

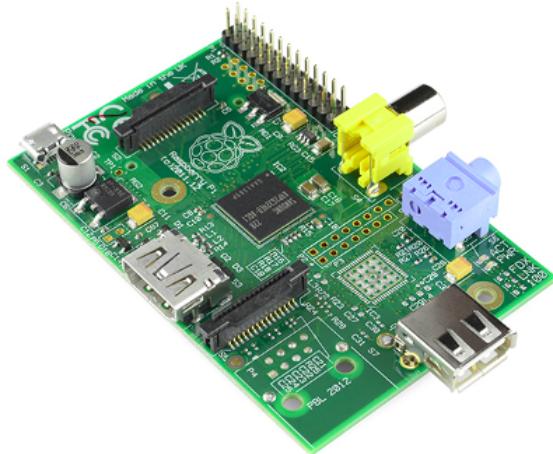
# Raspberry Pi 3 Model B



Waikato Linux User Group  
27 March 2017  
William McKee  
Ian Stewart

# Overview of Raspberry Pi Hardware

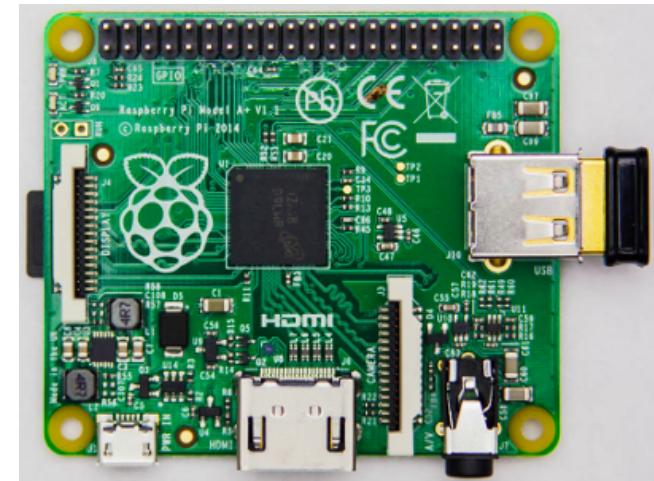
## Models of Raspberry Pi's (as of Dec 2015).



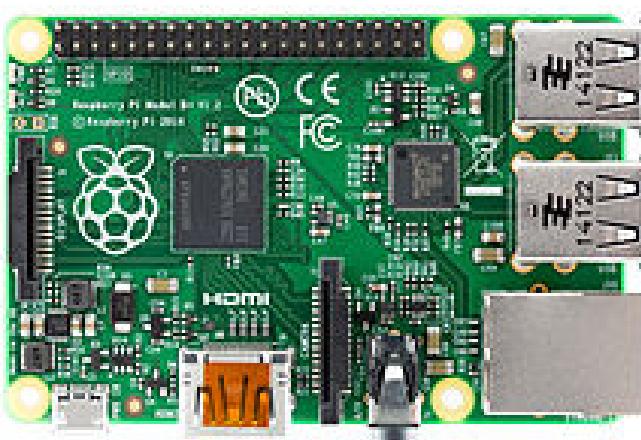
**R-Pi 1 Model A**  
BCM2835 – 700MHz 256-512MB



