

ignion^N

We make RF that just works. **Everywhere.**

Company overview





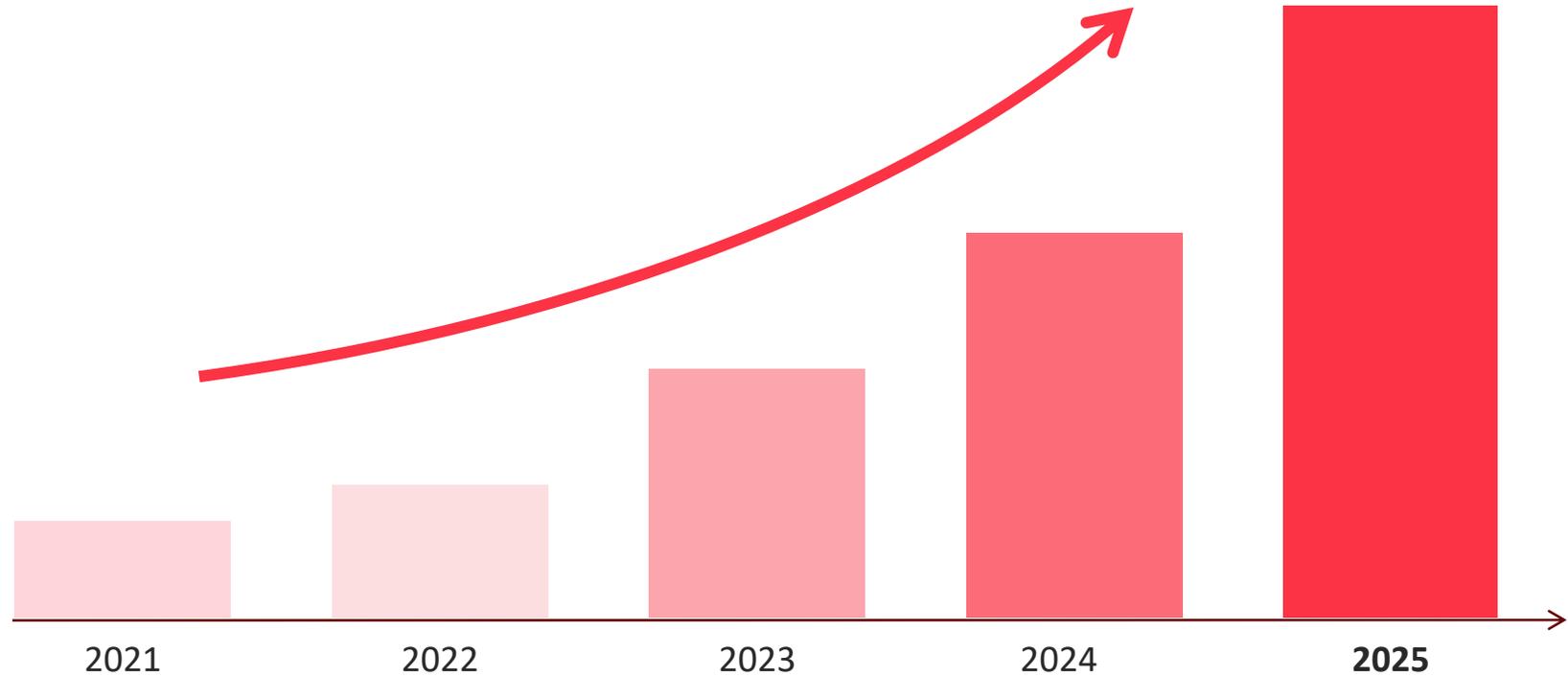
Simplifying the science of connectivity

- The future of wireless is limitless. But complexity is in the way of progress. At **ignion**, we believe technology should empower, not overwhelm.
- Our mission is to simplify RF for creators to focus on what matters the most: **building ideas that change the world.**

Predictable and scalable performance, designed by the team that redefined antenna science.



Proven technology.
Relentless growth.



