

CLAIMS

1. A mobile cleaning module, comprising:
a chamber, wherein the chamber comprises a first opening and a second opening;
a lid to seal the first opening, wherein the lid comprises:
a dielectric plate;
a first dielectric resonator coupled to the dielectric plate;
a second dielectric resonator coupled to the dielectric plate;
a first monopole antenna positioned in a first hole into the first dielectric resonator;
a second monopole antenna positioned in a second hole into the second dielectric resonator, the second monopole beneath and in vertical alignment with the first monopole; and
a conductive layer surrounding the first dielectric resonator and the second dielectric resonator, the conductive layer fluidly coupled to a coolant source;
a port for introducing gas into the chamber from a vertical direction; and
an exhaust for removing the gas from the second opening of the chamber along a horizontal direction, the exhaust configured to couple to an evacuation region of a processing chamber, the evacuation region separate and distinct from the port.
2. The mobile cleaning module of claim 1, wherein the lid further comprises channels for flowing a coolant from the coolant source.
3. The mobile cleaning module of claim 1, wherein the first monopole antenna and the second monopole antenna are electrically coupled to a solid state microwave source.
4. The mobile cleaning module of claim 1, wherein each of the first dielectric resonator and the second dielectric resonator is a discrete body from the dielectric plate.