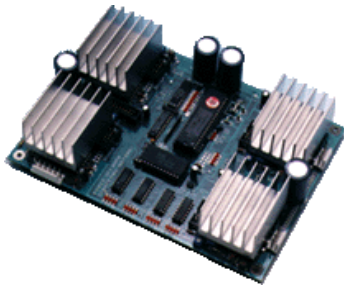
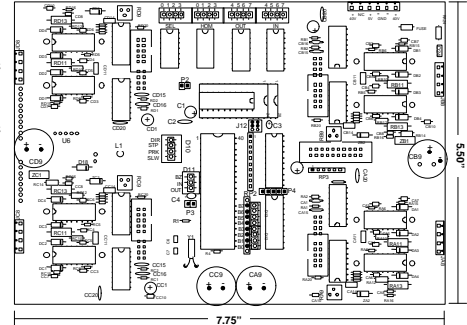


MMC-2/3/4 Multiple Axis Stepper Motor Controller.

The MMC card is self-contained and can operate independently via on-board memory execution or in direct mode under the serial command of a host computer. A combination of these two modes is also possible. The MMC controller features the CY 545 step motor controller and multiplexer circuitry to allow the CY 545 to control up to four step motor channels. Assigned user bits of the CY 545 (USRB 0-7) allow control of both the 8 line output mux and the 8 line input mux. The MMC also allows for 4 bits of general purpose User I/O.



Each axis requires a CI cable (chassis interface cable). This 10 pin cable connects the home sensor, spare user I/O and the limit loop signals back to the controller. The MMC-8 slave card expands this system to an additional 5, 6, 7 or 8 axes. Compatible with standard stepper motors (4,6 or 8 wire).



TS1 (POWER)

Connector Pin

Assignments

1. +VMM to Fuse	3. GND	5. N/C
2. GND	4. +5VDC (TTL) In	6. +VMM

P4 (RS-232 Com)

1. +5VDC	2. TX	3. GND	4. RX	5. CTS
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Px1 CI connector (1 per axis; PA1=motor 0, PB1=motor 1, PC1=motor 2, PD1=motor 3)

1. Limit Loop Out	3. Spare	5. Spare	7. Home Sensor Out	9. Home Sensor +(Anode)
2. Limit Loop In	4. Spare	6. Spare	8. Home Sensor & LED GND	10. +5VDC (to sensors)

J8x Motor Output (1 per axis; J8A=motor 0, J8B=motor 1, J8C=motor 2, J8D=motor 3)

1. Coil A	2. -Coil A	3. Coil B	4. -Coil B
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J4 I/O connector

1. OUT 7	5. OUT 5	9. IN 7	13. IN 5	17. Spare
2. Spare	6. GND	10. GND	14. GND	18. +5VDC
3. OUT 6	7. OUT 4	11. IN 6	15. IN 4	19. Spare
4. +5VDC	8. GND	12. GND	16. GND	20. Spare

Electrical

Specifications -

VCC = Input Voltage - Logic	+5 VDC (TTL)
VMM = Input Voltage - Motor	+12 to 48 VDC
Output Current (Adjustable)	0 to 2.0 Amps
Step Frequency	11KHz
Step size	QUAD step (1/4 step) [for Full & Half consult Fac.]
Protection	Over-Temp, Over-Voltage, Over-Current
Current Reduction at standstill	Automatic: 0.5 sec after last step input. Selectable ratio.

Temperature

Operating	0 to +70 C
Storage	-40C to +125C