**R-Pi 1 Model B**  
BCM2835 – 700MHz 256~512MB



**R-Pi 1 Model A+**  
BCM2835 – 700MHz 512MB



**R-Pi 1 Model B+**  
BCM2835 – 700MHz 512MB



**R-Pi 2 Model B**  
BCM2836C – 900MHz 1GB



**R-Pi Zero**  
BCM2835 – 1GHz 512MB

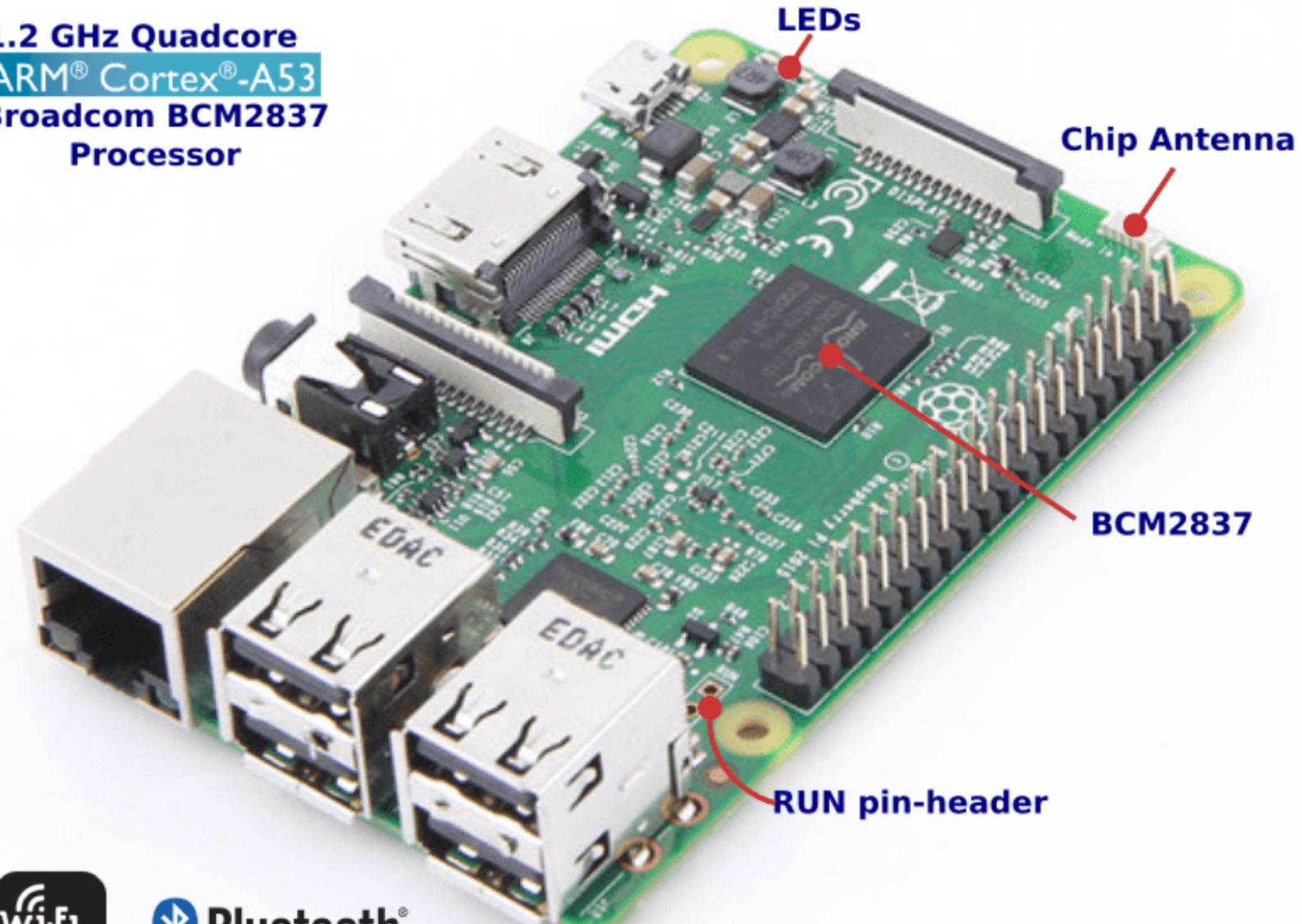
# Raspberry Pi 3 - History

- Raspberry Pi 3 Model B – Enhancement of R-Pi 2 Model B
- Release date: 29 February 2016; 1 year ago
- SoC: Broadcom BCM2837
- CPU: 1.2 GHz 64/32-bit quad-core ARM Cortex-A53
- Memory: 1 GB LPDDR2 RAM at 900 MHz
- Improvements:
  - On-board WiFi
  - On-board Bluetooth
  - USB Boot capabilities.
  - Graphics Broadcom VideoCore IV at higher clock frequencies (300 MHz & 400 MHz)
  - CPU 1.2GHz 64/32 bit. Pi 2 900MHz 32 bit
- Power 10W. i.e. 2A at 5V
- Latest: 28 February 2017, the Raspberry PI Zero W

# Raspberry Pi 3

What is New in Raspberry Pi 3 Model B?

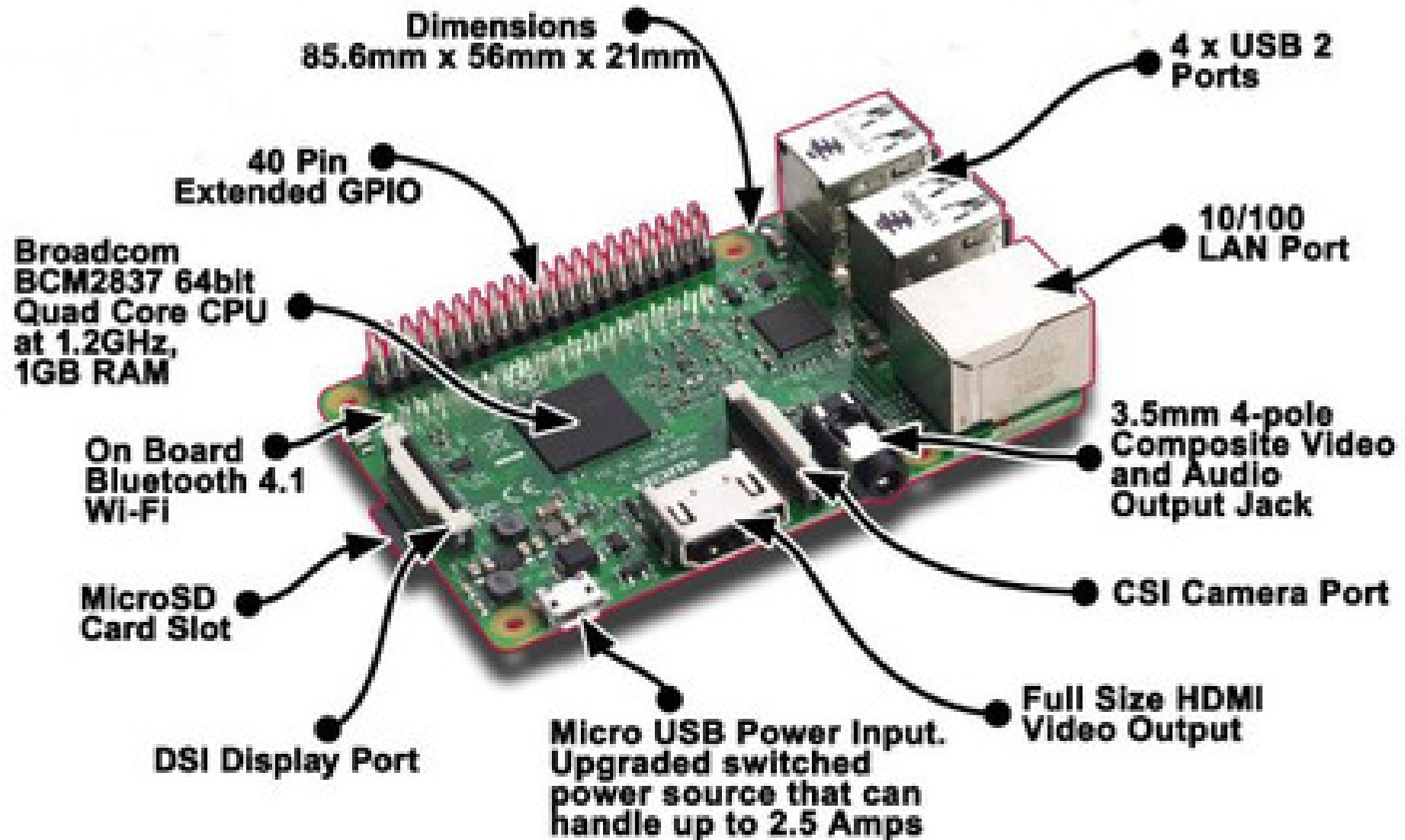
**1.2 GHz Quadcore**  
ARM® Cortex®-A53  
**Broadcom BCM2837**  
Processor



