

Pin configuration diagram for the Raspberry Pi 4B (64-bit) showing GPIO pins 1 through 40. The diagram includes labels for various functions such as VSPI MISO, VSPI CLK, VSPI CS0, HSPI CS0, GND, 3V3, EN, SCL, TX0, RX0, SDA, HSPI CLK, HSPI MISO, and HSPI MOSI.

Pin	Label	Pin	Label
1	VSPi MISO	21	EN
2		22	SCL
3		23	GPIO36
4		24	GPIO39
5		25	GPIO30
6		26	GPIO34
7		27	GPIO35
8		28	GPIO32
9	VSPi MISO	29	GPIO33
10	VSPi CLK	30	GPIO25
11	VSPi CS0	31	GPIO26
12		32	GPIO27
13		33	GPIO14
14		34	HSPI CLK
15		35	HSPI MISO
16		36	GPIO12
17		37	HSPI MOSI
18		38	GPIO13
19	HSPI CS0	39	GND
20		40	VIN

[illegible]

The diagram shows the 40 pins of the Raspberry Pi 4 Model B, organized into two rows of 20 pins each. The pins are color-coded and labeled with their functions:

- Row 1 (Top):**
 - Pin 1: **VSPI MISO** (Green)
 - Pin 2: **GND** (Black)
 - Pin 3: **3V3** (Red)
 - Pin 4: **GND** (Black)
 - Pin 5: **VSPI CS0** (Green)
 - Pin 6: **VSPI CLK** (Green)
 - Pin 7: **VSPI MISO** (Green)
 - Pin 8: **VSPI CS0** (Green)
 - Pin 9: **GND** (Black)
 - Pin 10: **VSPI CS0** (Green)
 - Pin 11: **VSPI CLK** (Green)
 - Pin 12: **VSPI MISO** (Green)
 - Pin 13: **VSPI CS0** (Green)
 - Pin 14: **GND** (Black)
 - Pin 15: **VSPI CS0** (Green)
 - Pin 16: **VSPI CLK** (Green)
 - Pin 17: **VSPI MISO** (Green)
 - Pin 18: **VSPI CS0** (Green)
 - Pin 19: **GND** (Black)
 - Pin 20: **VSPI CS0** (Green)
- Row 2 (Bottom):**
 - Pin 21: **GND** (Black)
 - Pin 22: **3V3** (Red)
 - Pin 23: **GND** (Black)
 - Pin 24: **VSPI CS0** (Green)
 - Pin 25: **VSPI CLK** (Green)
 - Pin 26: **VSPI MISO** (Green)
 - Pin 27: **VSPI CS0** (Green)
 - Pin 28: **VSPI CLK** (Green)
 - Pin 29: **VSPI MISO** (Green)
 - Pin 30: **VSPI CS0** (Green)
 - Pin 31: **GND** (Black)
 - Pin 32: **VSPI CS0** (Green)
 - Pin 33: **VSPI CLK** (Green)
 - Pin 34: **VSPI MISO** (Green)
 - Pin 35: **VSPI CS0** (Green)
 - Pin 36: **GND** (Black)
 - Pin 37: **VSPI CS0** (Green)
 - Pin 38: **VSPI CLK** (Green)
 - Pin 39: **VSPI MISO** (Green)
 - Pin 40: **VSPI CS0** (Green)

Additional labels and connections shown in the diagram include:

