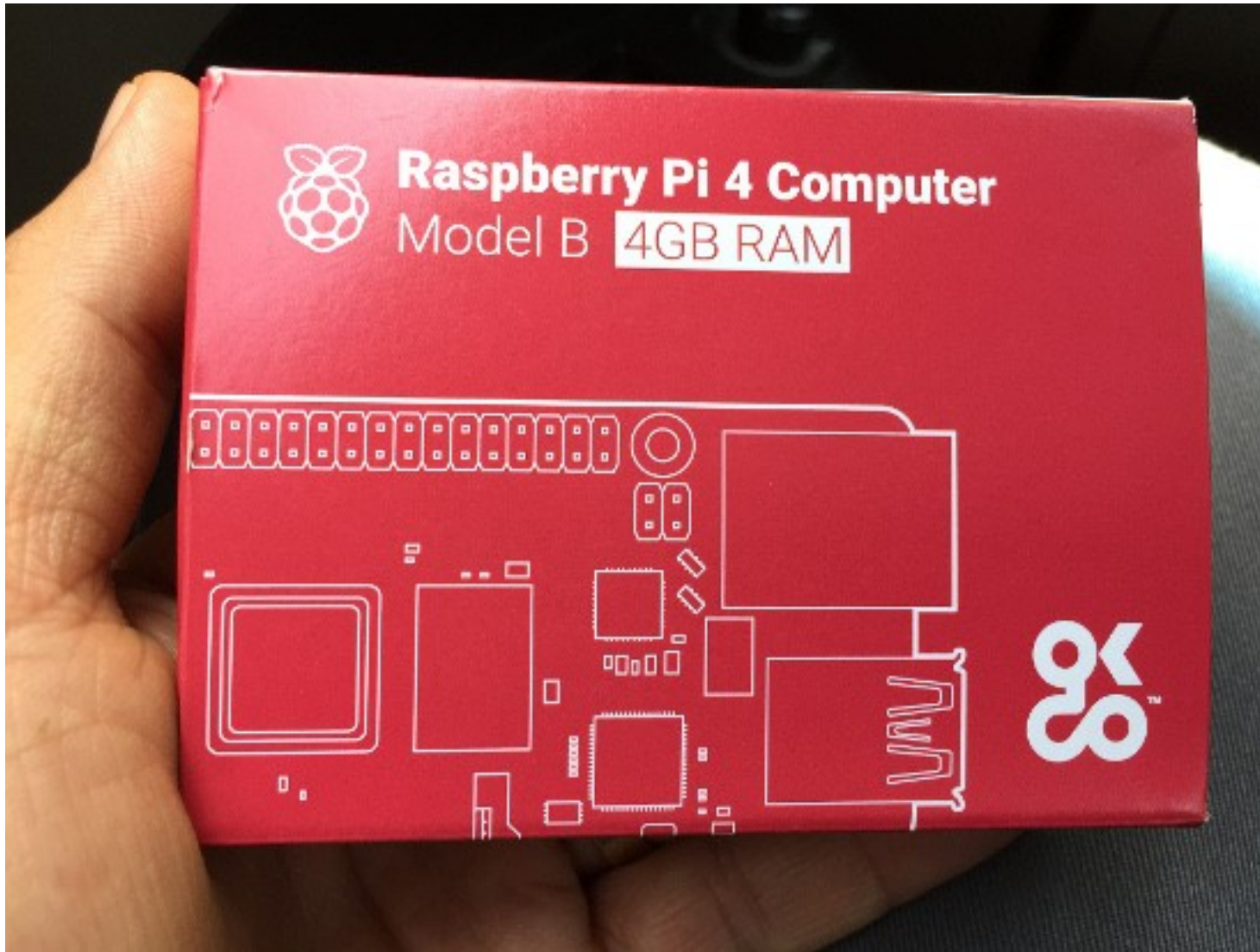


“Raspberry Pi 4 -Arquitectura”



