SkyTraq Introduces 7mm x 7mm multi-GNSS Receiver Module with Sensor Hub Function for Wearable and IoT Applications

Hsinchu, Taiwan, January 12, 2015 — SkyTraq Technology Inc., a leading fabless GNSS positioning technology company, introduces Venus828F, a stand-alone multi-GNSS receiver module in small 7mm x 7mm form factor. It works with multiple satellite systems and tracks up to 28 satellites concurrently.

Designed with highest performance and smallest footprint in mind for wearable and IoT applications, the 7mm x 7mm Venus828F LGA module integrated all the necessary components forming a complete working GNSS receiver, including GNSS chipset, 0.5ppm TCXO, Flash memory, LDO regulator, DC/DC switching regulator, and passive components. It only requires external antenna and power supply to output accurate position / velocity / time information in standard NMEA-0183 format; enabling ease of use and fast time to market.

Venus828F features low power consumption, 29sec cold start TTFF, -165dBm tracking sensitivity, 10nsec 1PPS timing accuracy, on-board geo-fencing, 8Mbit ~ 512Mbit external SPI Flash data logging, and industrial operating temperature range of -40 ~ +85 degC. It has UART and I2C interface for flexible connection to the host processor.

Via SPI and I2C connection, data from MEMS sensor can be calculated by Venus828F using sensor hub enabled firmware, offloading computation from the host processor. Engineers can concentrate on their wearable and IoT applications instead of spending hundreds of hours reinventing the wheel developing sensor-fusion algorithms.

“Fast-acquisition high-sensitivity multi-GNSS chipset hardware are just becoming available in recent years, the internal firmware supporting multi-GNSS typically are not as fully optimized as GPS-only
firmware that has matured for more than a decade to allow ROM codification with optimal performance for any existing GNSS chipset vendors; the multi-GNSS firmware is still being continuously improved over time. By offering Venus828F multi-GNSS receiver module with Flash memory, it’s shipped with latest best performance firmware. It is also later upgradeable in the field if customer’s design allows. Targeting very high volume, cost-sensitive wearable and IoT applications, Venus828F is offered at price comparable to crystal-based ROM GPS modules on the market, setting a new benchmark in terms of performance, size, and cost for multi-GNSS receiver modules.” said Michael Chung, VP of Sales & Marketing at SkyTraq.

Venus828F engineering sample, datasheet, and reference design are available now. Volume production delivery to customer begins in March, 2015. Sensor hub firmware feature will be available in Q2 2015.

About SkyTraq
Founded in 2005, SkyTraq Technology Inc. develops high-performance chipset and module solutions for the consumer satellite navigation market. Its initial product is GPS centric, and now the products cover GPS, GLONASS, Beidou, Galileo, QZSS, and SBAS. For additional information, please visit www.skytraq.com.tw