RASPBERRY PI 3B+

Mr. Chandrakant Borle

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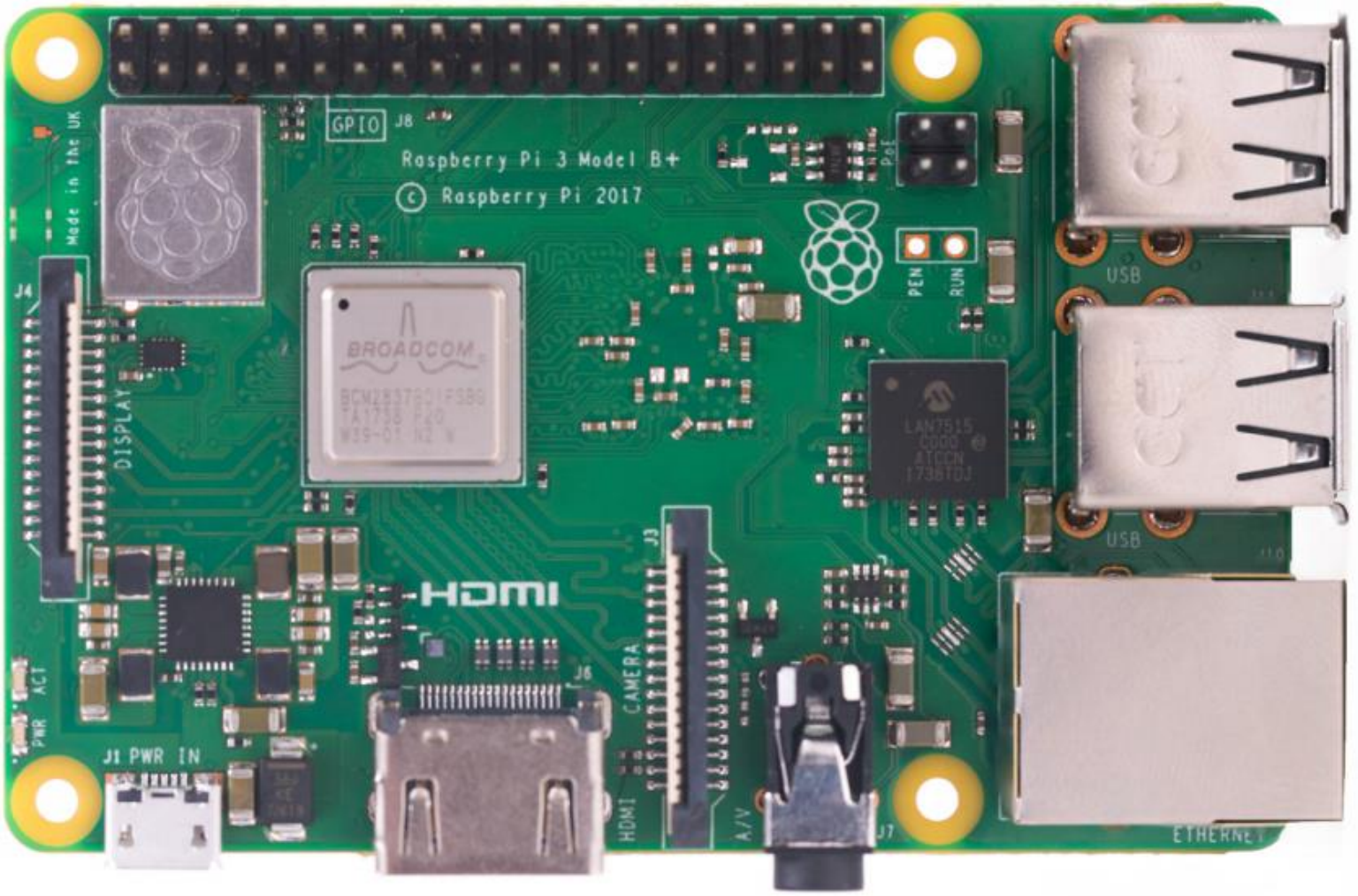
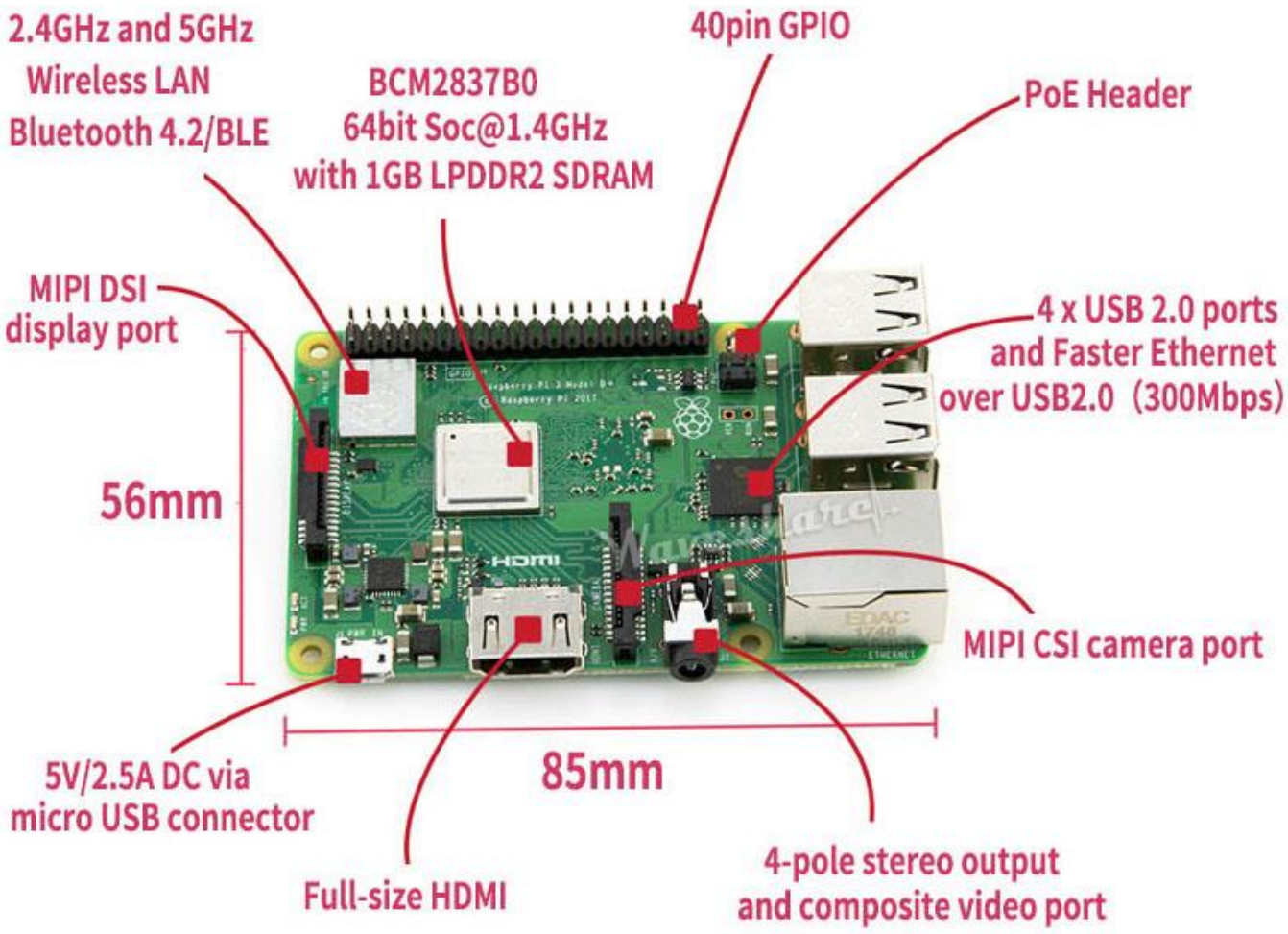