Rogelio Ferreira Escutia

Tarjeta

NEW

More powerful processor

Choice of RAM

1GB

2GB

4GB

USB-C Power supply

MICRO HDMI PORTS
Supporting 2 × 4K displays

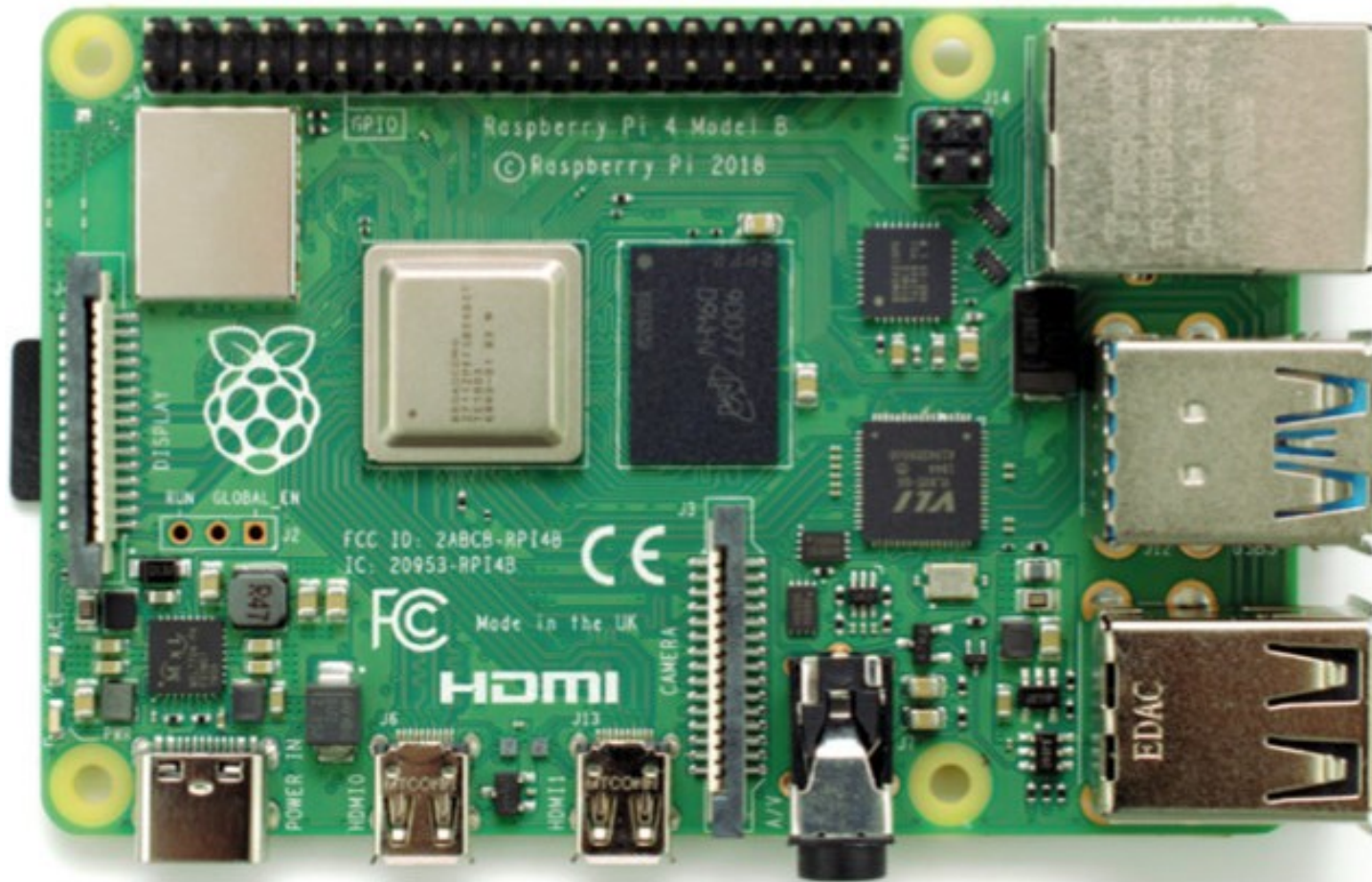
USB 2

USB 3

GIGABIT ETHERNET

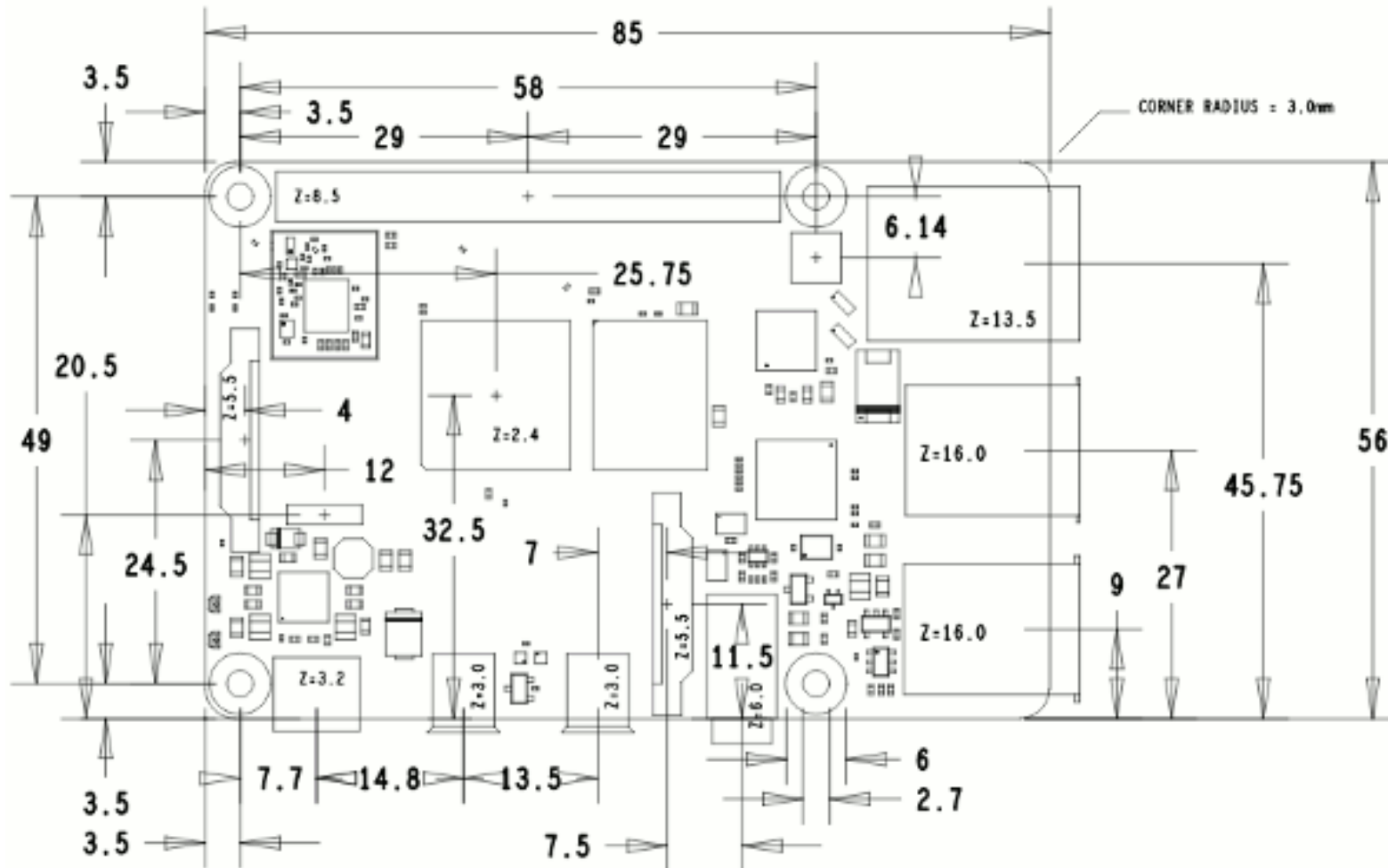
Raspberry Pi 4B

- Placa:



