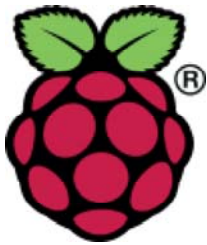


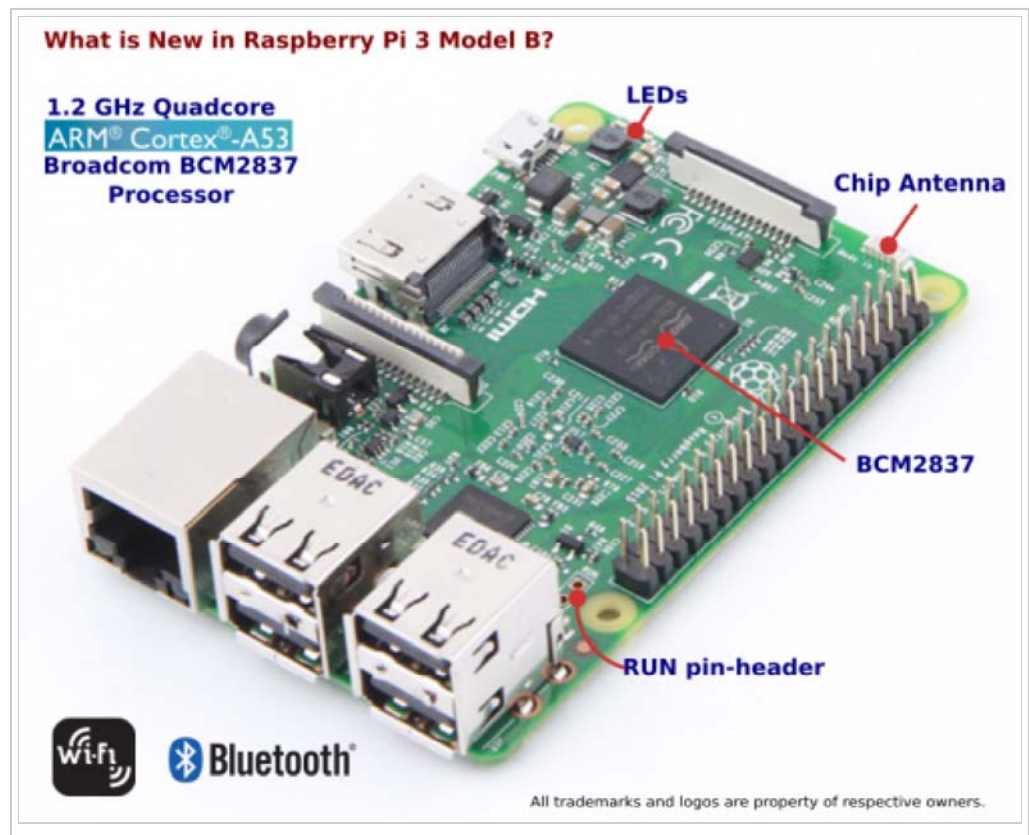
# Raspberry Pi 3 Model B

From Wiki 来自痴汉的爱

**Raspberry Pi®** is an **ARM** based credit card sized **SBC**(Single Board Computer) created by Raspberry Pi Foundation. Raspberry Pi runs Debian based **GNU/Linux** operating system Raspbian and ports of many other OSes exist for this SBC.



Raspberry Pi Foundation has announced a new version **Raspberry Pi 3**. Read announcement here. With on-board **WiFi** / **Bluetooth** support and an 64bit improved Processor, **Raspberry Pi v3** will be an exciting board for Makers, Engineers and Students.



