

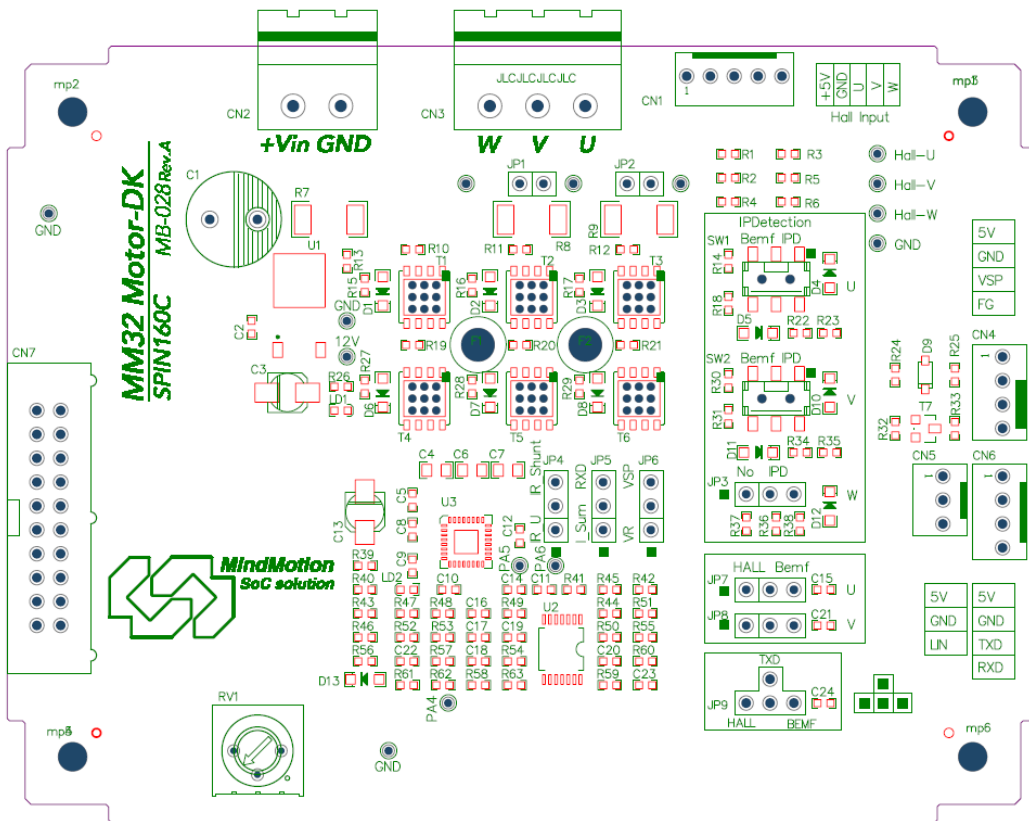


# MM32 SPIN160C 电机专用 Motor Driving DK Board

# MM32 Motor-DK introduction

- ▶ Input voltage range : 12V~28V
- ▶ Using 60V/40A N-Mosfet\*6
- ▶ Using external(SPIN0x)GBW 6Mhz Operator\*4
- ▶ MCU voltage:DC 5V
- ▶ With/Without Hall,Sensor/Sensorless
- ▶ Support 1/2 Shunt three-phase current sampling
- ▶ BEMF voltage feedback using ADC sampling
- ▶ DC Bus voltage and current sensing
- ▶ Using MCU built-in Operator for over current protect
- ▶ With VR,LED

# Motor DK-PCBA



# Motor DK-Jumper (1)

## Jumper for FOC + 2 Shunt R

SWI : Yes (IP Detection)

SW2 : Yes (IP Detection)

JP3 : 1,2 (Enable W Pull Down R)

JP4 : 1,2 (IU)

