CSIâ€™s Hemisphere GPS Introduces New Vector Heading Sensor OEM Module

Hemisphere GPS (Canada), a designer and manufacturer of GPS products, has announced the introduction of a new heading sensor module for Original Equipment Manufacturers (OEMs) that features Hemisphereâ€™s Crescent GPS technology.

The Crescent Vector OEM module, a printed circuit board, is a complete GPS compass and positioning system designed primarily for the marine market but also very applicable for other markets including agriculture and machine control.

The integration of Hemisphereâ€™s patented Crescent GPS technology enables the Crescent Vector OEM module, in comparison with competing products, to deliver higher update rates, noise-reduced raw measurements, more memory, more processor capacity, lower power consumption, and more advanced applications and sophisticated configurations.

Crescent technology also enables the module to simultaneously employ multiple front-ends â€“ enabling tighter coupling of measurements from separate antennae for use with heading-based products. Users will achieve excellent accuracy and stability, due to Crescentâ€™s more accurate code phase measurements, improved multipath mitigation, and fewer components. The Crescent Vector OEM module offers maximum flexibility to OEMs and integrators by enabling them to choose their appropriate power supply and communications translation.

In addition to the Crescent GPS components, the module integrates a single-axis gyro and a tilt sensor onto a small form factor. Its heading accuracy ranges from 0.1 degrees (rms) at 2.0-metre antenna separation to 0.25 degrees (rms) at 0.5-metre antenna separation. It provides heading and positioning updates of up to 20Hz, and delivers positioning accuracy of 20 cm 95% of the time when used with Crescentâ€™s L-Dif Differential GPS (DGPS) receiver product, and 50 cm 95% of the time when used with WAAS (Wide Area Augmentation System) DGPS.

The Crescent Vector OEM module also features Hemisphereâ€™s exclusive COAST software that enables Hemisphere receivers to utilise old DGPS correction data for 40 minutes or more without significantly affecting the quality of positioning. When using COAST, the Crescent Vector OEM is less likely to be affected by differential signal outages due to signal blockages, weak signals or interference.