

Motor Add-On Module

The Motor Add-On Module is capable of driving two DC Motors or single stepper motor. It finds its application in toys and printers.

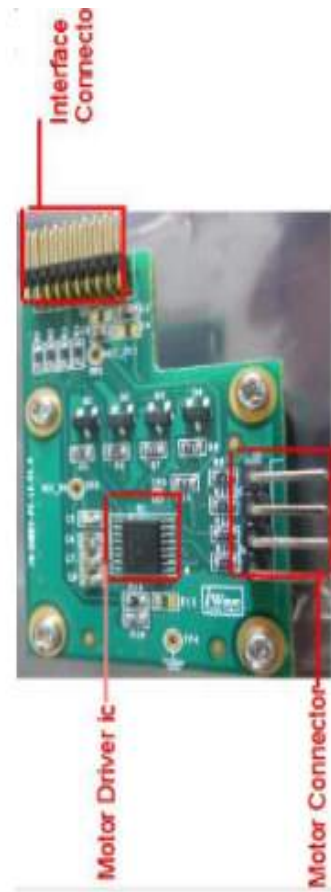


Technical Specification

Motor Driver IC	DRV8833PWP
Operating Supply Voltage	2.7V - 10.8V
Operating Supply current	1.7mA
Digital Input Voltage	-0.3V- 5.75V
DC Output Current per Bridge	1.5A
Motor Driver IC Vendor	Texas Instruments
DC Motor Part Number	M1N10FB11G
Operating Voltage	1V - 6V
Operating Voltage	5V

Motor Add On Card Interface

Connector part no	P9134-02024-4
Connector Type	Dual Row R/A 20 Pin Through hole Connector
Pitch	50 mils
Motor Connector part no	P9102-04-124
Connector Type	Single Row R/A 4 Pin Through hole Connector
Pitch	100 mils
Operating Temperature	-40C to 105C



Top view



Bottom view

Interface Connector Pin Description

Pin	Signal Name	Description
1	NC	No Connection
2	NC	No Connection
3	NC	No Connection
4	NC	No Connection
5	GND	GROUND
6	GPIO158	GPIO from OMAP Processor
7	GPIO162	GPIO from OMAP Processor
8	GND	GROUND
9	GPIO161	GPIO from OMAP Processor
10	GPIO159	GPIO from OMAP Processor
11	GPIO156	GPIO from OMAP Processor
12	GND	GROUND
13	GPIO157	GPIO from OMAP Processor
14	I2C2_SDA	I2C2 Serial Data
15	I2C2_SCL	I2C2 Serial Clock
16	3.3V	3.3V
17	3.3V	3.3V
18	GND	GROUND
19	5V	5V
20	GND	GROUND

Power Requirements

Motor Add-On module needs 5V external power supply which can directly be drawn from the UTLP board.

The Power Pins are as follows:

VCC_5V: The input voltage to the Motor Add-on module from UTLP Board through 20 Pin interface connector.

VCC_3V3: The input voltage to the Motor Add-on module from UTLP Board through 20 Pin interface connector.

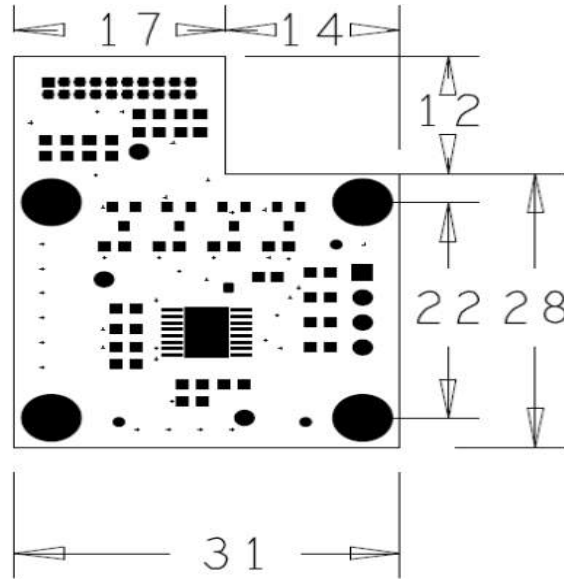
GND: Ground pins.

A **20 pin Connector** is used as an interface between the Motor Add ON module and the UTLP Board.

