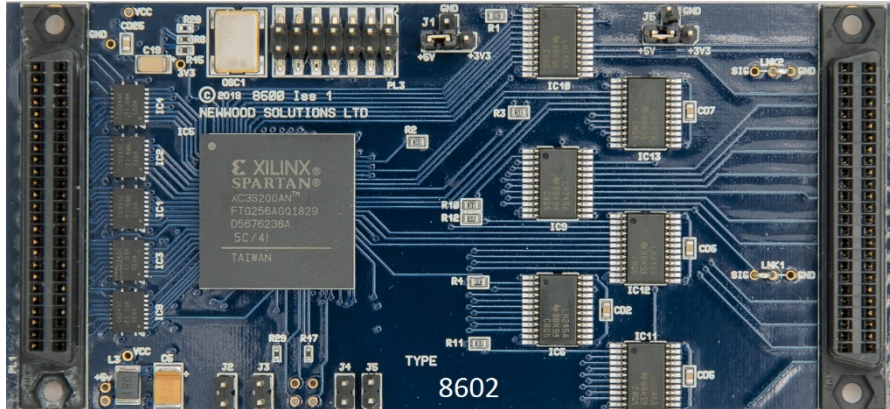


SMC8602 STEPPER MOTOR CONTROLLER IndustryPack®



Product Description

The Newwood Solutions Ltd IP-SM-8602 is a single-width Industry Pack® stepper motor controller producing four channels of logic level control signals for an external driver system.

Newwoods Solutions can offers the following external driver system :-

- For small (<1amp) motors, the 8909U low cost L/R driver.
- For larger (up to 6amps bipolar drive) motors, the MDS8.

Each channel has the following features:-

- A 32-bit step register, which sets the number of steps in the next movement, writeable and readable at any time, which counts down to '0'.
- A 32-bit absolute position up/down counter, which records movements (writeable and readable). This counter counts all movements including JOG. This counter may follow step pulses sent out from the board or count encoder pulses from an external incremental encoder with quadrature outputs.
- A 16-bit Start/Stop Speed Register, which sets the speed at which a movement will start, programmed in steps per second.
- A 16-bit High Speed Register, which sets the speed at which the motor will run after accelerating, programmed in steps per second.
- A 16-bit Ramp Rate Register, which sets the rate at which speed will increase or decrease during ramping, programmed in steps per second per second.
- A 16-bit Control and Status Register through which the status of the drive, the controller and the limit switches can be observed (run/stop, hit limit, driver dead etc.).
- A 16-bit Interrupt Mask Register through which controls which CSR bits may generate interrupt.
- Counters can be read on the fly via a shadow register.
- A 'Common Start' register through which one or more channels can be started simultaneously, visible within each channel's register area (write only).
- Each channel has four logic outputs and 8 logic inputs to cater for a wide variety of applications.
- The ability to read the module identity, manufacturer, model, revisions and serial number from an onboard ID ROM.
- An EPICs driver is available for this card. All registers exist within the Industry Pack I/O, ID and Interrupt areas; no memory is present.

PRODUCT SPECIFICATIONS

Size:	Single width Industry Pack 1.8ins x 3.9 ins
Operating temp:	0 to 45 deg C ambient
Number of channels:	4 motors
Max. count:	32 bits.
Data format:	Binary
Max step rate:	62KHz
Input levels:	TTL compatible with jumper selectable 4.7k Ω resistor pull-up or pull-down.
Power:	+5V @ 180mA typical