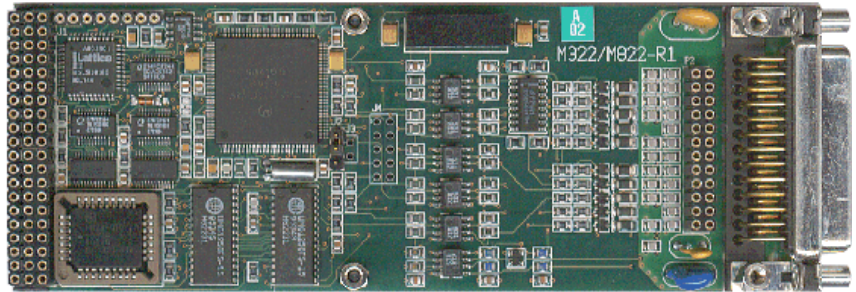


## M322

# Intelligent Stepper Motor Controller M-module for External Amplifiers



The M322 Intelligent Stepper Motor Controller M-module for External Amplifiers is an ideal solution for all applications where stepper motors must be controlled by means of an external amplifier and where a maximum of flexibility and a minimum of overhead is required.

The local MC68332 microcontroller handles commands passed on from the host CPU and generates signals to the external amplifiers (two channels).

All signals on the M322 are industrial (open collector, 28V/20mA). Step and direction are also RS422 buffered. Per channel, separate step and direction signals are available. For enhanced external amplifier control, three general purpose outputs and one home-input are available.

### Features:

- > Local MC68332 executes intelligent firmware
- > A08/D16 M-module with identification EEPROM
- > Controls two external stepper motor amplifiers independently
- > Firmware compatible with M321 Intelligent Stepper Motor Controller with onboard amplifiers
- > Interrupts on position breakpoint, trajectory complete, etc.
- > Optical isolated RS422 interface with onboard isolated power supply
- > Step, direction and three general purpose output signals available per channel
- > Step and direction signals also available as RS422
- > One home sensor input per channel (optical isolated)
- > Step-rates up to 50kHz

## M-module Compliancy

- \* A08/D16 (8-bit address and 16-bit data)
- \* INTA (software end-of-interrupt)
- \* IDENT (identification EEPROM)
- \* Two trigger inputs

## Processor

- \* Motorola MC68332, running at 5 MHz
- \* 64kbyte local SRAM for firmware execution, local parameter storage and command processor
- \* SRAM is shared to host CPU
- \* SRAM using 16-bit databus
- \* 128kbyte local flash memory (socketed) for firmware storage and bootstrapping
- \* Mailbox interrupt towards host CPU

## I/O Signals

- \* Two channels available per M322
- \* Step and directions outputs (both industrial and RS422) and three general purpose outputs (industrial only) per channel
- \* One optical isolated home input per channel
- \* The M322 contains an onboard isolated power supply for the RS422 signal transmitters
- \* Braking support
- \* Maximum step-rate of 50kHz
- \* Programmable acceleration/deceleration from 50Hz/s up to 5000kHz/s
- \* Synchronization with other axis by hardware trigger line

## OS-9 Support

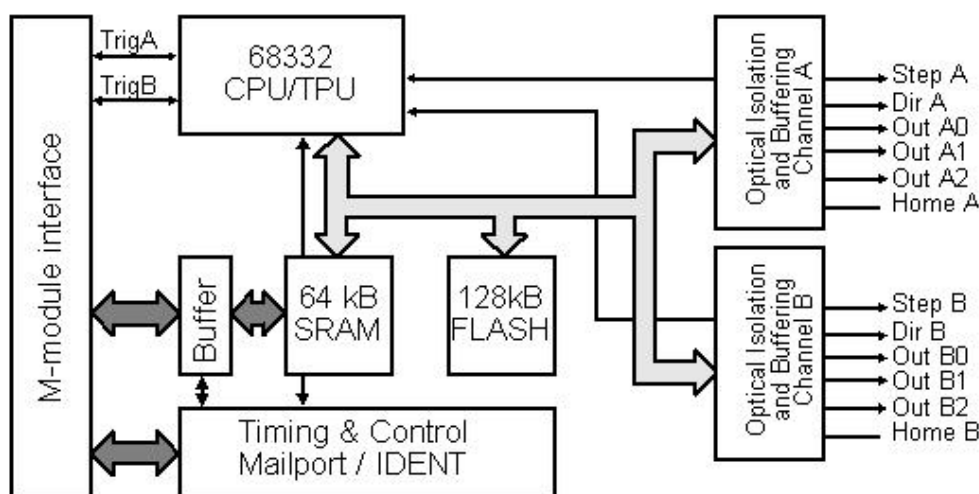
- \* Resident in local Flash memory ready-to-run

## Board Support

- \* Generic library for direct use by application programs

## Ordering Information

- \* **M322/T01** M-module
- \* **M322/SW** APIS based software
- \* **M322/MAN** manual on paper



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