

## Electrodermal Activity Measurement Using Constant Current AC Source

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**Abstract :** This work explores and characterizes the behavior of the AFE AD5941 in impedance measurement using an embedded algorithm with a constant current AC source. The main aim of this research is to improve the exact measurement of impedance values for their application in EDA-focused wearable devices. Through comprehensive study and characterization, it has been observed that employing a measurement sequence with a constant current source produces results with increased dispersion but higher accuracy. As a result, this approach leads to a more accurate system for impedance measurement.

**Keywords :** EDA, constant current AC source, wearable, precision, accuracy, impedance

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