HDMI


2.4GHz and 5GHz
Wireless LAN
Bluetooth 4.2/BLE
BCM2837B0
64bit Soc@1.4GHz
with 1GB LPDDR2 SDRAM
40pin GPIO
PoE Header
MIPI DSI
display port
4 x USB 2.0 ports
and Faster Ethernet
over USB2.0 (300Mbps)
56mm
MIPI CSI camera port
85mm
5V/2.5A DC via
micro USB connector
Full-size HDMI
4-pole stereo output
and composite video port

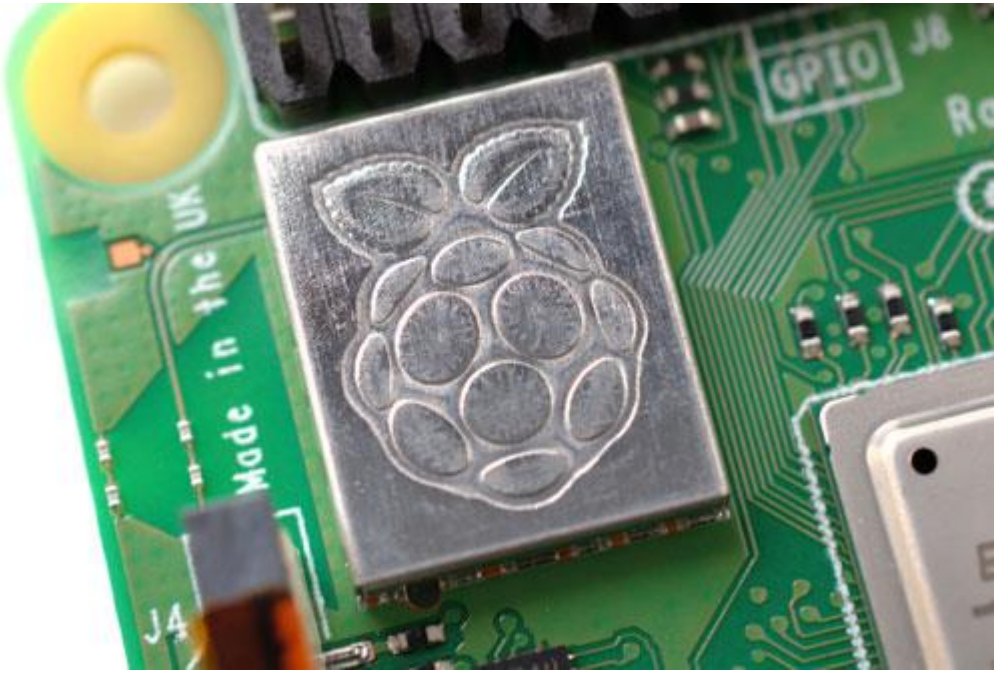
Raspberry Pi 3B+ specifications

- Broadcom BCM2837B0, Cortex-A53 (ARMv8) 64-bit SoC @ 1.4GHz
- 1GB LPDDR2 SDRAM
- 2.4GHz and 5GHz IEEE 802.11.b/g/n/ac wireless LAN, Bluetooth 4.2, BLE
- Gigabit Ethernet over USB 2.0 (maximum throughput 300 Mbps)
- Extended 40-pin GPIO header
- Full-size HDMI
- 4 USB 2.0 ports
- CSI camera port for connecting a Raspberry Pi camera
- DSI display port for connecting a Raspberry Pi touchscreen display
- 4-pole stereo output and composite video port
- Micro SD port for loading your operating system and storing data
- 5V/2.5A DC power input
- Power-over-Ethernet (PoE) support (requires separate PoE HAT)

