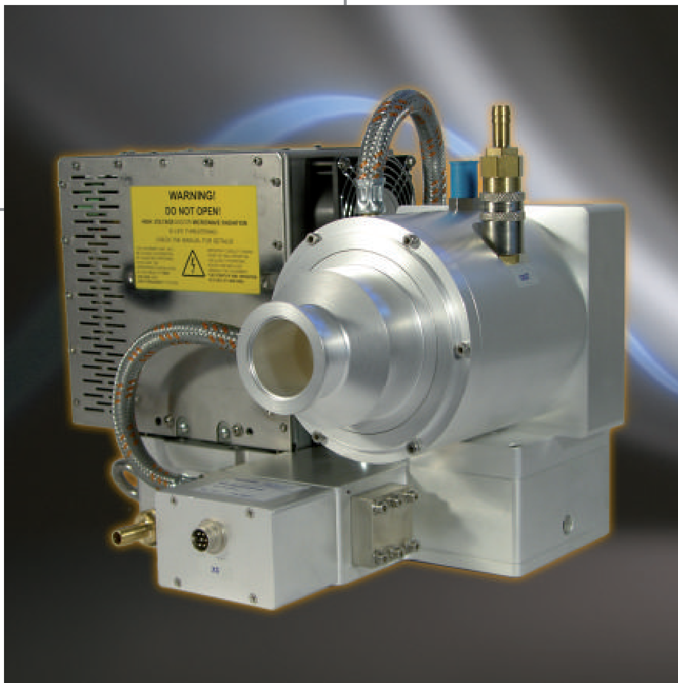
Industrial Microwave + Plasma Systems

Remote Plasma Source

MA2000-/ MA3000-Series



Excitation frequency: 2.46 GHz +/- 10 MHz

Superior results for cleaning of process chambers with complex geometry

No ignition gases and processes required

Process pressure 0.3 – 5.0 Torr

Water cooled plasma zone

Plasma chambers alternatively made of:

- Pure alumina
- Sapphire

Oxygen, Nitrogen, inert gases and all standard fluorine* gases usable (*not compatible to Quartz)

Integrated Isolator for increased magnetron lifetime

Easy maintenance

Plasma Systems

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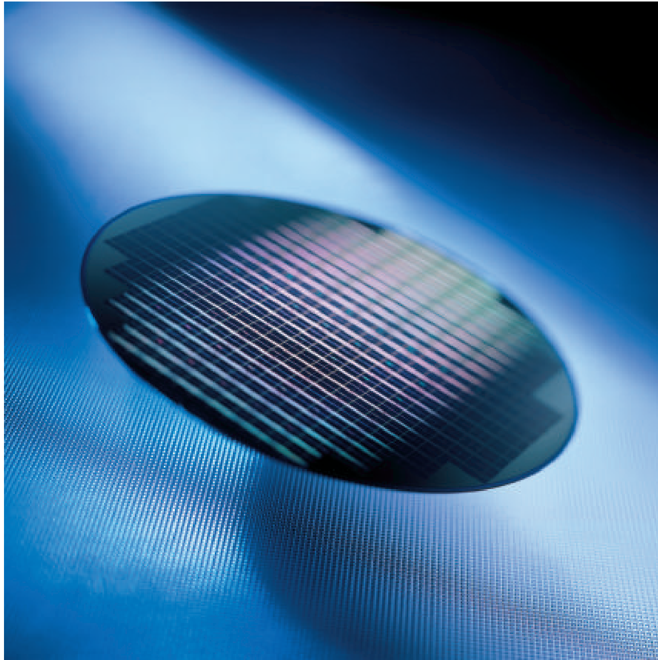


Remote Plasma Source

MA2000-/ MA3000-Series

SUPERIOR QUALITIES FOR CHAMBER CLEANING, ISOTROPIC ETCHING, SURFACE MODIFICATION ANDBACK END APPLICATIONS

Chamber Cleaning

Process pressures as low as 0.3 Torr (40 Pa) are leading to excellent results for cleaning of process chambers with complex geometry due to a very high mobility of the radicals in the low pressure regime

Back End Applications

- Stress relief after grinding and wafer thinning:
  Etch rates up to 3.5 µm/min at a homogeneity of 5% on 12″ wafers
- Processing with solder balls
- DBG-process possible

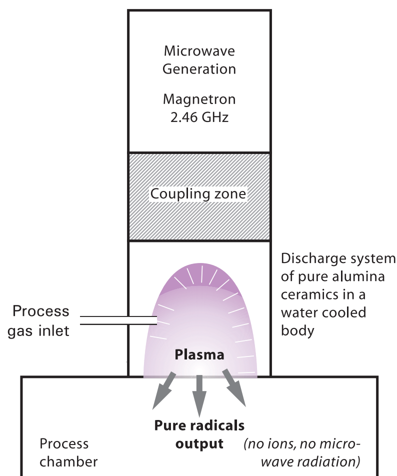
Isotropic Etching

- More than 20 µm/min for SU-8 removal
- Up to 90 µm/min for silicon samples
- Up to 10 µm/min for photo resist ashing on 300 mm wafers
- SiN and BPSG: typical 1 µm/min
- Thermal Oxides: typical 250 nm/min

Surface Modification

Oxidation and Nitridation of silicon surfaces

PLASMA SYSTEM SPECIFICATIONS



PRESSURE RANGE :	40 Pa – 650 Pa respective 0.3 Torr – 5.0 Torr
GAS FLOW :	typical 100 sccm – 10 slm
COOLING POWER :	> 3 l/min @ 6,0 bar
MAX. MICROWAVE POWER :	2000 W / 3000 W
PULSE MADE POSSIBLE	
EXCITATION FREQUENCY :	2.46 GHz +/- 10 MHz

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