

## LEANGEN-915M-250-M

### Solid-State Microwave Generator

**LEANGEN-915M-250-M** is a state-of-the-art 915MHz solid-state generator for ISM microwave applications, born after a continuous technological matching between LEANFA's R&D department and highly demanding product managers from worldwide industrial operators.

**LEANGEN-915M-250-M** is a compact, light-weight and super-reliable OEM microwave generator module for ISM applications at 915MHz, fully based on steady solid-state technology with high power efficiency. The module is powered by a 40Vdc power supply and it features a 0-250W CW output with exceptional spectral purity at all power levels and absolute reliability thanks to in-built circulator with integrated dummy load. Its output power can be precisely regulated from zero to 250W and its output frequency can be selected in the range 903-927MHz. Moreover, the product is optionally equipped with a digital serial bus 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 different types of coaxial bipolar applicators or to radiate resonant cavities, with plenty of applications as solid-state cooking, microwave drying or defrosting, plasma generation, clinical hyperthermia, organic tissue ablation, chemical processing and semiconductor manufacturing.

**LEANGEN-915M-250-M** is fully tested with pulsed power applications and is designed to perfectly operate with forced air cooling. In order to guarantee straightforward and successful integration within industrial plants, it is equipped with accurate real-time measurement of reflected power and with a user-friendly control interface for comprehensive setting and control.

This exclusive module on the market is based on perfect interaction between finely-tuned modular hardware and smart distributed software systems, a revolution in microwave processing allowing customized architectures and fully automated workflows, thanks to an intelligent use of innovative solid-state generators.



### QUICK OVERVIEW

*Compact, light-weight and top-reliable*

*CW 0-250W with top spectrum purity in full power range*

*903-927MHz frequency range*

*Can drive coaxial applicators or radiate resonant cavities*

*Real-time measurement of reflected power*

*User-friendly control interface*

*Designed for CW and pulsed power applications*

*High-efficiency*

*Perfect with forced air cooling*

*In-built circulator with integrated dummy load*

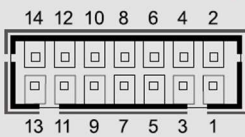
# LEANGEN-915M-250-M

## Solid-State Microwave Generator

### Technical Specifications

<b>Output Power</b>	0-250W CW @915MHz
<b>Power Modes</b>	Tested with CW and Pulsed modes, compliant with industrial applications
<b>Output Connector</b>	N female, 50Ω
<b>Technology</b>	Fully Solid-State: LDMOS driver and power stage
<b>Output RF Isolation</b>	In-built circulator with integrated dummy load
<b>Operating Frequency</b>	903-927MHz step 500kHz
<b>Power Supply</b>	30Vdc (driver), 40Vdc (power stage)
<b>Power Efficiency</b>	50%
<b>Output Power Measurement</b>	Real-time
<b>Reflected Power Measurement</b>	Real-time, better than 5% full-scale accuracy
<b>Output Protection</b>	Hardware Protection against 100% load mismatch
<b>Control&amp;Monitoring</b>	Analogue interface (standard), Serial interface (optional)
<b>Spurious Emissions</b>	T.B.D.
<b>GUI for PC Control</b>	Available on request
<b>Cooling Option</b>	Forced-air heatsink or liquid-cooling cold plate available on request
<b>Size</b>	172x65x27mm
<b>Weight</b>	1kg

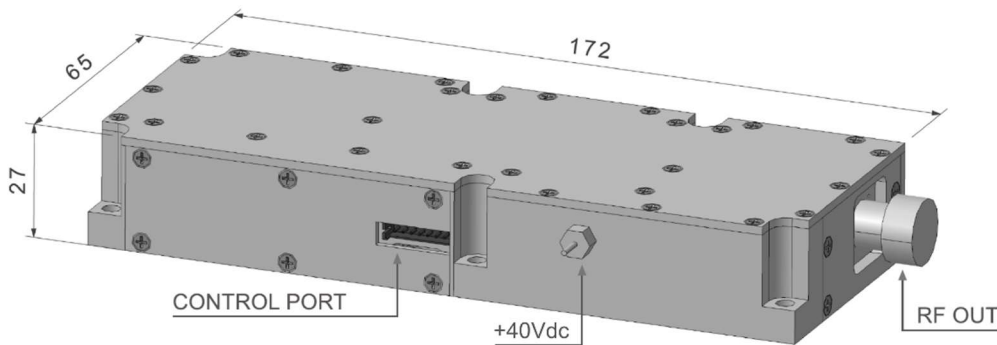
#### Standard Control Port pinout



<b>1</b>	Forward Power (out)	0-5V
<b>3</b>	Reflected Power (out)	0-5V
<b>5</b>	ON/OFF (in)	Open-ON/0V-OFF
<b>7</b>	VDrive	+30V
<b>9</b>	Not Used (leave open)	
<b>11</b>	Not Used (leave open)	
<b>13</b>	Not Used (leave open)	

<b>2</b>	GROUND	0V
<b>4</b>	Temperature (out)	1°C/10mV
<b>6</b>	Power Supply*	+5V (250mA)
<b>8</b>	VDrive	+30V
<b>10</b>	Gain Control (in)	0-5V
<b>12</b>	PLL Lock signal (out)	UnLock-0V/Lock-3,3V
<b>14</b>	Not Used (leave open)	

\*Max voltage +5,3V



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