

Microarray Bioprobe Device Integrated with a Semiconductor Amplifier
Module on a Flexible Substrate

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Abstract

The present invention provides a microarray bioprobe device integrated with a semiconductor amplifier module, which integrates micro array biological probes and thin film transistors on a flexible substrate by Micro-Electro-Mechanical System (MEMS) processes and semiconductor processes. A signal from the microarray bioprobe device is amplified through a near amplifier to increase signal-to-noise ratio and impedance matching. The micro array biological probes of the present invention are produced on the flexible substrate such that the micro array biological probes can be disposed to conform to the profile of a living body' s portion and improving contact between the probes and living body' s portion.

Keyword : Microarray Bioprobe, Semiconductor Amplifier, Flexible Substrate