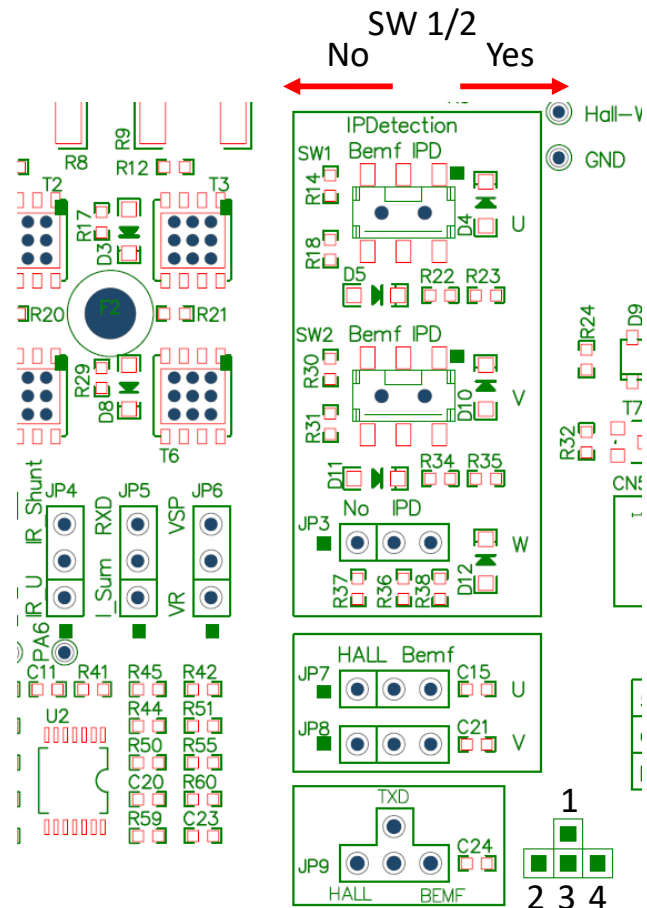
JP5 : 1,2 (I\_Sum)

JP6 : 1,2 (VR)

JP7 : 2,3 (BEMF U)

JP8 : 2,3 (BEMF V)

JP9 : 3,4 (BEMFW)



## Jumper for FOC + 1 Shunt R

SW2 : Yes (IP Detection)

JP4 : 2,3 (I Shunt R)

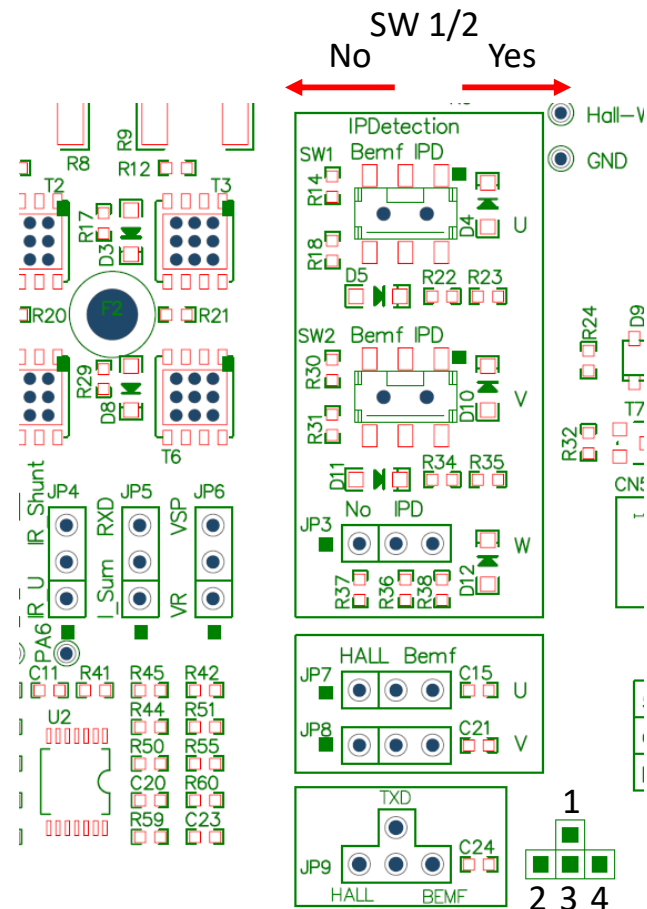
JP5 : I,2 (I\_Sum)

