

Induction Solder Flex Circuits

United Induction Heating Machine Limited

We are experienced in Induction Heating, induction heating machine, Induction Heating equipment. They are widely used in induction heating service, induction heat treatment, induction brazing, induction hardening, induction welding, induction forging, induction quenching, induction soldering, induction melting and induction surface treatment applications
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Solder Flex Circuits Objective To heat multiple joints on flex circuit strips to 180-200°F within seven seconds for a soldering application.

Material Copper bonded to polyester flex circuit strips, Solder Plus Paste 63NC-A, 0.0625" thick Teflon sheets

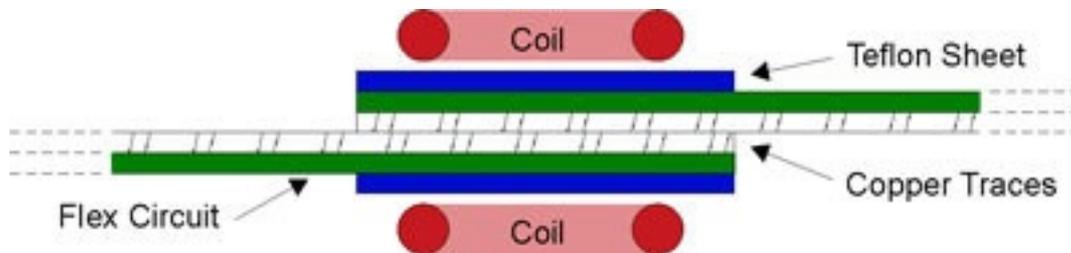
Temperature 183°F

Frequency 278 kHz

Equipment Power of 6 kW power supply, remote heat station with one 1.2 μF capacitor and a specially designed induction coil.

Process A specially designed induction coil was used to provide even heat in the area where the fingers of the flex circuits overlap. Initial tests were done to establish a heating pattern and determine time-to-temperature. After a very light coat of the solder paste was applied to the circuit connections, a small amount of pressure was applied to the Teflon sheets to hold the circuits together. RF power was then applied for 6.5 seconds to flow the solder paste and bond the flex circuits.

Results Consistent and repeatable results were achieved using the 6kW power supply in 6.5 seconds at 183°F. Solder Flex Circuits



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