

GT Series Stepper Driver & Motor

Fully Interconnected Intelligent Manufacturing Core Technology Platform



GT566 and GT422 series is the high performance digital 2-phase hybrid motor drive released by Googol Servo, suitable for driving 28, 39, 42, 57, 60, 86 and other mainstream 2-phase hybrid stepper motors. It adopts high performance 32-bit DSP technology, precision current control technology and real-time flux observation technology to realize motor real-time pure sinusoidal wave control. It suppresses motor vibration effectively so that the motor can realize precise and smooth running with low noise, and can be used in various cost-effective automatic equipment fields.

The products are widely applied in precision packaging and printing equipment, electronic circuits, semiconductor equipment, 3C and automation production line, logistics and warehousing and many other industries.

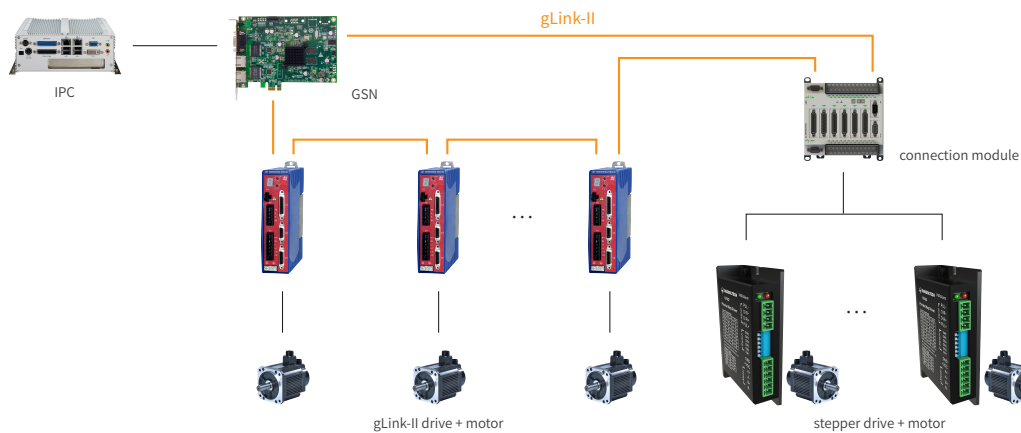
- Real-time current closed-loop control
- Motor automatic identification
- Ultra-low vibration noise and low motor heating
- Precise current setting, minimum unit 0.05A
- Maximum 512 micro step subdivisions, minimum unit 1
- Current is cut to half automatically when stationary
- Overvoltage, short-circuit, phase loss, etc. multi-layer protection functions

Googol Technology (Overseas) Ltd.

01 Technical Specification

Illustration	GT556				GT422			
	Minimum value	Typical value	Maximum value	Unit	Minimum value	Typical value	Maximum value	Unit
Output current	1.4	-	5.6	A	0.5	-	2.2	A
Operation voltage	20	24/36/48	50	VDC	12	24	40	VDC
Control signal input current	7	10	16	mA	7	10	16	mA
Control pulse	0	-	200	kHz	0	-	200	kHz
Isolation resistance	500			MΩ	500			MΩ
Cooling method	Natural cooling or forced air cooling							
Environment	Occasion	Do not install beside other heat generating devices; avoid dust, oil mist, corrosive gas, too humid and strong vibration sites; inflammable gas and conductive dust are forbidden.						
	Temperature	0 ~ +50°C						
	Humidity	40 ~ 90% RH						
	Vibration	5.9m/s ² MAX						
Storage temperature	-20°C ~ 80°C							
Weight	220g				100g			

02 System Architecture



03 Selection Guide

1. Naming definition of stepper driver model

GT -	5 -	56
Product series name	Voltage	Current
GT: GT Series	5: 50V 4: 40V	56: 5.6A 22: 2.2A

