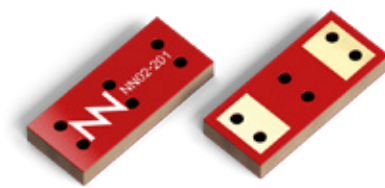
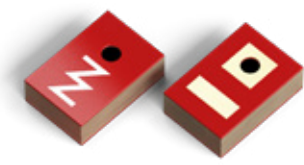




Product portfolio



	NANO mXTEND™	ONE mXTEND™	DUO mXTEND™	TRIO mXTEND™	ALL mXTEND™	RUN mXTEND™
<b>Part Number</b>	NN02-101	NN02-201	NN03-320	NN03-310	NN02-220	NN02-224
<b>Dimensions (L x W x H) mm</b>	3.0 x 2.0 x 0.8	7.0 x 3.0 x 1.0	7.0 x 3.0 x 2.0	30.0 x 3.0 x 1.0	24.0 x 12.0 x 2.0	12.0 x 3.0 x 2.4
<b>Number of Antenna Ports</b>	1 port solution	1 port solution	1-2 port solution	1-3 port solution	1 port solution	1 port solution
<b>Operating Range (MHz)</b>	2400 - 10600	800 - 10600	1561 - 10600	698 - 8000	698 - 8000	698 - 8000
<b>Best for (MHz)</b>	2400 - 2500	824 - 7125	1561 - 5875	698 - 3800	698 - 2690	824 - 5875
<b>Weight (g) aprox.</b>	0.01	0.02	0.11	0.25	1.23	0.19
<b>Reference Design Frequencies (MHz)</b>	2400 - 2500	3300 - 5000	1561 - 1606    2400 - 2500	698 - 960    1710 - 2690	698 - 960    1710 - 2690	824 - 960    1710 - 2690
<b>Average Efficiency (%)</b>	>55	>70	>45    >50	>55    >65	>55    >75	>65    >70
<b>Efficiency Range (%) (min - max)</b>	66.3 - 75.4	64.0 - 85.3	44.6 - 54.6    47.2 - 57.7	48.5 - 64.3    52.9 - 80.2	40.2 - 71.1    71.6 - 90.3	54.3 - 78.6    57.2 - 86.0
<b>Peak Gain (dBi)</b>	2.4	4.1	-1.1    -0.9	1.1    2.4	2.3    3.1	2.8    1.8
<b>VSWR</b>	<2.5:1	<2.5:1	<3:1	<3:1	<3:1	<3:1
<b>Ref. Design Part Number</b>	EB_NN02-101-c-BT	EB_NN02-201-5G	EB_NN03-320-m-GNSS-BT	EB_NN03-310-M	EB_NN02-220-1B-2R-1P	EB_NN02-224-1B-2RJ-1P

**Examples of wireless service applications**

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| <ul style="list-style-type: none"> <li>BLUETOOTH</li> <li>WI-FI</li> <li>UWB</li> </ul> | <ul style="list-style-type: none"> <li>2G   3G   4G   5G</li> <li>NB-IOT   LTE CAT-M</li> <li>CELLULAR IOT</li> <li>WI-FI DUAL BAND</li> <li>WI-FI 5   WI-FI 6</li> <li>WI-FI 6E   CBRS</li> <li>WI-FI 7</li> </ul> | <ul style="list-style-type: none"> <li>5G</li> <li>GNSS   BLUETOOTH</li> <li>WI-FI DUAL BAND</li> <li>UWB   CBRS</li> </ul> | <ul style="list-style-type: none"> <li>2G   3G   4G   5G</li> <li>NB-IOT   LTE CAT-M</li> <li>LORA   SIGFOX   ZIGBEE</li> <li>RFID   GNSS   ISM</li> <li>CBRS   THREAD</li> <li>SIDEWALK   Z-WAVE</li> <li>MATTER   CELLULAR IOT</li> </ul> | <ul style="list-style-type: none"> <li>2G   3G   4G   5G</li> <li>NB-IOT   LTE CAT-M</li> <li>CELLULAR IOT</li> </ul> | <ul style="list-style-type: none"> <li>2G   3G   4G   5G</li> <li>NB-IOT   LTE CAT-M</li> <li>LORA   SIGFOX   ZIGBEE</li> <li>GNSS   WI-SUN   ISM</li> <li>CBRS   THREAD</li> <li>SIDEWALK   Z-WAVE</li> <li>MATTER   CELLULAR IOT</li> </ul> |
|---|---|---|---|---|---|

