



MILDTECH UK LTD

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PRODUCT DATA SHEET

MTSSPG245

1kW 2400–2500MHz ADVANCED SOLID-STATE MICROWAVE POWER GENERATOR



The MTSSPG245 is a state-of-the-art **solid-state** microwave generator, engineered with advanced LDMOS (Laterally Diffused Metal Oxide Semiconductor) technology to deliver unparalleled performance in industrial and scientific applications. Operating within the **2400-2500MHz frequency band**, this generator provides a continuous wave (CW) **output power of up to 1 kW**, ensuring exceptional reliability and efficiency.

ADVANCED CONTROL & MONITORING

With precise control over power, frequency, and phase, the MTSSPG245 offers exceptional flexibility and accuracy. Real-time monitoring capabilities ensure safe and stable operation, while its rugged design accommodates demanding industrial environments.

PENETRATION DEPTH & APPLICATION SUITABILITY

The 2400-2500 MHz frequency range is ideal for applications requiring moderate microwave penetration depths, such as industrial heating, drying processes, food processing, and medical device sterilization. It is particularly effective for materials with medium to high water content.

Experience cutting-edge technology and superior efficiency with the MTSSPG245, powered by robust LDMOS technology, the perfect solution for your advanced microwave processing needs.

KEY FEATURES

Automatic VSWR, Frequency, and Phase Selection: Achieve optimal efficiency and superior microwave quality through intelligent reflection management and precision phase adjustments.

LDMOS Technology: Ensures high efficiency, thermal stability, and rugged performance, making the generator reliable even in demanding conditions.

Integrated Power Supply Unit: Simplifies installation and eliminates the need for additional external power components.

Novel Defense Mechanism: Designed to handle 100% reflections, the generator ensures uninterrupted operation by preventing breakdown, even under extreme load mismatch conditions.

Convenient Connectivity: The 7/16 DIN output connector facilitates straightforward integration with coaxial cables or waveguides for seamless microwave transmission.

Efficient Cooling: Designed for easy water cooling with compatibility for chiller systems, ensuring consistent performance under high-load conditions.

PLC Integration: Leverage the public Modbus TCP protocol to seamlessly connect with all major PLC control systems, including Siemens, Mitsubishi, and Beckhoff.

Built-in GUI for Seamless Operation: Each SSPG comes with an integrated graphical user interface (GUI) that allows for easy control of power, frequency, and phase directly from a laptop or PC. The GUI offers both manual and automatic control options for frequency and phase sweeping, providing users with the flexibility to tailor the process to specific requirements.



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Item	Specification	Remark
Frequency	2400 ~ 2500 MHz	
Bandwidth	100 MHz	
CW Output Power	1000W (60dBm)	Typical
Output Power Accuracy and Stability	± 5%(typ.)	RF output power from 1 to 100%
Efficiency (P _o = 1000W)	± 10%(typ.)	RF output power from 1 to 10%
	54%(typ.)	P _o = 1000W
Load Mismatch Ruggedness for Full Power	∞	VSWR
Function		
Power Control	10 ~ 1000W	Step : 10W
Phase Control	0 ~ 360	Step : 1.40625°
Frequency Control	2400 ~ 25000MHz	Step : 100KHz
Special Function		
VSWR Tracking	Optimum operating frequency tracking function	Step : 1MHz
Soft Start	Output Power Operation Profile Functions (Ensure Operational Stability)	Customizable



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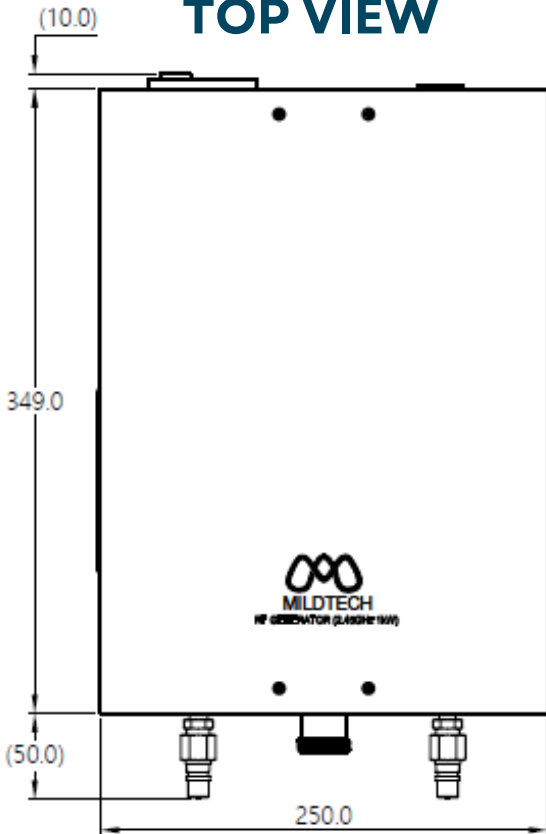
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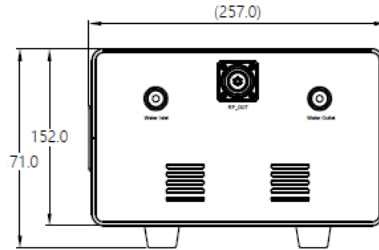
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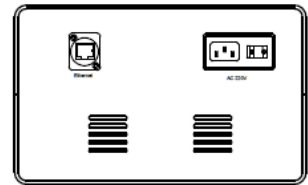
TOP VIEW



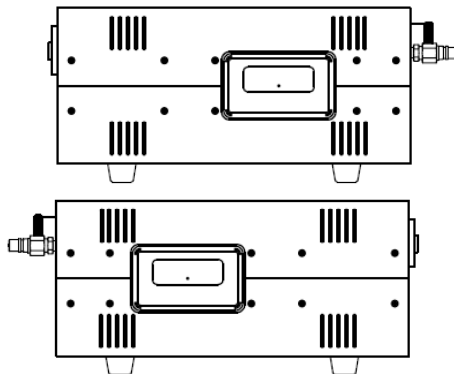
FRONT VIEW



BACK VIEW



SIDE VIEWS



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