+60

patents and IEEE fellow
recognition

+20

years of experience
simplifying RF

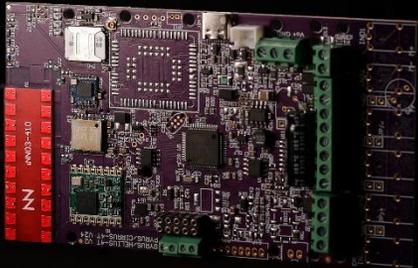
80M

devices worldwide with
Ignion antennas

200%

CAGR showcasing Ignion's
strong global momentum

Industrial Gateways &
Sensors



Asset Tracking



Smart Metering



Aftermarket Telematics



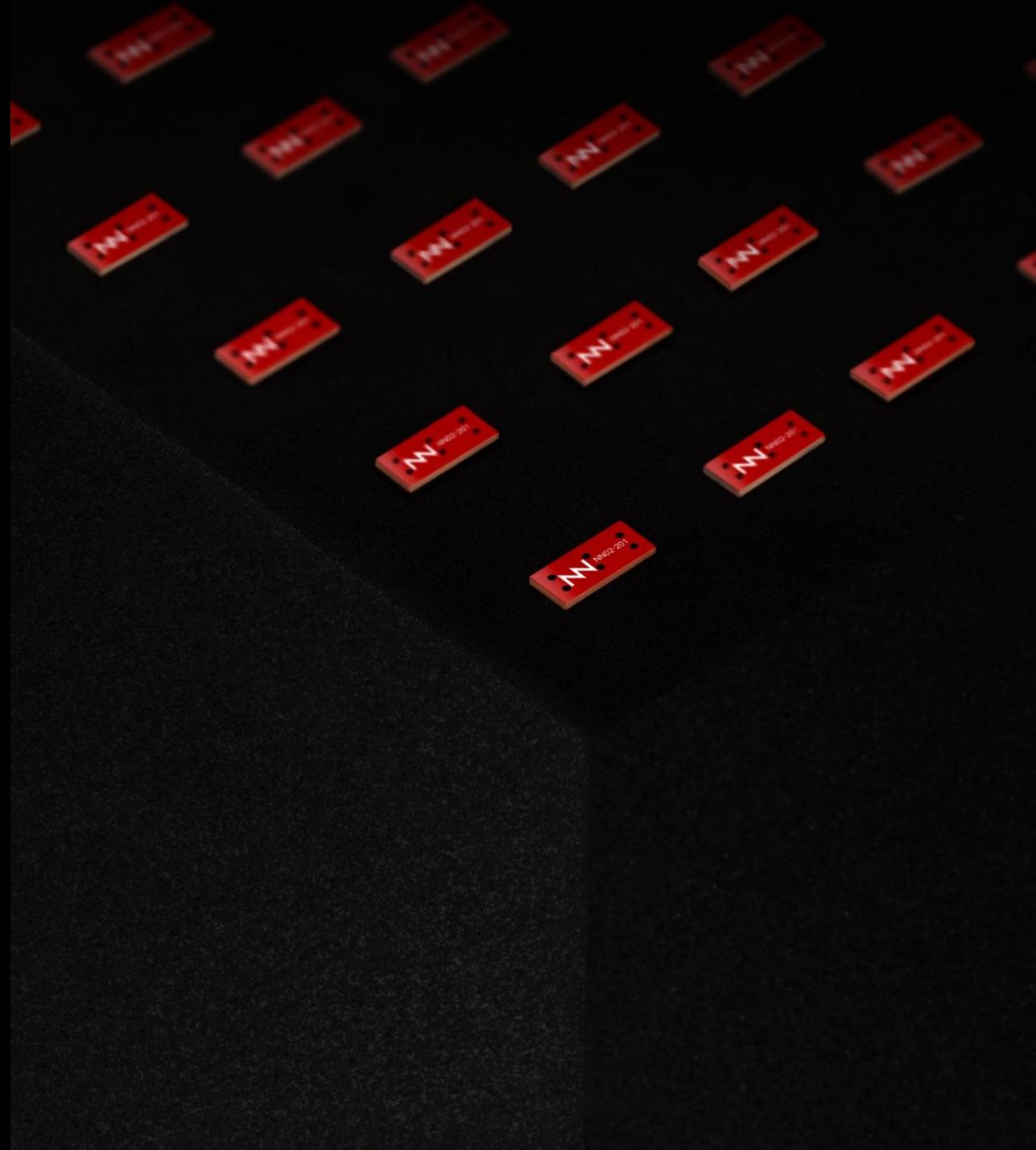
Medical &
Wellness Wearables



We're not just an antenna company. We are rewriting the rules of RF integration. **One device at a time.**

Virtual Antenna[®] Solution

ignion^N



One antenna component. Any radio. Any band. Any device.

