

UUG-050-X

The **UUG-050-X** is a fully digital ultrasonic generator designed for heavy ribbon / heavy wire and high pin count ultrasonic flip-chip die bond machines.

It uses modern micro-controller with direct digital synthesis of the ultrasonic sine wave, digital PLL and operates over a wide frequency range from 30 kHz up to 150 kHz.

The **UUG-050-X** works not only with all typical ultrasonic transducers for die bonding, but works also with heavy ribbon / wire transducers.

Three different control modes (voltage, current and power control mode) can be used for best adaptation to the bond process.

Diagnostic functions are easily available using an USB serial communication interface.



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Specification

Ultrasonic power is optimized for high power applications; max. output voltage 100 V_{rms} (typ. 100 Watts at 100 Ohms impedance) Minimum impedance: 35 Ohms due to maximum current restrictions	<i>Ultrasonic output power</i>
U, I & P	<i>Control modes</i>
30 kHz to 150 kHz	<i>Frequency range</i>
Full metal housing	<i>Housing</i>
height: 142 mm / 5.6 inch (including rubber feet) width: 340 mm / 13.4 inch depth with handles: 346 mm / 13.62 inch (depth without handles: 305 mm / 12.01 inch) weight: approx. 6.9 kg / 15lb 3.4oz	
Integrated AC power supply wide range 85 - 230VAC 50/60Hz	<i>Power supply</i>
DSUB25m	<i>Transducer connector</i>
LEDs: ready, bond, search, tuned and error Test button for ultrasonic (front panel) Reset button (front panel) On/Off switch (rear panel) Fuse (rear panel)	<i>User interface</i>
Open communication protocol for setup of the UUG-050-X and status/diagnosis	

Ultrasonic power input

Digital power input 8 bit parallel low active	<i>Power input selection</i>
Flat ribbon cable connector (rear panel)	

Bond time control

Automatic bond signal creation from 8 bit parallel power input	<i>Automatic trigger</i>
Flat ribbon cable connector	<i>Bond power connector</i>

Communication

USB	<i>Type</i>
USB-AB-cable	<i>Connector / Cable</i>

Options

PC host software for setup and diagnosis Internal data sampling during bond process and output after finishing bond process	<i>(for MS-Windows 7 & XP)</i>
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