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MULTI-FREQUENCY BIOLOGICAL IMPEDANCE MEASUREMENT DEVICE AND METHOD THEREOF



▶ MORE INFORMATION

MEGA-TREND

- Chemicals and Materials
- Measurement and Instrumentation

TECHNOLOGY READINESS LEVEL (TRL)

- TRL 4

PATENT/ GRANTED NUMBER

- PI 2017700321

▶ TECHNOLOGY OVERVIEW

The present invention provides a portable device 100 for analysing biological impedance data of a subject or a segment of a subjects body at multiple frequencies, the device comprising: a power module 105 for providing current and voltage supply for device; analog front module 101 comprising: a current modification module 22 for providing constant current supply at varying frequencies to be flowed through the subject or a segment of a subject's body; an instrumentation amplifier module 20 for measuring the varying voltage frequencies to be detected through the subject or a segment of a subject's body; a controller 102 configured for calculating and

generating the impedance parameters; an impedance converter and measurement module 103 comprising: a frequency generator 103a for generating varying frequencies; particularly at 5KHz, 50KHz, 100 KHz and 200 KHz; and an analog-to-digital converter 103b for converting analog signals to digital signals. Sensing signals are collected via any suitable input device and impedance are measured and at least one output is generated for each frequency generated.

CONTACT US!

Dr. Lee Ching Shya

UMCIE Business Officer

Email: leecs@um.edu.my

Phone: +603 – 7967 7351 / 7352