- GPIO Pins:** GPIO2, GPIO3, GPIO4, GPIO5, GPIO6, GPIO7, GPIO8, GPIO9, GPIO10, GPIO11, GPIO12, GPIO13, GPIO14, GPIO15, GPIO16, GPIO17, GPIO18, GPIO19, GPIO20, GPIO21, GPIO22, GPIO23, GPIO24, GPIO25, GPIO26, GPIO27, GPIO28, GPIO29, GPIO30, GPIO31, GPIO32, GPIO33, GPIO34, GPIO35, GPIO36, GPIO37, GPIO38, GPIO39, GPIO40.
- Other Pins:** EN (Enable), TX0, RX0, TX2, RX2, TX1, RX1, TX3, RX3, TX4, RX4, TX5, RX5, TX6, RX6, TX7, RX7, TX8, RX8, TX9, RX9, TX10, RX10, TX11, RX11, TX12, RX12, TX13, RX13, TX14, RX14, TX15, RX15, TX16, RX16, TX17, RX17, TX18, RX18, TX19, RX19, TX20, RX20, TX21, RX21, TX22, RX22, TX23, RX23, TX24, RX24, TX25, RX25, TX26, RX26, TX27, RX27, TX28, RX28, TX29, RX29, TX30, RX30, TX31, RX31, TX32, RX32, TX33, RX33, TX34, RX34, TX35, RX35, TX36, RX36, TX37, RX37, TX38, RX38, TX39, RX39, TX40, RX40.
- Other Labels:** HSPI CS0, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS1, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS2, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS3, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS4, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS5, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS6, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS7, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS8, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS9, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS10, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS11, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS12, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS13, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS14, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS15, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS16, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS17, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS18, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS19, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS20, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS21, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS22, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS23, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS24, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS25, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS26, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS27, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS28, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS29, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS30, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS31, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS32, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS33, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS34, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS35, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS36, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS37, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS38, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS39, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS40, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS41, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS42, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS43, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS44, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS45, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS46, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS47, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS48, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS49, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS50, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS51, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS52, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS53, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS54, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS55, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS56, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS57, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS58, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS59, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS60, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS61, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS62, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS63, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS64, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS65, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS66, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS67, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS68, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS69, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS70, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS71, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS72, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS73, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS74, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS75, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS76, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS77, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS78, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS79, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS80, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS81, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS82, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS83, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS84, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS85, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS86, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS87, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS88, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS89, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS90, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS91, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS92, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS93, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS94, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS95, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS96, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS97, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS98, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS99, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS100, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS101, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS102, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS103, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS104, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS105, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS106, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS107, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS108, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS109, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS110, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS111, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS112, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS113, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS114, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS115, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS116, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS117, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS118, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS119, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS120, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS121, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS122, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS123, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS124, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS125, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS126, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI CS127, HSPI CLK, HSPI MISO, HSPI MOSI, HSPI

Pin	Signal	Color
1		Black
2		Black
3		Black
4		Black
5		Black
6		Black
7		Black
8		Black
9		Black
10		Black
11		Black
12		Black
13		Black
14		Black
15		Black
16		Black
17		Black
18		Black
19		Black
20		Black
21		Black
22		Black
23		Black
24		Black
25		Black
26		Black
27		Black
28		Black
29		Black
30		Black
31		Black
32		Black
33		Black
34		Black
35		Black
36		Black
37		Black
38		Black
39		Black
40		Black
41		Black
42		Black
43		Black
44		Black
45		Black
46		Black
47		Black
48		Black

Pin configuration diagram for the STM32F405VGT6 microcontroller. The diagram shows the following pins and their functions:

- GPIO123** (Blue)
- GPIO122** (Blue)
- GPIO1** (TX0) (Orange)
- GPIO3** (RX0) (Orange)
- GPIO21** (SDA) (Blue)
- GPIO19** (Blue)
- GPIO18** (Blue)
- GPIO15** (Blue)
- GPIO17** (TX2) (Orange)
- GPIO16** (RX2) (Orange)
- GPIO4** (Blue)
- GPIO2** (Blue)
- GPIO15** (Blue)
- GND** (Blue)
- 3V3** (Orange)
- EN** (Blue)
- GPIO36** (Blue)
- GPIO39** (Blue)
- GPIO34** (Blue)
- GPIO35** (Blue)
- GPIO32** (Blue)
- GPIO33** (Blue)
- GPIO25** (Blue)
- GPIO26** (Blue)
- GPIO27** (Blue)
- HSPI CLK** (Blue)
- HSPI MISO** (Blue)
- HSPI MOSI** (Blue)
- GND** (Blue)
- VIN** (Orange)

