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Sensonor Launches Space-Dedicated Gyro and IMU Modules

The high-accuracy tactical-grade STIM277H Gyro module and STIM377H Inertial Measurement Unit are based on experiences and requirements from serving customers in the space segment during the last decade.

The modules have a hermetic aluminum enclosure with a glass-to-metal sealed electrical micro-d connector and a laser-welded lid to secure long-term hermetic operation. All parts are tested for fine and gross leak to conform to MIL-STD-883J, Class H.

The hermetic enclosure protects the system from the external environment and ensures long-term reliability to meet requirements within the space segment and other applications needing exceptional long-term reliability. The design is tested for a 20+ years' operating life through high-temperature operating life (HTOL) testing.

STIM277H and STIM377H are electrically and mechanically backward-compatible with Sensonor's other IMU and gyro modules, and provide users with an easy implementation into an existing design.

The components come in dust-free clean-room packaging and have SurTec650 as the only surface treatment. The components are International Traffic in Arms Regulations (ITAR)-free, and have a range of features that can be configured by the customer.

While the new part is still a commercial off-the-shelf (COTS) product and not space-qualified, Sensonor has carried out extensive radiation characterizations to understand the capability of the parts. This data is available on request from Sensonor or can be downloaded from https://digitalcommons.usu.edu/smallsat/2019/all2019/117/

The parts are a good fit for satellite attitude & orbit control systems (AOCS), launchers, portable target acquisition systems, UAV payloads, land navigation systems, turret stabilization, missile stability and GNSSsupported navigation systems.

STIM277H and STIM377H are available for ordering. Detailed product specifications are available at Sensonor.com

About Sensonor AS

Sensonor designs and manufactures advanced tactical-grade gyro sensors, gyro modules and IMUs for highprecision applications. Sensonor operates its own MEMS manufacturing facility and has more than 35 years of experience in developing and manufacturing reliable MEMS sensor solutions for the most demanding and dynamic application environments in the world.

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