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(71) Applicant: **APPLIED MATERIALS, INC.** [US/US];
3050 Bowers Avenue, Santa Clara, California 95054 (US).

(72) Inventor: **LIN, Chuang-Chia**; 3050 Bowers Avenue, Santa Clara, California 95054 (US).

(74) Agent: **KIMES, Benjamin A.** et al.; Lowenstein Sandler LLP, One Lowenstein Drive, Roseland, New Jersey 07068 (US).

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(54) Title: SURFACE ACOUSTIC WAVE SENSOR ASSEMBLY

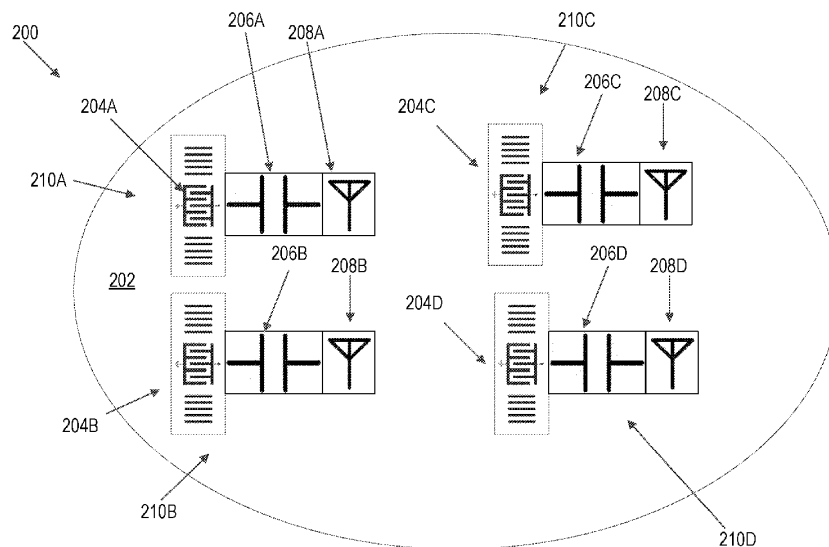


FIG. 2

(57) Abstract: A sensor assembly that includes a surface acoustic wave (SAW) sensor. The SAW sensor is adapted to measure a first environmental condition in response to receiving an RF signal. The SAW sensor includes a substrate having a layer of piezoelectric material. The SAW sensor further includes an interdigitated transducer (IDT) formed on the piezoelectric material. The IDT includes two comb-shaped electrodes having interlocking conducting digits in a first arrangement. The interlocking conducting digits in the first arrangement generates a first signal modulation of an RF signal received by the first IDT. The first signal modulation identifies the first SAW sensor.

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