Instruction Manual for Evaluation Board of theTC78H620FNG

July 28, 2016

Rev.1.1

【Outline】

The TC78H620FNG is a 2-channel brushed DC motor driver corresponding to the direct PWM control system. This product is capable of driving up to 2 brushed DC motors or 1 bipolar stepping motor. CD process is adopted and the rating of 18V and 1.0A are realized.

This evaluation board mounts necessary components to evaluate the IC. Two brushed motors can be controlled by the direct PWM drive.

Mounting a connector for a stepping motor also enables a stepping motor control. Please sense controllability of a brushed DC motor by applying the TC78H620FNG.

【Note】

In using, please be careful about the thermal condition sufficiently.

For each control signal, please refer to the IC specifications by accessing to the following URL:

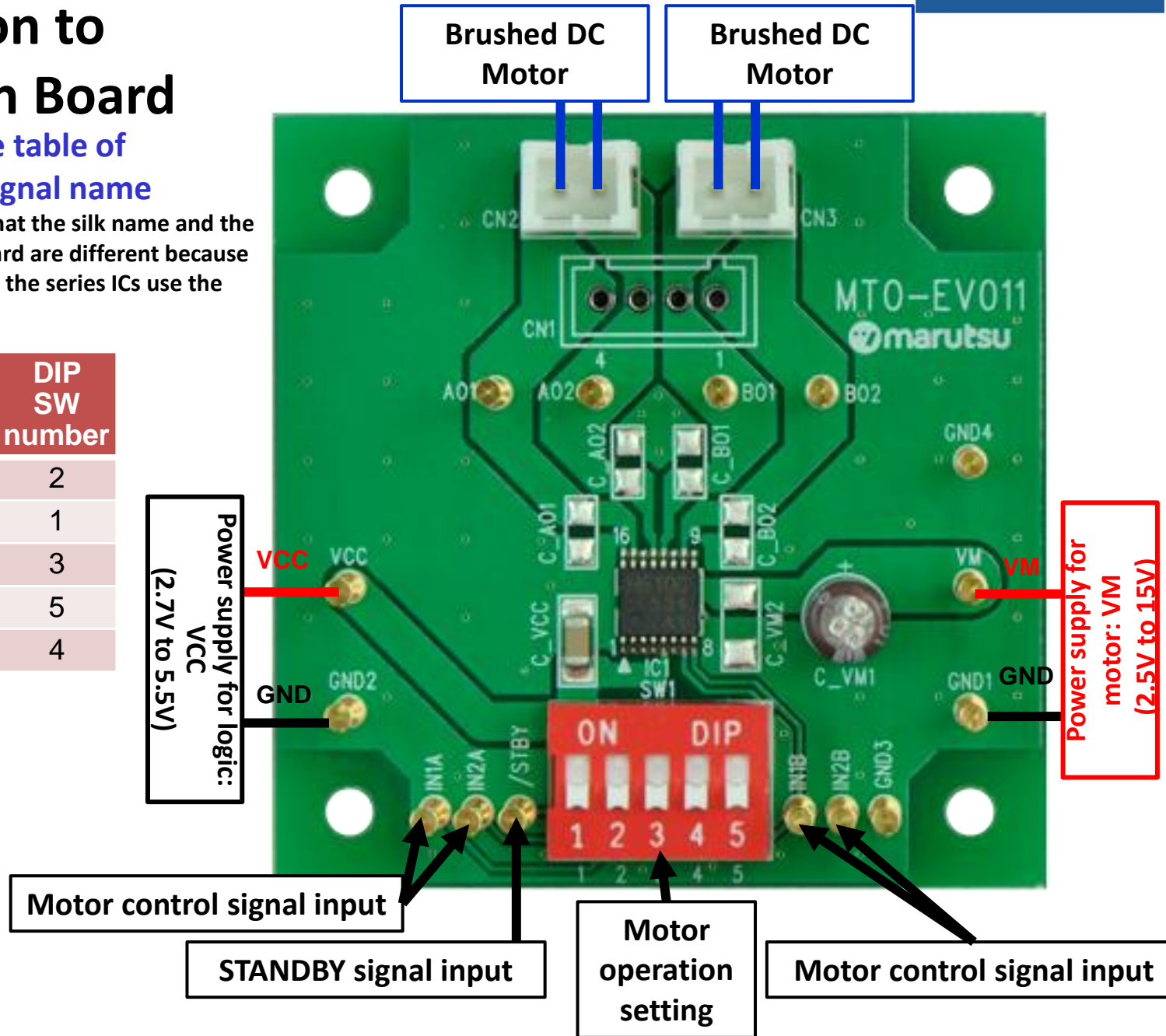http://toshiba.semicon-storage.com/ap-en/product/linear/motordriver/detail.TC78H620FNG.html

Further, the application of this evaluation board is limited to the purpose of evaluating and learning the motor control. Please do not ship them to a market.

