

SOLID STATE GENERATOR SUB-SYSTEM

200 W AT 2450 MHz

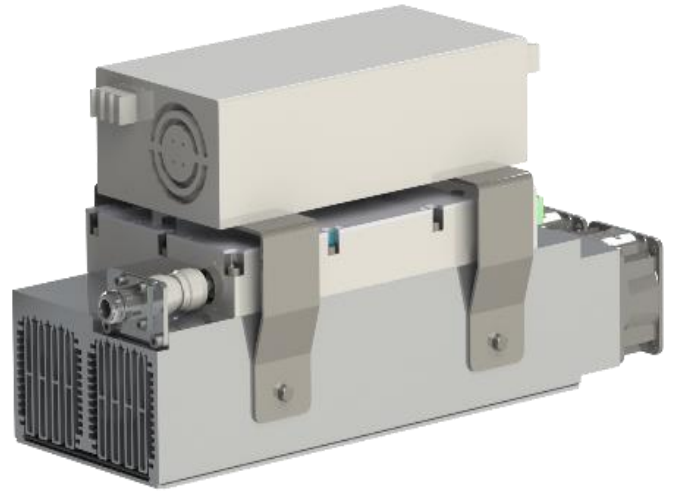
SAIREM's KMS200 AIR is a **high-power solid-state generator sub-system, to be integrated into your system.** Its power is adjustable from **0 to 200 W** at frequencies ranging between **2400 and 2500 MHz.**

Pinpoint Power and Frequency control:

- Flexibility for your process
- Possibility to use a compact plasma source

This generator is designed **for scientific and industrial applications**, to be used with one or multiple MW applicators, to ensure high reliability and small footprint. A built-in isolator measures reflected power and protect against high reflected power.

You can use the Modbus RS232 interface to control the generator using LabVIEW® or use the CANopen interface to control the generator with an industrial PLC.



MAIN APPLICATIONS

PLASMA APPLICATIONS

Plasma generation with compact plasma sources:

- **S-Wave** for atmospheric and low-pressure plasmas for radical creation, debacterization, ALD, medicine (treatment of chronic wounds), decapsulation (semi-conductor process), elementary analysis, etc...
- **Aura-Wave** and **Hi-Wave** for low pressure plasmas for large surface treatment

MEDICAL APPLICATIONS

- Tumor ablation by microwave heating

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KEY BENEFITS

DESIGN

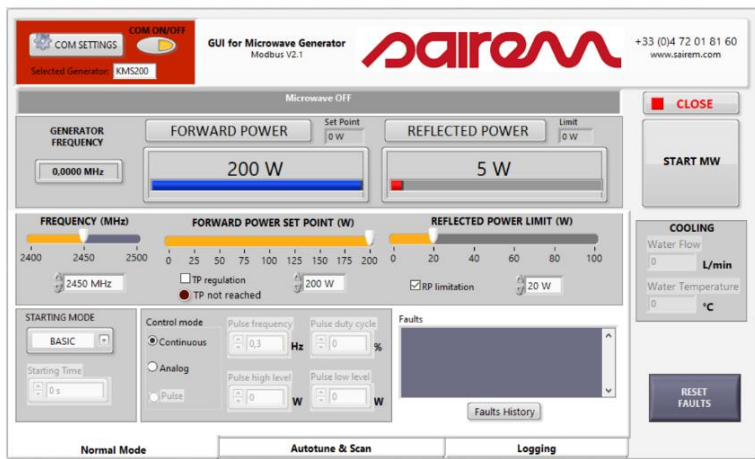
- Compact, ready to integrate design
- Microwave energy transmitted by coaxial cable
- Power adjustable by 1 W steps (or increments)
- Frequency adjustable by 100 kHz step to optimize power transfer

TECHNOLOGY

- **Semiconductor technology:** no magnetron and therefore longer lifetime and no high voltage
- **Excellent frequency spectrum** even at low power
- **Built-in internal protection** against mismatching and reflected power in any phase
- **Built-in isolator** with automatic power reduction or switch off in case of high reflected power
- **True RMS detector** with linear measurement of reflected and forward power
- Very low ripple < 0,2 % RMS
- Manual or **automatic microwave frequency adjustment**
- **SAIREM Auto-tune algorithm¹** (automatic load-tuning): controls the frequency automatically in order to minimize reflected power



CONTROLS



- **LabVIEW™** software provided (no license required) for all operating parameters and control status
- Alarm information, forward power and reflected power readings

¹ Patent WO/2012/146870

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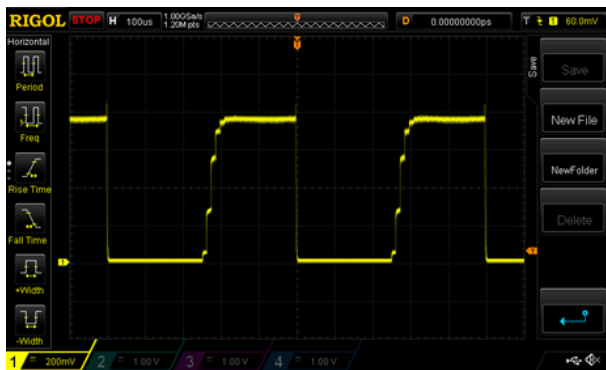
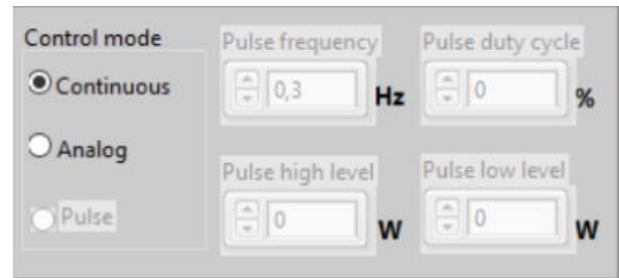
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INTERNAL PULSE Version (KMS200 IP)

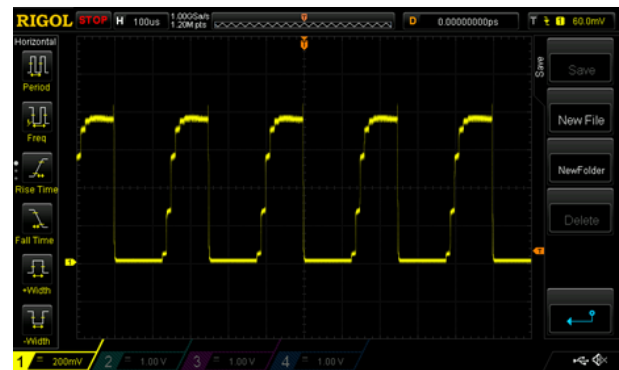
The internal pulse mode integrated with the IP generator can be set up via **LabVIEW™** software or by remote control (Modbus RS232 or CANopen).

All operating pulse parameters are displayed on the software screen as follows:

- Pulse high level and pulse low level
- Pulse duty cycle and pulse frequency



Corresponding microwave output measurement at 200W and 2kHz



Corresponding microwave output measurement at 200W and 4kHz

MAIN PULSE PARAMETERS

- Frequency: from 0.2 to 5000 Hz
- Duty cycle range:
 - 1 - 99% (0.2 Hz to 100 Hz)
 - 10% - 99% (101 to 1000 Hz)
 - 50% - 99% (1001 to 5000 Hz)
- Rise and fall time: < 50 μ s
- Minimum pulse duration: 100 μ s

To get the complete data sheet :

- full specifications
- technical drawings

CONTACT US !

