

3. PRODUCT SPECIFICATION AND LIMITATIONS

Absolute Maximum Rating

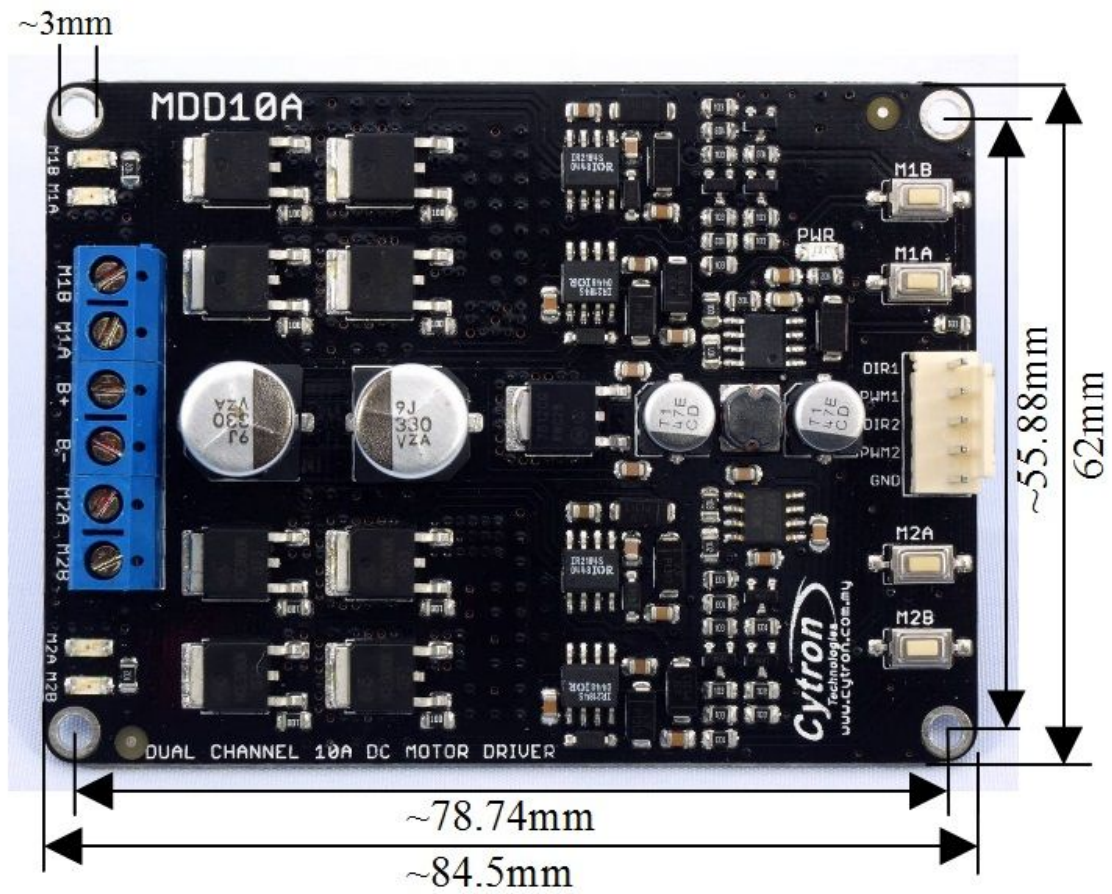
No.	Parameters	Min	Typical	Max	Unit
1	Power Input Voltage***	5	-	30	V
2	I_{MAX} (Maximum Continuous Motor Current)*	-	-	10	A
3	I_{PEAK} – (Peak Motor Current) **	-	-	30	A
4	V_{IOH} (Logic Input – High Level)	3	-	5.5	V
5	V_{IOL} (Logic Input – Low Level)	0	0	0.5	V
6	Maximum PWM Frequency	-	-	20	KHz