Connection to Evaluation Board

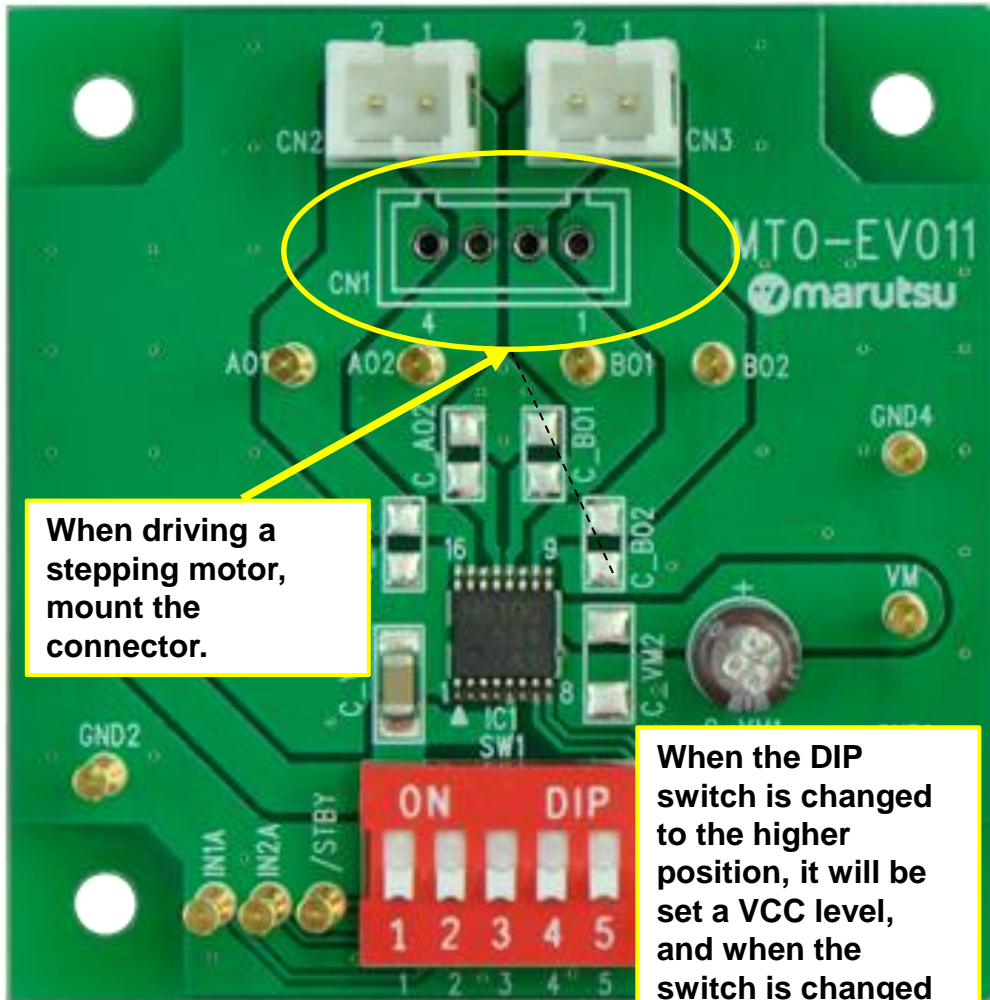## Correspondence table of silk name and signal name

Please pay attention that the silk name and the signal name of the board are different because the TC78H620FNG and the series ICs use the common board.