Ignion's **Virtual Antenna[®] solution** turns RF integration into a predictable process.

- 1 Future-proof, multi-band, multi-radio.**
Design once, deploy globally and stay ready for future radio additions.
- 2 Faster integration & certification.**
48h RF Simulation with Oxion.ai.
85-95% first-pass certification success.
Cut months off your launch timeline.
- 3 Smaller Devices. Maximum Efficiency.**
Up to 70% radiation efficiency extend battery life and boost performance, even on tiny PCBs.
Ultra-compact SMD design.



What is Virtual Antenna[®] technology?

An antenna innovation pioneered by Ignion, composed of the following:

Antenna Booster

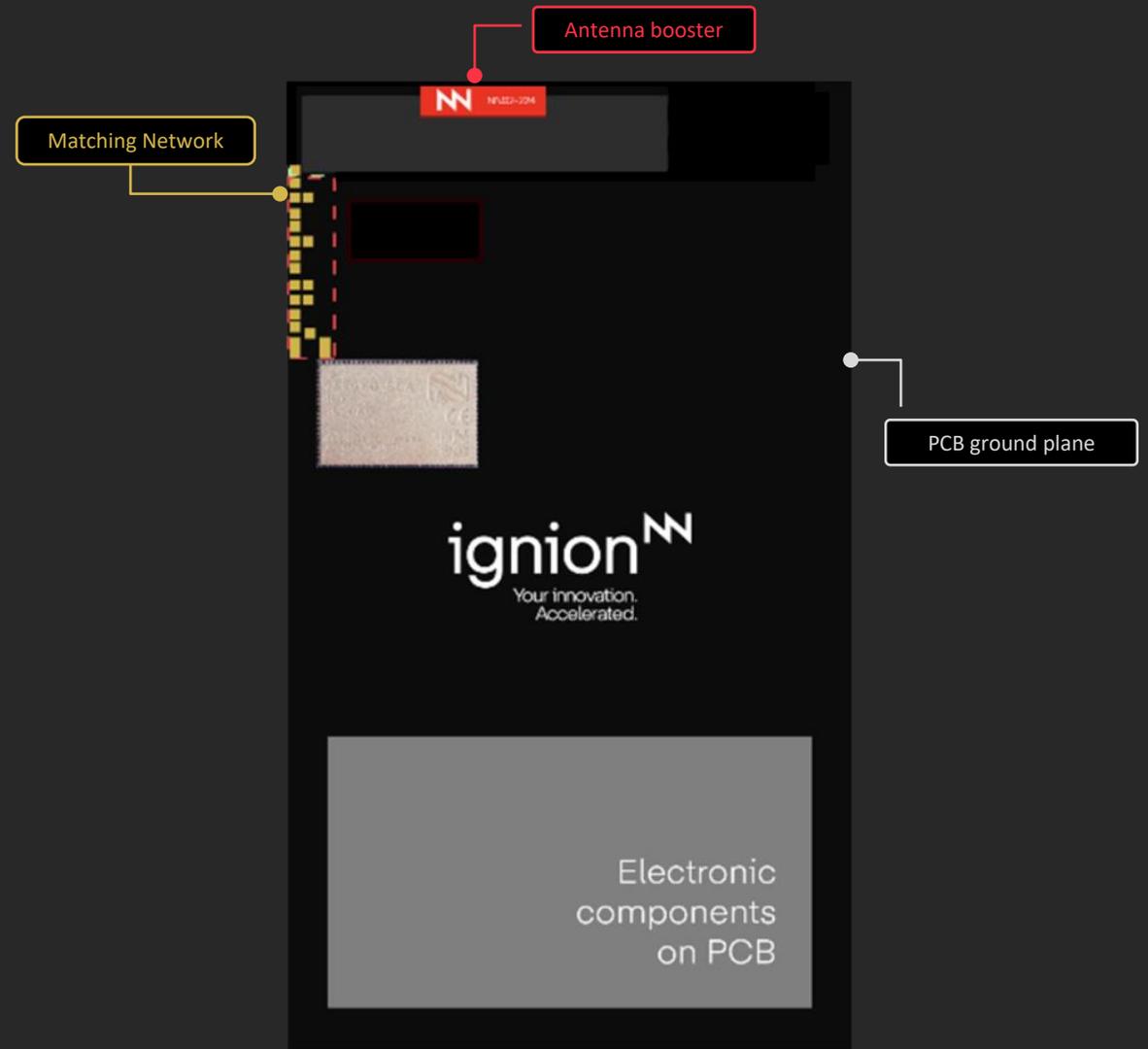
A non-resonant component that leverages the PCB to enable efficient radiation across multiple frequency bands, integrating with minimal space requirements.