A **4 pin Connector** is used as an interface between the Motor and the Motor Add-On-board.

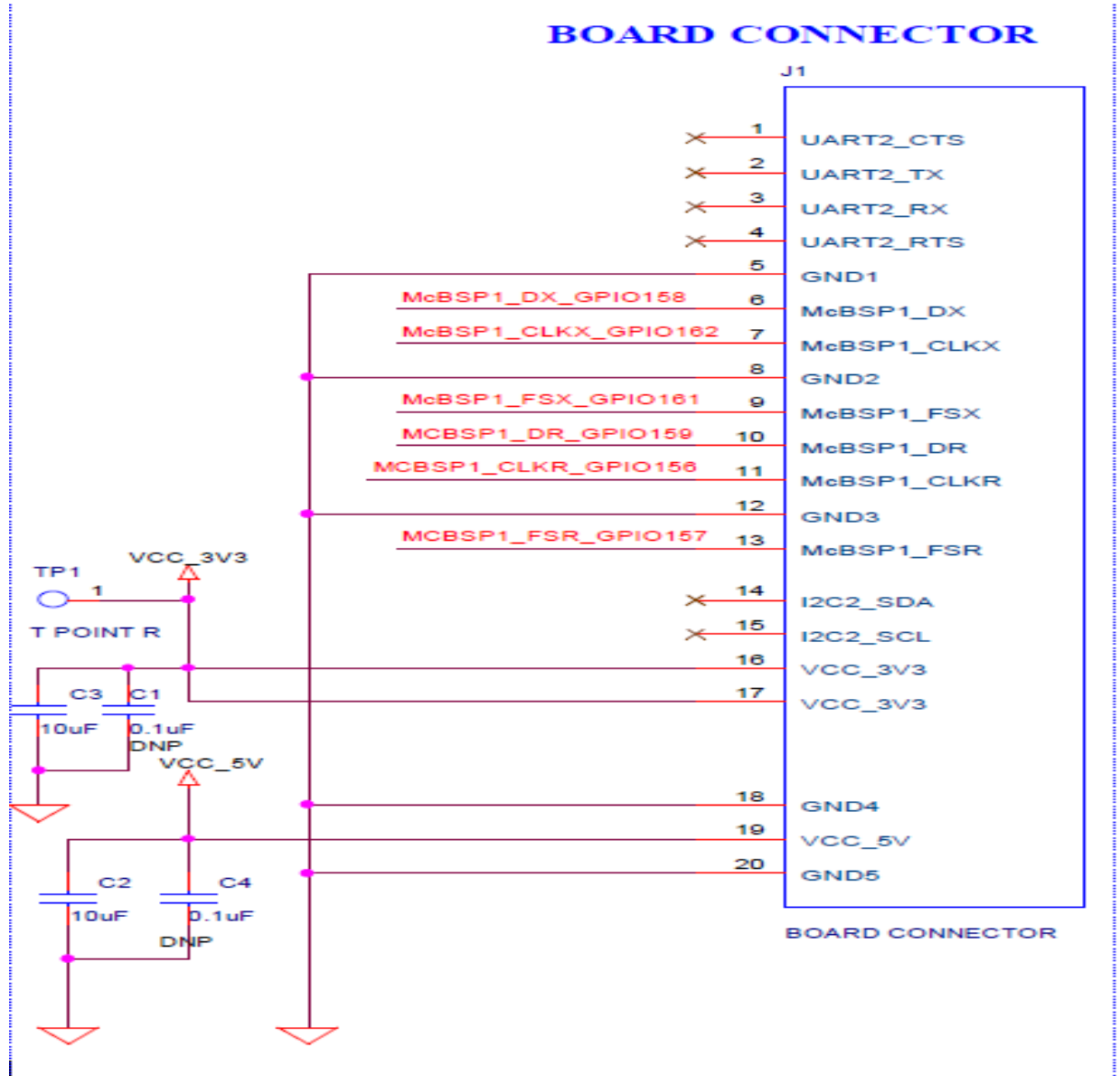
A Stepper Motor or Two DC motors can be interfaced to the 4 pin connector of the Motor- Add-On Card .GPIOs provided on the UTLP board are used to send the control signals to Motor and also to monitor the status of the module.

