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(54) **MULTIPLE WAVELENGTH OPTICAL SENSOR**

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(57) **ABSTRACT**

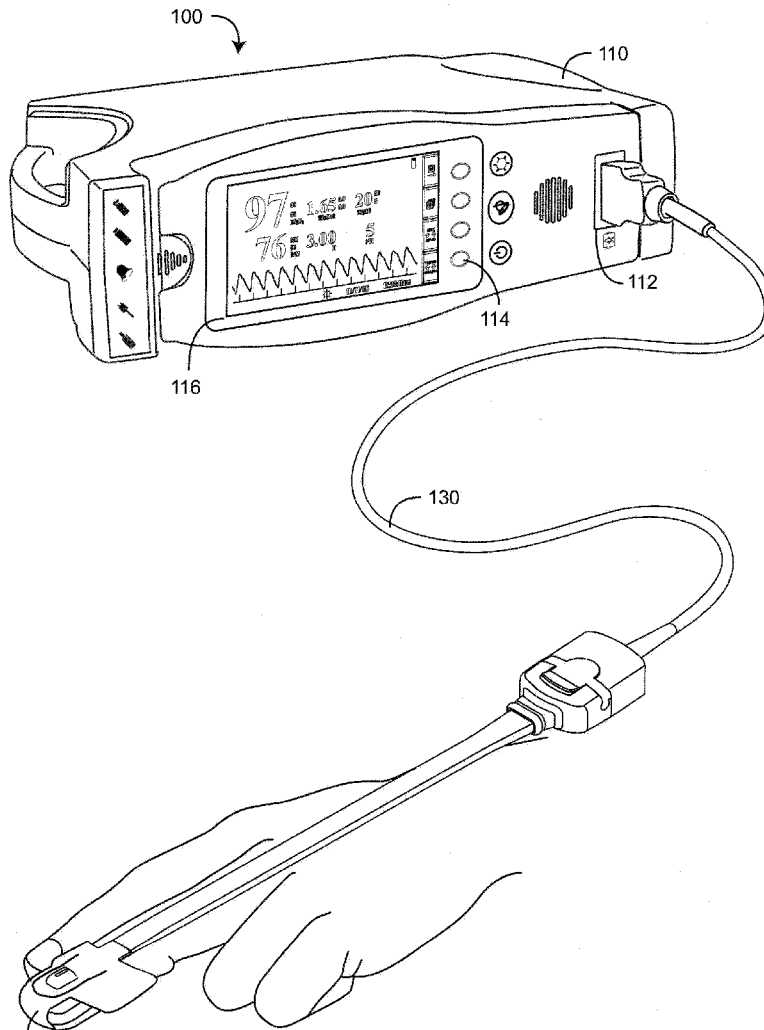
A multiple wavelength optical sensor has an emitter configured to radiate light having a plurality of wavelengths into a tissue site. The emitter comprises a plurality of LEDs configured in an array and connected within an electrical grid. A detector is configured to receive the light after absorption by pulsatile blood flow within the tissue site. The detector generates a sensor signal capable of being processed by a patient monitor so as to derive oxygen saturation, carboxyhemoglobin, methemoglobin and total hemoglobin.

