VectorNav releases the world's first GPS-aided inertial navigation system on a chip

VectorNav Technologies, a pioneering company in embedded navigation solutions, announced today the release of the VN-200, a high-accuracy GPS-Aided Inertial Navigation System [1] (GPS/INS) on a surface-mount chip the size of a postage stamp. Combining an advanced GPS module with the latest in MEMS inertial and pressure sensor technology, the patent-pending VN-200 provides a coupled position, velocity and attitude solution that is robust to a wide range of static and dynamic operating conditions. The VN-200 onboard microprocessor runs an aerospace-grade Kalman filter algorithm at an unparalleled rate of up to 200 Hz and provides accuracies better than 0.25 degrees in pitch and roll and 0.75 degrees in heading. VectorNav will be introducing and demonstrating the VN-200 at the Association for Unmanned Vehicle Systems International (AUVSI) North America conference from August 6-9 at the Mandalay Bay Convention Center in Las Vegas at Booth #660.

The release of the VN-200 GPS/INS marks a significant advancement in the field of inertial navigation. Over the past few decades, the size, weight, power, and cost constraints of typical GPS/INS systems have greatly limited the type and number of end-use applications. The advent of MEMS sensor technology created the potential to produce smaller, more compact and embeddable inertial navigation systems. With the release of VectorNav's VN-200, there is now a fully embeddable, high-accuracy GPS/INS on the market that provides performance competitive with the "heritage" systems that have long defined the standard for inertial navigation. Boasting the lowest size, weight, and power (SWAP) requirements of any GPS/INS available today and at a unit price of $900 USD in volume, the VN-200 is the sensor that will enable the next generation of aerospace, automotive, marine, entertainment, military, and robotics applications.

"The VN-200 is an embeddable solution designed to meet the needs of customers whose current or emerging applications are size or cost constrained, but still demand high performance and accuracies," said VectorNav Technologies President, John Brashear. "By combining our knowledge of MEMS sensor technology, aerospace filtering methods and calibration techniques, we have created a powerful inertial navigation solution and demonstrated our continued commitment to developing the most advanced MEMS-based navigation solutions on the market."

The VN-200 GPS/INS is well suited for guidance, navigation and control of UAVs and other unmanned vehicle systems, camera and platform stabilization, targeting/positioning, robotics, pointing and attitude reference, military and maritime applications, flight control and simulation, and augmented reality applications. Production units of the VN-200 are now available for order. For more information about the VN-200 or to schedule a meeting time during the AUVSI event, please contact VectorNav at the following email/phone number: E-mail: sales@vectornav.com [2]; Tel: +1-512-772-3615; Fax: +1-512-772-3086; Web: www.vectornav.com [3].

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