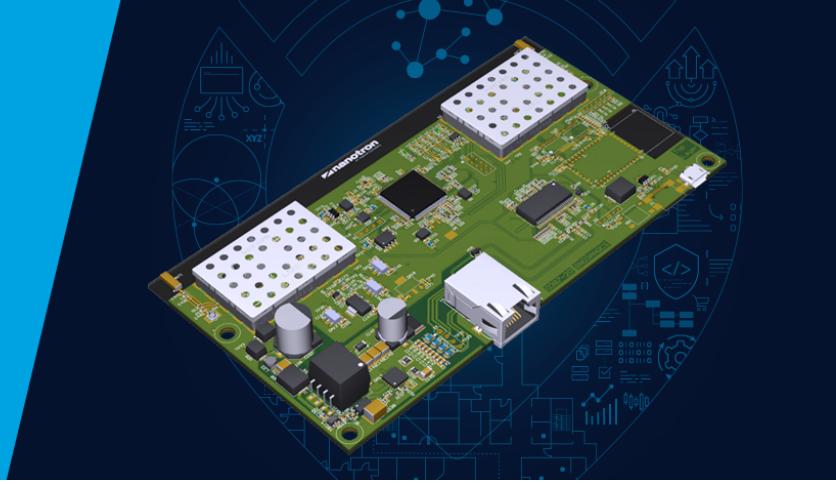
Inpixon nanoANQ Chirp PCB

RTLS Edge Anchor



RTLS-infrastructure anchor with unrivaled range and deployment-scale

The Inpixon nanoANQ Chirp PCB anchor is integration ready for large-scale tracking use cases. With the capacity to operate at extreme temperatures, the anchor's integrated Chirp RF-technology unlocks unparalleled long range (up to 300 - 500 m) for indoor and outdoor tracking.

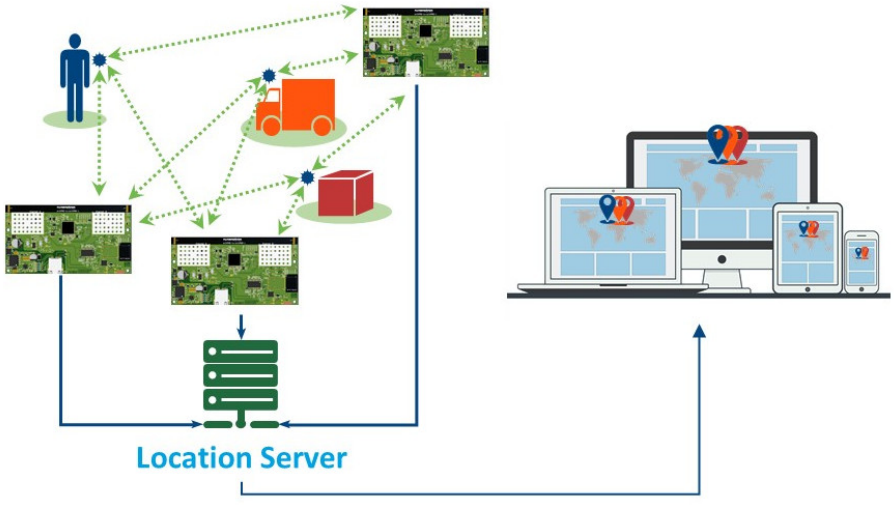
The Inpixon nanoANQ Chirp PCB creates and collects high precision location information thanks to full time difference of arrival (TDoA) support. Location, sensor and context data is communicated while remaining synchronized with the whole RTLS network. Backwards compatible to previous anchors, this printed circuit board offers a reduced footprint and allows users to expand existing installations with ease.

Available as a printed circuit board assembly, the Inpixon nanoANQ Chirp PCB can be integrated into your own housing with individual antennas connected via U.FL connector or by using the integrated chip antennas.

Easy to install and maintain, the anchor is remotely configurable via standard UDP connection and has an adjustable power amplifier (-17 to +20 dBm for extended range and different antenna options).

