



Helium Starter Kit - Cellular

Choose your hardware adapter (Arduino/mbed, Raspberry Pi, USB) to get started.

Product Details

Helium Starter Kits include everything you need to easily give your embedded devices secure, long-range connectivity.

Included Hardware:

1 x Helium Element Access Point with Cellular Connectivity

1 x Helium Atom Prototyping Module (US Model)

1 x Hardware Adapter (Arduino/mbed, Raspberry Pi, or USB)

Note about US Model Hardware: Helium ships our prototyping kits worldwide, however cellular connectivity and radio bands may not work in all countries.

About the Helium Atom Prototyping Module

The Helium Atom Prototyping Module is the prototyping version of our secure, low-power, dual-band wireless module. The pin layout is compatible with many existing embedded devices, including Raspberry Pi, Arduino, and mbed.

Atom devices connect to the nearest Element out of the box using Helium's wireless technology that allows devices to communicate long distances with little interference and requiring no device-level configuration. Each element can support multiple atoms. Some embedded devices some may require an additional adapter, contact us at human@helium.com if you have any questions before purchasing.

Technical Specifications

Networking Standards	IEEE 802.15.4
Wireless Connectivity	802.15.4 IEEE Standard on dual-band radios 915 MHz & 2.4 GHz (US) 868 MHz & 2.4GHz (EU)
Security	Hardware-based encryption, authentication, and authorization
Environmental Range	Operating Temperature -40° to 185°F (-40° to 85°C)
Product Dimensions	Atom: Length: 1.06" (27mm) Width: 1.1" (28mm)
Certifications	FCC ID: 2ADMK-1 IC ID: 12590A-1
Voltage Range	2.0 to 3.6V (3.3V typical; 2.4V recommended minimum for full TX power at 915MHz)

About the Helium Element Access Point

Atom devices connect out of the box to the nearest Element. Helium's wireless technology allows devices to communicate long distances with little interference, requires no device-level configuration, and each Element can support thousands of Atom devices. This means you may only need one Element to cover an entire office building, two for a manufacturing facility, or three for a multi-acre farm.

The Element wirelessly connects to the Helium Routing Infrastructure anywhere there is cellular service, allowing for zero-configuration deployment for various applications and data is securely routed to any cloud platform of your choice.

Technical Specifications

Networking Standards	IEEE 802.15.4
Wireless Connectivity	802.15.4 IEEE Standard on dual-band radios 915 MHz & 2.4 GHz (US) 868 MHz & 2.4GHz (EU)
Security	Hardware-based encryption, authentication, and authorization
Environmental Range	Operating Temperature -40° to 185°F (-40° to 85°C)
Product Dimensions	Element: Length: 4.13" (105mm) Width: 4.3" (28mm) Height: 1.57" (40mm)
Certifications	FCC ID: 2ADMK-1 IC ID: 12590A-1
Voltage Range	2.0 to 3.6V (3.3V typical; 2.4V recommended minimum for full TX power at 915MHz)