Raspberry Pi 4B

- Dimensiones:



Procesador y Memoria

Raspberry Pi 4B

- **Procesador:**
Broadcom BCM2711, Quad core Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz



Raspberry Pi 4B

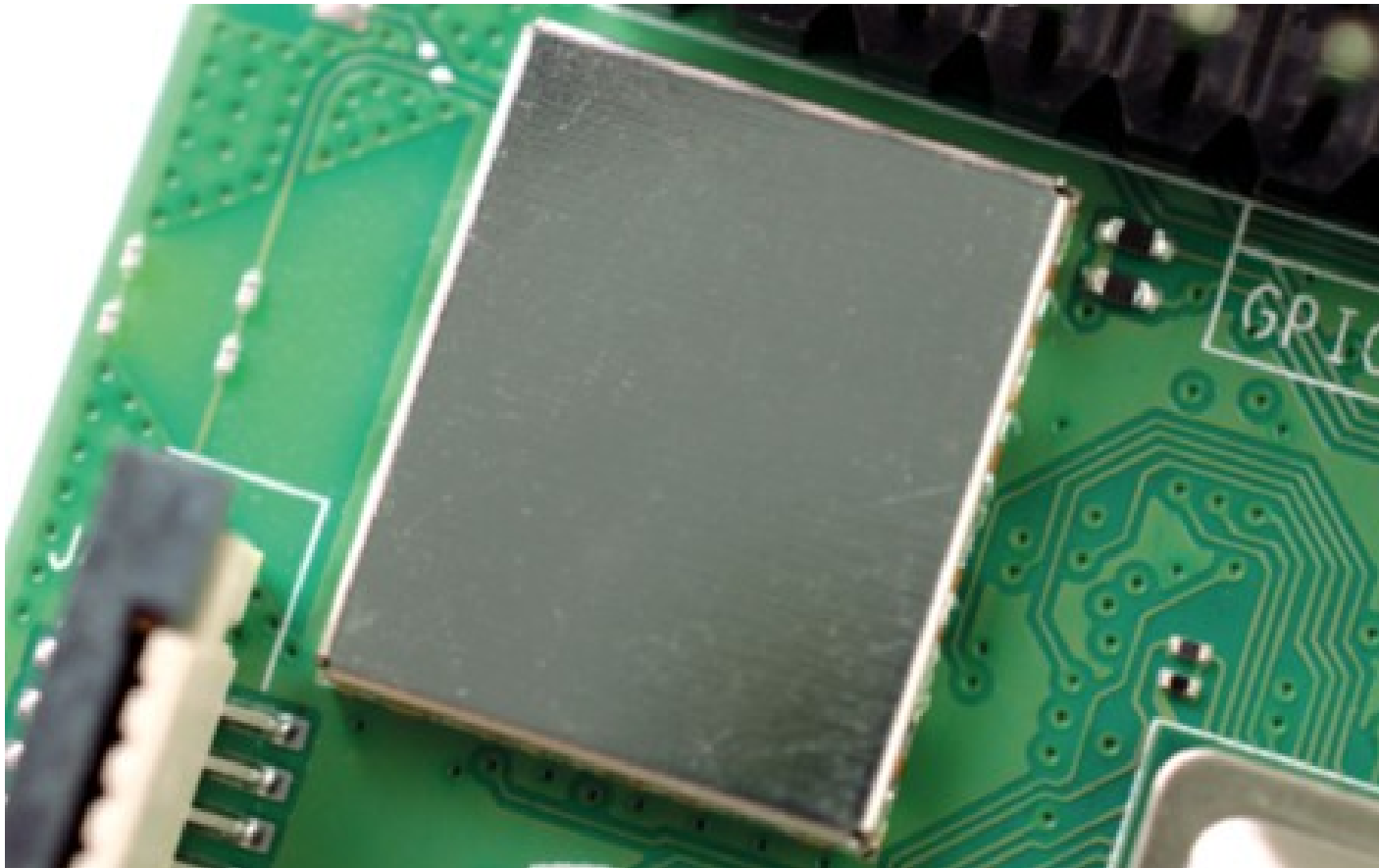
- **Memoria RAM:**
1GB, 2GB or 4GB LPDDR4-3200 SDRAM (depending on model)