Tunable Matching Network

Ensures optimal impedance matching for maximum power transfer across varied frequency bands, simplifying antenna design and boosting system performance.

PCB Ground Plane

Excited by the antenna booster, this delivers the radiation required by the device increasing effective radiated power (ERP), particularly in compact designs.

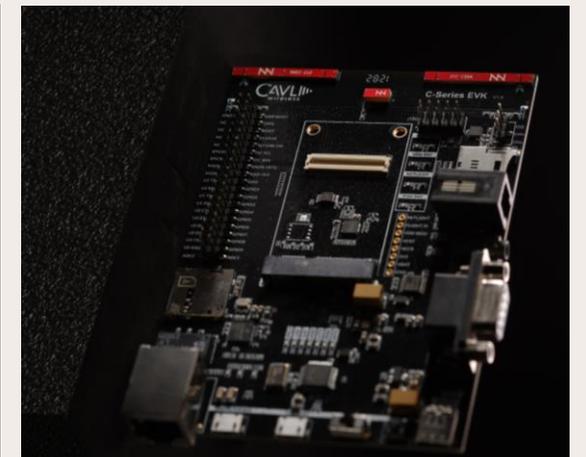
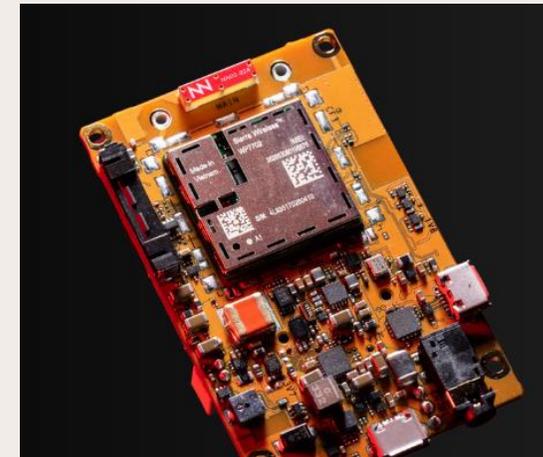
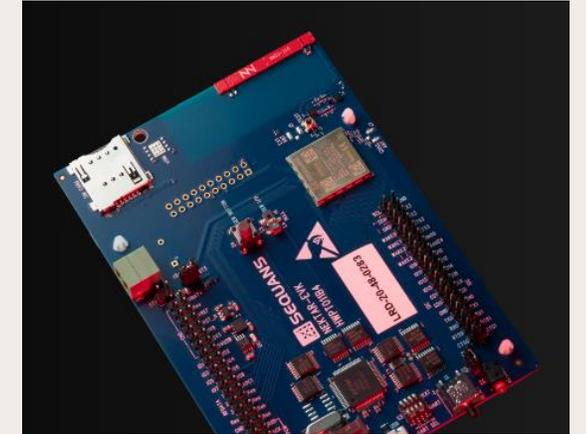


We believe in partnerships that make wireless work.

Effortlessly.

RF innovation is not a solo act.

That's why we partner with silicon leaders, module makers, and distributors, building integrated, ready-to-scale wireless solutions, so engineers can focus on what matters most: **innovation**.



RF Engineering Support



Your RF PhD, on call: Our Customer Support

From first layout to lab-ready prototype.

