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[Continued on next page]

(54) Title: APPARATUS, SYSTEMS, AND METHODS FOR TISSUE OXIMETRY AND PERFUSION IMAGING

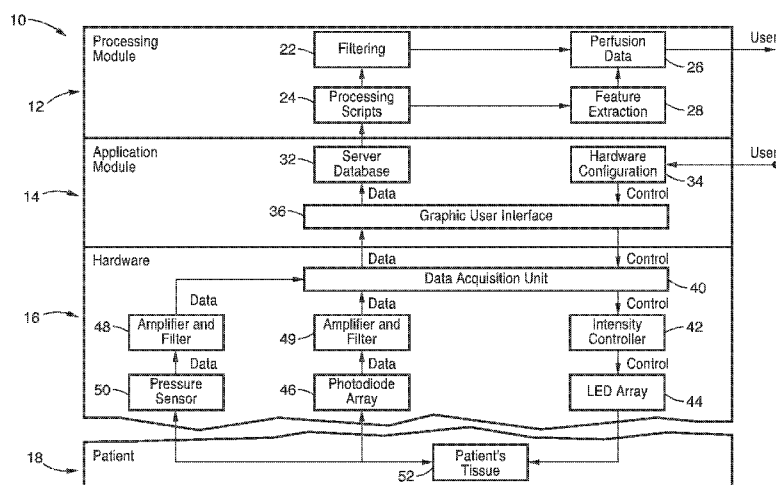


FIG. 1

(57) Abstract: A compact perfusion scanner and method of characterizing tissue health status are disclosed that incorporate pressure sensing components in conjunction with the optical sensors to monitor the level of applied pressure on target tissue for precise skin/tissue blood perfusion measurements and oximetry. The systems and methods allow perfusion imaging and perfusion mapping (geometric and temporal), signal processing and pattern recognition, noise cancelling and data fusion of perfusion data, scanner position and pressure readings.



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