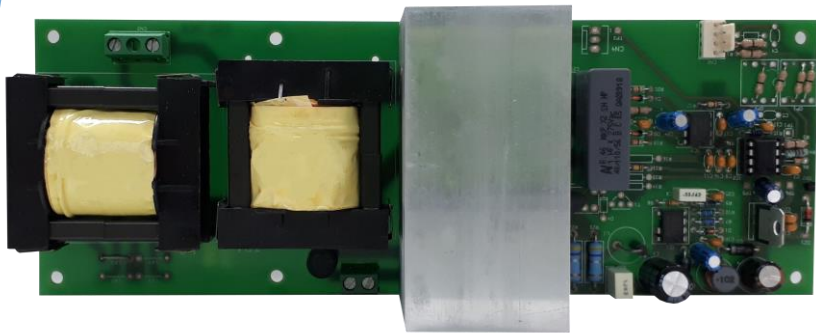


ULTRASOUND GENERATORS FOR PIEZO ELECTRIC TRANSDUCERS

FOR INDUSTRIAL APPLICATIONS

GENUS



Low frequency ultrasound generators

In common usage we tend to indicate, by the ambiguous term of ultrasound generator, a power electronic circuit for piezoelectric transducers which produces intense mechanical oscillations (more than 20 kHz), normally used for the cleaning of any object whose shape makes it difficult, if not impossible, the traditional cleaning methods.

Armed with an important experience gained over the years designing and manufacturing ultrasonic power generators in many areas, we have developed GENUS, an innovative microprocessor technology which, operating in the frequency band from 20 kHz up to 60 kHz, controls and handles a wide range of transducers.

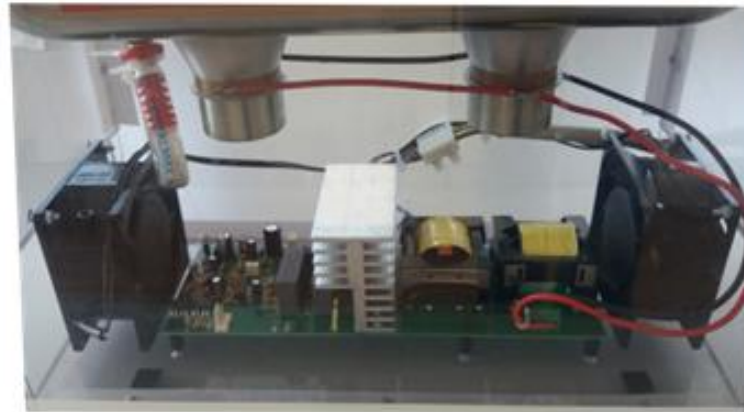
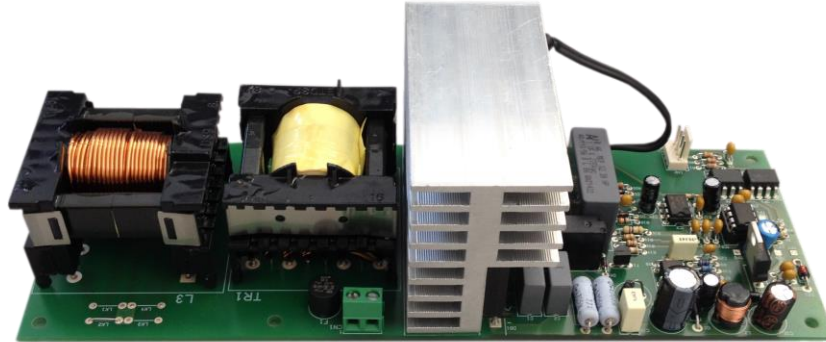
Many are the possibilities of use:

- Ultrasonic industrial washing and cleaning of objects and complex parts;
- Washing of medical equipment (health, outpatient and veterinary facilities);
- Dental equipment (scalars for tartar and devices for dental surgery);
- Aesthetic medicine and physiotherapy;
- Non-destructive analysis of materials;
- Washing and cleaning in the jewelry, watchmaking, optical industry;
- Washing and cleaning of laboratory instruments (scientific, biological, analysis laboratories);
- Restoration of works of art;
- Food treatment and homogenization;

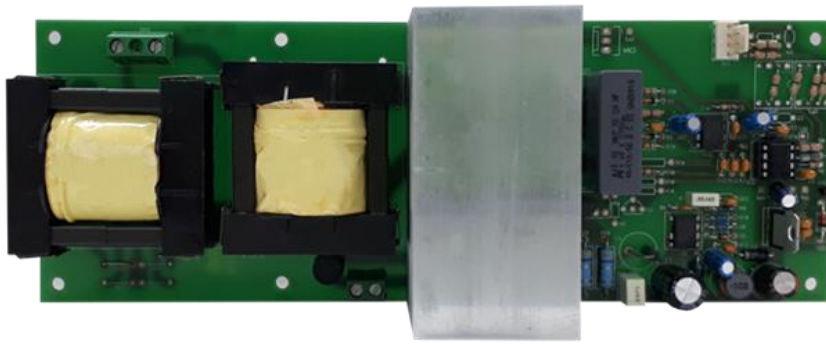
Beside these, the experience gained in this technology makes us the ideal partners also for the development of special applications on the customers' request.