Our RF engineering support provides PhD-level consultation to help you **design smarter and certify faster.**



1. PoC simulation
De-risk integration from the first layout.



2. Design & tuning
From Gerber to tuned prototype.



3. Pre-cert testing
Avoid surprises before lab submission.



4. Noise debugging
Eliminate RSE that kills GNSS & LTE.

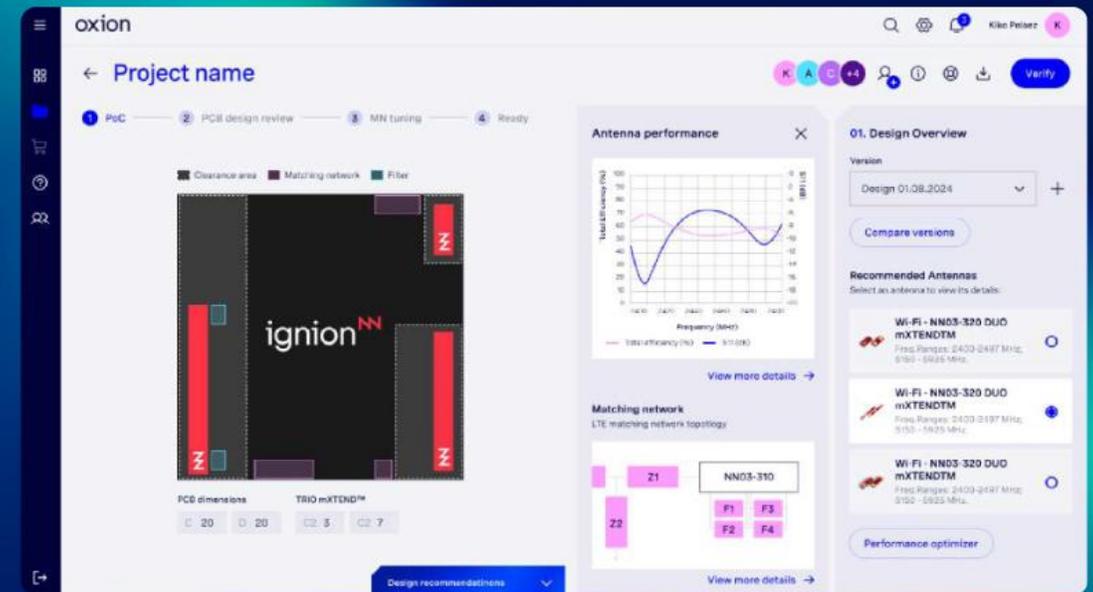
Turn antenna integration into **your first design step.**

Introducing Oxion[™], our **AI-powered platform** that does real RF engineering. Unlike traditional antenna integration tools, Oxion[™] applies ML models to deliver instant, validated integration results, not estimates.

- Automatic PCB design review
- AI design explorer
- Stock & pricing information
- Max – Your AI antenna expert

oxion

Try our antenna integration design on the AI-powered Oxion[™] platform



Our ecosystem



Ecosystem partners and customers building with Ignion solutions

WITHINGS

Kwikset



PHILIPS

SRAM



ASSA ABLOY



What our customers are saying...

“

“High and reliable performance from prototype to certified solution, supported by an outstanding engineering team were key considerations when we chose Ignion.”



“

“Ignion Virtual Antenna[®] technology meets our product requirements, with a small size for a compact design. Ignion secured the supply chain with the shortest market lead time, which is quite important for us nowadays.”

EHIGH 恒高

“

“We just implemented Virtual Antenna[®] technology following the Application Notes and it works like charm.”



“

“I am so happy I found Virtual Antenna[®] technology, this has made my life simple and predictable.”

