

## Press Release

For Immediate Release

# MEMtronics receives SBIR award from U.S. Missile Defense Agency

Program to develop innovative manufacturing methods for radio-frequency micromachines

PLANO, Texas (1 November 2002)

MEMtronics Corporation today announced the award of a Small Business Innovative Research program by the US Missile Defense Agency entitled “Innovative Manufacturing of Low-Cost Radio-Frequency Microelectromechanical Systems (RF MEMS).” The program’s objective is to develop alternative manufacturing methods to reduce the cost of this electronics technology critical for next generation military and commercial microwave systems.

MEMtronics’ mission is to develop affordable microwave and millimeter-wave electronics technology to support a variety of communications and sensor applications. The MEMtronics team is currently developing new concepts to significantly reduce the cost of RF MEMS technology in the frequency spectrum above 5 GHz. This new project will develop fabrication and manufacturing strategies that will ultimately reduce the cost of these micromachined products by 50-100x. Mr. David Forehand, MEMtronics’ VP of Technology Development, will be the principle investigator.

Advances in electronic device technology, specifically microelectromechanical systems for RF frequencies (RF MEMS), have resulted in the development of near-ideal electronic switches for controlling and routing RF energy. These switches require negligible power consumption, have extremely low insertion loss, and exhibit extremely high linearity. Their performance far exceeds that obtainable with conventional silicon or gallium arsenide electronics technologies. During Phase I of this program, MEMtronics will investigate low-cost manufacturing approaches to fabricating RF MEMS devices, develop a process technology roadmap for implementing these manufacturing approaches, and develop a first order manufacturing cost model.

Anticipated benefits of the proposed manufacturing techniques for RF MEMS are focused on significantly lower fabrication costs and improved device reliability. Commercial applications of RF MEMS technology manufactured by these methods include communications (electronically scanned antennas for satellite communications, tunable filters for cellular mobile and base station telecommunications applications), sensors (scanning antennas for automotive radar), and imaging (millimeter-wave 2-D and 3-D imaging systems for airport security-baggage scanning and weapons detection).

### About the Company

MEMtronics Corporation is a start-up company focused on the commercialization of radio frequency (RF) micromachine technology.

### Contact Information

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