

## LEANGEN-2450M-500-M

### 500W Solid-State Microwave Generator

**LEANGEN-2450M-500-M** is a compact, light-weight and highly reliable OEM microwave generator module for ISM applications at 2450MHz, fully based on steady solid-state technology with high power efficiency. The module is powered by a single 32Vdc power supply and it features a 0-500W CW output with exceptional spectral purity at all power levels and absolute reliability thanks to built-in circulator with integrated dummy load. Its output power can be precisely regulated from zero to 500W and its output frequency can be selected in the range 2400-2500MHz. The product is equipped with an analogue control interface and a digital serial interface, allowing smart industrial applications in solid-state dynamic modular systems counting multiple modules controlled by a central digital brain. The module has been conceived to drive probes or to radiate resonant cavities, with plenty of applications as solid-state cooking, microwave chemistry, plasma generation, organic tissue ablation and automotive ignition.

**LEANGEN-2450M-500-M** is fully tested with pulsed power applications and is designed to operate with liquid cooling. In order to guarantee straightforward and successful integration, it is equipped with accurate real-time measurement of forward and reflected power and with a user-friendly control interface for comprehensive setting and control.

This exclusive module on the market is a building block for LEANFA's award-winning **KOPERNICOOK®** system, a revolution in Microwave and RF processing of food and agricultural commodities introduced by an intelligent use of innovative solid-state generators.



## QUICK OVERVIEW

*Compact, light-weight and top-reliable*

*Single 32Vdc power supply*

*CW 0-500W with top spectrum purity in full power range*

*2400-2500MHz frequency range*

*Can drive probes or radiate resonant cavities*

*Real-time measurement of reflected power*

*Analogue and digital control interface*

*Designed for pulsed power applications*

*High-efficiency*

*Liquid cooling*

*Built-in circulator with integrated dummy load*

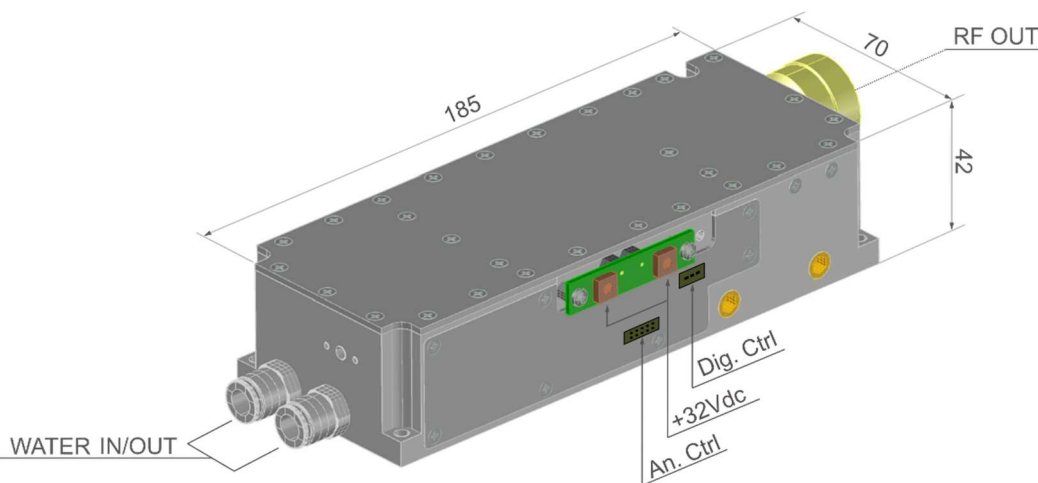
# LEANGEN-2450M-500-M

## 500W Solid-State Microwave Generator

### Technical Specifications

<b>Output Power</b>	0-500W CW @2400-2500MHz
<b>Power Modes</b>	Tested with CW and Pulsed modes, compliant with industrial applications
<b>Output Connector</b>	7/16 DIN 50Ω
<b>Technology</b>	Fully Solid-State: LDMOS driver and power stage
<b>Output RF Isolation</b>	Built-in circulator with integrated dummy load <sup>(*)</sup>
<b>Operating Frequency</b>	2400-2500MHz (step 100kHz with RS485 interface)
<b>Power Supply</b>	32Vdc
<b>Power Efficiency</b>	50%
<b>Forward and Reflected Power Meas.</b>	Real-time
<b>Control&amp;Monitoring</b>	Analogue interface and RS485 interface
<b>GUI for PC Control</b>	Available on request
<b>Cooling Water Temperature</b>	18°C – 28°C non-condensing
<b>Cooling Water Flow</b>	≥ 8 liters/min
<b>Size</b>	185x70x42mm
<b>Weight</b>	1.3kg

(\* ) The integrator shall avoid excessive load mismatch by proper reflected power monitoring

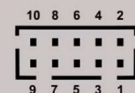


#### RS485 Bus Port pinout



Connector mounted on the generator: JST B3B-XH-A(LF)(SN)  
Mating connector for cable: JST XHP-3

#### Analogue Control Port pinout



Connector mounted on the generator: HIROSE DF11-10DP-2DSA(24)  
Mating connector for cable: DF11-10DS-2C

1	Reflected Power (out)	2	Forward Power (out)
3	DC Current (out)	4	Temperature (out)
5	GND	6	Not Used (leave open)
7	Power Control (in)	8	DC Voltage (out)
9	ON/OFF (in)	10	An/Dig Ctr (in)