

The UUG-050 ultrasonic generator series with auto-tune function is designed for all fine wire bonding and low pin count die bond applications. It is a hybrid-controller based system with direct digital synthesis of the ultrasonic sine wave and a full digital phase lock loop control. It operates over a wide frequency range from 40 kHz up to 200 kHz.

The standard machine interface makes this generator first choice for all wire bonders makers. The UUG-050 works with all standard fine wire ultrasonic transducers and supports an adjustable ultrasonic output power. Different control loops are implemented.

Configuration of the UUG-050 can be done by a host computer (e.g. bonder control system or PC) using a communication port.

Diagnostic functions are easily available using the communication port of the UUG-050. Internal data sampling during bonding or online data output is possible.

# UUG-050



All models of the UUG-050 series are based at a standard design for the ultrasonic board. The standard system is an external generator in metal housing called UUG-050. The following table shows the main specification for the standard system.

### Specification

Standard type: <b>UUG-050-S</b>	<i>Model description</i>
<b>100167</b>	<i>Order number</i>
11.5 V <sub>rms</sub>	<i>Maximum output voltage</i>
5 VA / 22 Ω	<i>Ultrasonic output power</i>
Optimized for ball-wedge and wedge-wedge fine wire bonding & low pin count die bonding	
	40 to 200 kHz <i>Frequency range</i>
	U, I & P <i>Control modes</i>
	Full metal housing <i>Housing</i>
height: approx. 75 mm / 3 inch (with rubber feet)	
width: 253 mm / 9.96 inch	
depth: 250 mm / 9.84 inch	
weight: approx. 5 kg / 11 pounds	
Integrated AC power supply	<i>Power supply</i>
configurable 115/230 VAC, 50/60 Hz	

### User interface

<b>LEDs:</b> error, scan, bond & ready	<i>Standard controls</i>
Test button for ultrasonic (front panel)	
On/Off switch (rear panel)	
Fuse (rear panel)	
8 bit parallel (active lo),	<i>Ultrasonic power input</i>
26 wire flat ribbon cable connector	
D-SUB 25 f	<i>Transducer connector</i>
(rear panel)	
USB	<i>Communication</i>
(B type connector)	

### Optional

PC host software for setup and diagnosis (*Windows 7 / 10 / 11*)

### Customization on request:

Internal data sampling during bond process,  
 Board level version,  
 Individual adaptation of U/S-power, interface or frequency range  
**Please contact our sales department for your inquiries.**

UUG-050