

Espressif ESP32



This diagram illustrates the timing and logic levels for GPIO12 across various functions. The top section shows the connection of GPIO12 to pins U0RTXD, U0RXD, and U0TXD. The bottom section shows the timing for SPI102, SPI101, SPI100, and SPI1012.

Top Section:

- GPIO10/CLK_OUT3/HS2_DATA1] U0TXD
- (GPIO3/CLK_OUT2/HS2_DATA0) U0RXD
- ADC2/1/TOUCH2/CLK_OUT1] GPIO10
- (ADC2/2/TOUCH2/HSL) GPIO10
- (ADC2/0/TOUCH2/HRTC1/SPIHDH) GPIO14
- (VSPICL/HSL1_DATA6/GPIO15
- (HS1_Data5) GPIO10
- (HS1_Data5) GPIO10
- (VSPICL/HSL1_DATA7) GPIO10
- (VSPICL/HSL2_Data2) GPIO10
- (VSPIDH/HSL2_CMD) GPIO21
- (VSPIDW/HSL2_CLK) GPIO22
- GPIO23
- (DAC1/ADC2/RJTC) GPIO25
- (DAC2/ADC2/RJTC) GPIO26
- (ADC2/7/TOUCH7/RTC1) GPIO27

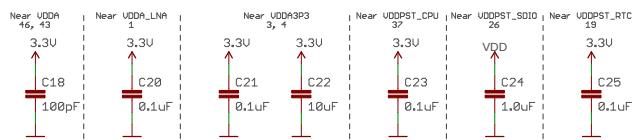
Bottom Section:

Pin	Function	Value
41	U0RTXD	High
41	U0RXD	Low
23	0-BODT	Low
24	2-STAR_LED	Low
24	3-LED	Low
34	6-CS1	Low
16	16-#RX1/AD_U0_IN	Low
27	17-#G3/TX1/RUD_OUT	Low
18	18-SCK	Low
19	19-CPO	Low
24	21-SDR	Low
24	23-SCL	Low
23	23-CPO1	Low
14	25-G1/NUD_RLCLK/SCL1	Low
14	26-G2/NUD_BCLK/SDM1	Low
27	27-D1	Low
26	VDD	High
31	32-FLASH_SCK	Low
31	32-FLASH_SDH	Low
33	33-FLASH_SDI	Low
25	34-FLASH_SDH	Low
25	34-FLASH_SDP	Low
30	35-FLASH_SCS	Low
18	12-PUM1	High
18	12-PUM2	High
17	14-DB	High
17	15-GB	High

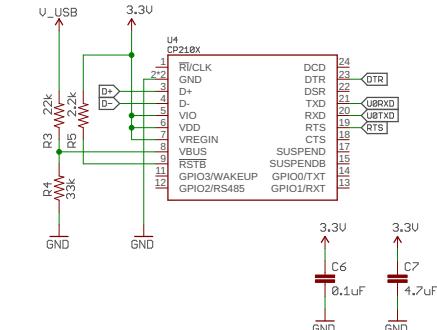
Annotations:

- SP102 must be able to be driven low during boot loader**
- Pulling GPIO12 high will prevent flash memory from booting**
- Pulling GPIO12 high will silence boot messages printed to serial port**

Antenna Trace Calculations:
Copper Thickness (1oz): 1.4mil/0.035mm
Board Thickness: 0.8mm
Dielectric Thickness: 0.2mm
Er: 4.58
Polygon Isolation: 6mil/0.1524mm
RF Trace Width: 13mil/0.3382mm

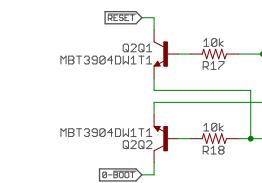


CP2104/2N (USB-to-Serial Converter)



Auto-Reset

Boot Mode Configuration				
Pin	Default	Boot	Download	
GPIO0	1	1	0	
U0TXD	1	1	x	
GPIO2	0	x	0	
GPIO4	0	x	x	
MTD0	1	x	x	
GPIO5	1	1	x	
If U0TXD, GPIO2, GPIO4 are floating, GPIO0 determines boot mode				



| If DTR is LOW
| If RTS is HIGH



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TITLE: SparkFun MicroMod ESP32

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