Conectividad

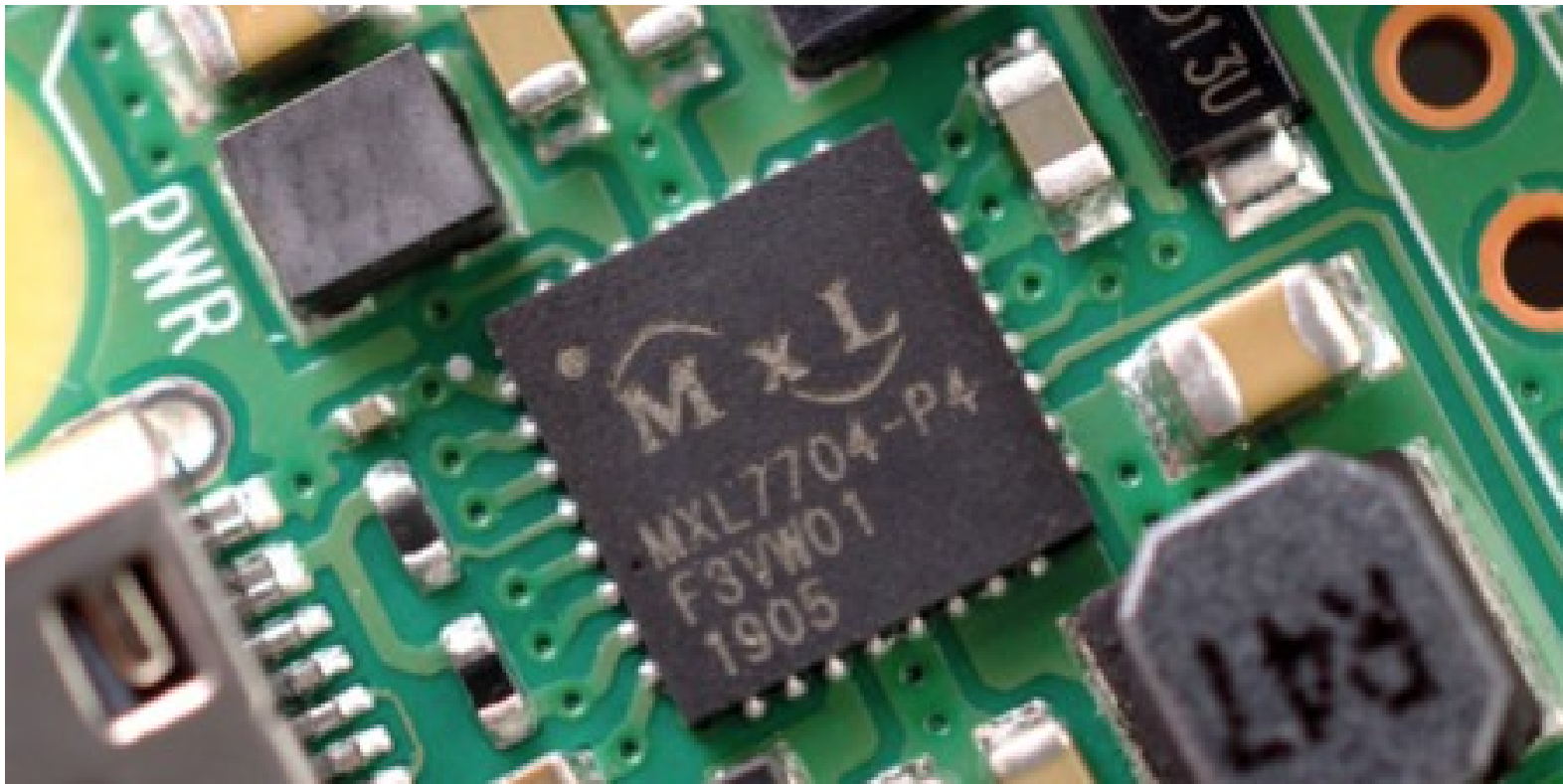
Raspberry Pi 4B

- **Conectividad:**
2.4 GHz and 5.0 GHz IEEE 802.11ac wireless, Bluetooth 5.0, BLE



Raspberry Pi 4B

- **USB Controller:**
2 USB 3.0 ports; 2 USB 2.0 ports.



Raspberry Pi 4B

- **USB Ports:**
2 USB 3.0 ports; 2 USB 2.0 ports.



