General Specifications

Supply Input	5V (from connected RS485 bus)
Dimensions	3.5" X 1.5" (90mm X 38mm)
	With 3mm mounting holes
Power Inputs	1
Power Outputs	6
RS485 Ports	2
Control Protocol	RS485
	Proprietary I2C interface
Secondary Control Interface	TTL level serial port
Mating Connectors..........................	To Aux Board: JST 6-pin, 2mm pin spacing
	RS485 Ports: JST 4-pin. 2mm pin spacing
	Power Out: JST 2-pin 2.54 mm pin spacing
	Power In: Screw Terminals
Power Ports....................................	Input power: 5VDC to 36VDC
	Output power: pwm adjusted, 0 to 100% (0 to 8192)
	Amperage: Up to 18A in, up to 3A per channel out
	Status LED's on each output channel
USB Port..	Micro USB
	For control or firmware updates
	Can be used to power digital circuitry (5VDC)
Operating Temperature	-20 to 85 °C PCB copper temperature
Relative Humidity.............................	10% to 90% non condensing (operating and storage)

RS485 CONNECTORs
Mating connector: JST connector PH-4P
Digikey part S9457-ND

Pin	Name	Notes
1	RS485-B	Marked "B" in the diagram
2	RS485-A	Marked "A" in the diagram
3	Ground	Marked "G" in the diagram
4	VCC	Marked "5" in the diagram

Mechanical Specifications
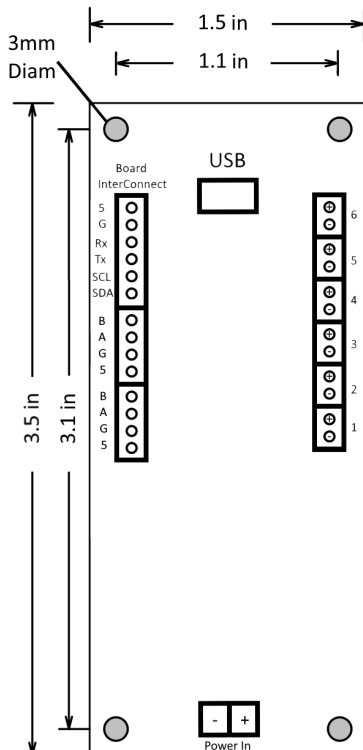
Power Board Version 1.0

Power & Valve Driver
Up to 36VDC, 3A per channel
PWM Adjustable Output, 0 to 8192
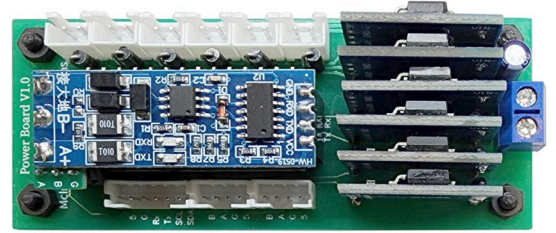
POWER OUT CONNECTORs
Mating connector: JST connector PHP-2
Digikey part S9463-ND

Pin	Function	Notes
1	Neg Out	Marked "-" in the diagram
2	Pos Out	Marked "+" in the diagram

POWER IN CONNECTOR
Mating connector: tinned wire

Pin	Function	Notes
1	Neg In	Marked "-" in the diagram
2	Pos In	Marked "+" in the diagram

BOARD INTERCONNECT CONNECTOR
Mating connector: JST connector PH-6P
Digikey part S9455-ND

Pin	Function	Notes
1	+5VDC	Marked "5" in the diagram
2	Ground	Marked "G" in the diagram
3	RS232 Receive	Marked "Rxd" in the diagram
4	RS232 Transmit	Marked "Txd" in the diagram
5	I2C SCL	Marked "SCL" in the diagram
6	I2C SDA	Marked "SDA" in the diagram

Key Features

- Native USB interface
- 6 independent power outputs
- Output voltage resolution of 1/8192
- 4 communication protocols supported:
  - USB
  - RS485
  - RS232 (ttl)
  - I2C
- Based on 32 bit ARM architecture
- Up to 36VDC, 3A per channel
- 5VDC can be supplied by USB or external source

Ordering Information

REV 090522