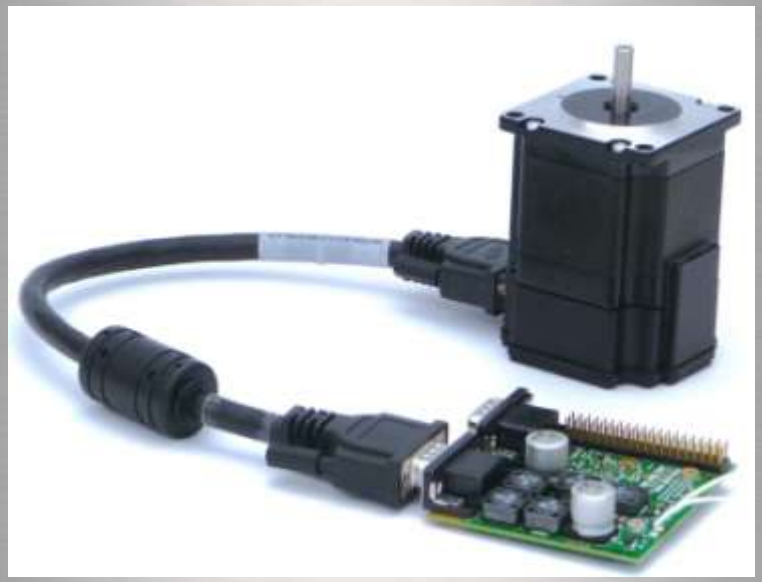
Advanced Equipment

GLOBAL PLAYER OF HIGH-END EQUIPMENT MARKET

Advanced Equipment

Motion Control Division

Stepper motor drives



Voice Coil Motor drives

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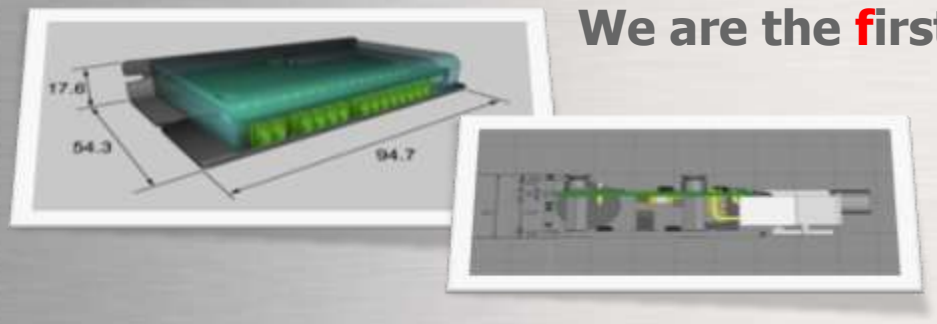
- Own Design Bureau and Manufacture
- Full process of design from idea to technical documentation
- Unique manufacture equipment
- High class design engineers team
- Over 10 years of experience in motion control and measurement
- Hundreds of discovers and patents
- TQM ISO 9000
- Own gage inspection department (metrology laboratory)
- We know how to find innovative advanced solution that others simply can not fathom.



We are the first in a non-typical tasks

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Stepper motor drives

- New generation of Stepper motor drivers
- New Architecture
- Super slim design
- Advanced technical design including Up to date components provide new level of power efficiency
- High resolution
- Motion Chip D.i.M.O.N.
- Wide range of modifications on customer's demand
- Small current ripple and less motor heating

