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(54) **Title**: PLASMA PROCESSING SYSTEM CONTROL BASED ON RF VOLTAGE

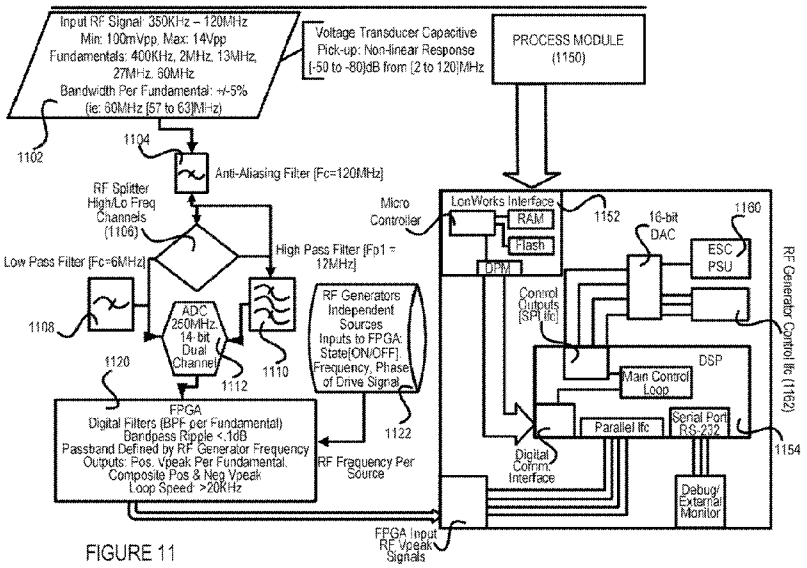


FIGURE 11

(57) **Abstract**: A method for controlling a plasma processing system using wafer bias information derived from RF voltage information is proposed. The RF voltage is processed via an analog or digital methodology to obtain peak voltage information at least for each of the fundamental frequencies and the broadband frequency. The peak voltage information is then employed to derive the wafer bias information to serve as a feedback or control signal to hardware/software of the plasma processing system.

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