



# nanoPAL RTLS Toolbox

High throughput location and monitoring solutions

## Nanotron RTLS

With its CSS technology Nanotron has simplified Real Time Locations Systems (RTLS). The solution combines location accuracy and high throughput with ease of installation.

The *nanoPAN RTLS Toolbox* allows system integrators to demonstrate the performance of Nanotron's RTLS, experience the ease of installation and understand the interfaces to other elements of the overall business solution. It provides the tools required to integrate location awareness with vertical-specific business applications.

## RTLS Tools

The toolbox provides 8 *nanoANQ RTLS Anchors* that cover an area of 500 m<sup>2</sup> or more. 20 tags with configurable blink rate demonstrate system throughput of 200 location readings per second.



nanoANQ

The development version of the *nanoLES Location Engine and Server* comes with a detailed documentation of the application interface. Sample implementations of a Location GUI and the

Management Client provide a functional reference for system integrators who integrate *nanoLES* with their RTLS middleware.

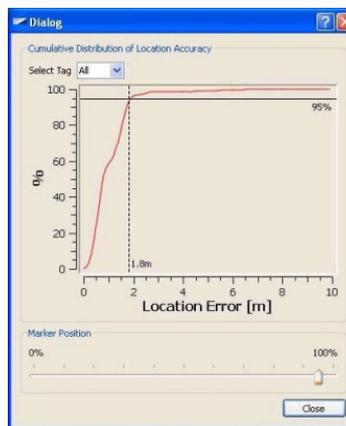
## The nanoPAL RTLS Toolbox

In addition to anchors and tags all supporting elements for a quick RTLS installation are included: PoE switches, the *Tag Configuration Station*, Nanotron's *RTLS Set-Up-Tool*, antennas, USB cables, and a PoE cabling option.

Once the *nanoANQ* devices are mounted and connected to the server through the PoE switches their physical location will be made available for *nanoLES* with the help of the Management Client. Using the RTLS Set-Up-Tool the user can check radio coverage and optimize anchor positions. The tool can be put in critical positions to record CDF data providing objective information on location accuracy.



