

ABSTRACT

A three-axis microelectromechanical system (MEMS) gyroscope includes a first proof mass (M1, M2), a second proof mass (M7), a third proof mass (M3, M4), and a fourth proof mass (M5, M6), where the proof masses are connected by spring beams and/or rigid beams; the first proof mass (M1, M2) is configured to move in an X-axis direction; the second proof mass (M7) is configured to rotate around an X-direction axis, a Y-direction axis, and a Z-direction axis, and when the first proof mass (M1, M2) moves in the X-axis direction, the second proof mass (M7) is driven to rotate around the Z-direction axis; the third proof mass (M3, M4) is configured to move in the X-axis direction and a Y-axis direction, and when the first proof mass (M1, M2) moves in the X-axis direction, the third proof mass (M3, M4) is driven to move in the Y-axis direction; the fourth proof mass (M5, M6) is configured to move in the X-axis direction, and when the third proof mass (M3, M4) moves in the X-axis direction, the fourth proof mass (M5, M6) is driven to move in the X-axis direction.

Figure 1