JP6 : 1,2 (VR)

JP7 : 2,3 (BEMF U)

JP8 : 2,3 (BEMF V)

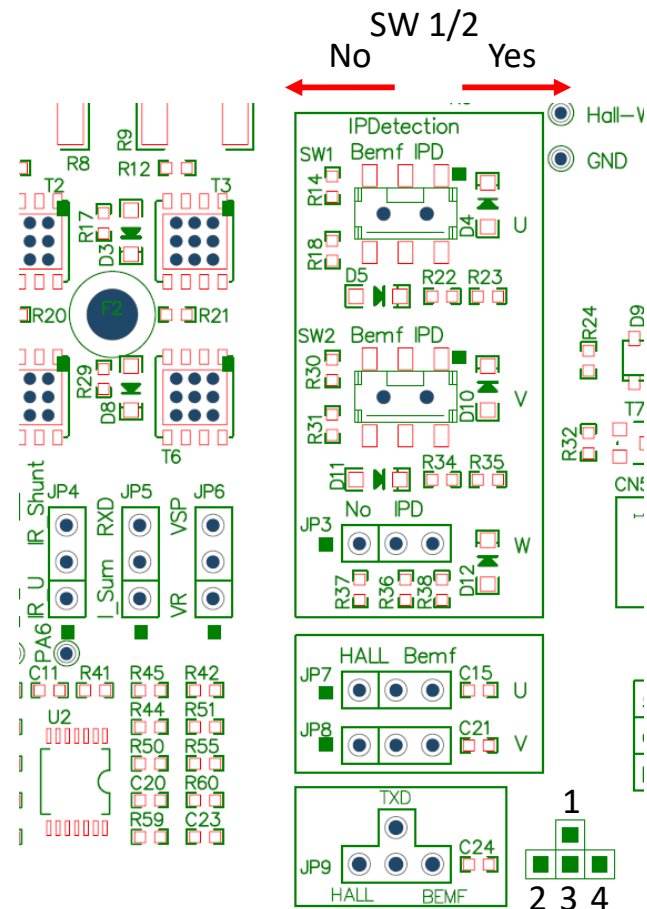
JP9 : 3,4 (BEMFW)



# Motor DK-Jumper (3)

## Jumper for Hall FOC + 2 Shunt R

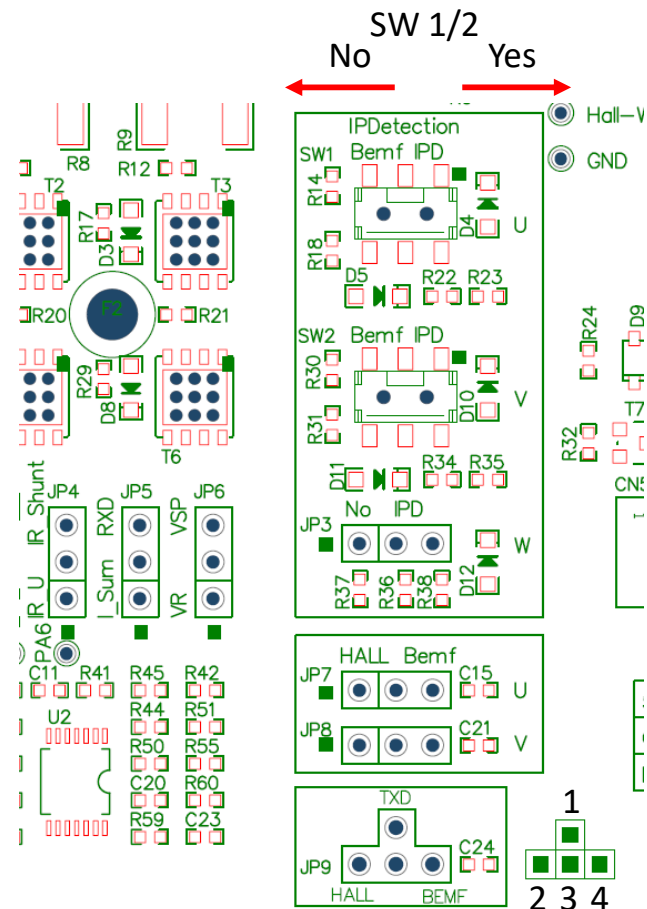
SW1 : do not care  
 SW2 : do not care  
 JP3 : do not care  
 JP4 : 1,2 (IU)  
 JP5 : 1,2 (I\_Sum)  
 JP6 : 1,2 (VR)  
 JP7 : 1,2 (HALL U)  
 JP8 : 1,2 (HALL V)  
 JP9 : 2,3 (HALL W)