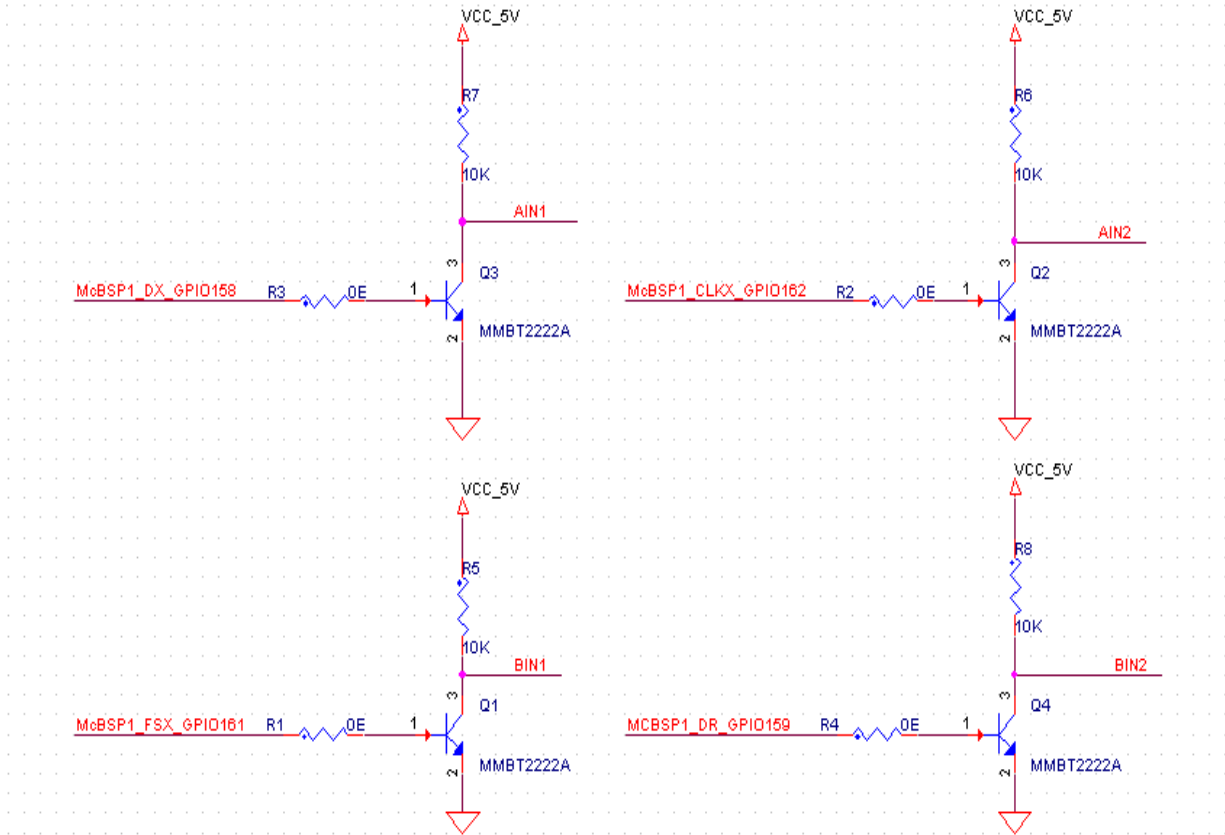
The length and width of the Motor Add-On module is 40mm X 31mm. Four mounting holes allow the board to be attached to a surface or case.

