

# MEMS-GNSS/INS Technology as Problem Solver

NovAtel has added four Micro Electromechanical Systems (MEMS) Inertial Measurement Units (IMUs) to its SPAN line of GNSS/INS products: the HG1900 and HG1930 IMUs from Honeywell International Inc. and the LandMark 20 and LandMark 40 IMUs from Gladiator Technologies. The addition of these compact MEMS IMUs to the SPAN line-up significantly expands the range of cost, size and power options available for size and weight-concerned applications requiring high performance position, velocity and attitude data.

SPAN tightly couples NovAtel's precise GNSS technology with highly accurate inertial measurement technology to provide a robust, stable and continuous 3D navigation. The new MEMS sensors are coupled with NovAtel's SPAN receivers via a new compact, lightweight MEMS Interface Card (MIC) designed to support both power and communication. At only 71 x 46 x 11 mm, the MIC is designed to NovAtel's smallest receiver form factor, specifically for pairing with an OEMV1-DF SPAN enabled receiver, providing integrators an extremely compact, powerful GPS/INS engine.

Existing NovAtel SPAN customers can purchase the new MEMS IMUs as standalone units for easy pairing with their SPAN products and SPAN on OEMV receivers.

According to Brian Johnson, Product Manager for NovAtel's SPAN Products, "Introduction of full MEMS IMUs into the SPAN product line answers the demand from many system integrators for compact precision navigation systems. The IMUs chosen for integration into SPAN represent the best MEMS technology available today." Mr. Johnson added, "With NovAtel's MIC's regulated power input of 10 to 30VDC and support for ALIGN, combined with SPAN's proven GPS/INS architecture, Integrators need only determine the IMU sensor that best meets their unique requirements."

The HG1900 and HG1930 IMUs are subject to US ITAR export restrictions. The LandMark 20 and LandMark 40 IMU's are commercially exportable devices, as are the SPAN systems that utilise them.