

Signal Acquisition System and Method For Compensating Impedance Mismatch Between Electrodes

Embodiments herein achieve a signal acquisition system and a method for compensating impedance mismatch between electrodes/electrode-skin interfaces. The signal acquisition system includes a first electrode path and a second electrode path. The first electrode path includes a first resistor and a first common mode current source and the second electrode path includes a second resistor and a second common mode current source. A differential amplifier is connected to the first electrode path and the second electrode path. A demodulator block is connected to the differential amplifier.

A PID controller is connected to the demodulator block to control gain of VGA for compensating difference between voltages of the first electrode path and the second electrode path due to impedance mismatch between the first electrode path and second electrode path.

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