

June 2010

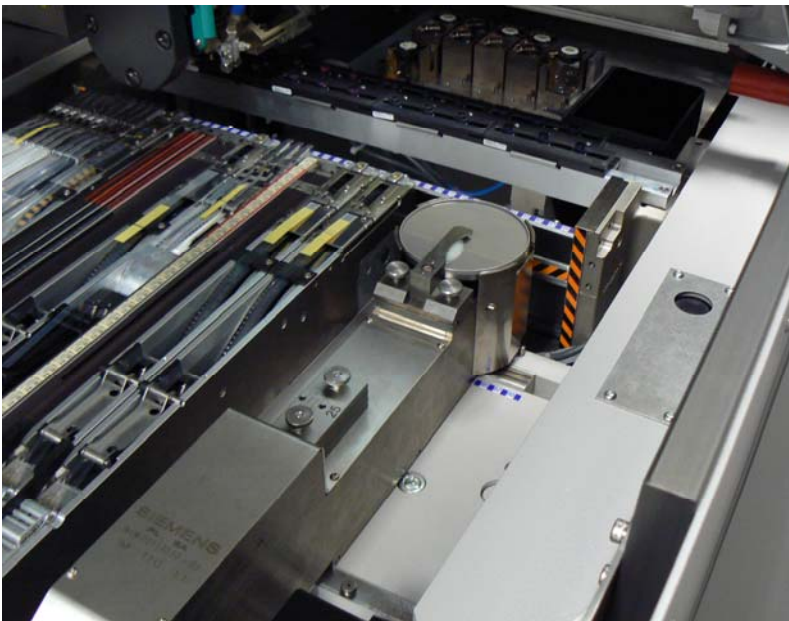
NOTE UK LEADING THE WAY IN PACKAGE ON PACKAGE THROUGH SIPLACE TECHNOLOGY

NOTE UK has recently invested significantly in Package on Package (POP) technology in its facility in Stonehouse, Gloucestershire. The result - A SIPLACE dip flux unit. Now, NOTE UK can help customers needing to place BGA on BGA, a growing requirement within the fast emerging technology market.

NOTE's production demands are: high product mix, varying rates of output, a high level of product quality, coupled with meeting the very latest technological requirements, which are successfully handled by a number of SIPLACE installations - within various NOTE factories in the Nordic region. "For NOTE, this technological challenge means being able to offer "higher technology" services and the ability to compete in the Package on Package (PoP) arena," comments Dave Westley, Operations Manager for NOTE UK.

Bearing in mind these technological challenges, when the time came to invest in additional placement capacity, NOTE contacted the SIPLACE Team in the UK for advice. Following an in-depth evaluation of NOTE's requirements and detailed discussions, the SIPLACE Team presented a solution to NOTE which satisfied their wide ranging needs. Flexibility, speed of set up and off-line programming, ease of programming, placement accuracy, wide range of component placement and local support from the SIPLACE Team. Most of NOTE's customers are involved in cost sensitive markets, so production efficiency is of paramount importance.

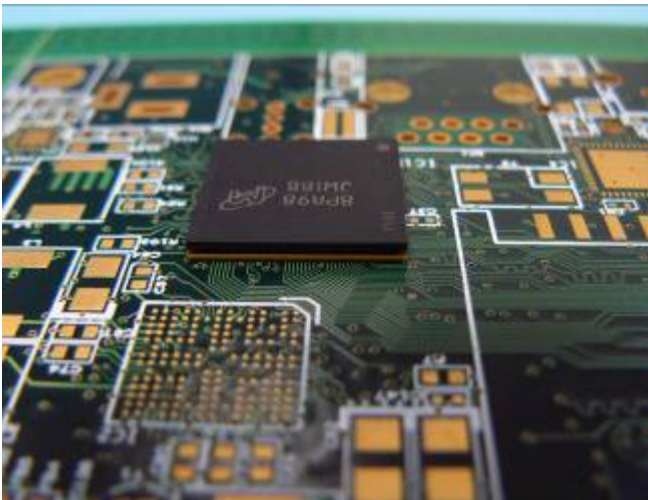
The solution: a SIPLACE D1 / D2 Placement line. Both machines offer a component range starting from 01005 to 200 x 125mm (on the SIPLACE D2), with an accuracy of +/- 50 µm 3 Sigma and are configured with the latest digital vision system. As a result of the new SIPLACE digital vision system, components and boards are recognized faster, reliably and accurately. NOTE UK currently operates a single shift pattern, but the requirement is fast set-up and change-over, in addition to competent programming. Additionally, and in order to be able to provide PoP technology within their service spectrum, NOTE has also invested in a SIPLACE dip flux unit for PoP placement. PoP, which is also referred to as CSP-Stacking (Chip Scale Package), is particularly efficient for processor-memory combinations. Allowing to squeeze ever more functions into ever smaller space. It requires less area on the PCB, while benefiting from very short signal paths and less high-frequency interference. To make sure that the upper CSP component of such a "stack" is soldered securely, the solder balls must be coated with flux in a special dip module, before being placed on the lower component.



