

Fig. 2 The structure of ultra precision stage implemented by 4-PP compliant mechanism

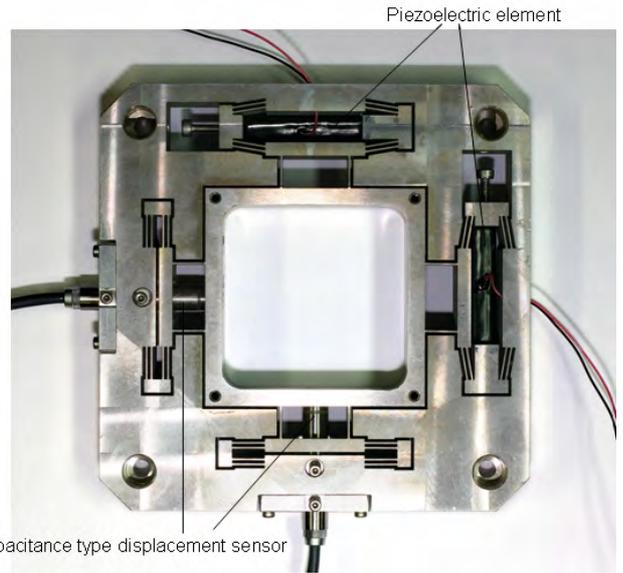


Fig.3 Two-axis ultra precision stage actuated by stack type piezoelectric elements

3.

$$f_T \quad f_0 - \Delta f \leq f_T \leq f_0 + \Delta f \quad (1)$$

$$k_f \quad f_R \geq k_f f_T \quad (2)$$

$$\Delta d_T \geq \Delta d_0 \quad (3)$$

$$\sigma_y \quad \sigma_{max} \leq \frac{\sigma_y}{S_f} \quad (4)$$

$$\sigma_{max} = 3K_t E \frac{w}{l^2} \delta_{max} \quad (5)$$

(Al-7075)

(1)~(5) EDM

Fig. 3

-30 V~150V

40 μm

4.

2

2

EDM

가

9 nm

40 μm

AFM

가

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