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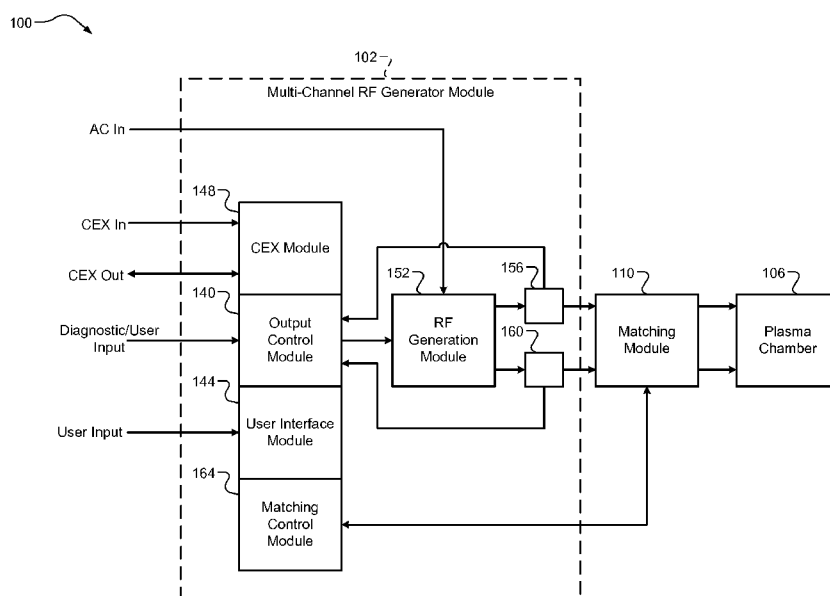
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- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

[Continued on next page]

(54) Title: MULTI-CHANNEL RADIO FREQUENCY GENERATOR

**FIG. 1**

(57) **Abstract:** A multi-channel radio frequency (RF) generator module includes N power amplifiers, M drivers, a power supply module, and a control module. The N power amplifiers generate N RF outputs, respectively. The M drivers drive the N power amplifiers based on M driver control signals, respectively. The power supply module receives alternating current (AC) input power and applies L rail voltages to the N power amplifiers based on L rail voltage setpoints, respectively. The control module sets the L rail voltage setpoints and the M driver control signals. N is an integer greater than one, L and M are integers greater than zero, and M and L are less than or equal to N.

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