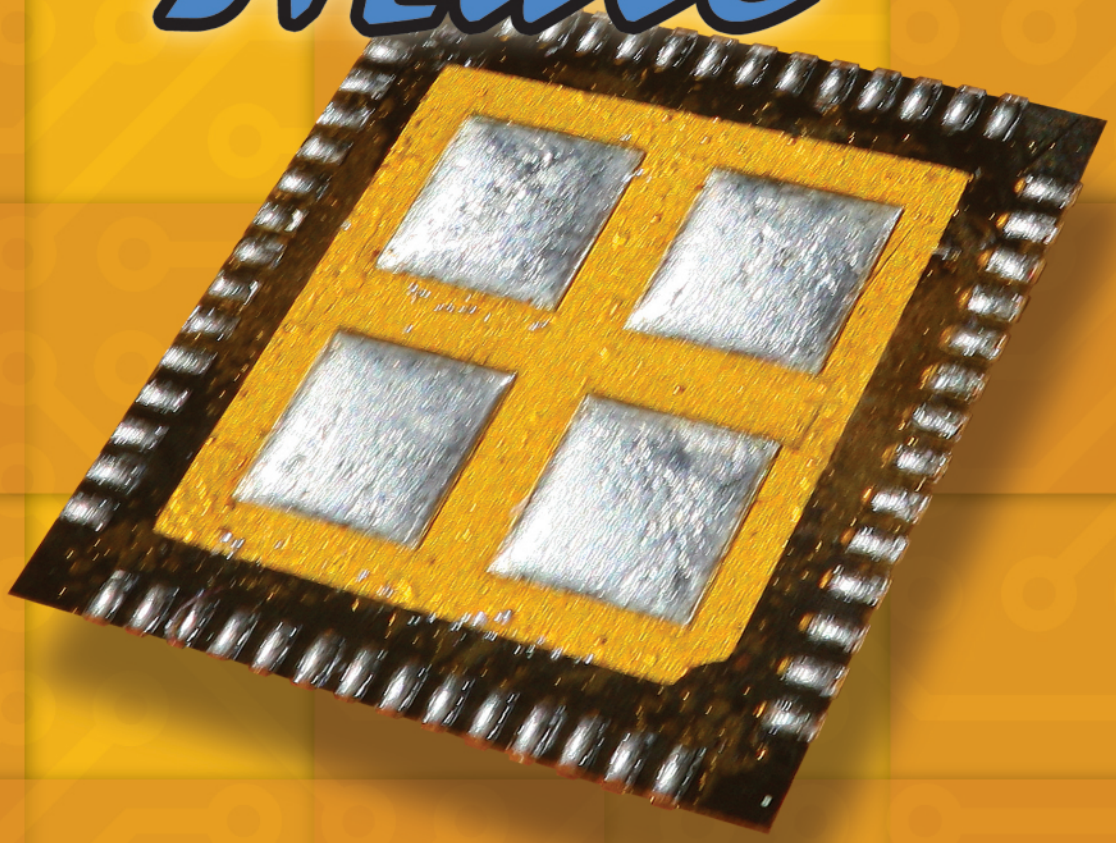
Leadless Device Rework
FAST and SIMPLE

Stencil Mate



StencilMate™—A fast, easy way to bump leadless devices

StencilMate™ patent pending BEST Inc.

BEST
3603 Edison Place • Rolling Meadows, IL 60008
v: 847.797.9250 • f: 847.797.9255

Your **BEST** choice in Solder Rework/Repair, Solder Training and Soldering Tools

www.solder.net

StencilMate

Bumping of Leadless Devices using StencilMate™ for Fast, Simplified Rework

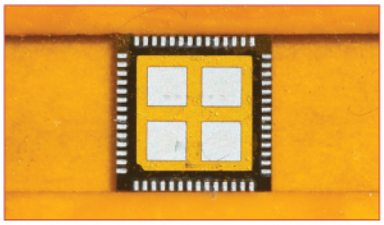
Frustrated by the IO pads "floating" and being no connects on leadless devices after rework? Are the leadless device rework areas too densely packed to get a miniature stencil into the populated PCB area? Do you desire to have a more surefire way to place QFNs, LGAs or other leadless devices? The new BEST StencilMate™ process is a simple answer to these rework challenges. This unique method greatly simplifies the leadless device rework procedure and in some cases eliminates the need for capital intensive rework equipment.

The ease of the StencilMate™ process allows even the new repair technician to be able to rework QFN, LGA or other leadless packages. After aligning and applying the StencilMate™ to the bottom of the package , simply roll solder paste into the apertures with a miniature handheld squeegee and clean the surface of any remnant solder. After reflow, simply peel off the StencilMate™ from the bottom of the package and now you have a very uniformly "bumped" component. This "bumped" part can now be placed using gel flux either with a split vision rework system or be fitted into the apertures of a mating StencilMate™ on the PCB-without the use of any high end rework equipment.

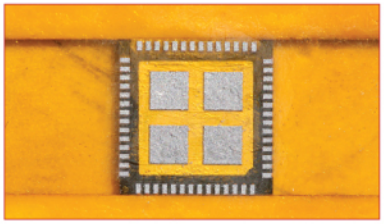
StencilMate™ stencils, whether they are a mated pair or just for the part are convenience packaged to make their use as economical as possible. These stencils are made to your exacting requirements after we review your mechanical datasheet and /or Gerber files. They are packaged in a pack of 20 pieces such that you can use them easily.

These rework bumping stencils are a simple-to-use, reliable means to bump parts and to place them effectively. StencilMate™ stencils are designed and manufactured to your precise standards from a engineered high temperature-rated, thermally stable insulating media which defines which pads get bumped. Stencils placed on the board help guide the bumped locations onto the PCB. These stencils are laser cut to your exact device requirements which makes them suitable for even the smallest package sizes. After aligning and applying the stencil to the bottom of the device, solder paste is rolled inside the device apertures. These are turned into solder "bumps" which can be easily aligned with the pads using a split vision rework system or with the mating StencilMate™ on the PCB.

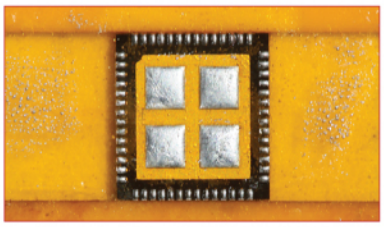
Leadless Device Rework Simplified



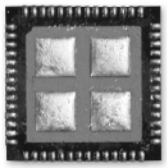
Step 1 – Remove device from PCB. Wick or scavenge and clean part.



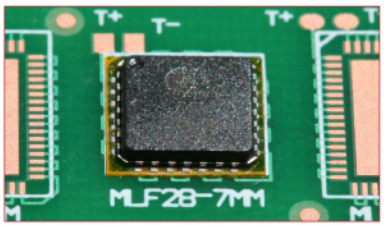
Step 2 – Place the StencilMate™ aligning it with part lands and applying pressure to the stencil. Squeegee solder paste with a manual squeegee into the apertures.



Step 3 – Reflow paste based on solder manufacturer's profile.



Step 4 – Remove StencilMate™ from device clean and inspect!



OPTIONAL – A "sister" stencil can also be placed on the board and the bumps can be aligned and then reflowed eliminating the need for high end rework equipment.

Your **BEST** choice in Solder Rework/Repair, Solder Training and Soldering Tools

www.solder.net

BEST
3603 Edison Place • Rolling Meadows, IL 60008
v: 847.797.9250 • f: 847.797.9255