# Motor DK- Jumper (4)

## Jumper for Hall FOC + 1 Shunt R

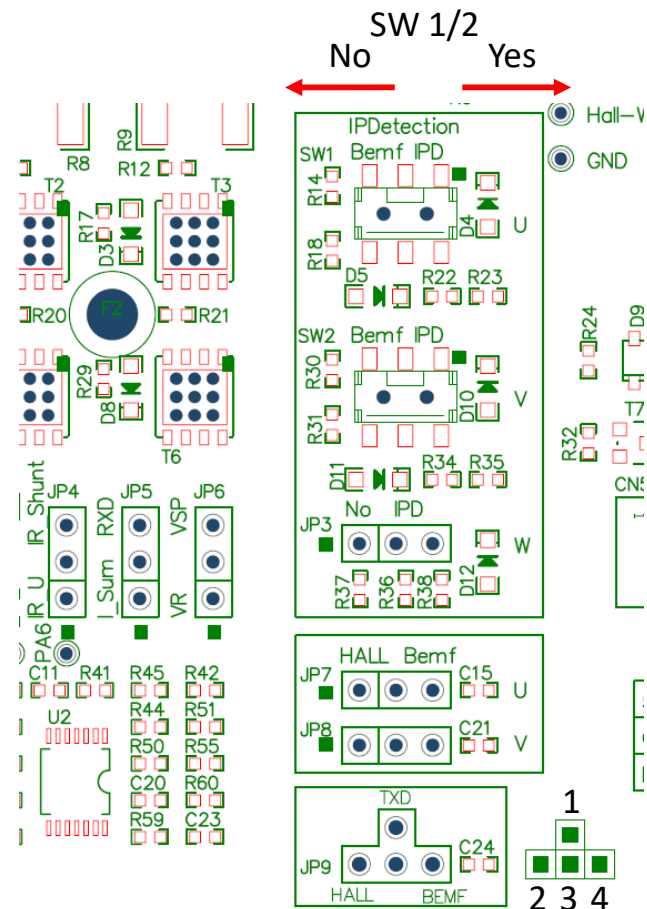
- SW1 : do not care
- SW2 : do not care
- JP3 : do not care
- JP4 : 2,3 (I Shunt R)
- JP5 : 1,2 (I\_Sum)
- JP6 : 1,2 (VR)
- JP7 : 1,2 (HALL U)
- JP8 : 1,2 (HALL V)
- JP9 : 2,3 (HALL W)



# Motor DK- Jumper(5)

## Jumper for Sensorless BEMF

- SW1 : No (Enable BEMF U Path)
- SW2 : No (Enable BEMF V Path)
- JP3 : 2,3 (Enable BEMF W Path)
- JP4 : do not care
- JP5 : 1,2 (I\_Sum)
- JP6 : 1,2 (VR)
- JP7 : 2,3 (BEMF U)
- JP8 : 2,3 (BEMF V)
- JP9 : 3,4 (BEMF W)





# Motor DK- Jumper (6)

## Jumper for Hall square wave solution

- SW1 : do not care
- SW2 : do not care
- JP3 : do not care
- JP4 : do not care
- JP5 : 1,2 (I\_Sum)
- JP6 : 1,2 (VR)
- JP7 : 1,2 (HALL U)
- JP8 : 1,2 (HALL V)
- JP9 : 2,3 (HALL W)

