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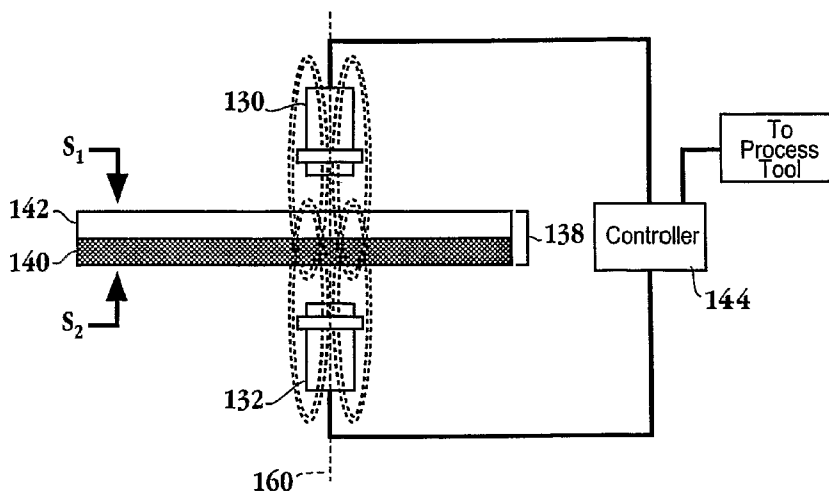
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[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR MEASURING FILM THICKNESS BY MEANS OF COUPLED EDDY SENSORS



(57) Abstract: A method for minimizing measuring spot size and noise during film thickness measurement is provided. The method initiates with locating a first eddy current sensor directed toward a first surface associated with a conductive film. The method includes locating a second eddy current sensor directed toward a second surface associated with the conductive film. The first and second eddy current sensors may share a common axis or be offset from each other. The method further includes alternating power supplied to the first eddy current sensor and the second eddy current sensor. In one aspect of the invention, a delay time is incorporated between switching power between the first eddy current sensor and the second eddy current sensor. The method also includes calculating the film thickness measurement based on a combination of signals from the first eddy current sensor and the second eddy current sensor. An apparatus and a system are also provided.

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