

Essensium Patent Offers New Wireless Capabilities

Leuven, Belgium, Jan 12, 2010 – Essensium N.V., an innovative developer of Real Time Location System products, today announced that the European Patent Office published a key patent granted to Essensium regarding the ranging method which enables Essensium's unique and industry-leading combination of high accuracy and long range in their wireless RTLS products.

Traditional wireless RTLS technologies can be split into two main subgroups, Wideband and Narrowband, depending on the radio frequency bandwidth used. Each approach has its own particular advantages and disadvantages.

Wideband methods, typically known as UWB, tend to yield highly accurate position detection, with a resolution down to 10's of centimeters, but support only a very limited distance between the tag and the readers. This limits their useful application to situations where items need to be tracked over a relatively small area, since a significant and expensive infrastructure of reader antennae needs to be added in order to cover larger areas.

Narrowband methods, typically known as WiFi or RSSI methods, tend to support much larger distances between the tracked item and the readers. This allows larger areas to be covered compared to UWB, with a more affordable infrastructure cost. These methods suffer from the disadvantage of having significantly lower resolution, allowing only to determine the position of a tag with a resolution of several meters at best, or even simply allowing only to identify the room, or zone, in which a particular tag is located.

Essensium's patented approach combines the benefits of both Narrowband and Wideband behaviour in a single Wide-over-Narrowband RF implementation. This results in an industry-leading RTLS implementation giving both the accuracy of a very precise UWB system combined together with long range, and thus lower infrastructure costs, better than that of typical Narrowband or WiFi methods for RTLS. This combination of attributes enables exciting opportunities for track and trace applications, both indoors and outdoors.

Essensium is a centre of excellence for low power wireless and embedded software and hardware solutions. As a fabless semiconductor company, combining expertise in custom silicon design for portable, wireless, and low power applications, along with a strong embedded software division, Essensium provides System-on-Chip products and design services to original equipment manufacturers, design houses, and ASSP suppliers, along with its own highly accurate and long range Real Time Location System (RTLS) product development. Essensium was created as a spin-off of the nanotechnology research center IMEC and is located in Leuven, Belgium. For

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