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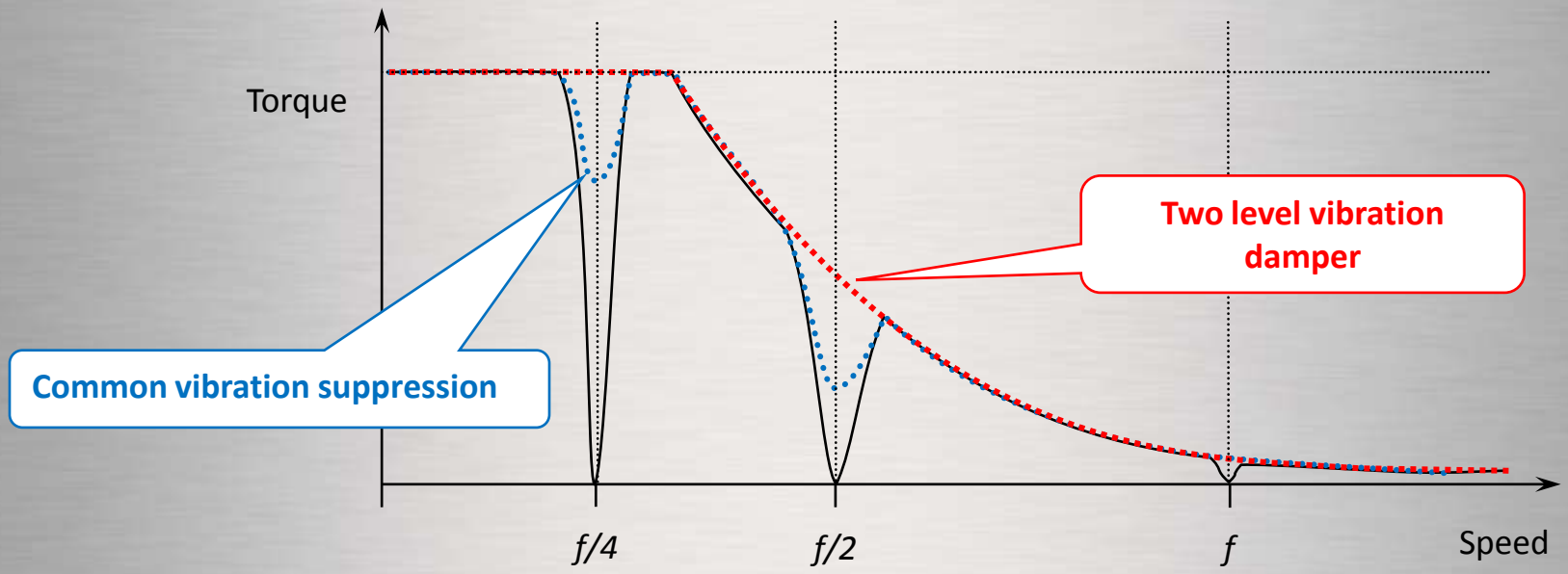
SM drives Advanced features

- Two level vibration damper



Common solutions of vibration suppression working as simple feedback systems not allowed to avoid vibration. Our algorithm consists of two circles – feedback (electrical damping) and feedforward (position pre-compensation). This solution provides extremely low vibration while rotating in whole range of frequencies.

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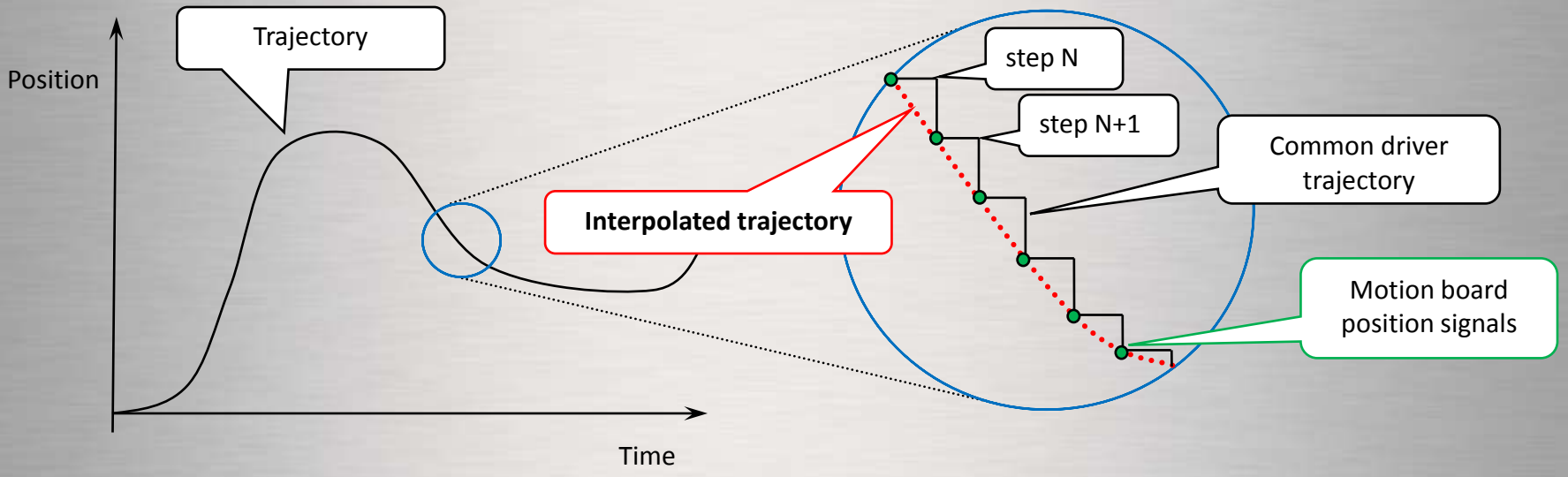
SM drives Advanced features

