

INTEGRATING MICROARRAY PROBES AND AMPLIFIER ON AN ACTIVE RFID TAG FOR
BIOSENSING AND MONITOR SYSTEM DESIGN

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Abstract

This research provides a microarray bio-probe device, integrated with Thin-Film-Transistor (TFT) amplifier formed of top-gate MOS (Metal-Oxide Semiconductor) transistors on an active RFID tag, to improve the signal-to-noise (S/N) ratio and impedance matching problems. The bio-probe device can be disposed to conform to the profile of a living body' s portion so as to improve the electrical contact property.

Keyword : Bio-sensing probe; Active RFID tag; Thin-film-transistor; Signal-to-noise ratio