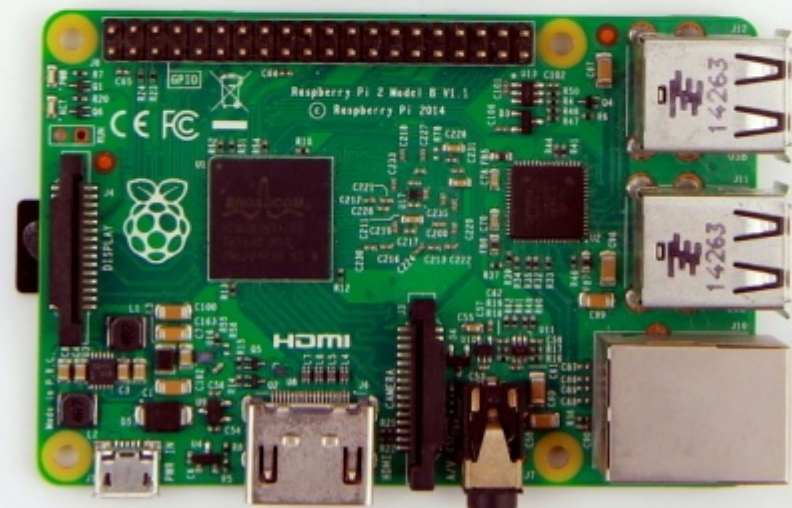
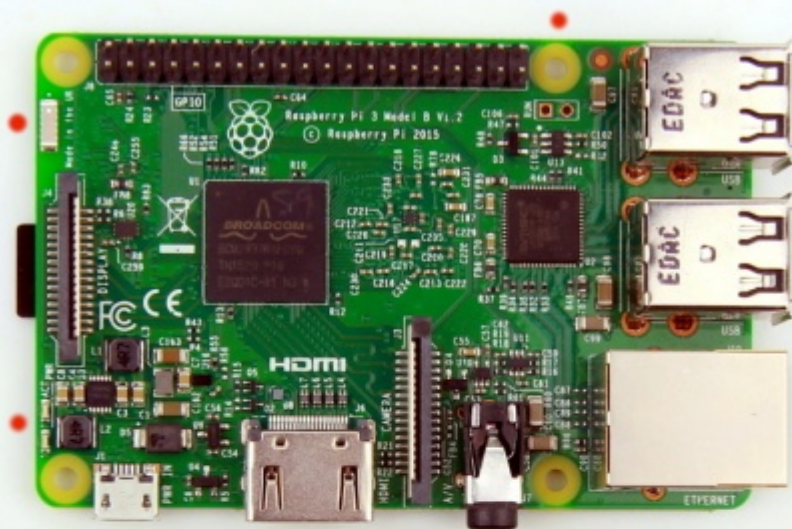
# What is new in Raspberry Pi 3 ?

Board	Raspberry Pi 2 Model B	Raspberry Pi 3 Model B
Processor	Broadcom BCM2836	Broadcom <b>BCM2837</b>
CPU Core	Quadcore ARM Cortex-A7, 32Bit	Quadcore <b>ARM Cortex-A53, 64Bit</b>
Clock Speed	900 MHz	1.2GHz (Roughly 50% faster than Pi2)
RAM	1 GB	1 GB
GPU	250 MHz VideoCore IV®	<b>400 MHz</b> VideoCore IV®
Network Connectivity	1 x 10 / 100 Ethernet (RJ45 Port)	1 x 10 / 100 Ethernet (RJ45 Port)
Wireless Connectivity	None	<b>802.11n wireless LAN (WiFi) and Bluetooth 4.1</b>
USB Ports	4 x USB 2.0	4 x USB 2.0
GPIOs	2 x 20 Pin Header	2 x 20 Pin Header
Camera Interface	15-pin MIPI	15-pin MIPI
Display Interface	DSI 15 Pin / HDMI Out / Composite RCA	DSI 15 Pin / HDMI Out / Composite RCA
Power Supply (Current Capacity)	1.8 A	<b>2.5 A</b>

## Board

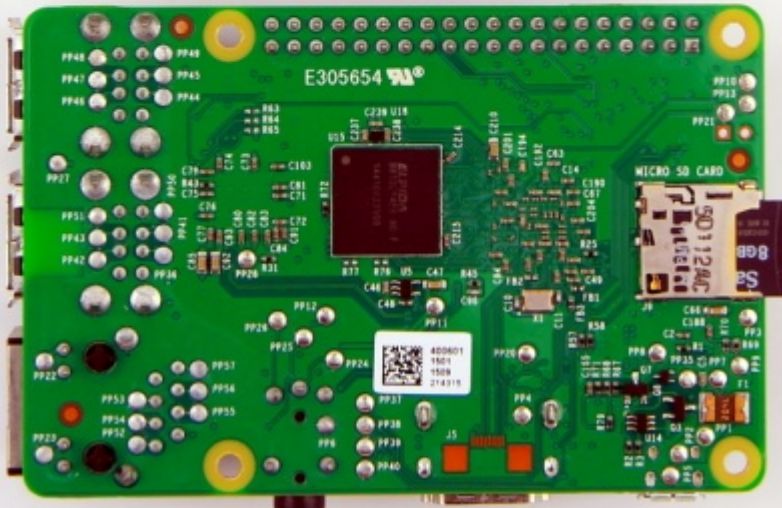
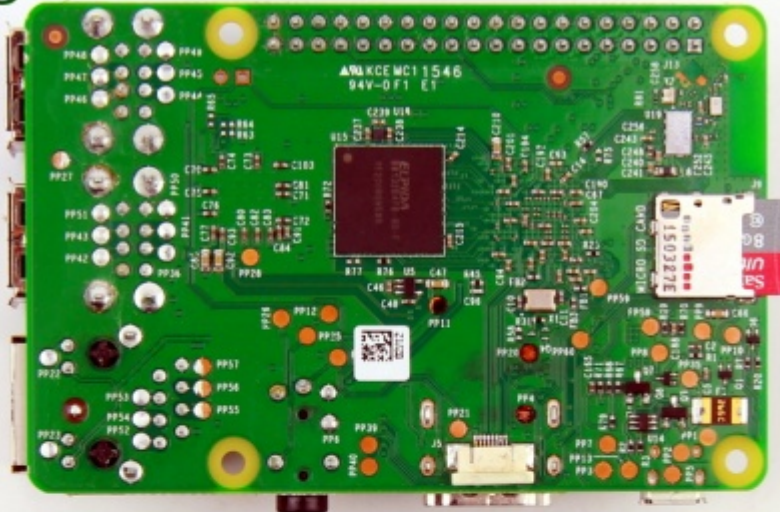
- The size of the Pi 2 and Pi 3 boards are the same.
- There is slight change in component placement to allow addition of WiFi / Bluetooth SoC & Chip antenna in Pi 3.

