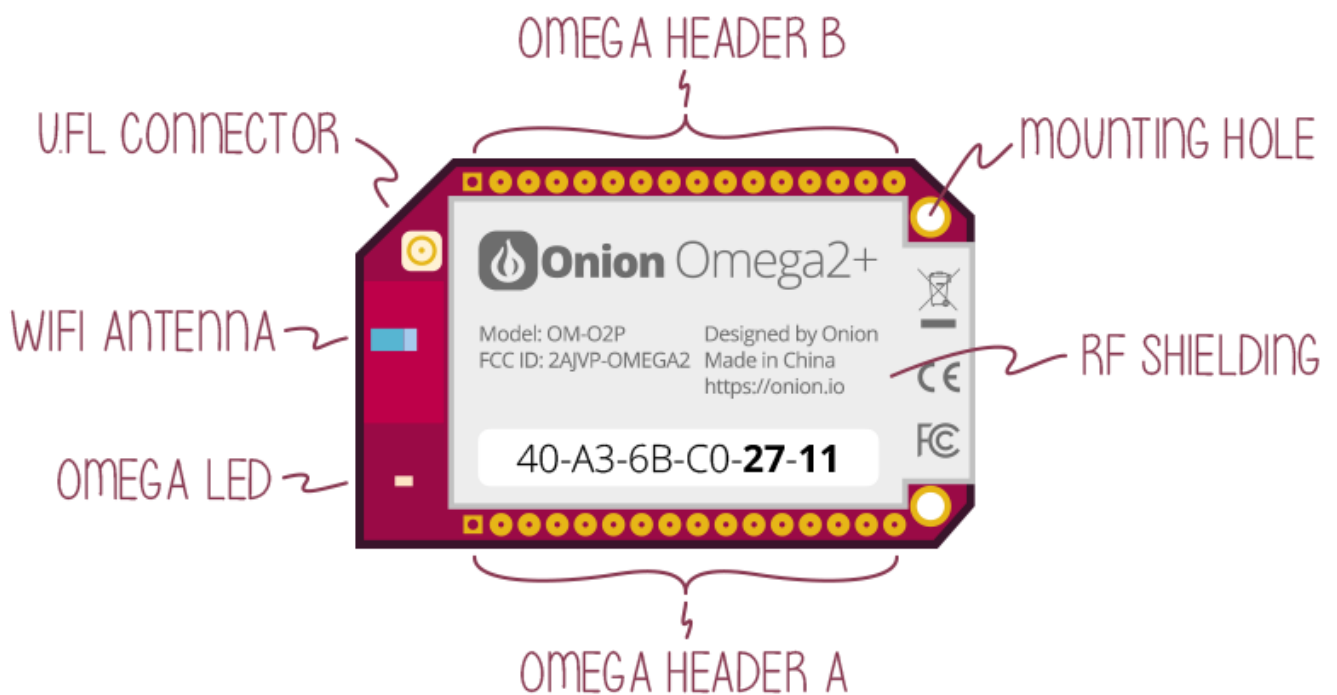


# Onion Omega2+

The Omega2+ is the upgraded version of the Omega2. It comes packed with built-in Wi-Fi, a MicroSD slot, a Linux Operating System, and a powerful processor, among other things.

## The Omega2 at a Glance



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<b>Omega2+ Specs</b>	
Processor	580MHz MIPS CPU
Memory	<b>128MB</b> Memory
Storage	<b>32MB</b> Storage
USB	USB 2.0
MicroSD Slot	<b>Yes</b>
WiFi adapter	b/g/n Wi-Fi
GPIOs	15
PWM	2
UART	2
I2C	1
SPI	1
I2S	1

