

SG 1024

Solid State Microwave Generator
1000 Watts @ 2450 MHz



The SG 1024 is a water-cooled, solid state, rack mountable microwave generator with adjustable power and frequency. It is the first solid state microwave generator on the market to offer a power level of 1 kW @ 2450 MHz, ± 50 MHz, suitable for industrial application. The SG 1024 features exceptional control functionality, including precise power and frequency control. This state-of-the-art generator uses the latest and most powerful high frequency transistors, enabling a breakthrough performance in modern microwave heating technology, providing a stable output frequency, as well as control over the ISM band between 2400 to 2500 MHz for tuning, if needed.

The unit has been designed as a stand-alone microwave generator and can be controlled via manual commands,

using the front panel interface, or remotely through standardized PLC control signals. A USB interface is provided on the panel to allow upgrading of internal firmware or monitoring/controlling the generator from a standard Windows®-based PC. The microwave output power is on a standard coax 7/16 socket.

It includes a built-in circulator and passive load to withstand 100% reverse power condition, and offers compensated monitor signals of the forward and reverse power. The SG 1024 is powered by 230V line, while operation is controlled by an external command at +24 VDC (ON/OFF) and by a 0-10 V signal to adjust the forward power.

Product Features

- Coax output connector
- Advanced high-frequency transistor design for precise power control and stability
- Capable of frequency tuning the output between 2400 to 2500 MHz
- 19" Rack mountable for easy integration only 2 HE height
- Remote and manual operation for easy setup, operation and troubleshooting



Key Benefits

- Smaller form factor with solid state design
- Rugged, reliable design ensures optimum power to the process
- Withstands up to 100% reverse power conditions for optimum reliability

Specifications

Output Power (with internal circulator)		1000 W max
Frequency, Nominal		2450 MHz
Frequency Range, Adjustable		2400 to 2500 MHz
Coax Output Connector		7/16" female
Input Power		230V \pm 15%, 50/60 Hz
Dimensions	Height, Front Panel Width, Rack Width, Front Panel Length, Rack	<ul style="list-style-type: none"> • 90 mm (2 U: 3.5") • 445 mm (17.5") • 480 mm (19") • 532 mm (21")
Weight		22.5 kg/49 lbs
Cooling Type		Water
Working Ambient Temperature (max)		40°C/104°F
Front Panel		<ul style="list-style-type: none"> • Rotary 0-1 switch • LCD graphic display showing the main info to the user • 3 Buttons keyboard and a rotating knob to scroll, select and adjust the various parameters • USB port (monitor, control, firmware upgrade)
Rear Panel		<ul style="list-style-type: none"> • 3 pin socket for main line supply • 25 pin D type connector for signals • 7/16 coax output connector • Fieldbus interface with a connector depending on type of Bus (for version with Bus, available from 3Q16)
Generator Version	Basic (Version 0) Bus (Version 1)	<ul style="list-style-type: none"> • Includes the functionality described above • May carry a high speed fieldbus, Ethernet like (Profinet®, Modbus TCP/IP, EtherCAT®, etc.) <p>A set of accessories, like a coax dual directional coupler, passive load, RF cable, and coax to waveguide transition are available to complete the installation.</p>
Compliance		CE, SEMI S2

