## **3M Embedded Capacitor Material is RoHS Compliant**

3M Electronics announced today that its advanced laminate, 3M embedded capacitor material, is RoHS compliant.(a) OEMs and printed circuit board fabricators are using this innovative material to help increase speed and performance of their boards. They are also using the material to meet the requirements of space-constrained designs common in portable products and military applications.

3M embedded capacitance material can be made with a dielectric thickness down to 8 microns and a capacitance density over 10 nanofarads per square inch, which makes it among the thinnest and highest capacitance density materials available for embedding planar capacitance in circuit boards. When used as "power" and "ground" layers in a multilayer PCB, this material effectively becomes a shared decoupling capacitor inside the board, allowing for the elimination of many discrete surface-mount capacitors and their associated vias.

The material is compatible with all rigid and flex PCB processing including laser drilling. Fabricators and OEMs worldwide can use this material without purchasing a license from 3M. Consequently, such OEMs are unrestricted in their choice of fabricator.

The 3M laminate material allows designers and manufacturers of high-speed digital printed circuit boards to achieve higher speeds while simplifying design trade-offs. When used as a power-ground core in a multilayer printed circuit board, 3M embedded capacitor material effectively becomes a decoupling capacitor inside the board. The material allows designers to eliminate large numbers of decoupling capacitors, increases useable board area; enables faster signaling; lowers radiated emissions (EMI); and saves engineering time associated with power distribution design and board layout. Printed circuit board fabricators can use the material in military, automated test equipment, computer and telecommunications applications.

To learn more about 3M brand Embedded Capacitor Material, please visit www.3M.com/compliant.

## About 3M Electronics

3M Electronics, co-located in Austin, Texas and St. Paul, Minn., has numerous technologies and provides a wide range of products for the electronics market. The business provides products and solutions to meet the electronic industry's challenges of protecting sensitive components and precisely delivering them to the assembly point, such as carrier and cover tapes and trays, as well as flexible and multilayer microinterconnect packaging solutions; embedded capacitor materials; copper and fiber interconnect systems; cables and cable assemblies; static control products, Textool brand test and burn-in sockets; tapes, abrasives, chemicals and materials, and ceramic textiles and composites.

## About 3M - A Global, Diversified Technology Company

Every day, 3M people find new ways to make amazing things happen. Wherever they are, whatever they do, the company's customers know they can rely on 3M to help make their lives better. 3M's brands include Scotch, Post-it, Scotchgard, Thinsulate, Scotch-Brite, Filtrete, Command and Vikuiti. Serving customers in more than 200 countries around the world, the company's 67,000 people use their expertise, technologies and global strength to lead in major markets including consumer and office; display and graphics; electronics and telecommunications; safety, security and protection services; health care; industrial and transportation. For more information, including the latest product and technology news, visit <a href="https://www.3M.com">www.3M.com</a>.

Scotch, Post-it, Scotchgard, Thinsulate, Scotch-Brite, Filtrete, Command and Vikuiti are trademarks of 3M.

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(a)"RoHS compliant" means that the product or part does not contain any of the following substances in excess of the following maximum concentration values in any homogeneous material, unless the substance is in an application that is exempt under RoHS: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers; or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's knowledge and belief based on information provided by third party suppliers to 3M.

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