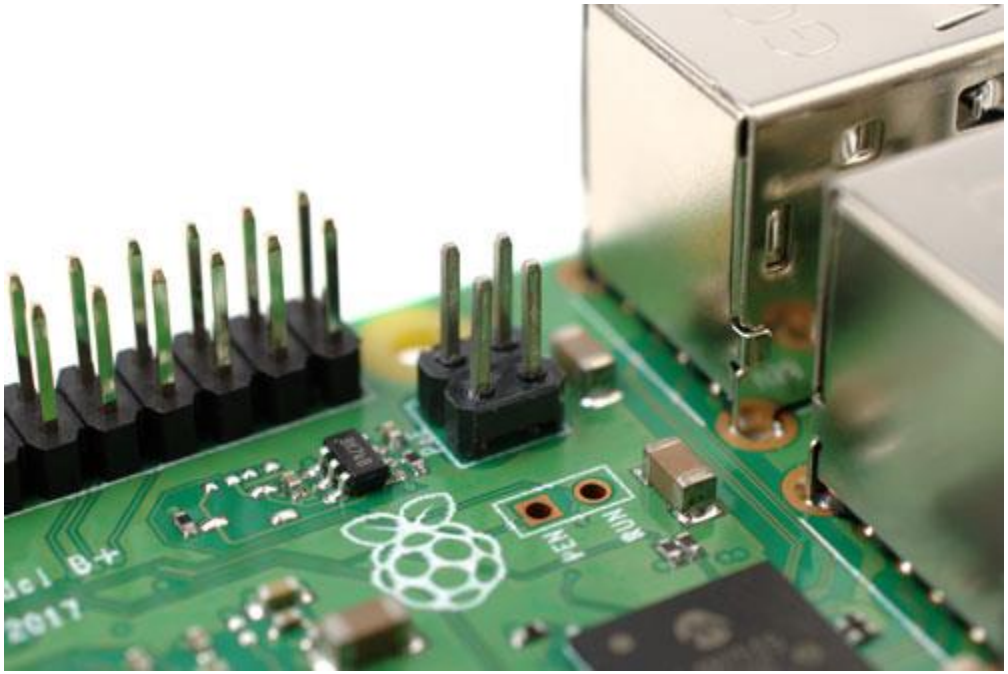
Faster 1.4GHz CPU

Faster Ethernet (Gigabit via USB)