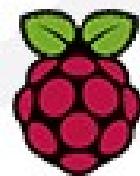
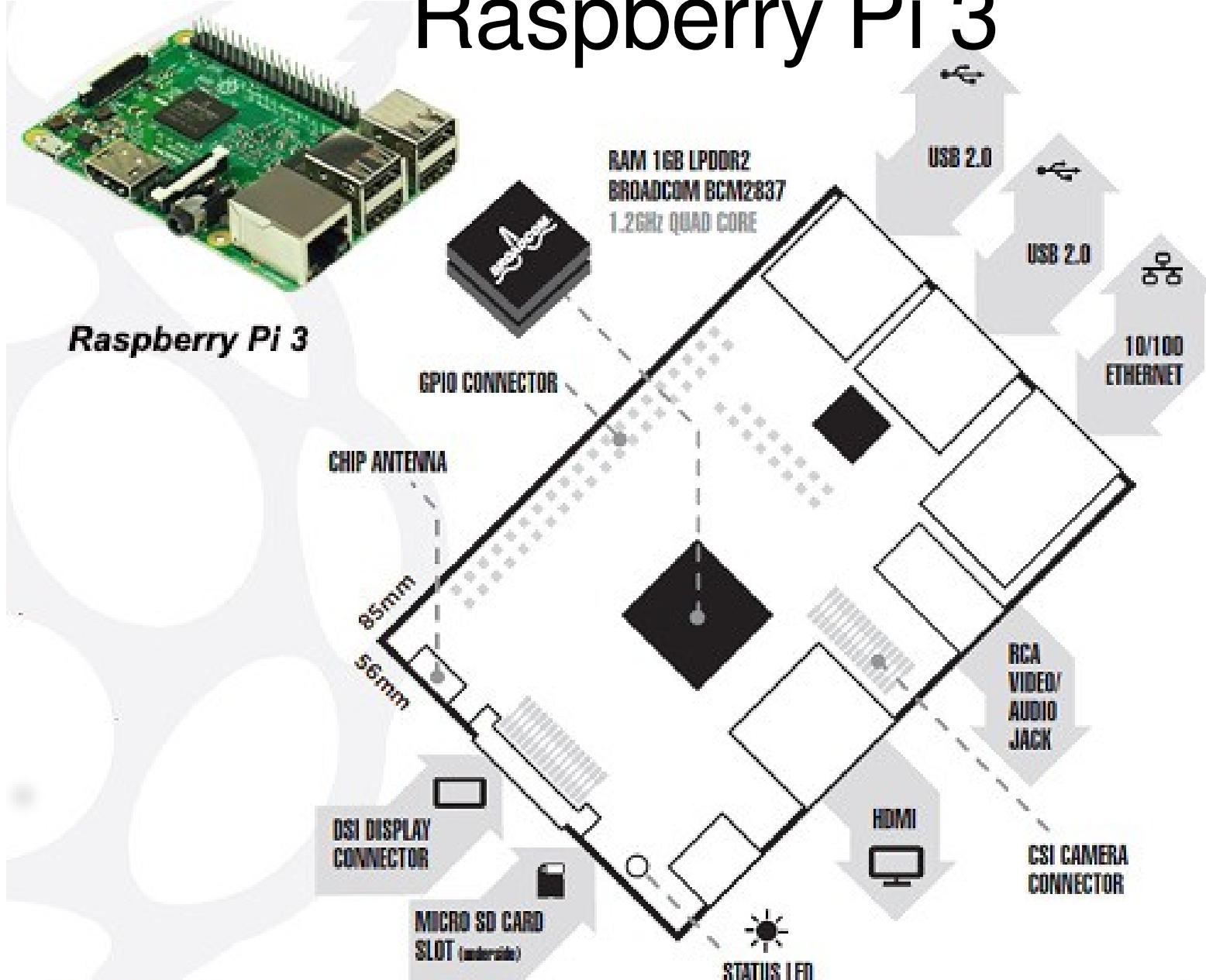
**Bluetooth®**

