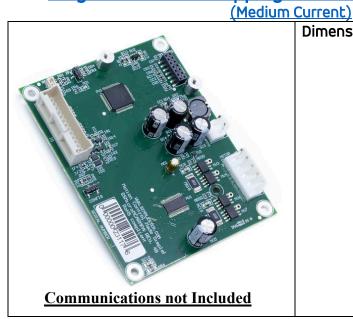
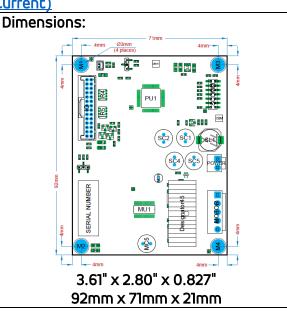
Single Axis Microstepping Controller (SSMicroMC-4x)





Specifications

	Minimum	Maximum
RoHS Compliant	Yes	
Total Motor Axis/Board:	1	
Motor Driver Type (per axis):	Bipolar Stepper Driver	
Motor Driver Stepping Range (per axis):	Full, 1/2, 1/4, 1/8, 1/16, 1/32	
Motor Stepping Speeds (per axis):	1 sps	30,000 sps
Motor Stepping Prescaler (per axis):	Yes (1(default) to 255) (prescaler=255=0.003922 sps)	
Motor Idle Power Modes (per axis):	OFF to Maximum Setting	
Maximum Current Control Setting (per axis):	Software Controlled Single 8 bit DAC	
Driver Current Decay Control (per axis)	Yes	
Driver Phase Short Circuit Protection:	Yes	
Driver Thermal Shutdown Protection:	Yes	
Driver Junction Temperature (Thermal Shutdown):	-	+165 degrees C (+329 degrees F)
Motor Current Limits (per axis)		
Running:	0.100 amps/phase	3.125 amps/phase
Idle:	0.00 amps/phase	To maximum setting
Operating Voltages:	15.0VDC	50.0VDC
Ambient Temperature Range		
Operating:	0 degrees C (32 degrees F)	+70 degrees C (158 degrees F)
Storage:	-40 degrees C (-40 degrees F)	+125 degrees C (257 degrees F)
Maximum Controller Boards on One (1) Serial Line	16 (up to 255 if 2-digit address is used)	
Communications:	Communications boards sold separately	
Communication Baudrates:	9600, 19200, 38400, 57600 (default), 115200, 230400, 460800	
Home Sensor Input (per axis):	Infrared (Current Limited to 25ma) Sensor Input or direct drive 5VDC	
Limit Sensor Input (per axis):	Microswitch type Input (Normally Open)	
Dedicated User Input Lines (per axis):	3-Inputs with on board 10K pull-ups, 0-5.0VDC Input, 0-3.3VDC Output	
	3-Inputs with no pull-ups, 0-3.3VDC Input/Output	
Dedicated User Output Lines (per axis): Outputs (each):	2 - MOSFET 0.5 amp - OVDC to Board operating voltage with diode clamp	
PWM Outputs (per axis):	2 - Open Collector MOSFET and 5 - TTL 0 to 3.3VDC PWM's	
ADC Inputs (per axis):	1 - (SPARE 1) 0 to 3.3VDC, 12-bit ADC	
Quadrature Encoder Interface (per axis):	Yes (Single ended only)	
Quadrature Encoder Maximum Frequency (per axis):	1.5MHz	
Quadrature Encoder Modes (per axis):	x1, x2 and x4	
Quadrature Encoder scaling (per axis):	Double Precision Floating Point	
PCB Flammability Rating:	UL 94V-0	



For more information or to place an order, please go to our website at www.simplestep.com

The specifications in this publication are believed to be accurate and reliable. However, it is the responsibility of the product user to determine the suitability of any Simple Step® product for a specific application. While defective products will be replaced without charge if promptly returned, no liability is assumed beyond such replacement. Simple Step® – Motion Control made Simple!®

12 West Owassa Turnpike, Newton, NJ 07860 USA Phone: 973-948-2938 Email: Sales@simplestep.com

Single Axis Microstepping Controller (SSMicroMC-4x) (Medium Current)

SSMicroMC-4x

(ΙΟ
1	
2	SNTX +5VDC
3	HOME LED (+5V, 30ma)
4	HOME LED (197, 50mm)
5	HOME IN (10K PULLUP)
$\frac{-6^{2}}{7}$	HOME GND
$\frac{7}{8}$	LIMIT IN (10K PULLUP)
$\frac{0}{9}$	LIMIT GND
10	USER 1 (10K PULLUP)
11	GND
12	USER 2 (10K PULLUP)
13	GND USER 3/QEI (10K PULLUP)
14	GND
15	QEA (10K PULLUP)
16	+5VDC (25ma MAX.)
$\frac{17}{18}$	QEB (10K PULLUP)
$\frac{18}{19}$	ĜND
$\frac{19}{20}$	NC
$\frac{20}{21}$	+3.3VDC (25ma MAX.)
$\frac{21}{22}$	SPARE 1 (NO PULLUP)
23	GND
24	SPARE 2 (NOPULLUP)
25	SPARE 3 (NO PULLUP) OUTPUT 0 (500ma OC)
26	SAME AS POWER, PIN1
	OUTPUT 1 (500ma OC)
28	SAME AS POWER, PIN1
	MOTOR
1	A
2	A PRIME
3	B
$\frac{4}{5}$	BPRIME
	CGND
	POWER
1	
$\frac{1}{2}$	15.0-50.0VDC
	GND

Connector Name	Connector Type	Mating Connector P/N
POWER	JST Sales	VHR-2N
10	Molex iGrid	501646-2800
MOTOR	JST Sales	VHR-5N



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