- Advanced smoother



Using linear interpolation between adjacent points our algorithm allows to increase micro-step resolution (up to maximum 1/250) to provide extremely smooth rotation. In the result of using this function we provide extremely smooth rotation of stepper motor not depend to settings of resolution.

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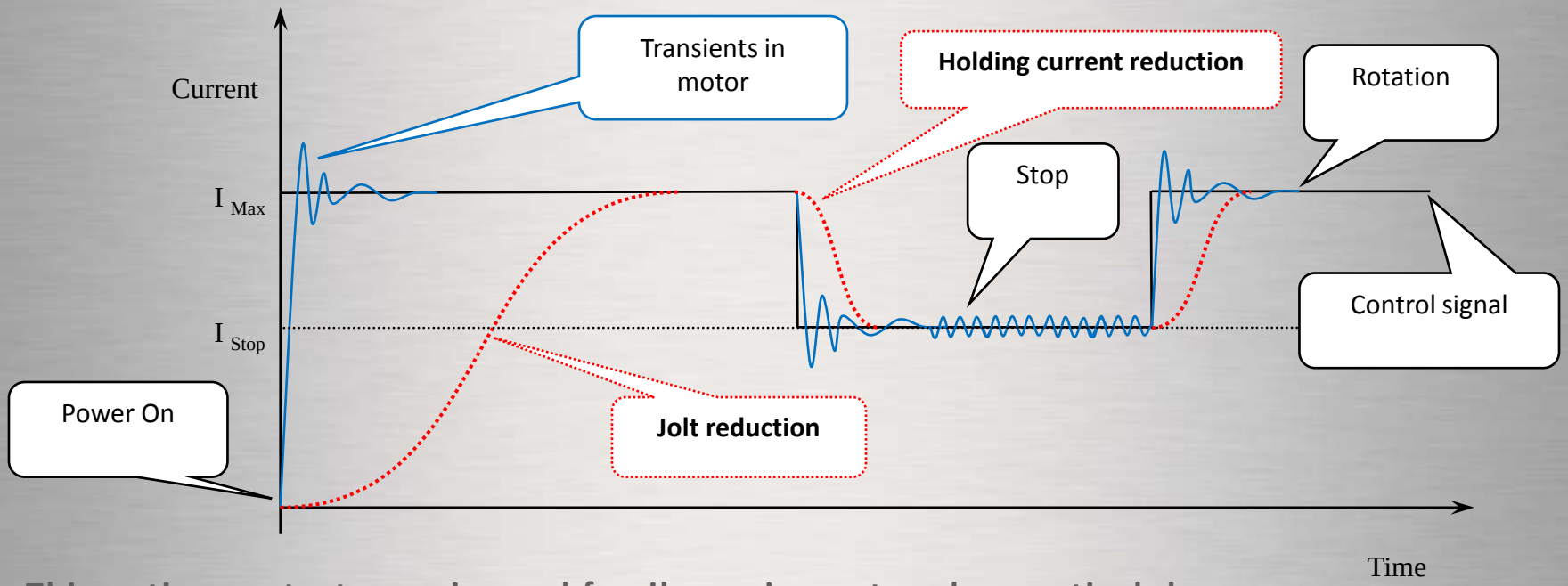
SM drives Advanced features

- Supreme jolt reduction



This option protects precise and fragile equipment such as optical, laser, camera positioning systems from jolts. No noise, no vibration, no impacts – reliable positioning without damages of fragile and precise equipment. Also it provides extremely low noise at STOP statement and significant reduction of power consumption and motor heating.