* Tested in room temperature at 25°C

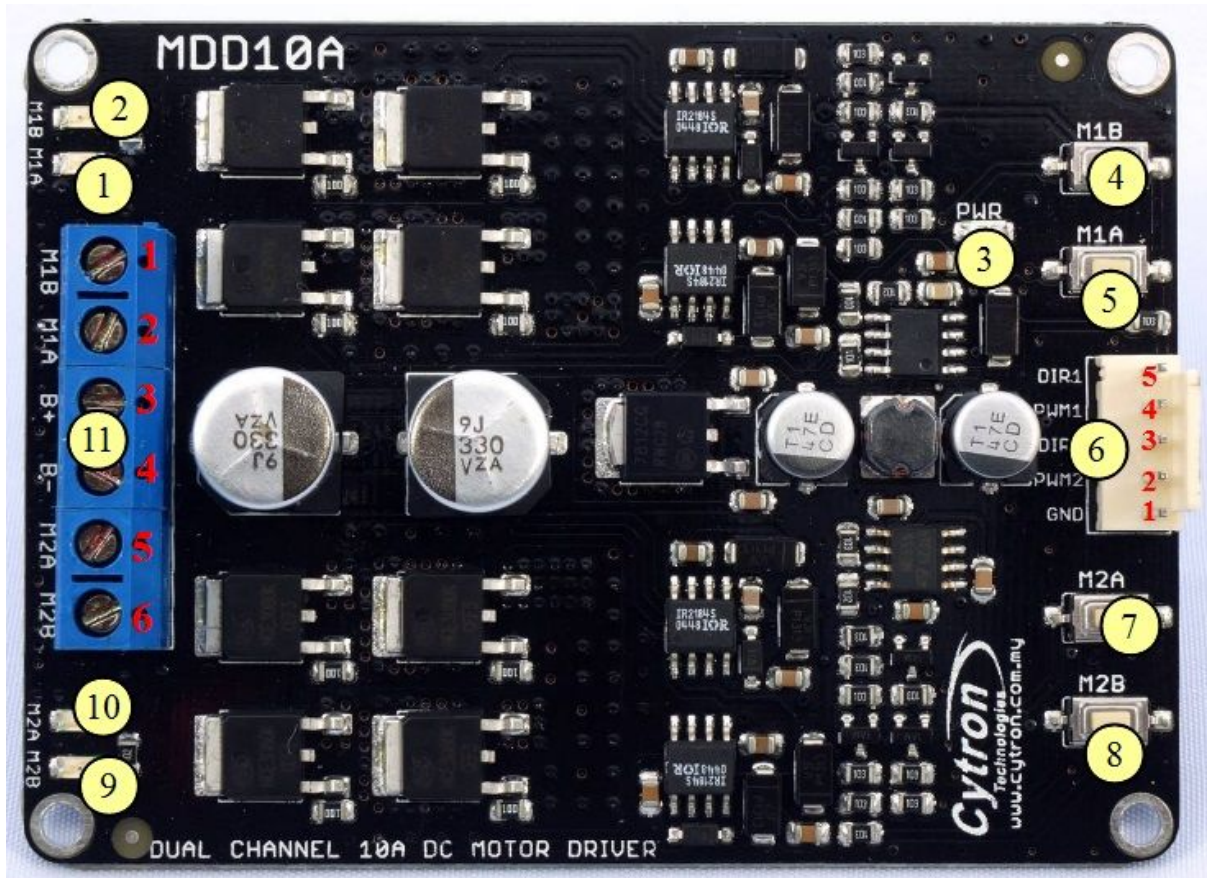
** *Must not exceed 10 seconds.*

*** *Rev2.0 has upgraded to support 30V maximum power input voltage*

4. DIMENSION



5. BOARD LAYOUT



1. Red LED M1A – Turns on when the output M1A is high and output M1B is low. Indicates the current flows from output M1A to M1B.
2. Red LED M1B – Turns on when the output M1A is low and output M1B is high. Indicates the current flows from output M1B to M1A.
3. Green LED – Power LED. Should be on when the board is powered on.
4. Test Button M1B – When this button is pressed, current flows from output M1B to M1A and motor will turn CCW (or CW depending on the connection).
5. Test Button M1A – When this button is pressed, current flows from output M1A to M1B and motor will turn CW (or CCW depending on the connection).

6. Input

Pin No.	Pin Name	Description
1	GND	Ground
2	*PWM2	PWM input for speed control (Motor 2)
3	DIR2	Direction input (Motor 2)
4	*PWM1	PWM input for speed control (Motor 1)
5	DIR1	Direction input (Motor 1)

*Note that it is not for RC PWM

The truth table for the control logic for motor 1 and motor 2 are as follow:

PWM	DIR	Output A	Output B
Low	X(Don't care)	Low	Low
High	Low	High	Low
High	High	Low	High

7. Test Button M2A – When this button is pressed, current flows from output M2A to M2B and motor will turn CW (or CCW depending on the connection).
8. Test Button M2B – When this button is pressed, current flows from output M2B to M2A and motor will turn CCW (or CW depending on the connection).
9. Red LED M2B – Turns on when the output M2A is low and output M2B is high. Indicates the current flows from output M2B to M2A.
10. Red LED M2A – Turns on when the output M2A is high and output M2B is low. Indicates the current flows from output M2A to M2B.
11. Terminal Block – Connect to motor and power source.

Pin No	Pin Name	Description
1	Motor 1 Output B	Connect to motor 1 terminal B
2	Motor 1 Output A	Connect to motor 1 terminal A
3	POWER +	Positive Supply (positive terminal of battery)
4	POWER -	Negative Supply (negative terminal of battery)
5	Motor 2 Output A	Connect to motor 2 terminal A
6	Motor 2 Output B	Connect to motor 2 terminal B