2. Naming definition of stepper motor model

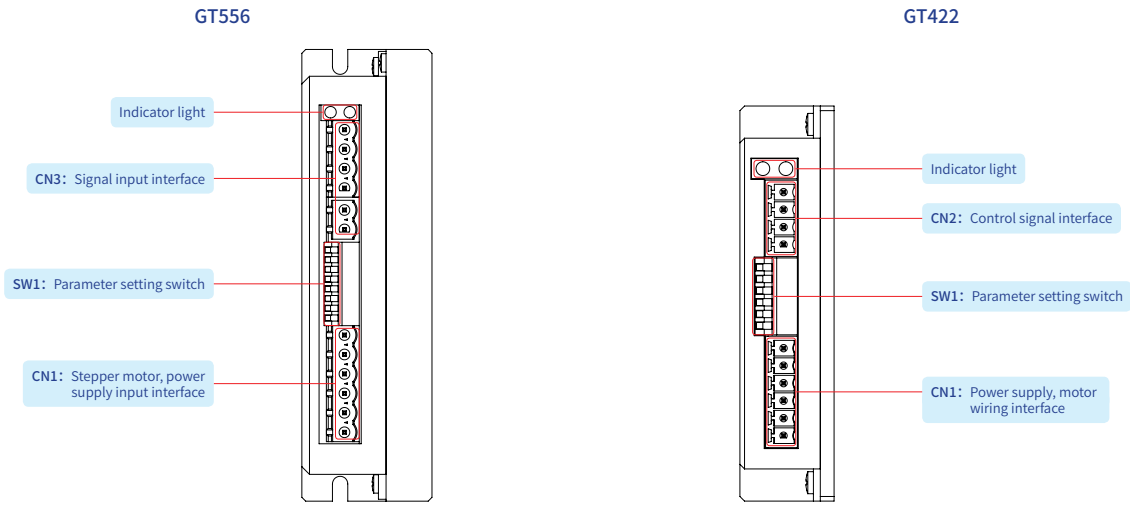
57 -	M -	P -	56 -	D8 -	P -	BR
Installation dimension	Motor step angle	Wiring mode	Body length	Shaft diameter	Out shaft form	Special specification
20mm ~ 130mm <i>Details refer to the Ordering Information</i>	M 1.8° H 0.9°	P: in parallel S: series	28mm ~ 156mm <i>Details refer to the Ordering Information</i>	D4~D15 <i>Details refer to the Ordering Information</i>	P: platform J: with keyway slot G: Optical axis	BR: Motor with brake DS: Dual-spindle motor GB: With reducer EN With encoder

04 Ordering Information

GT Series stepper motor selection table

Series	Model no.	Step angle	Rated current (A)	Holding torque (Nm)	Body length (mm)	Shaft diameter (mm)	Shaft length (mm)	Recommended drive	Recommended driving power supply voltage		
20	20MP30D4	1.8°	0.6	0.0018	30	4	15	GMDD422 / GT422	1.Recommended power supply voltage using 24V; 2.If 36VDC is used for power supply voltage, GMDD422 can be used for drive module, independent driving can use GT556 or GT442.		
	20MP42D4	1.8°	0.8	0.03	42	4	15				
	20MP48D4	1.8°	0.8	0.035	48	4	15				
28	28MP32D5	1.8°	0.9	0.05	32	5	20				
	28MP41D4	1.8°	0.9	0.1	41	5	20				
	28MP51D5	1.8°	1.3	0.12	51	5	20				
35	35MP28D5	1.8°	0.5	0.1	28	5	24				
	35MP36D5	1.8°	1.0	0.14	36	5	24				
	35MP52D5	1.8°	1.2	0.3	52	5	24				
39	39HS20D5	0.9°	0.5	0.09	20	5	20				
	39HS34D5	0.9°	0.6	0.2	34	5	20				
	39MS20D5	1.8°	0.4	0.065	20	5	20				
	39MS34D5	1.8°	0.6	0.22	34	5	20				
42	42MP40D5	1.8°	1.3	0.2	40	5	24				
	42MP48D5	1.8°	2.3	0.46	48	5	24				
	42MS48D5	1.8°	1.5	0.46	48	5	24				
	42MP60D5	1.8°	2.3	0.7	60	5	24				
	42MS60D5	1.8°	1.5	0.7	60	5	24				
57	57MP41D6	1.8°	2.8	0.56	41	6.35	21			GMDS556 / GT556	Recommended power supply voltage 24VDC, 36VDC, 48VDC, if there is demand on application speed, 48VDC is suggested.
	57MP56D6	1.8°	2.8	1.26	56	6.35	21				
	57MP56D6BR	1.8°	2.8	1.26	56+40	6.35	21				
	57MP76D6	1.8°	4.0	1.82	76	6.35	21				
	57MP76D8	1.8°	4.0	1.82	76	8	21				
	57MP76GB10	1.8°	4.0	18.2	76+32	8	28				
	57MP76GB30	1.8°	4.0	54	76+40	8	28				
	57MP80D8	1.8°	5.0	2.2	80	8	21				
	57MP80D8BR	1.8°	5.0	2.2	80+40	8	21				
57MP85D8	1.8°	5.0	2.5	85	8	21					
60	60MP90D8	1.8°	4.2	2.6	90	8	21				
86	86MP65D9P	1.8°	4.0	3.5	65	9	32	GMDS556 / GT556	1.Recommended power supply voltage using 48V/60V; 2.24V/36V mainly applies for low speed occasions.		
	86MP65D12	1.8°	4.0	3.5	65	12.7	32				
	86MP80D12P	1.8°	5.9	4.5	80	12.7	32				
	86MP80D12	1.8°	5.9	4.5	80	12.7	32				
	86MP118D12	1.8°	5.9	8.5	118	12.7	32				
	86MP156D15	1.8°	5.6	12	156	15.875	32				
	86MP65D14BR	1.8°	4.0	3.5	65+43	14	32				
	86MP80D14BR	1.8°	5.9	4.5	80+43	14	32				
	86MP118D14BR	1.8°	5.9	8.5	118+43	14	32				
86MP156D14BR	1.8°	5.6	12	156+43	14	32					

05 Interface Definition



06 Dimension Figure

