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## Inertial Measurement Unit With 25g Accelerometers Designed for Highly Dynamic Applications

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Ideal for challenging environments, the 1775 IMU is KVH's highest performing fiber optic gyro-based inertial measurement unit

MIDDLETOWN, R.I. -- KVH Industries, Inc. announced that the 1775 IMU, its top-of-the-line fiber optic gyro (FOG)-based inertial measurement unit (IMU), is now available with either  $\pm 10g$  or  $\pm 25g$  accelerometers.

The 1775 IMU with 25g accelerometers is designed for highly dynamic applications, or applications with high levels of acceleration, vibration, or shock. These applications include: positioning and navigation systems for drilling, mining, and pipeline inspection and maintenance; mobile mapping systems using multiple sensors such as radar, cameras, and LIDAR; high-speed gimbals; and manned and unmanned platform stabilization and navigation systems.

"System designers and integrators now have a solution with superior performance in the most challenging environments," says Jay Napoli, KVH's vice president for FOG/OEM sales. "This sensor is designed for stabilization and guidance applications that require a perfect combination of performance, size, and price."

Providing ease of integration for designers of high-level inertial navigation, guidance, or stabilization systems, the 1775 IMU—in both the 10g and 25g variants—features an asynchronous, full differential RS-422 interface with multiple user-programmable features, such as data update rates from 1 to 5000 Hz, baud rates from 9.6 Kbps to 4147 Kbps, as well as several other parameters. It includes a 3-axis magnetometer for automatic gyro bias compensation, even in the presence of strong magnetic fields. Both the 10g and 25g variants of the 1775 IMU are designed for systems and applications where very high bandwidth, as well as low latency, low noise, and low drift are critical parameters for success.

The 1775 IMU is KVH's premier inertial measurement unit, and is part of the product line that includes the 1725 IMU and the 1750 IMU, which also deliver excellent FOG reliability and accuracy at a range of performance levels and price points. All three IMUs leverage the proven technology of KVH's DSP-1760 FOG, which is the



world's smallest high performance FOG. These IMUs provide extremely accurate, reliable data in environments with shock, vibration, and thermal variables, all in a compact form factor. The product line provides a complete range of choices for advanced 6-degrees-of-freedom (DOF) sensors with exceptional performance.

KVH is one of the only fiber optic gyro manufacturers to control the entire production process, from creating E-Core ThinFiber, its own specially designed polarization-maintaining optical fiber, to packaging its gyros together in advanced systems for inertial measurement, inertial navigation, and attitude heading and reference systems. As a result, KVH's open-loop fiber optic gyros offer outstanding accuracy and excellent durability at a lower cost than competing systems.

For more, visit [www.kvh.com](http://www.kvh.com)