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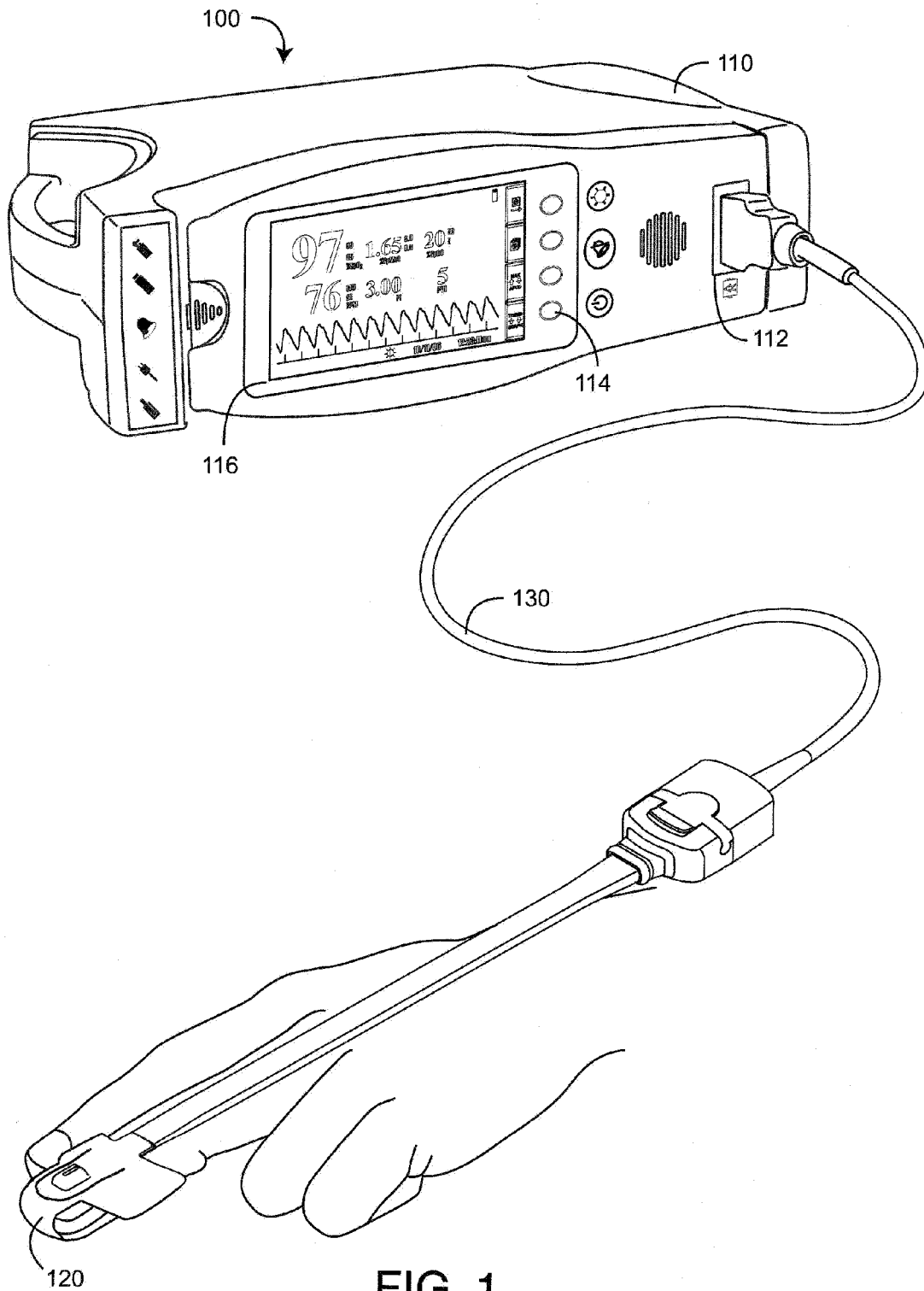


