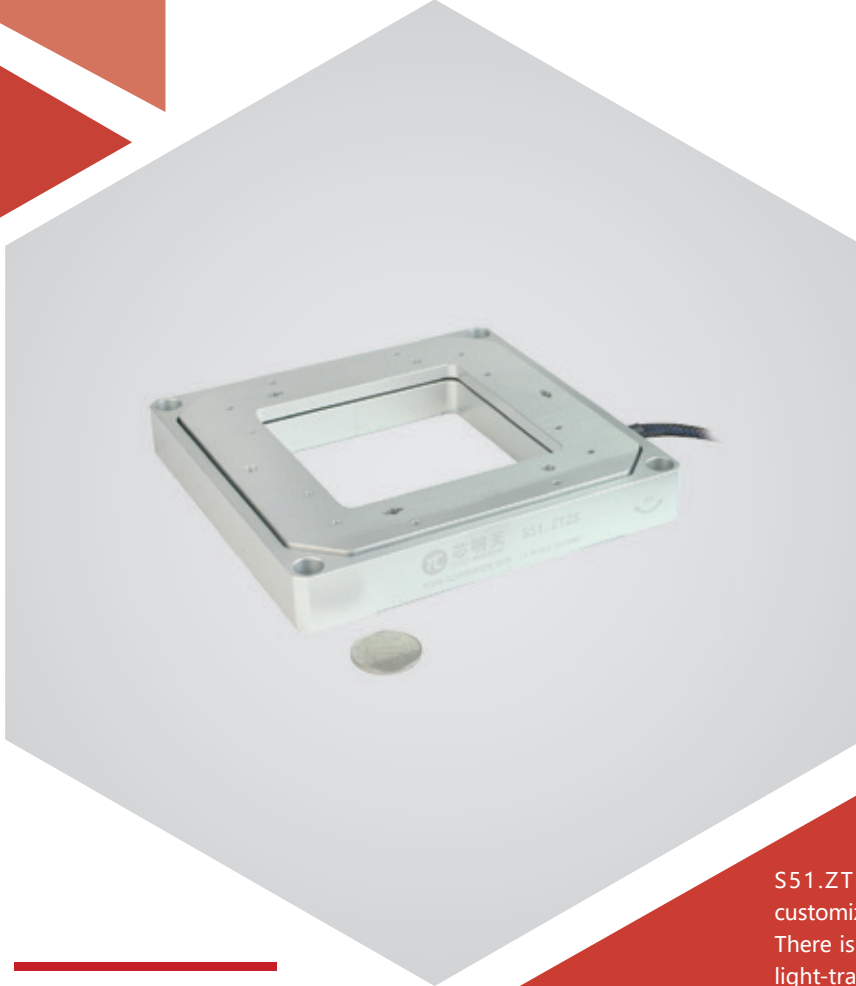


$\theta_x/\theta_y/Z$ axes | S51.ZT2S/K-C1 Piezo Tip/Tilt and Z Stage



Introduction

S51.ZT2S/K-C1 Piezo Z/Tip/Tilt Platform is one customized piezo stage that tilts in θ_x , θ_y and moves in Z. There is a large aperture in its center that is suitable for light-transmitted applications.

Characteristics >>

- θ_x , θ_y and Z motion
- High closed-loop positioning accuracy
- Fast respons
- Light aperture: 96×96mm

Applications >>

- Optical beam scanning
- Light path adjustment
- Graphical stability
- Interference/metering
- Large loading tilt motion
- Space perturbation simulation system
- Calibration of acceleration sensor
- Calibration of angular velocity sensor



Harbin Core Tomorrow Science & Technology Co., Ltd.

Tel: +86-451-86268790

Email: info@coremorrow.com

Headquarters: Building I2, No.191 Xuefu Road, Nangang District, Harbin

Fax: +86-451-86267847

Web: www.coremorrow.com

Shanghai Office: Building 2, No.608 Shengxia Road, Pudong District, Shanghai

Technical Data >>

| Type | C-Closed loop K-Open loop | S51.ZT2S-C1 | S51.ZT2K-C1 | Units |
|---|------------------------------|-------------------------|-------------------------|----------------------------|
| Active axes | | θ_x, θ_y, Z | θ_x, θ_y, Z | |
| Linear travel axes(0~120V) | | 192 | 192 | $\mu\text{m}\pm 20\%$ |
| Linear travel axes(0~150V) | | 240 | 240 | $\mu\text{m}\pm 20\%$ |
| Tilt angle(0~120V) | | $\pm 1.6/\text{axis}$ | $\pm 1.6/\text{axis}$ | $\text{mrad}\pm 20\%$ |
| Tilt angle(0~150V) | | $\pm 2/\text{axis}$ | $\pm 2/\text{axis}$ | $\text{mrad}\pm 20\%$ |
| Integrated sensor | | SGS | - | |
| Resolution in Z | | 7 | 2 | nm |
| Resolution(θ_x, θ_y) | | 0.15 | 0.06 | μrad |
| Closed loop linearity(Z) | | 0.3 | - | %F.S. |
| Closed loop linearity(θ_x, θ_y) | | 0.3 | - | %F.S. |
| Closed-loop repeatability(Z) | | 0.3 | - | %F.S. |
| Closed-loop repeatability(θ_x, θ_y) | | 0.1 | - | %F.S. |
| Unloaded resonant frequency | | 160 | 160 | $\text{Hz}\pm 20\%$ |
| Load capacity | | 1.5 | 1.5 | kg |
| Operating temperature ^[1] | | -20~80 | -20~80 | $^{\circ}\text{C}$ |
| El. capacitance | | 21.6/axis | 21.6/axis | $\mu\text{F}\pm 20\%$ |
| Mass | | 1070 | 1070 | $\text{g}\pm 5\%$ |
| Material | | Steel, Al | Steel, Al | |
| Cable length ^[2] | | 1.5 | 1.5 | $\text{m}\pm 0.1\text{mm}$ |

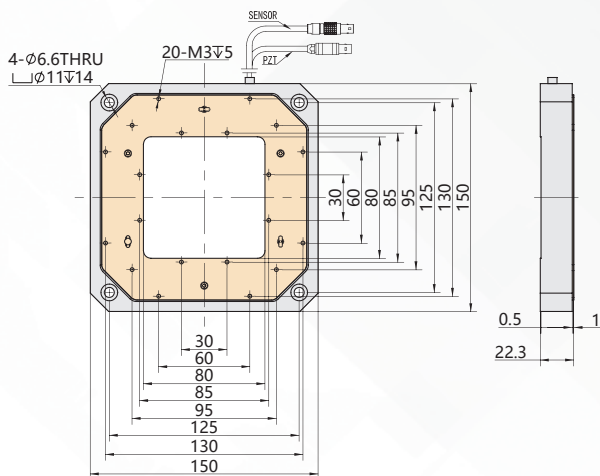
Note: Technical data are measured by CoreMorrow E00/E01 series piezo controller. Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation. Unless otherwise specified, the above parameters are measured at room temperature about 25°C.

[1] Custom ultralow temperature and ultrahigh vacuum versions are available.

[2] Custom cable length and connector is available.

Note: The parallelism of the moving platform is about 20 μm , and the roughness is about 1.6 to 3.2. Please contact the sales engineer for confirmation before purchase.

Drawing >>



Recommended Controllers >>



E01.D3
 LCD, membrane button, up to 625mA
 RS-232/RS-422/USB interface
 Software secondary development



E70
 Small size, ave current 70mA/channel
 RS-232/RS-422/USB interface
 Software secondary development



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