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# Raspberry Pi 3

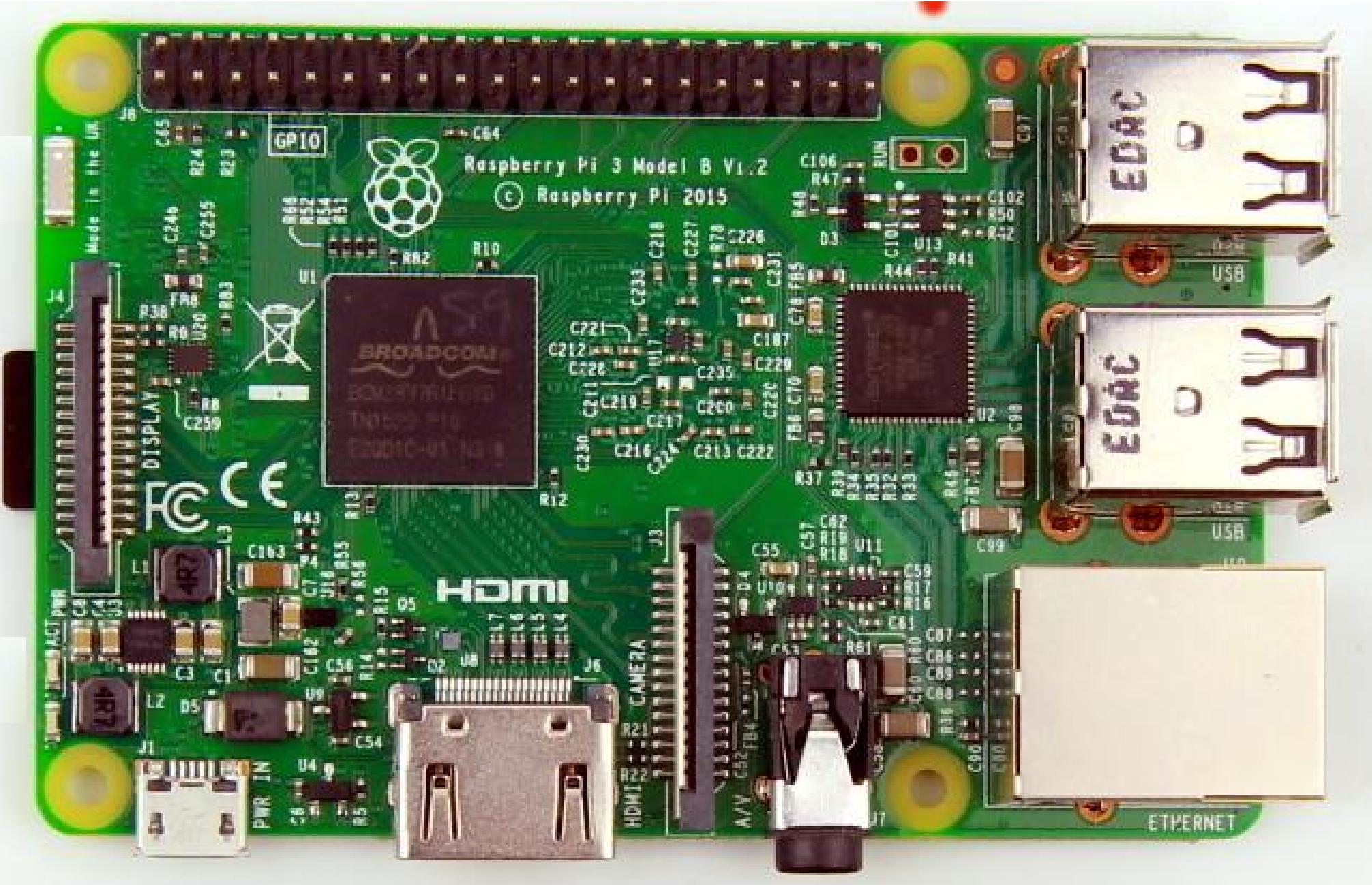


# Raspberry Pi 3

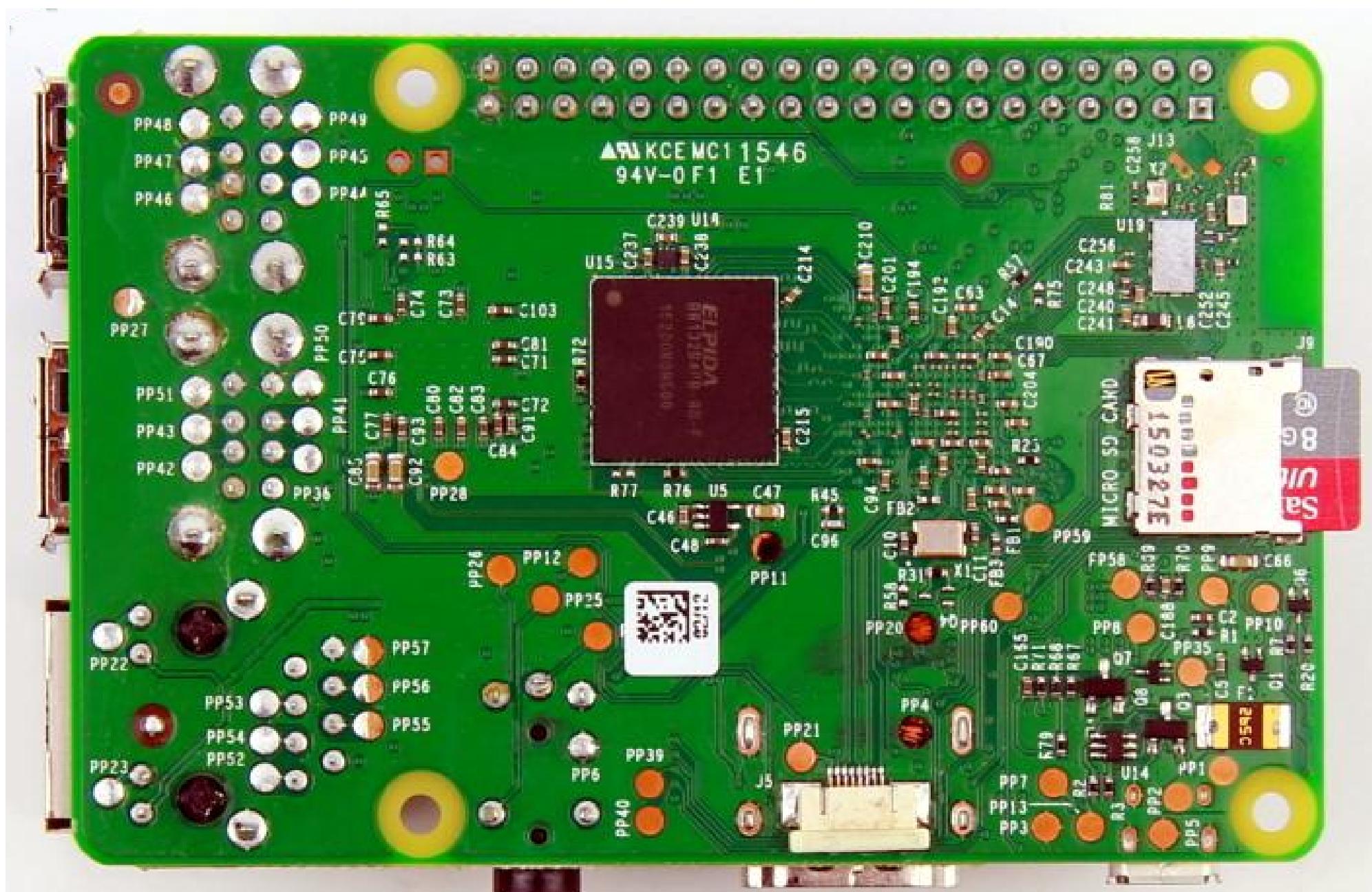