Raspberry Pi 4B

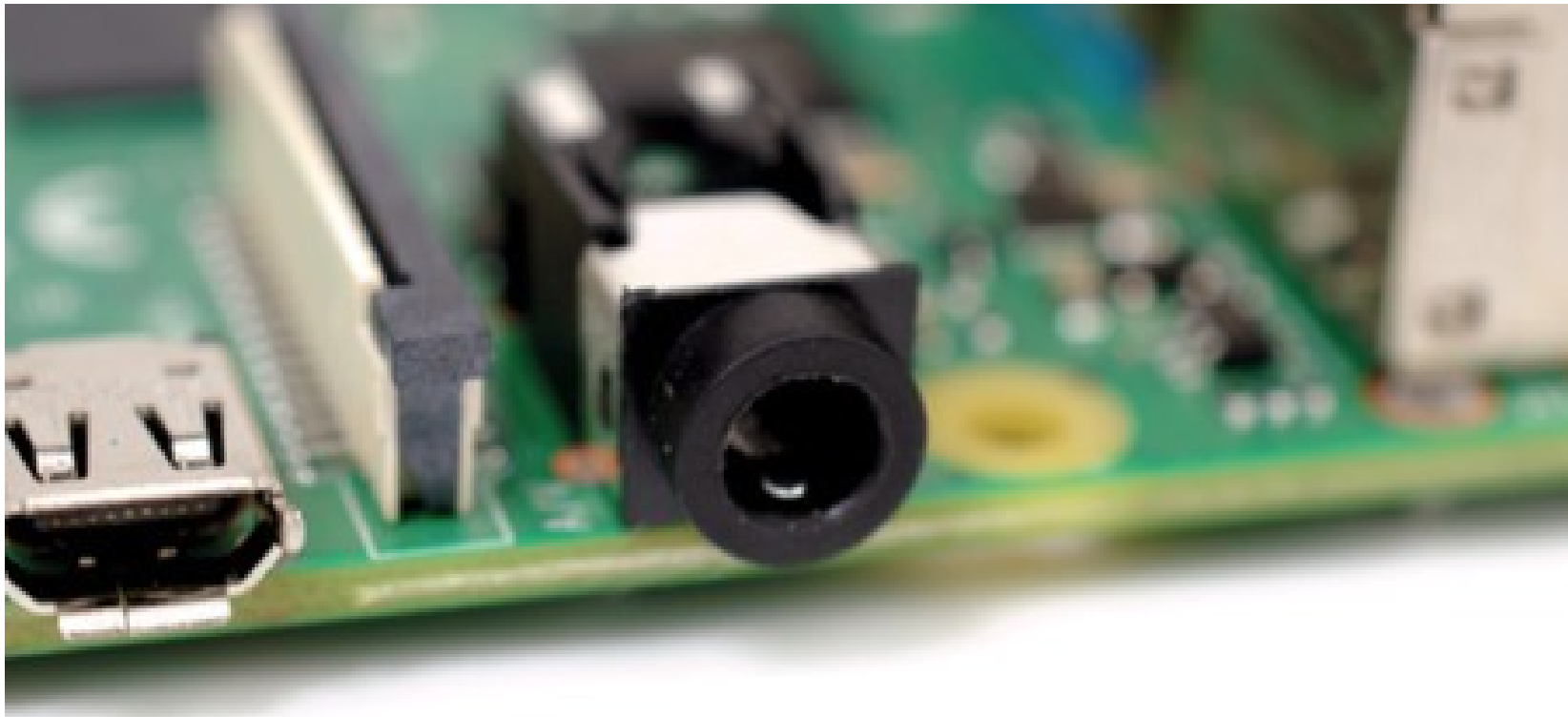
- **Red:
Gigabit Ethernet**



Video y Sonido

Raspberry Pi 4B

- **Salida de audio y video compuesto:
4-pole stereo audio and composite video port (3.5mm
AV jack)**



Raspberry Pi 4B

- **Salida de video:**
2 × micro-HDMI ports (up to 4kp60 supported)



Raspberry Pi 4B

- **Salida de video:**
2 × micro-HDMI ports (up to 4kp60 supported)



Energía

Raspberry Pi 4B

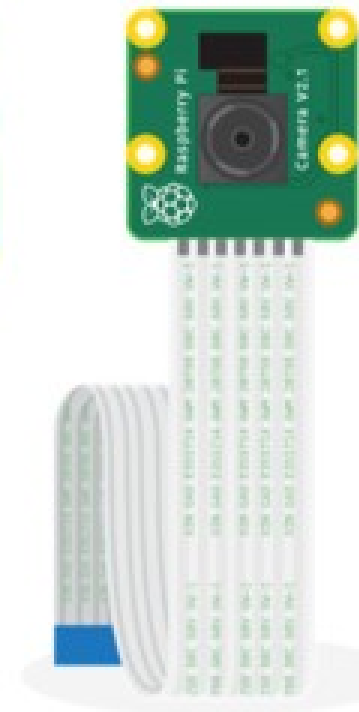
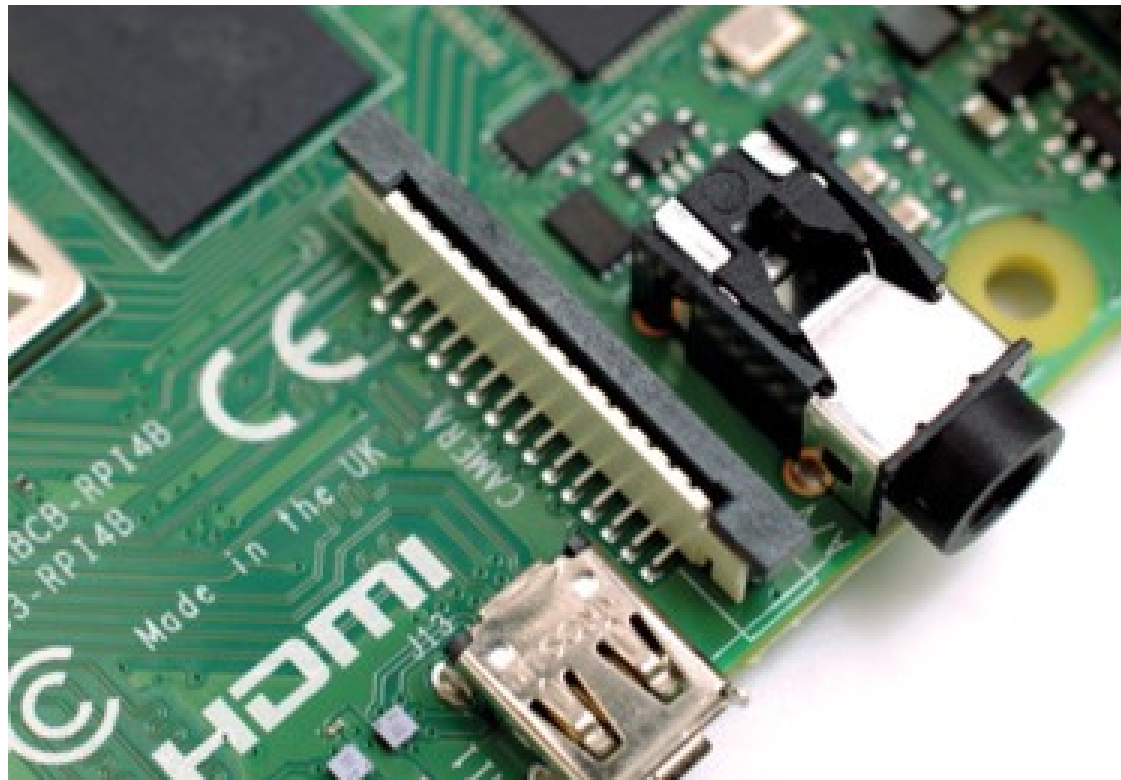
- Alimentación de energía:
5V DC via USB-C connector (minimum 3A*)