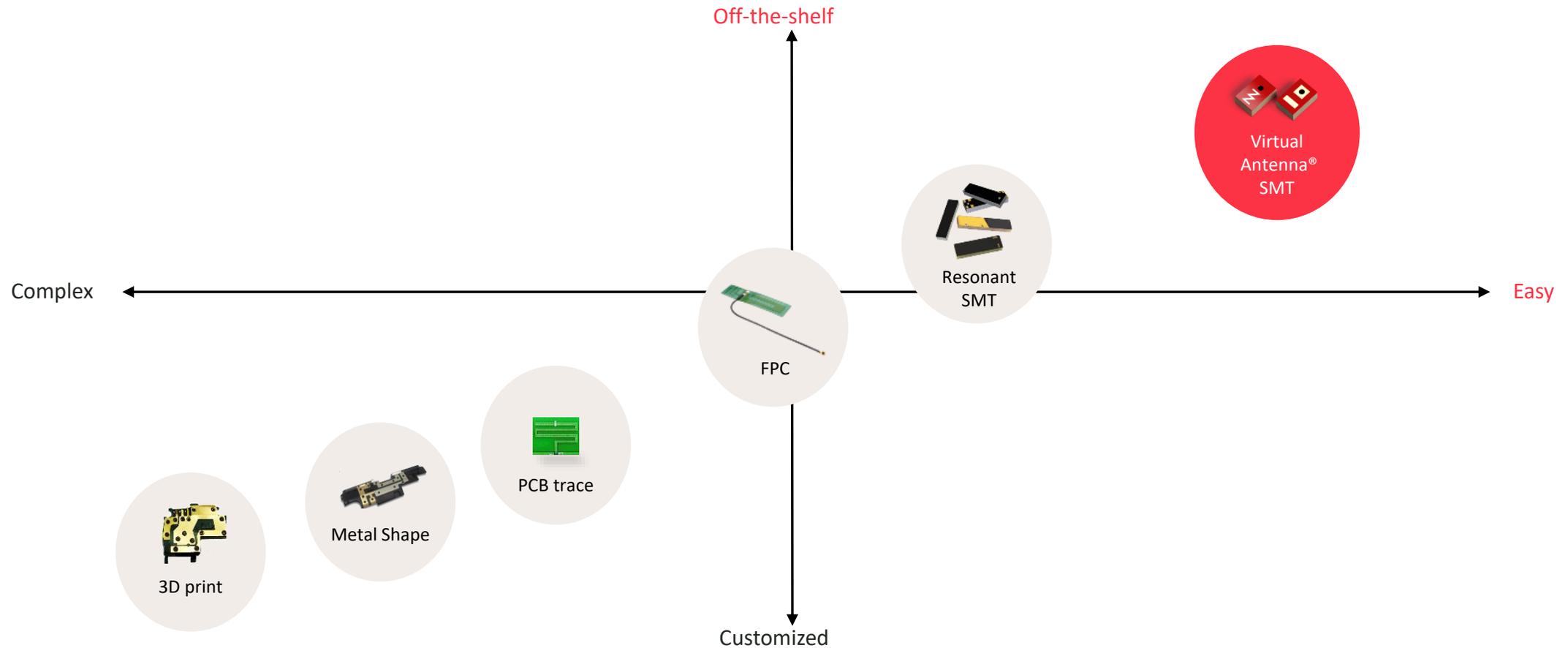


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Antenna boosters

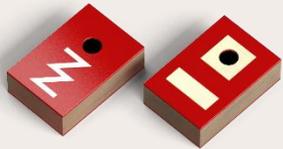
Antenna classification based on ease of integration and customization requirements



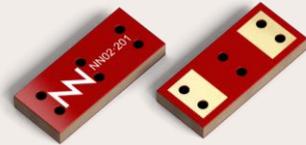
The proof is in the performance

Metric	Embedded Chip Antenna	Traditional Chip / FPC Antennas
Multiband / Multi-Radio Support	One component covers LTE-M, NB-IoT, GNSS, Wi-Fi, BLE. Design once, deploy globally.	Typically, narrow-band, often requires multiple elements or redesigns for new radios.
RF Efficiency in Small Devices	Up to 70% efficiency on compact boards → better range & battery life.	As low as 7% (low band), ~40% (high band) on small PCBs.
GNSS Time-to-First-Fix	Omnidirectional radiation → fast acquisition in any orientation.	Many need upright positioning → slower fixes, lost signals.
Certification Success Rate	85–95% first-pass success with stronger TRP across bands.	Multiple tuning iterations → delays & added cost.
PCB Real Estate	Ultra-small SMD footprint, no large keep-out zones.	Sticker/FPC antennas often need >20mm clearance.
Design Speed & Tuning	Simple matching tweaks + Oxion™ tuned BOM in 48h → cut NPI by 8–12 weeks.	Iterative build-test-adjust → long cycles.
BOM & Supply Chain	One SKU replaces many, SMT pick-and-place assembly.	Multiple SKUs per region/radio → sourcing complexity.