Pin	Function
1	VSPi MISO
2	GPIO23
3	GPIO22
4	GPIO1 TX0
5	GPIO1 RX0
6	GPIO21 SDA
7	GPIO19
8	GPIO18
9	GPIO5
10	GPIO17 TX2
11	GPIO16 RX2
12	GPIO4
13	GPIO2
14	GPIO15
15	GND
16	3V3
17	EN
18	GPIO36
19	GPIO39
20	GPIO34
21	GPIO35
22	GPIO32
23	GPIO33
24	GPIO25
25	GPIO26
26	GPIO27
27	GPIO14 HSPI CLK
28	GPIO12 HSPI MISO
29	GPIO13 HSPI MOSI
30	GND
31	VIN

The diagram shows the 40 pins of the Raspberry Pi 4 Model B, organized into two rows of 20 pins each. The pins are color-coded and labeled as follows:

- Pin 1 (Top Left):** GPIO23 (V_MISO) - Green label
- Pin 2 (Top Left):** GPIO22 (SCL) - Blue label
- Pin 3 (Top Left):** GPIO16 (TX0) - Orange label
- Pin 4 (Top Left):** GPIO18 (RX0) - Orange label
- Pin 5 (Top Left):** GPIO21 (SDA) - Blue label
- Pin 6 (Top Left):** GPIO19 (V_MISO) - Green label
- Pin 7 (Top Left):** GPIO18 (V_CLK) - Green label
- Pin 8 (Top Left):** GPIO15 (V_C50) - Green label
- Pin 9 (Top Left):** GPIO17 (TX2) - Orange label
- Pin 10 (Top Left):** GPIO16 (RX2) - Orange label
- Pin 11 (Top Left):** GPIO4 (H_CLK) - Green label
- Pin 12 (Top Left):** GPIO2 (H_MISO) - Green label
- Pin 13 (Top Left):** GPIO15 (H_MOSI) - Green label
- Pin 14 (Top Left):** GND - Green label
- Pin 15 (Top Left):** 3V3 - Red label
- Pin 16 (Top Left):** VIN - Orange label
- Pin 17 (Top Right):** EN - Grey label
- Pin 18 (Top Right):** GPIO36 - Black label
- Pin 19 (Top Right):** GPIO39 - Black label
- Pin 20 (Top Right):** GPIO34 - Black label
- Pin 21 (Top Right):** GPIO35 - Black label
- Pin 22 (Top Right):** GPIO32 - Black label
- Pin 23 (Top Right):** GPIO33 - Black label
- Pin 24 (Top Right):** GPIO25 - Black label
- Pin 25 (Top Right):** GPIO26 - Black label
- Pin 26 (Top Right):** GPIO27 - Black label
- Pin 27 (Top Right):** GPIO14 - Black label
- Pin 28 (Top Right):** GPIO12 - Black label
- Pin 29 (Top Right):** GPIO13 - Black label
- Pin 30 (Top Right):** GND - Green label
- Pin 31 (Top Right):** 3V3 - Red label
- Pin 32 (Top Right):** VIN - Orange label
- Pin 33 (Bottom Left):** GPIO23 (V_MISO) - Green label
- Pin 34 (Bottom Left):** GPIO22 (SCL) - Blue label
- Pin 35 (Bottom Left):** GPIO16 (TX0) - Orange label
- Pin 36 (Bottom Left):** GPIO18 (RX0) - Orange label
- Pin 37 (Bottom Left):** GPIO21 (SDA) - Blue label
- Pin 38 (Bottom Left):** GPIO19 (V_MISO) - Green label
- Pin 39 (Bottom Left):** GPIO18 (V_CLK) - Green label
- Pin 40 (Bottom Left):** GPIO15 (V_C50) - Green label
- Pin 41 (Bottom Left):** GPIO17 (TX2) - Orange label
- Pin 42 (Bottom Left):** GPIO16 (RX2) - Orange label
- Pin 43 (Bottom Left):** GPIO4 (H_CLK) - Green label
- Pin 44 (Bottom Left):** GPIO2 (H_MISO) - Green label
- Pin 45 (Bottom Left):** GPIO15 (H_MOSI) - Green label
- Pin 46 (Bottom Left):** GND - Green label
- Pin 47 (Bottom Left):** 3V3 - Red label
- Pin 48 (Bottom Left):** VIN - Orange label
- Pin 49 (Bottom Right):** EN - Grey label
- Pin 50 (Bottom Right):** GPIO36 - Black label
- Pin 51 (Bottom Right):** GPIO39 - Black label
- Pin 52 (Bottom Right):** GPIO34 - Black label
- Pin 53 (Bottom Right):** GPIO35 - Black label
- Pin 54 (Bottom Right):** GPIO32 - Black label
- Pin 55 (Bottom Right):** GPIO33 - Black label
- Pin 56 (Bottom Right):** GPIO25 - Black label
- Pin 57 (Bottom Right):** GPIO26 - Black label
- Pin 58 (Bottom Right):** GPIO27 - Black label
- Pin 59 (Bottom Right):** GPIO14 - Black label
- Pin 60 (Bottom Right):** GPIO12 - Black label
- Pin 61 (Bottom Right):** GPIO13 - Black label
- Pin 62 (Bottom Right):** GND - Green label
- Pin 63 (Bottom Right):** 3V3 - Red label
- Pin 64 (Bottom Right):** VIN - Orange label