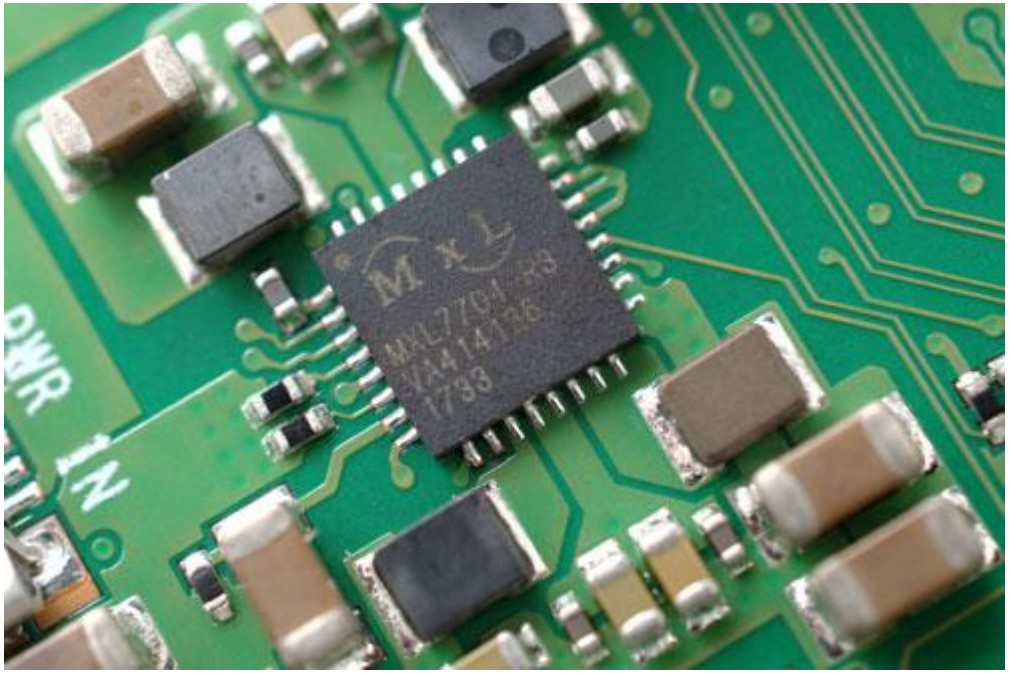
Dual-band 2.4GHz and 5GHz wireless LAN



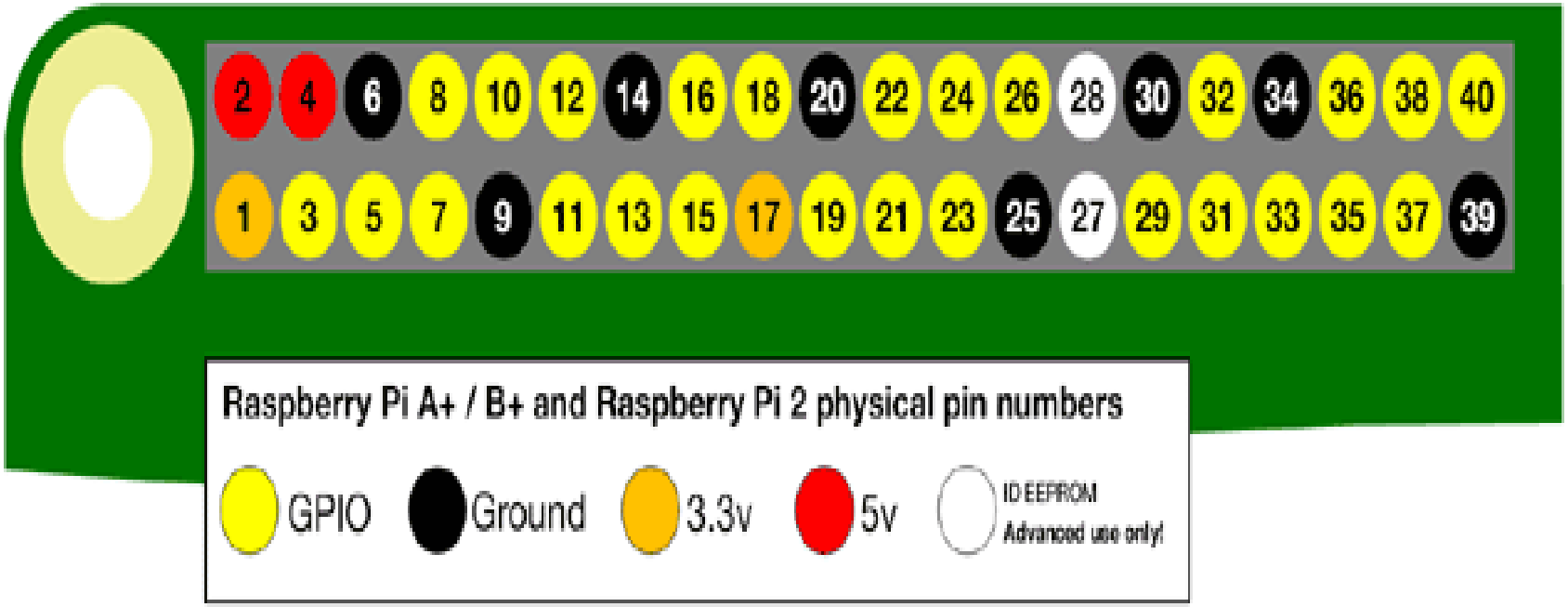
Power over Ethernet (PoE) ready
An optional Power-over-Ethernet (PoE) HAT module, available separately, can power the Pi 3 B+.

