

# UUG-140

The UUG-140 ultrasonic generator is a digital generator designed for use in ultrasonic flip-chip die bond machines. It is a high-end microprocessor based system with direct digital synthesis of the ultrasonic sine wave and operates over a wide frequency range from 30 kHz up to 150 kHz.

The UUG-140 works with all typical ultrasonic transducers for die bonding, but also with heavy wire bonding transducers.

Two control modes (voltage and power control mode) can be used for best adaptation to the bond process.

Diagnostic functions are easily available using an USB link to a computer.



## Specification

UUG-140 *Model name*

100487 *Order number*

Ultrasonic power is optimized for ultrasonic flip-chip die bond applications; maximum power depends on impedance of the ultrasonic transducer;  
max. output voltage 39 V<sub>rms</sub>  
(typ. 40 Watts at 38 Ohms transducer impedance) *Ultrasonic output power*

30 kHz to 150 kHz *frequency range*

Full metal housing *Housing*  
height: approx. 75 mm / 3 inch (with rubber feet)  
width: 253 mm / 9.96 inch  
depth: 250 mm / 9.84 inch  
weight: approx. 4.2 kg / 9.24 pounds

Integrated AC power supply *Power supply*  
wide range 110..240 VAC, 50/60 Hz  
max. 250 VA power consumption

DSUB25m *Transducer connector*

**LEDs:** ready, bond, scan and error *User interface*  
test button for ultrasonic (front panel)  
reset button (front panel)  
On/Off switch (rear panel)  
Fuse (rear panel)

*Open communication protocol for setup of the UUG-140 and status/diagnosis*

## Ultrasonic power input

Digital power input *Power input selection*  
8 bit parallel  
low active

Flat ribbon cable connector (rear panel)

## Bond time control

Automatic bond signal creation *Automatic trigger*  
from 8 bit parallel power input

Flat ribbon cable connector *Bond power connector*

## Serial Interface

USB *Type*

Type B *Connector*

## Options

PC host software for setup and diagnosis

Data output during bond process or  
internal data sampling during bond process and  
output after finishing bond process