*Raspberry Pi 3 Model B*

# Raspberry Pi 3 - Topside

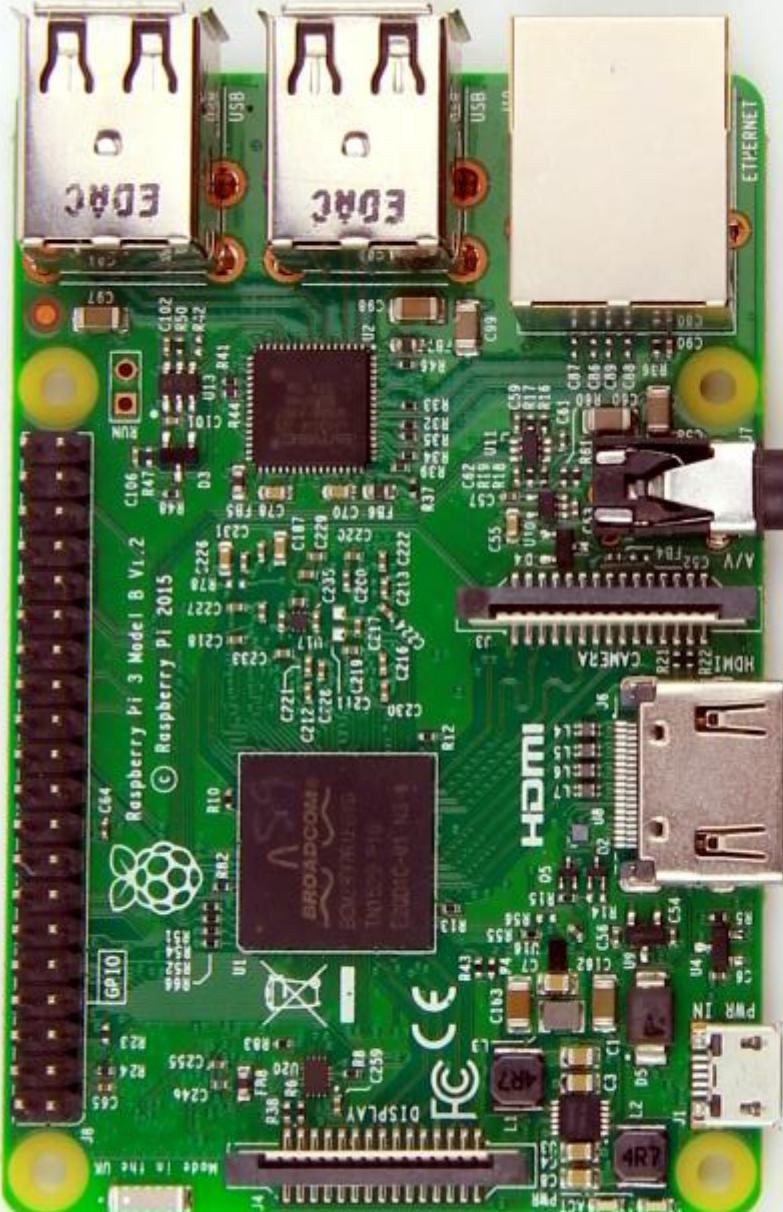


# Raspberry Pi 3 - Underside