All Virtual Antenna® chips are omnidirectional, 50 Ω, linear (polarization), SMT (mounting) and suitable for temperatures from -40 to +125°C.

All above antenna specs have been measured using a corresponding evaluation board. Additional Evaluations Boards for assessing the operation of the product in other supported communication standards (such as LTE, UMTS, GSM, GPRS, BT, Wi-Fi, GNSS, ISM) are available along with the associated product User Manuals and Application Notes. More information about Ignion products or services please visit ignion.io.

**JUNE 2022 © IGNION, S.L. ALL RIGHTS RESERVED WORLDWIDE**  
 Av. Alcalde Barnils 64-68. 08174 Sant Cugat del Vallès, Barcelona, Spain. Tel: +34 935 660 710

**ISO 9001: 2015 Certified**



SEE OUR INNOVATION IN ACTION

# Antenna Intelligence Cloud



01 Fill out the form

02 Confirm your request

03 Get your free antenna design

[ignion.io/antenna-intelligence/](https://ignion.io/antenna-intelligence/)

- Get an antenna design for your wireless device as fast as 24h.
- Includes the selection of the optimal off-the-shelf, tiny Virtual Antenna® component and matching network design specific to your requirements.
- Free of charge\*.
- Specially designed by our Engineering Team for your device.

(\*) See Antenna Intelligence Cloud Terms and Conditions in our website.



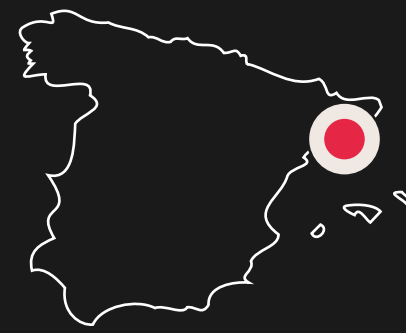
## Your innovation. Accelerated.

Reduce time to market and design costs through a shorter design cycle. No antenna expertise needed.

# We know IoT and we want to make it easier.

Ignion offers a wide range of full-performance miniature, multiband and multipurpose antenna components for IoT devices: asset tracking, smart meters, modules, sensors, alarms, wearables, smart cities, smart home and medical devices.

Contact us.



## BARCELONA

📍 Avda. Alcalde Barnils,  
64-68, Mod C, 3rd floor.  
Sant Cugat del Vallès  
08174 Barcelona Spain.

✉ info@ignion.io

📞 +34 935 660 710



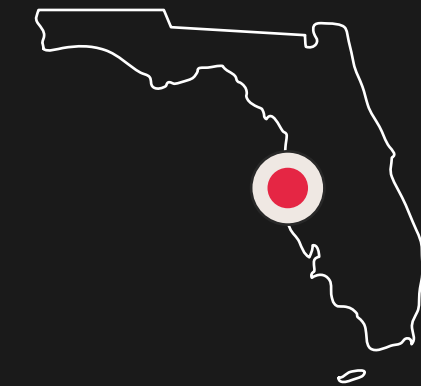
## SHENZHEN

📍 Topway Information Building,  
Room 2303,  
No.3369, Binhai Avenue,  
Nanshan District, Shenzhen,  
518000, China

✉ info@ignion.io

📞 +86 138 2653 8470

🌐 www.ignion.cn



## TAMPA

📍 8875 Hidden River Parkway  
Suite 300  
Tampa, FL 33637  
USA

✉ info@ignion.io

📞 +1 888 726 8366