Virtual Antenna[®] Boosters



NANO mXTEND™
Part number: NN02-101



ONE mXTEND™
Part number: NN02-101



DUO mXTEND™
Part number: NN03-320



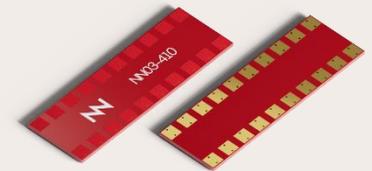
RUN mXTEND™
Part number: NN02-224



TRIO mXTEND™
Part number: NN03-310

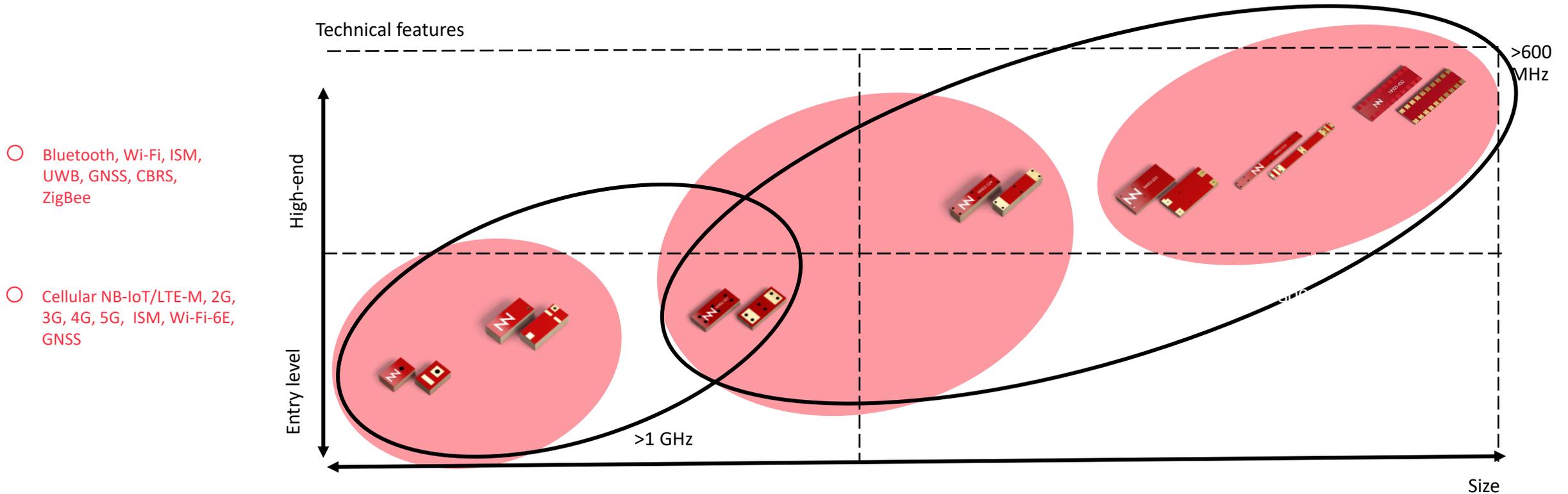


ALL mXTEND™
Part number: NN02-220



OMNIA mXTEND™
Part number: NN03-410

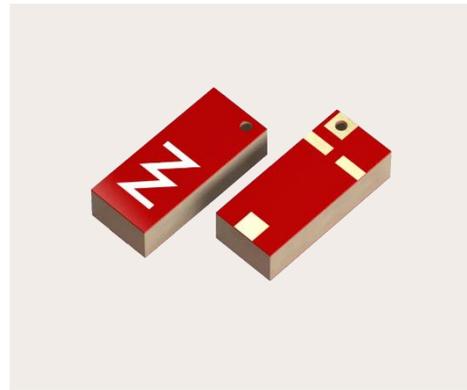
Comparison by Performance, Size and Protocol





THE BEST FOR

Dual Port (2.4 GHz & 1.6 GHz)



DUO mXTEND™

NN03-320

7.0 x 3.0 x 2.0 mm

1 Port/Dual port

DS Ant Eff: 45% (GNSS)

50% BT

GNSS/ GNSS Dual Band (L1/L5)



ONE mXTEND™

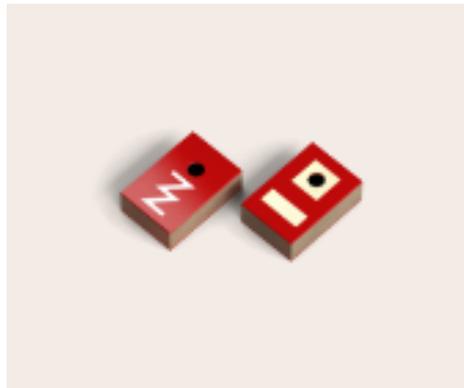
NN02-201

7.0 x 3.0 x 1.0 mm

DS Ant Eff: 65%

THE BEST FOR

UWB LFR & HFR (3.1-4.8 GHz & 6-8.5 GHz)