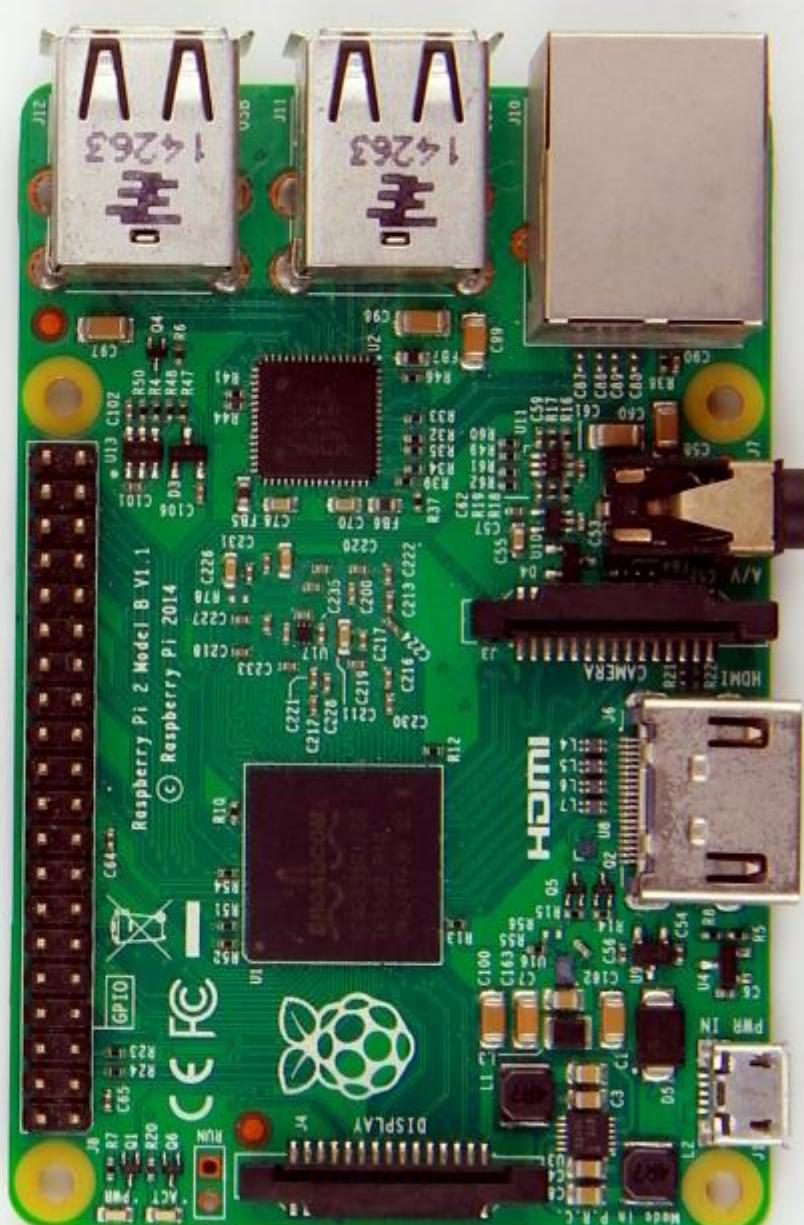


# Raspberry Pi 3 compared to Pi 2

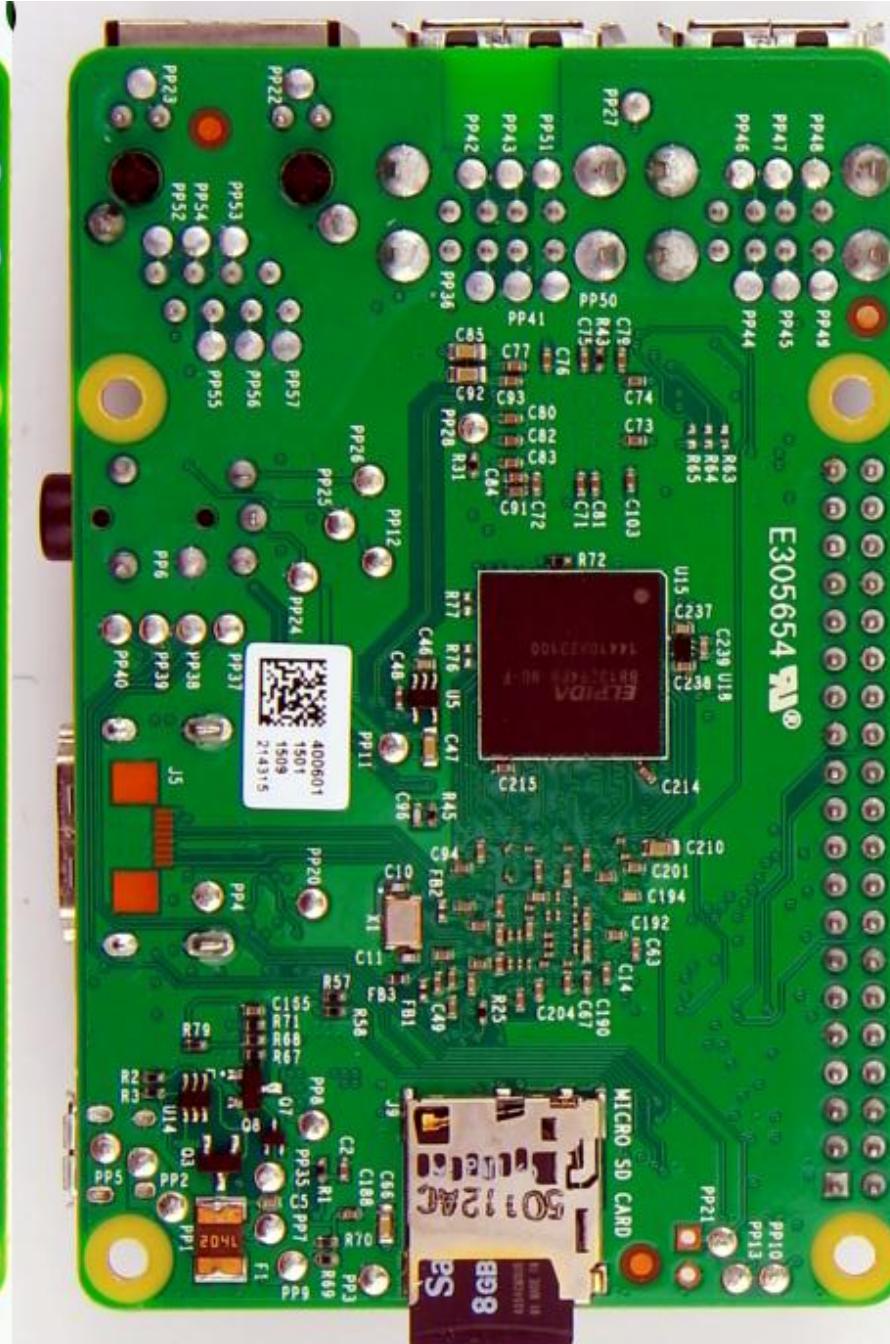
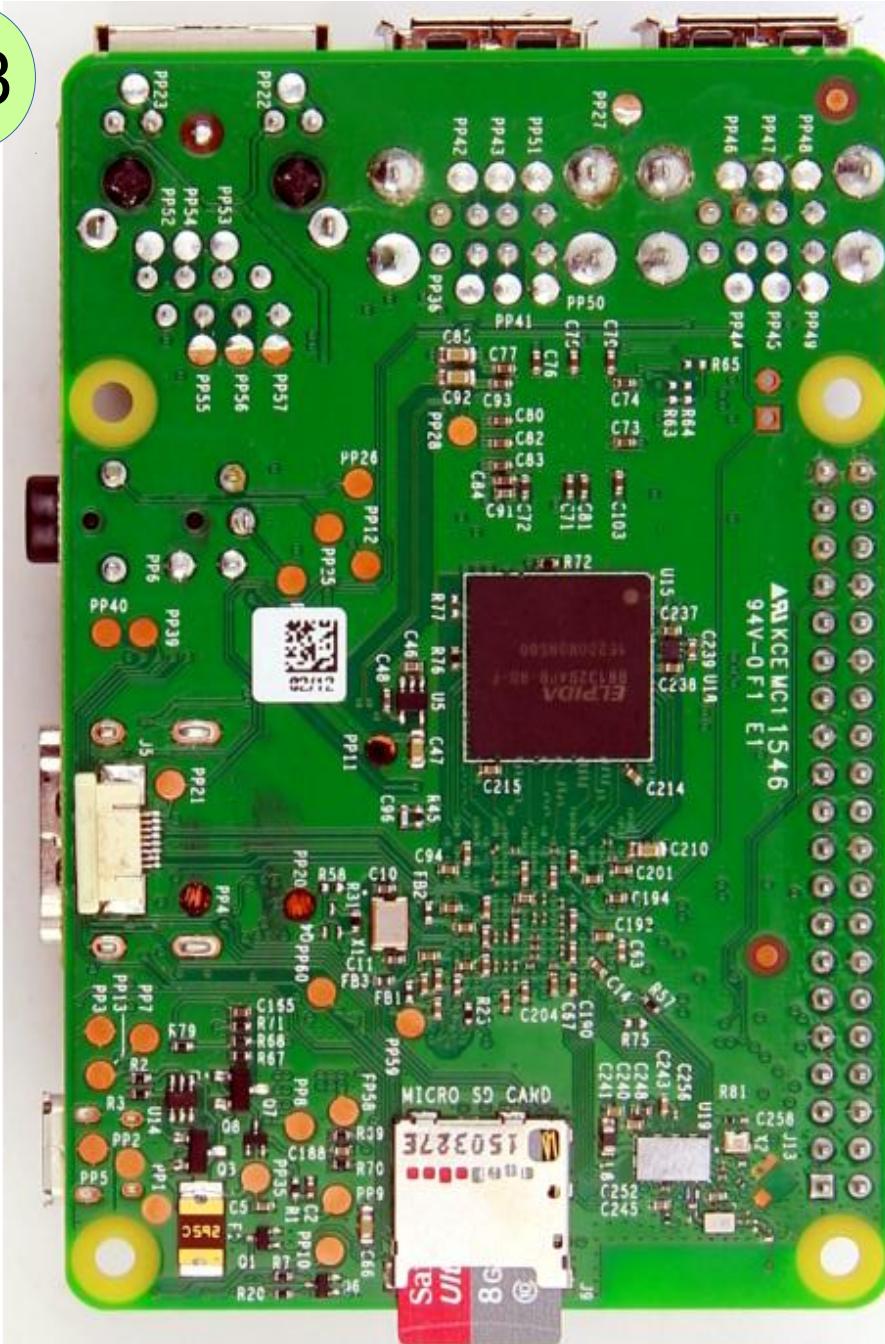
Pi3



