Soldering three copper spacers to circuit board

Objective  Soldering three copper spacers on a circuit board simultaneously

Material  Circuit board with 3 copper spacers .5” (12.7mm) diameter and solder preforms

Temperature  464 ºF (240 ºC)

Frequency  323 kHz

Equipment  • Ambrell 4.2 kW induction heating system, equipped with a remote workhead containing two 1.5µF capacitors for a total of 0.75µF
• An induction heating coil designed and developed specifically for this application.

Process  A two turn helical coil is used to heat 3 spacers at once. Power is supplied for 30 seconds to melt the solder preforms on the three spacers and create a solder joint without over-heating the board.

Results/Benefits  Induction heating provides:
• Precise and controlled application of heat
• Repeatable, non-contact, clean heating process
• Increased production capacity
• Energy efficient
3 copper spacers in place for soldering

Soldering 3 spacers simultaneously