Accesso I/O

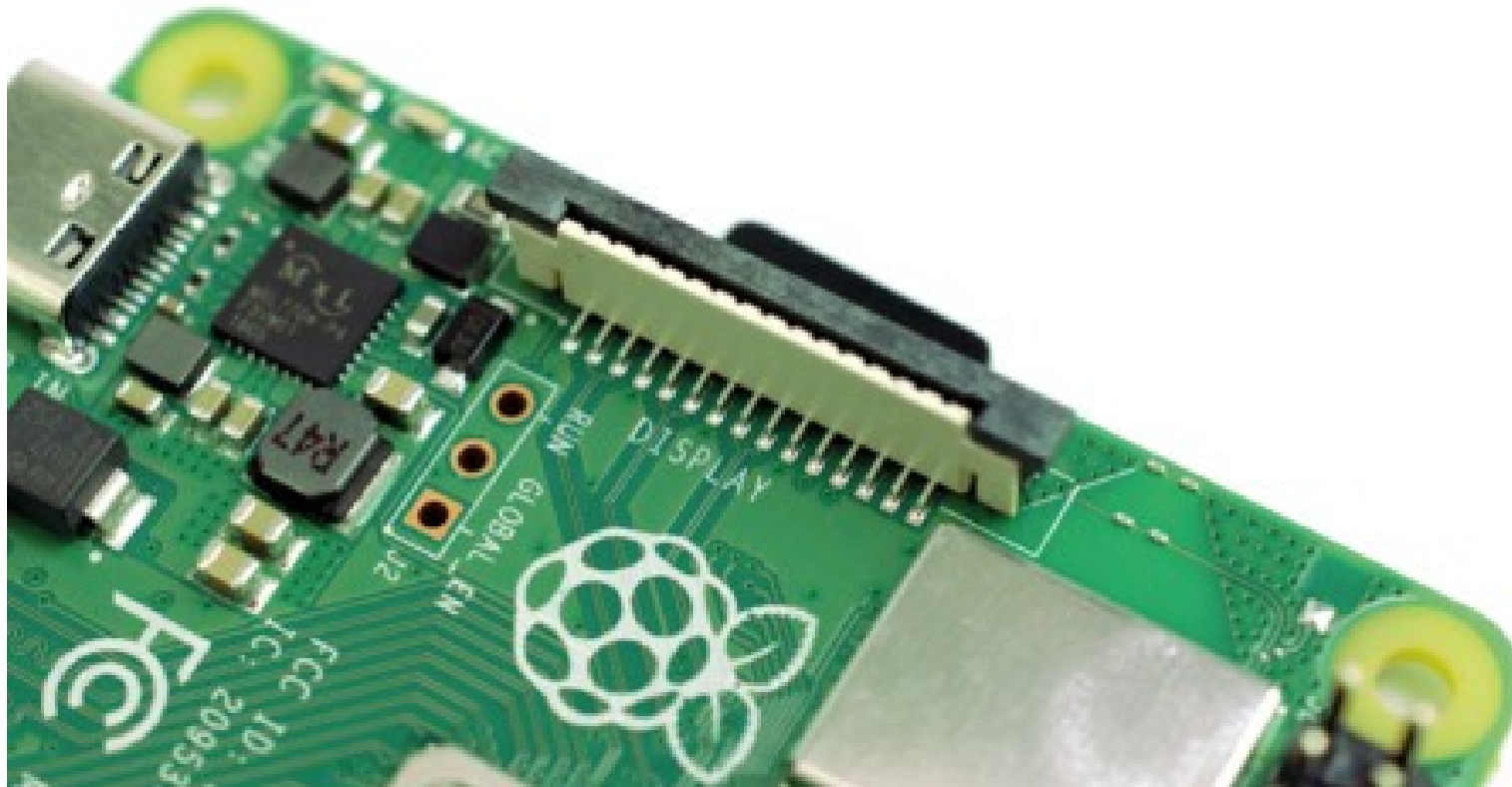
Raspberry Pi 4B

- **Entrada de video:
2-lane MIPI CSI camera port**



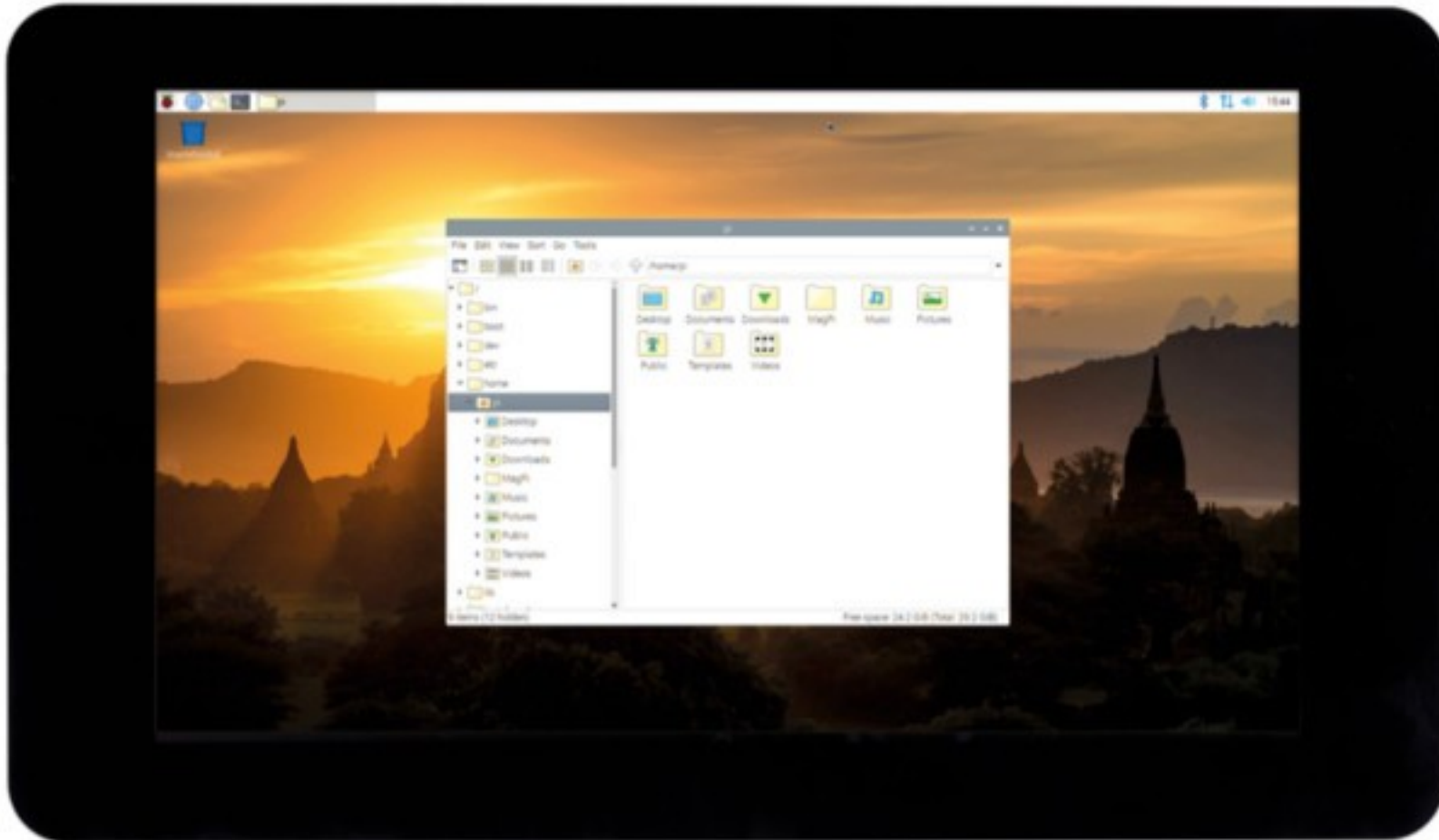
Raspberry Pi 4B

- **Salida de video:
2-lane MIPI DSI display port**



Raspberry Pi 4B

- **Salida de video:
