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ABSTRACT

A two-phase planar linear motor used for an IC test handler etc. comprising a platen (50) having a platen surface formed with a plurality of platen dots (D) arranged in a matrix and a composite movable member (70) comprised of two X-axis movable members (60X) and two Y-axis movable members (20Y) connected in an in-plane perpendicular relationship. The platen (50) is a stacked member comprised of a plurality of magnetic sheets T stacked together and uses the parallel sheet edge surfaces as the platen surface (51). The pole teeth (KA_x , $KA_{\square x}$, KB_x , $KB_{\square x}$) of the X-axis movable members (60X) are flat in the Y-axial direction and have equal spatial phases held with respect to the closest dots (D) in the Y-axial direction, but the above pole teeth arrayed repeatedly at each one dot pitch in the normal direction (X-axial direction) of the joined surfaces of the magnetic sheets (T) and fit in one pitch are arranged staggered with spatial phases held with respect to the closest dots (D) in the X-axial direction shifted by increments of spatial phase difference of $1/4$ pitch. Due to this staggered arrangement, the X-axis movable members (60X) can proceed in the X-axial direction. Therefore, it is possible to use the stacked member of the magnetic sheets as a platen and provide a high speed, high thrust, and high efficiency linear motor.