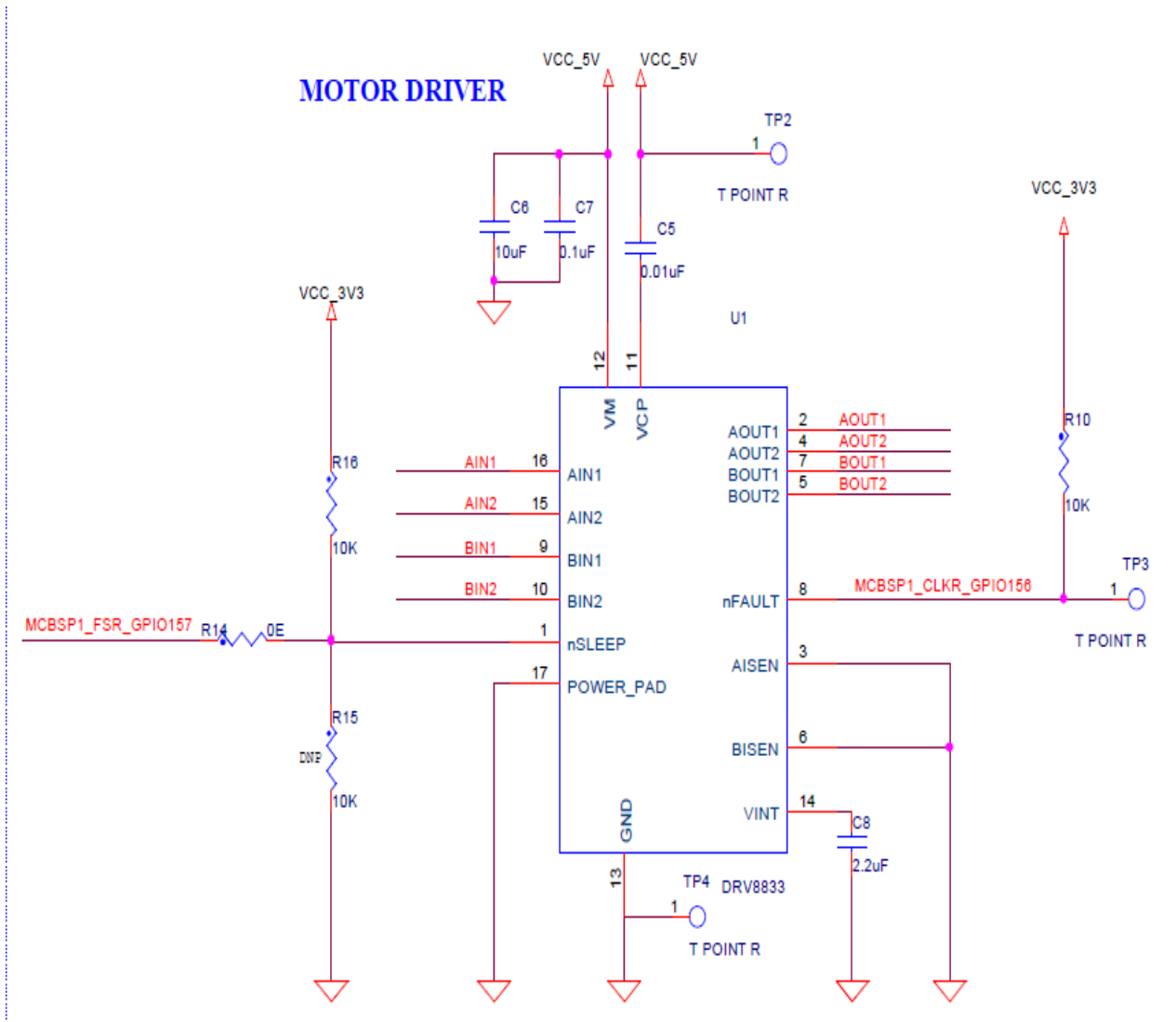


*All dimensions are in mm

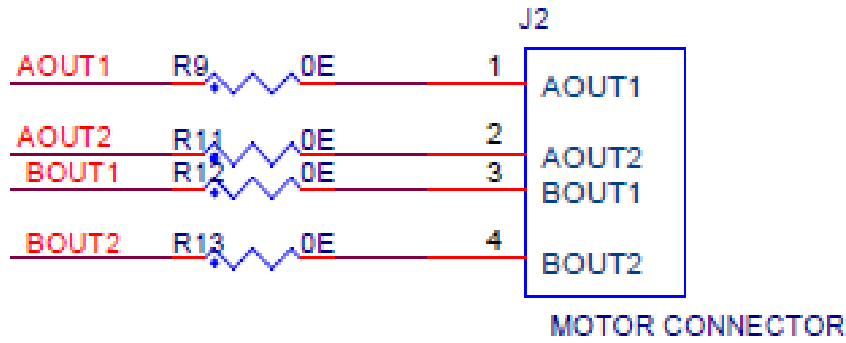
Reference Schematics







4 PIN MOTOR CONNECTOR



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