NANO mXTEND™

NN02-101
3.0 x 2.0 x 0.8 mm
DS Ant Eff: 70% (LFR)
80% (HFR)



ONE mXTEND™

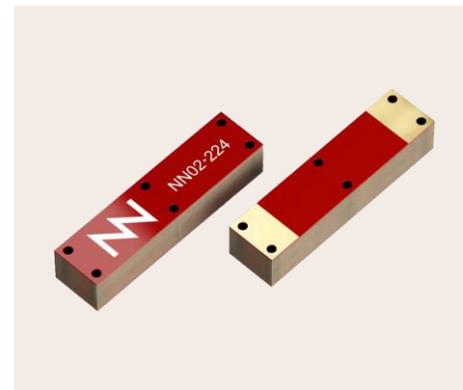
NN02-201
7.0 x 3.0 x 1.0 mm
DS Ant Eff: 80% (LFR)
80% (HFR)

THE BEST FOR
ISM/LoRa (868 MHz/915 MHz)



ONE mXTEND™

NN02-201
7.0 x 3.0 x 1.0 mm
DS Ant Eff: 60%



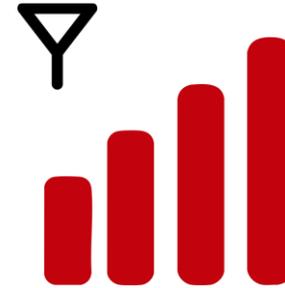
RUN mXTEND™

NN02-224
12.0 x 3.0 x 2.4 mm
DS Ant Eff: 80%

THE BEST FOR

NB-IoT/Cat-M/LTE/3G/2G

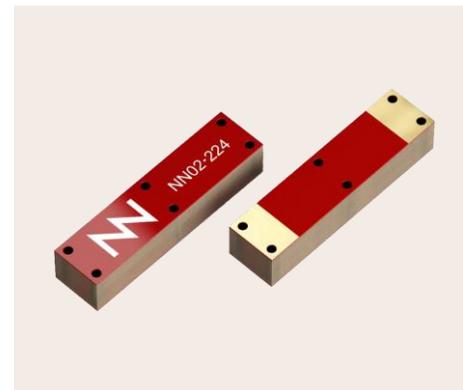
Above 750 MHz (800 MHz/ 900 MHz/1.7 GHz/
2.2 GHz)



ONE mXTEND™

NN02-201

7.0 x 3.0 x 1.0 mm
DS Ant Eff: 55% (LFR)
65% (HFR)



RUN mXTEND™

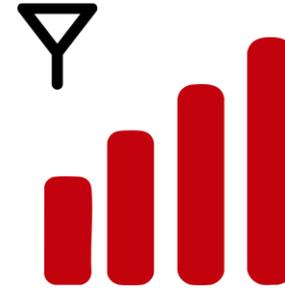
NN02-224

12.0 x 3.0 x 2.4 mm
DS Ant Eff: 65% (LFR)
75% (HFR)

THE BEST FOR

NB-IoT/Cat-M/LTE/3G/2G

Below 750 MHz (450 MHz/700 MHz/800 MHz/
900 MHz/1.7 GHz/2.2 GHz)



ALL mXTEND™

NN02-220

24.0 x 12.0 x 2.0 mm
DS Ant Eff: 55% (LFR)
75% (HFR)



TRIO mXTEND™

NN03-310

30.0 x 3.0 x 1.0 mm
DS Ant Eff: 60% (LFR)
75% (HFR)

Resources

- For design guides and other technical documentation
<https://ignion.io/resources-support>
- AI-powered antenna integration design platform
<https://oxion.ai>
- Our Virtual Antenna[®] Academy
<https://virtualantennamooc.salle.url.edu/>

Get in touch

ignion.io

info@ignion.io

Barcelona

Carrer Jesús Serra Santamans, 2
Building 2, 3rd Floor
08174 Sant Cugat del Vallès,
Barcelona
+34 935 660 710

Tampa

88875 Hidden River Parkway
Suite 300
Tampa, FL 33602
USA
+1 888 726 8366

Shangai

Keyan Road 9, Nanshan District
BAK Science & Technology, Room 1301E
Shenzhen, GD 518057
China
+86 138 2653 8470