

CUBE mXTEND™ (NN02-250)

The CUBE mXTEND™ 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	<u>Cellular UMTS</u>
2 Ports	2	824 – 960 MHz & 1710 – 2690 MHz	<u>Cellular LTE</u>

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).

If you need assistance to design your matching network, please contact support@fractusantennas.com

You can also try our free of charge **NN Wireless Fast Track service** you will receive a tailored antenna design approach for free in 24h¹. discover the feasibility of your next wireless project including the antenna!

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