FIG. 1

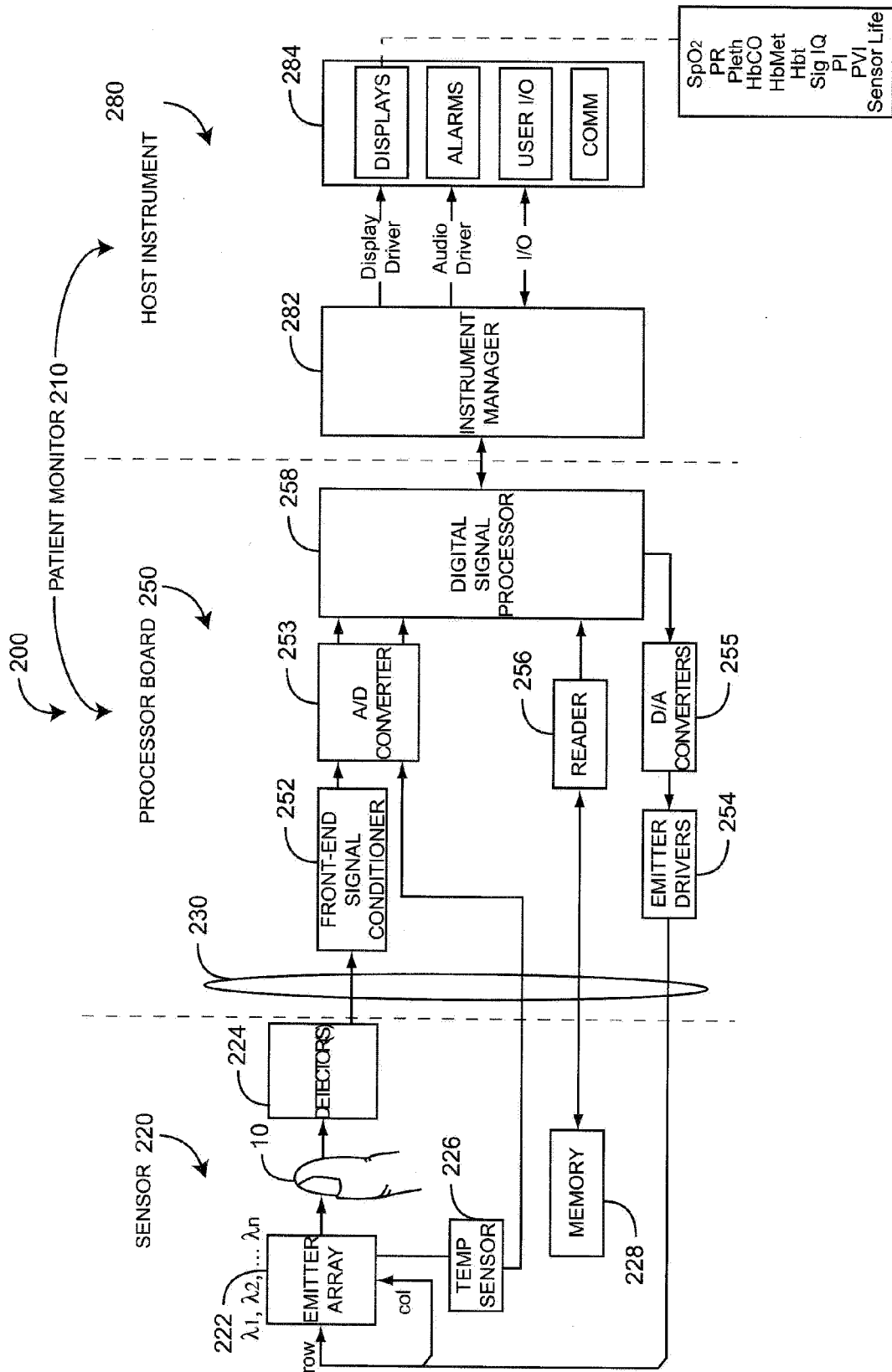


FIG. 2

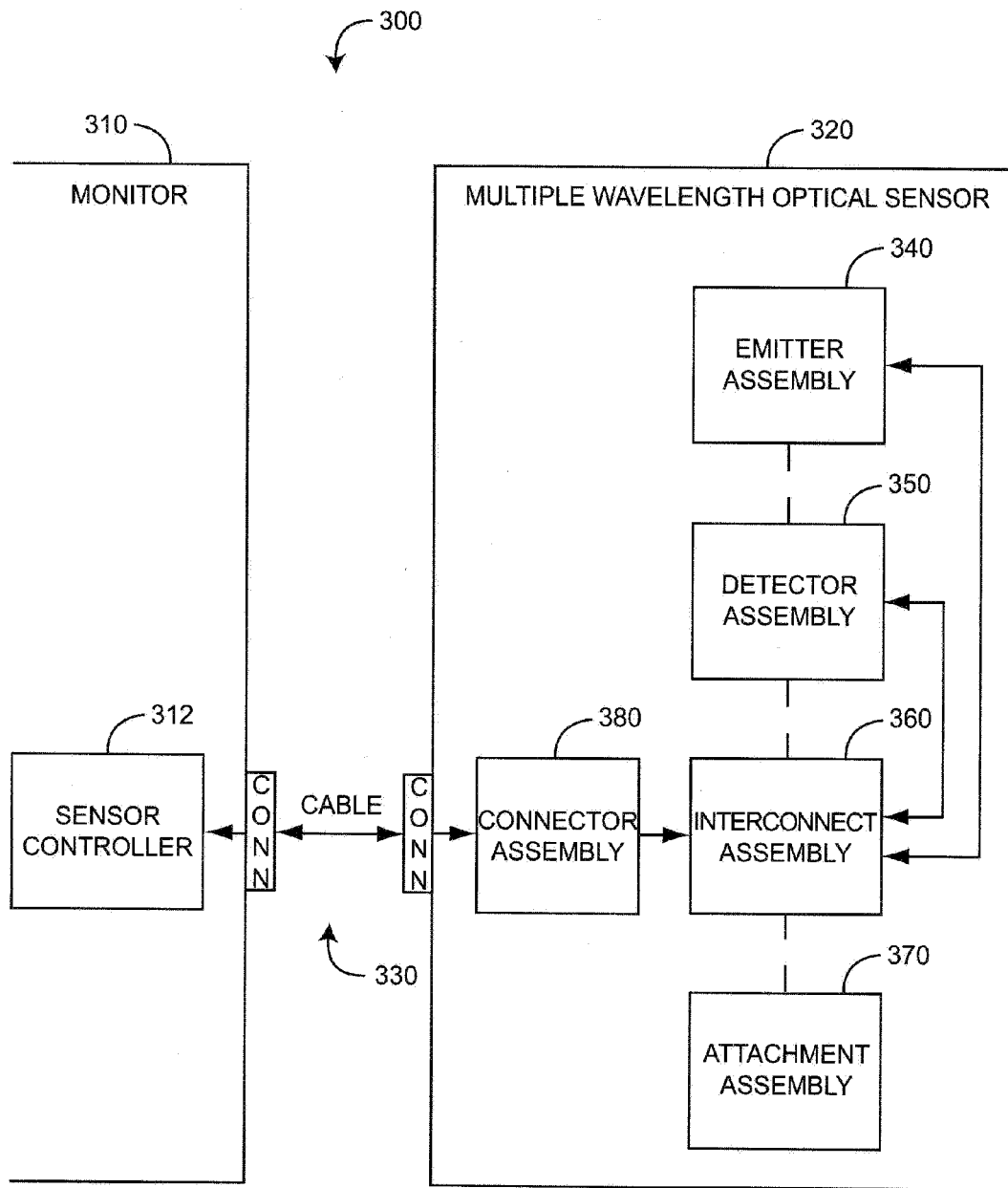


FIG. 3

