

ABSTRACT

The present disclosure provides a wafer boat assembly and semiconductor process equipment, including multiple wafer boats, which are used to be electrically connected in sequence along an axis of the process chamber in a process chamber. At least one pair of adjacent wafer boats has a front conductive boat pin and a rear conductive boat pin on the bottom of each of the opposite sides, respectively. The top of one of the front conductive boat pin and the rear conductive boat pin has a contact protrusion, and the bottom of the other of the front conductive boat pin and the rear conductive boat pin has a contact groove, which contacts the contact protrusion to electrically connect the adjacent wafer boats. The wafer boat adjacent to the opening on one side of the process chamber is used to electrically connect to a power supply component to receive radio frequency signals provided by the power supply component. The present disclosure electrically connects adjacent wafer boats by overlapping the rear conductive boat pin and the front conductive boat pin, which not only enables the introduction of radio frequency signals from one side and the transmission of radio frequency signals between wafer boats, but also ensures semiconductor process performance and machine production capacity.