

UTAC Partners With M-Systems In MCP Leaded And Array Packages

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Packages enables integration of different product technologies such as memory, logic and mixed signal in a small form factor. Enables doubled memory density and increase device functionality.

Singapore, January 03, 2001 - United Test and Assembly Center Limited ("UTAC") is partnering with M-Systems to deliver MCP (Multi-Chip-Packages) solutions to meet the company's demand for communication devices that uses the multi-die approach. Different product technologies can be packed in one package to give a MCP solution with a small footprint, lower cost of production and faster time to market than a single chip solution.

UTAC's MCP solution can be constructed from side-by-side die placement or stacked dies of the same or different sizes. The side-by-side method uses the BT (bismaleimide triazine) or other substrates as platform to hold different dies while the stacked method is achieved by stacking one die on top of the other with lead frame as a base. The interconnect technologies within the package include die-to-die or die-to-substrate bonding using combinations of conventional wire bonding and flip-chip technologies within the same package. Conventional mold compound is used to enhance package robustness.

The resulting package exhibits higher electrical performance and reliability as well as higher product yield. This is achieved through reduced length of interconnects between the devices and improved assembly and test process. In addition, the overall product qualification cycle can be reduced with the multi-die concept.

"We are further developing solutions that integrate more than three dies while concurrently supporting passives components in one package," said Lee Hoong Leong, vice president of Research and Development at UTAC. "This can drastically decrease the total system manufacturing cost by reducing the number of components needed as well as simplifying the overall board design."

Albert Ng, UTAC vice president of Sales and Marketing, added, "These features are ideal for communication products and handheld devices such as mobile phones, PDAs, digital camcorders and palmtops. We expect to offer MCP solutions for high-frequency RF applications soon. UTAC offers both the MCP and test solutions to enable a full turnkey system in a package."

"The combination of ASIC and flash in one BGA package is ideal for multimedia mobile applications and enables us to provide our customers with a small package that saves more than 50 percent of system board space as compared to typical discrete solutions," said Menahem Lasser, vice president of research and development at M-Systems. He added, "UTAC has been an invaluable partner in developing an MCP package and test solution that meets our requirements."

UTAC offers MCP solutions in wide range of package outlines such as TSOP, LQFP, MQFP, FBGA, PBGA and FC BGA. All packages meet JEDEC MSL 3 requirements.

About M-Systems

M-Systems (NASDAQ: FLSH) is a leader and innovator of flash-based data storage products known as flash disks. M-Systems' flash disks provide the functionality of a mechanical hard drive in a silicon chip. M-Systems' products are based on its patented TrueFFS® technology and target applications in a vast array of markets, including connected devices, mobile and telecom. M-Systems' products include the DiskOnChip®, DiskOnKey™ and Fast Flash Disk (FFD) product families.

For more information, please contact M-Systems at <http://www.m-sys.com/>.

About United Test and Assembly Center Ltd (UTAC)

United Test and Assembly Center Ltd. (UTAC), founded on 16th March 1998, is a QS9000/ISO9001/SAC certified semiconductor assembly and test services provider. We offer full turnkey services from wafer sort / laser repair, packaging, Test / Burn in, Mark-Scan-Pack and drop shipment services. In addition, we provide customers with value-added services in package design and simulation, test program development and device characterization, failure analysis services and full reliability test services.

UTAC is committed to provide customers one-stop turnkey semiconductor assembly and testing services for wide spectrum of memory, logic and mixed signal devices.

UTAC World Wide Web address is www.utac.com.sg.