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(54) **Title: FEEDBACK CONTROL SYSTEMS FOR IMPEDANCE MATCHING**

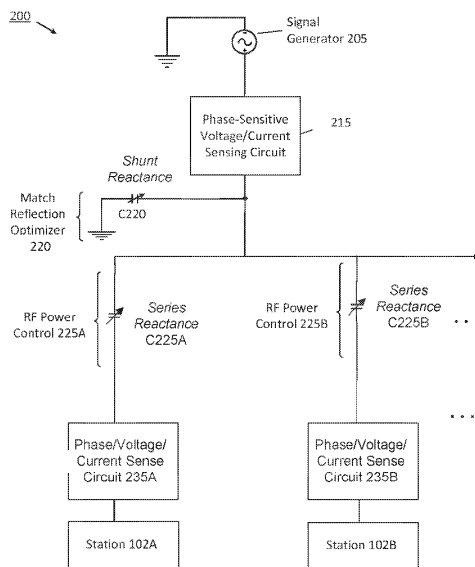


Figure 2

(57) **Abstract:** Methods, systems, and media for feedback control systems for impedance matching are described. A computer program product for an impedance matching and power distribution network is disclosed. The computer program product may comprise computer-executable instructions which may cause obtaining, at a present time, present values of variable reactances associated with a station of a process chamber, wherein the variable reactances are associated with a first feedback control system for performing impedance matching for the process chamber, and wherein frequency tuning is being performed on an RF generator of the process chamber in association with a second feedback control system for performing impedance matching for the process chamber. The instructions may cause determining updated values of the variable reactances for the station to be utilized in connection with the first feedback control system based at least in part on an error associated with the second feedback control system.

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