ESP32 D1 MINI

Legend:

ADC	
DAC	
GPIO	can be used always
GPIO	can be used if no other function is used
GPIO	cannot be used
VSPI	
I2C	
UART	
PWM	

Pin Lables Wemos D1 mini (top row, left block)

	RST	RST	RST	
ADC2	GPIO36	SVP	A0	
	GPIO26	IO26	D0	
SPI0:SCK	GPIO18	IO18	D5	
SPI0:MISO	GPIO19	IO19	D6	
SPI0:MOSI	GPIO23	IO23	D7	
SPI0:CS0	GPIO5	IO5	D8	
	3V3	3V3	3V3	
	GPIO13	TCK		
UART1:RXD	GPIO10	SD3		

Pin Lables Wemos D1 mini (top row, right block)

TX	TXD	GPIO1	UART0:TXD
RX	RXD	GPIO3	UART0:RXD
D1	IO22	GPIO22	I2C0:SCL
D2	IO21	GPIO21	I2C0:SDA
D3	IO17	GPIO17	
D4	IO16	GPIO16	
GND	GND	GND	
5V	VCC	5V	
	TD0	GPIO15	
	SD0	GPIO7	

Pin Lables (bottom row, left block)

	GND	GND	RST	
		NC	SVP	
ADC3	GPIO39	SVN	IO26	
ADC1	GPIO35	IO35	IO18	
	GPIO33	IO33	IO19	
ADC0	GPIO34	IO34	IO23	
	GPIO14	TMS	IO5	
		NC	3V3	
UART1:TXD	GPIO9	SD2	TCK	
	GPIO11	CMD	SD3	

Pin Lables (bottom row, right block)

TXD	GND	GND		
RXD	IO27	GPIO27		
IO22	IO25	GPIO25	DAC0	
IO21	IO32	GPIO32		
IO17	TDI	GPIO12		
IO16	IO4	GPIO4	PWM0:2	
GND	IO0	GPIO0	PWM0:1	
VCC	IO2	GPIO2	PWM0:0	LED0
TD0	SD1	GPIO8		
SD0	CLK	GPIO6		

ESP-WROOM-32
CE 1313
211-161007
FCC ID:2AC7Z-ESPWROOM32

Schematic

Power Supply

EXT_5V VDD33
U4 ME6211-3.3V
IN OUT
GND FLG
EN
C32 C33 C34 C35 C36
1uF/25V(10%) 10uF/25V(10%) 0.1uF/25V(15%) 0.1uF/25V(10%) 47uF/25V(10%)
GND

ESP32 Module

VDD33 GND
U1 ESP32_MODULE
GND1
3V3
EN
SENSOR_VP
SENSOR_VN
IO34
IO35
IO32
IO33
IO25
IO26
IO27
IO14
IO12
C30 C31
100uF/6.3V(20%) 1uF/10V(10%)
GND
VDD33
R21 R22
1K(5%) 1K(5%)
LED2 RED LED3 BLUE
GND

Micro USB 5V&USB-UART

J4 R24-(5%) DTR
GND VBUS R25-47K(1%) RXD0
GND D- R26-47K(1%) TXD0
GND D+ R27-(5%) RTS
NC
GND
USB_CON1
USB_PWR D1 1N5819(S4)
USB_DN
USB_DP
EXT_5V
GND
U2
RI CTS
DCD SUSPEND
DSR SUSPEND
DTR GPIO.1
RXD VPP
TXD GPIO.0
VDD33
C39 C40
10uF/25V(10%) 0.1uF/25V(10%)
GND
EXT_5V VDD33
C41 C42 R34 C43
0.1uF/25V(10%) 0.1uF/25V(10%) 10K(5%) 0.1uF/25V(10%)
GND
U3
RTS 1C 1C EN
DTR 2B DTR
IO0 2E RTS
UMH3N(SOT363)
Auto program
DTR RTS->EN IO0

SWITCH

VDD33 VDD33
R28 R29
SW4
IO0 R31 220R EN
C38 1nF/50V(10%) C37 1nF/50V(10%)
10K(1%) 10K(1%)
GND

Header

GND GND
J1 J2
CON20A CON20A
GND

Title block

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Date:	Sheet 1 of 1	