PRESS RELEASE

Nanotron swarm Chirp + UWB fusion applications

swarm bee leads technology-independent time to market

Berlin, July 19, 2016 – nanotron Technologies, the leader in easy-to-use solutions for location-awareness today outlined new fusion applications for its Chirp and UWB enabled *swarm* bee family of location-aware radio modules.

"The powerful combination of Chirp and Ultra-Wide Band (UWB) technologies now available in the *swarm* bee family provides an excellent way for customers to fuse technologies and provide both long range radio robustness and accuracy combined with short range high precision" commented Marcel Borwitzky, Senior Product Manager at nanotron.

Nanotron's *swarm* bee LE (Low Energy) module is optimised for radio robustness and long range, providing up to 1.2km of range with 1m accuracy with a very high speed 1.8ms air-time ranging cycle. This provides an excellent low-latency platform for collision avoidance system (CAS) applications, particularly well-suited to managing high-speed vehicles in congested areas where there are large numbers of vehicles and personnel. The *swarm* bee LE module is complemented by the recently released nanotron *swarm* bee ER (Enhanced Resolution) module which is optimised for high precision providing an impressive 10cm accuracy even at close range. "This provides an excellent platform for exclusion zone applications where the goal is to keep people a safe distance from dangerous machines" added Borwitzky.

In both applications *swarm* bee modules are used both on the vehicle/machines and also inside personnel tags worn by the people. Warnings are trigged before collision conditions or when operators get too close.

Both products are based on the same *swarm* API, allowing software engineers to rapidly develop applications then cut and paste for the different technologies. For the first time engineers can easily and rapidly combine Chirp and UWB radio technologies into a single application leveraging the combined benefits of each radio technology and proving access to a new genre of smart industrial IoT applications.

The new *swarm* bee ER and LE development kits (DK+) provide a proven software and hardware platform for application development and comprise of three DK+ boards, *swarm* PC tools, and a comprehensive data package to facilitate easy and rapid development of location-aware applications. Customers benefit from several *swarm* tools including the *node configuration device* (NCD) boosting productivity if large numbers of radio nodes require configuration as part of network maintenance. Additional development boards are purchased separately if customers want to evaluate larger location-aware networks.
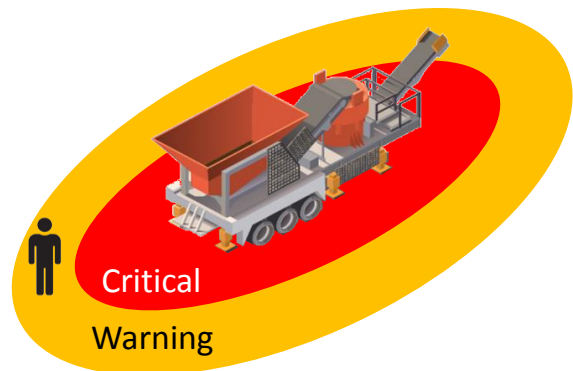
Both the *swarm* bee LE and *swarm* bee ER modules and the associated DK+ kits are available and shipping in volume now.
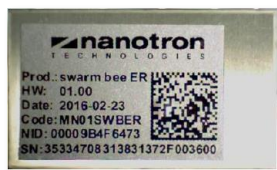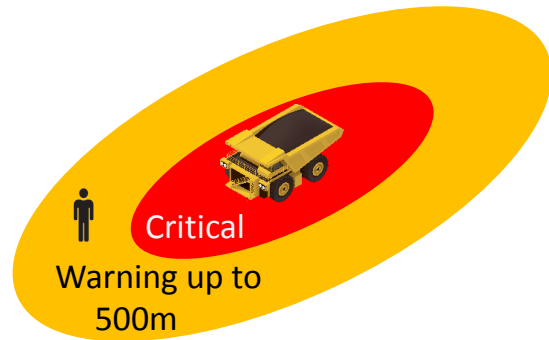
Caption: *swarm* bee LE and ER used in a Mine Safety implementations.

About the *swarm* product family

Swarm bee modules are available with Chirp or UWB radio technology. Both versions are sharing the common *swarm* API. The *swarm* product family targets the growing market for autonomous smart items and cuts time to market for location-aware products by 12 months. Very precise low-cost location technology can now be used without the need for RF-design capabilities or expertise on low level device drivers. Developers focus on application design.

About nanotron Technologies

Today nanotron's *embedded location platform* delivers location-awareness for safety and productivity solutions across industrial and consumer markets. The platform consists of chips, modules and software that enable precise real-time positioning and concurrent wireless communication. The ubiquitous proliferation of interoperable location platforms is creating the location-aware Internet of Things. More information on www.nanotron.com. Follow nanotron Technologies on LinkedIn.

Press Contact:

Dr. Thomas Förste
T +49 30 399 954-0
Email t.foerste@nanotron.com