

CONTROL OF IMPEDANCE OF RF RETURN PATH

ABSTRACT

A system for controlling an impedance of a radio frequency (RF) return path includes a matchbox further including a match circuitry. The system further includes an RF generator coupled to the matchbox to supply an RF supply signal to the matchbox via a first portion of an RF supply path. The RF generator is coupled to the matchbox to receive an RF return signal via a first portion of an RF return path. The system also includes a switch circuit and a plasma reactor coupled to the switch circuit via a second portion of the RF return path. The plasma reactor is coupled to the match circuitry via a second portion of the RF supply path. The system includes a controller coupled to the switch circuit, the controller configured to control the switch circuit based on a tune recipe to change an impedance of the RF return path.

FIG. 1