The diagram shows the 40 pins of the Raspberry Pi 4 Model B, organized into two rows of 20 pins each. The pins are color-coded and labeled as follows:

- Pin 1:** GPIO2 (Blue)
- Pin 2:** GPIO21 (Blue)
- Pin 3:** GPIO10 (Orange)
- Pin 4:** GPIO9 (Orange)
- Pin 5:** GND (Black)
- Pin 6:** GPIO19 (Blue)
- Pin 7:** GPIO16 (Orange)
- Pin 8:** GPIO18 (Blue)
- Pin 9:** GPIO23 (Blue)
- Pin 10:** GPIO27 (Orange)
- Pin 11:** GPIO17 (Orange)
- Pin 12:** GPIO14 (Orange)
- Pin 13:** GPIO15 (Blue)
- Pin 14:** GND (Black)
- Pin 15:** 3V3 (Red)
- Pin 16:** GPIO20 (Blue)
- Pin 17:** GPIO25 (Blue)
- Pin 18:** GPIO4 (Orange)
- Pin 19:** GPIO13 (Blue)
- Pin 20:** GND (Black)
- Pin 21:** GPIO22 (Blue)
- Pin 22:** GPIO26 (Orange)
- Pin 23:** GPIO12 (Blue)
- Pin 24:** GPIO8 (Orange)
- Pin 25:** GND (Black)
- Pin 26:** GPIO3 (Blue)
- Pin 27:** GPIO31 (Blue)
- Pin 28:** GPIO30 (Orange)
- Pin 29:** GPIO24 (Blue)
- Pin 30:** GPIO11 (Blue)
- Pin 31:** GND (Black)
- Pin 32:** 5V (Red)
- Pin 33:** GPIO33 (Blue)
- Pin 34:** GPIO34 (Orange)
- Pin 35:** GND (Black)
- Pin 36:** GPIO100 (Blue)
- Pin 37:** GPIO99 (Orange)
- Pin 38:** GND (Black)
- Pin 39:** GPIO102 (Blue)
- Pin 40:** GPIO101 (Orange)