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USB

- Parameter Settings – GUI WinXP/Vista/7
- Standard micro-USB interface

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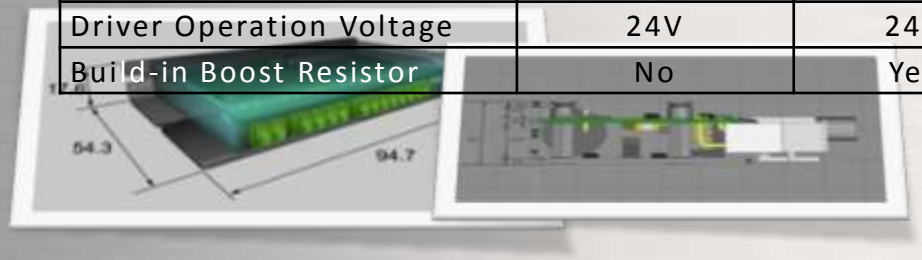
Function	Step Micro	Step Light	Step Optima	Step Enhanced	Step Close Loop
Resolution	Fixed (1/16)	Variable. (Up to 1/250)	Variable. (Up to 1/250)	Variable. (Up to 1/250)	Variable. (Up to 1/50)
Control method	Pulse/Dir	Pulse/Dir	Pulse/Dir and CW/CCW	Pulse/Dir and CW/CCW	Pulse/Dir and CW/CCW
USB interface	No	Yes	Yes	Yes	Yes
Parameter Settings	Dip SW and potentiometer	GUI	GUI	GUI	GUI
Vibration Suppression	No	No	Yes	Enhanced	Enhanced
Stall Detection	No	No	No	Yes	-
Microstep Smoothing	No	No	Yes	Yes	Yes
Control Connector	Molex	Molex	EC501R*	EC501R*	EC501R*
Reducing noise at stop status	No	No	Yes	Yes	Yes
Power on smooth current increasing	No	No	Yes	Yes	-
Current reducing at stop status (Stop Current)	No	Yes	Yes	Yes	-
Max Motor Current	2A	4A	4.2A	4.2A*	4.2A
Driver Operation Voltage	24V	24V	24V	24V	24V
Build-in Boost Resistor	No	Yes	Yes	Yes	Yes

* Available for Customization



Advanced Equipment – Advanced Solutions

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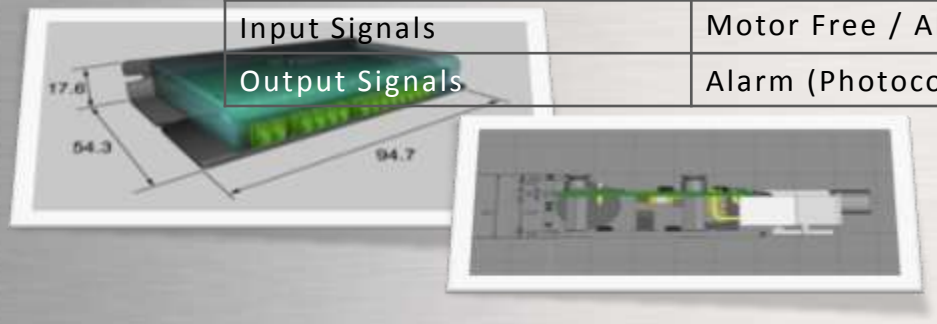
Specification

Parameter	Value
Input Voltage	24VDC ±10%
Output Current	0.5 .. 4.2A
Driver Method	Bipolar PWM drive with DSP
Temperature	In use: 0..50 °C, In Storage: -20..70 °C
Humidity	In use: 35..85% (Non-Condensing), In Storage: 10..90% (Non-Condensing)
Vibration Resist	0.5G
Resolution	1/2.5, 1/5, 1/8, 1/10, 1/16, 1/18, 1/20, 1/25, 1/32, 1/40, 1/50, 1/100, 1/125, 1/180, 1/200, 1/250 (Default 1/50)
Control method	Pulse / Direction, CW / CCW
Control Max Frequency	500 kHz (Duty 50%)
Alarm Function	Over-Current, Over-Heat, Over-Voltage, Motor Connection
LED Display	Power Status, Alarm Status, CW direction, CCW direction
STOP Current	10% ~ 100% Be activated after 0.5 second after motor stop (Default 50%)
Rotational Direction	Normal / Inverse
Input Signals	Motor Free / Alarm Reset (Photocoupler Input)
Output Signals	Alarm (Photocoupler Output)



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www.adv-driver.com