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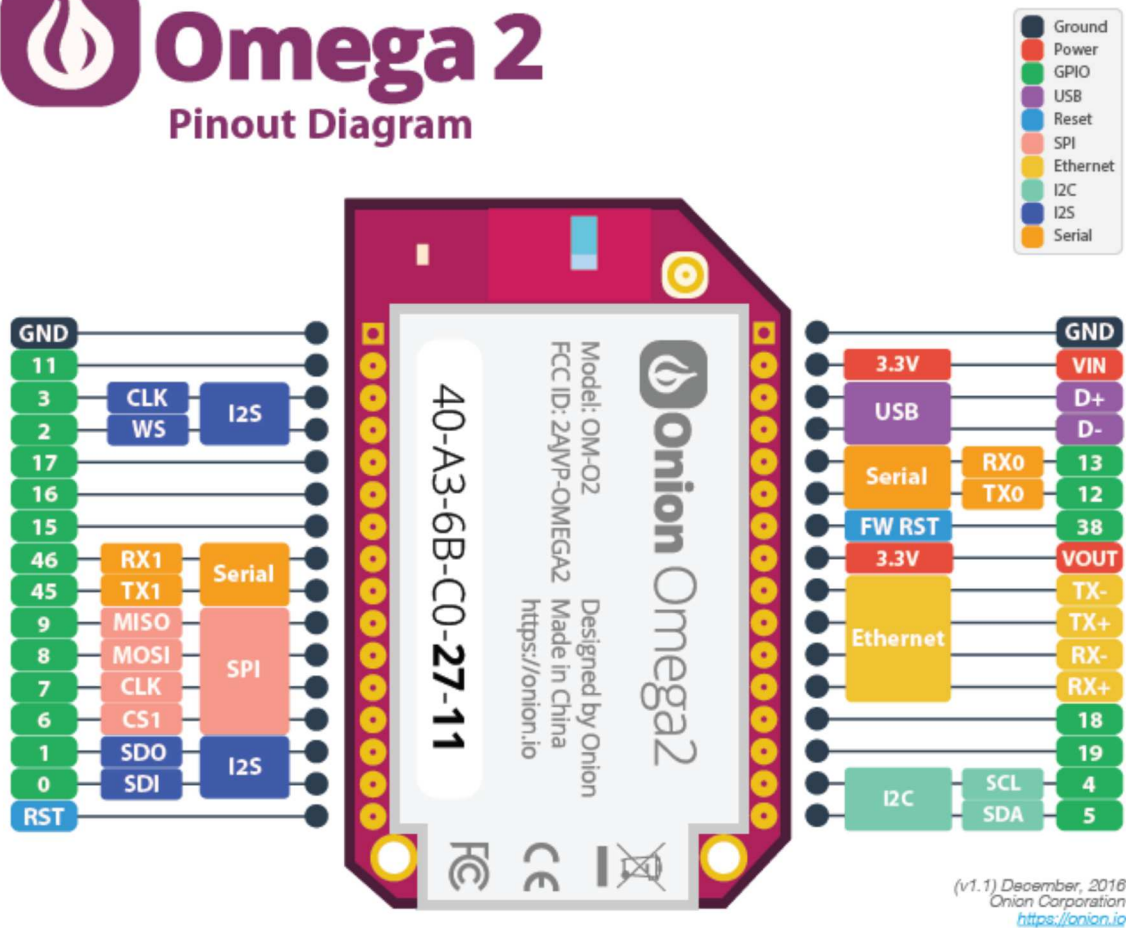
## Processor Datasheet

The datasheet for the Omega2 Plus' processor can be found here: [Mediatek MT7688 Datasheet](#)

## The Pins

# Omega 2

## Pinout Diagram



## The Operating system

The Omega2 runs the Linux Embedded Development Environment (LEDE) operating system, a distribution based on OpenWRT. This distribution gives the Omega2 access to the OPKG functionality, allowing you to download packages to enhance your experience.

## The Omega LED

The Omega LED is a great tool for communicating information with a user. It notifies you when your Omega is on, when it's off, and when it's booting.

The Omega LED uses GPIO44, and can be programmed to do a number of cool things. You can learn more about the LED in [the article on how to use the Omega's LED](#)