Inpixon nanoANQ Chirp PCB Highlights

- **Optimal scalability** enabled through virtual anchor synchronization
- **Small form factor** eases physical integration
- **Easily expand** and scale deployments by adding new anchors without compromising accuracy, real-time capability, and throughput
- **Concurrent tracking, ranging and data communication** in one RTLS solution
- **Two-way communication support** through the anchor backchannel interface supports communication to and from tags with the location engine server
- **Two configurable radio channels** to provide antenna redundancy for superior communication reliability. Alternatively use with directional antennas for distinct tunnels or corridors via U.FL
- **Unlock the value** potential of location, sensor and context data fusion with an IoT Platform to derive actionable business insights



Inpixon nanoANQ Chirp PCB enables tracking of assets, people and vehicles

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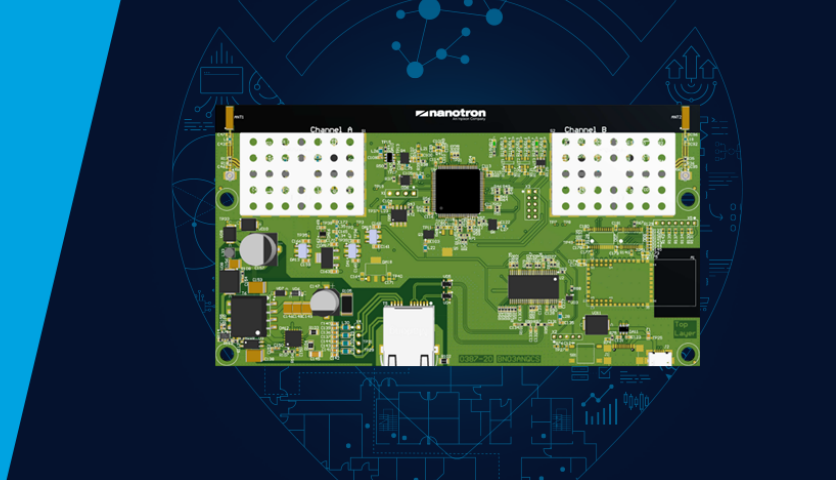

Advanced Technology

- **Unique 2.4 GHz Chirp RF technology** enables range of up to 300 - 500 m and 1 m accuracy (depending on environmental conditions)
- **Scale-On-Demand** simplified deployments makes it effortless to add anchors at any time
- **Two independent RF channels** for anchor density optimization or multi-path mitigation (diversity)
- **Virtual anchor synchronization** over the air enables complete infrastructure synchronization without extra “pacer nodes” and scales deployments without infrastructural overhead

Robust and Flexbile

- **Interface compatibility** for Chirp and UWB anchors supports a combination of both infrastructure types for enhanced deployments
- **Industry grade** temperature protection from -40°C to +85°C for extreme indoor and outdoor environments
- **Certifications**[*3]**:** CE-RED, FCC, ISED

Specifications	
Signal Detection Rate	up to 900 blinks/s
Number of RF Channels	2
Typical Range	up to 300 - 500 m[*1]
Typical Location Accuracy	1m[*2]
RF Technology	Chirp Spread Spectrum
RF Output Power	Configurable -17 to +20 dBm
Receive Sensitivity (80MHz/1µs)	-89 dBm
Transport Network	Ethernet 100 base TX
Power Supply	PoE (802.3af), micro-USB-B
IP Addressing	DHCP, Static
Operating Temperature Range	-40 °C to +85 °C
Dimensions	154 mm x 83 mm
Weight	ca. 57 g

**1 LOS conditions. Results vary depending on environment*
**2 90%, 1-hour static, 10m distance, RSSI -65 dBm*
**3 Production units*

Ordering information

Part Number	Description
BN03ANQCS	Inpixon nanoANQ Chirp PCB PCB anchor board for RTLS using Chirp RF, including nanoLES license
KN03SWBLE	Inpixon Swarm Chirp V3 Dev Board Development Kit incl. antenna
SNLES03	nanoLES 3 Location Engine
KN01TB3	RTLS Tools

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