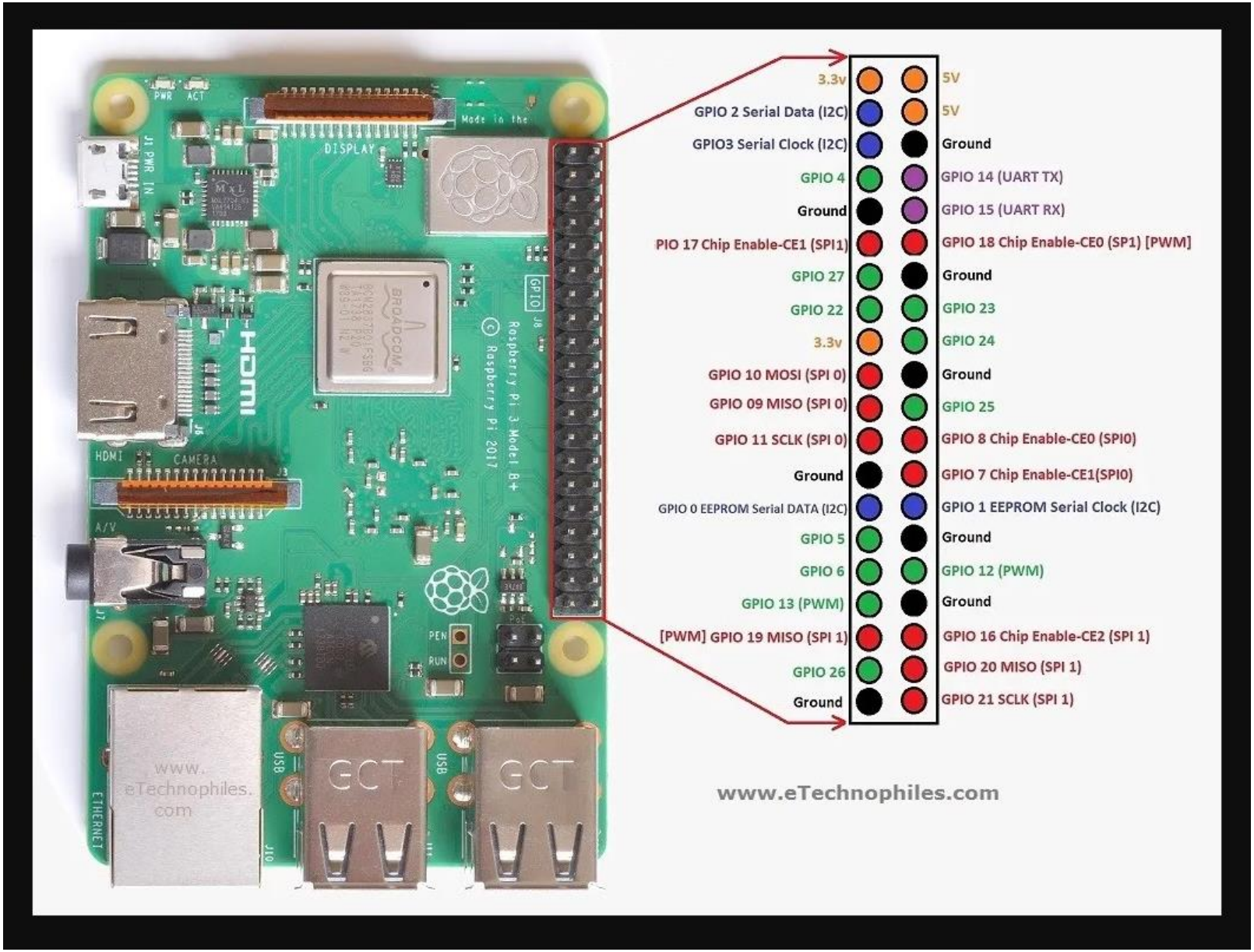


Power management



Pi Model B/B+
3V3 Power
1
2
5V Power
GPIO2 SDA1 I2C
3
4
5V Power
GPIO3 SCL1 I2C
5
6
Ground
GPIO4
7
8
GPIO14 UART0_TXD
Ground
9
10
GPIO15 UART0_RXD
GPIO17
11
12
GPIO18 PCM_CLK
GPIO27
13
14
Ground
GPIO22
15
16
GPIO23
3V3 Power
17
18
GPIO24
GPIO10 SPI0_MOSI
19
20
Ground
GPIO9 SPI0_MISO
21
22
GPIO25
GPIO11 SPI0_SCLK
23
24
GPIO8 SPI0_CE0_N
Ground
25
26
GPIO7 SPI0_CE1_N
ID_SD I2C ID EEPROM
27
28
ID_SC I2C ID EEPROM
GPIO5
29
30
Ground
GPIO6
31
32
GPIO12
GPIO13
33
34
Ground
GPIO19
35
36
GPIO16
GPIO26
37
38
GPIO20
Ground
39
40
GPIO21
Pi Model B+


2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39
Raspberry Pi A+ / B+ and Raspberry Pi 2 physical pin numbers
GPIO
Ground
3.3v
5v
ID EEPROM
Advanced use only!


3.3v
5V
GPIO 2 Serial Data (I2C)
5V
GPIO3 Serial Clock (I2C)
Ground
GPIO 4
GPIO 14 (UART TX)
Ground
GPIO 15 (UART RX)
PIO 17 Chip Enable-CE1 (SPI1)
GPIO 18 Chip Enable-CE0 (SP1) [PWM]
GPIO 27
Ground
GPIO 22
GPIO 23
3.3v
GPIO 24
GPIO 10 MOSI (SPI 0)
Ground
GPIO 09 MISO (SPI 0)
GPIO 25
GPIO 11 SCLK (SPI 0)
GPIO 8 Chip Enable-CE0 (SPI0)
Ground
GPIO 7 Chip Enable-CE1(SPI0)
GPIO 0 EEPROM Serial DATA (I2C)
GPIO 1 EEPROM Serial Clock (I2C)
GPIO 5
Ground
GPIO 6
GPIO 12 (PWM)
GPIO 13 (PWM)
Ground
[PWM] GPIO 19 MISO (SPI 1)
GPIO 16 Chip Enable-CE2 (SPI 1)
GPIO 26
GPIO 20 MISO (SPI 1)
Ground
GPIO 21 SCLK (SPI 1)
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Questions ???