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(54) Title: A PHOTOPLETHYSMOGRAPHIC DEVICE AND METHODS THEREFORE

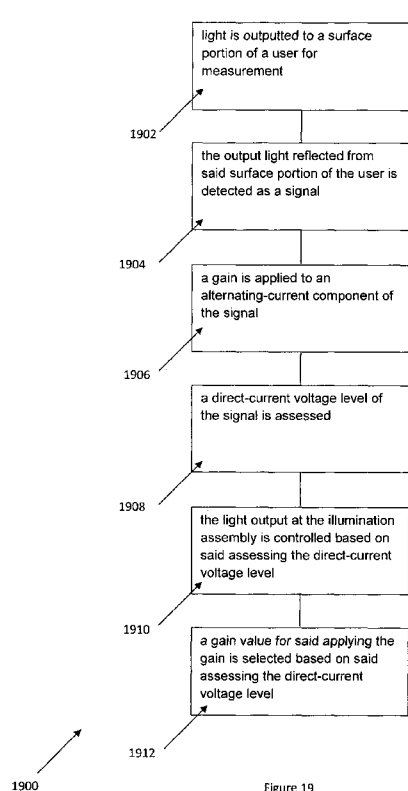


Figure 19

(57) Abstract: An optical measurement device and a method for optical measurement are provided. The device comprises an illumination assembly configured to output light to a surface portion of a user for measurement; a detection assembly configured to detect the output light reflected from said surface portion of the user as a signal; an amplifier module coupled to the detection assembly configured to apply a gain to an AC component of the signal; a microcontroller coupled to the detection assembly configured to assess a DC voltage level of the signal; wherein the microcontroller is configured to control the light output at the illumination assembly based on said assessing the DC voltage level; and further wherein the microcontroller is configured to select a gain value for said applying the gain based on said assessing the DC voltage level. Specific embodiments of the device relate to a photoplethysmograph or pulse oximeter.



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