Abstract

Apparatus for Measuring Condition of Electroplating Cell Components and Associated Methods

A device for measuring electrical properties of electrical contacts within an electroplating apparatus has a disc-shaped structure like that of a wafer. Multiple conductive pads are formed to collectively circumscribe an outer periphery of the disc-shaped structure. Adjacently positioned ones of the conductive pads are electrically isolated from each other. The device includes a current source that supplies electric current at a first terminal and sinks electric current at a second terminal. The device includes measurement circuitry, having first and second input terminals, that determines a value of an electrical parameter based on signals present at the first and second input terminals. The device includes switching circuitry for connecting selected ones of the conductive pads to the first and second terminals of the current source and to the first and second input terminals of the measurement circuitry at a given time. The device also includes an onboard power supply.

FIG. 4A