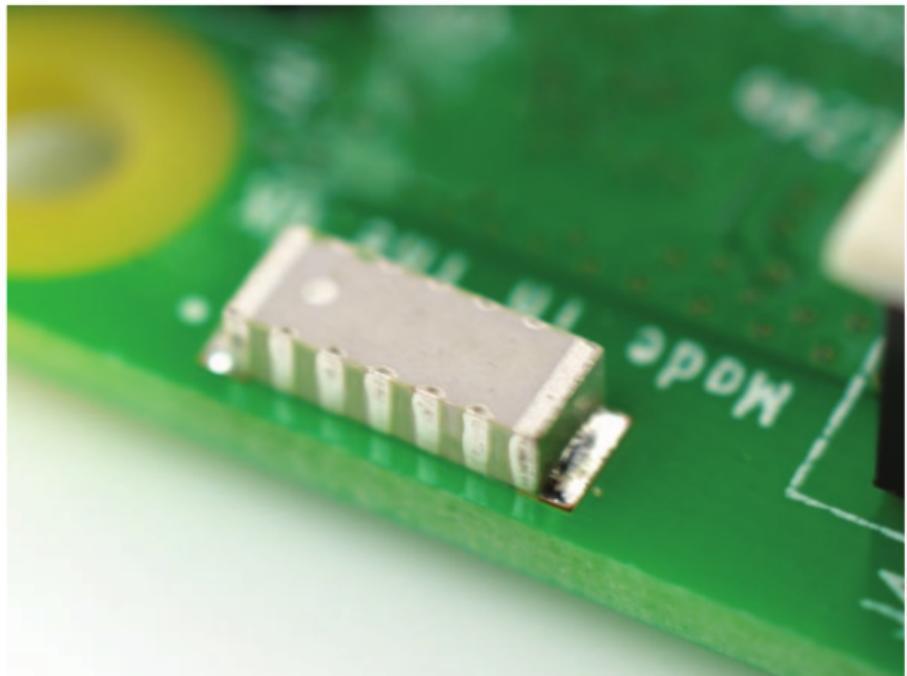
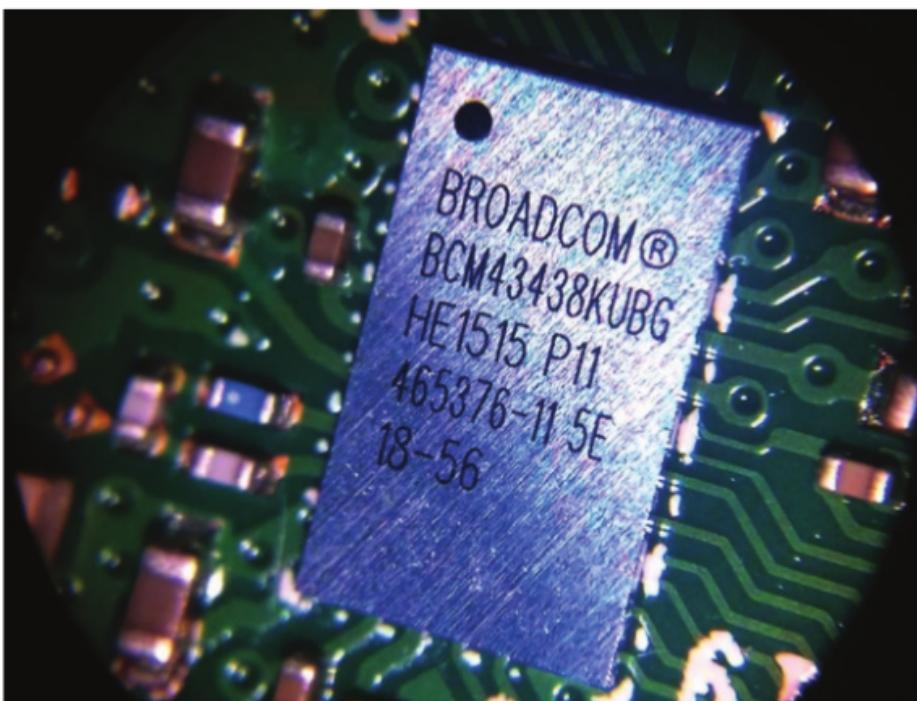
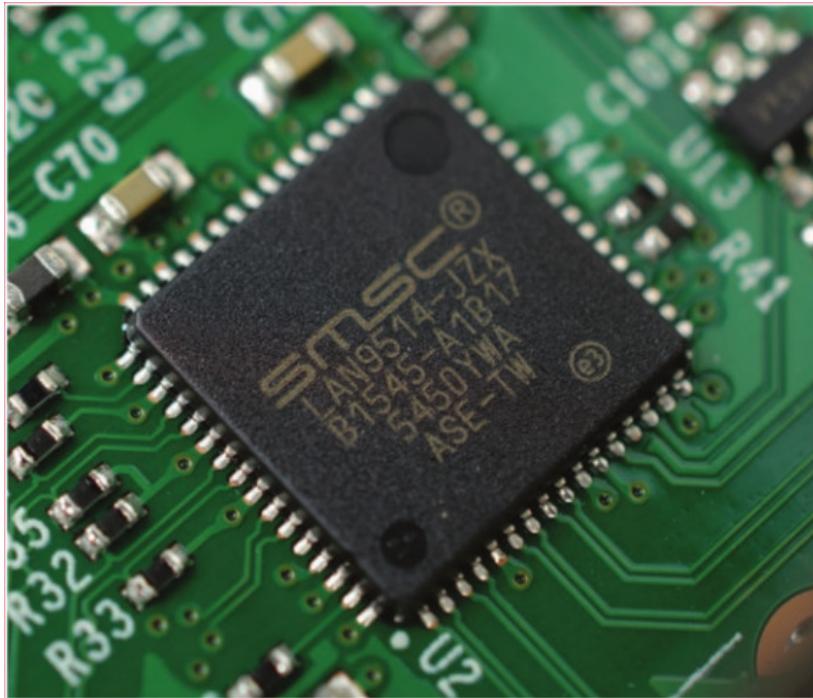
Pi2