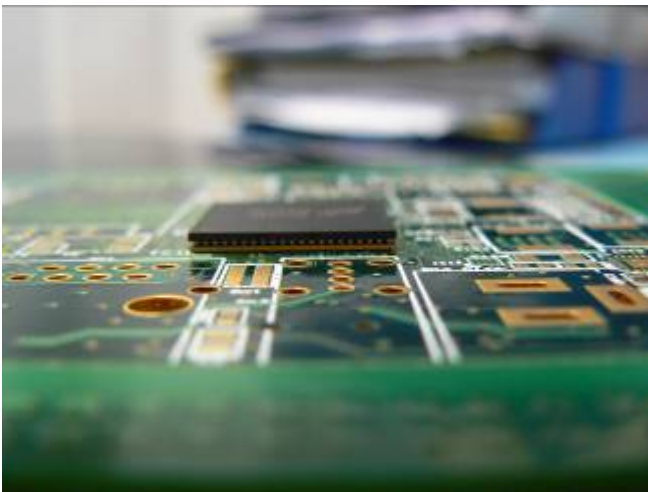
SIPLACE Dip Flux Unit installed at the SIPLACE D2 Placement Machine

The SIPLACE dip flux unit allows a reliable and accurate application of flux material or solder paste (dip media). Smooth surfaces of the dip media are guaranteed, thus resulting in a maximum production yield. NOTE has developed a process which includes flux depth, alignment and reflow checks to ensure a repeatable and robust fitment process.

The dip unit utilises a 'doctor' blade mounted over a rotating disc. The thickness of the resulting flux-film can be controlled by different spacers, which are lifting the blade to a defined height above the rotating disc, therefore creating an accurate dip depth. The dip module is as wide as three dual track S-feeders, is positioned between the feeders on the table, and has the same mechanical electrical connections. Production to date has been focused on Texas Instruments OMAP3530 devices. NOTE UK has the ability to place both 0.4mm and 0.5mm devices. This process is fully integrated into NOTE's SIPLACE line, ensuring that space-saving PoP designs can be processed with the speed and reliability needed for high-volume throughput.



Examples of Post Reflow Assembly



Westley concludes: "SIPLACE has no doubt made us far more efficient, thus driving down production costs. This not only improves our margin, but enables us to become more competitive in a very cost sensitive market. Additionally, we are able to stay ahead of the competition by offering highly innovative placement processes."

NOTE is one of the leading CEM companies in Europe, with contract manufacturing units in Sweden, Norway, Finland, the Baltic States, Poland, China and the United Kingdom. The UK operation of NOTE UK Limited is located in Stonehouse, Gloucestershire, offering a full range of services including mixed assembly and NPI (New Product Introduction) and expertise for a wide range of industry sectors. For example: telecoms, navigation systems, medical equipment, motion control, CCTV monitoring systems, etc.

NOTE UK also offers a full range of EMS services, including through hole assembly, wave soldering, unit and mechanical assembly, encapsulation, conformal coating, in-circuit test, functional test and design for manufacture analysis. Operators are trained to IPC level, to ensure a quality service.



SIPLACE D2/D1 Line at NOTE UK

SIPLACE Press Office

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With its SIPLACE machines and innovative manufacturing concepts, Siemens Electronics Assembly Systems GmbH & Co. KG (SEAS) is the world's leading manufacturer of surface mount technology (SMT) placement machines and solutions. From its early days in 1985 through 2009, the company has installed roughly 22,000 placement machines at more than 2,000 customers. Electronics manufacturers all over the world take advantage of the broad SIPLACE portfolio of products and services. SIPLACE placement machines are used in all industrial applications in fields such as telecommunications, automotive, consumer electronics and automation.

For more information about SIPLACE, visit www.siplace.com.

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