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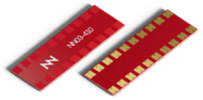
Product Portfolio

	 NANO mXTEND™	 ONE mXTEND™	 DUO mXTEND™	 RUN mXTEND™	 TRIO mXTEND™	 ALL mXTEND™	 OMNIA mXTEND™
Part Number	NN02-101	NN02-201	NN03-320	NN02-224	NN03-310	NN02-220	NN03-410
Dimensions (L x W x H) mm	3.0 x 2.0 x 0.8	7.0 x 3.0 x 1.0	7.0 x 3.0 x 2.0	12.0 x 3.0 x 2.4	30.0 x 3.0 x 1.0	24.0 x 12.0 x 2.0	44.1 x 14.6 x 1.0
Number of Antenna Ports	1 port solution	1 port solution	1-2 port solution	1 port solution	1-3 port solution	1 port solution	3 port solution
Operating Range (MHz)	2400 – 10600	800 - 10600	1500 – 10600	698 - 8000	400 - 8000	400 - 8000	400 - 8000
Best for (MHz)	2400 - 8500	824 - 8000	1561 – 8500	824 - 5875	698 - 3800	698 - 2690	617 - 3800
Weight (g) aprox.	0.01	0.02	0.11	0.19	0.25	1.23	1.23
Reference Design Frequencies (MHz)	2400 - 2500	3300 - 5000	1561 - 1606 / 2400 - 2500	824 - 960 / 1710 - 2690	698 - 960 / 1710 - 2690	698 - 960 / 1710 - 2690	790 – 960 / 1561– 1606 / 2400 – 2500
Average Efficiency (%)	>65	>70	>45 / >50	>65 / >70	>55 / >65	>55 / >75	>55 / >75 / >65
Efficiency Range (%) (min - max)	60.1 - 77.3	64.0 - 86.3	44.6 - 54.6 / 47.2 - 57.7	54.3 - 78.6 / 57.2 - 86.0	48.5 - 64.3 / 52.9 - 80.2	40.2 - 71.1 / 71.6 - 90.3	49.5 – 63.1 / 80.2 – 81.4 / 68.0 – 71.6
Peak Gain (dBi)	1.1	4.1	-1.1 / -0.9	2.8 / 1.8	1.1 / 2.4	2.3 / 3.1	0.9 / 4.0 / 3.5
VSWR	<2.5:1	<2.5:1	<3:1	<3:1	<3:1	<3:1	< 2.61:1 / < 1.5:1 / < 2.0:1
Ref. Design Part Number	EB_NN02-101-m-BT	EB_NN02-201-5G	EB_NN03-320-m-GNSS-BT	EB_NN02-224-1B-2RJ-1P	EB_NN03-310-M	EB_NN02-220-1B-2R-1P	EB_NN03-410
Examples of wireless service applications	BLUETOOTH, WI-FI, UWB	2G, 3G, 4G, 5G, NB-IOT, LTE CAT-M, CELLULAR IOT, UWB, WI-FI DUAL BAND, WI-FI 5, WI-FI 6, WI-FI 6E, CBRS, WI-FI, GNSS	5G, GNSS, BLUETOOTH, WI-FI DUAL BAND, UWB, CBRS, WI-FI 5, WI-FI 6	2G, 3G, 4G, 5G, NB-IOT, LTE CAT-M, LORA, SIGFOX, ZIGBEE, GNSS, WI-SUN, ISM, CBRS, CELLULAR IOT, SIDEWALK, MATTER, Z-WAVE, THREAD, WI-FI 5, WI-FI 6, WI-FI DUAL BAND	2G, 3G, 4G, 5G, NB-IOT, LTE CAT-M, LORA, SIGFOX, ZIGBEE, RFID, GNSS, ISM, BLUETOOTH, CBRS, THREAD, SIDEWALK, Z-WAVE, MATTER, CELLULAR IOT	2G, 3G, 4G, 5G, NB-IOT, LTE CAT-M, CELLULAR IOT	4G, 5G, NB-IOT, LTE CAT-M, BLUETOOTH, LORA, SIGFOX, ZIGBEE, GNSS, Wi-Fi, ISM, SIDEWALK, CELLULAR IOT, Z-WAVE, THREAD

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

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. For more information about Ignion products or services please visit ignion.io.

ISO 9001: 2015 Certified

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RoHS Compliant Pb lead-free

Simplify your RF design journey.

Ignion's high-performance, miniature Virtual Antenna® components are designed to fit effortlessly into any IoT project. From asset tracking and smart meters to wearables, smart cities, and medical devices, our multiband, multipurpose technology delivers seamless connectivity across all applications—no matter how compact.

Contact us

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