



For Immediate Release

HYPRES receives \$800K to further develop cryopackage and superconductor analog-to-digital converter for defense communications

Elmsford, New York (July 20, 2006)—HYPRES, Inc., a leading developer of superconducting microelectronics (SME) technology, recently received \$800K in SBIR (Small Business Innovation Research) Phase II Plus contract additions from the Department of Defense in support of its effort to develop a compact cryocooler and its superconducting 2 MHz-2 GHz direct-conversion all digital receiver—both key components in the company’s work to deliver to the DoD the industry’s first all-digital transceiver (ADT) for wireless communications.

The ADT will be capable of digitizing multiple radio signals at RF directly from the antenna without any analog pre-processing, and digitally combine and pre-distort outgoing signals at RF frequencies. This “wideband direct-digitization,” as it is known, will provide orders-of-magnitude performance gains and cost reductions in all but the small mobile software radio applications, including Satellite Communications (SATCOM), Signals Intelligence (SIGINT), Electronic Warfare (EW), and Joint Tactical Radio System (JTRS) programs.

A recent \$400K, 12-month SBIR Phase II Plus contact awarded by the U.S. Army supports continued work in miniaturizing the electronics within the compact cryocooler. When completed, the compact cryocooler will host a 4-channel full-duplex, wideband transceiver capable of being a high-end replacement in many new SATCOM and JTRS applications.

Of note, HYPRES previously announced the selection of Lockheed Martin to develop the cryocooler portion of the compact cryocooler.

In addition, a \$400K, 12-month SBIR Phase II Plus add-on by the U.S. Army supports the development of a multi-chip module version of HYPRES’ X-Band Military Satellite Communications (MILSATCOM) ADR for the Defense Communications and Army Transmission Systems (DCATS).

Most recently the company successfully demonstrated and delivered to the U.S. Navy the world’s fastest ADC. The ADC 20 GHz (clock speed) device—which exceeds the sample rate of current ADCs by many times—also demonstrated the ability to directly digitize HF, VHF and 1 GHz (frequency) signals.

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About HYPRES

HYPRES, Inc., formed in 1983, develops and commercializes Superconductor MicroElectronics (SME) that provide unparalleled economic and performance advantages for defense and commercial wireless markets, and a host of other applications. HYPRES SME technology is widely recognized as the leading solution to achieve a single RF system that is interoperable across all required waveforms and spectrum ranges. Headquartered in Elmsford, New York, HYPRES is recognized worldwide as the leader in digital superconducting technology with the most accomplished team of superconductor specialists in the world. HYPRES has delivered more different and complex SME circuits than any other institution worldwide. For more information, please visit us at www.hypres.com.

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