In this catalog we will present our ultrasound generators for industrial use: with these products **we turn to manufacturers of ultrasonic cleaning and washing systems**, in the various sectors where this type of treatment is required.

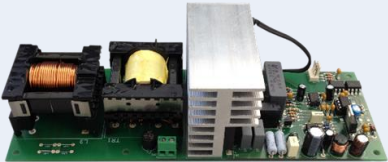
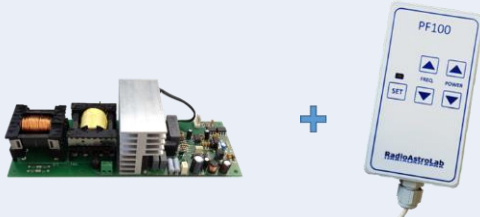
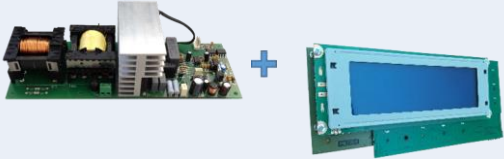
RAL151 Generator: 100W – 700W



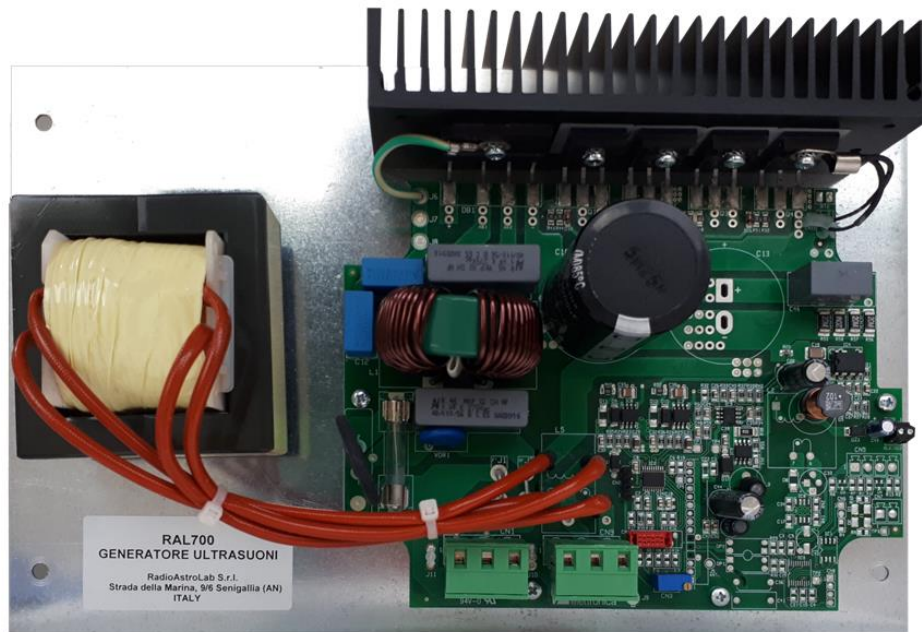
An example of the application of our technology: we have set up a demo that illustrates the technology of an ultrasonic cleaning system. You can see our RAL151 electronic generator, the ventilation system, the tank containing the cleaning liquid with the piezoelectric transducers applied on the bottom.



Depending on your needs, we can provide the RAL151 in three different combinations:

RAL151	RAL151 + CONFIGURATOR PF100	RAL151 + CUSTOM USER INTERFACE
		
<p>Basic generator with automatic frequency coupling</p>	<p>The configurator, easy to use since it is targeted at the lab technicians who need to autonomously tune their ultrasound system, you can:</p> <ol style="list-style-type: none"> 1) Select the operating frequency 2) Set the US power 3) Store the previous settings in RAL151 * <p>(see the video on the use of PF100)</p>	<p>The user interface can be chosen among those available</p>
<p>* Parameters can be displayed by connecting an oscilloscope to the generator. Once the operation is complete, the PF100 can also be disconnected from the generator. There is also a non-boxed version, to be used as a simple user interface.</p> <p>RadioAstrolab does not provide transducers, but it features in the laboratory those provided by the Customer, after the delivery of the necessary components.</p>		

RAL700 and RAL710 Generator: 700W – 1500W



Modular power unit suitable for driving piezoelectric transducer arrays in industrial ultrasonic cleaning applications. Fully programmable and remotely controllable by means of a RS485 serial communication line.

On the board there is a multi-turn trimmer to allow the ultrasound work frequency to be adjusted.

The frequency signal can be read by connecting the probe of the measuring instrument to the appropriate test points on the board.

Please note:

RAL700: indicated for powers closer to 700W;

RAL710: indicated for powers closer to 1500W.

TECHNICAL FEATURES

	GENUS RAL151	GENUS RAL700/710
Power supply	85-265 Vac - 50/60Hz	230Vac - 50/60Hz
Visualizations	See combinations in the dedicated page	Depending on customer needs
Powers handled	100-700W	700-1500W
Ability to set the power output	Yes	Yes
Ability to set the frequency output	No	Yes
Control system with microprocessor	Yes	Yes
Frequency range	22-60 kHz	22-60 kHz
Functionalities	Sweep and Pulse	Sweep and Pulse
Automatic frequency coupling	Yes	No
Floating US output	Yes	Yes
Dimensions in mm	217x77	180x280x h 80
Rohs compliance	Yes	Yes

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