Pinout diagram for the Raspberry Pi 4 Model B, showing 40 pins with labels for GPIO functions and power/ground connections:

- GPIO2 (V_MISO)
- GPIO2 (SCL)
- GPIO1 (TX0)
- GPIO3 (RX0)
- GPIO21 (SDA)
- GPIO19 (V_MISO)
- GPIO18 (V_CLK)
- GPIO5 (V_CSD0)
- GPIO17 (TX2)
- GPIO16 (RX2)
- GPIO4 (H_CLK)
- GPIO2 (H_MISO)
- GPIO15 (H_MOSI)
- GND (H_CSD0)
- 3V3
- EN
- GPIO36
- GPIO39
- GPIO34
- GPIO35
- GPIO32
- GPIO33
- GPIO25
- GPIO26
- GPIO27
- GPIO12
- GPIO13
- GND
- VIN

Diagram illustrating the pinout of the Raspberry Pi 4B, showing 40 pins arranged in two columns of 20 pins each. The pins are labeled with their functions and corresponding GPIO numbers:

- GPIO23 (V_MISO)
- GPIO22 (SCL)
- GPIO1 (TX0)
- GPIO3 (RX0)
- GPIO21 (SDA)
- GPIO19 (V_MISO)
- GPIO18 (V_CLK)
- GPIO5 (V_CS0)
- GPIO17 (TX2)
- GPIO16 (RX2)
- GPIO4 (H_CLK)
- GPIO2 (H_MISO)
- GPIO15 (H_MOSI)
- GND
- 3V3
- VIN

Pinout diagram for the Raspberry Pi 4 Model B, showing 40 pins with their functions and color-coded labels:

- GPIO23 (V_MISO) - EN
- GPIO22 (SCL)
- GPIO1 (TX0)
- GPIO3 (RX0)
- GPIO21 (SDA)
- GPIO19 (V_MISO)
- GPIO18 (V_CLK)
- GPIO5 (V_CS0)
- GPIO17 (TX2)
- GPIO16 (RX2)
- GPIO4 (H_CLK)
- GPIO2 (H_MISO)
- GPIO15 (H_MOSI)
- GND (H_CS0) - GND
- 3V3 - VIN
- GPIO36
- GPIO39
- GPIO34
- GPIO35
- GPIO32
- GPIO33
- GPIO25
- GPIO26
- GPIO27
- GPIO14
- GPIO12
- GPIO13

The diagram shows the 40-pin header of the Raspberry Pi 4 Model B. The pins are arranged in two rows of 20 pins each. The top row contains pins 1 through 20, and the bottom row contains pins 21 through 40. The pins are color-coded: red for power (3V3, 5V, GND), blue for I2C (SCL, SDA), green for SPI (MISO, MOSI, CLK, CS), yellow for UART (TX0, RX0), and orange for other functions (EN, TX2, RX2, VIN). The labels for each pin are as follows:

Pin	Label	Pin	Label
1	GPIO23 (V_MISO)	21	GPIO36
2	GPIO22 (SCL)	22	GPIO39
3	GPIO1 (TX0)	23	GPIO34
4	GPIO3 (RX0)	24	GPIO35
5	GPIO21 (SDA)	25	GPIO32
6	GPIO19 (V_MISO)	26	GPIO33
7	GPIO18 (V_CLK)	27	GPIO25
8	GPIO5 (V_CS0)	28	GPIO26
9	GPIO17 (TX2)	29	GPIO27
10	GPIO16 (RX2)	30	GPIO14
11	GPIO4 (M_CLK)	31	GPIO12
12	GPIO2 (H_MISO)	32	GPIO13
13	GPIO15 (H_MOSI)	33	GND
14	GND	34	GND
15	3V3	35	VIN
16	5V	36	
17		37	
18		38	
19		39	
20		40	

The diagram shows the 40 pins of the Raspberry Pi 4 Model B, arranged in two rows of 20 pins each. The pins are color-coded and labeled as follows:

