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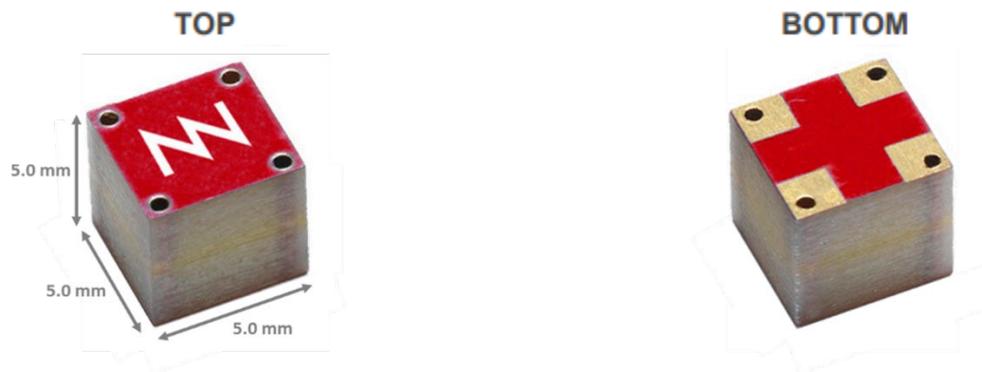
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# CUBE mXTEND<sup>™</sup> (NN02-250)

DATASHEET

## CUBE mXTEND<sup>™</sup> (NN02-250)

The CUBE mXTEND<sup>™</sup> antenna booster is an **ultra-narrow**, off-the-shelf component of 5.0mm x 5.0mm x 5.0mm dimensions. This antenna booster has been specifically designed for providing multiband performance in wireless devices for 2G/3G/4G bands.



### Product Benefits

- **Smallest footprint:** Multiband cellular IoT performance in the smallest footprint: 5.0 mm x 5.0 mm x 5.0 mm.
- **Multiband & Multiport:** 2G/3G/4G/5G, LTE-M and NB-IoT applications.
- **Global reach:** Through multiband performance (compatible with multiple regional standards).
- **Reliability:** Off-the-Shelf standard product, no antenna part customization (electronic optimization).
- **Use cases:** Small tracking devices, IoT sensors and IoT cellular/ISM modules and mobile devices.

### Operation Bands Summary

- GSM, UMTS, LTE (824 – 960MHz, 1710 – 2690MHz)

## 1. AVAILABLE SOLUTIONS SUMMARY

Class	Frequency Regions	Frequency range	Part Number
1 Port	2	824-960 MHz & 1710 – 2170 MHz	<b><u>CELLULAR UMTS</u></b>
2 Ports	2	824 – 960 MHz & 1710 – 2690 MHz	<b><u>CELLULAR LTE</u></b>

## 2. DETAILED AVAILABLE SOLUTIONS

### 2.1. UMTS SOLUTION

Technical features	824 – 960 MHz	1710 – 2170 MHz
Average Efficiency	> 50 %	> 70 %
Peak Gain	0.7 dBi	2.0 dBi
VSWR	< 3:1	
Radiation Pattern	Omnidirectional	
Polarization	Linear	
Weight (approx.)	0.25 g	
Temperature	-40 to +125 °C	
Impedance	50 Ω	
Dimensions (L x W x H)	5.0 mm x 5.0 mm x 5.0 mm	

Technical features. Measures from the evaluation board (131 mm x 60 mm x 1 mm).

### 2.2. LTE SOLUTION

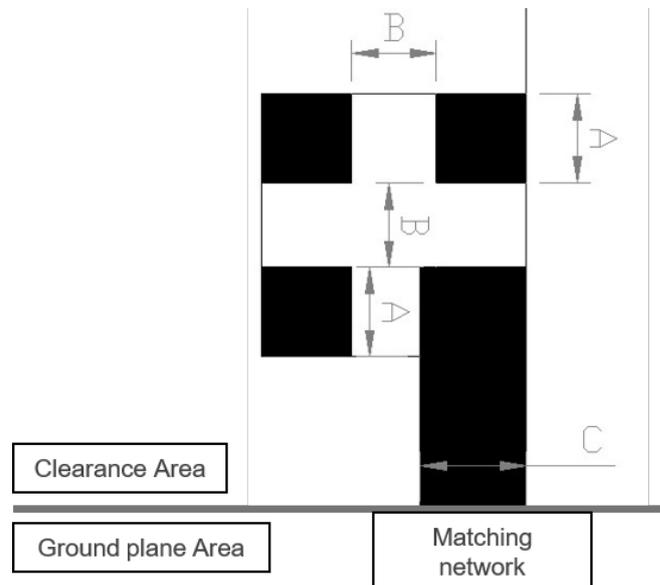
Technical features	824 – 960 MHz	1710 – 2690 MHz
Average Efficiency	> 50 %	> 70 %
Peak Gain	1.4 dBi	3.6 dBi
VSWR	< 3:1	
Radiation Pattern	Omnidirectional	
Polarization	Linear	
Weight (approx.)	0.25 g	
Temperature	-40 to +125 °C	
Impedance	50 Ω	
Dimensions (L x W x H)	5.0 mm x 5.0 mm x 5.0 mm	

Technical features. Measures from the evaluation board (131 mm x 60 mm x 1 mm).

## 2.3. ANTENNA FOOTPRINT

Measure	mm
A	1.7
B	1.6
C	2.0

Tolerance:  $\pm 0.1$   
mm



Footprint dimensions for the single booster.

If you need assistance to design your matching network, please contact [support@ignion.io](mailto:support@ignion.io)

You can also try our free of charge<sup>1</sup> [NN Wireless Fast Track service](#) you will receive a tailored antenna design approach for free in 24h<sup>1</sup>. discover the feasibility of your next wireless project including the antenna!

<sup>1</sup> See terms and conditions for a free NN Wireless Fast-Track service in 24h at: <https://www.ignion.io/fast-track-project/>

ignion<sup>™</sup>

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Contact:  
[support@ignion.io](mailto:support@ignion.io)  
+34 935 660 710

#### **Barcelona**

Av. Alcalde Barnils, 64-68 Modul C, 3a pl.  
Sant Cugat del Vallés  
08174 Barcelona  
Spain

#### **Shanghai**

Shanghai Bund Centre  
18/F Bund Centre, 222 Yan'an Road East,  
Huangpu District  
Shanghai, 200002  
China

#### **New Delhi**

New Delhi, Red Fort Capital Parsvnath Towers  
Bhai Veer Singh Marg, Gole Market,  
New Delhi, 110001  
India

#### **Tampa**

8875 Hidden River Parkway  
Suite 300  
Tampa, FL 33637  
USA