2-lane MIPI DSI display port (pantalla touchscreen)**



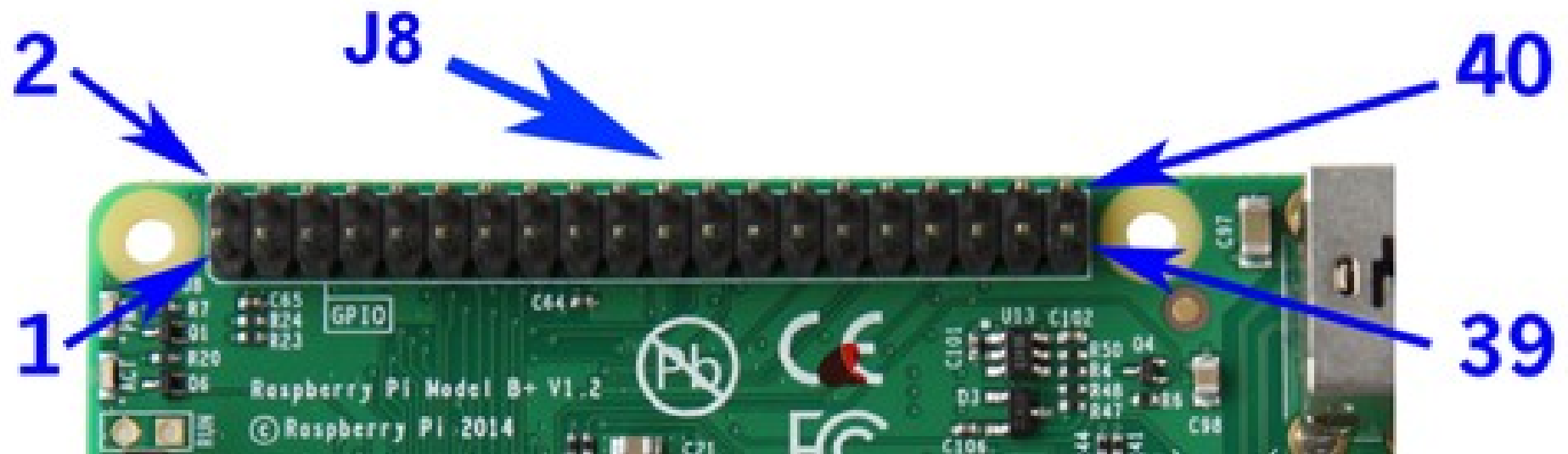
Raspberry Pi 4B

- Pines de I/O:
Raspberry Pi standard 40 pin GPIO header (fully backwards compatible with previous boards)



Raspberry Pi 3B+/4B

- **GPIO:**



Raspberry Pi 3B/4B

- GPIO:

