Fastrax Decreases GPS Power Drain and Reduces Time to First Fix in Portable, Battery-Operated Devices

Helsinki, Finland – January 26, 2012 – Fastrax introduced the Fastrax IT530, an ultra-low power consuming and super-sensitive OEM GPS module in a tiny form factor. Advanced power-saving features ensure very fast time to first fix (TTFF) without sacrificing battery life ? a critically important issue in location-aware, battery-powered consumer devices.

Building on Fastrax's legacy of designing the smallest, most sensitive and lowest-power consuming GNSS receivers in the industry, the Fastrax IT530 marks yet another achievement. The sensitivity of -148 dBm in acquisition, -165 dBm in navigation and power consumption of just 35 mW at 3.3 V are ideally suited to battery-operated devices. With a form factor of 9.6 x 9.6 x 1.85 mm and a weight of 0.4 g, the module has an identical footprint as the popular Fastrax IT430. Fastrax's dual module reference design allows designers and OEMs to use either of the modules, saving the time and costs of PCB redesign.

The Fastrax IT530 offers a fast and convenient user experience without draining battery by keeping GPS in full power mode. The new power-saving AlwaysLocate™ mode prolongs battery life by intelligently controlling receiver power modes and maintaining location information. Depending on the environment and motion, the module adaptively adjusts its navigation activity to balance positioning accuracy, fix rate and power consumption (typically between 2-8mW). In addition, the Embedded Assist System (EASY™) reduces warm-start TTFF by up to 90% with assisting ephemeris data stored internally for up to three days. The additional server-assisted EPO™ file transfer extends the external A-GPS service to up to 14 days.

"Consumers must be able to use the increasing variety of location-aware devices without having to search for power sockets while on the move. At the same time, device manufacturers strive to use smaller and less expensive batteries," said Fredrik Borgström, VP of GNSS Receivers at Fastrax. "Our goal at Fastrax is to continuously improve our technology to establish new benchmarks for fast and easy integration of location information. The Fastrax IT530 is designed for OEMs to be embedded in battery-operated devices that need a fast position fix at all times without draining the battery. The new module underlines our strategy of offering the widest portfolio of high-performance GNSS modules and Software GNSS solutions to the market, strengthening our position as a one stop shop for all GNSS needs."

Handheld consumer electronics devices are typically packed in the smallest possible casing and include a number of electromagnetic interference (EMI) sources. Depending on the overall design and location of the GPS antenna, EMI may severely decrease positioning functionality and accuracy. The embedded jammer remover in

the Fastrax IT530 fights these distorting signals with Active Interference Cancellation (AIC) of 12 CW type EMI sources up to -80 dBm, preventing nerve-wracking GPS performance issues caused by challenging designs.

The embedded LOCUS logger function can store location information in the internal memory of the Fastrax IT530 for up to 16 hours at a predetermined interval, set at every 15 seconds as a default. Depending on the nature of the application, the logged data may be dumped and parsed from the log via the host port.

The Fastrax IT530 supports a direct power supply connection to a lithium battery as the extended input voltage range of +3.0 - 4.3 V allows omitting an external regulator.

Engineering samples of the Fastrax IT530 are available in the end of February 2012, and volume production is estimated to start in the end of April 2012. Documentation is available now at www.fastraxgps.com [1].

Links:
[1] http://www.fastraxgps.com