Silk name	Signal name	DIP SW number
IN1A	PHA_A	2
IN2A	EN_A	1
/STB	/STB	3
IN1B	PHA_B	5
IN2B	EN_B	4

Brushed DC Motor

Brushed DC Motor

MTO-EV011

Power supply for logic: VCC (2.7V to 5.5V)

VCC

GND

Power supply for motor: VM (2.5V to 15V)

VM

GND

Motor control signal input

STANDBY signal input

Motor operation setting

Motor control signal input

Setting Evaluation Board
Setting Motor Operation
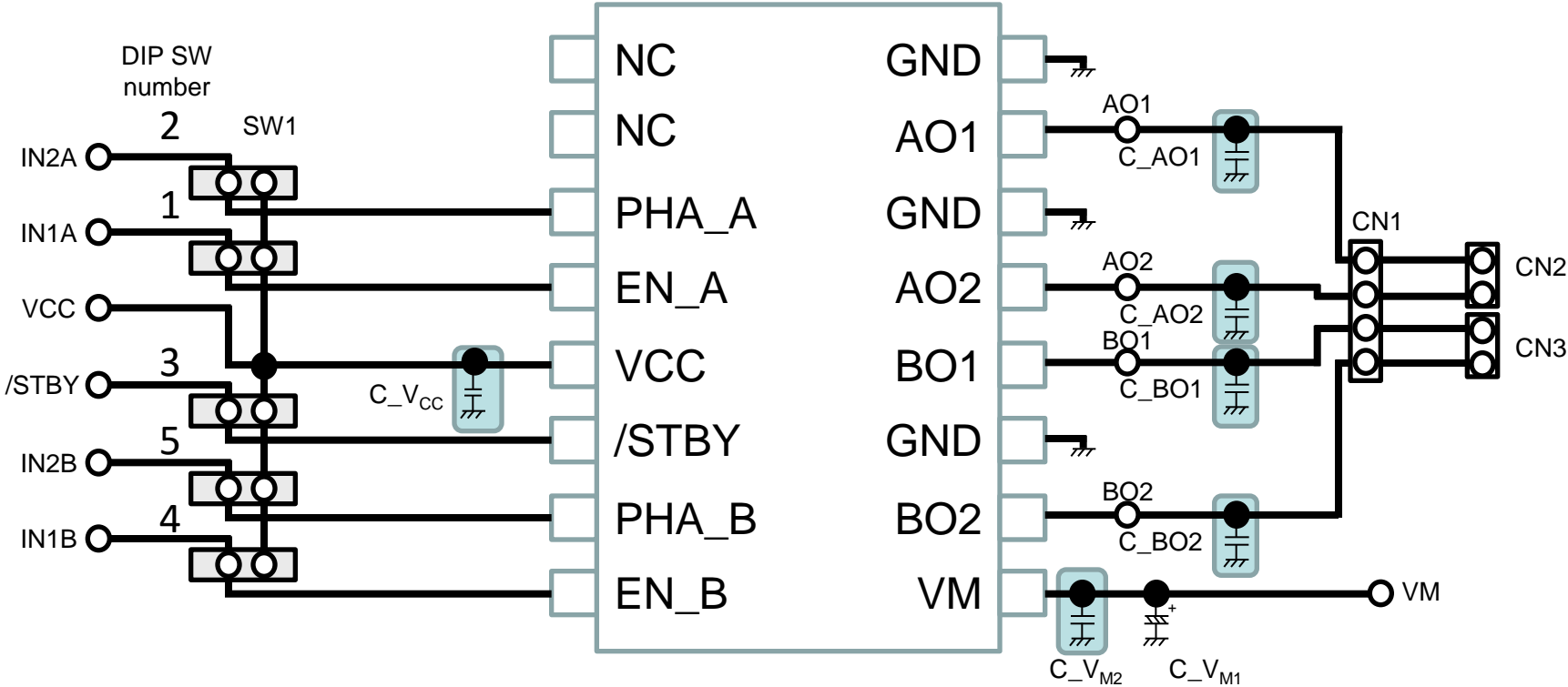

When driving a stepping motor, mount the connector.

When the DIP switch is changed to the higher position, it will be set a VCC level, and when the switch is changed to the lower position, it will be set Open.

This evaluation board has a DIP switch (SW) so that the operation setting of the TC78H620FNG can be set without the external signal input.
When the DIP switch is changed to the higher position, it will be set a VCC level = "High level", and when the switch is changed to the lower position, it will be set Open.
In the case of Open, the input signal can be input from a terminal, and even if there is no input signal, the switch is fixed to "GND level" = "Low" level by the pull down resistance in the IC.

Circuit of Evaluation Board