

TPT application: ribbon bonding

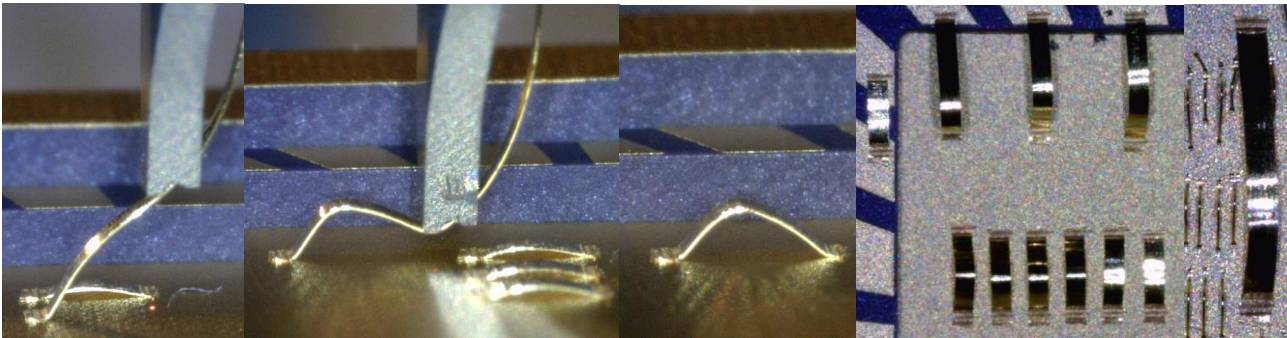
Here we present a special bond application: bonding with ribbon wire.

Overview:

Advantages of ribbon connections are the low impedance and the considerable heat dissipation. Due to these characteristics ribbons are frequently used, for example in RF technology.

Equipment:

- 250 x 25 μ gold ribbon, 10m on 2" spool
- 250 x 25 μ wedge tool with bond foot length of 100 μ
- Semi-automatic wedge bonder HB16



Bonding process with ribbon wedge

different bonds & comparison with 25 μ wire

Bonding process:

- The ribbon is processed just as conventional gold wire.
- Due to the large bonding area most bonding parameters have to be elevated, esp. ultra sound and bonding force.
- The ribbon must be fed from the coil through the tool without any twisting due to the rectangular shape. Sometimes the threading through the tool can be tricky. It helps to precisely cut the ribbon with a scissors beforehand.
- For stable bonds a heating of the substrate to 120 ° C is necessary.



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