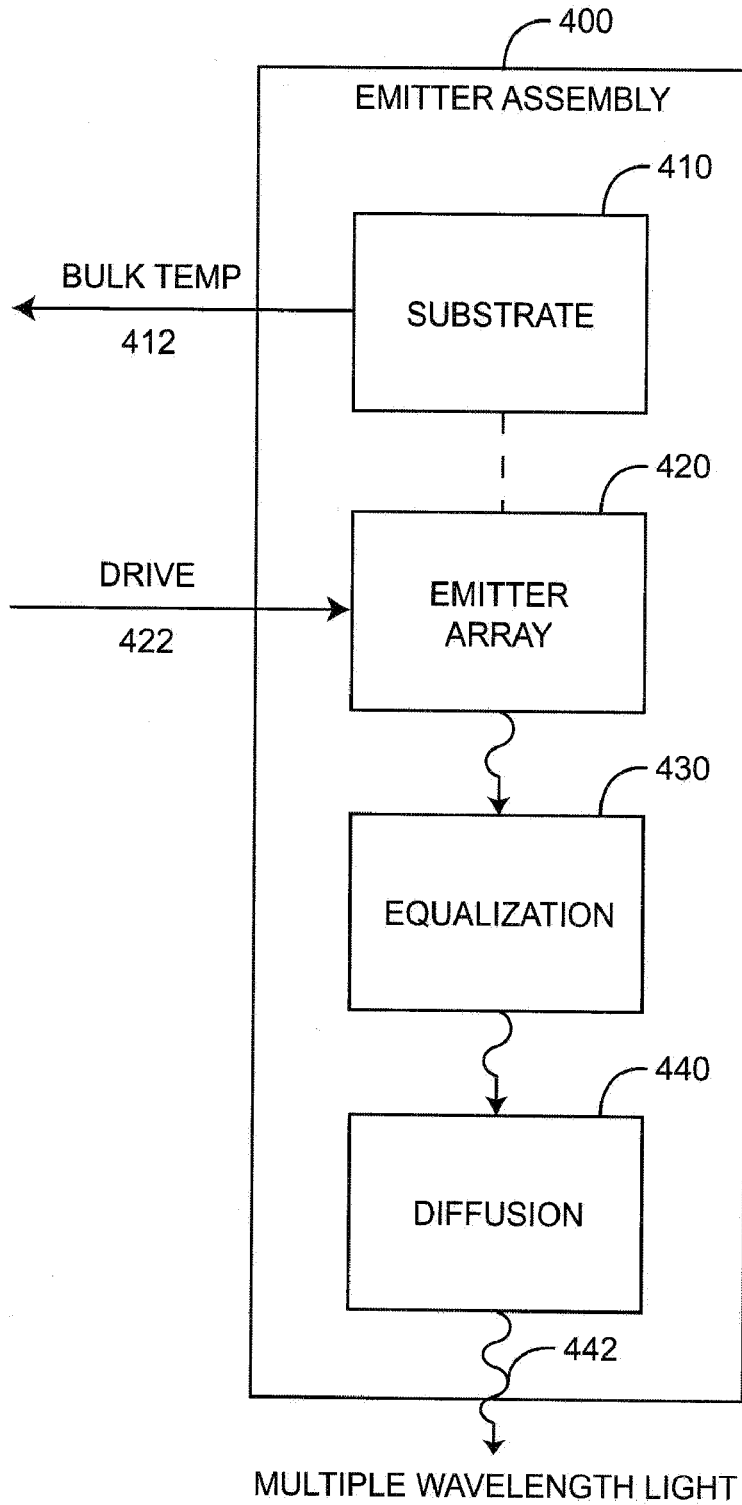


FIG 4

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