- Pin 1:** 3V3 (Red)
- Pin 2:** 5V (Orange)
- Pin 3:** GND (Black)
- Pin 4:** 5V (Orange)
- Pin 5:** GND (Black)
- Pin 6:** 5V (Orange)
- Pin 7:** GND (Black)
- Pin 8:** 5V (Orange)
- Pin 9:** GND (Black)
- Pin 10:** 5V (Orange)
- Pin 11:** GND (Black)
- Pin 12:** 5V (Orange)
- Pin 13:** GND (Black)
- Pin 14:** 5V (Orange)
- Pin 15:** GND (Black)
- Pin 16:** 5V (Orange)
- Pin 17:** GND (Black)
- Pin 18:** 5V (Orange)
- Pin 19:** GND (Black)
- Pin 20:** 5V (Orange)
- Pin 21:** GND (Black)
- Pin 22:** 5V (Orange)
- Pin 23:** GND (Black)
- Pin 24:** 5V (Orange)
- Pin 25:** GND (Black)
- Pin 26:** 5V (Orange)
- Pin 27:** GND (Black)
- Pin 28:** 5V (Orange)
- Pin 29:** GND (Black)
- Pin 30:** 5V (Orange)
- Pin 31:** GND (Black)
- Pin 32:** 5V (Orange)
- Pin 33:** GND (Black)
- Pin 34:** 5V (Orange)
- Pin 35:** GND (Black)
- Pin 36:** 5V (Orange)
- Pin 37:** GND (Black)
- Pin 38:** 5V (Orange)
- Pin 39:** GND (Black)
- Pin 40:** 5V (Orange)

The labels for the pins are as follows:

- GPIO25:** V_MISO (Green)
- GPIO22:** SCL (Blue)
- GPIO1:** TX0 (Orange)
- GPIO3:** RX0 (Orange)
- GPIO21:** SDA (Orange)
- GPIO19:** V_MISO (Green)
- GPIO18:** V_CLK (Green)
- GPIO5:** V_CS0 (Green)
- GPIO17:** TX2 (Orange)
- GPIO16:** RX2 (Orange)
- GPIO4:** H_CLK (Green)
- GPIO2:** H_MISO (Green)
- GPIO15:** H_MOSI (Green)
- GND:** H_CS0 (Green)
- EN:** (Green)
- GPIO36:** (Orange)
- GPIO39:** (Orange)
- GPIO34:** (Orange)
- GPIO35:** (Orange)
- GPIO32:** (Orange)
- GPIO33:** (Orange)
- GPIO25:** (Orange)
- GPIO26:** (Orange)
- GPIO27:** (Orange)
- GPIO17:** (Orange)
- GPIO12:** (Orange)
- GPIO13:** (Orange)
- GND:** (Orange)
- VIN:** (Orange)

Pinout diagram for the Raspberry Pi 40-pin header. The diagram shows two rows of pins. The top row (1-20) includes: 1. GPIO23 (V_MISO), 2. EN, 3. GPIO22 (SCL), 4. GPIO36, 5. GPIO1 (TX0), 6. GPIO39, 7. GPIO3 (RX0), 8. GPIO34, 9. GPIO21 (SDA), 10. GPIO35, 11. GPIO19 (V_MISO), 12. GPIO32, 13. GPIO18 (V_CLK), 14. GPIO33, 15. GPIO5 (V_CS0), 16. GPIO25, 17. GPIO17 (TX2), 18. GPIO126, 19. GPIO16 (RX2), 20. GPIO27. The bottom row (21-40) includes: 21. GPIO4 (H_CLK), 22. GPIO14, 23. GPIO2 (H_MISO), 24. GPIO12, 25. GPIO15 (H_MOSI), 26. GPIO13, 27. GND, 28. H_CS0, 29. GND, 30. VIN, 31. SV3, 32. GND.