# Raspberry Pi 3 compared to Pi 2



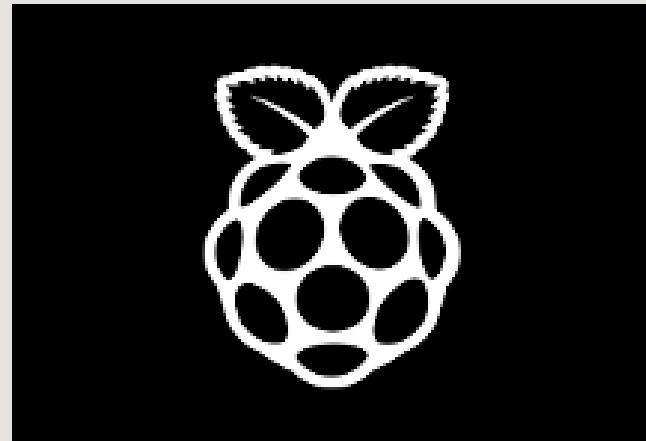
# Soc, LAN/USB, wifi/bluetooth, antenna



# Raspberry Pi 3 - Distros

## DOWNLOADS

**Raspbian** is the Foundation's official supported Operating System. Download it here, or use **NOOBS**, our easy installer for Raspbian and more.



NOOBS



RASPBIAN

# Raspberry Pi 3 - Distros

## THIRD PARTY OPERATING SYSTEM IMAGES

Third party images are also available:



UBUNTU MATE



SNAPPY UBUNTU CORE



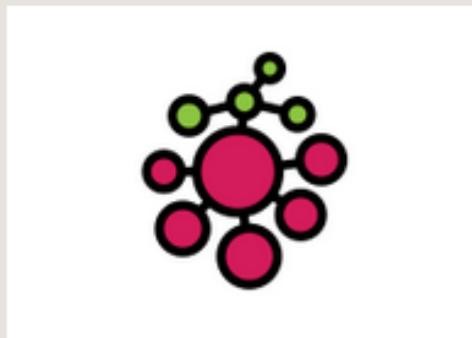
WINDOWS 10 IOT CORE



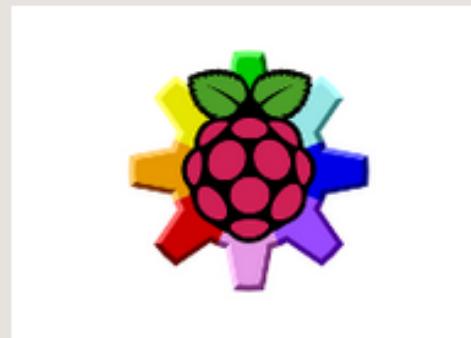
OSMC



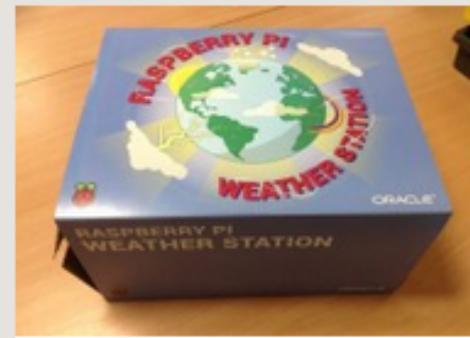
LIBREELEC



PINET



RISC OS



WEATHER STATION

# Raspberry Pi 3 - Price

- Personal Use: PB-Tech or pishop.nz \$69 (incl. GST)
- Business Use: Element14 \$58.30 + \$8.74 GST = \$67.04
- PB-Tech Kit: Raspberry Pi 3 Model B Kit with OS (16GB SD Card), ( Include Raspberry Pi 3 Mainboard, 2.5A adapter, Official Pi 3 Red & White Enclosure, Official 16GB NOOBS SD Card) \$125.35 (incl.GST)

# Raspberry Pi 3 - Demo

- Raspbian distro
  - bluetooth keyboard
- Ubuntu-Mate distro
  - Boot for the first time – See what happens!
  - Add bluetooth keyboard
- For directly booting a USB stick see:  
<https://www.raspberrypi.org/documentation/hardware/raspberrypi/bootmodes/msd.md>

# Raspberry Pi 3

End