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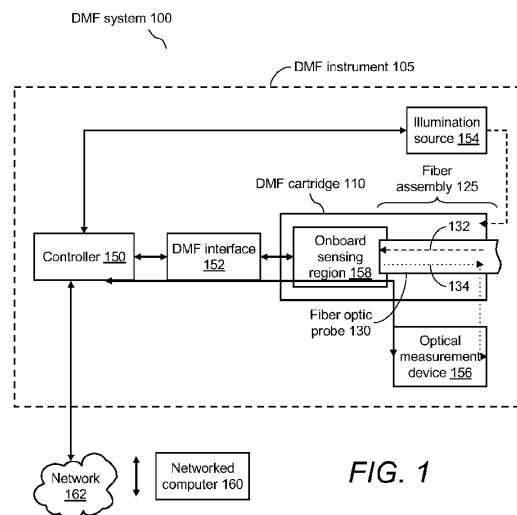
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(54) Title: DIGITAL MICROFLUIDIC (DMF) SYSTEM, DMF CARTRIDGE, AND METHOD INCLUDING INTEGRATED OP-
TICAL FIBER SENSING



(57) Abstract: A cartridge for use with an instrument to perform measurement of a fluid, including a digital microfluidics substrate comprising a plurality of electrowetting electrodes operative to perform droplet operations on a liquid droplet in a droplet operations gap; a top plate separated from the digital microfluidics substrate to form a droplet operations gap and comprising openings for injecting liquids into the droplet operations gap; a fiber assembly comprising a fiber optic probe projecting into the droplet operations gap and having a sensing end situated in proximity with one or more of the electrowetting electrodes.

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