RTLS Set-Up-Tool

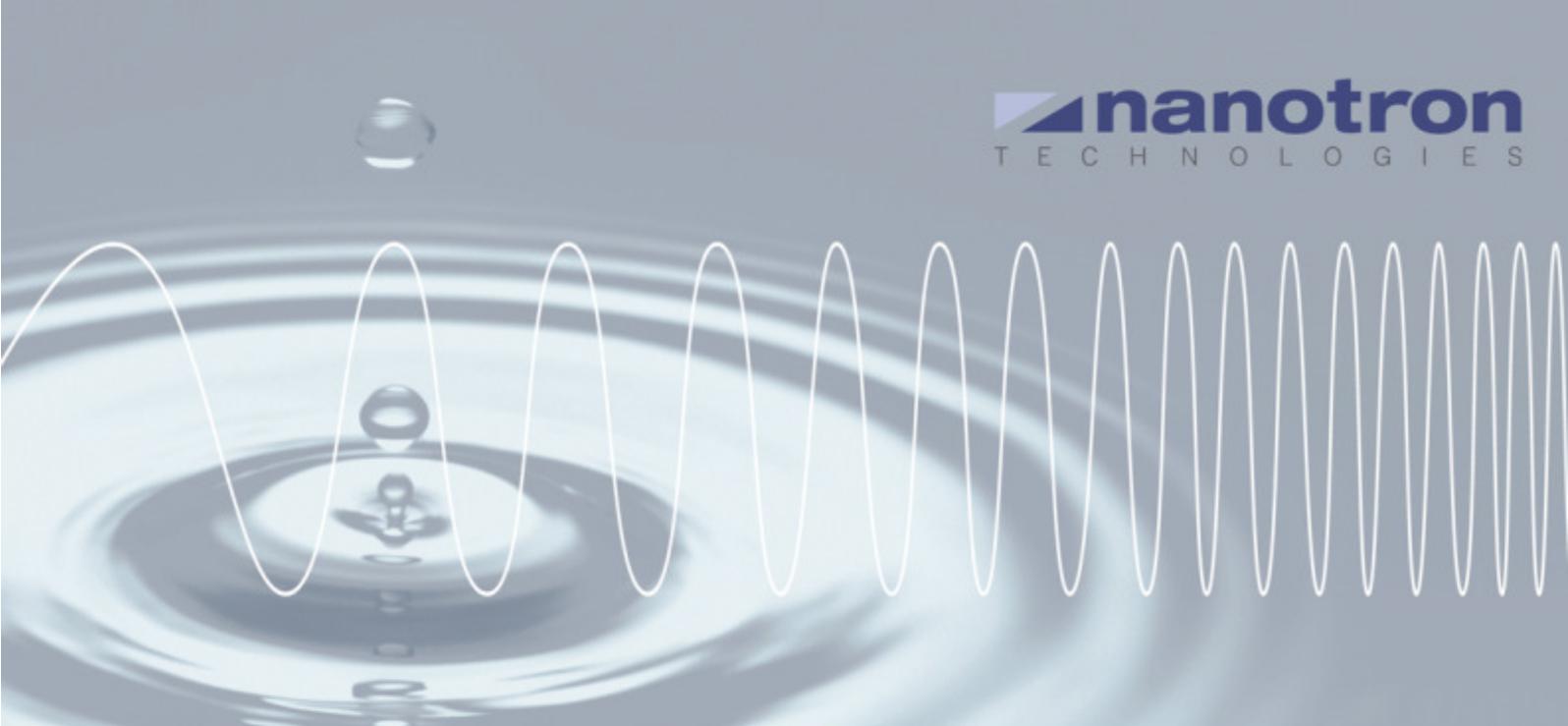


Cumulative Distribution Function

Upon completion of the set-up optimization the user can now start with application testing.

## Development Support

Equipped with a working RTLS installation and a number of application tests done the user can



start system integration. Dedicated system set-up and maintenance functionality is added and *nanoLES* is connected with the business application that now becomes location-aware. Alternatively *nanoLES* can be integrated with existing Middleware.

Nanotron provides technical support through its team of qualified field application engineers for quick time to market.

### nanoTAG Reference Design

The toolbox includes 20 *nanoTAGs* shown below. These tags are an ideal starting point for system integrators to evaluate tag location accuracy in real application scenarios. The product is available in volume with or without user interface or housing.



nanoTAG

If system integrators want to build a tag suitable for a specific vertical (i.e. Oil and Gas or the Automotive Industry) they could use the nanoTAG Reference Design as a starting point. It provides a robust, power and cost optimized design that can be adapted to particular needs of the given application. A definition of the air-interface is included to ensure compatibility with *nanoANQ*.

### Ordering Information

The complete toolbox is delivered in a light-weight aluminum container. PoE cabling is available as an optional item.

Additional RTLS-components like *nanoANQ* and/or *nanoTAG* devices is available separately if required.

System integrators and developers of RTLS and RFID middleware use the *nanoPAL RTLS Toolbox* for integrating the *nanoLES RTLS Location Engine and Server* with their products.

Number	Description
KNRTB01	nanoPAL - RTLS Tool Box
KNRTB01CO	nanoPAL - RTLS Tool Box CAT5e Cable Option
BNUT01HRD	nanoTAG - RTLS Tag Hardware Reference Design

### Additional Information

Please refer to product information on nanoTAG, nanoANQ and nanoLES for a detailed description of RTLS system performance.

Visit [www.nanotron.com](http://www.nanotron.com) for more information on Nanotron's complete line of products and tools or write to us at Nanotron Technologies GmbH, Alt-Moabit 60, 10555 Berlin, Germany.