Pi3



Pi2

Pi3



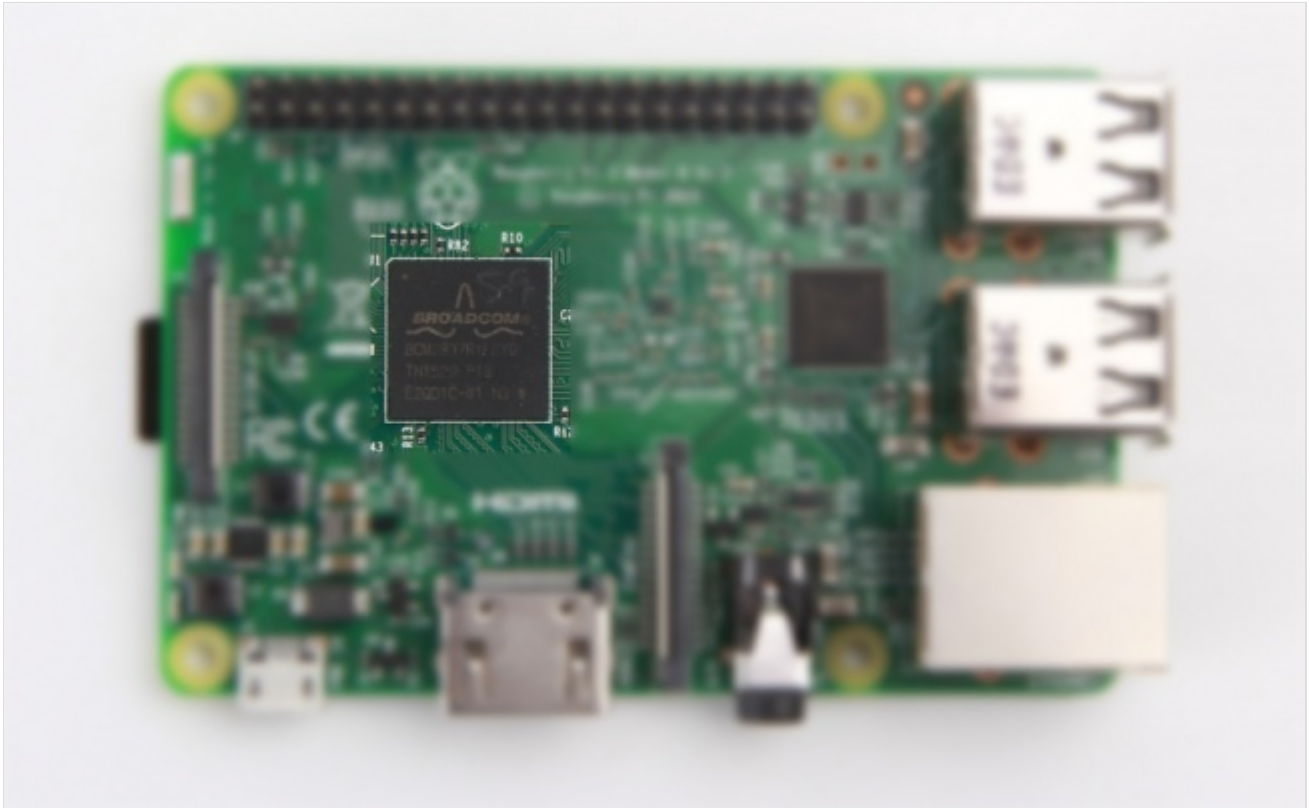
Pi2

## System on Chip (SoC)

### Broadcom BCM2837 SoC

- Application Processor
  - 64 bit
  - Quad Core
  - 1.2 GHz
  - ARM Cortex-A53 Processor (ARM V8 ISA)
- GPU
  - 400 MHz
  - Videocore IV Multimedia Co-Processor





## Chip Antenna

A ceramic chip antenna is used by WiFi and Bluetooth 4.1 SoC BCM43438. The chip antenna moves the indicator LEDs that were present in Pi 2 to the lower side of PCB.



## Repositioned LEDs

The ACT and PWR LEDs are repositioned as shown below in Raspberry Pi 3 when compared to Pi 2.



## Repositioned RUN pin-header

The RUN pin-header is also repositioned



## WiFi / Bluetooth SoC BCM43438

WiFi and Bluetooth 4.1 (Classic and LE) are provided by Broadcom BCM43438 chip



