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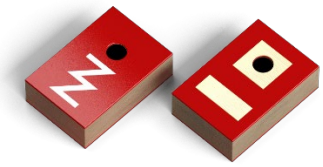
# Patent Portfolio

The following Ignion products are protected by one or more of the following patents in the U.S. and elsewhere. This document is intended to serve as notice under 35 U.S.C. § 287(a).

# Virtual Antenna® technology

## PRODUCT: NANO mXTEND™



BLUETHOOTH UWB WI-FI

The product above is covered by one or more of the following patent and patent applications. This document is intended to serve as notice under 35 U.S.C. § 287(a).

| | |
|---|---|
| Antennaless wireless device<br><br>US9761944B2, US10734724B2, US11139574B2, US11557827B2, US18506652 | Antennaless wireless device comprising one or more bodies<br><br>US9147929B2 |
| Wireless device capable of multiband MIMO operation<br><br>US8952855B2, US9997841B2 | Compact radiating array for wireless handheld or portable devices<br><br>US9577325B2 |
| Coupled antenna system for multiband operation<br><br>US10199730B2, US10777896B2, US11387559B2 | Scattered virtual antenna technology for wireless devices<br><br>US10062973B2 |

Modular multi-stage antenna system and component for wireless communications

CN110870133B, CN201880045357.8, CN202310042640.8, EP3649697B1, EP22194541.3, US11482772B2, US18490104

Slim booster bars for electronic devices

CN106575816B, CN201910662688.2, EP2978069B1, EP23205935.2, US9960478B2, US10236561B2, US11349195B2, US18734703

Concentrated wireless device providing operability in multiple frequency regions

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Wireless handheld devices, radiation systems and manufacturing methods

EP2873112B1, EP23170413.1, US9865917B2, US10749246B2, US11450945B2, US18327675

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US10122403B2, US11018712B2, US11563461B2, US18675663

Wireless device including optimized antenna system on metal frame

US10008762B2

Multi-structure antenna for multiband operation

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US10840591B2

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US10879587B2

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US10734713B2, US11705620B2

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Multiband antenna booster architecture with a single switch

US17749989

Self-tunable IoT device and radiating system based on non-resonant radiation elements

CN202280080881.5, EP22803032.6, US18640890

Loop booster for small IoT devices

US18315206

Embedded antenna booster system

EP23383373.0

Antennaless wireless device capable of operation in multiple frequency regions

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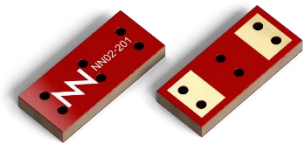
Self-tunable IoT device and radiating system based on non-resonant radiation elements with enhanced matching topologies

PCT/EP2024/060842

# Virtual Antenna® technology

## PRODUCT: ONE mXTEND™



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Slim booster bars for electronic devices

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Wireless handheld devices, radiation systems and manufacturing methods

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Wireless device including optimized antenna system on metal frame

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Self-tunable IoT device and radiating system based on non-resonant radiation elements with enhanced matching topologies

PCT/EP2024/060842

# Virtual Antenna® technology

## PRODUCT: DUO mXTEND™

GNSS UWB WI-FI

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Wireless device including a multiband antenna system

US9130267B2, US10476134B2, US11145955B2, US18512716

Self-tunable IoT device and radiating system based on non-resonant radiation elements

CN202280080881.5, EP22803032.6, US18640890

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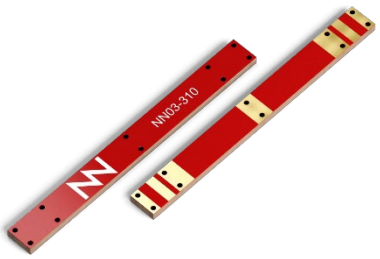
# Virtual Antenna® technology

## PRODUCT: TRIO mXTEND™




ASSET TRACKING CELLULAR

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Wireless device and antenna system with extended bandwidth

US10601110B2, US11271287B2, US11769941B2, US18454178

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Self-tunable IoT device and radiating system based on non-resonant radiation elements with enhanced matching topologies

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# Virtual Antenna® technology

## PRODUCT: ALL mXTEND™


AUTOMOTIVE SMART METERING

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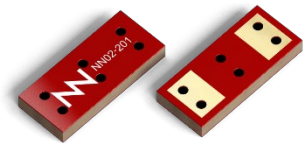

IOT ULTRACOMPACT

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