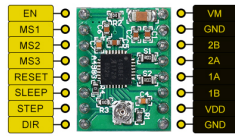
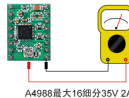


A4988电机驱动引脚说明、细分说明及电流说明



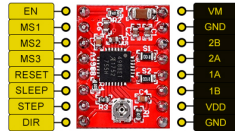
MS1	MS2	MS3	Subdivision	Excitation Mode
L	L	L	Full Step	2 Phase
H	L	L	1/2	1-2 Phase
L	H	L	1/4	W1-2 Phase
H	H	L	1/8	2W1-2 Phase
H	H	H	1/16	4W1-2 Phase

驱动电流计算公式 $R_s=0.1\Omega$   
 $I_{max} = V_{ref} / (8 * R_s)$



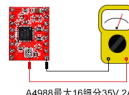
A4988最大16细分35V 2A

A4988电机驱动引脚说明、细分说明及电流说明



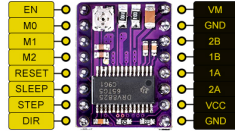
MS1	MS2	MS3	Subdivision	Excitation Mode
L	L	L	Full Step	2 Phase
H	L	L	1/2	1-2 Phase
L	H	L	1/4	W1-2 Phase
H	H	L	1/8	2W1-2 Phase
H	H	H	1/16	4W1-2 Phase

驱动电流计算公式 $R_s=0.1\Omega$   
 $I_{max} = V_{ref} / (8 * R_s)$



A4988最大16细分35V 2A

DRV8825电机驱动引脚说明、细分说明及电流说明



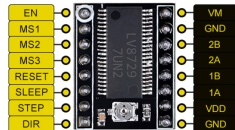
MODE2	MODE1	MODE0	Subdivision	Excitation Mode
L	L	L	Full Step	2 Phase
L	L	H	1/2	1-2 Phase
L	H	L	1/4	W1-2 Phase
L	H	H	1/8	
H	L	L	1/16	
H	L	H	1/32	
H	H	L	1/32	
H	H	H	1/32	

驱动电流计算公式 $R_s=0.1\Omega$

$$I_{CHOP} = \frac{V_{REF}}{5 * R_{SENSE}}$$

DRV8825最大32细分  
 8 2V-45V 2.5A at 24V T=25°C

LV8729电机驱动引脚说明、细分说明及电流说明



MD3	MD2	MD1	Subdivision	Excitation Mode
L	L	L	Full Step	2 Phase
L	L	H	1/2	1-2 Phase
L	H	L	1/4	W1-2 Phase
L	H	H	1/8	2W1-2 Phase
H	L	L	1/16	4W1-2 Phase
H	L	H	1/32	8W1-2 Phase
H	H	L	1/64	16W1-2 Phase
H	H	H	1/128	32W1-2 Phase

驱动电流计算公式 $R_s=0.22\Omega$

$$I_{OUT} = (V_{REF} / 5) / R_{F1}$$

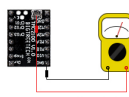
LV8729最大128细分  
 36V 1.8A

TMC2100 V1.0电机驱动引脚说明、细分说明及电流说明



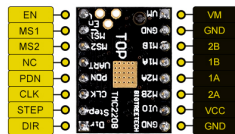
CFG2	CFG1	Subdivision	Y/N to 256	Chopper Mode
GND	GND	1	N	spreadCycle
GND	VCC	2	N	
GND	open	2	Y	
VCC	GND	4	N	
VCC	VCC	16	N	stealthChop
VCC	open	4	Y	
open	GND	16	Y	
open	VCC	4	Y	
open	open	16	Y	

驱动电流计算公式  
 $I = V_{ref} * 1.9/2.5$



TMC2100最大16细分为  
 256细分4.75V-46V 2A

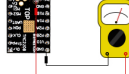
TMC2208电机驱动引脚说明、细分说明及电流说明



MS2	MS1	Subdivision
GND	GND	8
GND	VCC	2
VCC	GND	4
VCC	VCC	16

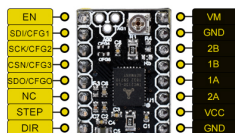
驱动电流计算公式 $R_s=0.11\Omega$

$$I_{RMS} = \frac{325mV}{R_{SENSE} + 20m\Omega} * \frac{1}{\sqrt{2}} * \frac{V_{REF}}{2.5V}$$

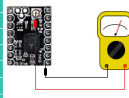


TMC2208 最大16细分  
 4.75V-36V 2A

TMC2130 V2.0电机驱动引脚说明、细分说明及电流说明



CFG2	CFG1	subdivision	Y/N to 256	Chopper Mode	Registers
GND	GND	1	N	spreadCycle	MRES=8, intpol=0
GND	VCC	2	N		MRES=7, intpol=0
GND	open	2	Y		MRES=7, intpol=1
VCC	GND	4	N		MRES=6, intpol=0
VCC	VCC	16	N	stealthChop	MRES=4, intpol=0
VCC	open	4	Y		MRES=6, intpol=1
open	GND	16	Y		MRES=4, intpol=1
open	VCC	4	Y		MRES=6, intpol=1 En_PWM_moden=1
open	open	16	Y		MRES=4, intpol=1 En_PWM_moden=1

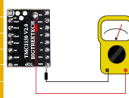


TMC2130最大16细分为256细分  
 4.75V-46V 2A

TMC2130 v2.0电机驱动引脚说明、细分说明及电流说明

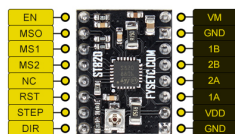


CFG2	CFG1	subdivision	Y/N to 256	Chopper Mode	Registers
GND	GND	1	N	spreadCycle	MRES=8, intpol=0
GND	VCC	2	N		MRES=7, intpol=0
GND	open	2	Y		MRES=7, intpol=1
VCC	GND	4	N		MRES=6, intpol=0
VCC	VCC	16	N	stealthChop	MRES=4, intpol=0
VCC	open	4	Y		MRES=6, intpol=1
open	GND	16	Y		MRES=4, intpol=1
open	VCC	4	Y		MRES=6, intpol=1 En_PWM_moden=1
open	open	16	Y		MRES=4, intpol=1 En_PWM_moden=1



TMC2130最大16细分为256细分  
 4.75V-46V 2A

ST820电机驱动引脚说明、细分说明及电流说明



MS3	MS2	MS1	subdivision
L	L	L	Full Step
L	L	H	1/2
L	H	L	1/4
L	H	H	1/8
H	L	L	1/16
H	L	H	1/32
H	H	L	1/128
H	H	H	1/256

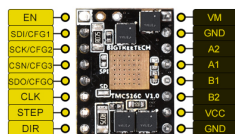
驱动电流计算公式 $R_s=0.15\Omega$

$$I_{peak} = \frac{V_{REF} * V_{DD}}{5 * R_s}$$



ST820 最大256细分  
 45V 1.5A

TMC5160电机驱动引脚说明、细分说明及电流说明



subdivision
Full Step
1/2
1/4
1/8
1/16
1/32
1/64
1/128
1/256

细分和电流  
 通过固件进行修改  
 $R_s = 75 m\Omega$



TMC5160最大256细分  
 45V 4.4A