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MATHEMATICAL MODEL FOR MICROACTUATOR IN MOEMS

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Abstract

In this paper a method for automated generation of accurate model of microactuator is described. We investigate the techniques for integrated MOEMS Systems which is a growing field with great potential. Accurate simulations of MOEMS system will allow analysis and optimizations of system performance before costly and time consuming prototypes. It is a type of microsystem simulation solution which is a set of model equation using an implemented numerical method. Microsystems modeling is the customization of a set of model equation whose solution is representative of the physical response of certain Microsystems. The different equations allows the modulator to concentrate on describing the required detailed behaviour by formulating individual parameters. The equations represent geometric constitutions and dynamic requirements. This paper includes the primary signal as mechanical, thermal, electrical, magnetic etc. with the effect on microsystem.