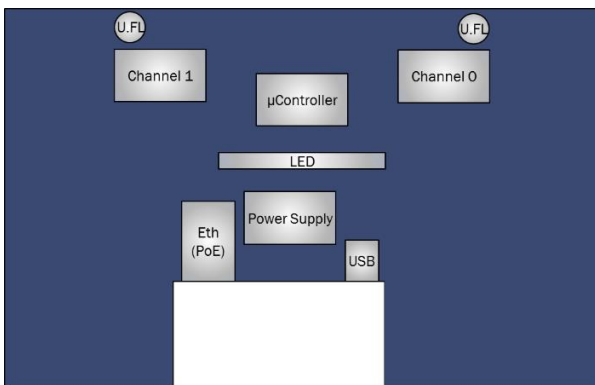# nanoANQ EA RTLS Anchor
High throughput location and monitoring solutions

Flexible Monitoring and Location Solutions

The *nanoANQ EA RTLS Anchor* has been developed for use with nanotron's high throughput location and monitoring solutions in harsh environments. Together with nanoLOC based tags and Nanotron's Location Server, it forms the basis for location-aware monitoring and management solutions.

At only 195 mm x 195 mm x 84 mm the compact design simplifies system deployment. It features external antennas and an Ethernet port with PoE to connect to the transport network. Through its air interface, the *nanoANQ EA RTLS Anchor* supports bidirectional payload exchange between the Location Server and individual tags.

Services and functionality can be updated by simply upgrading the firmware of the anchor

The device provides a power amplifier that is adjustable from 0 to +19 dBm for robust range, wide area coverage and in compliance with regulations.

Easy to install and maintain, the anchor is configurable in software remotely via a TCP/IP connection.

Key Features

Location acquisitions .... > 250 Hz

Typical range in mining tunnel .... 100 - 300m*

Typical location accuracy................................... 1-3 m

Minimum RTLS infrastructure .... > 6 nanoANQ EA

RF technology ....Chirp Spread Spectrum (CSS)

Power supply .... PoE (rec.) USB (opt.)

RF output power .... Configurable 0 to +19 dBm

Operating temperature range.................-30 to 65 °C

Transport Network .... Ethernet 100 base TX

Receive sensitivity (80MHz/1µs) .... -88 dBm

Dimensions................. 195 mm x 195 mm x 84 mm^3

Weight.. 495 g

IP Addressing.................................. Automatic, DHCP

White LED Band ......Controlled through nanoLES API

3 color status LED................. Controlled through API

* Depends on topology and antenna

nanoANQ RTLS Anchor Block Diagram

Power Supply

The preferred power supply is via Power-Over-Ethernet (PoE). Optionally, the USB port can be used as alternative power source as long as enough measures against surge and lighting have been taken.

nanoANQ EA Housing

The *nanoANQ EA RTLS Anchor* is delivered in a robust housing providing protection against dust, moisture and water. Power supply and CAT6 Ethernet cables are connected through rubber-sealed openings at the back of the housing. The two SMA antennas are screwed to the housing.

nanoANQ EA housing with antennas

Mounting Options

nanoANQ EA could be easily mounted to walls or other flat surfaces with the help of the optional mounting accessories.
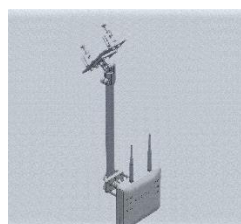

Adjustable Wall Holder
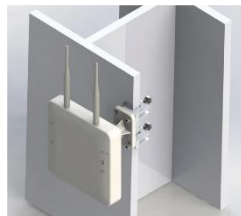
I-Beam Holder

Pipe Clamp

Angle Bracket

Ordering Information

The Anchor is available complete with housing and antennas with optional mounting accessories.

Number	Description
KNRINT02EA	8 nanoANQ EA with nanoANQ XT V2 incl. nanoLES License, 1 tag pack and antennas required to be ordered with this item
KNRINT02EAEM	8 nanoANQ EA with nanoANQ EM and Host Board incl. nanoLES License, + 1 tag pack and antennas required to be ordered with this item
PG55S	Antenna 2.4 GHz - 3 dBi
PJ999	Antenna 2.4 GHz - 5 dBi
BN02SWBPTP5	Tag Pack: 5 swarm bee LE V2 DK+ Board
KN01TB3	nanotron Toolbox 3
BNAR02PXEA	nanoANQ EA (nanoANQ XT V2), supplied with housing, standard mounting, including nanoLES license; extra mounting accessories and external antennas to be ordered separately
BNAR02PYEA	nanoANQ EA (nanoANQ EM + Host Board), supplied with housing, standard mounting, including nanoLES license; mounting accessories and external antennas to be ordered separately
PSMB01WHN	Extra adjustable wall holder (standard)
PSMB01IHN	I-beam holder
PSMB01PCN	Pipe clamp
PSMB01ABN	Angle bracket