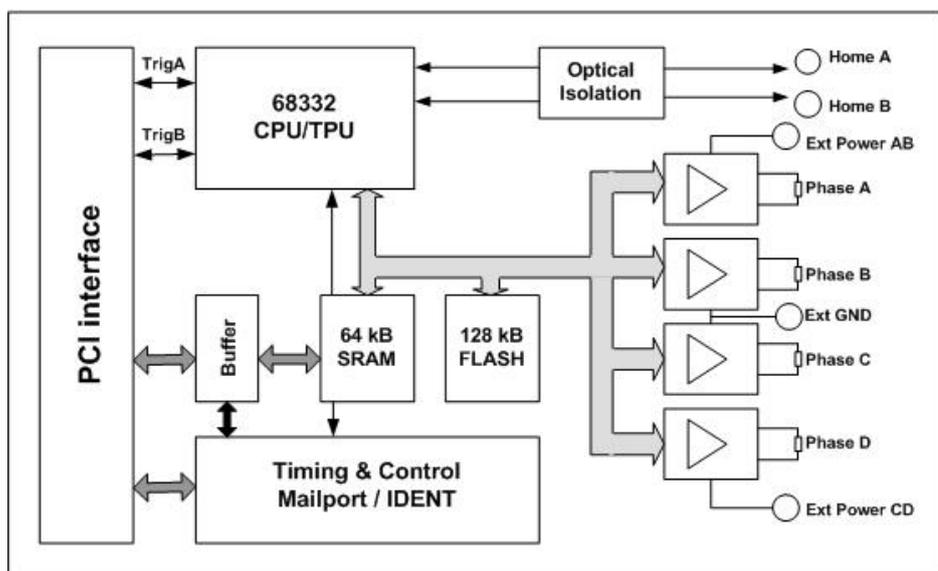
- * MC68332 executes local software
- * Very flexible and versatile software interface
- * Autonomous control over complex tasks
- * MC68332 controls the onboard power amplifiers
- * Full-, half and micro stepping are provided by the local firmware
- * Up to 16 micro steps per full-step can be made.

Output Drivers

- * PCI321 drives four phases, so 2x 2-phase, 1x 3-phase or 1x 4-phase stepper motor can be controlled.
- * Each phase is capable of delivering 3Amps @ 55Voltsbi-polar driving circuits in constant current driving mode.
- * Over-current and thermal protected
- * Two optical isolated home-inputs provide means for feedback on home position.

Ordering Information

- * **PCI321/T01** PCI card
- * **PCI321/SW** APIS based software
- * **PCI321/MAN** manual on paper



AcQ  Inducom

Visit address
Rijnstraat 20
5347 KN Oss

Postal address
P.O. Box 627
5340 AP Oss

The Netherlands
Phone +31 (0)412 64 19 22
Fax +31 (0)412 62 26 40
Internet www.acq.nl
Email info@acq.nl

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