



Software Selectable Pins																																																					
Interface	Signal	Pin																																																			
EMAC	EMAC_MDC_out	Any GPIO																																																			
	EMAC_MDIO_in																																																				
	EMAC_MDO_out																																																				
	EMAC_CRS_out																																																				
I2C	I2C_EXT0_SCL_in	Any GPIO																																																			
	I2C_EXT0_SDA_in																																																				
	I2C_EXT1_SCL_in																																																				
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General Purpose SPI	HSPIQ_in/_out	Any GPIO																																																			
	HSPIB_in/_out																																																				
	HSPICLK_in/_out																																																				
	HSPICS1_out																																																				
	HSPICS2_out																																																				
	VSPICLK_in/_out																																																				
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Mounting Holes																																																					
Internal Bootstrapping Resistors																																																					
MTD0/GPIO12:	Pull-Down																																																				
GPIO0:	Pull-Up																																																				
GPIO2:	Pull-Down																																																				
MTD0/GPIO15:	Pull-Up																																																				
GPIO5:	Pull-Up																																																				
Bootstrapping Pins Settings																																																					
<table><tr><th colspan="3">Voltage of Internal LDO(VDD_SDA)</th></tr><tr><td>Pin</td><td>Default</td><td>3.3V</td></tr><tr><td>GPIO12/MTD0</td><td>Pull-Down</td><td>0</td></tr><tr><td colspan="3">Bootling Mode</td></tr><tr><td>Pin</td><td>Default</td><td>SPI Flash Boot</td></tr><tr><td>GPIO0</td><td>Pull-Up</td><td>1</td></tr><tr><td>GPIO2</td><td>Pull-Down</td><td>0</td></tr><tr><td colspan="3">Debugging Log on U0TXD During Booting</td></tr><tr><td>Pin</td><td>Default</td><td>U0TXD Silent</td></tr><tr><td>GPIO15/MTD0</td><td>Pull-Up</td><td>1</td></tr><tr><td colspan="3">Timing of SDA Slave</td></tr><tr><td>Pin</td><td>Default</td><td>Falling-edge/output</td></tr><tr><td>GPIO15/MTD0</td><td>Pull-Up</td><td>0</td></tr><tr><td>GPIO5</td><td>Pull-Up</td><td>0</td></tr><tr><td></td><td></td><td>Rising-edge/output</td></tr><tr><td></td><td></td><td>1</td></tr><tr><td></td><td></td><td>1</td></tr></table>			Voltage of Internal LDO(VDD_SDA)			Pin	Default	3.3V	GPIO12/MTD0	Pull-Down	0	Bootling Mode			Pin	Default	SPI Flash Boot	GPIO0	Pull-Up	1	GPIO2	Pull-Down	0	Debugging Log on U0TXD During Booting			Pin	Default	U0TXD Silent	GPIO15/MTD0	Pull-Up	1	Timing of SDA Slave			Pin	Default	Falling-edge/output	GPIO15/MTD0	Pull-Up	0	GPIO5	Pull-Up	0			Rising-edge/output			1			1
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For more information refer to [esp_wroom_32_datasheet_en.pdf](#).