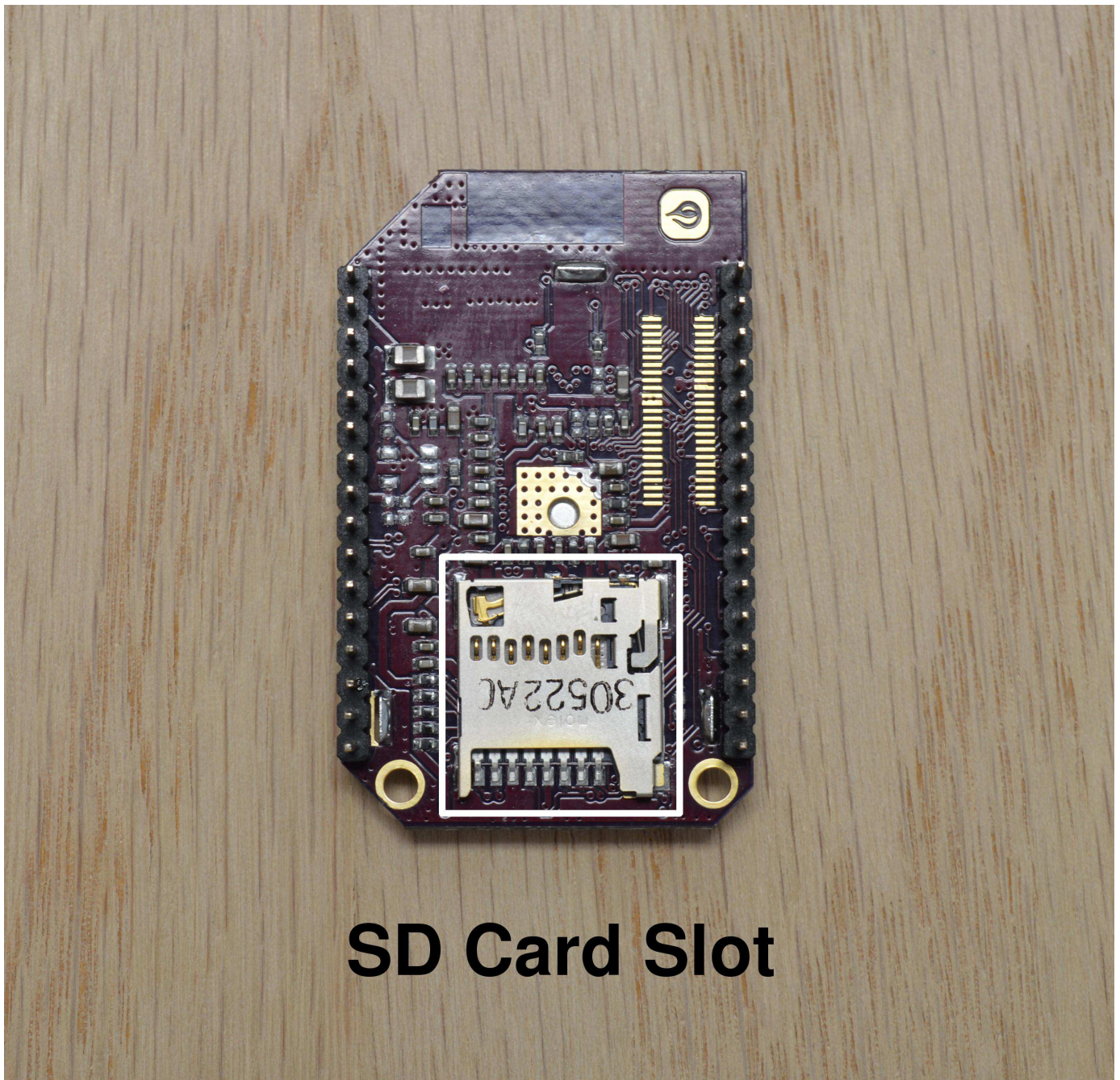
## Reset GPIO

The Omega's can be reset using GPIO38. When plugged into a Dock (e.g. Expansion Dock), this GPIO gives various functionality to the reset button found on docks. For example, a quick button press triggers the reboot command, whereas holding the button for about 10 seconds will trigger a factory reset command.

## MicroSD Card Slot

The MicroSD card slot can be used to expand the Omega2+'s storage capacity to ridiculous levels. If 32MB is a problem for you, you can now hit it with a tactical warhead. To help you get started, there's a guide on [using a MicroSD card](#).

The slot can be found at the bottom of the Omega2+. To physically mount a MicroSD card, slide it into the slot, push it down until it clicks. If it pops all the way back up, just do it again, and it should stay.



## SD Card Slot

### The WiFi Antenna

The on-board antenna is a ceramic surface-mount chip antenna. It's small but packs a punch, the Omega's WiFi signal is able to travel up to 100m (300ft) line-of-sight outdoors.

### The U.FL Connector

Connect an external antenna to the Omega's male surface-mounted U.FL connector. An external antenna can be used to extend the range of WiFi connectivity or provide a very directional signal. If a U.FL antenna is plugged in, it will be used as the default antenna, no setup required.

## Mechanical drawing

We've made available a detailed [diagram](#) of the dimensions and geometry of the Omega2+.