## 3M Scales Up Volume Production of Embedded Capacitor Material

The 3M Electronic Solutions Division is scaling up volume production of its 3M brand Embedded Capacitor Material at the company's high tech manufacturing facility in Cumberland, Wisc., following several successful customer qualification programs.

3M Embedded Capacitor Material, with a capacitance of 5.5 nF per square inch, allows designers and manufacturers of high speed digital printed circuit boards to achieve higher speeds while simplifying design. When used as a power-ground core in a multilayer printed circuit board, it effectively becomes a decoupling capacitor inside the board. The material enables faster signaling, reduces power bus noise and radiated emissions (EMI), eliminates large numbers of decoupling capacitors, and saves time associated with power distribution design and board layout. The material is ideal for high-speed digital printed circuit boards used in telecommunications, military, computer, and automated test equipment.

Bill Balliette, new business development manager, 3M Electronic Solutions, said, "Our test marketing has generated considerable customer interest. With volume production capability now available, we can support customer scale-up requirements. We're excited to offer OEMs and fabricators a way to improve signal speed and reduce noise using such a high capacitance material."

3M chose its Cumberland, Wisc., facility because of its ability to produce electronics grade quality products, using high precision, clean room coating and converting processes. Production can accommodate standard and custom panel sizes up to 18.5 inches in width. 3M Cumberland also has electronics experience producing ultrafine finishing and polishing films for the electronics, data storage and fiber optics industries.

For more information about the performance and reliability of Embedded capacitor material, or to request a Fabricator's Guide, visit <a href="https://www.3m.com/embcap\_cu">www.3m.com/embcap\_cu</a>.

3M will present more information about the technology at several upcoming industry conferences. These include the International Microelectronics and Packaging Society (IMAPS) Regional Symposium in Chicago on April 21; the IMAPS Garden State Chapter meeting in New Jersey on May 12, 2004, and the IPC Second International Conference on Embedded Passives, June 15-17 in San Jose.

## About 3M Electronic Solutions Division

The 3M Electronic Solutions Division, headquartered in Austin, Texas, has numerous technologies and provides a wide range of products for the electronics market. It provides products and solutions to meet the electronic industry's challenges of protecting sensitive components and precisely delivering them to the assembly point, as well as flexible and multilayer microinterconnect packaging solutions; embedded capacitance laminate materials, copper and fiber interconnect systems; cables and cable assemblies; static control products, and test and burn-in sockets. The business is part of 3M Company, an \$18 billion diversified technology company with leading positions in consumer and office; display and graphics; electronics and telecommunications; health care; industrial; safety, security and protection services; transportation and other businesses. More information on 3M brand embedded capacitance materials is available on the Internet at <u>http://www.3M.com/microinterconnect</u>

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