Raspberry Pi 3 Model B (J8 Header)						
GPIO#	NAME			NAME	GPIO#	
	3.3 VDC Power	1			2	5.0 VDC Power
8	GPIO 8 SDA1 (I2C)	3			4	5.0 VDC Power
9	GPIO 9 SCL1 (I2C)	5			6	Ground
7	GPIO 7 GPCLK0	7			8	GPIO 15 TxD (UART) 15
	Ground	9			10	GPIO 16 RxD (UART) 16
0	GPIO 0	11			12	GPIO 1 PCM_CLK/PWM0 1
2	GPIO 2	13			14	Ground
3	GPIO 3	15			16	GPIO 4 4
	3.3 VDC Power	17			18	GPIO 5 5
12	GPIO 12 MOSI (SPI)	19			20	Ground
13	GPIO 13 MISO (SPI)	21			22	GPIO 6 6
14	GPIO 14 SCLK (SPI)	23			24	GPIO 10 CE0 (SPI) 10
	Ground	25			26	GPIO 11 CE1 (SPI) 11
30	SDA0 (I2C ID EEPROM)	27			28	SCL0 (I2C ID EEPROM) 31
21	GPIO 21 GPCLK1	29			30	Ground
22	GPIO 22 GPCLK2	31			32	GPIO 26 PWM0 26
23	GPIO 23 PWM1	33			34	Ground
24	GPIO 24 PCM_FS/PWM1	35			36	GPIO 27 27
25	GPIO 25	37			38	GPIO 28 PCM_DIN 28
	Ground	39			40	GPIO 29 PCM_DOUT 29

Attention! The GPIO pin numbering used in this diagram is intended for use with WiringPi / Pi4J. This pin numbering is not the raw Broadcom GPIO pin numbers.

<http://www.pi4j.com>

Raspberry Pi 3B/4B

- GPIO:

Raspberry Pi GPIO BCM numbering



Almacenamiento

Raspberry Pi 4B

- **Almacenamiento:**
Micro-SD card slot for loading operating system and data storage



Multimedia

Raspberry Pi 4B

- **Codecs de multimedia soportados:
H.265 (4kp60 decode), H264 (1080p60 decode, 1080p30 encode), OpenGL ES 3.0 graphics**



Temperatura de Operación

Raspberry Pi 3B+/4

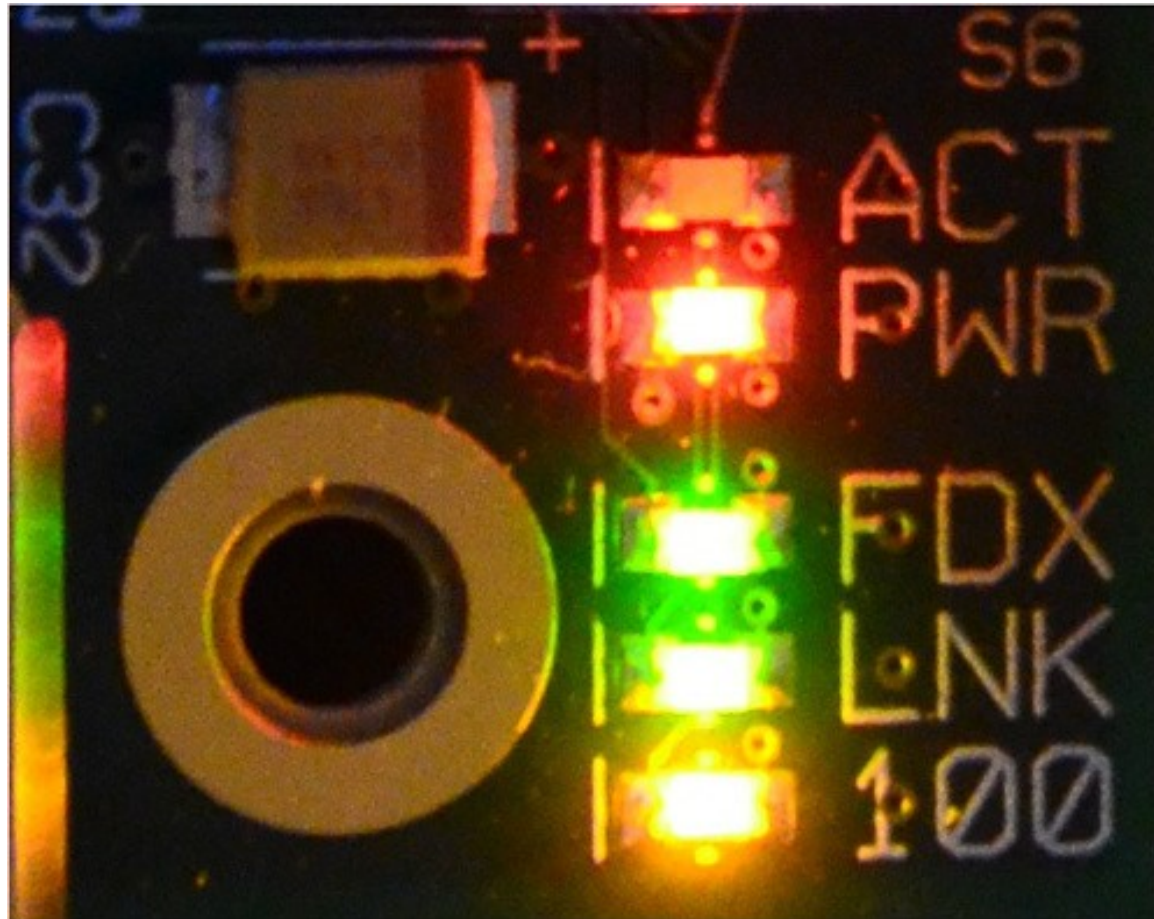
- **Temperatura de operación:
0 – 50 grados centígrados.**



Monitoreo del funcionamiento

Raspberry Pi 3B+/4

- **Status Leds:**



Raspberry Pi 3B+/4

- **Status Led:**
 - **ACT (actividad - verde):** Indica que se está accedendo a la tarjeta SD.
 - **PWR (power - rojo):** Indica que el sistema está energizado.
 - **FDX (full duplex - verde):** Indica conexión a una red LAN en modo full duplex
 - **LNK (link - verde parpadeando):** Indica actividad en la red LAN.
 - **100 (amarillo):** Indica conexión a una red LAN a 100-Mbit/s:



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